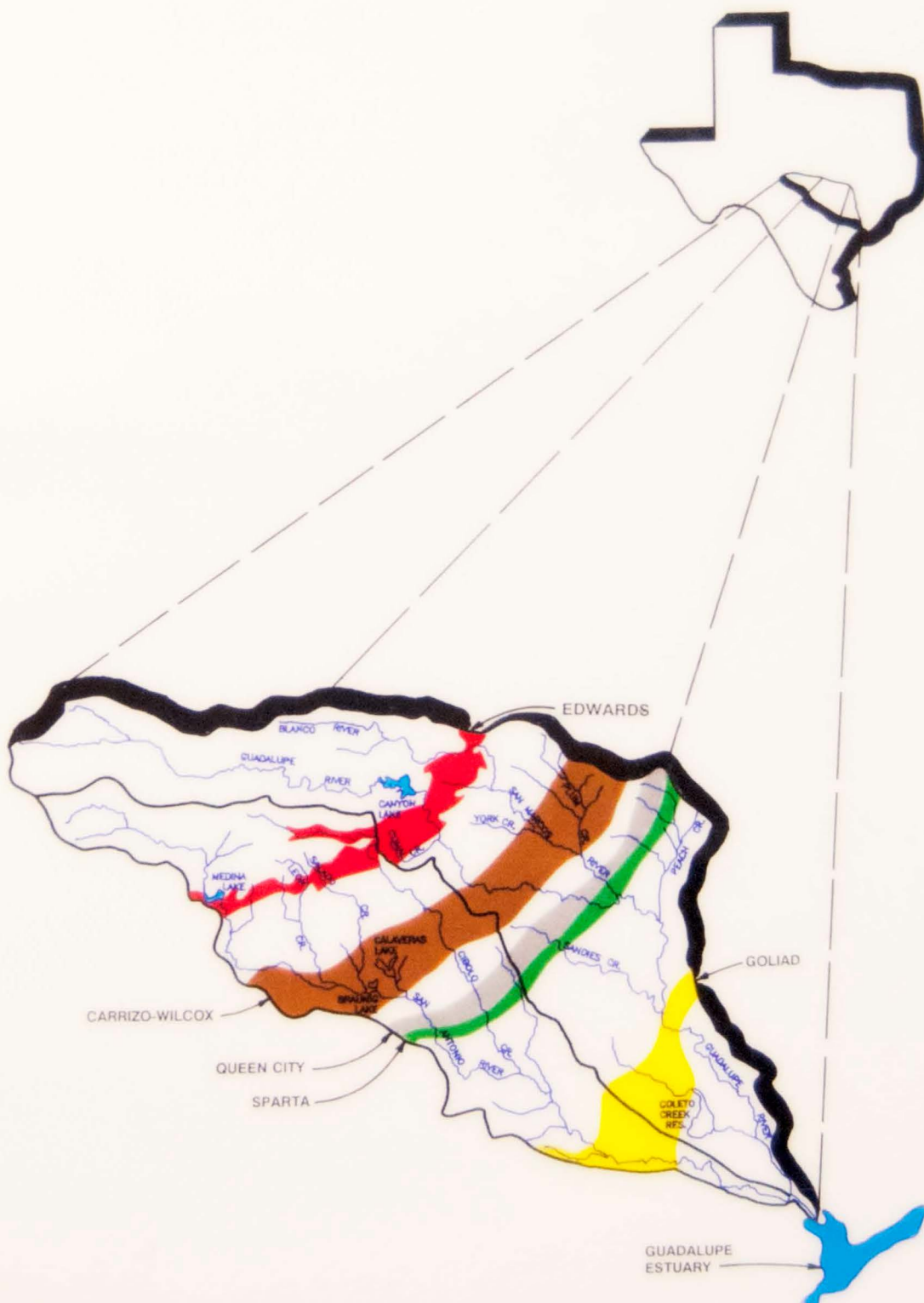


Recharge
Enhancement
Study

Guadalupe -
San Antonio
River Basin

Volume III -
Appendices

Edwards
Underground
Water District



HDR

HDR Engineering, Inc.
in association with
Espey, Huston & Assoc., Inc.

GUADALUPE - SAN ANTONIO RIVER BASIN
RECHARGE ENHANCEMENT STUDY

VOLUME III - APPENDICES

Prepared for

Edwards Underground Water District

by

HDR Engineering, Inc.
and
Espey, Huston & Associates, Inc.

September, 1993

**Advisory Committee Participants
for
Guadalupe - San Antonio River Basin
Recharge Enhancement Study**

Edwards Underground Water District*
Russell Masters

San Antonio Water System
Joe Aceves

Guadalupe - Blanco River Authority
Thomas Hill

Bexar Metropolitan Water District
Tom Moreno

San Antonio River Authority
Fred Pfeiffer

City of San Marcos
Larry Gilley

Canyon Regional Water Authority
David Davenport

Springhills Water Management District
Ray Buck

Nueces River Authority
Con Mims

City of Corpus Christi
James Dodson

Industrial Water Users Association
Bob Wright

Texas Water Development Board
Gordon Thorn

* Study Sponsor

**VOLUME III - APPENDICES
TABLE OF CONTENTS**

APPENDIX	TITLE
A	Water Rights
B	Historical Surface Water Use
C	Return Flows
D	Areal Precipitation
E	Net Evaporation
F	Natural Streamflow
G	GSA Model Program Listing
H	Reservoir Elevation-Area-Capacity Relationships
I	Historical Edwards Aquifer Recharge
J	Enhanced Recharge Summaries
K	Summaries of Water Potentially Available
L	Canyon Lake Firm Yield Utilization Summaries

Additional Volumes

Volume I - Executive Summary

Volume II - Technical Report

APPENDIX A

Water Rights

**KEY TO
SUMMARY OF SURFACE WATER RIGHTS FOR
GUADALUPE - SAN ANTONIO RIVER BASIN**

TYPE OF WATER RIGHT

- 1 - Application/Permit
- 6 - Certificate of Adjudication
- 9 - Contractual Permit/Agreement

TYPE OF USE

- 1 - Municipal
- 2 - Industrial
- 3 - Irrigation
- 4 - Mining
- 5 - Hydroelectric
- 6 - Navigation
- 7 - Recreation
- 8 - Other
- 9 - Recharge

COUNTY CODES

- | | |
|---------------|----------------|
| 10 - Bandera | 89 - Gonzales |
| 11 - Bastrop | 94 - Guadalupe |
| 15 - Bexar | 105 - Hays |
| 16 - Blanco | 128 - Karnes |
| 28 - Caldwell | 130 - Kendall |
| 29 - Calhoun | 133 - Kerr |
| 46 - Comal | 163 - Medina |
| 62 - DeWitt | 196 - Refugio |
| 88 - Goliad | 235 - Victoria |
| | 247 - Wilson |

SUMMARY OF SURFACE WATER RIGHTS
GUADALUPE RIVER BASIN

STATE			RIVER					AUTHORIZED			RESERVOIR	
MASTER			ORDER	PERMIT		STREAM	OF	CONSUMPTIVE	AUTHORIZED	ACRES	CAPACITY	PRIORITY
NUMBER	TYPE	CO.	NUMBER	NUMBER	APPLICANT OR APPROPRIATER	NAME	USE	USE	DIVERSION	IRRIGATED	(ACFT)	DATE
								(ACFT/YR)	(ACFT/YR)			
005381	1	029	0718000000	005381	BRETT BRATCHER	GUADALUPE RV	8	150	150		50	19910904
004586	1	029	0720000000	004276	DEL & GLORIA WILLIAMS	GUADALUPE	2	272	272		170	19850625
005484	6	029	0751000000		GUADALUPE-BLANCO R A ET AL	GUADALUPE	2	0			600	19640515
005173A	6	029	0752400000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	2	0				19880812
005173A	6	029	0752400000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	3	1,250	1,250	1,000		19410203
005173A	6	029	0752400000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	2	1,250	1,250			19410203
005174A	6	029	0752500000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	2	0				19440615
005174A	6	029	0752500000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	3	935	935	935		19440615
005174A	6	029	0752500000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	2	935	935			19440615
005175A	6	029	0752600000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	3	470	470	470		19510213
005175A	6	029	0752600000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	2	470	470			19510213
005176A	6	029	0752700000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	3	3,315	3,315	4,972		19510621
005176A	6	029	0752700000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	1	3,314	3,314			19510621
005176A	6	029	0752700000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	2	3,315	3,315			19510621
	9	029	0752700000		ISP TECH	GUADALUPE	2	40	40			
005177A	6	029	0752800000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	1	4,316	4,316			19480126
005177A	6	029	0752800000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	2	10,763	10,763			19440103
005177A	6	029	0752800000		UNION CARBIDE CHEM & PLASTICS	GUADALUPE	2	10,000	10,000			19440103
005177A	6	029	0752800000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	3	10,763	10,763	21,308		19440103
005177A	6	029	0752800000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	1	11,089	11,089			19440103
005177A	6	029	0752800000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	3	4,316	4,316	4,317		19480126
005178A	6	029	0752900000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	1	30,525	30,525		1,590	19540505
005178A	6	029	0752900000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	2	30,525	30,525		1,590	19540505
005178A	6	029	0752900000		GUADALUPE-BLANCO RA ET AL	GUADALUPE	3	44,950	44,950		1,590	19540505
005012	1	235	1295000000	005012	JOE D. HAWES	ELM BAYOU	3	140	140	50		19850910
003863	6	235	1300000000		JESS YELL WOMACK II ET AL	GUADALUPE	3	3,200	3,200	2,000		19510301
008184	6	235	1310000000		STOFER-MCNEEL TRUSTS	HOG BAYOU	3	50	50			19550000
003895	1	235	1380000000	003606	KATE S O'CONNOR TRUST	GUADALUPE	2	4,676	9,676	4,676	132	19780710
003862	6	235	1450000000		BIG RACK LTD	GUADALUPE	3	400	400	400		19511212
003861	6	235	1500000000		E I DU PONT DE NEMOURS	GUADALUPE	2	33,000	60,000	33,000	1,056	19480816
003860	6	235	1550000000		W L LIPSCOMB ET AL	GUADALUPE	3	250	250	154	155	19510815
003860	6	235	1550000000		W L LIPSCOMB ET AL	GUADALUPE	1	10	10			19510815

SUMMARY OF SURFACE WATER RIGHTS
GUADALUPE RIVER BASIN

STATE			RIVER				AUTHORIZED			RESERVOIR	
MASTER			ORDER	PERMIT		STREAM	TYPE	CONSUMPTIVE	AUTHORIZED	ACRES	PRIORITY
NUMBER	TYPE	CO.	NUMBER	NUMBER	APPLICANT OR APPROPRIATER	NAME	OF	USE	DIVERSION	IRRIGATED	DATE
							USE	(ACFT/YR)	(ACFT/YR)		
005486	6	235	1599900000		GUADALUPE-BLANCO R A	COLETO CR	2	12,500	12,500		35,084 19770110
005486	6	235	1599900000		CENTRAL POWER & LIGHT CO	GUADALUPE	2	20,000	20,000		19520107
005294	1	062	1650000000	005294	CITY OF YORKTOWN	YORKTOWN CR	7	2	15	2	6 19900509
005485	6	235	1700000000		CENTRAL POWER & LIGHT CO	GUADALUPE	2	0	209,189		19510815
004324	1	235	1880000000	003981	SPRING CREEK DEVELOPMENT CO	SPRING CR	7	0			102 19830207
004062	1	235	1977000000	003771	JAY M EASLEY	GUADALUPE	3	90	90	46	19800714
003859	6	235	1995000000		SOUTH TEXAS ELECTRIC COOP INC	GUADALUPE	2	1,900	110,000	1,900	20 19640218
004182	1	235	2001010000	003853	MAXINE ROBSON KYLE ET AL	GUADALUPE	3	200	200	103	19811221
004020	1	235	2081000000	003726	NELSON PANTEL	GUADALUPE	3	100	100	100	19800121
003858	6	235	2100000000		VICTORIA BANK & TRUST CO	GUADALUPE	3	1,000	1,000	600	19510627
004441	1	235	2110000000	004117	S F RUSCHHAUPT III	GUADALUPE	3	200	200	86	19840402
005006	1	062	2139000000	005006	LORITA MAE FITZGERALD ET AL	GUADALUPE	3	299	299	128	19850906
003857	6	062	2175000000		DR JOHN C DAVIS	GUADALUPE	3	17	17	17	19751201
003856	6	062	2312000000		PATRICK B & MARY KARYN ELDER	GUADALUPE	3	50	50	50	19770627
003855	6	062	2400000000		MRS JOHN C LEY	GUADALUPE	3	26	26	13	19490106
003854	6	062	2500000000		J D BRAMLETTE JR	GUADALUPE	3	32	32	19	19540329
004318	1	062	2574880000	004001	F T BUCHEL	GUADALUPE	3	80	80	40	19830131
003853A	6	062	2576000000		JOHN MCNEILL	GUADALUPE	7	0			608 19670925
003853A	6	062	2576000000		JOHN MCNEILL	GUADALUPE	5	0	538,560		19820517
003852	6	062	2600000000		JOHN BRADEN JR ET AL	GUADALUPE	3	35	35	28	19511121
003851	6	062	2650000000		JACK H BOOTHE	GUADALUPE	3	182	182	91	19520107
003850	6	062	2800000000		JOSEPHINE B MUSSELMAN ET AL	GUADALUPE	3	80	80	80	19490106
003849	6	011	2969900000		DAN L DUNCAN	VALENTINE WASH	7	0			427 19760830
005267	1	089	2990000000	005267	FLETCHER JOHNSON	UNNAMED	8	0			19891222
003848	6	089	3000000000		JOSEPHINE ABERCROMBIE	GUADALUPE	3	1,800	1,800	1,038	21 19470929
004539	1	089	3012500000	004236	T PAUL SIDES	UNNAMED	3	8	8	80	19 19850709
003847	6	089	3100000000		DR JAMES W NIXON	GUADALUPE	3	250	250	250	19501006
003846A	6	089	3300000000		CITY OF GONZALES	GUADALUPE	1	2,240	2,240		1,400 19140616
003846A	6	089	3300000000		CITY OF GONZALES	GUADALUPE	5	0	796,363		19800225
004089	1	089	3320000000	003793	DR I V EPSTEIN	SAN MARCOS	3	830	830	415	19801110
005036	1	089	3327000000	005036	ERNEST L MINYARD	SAN MARCOS	3	50	50	50	4 19860113
005038	1	089	3344600000	005038	ARTHUR DENNIS HUEBNER ET AL	SAN MARCOS	3	66	66	109	19860120

SUMMARY OF SURFACE WATER RIGHTS
GUADALUPE RIVER BASIN

STATE			RIVER				AUTHORIZED					
MASTER			ORDER	PERMIT		STREAM	TYPE	CONSUMPTIVE	AUTHORIZED	ACRES	RESERVOIR	PRIORITY
NUMBER	TYPE	CO.	NUMBER	NUMBER	APPLICANT OR APPROPRIATER	NAME	OF	USE	DIVERSION	IRRIGATED	CAPACITY	DATE
							USE	(ACFT/YR)	(ACFT/YR)		(ACFT)	
003908	6	089	3346000000		LARRY E & PHYLIS A BROWNE	SAN MARCOS	3	670	670	335		19770321
003907	6	089	3400000000		JOHN R & MARIE A MAY	SAN MARCOS	7	0			50	19140625
003900	6	094	3425000000		ELMER PAPE ET AL	UNNAMED	3	750	750	628	1,346	19730212
003995	1	028	3428000000	003719	MIGUEL CALZADA URQUIZA ET UX	SALT BRANCH	3	700	700	484		19790730
004518	1	028	3430300000	004213	JOHN H COX	PLUM CREEK	3	120	120	60		19841120
003906	6	028	3440000000		TEXAS PARKS & WILDLIFE DEPT	CL FK PLUM CR	3	12	12	35		8 19720222
003906	6	028	3440000000		TEXAS PARKS & WILDLIFE DEPT	CL FK PLUM CR	3	63	63			19791126
003905	6	028	3445000000		ALLAN C ASHCRAFT ET AL	DRY BRANCH	7	0			612	19640928
003904	6	028	3482000000		SHERRY CHAPPELL	ELM CREEK	3	28	28	34		13 19511231
003747	1	105	3486500000	003474	S & H PROPERTIES INC	UNNAMED OF	7	0	0			81 19770718
004426	1	105	3486700000	004093	LYLE & MARY BOLLINGER	ANDREWS BR	2	0				19840110
003903	6	105	3487000000		KY-TEX PROPERTIES INC	BRUSHY CR	7	0			247	19640924
003901	6	105	3492000000		M D HEATLY SR	PECAN SPRINGS	3	100	100	50		19650601
003902	6	105	3493000000		FRITZ OTTO ANTON	BUNTON BR	3	30	30	30		19700720
005037	1	089	3498000000	005037	ALLEN E & LORETTA JEAN RUSSELL	SAN MARCOS	3	230	230	170		19860116
003916A	1	089	3498510000	003646A	DON A LIGHTSEY ET UX	SAN MARCOS	3	50	50	100		19781002
003899	6	028	3499960000		MIGUEL CALZADA URQUIZA ET UX	SAN MARCOS	3	1,180	1,180	590		19770321
003857A	1	028	3499990000	003594A	ROBERT M KIEHN	SAN MARCOS	3	144	144	72		19780130
003898	6	028	3500000000		CITY OF LULING	SAN MARCOS	3	20	20	42		19760816
003897	6	028	3503000000		JAMES E KEITH TRUSTEE ET AL	SAN MARCOS	7	0			85	19140622
003896	6	028	3503200000		GUADALUPE-BLANCO RIVER AUTH	SAN MARCOS	1	1,500	1,500			19761012
003896	6	028	3503200000		GUADALUPE-BLANCO RIVER AUTH	SAN MARCOS	1	1,300	1,300			19830131
005234	1	028	3510000000	005234	THE LULING FOUNDATION	SAN MARCOS	3	1,022	1,022	511		19890512
003859A	1	028	3520010000	003600A	ABNER M USSERY	SAN MARCOS	3	750	750	250		19780130
003858	1	028	3530010000	003570	HARL THOMAS & G R WHITTINGTON	SAN MARCOS	3	400	400	200		19780130
003755A	6	028	3530020000	003464A	EDMUND M. LONGCOPE	SAN MARCOS	3	447	447			19770000
003895	6	028	3540000000		EMLCO INC DEFINED BENEFIT	SAN MARCOS	3	580	580	290		19770321
004597	1	028	3541000000	004287	JOHN T O'BANION JR ET AL	SAN MARCOS	3	320	320	160		19850730
005240	1	094	3542000000	005240	H B SHANKLIN	SAN MARCOS	2	31	31			12 19890522
004373A	1	028	3545000000	004057A	CONTINENTAL WHOLESALE FLORISTS	SAN MARCOS	3	600	600	300		19830613
003894	6	105	3760000000		LEONARD O MOELLER ET AL	COTTONWOOD CR	7	0			652	19660907
003893	6	094	3764000000		ALFRED H KOEBIG	KOEBIG CR	7	0			484	19660907

SUMMARY OF SURFACE WATER RIGHTS
GUADALUPE RIVER BASIN

STATE			RIVER					AUTHORIZED			RESERVOIR	
MASTER			ORDER	PERMIT		STREAM	OF	CONSUMPTIVE	AUTHORIZED	ACRES	CAPACITY	PRIORITY
NUMBER	TYPE	CO.	NUMBER	NUMBER	APPLICANT OR APPROPRIATER	NAME	USE	(ACFT/YR)	(ACFT/YR)	IRRIGATED	(ACFT)	DATE
005121	1	094	3768000000	005121	GUADALUPE SKI-PLEX HOME ASSOC	YORK CREEK	7	0	83		187	19870304
003892	6	105	3770000000		AARON A WILBURN EST ET AL	OYSTER CR	7	0			587	19670626
004569	1	028	3789000000	004242	ROBERT L. BOOTHE ET AL	SAN MARCOS	3	240	240	120		19850529
003891	6	028	3830000000		TRI-COMMUNITY WSC	SAN MARCOS	1	500	500			19221229
004110	1	028	3856000000	003812	LYNN STORM	SAN MARCOS	3	240	240	75		19810330
004022	1	028	3865000000	003724	MARY ANN LANGFORD ET AL	SAN MARCOS	3	450	450	300		19800128
005092	1	028	3867000000	005092	WILLIAM JAMES WOOTEN ET AL	SAN MARCOS	3	150	150	50		19860902
004502	1	094	3868000000	004217	DURWOOD GREENE	SAN MARCOS	3	600	600	300		19841016
003890	6	028	3869000000		J SCOTT MANN III	SAN MARCOS	3	50	50	50		19710809
004033	1	028	3869910000	003742	DICK BROWN	SAN MARCOS	3	300	300	150		19800317
004080A	1	028	3870010000	003787A	BEND CORPORATION	SAN MARCOS	3	425	425	175		19801006
004308A	1	094	3885000000	003979A	C W GRUMBLES	SAN MARCOS	1	0			51	19830131
004492	1	028	3900010000	004253	HYDRACO POWER INC	SAN MARCOS	5	0			30	19840925
004043	1	094	3915000000	003748	J EMMETT HARPER ET AL	SAN MARCOS	3	150	150	100		19800414
003889	6	028	4370000000		JOE & ALYNE RANDOLPH FOSTER	SAN MARCOS	3	24	24	8		1 19140623
003888	6	105	4380000000		JOHN F BAUGH	SAN MARCOS	3	320	320	213		19551231
003887	6	105	4400000000		GREEN VALLEY FARMS INC	BLANCO RIVER	3	792	792	403	300	19050622
003886	6	105	4405050000		HAYS COUNTY REC ASSOC INC	BLANCO RIVER	3	150	150	50		4 19770124
004027	1	105	4525000000	003731	JESS WEBB ET AL	BLANCO	3	120	120	60		19800225
004551	1	105	4530000000	004231	EMMETT F & MIRIAM F MCCOY	BLANCO	3	160	160	115		19850403
004388	1	105	4560000000	004170	WILLIAM J GEBHARD JR ET AL	LONE MAN CR	7	0			4	19830815
003884	6	105	4600000000		BLANCO STAR TX JOINT VENTURE	BLANCO RIVER	3	20	20	10		19540816
003883	6	105	4660510000		WOODCREEK RESORT INC	UNNAMED	7	0			118	19750120
005371	1	105	4660560000	005371	ROBERT BOURKE SIMPSON	UNNAMED TRIB/	3	5	5	10		19910819
003882	6	105	4668000000		NEWTON B THOMPSON	PIN OAK CR	3	100	100	75		19740903
003881	6	105	4668690000		LYON L BRINSMADE	BLANCO RIVER	3	40	40	12		19250930
003880	6	105	4668700000		BOY SCOUTS- SAM HOUSTON	BLANCO RIVER	7	0			120	19760830
003899	1	105	4669900000	003608	LEWIS L PIERCE	UNNAMED OF	7	0	0		209	19780731
004302	1	016	4685000000	003988	A DEAN MABRY ET AL	LTL BLANCO R	7	0			2	19830110
004247	1	016	4697000000	003930	HAROLD D STONE	BLANCO RIVER	7	0	0		17	19820920
003879	6	016	4698000000		ARTHUR S VERA, ET AL	BLANCO RIVER	7	0			30	19760614
003878	6	016	4699000000		TX PARKS & WILDLIFE DEPT	BLANCO RIVER	7	0			62	19690526

SUMMARY OF SURFACE WATER RIGHTS
GUADALUPE RIVER BASIN

STATE MASTER NUMBER	TYPE	RIVER ORDER NUMBER	PERMIT NUMBER	APPLICANT OR APPROPRIATER	STREAM NAME	AUTHORIZED TYPE CONSUMPTIVE OF USE (ACFT/YR)	AUTHORIZED DIVERSION (ACFT/YR)	ACRES IRRIGATED	RESERVOIR CAPACITY (ACFT)	PRIORITY DATE
003877	6	016	4700000000	CITY OF BLANCO	BLANCO RIVER	1	600	600	168	19550829
003876	6	016	4706510000	WILLIAM W. ATWELL ET AL	BLANCO RIVER	7	0		30	19740528
003875	6	016	4709600000	B J & ALICE F BARNHART	KLEPAC CR	3	45	45	42	10 19630531
003874	6	016	4709800000	BILLY C & PATRICIA ALEXANDER	CRABAPPLE CR	3	24	24	48	5 19631130
003960	1	016	4709900000	003673 GARY & BRUCE GRANBERG	CRABAPPLE CR	3	7	7	7	19790205
003873	6	016	4710000000	HENRY & ELSIE LEE MCCLAIN	BLANCO	3	48	48	58	9 19570630
003872	6	016	4712650000	BENJAMIN RIGSBY HAMMOND ET AL	BLANCO	3	32	32	67	32 19741125
003597	6	016	4713000000	W J HAAS	FALLS CR	3	6	6		2 19670930
003871	6	016	4713000000	W J HAAS	FALLS CR	3	6	6	8	4 19670930
003870	6	130	4715000000	T R & PRISCILLA H IMMEL	BLANCO	3	25	25	35	25 19760209
003869A	6	105	4850000000	TEXAS PARKS & WILDLIFE DEPT	SAN MARCOS	2	500	10,000	500	227 19470625
003868	6	105	4950000000	J R THORNTON, ET AL	SAN MARCOS	3	70	70	35	10 19050519
003868	6	105	4950000000	J R THORNTON ET AL	SAN MARCOS	7	0			19850909
003867	6	105	5000000000	TOMS MILLRACE INC	SAN MARCOS	7	0			50 19040815
003866A	6	105	5085000000	S W T STATE UNIVERSITY	SAN MARCOS	2	60	60		20 19730604
003866A	6	105	5085000000	S W T STATE UNIVERSITY	SAN MARCOS	3	40	40	10	19640218
003865A	6	105	5100000000	AQUARENA SPRINGS CORPORATION	SAN MARCOS	1	663	593	70	150 18950904
003865A	6	105	5100000000	AQUARENA SPRINGS CORPORATION	SAN MARCOS	5	0	64,370		18950904
003865A	6	105	5100000000	AQUARENA SPRINGS CORPORATION	SAN MARCOS	2	554	554		18950904
003865A	6	105	5100000000	AQUARENA SPRINGS CORPORATION	SAN MARCOS	8	0	700		18950904
004075	1	089	5160010000	003777 DAVID S SHELTON	GUADALUPE	3	225	225	103	19800902
005172	6	089	5200000000	GUADALUPE-BLANCO R A H-5	GUADALUPE	5	0	574,832		19260916
003845	6	089	5275000000	ALICE AINSWORTH	GUADALUPE	7	0			302 19140723
005172	6	089	5375000000	GUADALUPE-BLANCO R A H-4	GUADALUPE	5	0	585,599		19260916
003844	6	094	5425000000	ADOLPH SCHMIDT ET AL	GUADALUPE	3	608	608	306	19180816
003843	6	094	5500000000	LEONARD FLEMING	GUADALUPE	3	27	27	15	19181011
003973	1	094	5580100000	003692 JOHN W & MAXENE T HELTON	GUADALUPE	3	73	73	38	19790416
003842	6	094	5600000000	DR E W DARILEK ET AL	GERONIMO	3	158	158	158	19180507
003841	6	094	5620000000	LEO P CLOUD JR ET AL	GERONIMO CR	3	7	7	11	60 19690224
003840	6	094	5700000000	ARNO NEUMANN	GERONIMO CR	3	34	34	38	19241231
005488	6	094	5825000000	GUADALUPE-BLANCO R A TP-5	GUADALUPE	5	0	624,781		19140401
003839A	6	094	5975100000	SEGUIN MUNICIPAL UTILITIES	GUADALUPE	3	200	200	60	19770425

SUMMARY OF SURFACE WATER RIGHTS
GUADALUPE RIVER BASIN

STATE			RIVER				AUTHORIZED				RESERVOIR	
MASTER			ORDER	PERMIT		STREAM	TYPE	CONSUMPTIVE	AUTHORIZED	ACRES	CAPACITY	PRIORITY
NUMBER	TYPE	CO.	NUMBER	NUMBER	APPLICANT OR APPROPRIATER	NAME	OF	USE	DIVERSION	IRRIGATED	(ACFT)	DATE
							USE	(ACFT/YR)	(ACFT/YR)			
003839A	6	094	5975100000		SEGUIN MUNICIPAL UTILITIES	GUADALUPE	5	0				19140624
003839A	6	094	5975100000		SEGUIN MUNICIPAL UTILITIES	GUADALUPE	1	7,000	7,000		425	19140624
005488	6	094	6100000000		GUADALUPE-BLANCO R A TP-4	GUADALUPE	5	0	655,323			19140401
003838	6	094	6130000000		DONALD E NORED	GUADALUPE	3	37	37	22	20	19620630
003837	6	094	6150000000		STRUCTURAL METALS INC	GUADALUPE	2	34	34			19140625
003836	6	094	6200000000		ACME BRICK COMPANY	GUADALUPE	2	12	25	12		19001231
003835	6	094	6202000000		OTTO VOIGT	YOUNGS CR	3	19	19	15		19511231
005488	6	094	6235000000		GUADALUPE-BLANCO R A TP-3	GUADALUPE	5	0	659,995			19140401
005488	6	094	6425000000		GUADALUPE-BLANCO R A TP-1	GUADALUPE	5	0	663,892			19140401
003834	6	094	6430000000		WILLIAM A DANIEL ET AL	GUADALUPE	3	90	90	60		19120419
003833	6	094	6431000000		RICHARD A DITTMAR JR	GUADALUPE	3	56	56	39		19120419
003832	6	094	6432000000		RAY E DITTMAR	GUADALUPE	3	44	44	31		19120419
003831	6	094	6500000000		ARTHUR R & OLIVE C POST	GUADALUPE	3	5	5	5		19140630
003829	6	046	6800000000		WEST POINT-PEPPERELL INC	GUADALUPE	2	500	5,000	500	74	19140629
003830	6	046	6850000000		NEW BRAUNFELS UTILITIES	GUADALUPE	2	5	5			19140629
003828	6	046	6875000000		CAMP WARNECKE INC ET AL	COMAL	3	3	3	3	3	19140630
003827	6	046	7000000000		CITY OF NEW BRAUNFELS	COMAL RIVER	7	0			40	19140629
004114A	1	046	7020000000	003818A	BAD SCHOLOESS INC	COMAL	7	0	5,000			19810413
003826	6	046	7024000000		CITY OF NEW BRAUNFELS	OLD CHL COMAL	3	100	100	50	8	19690630
003824A	6	046	7025000000		NEW BRAUNFELS UTILITIES	COMAL	2	3,418	139,198	3,418		19140601
003824A	6	046	7025000000		NEW BRAUNFELS UTILITIES	COMAL	5	0	124,870			19140601
003824A	6	046	7025000000		NEW BRAUNFELS UTILITIES	COMAL	1	2,240	2,240			19140601
003824A	6	046	7025000000		NEW BRAUNFELS UTILITIES	COMAL	3	200	200		150	19140601
003823	6	046	7150000000		CITY OF NEW BRAUNFELS	COMAL RIVER	1	1,289	1,289			19140627
003825	6	046	7220000000		CENTRAL TX COUNTRY CLUB INC	UNNAMED	7	0			9	19760920
003822	6	046	7235000000		ROBERT KRUEGER ET AL	GUADALUPE	3	3	3	1		19140630
003821	6	046	7260000000		ROBERT & MARY RAE PRESTON	GUADALUPE	3	1	1	1		19140629
003821	6	046	7260000000		ROBERT & MARY RAE PRESTON	GUADALUPE	3	4	4	3		19180520
003820	6	046	7261000000		VETERANS OF FOREIGN WARS	GUADALUPE	3	4	3			19180520
003819	6	046	7530000000		PATRICK S MOLAK	GUADALUPE	3	14	14	9		19140629
003819	6	046	7530000000		PATRICK S MOLAK	GUADALUPE	1	9	9			19140629
003818	6	046	7535500000		ROBERT LEE BRETZKE	GUADALUPE	7	0			35	19291231

SUMMARY OF SURFACE WATER RIGHTS
GUADALUPE RIVER BASIN

STATE MASTER NUMBER	TYPE	CO.	RIVER ORDER NUMBER	PERMIT NUMBER	APPLICANT OR APPROPRIATER	STREAM NAME	AUTHORIZED		ACRES IRRIGATED	RESERVOIR CAPACITY (ACFT)	PRIORITY DATE
							TYPE OF USE	CONSUMPTIVE USE (ACFT/YR)			
003817	6	046	7541300000		CLARENCE B ANDERSON ET AL	GUADALUPE	3	79	79		19530630
003816	6	046	7541400000		WHITEWATER SPORTS INC	UNNAMED&GUAD	7	0	1,460		2 19720925
003815	6	046	7541600000		J D MURRELL	GUADALUPE	1	3	3		19630531
004230	1	046	7541800000	003925	JOHNNIE J BEZDEK JR ET UX	UNNAMED	7	0			19820719
004445	1	046	7541980000	004167	GUADALUPE-BLANCO R A	GUADALUPE	5	0			19840417
000215	9	029	7542000000	0020746	CALHOUN COUNTY RURAL WSC	GUADALUPE	1	560	560		19700716
001757	9	046	7542000000	0020746	HENK PAVING CO INC	GUADALUPE	2	1	1		
001498A	9	029	7542000000	0020746	BP CHEMICAL INC	GUADALUPE	2	1,100	1,100		19800211
001771	9	094	7542000000	0020746	CRYSTAL CLEAR WSC	GUADALUPE	1	500	500		
001799	9	094	7542000000	0020746	SOUTHBANK POA	GUADALUPE	3	1	1		19910221
001766	9	046	7542000000	0020746	EDDIE GOLDBECK	GUADALUPE	3	1	1		19900326
001826	9	046	7542000000	0020746	UNION CARBIDE CHEMICALS	GUADALUPE	2	2,400	2,400		19910101
	9	046	7542000000	0020746	KECK	GUADALUPE	1	1	1		19900326
001758	9	094	7542000000	0020746	TERRY A ZUROVEC	GUADALUPE	3	4	4		19900201
001497	9	029	7542000000	0020746	AIRCO INC	GUADALUPE	2	334	334		19820715
	9	046	7542000000	0020746	SALGE	GUADALUPE	1	1	1		19900326
000378	9	235	7542000000	0020746	CENTRAL POWER & LIGHT CO	GUADALUPE	2	6,000	6,000		19750901
0012738	9	089	7542000000	0020746	GONZALES COUNTY WSC	GUADALUPE	1	700	700		19821130
001752	9	094	7542000000	0020746	CHAPARRAL COUNTRY CLUB LTD	GUADALUPE	3	25	25		19900101
001478	9	029	7542000000	0020746	CITY OF PORT LAVACA	GUADALUPE	1	1,500	1,500		19680220
001756	9	094	7542000000	0020746	IVAN BERGSTROM	GUADALUPE	3	1	1		19900122
	9	094	7542000000	0020746	MISSILDINE	GUADALUPE	3	10	10		
	9	094	7542000000	0020746	CUNNINGHAM	GUADALUPE	3	1	1		
000169	9	094	7542000000	0020746	WUEST'S INC	GUADALUPE	3	100	100	75	19720901
001058A	9	094	7542000000	0020746	SPRINGS HILL W S CORP	GUADALUPE	1	1,500	1,500		
001384D	9	094	7542000000	0020746	STRUCTURAL METALS INC	GUADALUPE	2	600	600		19831219
001454	9	089	7542000000	0020746	JACK DUBOSE	GUADALUPE	2	5	5		19811028
	9	046	7542000000	0020746	YACHT CLUB	GUADALUPE	1	4	4		19900326
	9	046	7542000000	0020746	PROPST	GUADALUPE	1	1	1		19900326
001759	9	046	7542000000	0020746	WHITEWATER SPORTS INC	GUADALUPE	1	1	1		19900209
001638	9	094	7542000000	0020746	STANDARD GYPSUM CORPORATION	GUADALUPE	2	120	120		19870609
001685	9	094	7542000000	0020746	ALLEN MOENRIG	GUADALUPE	1	1	1		19880512

SUMMARY OF SURFACE WATER RIGHTS
GUADALUPE RIVER BASIN

STATE MASTER NUMBER	TYPE	CO.	RIVER ORDER NUMBER	PERMIT NUMBER	APPLICANT OR APPROPRIATER	STREAM NAME	AUTHORIZED			RESERVOIR ACRES IRRIGATED	CAPACITY (ACFT)	PRIORITY DATE
							TYPE OF USE	CONSUMPTIVE USE (ACFT/YR)	AUTHORIZED DIVERSION (ACFT/YR)			
001753	9	094	7542000000	0020746	DARST CREEK AGGREGATES INC	GUADALUPE	2	10	10			19900101
001728	9	094	7542000000	0020746	CITY OF SEGUIN	GUADALUPE	1	2,000	2,000			19891001
002074C	6	046	7542000000		GUADALUPE-BLANCO RIVER AUTH	GUADALUPE	2	2,700	2,700			19560313
002074C	6	046	7542000000		GUADALUPE-BLANCO RIVER AUTH	GUADALUPE	2	6,075	6,075			19560319
001744	9	105	7542000000	0020746	CITY OF SAN MARCOS	GUADALUPE	1	5,000	5,000			19891010
001115	9	046	7542000000	0020746	JUSTIN F COOPER	GUADALUPE	3	2	2			
001118	9	046	7542000000	0020746	BELTON A PETERS	GUADALUPE	1	1	1			
001630	9	046	7542000000	0020746	COMAL INDEPENDENT SCHOOL DIST	GUADALUPE	1	2	2			19870504
001721	9	046	7542000000	0020746	J D MURRELL	GUADALUPE	1	10	10			19890313
001683	9	046	7542000000	0020746	ROLAND ERBEN	GUADALUPE	3	5	5			19880408
002074C	6	046	7542000000		GUADALUPE-BLANCO RIVER AUTH	GUADALUPE	2	6,000	6,000			19560319
002074C	6	046	7542000000		GUADALUPE-BLANCO RIVER AUTH	GUADALUPE	1	100	100			19560319
002074C	6	046	7542000000		GUADALUPE-BLANCO RIVER AUTH	GUADALUPE	1	35,125	35,125	740,900		19560319
001713	9	094	7542000000	0020746	DON V & ANTHONY BRELSFORD	GUADALUPE	3	20	20			19890101
001500	9	094	7542000000	0020746	ACME BRICK COMPANY	GUADALUPE	2	25	25			19810130
001535	9	094	7542000000	0020746	CRWA	GUADALUPE	1	1,740	1,740			19850418
001719	9	046	7542000000	0020746	MARICOPA LODGE	GUADALUPE	1	5	5			19890101
001735	9	046	7542000000	0020746	COMAL COUNTY FAIR ASSOC INC	GUADALUPE	2	1	1			19890830
001720	9	046	7542000000	0020746	NEW BRAUNFELS UTILITIES	GUADALUPE	1	6,720	6,720			19910101
001954	6	046	7544310000		LAWRENCE D KRAUSE	JENTSCH CREEK	3	15	15	15	15	19740722
001954	6	046	7544310000		LAWRENCE D KRAUSE	TOM CREEK	3	5	5	5	30	19740722
001955	6	046	7544510000		CHESTER & RICKIE KRAUSE	UNNAMED	3	10	10	18	10	19740722
002072	6	046	7545000000		SAN ANTONIO-CHICAGO INV VEN	GUADALUPE R	3	35	35	100		19601231
001952	6	046	7546050000		CYPRESS COVE MAINTENANCE ASSOC	SCHULTZ CREEK	7	0	15		15	19601231
004491A	1	046	7546500000	004163A	CYPRESS LAKE GARDENS PROP	REBECCA CR	1	35	35			19840904
004491A	1	046	7546500000	004163A	CYPRESS LAKE GARDENS PROP	REBECCA CR	7	0			17	19840904
002073	6	046	7547000000		LAKE OF THE HILL PROP OWNERS	REBECCA & TRIB	7	0			359	19751215
004607	1	046	7548000000	004291	PURALLOY INC	GUADALUPE	3	50	50	50		19850828
002071	6	046	7549900000		GUADALUPE RIVER RANCH & CATTLE	GUADALUPE R	3	1	1	1		19140616
002070	6	046	7550000000		FRANK A STANUSH	CURRY CR	3	98	98	49		19631231
002069A	6	130	7550100000		DOUBLE U-SPRING BRANCH	SIMMONS CREEK	3	30	30	11	8	19511231
005125	1	130	7550170000	005125	ROBERT L SCHWARZ	CURRY CR	3	40	40	38		19870403

SUMMARY OF SURFACE WATER RIGHTS
GUADALUPE RIVER BASIN

STATE MASTER NUMBER	TYPE	RIVER ORDER CO. NUMBER	PERMIT NUMBER	APPLICANT OR APPROPRIATER	STREAM NAME	AUTHORIZED TYPE OF CONSUMPTIVE USE (ACFT/YR)	AUTHORIZED DIVERSION (ACFT/YR)	ACRES IRRIGATED	RESERVOIR CAPACITY (ACFT)	PRIORITY DATE
004106	1	130	7550350000	004125 TX PARKS & WILDLIFE DEPT	GUADALUPE	1	25	25		19810323
002068	6	130	7552000000	KW RANCH	GUAD & WALTER	3	165	165	620	19750224
002067	6	130	7558810000	TY RAMPY ET AL	GUADALUPE R	3	20	20	28	19730806
002067	6	130	7558810000	TY RAMPY ET AL	GUADALUPE R	3	20	20		19581231
002066	6	130	7558850000	ROY C SMITH ESTATE	SABINAS CREEK	3	5	5	10	19591231
002065	6	130	7558870000	JEROME S SMISER	SABINAS CREEK	3	20	20	30	19621231
002064	6	130	7558900000	EARL S DODERER ET AL	SABINAS CREEK	3	12	12	1	19321231
002063	6	130	7560000000	FROST-LANCASTER PROPERTIES ET	GUADALUPE	3	105	105	57	19550117
002062	6	130	7569100000	WILLIAM L PULS	WASP CREEK	3	60	60	30	19651231
002061	6	130	7569500000	HAROLD SIDNEY RANZAU ET AL	GUADALUPE R	3	70	70		19661231
002060	6	130	7570000000	TEXAS BEVERAGE PACKERS INC	GUADALUPE R	3	90	90		19630630
002059	6	130	7570500000	ROBERT C REINARZ ET AL	GUADALUPE R	3	39	39	45	19621231
002058	6	130	7571000000	OTTO KASTEN	GUADALUPE R	3	40	40	32	19661231
005321	1	130	7574000000	005321 LARRY J LANGBEIN	E SISTER CREEK	3	150	150	75	19901202
002057	6	130	7575000000	JAMES R HUNT	ASKEY CREEK	3	25	25	147	25 19660801
002056	6	130	7578000000	JAMES R HUNT	WILLIE CREEK	3	20	20	36	20 19660801
002055	6	130	7578500000	C.K. BALLARD	W. SISTER CR	3	15	15		11 19750000
004590	1	130	7578900000	004255 GEORGE M. WILLIAMS SR ET AL	GUADALUPE	3	50	50	50	19850709
002054	6	130	7579000000	EDMUND BEHR ESTATE	GUADALUPE	3	80	80	60	19661231
002053	6	130	7579500000	ERNO SPENRATH	GUADALUPE	3	32	32	63	19651231
002052	6	130	7580000000	MCCOMBS RANCHES INC	GUADALUPE R	3	232	232	116	19531231
002051A	6	130	7583000000	JOE B. KERCHEVILLE	JOSHUA CREEK	3	262	262	130	19651231
002049A	6	130	7617900000	KENNETH M & CYNTHIA RUSCH	GUADALUPE	3	5	5	30	19661231
002050	6	130	7617910000	ERWIN KLEMSTEIN	GUADALUPE R	3	136	136		19550000
002048	6	130	7617950000	RAYMOND JAMES ROSE	BLOCK CREEK	3	100	100	50	3 19651231
002047	6	130	7618000000	H C SEIDENSTICKER	GUADALUPE R	3	20	20	30	19541231
002046	6	130	7618500000	WILLIAM G & MILDRED D SPROWLS	GUADALUPE R	3	28	28	37	19571231
002045	6	130	7619250000	MARSHALL STEVES	GUADALUPE R	3	8	8	3	19121231
002044	6	130	7619300000	M DIANE WHITE ET AL	GUADALUPE	3	18	18	15	10 19121231
004598	1	130	7619350000	004285 JACOB B GASS	GUADALUPE	3	80	80	40	19850730
002043	6	133	7644600000	DEANNA D FOCKE ET AL	CYPRESS CREEK	3	40	40	30	19760830
002042	6	133	7644800000	E J & VIRGINIA DOWER	CYPRESS CREEK	3	209	209	125	19641231

SUMMARY OF SURFACE WATER RIGHTS
GUADALUPE RIVER BASIN

STATE							AUTHORIZED					
MASTER		RIVER		PERMIT		STREAM	TYPE	CONSUMPTIVE	AUTHORIZED	ACRES	CAPACITY	PRIORITY
NUMBER	TYPE CO.	NUMBER	NUMBER	NUMBER	APPLICANT OR APPROPRIATER	NAME	OF	USE	DIVERSION	IRRIGATED	(ACFT)	DATE
							USE	(ACFT/YR)	(ACFT/YR)			
004486	1	133	7644900000	004181	JAY & HILDA POT	CYPRESS CR	3	70	70	35		19840828
002041A	6	133	7645000000		THOMAS L BRUNDAGE ET AL	CYPRESS CR	3	134	134	57		19551231
002040	6	133	7650000000		A C & DOROTHY PFEIFFER	CYPRESS CREEK	3	10	10	5		19180925
002039	6	133	7650500000		FRED SAUR	CYPRESS CREEK	3	7	7	7		19641231
002038	6	133	7652000000		HARRY E REEH	CYPRESS CR	3	15	15	15		19651231
002037	6	133	7652500000		ARTHUR H ALLERKAMP ESTATE	CYPRESS CREEK	3	30	30	38		19401231
002036	6	130	7657000000		AUGUST PANKRATZ JR	GUADALUPE R	3	125	125	100		19641231
005107	1	130	7657200000	005107	G W WORTH ET UX	GUAD&UNNAMED	3	518	518	200		19861023
002035	6	130	7658000000		HARRY C MECKEL	GUADALUPE R	3	2	2	5		19631231
002034	6	133	7699500000		CHESTER P HEINEN ET AL	GUADALUPE	3	2	2	6		19611231
002033	6	133	7699900000		JAVIER G REYES ET UX	GUADALUPE R	3	90	90	90		19611231
002032	6	133	7700700000		ROBERT JORRIE	GUADALUPE R	3	10	10	6		19601231
002031A	6	133	7701000000		JOSEPH PAUL MILLER ET UX	GUADALUPE	3	115	115	80		19511231
005208	1	133	7701500000	005208	JAMES F HAYES & MARY K HAYES	VERDE CREEK	3	40	40	40		19881209
004007	1	133	7703100000	003714	PECAN VALLEY RANCH OWNERS ASSO	ELM CREEK	7	0	0		157	19791105
002030	6	133	7704000000		TYSON SMITH	VERDE CR&UNNAM	3	266	266	133	120	19471231
002029A	6	133	7710000000		ROLAND WALTERS	PRISON CANYON	3	25	25	200	420	19720821
003846	1	133	7715000000	003651	T & R PROPERTIES	PALMER CR	7	0	322		322	19781030
003825	1	010	7718000000	003567	ROBERT L PARKER SR ET AL	VERDE CREEK	7	0	0		277	19771017
002027	6	010	7720000000		ROBERT L PARKER SR ET AL	VERDE CREEK	3	8	8	3		19181231
002027	6	010	7720000000		ROBERT L PARKER SR ET AL	VERDE CREEK	3	8	8	3		19181231
002028	6	010	7750000000		HOWARD E BUTT	PALMER CREEK	7	0	0		30	19400719
002026	6	133	7920000000		ZANE H ROBINSON ET AL	GUADALUPE R	3	125	125	80		19611231
002025	6	133	7925000000		HARRY J WRAY ET AL	GUADALUPE	3	155	155	80		19170424
002024	6	133	7930000000		CARL E RHODES	GUADALUPE R	3	114	114	125		19321231
002023	6	133	7935000000		ROY A GREEN	GUADALUPE R	3	7	7	3		19301231
002021	6	133	7940000000		RAYMOND F MOSTY ET AL	GUADALUPE R	3	103	103	45	5	19141124
002022	6	133	7950000000		ROBERT LEE MOSTY	GUADALUPE R	3	17	17	119	20	19141124
002020	6	133	7970000000		ROBERT LEE MOSTY	GUADALUPE R	3	60	60	30		19140622
002450	6	133	7999000000		ROBERT L MOSTY ET AL	GUADALUPE	3	158	158	117		19321231
002018	6	133	8049500000		LEE ANTHONY MOSTY	GUADALUPE R	3	154	154	94		19511231
002017	6	133	8050000000		COUNTY OF KERR	GUADALUPE R	7	0	0		87	19550404

SUMMARY OF SURFACE WATER RIGHTS
GUADALUPE RIVER BASIN

STATE MASTER NUMBER	TYPE	CO.	RIVER ORDER NUMBER	PERMIT NUMBER	APPLICANT OR APPROPRIATER	STREAM NAME	AUTHORIZED		ACRES IRRIGATED	RESERVOIR CAPACITY (ACFT)	PRIORITY DATE
							TYPE OF USE	CONSUMPTIVE (ACFT/YR)			
002016	6	133	8150500000		FRANK R HODGES	GUADALUPE R	3	8	8		19461231
005122	1	133	8150800000	005122	JAMES C STORM	GUADALUPE	3	75	75	50	8 19870319
002015	6	133	8151000000		JAMES E NUGENT	GUADALUPE R	3	27	27	21	18871231
002014	6	133	8152000000		JAMES RICHARD TURNER ET AL	TURTLE CREEK	3	26	26	23	19321231
002013	6	133	8154500000		FELIX R & LILLIAN STEILER REAL	WEST CREEK	3	11	11	12	19531231
002012	6	133	8154501000		JOAN CHAPMAN KISIDA	TURTLE CREEK	3	1	1	1	5 19531231
001941	6	133	8154502000		DELMAR SPIER, AGENT	TURTLE CREEK	3	6	6	9	5 19531231
002011	6	133	8155000000		H J GRUY	TURTLE< LAMB	3	80	80	50	10 19401231
002010	6	133	8155700000		G ROBERT SWANTNER JR ET UX	BUSHWACK CREEK	3	7	7	5	5 19381231
002009	6	133	8155750000		FRANCIS C & WILLADEAN BOLEN	BUSHWACK CREEK	3	5	5	5	5 19701231
002008	6	133	8156160000		LUTHERAN CAMP CHRYSALIS	TURTLE CREEK	1	11	11		12 19741118
002007	6	133	8160000000		RAY ELLISON JR	SPRING CREEK	3	31	31	31	50 19591231
002006B	6	133	8174000000		SHELTON RANCH CORPORATION	GUADALUPE	3	470	470	620	54 19521231
002005	6	133	8185500000		HARRIET BOCKHOFF ESTATE	GUADALUPE R	3	59	59	98	19001231
002004	6	133	8200000000		COUNTY OF KERR	GUADALUPE R	7	0	720		720 19550404
002002	6	133	8230000000		SHELTON RANCH CORPORATION	GUADALUPE R	3	136	136	99	19241231
002003	6	133	8250000000		SHELTON RANCH CORPORATION	GUADALUPE R	3	42	42	21	19171011
002003	6	133	8250000000		SHELTON RANCH CORPORATION	GUADALUPE R	4	10	10		19171011
002001	6	133	8255000000		CARL D MEEK	GUADALUPE	3	41	41	30	19241231
002000A	6	133	8260010000		RIVERHILL COUNTRY CLUB INC	GUAD&CP MEETIN	3	350	350	160	70 19740429
003904	1	133	8275500000	003635	CITY OF KERRVILLE	QUINLAN CR	3	80	80	56	10 19780814
003896	1	133	8276000000	003625	KENNETH W & MARCIA C MULFORD	RATTLESNAKE	1	0			13 19780103
005029	1	133	8279000000	005029	SOUTHEASTERN SAVINGS ASSOC	GUADALUPE	7	0			12 19851030
001996A	6	133	8287000000		KERRVILLE, CITY OF	GUADALUPE RV	3	75	75	44	75 19140404
001996A	6	133	8287000000		KERRVILLE, CITY OF	GUADALUPE RV	1	150	150		19140404
005315	1	133	8294000000	005315	RODNEY M AND VICKI ROBINSON	EAST TOWN CR	8	0			19901005
004298A	1	133	8294800000	004096	DR J FRED MULLINS	TOWN CR	3	12	12	18	19830103
001998	6	133	8295000000		C W SUNDAY ET AL	TOWN CREEK	3	28	28	28	10 19591231
001999	6	133	8297000000		KERRVILLE STATE HOSPITAL	UNNAMED	7	0	44		44 19730604
003769	1	133	8300010000	003505	UPPER GUADALUPE RIVER AUTH	GUADALUPE	1	3,603	3,603	840	19770523
001997	6	133	8310000000		DARRELL G LOCHTE ET AL	GUADALUPE	2	2	2		19461231
001997	6	133	8310000000		DARRELL G LOCHTE ET AL	GUADALUPE	4	143	143		19461231

SUMMARY OF SURFACE WATER RIGHTS
GUADALUPE RIVER BASIN

STATE MASTER NUMBER	TYPE	CO.	RIVER ORDER NUMBER	PERMIT NUMBER	APPLICANT OR APPROPRIATER	STREAM NAME	AUTHORIZED TYPE OF CONSUMPTIVE USE (ACFT/YR)	AUTHORIZED DIVERSION (ACFT/YR)	ACRES IRRIGATED	RESERVOIR CAPACITY (ACFT)	PRIORITY DATE
001995	6	133	8451000000		HENRY GRIFFIN CONSTRUCTION CO	GOAT CREEK	3	11	11		6 19511231
001994	6	133	8500000000		M H & MARY FRANCES MONTGOMERY	GUADALUPE R	3	5	5	4	19140923
001993	6	133	8550000000		ROY LITTLEFIELD	JOHNSON CREEK	3	50	50	50	4 19180218
001992	6	133	8600000000		WILMA & OLLIE LECIL DIXON	JOHNSON CREEK	3	23	23	15	19140624
001991	6	133	8615001000		LAZY HILLS GUEST RANCH INC	HENDERSON BR	3	21	21	28	19601231
001990	6	133	8650000000		DOROTHY L THOMPSON ET AL	JOHNSON CREEK	3	3	3	1	19140630
005322	1	133	8705000000	005322	E RAND SOUTHARD ET UX	FALL BRANCH	7	0			19901102
005060	1	133	8710000000	005060	RESOLUTION TRUST CORP, RECEIVR	FALL BR CR	3	10	10	12	19860520
001988	6	133	8720000000		JIMMIE L QUERNER SR ESTATE	FALL BRANCH	3	128	128	64	19601231
001989	6	133	8721000000		ELIZABETH F. RILEY	JOHNSON CREEK	3	20	20		19140000
001987	6	133	8744000000		REGINALD E WARREN JR	JOHNSON CREEK	3	90	90	30	19341231
001986	6	133	8745000000		L.C. & E.D. CAMP	JOHNSON CREEK	3	5	5		19140000
001985	6	133	8746000000		GERVIS H & GLENDA EUDALEY	JOHNSON CREEK	3	80	80	31	19101231
001984	6	133	8750000000		MICHAEL E & GAIL SEARS	JOHNSON CREEK	3	1	1	2	19140429
001983	6	133	8770000000		N V MAMIMAR ET AL	JOHNSON CR	3	67	67	35	19531231
001983	6	133	8770000000		N V MAMIMAR ET AL	JOHNSON CREEK	3	32	32	17	19140429
001982	6	133	8775000000		LOLA DEAN SMITH	JOHNSON CR	3	133	133	50	12 19551231
001981	6	133	8800000000		JACK D CLARK JR ET AL	JOHNSON CR	3	32	32	16	19180128
001981	6	133	8800000000		JACK D CLARK JR ET AL	JOHNSON CR	3	143	143	76	19611231
001980	6	133	8805000000		CHARLES A HABERMACHER ET UX	JOHNSON CR	3	12	12	6	19180128
001979	6	133	8808000000		KEITH S MEADOW	BYAS CREEK	3	18	18	6	19141231
001978	6	133	8815000000		A J RUST	JOHNSON CR	3	33	33	65	19021231
001977	6	133	8839000000		TEXAS CATHOLIC BOYS' HOME	JOHNSON CR	3	23	23	23	23 19691201
001976	6	133	8950000000		F P ZOCH III TRUST & ZEE RANCH	FESSENDEN BR	3	29	29	14	19140610
001976	6	133	8950000000		F P ZOCH III TRUST & ZEE RANCH	FESSENDEN BR	7	0			184 19410725
001975	6	133	9025000000		TEXAS PARKS & WILDLIFE DEPT	FESSENDEN BR	2	400	400		19250701
004034	1	133	9040000000	003743	SHELTON RANCHES INC	JOHNSON CR	7	0	0		122 19800331
001974	6	133	9050000000		SHELTON RANCHES INC	SMITHS BRANCH	3	70	70	35	15 19140629
001973	6	133	9100000000		SHELTON RANCHES INC	SMITHS BRANCH	3	10	10	10	6 19140629
004223	1	133	9105000000	004100	SHELTON RANCHES INC	JOHNSON CR	3	20	20	14	39 19820614
001972	6	133	9110000000		WESLEY ELLEBRACHT	WELSH BRANCH	3	6	6	6	19001231
001971	6	133	9140000000		COUNTY OF KERR	GUADALUPE	7	0	0		450 19550404

SUMMARY OF SURFACE WATER RIGHTS
GUADALUPE RIVER BASIN

STATE			RIVER				AUTHORIZED					
MASTER			ORDER	PERMIT		STREAM	TYPE CONSUMPTIVE	AUTHORIZED	ACRES	CAPACITY	PRIORITY	
NUMBER	TYPE	CO.	NUMBER	NUMBER	APPLICANT OR APPROPRIATER	NAME	OF USE (ACFT/YR)	DIVERSION (ACFT/YR)	IRRIGATED	(ACFT)	DATE	
001970	6	133	9220000000		CARL HAWKINS	GUADALUPE	3	32	32	25		19130701
001970	6	133	9220000000		CARL HAWKINS	GUADALUPE	1	10	10			19130701
001969	6	133	9260000000		TOMMIE SMITH BLACKBURN	GUAD & KELLY	2	15	15		15	19140629
001969	6	133	9260000000		TOMMIE SMITH BLACKBURN	GUAD & KELLY	3	108	108	80		19461231
001968	6	133	9261000000		LOUIS DOMINGUES	GUAD & KELLY	3	10	10	20		18891231
001967A	6	133	9305000000		SARAH HICKS BUSS	GUAD & TRIB	7	0	20			19710802
002449	6	133	9310000000		B N SCHUMACHER	GUADALUPE R	3	17	17	11		19261231
002448	6	133	9350000000		ALICE CYNTHIA SIMKINS	TEGENER CREEK	3	6	6	5		19551231
001953	6	133	9476000000		GARLAND M & GLADYS BROOKING	N FK GUAD	3	40	40	24		19140626
002443	6	133	9476500000		JOHN H DUNCAN	HONEY CREEK	3	40	40	20	25	19151231
001947A	6	133	9480000000		GUAD VALLEY LOT OWNERS ASSN	N FK GUAD	1	3	3			19601231
001947A	6	133	9480000000		GUAD VALLEY LOT OWNERS ASSN	N FK GUAD	3	6	6	10		19601231
001946	6	133	9485000000		JOHN P HILL ADMINISTRATOR	N FK GUAD	3	11	11	9		19151231
001945	6	133	9485010000		JOHN P HILL	N FK GUAD	3	25	25	20		19151231
002442	6	133	9486000000		LUTHER GRAHAM	HONEY CREEK	3	28	28	14	17	19001231
001950	6	133	9487000000		JOHN H DUNCAN	HONEY CREEK	3	6	6	20	13	19031231
001949	6	133	9488000000		WILLIAM O CARTER, TRUSTEE	SPRNG ON HONEY	3	27	27	9		19001231
001949	6	133	9488000000		WM O CARTER, TRUSTEE	HONEY CREEK	3	6	6	2		19481231
001948	6	133	9489000000		JOHN H DUNCAN	BRUSHY CREEK	3	7	7	7		19140918
002441	6	133	9490000000		SILAS B RAGSDALE	N FK GUAD	3	21	21	105		19411231
001943	6	133	9505000000		ASN INC	N FK GUAD	1	14	14			19451231
002440	6	133	9507000000		L F SCHERER	N FK GUADALUPE	3	1	1	1		19611231
002439A	6	133	9510000000		DALE B AND MARSHA G ELMORE	N FK GUADALUPE	3	8	8	8	20	19371231
001940	6	133	9511000000		B E QUINN III ET AL	N FK GUAD/GUAD	3	32	32	16	10	19361231
001939	6	133	9512000000		LOUIS H STRUMBERG	GRAPE CREEK	3	3	3	6	6	19521231
001938	6	133	9515000000		LOUIS H STUMBERG	N FK GUAD	3	2	2	4		19481231
001938	6	133	9515000000		LOUIS H STRUMBERG	BEAR CREEK	3	15	15	22		19331231
001937	6	133	9515200000		BOY SCOUTS- ALAMO AREA	BEAR CREEK	7	0	0		10	19381231
001936	6	133	9523000000		WILLIAM H ARLITT JR ET UX	INDIAN CREEK	3	134	134	48		19601231
001936	6	133	9523000000		WILLIAM H ARLITT JR ET UX	N FK GUAD	3	17	17	6	5	19090802
001935	6	133	9525100000		CHARLES K HICKEY ET AL	N FK GUAD	3	8	8	8		19671231
005348	1	133	9526000000	005348	BRYON DONZIS	NF GUADALUPE R	3	5	5	4		19910305

SUMMARY OF SURFACE WATER RIGHTS
GUADALUPE RIVER BASIN

STATE		RIVER				AUTHORIZED					
MASTER		ORDER	PERMIT		STREAM	TYPE	CONSUMPTIVE	AUTHORIZED	ACRES	RESERVOIR	PRIORITY
NUMBER	TYPE	CO.	NUMBER	NUMBER	APPLICANT OR APPROPRIATER	NAME	OF	USE	DIVERSION	IRRIGATED	CAPACITY
							USE	(ACFT/YR)	(ACFT/YR)		(ACFT)
											DATE
001934	6	133	9527000000		CHARLES K HICKEY ET AL	DRY CREEK	3	2	2	3	19671231
002438	6	133	9528000000		JAMES BROCK	N FK GUADALUPE	3	30	30	18	30 19411231
002437	6	133	9550000000		CHLOE CULLUM KEARNEY ET AL	N FK GUADALUPE	7	0			100 19481231
001932	6	133	9560000000		PRESBYTERIAN MO-RANCH ASSEMBLY	N FK GUAD	3	14	14	7	19481231
001932	6	133	9560000000		PRESBYTERIAN MO-RANCH ASSEMBLY	N FK GUAD	1	60	60		19481231
001932	6	133	9560000000		PRESBYTERIAN MO-RANCH ASSEMBLY	N FK GUAD	7	0	0		20 19290403
001930	6	133	9570000000		E T STANDLEY	FLAT ROCK CR	3	69	69	66	35 19301231
001963B	6	133	9620000000		LAWRENCE L GRAHAM ET AL	S FK GUADALUPE	7	0			16 19170529
001963B	6	133	9620000000		LAWRENCE L GRAHAM ET AL	S FK GUADALUPE	3	2	2	12	21 19170529
002447	6	133	9625000000		CAMP LA JUNTA INC	S FK GUADALUPE	1	14	14		19281231
002447	6	133	9625000000		CAMP LA JUNTA INC	S FK GUADALUPE	3	26	26	15	30 19281231
001964	6	133	9640000000		T JASPER MOORE JR	TEGENER & TRIB	3	10	10	10	12 19481231
005352	1	133	9650000000	005352	BONITA OWNERS ASSOC INC	S FK GUAD RV	3	2	2	2	19910328
005331	1	133	9660000000	005331	KATHLEEN B FLOURNOY, ET AL	SO FK GUAD RV	1	15	15		30 19901108
005331	1	133	9660000000	005331	KATHLEEN B FLOURNOY, ET AL	SO FK GUAD RV	3	96	96	30	19901108
001961	6	133	9670000000		WILTON CRIDER	S FK GUAD	1	3	3		19471231
001961	6	133	9670000000		WILTON CRIDER	S FK GUAD	3	1	1	3	19471231
002446	6	133	9675000000		BOB/KAT INC	S FK GUAD	3	10	10	10	19271231
002446	6	133	9675000000		BOB/KAT INC	S FK GUAD	1	10	10		19271231
002445	6	133	9680000000		CAMP MYSTIC INC	CYPRESS&SFGUAD	1	14	14		20 19270315
002445	6	133	9680000000		CAMP MYSTIC INC	CYPRESS&SFGUAD	3	12	12	15	19521231
001958	6	133	9780000000		T J MOORE ESTATE	CYPRESS CREEK	3	20	20	10	100 19381205
001957	6	133	9880000000		JOHN F JOBES	S FK GUAD	7	0	0		10 19281214
001956B	6	133	9897000000		RIVER INN ASSOC OF UNIT OWNERS	S FK GUAD	1	10	10		19840703
001956B	6	133	9897000000		RIVER INN ASSOC OF UNIT OWNERS	S FK GUAD	7	0	0		50 19361231
002444	6	133	9980000000		SHELTON LAND & CATTLE CO ET AL	S FK GUAD	7	0			10 19270729
002444	6	133	9980000000		SHELTON LAND & CATTLE CO	S FK GUADALUPE	3	6	6	3	17 19211231

SUMMARY OF SURFACE WATER RIGHTS
SAN ANTONIO RIVER BASIN

STATE MASTER NUMBER	TYPE	CO.	RIVER ORDER NUMBER	PERMIT NUMBER	APPLICANT OR APPROPRIATOR	STREAM NAME	AUTHORIZED		ACRES IRRIGATED	RESERVOIR CAPACITY (ACFT)	PRIORITY DATE
							TYPE OF USE	CONSUMPTIVE USE (ACFT/YR)			
005220	1	088	0180000000	005220	CLARENCE F SCHENDEL ET UX	SAN ANTONIO	3	90	90	60	19890227
002199	6	088	0200000000		SAM HOUSTON CLINTON ET AL	SAN ANTONIO	3	325	325	220	19490120
002198	6	088	0220000000		SAM HOUSTON CLINTON ET AL	SAN ANTONIO	3	333	333	213	19500425
004117	1	088	0230000000	003820	JUNE PETTUS ET AL	SAN ANTONIO	3	950	950	380	19810420
002197	6	088	0240000000		JAMES M PETTUS II	SAN ANTONIO	3	86	86	86	19670131
005079	1	088	0270000000	005079	JOHN C & SHERRY BROOKE	SANANTONIO	3	114	114	57	19860728
002196	6	088	0300000000		COLETO CATTLE COMPANY	SAN ANTONIO	3	336	336	223	19501130
002195	6	088	0350000000		JOE F FRENCH	SAN ANTONIO	3	410	410	456	19560113
002194	6	088	0400000000		JULIA GANTT NEWTON ET AL	SAN ANTONIO	3	1,020	1,020	510	19471114
002193	6	088	0450000000		JAMES M PETTUS ET AL	SAN ANTONIO	3	284	284	284	19631231
005313	1	088	0500000000	005313	JAMES T DENTON JR	SAN ANTONIO RV	3	100	100	100	19900830
002192	6	128	0600000000		HALLIS DAVENPORT REVC MAN TR	SAN ANTONIO	3	140	140	61	19490113
002191	6	128	0645000000		JOHN A FOGELLE ET AL	ESCONDIDO CR	7	0	0		601 19601128
005043	1	128	0690000000	005043	MELANIE A JACOBS ET AL	SAN ANTONIO	3	150	150	250	19860204
002190	6	128	0700000000		FLORENCE S BAUMANN ET AL	SAN ANTONIO	3	100	100	86	19180130
004512	1	128	0725000000	004175	OLIVE L RIDLEY ET AL	SAN ANTONIO	3	160	160	240	19841107
003803A	1	128	0751000000	003517A	OLIVE L RIDLEY ET AL	SAN ANTONIO	3	160	160	240	19770815
005044	1	128	0755000000	005044	TOM DAN HUBBARD	SAN ANTONIO	3	150	150	257	19860213
005367	1	128	0755850000	005367	BERNIE A YANTA ET UX	SAN ANTONIO RV	3	300	300	150	19910708
005368	1	128	0755850000	005368	ARTHUR RAY YANTA ET UX	SAN ANTONIO RV	3	300	300	150	19910708
004561	1	128	0756600000	004240	CHEVRON USA INC	CIBOLO CR	3	525	525	350	19850430
003431	1	128	0776560000	003162	ANDREW RIVES ET UX	CIBOLO CREEK	3	60	60	60	19750414
001168	6	128	0776590000		ALOYS PAWELEK	CIBOLO	3	30	30	30	19501231
001167A	6	128	0777500000		FRANK B KRAWIETZ	CIBOLO	3	5	5	9	19340601
004002B	1	128	0778100000	003710B	CASPER F MOCZYGENBA JR ET AL	CIBOLO	3	80	80	60	19791001
005214	1	247	0783000000	005214	OTTO WACLASWCZYK	CIBOLO CR	3	100	100	50	19890102
005308	1	247	0783500000	005308	SAM JARZOMBK	CIBOLO CREEK	3	100	100	50	19900814
001166	6	247	0784500000		GERVAS JASKINIA ESTATE	CIBOLO	3	25	25	20	19560601
001165	6	247	0784530000		EMERYK KELLER	CIBOLO	3	4	4	5	19390601
001164	6	247	0784550000		CONRAD LYSSY	CIBOLO	3	6	6	8	19560601
001163	6	247	0785000000		CYNTHIA A TITZMAN ET VIR	CIBOLO & TRIB	3	80	80	65	80 19471231
001162A	6	247	0785200000		ALVIN PRUSKI	CIBOLO	3	80	80	100	19701201

SUMMARY OF SURFACE WATER RIGHTS
SAN ANTONIO RIVER BASIN

STATE MASTER NUMBER	TYPE	CO.	RIVER ORDER NUMBER	PERMIT NUMBER	APPLICANT OR APPROPRIATOR	STREAM NAME	AUTHORIZED		AUTHORIZED DIVERSION (ACFT/YR)	ACRES IRRIGATED	RESERVOIR CAPACITY (ACFT)	PRIORITY DATE
							TYPE	CONSUMPTIVE				
							OF	USE				
							USE	(ACFT/YR)				
001161	6	247	0786000000		JOHN DRZYMALA	CIBOLO	3	15	15	15		19640601
001160	6	247	0790000000		MRS MAGGIE WEBER	CIBOLO	3	140	140	80		19660601
005218	1	247	0791000000	005218	WILLIAM P REDDICK ET UX	CIBOLO CR	3	360	360	360		19890217
001159	6	247	0794800000		ORAN A CLICK	CIBOLO	3	40	40	40		19631001
001158	6	247	0795000000		WILLARD B MILLS ET UX	CIBOLO	3	30	30	30		19670101
001157	6	247	0797000000		OSCAR SANDERS	CIBOLO	3	117	117	140		19670601
001156	6	247	0798500000		WAYNE H STROUD ET AL	CIBOLO	3	35	35	33		19510118
001155	6	247	0800000000		BILLIE R WATKINS GUARDIAN	CIBOLO	3	42	42	42		19500110
001154	6	247	0900000000		JONAH H WILSON	CIBOLO	3	69	69	69		19490329
001153	6	247	1000000000		WAYNE H STROUD ET AL	CIBOLO	3	100	100	100		19670601
001152	6	247	1250000000		BILL & MELVIN DEAGEN ET AL	CIBOLO	3	35	35	35		19541018
001151	6	247	1255000000		W J, BILLY & MELVIN DEAGEN	CIBOLO	3	86	86	86		19510604
001150	6	247	1257000000		PAT HIGGINS ESTATE ET AL	CIBOLO	3	200	200	200		19510213
005182	1	247	1258000000	005182	JAMES T WATSON	CIBOLO CR	3	100	100	100		19880603
001149	6	247	1259000000		RAY SMITH ET UX	CIBOLO	3	62	62	41		19510604
001148	6	247	1300000000		C R LACKEY	CIBOLO	3	11	11	7		19510604
001171A	6	247	1450500000		ROSS OWEN SCULL	CIBOLO	3	660	660	330		19520101
005224	1	247	1451010000	005224	JOHNNY KOSUB & BETTY KOSUB	CIBOLO CR	3	60	60	60		19890317
004105	1	015	1465000000	003811	CITY OF LIVE OAK ET AL	SALITRILLO CR	3	150	150	165	200	19810316
004497	1	015	1465300000	004195	CARL RAY DRZYMALLA ET AL	MARTINEZ CR	3	206	206	189	20	19841001
004362A	1	015	1465500000	004032A	WALLACE REAL ET UX	MARTINEZ CR	3	20	20	50		19830516
004361A	1	015	1465520000	004031A	JEROME & FLORENCE REAL	MARTINEZ CR	3	20	20	20		19830516
004496	1	015	1465800000	004191	WILLIAM WALLS JR	MARTINEZ CR	3	30	30	40		19841001
004499	1	015	1465850000	004197	JOSEPH M STANUSH ET AL	MARTINEZ CR	3	54	54	100		19841001
004498	1	015	1465900000	004196	VIRGINIA JAKSIK	MARTINEZ CR	3	83	83	153		19841001
005265	1	015	1467000000	005265	MARY JAKSIK ZIGMOND	MARTINEZ CR	3	35	35	25		19891127
001170	6	015	1470000000		PHILLIP F BECKER	MARTINEZ	3	17	17	25	17	19691020
001146	6	015	1510000000		DOUG WISE ET AL	CIBOLO	3	100	100	150		19480630
004350A	1	046	1550000000	004028A	JOHN R BARRANCO JR	UNNAMED	7	0			26	19830418
001145	6	130	1600000000		MARGARET B HARPER ET AL	BALCONES	7	0	0		10	19230606
001169	6	130	1607100000		CITY OF BOERNE	CIBOLO	7	0	0		55	19720803
001144	6	130	1607500000		EDWARD H KNOWLTON	FREDERICK &	3	62	62	62	62	19690922

SUMMARY OF SURFACE WATER RIGHTS
SAN ANTONIO RIVER BASIN

STATE		RIVER				AUTHORIZED				RESERVOIR	
MASTER		ORDER	PERMIT		STREAM	TYPE	CONSUMPTIVE	AUTHORIZED	ACRES	CAPACITY	PRIORITY
NUMBER	TYPE	CO.	NUMBER	NUMBER	APPLICANT OR APPROPRIATOR	NAME	OF	USE	DIVERSION	IRRIGATED	DATE
							USE	(ACFT/YR)	(ACFT/YR)		
004001	1	130	1607600000	003709	EDWARD H KNOWLTON	FREDERICK	7	0	0	320	19791001
004211A	1	130	1610000000	003928A	SMITH INVESTMENT COMPANY	FREDERICK CR	7	0			19820503
001143B	6	130	1616000000		CITY OF BOERNE	CIBOLO	1	833	833	4,046	19780928
003752	1	130	1625500000	003488	AFFILIATED DEVELOPERS INC	CIBOLO CREEK	7	0	15	15	19770307
001142	6	130	1631000000		JEB B MAEBIUS JR ET UX	CIBOLO	7	0	1		19480501
001142	6	130	1631000000		JEB B MAEBIUS JR ET UX	CIBOLO	3	4	4	4	19480501
002189	6	128	1720000000		CLEM R CANNON ET AL	SAN ANTONIO	3	350	350	308	19551205
002188	6	128	1750000000		ALFRED MOCZYGEMBA	SAN ANTONIO	3	40	40	40	19751215
005002	1	128	1760000000	005002	WILLIAM A JEFFERS JR ET AL	SAN ANTONIO	3	150	150	150	19850903
005306	1	128	1910000000	005306	HERBERT JOHN EWALD JR ET AL	SAN ANTONIO RV	3	200	200	50	19900803
005239	1	128	2040100000	005239	HOLY TRINITY CATHOLIC CHURCH	SAN ANTONIO	3	4	4	2	19890518
005333	1	128	2045000000	005333	HECTOR O HERRERA ET UX	SAN ANTONIO RV	3	90	90	45	19901130
002186A	6	128	2121500000		VINCENT LABUS JR	SAN ANTONIO	3	70	70	50	19730425
003767	1	128	2123000000	003484	FELIX MOCZYGEMBA	SAN ANTONIO	3	20	20	20	19770531
004407	1	128	2126900000	004072	TOMMY NAJVAR ET UX	SAN ANTONIO	3	50	50	50	19831031
003851	1	128	2128000000	003557	THOMAS KORZEKWA ET AL	SAN ANTONIO	3	50	50	55	19780130
003852	1	128	2140000000	003558	THOMAS A KORZEKWA	SAN ANTONIO	3	50	50	67	19780130
004538	1	128	2150000000	004230	ALICE P JENDRUSCH ET AL	SAN ANTONIO	3	150	150	150	19850205
005323	1	128	2151000000	005323	WILLIAM I DUBEL	SAN ANTONIO RV	3	100	100	50	19901102
005296	1	128	2155000000	005296	DENNIS J. MOY	SAN ANTONIO	3	74	74	37	19900524
004536A	1	128	2175000000	004224A	JAMES M & NANCY W BAILEY	SAN ANTONIO	3	300	300	100	19850115
005062	1	128	2176000000	005062	ALFRED J RAHE	SAN ANTONIO	3	100	100	35	19860522
002185	6	128	2189500000		FRANCIS MOY & MARY MOY KOWALIK	SAN ANTONIO	3	90	90	90	19750915
002184	6	128	2191010000		BONNIE SKLOSS	SAN ANTONIO	3	120	120	130	19750915
002184	6	128	2191010000		BONNIE SKLOSS	SAN ANTONIO	3	80	80		19810330
003808	1	128	2191450000	003526	FLAVIAN B MOCZYGEMBA	SAN ANTONIO	3	232	232	116	19770829
004490	1	128	2191480000	004161	DANIEL R ANDERSON ET AL	SAN ANTONIO	3	90	90	90	19840904
004503	1	128	2191520000	004174	HENRY D STRINGER JR	SAN ANTONIO	3	55	55	70	19841016
002183	6	247	2200000000		BENJAMIN C PAWELEK	SAN ANTONIO	3	100	100	80	19401107
002182B	6	247	2202010000		LEO V LYSSY ET AL	SAN ANTONIO	3	700	700	433	19750609
002182B	6	247	2202010000		LEO V LYSSY ET AL	SAN ANTONIO	3	166	166		19750609
004484	1	247	2250000000	004176	DELBERT J KELLER	SAN ANTONIO	3	300	300	156	19840828

SUMMARY OF SURFACE WATER RIGHTS
SAN ANTONIO RIVER BASIN

STATE			RIVER				AUTHORIZED					
MASTER			ORDER	PERMIT		STREAM	TYPE	CONSUMPTIVE	AUTHORIZED		RESERVOIR	
NUMBER	TYPE	CO.	NUMBER	NUMBER	APPLICANT OR APPROPRIATOR	NAME	OF	USE	DIVERSION	ACRES	CAPACITY	PRIORITY
							USE	(ACFT/YR)	(ACFT/YR)	IRRIGATED	(ACFT)	DATE
005202	1	247	2260000000	005202	GEORGE R GAWLIK ET UX	SAN ANTONIO	3	75	75	75		19881108
002181B	6	247	2300000000		FRED J LYSSY ET AL	SAN ANTONIO	3	380	380	290		19171003
002180A	6	247	2400000000		DONALD A OCKER ET AL	SAN ANTONIO	3	625	625	320		19250711
002179A	6	247	2450000000		A D D CORPORATION	SAN ANTONIO	3	625	625	250		19171127
002178A	6	247	2500000000		FELIX J JANEK JR ET AL	SAN ANTONIO	3	500	500	393		19820502
002178A	6	247	2500000000		FELIX J JANEK JR ET AL	SAN ANTONIO	3	180	180			19261110
002178A	6	247	2500000000		FELIX J JANEK JR ET AL	SAN ANTONIO	3	63	63	127		19171127
002177	6	247	2800000000		FRANK & J A LABUS	SAN ANTONIO	3	81	81	98		19170830
002176A	6	247	2810000000		POTH LAND & CATTLE CO	SAN ANTONIO	3	250	250	250		19171231
003861	1	247	2813000000	003568	GEO D POOL & RONALD R STINSON	SAN ANTONIO	3	200	200	100		19780206
003994	1	247	2880000000	003704	CLARIBEL GERACI DEERING	SAN ANTONIO	3	1,056	1,056	318		19790723
002175	6	247	3000000000		PHILLIP KELMAN ET AL	SAN ANTONIO	3	38	38	38		19490329
002174	6	247	3100000000		WILLIE HOSEK ESTATE	SAN ANTONIO	3	14	14	17		19340611
002173	6	247	3150000000		CECIL MARK RICHARDSON ET AL	SAN ANTONIO	3	78	78	78		19520317
002172	6	247	3200000000		CLYDE R MAHA ET AL	SAN ANTONIO	3	18	18	36		19481008
002171	6	247	3350000000		R C CARROLL	SAN ANTONIO	3	63	63	50		19510801
005320	1	247	3385000000	005320	SHELBY KOEHLER ET UX	SAN ANTONIO RV	3	200	200	200		19900928
005171	1	247	3390000000	005171	MESCALERO PROPERTIES	SAN ANTONIO	3	200	200	100		19880222
002170	6	247	3425000000		NCNB TEXAS NATIONAL BK	CONNALLY CR	8	0			572	19640316
005307	1	247	3430000000	005307	THE TRAVELERS INSURANCE CO	SAN ANTONIO RV	3	300	300	200		19900821
002169	6	247	3500000000		CLAYTON W WILLIAMS JR	SAN ANTONIO	3	47	47	113		19171030
005194	1	247	3525000000	005194	JOE R HOLLAWAY JR ET AL	SAN ANTONIO	3	210	210	105		19880909
005243	1	247	3536000000	005243	FRANK R BOLF	SAN ANTONIO	3	54	54	27		19890622
002168	6	247	3550000000		H W FINCK	UNNAMED TRIB	3	16	16	100	16	19680923
005264	1	247	3552000000	005264	LILLIAN S WISEMAN TRUST ET AL	SAN ANTONIO	3	130	130	132		19891127
003897	1	247	3560010000	003613	TRAVELERS INSURANCE CO	SAN ANTONIO	3	716	716	358	22	19780717
002167	6	247	3700000000		THOMAS W ROBINSON	SAN ANTONIO	3	17	17	15		19250608
002166A	6	247	3800000000		NICK KOLENDA	SAN ANTONIO	3	200	200			19530120
003837	1	247	3815000000	003553	W H HALLIBURTON	SAN ANTONIO	3	50	50	59		19780103
004495	1	247	3830000000	004190	WILLIAM & IRENE C WALLS JR	SAN ANTONIO	3	50	50	50		19841001
005126	1	247	3836000000	005126	WILLIAM M PAVLISKA	SAN ANTONIO	3	150	150	60		19870410
004121	1	247	3855010000	003825	BENITO D. CABRIALES ET UX	SAN ANTONIO	3	38	38	17		19810427

SUMMARY OF SURFACE WATER RIGHTS
SAN ANTONIO RIVER BASIN

STATE MASTER NUMBER	TYPE	CO.	RIVER ORDER NUMBER	PERMIT NUMBER	APPLICANT OR APPROPRIATOR	STREAM NAME	AUTHORIZED TYPE OF CONSUMPTIVE USE (ACFT/YR)	AUTHORIZED DIVERSION (ACFT/YR)	ACRES IRRIGATED	RESERVOIR CAPACITY (ACFT)	PRIORITY DATE
002165B	6	247	3884000000		ED WISEMAN	SAN ANTONIO	3	120	120		19740520
002164A	6	247	3900000000		JOHN WILLIAM HELTON JR ET UX	SAN ANTONIO	3	82	82		19260510
005298	1	247	3910000000	005298	PATTEN CORPORATION SOUTHWEST	EAGLE CREEK	7	0			14 19900605
004294	1	015	3946000000	003982	MARY HARPER TUDHOPE	PARITA CR	3	40	40	15	208 19830103
002162	6	015	3949000000		CITY OF SAN ANTONIO	SAN ANTONIO	2	0			19670425
002162	6	015	3949000000		CITY OF SAN ANTONIO	CALAVERAS CR	2	36,900	36,900		63,200 19670425
002162	6	015	3949000000		CITY OF SAN ANTONIO	CALAVERAS CR	2	11	11		19670425
002162	6	015	3949000000		CITY OF SAN ANTONIO	CALVERAS CR	1	100	100		19670425
002163A	6	247	4000000000		L E TRAVIS ET AL	SAN ANTONIO	3	300	300	150	19390715
004181A	1	247	4280000000	003852A	BERTRAND O BAETZ ESTATE ET AL	SAN ANTONIO	3	207	207	364	19811221
003887	1	247	4333010000	003595	PATTILLO FAMILY FARMS INC	SAN ANTONIO	3	50	50	25	19780530
005266	1	015	4334000000	005266	RANDALL K HOOVER ET UX	SAN ANTONIO	3	45	45	30	19891127
002161A	6	015	4335000000		CITY OF SAN ANTONIO	ARROYO SECO/SA	2	12,000	12,000		26,500 19610413
002160	6	015	4400000000		BEN B MORRIS ESTATE	SAN ANTONIO	3	116	116	116	19400501
002156A	6	015	4550000000		CITY OF SAN ANTONIO	MEDINA	3	294	294	354	19260324
003888	1	015	4570000000	003596	ALAN D BARIBEAU ET UX	MEDINA	3	290	290	145	19780530
002155	6	015	4600000000		C L & WANDA PATTILLO	MEDINA	3	240	240	114	19130930
002154	6	015	4780000000		ARNOLD ALBERT	MITCHELL LK	3	200	200	100	19160328
002152	6	015	4780010000		CAROLYN VANCE COOK	MITCHELL LK	3	409	409	300	19160328
002153	6	015	4790000000		CITY OF SAN ANTONIO	RINCON CR	8	0			2,640 19001231
002151	6	015	5000000000		SOUTH LOOP PROPERTIES	SAUZ CR	8	0			275 19101231
004139	1	015	5035000000	003868	BESSIE WALSH	LEON CREEK	3	200	200	100	19810622
004187	1	015	5040010000	003881	LOTTIE WALSH MAHLA ESTATE	LEON CR	3	666	666	333	19820217
004128	1	015	5043000000	003914	CITY OF SAN ANTONIO	LEON CR	1	12,300	12,300		544 19810511
002150	6	015	5049500000		ANGELINA BORDANO	LEON CR	3	62	62	27	19451231
004141	1	015	5049600000	003870	GULF LAND & INVESTMENT CO ET A	LEON CREEK	3	300	300	300	19810622
002149	6	015	5100000000		RANDALL S PREISSIG TRUSTEE	LEON CR	3	32	32	15	19250609
003476A	1	015	5109600000	003196A	SAN ANTONIO RANCH LTD ET AL	UNNAMED OF	3	100	100	360	152 19750714
004137	1	015	5215000000	003866	FRANK WALSH	MEDINA	3	600	600	300	19810622
004128	1	015	5220050000	003914	CITY OF SAN ANTONIO	MEDINA	1	57,700	57,700		45,528 19810511
004138	1	015	5221000000	003867	HARRY WALSH EST ET AL	MEDINA	3	300	300	150	19810622
004136	1	015	5223000000	003865	EDWARD WALSH	MEDINA	3	400	400	200	19810622

SUMMARY OF SURFACE WATER RIGHTS
SAN ANTONIO RIVER BASIN

STATE			RIVER				AUTHORIZED			RESERVOIR	
MASTER			ORDER	PERMIT		STREAM	TYPE	CONSUMPTIVE	AUTHORIZED	ACRES	CAPACITY
NUMBER	TYPE	CO.	NUMBER	NUMBER	APPLICANT OR APPROPRIATOR	NAME	OF	USE	DIVERSION	IRRIGATED	(ACFT)
							USE	(ACFT/YR)	(ACFT/YR)		PRIORITY
											DATE
004135	1	015	5225000000	003864	BESSIE WALSH	MEDINA	3	200	200	100	19810622
002148	6	015	5238000000		DONALD G RAMBIE	ELM CREEK	3	8	8	15	19651231
002147	6	015	5238250000		WILLIAM B CRAWFORD	ELM CREEK	3	28	28	28	19521231
004134	1	015	5238500000	003863	ANITA T WALSH ESTATE	MEDINA	3	200	200	100	19810622
002146	6	015	5241000000		BURRELL DAY	MEDINA	3	215	215	350	19351231
002145	6	015	5241500000		JERRY & MARIAM SPEARS	MEDINA	3	32	32	16	19631231
004768	6	015	5242000000		RICHARD M KLEBERG JR TRUST	MEDIO CR	3	506	506	800	595 19431231
005211	1	015	5284500000	005211	LONE STAR GROWERS CO	MEDINA	3	100	100	200	19890103
004025	1	015	5285000000	003732	CAPITOL AGGREGATES INC	MEDINA	4	5	431	5	31 19800219
002144A	6	015	5300000000		STRAUS MEDINA HEREFORD RANCH	MEDINA	3	308	308	293	19180507
002144A	6	015	5300000000		STRAUS MEDINA HEREFORD RANCH	MEDINA	3	308	308	62	19901130
002142	6	015	5425000000		ALBERT W WEST III	MEDINA	3	200	200	60	19101231
002140	6	015	5429000000		METROPOLITAN RESOURCES INC	MEDINA	3	963	963	578	19111231
002141	6	015	5429900000		BIPPERT FARMS	E B BIG SOUS C	3	75	75	211	25 19531231
004434	1	163	5504100000	004107	ALVIN C & CARMEN SANTLEBEN	MEDINA	3	156	156	62	19840207
004151	1	163	5504500000	003872	JAMES A OPPELT ET UX	MEDINA	3	170	170	85	19810921
002139	6	163	5505500000		A L GILLIAM	MEDINA	3	112	112	56	19631231
002138	6	163	5505600000		CLIFFORD L SOWELL SR ET UX	MEDINA	3	16	16	11	19631231
002137	6	163	5510000000		TEXAS PARKS & WILDLIFE DEPT	MEDINA	7	0	0		14 18540801
004149	1	163	5648500000	003871	GLENNIS W STEIN	MEDINA	3	20	20	10	19810921
002134	6	163	5650000000		MRS ELVIE STEIN	MEDINA	3	17	17	40	19451231
004367	1	163	5651000000	004037	LEE W TSCHIRHART	MEDINA	3	160	160	160	19830531
004159	1	163	5652000000	003873	MARIE I HABY ET AL	MEDINA RIVER	3	50	50	50	19811116
003220	1	163	5656000000	002956	EDWARDS UNDERGROUND WD	SAN GERONIMO	9	961	961		200 19740520
002136	6	163	5659000000		KITTIE NELSON FERGUSON	UNNAMED	3	6	6	3	10 19631231
002135	6	010	5660000000		KITTIE NELSON FERGUSON	SAN GERONIMO	3	5	5	5	28 19631231
002133	6	163	5670000000		HARLEY & DOROTHY TSCHIRHART	MEDINA	3	18	18	12	19651231
004170	1	163	5675000000	003874	TWAIN J JAGGE ET UX	MEDINA	3	15	15	8	19811130
004140	1	163	5680000000	003869	KATHLEEN DAVENPORT CARSKADDEN	MEDINA	3	185	185	74	19810622
004549	1	163	5690000000	004233	THOMAS M & JACQUE LYNN PAGE	MEDINA RIVER	3	25	25	25	19850326
002130B	6	163	5700000000		BEXAR-MEDINA-ATASCOSA COS WCID	MEDINA	1	750	750		4,500 19101116
002130B	6	163	5700000000		BEXAR-MEDINA-ATASCOSA WCID	MEDINA	1	170	170		19101116

SUMMARY OF SURFACE WATER RIGHTS
SAN ANTONIO RIVER BASIN

STATE MASTER NUMBER	TYPE	CO.	RIVER ORDER NUMBER	PERMIT NUMBER	APPLICANT OR APPROPRIATOR	STREAM NAME	AUTHORIZED TYPE OF CONSUMPTIVE USE (ACFT/YR)	AUTHORIZED DIVERSION (ACFT/YR)	ACRES IRRIGATED	RESERVOIR CAPACITY (ACFT)	PRIORITY DATE
002130B	6	163	5700000000		BEXAR-MEDINA-ATASCOSA WCID	MEDINA	3	65,830	65,830	33,000	237,874 19101116
002131	6	163	5700010000		BEXAR-MEDINA-ATASCOSA COS WCID	MEDINA	3	2,000	2,000	1,000	730 19120320
002132	6	163	5800000000		MEDINA RANCH INC	MEDINA	7	0			19311214
003949	1	010	5886550000	003696	CASTLE LAND & LIVESTOCK CO INC	BEAR CREEK	7	0	33		33 19791204
002129	6	010	5887000000		JOE H BERRY	PRIVILEGE CR	3	40	40	33	110 19670220
002128	6	010	5887050000		JOE H BERRY	SADDLE CREEK	3	14	14	12	3 19611231
002127	6	010	5887100000		JERRY B PARKER ET AL	MEDINA	3	16	16	8	19621231
002126	6	010	5887105000		WILLIAM S THOMPSON ET UX	MEDINA	3	47	47	36	19551231
003944	1	010	5887120000	003653	CONOCO INCORPORATED	UNNAMED OF	7	0	0		180 19781127
004026	1	010	5887125000	003736	HILL COUNTRY MANAGEMENT CORP	SAN JULIAN	7	0	0		3 19800225
002125	6	010	5887129000		RUTH ANN RATCLIFFE TIPS	SAN JULIAN CR	3	18	18	30	19570721
002124	6	010	5887130000		EVANGELINE RATCLIFFE WILSON	SAN JULIAN CR	3	3	3	5	19570721
002123	6	010	5887150000		DON F TOBIN	MEDINA	3	152	152	61	19471231
003693	1	010	5887260000	003446	GERALD H PERSYN	UNNAMED OF	7	0	0		11 19761115
003824	1	010	5887295000	003541	CITY OF BANDERA	MEDINA	7	0	0		22 19771017
002122	6	010	5887330000		DON HICKS	MEDINA	1	9	9		19451231
002120A	6	010	5888051000		BANDERA ELECTRIC COOP INC	MEDINA	3	2	2	4	19181231
002121A	6	010	5888087000		ANN DARTHULA MAULDIN ET AL	INDIAN CR	3	150	150	40	19620701
005339	1	010	5888089000	005339	YMCA/GREATER HOUSTON AREA	INDIAN CREEK	7	0			30 19901228
002119	6	010	5888090000		RAYMOND HICKS	MEDINA	3	3	3	8	19181231
003909	1	010	5888150000	003616	MAUDEEN M MARKS	MONTAGUE HOLLW	7	0	0		500 19780905
003853	1	010	5888230000	003559	JOHN THOMAS STEEN	SPIRES CR	7	0	0		1,322 19780130
002118	6	010	5888870000		DAVID J BRASK	UNNAMED	3	16	16	16	19631231
002117	6	010	5889000000		MAX E JOHNSON M D	MEDINA	3	7	7	7	19391231
005342	1	010	5890200000	005342	RENE H GRACIDA	W PRONG MEDIA	7	0			7 19910124
005097	1	010	5890300000	005097	L KENNETH EVANS	W PR MEDINA	3	20	20	72	19860916
002116	6	010	5891000000		P L GARRISON ET AL	W PR MEDINA	3	51	51	51	162 19670808
002115	6	010	5891500000		DAVID R SCHMIDT MD ET AL	BAUERLEIN CR	3	15	15	16	19331231
002114	6	010	5892000000		PHIL A GROTHUES ET AL	UNNAMED	3	16	16	58	19670631
002113	6	010	5894000000		SUSAN CRAWFORD TRACY	W PR MEDINA	3	35	35	45	19351231
002112	6	010	5894500000		MRS MARY WINKENHOWER	ELAM CREEK	3	27	27	27	19631231
002111	6	010	5896000000		TEXAS PETROLEUM COMPANY TR EST	COLLINS CR	3	4	4	2	16 19641231

SUMMARY OF SURFACE WATER RIGHTS
SAN ANTONIO RIVER BASIN

STATE MASTER NUMBER	TYPE	RIVER ORDER CO. NUMBER	PERMIT NUMBER	APPLICANT OR APPROPRIATOR	STREAM NAME	AUTHORIZED TYPE OF CONSUMPTIVE USE (ACFT/YR)	AUTHORIZED DIVERSION (ACFT/YR)	ACRES IRRIGATED	RESERVOIR CAPACITY (ACFT)	PRIORITY DATE
002110	6	010	5897000000	DONALD F & MARTHA M MEAD	N PR MEDINA	3	21	21	12	19630431
002109A	6	010	5897200000	NEVIN MARR	N PR MEDINA	3	2	2	10	19631231
002108	6	010	5900100000	BOYCE H GASKIN	ROCKY CREEK	3	44	44	32	19660431
002107	6	010	5901100000	JOEL HELD, TRUSTEE/JJJ RANCH	N PR MEDINA	3	19	19	25	19451231
002106	6	010	5901450000	BREWINGTON LAKE RANCH ASSOC	BREWINGTON CR	7	0	190	190	19641231
002105	6	010	5901500000	STEVEN L PRICHARD TRUSTEE ETAL	MICKLE & N MED	3	13	13	19	5 19671231
002104B	6	010	5902000000	CLARENCE E LAUTZENHEISER	N PR MEDINA	3	20	20	24	19610630
002103	6	010	5903000000	O S PETTY	HONEY CR	3	96	96	38	19241231
002159	6	015	5965000000	CITY OF SAN ANTONIO	SAN ANTONIO	3	60	60	354	19260324
002158	6	015	5975000000	JOE S GARCIA JR ET UX	SAN ANTONIO	3	24	24	60	19260324
002157	6	015	5980000000	LOUIS PAWELEK	SAN ANTONIO	3	50	50	50	19251005
002019	6	015	6000000000	THE BLUE WING CLUB	SAN ANTONIO	7	0	241	1,000	19170630
001966	6	015	6030000000	JOSEPH H BERRY MD ET UX	SAN ANTONIO	3	481	481	240	34 19110809
001965	6	015	6095000000	LOMAS SANTA FE LTD	SALADO CR	3	300	300	153	19630531
005289	1	015	6098000000	005289 SOUTHEAST INVESTMENTS INC	ROSILLO CR	3	300	300	300	19900330
005262	1	015	6110000000	005262 ANTHONY J GRANIERI	EAST CHANNEL	3	250	250	150	19891108
001962	6	015	6200000000	JULIA H. KUSENER JACQUET ET AL	SALADO CR	3	10	10	10	19190320
004051	1	015	6210000000	003764 EL DORADO HOMES ASSN INC	UNNAMED OF	7	0	0	29	19800527
001960	6	015	6225000000	JOHN O SPICE	SALADO CR	3	20	20	18	19631231
004510	1	015	6228000000	004210 MIDWAY DEVELOPMENT COMPANY	UNNAMED	7	0			19841030
001959	6	015	6260000000	ROBERT & JOHN YTURRI	SAN ANTONIO	3	150	150	129	19140626
001951	6	015	6300000000	SOUTH LOOP PROPERTIES	MINITA CR	8	0		400	19160314
005337	1	015	6500000000	005337 H B ZACHRY CO	SIX MILE CREEK	2	25	25		19901217
001944	6	015	6800000000	SAN ANTONIO MISSIONS NATL PARK	SAN ANTONIO	3	16	16	8	19700401
001942	6	015	7000000000	ESPADA DITCH COMPANY	SAN ANTONIO	3	886	886	453	18081231
001933	6	015	7120000000	MISSION CEMETERY CO	SAN ANTONIO	3	480	480	162	19071231
001931	6	015	7150000000	SAN JUAN DITCH WSC	SAN ANTONIO	3	1,440	1,440	480	17311231
004202	1	015	7610000000	003886 CITY OF SAN ANTONIO	APACHE CR	7	0	0	108	19820419
004440	1	015	7700011000	004119 CITY OF SAN ANTONIO	ALAZAN CREEK	7	0		176	19840402
003898	1	015	7801000000	003601 CITY OF SAN ANTONIO	OLMOS CR	8	0		14,240	19780710

APPENDIX B

Historical Surface Water Use

HISTORICAL SURFACE WATER USE SUMMARY GUADALUPE RIVER BASIN

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1901	0	0	0	0	0	0
1902	0	0	0	0	0	0
1903	0	0	0	0	0	0
1904	0	0	0	0	0	0
1905	0	0	0	0	0	0
1906	0	0	0	0	0	0
1907	0	0	0	0	0	0
1908	0	0	0	0	0	0
1909	0	0	0	0	0	0
1910	0	0	0	0	0	0
1911	0	0	0	0	0	0
1912	0	0	0	0	0	0
1913	0	0	0	0	0	0
1914	560	560	0	0	0	0
1915	600	561	0	39	0	0
1916	890	560	0	330	0	0
1917	1,473	661	11	801	0	0
1918	1,137	168	0	969	0	0
1919	502	89	0	413	0	0
1920	2	0	0	2	0	0
1921	1	0	0	1	0	0
1922	0	0	0	0	0	0
1923	1	0	0	1	0	0
1924	1	0	0	1	0	0
1925	1,712	147	0	1,561	4	0
1926	800	130	15	655	0	0
1927	662	116	34	512	0	0
1928	530	122	208	200	0	0
1929	127	117	0	10	0	0
1930	1,459	942	0	277	240	0
1931	607	400	43	137	27	0
1932	1,384	839	0	523	22	0
1933	12	0	0	12	0	0
1934	2	0	0	2	0	0
1935	2	0	0	2	0	0
1936	1	0	0	1	0	0
1937	124	5	74	45	0	0
1938	732	542	0	190	0	0
1939	456	198	71	187	0	0
1940	598	262	80	256	0	0
1941	436	216	12	208	0	0
1942	4,140	1,231	322	2,587	0	0
1943	3,101	640	535	1,926	0	0
1944	3,618	1,387	515	1,716	0	0
1945	4,828	435	502	3,611	280	0
1946	5,411	1,606	63	3,524	218	0

HISTORICAL SURFACE WATER USE SUMMARY GUADALUPE RIVER BASIN

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1947	89,388	2,384	67	86,776	161	0
1948	15,185	3,214	62	11,748	161	0
1949	54,336	3,477	38	50,660	161	0
1950	64,283	2,505	3,361	58,336	81	0
1951	120,211	3,004	14,622	102,471	114	0
1952	124,151	2,466	20,291	101,313	81	0
1953	134,430	2,729	22,416	109,017	268	0
1954	125,253	2,888	26,142	96,065	158	0
1955	91,584	3,322	2,868	85,236	158	0
1956	46,922	4,044	3,431	39,289	158	0
1957	30,312	3,224	2,746	24,184	158	0
1958	36,867	2,884	3,127	30,698	158	0
1959	50,810	3,011	3,388	44,265	146	0
1960	53,600	3,038	3,912	46,529	121	0
1961	31,557	3,057	4,157	24,278	65	0
1962	43,929	3,613	4,927	35,222	167	0
1963	104,506	4,203	7,846	92,320	137	0
1964	97,748	3,824	4,848	89,076	0	0
1965	100,994	3,777	8,303	88,914	0	0
1966	61,171	3,845	8,398	48,928	0	0
1967	92,039	4,536	9,283	78,220	0	0
1968	101,938	3,650	6,725	91,563	0	0
1969	121,056	4,564	10,145	106,347	0	0
1970	90,288	7,882	5,647	76,759	0	0
1971	121,313	10,162	12,098	99,047	6	0
1972	110,307	9,882	12,550	87,868	7	0
1973	115,522	11,493	18,760	85,263	6	0
1974	94,354	10,954	17,461	65,933	6	0
1975	98,428	7,664	20,456	70,028	280	0
1976	87,440	9,228	20,581	57,625	6	0
1977	115,734	8,826	12,324	93,379	1,205	0
1978	120,349	12,059	13,638	94,648	4	0
1979	123,535	12,179	20,237	89,913	1,206	0
1980	104,422	15,209	23,327	64,685	1,201	0
1981	93,720	14,422	28,764	49,329	1,205	0
1982	86,499	15,551	13,810	57,138	0	0
1983	70,347	16,301	14,478	38,368	1,200	0
1984	89,277	19,342	18,396	51,539	0	0
1985	71,842	16,896	19,314	35,621	11	0
1986	82,124	14,459	21,794	45,871	0	0
1987	80,658	19,569	18,652	42,421	0	16
1988	114,786	20,428	33,072	61,286	0	0
1989	111,884	26,243	37,468	47,473	0	700
AVG. USE (1980-89)	90,556	17,842	22,908	49,373	362	72

HISTORICAL SURFACE WATER USE SUMMARY GUADALUPE RIVER BASIN - SEGMENT 1

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1901	0	0	0	0	0	0
1902	0	0	0	0	0	0
1903	0	0	0	0	0	0
1904	0	0	0	0	0	0
1905	0	0	0	0	0	0
1906	0	0	0	0	0	0
1907	0	0	0	0	0	0
1908	0	0	0	0	0	0
1909	0	0	0	0	0	0
1910	0	0	0	0	0	0
1911	0	0	0	0	0	0
1912	0	0	0	0	0	0
1913	0	0	0	0	0	0
1914	0	0	0	0	0	0
1915	11	1	0	10	0	0
1916	6	0	0	6	0	0
1917	217	0	11	206	0	0
1918	599	0	0	599	0	0
1919	25	0	0	25	0	0
1920	1	0	0	1	0	0
1921	1	0	0	1	0	0
1922	0	0	0	0	0	0
1923	1	0	0	1	0	0
1924	1	0	0	1	0	0
1925	192	0	0	192	0	0
1926	114	3	0	111	0	0
1927	321	2	0	319	0	0
1928	95	2	0	93	0	0
1929	10	0	0	10	0	0
1930	248	2	0	246	0	0
1931	36	2	0	34	0	0
1932	55	2	0	53	0	0
1933	9	0	0	9	0	0
1934	0	0	0	0	0	0
1935	0	0	0	0	0	0
1936	0	0	0	0	0	0
1937	104	5	74	25	0	0
1938	182	0	0	182	0	0
1939	115	2	71	42	0	0
1940	172	0	80	92	0	0
1941	108	2	12	94	0	0
1942	419	23	319	77	0	0
1943	720	39	532	149	0	0
1944	699	39	508	152	0	0
1945	652	40	495	117	0	0
1946	301	39	56	206	0	0

HISTORICAL SURFACE WATER USE SUMMARY
GUADALUPE RIVER BASIN - SEGMENT 1

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1947	262	51	59	152	0	0
1948	274	23	54	197	0	0
1949	240	35	9	196	0	0
1950	313	23	16	274	0	0
1951	473	25	15	433	0	0
1952	553	24	3	526	0	0
1953	387	23	2	362	0	0
1954	482	36	0	446	0	0
1955	633	31	0	602	0	0
1956	745	138	0	607	0	0
1957	712	243	0	469	0	0
1958	608	200	0	408	0	0
1959	671	213	0	458	0	0
1960	625	197	0	428	0	0
1961	651	157	0	494	0	0
1962	871	189	0	682	0	0
1963	8,448	296	0	8,152	0	0
1964	8,403	310	0	8,093	0	0
1965	8,853	226	0	8,627	0	0
1966	9,450	287	0	9,163	0	0
1967	10,525	349	6	10,170	0	0
1968	7,272	235	26	7,011	0	0
1969	9,534	393	297	8,844	0	0
1970	11,344	449	414	10,481	0	0
1971	7,065	527	449	6,083	6	0
1972	5,908	585	699	4,617	7	0
1973	3,256	640	708	1,902	6	0
1974	4,064	842	753	2,463	6	0
1975	4,082	902	682	2,493	5	0
1976	3,848	1,110	465	2,267	6	0
1977	5,455	1,679	362	3,409	5	0
1978	4,403	1,114	317	2,968	4	0
1979	4,448	1,302	656	2,484	6	0
1980	5,600	1,266	855	3,479	0	0
1981	6,544	3,582	613	2,344	5	0
1982	7,836	4,237	789	2,810	0	0
1983	7,598	4,280	600	2,718	0	0
1984	8,832	4,917	470	3,445	0	0
1985	6,929	4,310	647	1,962	10	0
1986	7,261	4,896	557	1,808	0	0
1987	6,742	4,770	479	1,477	0	16
1988	7,689	4,948	579	2,162	0	0
1989	9,457	4,255	640	3,862	0	700
AVG. USE (1980-89)	7,449	4,146	623	2,607	2	72

**HISTORICAL SURFACE WATER USE SUMMARY
GUADALUPE RIVER BASIN - SEGMENT 2**

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1901	0	0	0	0	0	0
1902	0	0	0	0	0	0
1903	0	0	0	0	0	0
1904	0	0	0	0	0	0
1905	0	0	0	0	0	0
1906	0	0	0	0	0	0
1907	0	0	0	0	0	0
1908	0	0	0	0	0	0
1909	0	0	0	0	0	0
1910	0	0	0	0	0	0
1911	0	0	0	0	0	0
1912	0	0	0	0	0	0
1913	0	0	0	0	0	0
1914	560	560	0	0	0	0
1915	589	560	0	29	0	0
1916	884	560	0	324	0	0
1917	1,256	661	0	595	0	0
1918	538	168	0	370	0	0
1919	477	89	0	388	0	0
1920	1	0	0	1	0	0
1921	0	0	0	0	0	0
1922	0	0	0	0	0	0
1923	0	0	0	0	0	0
1924	0	0	0	0	0	0
1925	1,520	147	0	1,369	4	0
1926	686	127	15	544	0	0
1927	322	114	15	193	0	0
1928	379	120	152	107	0	0
1929	117	117	0	0	0	0
1930	1,211	940	0	31	240	0
1931	556	398	28	103	27	0
1932	1,329	837	0	470	22	0
1933	3	0	0	3	0	0
1934	2	0	0	2	0	0
1935	2	0	0	2	0	0
1936	1	0	0	1	0	0
1937	20	0	0	20	0	0
1938	550	542	0	8	0	0
1939	341	196	0	145	0	0
1940	426	262	0	164	0	0
1941	328	214	0	114	0	0
1942	1,321	1,208	3	110	0	0
1943	714	601	3	110	0	0
1944	1,419	1,348	7	64	0	0
1945	976	395	7	294	280	0
1946	1,910	1,567	7	118	218	0

HISTORICAL SURFACE WATER USE SUMMARY GUADALUPE RIVER BASIN - SEGMENT 2

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1947	2,750	2,333	8	248	161	0
1948	4,911	3,191	8	1,551	161	0
1949	3,941	3,442	29	309	161	0
1950	4,655	2,482	30	2,062	81	0
1951	5,882	2,979	30	2,759	114	0
1952	5,827	2,442	33	3,271	81	0
1953	5,966	2,506	34	3,158	268	0
1954	7,251	2,847	34	4,212	158	0
1955	7,300	3,291	35	3,816	158	0
1956	7,625	3,906	17	3,544	158	0
1957	5,412	2,981	72	2,201	158	0
1958	5,077	2,684	186	2,049	158	0
1959	7,879	2,798	152	4,783	146	0
1960	9,297	2,841	255	6,080	121	0
1961	5,371	2,900	291	2,115	65	0
1962	6,815	3,424	284	2,940	167	0
1963	18,070	3,907	50	13,976	137	0
1964	15,454	3,514	256	11,684	0	0
1965	12,489	3,551	1,198	7,740	0	0
1966	13,467	3,558	557	9,352	0	0
1967	19,084	4,077	619	14,388	0	0
1968	8,474	3,349	573	4,552	0	0
1969	10,761	4,171	597	5,993	0	0
1970	10,399	4,504	688	5,207	0	0
1971	16,400	5,235	666	10,499	0	0
1972	9,761	4,603	736	4,422	0	0
1973	7,071	4,023	633	2,415	0	0
1974	8,534	4,666	593	3,275	0	0
1975	7,602	4,260	601	2,466	275	0
1976	7,195	4,696	520	1,979	0	0
1977	9,935	5,451	793	2,491	1,200	0
1978	9,603	6,245	190	3,168	0	0
1979	12,361	7,309	201	3,651	1,200	0
1980	13,983	8,086	2,505	2,191	1,201	0
1981	18,210	7,328	6,499	3,183	1,200	0
1982	20,846	8,748	7,617	4,481	0	0
1983	16,004	8,069	2,623	4,112	1,200	0
1984	22,203	8,818	7,419	5,966	0	0
1985	16,419	5,939	7,050	3,429	1	0
1986	17,907	5,768	7,824	4,315	0	0
1987	18,455	7,513	6,849	4,093	0	0
1988	20,445	7,538	8,058	4,849	0	0
1989	25,299	8,386	13,249	3,664	0	0
AVG. USE (1980-89)	18,977	7,619	6,969	4,028	360	0

HISTORICAL SURFACE WATER USE SUMMARY GUADALUPE RIVER BASIN - SEGMENT 3

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1901	0	0	0	0	0	0
1902	0	0	0	0	0	0
1903	0	0	0	0	0	0
1904	0	0	0	0	0	0
1905	0	0	0	0	0	0
1906	0	0	0	0	0	0
1907	0	0	0	0	0	0
1908	0	0	0	0	0	0
1909	0	0	0	0	0	0
1910	0	0	0	0	0	0
1911	0	0	0	0	0	0
1912	0	0	0	0	0	0
1913	0	0	0	0	0	0
1914	0	0	0	0	0	0
1915	0	0	0	0	0	0
1916	0	0	0	0	0	0
1917	0	0	0	0	0	0
1918	0	0	0	0	0	0
1919	0	0	0	0	0	0
1920	0	0	0	0	0	0
1921	0	0	0	0	0	0
1922	0	0	0	0	0	0
1923	0	0	0	0	0	0
1924	0	0	0	0	0	0
1925	0	0	0	0	0	0
1926	0	0	0	0	0	0
1927	19	0	19	0	0	0
1928	56	0	56	0	0	0
1929	0	0	0	0	0	0
1930	0	0	0	0	0	0
1931	15	0	15	0	0	0
1932	0	0	0	0	0	0
1933	0	0	0	0	0	0
1934	0	0	0	0	0	0
1935	0	0	0	0	0	0
1936	0	0	0	0	0	0
1937	0	0	0	0	0	0
1938	0	0	0	0	0	0
1939	0	0	0	0	0	0
1940	0	0	0	0	0	0
1941	0	0	0	0	0	0
1942	2,400	0	0	2,400	0	0
1943	1,667	0	0	1,667	0	0
1944	1,500	0	0	1,500	0	0
1945	3,200	0	0	3,200	0	0
1946	3,200	0	0	3,200	0	0

**HISTORICAL SURFACE WATER USE SUMMARY
GUADALUPE RIVER BASIN - SEGMENT 3**

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1947	86,376	0	0	86,376	0	0
1948	10,000	0	0	10,000	0	0
1949	50,155	0	0	50,155	0	0
1950	59,315	0	3,315	56,000	0	0
1951	113,856	0	14,577	99,279	0	0
1952	117,771	0	20,255	97,516	0	0
1953	128,077	200	22,380	105,497	0	0
1954	117,520	5	26,108	91,407	0	0
1955	83,651	0	2,833	80,818	0	0
1956	38,552	0	3,414	35,138	0	0
1957	24,188	0	2,674	21,514	0	0
1958	31,182	0	2,941	28,241	0	0
1959	42,260	0	3,236	39,024	0	0
1960	43,678	0	3,657	40,021	0	0
1961	25,535	0	3,866	21,669	0	0
1962	36,243	0	4,643	31,600	0	0
1963	77,988	0	7,796	70,192	0	0
1964	73,891	0	4,592	69,299	0	0
1965	79,652	0	7,105	72,547	0	0
1966	38,254	0	7,841	30,413	0	0
1967	62,430	110	8,658	53,662	0	0
1968	86,192	66	6,126	80,000	0	0
1969	100,761	0	9,251	91,510	0	0
1970	68,545	2,929	4,545	61,071	0	0
1971	97,848	4,400	10,983	82,465	0	0
1972	94,638	4,694	11,115	78,829	0	0
1973	105,195	6,830	17,419	80,946	0	0
1974	81,756	5,446	16,115	60,195	0	0
1975	86,744	2,502	19,173	65,069	0	0
1976	76,397	3,422	19,596	53,379	0	0
1977	100,344	1,696	11,169	87,479	0	0
1978	106,343	4,700	13,131	88,512	0	0
1979	106,726	3,568	19,380	83,778	0	0
1980	84,839	5,857	19,967	59,015	0	0
1981	68,966	3,512	21,652	43,802	0	0
1982	57,817	2,566	5,404	49,847	0	0
1983	46,745	3,952	11,255	31,538	0	0
1984	58,242	5,607	10,507	42,128	0	0
1985	48,494	6,647	11,617	30,230	0	0
1986	56,956	3,795	13,413	39,748	0	0
1987	55,461	7,286	11,324	36,851	0	0
1988	86,652	7,942	24,435	54,275	0	0
1989	77,128	13,602	23,579	39,947	0	0
AVG. USE (1980-89)	64,130	6,077	15,315	42,738	0	0

HISTORICAL SURFACE WATER USE SUMMARY SAN ANTONIO RIVER BASIN

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1901	0	0	0	0	0	0
1902	0	0	0	0	0	0
1903	0	0	0	0	0	0
1904	0	0	0	0	0	0
1905	0	0	0	0	0	0
1906	0	0	0	0	0	0
1907	0	0	0	0	0	0
1908	0	0	0	0	0	0
1909	0	0	0	0	0	0
1910	0	0	0	0	0	0
1911	0	0	0	0	0	0
1912	0	0	0	0	0	0
1913	0	0	0	0	0	0
1914	0	0	0	0	0	0
1915	582	0	0	582	0	0
1916	4,503	0	0	4,503	0	0
1917	6,011	0	129	5,882	0	0
1918	1,420	0	0	1,420	0	0
1919	620	0	60	560	0	0
1920	0	0	0	0	0	0
1921	0	0	0	0	0	0
1922	0	0	0	0	0	0
1923	0	0	0	0	0	0
1924	0	0	0	0	0	0
1925	641	0	0	641	0	0
1926	310	0	0	310	0	0
1927	8,713	0	0	8,713	0	0
1928	896	0	0	896	0	0
1929	5,006	0	0	5,006	0	0
1930	360	0	0	360	0	0
1931	343	0	0	343	0	0
1932	332	0	0	332	0	0
1933	200	0	0	200	0	0
1934	2	0	0	2	0	0
1935	2	0	0	2	0	0
1936	2	0	0	2	0	0
1937	396	0	0	396	0	0
1938	411	0	0	411	0	0
1939	1,580	0	0	1,580	0	0
1940	23,278	0	13	23,265	0	0
1941	10,169	0	15	10,154	0	0
1942	11,776	0	513	11,263	0	0
1943	23,403	0	570	22,833	0	0
1944	36,093	0	477	35,616	0	0
1945	16,759	0	13	16,746	0	0
1946	26,414	0	477	25,937	0	0

HISTORICAL SURFACE WATER USE SUMMARY SAN ANTONIO RIVER BASIN

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1947	24,387	0	477	23,910	0	0
1948	12,139	0	476	11,663	0	0
1949	16,195	0	473	15,722	0	0
1950	13,175	0	473	12,702	0	0
1951	4,808	1	472	4,335	0	0
1952	5,397	0	467	4,930	0	0
1953	9,984	2,950	466	6,568	0	0
1954	38,826	9,539	465	28,822	0	0
1955	6,155	20	465	5,670	0	0
1956	6,939	0	0	6,939	0	0
1957	17,115	45	0	17,070	0	0
1958	28,642	1	0	28,641	0	0
1959	38,184	1	0	38,183	0	0
1960	39,552	12	0	39,540	0	0
1961	45,973	20	92	45,861	0	0
1962	59,596	12	66	59,518	0	0
1963	61,139	32	2	60,770	335	0
1964	48,099	31	2	47,731	335	0
1965	25,517	19	0	25,163	335	0
1966	43,838	58	55	43,390	335	0
1967	75,629	60	49	75,185	335	0
1968	30,425	40	1,396	28,989	0	0
1969	37,389	185	2,301	34,903	0	0
1970	43,655	68	2,760	40,492	335	0
1971	71,018	81	3,579	67,171	187	0
1972	50,255	132	3,854	46,084	185	0
1973	26,181	35	3,517	22,471	158	0
1974	56,310	216	5,055	50,868	171	0
1975	45,604	212	5,091	40,134	167	0
1976	39,728	103	5,649	33,794	182	0
1977	46,110	5	6,156	39,736	213	0
1978	57,338	10	7,459	49,569	300	0
1979	44,990	362	6,628	37,677	323	0
1980	67,485	404	8,224	58,523	334	0
1981	48,712	310	8,672	38,038	285	1,407
1982	65,336	413	9,200	55,392	240	91
1983	56,302	705	9,232	46,116	249	0
1984	78,066	418	10,019	67,186	443	0
1985	45,757	471	9,616	34,373	199	1,098
1986	56,845	540	10,528	44,140	195	1,442
1987	47,397	598	4,412	40,968	243	1,176
1988	82,080	493	10,874	70,444	269	0
1989	84,543	940	9,889	73,442	272	0
AVG. USE (1980-89)	63,252	529	9,067	52,862	273	521

HISTORICAL SURFACE WATER USE SUMMARY SAN ANTONIO RIVER BASIN - SEGMENT 4

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1901	0	0	0	0	0	0
1902	0	0	0	0	0	0
1903	0	0	0	0	0	0
1904	0	0	0	0	0	0
1905	0	0	0	0	0	0
1906	0	0	0	0	0	0
1907	0	0	0	0	0	0
1908	0	0	0	0	0	0
1909	0	0	0	0	0	0
1910	0	0	0	0	0	0
1911	0	0	0	0	0	0
1912	0	0	0	0	0	0
1913	0	0	0	0	0	0
1914	0	0	0	0	0	0
1915	0	0	0	0	0	0
1916	4,000	0	0	4,000	0	0
1917	5,386	0	0	5,386	0	0
1918	131	0	0	131	0	0
1919	47	0	0	47	0	0
1920	0	0	0	0	0	0
1921	0	0	0	0	0	0
1922	0	0	0	0	0	0
1923	0	0	0	0	0	0
1924	0	0	0	0	0	0
1925	188	0	0	188	0	0
1926	91	0	0	91	0	0
1927	8,476	0	0	8,476	0	0
1928	379	0	0	379	0	0
1929	4,670	0	0	4,670	0	0
1930	105	0	0	105	0	0
1931	109	0	0	109	0	0
1932	36	0	0	36	0	0
1933	0	0	0	0	0	0
1934	1	0	0	1	0	0
1935	2	0	0	2	0	0
1936	2	0	0	2	0	0
1937	12	0	0	12	0	0
1938	9	0	0	9	0	0
1939	257	0	0	257	0	0
1940	21,753	0	0	21,753	0	0
1941	8,669	0	0	8,669	0	0
1942	9,841	0	498	9,343	0	0
1943	21,269	0	552	20,717	0	0
1944	34,309	0	464	33,845	0	0
1945	14,170	0	0	14,170	0	0
1946	25,404	0	464	24,940	0	0

HISTORICAL SURFACE WATER USE SUMMARY
SAN ANTONIO RIVER BASIN - SEGMENT 4

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1947	22,464	0	464	22,000	0	0
1948	8,804	0	464	8,340	0	0
1949	12,604	0	464	12,140	0	0
1950	9,222	0	464	8,758	0	0
1951	514	0	464	50	0	0
1952	520	0	464	56	0	0
1953	6,367	2,900	464	3,003	0	0
1954	34,229	9,500	464	24,265	0	0
1955	517	0	464	53	0	0
1956	140	0	0	140	0	0
1957	12,537	1	0	12,536	0	0
1958	25,485	0	0	25,485	0	0
1959	34,856	0	0	34,856	0	0
1960	35,402	0	0	35,402	0	0
1961	41,778	0	0	41,778	0	0
1962	56,096	0	0	56,096	0	0
1963	48,092	6	2	48,084	0	0
1964	35,709	6	2	35,701	0	0
1965	14,476	6	0	14,470	0	0
1966	31,990	6	0	31,984	0	0
1967	48,830	6	0	48,824	0	0
1968	24,583	0	0	24,583	0	0
1969	29,312	142	1	29,169	0	0
1970	32,504	1	4	32,499	0	0
1971	51,049	20	1	51,028	0	0
1972	37,274	85	0	37,189	0	0
1973	18,481	35	0	18,446	0	0
1974	40,041	216	0	39,825	0	0
1975	29,622	212	0	29,410	0	0
1976	25,344	3	0	25,341	0	0
1977	32,068	5	0	32,063	0	0
1978	42,773	1	0	42,772	0	0
1979	32,730	362	0	32,368	0	0
1980	48,932	383	0	48,518	31	0
1981	34,390	310	0	32,673	0	1,407
1982	49,808	412	0	49,305	0	91
1983	41,104	701	0	40,403	0	0
1984	58,583	418	0	57,976	189	0
1985	27,535	471	0	25,778	188	1,098
1986	39,559	540	0	37,382	195	1,442
1987	36,041	598	0	34,024	243	1,176
1988	63,800	492	0	63,039	269	0
1989	65,536	496	0	64,768	272	0
AVG. USE (1980-89)	46,529	482	0	45,387	139	521

HISTORICAL SURFACE WATER USE SUMMARY
SAN ANTONIO RIVER BASIN - SEGMENT 5

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1901	0	0	0	0	0	0
1902	0	0	0	0	0	0
1903	0	0	0	0	0	0
1904	0	0	0	0	0	0
1905	0	0	0	0	0	0
1906	0	0	0	0	0	0
1907	0	0	0	0	0	0
1908	0	0	0	0	0	0
1909	0	0	0	0	0	0
1910	0	0	0	0	0	0
1911	0	0	0	0	0	0
1912	0	0	0	0	0	0
1913	0	0	0	0	0	0
1914	0	0	0	0	0	0
1915	582	0	0	582	0	0
1916	503	0	0	503	0	0
1917	625	0	129	496	0	0
1918	1,289	0	0	1,289	0	0
1919	573	0	60	513	0	0
1920	0	0	0	0	0	0
1921	0	0	0	0	0	0
1922	0	0	0	0	0	0
1923	0	0	0	0	0	0
1924	0	0	0	0	0	0
1925	453	0	0	453	0	0
1926	219	0	0	219	0	0
1927	237	0	0	237	0	0
1928	517	0	0	517	0	0
1929	336	0	0	336	0	0
1930	239	0	0	239	0	0
1931	234	0	0	234	0	0
1932	292	0	0	292	0	0
1933	200	0	0	200	0	0
1934	1	0	0	1	0	0
1935	0	0	0	0	0	0
1936	0	0	0	0	0	0
1937	384	0	0	384	0	0
1938	402	0	0	402	0	0
1939	1,323	0	0	1,323	0	0
1940	1,525	0	13	1,512	0	0
1941	1,500	0	15	1,485	0	0
1942	1,935	0	15	1,920	0	0
1943	2,134	0	18	2,116	0	0
1944	1,784	0	13	1,771	0	0
1945	2,589	0	13	2,576	0	0
1946	1,010	0	13	997	0	0

HISTORICAL SURFACE WATER USE SUMMARY
SAN ANTONIO RIVER BASIN - SEGMENT 5

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1947	1,923	0	13	1,910	0	0
1948	3,335	0	12	3,323	0	0
1949	3,591	0	9	3,582	0	0
1950	3,953	0	9	3,944	0	0
1951	4,294	1	8	4,285	0	0
1952	4,877	0	3	4,874	0	0
1953	3,617	50	2	3,565	0	0
1954	4,597	39	1	4,557	0	0
1955	5,606	20	1	5,585	0	0
1956	6,668	0	0	6,668	0	0
1957	4,336	1	0	4,335	0	0
1958	3,045	1	0	3,044	0	0
1959	3,228	1	0	3,227	0	0
1960	4,038	0	0	4,038	0	0
1961	4,075	0	92	3,983	0	0
1962	3,371	0	66	3,305	0	0
1963	12,794	14	0	12,445	335	0
1964	12,144	13	0	11,796	335	0
1965	11,040	12	0	10,693	335	0
1966	11,848	52	55	11,406	335	0
1967	26,418	54	49	25,980	335	0
1968	5,842	40	1,396	4,406	0	0
1969	8,006	43	2,300	5,663	0	0
1970	10,934	67	2,756	7,776	335	0
1971	19,321	61	3,578	15,495	187	0
1972	12,936	47	3,854	8,850	185	0
1973	7,700	0	3,517	4,025	158	0
1974	16,213	0	5,055	10,987	171	0
1975	15,631	0	5,091	10,373	167	0
1976	14,384	100	5,649	8,453	182	0
1977	14,042	0	6,156	7,673	213	0
1978	14,565	9	7,459	6,797	300	0
1979	12,260	0	6,628	5,309	323	0
1980	18,553	21	8,224	10,005	303	0
1981	14,322	0	8,672	5,365	285	0
1982	15,528	1	9,200	6,087	240	0
1983	15,198	4	9,232	5,713	249	0
1984	19,483	0	10,019	9,210	254	0
1985	18,222	0	9,616	8,595	11	0
1986	17,286	0	10,528	6,758	0	0
1987	11,356	0	4,412	6,944	0	0
1988	18,280	1	10,874	7,405	0	0
1989	19,007	444	9,889	8,674	0	0
AVG. USE (1980-89)	16,724	47	9,067	7,476	134	0

**HISTORICAL SURFACE WATER USE SUMMARY
SAN ANTONIO RIVER BASIN - SEGMENT 6**

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1901	0	0	0	0	0	0
1902	0	0	0	0	0	0
1903	0	0	0	0	0	0
1904	0	0	0	0	0	0
1905	0	0	0	0	0	0
1906	0	0	0	0	0	0
1907	0	0	0	0	0	0
1908	0	0	0	0	0	0
1909	0	0	0	0	0	0
1910	0	0	0	0	0	0
1911	0	0	0	0	0	0
1912	0	0	0	0	0	0
1913	0	0	0	0	0	0
1914	0	0	0	0	0	0
1915	0	0	0	0	0	0
1916	0	0	0	0	0	0
1917	0	0	0	0	0	0
1918	0	0	0	0	0	0
1919	0	0	0	0	0	0
1920	0	0	0	0	0	0
1921	0	0	0	0	0	0
1922	0	0	0	0	0	0
1923	0	0	0	0	0	0
1924	0	0	0	0	0	0
1925	0	0	0	0	0	0
1926	0	0	0	0	0	0
1927	0	0	0	0	0	0
1928	0	0	0	0	0	0
1929	0	0	0	0	0	0
1930	16	0	0	16	0	0
1931	0	0	0	0	0	0
1932	4	0	0	4	0	0
1933	0	0	0	0	0	0
1934	0	0	0	0	0	0
1935	0	0	0	0	0	0
1936	0	0	0	0	0	0
1937	0	0	0	0	0	0
1938	0	0	0	0	0	0
1939	0	0	0	0	0	0
1940	0	0	0	0	0	0
1941	0	0	0	0	0	0
1942	0	0	0	0	0	0
1943	0	0	0	0	0	0
1944	0	0	0	0	0	0
1945	0	0	0	0	0	0
1946	0	0	0	0	0	0

**HISTORICAL SURFACE WATER USE SUMMARY
SAN ANTONIO RIVER BASIN - SEGMENT 6**

YEAR	TOTAL (ACFT)	MUN. (ACFT)	IND. (ACFT)	IRR. (ACFT)	MINING (ACFT)	OTHER (ACFT)
1947	0	0	0	0	0	0
1948	0	0	0	0	0	0
1949	0	0	0	0	0	0
1950	0	0	0	0	0	0
1951	0	0	0	0	0	0
1952	0	0	0	0	0	0
1953	0	0	0	0	0	0
1954	0	0	0	0	0	0
1955	32	0	0	32	0	0
1956	131	0	0	131	0	0
1957	242	43	0	199	0	0
1958	112	0	0	112	0	0
1959	100	0	0	100	0	0
1960	112	12	0	100	0	0
1961	120	20	0	100	0	0
1962	129	12	0	117	0	0
1963	253	12	0	241	0	0
1964	246	12	0	234	0	0
1965	1	1	0	0	0	0
1966	0	0	0	0	0	0
1967	381	0	0	381	0	0
1968	0	0	0	0	0	0
1969	71	0	0	71	0	0
1970	217	0	0	217	0	0
1971	648	0	0	648	0	0
1972	45	0	0	45	0	0
1973	0	0	0	0	0	0
1974	56	0	0	56	0	0
1975	351	0	0	351	0	0
1976	0	0	0	0	0	0
1977	0	0	0	0	0	0
1978	0	0	0	0	0	0
1979	0	0	0	0	0	0
1980	0	0	0	0	0	0
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	0	0	0	0	0	0
1985	0	0	0	0	0	0
1986	0	0	0	0	0	0
1987	0	0	0	0	0	0
1988	0	0	0	0	0	0
1989	0	0	0	0	0	0
AVG. USE (1980-89)	0	0	0	0	0	0

APPENDIX C

Return Flows

 * RETURN FLOWS BY SUBWATERSHED *
 * CALENDAR YEAR 1988 *

ID#	STREAM NAME, LOCATION	RETURN FLOW (ACFT/YR)
1670	GUADALUPE RIVER @ COMFORT	1778
1675	GUADALUPE RIVER @ SPRING BRANCH	0
1677	GUADALUPE RIVER @ CANYON LAKE	0
1685	GUADALUPE RIVER @ NEW BRAUNFELS	200
1690	COMAL RIVER @ NEW BRAUNFELS	0
H5	HYDRO DAM H5 (LAKE WOOD)	9104
1700	SAN MARCOS SPRINGS	0
1710	BLANCO RIVER @ WIMBERLEY	0
1713	BLANCO RIVER @ KYLE	0
1720	SAN MARCOS RIVER @ LULING	4397
1730	PLUM CREEK @ LULING	903
1746	PEACH CREEK @ DILWORTH	241
1750	SANDIES CREEK @ WESTHOFF	551
1758	GUADALUPE RIVER @ CUERO	1426
1765	GUADALUPE RIVER @ VICTORIA	764
1774	COLETO CREEK @ COLETO CREEK DAM	147
1780	SAN ANTONIO RIVER @ SAN ANTONIO	0
1787	SALADO CREEK @ SAN ANTONIO	0
1788	SALADO CREEK @ SAN ANTONIO	0
1795	MEDINA RIVER @ MEDINA LAKE	0
1808	MEDINA RIVER @ SOMERSET	3245
1815	MEDINA RIVER @ SAN ANTONIO	27843
1818	SAN ANTONIO RIVER @ ELMENDORF	111360
1825	CALAVERAS CREEK @ CALAVERAS DAM	0
1835	SAN ANTONIO RIVER @ FALLS CITY	566
1839	CIBOLO CREEK @ BOERNE	464
1850	CIBOLO CREEK @ SELMA	0
1860	CIBOLO CREEK @ FALLS CITY	7742
1865	ECLETO CREEK @ RUNGE	0
1885	SAN ANTONIO RIVER @ GOLIAD	840
1888	GUADALUPE RIVER @ TIVOLI	6040

APPENDIX D

Areal Precipitation

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1670 (INCLUDING AREAS ABOVE #1655 & #1660)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.69	4.33	2.12	4.33	1.27	1.21	1.92	1.57	6.23	4.45	4.49	3.35	35.96
1924	0.82	2.39	3.00	1.62	4.48	3.03	0.04	0.50	4.16	0.39	0.09	0.89	21.41
1925	0.32	0.07	0.03	0.99	2.38	0.20	1.42	2.34	4.69	6.00	2.46	0.69	21.59
1926	2.65	0.10	5.06	3.67	2.13	2.03	3.38	1.90	0.35	3.35	2.60	3.97	31.19
1927	1.21	3.30	2.86	2.50	1.20	5.80	3.31	0.15	4.60	4.32	0.10	2.92	32.27
1928	0.43	3.08	0.72	1.43	3.26	3.83	1.96	1.79	5.03	0.63	1.35	1.91	25.43
1929	1.42	0.93	1.91	1.34	10.12	1.66	2.96	0.27	3.06	2.58	2.12	2.39	30.76
1930	0.51	0.65	1.69	1.57	7.00	4.69	1.13	0.87	1.01	11.42	2.40	0.93	33.87
1931	4.24	2.50	2.70	4.18	3.63	3.96	3.41	1.91	0.14	1.11	2.85	3.19	33.83
1932	2.35	2.48	3.47	3.48	3.63	1.64	8.53	2.99	6.69	0.06	0.81	3.13	39.26
1933	2.86	1.99	0.85	0.47	4.82	0.46	0.96	1.85	2.33	0.43	1.05	0.38	18.44
1934	5.12	1.10	1.87	2.52	3.36	0.19	2.68	0.10	3.23	0.22	1.05	1.89	23.34
1935	0.97	2.92	0.36	1.25	12.51	11.32	2.10	0.15	9.23	2.30	0.62	5.64	49.37
1936	0.34	0.67	1.02	2.51	5.59	4.01	3.70	1.69	19.12	4.10	2.14	1.85	46.75
1937	1.36	0.08	2.23	0.22	2.48	5.43	1.62	0.29	3.08	3.03	1.60	5.01	26.43
1938	2.84	2.45	1.40	4.46	2.76	0.70	2.76	0.69	1.27	0.04	0.65	0.98	21.01
1939	3.86	1.87	1.26	0.91	2.76	1.35	5.21	1.28	0.91	3.90	2.91	1.36	27.58
1940	0.81	3.39	2.41	4.34	4.26	6.06	1.50	2.54	1.11	3.26	2.63	3.95	36.24
1941	0.97	3.93	3.58	4.87	2.30	2.18	2.66	2.88	6.04	4.87	0.72	0.42	35.41
1942	0.15	1.09	0.45	5.17	3.93	0.73	1.77	3.42	3.10	5.85	0.54	1.28	27.48
1943	0.39	0.09	2.05	1.63	3.43	3.58	2.03	0.21	3.53	0.70	1.20	1.75	20.58
1944	2.20	2.37	2.32	0.66	7.58	1.91	1.93	4.74	2.78	1.39	2.60	2.81	33.31
1945	2.66	2.54	3.95	1.97	1.30	2.93	1.13	1.32	3.58	3.40	0.77	1.86	27.41
1946	2.70	1.54	0.83	3.77	4.43	3.12	0.37	1.31	5.64	4.51	3.03	2.04	33.30
1947	3.93	0.27	1.98	2.73	2.73	4.77	0.42	3.15	0.22	1.03	2.34	1.20	24.77
1948	0.50	2.06	1.53	3.42	2.24	4.73	3.08	0.88	3.26	0.97	0.87	0.93	24.46
1949	3.51	3.97	1.47	4.71	2.49	4.29	2.76	3.50	4.04	2.59	0.00	2.83	36.15
1950	0.47	2.02	0.23	1.96	3.38	3.27	2.76	3.22	2.78	0.18	0.21	0.00	20.48
1951	0.05	1.42	2.89	0.97	5.58	2.35	0.18	0.07	1.08	0.93	0.36	0.70	16.57
1952	0.26	1.17	3.03	4.90	5.08	2.64	1.63	0.02	7.36	0.00	2.00	4.21	32.29
1953	0.15	0.97	2.17	1.20	1.26	0.04	2.45	3.01	3.77	5.01	0.36	0.47	20.86
1954	0.72	0.08	0.30	3.07	2.88	1.58	0.15	0.36	1.33	3.51	0.91	0.12	15.01
1955	1.93	1.52	0.53	0.25	4.29	2.77	4.85	1.99	3.95	1.09	1.07	0.76	25.01
1956	0.53	1.32	0.14	1.72	1.35	0.83	0.74	1.14	0.92	2.04	0.84	1.39	12.96
1957	0.61	2.10	3.70	7.88	7.69	1.97	0.69	0.44	5.33	7.63	4.40	0.66	43.09
1958	3.89	3.67	2.09	1.26	3.41	5.24	0.75	2.26	7.60	4.96	0.72	0.80	36.65
1959	0.72	1.57	0.02	4.05	3.15	5.35	2.26	2.38	0.73	6.65	1.06	2.39	30.35
1960	1.23	2.05	2.03	0.87	1.34	0.89	4.11	6.61	0.68	8.23	1.53	3.92	33.49
1961	1.52	3.49	0.41	0.24	0.69	5.81	2.55	1.85	1.45	1.82	1.71	1.03	22.57
1962	0.41	0.37	0.99	3.63	2.74	1.95	0.32	0.74	1.91	2.62	1.21	1.61	18.50
1963	0.12	1.33	0.18	1.63	3.09	1.59	0.28	1.61	3.17	1.30	4.39	0.97	19.65
1964	2.86	1.39	3.27	2.48	1.47	1.32	0.92	3.04	8.99	1.53	1.69	0.72	29.67
1965	1.23	4.82	1.54	2.79	6.76	4.52	0.53	0.49	3.64	2.22	1.32	2.43	32.29
1966	1.49	1.59	1.29	5.19	4.41	0.92	1.82	7.79	4.28	0.18	0.00	0.08	29.04
1967	0.33	0.87	0.35	1.51	1.39	0.11	2.09	1.48	8.22	5.14	2.99	1.18	25.66
1968	6.49	1.70	2.58	3.18	2.73	2.25	3.15	0.34	4.04	0.58	3.41	0.64	31.09
1969	0.40	1.64	1.56	3.93	1.95	1.59	0.74	3.62	2.01	9.36	2.12	1.54	30.45
1970	0.42	2.51	2.27	0.69	5.17	1.14	0.80	1.17	4.62	1.01	0.01	0.20	20.00
1971	0.02	1.18	0.14	2.04	1.59	2.40	0.61	14.11	2.67	6.61	0.57	1.79	33.74
1972	1.07	0.34	0.73	2.10	7.27	2.35	2.69	6.74	2.18	1.54	1.98	0.36	29.37
1973	2.41	2.21	2.01	2.17	1.26	6.88	6.55	0.68	2.91	7.13	0.40	0.05	34.67
1974	1.67	0.34	1.36	2.10	6.42	0.59	1.23	7.91	3.10	5.78	2.11	2.49	35.10
1975	0.73	2.89	0.36	3.06	7.78	3.41	3.73	1.27	1.45	2.71	0.44	0.98	28.81
1976	0.17	0.17	1.62	5.69	3.65	2.78	5.81	1.16	4.71	3.74	1.21	1.75	32.46
1977	1.83	0.87	1.11	8.59	4.53	2.87	0.03	0.20	0.91	4.42	3.45	0.37	29.16
1978	0.62	1.70	0.34	1.15	1.96	3.92	1.03	17.22	6.11	0.91	4.01	1.08	40.07
1979	1.60	2.48	5.14	2.94	2.27	5.33	4.13	4.34	0.49	0.65	1.68	2.40	33.45
1980	1.19	0.95	2.02	1.39	3.49	0.17	0.91	2.83	10.14	2.00	2.61	0.80	28.51

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1670 (INCLUDING AREAS ABOVE #1655 & #1660)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.13	1.08	5.11	3.97	3.32	9.65	1.13	2.36	2.54	8.12	0.56	0.15	39.11
1982	0.63	1.85	0.65	1.26	5.01	1.99	1.86	1.82	1.94	0.79	4.46	1.59	23.84
1983	1.00	2.89	2.73	0.44	3.51	4.02	1.14	0.93	2.15	2.89	2.76	0.15	24.61
1984	1.75	0.25	0.24	0.35	3.20	1.32	2.15	0.61	0.92	7.89	1.60	5.56	25.85
1985	2.07	2.52	2.54	1.63	5.05	2.32	2.49	0.18	4.89	6.53	2.67	0.78	33.67
1986	0.82	1.07	0.20	1.49	7.41	4.65	0.27	1.68	4.35	8.52	2.43	6.07	38.97
1987	0.70	3.31	2.12	0.71	9.90	10.31	7.26	3.88	2.24	0.44	2.41	1.53	44.82
1988	0.25	0.50	1.08	1.25	5.83	3.73	8.98	1.64	3.47	0.66	0.09	1.02	28.51
1989	4.75	2.68	1.74	1.33	1.71	1.96	1.33	0.80	0.87	5.09	1.13	0.25	23.64
AVG	1.49	1.78	1.73	2.50	3.93	3.05	2.27	2.36	3.65	3.27	1.68	1.71	29.43

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1675

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.49	4.74	3.07	4.77	2.12	1.35	2.92	1.77	8.02	5.95	4.23	4.60	44.04
1924	1.51	3.38	2.60	3.24	8.00	3.75	0.02	0.36	3.66	0.66	0.24	1.50	28.93
1925	0.40	0.11	0.00	1.79	2.42	0.80	0.51	2.18	2.93	6.13	2.63	0.98	20.88
1926	3.12	0.08	5.79	7.47	3.66	2.63	3.09	1.19	0.83	3.91	2.89	3.09	37.76
1927	1.39	4.00	2.70	2.80	2.36	5.62	3.07	0.20	1.34	2.65	0.07	3.13	29.33
1928	0.57	3.77	0.59	1.64	2.14	2.98	4.10	1.48	5.04	0.98	2.10	2.57	27.97
1929	1.47	0.67	1.75	3.15	9.55	1.32	6.04	0.49	1.68	2.67	3.29	2.63	34.71
1930	1.32	1.30	2.27	1.71	5.41	3.94	1.22	0.67	2.32	9.03	2.22	1.47	32.88
1931	5.63	4.54	2.86	5.82	1.75	2.40	4.29	1.95	0.12	0.74	1.80	3.76	35.66
1932	4.18	3.50	3.08	2.80	1.86	1.42	5.19	4.52	4.86	0.01	0.43	3.19	35.03
1933	4.07	2.33	0.92	1.13	3.72	1.06	2.53	1.18	1.91	0.45	0.54	0.67	20.51
1934	6.01	1.96	2.76	3.25	1.89	0.36	3.84	0.48	0.94	0.11	1.57	2.98	26.16
1935	0.78	2.70	0.87	2.09	11.88	8.41	5.60	0.66	10.32	1.90	1.15	3.98	50.35
1936	0.55	0.80	1.56	1.24	10.28	7.63	4.71	2.10	11.61	3.01	1.83	1.77	47.08
1937	2.10	0.13	3.08	1.33	4.66	4.77	3.40	1.54	0.63	3.47	1.46	5.77	32.33
1938	3.85	1.75	1.82	5.18	2.64	1.97	1.84	0.25	2.92	0.15	0.54	1.23	24.13
1939	3.76	1.15	0.65	1.91	2.61	0.74	6.13	2.48	0.61	3.21	2.33	1.12	26.69
1940	0.70	3.75	1.87	3.21	3.23	4.96	1.17	1.65	1.09	3.56	5.49	5.62	36.31
1941	1.36	5.48	4.50	5.91	3.41	3.61	1.62	0.60	4.38	6.56	0.77	0.96	39.17
1942	0.22	1.41	0.63	4.48	2.97	1.35	2.41	5.52	5.27	6.10	1.32	1.43	33.12
1943	0.77	0.16	2.18	1.39	3.74	3.20	5.62	0.13	5.46	0.75	1.51	2.45	27.38
1944	3.75	3.77	3.27	1.41	8.69	1.76	0.64	7.45	2.72	1.36	4.06	4.34	43.22
1945	3.16	3.30	3.44	1.77	0.86	3.18	2.64	2.10	3.80	3.94	0.97	2.74	31.90
1946	3.47	2.24	2.14	4.37	4.05	3.06	1.15	4.12	8.02	3.59	4.19	2.57	42.98
1947	3.85	0.26	1.89	1.63	3.52	1.03	0.73	3.74	0.08	0.67	1.89	1.24	20.52
1948	0.36	2.86	1.22	2.42	2.02	5.21	2.46	1.33	2.76	2.25	0.78	1.37	25.04
1949	3.74	3.55	2.40	7.40	1.93	3.77	3.17	3.86	1.58	4.04	0.03	2.99	38.46
1950	0.79	2.92	0.31	3.32	4.14	1.84	2.91	2.80	2.54	0.57	0.67	0.01	22.82
1951	0.14	2.46	3.14	1.66	4.08	2.36	0.40	0.43	2.15	1.24	0.96	0.56	19.61
1952	0.49	1.70	3.02	4.30	5.07	1.67	1.29	0.00	15.56	0.00	3.97	3.44	40.51
1953	0.81	0.86	1.31	2.32	1.31	0.71	2.08	4.57	3.71	4.50	0.37	1.32	23.88
1954	0.80	0.02	0.19	2.06	1.43	1.27	0.70	1.19	1.00	2.99	0.92	0.20	12.78
1955	1.87	2.65	0.44	0.20	4.82	2.12	1.42	3.19	1.12	0.63	1.51	0.85	20.81
1956	0.96	1.21	0.23	0.57	0.93	1.24	0.64	1.94	1.31	1.37	1.69	1.52	13.60
1957	0.51	2.55	4.04	9.56	7.93	2.90	0.30	0.89	8.16	6.29	4.14	1.19	48.46
1958	3.90	3.41	2.57	1.37	5.46	4.91	0.26	1.37	8.99	6.06	0.68	0.78	39.76
1959	0.71	3.11	0.27	4.01	2.15	7.11	1.62	2.55	2.57	6.29	2.02	2.72	35.13
1960	1.55	1.98	2.43	1.46	1.73	3.64	3.12	5.92	0.70	8.57	1.29	4.49	36.89
1961	1.28	3.80	0.23	0.22	0.16	8.00	4.45	0.81	2.16	2.48	2.25	1.26	27.10
1962	0.67	0.69	1.30	3.66	2.34	3.86	0.38	1.20	3.79	2.94	2.07	1.87	24.76
1963	0.21	1.88	0.17	2.75	2.06	2.02	0.23	2.50	1.62	1.91	2.92	0.91	19.21
1964	3.53	2.05	2.87	1.69	1.32	3.57	0.77	1.67	4.68	1.81	2.45	0.94	27.36
1965	1.47	6.18	2.01	3.98	8.89	2.96	0.29	1.47	3.07	4.59	1.87	4.68	41.47
1966	1.54	2.40	0.87	4.02	4.35	0.74	0.87	5.76	6.33	0.33	0.00	0.12	27.33
1967	0.16	0.83	1.00	1.81	3.64	0.01	1.39	2.15	8.09	3.01	2.92	1.50	26.51
1968	7.60	1.69	2.32	3.54	3.74	3.57	2.30	0.41	4.08	1.08	3.65	1.26	35.23
1969	0.55	2.72	2.14	4.70	3.27	3.27	0.68	6.02	2.79	6.60	1.82	2.79	37.35
1970	1.42	3.29	2.34	1.16	8.32	0.86	0.64	0.66	6.11	1.50	0.01	0.17	26.48
1971	0.02	1.17	0.31	2.03	2.13	2.21	0.38	11.24	5.35	6.46	2.09	2.35	35.74
1972	1.39	0.33	1.12	1.70	8.59	4.63	2.17	5.16	2.23	2.67	3.47	0.34	33.78
1973	3.46	2.55	2.04	3.59	1.07	9.33	9.21	0.87	5.95	6.14	0.60	0.20	45.02
1974	1.90	0.31	1.22	2.40	4.67	1.00	0.54	10.68	2.91	3.59	3.25	2.62	35.10
1975	1.32	3.90	0.70	4.62	6.33	3.21	2.13	1.42	2.23	3.13	0.27	1.38	30.65
1976	0.31	0.67	1.21	8.46	5.47	2.73	5.18	1.59	4.29	7.04	1.75	2.16	40.87
1977	2.49	1.02	1.60	5.00	2.77	3.66	0.14	0.48	2.14	3.06	4.24	0.38	26.97
1978	0.80	1.97	0.77	1.55	2.23	2.54	1.61	6.34	7.17	0.26	4.80	2.92	32.96
1979	2.98	2.93	5.06	4.33	1.65	5.64	5.47	2.60	0.52	0.56	1.41	2.54	35.71
1980	1.25	1.06	2.82	2.30	4.48	1.19	0.34	1.75	7.71	1.99	3.44	0.68	29.01

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1675

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.27	1.41	4.50	2.17	4.71	11.30	2.27	1.79	2.68	7.29	1.18	0.51	41.08
1982	1.01	1.63	0.93	2.38	5.73	2.53	0.51	1.49	1.49	1.84	4.02	1.98	25.55
1983	1.52	2.04	3.55	0.11	5.18	4.28	3.02	2.73	1.70	3.72	3.40	0.48	31.73
1984	1.90	0.63	0.54	0.27	2.69	2.32	1.19	0.74	1.30	8.85	1.97	4.27	26.68
1985	1.76	2.95	3.56	2.46	2.42	9.40	2.96	0.08	6.50	4.42	3.85	1.35	41.71
1986	0.77	1.94	0.68	1.30	7.12	4.99	0.06	1.57	6.54	8.11	2.12	6.03	41.22
1987	0.77	3.58	1.10	0.57	8.07	10.06	3.32	1.57	2.22	0.23	4.11	2.29	37.89
1988	0.37	0.70	1.72	0.96	3.20	4.13	3.28	1.44	2.63	1.15	0.12	0.63	20.33
1989	4.14	0.96	2.05	1.80	2.21	3.95	0.67	0.72	0.93	4.43	1.33	0.28	23.47
AVG	1.84	2.15	1.92	2.86	4.02	3.43	2.26	2.32	3.76	3.25	2.03	2.03	31.87

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1677

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.69	3.95	2.72	4.22	3.44	1.64	2.38	1.54	4.06	4.60	3.88	5.21	38.33
1924	1.52	3.27	1.89	3.22	5.46	2.80	0.03	0.53	2.46	0.53	0.18	1.85	23.74
1925	0.30	0.12	0.01	1.56	2.27	1.76	0.16	2.60	2.98	5.15	2.36	0.99	20.24
1926	4.12	0.06	5.99	8.44	3.50	1.76	2.28	1.06	1.94	2.97	2.28	2.89	37.29
1927	1.21	2.29	3.14	1.38	1.83	5.22	2.02	0.16	1.25	3.98	0.00	2.60	25.08
1928	0.63	4.38	0.75	1.59	3.73	5.79	3.72	0.93	4.44	1.23	2.72	2.99	32.89
1929	1.83	0.52	3.60	4.05	12.10	1.64	5.34	0.42	1.14	2.96	3.68	1.52	38.81
1930	1.34	1.89	2.01	1.43	4.24	4.99	0.81	0.00	2.55	7.09	2.50	1.75	30.59
1931	5.02	3.55	4.27	2.66	1.19	2.85	5.03	2.29	0.04	0.41	1.46	3.94	32.69
1932	4.52	3.01	2.25	2.42	1.49	1.70	2.82	5.00	4.33	0.14	0.46	2.48	30.61
1933	2.98	2.10	1.22	1.61	4.10	1.12	4.51	1.58	1.09	1.82	0.65	1.04	23.81
1934	7.13	1.68	3.30	3.30	1.35	0.14	2.12	0.71	1.32	0.09	2.79	4.26	28.19
1935	1.14	2.34	1.56	1.99	10.92	5.66	3.63	0.62	10.19	1.10	0.61	3.62	43.38
1936	0.53	0.91	1.47	1.97	7.70	4.36	5.61	2.34	7.12	2.63	2.25	1.70	38.59
1937	2.00	0.12	3.90	0.97	3.40	4.10	2.54	1.32	0.81	4.13	1.58	6.49	31.36
1938	3.89	1.73	1.87	7.88	3.90	2.37	1.82	0.23	0.86	0.18	0.80	1.14	26.68
1939	2.85	1.20	0.70	2.18	2.41	0.91	3.78	1.32	0.75	1.88	1.74	1.08	20.79
1940	0.69	3.43	1.64	3.24	3.11	7.73	1.27	1.45	1.01	3.21	7.61	5.45	39.84
1941	1.25	5.61	4.69	5.76	3.64	8.27	1.25	0.28	2.38	5.28	0.59	1.23	40.22
1942	0.18	1.69	0.85	4.54	2.39	2.20	3.43	4.40	6.51	4.17	1.24	0.62	32.21
1943	0.67	0.18	2.40	1.62	5.12	1.97	3.78	0.87	3.93	0.59	1.19	2.38	24.70
1944	5.42	3.50	3.35	1.68	6.12	1.94	0.43	4.14	2.79	1.31	5.62	5.56	41.88
1945	3.31	4.21	4.65	1.40	0.74	3.58	3.66	2.27	3.33	3.57	0.80	2.94	34.47
1946	4.30	2.67	4.96	2.92	3.93	3.28	2.56	4.05	7.48	1.66	6.49	3.60	47.91
1947	3.81	0.30	2.26	0.84	3.37	1.15	0.84	6.06	0.03	0.64	1.95	1.68	22.92
1948	0.56	3.59	1.13	1.80	3.94	3.99	1.76	1.43	1.93	3.77	0.97	1.30	26.16
1949	5.51	3.00	3.12	5.59	1.03	1.88	3.63	3.89	1.31	5.66	0.08	2.88	37.58
1950	0.67	3.87	0.28	3.66	3.16	2.12	1.70	1.00	3.41	1.24	0.35	0.00	21.46
1951	0.27	3.44	3.78	1.56	2.80	3.53	0.00	0.28	4.00	1.46	1.18	0.48	22.78
1952	0.55	2.55	2.93	4.38	5.14	1.74	1.85	0.00	13.80	0.00	5.54	3.53	42.01
1953	0.48	1.32	0.97	3.27	1.54	1.14	5.72	3.75	4.92	3.85	0.40	2.72	30.08
1954	0.82	0.08	0.06	2.04	1.60	0.66	0.84	1.86	0.56	5.13	0.30	0.28	14.22
1955	2.24	2.24	0.40	0.58	6.05	2.98	1.05	3.16	0.83	1.62	1.55	1.29	23.99
1956	1.02	0.84	0.40	0.53	1.95	0.45	0.49	2.65	1.24	1.69	2.66	2.09	16.01
1957	0.54	2.42	4.04	11.61	6.87	3.16	1.32	1.92	10.08	4.66	3.75	1.57	51.95
1958	3.18	3.98	2.40	1.99	4.54	1.93	0.73	0.72	6.03	6.91	1.19	1.03	34.63
1959	0.54	3.00	0.38	3.00	2.37	4.33	1.78	5.55	3.96	5.65	2.82	1.60	34.98
1960	2.73	1.74	2.15	2.96	1.73	5.50	2.43	7.01	0.40	11.21	1.48	4.39	43.73
1961	0.93	3.02	0.08	0.23	0.13	8.20	5.66	1.14	2.87	2.62	2.23	1.49	28.61
1962	0.76	1.05	1.47	3.34	1.35	4.77	0.54	1.75	5.51	1.18	2.25	3.06	27.03
1963	0.37	2.09	0.21	2.92	2.14	1.96	0.60	3.13	1.51	1.99	2.10	1.01	20.03
1964	3.31	2.07	2.12	1.67	1.09	5.89	1.02	2.19	5.85	3.07	3.18	1.05	32.49
1965	3.02	6.47	1.50	3.63	10.54	3.14	0.48	2.27	2.78	6.44	2.34	5.21	47.83
1966	1.55	3.29	0.91	4.38	4.10	1.01	0.80	4.86	5.54	0.74	0.00	0.36	27.53
1967	0.17	0.93	2.22	1.29	3.82	0.00	1.88	1.79	11.72	2.94	3.53	1.74	32.03
1968	9.72	1.77	1.76	3.26	3.87	4.56	1.83	0.60	4.45	1.88	4.26	2.05	40.02
1969	0.83	3.24	2.41	5.63	4.72	3.66	0.47	5.03	2.99	5.62	1.57	3.49	39.66
1970	1.54	4.05	2.62	1.82	7.33	0.62	0.90	2.07	5.70	2.31	0.01	0.26	29.22
1971	0.03	1.29	0.09	1.89	2.42	2.18	1.06	6.79	4.20	5.41	3.45	4.09	32.89
1972	1.03	0.39	0.67	1.38	10.61	5.03	2.19	4.96	1.52	3.37	4.21	0.57	35.92
1973	3.45	2.47	1.67	4.42	1.38	8.42	9.28	1.11	8.00	7.71	0.75	0.35	49.03
1974	2.66	0.22	1.27	1.99	4.89	0.64	0.75	8.97	4.13	2.61	5.12	1.97	35.21
1975	1.11	3.54	0.65	4.08	6.28	4.22	1.93	2.26	2.09	3.28	0.23	1.47	31.15
1976	0.57	1.26	1.43	8.37	6.08	2.53	6.08	1.56	3.25	10.30	1.81	1.62	44.86
1977	2.40	1.30	1.49	7.74	3.25	2.59	0.03	0.50	1.53	2.08	3.88	0.35	27.16
1978	0.62	2.10	0.97	2.02	2.16	3.01	1.30	4.48	6.10	0.17	5.80	1.98	30.71
1979	3.39	2.66	5.32	4.12	2.26	3.40	6.64	1.93	1.24	0.43	1.50	2.89	35.79
1980	1.43	1.38	2.73	1.91	5.56	2.46	0.15	1.61	7.44	0.92	3.40	0.98	29.96

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1677

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.83	1.63	2.88	2.32	3.16	10.51	1.81	1.79	2.51	6.05	0.99	0.52	36.01
1982	1.24	0.96	1.07	2.60	5.87	1.62	0.31	2.91	1.52	1.78	4.75	2.45	27.09
1983	1.90	2.22	4.83	0.14	5.25	4.84	3.27	1.93	3.16	2.21	2.80	0.67	33.23
1984	1.56	1.10	0.31	0.05	2.07	1.59	0.88	1.19	1.26	7.63	1.71	4.28	23.63
1985	2.34	3.39	3.59	2.15	2.76	12.38	4.03	0.00	7.21	3.10	6.18	0.84	47.96
1986	0.77	2.00	1.16	0.72	8.16	4.80	0.27	2.23	8.08	8.17	1.95	6.33	44.64
1987	0.78	4.21	1.10	0.45	7.46	9.99	1.77	1.21	2.77	0.69	4.42	2.20	37.04
1988	0.34	0.68	2.13	1.18	4.64	3.39	1.74	2.04	2.46	0.92	0.17	0.71	20.41
1989	4.74	0.57	2.14	2.20	2.97	3.07	1.16	0.99	1.04	4.15	1.41	0.17	24.61
AVG	2.01	2.21	2.06	2.89	4.04	3.47	2.21	2.28	3.67	3.19	2.29	2.18	32.52

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1685

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	1.18	4.50	2.47	3.78	3.28	2.21	2.12	1.65	3.78	5.57	3.08	5.76	39.38
1924	1.56	3.32	1.98	4.05	5.74	2.35	0.00	0.15	2.30	0.60	0.06	2.39	24.52
1925	0.21	0.14	0.00	0.37	1.92	3.10	0.30	2.90	4.27	3.84	2.08	1.11	20.25
1926	4.37	0.12	6.60	9.66	3.93	1.43	0.98	0.44	1.61	2.33	2.03	3.01	36.51
1927	1.32	1.67	3.71	1.41	1.71	4.81	1.27	0.00	1.19	3.92	0.00	2.20	23.21
1928	0.81	5.17	1.20	1.58	3.12	8.26	2.45	0.86	5.44	1.55	3.02	3.28	36.73
1929	2.44	0.35	4.70	2.62	11.46	2.00	5.35	0.62	1.83	3.68	3.34	1.75	40.14
1930	1.58	2.10	2.13	1.63	3.05	7.11	0.30	0.01	1.62	5.26	2.28	1.70	28.77
1931	5.79	4.09	5.30	1.69	0.92	2.41	4.27	1.76	0.08	0.35	0.88	3.95	31.49
1932	4.68	2.88	1.64	2.76	1.91	1.59	2.51	4.91	5.14	0.28	0.74	2.06	31.10
1933	1.51	2.17	1.36	2.35	4.95	1.31	5.77	1.36	1.82	2.50	0.83	0.90	26.82
1934	7.94	1.96	3.02	1.89	0.95	0.33	3.06	0.58	2.49	0.18	2.55	5.95	30.92
1935	0.75	2.86	1.87	2.42	11.81	4.22	3.08	0.19	9.84	0.93	0.32	3.37	41.66
1936	0.80	0.65	1.65	2.48	5.48	3.53	1.44	3.24	4.54	2.55	2.67	1.47	30.49
1937	1.35	0.15	4.09	0.85	4.41	5.36	0.54	0.55	0.51	3.32	1.90	6.15	29.17
1938	4.14	1.61	2.37	8.75	5.17	0.79	2.20	0.29	0.68	0.21	0.98	1.12	28.32
1939	1.37	0.81	0.95	1.01	2.15	0.89	2.00	1.06	0.69	0.50	1.33	0.73	13.48
1940	0.85	3.07	1.60	3.53	3.35	9.39	1.09	1.12	1.32	3.61	5.34	4.38	38.64
1941	1.84	3.82	3.93	7.47	5.61	7.14	1.50	0.43	3.34	4.68	1.10	1.43	42.30
1942	0.39	2.59	0.73	3.87	2.75	2.21	8.62	3.83	6.49	6.32	1.11	0.58	39.47
1943	1.25	0.21	1.50	0.84	3.79	2.96	4.43	0.23	8.01	1.07	2.12	2.06	28.47
1944	6.05	3.29	3.84	1.56	8.21	1.74	0.27	3.98	1.72	0.68	6.26	5.16	42.76
1945	3.61	5.04	5.85	2.15	0.85	3.37	2.77	1.66	2.43	7.19	1.28	2.00	38.20
1946	4.66	2.61	4.22	2.24	5.28	8.93	2.09	6.33	8.03	2.99	3.59	3.31	54.27
1947	4.42	0.37	2.11	1.36	5.67	0.90	1.22	5.15	0.44	0.27	1.79	1.91	25.61
1948	0.56	3.23	1.12	1.90	2.55	2.39	1.64	2.26	1.86	3.13	1.32	0.78	22.74
1949	4.54	3.43	2.14	7.61	0.87	3.95	2.07	3.09	1.65	8.39	0.07	2.93	40.74
1950	0.60	3.80	0.36	3.93	3.15	2.65	2.02	0.83	2.50	1.22	0.23	0.00	21.29
1951	0.35	2.97	3.28	1.18	3.53	4.20	0.02	0.27	4.79	1.41	1.46	0.52	23.98
1952	1.04	2.10	2.95	4.02	3.83	1.89	1.95	0.01	11.26	0.01	4.85	3.26	37.17
1953	0.69	1.28	1.00	4.15	1.26	2.87	2.53	4.01	3.33	3.82	0.36	3.42	28.72
1954	1.37	0.12	0.07	2.01	1.57	1.30	0.63	0.86	0.48	2.79	0.42	0.19	11.82
1955	1.94	3.17	0.85	0.39	4.55	2.71	2.33	2.12	0.92	0.91	2.18	1.43	23.50
1956	1.11	0.97	0.42	0.50	2.35	0.40	0.32	4.53	0.69	1.56	2.02	2.53	17.40
1957	1.42	2.97	3.98	8.97	7.89	3.87	1.27	0.66	10.31	5.28	4.25	1.33	52.20
1958	3.48	4.64	1.86	1.48	3.44	2.19	2.29	0.64	7.07	6.19	1.64	0.85	35.76
1959	0.60	3.73	0.54	4.23	3.51	4.36	2.24	4.74	2.49	8.35	2.48	2.07	39.34
1960	1.50	1.42	2.06	2.88	1.50	6.99	1.74	4.25	0.28	9.34	1.85	2.99	36.80
1961	0.72	1.98	0.17	0.46	0.21	7.80	5.60	1.56	2.85	4.37	4.14	0.99	30.84
1962	0.93	1.19	1.47	3.81	1.07	3.79	0.33	1.27	7.70	1.20	1.76	3.17	27.69
1963	0.35	2.34	0.26	1.95	2.25	1.33	1.20	2.90	2.47	1.55	2.65	1.04	20.30
1964	3.08	2.08	1.50	1.42	1.60	5.19	1.30	2.36	3.92	3.58	3.06	1.12	30.20
1965	3.22	7.35	1.17	2.94	11.23	2.39	0.47	0.90	3.91	5.33	2.19	6.35	47.44
1966	1.53	2.42	0.85	3.19	4.07	1.22	0.34	3.73	3.83	0.65	0.01	1.36	23.19
1967	0.19	1.12	2.66	1.02	4.25	0.00	2.48	2.75	10.52	3.36	4.63	1.68	34.65
1968	10.33	1.77	1.95	3.10	3.67	3.33	2.02	0.58	4.47	1.45	4.46	2.96	40.08
1969	1.61	3.68	3.37	4.99	4.63	2.11	0.77	2.56	3.44	5.45	2.78	3.66	39.05
1970	1.54	4.44	2.90	2.38	8.29	0.36	0.48	3.71	6.96	2.38	0.01	0.47	33.91
1971	0.12	1.23	0.17	2.11	2.52	3.19	1.46	6.30	4.50	3.90	3.93	4.40	33.84
1972	1.21	0.51	0.33	1.47	12.59	4.02	2.25	5.09	2.32	3.11	3.68	0.82	37.41
1973	3.26	2.64	2.36	6.31	1.11	8.17	6.72	1.61	8.82	8.22	0.66	0.22	50.10
1974	3.46	0.06	1.20	2.11	7.19	1.00	1.29	9.62	5.21	2.33	5.96	1.80	41.23
1975	1.25	3.09	1.15	4.46	7.27	4.90	2.03	2.52	2.07	3.87	0.26	1.83	34.70
1976	0.62	0.65	1.51	9.36	6.34	1.86	6.61	2.81	4.40	12.04	2.13	2.13	50.47
1977	3.35	1.84	1.36	7.12	2.17	1.81	0.05	0.67	0.71	2.06	3.80	0.40	25.35
1978	0.77	2.54	0.98	2.61	2.45	4.01	0.60	5.75	8.06	0.42	7.06	1.82	37.07
1979	4.17	2.52	5.89	4.10	3.16	2.25	8.30	1.75	2.41	0.54	0.91	3.15	39.15
1980	1.43	1.28	1.63	1.45	6.45	3.26	0.09	2.01	7.66	1.45	3.63	1.34	31.67

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1685

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	2.13	1.57	2.26	2.36	3.15	10.97	1.52	2.51	0.92	5.59	1.47	0.67	35.14
1982	1.14	0.76	1.10	1.83	5.98	1.73	0.41	3.59	1.77	1.97	4.49	2.15	26.92
1983	2.01	2.24	5.20	0.19	5.35	5.40	3.54	2.50	4.60	1.26	2.07	0.86	35.22
1984	1.53	1.12	0.52	0.11	2.02	1.53	1.07	0.82	0.61	6.97	1.68	3.83	21.82
1985	2.62	2.55	2.92	2.17	2.74	8.78	5.25	0.07	7.52	2.88	7.68	0.43	45.61
1986	1.18	1.74	1.58	1.03	8.06	4.17	0.05	1.40	8.02	7.23	1.91	7.24	43.61
1987	1.18	4.58	1.16	0.55	8.63	11.67	1.83	1.20	3.20	0.67	4.16	2.26	41.09
1988	0.40	0.89	2.11	1.69	4.98	2.92	2.17	2.04	2.50	1.28	0.20	0.73	21.90
1989	4.05	0.64	2.17	2.21	2.57	4.19	0.85	1.44	1.38	4.05	1.64	0.24	25.43
AVG	2.14	2.24	2.11	2.90	4.23	3.60	2.12	2.20	3.79	3.22	2.34	2.23	33.12

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1690

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	1.16	4.44	2.48	3.77	3.32	2.25	2.15	1.58	3.77	5.57	3.06	5.74	39.29
1924	1.57	3.32	1.98	4.08	5.77	2.36	0.00	0.15	2.30	0.61	0.05	2.39	24.58
1925	0.20	0.14	0.00	0.33	1.94	3.13	0.30	2.94	4.28	3.70	2.09	1.11	20.16
1926	4.37	0.12	6.55	9.64	3.97	1.41	0.90	0.42	1.61	2.29	2.00	2.98	36.26
1927	1.29	1.64	3.73	1.37	1.71	4.78	1.21	0.00	1.18	3.87	0.00	2.17	22.95
1928	0.81	5.13	1.18	1.58	3.13	8.36	2.44	0.84	5.44	1.58	3.03	3.28	36.80
1929	2.47	0.35	4.69	2.59	11.39	2.02	5.37	0.64	1.85	3.69	3.35	1.74	40.15
1930	1.58	2.09	2.11	1.64	3.01	7.21	0.30	0.00	1.57	5.24	2.28	1.68	28.71
1931	5.79	4.10	5.34	1.66	0.93	2.41	4.34	1.77	0.08	0.35	0.86	3.95	31.58
1932	4.66	2.92	1.61	2.76	1.92	1.61	2.50	4.90	5.19	0.28	0.75	2.05	31.15
1933	1.48	2.15	1.37	2.36	4.98	1.29	5.69	1.38	1.80	2.53	0.83	0.89	26.75
1934	7.98	1.94	3.02	1.85	0.92	0.29	3.02	0.58	2.49	0.18	2.55	5.98	30.80
1935	0.71	2.84	1.87	2.44	11.81	4.21	3.10	0.18	9.88	0.93	0.31	3.39	41.67
1936	0.80	0.63	1.64	2.51	5.47	3.60	1.29	3.28	4.53	2.55	2.67	1.44	30.41
1937	1.33	0.15	4.07	0.85	4.43	5.41	0.53	0.54	0.51	3.30	1.90	6.17	29.19
1938	4.12	1.61	2.39	8.81	5.20	0.75	2.22	0.29	0.65	0.20	0.97	1.11	28.32
1939	1.35	0.81	0.95	0.98	2.15	0.90	1.93	1.07	0.67	0.50	1.32	0.72	13.35
1940	0.81	3.01	1.29	3.23	3.56	7.96	1.34	1.15	1.44	3.46	4.67	4.38	36.29
1941	1.91	3.27	3.51	7.28	5.00	6.38	1.51	0.53	3.88	5.16	0.97	1.44	40.83
1942	0.35	2.75	0.52	3.60	2.58	2.22	8.81	3.55	6.93	7.67	1.03	0.60	40.62
1943	1.13	0.19	1.29	1.11	3.43	3.17	5.26	0.42	8.50	1.26	2.38	2.13	30.28
1944	5.35	3.05	4.00	2.39	7.65	1.80	0.31	4.01	1.87	0.67	5.59	4.60	41.28
1945	3.40	4.70	5.39	2.08	0.85	3.14	1.90	1.02	2.44	6.71	1.13	1.72	34.49
1946	4.27	2.52	4.14	2.73	5.05	8.13	1.37	6.65	10.20	3.01	3.74	3.27	55.10
1947	3.61	0.42	1.96	1.03	5.21	0.61	1.08	5.31	0.34	0.22	1.60	1.83	23.23
1948	0.68	3.24	1.09	1.81	1.85	2.49	1.83	1.92	1.79	2.97	1.26	0.60	21.55
1949	4.11	3.23	2.10	8.89	0.62	4.54	2.23	2.99	2.26	8.30	0.06	2.99	42.34
1950	0.55	3.50	0.37	3.64	2.81	2.37	1.95	1.75	2.12	0.81	0.16	0.00	20.05
1951	0.37	2.92	3.10	1.02	3.48	4.11	0.17	0.11	5.06	1.52	1.42	0.46	23.75
1952	0.82	2.11	3.05	3.85	3.35	2.21	2.85	0.01	10.94	0.01	5.31	3.40	37.92
1953	0.65	1.21	1.03	4.48	1.05	3.22	2.29	4.21	2.42	3.70	0.34	3.34	27.94
1954	1.12	0.10	0.07	2.01	1.75	1.47	1.91	0.67	0.29	2.52	0.50	0.18	12.58
1955	1.87	3.12	0.77	0.27	4.14	2.48	2.03	1.62	1.24	0.33	2.20	1.09	21.15
1956	1.19	1.17	0.48	0.68	1.80	0.22	0.29	4.25	0.42	1.35	1.78	2.43	16.04
1957	1.19	2.80	4.42	9.17	7.98	2.84	1.10	0.44	10.33	5.31	3.90	1.40	50.89
1958	4.14	4.81	1.64	1.49	2.97	1.60	3.73	0.51	8.68	6.48	1.43	1.13	38.59
1959	0.72	3.35	0.30	3.63	2.82	3.56	2.28	4.04	2.34	7.59	2.35	2.30	35.28
1960	1.28	1.42	2.53	3.45	1.49	6.36	1.63	5.21	0.30	9.32	1.94	3.30	38.23
1961	0.89	1.84	0.26	0.48	0.10	7.33	5.44	1.30	2.47	4.92	3.49	0.90	29.42
1962	0.84	1.63	1.15	4.27	1.17	3.03	0.21	1.29	5.42	2.55	2.36	2.52	26.45
1963	0.30	2.38	0.18	2.03	2.57	2.52	0.83	1.78	2.45	1.98	2.69	1.14	20.84
1964	3.38	2.29	1.52	1.35	2.42	5.06	0.56	3.09	3.68	2.03	3.49	1.23	30.10
1965	2.69	7.71	1.99	2.88	9.67	2.00	0.38	0.90	3.33	4.97	2.02	6.38	44.92
1966	1.45	3.03	1.00	3.03	3.78	2.27	0.82	5.41	3.82	0.88	0.02	1.23	26.75
1967	0.15	0.76	2.23	1.13	3.21	0.06	2.47	3.16	10.53	3.37	4.25	1.53	32.85
1968	9.48	2.01	1.71	3.31	4.04	3.83	1.29	0.55	4.32	1.73	4.81	2.15	39.24
1969	1.63	3.36	3.44	3.70	4.41	2.58	0.84	3.69	1.83	4.70	1.97	2.79	34.92
1970	1.57	3.83	2.61	1.64	8.87	0.60	0.68	2.45	4.90	2.43	0.00	0.38	29.95
1971	0.07	0.95	0.09	1.22	2.63	2.21	0.56	8.50	4.47	3.85	2.25	4.37	31.17
1972	1.13	0.49	0.56	1.96	14.57	4.20	2.72	3.64	3.24	3.46	3.78	0.72	40.47
1973	3.44	2.76	2.15	5.37	0.55	9.61	7.04	1.90	9.41	8.78	0.52	0.22	51.77
1974	2.67	0.19	1.03	2.35	7.13	1.75	1.07	9.36	3.17	2.16	6.62	1.54	39.05
1975	1.33	3.29	1.22	2.96	8.52	3.99	1.70	2.38	2.36	3.39	0.46	1.93	33.51
1976	0.52	0.79	1.71	8.56	7.52	2.26	4.93	1.96	5.36	10.47	2.57	1.98	48.63
1977	3.62	1.55	1.33	7.63	1.50	1.66	0.04	0.55	1.66	2.20	5.11	0.41	27.25
1978	0.82	2.60	1.16	2.69	2.15	4.89	1.89	4.38	8.21	0.69	7.10	1.92	38.49
1979	4.15	2.57	4.16	5.40	2.80	3.63	5.30	1.46	1.82	0.53	1.23	3.61	36.66
1980	1.81	1.11	1.94	1.47	6.81	2.13	0.39	2.33	7.40	1.86	3.86	0.90	32.01

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1690

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	2.00	1.30	2.04	2.74	4.91	11.76	1.58	3.80	1.69	5.98	1.27	0.71	39.79
1982	0.76	0.93	0.89	1.53	5.26	2.44	0.71	1.43	1.55	2.79	4.55	2.08	24.92
1983	1.70	2.32	4.26	0.28	5.36	5.11	3.70	2.32	3.43	1.00	2.20	0.50	32.18
1984	1.43	0.95	0.85	0.11	2.10	1.41	0.83	0.87	0.64	8.22	1.80	3.63	22.85
1985	2.68	2.32	2.71	3.00	2.41	8.42	5.09	0.75	5.52	3.23	5.75	0.26	42.13
1986	1.33	2.16	1.30	1.01	7.64	6.35	0.06	1.35	6.07	7.57	1.82	7.48	44.15
1987	1.26	4.54	1.15	0.86	9.56	11.31	1.57	1.22	2.71	0.54	2.23	2.25	39.21
1988	0.45	1.19	1.71	1.59	2.67	4.19	2.83	0.75	2.96	1.28	0.38	0.55	20.57
1989	3.19	0.55	2.48	3.26	1.84	3.43	1.14	0.96	0.68	4.42	1.94	0.75	24.64
AVG	2.06	2.22	2.04	2.91	4.14	3.63	2.09	2.16	3.68	3.25	2.27	2.17	32.62

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1700

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	2.03	6.84	2.15	4.14	1.66	0.82	1.14	4.14	4.22	5.61	3.85	6.34	42.94
1924	1.20	3.50	2.01	3.08	4.77	2.15	0.00	0.28	2.30	0.04	0.38	2.40	22.12
1925	0.42	0.20	0.00	1.83	1.15	2.16	0.30	1.40	4.00	9.03	1.82	1.15	23.45
1926	4.45	0.01	8.38	10.26	2.45	2.00	3.86	1.25	1.79	3.71	3.22	4.32	45.69
1927	2.43	2.97	2.86	3.00	1.79	6.02	3.46	0.00	1.48	5.70	0.00	3.29	32.99
1928	0.64	6.57	1.93	1.43	2.91	4.40	2.79	1.58	5.36	0.40	2.81	3.28	34.11
1929	1.34	0.17	4.92	3.91	14.17	1.06	4.64	0.04	1.04	3.13	3.09	2.30	39.80
1930	1.52	2.59	2.75	1.36	4.65	3.38	0.21	0.43	3.40	5.99	2.25	2.63	31.16
1931	5.79	3.78	3.65	2.89	0.60	2.38	1.82	1.26	0.00	0.18	1.79	4.08	28.23
1932	5.57	1.35	2.78	2.75	1.37	0.89	2.96	5.41	3.22	0.12	0.33	2.61	29.35
1933	2.45	2.84	1.13	1.93	3.66	2.12	8.72	0.75	2.68	1.53	0.69	1.13	29.63
1934	6.56	2.67	3.08	3.37	2.23	1.71	4.65	0.70	2.59	0.10	2.72	4.99	35.38
1935	2.27	3.56	1.72	1.65	11.68	4.75	2.31	0.41	8.41	0.79	0.79	2.79	41.12
1936	0.68	1.22	2.17	1.24	5.70	1.09	6.94	1.57	4.92	2.54	2.69	2.53	33.30
1937	2.08	0.23	4.79	0.72	3.60	3.42	1.03	0.93	0.56	3.91	1.72	5.45	28.44
1938	5.05	1.73	1.66	6.56	4.07	2.42	1.52	0.42	1.70	0.47	1.24	1.32	28.18
1939	2.27	0.91	0.83	1.97	1.99	0.68	4.51	0.80	1.33	0.33	1.73	0.92	18.27
1940	1.05	3.78	2.20	3.81	1.66	10.98	0.83	0.72	1.65	5.00	5.58	5.87	43.14
1941	2.16	3.29	3.98	6.20	2.59	6.89	6.32	0.52	4.16	7.61	1.03	3.03	47.77
1942	0.20	2.57	0.18	4.01	2.12	2.06	7.88	4.09	9.57	9.05	1.60	0.64	43.96
1943	1.23	0.44	1.57	0.65	3.48	2.00	3.62	0.04	6.69	1.57	2.22	1.85	25.36
1944	5.55	3.68	5.12	1.48	10.37	3.67	0.17	3.48	2.95	0.76	6.07	3.56	46.87
1945	3.78	4.30	3.89	3.29	0.69	4.39	2.44	1.55	2.59	4.97	0.83	2.11	34.83
1946	3.41	2.09	3.67	3.19	5.02	8.40	1.81	8.90	7.64	2.46	4.48	1.22	52.28
1947	4.15	0.36	3.21	1.53	6.51	0.59	1.30	5.51	1.19	0.02	1.48	1.64	27.49
1948	0.34	3.64	0.72	1.25	3.17	2.63	0.31	4.24	1.99	3.02	1.21	0.84	23.37
1949	3.77	3.84	1.54	7.54	0.64	2.75	0.88	2.45	2.20	8.47	0.00	2.38	36.47
1950	0.28	3.75	0.38	5.00	2.03	4.27	1.45	0.63	2.19	1.11	0.06	0.00	21.15
1951	0.40	3.15	2.93	1.04	4.58	5.65	0.26	0.72	8.12	1.04	1.01	1.44	30.34
1952	1.37	1.59	2.78	4.37	3.43	2.85	2.36	0.00	11.17	0.00	6.39	3.21	39.53
1953	0.10	2.06	0.92	5.82	1.28	3.89	1.98	3.61	4.33	5.11	0.68	3.20	32.97
1954	1.12	0.08	0.07	2.33	2.44	0.98	0.28	0.94	1.04	2.29	0.70	0.54	12.79
1955	1.59	6.97	1.09	0.70	3.77	4.36	1.52	1.82	1.19	0.23	1.56	1.40	26.21
1956	1.26	1.12	0.29	0.99	2.16	1.01	0.93	1.55	2.40	1.51	1.97	2.61	17.78
1957	0.62	2.54	3.89	9.95	4.59	4.09	0.87	0.42	10.14	5.69	3.92	1.77	48.49
1958	3.16	5.82	2.09	1.29	3.79	1.58	3.56	1.69	7.54	6.01	1.31	0.90	38.74
1959	0.49	4.41	0.35	5.46	6.72	4.85	1.03	4.24	1.67	9.11	3.37	1.38	43.09
1960	2.28	1.95	1.51	4.98	1.47	8.03	0.99	4.35	1.04	12.18	2.50	3.42	44.73
1961	1.23	2.15	0.30	1.05	0.27	6.80	5.07	0.55	3.88	1.99	3.90	1.00	28.19
1962	0.96	1.37	1.70	3.54	0.78	4.29	0.32	1.75	7.27	1.79	1.32	3.22	28.32
1963	0.32	2.45	0.34	2.12	0.68	2.76	1.14	2.31	2.57	1.49	2.27	1.26	19.73
1964	2.51	2.00	1.49	1.97	3.21	4.97	0.82	1.60	5.49	2.53	2.60	1.03	30.22
1965	4.13	7.20	1.34	3.00	8.39	2.48	1.42	0.83	2.83	4.42	2.50	7.22	45.75
1966	2.03	3.15	1.70	2.69	3.09	2.64	0.16	5.06	3.65	0.91	0.02	0.83	25.94
1967	0.19	0.97	1.19	1.09	4.48	0.00	1.50	1.79	8.16	4.18	3.96	0.94	28.44
1968	8.79	1.86	1.54	2.89	4.05	3.88	1.46	0.54	4.25	1.19	4.50	3.18	38.13
1969	1.41	3.30	3.12	5.77	5.31	2.38	0.55	2.90	1.47	4.13	3.26	4.03	37.65
1970	1.59	4.09	2.51	2.34	9.55	0.45	1.23	1.31	5.23	3.84	0.00	0.40	32.55
1971	0.09	1.41	0.12	1.68	2.40	3.14	0.45	6.46	4.35	3.95	2.67	5.33	32.04
1972	1.08	0.55	0.06	0.90	10.23	2.86	2.07	5.08	1.58	3.59	3.79	0.96	32.74
1973	3.35	3.69	2.89	4.57	1.52	7.53	6.42	2.25	6.30	8.16	1.13	0.44	48.27
1974	3.43	0.23	1.27	1.94	7.29	1.48	0.77	7.76	4.83	2.30	8.66	2.04	42.00
1975	0.93	4.70	1.20	5.66	11.64	5.95	1.84	5.15	1.59	3.62	0.62	2.62	45.52
1976	0.79	0.64	1.92	8.39	6.41	2.34	6.89	1.12	4.53	10.69	2.68	1.83	48.22
1977	2.99	2.33	1.44	7.35	2.86	3.17	0.10	0.54	1.99	1.27	2.84	0.35	27.22
1978	0.89	2.27	0.99	1.51	4.20	2.55	0.42	4.22	5.96	0.36	8.23	2.29	33.89
1979	5.44	3.03	4.90	4.43	2.47	2.10	9.12	1.24	1.90	0.44	0.79	3.17	39.02
1980	1.58	1.55	2.08	1.80	7.31	1.62	0.08	1.38	6.59	1.18	3.80	0.91	29.86

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1700

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	2.21	1.48	2.25	2.50	2.83	20.12	2.43	4.56	0.77	4.42	1.70	0.59	45.85
1982	1.01	1.18	0.81	2.84	6.50	2.54	0.13	1.08	1.05	2.39	2.88	2.26	24.66
1983	1.96	2.00	5.31	0.17	5.51	5.67	2.85	2.67	6.47	2.13	3.11	0.64	38.50
1984	1.61	1.08	1.84	0.18	1.42	1.70	0.47	1.25	0.96	8.26	1.73	3.88	24.37
1985	2.48	2.21	2.87	3.34	2.28	8.14	4.47	0.05	5.42	3.21	11.98	0.74	47.18
1986	1.38	1.01	0.77	1.05	9.45	4.63	0.33	1.68	6.50	6.08	1.82	7.01	41.72
1987	1.12	4.13	1.57	0.45	9.55	10.14	2.03	1.44	2.28	0.48	7.29	1.84	42.33
1988	0.55	1.08	2.12	1.82	6.16	1.58	3.35	0.96	2.63	1.57	0.06	1.02	22.90
1989	4.28	0.68	2.64	3.54	4.60	3.34	0.75	1.59	0.84	3.33	1.51	0.29	27.41
AVG	2.17	2.48	2.11	3.10	4.26	3.71	2.24	2.12	3.76	3.35	2.55	2.33	34.18

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1710

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.47	3.90	2.84	4.58	3.32	1.05	2.41	1.81	4.32	3.93	4.54	4.91	38.09
1924	1.44	3.25	1.83	2.50	5.13	3.08	0.04	0.82	2.58	0.41	0.31	1.47	22.86
1925	0.40	0.11	0.01	2.59	2.40	0.69	0.06	2.17	2.04	6.80	2.51	0.91	20.69
1926	3.96	0.00	5.82	7.69	2.99	2.08	3.58	1.61	2.20	3.61	2.62	2.98	39.13
1927	1.29	2.89	2.63	1.58	1.92	5.68	2.85	0.27	1.34	4.27	0.00	3.03	27.74
1928	0.49	4.02	0.54	1.57	4.12	3.53	4.65	1.08	3.73	0.84	2.48	2.79	29.85
1929	1.26	0.62	2.87	5.22	12.92	1.26	5.24	0.19	0.55	2.38	3.88	1.43	37.83
1930	1.16	1.81	2.01	1.25	5.29	2.99	1.15	0.05	3.45	8.46	2.65	1.91	32.19
1931	4.48	3.13	3.32	3.49	1.33	3.15	5.22	2.60	0.00	0.43	1.98	3.95	33.07
1932	4.52	2.89	2.84	2.18	1.12	1.68	3.10	5.13	3.49	0.02	0.20	2.84	30.02
1933	4.14	2.14	1.09	1.04	3.33	1.10	4.05	1.64	0.70	1.20	0.51	1.17	22.11
1934	6.37	1.59	3.51	4.49	1.80	0.21	1.68	0.81	0.53	0.01	2.98	2.95	26.92
1935	1.62	2.07	1.33	1.59	10.29	6.74	3.91	0.95	10.24	1.20	0.88	3.70	44.51
1936	0.32	1.19	1.41	1.43	9.32	4.61	9.36	1.46	9.03	2.68	1.96	2.01	44.79
1937	2.56	0.11	3.86	1.04	2.57	2.94	4.03	1.93	1.04	4.80	1.33	6.63	32.83
1938	3.84	1.83	1.41	6.95	2.84	3.73	1.45	0.21	1.14	0.20	0.71	1.19	25.50
1939	4.04	1.49	0.50	3.15	2.58	0.88	5.41	1.47	0.88	2.84	2.09	1.36	26.71
1940	0.65	3.90	2.06	3.57	2.70	6.42	1.04	1.80	0.68	2.89	9.59	5.97	41.28
1941	1.03	6.61	5.22	5.76	3.16	6.07	1.31	0.16	2.64	5.86	0.61	1.13	39.58
1942	0.13	1.35	0.88	5.48	2.47	1.17	2.37	7.63	7.04	4.48	1.54	1.22	35.75
1943	0.87	0.30	2.74	1.36	4.30	1.63	5.67	0.45	5.39	0.77	1.35	2.64	27.47
1944	5.02	4.09	3.36	0.78	8.59	1.36	0.45	5.32	2.98	1.18	5.01	5.03	43.16
1945	3.26	3.97	3.54	1.88	0.70	4.23	3.26	2.03	3.10	3.16	1.07	3.53	33.73
1946	4.63	2.72	2.99	3.31	3.65	3.48	1.53	2.90	5.34	1.93	6.44	2.90	41.82
1947	4.35	0.12	1.89	1.31	2.49	1.43	0.46	4.29	0.04	0.69	1.97	1.29	20.32
1948	0.26	2.99	0.97	1.86	3.66	4.18	1.15	2.01	2.02	3.57	0.74	1.41	24.81
1949	4.38	3.53	2.80	8.04	1.88	3.07	2.91	2.74	1.15	4.85	0.00	2.86	38.22
1950	0.97	3.66	0.20	4.53	3.49	2.23	2.68	1.79	3.48	1.43	0.71	0.00	25.18
1951	0.18	3.35	3.70	1.68	4.41	3.26	0.33	0.86	3.18	1.26	1.18	0.89	24.28
1952	0.54	1.94	2.97	4.93	5.64	2.72	2.11	0.00	17.35	0.00	4.05	3.42	45.67
1953	0.67	1.32	1.71	3.51	1.84	1.12	2.24	4.55	6.10	3.52	0.54	2.28	29.40
1954	1.30	0.12	0.26	1.93	0.58	1.24	0.92	1.50	1.17	4.39	0.53	0.24	14.18
1955	1.90	2.65	0.57	0.39	4.48	3.26	1.61	2.94	0.85	1.15	1.38	0.98	22.17
1956	1.16	1.05	0.24	0.28	1.96	0.56	0.38	1.17	1.27	2.14	2.68	2.58	15.48
1957	0.59	2.43	4.13	12.64	7.22	3.24	1.00	1.44	9.81	5.66	4.02	1.29	53.46
1958	3.25	4.55	2.99	1.80	7.83	4.98	0.41	2.43	7.15	6.74	1.44	0.99	44.55
1959	0.66	2.82	0.42	4.54	2.21	6.47	2.84	4.41	3.42	7.39	2.07	2.54	39.81
1960	2.18	2.34	2.40	1.45	1.18	3.80	4.26	4.47	0.79	12.20	1.79	4.73	41.59
1961	1.06	5.99	0.24	0.18	0.43	9.34	6.26	1.00	4.14	3.18	3.08	1.81	36.72
1962	0.91	1.00	1.34	3.84	1.72	5.33	0.56	1.93	3.70	2.24	2.17	2.40	27.13
1963	0.26	2.13	0.20	3.16	1.98	2.10	0.53	1.85	0.86	2.54	2.57	1.14	19.32
1964	3.50	2.02	3.52	1.66	1.02	2.25	0.46	2.23	6.70	2.78	3.22	1.09	30.45
1965	2.91	6.16	1.94	3.99	9.81	3.32	0.71	1.84	4.32	4.45	2.35	5.48	47.27
1966	1.63	3.20	0.75	4.79	3.58	0.96	1.43	3.98	6.16	0.57	0.00	0.22	27.27
1967	0.17	1.30	1.79	1.77	3.98	0.01	0.74	0.73	9.46	3.47	2.99	1.63	28.04
1968	9.92	1.99	1.87	3.38	5.83	4.26	3.18	0.43	4.71	1.71	3.55	2.01	42.85
1969	0.57	3.24	2.50	5.21	4.68	4.06	0.50	3.84	1.93	6.90	1.35	2.90	37.67
1970	1.72	4.08	3.03	1.94	7.59	0.19	0.92	1.04	5.65	1.86	0.00	0.17	28.19
1971	0.01	0.90	0.17	1.94	2.18	2.03	0.84	8.42	3.59	5.23	2.59	3.50	31.40
1972	1.04	0.39	0.81	1.66	8.13	3.88	2.21	4.70	2.05	3.31	3.98	0.53	32.69
1973	3.59	2.52	1.55	4.09	1.42	8.65	6.54	1.05	6.26	7.93	0.60	0.44	44.64
1974	2.73	0.45	1.52	1.77	3.82	0.74	1.35	7.81	3.54	2.58	4.42	2.36	33.10
1975	1.06	3.78	0.85	3.70	8.22	4.57	1.60	2.71	3.17	4.11	0.27	1.65	35.68
1976	0.42	0.73	2.38	7.60	5.81	3.15	6.13	1.46	4.04	7.32	1.65	1.92	42.63
1977	1.91	1.29	1.79	6.80	2.03	3.24	0.04	1.20	1.89	3.73	2.95	0.38	27.25
1978	0.89	2.46	1.35	1.37	2.49	3.43	2.41	3.89	5.57	0.15	4.99	2.53	31.52
1979	3.30	3.06	5.45	4.33	2.87	2.77	5.51	2.26	1.09	0.56	1.47	2.86	35.51
1980	1.28	1.41	3.50	2.27	5.15	1.41	0.35	2.02	7.11	2.24	3.30	0.72	30.76

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1710

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.51	1.71	4.04	1.66	4.03	9.62	1.42	1.41	2.78	9.39	1.07	0.28	38.94
1982	1.05	1.13	1.10	3.28	5.96	1.94	0.54	1.70	1.28	1.96	4.80	2.03	26.77
1983	1.48	2.54	4.74	0.05	5.68	4.52	3.27	2.82	2.70	3.59	3.25	0.41	35.04
1984	1.53	0.76	0.60	0.29	3.02	2.39	0.87	0.96	1.02	9.57	1.60	5.31	27.91
1985	1.85	3.27	2.98	2.16	2.38	10.40	3.69	0.06	5.54	4.44	4.59	1.38	42.74
1986	0.70	2.21	0.77	1.02	7.79	3.95	0.39	1.41	9.97	8.26	2.25	6.47	45.20
1987	0.79	3.94	1.19	0.32	7.31	10.64	4.13	1.44	2.54	0.55	4.46	3.14	40.46
1988	0.27	0.84	2.14	0.82	5.84	3.37	4.09	2.55	1.91	1.37	0.33	0.71	24.25
1989	5.05	0.92	2.07	2.56	3.81	3.92	1.11	0.79	0.63	3.18	1.44	0.17	25.63
AVG	1.99	2.30	2.09	3.00	4.12	3.40	2.37	2.19	3.68	3.41	2.26	2.22	33.04

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1713

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	2.09	6.99	2.13	4.16	1.55	0.73	1.08	4.30	4.25	5.61	3.90	6.38	43.17
1924	1.18	3.51	2.01	3.02	4.71	2.14	0.00	0.29	2.30	0.00	0.40	2.40	21.96
1925	0.43	0.20	0.00	1.93	1.10	2.10	0.30	1.30	3.98	9.37	1.80	1.15	23.66
1926	4.45	0.00	8.50	10.30	2.35	2.04	4.05	1.30	1.80	3.80	3.30	4.40	46.29
1927	2.50	3.05	2.80	3.10	1.80	6.10	3.60	0.00	1.50	5.82	0.00	3.36	33.63
1928	0.63	6.66	1.98	1.42	2.90	4.15	2.81	1.63	5.35	0.33	2.80	3.28	33.94
1929	1.27	0.16	4.93	3.99	14.35	1.00	4.59	0.00	0.99	3.09	3.07	2.34	39.78
1930	1.52	2.62	2.79	1.34	4.75	3.14	0.20	0.46	3.52	6.04	2.25	2.69	31.32
1931	5.79	3.76	3.54	2.97	0.58	2.38	1.66	1.23	0.00	0.17	1.85	4.09	28.02
1932	5.63	1.25	2.85	2.75	1.33	0.84	2.99	5.44	3.10	0.11	0.30	2.65	29.24
1933	2.51	2.88	1.12	1.90	3.58	2.17	8.91	0.71	2.74	1.47	0.68	1.14	29.81
1934	6.47	2.72	3.08	3.47	2.31	1.80	4.75	0.71	2.60	0.10	2.73	4.93	35.67
1935	2.37	3.61	1.71	1.60	11.67	4.78	2.26	0.42	8.32	0.78	0.82	2.75	41.09
1936	0.67	1.26	2.20	1.16	5.72	0.93	7.30	1.46	4.95	2.54	2.69	2.60	33.48
1937	2.13	0.23	4.84	0.71	3.55	3.29	1.06	0.96	0.56	3.95	1.71	5.40	28.39
1938	5.11	1.74	1.61	6.42	4.00	2.53	1.48	0.43	1.77	0.49	1.26	1.33	28.17
1939	2.33	0.92	0.82	2.03	1.98	0.67	4.68	0.78	1.37	0.32	1.76	0.93	18.59
1940	1.01	3.77	2.17	3.75	1.76	10.63	0.87	0.81	1.56	4.81	6.01	5.90	43.05
1941	2.03	3.67	4.12	6.03	2.56	7.18	5.80	0.47	3.89	7.38	0.95	2.83	46.93
1942	0.18	2.40	0.27	4.13	2.12	2.07	7.04	4.20	9.26	8.32	1.57	0.64	42.19
1943	1.14	0.42	1.73	0.79	3.78	1.89	3.49	0.18	6.03	1.42	2.04	1.91	24.83
1944	5.53	3.67	4.89	1.43	9.82	3.50	0.20	3.54	3.03	0.86	5.98	3.78	46.23
1945	3.71	4.24	3.87	3.05	0.68	4.34	2.69	1.71	2.74	4.55	0.79	2.28	34.66
1946	3.49	2.15	3.84	3.19	4.81	7.49	1.97	8.24	7.44	2.27	4.87	1.46	51.23
1947	4.19	0.34	3.15	1.46	5.95	0.75	1.22	5.48	1.05	0.13	1.54	1.57	26.83
1948	0.36	3.57	0.77	1.28	3.50	2.98	0.33	4.03	1.99	3.11	1.12	0.92	23.97
1949	3.89	3.76	1.65	6.79	0.74	2.49	1.20	2.53	2.12	7.87	0.00	2.35	35.42
1950	0.34	3.73	0.34	4.91	2.18	4.02	1.49	0.67	2.45	1.16	0.15	0.00	21.43
1951	0.37	3.20	3.05	1.08	4.44	5.36	0.24	0.72	7.61	1.10	1.01	1.39	29.56
1952	1.22	1.69	2.76	4.44	3.74	2.79	2.25	0.00	11.34	0.00	6.15	3.22	39.61
1953	0.12	2.01	0.92	5.51	1.36	3.46	2.25	3.81	4.60	4.83	0.68	3.12	32.67
1954	1.13	0.08	0.07	2.28	2.24	0.99	0.26	1.18	1.09	2.57	0.70	0.53	13.10
1955	1.62	6.44	1.04	0.73	4.02	4.32	1.35	2.06	1.14	0.54	1.48	1.38	26.12
1956	1.22	1.07	0.27	0.93	2.14	0.99	0.88	1.37	2.39	1.52	2.16	2.49	17.44
1957	0.55	2.45	3.84	10.39	4.69	4.03	1.01	0.59	10.31	5.58	3.90	1.76	49.10
1958	3.06	5.68	2.17	1.32	3.94	1.71	3.19	1.70	7.20	6.23	1.30	0.90	38.38
1959	0.47	4.25	0.37	5.16	6.24	5.02	1.22	4.50	2.08	8.52	3.28	1.38	42.48
1960	2.34	1.94	1.53	4.70	1.45	7.56	1.16	4.56	1.01	12.27	2.38	3.56	44.45
1961	1.22	2.44	0.28	0.96	0.28	6.96	5.17	0.62	3.89	1.91	3.67	1.10	28.50
1962	0.92	1.35	1.69	3.56	0.80	4.59	0.36	1.80	6.79	1.95	1.40	3.16	28.37
1963	0.31	2.41	0.33	2.43	0.65	2.89	1.13	2.15	2.42	1.65	2.24	1.25	19.86
1964	2.49	1.99	1.57	2.06	3.19	4.70	0.68	1.68	6.10	2.34	2.66	1.02	30.49
1965	4.09	7.15	1.43	3.13	8.02	2.58	1.50	1.00	2.64	4.30	2.49	7.15	45.49
1966	2.01	3.37	1.76	2.79	2.96	2.74	0.25	5.10	3.81	0.92	0.02	0.75	26.47
1967	0.18	0.90	1.10	1.14	4.39	0.00	1.26	1.62	8.29	4.27	3.77	0.89	27.82
1968	8.58	1.87	1.46	2.96	4.17	4.20	1.37	0.51	4.20	1.26	4.40	3.13	38.11
1969	1.26	3.23	3.04	5.70	5.26	2.55	0.52	3.04	1.04	4.02	3.08	3.96	36.69
1970	1.64	4.08	2.55	2.25	9.76	0.41	1.30	0.98	4.87	4.00	0.00	0.37	32.23
1971	0.08	1.35	0.11	1.56	2.36	3.04	0.40	6.60	4.33	4.06	2.47	5.37	31.71
1972	1.02	0.54	0.11	0.88	9.73	2.89	2.09	4.97	1.56	3.73	3.84	0.94	32.31
1973	3.39	3.73	2.82	4.26	1.57	7.66	6.55	2.26	6.05	8.30	1.17	0.50	48.24
1974	3.29	0.27	1.25	1.95	7.03	1.50	0.61	7.59	4.56	2.30	8.95	2.05	41.35
1975	0.90	4.82	1.18	5.55	11.99	5.92	1.77	5.23	1.83	3.55	0.66	2.62	46.00
1976	0.78	0.73	1.99	8.15	6.49	2.64	6.86	1.01	4.45	10.15	2.64	1.78	47.67
1977	2.82	2.29	1.47	7.36	2.85	3.33	0.09	0.55	2.09	1.31	2.83	0.35	27.34
1978	0.92	2.24	1.01	1.36	4.29	2.44	0.74	3.71	5.50	0.37	8.13	2.38	33.09
1979	5.42	3.11	4.76	4.45	2.44	2.10	8.77	1.23	1.77	0.41	0.87	3.20	38.52
1980	1.59	1.57	2.33	1.86	7.32	1.33	0.11	1.29	6.49	1.17	3.79	0.80	29.66

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1713

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	2.17	1.53	2.24	2.45	2.91	20.48	2.51	4.62	0.87	4.81	1.59	0.54	46.72
1982	0.96	1.22	0.82	3.04	6.42	2.69	0.09	0.66	0.90	2.59	2.96	2.24	24.59
1983	1.89	2.03	5.29	0.14	5.50	5.72	2.88	2.58	6.36	2.42	3.35	0.56	38.71
1984	1.54	1.03	1.82	0.17	1.41	1.68	0.51	1.33	1.07	8.75	1.72	3.99	25.01
1985	2.45	2.30	2.82	3.52	2.20	8.41	4.53	0.05	5.21	3.31	11.73	0.77	47.30
1986	1.35	1.14	0.69	0.99	9.82	4.52	0.45	1.73	6.28	6.27	1.82	6.99	42.06
1987	1.18	4.04	1.48	0.58	8.53	10.44	2.80	1.64	2.13	0.50	11.50	1.85	46.67
1988	0.59	0.90	1.90	1.14	8.31	1.51	3.82	0.83	2.17	2.20	0.01	0.94	24.30
1989	4.61	0.69	3.13	3.22	5.92	3.55	0.99	1.01	1.22	3.54	1.22	0.40	29.50
AVG	2.16	2.48	2.12	3.06	4.28	3.70	2.27	2.11	3.71	3.36	2.60	2.33	34.19

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1720

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	1.60	6.25	2.77	3.99	2.08	0.91	1.72	3.67	4.71	4.70	4.35	6.26	43.01
1924	1.46	3.74	1.81	3.65	5.51	2.62	0.15	0.29	2.32	0.15	0.26	2.26	24.23
1925	0.40	0.18	0.06	1.58	1.20	2.07	0.83	1.42	4.07	8.10	2.16	1.19	23.26
1926	4.15	0.14	7.64	8.23	2.90	1.98	3.50	1.22	1.61	3.85	2.95	3.75	41.94
1927	1.94	2.84	2.78	3.26	1.72	6.26	2.20	0.73	1.70	4.45	0.02	3.00	30.90
1928	0.65	5.30	1.60	1.72	2.73	4.19	2.89	1.19	5.41	0.60	3.16	3.17	32.62
1929	1.66	0.39	4.48	3.74	15.02	1.66	3.97	0.15	1.50	3.00	2.96	2.61	41.14
1930	1.77	2.32	2.49	1.33	5.03	4.09	0.39	0.98	2.68	5.22	2.45	2.36	31.12
1931	5.05	3.77	3.17	2.03	1.17	2.42	2.41	1.62	0.05	0.26	1.36	4.40	27.69
1932	6.37	2.41	2.18	2.49	1.63	1.49	2.63	4.97	4.54	0.20	0.75	2.53	32.19
1933	1.95	2.80	1.52	1.99	3.86	1.55	6.86	1.28	2.65	1.76	0.71	1.08	28.01
1934	6.16	2.24	3.09	2.96	1.67	1.01	3.85	0.56	2.96	0.19	3.70	5.11	33.50
1935	1.91	3.41	1.55	1.87	10.87	4.61	2.31	0.62	9.03	1.27	0.87	3.94	42.26
1936	0.66	1.08	1.95	1.75	6.91	1.98	8.07	1.99	5.05	2.96	2.89	2.03	37.32
1937	2.12	0.32	5.09	0.89	2.61	4.35	1.15	1.20	0.62	3.30	1.83	5.55	29.02
1938	4.35	1.70	2.46	7.79	4.31	2.21	1.25	0.43	1.97	0.43	1.77	1.40	30.08
1939	2.15	0.94	0.80	1.66	2.90	0.94	4.44	1.25	1.92	0.39	1.53	0.87	19.78
1940	0.99	3.30	1.91	3.11	1.66	9.90	1.00	0.80	1.40	4.15	7.25	5.43	40.90
1941	1.61	3.45	3.73	6.68	4.72	5.76	4.03	0.83	3.62	6.07	1.08	2.32	43.89
1942	0.26	2.27	0.46	4.30	2.19	1.81	9.93	3.38	8.45	6.84	1.77	0.89	42.55
1943	1.49	0.31	1.60	0.58	3.39	1.91	4.07	0.08	5.55	1.36	2.55	1.59	24.49
1944	5.35	2.99	4.15	1.93	8.59	2.78	0.76	4.12	2.08	0.55	6.00	3.73	43.03
1945	3.41	3.96	3.60	3.52	0.56	4.46	2.49	1.27	2.52	4.86	0.92	1.69	33.28
1946	3.75	2.14	3.87	3.30	3.85	7.49	1.32	8.39	7.45	2.34	3.51	1.55	48.95
1947	3.81	0.32	2.70	2.80	5.76	0.46	1.60	4.77	0.83	0.05	1.48	1.95	26.52
1948	0.71	3.15	0.73	1.40	3.19	1.97	0.82	3.40	2.04	2.75	1.24	0.51	21.89
1949	4.06	3.69	1.55	8.58	0.90	3.07	2.61	1.64	2.23	9.23	0.03	2.54	40.13
1950	0.44	3.30	0.36	5.41	3.45	4.84	1.63	0.68	2.09	0.73	0.21	0.01	23.14
1951	0.50	2.57	2.99	0.83	4.54	5.97	0.24	0.76	5.76	1.14	1.29	1.12	27.72
1952	1.12	1.83	2.51	3.93	4.51	3.85	1.89	0.04	9.68	0.00	6.15	3.34	38.87
1953	0.36	1.97	0.89	5.99	1.91	3.63	1.50	3.59	3.29	5.19	0.53	2.78	31.64
1954	1.21	0.14	0.10	2.76	3.18	1.24	0.91	0.63	1.25	1.66	0.50	0.51	14.08
1955	1.84	5.43	0.87	0.72	4.13	4.29	1.39	1.65	1.20	0.81	1.48	1.78	25.60
1956	1.20	1.13	0.44	0.97	3.04	0.70	0.55	1.92	1.88	1.25	1.60	2.74	17.42
1957	0.70	3.03	4.05	9.67	5.42	3.52	1.06	0.29	10.73	4.60	3.96	1.63	48.67
1958	3.66	5.60	1.82	1.43	2.93	2.35	3.18	0.96	7.35	5.61	1.22	1.01	37.12
1959	0.41	4.11	0.32	5.38	4.58	3.93	1.87	3.35	1.42	7.39	3.13	1.47	37.35
1960	2.13	1.94	1.53	4.38	1.49	8.10	1.20	4.25	1.07	11.58	2.11	3.29	43.08
1961	1.20	2.06	0.26	0.99	0.44	9.58	4.94	0.75	4.03	2.27	4.75	0.83	32.10
1962	0.99	1.23	1.39	3.83	0.76	4.74	0.20	1.84	6.26	2.38	1.22	2.88	27.72
1963	0.35	2.60	0.21	2.18	1.29	2.56	0.96	1.99	2.48	1.37	3.49	1.42	20.90
1964	2.49	2.12	2.16	2.04	2.52	4.28	0.52	2.38	5.81	2.21	2.41	1.07	30.00
1965	4.74	7.12	1.66	2.93	7.61	3.40	0.70	1.06	2.87	4.28	2.86	6.52	45.76
1966	1.83	3.35	1.66	2.52	3.38	3.18	0.55	4.78	3.51	1.86	0.04	1.24	27.90
1967	0.23	0.81	1.27	1.21	3.28	0.00	1.91	3.05	8.83	4.21	3.82	1.25	29.90
1968	7.47	1.84	1.46	4.52	4.14	5.32	0.82	0.56	5.45	1.37	4.79	3.01	40.75
1969	1.22	3.68	3.46	4.90	4.37	1.85	0.74	3.24	1.63	3.33	2.95	3.48	34.85
1970	1.70	4.02	2.59	2.15	8.81	0.77	1.09	1.21	5.00	3.38	0.01	0.48	31.20
1971	0.07	1.21	0.16	1.41	2.28	3.03	0.71	6.57	5.52	2.66	1.95	4.56	30.13
1972	1.05	0.58	0.21	1.18	12.35	2.90	2.16	3.21	2.16	3.98	3.29	0.82	33.89
1973	3.74	3.28	2.91	4.58	1.15	9.21	4.50	2.13	5.74	9.95	1.33	0.55	49.06
1974	3.72	0.22	1.14	1.71	7.34	2.59	0.69	8.24	5.35	2.19	8.77	1.82	43.79
1975	1.05	3.63	1.36	4.16	11.81	4.93	1.74	4.59	1.66	3.60	0.84	2.21	41.59
1976	0.95	0.80	2.17	9.62	7.63	2.49	5.51	1.22	4.58	10.51	3.41	2.34	51.21
1977	2.91	2.03	1.36	8.15	2.24	3.15	0.25	0.41	2.68	1.28	3.21	0.48	28.14
1978	1.45	2.35	1.27	1.56	3.19	3.74	0.73	3.63	5.47	0.62	7.92	2.13	34.05
1979	4.63	2.77	4.10	4.64	3.13	2.04	6.75	1.25	2.12	0.62	1.12	3.01	36.18
1980	1.81	1.39	1.90	1.64	6.79	1.05	0.38	1.45	7.98	1.63	3.73	0.62	30.35

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1720

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.88	1.41	2.35	2.71	4.30	14.88	2.33	5.14	1.10	6.39	1.82	0.72	45.03
1982	1.00	1.23	0.84	2.16	6.12	2.61	0.04	0.24	1.78	3.54	2.96	2.11	24.64
1983	1.98	2.64	5.19	0.13	5.21	5.05	2.93	2.34	5.29	2.52	3.18	0.67	37.12
1984	1.82	1.19	1.65	0.14	1.46	1.50	1.85	1.36	0.95	7.44	2.04	3.44	24.85
1985	2.65	1.85	2.57	4.24	2.67	7.83	3.62	0.07	4.98	4.26	9.02	0.69	44.44
1986	1.63	1.32	0.82	1.33	8.74	4.31	0.19	1.78	5.46	6.09	2.10	6.92	40.69
1987	1.36	4.93	1.32	0.38	10.74	11.35	1.10	1.30	2.45	0.52	2.72	2.41	40.58
1988	0.51	1.42	2.14	2.30	3.78	1.78	2.49	0.61	2.48	1.01	0.23	0.95	19.69
1989	4.17	0.71	2.78	3.26	4.05	3.63	0.64	1.42	0.31	2.59	1.77	0.33	25.66
AVG	2.15	2.39	2.06	3.15	4.29	3.73	2.14	2.06	3.71	3.24	2.53	2.27	33.74

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1730 (INCLUDING AREA ABOVE #1724)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	5.88	2.30	3.07	3.26	1.82	1.14	3.81	0.52	2.96	0.21	4.08	4.92	33.98
1935	2.16	3.53	1.46	1.77	10.61	4.61	2.18	0.68	8.62	1.22	1.02	4.14	42.01
1936	0.63	1.22	1.96	1.62	7.31	0.97	10.09	1.62	5.39	3.06	2.96	2.17	38.99
1937	2.36	0.36	5.29	0.93	2.12	4.35	1.35	1.26	0.63	3.19	1.84	5.16	28.85
1938	4.34	1.77	2.41	7.81	4.06	2.57	1.01	0.47	2.22	0.48	1.99	1.43	30.57
1939	2.28	0.91	0.75	1.75	3.22	1.05	5.02	1.36	2.29	0.39	1.58	0.92	21.52
1940	1.00	3.37	2.02	2.97	1.31	9.53	1.07	0.78	1.36	3.99	8.07	5.71	41.18
1941	1.49	3.52	3.76	6.50	4.61	5.44	4.46	0.90	3.52	6.51	1.07	2.50	44.27
1942	0.23	2.15	0.48	4.50	2.03	1.67	9.65	3.08	8.67	6.74	1.98	1.04	42.21
1943	1.53	0.30	1.68	0.59	3.28	1.69	3.93	0.11	4.93	1.33	2.46	1.55	23.37
1944	5.19	3.01	4.23	1.99	8.55	2.96	0.86	4.27	2.13	0.51	6.05	3.54	43.29
1945	3.39	3.69	3.18	3.84	0.52	4.75	2.67	1.22	2.70	4.26	0.86	1.70	32.79
1946	3.62	2.13	3.85	3.52	3.42	7.00	1.17	8.64	7.42	2.10	3.73	1.22	47.83
1947	3.61	0.32	2.96	3.05	4.73	0.72	1.53	5.09	0.92	0.13	1.59	1.92	26.58
1948	0.93	2.73	0.80	1.31	4.79	2.17	0.65	3.17	1.73	2.40	1.17	0.64	22.50
1949	4.68	3.25	1.10	7.47	1.19	2.88	3.28	0.99	1.81	6.78	0.06	2.90	36.41
1950	0.49	3.07	0.46	6.18	3.90	4.41	2.24	0.35	2.76	0.28	0.61	0.00	24.75
1951	0.37	2.09	3.10	0.74	4.59	7.00	0.37	0.64	4.37	0.90	1.04	1.04	26.24
1952	1.36	1.67	2.02	4.62	3.79	4.28	1.56	0.01	7.09	0.00	7.14	3.19	36.72
1953	0.73	1.63	1.20	7.62	1.53	2.78	0.80	2.60	3.62	6.64	0.50	2.81	32.48
1954	1.27	0.14	0.11	2.75	3.20	0.65	1.10	0.48	2.33	1.18	0.45	0.46	14.13
1955	1.83	4.21	0.66	1.35	4.83	3.52	1.62	1.23	1.90	0.92	1.36	1.55	24.97
1956	1.47	1.28	0.29	1.03	3.35	0.46	0.38	1.27	1.93	1.07	1.65	3.09	17.29
1957	0.50	3.15	4.58	9.25	5.58	4.23	0.96	0.10	10.95	5.08	4.06	1.89	50.33
1958	3.39	6.36	1.61	2.01	2.23	1.92	3.33	0.78	9.45	5.08	1.09	0.96	38.21
1959	0.43	4.10	0.46	5.58	2.54	4.83	3.15	2.72	2.01	5.23	3.77	1.23	36.06
1960	2.53	2.47	1.34	6.39	1.87	7.64	1.58	5.65	1.66	12.69	2.20	3.65	49.67
1961	1.44	2.33	0.21	1.03	0.64	11.37	3.60	0.45	4.67	1.73	4.77	1.12	33.37
1962	1.06	1.58	1.33	3.74	0.68	4.02	0.06	0.83	7.26	3.35	0.94	2.44	27.29
1963	0.63	2.55	0.12	2.53	1.72	2.68	0.45	2.94	2.68	0.91	2.82	1.61	21.64
1964	2.28	2.04	1.91	2.08	1.61	5.55	0.58	1.61	8.93	2.17	2.17	0.99	31.92
1965	5.76	7.09	1.05	2.21	7.54	3.08	0.30	1.21	2.56	4.09	2.92	5.68	43.48
1966	1.80	3.25	1.39	2.69	3.38	2.07	1.09	5.25	4.09	3.23	0.03	1.13	29.42
1967	0.24	0.92	0.84	1.16	3.13	0.00	1.70	3.50	8.19	4.42	3.67	1.73	29.51
1968	7.27	1.64	1.42	4.32	4.19	6.68	0.52	0.60	4.74	1.52	4.73	3.08	40.70
1969	1.07	3.73	3.82	5.82	3.89	1.88	0.24	4.01	2.49	3.44	3.33	3.85	37.56
1970	1.54	4.36	3.87	2.45	5.85	0.33	0.76	0.61	4.82	3.91	0.01	0.43	28.94
1971	0.03	1.17	0.33	1.09	2.29	2.53	1.19	6.34	4.67	2.05	1.86	3.77	27.32
1972	1.16	0.56	0.09	1.16	8.14	2.54	1.96	3.19	1.18	3.69	3.27	0.64	27.59
1973	4.08	3.08	3.14	4.13	1.27	8.66	2.69	3.04	4.43	9.47	1.72	0.57	46.28
1974	4.01	0.21	1.32	1.28	5.40	2.19	0.61	8.95	5.76	2.35	7.64	1.91	41.64
1975	0.89	3.03	1.12	4.79	14.54	4.72	1.61	4.09	1.12	4.62	1.01	2.09	43.64
1976	1.12	0.88	2.47	10.05	8.97	2.07	4.11	0.99	4.61	9.51	3.71	2.73	51.22
1977	2.40	1.89	1.31	8.60	2.11	4.06	0.27	0.41	2.48	1.12	2.91	0.52	28.10
1978	1.76	2.18	1.56	1.43	1.91	4.82	0.85	1.96	5.23	1.05	7.42	2.43	32.61
1979	3.15	2.23	4.12	3.87	2.69	1.41	3.79	2.19	2.10	1.05	1.28	2.56	30.45
1980	1.67	1.23	2.00	1.45	6.06	0.35	0.16	1.40	8.25	1.88	3.11	0.51	28.06
1981	1.88	1.46	2.37	2.39	3.93	11.07	2.50	3.90	1.12	7.10	2.18	0.59	40.50
1982	1.06	1.17	1.03	2.23	7.31	1.98	0.10	0.20	2.70	3.79	2.98	2.38	26.94
1983	1.72	3.49	5.28	0.13	6.12	4.28	2.65	1.63	4.83	2.63	3.82	0.73	37.30
1984	2.02	1.58	1.13	0.13	1.59	1.71	2.16	1.71	1.11	7.90	1.72	3.53	26.30
1985	2.29	1.93	2.23	5.71	2.58	6.66	3.74	0.05	5.45	4.01	10.72	0.74	46.11
1986	1.70	1.69	0.71	1.98	7.86	3.52	0.23	1.35	4.17	6.51	2.10	6.69	38.51
1987	1.25	5.30	1.30	0.38	9.73	11.00	1.41	1.33	1.95	0.61	2.90	2.48	39.65
1988	0.50	1.15	2.11	2.38	4.39	1.31	2.90	1.03	2.10	1.33	0.24	0.99	20.42
1989	4.35	0.90	3.19	3.21	6.33	3.87	0.71	1.59	0.16	2.35	1.68	0.29	28.64
AVG	2.10	2.31	1.92	3.30	4.23	3.78	2.01	2.08	3.91	3.29	2.72	2.13	33.79

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1746

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	1.42	4.89	3.60	3.33	1.98	0.83	2.31	5.52	4.60	2.98	5.00	7.31	43.77
1924	2.52	5.54	1.69	5.44	8.30	2.42	1.23	0.43	3.35	0.09	0.39	2.05	33.44
1925	1.01	0.14	0.28	1.25	1.35	1.38	1.19	0.52	3.15	10.64	2.89	1.56	25.36
1926	4.25	0.35	7.32	5.24	2.74	1.77	3.91	1.87	0.88	4.60	2.83	5.48	41.24
1927	1.43	1.42	2.05	5.75	1.90	4.99	1.08	0.60	2.36	3.03	0.02	4.13	28.76
1928	0.34	4.27	1.26	2.71	2.00	3.76	1.88	1.18	4.34	0.50	4.52	3.86	30.60
1929	1.71	0.77	4.77	3.21	13.90	1.92	4.51	0.19	0.70	4.40	4.90	2.09	43.08
1930	3.79	2.64	2.11	0.83	6.50	2.21	1.98	1.32	3.11	6.86	3.66	4.34	39.36
1931	3.97	4.46	2.74	1.83	1.32	2.06	2.37	2.98	0.12	0.39	0.98	4.92	28.13
1932	8.22	3.60	1.16	2.05	3.80	2.26	1.17	6.51	5.49	0.42	1.46	2.93	39.06
1933	1.79	3.10	1.84	1.49	4.05	1.06	3.37	2.18	2.69	1.07	0.77	1.66	25.07
1934	5.47	1.81	4.20	4.49	0.83	0.53	2.11	1.36	4.06	0.31	6.50	4.23	35.87
1935	1.19	2.94	1.26	7.90	13.30	2.93	2.65	0.82	9.75	1.68	1.46	6.27	52.16
1936	0.92	1.08	0.88	2.45	11.93	2.16	15.37	1.70	5.05	3.43	2.59	1.22	48.76
1937	2.77	0.34	6.43	0.84	0.75	3.93	1.56	1.68	2.06	4.46	1.84	4.04	30.70
1938	2.81	1.51	2.36	7.72	3.88	2.98	1.85	1.50	2.34	0.81	3.39	2.28	33.43
1939	2.62	2.18	1.50	1.11	3.48	1.82	4.30	1.73	5.01	0.56	1.26	1.37	26.94
1940	0.86	3.08	1.33	2.05	2.07	14.72	3.23	1.12	1.14	3.84	8.98	5.75	48.16
1941	1.59	3.75	3.57	6.95	7.89	5.12	3.18	4.20	2.89	4.60	1.16	1.46	46.36
1942	0.35	1.15	0.85	6.28	1.48	1.40	7.96	2.77	4.10	2.94	2.20	1.75	33.22
1943	1.90	0.56	2.59	0.38	4.60	1.89	4.44	0.51	2.60	0.68	2.89	1.94	24.98
1944	5.52	1.86	3.40	1.59	5.84	1.25	1.37	5.72	2.29	0.39	5.43	3.03	37.70
1945	3.19	3.51	4.00	3.87	0.66	4.93	2.99	2.09	2.15	3.55	0.59	1.97	33.48
1946	4.59	2.94	4.30	4.79	3.59	5.31	1.49	6.27	5.64	2.42	4.55	1.38	47.26
1947	3.35	0.38	3.19	3.51	2.95	1.51	1.67	4.14	0.13	0.31	2.14	3.44	26.73
1948	1.07	3.15	0.97	1.53	5.23	2.71	1.37	1.29	2.23	0.32	1.44	0.08	21.39
1949	3.51	5.94	2.07	8.53	2.13	3.54	3.80	1.21	2.03	5.24	0.10	3.81	41.92
1950	0.99	3.28	0.48	5.13	2.60	4.81	1.69	0.76	5.44	0.11	0.43	0.70	26.43
1951	0.41	1.54	2.61	1.11	4.83	7.20	0.07	1.09	3.20	0.69	2.07	0.95	25.77
1952	0.73	2.32	1.61	4.53	5.37	3.62	4.56	0.02	5.27	0.00	6.90	4.30	39.23
1953	1.08	3.13	0.40	5.32	3.18	2.67	0.54	3.44	3.10	4.66	0.18	3.47	31.16
1954	1.13	0.44	0.15	5.29	4.46	0.83	1.27	0.69	0.72	2.05	0.80	0.80	18.63
1955	1.85	3.86	1.33	0.50	5.63	4.61	1.09	2.40	0.49	0.76	0.95	1.97	25.42
1956	1.89	2.53	0.53	1.07	2.39	0.54	1.06	1.36	1.24	1.00	0.52	4.03	18.16
1957	0.64	3.11	4.81	6.36	6.02	3.34	0.89	0.78	13.47	6.55	4.99	1.35	52.32
1958	4.30	6.08	1.25	2.48	3.96	3.03	2.68	0.26	7.84	3.04	2.08	1.36	38.36
1959	0.77	3.51	0.09	7.64	3.71	3.72	1.81	3.53	2.82	4.77	2.05	2.83	37.25
1960	1.05	2.97	1.19	5.38	1.71	8.99	2.41	3.08	1.17	13.55	2.77	4.65	48.92
1961	1.55	2.35	0.76	2.12	1.53	11.29	5.79	1.27	7.78	2.26	5.42	0.87	43.00
1962	1.83	0.84	0.70	4.60	1.33	4.65	0.52	0.05	4.10	2.58	1.08	3.50	25.77
1963	0.68	2.67	0.07	0.94	0.83	2.40	0.43	1.24	3.06	0.78	5.74	1.91	20.76
1964	2.32	2.41	3.36	1.96	1.12	3.70	1.28	3.60	5.89	1.03	0.81	1.69	29.19
1965	3.03	6.41	0.93	1.75	8.14	3.49	0.17	1.49	2.51	6.00	5.75	5.47	45.14
1966	1.98	3.65	1.12	3.98	5.47	3.02	1.79	4.19	2.66	2.04	0.10	1.26	31.25
1967	0.70	0.71	1.13	1.62	4.79	0.00	2.59	1.39	11.72	3.64	1.70	1.55	31.55
1968	6.20	1.61	1.76	4.45	5.26	12.15	1.13	2.83	8.55	2.03	5.01	2.45	53.43
1969	1.08	4.57	3.75	4.85	2.62	1.39	0.19	4.04	2.68	3.77	2.24	2.33	33.51
1970	2.39	4.54	3.52	1.84	5.83	0.45	0.76	0.93	5.82	4.59	0.03	0.90	31.59
1971	0.05	1.43	1.13	1.61	2.94	2.69	0.11	6.40	6.45	3.04	1.61	4.05	31.50
1972	1.62	0.89	0.78	1.16	11.93	2.68	2.48	4.22	2.64	4.09	2.43	0.81	35.74
1973	4.26	2.96	4.42	6.11	2.00	8.96	2.05	1.61	4.45	11.49	2.20	0.63	51.14
1974	5.57	0.63	1.27	1.08	5.23	2.97	0.71	7.46	5.54	2.31	5.72	2.19	40.67
1975	1.14	2.29	0.91	4.65	10.39	4.05	3.79	2.64	2.26	2.94	1.83	2.16	39.03
1976	1.07	0.60	3.67	12.25	6.49	1.26	4.21	1.09	4.19	10.79	3.88	5.09	54.59
1977	2.35	2.48	1.64	11.07	2.11	3.54	0.66	0.71	2.81	1.00	4.86	0.68	33.91
1978	3.41	2.23	1.24	1.50	2.19	5.92	1.18	3.09	8.27	1.27	5.32	2.02	37.64
1979	5.75	2.49	3.79	5.38	5.84	4.49	4.80	2.02	2.79	0.49	1.07	3.37	42.29
1980	2.64	1.42	1.64	1.25	8.05	0.99	1.09	0.97	4.16	1.22	3.36	0.81	27.61

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1746

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.93	1.82	1.86	2.91	4.09	11.83	2.41	12.59	3.19	6.38	4.74	1.08	54.82
1982	1.22	1.70	0.98	1.62	10.25	1.32	0.12	1.14	2.06	4.56	2.63	1.87	29.47
1983	1.49	3.59	5.20	0.30	5.27	2.93	4.06	1.66	3.74	2.11	3.81	0.31	34.46
1984	3.01	1.63	1.73	0.15	0.99	1.21	1.66	1.04	3.04	8.35	1.43	4.50	28.72
1985	4.19	2.58	2.54	3.36	2.55	3.75	0.58	1.84	5.31	4.67	6.42	0.87	38.66
1986	1.67	1.80	1.26	0.85	8.02	4.67	0.13	1.66	3.97	5.67	3.58	7.70	40.98
1987	1.42	5.44	0.77	0.20	5.90	16.21	1.54	2.62	2.93	0.36	3.90	2.70	44.00
1988	0.54	1.12	2.89	2.03	2.18	2.00	2.73	1.08	1.30	1.14	0.61	1.48	19.12
1989	5.58	0.51	2.60	1.21	6.82	5.64	1.37	0.66	0.52	1.66	2.03	0.56	29.16
AVG	2.35	2.50	2.14	3.41	4.51	3.80	2.28	2.30	3.78	3.13	2.79	2.62	35.63

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1750

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	1.07	4.97	3.50	1.78	2.54	1.38	3.45	4.08	6.82	3.59	4.39	6.48	44.05
1924	0.88	2.88	0.89	2.99	6.30	2.79	0.07	1.09	2.22	0.26	0.01	1.91	22.29
1925	0.56	0.02	0.68	0.94	1.26	1.21	0.70	1.21	2.68	6.32	1.64	1.37	18.59
1926	3.20	0.49	5.64	3.88	2.43	1.41	2.03	2.63	1.06	8.36	2.11	3.18	36.41
1927	0.66	1.08	4.28	5.05	1.41	5.34	1.33	0.59	2.58	3.27	0.19	3.95	29.73
1928	0.55	2.61	1.22	2.37	3.88	2.80	1.27	0.93	4.39	1.05	3.58	3.28	27.94
1929	2.35	0.34	5.48	3.01	12.20	3.26	3.94	0.57	2.15	2.70	2.72	2.23	40.96
1930	1.80	1.58	2.14	1.43	1.83	2.95	1.54	0.77	0.86	3.35	2.87	1.56	22.68
1931	2.74	2.89	2.59	1.89	1.84	3.03	2.03	1.00	0.05	1.12	0.46	3.52	23.16
1932	6.73	2.88	0.86	3.69	1.95	1.68	0.30	3.17	5.37	0.45	1.05	2.16	30.29
1933	1.94	2.65	1.29	1.11	4.31	2.41	5.67	4.20	3.31	1.88	0.96	0.57	30.28
1934	6.47	1.19	2.46	2.87	0.78	0.43	5.85	1.39	2.63	0.23	4.95	5.51	34.77
1935	1.06	3.46	1.60	3.88	8.44	5.74	2.07	0.24	10.32	1.55	0.50	5.12	43.96
1936	0.84	0.74	1.92	2.10	6.11	3.99	9.81	3.39	4.82	2.67	2.80	1.05	40.23
1937	1.99	0.42	5.13	0.74	1.00	1.14	1.18	0.85	1.61	3.83	1.88	6.79	26.56
1938	2.41	1.57	1.07	9.01	3.80	2.89	2.47	0.46	2.91	0.25	1.50	2.48	30.82
1939	1.25	0.86	0.34	0.82	0.66	2.08	3.14	2.65	3.12	0.32	1.09	1.29	17.61
1940	0.71	2.25	2.22	1.44	1.84	10.46	2.82	1.14	0.79	6.09	6.82	5.58	42.16
1941	4.94	3.24	3.67	6.34	5.86	5.23	1.71	3.14	4.40	5.27	1.44	1.23	46.47
1942	0.28	1.22	0.70	4.73	1.51	1.47	10.33	3.40	7.04	2.97	1.90	1.00	36.56
1943	1.32	0.22	2.47	0.20	3.88	1.51	4.26	0.46	3.94	0.58	2.85	1.41	23.10
1944	4.14	0.99	2.52	1.43	7.27	1.17	0.70	6.82	1.34	0.46	4.17	2.06	33.09
1945	2.81	2.50	3.84	4.43	0.29	4.14	1.26	1.25	1.95	4.34	0.40	1.07	28.27
1946	3.48	2.53	5.12	8.88	4.44	6.81	0.97	10.02	5.54	4.09	2.44	0.85	55.17
1947	3.20	0.20	2.32	2.16	3.44	0.35	1.09	3.07	0.37	0.77	2.60	2.74	22.32
1948	1.10	2.93	0.93	1.50	5.40	1.50	2.37	3.23	2.01	1.61	1.35	0.12	24.04
1949	2.72	2.63	1.55	7.61	0.62	4.56	4.07	1.22	2.02	5.14	0.21	3.46	35.81
1950	0.74	1.38	0.41	3.69	1.88	6.09	2.38	1.44	4.45	0.11	0.17	0.08	22.82
1951	0.44	1.19	2.48	0.48	2.80	6.42	0.10	1.12	2.87	0.90	2.93	0.34	22.08
1952	0.62	2.75	1.30	2.91	3.71	1.57	2.46	0.07	9.21	0.00	5.27	4.17	34.05
1953	0.45	2.44	0.20	2.63	2.90	1.01	0.35	4.03	2.55	5.83	0.31	1.78	24.48
1954	0.87	0.13	0.15	5.49	2.71	1.04	0.69	1.67	1.11	1.32	1.38	0.23	16.78
1955	1.37	3.42	1.57	0.60	4.04	4.35	2.26	2.87	0.39	0.32	0.86	1.37	23.41
1956	0.78	0.79	0.71	1.08	2.00	0.99	0.76	1.36	0.66	2.62	0.83	3.39	15.97
1957	0.44	2.92	5.76	7.21	5.33	2.41	0.29	2.10	12.22	5.15	5.46	0.68	49.96
1958	4.74	4.89	0.63	1.12	3.56	1.08	1.21	0.12	8.59	6.96	1.62	1.47	36.00
1959	0.45	4.42	0.26	5.15	3.31	2.65	1.11	2.02	2.14	4.01	1.69	2.17	29.39
1960	0.95	2.67	1.15	2.08	1.59	6.97	2.55	5.72	1.59	13.71	2.89	3.14	45.03
1961	1.24	2.39	0.74	1.38	0.60	8.01	4.92	0.64	3.86	3.68	4.22	0.48	32.16
1962	1.52	0.72	0.75	4.65	1.30	4.61	0.04	0.60	4.78	2.08	2.59	2.54	26.17
1963	0.62	3.06	0.17	0.91	0.72	3.34	0.93	0.93	1.69	0.75	3.69	1.81	18.62
1964	2.89	2.13	2.46	2.66	1.71	3.35	0.79	2.51	3.21	1.50	1.24	1.11	25.57
1965	5.56	6.97	0.65	0.96	5.95	3.86	0.20	1.29	2.56	5.82	2.60	4.86	41.28
1966	1.60	2.79	1.14	4.93	4.42	2.52	0.82	2.33	2.64	1.96	0.02	0.54	25.69
1967	0.62	0.56	0.87	1.78	2.98	0.00	2.33	3.54	16.53	3.07	2.96	1.20	36.45
1968	5.82	1.85	1.02	2.92	4.05	7.29	0.49	1.43	8.48	1.44	4.31	1.37	40.48
1969	2.01	4.30	3.39	5.26	4.27	1.24	0.30	2.46	4.27	4.40	2.02	2.32	36.24
1970	1.90	3.10	2.26	1.01	5.00	2.92	3.12	0.92	3.99	1.95	0.02	0.47	26.66
1971	0.05	1.07	0.12	1.77	1.08	4.38	0.14	6.41	7.99	3.01	1.13	3.16	30.30
1972	2.34	0.68	1.12	0.94	13.74	2.31	1.58	2.84	2.76	1.43	2.58	0.56	32.89
1973	3.14	3.35	3.38	6.02	2.09	10.07	1.64	2.59	4.55	11.31	0.70	0.36	49.20
1974	2.75	0.75	0.57	1.18	7.01	1.37	0.97	8.58	5.23	3.90	3.28	1.78	37.36
1975	0.45	1.62	0.71	6.46	8.54	6.01	2.45	2.20	1.47	1.76	1.20	1.05	33.92
1976	0.40	0.17	1.75	7.89	6.01	0.88	4.15	1.66	7.77	8.17	3.41	5.24	47.51
1977	2.68	1.89	1.08	8.33	1.93	2.73	0.39	0.65	5.52	1.84	3.89	0.47	31.40
1978	1.57	2.02	2.23	2.41	2.03	3.65	3.18	2.08	7.06	0.94	3.81	2.22	33.20
1979	4.71	2.12	2.00	8.25	5.93	2.91	5.21	3.28	2.67	0.43	1.07	2.68	41.27
1980	2.00	1.18	0.93	0.70	8.69	0.16	1.22	2.76	4.78	1.09	3.67	1.08	28.26

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1750

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	2.16	1.28	2.22	2.53	4.49	5.99	1.83	9.60	0.86	5.32	0.68	0.76	37.71
1982	0.77	3.18	0.56	1.44	5.21	1.28	0.16	0.73	1.80	4.85	3.19	1.35	24.53
1983	1.19	2.59	4.79	0.09	3.76	2.41	4.92	4.09	7.59	1.83	3.16	0.62	37.04
1984	2.86	1.04	2.43	0.85	2.04	1.64	2.14	1.07	2.38	5.85	2.39	2.89	27.58
1985	2.69	2.42	2.89	4.39	2.28	4.03	1.31	0.32	5.28	5.15	5.11	0.67	36.53
1986	1.46	1.07	1.03	0.66	5.24	2.60	0.89	1.70	3.18	5.67	2.91	6.09	32.50
1987	1.52	5.47	0.75	0.31	6.73	12.41	2.43	1.22	3.57	0.61	3.11	2.48	40.59
1988	0.30	0.31	1.61	2.09	2.43	1.96	1.70	0.38	1.35	1.23	0.34	0.78	14.49
1989	4.66	0.90	2.83	2.81	3.42	2.99	2.01	0.54	1.22	2.93	2.26	0.86	27.44
AVG	2.01	2.05	1.90	3.05	3.77	3.33	2.13	2.31	3.90	3.10	2.27	2.13	31.95

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1758

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.92	5.84	3.84	2.81	2.43	0.80	1.95	3.46	5.60	3.53	4.45	7.36	43.01
1924	1.61	3.80	1.37	3.79	5.78	3.84	0.29	0.75	2.45	0.22	0.13	2.20	26.22
1925	0.50	0.09	0.14	0.95	1.16	1.59	1.51	1.19	4.08	6.59	2.13	1.33	21.26
1926	4.24	0.36	7.07	4.38	3.55	1.66	2.63	1.41	1.39	4.49	2.26	3.58	37.02
1927	1.07	2.18	2.70	2.96	1.65	5.60	0.66	0.99	1.99	3.78	0.05	2.67	26.31
1928	0.51	3.31	0.91	1.99	3.05	3.52	2.19	1.12	4.41	1.17	5.05	3.52	30.74
1929	2.43	0.47	3.84	3.18	14.93	2.65	6.16	0.15	1.90	3.70	4.38	2.57	46.38
1930	2.23	1.79	2.31	1.40	4.73	3.27	0.91	1.31	1.76	5.06	3.16	2.18	30.09
1931	3.73	3.95	2.35	0.95	1.77	2.49	3.40	1.61	0.22	0.39	0.88	4.73	26.47
1932	7.32	3.57	1.45	2.81	2.44	2.10	1.52	4.47	5.26	0.85	1.21	2.47	35.47
1933	1.53	3.18	2.04	1.52	3.74	2.17	5.13	3.03	3.09	1.46	0.99	0.98	28.85
1934	7.58	1.69	3.78	3.26	0.87	0.22	3.74	0.77	3.27	0.37	4.80	5.01	35.36
1935	1.13	3.41	1.65	2.61	9.33	4.69	2.57	0.72	9.00	1.85	0.94	5.88	43.78
1936	0.76	0.92	1.85	2.33	9.91	5.75	8.12	2.60	5.30	3.18	2.75	1.41	44.87
1937	2.20	0.43	5.08	1.02	1.56	3.50	1.58	2.17	1.06	3.79	2.05	5.84	30.27
1938	3.08	1.41	2.33	8.78	4.73	1.81	1.09	0.75	2.22	0.73	2.09	2.19	31.22
1939	2.09	1.35	0.56	1.22	3.09	2.63	4.61	1.63	3.18	0.29	1.07	1.06	22.78
1940	0.88	2.97	1.47	2.15	1.93	10.98	3.43	1.43	1.04	4.32	8.97	5.39	44.95
1941	1.85	3.71	3.66	6.13	6.60	6.25	1.90	1.93	2.64	4.22	1.38	1.35	41.64
1942	0.31	1.47	0.76	5.15	1.78	1.68	10.66	3.73	5.78	3.49	1.78	1.16	37.73
1943	1.61	0.27	2.38	0.34	4.10	1.89	4.83	0.38	3.39	1.04	3.53	1.78	25.54
1944	4.86	1.55	2.95	1.87	6.42	1.76	0.89	5.46	1.64	0.58	4.94	3.09	36.01
1945	2.98	3.02	2.90	3.80	0.36	4.08	1.60	1.62	2.10	3.76	0.53	1.57	28.33
1946	4.06	2.36	3.88	4.16	2.70	6.29	1.56	7.73	6.59	3.75	3.19	1.62	47.88
1947	3.13	0.29	2.33	2.69	5.21	0.25	1.55	3.41	0.51	0.56	1.94	2.78	24.65
1948	1.30	3.08	1.10	1.58	4.74	2.09	1.63	2.58	2.19	1.48	1.53	0.19	23.49
1949	3.87	3.08	1.73	9.45	1.61	3.69	3.91	1.25	2.76	8.61	0.35	3.45	43.76
1950	0.75	2.48	0.36	4.43	3.14	4.46	1.29	0.91	2.86	0.48	0.18	0.15	21.50
1951	0.42	1.57	2.61	0.70	3.83	5.77	0.44	0.58	4.42	1.04	2.11	0.62	24.11
1952	0.74	2.63	1.96	2.91	5.27	2.85	2.48	0.21	7.38	0.01	5.62	3.73	35.79
1953	0.56	2.33	0.45	3.97	3.32	2.26	0.92	4.30	2.33	4.92	0.37	2.06	27.78
1954	1.06	0.15	0.18	3.86	3.27	0.87	0.83	0.53	1.58	1.43	0.62	0.46	14.83
1955	1.77	4.27	0.97	0.97	4.35	4.08	1.05	2.71	0.87	0.86	1.02	1.63	24.56
1956	0.90	1.01	0.64	1.19	2.91	0.86	0.68	1.60	0.84	1.49	1.01	3.07	16.21
1957	0.59	3.37	4.68	8.71	5.26	2.16	0.83	1.04	10.47	5.43	4.56	0.97	48.06
1958	4.52	5.60	1.00	1.49	3.20	2.18	2.30	0.43	7.18	5.00	1.29	1.48	35.67
1959	0.35	4.16	0.25	5.43	3.67	2.79	1.84	3.32	1.79	5.51	2.27	2.16	33.54
1960	1.75	2.20	1.24	2.16	1.29	7.78	2.00	4.08	2.10	12.59	2.85	3.51	43.54
1961	1.40	2.31	0.35	1.04	0.70	9.82	4.55	0.98	4.72	2.61	4.86	0.60	33.95
1962	1.15	0.88	0.84	4.67	1.01	4.31	0.23	1.46	5.51	2.16	1.39	2.86	26.47
1963	0.69	2.77	0.15	1.40	1.15	3.02	0.80	0.81	1.79	1.13	4.28	1.77	19.75
1964	2.50	2.58	3.04	2.13	1.78	2.31	0.68	3.56	5.30	1.60	1.75	1.37	28.59
1965	3.69	6.36	1.54	2.14	6.94	4.13	0.32	1.56	3.15	4.27	3.83	4.96	42.90
1966	1.55	3.34	1.42	3.79	3.93	3.17	1.25	3.23	2.60	1.76	0.05	1.04	27.13
1967	0.65	0.64	1.53	1.67	2.77	0.00	2.44	4.42	14.46	4.11	2.94	1.49	37.14
1968	6.13	1.78	1.36	4.69	4.88	7.80	0.86	1.53	6.45	1.42	4.74	2.01	43.63
1969	1.23	4.63	3.45	4.78	4.20	1.75	0.49	2.65	3.16	3.21	2.40	2.80	34.76
1970	2.18	2.68	2.68	1.36	7.84	1.20	1.14	1.70	4.29	2.68	0.04	0.70	28.47
1971	0.05	1.16	0.19	1.50	1.62	3.75	0.72	6.13	8.18	2.64	1.48	3.54	30.97
1972	2.09	0.83	1.31	1.01	14.53	2.74	2.35	2.08	3.11	2.90	2.62	0.77	36.34
1973	3.53	2.84	3.25	5.97	1.77	10.48	2.56	2.47	5.81	11.28	1.19	0.58	51.72
1974	3.69	0.76	0.87	1.39	6.66	2.99	0.99	7.70	6.03	2.69	5.79	1.77	41.32
1975	0.96	1.93	1.11	4.96	9.78	3.79	2.96	3.14	1.93	2.85	1.12	1.58	36.13
1976	0.68	0.54	2.15	9.58	6.85	1.73	4.63	1.41	5.09	9.92	3.34	4.45	50.36
1977	2.70	1.95	1.26	8.98	1.91	3.08	0.57	0.74	3.42	1.76	4.09	0.51	30.97
1978	1.97	2.22	1.46	2.33	2.18	4.31	1.43	3.11	7.18	0.86	5.68	2.15	34.88
1979	4.65	2.34	2.91	5.27	6.02	3.25	5.09	1.97	3.09	0.66	1.22	2.90	39.37
1980	2.18	1.33	1.40	1.06	6.90	0.60	0.75	2.29	6.31	1.34	3.60	0.86	28.60

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1758

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.81	1.38	2.11	3.42	4.89	9.58	2.15	8.19	1.14	6.72	1.52	1.05	43.96
1982	0.89	2.73	0.70	1.46	6.94	1.92	0.10	0.68	2.07	4.10	3.98	1.58	27.16
1983	1.69	3.00	4.84	0.11	4.54	3.46	4.35	2.31	5.18	2.44	3.24	0.59	35.76
1984	2.83	1.29	1.87	0.32	1.79	1.52	2.40	1.24	1.28	6.58	1.57	3.20	25.88
1985	2.84	2.13	2.70	4.80	2.50	5.08	2.30	0.42	5.11	4.25	5.80	0.84	38.77
1986	1.57	1.59	1.07	1.07	6.44	4.43	0.31	2.10	4.25	6.14	2.53	6.38	37.87
1987	1.65	5.25	0.76	0.36	8.26	13.03	1.84	1.14	2.31	0.63	3.09	2.98	41.30
1988	0.37	0.84	1.86	2.23	2.63	1.99	2.50	0.58	2.02	0.87	0.51	1.00	17.40
1989	4.74	0.80	2.62	2.22	3.62	4.32	0.82	0.71	0.75	2.68	2.08	0.75	26.10
AVG	2.14	2.27	1.96	3.06	4.25	3.62	2.18	2.20	3.77	3.11	2.52	2.30	33.39

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1765

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.96	6.12	4.68	1.75	2.20	1.12	2.38	2.36	6.60	2.73	4.05	9.45	44.43
1924	1.82	2.54	1.48	2.33	4.50	5.65	0.28	2.19	2.52	0.14	0.04	3.67	27.14
1925	0.63	0.25	0.06	0.95	0.85	1.17	2.80	2.14	4.75	5.50	1.32	2.49	22.93
1926	4.42	0.74	6.78	1.55	5.02	1.53	5.07	1.73	2.14	4.60	1.31	4.40	39.30
1927	0.44	1.48	2.70	1.19	1.62	5.30	0.80	0.32	2.34	4.39	0.20	2.91	23.70
1928	0.63	2.46	0.61	1.77	3.28	3.60	1.23	1.31	2.89	2.17	7.36	4.84	32.15
1929	4.76	0.30	4.01	2.00	12.91	3.11	10.68	0.15	0.51	5.80	6.51	2.58	53.35
1930	2.51	1.49	2.35	1.88	3.86	0.70	1.58	0.92	2.11	8.18	3.82	2.14	31.55
1931	2.90	4.06	3.19	0.77	2.06	2.94	6.89	2.69	0.99	0.74	0.81	5.56	33.61
1932	6.86	3.25	2.00	4.19	2.58	2.57	0.65	2.19	3.81	1.90	1.32	2.09	33.40
1933	1.75	4.32	2.90	0.59	3.61	4.21	4.99	5.29	3.98	0.80	1.93	0.87	35.23
1934	12.18	1.27	4.24	4.76	0.64	0.05	4.54	0.98	2.89	0.40	4.86	4.09	40.89
1935	0.75	3.65	2.92	2.57	6.01	5.05	2.94	0.18	6.70	1.44	1.14	5.84	39.19
1936	0.89	0.82	2.20	3.17	12.45	5.49	7.79	2.90	5.89	2.76	1.93	1.48	47.78
1937	2.62	0.40	3.21	0.73	1.38	2.76	2.54	2.67	2.06	3.87	1.69	5.48	29.42
1938	1.59	1.52	0.18	6.57	5.83	1.39	1.28	2.00	2.27	1.16	1.17	3.13	28.08
1939	2.01	1.05	0.15	0.30	2.11	2.76	4.72	1.73	4.31	0.20	0.48	1.84	21.67
1940	0.84	2.88	1.34	1.08	2.04	12.95	4.47	0.65	1.04	5.95	10.49	5.46	49.17
1941	1.47	3.34	4.50	6.46	8.90	5.92	4.10	2.21	2.96	5.41	1.04	1.67	48.00
1942	0.66	2.38	1.75	1.99	0.80	1.13	11.03	5.08	3.54	1.91	1.24	1.05	32.57
1943	2.19	0.63	3.78	0.25	4.27	2.85	4.44	0.50	4.34	0.88	5.31	3.87	33.29
1944	4.94	1.14	4.40	0.55	9.38	1.02	0.59	5.24	2.19	0.16	4.29	3.34	37.24
1945	1.20	1.60	2.01	4.20	0.78	3.27	1.46	4.10	1.47	2.16	0.06	1.45	23.77
1946	3.71	2.89	1.75	3.52	1.74	5.95	3.03	7.28	5.15	7.48	2.77	1.03	46.31
1947	2.98	0.49	1.40	1.99	7.71	2.03	2.37	4.19	0.79	0.75	2.38	3.07	30.14
1948	1.61	3.21	1.69	1.89	4.17	2.27	2.10	4.59	2.91	0.44	1.99	0.22	27.10
1949	3.10	3.17	2.20	6.73	1.76	3.18	4.73	1.87	3.02	7.00	0.74	4.78	42.30
1950	1.04	1.29	0.51	3.81	1.47	3.10	2.35	1.47	4.26	1.07	0.27	0.56	21.19
1951	0.90	0.69	2.91	1.08	4.84	4.70	0.59	0.16	6.98	1.47	2.23	0.39	26.93
1952	0.68	3.25	1.79	3.06	4.39	1.87	3.22	1.11	5.21	0.01	7.57	1.96	34.11
1953	0.38	2.59	0.18	1.80	5.97	0.53	2.22	5.04	1.64	4.00	0.26	1.91	26.51
1954	1.10	0.16	0.33	3.18	2.94	0.87	0.43	0.83	2.80	2.78	0.86	1.17	17.46
1955	1.47	4.31	0.46	1.26	4.11	3.18	1.41	3.71	2.70	1.41	1.07	0.87	25.96
1956	0.86	0.78	0.50	1.79	2.33	1.26	0.63	0.35	1.02	3.17	0.67	2.25	15.59
1957	0.60	3.14	5.71	6.81	5.47	4.34	0.30	1.97	5.65	5.36	6.71	0.76	46.82
1958	4.62	5.87	0.85	1.19	2.74	0.66	2.06	0.69	9.34	5.97	1.17	3.19	38.34
1959	0.41	5.74	0.56	3.77	4.42	3.80	1.15	3.58	3.25	5.01	1.10	2.89	35.67
1960	1.37	2.52	1.05	0.78	1.45	5.29	3.44	6.73	1.72	17.79	3.59	4.01	49.73
1961	2.04	2.63	0.53	1.91	0.65	7.28	3.90	1.23	5.18	2.43	5.05	0.54	33.38
1962	0.92	0.39	0.93	5.49	0.82	4.24	0.86	0.61	7.33	1.67	2.11	3.20	28.57
1963	1.32	2.45	0.27	1.00	0.91	3.88	1.73	1.11	1.17	1.34	4.00	2.41	21.59
1964	2.32	2.32	2.42	0.76	2.11	1.81	1.59	6.01	5.47	0.44	0.87	1.71	27.81
1965	3.43	5.35	0.73	0.82	7.03	3.07	0.34	1.15	3.72	3.06	3.17	4.64	36.49
1966	2.71	2.56	0.48	6.50	4.17	4.19	3.69	3.27	2.89	1.43	0.34	1.46	33.69
1967	1.67	0.90	1.12	2.95	2.09	0.00	2.03	5.14	18.59	5.00	1.56	0.95	42.00
1968	4.16	1.71	1.62	1.29	10.30	11.01	2.40	1.39	4.91	1.76	3.56	1.79	45.90
1969	0.85	4.41	3.36	6.94	5.43	2.60	0.78	3.02	5.50	4.28	3.42	3.15	43.75
1970	3.26	0.94	2.16	1.63	8.11	1.92	3.77	1.62	5.02	2.72	0.14	1.32	32.60
1971	0.07	1.42	0.31	2.06	0.59	3.08	0.19	5.05	12.00	4.80	1.39	2.67	33.64
1972	3.14	1.22	2.75	0.15	15.65	3.00	3.17	1.57	4.62	2.88	2.24	1.53	41.91
1973	2.41	2.70	4.00	6.28	1.76	11.88	2.29	3.76	5.57	8.61	0.94	0.91	51.11
1974	3.51	0.92	1.30	1.11	7.97	2.67	1.26	6.60	6.44	2.95	3.19	2.32	40.24
1975	0.85	0.73	0.14	3.23	7.78	6.02	5.11	2.38	1.33	3.30	0.87	3.45	35.20
1976	0.60	0.14	1.49	6.02	4.74	2.00	5.94	2.07	6.64	8.51	2.61	6.27	47.05
1977	2.32	2.19	1.18	5.19	2.74	6.47	1.68	2.69	3.67	3.15	4.47	0.30	36.05
1978	2.51	2.32	0.65	2.40	2.13	4.26	1.74	1.65	15.94	0.91	3.83	1.85	40.18
1979	5.40	2.22	1.67	5.16	8.61	6.38	5.48	1.54	7.00	1.68	1.16	2.07	48.36
1980	3.37	1.54	1.71	0.66	6.46	0.00	0.48	3.46	5.16	0.95	2.63	1.08	27.51

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1765

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	2.23	0.86	1.43	3.18	6.59	8.53	2.42	4.68	0.59	8.20	1.47	1.75	41.93
1982	0.45	4.88	0.36	1.82	9.66	0.27	0.03	1.05	0.93	3.42	6.72	0.79	30.38
1983	1.58	3.09	4.31	0.08	2.19	3.61	7.22	1.18	4.69	4.08	3.20	0.42	35.63
1984	4.06	1.82	2.03	0.34	2.23	1.66	2.48	1.70	1.98	6.37	1.44	2.66	28.75
1985	2.93	1.99	5.11	9.04	0.78	6.87	1.46	0.69	3.80	2.82	4.14	1.90	41.53
1986	1.09	1.27	1.08	0.59	5.17	6.33	0.72	2.78	4.02	5.95	1.93	4.24	35.17
1987	2.13	4.78	0.68	0.01	3.96	9.07	3.31	1.42	1.39	0.67	5.12	3.06	35.59
1988	0.22	0.09	1.63	2.21	1.15	1.67	4.00	0.73	3.89	0.60	0.62	2.15	18.95
1989	3.83	1.09	1.40	2.14	1.00	5.05	1.07	1.41	2.16	4.45	1.89	1.38	26.86
AVG	2.23	2.19	1.94	2.62	4.26	3.71	2.81	2.45	4.18	3.36	2.53	2.55	34.83

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1774

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.85	7.01	4.46	2.22	1.79	0.84	2.46	2.54	6.01	3.64	4.10	9.01	44.93
1924	1.47	2.22	1.25	2.44	4.24	4.82	0.25	1.15	2.72	0.14	0.12	3.14	23.97
1925	0.64	0.12	0.25	0.67	1.15	0.95	2.04	2.25	4.84	5.87	1.31	2.23	22.30
1926	4.19	0.77	5.83	1.93	3.34	1.18	4.47	1.65	1.71	4.70	1.14	4.76	35.65
1927	0.53	1.37	2.61	1.09	1.40	5.23	2.00	0.19	2.05	3.65	0.39	2.54	23.05
1928	0.58	2.53	0.75	1.57	2.73	3.18	1.14	1.27	2.68	1.73	6.62	4.63	29.41
1929	4.59	0.29	3.46	2.62	10.58	3.07	7.90	0.53	1.26	4.50	5.67	2.16	46.63
1930	2.11	1.51	2.22	1.58	3.47	1.23	1.43	0.52	1.31	5.25	3.35	1.75	25.72
1931	3.36	3.42	2.77	0.97	1.90	6.20	6.77	1.80	0.81	0.88	0.67	5.18	34.74
1932	6.70	3.48	1.69	4.21	1.99	2.44	0.45	2.68	4.45	1.33	1.42	1.87	32.71
1933	1.80	3.59	2.80	0.63	2.99	3.88	4.63	4.19	3.98	1.02	1.75	0.65	31.91
1934	10.37	1.26	3.78	3.51	0.68	0.10	5.94	0.72	3.17	0.64	6.17	3.98	40.34
1935	0.74	3.36	2.78	2.80	5.54	5.72	2.45	0.35	9.47	1.10	0.78	5.55	40.64
1936	0.78	0.63	1.69	2.88	10.25	4.23	6.48	3.36	5.11	2.09	1.88	1.34	40.72
1937	2.19	0.38	3.15	0.70	1.26	2.25	2.20	2.67	1.15	3.27	1.78	5.93	26.95
1938	1.62	1.25	0.22	5.49	5.95	0.89	0.76	1.87	1.79	0.66	0.93	3.14	24.57
1939	1.81	0.82	0.20	0.32	3.29	2.36	4.64	1.74	3.51	0.33	0.48	1.51	21.00
1940	0.78	2.78	1.50	0.81	2.29	12.21	3.68	2.61	0.55	6.27	8.11	5.43	47.02
1941	1.55	2.99	3.78	5.86	7.77	5.09	3.65	2.48	2.71	4.79	1.05	1.67	43.39
1942	0.57	2.50	1.48	1.89	1.10	1.47	10.95	5.31	3.62	1.99	1.15	1.05	33.08
1943	2.09	0.74	3.39	0.52	5.23	3.01	3.89	0.36	3.33	1.33	4.62	3.01	31.53
1944	4.21	0.97	3.85	0.39	8.68	1.32	0.46	5.12	2.38	0.27	3.57	2.44	33.67
1945	1.00	1.21	2.67	4.24	0.78	3.86	1.35	2.80	1.46	3.24	0.12	1.90	24.62
1946	3.52	2.89	1.53	3.36	3.83	5.75	2.82	6.77	4.87	8.11	2.96	1.10	47.51
1947	3.05	0.34	1.54	2.68	7.64	1.69	1.58	3.68	0.42	0.85	2.21	2.77	28.44
1948	1.87	3.05	1.23	1.93	4.74	1.87	1.93	2.91	2.74	0.66	1.58	0.20	24.71
1949	3.00	2.40	1.75	6.46	1.88	3.14	4.06	2.05	2.93	7.22	0.49	4.65	40.02
1950	1.03	1.21	0.53	2.72	1.24	3.94	1.63	2.12	2.86	0.40	0.09	0.58	18.35
1951	0.87	1.00	2.72	0.95	4.89	3.88	1.15	0.51	8.28	1.48	2.58	0.29	28.60
1952	0.46	3.17	1.47	2.65	7.07	1.37	3.59	0.46	7.70	0.02	6.42	2.03	36.41
1953	0.68	2.10	0.15	1.73	4.94	0.68	1.58	6.38	2.03	4.00	0.23	1.33	25.83
1954	0.98	0.08	0.29	3.24	2.52	1.46	0.86	0.89	2.25	2.12	1.07	0.85	16.61
1955	1.36	3.88	0.50	0.85	4.79	1.77	1.80	2.83	3.06	1.66	1.02	1.01	24.53
1956	0.59	0.92	0.62	1.49	2.13	1.05	0.83	0.74	1.23	3.51	0.81	2.31	16.22
1957	0.54	2.72	6.24	7.11	5.41	2.67	0.07	2.00	7.48	4.34	6.57	0.79	45.95
1958	4.89	7.39	0.93	1.32	3.60	1.34	1.84	0.87	9.50	6.24	0.92	2.44	41.29
1959	0.30	5.33	0.42	3.96	3.94	3.49	0.55	4.65	2.16	5.10	1.02	3.11	34.04
1960	0.95	2.37	1.17	1.43	1.99	6.23	2.84	6.97	1.52	13.47	3.65	4.33	46.93
1961	1.86	2.81	0.38	1.65	1.50	5.53	2.93	0.69	4.68	1.41	4.93	0.42	28.77
1962	0.75	1.04	0.92	5.83	1.51	5.38	0.25	0.43	6.27	1.34	2.64	3.87	30.23
1963	1.15	2.32	0.27	1.02	1.24	3.22	1.23	1.12	1.69	1.03	4.13	2.66	21.07
1964	2.62	3.26	2.23	0.79	2.05	1.07	1.13	4.15	4.71	0.72	0.94	1.65	25.32
1965	3.56	5.61	0.84	0.90	7.95	3.32	1.12	1.90	2.69	3.83	2.87	4.54	39.12
1966	2.25	2.61	0.31	4.77	4.84	3.47	2.87	4.09	3.51	1.02	0.07	1.14	30.94
1967	1.61	0.86	0.62	2.36	2.67	0.00	1.95	5.43	22.97	6.22	1.89	1.06	47.64
1968	4.64	1.80	1.23	1.50	8.10	8.36	1.81	1.49	4.19	2.31	2.96	1.91	40.29
1969	0.69	4.81	2.69	5.22	7.80	3.41	0.65	3.03	2.29	4.24	3.50	2.95	41.27
1970	2.92	2.29	3.05	0.89	8.70	2.45	1.75	2.20	2.94	1.49	0.12	0.74	29.53
1971	0.04	1.32	0.10	2.06	1.15	4.22	0.68	5.42	13.96	4.09	1.50	3.09	37.63
1972	3.99	0.76	2.31	2.87	10.61	3.74	3.77	2.96	5.58	3.44	2.07	0.94	43.03
1973	3.46	2.97	3.09	6.67	0.70	12.48	1.26	5.72	6.31	10.43	0.72	0.51	54.32
1974	3.28	0.54	1.85	1.38	5.50	2.25	1.85	6.65	5.72	2.55	3.08	1.70	36.36
1975	0.86	0.58	0.52	2.10	7.38	3.75	4.08	3.21	2.86	2.00	1.18	4.10	32.62
1976	0.64	0.23	1.04	9.95	4.83	1.32	6.41	1.42	8.47	8.52	3.17	5.82	51.83
1977	3.00	2.56	1.02	7.59	2.85	5.47	0.77	1.31	3.62	3.65	4.01	0.30	36.16
1978	2.15	2.17	0.82	2.18	1.35	4.04	1.48	1.51	9.05	1.08	4.07	1.88	31.78
1979	6.32	2.31	1.56	5.24	7.58	4.84	3.95	2.04	6.09	0.93	0.93	2.28	44.07
1980	2.94	1.11	1.38	0.55	6.26	0.02	1.51	5.47	5.91	0.47	3.14	1.45	30.22

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1774

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	2.35	1.14	1.52	3.28	7.94	11.95	4.00	4.90	0.95	10.31	1.20	1.39	50.92
1982	0.39	5.88	0.53	1.66	5.79	0.48	0.02	1.08	1.96	4.08	6.68	0.67	29.21
1983	1.46	2.66	4.03	0.01	2.58	3.73	5.94	1.12	5.64	4.18	2.72	0.51	34.61
1984	4.03	1.49	2.35	0.39	2.14	1.77	3.08	1.92	2.00	5.80	0.83	2.15	27.96
1985	2.77	2.05	3.90	6.59	1.62	4.99	2.51	0.97	6.06	1.75	4.89	1.49	39.58
1986	1.11	1.83	0.43	0.69	4.26	4.88	0.14	3.03	3.15	6.77	2.30	5.23	33.83
1987	1.60	4.20	0.74	0.09	2.94	8.83	2.18	1.00	1.86	0.91	4.34	2.68	31.37
1988	0.37	0.53	1.22	2.24	1.70	2.20	2.90	0.51	3.69	0.81	0.49	1.76	18.43
1989	3.55	0.67	1.09	2.68	1.10	5.18	1.05	1.66	1.49	3.33	2.04	1.16	25.01
AVG	2.16	2.19	1.79	2.60	4.08	3.56	2.54	2.51	4.17	3.23	2.42	2.43	33.69

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1780

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.43	5.86	2.95	3.35	1.65	1.96	2.48	2.33	5.10	3.11	4.00	4.63	37.85
1924	1.06	3.37	1.54	2.70	6.47	5.85	0.00	0.03	2.71	0.41	0.19	2.37	26.69
1925	0.27	0.08	0.21	0.60	2.18	0.98	0.58	1.79	3.75	2.86	1.99	1.47	16.75
1926	3.12	0.10	5.09	7.09	2.40	3.63	1.83	0.53	0.35	3.01	2.07	2.42	31.65
1927	0.93	2.66	2.33	2.27	2.02	7.07	1.20	0.08	1.43	2.00	0.03	2.59	24.61
1928	0.77	2.78	1.64	1.93	4.05	4.05	1.62	2.36	5.20	1.36	1.94	2.48	30.18
1929	1.42	0.29	2.25	2.52	8.17	2.02	4.23	0.23	2.27	2.17	3.02	2.24	30.83
1930	1.41	0.90	2.17	2.01	2.33	3.72	2.31	0.33	1.75	5.54	3.10	1.08	26.64
1931	5.90	3.28	2.86	3.70	1.76	3.21	4.19	0.78	0.14	1.19	1.08	3.53	31.61
1932	3.90	2.46	1.85	1.89	2.46	1.79	3.78	4.05	4.05	0.53	0.23	1.86	28.85
1933	1.64	2.30	0.54	1.10	2.74	1.19	2.89	2.75	1.66	0.14	0.32	0.42	17.69
1934	5.67	0.70	1.26	4.26	1.62	0.24	3.49	1.19	2.46	0.05	3.07	4.78	28.78
1935	0.43	2.30	0.87	4.32	10.89	7.21	3.15	0.54	7.71	1.30	0.74	2.70	42.16
1936	0.60	0.57	1.73	0.96	8.70	10.19	2.71	2.00	7.75	2.72	1.86	1.47	41.24
1937	1.64	0.09	2.85	1.15	4.25	5.06	3.01	1.14	0.71	2.90	1.22	4.96	28.97
1938	3.76	1.45	2.19	4.46	2.68	1.57	1.40	0.21	3.29	0.28	0.44	1.29	23.02
1939	2.86	0.74	0.53	1.22	1.96	0.58	5.43	2.56	0.90	2.11	2.31	1.00	22.19
1940	0.69	2.93	1.03	2.70	3.68	6.17	1.60	1.24	1.45	3.25	4.85	4.32	33.90
1941	2.05	2.92	3.08	6.48	3.67	6.25	1.07	0.59	4.38	5.38	0.66	1.27	37.81
1942	0.26	2.42	0.40	3.36	2.15	2.27	7.82	3.65	7.63	8.38	0.83	0.60	39.76
1943	0.84	0.16	1.40	1.76	3.57	2.95	5.14	1.34	7.13	1.19	2.44	2.13	30.04
1944	4.43	2.35	3.72	2.63	6.19	1.66	0.25	3.68	2.62	0.84	3.85	3.31	35.52
1945	2.93	3.86	3.88	1.80	0.80	2.93	1.35	0.66	2.81	4.68	0.74	1.64	28.08
1946	3.73	2.41	4.01	3.50	4.28	5.38	0.85	6.41	12.24	2.42	4.33	3.23	52.79
1947	2.14	0.29	1.46	0.30	3.32	0.31	1.00	5.34	0.06	0.19	1.01	1.90	17.32
1948	0.61	1.86	0.59	1.40	1.59	2.96	2.35	5.83	1.98	3.24	1.00	0.23	23.64
1949	2.91	2.98	2.27	8.99	0.85	8.26	2.24	1.03	0.78	7.58	0.13	2.79	40.81
1950	0.32	1.43	0.24	3.42	2.41	1.03	1.60	6.15	3.02	0.08	0.13	0.03	19.86
1951	0.25	2.43	2.76	0.93	4.44	7.07	0.51	0.06	3.75	1.44	0.67	0.13	24.44
1952	0.81	2.01	2.34	3.40	1.91	1.86	2.75	0.00	3.02	0.00	4.47	3.67	26.24
1953	0.41	0.90	0.53	2.08	1.00	2.19	0.01	3.12	2.48	3.06	0.34	1.44	17.56
1954	0.51	0.03	0.03	1.94	1.46	2.71	1.25	1.05	0.52	1.98	2.02	0.20	13.70
1955	1.45	2.33	1.40	0.14	4.44	2.88	1.32	0.81	0.79	0.39	1.57	0.66	18.18
1956	0.81	0.85	0.27	0.49	3.07	0.27	0.53	3.94	0.62	1.23	1.13	1.10	14.31
1957	0.51	2.53	4.19	9.32	8.22	3.49	0.73	0.21	11.10	4.71	2.90	0.92	48.83
1958	4.57	3.88	1.08	1.32	1.98	3.39	7.39	0.45	8.36	5.43	0.77	1.07	39.69
1959	0.52	2.50	0.13	2.55	2.43	1.32	1.48	3.05	1.72	5.11	2.17	1.52	24.50
1960	0.76	1.22	1.65	2.08	1.21	2.70	1.31	5.96	0.76	7.84	1.30	2.97	29.76
1961	0.68	1.79	0.03	0.32	0.17	7.87	7.04	0.15	2.24	3.39	2.09	0.70	26.47
1962	0.48	0.90	0.91	4.02	1.31	2.44	0.13	1.57	2.69	2.19	4.97	2.29	23.90
1963	0.27	3.59	0.21	1.88	3.03	2.28	0.03	0.63	1.11	2.75	1.93	0.94	18.65
1964	3.40	1.89	1.73	1.16	1.79	4.88	0.02	5.19	4.15	1.64	4.81	1.22	31.88
1965	2.40	6.43	2.30	1.97	8.18	2.42	0.08	1.65	3.13	2.69	0.89	4.51	36.65
1966	1.47	2.30	1.14	3.20	3.53	1.78	0.06	4.28	2.13	1.11	0.00	0.44	21.44
1967	0.18	0.48	2.18	0.94	2.22	0.01	2.12	3.17	11.16	2.00	3.42	1.38	29.26
1968	8.52	1.85	1.27	1.92	2.82	2.63	1.53	0.94	2.99	0.69	4.58	0.66	30.40
1969	1.76	2.90	2.35	2.46	4.61	2.32	0.36	4.19	1.32	5.85	1.02	2.28	31.42
1970	1.10	2.66	1.98	1.13	7.30	0.89	0.91	0.95	4.35	1.31	0.01	0.15	22.74
1971	0.04	0.66	0.03	1.30	1.96	2.89	0.46	8.87	4.26	4.85	2.26	2.91	30.48
1972	1.26	0.37	0.23	1.62	10.06	2.54	2.44	4.49	1.72	1.69	2.88	0.42	29.74
1973	2.88	2.56	1.96	5.98	2.24	9.45	6.55	1.36	12.38	5.73	0.37	0.13	51.60
1974	1.42	0.09	0.87	2.19	4.03	1.61	0.95	10.52	2.72	3.13	3.84	1.44	32.80
1975	0.97	3.15	0.68	2.93	6.12	4.42	2.03	1.68	0.49	2.42	0.06	1.35	26.30
1976	0.58	0.18	1.39	6.68	7.05	1.39	4.50	1.95	4.93	9.00	2.51	1.95	42.12
1977	3.32	0.96	1.04	7.00	2.29	2.24	0.12	0.29	2.35	3.07	6.71	0.33	29.73
1978	0.72	1.85	1.23	3.97	2.87	3.49	1.11	4.73	9.24	0.47	5.68	1.36	36.71
1979	3.37	1.30	3.44	5.56	1.45	5.25	5.49	1.81	1.05	0.09	1.12	3.30	33.23
1980	0.57	0.80	1.01	1.81	7.11	0.46	0.36	2.49	5.47	1.86	3.46	0.74	26.13

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1780

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.88	0.93	1.96	2.85	6.38	9.06	0.58	2.16	1.68	7.33	1.03	0.70	36.54
1982	0.72	1.28	0.69	1.23	6.42	1.37	0.14	0.55	0.87	2.84	4.54	2.31	22.96
1983	1.48	1.54	3.89	0.18	4.37	1.27	2.43	2.00	3.86	1.64	3.06	0.39	26.11
1984	1.87	0.54	1.91	0.11	3.76	1.40	0.00	3.04	1.06	5.94	2.91	3.41	25.95
1985	2.68	1.91	2.85	3.27	2.47	8.20	5.80	0.45	4.80	3.91	5.00	0.09	41.43
1986	0.76	2.52	0.35	0.60	6.29	11.95	0.05	1.86	2.83	6.58	1.83	7.11	42.73
1987	1.37	4.50	1.25	3.01	10.47	8.94	1.14	0.34	2.15	0.39	2.92	2.04	38.52
1988	0.42	1.46	1.31	1.14	1.57	4.60	3.71	1.36	1.15	0.85	0.02	0.49	18.07
1989	3.12	0.49	1.41	2.53	0.43	3.66	1.05	0.69	1.47	2.80	1.99	0.71	20.34
AVG	1.75	1.85	1.66	2.67	3.75	3.58	2.06	2.25	3.41	2.81	2.10	1.82	29.71

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1787

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.61	5.38	3.06	4.25	1.87	1.74	2.84	2.00	7.58	5.70	3.88	4.85	43.75
1924	1.45	3.49	2.35	3.53	8.21	4.39	0.00	0.09	3.39	0.65	0.20	1.98	29.73
1925	0.34	0.11	0.06	1.06	2.24	1.31	0.54	2.13	3.51	4.70	2.37	1.20	19.58
1926	3.15	0.11	5.82	8.02	3.60	2.94	2.25	0.71	0.49	3.52	2.62	2.86	36.10
1927	1.32	3.58	2.75	2.80	2.36	5.92	2.28	0.11	1.08	2.13	0.06	2.88	27.27
1928	0.71	3.73	1.05	1.75	2.25	3.90	3.08	1.75	5.52	1.23	2.16	2.67	29.80
1929	1.66	0.48	2.10	2.47	8.56	1.62	5.82	0.51	2.07	2.77	3.15	2.73	33.94
1930	1.50	1.25	2.35	1.92	4.00	4.52	1.42	0.62	1.87	7.27	2.36	1.34	30.43
1931	6.18	4.63	3.12	5.26	1.56	2.32	4.00	1.37	0.15	0.85	1.30	3.73	34.49
1932	4.27	3.28	2.52	2.63	2.10	1.45	4.60	4.41	4.84	0.20	0.44	2.71	33.46
1933	2.98	2.39	0.83	1.40	3.62	1.21	3.01	1.50	2.15	0.48	0.48	0.53	20.58
1934	6.19	1.77	2.21	3.07	1.59	0.42	4.34	0.66	1.61	0.12	1.86	4.14	27.97
1935	0.47	2.78	0.96	3.02	11.96	7.53	5.14	0.51	9.50	1.71	1.01	3.41	48.00
1936	0.72	0.65	1.72	1.33	9.84	7.95	2.45	2.64	9.82	2.87	1.98	1.62	43.59
1937	1.83	0.15	3.19	1.43	5.59	5.48	2.61	1.27	0.20	2.99	1.62	5.63	31.97
1938	4.07	1.61	2.14	5.52	3.20	1.20	1.93	0.24	3.20	0.17	0.59	1.25	25.11
1939	3.03	0.85	0.72	1.35	2.48	0.65	5.47	2.59	0.52	2.54	2.09	0.90	23.21
1940	0.69	3.23	0.92	2.76	3.68	5.07	1.74	1.39	1.45	3.10	4.85	5.23	34.11
1941	1.53	3.87	3.61	6.17	3.32	5.65	1.65	0.56	3.91	6.43	0.56	1.41	38.67
1942	0.18	2.56	0.29	3.72	2.37	2.17	5.85	3.37	7.23	8.12	1.15	0.72	37.74
1943	0.67	0.15	1.49	1.75	3.63	3.05	6.49	0.57	7.28	1.29	2.13	2.53	31.03
1944	4.09	3.27	4.13	3.85	6.11	2.18	0.57	4.57	2.43	1.03	5.00	4.70	41.93
1945	3.12	3.95	4.56	1.56	0.80	2.96	1.36	0.58	2.97	4.50	0.79	1.95	29.10
1946	3.59	2.48	4.53	3.68	4.11	4.23	0.74	5.79	12.53	2.57	5.62	3.41	53.28
1947	2.72	0.31	1.74	0.53	3.00	0.29	1.41	4.67	0.08	0.31	1.33	1.54	17.91
1948	0.54	2.39	0.85	1.68	1.62	3.61	2.22	3.21	1.94	2.71	0.94	0.62	22.35
1949	3.12	3.20	2.40	9.16	0.83	5.76	3.11	2.15	1.97	6.11	0.09	2.86	40.75
1950	0.57	2.38	0.22	3.38	3.21	1.27	2.25	4.76	2.40	0.16	0.83	0.03	21.46
1951	0.24	2.82	2.89	0.94	4.40	4.40	0.33	0.16	3.53	1.43	0.87	0.31	22.33
1952	0.55	2.32	2.79	3.81	2.91	2.53	3.01	0.00	7.11	0.00	5.13	3.52	33.69
1953	0.48	1.11	0.73	3.06	1.04	2.08	0.89	4.60	2.69	3.39	0.32	1.71	22.11
1954	1.01	0.05	0.03	1.68	1.44	1.96	1.91	1.39	0.38	2.13	1.41	0.18	13.58
1955	1.53	2.22	0.91	0.27	4.05	2.70	0.91	1.80	0.91	0.32	1.74	0.75	18.12
1956	1.00	0.97	0.41	0.68	1.71	0.46	0.47	3.22	0.47	1.30	1.49	1.40	13.60
1957	0.62	2.26	4.61	10.06	8.49	2.83	0.71	0.40	9.90	5.08	3.37	1.18	49.50
1958	4.75	4.32	1.79	1.27	3.48	2.74	4.41	0.77	9.31	6.71	0.74	1.21	41.51
1959	0.63	2.65	0.30	2.63	1.98	2.55	2.10	2.96	1.80	5.22	2.54	2.15	27.51
1960	1.00	1.14	2.22	2.60	1.64	3.73	2.40	6.46	0.68	8.21	1.46	3.65	35.18
1961	1.00	2.10	0.18	0.28	0.08	6.68	6.21	0.81	2.18	3.82	2.09	1.00	26.42
1962	0.70	1.37	1.04	4.38	1.41	2.63	0.27	1.31	4.02	3.31	3.43	2.40	26.26
1963	0.31	2.92	0.21	2.12	1.97	2.60	0.21	1.16	1.47	2.43	2.25	1.04	18.70
1964	3.65	2.19	1.68	1.36	2.03	4.94	0.24	3.49	4.65	1.94	3.74	1.25	31.15
1965	2.40	6.68	2.57	2.74	8.69	1.70	0.24	1.32	2.74	3.91	1.36	5.68	40.02
1966	1.46	2.57	1.13	3.34	4.04	1.91	0.48	5.32	3.81	0.82	0.00	0.39	25.27
1967	0.15	0.68	1.74	1.58	2.94	0.01	2.51	3.01	10.56	2.92	3.53	1.59	31.21
1968	9.06	2.02	1.70	2.69	3.84	3.04	1.75	0.72	3.76	1.37	4.37	1.22	35.54
1969	1.67	3.19	2.42	3.39	4.80	2.69	0.31	4.60	1.48	5.27	1.55	2.43	33.82
1970	1.32	2.93	2.40	1.34	6.55	1.01	0.85	1.40	5.17	2.10	0.01	0.24	25.30
1971	0.05	0.75	0.06	1.45	2.62	3.44	0.68	10.13	3.91	4.88	2.23	3.50	33.70
1972	1.28	0.40	0.64	1.96	10.97	2.96	2.36	4.84	1.53	2.12	3.73	0.46	33.26
1973	2.98	2.52	2.32	6.18	0.82	9.95	8.02	1.67	10.48	6.80	0.71	0.12	52.58
1974	1.56	0.21	0.68	2.21	4.06	1.85	0.67	9.08	2.38	3.03	3.04	1.62	30.40
1975	1.11	3.33	0.65	3.77	4.95	4.40	1.38	2.30	0.92	2.60	0.12	1.64	27.18
1976	0.89	0.42	1.32	7.85	7.16	1.67	4.67	2.47	6.05	10.30	2.62	2.06	47.48
1977	3.43	1.02	1.30	6.57	2.17	2.45	0.15	0.76	2.44	2.68	6.11	0.29	29.37
1978	0.60	1.94	1.08	2.94	2.07	2.94	0.97	5.52	8.36	0.39	6.24	1.22	34.27
1979	4.12	1.87	4.96	5.56	1.38	5.22	5.50	1.68	1.44	0.11	1.74	2.50	36.07
1980	0.82	0.78	1.75	1.54	6.30	0.95	0.15	2.40	6.24	1.84	3.56	0.87	27.21

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1787

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.93	1.09	2.47	2.63	5.37	9.42	0.76	2.20	1.98	6.33	1.61	0.73	36.52
1982	0.88	1.18	0.76	1.43	7.46	1.63	0.32	0.84	1.36	2.87	4.51	2.49	25.73
1983	1.29	1.74	4.04	0.13	5.33	2.25	2.80	2.15	3.07	1.63	2.86	0.37	27.66
1984	2.13	0.72	1.54	0.10	3.17	1.55	0.23	2.41	1.04	6.25	2.49	3.90	25.52
1985	2.26	2.97	3.43	2.89	2.32	8.94	5.85	0.27	5.51	3.95	4.68	0.37	43.44
1986	0.94	2.18	0.45	0.68	6.60	8.57	0.14	1.77	3.00	7.48	1.92	6.81	40.53
1987	0.98	5.51	1.34	2.01	9.19	8.98	1.42	0.85	2.14	0.63	3.33	2.36	38.74
1988	0.47	1.44	1.89	1.48	1.99	5.20	2.21	1.64	2.42	0.93	0.06	0.62	20.35
1989	3.82	0.44	1.95	3.07	0.77	2.03	1.50	0.85	1.51	3.42	3.72	0.46	23.53
AVG	1.89	2.11	1.88	2.89	3.88	3.41	2.23	2.29	3.64	3.08	2.21	2.02	31.52

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1788

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.42	5.99	2.79	2.75	1.76	2.17	2.16	2.45	3.06	1.62	3.94	4.65	33.76
1924	0.85	3.27	1.01	2.31	5.09	6.35	0.00	0.01	2.15	0.27	0.16	2.65	24.13
1925	0.20	0.06	0.28	0.22	2.10	1.08	0.55	1.73	4.02	1.65	1.72	1.61	15.23
1926	3.30	0.10	4.79	6.82	1.78	3.78	1.36	0.38	0.46	2.53	1.65	2.19	29.13
1927	0.70	1.83	2.26	1.73	1.72	7.55	0.41	0.05	1.64	2.20	0.00	2.31	22.39
1928	0.83	2.46	2.00	2.00	5.23	4.86	0.68	2.56	5.00	1.50	1.95	2.47	31.53
1929	1.41	0.16	2.76	2.56	8.41	2.32	3.25	0.08	2.35	1.97	2.97	1.81	30.05
1930	1.36	0.83	2.03	2.01	1.22	3.69	2.64	0.07	1.64	4.23	3.51	0.98	24.20
1931	5.68	2.42	3.07	2.22	1.77	3.74	4.35	0.51	0.13	1.29	0.88	3.46	29.50
1932	3.75	1.93	1.32	1.49	2.64	2.01	2.96	3.92	3.66	0.73	0.16	1.28	25.85
1933	0.63	2.21	0.46	1.08	2.46	1.20	3.26	3.45	1.33	0.27	0.28	0.42	17.04
1934	5.66	0.11	0.84	4.74	1.53	0.12	2.78	1.48	3.08	0.02	3.88	5.45	29.70
1935	0.46	2.04	0.96	4.97	10.26	6.48	1.67	0.51	6.75	0.94	0.47	2.30	37.81
1936	0.60	0.50	2.08	2.00	6.04	5.70	2.26	3.13	4.59	2.51	2.43	1.42	33.28
1937	1.21	0.24	3.24	0.74	3.39	3.92	1.18	1.19	0.87	3.16	1.60	6.29	27.03
1938	3.77	1.36	1.83	6.17	3.96	0.98	1.80	0.66	1.48	0.44	0.86	1.44	24.75
1939	1.39	0.78	0.67	0.71	1.44	1.39	2.35	1.73	1.16	0.52	1.32	0.91	14.37
1940	0.69	2.70	1.15	2.63	3.68	7.03	1.44	1.11	1.43	3.44	4.80	3.56	33.66
1941	2.49	2.22	2.69	6.73	4.01	6.64	0.59	0.61	4.82	4.54	0.75	1.14	37.23
1942	0.33	2.25	0.50	3.05	2.02	2.32	9.31	3.90	7.86	8.50	0.58	0.54	41.16
1943	0.99	0.16	1.33	1.75	3.54	2.89	3.97	1.96	6.91	1.07	2.67	1.80	29.04
1944	4.69	1.61	3.36	1.52	6.35	1.22	0.00	3.07	2.76	0.69	2.87	2.14	30.28
1945	2.79	3.75	3.21	1.98	0.81	2.89	1.46	0.81	2.75	4.81	0.72	1.43	27.41
1946	3.82	2.35	3.47	3.37	4.39	6.29	1.00	6.95	11.87	2.37	3.14	3.05	52.07
1947	2.20	0.28	1.58	0.45	3.36	0.36	0.99	5.01	0.11	0.24	1.07	1.76	17.41
1948	0.66	2.10	0.60	1.44	1.75	3.08	2.01	4.70	1.98	2.94	1.07	0.21	22.54
1949	2.74	2.96	1.90	8.81	1.15	8.53	2.28	1.17	0.80	7.59	0.11	2.81	40.85
1950	0.29	1.57	0.27	3.25	2.15	1.29	1.79	5.10	2.99	0.11	0.12	0.03	18.96
1951	0.26	2.29	2.74	0.94	4.63	5.77	0.47	0.20	3.83	1.53	0.81	0.19	23.65
1952	0.66	2.00	2.23	3.50	2.10	1.84	2.61	0.01	3.88	0.00	4.23	3.39	26.45
1953	0.47	1.07	0.59	2.36	1.12	2.43	0.07	3.24	3.48	2.87	0.32	1.75	19.75
1954	0.57	0.05	0.03	2.04	1.56	2.53	1.37	1.10	0.53	1.89	1.68	0.19	13.55
1955	1.56	2.76	1.32	0.15	4.05	2.59	1.28	1.39	0.76	0.30	1.58	0.67	18.39
1956	0.93	0.92	0.25	0.46	2.72	0.32	0.70	4.14	0.58	1.44	1.07	1.35	14.89
1957	0.51	2.41	4.15	9.32	7.87	2.91	0.69	0.24	10.61	4.58	3.02	0.97	47.28
1958	4.65	4.17	1.05	1.47	2.77	3.18	6.28	0.41	9.04	5.77	0.81	1.02	40.63
1959	0.52	2.40	0.13	2.93	2.92	1.64	1.52	3.00	1.65	5.56	1.97	1.69	25.94
1960	0.81	1.24	2.08	2.07	1.19	3.23	1.67	5.42	0.72	9.05	1.61	2.99	32.10
1961	0.72	1.70	0.04	0.37	0.14	7.35	7.06	0.30	2.67	3.86	2.28	0.72	27.20
1962	0.50	0.96	0.89	3.99	1.30	2.44	0.11	1.46	2.83	2.09	4.82	2.22	23.63
1963	0.28	3.50	0.20	1.89	2.93	2.34	0.07	0.65	1.31	2.77	2.03	0.96	18.94
1964	3.44	1.96	1.79	1.13	1.86	4.70	0.03	4.86	3.97	1.65	4.70	1.17	31.26
1965	2.42	6.59	2.39	2.04	8.01	2.29	0.12	1.51	3.18	2.97	1.15	4.68	37.35
1966	1.48	2.37	1.14	3.12	3.53	1.82	0.11	4.50	2.23	1.06	0.00	0.44	21.80
1967	0.17	0.53	2.22	0.94	2.35	0.08	2.25	3.02	11.30	2.13	3.56	1.41	29.95
1968	8.59	1.91	1.31	2.15	2.92	2.76	1.56	0.93	3.24	0.80	4.86	0.67	31.70
1969	1.73	2.98	2.43	2.58	4.57	2.29	0.39	4.16	1.39	5.79	1.10	2.33	31.75
1970	1.14	2.74	2.01	1.15	7.21	0.87	0.88	1.07	4.32	1.40	0.01	0.16	22.96
1971	0.00	0.60	0.05	0.79	1.76	2.64	0.32	8.26	4.60	4.54	2.45	2.77	28.79
1972	1.35	0.48	0.12	1.22	6.92	1.67	2.32	4.67	1.25	1.51	2.80	0.46	24.76
1973	2.84	2.34	1.77	5.46	1.37	9.04	6.91	1.49	12.09	5.49	0.28	0.15	49.23
1974	1.55	0.04	0.86	1.64	5.12	1.66	1.53	10.60	1.47	2.86	5.28	1.44	34.05
1975	0.90	3.33	0.68	2.62	7.48	4.41	1.41	2.46	0.48	2.58	0.05	1.81	28.21
1976	0.43	0.16	1.22	6.89	6.26	1.53	3.28	2.70	4.00	8.29	2.25	2.40	39.41
1977	3.33	1.06	0.76	7.95	1.70	1.61	0.27	0.08	2.40	4.43	6.58	0.35	30.53
1978	0.77	1.86	1.30	3.73	2.81	4.79	1.80	3.97	11.30	0.49	5.19	1.02	39.04
1979	3.54	1.46	3.30	5.50	1.99	5.41	5.26	2.26	0.74	0.12	1.40	2.85	33.83
1980	0.72	1.10	0.95	1.69	6.40	1.09	0.08	2.28	4.85	1.05	3.38	0.43	24.01

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1788

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.78	0.75	1.77	2.58	5.82	8.43	0.17	2.39	2.21	7.61	0.65	0.67	34.82
1982	0.78	1.35	0.66	1.26	5.94	1.60	0.48	0.69	0.95	2.91	4.51	2.18	23.32
1983	1.46	1.66	3.79	0.25	4.34	1.51	2.33	2.14	4.20	1.59	2.78	0.41	26.47
1984	1.82	0.58	1.88	0.22	3.42	1.39	0.06	2.56	0.94	6.90	2.74	3.27	25.79
1985	2.68	1.84	2.83	3.26	2.30	7.72	5.74	0.73	4.92	4.18	5.07	0.16	41.42
1986	0.86	2.29	0.35	0.61	6.22	11.59	0.04	1.81	3.25	6.79	1.80	7.01	42.63
1987	1.14	4.70	1.61	1.95	8.92	8.16	1.70	0.54	1.50	0.44	2.74	1.67	35.08
1988	0.43	1.01	0.95	1.23	0.63	4.81	4.30	0.51	0.96	0.90	0.05	0.43	16.21
1989	2.96	0.74	1.27	2.56	0.54	4.15	1.83	0.64	1.52	4.40	1.84	1.60	24.05
AVG	1.71	1.79	1.61	2.62	3.58	3.53	1.90	2.25	3.33	2.79	2.08	1.79	28.97

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1795

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.21	5.66	3.05	3.37	0.82	0.70	3.46	2.07	6.46	5.12	3.50	4.18	38.59
1924	1.16	2.98	2.76	5.26	7.16	4.31	0.01	1.10	3.45	0.45	0.09	1.42	30.13
1925	0.19	0.04	0.00	1.13	2.16	0.38	0.83	2.40	2.98	3.72	2.96	1.25	18.04
1926	2.74	0.04	4.10	8.29	3.07	2.82	2.44	0.33	0.10	3.03	2.52	2.78	32.26
1927	1.68	3.56	2.33	1.95	3.02	6.46	1.93	0.06	1.47	1.33	0.04	2.78	26.61
1928	0.45	3.02	1.53	1.41	3.19	2.16	2.54	1.44	4.09	1.28	1.07	1.74	23.92
1929	0.89	0.50	1.85	1.49	8.31	1.69	5.54	0.38	1.19	2.07	2.18	1.97	28.07
1930	0.84	0.45	2.52	2.20	4.55	3.60	1.95	0.35	0.75	8.84	1.20	0.84	28.09
1931	4.48	4.20	4.74	5.12	1.57	2.05	3.38	1.41	0.06	1.06	1.03	3.77	32.86
1932	3.18	2.96	1.17	2.83	2.38	0.81	6.34	5.47	6.85	0.00	0.18	1.91	34.07
1933	2.57	2.74	0.32	0.96	2.90	2.96	1.98	2.64	1.63	0.06	0.18	0.62	19.55
1934	5.50	1.39	1.82	3.03	1.53	1.27	3.85	0.14	0.85	0.05	1.17	3.47	24.07
1935	0.47	2.58	1.65	1.80	13.42	8.13	4.17	0.21	11.03	1.74	0.50	3.04	48.75
1936	0.54	0.52	1.73	0.96	7.23	10.73	2.65	1.73	5.56	2.57	1.91	1.34	37.46
1937	1.44	0.06	2.81	0.87	3.24	4.81	2.87	0.93	1.07	2.90	1.03	4.66	26.69
1938	3.58	1.35	2.27	4.43	2.74	1.71	1.13	0.21	2.88	0.36	0.42	1.28	22.35
1939	2.45	0.67	0.46	1.08	1.59	0.59	4.76	2.27	1.14	1.48	2.29	1.02	19.80
1940	0.58	2.63	1.16	1.73	3.89	5.97	1.24	0.76	1.20	4.85	2.53	4.40	30.93
1941	1.46	6.75	4.71	5.01	3.43	3.16	1.82	0.51	4.65	3.48	0.60	0.65	36.23
1942	0.16	1.05	0.27	6.03	2.88	1.15	5.41	3.43	5.51	4.33	0.86	1.16	32.25
1943	0.47	0.03	1.31	1.86	4.50	3.86	3.03	0.31	2.78	0.41	1.84	1.66	22.05
1944	3.29	2.52	2.62	0.90	6.25	1.71	1.58	7.78	1.48	1.48	3.59	3.80	37.02
1945	3.26	2.12	1.68	1.56	1.54	2.14	2.50	1.65	5.08	2.78	0.53	1.92	26.76
1946	2.79	1.84	1.15	3.18	3.19	3.24	1.69	7.67	7.63	3.19	1.86	2.31	39.75
1947	2.68	0.36	1.56	0.75	3.75	0.53	0.67	2.51	0.14	0.44	1.04	0.99	15.41
1948	0.30	2.75	0.89	2.11	2.21	4.83	2.01	0.75	3.01	2.36	0.77	0.54	22.54
1949	2.94	3.94	2.18	7.26	1.85	5.98	2.34	3.97	1.70	5.36	0.00	2.65	40.16
1950	1.07	2.11	0.26	2.89	3.51	3.78	2.94	3.40	2.42	0.27	0.40	0.00	23.04
1951	0.43	1.94	2.40	1.18	7.45	1.21	0.66	0.39	2.14	1.02	1.14	0.23	20.18
1952	0.34	1.69	2.69	2.69	4.30	1.53	1.76	0.00	10.45	0.00	4.04	2.91	32.40
1953	0.54	0.69	0.71	0.96	0.97	1.14	0.59	4.17	4.48	3.56	0.21	1.46	19.49
1954	0.80	0.03	0.04	1.30	1.67	1.79	0.78	0.59	0.80	2.63	1.47	0.19	12.10
1955	1.84	1.89	0.62	0.16	4.34	1.29	0.60	2.59	0.81	0.32	1.91	0.99	17.36
1956	1.03	1.09	0.16	0.83	0.42	0.45	0.42	2.67	1.11	1.65	1.41	0.84	12.09
1957	0.44	2.49	3.75	8.82	8.62	2.62	0.16	0.57	6.14	5.45	3.95	1.15	44.16
1958	4.81	3.08	1.97	1.42	8.09	2.81	0.23	0.81	11.62	5.82	0.42	0.64	41.72
1959	0.75	3.54	0.33	2.78	2.63	7.38	3.31	1.66	2.24	7.98	2.11	2.87	37.57
1960	0.79	1.84	2.65	1.60	1.78	2.43	4.20	4.54	1.00	6.78	1.10	4.32	33.04
1961	1.41	3.00	0.26	0.35	0.12	6.78	5.04	0.87	1.53	2.58	2.04	0.96	24.94
1962	0.53	0.67	1.27	6.51	1.57	3.06	0.34	0.41	4.74	1.84	2.19	1.72	24.88
1963	0.86	2.64	0.09	3.37	2.09	1.40	0.45	1.07	1.41	1.83	2.64	0.92	18.78
1964	3.62	2.27	2.22	1.64	2.29	2.85	0.27	2.40	4.77	2.20	1.43	1.04	27.01
1965	1.05	6.51	2.15	3.34	7.45	2.59	0.17	2.08	2.42	3.24	0.84	5.46	37.31
1966	1.60	2.98	0.68	3.97	8.11	1.47	0.83	6.41	4.36	0.12	0.00	0.12	30.64
1967	0.21	0.94	1.18	1.99	2.24	0.17	1.80	2.97	9.70	1.81	2.80	1.71	27.53
1968	5.74	1.50	2.20	2.55	2.46	2.16	1.56	0.76	4.04	0.38	2.77	1.50	27.63
1969	1.06	4.09	2.08	2.60	5.46	1.81	1.00	4.54	2.44	8.73	1.81	2.69	38.31
1970	1.19	3.69	2.99	0.94	4.30	0.55	0.87	0.83	3.52	1.24	0.01	0.08	20.21
1971	0.05	0.87	0.04	1.96	1.70	4.33	0.20	13.12	5.22	5.70	1.87	1.88	36.94
1972	1.19	0.42	1.17	2.12	8.93	3.31	1.46	5.90	3.39	2.58	2.31	0.43	33.20
1973	3.14	2.81	2.23	5.55	1.01	7.68	8.04	1.52	11.28	8.00	0.55	0.06	51.87
1974	1.84	0.09	0.95	2.60	5.03	1.47	0.31	12.95	1.77	3.26	2.03	2.60	34.89
1975	1.08	4.20	0.53	4.46	4.17	2.71	4.30	1.23	1.88	2.58	0.10	1.48	28.74
1976	0.28	0.23	1.04	10.87	5.52	1.89	5.98	1.76	3.49	8.83	2.14	2.85	44.87
1977	2.95	0.93	1.30	5.62	2.44	3.99	0.19	0.47	1.83	2.15	5.33	0.41	27.61
1978	0.59	1.73	0.81	2.22	1.39	2.79	0.92	7.44	7.69	0.30	5.61	3.13	34.60
1979	3.14	1.78	5.14	4.38	1.37	4.99	5.18	2.11	0.60	0.28	1.85	2.20	33.00
1980	0.93	0.72	1.34	1.72	6.23	0.08	0.57	3.23	5.76	1.50	3.44	0.58	26.09

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1795

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.59	0.93	3.94	2.96	6.99	11.61	1.65	1.13	1.28	4.18	0.89	0.74	37.89
1982	0.62	1.92	0.53	2.13	6.93	1.78	0.44	1.72	1.97	2.46	3.08	1.61	25.20
1983	1.62	1.51	4.52	0.01	4.38	3.25	3.32	3.68	1.31	3.36	2.24	0.30	29.51
1984	2.00	0.88	0.56	0.27	1.75	1.90	0.90	0.40	1.07	6.74	1.99	2.72	21.18
1985	1.94	3.01	3.52	3.09	2.74	6.01	1.77	0.07	4.60	5.44	3.58	0.93	36.70
1986	0.82	1.45	0.45	0.73	6.62	8.35	0.07	0.85	4.93	8.68	2.18	5.32	40.46
1987	0.76	4.08	1.42	1.43	9.28	10.36	1.94	2.16	2.34	0.10	3.41	2.13	39.41
1988	0.24	1.33	1.21	1.03	0.86	3.70	1.87	0.68	2.73	1.20	0.11	0.49	15.45
1989	3.45	0.94	1.56	1.90	0.88	2.74	0.57	1.20	1.13	4.79	1.68	0.43	21.28
AVG	1.62	2.02	1.73	2.74	3.89	3.28	2.09	2.36	3.45	2.93	1.72	1.79	29.61

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1808

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.11	5.82	2.98	2.73	0.63	0.67	3.33	2.18	4.77	3.91	3.39	4.02	34.56
1924	0.95	2.74	2.43	5.29	5.78	4.59	0.01	1.25	3.04	0.32	0.04	1.52	27.96
1925	0.12	0.02	0.11	0.87	2.10	0.24	0.97	2.35	3.04	2.57	2.90	1.37	16.65
1926	2.74	0.02	3.50	8.09	2.44	2.89	2.11	0.25	0.12	2.51	2.16	2.57	29.39
1927	1.56	2.89	2.14	1.38	2.88	6.88	1.31	0.03	1.69	1.28	0.01	2.54	24.59
1928	0.45	2.60	1.89	1.41	4.29	2.35	1.74	1.53	3.66	1.35	0.82	1.52	23.61
1929	0.69	0.41	2.13	1.31	8.44	1.91	4.63	0.25	1.09	1.77	1.92	1.52	26.07
1930	0.66	0.23	2.46	2.30	3.86	3.37	2.24	0.11	0.44	8.10	1.34	0.65	25.75
1931	3.97	3.39	5.05	4.01	1.78	2.39	3.34	1.29	0.05	1.16	0.87	3.71	31.00
1932	2.76	2.51	0.52	2.53	2.57	0.85	6.19	5.57	6.95	0.10	0.09	1.33	31.97
1933	1.74	2.73	0.15	0.81	2.51	3.22	1.97	3.37	1.28	0.10	0.16	0.63	18.67
1934	5.29	0.86	1.39	3.40	1.44	1.31	3.20	0.28	1.24	0.02	1.64	3.76	23.84
1935	0.47	2.37	1.90	2.00	13.41	7.73	2.91	0.14	10.57	1.46	0.22	2.67	45.84
1936	0.45	0.44	1.78	1.09	5.66	10.89	2.64	1.54	3.31	2.36	1.94	1.16	33.26
1937	1.16	0.04	2.67	0.60	2.42	4.18	2.62	0.77	1.47	2.79	0.82	4.45	23.99
1938	3.36	1.19	2.21	4.34	3.01	1.77	0.90	0.29	2.34	0.45	0.39	1.34	21.59
1939	1.98	0.59	0.37	0.85	1.21	0.66	3.97	2.08	1.43	0.83	2.26	1.05	17.28
1940	0.53	2.14	1.36	1.53	3.99	6.84	1.31	1.11	1.17	4.46	2.43	3.90	30.78
1941	1.03	6.64	4.45	5.09	2.86	3.31	1.81	0.40	4.93	1.83	0.51	0.58	33.44
1942	0.06	1.01	0.17	6.61	2.26	1.22	6.54	3.45	5.98	4.20	0.48	0.84	32.78
1943	0.36	0.13	1.18	1.93	4.30	3.65	2.03	0.50	2.71	0.38	2.36	1.11	20.64
1944	3.07	1.64	2.01	0.80	5.35	1.52	2.18	7.40	1.06	1.48	3.32	3.47	33.29
1945	2.92	2.09	1.53	1.83	1.58	2.21	1.57	0.87	4.83	2.26	0.32	1.38	23.38
1946	2.70	1.50	0.85	2.94	3.25	3.58	1.22	9.33	7.20	2.81	1.67	1.90	38.96
1947	2.03	0.31	1.43	0.39	2.93	0.51	0.68	2.21	0.20	0.38	0.77	0.97	12.81
1948	0.30	2.55	0.63	2.02	2.64	4.26	2.04	0.91	2.76	2.38	0.90	0.36	21.75
1949	2.50	3.89	2.19	7.39	1.44	7.47	1.74	2.75	1.32	6.29	0.01	2.54	39.51
1950	1.12	1.80	0.23	2.64	3.36	4.20	2.45	3.08	2.19	0.15	0.23	0.00	21.46
1951	0.50	2.05	2.27	0.71	8.74	1.21	0.68	0.48	2.63	0.65	1.08	0.20	21.20
1952	0.27	1.78	2.46	2.30	3.02	1.68	2.24	0.00	8.97	0.00	4.33	2.76	29.81
1953	0.49	0.72	0.50	0.99	0.78	1.48	0.40	3.87	5.24	2.98	0.15	1.64	19.24
1954	0.76	0.04	0.01	1.48	1.88	1.89	1.01	0.93	0.85	2.54	1.26	0.13	12.79
1955	1.95	1.75	0.68	0.17	4.12	1.28	0.57	2.07	0.81	0.35	2.00	0.89	16.63
1956	1.08	0.99	0.17	1.07	0.53	0.31	0.57	3.39	0.74	2.00	1.23	0.83	12.90
1957	0.41	2.07	3.55	8.44	8.14	2.24	0.20	0.52	5.38	4.49	3.55	1.02	40.00
1958	4.92	3.39	1.40	1.58	8.19	2.34	1.03	0.62	12.71	5.88	0.45	0.73	43.23
1959	0.68	3.03	0.31	2.92	3.11	6.07	3.75	1.70	2.13	8.94	2.07	2.42	37.14
1960	0.74	1.89	2.73	1.77	1.76	2.77	3.69	3.96	0.98	7.31	1.27	3.89	32.74
1961	1.38	2.15	0.17	0.46	0.07	6.43	5.80	0.99	1.77	2.89	1.95	0.72	24.79
1962	0.50	0.73	1.05	6.90	1.60	3.17	0.07	0.43	4.42	0.69	1.97	1.74	23.29
1963	1.05	2.78	0.08	3.03	2.28	1.16	0.70	0.26	1.74	1.88	2.05	0.94	17.94
1964	3.04	2.16	2.05	1.61	3.17	2.96	0.28	2.84	4.33	2.64	1.66	1.01	27.74
1965	1.02	6.44	2.36	2.45	6.26	2.35	0.20	2.53	2.05	2.49	0.77	5.82	34.75
1966	1.52	3.20	0.62	3.73	8.70	1.42	0.73	6.19	3.84	0.15	0.00	0.07	30.17
1967	0.22	0.90	1.37	2.18	1.87	0.20	2.22	2.75	10.88	1.36	2.59	1.71	28.25
1968	5.97	1.61	1.76	1.89	2.32	1.65	0.95	0.62	4.42	0.41	2.79	1.15	25.54
1969	1.16	3.87	1.99	2.00	6.34	1.36	0.68	4.55	1.88	8.66	1.67	2.41	36.58
1970	0.98	3.52	3.08	0.93	3.20	0.42	1.08	1.10	2.49	0.98	0.00	0.04	17.83
1971	0.05	0.65	0.00	1.38	1.45	4.65	0.09	11.07	3.62	5.37	1.52	1.93	31.78
1972	1.13	0.49	0.71	2.11	9.78	2.88	1.07	5.24	3.62	2.44	2.02	0.40	31.88
1973	2.89	2.87	2.09	6.38	1.17	6.84	6.62	1.68	13.71	7.80	0.47	0.01	52.55
1974	1.73	0.11	0.87	2.91	3.82	1.33	0.27	11.71	1.75	3.06	1.24	2.03	30.83
1975	1.07	3.71	0.35	3.14	3.41	2.37	4.93	1.62	1.74	2.25	0.01	1.37	25.99
1976	0.29	0.19	0.94	10.51	5.54	1.99	6.41	1.44	3.43	9.46	2.22	2.60	45.04
1977	2.90	0.79	1.25	5.53	2.16	3.32	0.12	0.46	2.22	1.46	4.65	0.39	25.26
1978	0.46	1.52	0.81	2.79	1.70	2.85	1.16	7.35	6.96	0.32	5.53	2.63	34.09
1979	2.79	1.14	4.06	4.60	1.48	4.62	3.83	2.21	0.71	0.05	1.42	2.53	29.43
1980	0.71	0.80	0.72	1.36	6.91	0.04	0.75	3.68	4.53	1.37	3.38	0.58	24.82

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1808

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.73	0.70	3.62	3.10	7.48	11.69	1.21	0.64	0.79	3.84	0.38	0.80	35.98
1982	0.52	1.85	0.46	1.92	6.57	1.33	0.14	1.74	1.64	2.58	3.33	1.69	23.79
1983	1.47	1.52	4.33	0.09	3.62	2.65	3.54	3.57	1.48	2.43	1.67	0.20	26.57
1984	2.07	0.92	0.51	0.43	1.72	1.35	0.34	0.67	1.06	6.49	1.67	1.87	19.09
1985	2.08	2.75	2.91	2.95	3.03	5.22	1.06	0.19	3.46	6.23	3.11	0.66	33.64
1986	0.86	1.20	0.41	0.60	6.19	9.28	0.05	0.72	3.96	9.01	2.13	4.77	39.19
1987	0.72	4.14	1.34	1.37	8.22	9.96	1.88	2.57	1.68	0.20	2.09	1.85	36.01
1988	0.14	1.37	0.90	1.09	1.21	2.89	2.59	0.47	2.26	0.86	0.03	0.42	14.23
1989	3.05	0.73	1.40	1.79	0.35	2.53	0.66	1.03	0.70	3.92	1.62	0.56	18.35
AVG	1.50	1.87	1.58	2.64	3.74	3.21	1.96	2.29	3.26	2.75	1.57	1.65	28.00

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1815

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.30	5.81	3.04	3.14	1.14	1.38	2.88	2.24	5.25	3.76	3.73	4.33	37.01
1924	1.05	3.04	2.00	3.94	6.17	5.03	0.00	0.55	2.93	0.41	0.12	1.95	27.19
1925	0.21	0.06	0.22	0.78	2.17	0.64	0.87	2.01	3.37	2.85	2.46	1.40	17.05
1926	2.89	0.07	4.40	7.58	2.47	3.21	1.97	0.54	0.28	2.77	2.13	2.51	30.81
1927	1.23	2.81	2.23	1.92	2.39	6.83	1.40	0.06	1.49	1.64	0.03	2.57	24.59
1928	0.63	2.76	1.69	1.69	4.02	3.20	1.83	1.92	4.53	1.30	1.40	2.02	26.99
1929	1.06	0.37	2.12	1.95	8.34	1.91	4.44	0.27	1.73	2.02	2.49	2.00	28.70
1930	1.06	0.61	2.33	2.17	3.22	3.62	2.12	0.26	1.16	6.80	2.30	0.89	26.55
1931	5.04	3.38	3.71	4.01	1.98	2.75	3.74	1.16	0.11	1.11	1.05	3.62	31.67
1932	3.32	2.59	1.33	2.22	2.48	1.32	5.08	4.76	5.44	0.30	0.20	1.73	30.78
1933	1.83	2.51	0.38	0.95	2.68	2.01	2.40	2.89	1.54	0.18	0.34	0.51	18.21
1934	5.48	0.87	1.37	3.77	1.52	0.69	3.41	0.75	1.90	0.05	2.31	4.18	26.30
1935	0.43	2.43	1.39	3.10	12.34	7.49	3.28	0.36	9.13	1.38	0.55	2.77	44.64
1936	0.46	0.43	1.89	1.29	6.79	9.84	2.76	1.88	5.12	2.42	1.88	1.21	35.97
1937	1.23	0.10	2.57	0.81	3.53	3.85	2.58	1.03	1.22	2.63	0.97	4.85	25.37
1938	3.45	1.18	1.95	4.27	3.26	1.54	1.17	0.44	2.50	0.43	0.40	1.42	22.01
1939	2.22	0.64	0.39	0.86	1.50	0.79	4.35	2.47	1.29	1.33	2.22	1.04	19.11
1940	0.57	2.48	1.97	1.90	3.74	6.06	1.05	2.02	1.13	3.56	3.51	4.00	31.98
1941	1.25	5.08	3.97	5.76	2.95	3.38	1.45	0.51	5.33	3.18	0.64	0.77	34.26
1942	0.14	1.22	0.39	4.77	2.23	1.38	5.26	3.87	5.92	5.73	0.71	0.98	32.60
1943	0.53	0.29	1.29	1.59	3.70	3.12	2.80	0.51	4.82	0.42	2.72	1.32	23.12
1944	3.08	1.82	2.43	1.00	6.32	1.52	2.01	6.26	1.27	1.69	3.38	3.43	34.21
1945	2.63	2.88	1.94	1.72	1.23	2.83	1.70	1.23	4.36	3.02	0.76	1.48	25.76
1946	2.80	1.58	1.32	3.25	3.85	3.89	1.02	9.65	8.00	3.11	1.92	1.85	42.25
1947	2.42	0.22	1.87	0.64	2.72	0.37	1.56	3.38	0.17	0.40	1.11	1.25	16.11
1948	0.44	2.52	0.60	1.80	2.04	4.20	1.96	2.17	2.26	2.40	1.03	0.48	21.89
1949	2.58	3.28	1.98	8.02	1.55	7.94	3.12	2.14	1.06	6.02	0.05	2.83	40.57
1950	0.63	1.90	0.23	2.86	2.48	2.18	2.42	3.44	2.49	0.12	0.73	0.02	19.48
1951	0.30	2.17	2.66	0.97	6.05	2.73	0.48	0.55	3.06	1.26	0.96	0.25	21.44
1952	0.40	2.16	2.31	3.38	3.08	1.85	1.91	0.01	6.36	0.00	4.19	2.92	28.58
1953	0.49	1.26	0.68	1.89	1.31	1.85	0.27	3.65	5.43	2.94	0.20	1.55	21.50
1954	0.91	0.05	0.01	1.86	1.61	1.85	1.16	1.31	0.55	2.22	1.28	0.13	12.94
1955	1.83	2.65	0.86	0.24	4.02	1.82	0.92	2.57	0.52	0.36	1.62	0.82	18.22
1956	1.04	0.90	0.21	0.64	1.52	0.67	0.91	3.58	0.68	1.97	1.03	1.30	14.45
1957	0.47	1.86	4.00	8.81	7.88	2.26	0.23	0.47	7.70	4.40	3.41	0.96	42.45
1958	5.05	4.16	1.35	1.40	5.89	3.26	2.88	0.56	11.80	6.88	0.50	0.93	44.69
1959	0.57	2.35	0.32	3.04	3.24	3.73	2.14	2.07	1.51	6.72	2.11	2.24	30.05
1960	0.80	1.24	2.59	1.59	1.57	3.67	3.49	3.96	0.71	8.34	1.70	3.44	33.12
1961	1.03	1.85	0.11	0.36	0.09	6.02	6.67	1.20	2.24	3.43	2.24	0.80	26.04
1962	0.54	0.90	0.92	4.70	1.43	2.43	0.08	1.00	3.48	1.96	2.64	2.07	22.15
1963	0.38	2.85	0.15	2.43	2.21	1.89	0.68	0.54	1.77	1.93	2.36	1.01	18.20
1964	2.78	2.01	1.97	1.64	2.58	2.97	0.34	3.16	4.89	2.28	2.82	1.07	28.51
1965	1.46	6.19	2.25	2.44	7.11	1.35	0.11	1.95	2.77	2.91	1.14	5.17	34.86
1966	1.51	2.38	0.92	3.41	5.43	1.65	0.69	4.91	3.79	0.65	0.00	0.26	25.60
1967	0.18	0.69	1.46	1.91	2.13	0.07	2.04	2.86	11.56	2.20	3.04	1.54	29.67
1968	7.88	2.15	1.53	2.72	3.87	2.79	1.47	0.70	4.79	1.08	3.53	1.11	33.61
1969	1.20	3.30	2.12	3.05	5.18	2.07	0.38	4.30	1.40	5.91	1.72	2.33	32.96
1970	1.23	3.19	2.38	1.14	6.42	0.99	1.06	1.06	4.63	1.20	0.01	0.16	23.45
1971	0.05	0.79	0.01	1.32	1.70	3.31	0.18	9.56	4.51	4.79	1.78	2.71	30.72
1972	1.27	0.41	0.43	1.68	10.00	2.88	1.88	4.79	4.41	1.70	3.43	0.41	33.29
1973	2.63	2.99	2.53	6.63	1.59	10.15	6.59	1.36	10.98	6.68	0.51	0.04	52.70
1974	1.52	0.13	0.82	1.87	4.61	1.12	0.45	10.86	3.47	2.96	2.17	1.74	31.73
1975	0.95	3.01	0.75	3.34	5.73	3.48	2.91	1.73	1.23	2.92	0.05	1.29	27.38
1976	0.44	0.24	1.32	8.79	6.72	1.47	5.24	1.39	5.28	9.46	2.54	2.31	45.20
1977	3.14	0.88	1.23	6.63	2.42	2.85	0.30	0.96	2.63	2.02	5.77	0.29	29.13
1978	0.60	1.68	0.62	3.07	2.05	2.65	0.59	5.66	6.71	0.60	5.59	1.48	31.30
1979	3.23	1.24	3.45	6.09	1.41	4.87	4.41	1.81	1.62	0.08	1.94	2.33	32.50
1980	0.71	0.81	0.95	1.48	7.94	0.12	0.81	3.86	5.73	1.87	3.83	0.76	28.86

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1815

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.90	0.94	2.61	2.83	6.07	9.78	0.86	2.44	1.45	5.29	0.98	0.80	35.97
1982	0.84	1.82	0.57	1.57	5.63	1.70	0.51	1.10	1.38	2.73	4.02	1.77	23.63
1983	1.40	1.69	3.68	0.14	3.88	2.46	2.64	3.04	3.39	2.62	1.90	0.39	27.23
1984	1.91	0.70	0.91	0.55	2.47	1.81	0.47	1.36	1.29	7.17	1.98	2.70	23.31
1985	2.48	2.20	2.80	2.98	2.75	5.50	3.48	0.38	4.71	5.34	3.93	0.49	37.05
1986	0.96	1.41	0.42	0.77	6.38	8.59	0.11	1.14	4.38	8.17	1.81	5.86	39.99
1987	0.92	4.11	1.05	1.18	7.11	10.12	1.57	1.89	1.71	0.40	2.30	1.96	34.33
1988	0.33	1.21	1.47	1.29	1.86	2.20	2.56	1.39	2.50	1.07	0.08	0.43	16.39
1989	3.44	0.52	1.64	1.67	0.98	2.29	0.92	0.78	0.80	3.21	1.58	0.80	18.64
AVG	1.61	1.85	1.60	2.68	3.77	3.23	1.99	2.31	3.49	2.82	1.85	1.73	28.91

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1818

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.38	6.08	2.81	2.69	1.67	2.16	2.16	2.50	3.02	1.38	3.99	4.59	33.43
1924	0.81	3.27	0.95	2.20	5.05	6.59	0.00	0.00	2.14	0.25	0.17	2.67	24.10
1925	0.20	0.06	0.30	0.21	2.11	0.96	0.57	1.66	4.00	1.53	1.70	1.64	14.94
1926	3.24	0.10	4.68	6.65	1.65	3.92	1.39	0.38	0.39	2.54	1.63	2.14	28.71
1927	0.67	1.84	2.17	1.75	1.72	7.71	0.36	0.05	1.67	2.10	0.00	2.32	22.36
1928	0.83	2.30	2.05	2.03	5.35	4.65	0.58	2.66	4.97	1.49	1.89	2.42	31.22
1929	1.35	0.15	2.64	2.56	8.23	2.34	3.12	0.05	2.38	1.87	2.95	1.81	29.45
1930	1.35	0.76	2.02	2.03	1.11	3.48	2.78	0.07	1.64	4.17	3.58	0.94	23.93
1931	5.67	2.32	2.93	2.25	1.82	3.82	4.35	0.43	0.13	1.35	0.88	3.43	29.38
1932	3.70	1.87	1.30	1.41	2.68	2.03	2.99	3.86	3.57	0.76	0.13	1.23	25.53
1933	0.58	2.21	0.41	1.00	2.31	1.19	3.11	3.57	1.30	0.14	0.25	0.39	16.46
1934	5.52	0.00	0.71	4.91	1.57	0.11	2.77	1.53	3.12	0.01	3.96	5.42	29.63
1935	0.44	1.99	0.91	5.12	10.17	6.62	1.59	0.53	6.56	0.94	0.48	2.23	37.58
1936	0.33	0.32	2.57	1.39	6.01	8.67	3.38	2.72	3.65	2.37	2.12	1.31	34.84
1937	0.95	0.32	2.20	0.49	1.82	2.03	1.97	1.80	1.49	2.92	1.09	6.14	23.21
1938	3.24	0.99	1.23	2.98	2.59	1.35	1.15	1.07	2.28	0.75	0.68	1.83	20.13
1939	1.32	0.69	0.28	0.33	0.48	1.89	2.68	2.43	1.85	0.34	1.42	1.15	14.88
1940	0.62	2.38	1.25	2.25	3.71	6.75	1.37	1.22	1.42	3.22	5.33	3.56	33.09
1941	2.93	2.89	2.86	6.19	4.02	6.37	0.58	0.80	4.75	3.48	0.76	1.04	36.69
1942	0.26	1.90	0.33	3.59	2.04	1.95	9.60	4.11	7.10	6.51	0.89	0.49	38.75
1943	0.98	0.22	1.53	1.31	3.77	2.25	3.17	1.34	6.68	0.97	2.70	1.54	26.45
1944	3.94	1.66	2.58	1.09	6.38	1.14	0.26	3.25	2.05	0.92	3.33	2.08	28.66
1945	2.50	3.28	2.81	2.03	0.65	2.86	1.12	0.77	2.66	3.70	0.49	1.04	23.89
1946	3.62	2.24	2.87	3.90	4.17	5.73	0.70	7.52	9.71	2.59	2.58	2.99	48.63
1947	2.12	0.22	1.81	0.69	3.17	0.41	1.01	4.17	0.18	0.38	1.13	1.54	16.83
1948	0.70	2.47	0.47	1.50	2.10	3.43	1.21	3.22	2.12	2.39	1.24	0.15	21.00
1949	2.48	2.82	1.23	8.06	1.97	10.29	2.43	1.08	0.32	6.82	0.09	2.88	40.48
1950	0.21	1.52	0.30	3.02	1.50	1.59	2.44	3.22	3.40	0.13	0.04	0.03	17.39
1951	0.25	2.02	2.69	1.15	5.52	3.61	0.47	0.60	3.61	1.67	0.99	0.23	22.81
1952	0.44	2.00	1.90	3.56	2.40	1.68	1.96	0.03	4.72	0.00	3.76	2.80	25.25
1953	0.52	1.45	0.70	2.50	1.51	2.66	0.09	2.77	6.63	2.39	0.23	1.80	23.24
1954	0.57	0.08	0.01	2.29	1.78	2.28	1.30	1.38	0.53	1.95	1.30	0.19	13.65
1955	1.82	3.53	1.15	0.15	3.51	1.86	1.31	2.70	0.53	0.17	1.48	0.68	18.89
1956	1.14	1.02	0.19	0.35	2.40	0.52	1.36	5.05	0.60	2.18	0.68	1.42	16.91
1957	0.49	2.09	3.91	9.51	7.11	1.84	0.41	0.33	9.56	4.26	3.13	0.96	43.61
1958	4.95	4.55	0.95	1.83	4.64	3.29	4.20	0.30	10.53	6.16	0.73	0.82	42.96
1959	0.51	2.06	0.14	3.64	4.14	1.56	1.20	2.72	1.34	6.38	1.60	1.78	27.08
1960	0.81	1.25	3.00	1.57	1.14	3.83	2.70	4.28	0.66	11.35	2.22	2.97	35.77
1961	0.75	1.43	0.01	0.44	0.08	6.53	7.77	0.35	3.74	4.20	2.46	0.72	28.47
1962	0.52	0.82	0.93	3.86	1.28	2.26	0.12	1.40	2.94	1.76	3.86	2.09	21.85
1963	0.26	3.36	0.18	1.82	2.61	2.26	0.30	0.50	1.28	2.26	2.37	1.19	18.38
1964	2.92	1.89	1.68	1.41	2.33	3.54	0.05	4.47	3.62	1.62	3.72	1.16	28.40
1965	2.06	6.39	1.95	1.89	7.67	1.79	0.18	1.51	3.30	2.92	1.07	4.77	35.51
1966	1.55	2.31	0.93	3.18	3.62	2.26	0.39	3.69	2.78	1.16	0.00	0.46	22.34
1967	0.21	0.53	1.98	0.88	1.78	0.04	2.45	3.06	12.45	2.41	3.40	1.31	30.53
1968	8.41	2.11	1.29	2.26	4.18	3.64	1.51	1.01	4.69	0.84	4.62	0.94	35.51
1969	1.69	3.50	2.29	2.65	4.89	2.01	0.47	3.99	1.33	5.75	1.33	2.31	32.22
1970	1.27	2.85	2.03	1.07	7.88	0.96	0.89	1.03	3.81	1.07	0.01	0.15	23.04
1971	0.01	0.77	0.03	0.90	1.47	3.14	0.27	8.05	4.43	4.14	2.12	2.74	28.08
1972	1.42	0.37	0.26	1.33	7.80	2.21	2.04	4.18	2.72	1.34	2.80	0.49	26.96
1973	2.63	2.78	2.05	5.68	1.58	10.36	5.34	1.91	11.48	5.74	0.29	0.10	49.95
1974	1.55	0.08	0.84	1.63	4.83	1.26	1.49	10.60	2.87	2.93	4.00	1.46	33.55
1975	0.90	2.87	0.72	3.06	8.09	3.93	1.58	1.99	1.00	2.83	0.05	1.45	28.47
1976	0.41	0.11	1.30	6.93	6.09	1.25	4.37	2.19	4.45	8.09	2.44	2.41	40.06
1977	3.14	0.98	0.82	8.01	2.12	2.02	0.23	0.17	2.06	3.36	5.23	0.29	28.44
1978	0.77	1.70	1.03	3.52	2.55	3.92	1.15	4.34	8.44	0.75	4.81	1.43	34.39
1979	3.39	1.28	2.72	6.05	1.82	5.42	4.74	2.01	1.34	0.13	1.22	2.60	32.72
1980	0.70	0.91	0.90	1.44	7.38	0.55	0.62	3.62	4.50	1.14	3.71	0.66	26.14

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1818

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.84	0.83	1.80	2.48	5.40	8.15	0.64	3.03	1.95	6.49	0.66	0.70	33.97
1982	0.94	1.72	0.56	1.36	4.53	1.60	0.81	0.74	1.10	2.68	4.06	1.69	21.81
1983	1.32	1.71	3.26	0.15	3.82	1.87	1.64	2.89	5.76	1.64	1.94	0.47	26.46
1984	1.60	0.68	1.41	0.84	2.53	1.22	0.15	1.22	0.74	9.16	2.16	2.69	24.41
1985	3.17	1.51	2.75	3.10	1.54	5.26	5.79	0.78	5.08	5.50	4.86	0.41	39.76
1986	1.08	1.24	0.33	0.54	6.33	10.40	0.03	1.67	5.20	7.03	1.58	6.13	41.56
1987	1.21	4.13	1.27	1.35	9.42	8.98	2.91	2.01	2.11	0.27	2.07	1.95	37.67
1988	0.36	0.85	1.41	1.18	1.87	3.66	2.28	2.05	2.15	0.80	0.04	0.38	17.02
1989	2.86	0.44	1.53	2.23	1.51	3.14	0.87	0.39	0.78	3.06	1.44	0.76	19.00
AVG	1.66	1.75	1.51	2.56	3.60	3.42	1.86	2.25	3.45	2.74	1.94	1.74	28.48

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1825

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.37	6.45	2.86	2.72	1.63	2.02	2.23	2.62	3.27	1.66	3.88	4.69	34.37
1924	0.81	3.27	0.95	2.22	5.18	6.50	0.04	0.00	2.14	0.26	0.15	2.58	24.10
1925	0.18	0.05	0.37	0.26	2.15	0.90	0.65	1.75	4.05	1.59	1.60	1.57	15.12
1926	3.26	0.12	4.68	6.24	1.88	3.79	1.36	0.43	0.35	2.59	1.64	2.06	28.41
1927	0.74	1.76	2.17	1.91	1.80	7.55	0.33	0.14	1.65	2.22	0.02	2.31	22.60
1928	0.79	2.22	1.92	2.09	5.22	4.60	0.71	2.52	4.83	1.46	2.00	2.58	30.94
1929	1.32	0.18	2.69	2.52	8.12	2.41	3.07	0.05	2.28	1.98	3.05	1.73	29.39
1930	1.33	0.86	1.99	1.99	1.23	3.33	2.65	0.06	1.48	4.25	3.47	0.94	23.59
1931	5.53	2.35	2.81	2.22	1.88	3.86	4.19	0.53	0.12	1.41	0.85	3.42	29.16
1932	3.87	1.87	1.29	1.46	2.72	2.02	2.83	3.76	3.94	0.74	0.12	1.29	25.89
1933	0.56	2.14	0.51	1.20	2.45	1.13	3.36	3.31	1.41	0.26	0.23	0.38	16.91
1934	5.47	0.17	0.87	4.79	1.42	0.10	2.53	1.44	3.15	0.04	3.96	5.28	29.22
1935	0.48	2.21	1.10	4.98	9.93	6.93	1.98	0.48	6.44	0.85	0.61	2.39	38.37
1936	0.26	0.26	3.14	1.59	6.69	6.96	3.93	3.65	4.50	2.43	2.25	1.46	37.12
1937	0.87	0.53	1.88	0.48	1.61	0.59	1.54	2.60	1.39	3.04	1.35	7.46	23.34
1938	3.21	0.88	0.51	1.99	2.21	1.02	1.40	1.62	2.38	0.94	0.90	2.18	19.24
1939	0.95	0.79	0.24	0.00	0.04	2.79	1.94	2.75	2.09	0.14	0.81	1.22	13.76
1940	0.63	2.42	1.18	2.33	3.68	6.73	1.40	1.15	1.46	3.16	5.62	3.55	33.30
1941	3.17	2.57	2.72	6.28	4.20	6.74	0.47	0.84	4.69	3.70	0.79	1.09	37.24
1942	0.29	2.00	0.34	3.31	2.05	2.03	9.98	4.15	7.21	6.68	0.95	0.46	39.46
1943	1.06	0.21	1.57	1.25	3.76	2.13	3.33	1.43	7.02	1.04	2.68	1.62	27.09
1944	4.06	1.71	2.66	1.13	6.50	1.10	0.00	2.85	2.18	0.83	3.35	1.94	28.31
1945	2.49	3.37	2.94	2.04	0.55	2.90	1.12	0.77	2.44	3.85	0.49	1.03	24.00
1946	3.73	2.35	3.11	4.02	4.23	5.95	0.68	7.18	10.01	2.58	2.70	3.15	49.69
1947	2.20	0.22	1.92	0.92	3.43	0.46	0.98	4.12	0.23	0.41	1.24	1.44	17.57
1948	0.74	2.65	0.52	1.53	2.17	3.19	1.31	2.39	2.00	2.24	1.28	0.13	20.14
1949	2.27	2.81	0.99	8.47	1.94	9.45	2.38	1.42	0.41	7.47	0.06	2.91	40.58
1950	0.17	1.72	0.33	2.92	1.49	2.05	2.24	2.58	2.85	0.19	0.08	0.03	16.65
1951	0.27	1.81	2.59	1.01	5.31	2.78	0.33	0.59	3.83	1.73	1.12	0.28	21.65
1952	0.35	1.99	1.78	3.68	2.44	1.55	2.06	0.03	5.18	0.00	3.43	2.73	25.21
1953	0.62	1.54	0.66	2.58	1.48	2.78	0.10	3.44	6.22	2.41	0.26	2.27	24.36
1954	0.66	0.10	0.02	2.52	2.08	2.10	1.20	1.33	0.59	1.71	0.91	0.19	13.41
1955	1.83	3.87	1.31	0.16	3.09	1.87	1.20	2.97	0.53	0.25	1.58	0.69	19.35
1956	1.18	1.02	0.18	0.44	2.01	0.53	1.36	4.73	0.53	2.04	0.78	2.00	16.79
1957	0.45	1.98	3.88	8.80	6.78	1.67	0.44	0.29	9.33	3.81	3.47	1.02	41.92
1958	5.00	4.85	0.89	1.90	5.25	2.94	3.06	0.25	10.59	6.58	1.10	0.84	43.24
1959	0.48	2.14	0.15	3.84	4.61	2.51	1.32	2.90	1.25	6.75	1.41	1.94	29.29
1960	0.88	1.42	2.89	1.60	1.10	4.32	2.64	4.12	0.72	12.18	2.51	3.15	37.53
1961	0.82	1.43	0.03	0.51	0.14	6.14	7.06	0.57	3.73	4.83	2.75	0.70	28.71
1962	0.61	0.96	0.91	3.74	1.15	2.14	0.01	0.79	3.17	0.81	3.75	1.92	19.97
1963	0.34	3.09	0.12	1.84	2.16	2.31	0.63	0.44	2.58	2.84	2.90	1.26	20.52
1964	3.25	2.28	2.33	0.96	2.58	2.17	0.00	2.88	3.20	1.76	3.41	0.76	25.60
1965	2.48	7.31	2.37	2.05	5.92	1.09	0.45	1.20	3.55	4.73	2.73	5.60	39.47
1966	1.60	2.70	1.22	2.74	3.68	1.94	0.46	5.75	3.34	0.80	0.00	0.45	24.68
1967	0.22	0.85	2.27	0.61	2.45	0.58	4.17	2.06	14.60	3.05	4.45	1.48	36.77
1968	8.58	2.48	1.31	3.55	4.63	4.90	1.40	1.10	6.33	1.35	6.23	1.06	42.93
1969	1.58	4.18	2.93	3.26	4.77	2.09	0.83	3.37	1.79	5.45	1.98	2.76	35.01
1970	1.61	3.39	2.02	1.00	7.38	1.00	0.36	1.71	3.48	1.46	0.00	0.23	23.63
1971	0.00	0.78	0.03	0.60	1.82	3.49	0.13	6.01	4.08	2.86	1.89	3.34	25.02
1972	1.84	0.32	0.36	0.68	10.40	3.26	1.63	3.64	2.25	1.57	3.18	0.57	29.72
1973	3.38	2.59	2.32	5.56	0.63	10.34	3.83	3.09	12.14	6.65	0.29	0.15	50.96
1974	2.27	0.17	1.04	2.52	5.02	1.11	2.61	8.83	3.27	2.54	4.57	1.49	35.44
1975	0.85	2.73	0.94	3.01	9.77	4.34	0.95	1.46	1.43	2.96	0.11	1.65	30.21
1976	0.33	0.29	1.73	6.93	7.06	0.96	4.57	2.35	4.72	8.19	2.72	2.48	42.32
1977	3.24	1.39	0.82	8.71	2.26	1.27	0.24	0.42	2.34	2.11	5.66	0.26	28.72
1978	0.70	2.37	1.03	3.86	1.85	5.84	3.73	4.28	7.87	1.12	5.82	2.07	40.53
1979	4.32	1.59	2.93	7.09	1.94	3.99	4.60	2.29	1.10	0.82	1.01	2.19	33.86
1980	1.46	0.83	1.34	1.18	7.56	0.38	0.69	3.39	4.71	0.58	3.97	0.71	26.79

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1825

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.92	0.82	1.90	2.92	4.40	7.63	1.31	5.08	1.33	5.05	0.54	0.51	33.41
1982	1.07	1.90	0.50	1.42	3.52	1.96	1.40	0.97	1.25	2.75	3.94	1.40	22.09
1983	1.26	1.90	3.01	0.24	3.67	2.32	1.36	3.25	6.57	1.57	1.35	0.51	27.01
1984	1.48	0.76	1.29	1.13	1.85	1.18	0.26	0.23	0.53	11.07	1.79	2.36	23.91
1985	3.25	1.34	2.70	3.05	1.14	4.07	5.71	1.23	5.30	6.15	4.94	0.56	39.45
1986	1.27	0.69	0.33	0.54	6.24	9.63	0.02	1.56	6.21	7.41	1.49	5.82	41.21
1987	1.15	3.86	1.12	0.45	9.54	8.89	3.74	3.08	2.09	0.22	1.63	1.98	37.75
1988	0.33	0.53	1.39	1.16	2.11	3.33	1.88	2.37	2.70	0.74	0.05	0.34	16.94
1989	2.69	0.34	1.58	2.27	1.90	2.82	0.55	0.24	0.33	3.45	1.19	0.56	17.94
AVG	1.74	1.83	1.56	2.58	3.61	3.34	1.89	2.25	3.59	2.84	2.05	1.81	29.09

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS # 1835

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.26	9.43	3.32	2.95	1.25	0.82	2.83	3.64	5.28	4.04	3.02	5.52	42.37
1924	0.85	3.24	0.97	2.36	6.22	5.75	0.33	0.00	2.13	0.32	0.02	1.86	24.05
1925	0.04	0.02	0.99	0.68	2.53	0.36	1.26	2.42	4.50	2.16	0.83	1.04	16.83
1926	3.44	0.33	4.71	2.76	3.88	2.66	1.14	0.91	0.05	3.10	1.68	1.43	26.09
1927	1.32	1.06	2.19	3.24	2.43	6.24	0.05	0.92	1.52	3.21	0.18	2.25	24.60
1928	0.50	1.53	0.80	2.55	4.04	4.13	1.74	1.36	3.70	1.21	2.96	3.99	28.53
1929	1.08	0.42	3.18	2.19	7.26	3.08	2.67	0.04	1.44	2.94	3.89	1.09	29.28
1930	1.18	1.68	1.81	1.65	2.24	2.07	1.59	0.01	0.18	4.94	2.55	0.97	20.86
1931	4.29	2.60	1.87	1.93	2.41	4.18	2.89	1.45	0.05	1.89	0.58	3.36	27.49
1932	5.35	1.87	1.16	1.95	2.97	1.85	1.43	2.91	7.02	0.60	0.02	1.85	28.99
1933	0.41	1.63	1.32	2.81	3.57	0.61	5.44	1.11	2.30	1.23	0.09	0.32	20.83
1934	5.23	1.60	2.28	3.70	0.18	0.01	0.70	0.73	3.38	0.27	3.98	4.08	26.14
1935	0.77	4.07	2.67	3.82	7.98	9.62	5.15	0.06	5.51	0.15	1.70	3.86	45.37
1936	0.30	0.28	3.15	1.58	6.87	6.86	3.98	3.75	4.56	2.45	2.26	1.47	37.51
1937	0.91	0.53	1.92	0.49	1.59	0.60	1.55	2.54	1.39	3.05	1.37	7.43	23.38
1938	3.16	0.89	0.51	2.09	2.30	1.04	1.40	1.62	2.39	0.91	0.91	2.20	19.41
1939	0.95	0.79	0.24	0.00	0.12	2.77	1.96	2.75	2.10	0.14	0.82	1.23	13.86
1940	0.49	1.83	1.25	1.67	3.66	6.21	1.33	1.33	1.48	2.65	7.28	3.56	32.75
1941	4.56	3.30	2.80	5.32	4.64	6.91	0.25	1.40	4.58	2.00	0.89	0.99	37.66
1942	0.20	1.46	0.01	3.83	2.10	1.40	11.42	4.64	5.92	2.73	1.75	0.31	35.76
1943	1.20	0.33	2.13	0.19	4.27	0.56	1.96	0.28	7.14	0.96	2.72	1.23	22.95
1944	2.74	1.89	1.18	0.27	6.80	0.85	0.02	2.48	0.97	1.10	4.36	1.52	24.19
1945	1.82	2.51	2.36	2.24	0.01	2.91	0.39	0.75	1.78	1.80	0.00	0.19	16.75
1946	3.53	2.32	2.32	5.37	3.89	5.27	0.06	7.76	5.99	3.18	1.74	3.31	44.73
1947	1.52	0.02	2.19	2.15	4.15	0.50	0.74	3.70	0.16	0.86	2.00	1.52	19.50
1948	0.79	2.93	0.35	1.46	1.73	1.43	2.84	4.60	2.00	2.69	1.27	0.12	22.22
1949	2.76	2.19	1.09	10.29	0.44	5.22	2.77	2.32	0.38	4.91	0.08	3.52	35.96
1950	0.23	1.58	0.48	4.14	2.55	3.80	2.06	2.34	0.61	0.29	0.20	0.00	18.28
1951	0.27	1.78	1.70	0.69	5.78	4.31	0.15	0.43	3.88	1.81	1.26	0.18	22.25
1952	0.51	2.33	1.55	3.00	2.29	1.00	3.16	0.00	5.12	0.00	3.56	3.53	26.03
1953	0.79	1.79	0.64	1.70	2.65	1.43	0.16	5.85	3.42	3.10	0.47	1.62	23.63
1954	0.77	0.03	0.07	4.72	4.88	1.62	0.55	1.86	0.59	1.62	0.71	0.30	17.73
1955	1.48	3.31	2.28	0.25	2.86	2.21	1.30	3.28	0.97	1.64	1.92	0.33	21.83
1956	0.78	0.84	0.33	1.98	1.08	1.08	2.35	2.90	0.86	1.42	0.74	2.59	16.94
1957	0.35	1.45	3.62	6.91	5.79	2.59	0.20	0.16	10.22	2.12	4.92	1.00	39.34
1958	5.64	4.80	0.74	1.79	5.93	2.43	0.82	0.31	8.50	7.51	2.41	1.06	41.95
1959	0.42	2.83	0.14	2.69	5.10	4.05	0.72	3.45	1.25	6.34	1.86	1.38	30.22
1960	0.73	2.31	1.37	1.26	1.02	4.31	2.81	6.69	0.93	11.25	3.31	4.42	40.42
1961	1.16	1.96	0.14	1.13	0.51	6.74	4.37	0.49	2.38	4.75	3.16	0.60	27.39
1962	0.78	0.44	1.33	3.93	1.27	2.43	0.02	0.94	3.55	1.39	2.43	2.65	21.16
1963	0.32	3.09	0.06	1.45	1.14	2.52	1.11	0.10	1.79	1.92	2.83	1.85	18.20
1964	2.25	1.87	1.62	1.35	3.80	0.68	0.00	3.84	4.09	1.58	1.60	1.27	23.93
1965	2.21	5.98	0.82	1.33	7.84	0.70	0.84	2.35	3.15	2.85	0.86	4.85	33.79
1966	1.87	2.44	0.70	3.97	3.31	2.55	1.26	3.96	4.64	1.32	0.00	0.45	26.48
1967	0.47	0.72	1.56	0.64	0.82	0.00	5.39	3.30	16.95	3.97	3.68	1.12	38.64
1968	8.08	2.56	1.26	1.86	7.44	6.67	0.73	1.62	9.39	1.32	3.63	1.74	46.29
1969	2.36	4.59	2.39	3.18	6.49	2.77	0.91	1.91	1.10	5.55	2.20	2.85	36.29
1970	2.03	3.37	2.52	0.71	8.33	1.81	0.18	1.70	2.07	0.57	0.00	0.23	23.53
1971	0.00	1.01	0.00	0.21	0.70	6.15	0.00	4.72	2.48	1.29	1.62	2.32	20.49
1972	2.37	0.06	0.95	0.36	5.43	2.04	1.94	3.03	2.89	1.47	2.15	0.72	23.41
1973	2.73	2.76	2.39	5.44	0.33	12.42	1.31	5.19	12.82	6.98	0.44	0.06	52.86
1974	2.65	0.28	0.81	1.98	3.50	0.59	4.00	7.08	4.75	2.43	2.65	1.26	31.98
1975	0.69	1.78	0.51	3.73	12.53	3.44	0.54	1.47	1.28	2.27	0.03	1.09	29.34
1976	0.06	0.00	1.13	6.48	4.11	0.15	3.76	3.05	4.52	6.48	3.32	3.32	36.37
1977	2.85	1.33	0.55	9.24	3.16	1.53	0.39	0.10	1.91	2.09	1.76	0.03	24.94
1978	0.85	1.98	1.22	3.84	1.74	3.25	1.66	2.10	5.44	1.51	4.41	2.72	30.72
1979	4.39	1.18	1.28	6.27	2.38	4.00	4.48	1.69	1.32	0.44	0.84	1.65	29.92
1980	1.02	0.73	1.27	0.55	6.79	0.00	0.77	5.75	2.94	0.29	4.22	1.01	25.35

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS # 1835

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.69	0.94	1.30	1.88	2.72	4.49	2.45	4.81	1.64	3.44	0.55	0.31	26.22
1982	0.42	4.86	0.73	2.23	3.90	2.21	0.77	1.10	0.79	1.59	3.03	0.91	22.55
1983	2.00	2.22	2.82	0.02	2.62	1.84	4.14	3.01	5.34	1.78	0.95	0.57	27.31
1984	2.16	0.92	1.40	0.72	1.26	0.81	0.31	0.38	1.44	6.54	1.44	2.23	19.61
1985	2.25	1.05	2.39	3.28	0.42	3.46	3.27	0.19	2.73	5.98	5.88	0.40	31.31
1986	0.64	1.43	0.39	0.27	4.07	5.31	0.12	0.39	4.26	7.00	1.41	6.88	32.17
1987	1.31	3.26	0.52	0.06	4.60	8.88	1.99	1.34	1.84	0.09	1.79	2.35	28.02
1988	0.19	0.20	1.43	1.22	2.74	2.64	2.12	0.79	2.70	0.31	0.01	0.28	14.62
1989	3.20	0.63	0.67	0.97	0.67	1.92	0.28	1.05	0.47	2.75	1.61	0.21	14.42
AVG	1.71	1.90	1.43	2.49	3.49	3.06	1.81	2.24	3.36	2.58	1.92	1.83	27.82

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1839

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.56	5.35	3.28	4.89	1.61	1.48	3.23	1.92	9.97	7.18	4.02	4.74	48.23
1924	1.64	3.61	2.91	3.86	9.82	4.10	0.00	0.10	4.06	0.79	0.24	1.66	32.79
1925	0.42	0.12	0.00	1.51	2.35	1.02	0.59	2.10	3.17	6.00	2.66	1.07	21.01
1926	2.85	0.11	6.04	8.11	4.17	2.96	2.85	0.89	0.27	4.13	3.10	3.08	38.56
1927	1.54	4.60	2.72	3.48	2.72	5.58	3.17	0.15	0.86	1.75	0.10	3.23	29.90
1928	0.64	3.90	0.68	1.70	1.01	2.64	4.07	1.64	5.73	1.07	2.06	2.61	27.75
1929	1.58	0.62	1.34	2.42	8.04	1.28	6.83	0.64	2.02	2.86	3.17	3.26	34.06
1930	1.54	1.22	2.51	1.95	5.20	4.27	1.22	0.94	2.01	8.77	1.97	1.40	33.00
1931	6.44	5.53	2.69	7.09	1.62	1.79	3.81	1.60	0.17	0.80	1.54	3.78	36.86
1932	4.38	3.84	3.14	3.01	1.94	1.22	5.62	4.49	5.19	0.00	0.47	3.35	36.65
1933	4.13	2.51	0.85	1.32	3.75	1.20	2.37	0.83	2.52	0.13	0.48	0.49	20.58
1934	6.01	2.33	2.54	2.73	1.74	0.55	5.17	0.38	0.91	0.14	0.99	3.29	26.78
1935	0.42	3.04	0.77	2.45	12.59	8.59	6.80	0.57	10.40	2.14	1.35	3.81	52.93
1936	0.70	0.65	1.74	0.97	11.17	9.27	2.80	2.44	11.43	2.97	1.77	1.68	47.59
1937	1.98	0.15	2.92	1.60	5.94	5.50	3.24	1.49	0.10	2.89	1.54	5.46	32.81
1938	4.06	1.61	2.07	4.52	2.59	1.33	1.84	0.22	3.97	0.16	0.48	1.29	24.14
1939	3.54	0.86	0.65	1.46	2.58	0.58	6.55	3.05	0.48	3.16	2.33	0.96	26.20
1940	0.68	3.69	1.59	2.24	3.45	3.90	0.79	1.19	1.17	4.71	3.67	5.21	32.29
1941	1.81	5.88	4.71	5.76	4.51	3.03	1.61	0.55	5.00	7.02	0.85	0.87	41.60
1942	0.41	1.17	0.66	3.53	3.79	1.27	2.62	3.91	4.78	5.65	1.58	1.75	31.12
1943	0.86	0.07	1.71	1.34	4.26	3.57	5.16	0.05	4.76	0.39	1.59	2.64	26.40
1944	3.67	3.75	3.70	1.08	8.56	1.88	0.87	7.56	2.25	1.37	3.91	4.38	42.98
1945	3.55	2.94	1.98	1.10	1.00	2.65	4.22	2.85	5.01	3.94	1.30	2.96	33.50
1946	3.02	2.35	1.93	3.94	3.65	3.14	2.40	6.62	9.45	4.22	2.29	2.61	45.62
1947	4.09	0.37	1.91	1.51	5.92	0.31	0.80	3.44	0.04	0.58	1.61	1.09	21.67
1948	0.44	3.08	1.49	1.98	1.29	5.47	1.81	0.87	3.56	2.43	0.57	0.78	23.77
1949	3.68	3.72	1.73	7.28	3.18	3.95	3.77	5.54	2.08	3.33	0.00	2.89	41.15
1950	0.70	2.49	0.34	3.73	3.08	2.02	4.14	3.88	3.29	0.55	0.72	0.00	24.94
1951	0.24	1.71	2.69	2.48	4.10	1.60	0.60	0.31	1.44	2.08	1.26	0.25	18.76
1952	0.53	1.59	2.98	3.64	7.14	0.96	0.62	0.00	13.63	0.00	3.40	3.05	37.54
1953	0.73	0.89	1.18	1.47	1.60	0.72	0.77	4.52	3.97	3.95	0.39	1.23	21.42
1954	0.87	0.00	0.08	1.07	0.91	1.47	0.25	0.06	0.57	2.72	1.94	0.35	10.29
1955	1.72	2.71	0.45	0.14	4.68	1.37	0.37	4.09	0.70	0.19	1.56	1.29	19.27
1956	1.07	1.33	0.13	0.23	0.67	0.59	0.14	1.98	2.04	1.11	1.68	1.08	12.05
1957	0.51	3.46	4.06	9.33	9.22	3.12	0.00	0.68	8.90	7.22	4.61	1.44	52.55
1958	4.68	2.92	2.89	1.17	7.34	3.20	0.12	0.79	10.37	6.63	0.33	0.50	40.94
1959	0.75	4.44	0.30	2.76	2.02	9.44	1.39	1.76	2.27	4.93	2.06	3.52	35.64
1960	1.01	1.47	2.63	0.84	1.45	3.24	3.80	4.57	0.74	6.70	1.16	4.94	32.55
1961	1.26	4.00	0.39	0.06	0.12	6.82	3.92	1.06	1.42	2.06	2.82	1.52	25.45
1962	0.61	0.63	1.47	4.41	1.42	1.92	0.76	0.69	5.11	4.51	2.40	1.33	25.26
1963	0.22	2.23	0.13	3.80	1.19	2.24	0.33	2.70	1.29	1.67	3.88	0.98	20.66
1964	4.19	2.34	3.12	1.71	0.97	2.38	0.37	1.40	6.61	1.35	1.77	1.15	27.36
1965	1.07	6.47	2.04	5.54	10.26	2.24	0.04	1.02	3.68	4.68	1.03	4.34	42.41
1966	1.82	2.12	0.83	4.56	5.17	1.02	1.16	5.94	5.99	0.21	0.00	0.23	29.05
1967	0.15	0.99	0.94	1.54	3.24	0.04	0.58	3.43	8.00	2.68	3.38	1.78	26.75
1968	6.50	1.89	2.64	4.59	3.59	3.57	2.02	0.45	4.08	0.94	2.78	2.09	35.14
1969	0.78	3.92	2.24	4.45	2.82	2.73	1.28	4.14	2.97	7.17	2.18	3.39	38.07
1970	1.82	3.78	2.66	1.33	8.04	1.14	0.44	0.11	6.53	1.74	0.02	0.18	27.79
1971	0.05	1.24	0.11	2.93	1.98	3.26	0.35	15.25	8.91	6.25	2.85	2.06	45.24
1972	1.31	0.28	2.03	1.73	7.86	4.10	2.18	6.37	2.92	2.58	3.19	0.54	35.09
1973	3.67	2.70	2.74	4.49	0.89	10.02	9.83	1.29	6.86	7.67	0.61	0.16	50.93
1974	1.95	0.05	0.99	1.40	7.27	1.82	0.18	15.46	2.00	3.46	3.86	3.36	41.80
1975	1.09	5.04	1.03	6.76	5.89	3.57	2.60	0.52	1.99	3.25	0.18	1.57	33.49
1976	0.33	0.24	1.39	11.11	6.13	1.53	4.66	2.58	4.35	7.57	2.14	3.21	45.24
1977	3.11	1.16	1.37	5.90	2.63	5.17	0.29	0.57	1.06	3.84	6.91	0.42	32.43
1978	0.95	2.09	0.81	1.56	1.05	2.05	0.31	6.38	9.38	0.29	6.09	4.21	35.17
1979	3.75	3.01	6.97	4.64	1.06	5.51	8.17	1.58	0.71	0.66	2.11	1.80	39.97
1980	1.20	0.52	2.40	2.69	5.58	0.17	0.16	2.17	7.94	1.87	3.68	0.64	29.02

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1839

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.43	1.44	3.88	2.33	6.04	11.16	2.43	2.71	2.26	4.65	2.07	0.65	41.05
1982	1.18	1.97	0.74	2.04	6.47	2.84	1.18	1.01	2.14	2.77	3.80	1.50	27.64
1983	1.73	1.81	3.96	0.00	5.59	3.98	2.77	3.53	2.28	5.70	2.58	0.67	34.60
1984	1.87	0.63	0.50	0.26	2.41	3.68	1.89	0.33	1.74	7.02	2.48	4.16	26.97
1985	1.82	3.19	4.00	3.19	2.81	6.83	3.70	0.05	7.11	3.76	4.14	1.17	41.77
1986	0.88	1.86	0.58	1.24	7.46	4.48	0.11	0.98	6.61	8.24	1.90	6.84	41.18
1987	0.81	4.25	0.92	0.88	8.55	11.23	0.96	0.85	3.14	0.18	5.67	2.41	39.85
1988	0.56	1.05	2.34	1.08	1.36	4.10	0.60	1.63	3.10	1.89	0.22	0.63	18.56
1989	4.69	0.91	2.06	1.59	2.15	2.87	0.49	1.06	1.95	5.37	1.62	0.47	25.23
AVG	1.91	2.27	1.96	2.95	4.19	3.32	2.24	2.45	4.05	3.26	2.11	2.11	32.82

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1850

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.77	5.02	2.99	4.49	2.22	1.76	2.84	1.80	7.75	6.60	3.68	5.10	45.03
1924	1.61	3.51	2.58	3.94	8.37	3.48	0.00	0.12	3.43	0.73	0.17	1.92	29.85
1925	0.34	0.13	0.00	1.09	2.20	1.78	0.49	2.40	3.57	5.18	2.46	1.08	20.71
1926	3.39	0.11	6.22	8.66	4.10	2.40	2.15	0.72	0.75	3.47	2.71	3.04	37.74
1927	1.45	3.54	3.08	2.72	2.36	5.29	2.47	0.10	0.97	2.51	0.06	2.85	27.41
1928	0.70	4.34	0.86	1.66	1.77	4.69	3.49	1.35	5.63	1.25	2.41	2.85	30.99
1929	1.90	0.52	2.54	2.48	9.24	1.55	6.31	0.64	1.96	3.16	3.23	2.72	36.24
1930	1.55	1.53	2.37	1.84	4.42	5.32	0.89	0.60	1.85	7.51	2.08	1.50	31.46
1931	6.21	5.02	3.64	5.15	1.37	2.01	4.00	1.66	0.14	0.64	1.30	3.84	34.97
1932	4.48	3.51	2.59	2.92	1.93	1.36	4.50	4.64	5.19	0.10	0.57	2.88	34.68
1933	3.18	2.38	1.04	1.69	4.19	1.23	3.56	1.03	2.26	0.99	0.61	0.63	22.79
1934	6.72	2.19	2.71	2.41	1.45	0.46	4.40	0.45	1.48	0.15	1.55	4.25	28.22
1935	0.52	2.97	1.16	2.45	12.31	7.02	5.47	0.43	10.21	1.71	0.98	3.66	48.90
1936	0.74	0.64	1.70	1.54	9.07	7.19	2.24	2.75	8.89	2.82	2.10	1.59	41.27
1937	1.74	0.15	3.34	1.32	5.38	5.47	2.24	1.14	0.25	3.04	1.67	5.72	31.48
1938	4.08	1.61	2.19	6.10	3.55	1.12	1.98	0.25	2.75	0.17	0.66	1.22	25.68
1939	2.73	0.84	0.76	1.28	2.42	0.70	4.85	2.32	0.55	2.18	1.96	0.87	21.48
1940	0.69	3.38	1.07	2.64	3.62	4.65	1.53	1.36	1.39	3.47	4.56	5.34	33.69
1941	1.53	4.48	3.94	6.03	3.56	4.94	1.71	0.55	4.11	6.71	0.62	1.30	39.49
1942	0.23	2.24	0.37	3.72	2.75	1.93	4.81	3.47	6.58	7.49	1.30	0.99	35.87
1943	0.70	0.13	1.55	1.65	3.79	3.19	6.34	0.34	6.68	1.08	1.96	2.61	30.03
1944	3.94	3.50	4.07	3.33	6.70	2.17	0.68	5.41	2.36	1.14	4.87	4.80	42.99
1945	3.25	3.71	4.01	1.42	0.85	2.89	2.06	1.12	3.49	4.34	0.92	2.23	30.30
1946	3.43	2.45	3.97	3.77	3.98	3.82	1.13	5.91	11.82	2.99	4.97	3.24	51.48
1947	3.28	0.32	1.93	0.81	3.18	0.23	1.41	4.35	0.11	0.41	1.62	1.32	18.98
1948	0.46	2.89	1.05	1.93	1.84	3.97	2.12	1.10	2.11	2.37	0.93	0.95	21.70
1949	3.55	3.37	2.51	9.22	1.21	3.78	3.83	3.20	2.28	5.05	0.09	2.98	41.06
1950	0.70	3.07	0.25	3.39	4.04	1.64	2.79	3.67	2.24	0.31	1.12	0.03	23.26
1951	0.23	2.93	2.98	1.23	4.37	2.16	0.16	0.22	3.04	1.43	1.00	0.37	20.13
1952	0.43	2.45	2.96	4.12	3.99	2.60	2.70	0.00	10.67	0.00	5.36	3.31	38.60
1953	0.58	1.20	0.83	3.23	1.14	1.63	2.11	5.26	3.29	3.92	0.30	1.72	25.21
1954	1.19	0.06	0.04	1.49	1.54	1.28	1.63	1.69	0.34	2.69	0.97	0.19	13.09
1955	1.67	2.25	0.54	0.36	3.95	2.60	0.48	3.02	0.80	0.28	1.78	1.00	18.73
1956	1.12	0.99	0.51	0.68	0.85	0.57	0.57	2.82	0.62	1.41	1.74	1.69	13.56
1957	0.62	2.35	4.73	10.62	9.03	2.59	0.61	0.54	8.68	5.53	3.87	1.37	50.54
1958	4.87	4.32	2.54	1.30	5.14	2.44	1.47	1.04	9.87	7.46	0.62	1.16	42.22
1959	0.68	3.02	0.41	2.90	1.85	4.13	2.47	2.85	1.66	5.28	2.82	2.51	30.58
1960	1.27	1.12	2.49	2.60	1.95	4.38	2.99	7.19	0.71	8.37	1.43	4.35	38.86
1961	1.24	2.45	0.26	0.19	0.04	5.64	5.22	1.31	2.23	3.86	2.18	1.35	25.96
1962	0.83	1.61	1.20	4.69	1.49	2.61	0.65	1.32	4.96	4.08	2.29	2.29	28.01
1963	0.42	2.38	0.23	2.49	1.40	2.44	0.34	1.89	1.55	2.32	2.69	1.07	19.23
1964	3.93	2.43	1.95	1.61	1.62	5.37	0.41	2.28	5.60	2.14	2.93	1.16	31.44
1965	2.37	6.77	2.73	3.75	8.64	1.40	0.21	1.10	2.40	5.67	1.66	6.52	43.22
1966	1.39	2.68	1.30	3.56	4.85	1.54	0.73	6.31	5.71	0.42	0.00	0.27	28.75
1967	0.13	0.87	1.28	1.91	3.54	0.06	2.66	2.94	10.10	3.27	3.50	1.81	32.06
1968	9.13	2.09	2.01	3.66	4.39	3.40	2.00	0.45	4.14	1.72	3.97	1.94	38.90
1969	1.30	3.52	2.40	4.18	4.63	2.69	0.39	5.53	1.84	5.17	2.10	2.73	36.47
1970	1.56	3.09	2.52	1.55	6.06	1.04	0.75	1.46	6.04	2.74	0.01	0.26	27.09
1971	0.05	1.04	0.06	1.92	2.37	2.61	0.53	12.64	5.28	5.85	2.21	3.89	38.44
1972	1.32	0.51	1.14	2.76	13.47	3.03	2.60	5.72	2.03	2.26	4.51	0.53	39.87
1973	3.36	2.78	2.48	5.43	0.70	10.34	10.27	1.22	8.52	7.66	0.67	0.14	53.56
1974	2.12	0.23	1.14	2.05	5.41	1.66	0.79	9.35	2.80	3.09	3.30	2.34	34.27
1975	1.13	4.37	0.60	4.61	5.97	4.60	1.57	1.87	1.60	3.01	0.24	1.90	31.48
1976	0.68	0.61	1.44	9.11	7.02	2.16	4.90	1.40	5.85	10.73	2.54	2.35	48.78
1977	3.38	1.31	1.41	7.42	2.23	3.26	0.11	0.66	2.08	2.52	6.06	0.33	30.77
1978	0.64	2.31	0.96	2.17	1.46	3.24	1.15	5.36	9.47	0.34	6.14	2.16	35.40
1979	3.85	2.61	5.46	5.27	1.23	5.51	5.43	1.46	1.35	0.45	1.93	2.98	37.54
1980	1.51	0.79	2.32	1.91	5.99	1.37	0.21	2.20	7.75	1.59	3.57	1.20	30.43

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1850

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.87	1.30	2.80	2.69	5.45	9.80	1.32	2.79	1.94	4.78	2.51	0.74	37.99
1982	1.10	1.28	0.81	1.72	7.71	2.31	0.95	1.29	1.95	2.97	4.41	2.38	28.88
1983	1.25	2.05	4.14	0.17	6.17	3.59	3.10	2.51	2.38	2.33	2.50	0.43	30.62
1984	2.24	0.89	1.09	0.14	2.33	2.09	0.77	1.21	1.07	7.31	2.07	4.28	25.48
1985	1.77	3.81	4.00	2.66	2.29	9.12	5.31	0.41	6.45	3.97	4.49	0.77	45.06
1986	1.12	1.79	0.55	0.87	6.89	5.03	0.20	1.50	4.07	8.51	1.99	6.64	39.17
1987	0.77	3.92	1.10	0.97	8.70	11.69	1.50	1.04	1.81	0.56	3.70	2.33	38.08
1988	0.52	1.19	1.89	1.40	2.03	4.63	1.61	1.64	3.47	1.08	0.17	0.60	20.23
1989	4.25	0.48	2.41	3.47	1.66	2.62	0.94	0.92	1.10	4.96	2.49	0.59	25.87
AVG	1.97	2.23	2.00	3.02	4.05	3.36	2.27	2.35	3.82	3.27	2.21	2.17	32.72

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1860

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.63	6.69	2.96	2.71	2.05	1.22	2.11	3.49	5.16	4.29	3.39	5.60	40.32
1924	1.07	3.40	0.99	2.68	5.83	4.52	0.12	0.36	1.97	0.39	0.06	2.06	23.44
1925	0.23	0.07	0.54	0.58	1.87	1.21	0.75	2.06	3.75	3.30	1.45	1.16	16.98
1926	3.37	0.24	5.62	4.75	3.28	1.84	1.14	1.04	0.87	3.71	1.93	2.12	29.92
1927	1.10	1.45	2.82	2.77	1.95	5.86	0.40	0.47	1.64	3.15	0.09	2.36	24.06
1928	0.52	2.50	1.01	2.09	4.00	3.80	1.80	1.27	4.71	1.19	2.98	3.27	29.13
1929	1.72	0.29	3.94	2.81	11.32	2.97	3.40	0.23	2.60	2.82	3.04	1.28	36.42
1930	1.53	1.61	2.11	1.77	2.46	3.81	1.48	0.16	0.72	4.78	2.69	1.32	24.44
1931	4.45	3.11	2.77	1.63	1.75	3.05	3.42	1.11	0.10	1.10	0.63	3.78	26.90
1932	5.47	2.76	1.19	2.78	2.29	1.54	1.53	4.42	5.88	0.55	0.39	2.01	30.80
1933	1.01	2.21	1.14	1.92	4.13	0.98	5.27	2.13	2.27	1.34	0.57	0.58	23.54
1934	5.93	1.44	2.54	2.79	0.72	0.18	3.31	0.89	3.44	0.20	3.73	5.01	30.20
1935	0.89	3.29	1.96	3.34	9.63	7.12	3.14	0.46	8.83	1.36	0.90	4.02	44.93
1936	0.60	0.48	2.38	2.01	6.79	6.56	3.98	3.75	4.16	2.80	2.64	1.34	37.49
1937	1.31	0.36	3.94	0.68	2.33	2.56	0.99	1.74	1.08	3.35	1.68	7.30	27.31
1938	3.42	1.25	2.06	6.11	4.13	1.33	1.70	0.77	2.13	0.45	1.29	1.91	26.55
1939	1.46	1.01	0.61	0.79	1.40	1.50	2.55	1.90	1.77	0.25	1.08	0.93	15.26
1940	0.66	2.40	1.37	2.18	3.11	8.08	1.48	1.14	1.32	4.11	5.74	4.05	35.66
1941	3.35	2.86	3.00	6.31	4.60	6.24	0.90	1.35	4.99	3.91	0.91	1.15	39.56
1942	0.27	1.85	0.34	3.42	2.05	1.89	10.82	4.12	7.71	5.42	1.17	0.52	39.58
1943	1.16	0.25	1.82	0.93	3.99	1.87	3.43	0.92	5.85	1.01	2.94	1.47	25.65
1944	4.13	1.54	2.49	1.22	6.69	1.25	0.37	3.58	1.96	0.76	3.68	2.12	29.79
1945	2.32	3.14	2.93	2.58	0.39	3.19	1.03	0.97	2.13	3.80	0.47	0.96	23.90
1946	3.56	2.19	3.50	4.91	4.19	5.87	0.78	7.94	8.23	3.11	2.37	2.57	49.21
1947	2.45	0.20	1.91	1.59	4.46	0.47	0.87	3.98	0.21	0.47	1.68	1.80	20.08
1948	0.92	2.63	0.71	1.50	2.32	1.70	2.17	3.14	1.77	2.57	1.09	0.12	20.64
1949	2.58	2.88	1.22	10.15	0.96	5.06	2.11	2.02	1.35	8.66	0.03	3.37	40.38
1950	0.19	2.27	0.32	3.35	2.17	3.88	1.23	2.39	1.89	0.37	0.20	0.02	18.29
1951	0.42	1.67	2.39	0.51	4.20	3.94	0.12	0.28	3.90	1.61	1.39	0.30	20.71
1952	0.49	2.09	1.89	3.33	3.03	1.45	2.62	0.00	6.47	0.00	3.63	3.14	28.15
1953	0.75	1.60	0.46	2.64	2.04	2.10	0.14	5.43	2.75	3.74	0.33	2.47	24.45
1954	0.85	0.09	0.06	3.51	2.82	1.92	1.00	1.35	1.03	1.64	0.99	0.16	15.41
1955	1.49	3.53	1.64	0.30	3.31	2.52	1.18	2.14	0.57	0.60	1.39	0.95	19.62
1956	0.99	0.69	0.39	0.79	1.57	0.44	0.81	2.49	0.39	1.74	1.02	3.25	14.57
1957	0.35	2.28	4.45	7.76	6.12	2.27	0.62	0.36	10.71	3.11	4.32	1.02	43.36
1958	4.89	4.94	0.79	1.56	4.41	2.01	2.62	0.27	8.87	7.06	1.78	1.28	40.48
1959	0.55	2.91	0.14	3.88	3.36	3.81	1.97	2.99	1.37	6.24	1.70	1.98	30.90
1960	1.30	1.73	1.40	1.95	1.14	5.77	1.57	4.48	1.04	11.55	2.54	3.53	37.99
1961	0.95	1.97	0.14	1.00	0.31	6.53	5.07	0.92	3.07	5.39	3.62	0.61	29.58
1962	0.76	0.84	0.80	3.65	1.18	2.88	0.08	1.04	4.06	0.88	3.10	1.93	21.19
1963	0.40	2.99	0.16	1.57	1.79	2.08	0.72	0.43	2.20	2.24	3.24	1.46	19.27
1964	3.07	2.26	2.29	1.07	2.26	2.11	0.11	3.34	3.38	1.82	2.87	0.90	25.46
1965	2.97	6.96	2.10	1.94	5.87	1.83	0.29	1.07	3.28	4.98	2.34	5.16	38.79
1966	1.49	2.72	1.59	3.18	3.58	1.66	0.88	5.06	3.27	1.09	0.01	0.46	25.00
1967	0.31	0.85	1.95	0.95	2.39	0.40	3.67	2.77	15.95	3.30	4.12	1.51	38.17
1968	7.61	2.27	1.18	3.66	4.33	5.05	1.20	0.95	7.48	1.58	6.13	1.18	42.61
1969	1.51	4.10	3.09	3.55	4.78	1.94	0.86	3.26	2.70	4.69	2.05	2.80	35.32
1970	1.65	3.21	2.26	1.13	7.51	1.19	0.82	1.91	3.43	1.65	0.00	0.29	25.06
1971	0.01	0.88	0.04	0.94	1.68	3.10	0.10	6.08	4.90	2.76	1.65	3.36	25.49
1972	1.86	0.33	0.67	0.75	11.50	3.23	2.02	3.58	2.53	1.49	3.20	0.56	31.75
1973	3.27	2.73	2.40	5.27	0.75	10.44	2.99	2.89	9.94	7.30	0.33	0.17	48.48
1974	2.31	0.15	0.96	2.24	5.91	0.89	2.01	8.64	3.73	2.95	4.34	1.44	35.57
1975	0.85	2.61	0.88	3.48	9.50	5.02	1.57	1.57	1.78	2.69	0.24	1.50	31.68
1976	0.38	0.28	1.70	7.00	7.08	1.07	4.65	2.09	5.68	8.45	2.83	2.87	44.08
1977	3.20	1.49	0.98	8.11	2.59	1.30	0.19	0.53	2.94	1.85	5.28	0.58	29.03
1978	0.84	2.35	1.05	3.40	1.75	5.64	4.40	4.36	7.64	1.07	5.38	2.21	40.09
1979	4.38	1.76	2.60	7.81	2.67	3.51	4.66	2.50	1.25	0.78	0.91	2.32	35.17
1980	1.71	0.90	1.21	0.95	7.76	0.26	1.12	3.52	5.48	0.69	4.00	0.82	28.42

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1860

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	2.03	0.90	1.88	3.00	4.02	7.16	1.15	5.94	1.41	4.81	0.55	0.54	33.38
1982	0.85	2.39	0.59	1.35	3.94	2.70	1.26	1.91	1.59	5.72	3.71	1.73	27.74
1983	1.36	2.24	3.70	0.45	3.51	2.29	2.78	3.00	6.25	1.74	1.84	0.43	29.58
1984	1.83	0.80	2.08	0.78	1.64	1.22	0.44	0.48	0.99	7.63	1.56	2.75	22.22
1985	2.25	1.90	2.67	4.28	1.46	4.79	3.72	1.52	5.79	4.89	5.90	0.34	39.50
1986	1.27	1.28	0.62	0.74	5.44	6.12	0.93	1.15	3.41	7.02	1.91	6.89	36.77
1987	1.14	4.57	0.64	0.81	9.26	9.38	2.77	1.76	2.20	0.52	2.14	2.14	37.32
1988	0.36	0.49	1.88	1.83	1.78	3.40	3.92	0.41	1.76	1.06	0.03	0.78	17.71
1989	3.36	0.68	1.93	2.91	0.99	2.78	0.81	1.09	0.80	4.47	1.89	0.57	22.29
AVG	1.83	1.98	1.73	2.75	3.73	3.22	1.94	2.26	3.65	3.02	2.14	1.95	30.19

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1865

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	1.07	5.57	3.70	2.36	1.89	1.19	3.51	4.02	5.66	4.10	4.48	6.60	44.15
1924	0.91	2.47	1.06	2.85	5.43	3.43	0.16	0.64	2.08	0.19	0.02	2.19	21.45
1925	0.49	0.11	0.68	0.95	1.52	0.91	0.46	1.21	2.98	5.19	1.69	1.61	17.80
1926	3.37	0.66	5.39	3.63	2.48	1.18	2.31	2.27	1.12	6.89	1.72	3.26	34.28
1927	0.69	1.15	3.20	3.59	1.49	5.40	1.50	0.31	2.34	3.47	0.26	3.46	26.85
1928	0.59	2.48	1.13	1.99	3.19	2.77	1.12	1.12	4.12	0.83	3.19	3.66	26.17
1929	2.75	0.29	4.98	3.25	10.87	3.39	3.75	0.55	1.94	2.71	2.61	1.82	38.90
1930	1.71	1.71	2.17	1.55	1.67	2.79	1.43	0.37	0.65	3.19	2.55	1.39	21.17
1931	2.90	2.77	2.58	1.45	1.74	5.86	3.63	1.42	0.34	0.88	0.38	4.01	27.96
1932	6.29	2.85	0.79	4.12	1.52	1.28	0.25	3.37	5.33	0.61	1.09	2.05	29.55
1933	1.93	2.88	1.31	0.74	3.86	1.70	5.45	3.54	2.77	1.59	1.38	0.55	27.68
1934	7.15	1.09	2.60	2.18	0.84	0.28	6.28	0.96	3.45	0.24	5.20	5.02	35.28
1935	1.02	3.23	1.88	3.69	8.81	7.33	2.05	0.23	10.97	1.47	0.51	5.07	46.26
1936	0.91	0.57	2.23	2.01	6.77	3.77	7.18	4.29	4.43	2.54	2.56	1.09	38.36
1937	1.69	0.39	4.57	0.64	1.02	1.23	1.64	0.88	1.24	3.16	1.62	6.34	24.42
1938	2.12	1.26	0.95	7.10	4.17	2.03	1.67	0.65	2.30	0.13	1.25	2.49	26.11
1939	1.12	0.81	0.30	0.60	2.44	1.63	3.03	2.42	2.57	0.37	1.01	1.17	17.46
1940	0.71	2.36	1.96	1.21	2.03	9.85	2.63	2.36	0.70	6.84	5.57	5.64	41.87
1941	4.02	2.92	3.61	6.33	5.98	4.64	2.51	2.97	5.60	5.02	1.24	1.34	46.16
1942	0.26	1.49	0.66	3.00	1.48	1.54	10.73	3.22	7.46	2.99	1.42	0.85	35.11
1943	1.41	0.21	2.53	0.62	4.58	1.96	3.25	0.17	3.81	0.57	3.62	1.40	24.14
1944	3.97	0.83	2.43	0.86	7.83	1.69	0.75	5.93	1.30	0.33	3.97	2.08	31.97
1945	1.63	1.85	3.36	3.89	0.39	4.06	1.04	1.42	1.73	4.13	0.33	0.92	24.74
1946	3.04	2.31	4.12	7.42	4.98	5.89	0.72	10.38	4.97	5.42	1.87	0.92	52.04
1947	3.07	0.14	1.79	2.41	4.74	0.76	0.62	3.06	0.19	0.81	2.63	2.30	22.53
1948	1.12	2.58	0.74	1.55	3.52	1.22	2.07	4.18	2.23	2.39	1.03	0.10	22.72
1949	2.67	2.43	1.27	8.83	0.82	3.85	3.11	1.63	1.83	5.75	0.01	4.09	36.29
1950	0.29	1.59	0.43	3.44	1.57	5.58	1.90	1.80	3.29	0.15	0.19	0.00	20.24
1951	0.52	1.42	2.40	0.59	3.47	5.43	0.19	0.78	3.57	1.32	2.30	0.21	22.19
1952	0.56	2.31	1.48	2.70	4.05	1.31	1.94	0.01	10.04	0.00	4.77	2.86	32.02
1953	0.57	2.05	0.26	2.15	3.91	0.72	0.34	5.39	3.45	4.91	0.18	1.73	25.66
1954	0.95	0.05	0.07	4.46	2.39	2.08	1.12	1.87	1.24	1.91	1.96	0.14	18.24
1955	1.28	3.00	1.07	0.42	4.65	2.49	1.96	2.04	0.49	0.51	0.65	1.26	19.83
1956	0.76	0.47	0.82	0.86	1.65	0.59	0.59	1.10	0.69	3.03	0.70	3.47	14.72
1957	0.27	2.15	5.42	7.71	5.09	2.12	0.04	1.60	11.53	2.97	5.65	0.83	45.38
1958	5.46	4.86	0.71	1.18	4.88	1.59	0.95	0.25	8.41	7.92	1.56	1.63	39.41
1959	0.68	3.79	0.28	4.54	2.66	3.02	1.03	1.37	1.93	4.67	1.99	1.81	27.76
1960	1.23	2.25	1.08	1.86	1.51	6.54	2.67	5.08	1.27	12.29	3.30	3.74	42.82
1961	1.10	2.40	0.40	1.77	0.39	6.04	4.08	0.32	3.86	3.97	3.90	0.45	28.67
1962	1.11	0.65	0.71	4.15	1.38	4.43	0.10	0.72	5.30	1.13	2.44	2.96	25.08
1963	0.55	2.66	0.23	0.78	0.90	2.62	0.98	0.53	1.23	1.16	3.41	2.13	17.19
1964	2.77	1.99	2.00	1.58	1.84	2.84	0.65	4.30	2.61	1.56	1.18	1.30	24.60
1965	5.34	6.57	0.85	1.08	6.19	3.26	0.08	1.10	2.11	5.50	1.28	4.46	37.83
1966	1.54	2.66	1.39	4.62	3.81	1.81	1.74	3.34	3.42	1.42	0.02	0.51	26.27
1967	0.69	0.77	1.03	1.88	2.57	0.00	2.76	4.05	20.36	3.74	3.03	1.22	42.10
1968	5.29	1.87	0.82	2.35	4.17	5.74	0.76	0.67	8.58	2.20	4.68	1.28	38.43
1969	1.62	3.87	3.04	4.41	5.11	1.94	0.85	2.70	3.98	3.92	2.15	2.52	36.10
1970	2.07	2.94	2.81	1.06	6.83	2.50	2.07	1.91	3.21	1.47	0.01	0.39	27.27
1971	0.02	1.42	0.05	1.72	0.71	3.68	0.09	6.57	7.16	2.87	1.20	3.10	28.59
1972	2.38	0.44	1.33	0.94	10.36	2.25	2.46	3.57	3.30	1.22	2.54	0.54	31.33
1973	2.72	3.12	2.51	5.63	1.24	11.02	1.17	4.36	4.55	8.72	0.50	0.18	45.72
1974	2.35	0.11	0.83	0.94	6.92	0.33	0.89	7.63	4.69	3.99	2.99	1.34	33.03
1975	0.59	1.71	0.55	4.37	8.36	6.20	2.54	1.83	2.35	1.52	0.65	1.04	31.73
1976	0.45	0.07	1.15	7.23	5.37	1.17	3.97	2.08	8.41	7.49	3.35	4.67	45.40
1977	2.83	1.66	1.03	6.93	3.72	1.86	0.30	0.66	4.88	2.74	3.29	0.88	30.78
1978	1.36	1.85	1.46	2.20	1.87	3.66	3.83	2.91	7.82	0.90	3.76	2.36	33.97
1979	4.71	1.91	1.31	8.33	5.19	2.78	5.44	2.46	2.24	0.24	0.79	2.60	38.00
1980	2.17	1.16	0.78	0.51	7.49	0.19	1.65	4.01	5.77	0.94	3.72	1.13	29.53

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1865

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	2.12	1.09	1.71	2.64	3.70	4.97	1.05	7.78	1.69	5.80	0.50	0.62	33.67
1982	0.61	3.48	0.48	1.30	3.73	1.44	0.14	1.08	2.05	5.48	3.27	1.21	24.27
1983	1.12	2.10	4.66	0.05	2.53	2.76	3.22	3.14	6.47	2.38	1.92	0.49	30.84
1984	2.68	0.76	1.84	0.92	1.85	1.40	1.56	0.84	2.08	5.25	1.82	2.47	23.48
1985	2.74	1.88	2.71	4.97	1.52	4.39	2.25	0.35	5.69	4.75	5.25	0.88	37.36
1986	1.26	1.24	0.68	0.65	4.53	3.04	0.92	1.19	2.96	5.74	2.32	5.55	30.10
1987	1.49	5.08	0.76	0.36	5.90	10.03	2.22	0.95	3.02	0.69	3.01	2.20	35.71
1988	0.38	0.31	1.65	2.10	1.83	3.59	2.91	0.40	1.93	1.24	0.22	0.86	17.43
1989	4.24	0.92	2.13	3.46	1.86	2.31	1.42	1.01	1.10	3.36	1.93	0.98	24.70
AVG	1.93	1.91	1.74	2.80	3.64	3.15	2.05	2.35	3.92	3.03	2.11	2.08	30.73

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1885

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	0.74	7.00	4.21	2.86	1.12	0.84	3.22	3.63	4.42	4.86	4.74	7.25	44.90
1924	1.04	1.76	1.39	2.25	4.47	5.03	0.24	0.17	2.19	0.10	0.10	2.59	21.33
1925	0.56	0.22	0.74	1.15	1.95	0.47	0.78	1.66	4.52	4.53	2.07	2.05	20.70
1926	3.67	0.75	5.07	2.60	3.10	1.36	3.24	1.65	1.00	4.92	1.14	3.84	32.33
1927	0.82	1.26	1.97	1.67	1.55	5.92	1.68	0.10	1.98	3.52	0.39	2.76	23.62
1928	0.69	2.34	1.09	1.52	2.16	3.03	1.01	1.41	3.58	0.88	4.16	4.66	26.54
1929	3.31	0.33	4.43	3.14	8.91	3.58	4.51	0.78	1.08	3.16	3.71	1.78	38.73
1930	2.00	1.60	2.37	1.69	2.26	2.08	1.36	0.02	0.55	3.64	2.60	1.31	21.48
1931	3.37	2.76	2.62	1.11	2.02	8.00	6.18	2.08	0.85	0.96	0.31	4.78	35.04
1932	6.40	2.97	1.02	4.44	1.37	1.26	0.32	2.91	5.58	1.26	0.99	2.19	30.71
1933	1.95	3.34	1.87	0.47	2.80	1.65	5.09	2.53	2.44	1.15	1.90	0.47	25.66
1934	9.31	1.07	2.92	2.01	0.69	0.06	6.27	0.55	4.02	0.58	5.73	4.04	37.24
1935	0.70	3.11	2.62	3.58	7.95	9.69	2.42	0.23	10.49	1.15	0.94	5.44	48.33
1936	0.98	0.52	2.52	1.87	9.57	3.63	4.80	5.11	4.91	2.32	2.15	1.41	39.81
1937	1.71	0.46	3.16	0.59	0.94	1.32	2.16	1.45	0.96	2.70	1.63	6.03	23.09
1938	1.66	0.95	0.33	4.51	5.00	1.02	0.67	1.46	1.85	0.22	0.95	2.81	21.43
1939	1.11	0.69	0.21	0.18	3.73	1.91	3.31	2.17	2.57	0.34	0.77	1.28	18.27
1940	0.69	2.53	1.41	1.01	2.63	10.00	2.63	4.63	0.51	6.17	4.57	5.04	41.82
1941	1.89	2.75	3.30	5.35	6.42	5.25	3.12	2.98	6.36	4.72	1.19	1.51	44.85
1942	0.33	2.02	0.75	1.95	1.30	1.57	10.81	3.73	6.38	2.02	1.27	1.01	33.13
1943	1.58	0.48	2.86	1.01	5.89	2.72	2.60	0.15	3.48	0.88	3.93	1.77	27.33
1944	3.72	0.81	2.71	0.13	7.33	1.65	0.57	5.03	2.01	0.28	3.49	1.80	29.51
1945	0.76	1.04	2.59	3.73	0.65	3.77	1.03	2.23	1.64	3.37	0.11	1.22	22.14
1946	3.14	2.35	1.70	3.32	4.51	5.67	1.74	8.73	4.85	7.85	2.05	1.28	47.18
1947	2.98	0.14	1.46	3.08	7.00	1.21	0.46	3.46	0.18	1.16	2.69	2.13	25.97
1948	1.38	2.68	1.00	1.83	3.41	1.90	2.11	4.15	3.25	2.60	1.42	0.22	25.94
1949	2.74	2.04	1.35	8.90	1.75	2.54	4.36	1.46	1.54	6.16	0.09	4.01	36.94
1950	0.37	1.28	0.73	3.04	1.45	4.11	2.35	2.88	1.02	0.18	0.19	0.03	17.64
1951	0.56	1.38	2.15	0.85	5.04	5.18	0.25	0.87	7.41	1.39	2.15	0.18	27.41
1952	0.47	2.38	1.21	2.49	5.07	0.86	2.13	0.09	9.19	0.00	4.68	1.77	30.34
1953	0.51	1.89	0.17	1.53	5.41	0.67	0.37	5.51	2.99	4.13	0.36	1.93	25.47
1954	0.92	0.04	0.21	3.10	2.29	2.91	0.87	1.27	1.29	1.65	1.69	0.29	16.53
1955	1.22	3.06	0.44	0.37	4.58	1.43	2.11	4.22	1.35	0.92	1.09	0.85	21.63
1956	0.52	0.59	0.75	1.31	2.71	0.78	0.56	1.20	1.69	2.43	1.01	2.95	16.50
1957	0.29	1.93	5.09	7.75	5.49	2.33	0.02	2.16	9.07	2.39	6.13	0.93	43.57
1958	5.85	5.49	0.96	1.00	4.90	2.06	1.05	0.64	7.61	7.06	0.97	1.63	39.21
1959	0.46	4.06	0.33	3.56	2.80	3.75	0.46	2.27	2.37	4.80	1.84	1.89	28.59
1960	1.21	2.34	1.47	1.86	1.52	4.61	2.97	5.11	1.92	12.29	3.93	4.29	43.50
1961	1.42	2.60	0.31	1.94	0.63	3.96	1.93	0.88	3.93	2.42	3.57	0.43	24.03
1962	0.65	0.74	0.97	4.42	1.54	5.12	0.06	0.50	5.09	1.22	2.69	3.64	26.63
1963	0.53	2.13	0.16	1.11	1.45	4.47	0.99	0.41	1.21	1.75	4.03	2.54	20.76
1964	2.49	2.07	2.08	0.96	2.45	1.76	1.07	5.33	2.31	1.14	0.96	1.63	24.26
1965	4.62	6.11	0.78	1.10	8.05	2.66	0.76	1.25	2.60	4.39	1.79	4.28	38.39
1966	1.95	2.85	0.68	3.87	4.32	3.47	1.89	3.38	3.65	0.55	0.03	0.96	27.60
1967	1.12	0.88	1.25	1.87	3.00	0.00	2.64	5.16	21.27	4.44	2.19	0.85	44.64
1968	5.01	2.00	0.83	1.74	6.50	5.11	2.20	1.65	6.20	2.61	3.74	1.11	38.70
1969	1.04	3.69	2.59	3.96	4.36	2.33	1.00	3.05	1.88	3.97	2.70	2.50	33.06
1970	2.84	2.29	3.06	0.75	8.61	3.54	0.83	3.06	2.53	0.71	0.02	0.45	28.69
1971	0.02	1.68	0.01	1.56	0.73	3.78	0.36	5.04	9.27	2.97	1.05	2.87	29.32
1972	2.59	0.38	1.14	1.61	6.37	3.33	3.57	3.37	4.81	1.99	2.07	0.50	31.73
1973	2.81	3.09	1.24	5.83	0.88	12.23	0.83	5.83	6.73	6.55	0.52	0.19	46.72
1974	2.54	0.33	1.59	0.82	5.38	1.18	1.27	5.98	4.35	2.55	2.35	1.26	29.61
1975	0.61	0.94	0.56	2.30	7.76	4.79	2.15	2.62	3.37	1.72	0.70	2.34	29.88
1976	0.54	0.05	0.82	8.33	4.50	0.81	4.78	1.63	7.71	6.97	3.32	4.44	43.90
1977	2.70	1.68	0.81	7.05	4.77	3.36	0.38	0.79	2.93	3.60	2.98	0.36	31.43
1978	1.47	1.67	0.65	2.23	1.53	3.97	2.49	2.47	8.09	0.85	3.81	2.05	31.29
1979	4.90	1.65	1.09	5.46	5.07	2.90	5.95	2.14	3.10	0.21	0.55	2.31	35.33
1980	2.19	1.04	0.87	0.48	5.84	0.14	1.38	6.61	5.26	0.66	3.22	1.13	28.82

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1885

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	1.87	1.07	1.31	2.64	5.76	6.46	2.07	8.55	1.77	7.88	0.40	0.72	40.50
1982	0.27	5.16	0.37	1.35	4.46	1.74	0.18	1.16	1.99	4.22	3.61	0.67	25.18
1983	1.22	2.18	4.22	0.00	2.35	3.33	4.02	1.95	4.56	2.84	1.46	0.44	28.57
1984	3.34	0.81	0.96	0.42	1.82	1.34	1.61	1.03	1.85	6.33	1.22	2.07	22.80
1985	2.85	1.67	2.34	5.32	1.48	3.72	2.78	0.57	5.21	3.49	5.03	1.25	35.72
1986	1.16	1.38	0.43	0.58	3.90	4.44	0.02	0.90	2.82	5.60	2.24	5.17	28.63
1987	1.68	4.14	0.74	0.13	3.44	8.50	1.42	1.16	1.52	0.61	3.42	2.31	29.06
1988	0.44	0.43	0.77	1.80	1.82	4.03	3.44	0.58	2.82	1.05	0.29	1.04	18.51
1989	3.77	0.77	1.04	3.38	0.91	2.88	0.63	1.51	0.98	2.76	1.82	0.94	21.39
AVG	1.94	1.91	1.56	2.47	3.75	3.30	2.13	2.53	3.86	2.91	2.10	2.12	30.59

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1888

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1923	1.18	6.67	3.80	2.37	1.58	1.44	2.21	1.82	7.56	3.53	3.70	9.14	45.00
1924	2.24	2.01	1.16	0.93	4.49	5.61	0.33	2.13	2.35	0.22	0.12	4.68	26.28
1925	0.76	0.47	0.14	1.26	0.75	1.04	3.29	4.16	5.57	5.93	0.90	3.49	27.75
1926	2.76	0.85	5.06	1.12	4.47	1.03	7.47	1.67	2.51	4.54	0.96	4.77	37.22
1927	0.58	1.22	2.52	0.76	1.25	6.35	2.21	0.03	2.39	2.54	0.69	3.11	23.65
1928	0.82	2.32	1.09	1.57	2.57	2.47	1.45	1.06	3.83	2.10	6.37	5.07	30.72
1929	5.76	0.22	3.87	1.91	12.25	3.05	6.40	0.89	1.05	5.77	5.28	2.53	48.97
1930	2.55	1.49	2.26	2.83	4.63	0.84	2.28	0.15	2.00	8.77	3.54	2.03	33.37
1931	3.77	3.32	4.17	1.37	2.05	3.94	9.50	3.30	1.31	1.39	0.75	5.70	40.55
1932	5.79	3.37	2.47	5.39	1.68	2.70	0.69	1.82	4.33	1.35	1.25	1.48	32.32
1933	1.69	3.79	3.23	0.50	4.02	3.75	3.88	4.50	4.40	0.85	2.06	0.71	33.36
1934	10.37	1.79	3.03	4.20	0.73	0.19	6.21	0.96	3.51	0.56	6.26	3.12	40.92
1935	1.07	2.92	3.56	3.63	3.42	4.70	1.89	0.45	9.58	1.29	1.12	3.73	37.35
1936	0.78	0.32	1.61	2.43	11.94	4.43	7.60	2.63	4.97	2.35	1.36	1.57	41.99
1937	2.22	0.36	2.54	0.49	0.64	3.59	2.11	2.11	2.27	2.57	1.83	5.65	26.37
1938	1.69	1.49	0.16	6.08	6.84	1.83	0.46	2.86	2.39	0.59	1.40	3.59	29.38
1939	2.20	0.70	0.36	0.34	2.17	1.33	4.81	1.32	4.83	0.52	0.24	1.75	20.56
1940	0.94	1.94	1.16	0.60	2.02	7.37	3.04	2.28	1.05	6.50	4.90	5.13	36.93
1941	1.64	2.68	3.27	5.37	7.98	3.23	4.58	3.34	3.57	6.42	1.29	1.97	45.34
1942	0.55	3.84	1.45	1.40	1.12	1.53	12.85	6.67	4.00	2.55	1.41	1.17	38.55
1943	2.70	1.53	2.88	0.36	5.15	3.22	4.53	0.77	4.77	1.12	4.53	3.28	34.83
1944	5.09	1.06	4.56	0.30	8.89	1.38	0.81	4.48	4.02	0.57	3.53	3.01	37.71
1945	0.87	1.38	2.99	3.41	1.31	4.50	2.88	5.52	1.38	3.08	0.10	1.26	28.67
1946	3.50	2.89	1.63	2.20	3.14	5.50	3.21	5.45	4.82	6.06	1.94	0.85	41.19
1947	2.80	0.33	1.62	3.42	7.19	2.93	2.90	4.35	0.58	1.19	2.85	2.78	32.95
1948	2.43	2.82	1.77	1.77	4.79	1.14	1.80	3.52	3.70	0.54	1.46	0.23	25.96
1949	2.37	3.43	2.11	6.37	1.10	2.12	4.79	1.43	2.08	8.30	0.47	3.55	38.12
1950	1.17	0.95	0.55	3.24	1.11	3.91	1.43	1.76	2.50	0.53	0.07	0.60	17.83
1951	1.64	0.63	2.92	0.74	6.93	3.04	0.41	0.35	11.04	2.04	1.96	0.35	32.06
1952	0.36	3.25	1.82	3.36	5.47	1.70	3.87	1.04	7.16	0.01	5.77	1.83	35.64
1953	0.69	2.21	0.25	1.70	4.25	0.82	0.82	7.48	1.19	4.38	0.50	1.80	26.11
1954	0.90	0.16	0.44	3.18	1.85	1.45	0.81	1.04	2.50	3.67	1.13	1.03	18.15
1955	1.27	2.93	0.51	0.68	3.16	1.62	2.53	4.97	3.66	1.76	1.28	0.83	25.20
1956	1.26	0.76	0.95	1.86	2.48	0.96	0.68	0.83	1.44	3.89	0.58	2.76	18.44
1957	0.57	2.99	8.19	7.51	5.88	4.68	0.09	1.09	6.14	3.65	6.78	0.97	48.54
1958	4.68	6.48	1.32	1.20	1.97	1.13	0.86	0.62	12.02	7.33	0.90	3.46	41.96
1959	0.41	5.83	0.34	2.26	2.92	3.73	0.82	5.08	2.71	6.42	1.36	3.22	35.11
1960	0.76	2.63	1.54	1.07	1.94	6.88	3.11	7.01	1.29	15.96	3.64	4.83	50.65
1961	2.04	3.24	0.54	2.34	0.83	5.18	4.84	1.77	5.29	0.91	4.48	0.51	31.97
1962	0.53	0.33	0.85	4.97	1.73	6.02	0.52	0.84	6.00	2.20	2.43	2.74	29.16
1963	0.52	1.82	0.20	1.06	1.43	4.30	1.09	2.31	1.86	1.40	4.69	2.12	22.81
1964	2.66	2.26	2.02	0.53	2.71	2.61	2.35	4.40	6.38	0.84	1.11	2.20	30.09
1965	2.52	4.23	0.88	1.03	5.50	3.81	1.42	1.42	3.92	4.30	2.87	4.95	36.87
1966	3.25	2.66	0.46	4.38	6.11	4.37	3.91	5.61	2.60	1.21	0.41	1.45	36.42
1967	2.20	1.20	0.46	1.28	3.04	0.00	2.49	4.29	19.01	5.76	1.16	0.83	41.71
1968	3.73	2.32	1.42	1.13	10.89	9.25	3.80	1.95	4.24	2.77	3.27	1.25	46.02
1969	0.54	4.90	2.63	5.94	2.93	2.25	1.44	4.80	3.78	4.09	3.67	3.15	40.12
1970	2.63	1.71	3.85	2.10	8.35	3.76	2.85	2.17	5.63	2.47	0.12	0.65	36.28
1971	0.06	1.35	0.11	1.85	1.82	2.76	0.89	6.07	14.96	5.49	1.29	2.78	39.43
1972	2.38	0.77	1.53	4.08	9.54	4.06	5.98	3.89	6.32	5.99	2.28	0.55	47.38
1973	3.13	3.01	1.23	5.25	0.95	12.79	1.48	4.55	8.42	8.13	0.67	0.68	50.30
1974	3.10	0.22	2.59	1.65	8.09	4.07	1.21	7.08	5.66	2.32	3.80	2.18	41.98
1975	1.23	0.57	0.46	1.13	5.84	5.47	3.22	4.42	3.64	2.81	1.50	6.46	36.76
1976	0.81	0.21	1.04	9.48	3.95	1.21	7.98	1.81	7.56	7.05	3.35	5.27	49.73
1977	2.87	2.27	1.09	4.69	3.18	10.69	0.84	1.90	3.34	4.05	4.04	0.34	39.30
1978	2.77	2.71	0.53	2.07	0.82	6.14	2.42	1.34	11.91	0.88	3.07	1.45	36.11
1979	5.64	2.58	2.04	4.30	6.01	4.15	5.22	2.79	9.14	1.16	0.78	2.22	46.03
1980	3.73	1.34	2.04	0.48	6.48	0.07	1.49	7.76	6.55	0.77	2.30	0.90	33.92

AREAL PRECIPITATION IN INCHES FOR SUBWATERSHED ABOVE USGS# 1888

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1981	2.55	1.23	1.59	1.65	10.58	10.00	5.16	5.03	1.66	12.06	0.66	1.58	53.76
1982	0.31	5.97	0.37	1.64	6.03	0.45	0.18	2.21	1.33	3.95	6.68	0.68	29.81
1983	1.46	3.56	3.68	0.10	2.00	3.27	9.43	2.24	5.24	5.92	2.85	0.56	40.31
1984	3.69	1.21	1.53	0.06	3.30	1.72	2.60	3.03	1.90	7.45	1.67	2.85	31.03
1985	2.83	2.20	5.07	7.07	1.84	4.82	2.72	1.55	4.51	1.76	2.26	1.85	38.49
1986	1.23	1.18	0.67	0.62	5.43	6.24	0.32	2.52	2.96	7.82	3.09	5.07	37.16
1987	1.79	3.76	0.54	0.03	3.38	10.39	3.48	2.06	2.52	0.67	4.35	2.05	35.01
1988	0.42	0.64	1.35	1.71	1.33	1.74	3.14	1.01	2.58	0.96	0.35	2.40	17.63
1989	3.48	0.31	1.26	1.80	0.59	5.30	1.65	2.19	2.16	2.69	1.90	1.03	24.35
AVG	2.19	2.15	1.87	2.44	4.04	3.70	3.04	2.89	4.59	3.56	2.32	2.50	35.31

APPENDIX E

Net Evaporation

NET EVAPORATION IN FEET - CANYON LAKE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	-0.42	0.00	0.01	0.06	0.30	0.56	0.43	0.65	0.38	0.46	0.09	-0.21	2.31
1935	0.04	-0.06	0.17	0.09	-0.61	-0.09	0.25	0.58	-0.41	0.22	0.12	-0.15	0.15
1936	0.10	0.07	0.16	0.20	-0.31	0.20	0.10	0.38	-0.16	0.07	-0.01	-0.01	0.79
1937	-0.09	0.16	-0.15	0.24	0.12	0.07	0.45	0.57	0.45	0.09	0.09	-0.31	1.69
1938	-0.15	0.02	0.09	-0.31	0.04	0.31	0.46	0.59	0.39	0.39	0.21	0.13	2.17
1939	-0.05	0.09	0.21	0.23	0.26	0.44	0.31	0.47	0.49	0.31	0.04	0.11	2.91
1940	0.10	0.00	0.25	0.14	0.27	-0.18	0.47	0.66	0.58	0.20	-0.24	-0.12	2.13
1941	0.05	-0.12	-0.11	-0.12	0.02	-0.01	0.43	0.59	0.34	0.09	0.22	0.12	1.50
1942	0.14	0.17	0.28	-0.15	0.09	0.36	0.08	0.43	-0.01	-0.03	0.20	0.14	1.70
1943	0.11	0.25	0.18	0.35	0.22	0.42	0.35	0.77	0.17	0.43	0.14	0.02	3.41
1944	-0.19	-0.07	0.02	0.30	-0.16	0.44	0.72	0.44	0.41	0.39	-0.11	-0.10	2.09
1945	-0.03	-0.06	0.05	0.07	0.46	0.31	0.50	0.54	0.41	0.16	0.27	0.08	2.76
1946	-0.08	0.03	0.11	0.08	0.09	0.24	0.73	0.40	-0.06	0.18	0.02	0.03	1.77
1947	-0.13	0.18	0.11	0.17	0.18	0.55	0.72	0.43	0.67	0.53	0.21	0.03	3.65
1948	0.08	-0.06	0.21	0.27	0.25	0.53	0.58	0.61	0.44	0.34	0.29	0.20	3.74
1949	-0.11	-0.08	0.13	-0.31	0.34	0.26	0.54	0.56	0.49	0.01	0.35	-0.01	2.17
1950	0.11	0.02	0.32	0.02	0.20	0.30	0.59	0.74	0.36	0.46	0.40	0.29	3.81
1951	0.28	-0.01	0.19	0.32	0.08	0.29	0.78	0.89	0.37	0.44	0.23	0.23	4.09
1952	0.21	0.14	0.16	0.07	0.16	0.44	0.55	0.94	0.03	0.58	-0.01	-0.10	3.17
1953	0.26	0.08	0.19	0.13	0.27	0.66	0.77	0.50	0.36	0.07	0.25	0.10	3.64
1954	0.14	0.30	0.32	0.18	0.32	0.61	0.79	0.83	0.71	0.42	0.31	0.31	5.24
1955	0.08	-0.03	0.26	0.37	0.21	0.40	0.70	0.52	0.51	0.60	0.36	0.18	4.16
1956	0.14	0.15	0.37	0.38	0.37	0.69	0.85	0.82	0.70	0.47	0.32	0.13	5.39
1957	0.21	0.03	0.02	-0.41	-0.14	0.23	0.82	0.85	0.03	0.02	-0.08	0.15	1.73
1958	-0.07	-0.16	0.08	0.12	0.01	0.26	0.58	0.62	-0.03	-0.04	0.16	0.12	1.65
1959	0.15	-0.08	0.31	0.02	0.19	0.21	0.47	0.33	0.45	-0.05	0.18	0.04	2.22
1960	0.05	0.06	0.10	0.16	0.34	0.32	0.41	0.32	0.53	-0.25	0.12	-0.11	2.05
1961	0.03	-0.08	0.21	0.31	0.41	-0.06	0.14	0.66	0.29	0.24	0.07	0.10	2.32
1962	0.10	0.17	0.24	-0.02	0.40	0.16	0.76	0.78	0.26	0.28	0.14	0.01	3.28
1963	0.16	0.03	0.29	0.20	0.32	0.43	0.72	0.76	0.53	0.43	0.13	0.10	4.10
1964	0.00	0.06	0.09	0.17	0.25	0.38	0.67	0.71	0.31	0.18	0.12	0.13	3.07
1965	-0.04	-0.38	0.15	0.05	-0.71	0.30	0.71	0.71	0.41	-0.05	0.14	-0.31	0.98
1966	0.04	-0.02	0.22	0.06	0.04	0.50	0.76	0.45	0.20	0.46	0.44	0.21	3.36
1967	0.22	0.13	0.14	0.30	0.13	0.70	0.63	0.64	-0.39	0.24	-0.09	0.09	2.74
1968	-0.75	0.02	0.08	0.01	0.04	0.17	0.42	0.68	0.07	0.33	0.00	0.03	1.10
1969	0.05	-0.12	0.03	-0.17	-0.04	0.42	0.75	0.53	0.14	-0.08	0.05	-0.11	1.45
1970	0.10	-0.17	-0.02	0.11	-0.12	0.52	0.69	0.48	-0.07	0.23	0.42	0.27	2.44
1971	0.26	0.19	0.41	0.21	0.31	0.33	0.65	0.06	0.11	0.02	-0.05	-0.15	2.35
1972	0.08	0.19	0.35	0.32	-0.55	0.22	0.45	0.08	0.43	0.25	-0.05	0.14	1.91
1973	-0.07	-0.05	0.09	-0.29	0.36	-0.17	0.07	0.52	-0.23	-0.24	0.25	0.30	0.54
1974	-0.13	0.28	0.19	0.27	-0.06	0.57	0.63	-0.18	-0.07	0.17	-0.15	0.02	1.54
1975	0.12	-0.03	0.22	-0.08	-0.15	0.06	0.41	0.41	0.37	0.18	0.37	0.11	1.99
1976	0.20	0.25	0.20	-0.48	-0.08	0.43	-0.09	0.45	0.19	-0.64	0.08	0.01	0.52
1977	-0.12	0.09	0.22	-0.22	0.11	0.40	0.75	0.70	0.61	0.38	0.02	0.26	3.20
1978	0.12	-0.06	0.27	0.16	0.31	0.32	0.76	0.15	-0.26	0.45	-0.32	0.07	1.97
1979	-0.16	-0.03	-0.25	-0.01	0.17	0.34	-0.17	0.45	0.35	0.52	0.24	-0.02	1.43
1980	0.07	0.09	0.22	0.31	-0.11	0.38	0.85	0.57	-0.13	0.35	0.00	0.07	2.67
1981	0.01	0.04	0.08	0.11	0.23	-0.38	0.49	0.51	0.50	-0.03	0.14	0.20	1.90
1982	0.09	0.13	0.14	0.15	-0.18	0.41	0.70	0.36	0.48	0.29	-0.04	0.05	2.58
1983	0.00	0.01	-0.17	0.38	-0.01	0.09	0.34	0.45	0.15	0.33	0.18	0.11	1.86
1984	0.08	0.17	0.31	0.51	0.41	0.50	0.70	0.69	0.60	-0.15	0.18	-0.11	3.89
1985	-0.03	-0.06	0.01	0.19	0.23	-0.23	0.22	0.85	-0.11	0.19	-0.41	0.16	1.01
1986	0.14	0.12	0.25	0.30	-0.26	0.17	0.76	0.55	-0.19	-0.25	0.07	-0.40	1.26
1987	0.11	-0.19	0.19	0.37	-0.27	-0.46	0.43	0.67	0.32	0.46	-0.12	0.05	1.56
1988	0.17	0.14	0.16	0.29	0.03	0.37	0.49	0.48	0.45	0.39	0.39	0.18	3.54
1989	-0.19	0.13	0.13	0.22	0.29	0.25	0.67	0.60	0.54	0.21	0.19	0.19	3.23
AVG	0.03	0.04	0.15	0.11	0.09	0.28	0.53	0.55	0.26	0.21	0.12	0.05	2.43

NET EVAPORATION IN FEET - COLETO CREEK RESERVOIR

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	-0.71	0.16	0.05	-0.02	0.38	0.59	0.21	0.58	0.24	0.41	-0.20	-0.04	1.65
1935	0.14	-0.01	0.01	0.04	0.12	0.01	0.41	0.60	-0.32	0.31	0.19	-0.13	1.37
1936	0.12	0.14	0.15	0.17	-0.69	0.12	-0.17	0.32	-0.01	0.16	0.15	0.06	0.52
1937	-0.04	0.19	0.02	0.32	0.44	0.16	0.43	0.38	0.39	0.43	0.22	-0.23	2.71
1938	0.12	0.06	0.24	-0.20	-0.21	0.40	0.70	0.43	0.29	0.49	0.28	-0.01	2.59
1939	0.00	0.21	0.29	0.44	0.30	0.37	0.23	0.45	0.09	0.46	0.26	0.09	3.19
1940	0.07	0.02	0.21	0.23	0.27	-0.14	0.32	0.46	0.47	-0.08	-0.19	-0.15	1.49
1941	0.05	-0.07	-0.09	-0.20	-0.14	0.00	0.16	0.30	0.12	-0.10	0.16	0.13	0.32
1942	0.19	-0.03	0.21	0.03	0.24	0.24	-0.48	0.08	0.02	0.17	0.24	0.16	1.07
1943	0.02	0.16	0.09	0.31	0.08	0.24	0.21	0.60	0.16	0.44	-0.02	-0.06	2.23
1944	-0.25	0.07	-0.12	0.27	-0.20	0.38	0.57	0.23	0.16	0.37	-0.06	-0.05	1.37
1945	0.11	0.05	0.04	-0.04	0.34	0.18	0.32	0.04	0.45	0.11	0.31	0.06	1.97
1946	-0.03	-0.04	0.09	0.09	0.06	0.00	0.39	0.13	-0.15	-0.09	0.02	0.11	0.58
1947	-0.08	0.17	0.09	0.00	-0.11	0.38	0.53	0.21	0.53	0.33	0.09	-0.06	2.08
1948	0.03	-0.10	0.11	0.14	0.10	0.44	0.45	0.44	0.19	0.35	0.23	0.20	2.58
1949	-0.05	-0.13	0.11	-0.31	0.26	0.31	0.14	0.42	0.32	-0.30	0.33	-0.07	1.03
1950	0.13	0.02	0.26	0.07	0.26	0.15	0.38	0.51	0.31	0.44	0.34	0.27	3.14
1951	0.19	0.09	0.10	0.30	0.02	0.13	0.58	0.81	-0.12	0.30	0.14	0.20	2.74
1952	0.20	0.01	0.19	0.09	0.09	0.37	0.27	0.65	-0.07	0.51	-0.18	0.01	2.14
1953	0.22	0.01	0.21	0.19	-0.05	0.43	0.60	0.06	0.42	-0.06	0.22	0.10	2.35
1954	0.12	0.29	0.30	0.12	0.25	0.44	0.58	0.60	0.53	0.24	0.27	0.25	3.99
1955	0.06	-0.04	0.32	0.30	0.21	0.54	0.67	0.40	0.23	0.52	0.39	0.23	3.83
1956	0.11	0.22	0.32	0.24	0.25	0.46	0.78	0.79	0.54	0.35	0.33	0.11	4.50
1957	0.27	0.03	-0.15	-0.27	0.02	0.14	0.63	0.58	0.07	0.11	-0.05	0.21	1.59
1958	-0.14	-0.15	0.11	0.17	0.14	0.39	0.56	0.57	-0.29	-0.02	0.13	0.03	1.50
1959	0.18	-0.16	0.29	0.00	0.18	0.27	0.51	0.24	0.34	0.03	0.23	0.06	2.17
1960	0.10	0.04	0.12	0.17	0.32	0.08	0.47	0.22	0.45	-0.33	0.09	-0.11	1.62
1961	-0.01	-0.07	0.22	0.21	0.39	-0.01	0.26	0.42	-0.01	0.37	-0.02	0.15	1.90
1962	0.14	0.16	0.25	-0.01	0.39	0.10	0.74	0.71	0.19	0.35	0.16	-0.09	3.09
1963	0.13	0.03	0.26	0.28	0.37	0.21	0.51	0.62	0.46	0.39	0.05	0.08	3.39
1964	0.04	0.01	0.08	0.24	0.18	0.36	0.43	0.50	0.08	0.41	0.29	0.07	2.69
1965	0.02	-0.13	0.17	0.21	-0.07	0.27	0.62	0.53	0.41	0.17	0.01	-0.11	2.10
1966	-0.05	0.00	0.12	0.04	-0.06	0.19	0.45	0.39	0.28	0.38	0.30	0.18	2.22
1967	0.06	0.11	0.22	0.18	0.17	0.54	0.56	0.38	-0.18	0.17	0.15	0.14	2.50
1968	-0.02	0.01	0.06	0.09	-0.05	0.08	0.34	0.56	0.13	0.26	0.23	0.16	1.85
1969	0.14	-0.09	0.15	0.04	0.06	0.41	0.69	0.59	0.36	0.31	0.20	0.11	2.97
1970	0.01	0.06	0.09	0.05	0.00	0.36	0.48	0.51	0.00	0.17	0.38	0.22	2.33
1971	0.27	0.18	0.39	0.28	0.35	0.41	0.71	0.23	-0.02	0.14	0.27	0.05	3.26
1972	0.05	0.12	0.22	0.30	0.04	0.30	0.30	0.31	0.27	0.26	0.10	0.17	2.44
1973	0.01	-0.01	0.14	0.05	0.36	0.02	0.46	0.29	0.10	0.10	0.29	0.26	2.07
1974	-0.01	0.25	0.16	0.32	0.16	0.35	0.60	0.27	0.21	0.19	0.04	0.07	2.61
1975	0.11	0.14	0.24	0.20	0.12	0.25	0.34	0.32	0.31	0.30	0.24	0.08	2.65
1976	0.21	0.27	0.18	0.04	0.18	0.46	0.19	0.52	0.25	0.12	0.04	-0.02	2.44
1977	-0.03	0.09	0.20	0.11	0.20	0.23	0.57	0.57	0.40	0.34	0.10	0.26	3.04
1978	-0.02	-0.01	0.30	0.18	0.43	0.23	0.50	0.50	0.05	0.36	0.04	0.07	2.63
1979	-0.06	-0.02	0.14	0.02	0.10	0.26	0.20	0.39	0.16	0.44	0.26	0.08	1.97
1980	0.00	0.09	0.15	0.38	-0.13	0.72	0.72	0.01	0.00	0.39	0.13	0.15	2.61
1981	0.01	0.09	0.14	0.22	-0.43	-0.34	0.15	0.28	0.41	-0.60	0.25	0.17	0.35
1982	0.19	-0.24	0.19	0.17	-0.15	0.55	0.77	0.56	0.57	0.12	-0.22	0.21	2.72
1983	0.08	-0.08	0.01	0.40	0.27	0.26	-0.14	0.43	0.12	-0.05	0.15	0.15	1.60
1984	-0.04	0.18	0.26	0.48	0.27	0.47	0.49	0.45	0.49	-0.20	0.22	0.01	3.08
1985	-0.05	0.00	-0.13	-0.31	0.30	0.08	0.38	0.64	0.29	0.33	0.09	0.05	1.67
1986	0.15	0.16	0.32	0.35	-0.04	-0.03	0.76	0.49	0.32	-0.16	0.01	-0.26	2.07
1987	0.07	-0.11	0.27	0.43	0.15	-0.39	0.29	0.54	0.36	0.48	-0.04	0.04	2.09
1988	0.17	0.14	0.22	0.26	0.38	0.46	0.40	0.64	0.41	0.44	0.37	0.06	3.95
1989	-0.10	0.15	0.19	0.24	0.48	0.11	0.53	0.51	0.46	0.35	0.18	0.16	3.26
AVG	0.05	0.05	0.16	0.14	0.13	0.25	0.42	0.43	0.22	0.21	0.15	0.07	2.28

NET EVAPORATION IN FEET - MEDINA LAKE & DIVERSION LAKE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	-0.26	0.14	0.17	0.05	0.32	0.47	0.45	0.67	0.45	0.47	0.20	-0.11	3.02
1935	0.14	0.02	0.13	0.17	-0.79	-0.25	0.35	0.62	-0.51	0.23	0.23	-0.06	0.28
1936	0.12	0.12	0.15	0.27	-0.07	-0.43	0.26	0.44	0.23	0.13	0.06	0.07	1.35
1937	0.01	0.19	-0.02	0.30	0.33	0.09	0.38	0.56	0.40	0.27	0.23	-0.14	2.60
1938	-0.05	0.08	0.05	-0.06	0.16	0.35	0.60	0.61	0.32	0.43	0.29	0.14	2.92
1939	0.02	0.17	0.27	0.34	0.38	0.45	0.35	0.43	0.42	0.41	0.04	0.12	3.40
1940	0.15	0.08	0.28	0.26	0.15	-0.12	0.58	0.81	0.63	0.09	0.12	-0.10	2.93
1941	0.11	-0.50	-0.19	-0.07	0.12	0.15	0.48	0.72	0.20	0.39	0.27	0.15	1.83
1942	0.19	0.17	0.34	-0.38	0.16	0.46	-0.07	0.50	-0.05	0.11	0.29	0.17	1.89
1943	0.18	0.28	0.30	0.31	0.22	0.25	0.57	0.85	0.42	0.44	0.15	0.08	4.05
1944	-0.06	0.04	0.15	0.39	0.08	0.49	0.67	0.17	0.53	0.42	0.02	-0.10	2.80
1945	-0.06	0.07	0.21	0.23	0.44	0.56	0.67	0.79	0.36	0.26	0.35	0.16	4.04
1946	-0.01	0.11	0.34	0.20	0.15	0.32	0.71	0.09	-0.08	0.16	0.17	0.04	2.20
1947	0.04	0.23	0.25	0.39	0.30	0.59	0.80	0.59	0.80	0.61	0.31	0.16	5.07
1948	0.19	-0.05	0.30	0.31	0.34	0.40	0.58	0.81	0.41	0.25	0.33	0.24	4.11
1949	0.00	-0.16	0.11	-0.31	0.36	-0.01	0.66	0.52	0.58	-0.08	0.35	-0.01	2.01
1950	0.06	0.10	0.38	0.15	0.19	0.20	0.63	0.60	0.52	0.54	0.39	0.29	4.05
1951	0.19	-0.02	0.14	0.33	-0.40	0.53	0.76	0.87	0.55	0.67	0.29	0.28	4.19
1952	0.23	0.15	0.13	0.24	0.30	0.47	0.61	0.96	-0.07	0.59	-0.03	0.10	3.68
1953	0.27	0.19	0.29	0.46	0.55	0.73	0.94	0.53	0.24	0.21	0.27	0.11	4.79
1954	0.16	0.37	0.43	0.33	0.43	0.59	0.75	0.87	0.77	0.34	0.29	0.34	5.67
1955	0.08	0.15	0.31	0.52	0.29	0.65	0.84	0.72	0.58	0.69	0.26	0.22	5.31
1956	0.13	0.16	0.38	0.36	0.60	0.83	0.94	0.74	0.74	0.49	0.33	0.26	5.96
1957	0.25	0.08	0.10	-0.37	-0.32	0.34	0.90	0.97	0.37	0.14	-0.07	0.13	2.52
1958	-0.24	-0.11	0.10	0.14	-0.37	0.38	0.71	0.73	-0.58	-0.18	0.19	0.12	0.89
1959	0.12	-0.12	0.30	0.06	0.18	0.07	0.30	0.58	0.47	-0.42	0.11	0.02	1.67
1960	0.09	0.05	0.01	0.18	0.29	0.53	0.35	0.30	0.52	-0.13	0.16	-0.17	2.18
1961	0.00	-0.01	0.23	0.30	0.50	-0.02	0.08	0.59	0.46	0.22	0.12	0.12	2.59
1962	0.14	0.22	0.25	-0.30	0.43	0.22	0.83	0.86	0.22	0.52	0.12	0.00	3.51
1963	0.05	-0.04	0.32	0.15	0.24	0.55	0.71	0.84	0.48	0.35	0.17	0.09	3.91
1964	-0.07	0.01	0.15	0.24	0.16	0.35	0.81	0.57	0.33	0.23	0.22	0.09	3.09
1965	0.14	-0.37	0.09	0.19	-0.12	0.37	0.82	0.60	0.68	0.20	0.23	-0.36	2.47
1966	0.07	-0.12	0.26	0.08	-0.46	0.45	0.75	0.16	0.29	0.49	0.45	0.29	2.71
1967	0.22	0.17	0.27	0.22	0.40	0.68	0.60	0.50	-0.41	0.38	0.09	0.08	3.20
1968	-0.30	0.06	0.09	0.15	0.23	0.35	0.53	0.64	0.13	0.42	0.15	0.12	2.57
1969	0.08	-0.16	0.13	0.22	-0.23	0.49	0.71	0.32	0.31	-0.41	0.13	0.02	1.61
1970	0.08	-0.10	-0.03	0.24	0.25	0.51	0.59	0.62	0.46	0.32	0.40	0.27	3.61
1971	0.26	0.24	0.44	0.33	0.44	0.19	0.75	-0.43	0.19	-0.10	0.20	0.07	2.58
1972	0.11	0.19	0.30	0.24	-0.35	0.29	0.59	0.18	0.25	0.24	0.18	0.17	2.39
1973	-0.02	-0.07	0.17	-0.21	0.42	0.01	0.15	0.48	-0.73	-0.27	0.26	0.30	0.49
1974	0.04	0.29	0.23	0.19	0.19	0.52	0.76	-0.38	0.37	0.13	0.16	0.01	2.51
1975	0.12	-0.08	0.31	0.14	0.14	0.39	0.10	0.50	0.33	0.32	0.39	0.13	2.79
1976	0.24	0.29	0.27	-0.60	0.00	0.42	-0.07	0.57	0.33	-0.30	0.07	-0.03	1.19
1977	-0.06	0.17	0.24	-0.07	0.15	0.31	0.75	0.76	0.52	0.43	0.02	0.25	3.47
1978	0.15	0.04	0.29	0.18	0.40	0.40	0.69	0.03	-0.11	0.42	-0.18	-0.06	2.25
1979	-0.03	0.08	-0.04	-0.03	0.28	0.14	0.37	0.46	0.58	0.60	0.24	-0.01	2.64
1980	0.12	0.14	0.31	0.37	-0.11	0.68	0.79	0.40	0.23	0.38	-0.01	0.16	3.46
1981	0.05	0.12	-0.04	0.01	-0.22	-0.56	0.51	0.68	0.53	0.13	0.31	0.19	1.71
1982	0.21	0.06	0.21	0.14	-0.24	0.45	0.76	0.60	0.53	0.30	0.10	0.11	3.23
1983	0.05	0.10	-0.09	0.46	0.17	0.30	0.31	0.37	0.57	0.30	0.21	0.20	2.95
1984	0.05	0.20	0.35	0.54	0.50	0.63	0.83	0.80	0.65	-0.13	0.18	0.10	4.70
1985	0.01	-0.05	0.01	0.10	0.29	0.08	0.62	0.90	0.44	-0.05	0.07	0.15	2.57
1986	0.18	0.15	0.38	0.37	-0.10	-0.43	0.82	0.69	0.25	-0.32	0.05	-0.16	1.88
1987	0.14	-0.16	0.12	0.26	-0.37	-0.31	0.40	0.57	0.43	0.55	0.17	0.10	1.90
1988	0.20	0.09	0.34	0.40	0.46	0.35	0.50	0.72	0.44	0.48	0.39	0.23	4.60
1989	-0.01	0.11	0.22	0.22	0.58	0.47	0.78	0.67	0.71	0.22	0.19	0.15	4.31
AVG	0.08	0.06	0.20	0.17	0.15	0.31	0.58	0.56	0.33	0.24	0.19	0.09	2.97

NET EVAPORATION IN FEET - APPLEWHITE RESERVOIR

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	-0.26	0.11	0.14	0.04	0.40	0.57	0.59	0.68	0.38	0.46	0.11	-0.13	3.09
1935	0.13	-0.06	0.12	0.10	-0.50	-0.34	0.23	0.67	-0.24	0.32	0.15	-0.12	0.46
1936	0.14	0.15	0.10	0.26	-0.13	-0.23	0.24	0.40	0.16	0.13	0.05	0.06	1.33
1937	0.03	0.18	0.02	0.33	0.33	0.30	0.45	0.54	0.44	0.27	0.21	-0.31	2.79
1938	-0.06	0.09	0.15	0.05	0.20	0.42	0.60	0.60	0.36	0.44	0.29	0.10	3.24
1939	0.06	0.17	0.29	0.40	0.41	0.38	0.45	0.38	0.41	0.42	0.10	0.11	3.58
1940	0.09	0.05	0.24	0.21	0.24	-0.03	0.54	0.70	0.61	0.22	-0.02	-0.07	2.76
1941	0.01	-0.08	-0.07	-0.14	0.03	0.06	0.48	0.66	0.20	0.19	0.24	0.13	1.71
1942	0.17	0.12	0.30	-0.03	0.14	0.41	-0.05	0.42	-0.04	0.00	0.25	0.20	1.90
1943	0.13	0.26	0.24	0.36	0.26	0.38	0.43	0.80	0.14	0.47	0.15	0.05	3.67
1944	-0.11	0.00	0.04	0.37	-0.05	0.47	0.77	0.43	0.48	0.41	-0.03	-0.09	2.69
1945	-0.01	-0.04	0.10	0.21	0.51	0.41	0.55	0.65	0.49	0.12	0.28	0.13	3.39
1946	-0.06	0.07	0.20	0.17	0.07	0.25	0.73	0.34	-0.15	0.11	0.10	0.01	1.86
1947	-0.07	0.20	0.20	0.25	0.13	0.54	0.73	0.45	0.71	0.53	0.24	0.08	3.99
1948	0.15	-0.05	0.25	0.35	0.42	0.52	0.57	0.61	0.40	0.24	0.28	0.22	3.96
1949	-0.05	-0.04	0.17	-0.26	0.37	0.18	0.55	0.54	0.56	0.01	0.31	-0.01	2.34
1950	0.14	0.12	0.35	0.16	0.25	0.36	0.57	0.70	0.49	0.48	0.38	0.28	4.28
1951	0.27	0.03	0.20	0.36	0.10	0.34	0.77	0.88	0.33	0.39	0.21	0.23	4.12
1952	0.22	0.14	0.18	0.17	0.27	0.50	0.59	0.93	0.07	0.58	0.05	0.00	3.70
1953	0.29	0.14	0.25	0.26	0.41	0.69	0.83	0.45	0.30	0.10	0.24	0.13	4.08
1954	0.15	0.33	0.37	0.24	0.38	0.55	0.77	0.81	0.72	0.38	0.30	0.33	5.34
1955	0.12	0.06	0.31	0.49	0.33	0.60	0.76	0.66	0.57	0.62	0.31	0.23	5.07
1956	0.16	0.18	0.38	0.39	0.46	0.72	0.84	0.72	0.67	0.46	0.30	0.18	5.46
1957	0.25	0.08	0.10	-0.23	-0.14	0.33	0.84	0.86	0.07	0.12	-0.09	0.13	2.34
1958	-0.15	-0.13	0.11	0.17	-0.02	0.35	0.63	0.73	-0.13	-0.19	0.16	0.13	1.65
1959	0.16	-0.08	0.31	0.13	0.18	0.21	0.52	0.47	0.48	0.00	0.17	0.10	2.66
1960	0.08	0.09	0.10	0.22	0.34	0.40	0.43	0.23	0.56	-0.18	0.12	-0.12	2.27
1961	0.04	-0.03	0.23	0.27	0.46	-0.01	0.17	0.60	0.45	0.22	0.07	0.10	2.56
1962	0.12	0.21	0.24	0.03	0.44	0.21	0.78	0.77	0.28	0.38	0.08	0.00	3.55
1963	0.15	0.00	0.30	0.18	0.30	0.44	0.71	0.78	0.49	0.37	0.12	0.08	3.92
1964	-0.01	0.06	0.13	0.25	0.24	0.44	0.80	0.62	0.28	0.36	0.20	0.12	3.48
1965	0.10	-0.25	0.14	0.15	-0.27	0.41	0.76	0.67	0.58	0.15	0.22	-0.16	2.51
1966	-0.10	0.02	0.19	0.15	-0.01	0.34	0.65	0.44	0.12	0.44	0.30	0.20	2.74
1967	0.18	0.10	0.20	0.19	0.25	0.65	0.75	0.57	0.04	0.25	0.10	0.06	3.34
1968	-0.17	-0.02	0.05	0.07	0.06	0.33	0.49	0.57	0.15	0.32	0.28	0.14	2.29
1969	0.08	-0.02	0.21	0.08	0.06	0.44	0.72	0.49	0.24	0.14	0.25	0.16	2.85
1970	0.10	0.05	0.10	0.24	0.14	0.53	0.56	0.58	-0.20	0.24	0.30	0.25	2.90
1971	0.26	0.24	0.44	0.32	0.41	0.39	0.70	0.16	0.15	0.08	0.19	0.05	3.40
1972	0.08	0.18	0.33	0.31	0.06	0.31	0.39	0.35	0.37	0.31	0.11	0.16	2.97
1973	0.03	-0.02	0.20	0.03	0.33	0.12	0.34	0.50	0.06	0.10	0.28	0.30	2.25
1974	0.07	0.29	0.20	0.30	0.24	0.51	0.66	0.20	0.22	0.16	0.01	0.08	2.96
1975	0.15	0.07	0.27	0.17	0.09	0.27	0.44	0.48	0.40	0.34	0.36	0.15	3.20
1976	0.22	0.29	0.23	0.03	0.15	0.48	0.19	0.54	0.30	0.18	0.06	0.03	2.70
1977	-0.03	0.16	0.25	0.01	0.18	0.38	0.74	0.76	0.55	0.38	0.17	0.27	3.82
1978	0.12	0.04	0.30	0.21	0.36	0.39	0.66	0.36	0.13	0.38	0.02	0.11	3.08
1979	-0.03	0.03	0.11	0.04	0.23	0.26	0.31	0.48	0.53	0.55	0.24	0.05	2.81
1980	0.09	0.13	0.26	0.35	0.13	0.65	0.80	0.45	0.23	0.35	0.03	0.14	3.58
1981	0.06	0.08	0.13	0.12	0.17	0.09	0.47	0.47	0.44	0.13	0.23	0.21	2.63
1982	0.17	0.05	0.18	0.16	0.11	0.38	0.74	0.66	0.55	0.27	0.09	0.13	3.49
1983	0.08	0.06	0.11	0.44	0.24	0.31	0.41	0.51	0.38	0.28	0.23	0.16	3.20
1984	0.08	0.23	0.32	0.52	0.43	0.56	0.77	0.73	0.59	0.12	0.20	0.05	4.60
1985	0.06	0.04	0.10	0.16	0.28	0.31	0.51	0.78	0.40	0.25	0.19	0.13	3.22
1986	0.16	0.14	0.35	0.32	0.11	0.17	0.75	0.64	0.31	0.09	0.10	-0.06	3.08
1987	0.11	-0.05	0.19	0.36	0.11	0.11	0.46	0.67	0.43	0.52	0.18	0.11	3.21
1988	0.17	0.14	0.24	0.38	0.28	0.45	0.47	0.60	0.43	0.42	0.38	0.23	4.20
1989	0.01	0.12	0.19	0.22	0.46	0.48	0.73	0.68	0.67	0.35	0.22	0.14	4.28
AVG	0.08	0.08	0.20	0.20	0.20	0.35	0.58	0.58	0.33	0.27	0.18	0.10	3.15

NET EVAPORATION IN FEET - BRAUNIG LAKE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	-0.24	0.06	0.09	0.01	0.44	0.61	0.69	0.62	0.24	0.44	-0.02	-0.14	2.80
1935	0.12	-0.15	0.07	-0.01	-0.26	-0.42	0.10	0.63	0.01	0.36	0.09	-0.17	0.37
1936	0.14	0.14	0.03	0.22	-0.21	-0.05	0.14	0.24	0.03	0.13	0.04	0.05	0.90
1937	0.04	0.15	0.05	0.31	0.34	0.41	0.47	0.39	0.42	0.28	0.19	-0.41	2.64
1938	-0.03	0.11	0.21	0.15	0.22	0.43	0.55	0.49	0.31	0.40	0.26	0.07	3.17
1939	0.10	0.16	0.28	0.42	0.46	0.26	0.50	0.35	0.37	0.45	0.16	0.12	3.63
1940	0.09	0.05	0.23	0.22	0.25	-0.11	0.48	0.63	0.58	0.16	-0.07	-0.09	2.42
1941	0.03	-0.08	-0.07	-0.16	-0.02	0.04	0.40	0.55	0.19	0.13	0.22	0.14	1.37
1942	0.18	0.10	0.29	-0.02	0.16	0.38	-0.18	0.33	-0.05	0.05	0.25	0.19	1.68
1943	0.11	0.25	0.20	0.36	0.21	0.34	0.38	0.76	0.15	0.47	0.11	0.04	3.38
1944	-0.13	0.02	0.02	0.33	-0.08	0.44	0.72	0.37	0.41	0.40	-0.05	-0.06	2.39
1945	0.03	-0.02	0.09	0.15	0.47	0.34	0.49	0.57	0.49	0.12	0.30	0.13	3.16
1946	-0.06	0.03	0.17	0.13	0.08	0.19	0.66	0.26	-0.13	0.07	0.10	0.05	1.55
1947	-0.07	0.19	0.17	0.18	0.07	0.51	0.68	0.40	0.68	0.49	0.21	0.05	3.56
1948	0.13	-0.06	0.21	0.31	0.32	0.50	0.54	0.57	0.36	0.27	0.27	0.22	3.64
1949	-0.05	-0.05	0.17	-0.28	0.34	0.22	0.43	0.52	0.51	-0.04	0.32	-0.01	2.08
1950	0.15	0.11	0.33	0.14	0.25	0.29	0.53	0.66	0.44	0.48	0.38	0.29	4.05
1951	0.26	0.05	0.19	0.35	0.10	0.26	0.73	0.86	0.23	0.37	0.18	0.22	3.80
1952	0.22	0.12	0.19	0.16	0.23	0.45	0.52	0.88	0.03	0.56	-0.01	-0.01	3.34
1953	0.28	0.10	0.24	0.21	0.33	0.64	0.77	0.39	0.33	0.03	0.25	0.14	3.71
1954	0.15	0.32	0.36	0.20	0.35	0.53	0.73	0.77	0.67	0.37	0.30	0.32	5.07
1955	0.11	0.02	0.31	0.45	0.30	0.57	0.76	0.61	0.51	0.60	0.34	0.23	4.81
1956	0.17	0.20	0.37	0.35	0.39	0.67	0.82	0.76	0.63	0.42	0.32	0.16	5.26
1957	0.26	0.07	0.06	-0.24	-0.09	0.29	0.79	0.80	0.02	0.13	-0.08	0.15	2.16
1958	-0.15	-0.15	0.11	0.16	0.02	0.35	0.60	0.68	-0.16	-0.16	0.16	0.11	1.57
1959	0.18	-0.09	0.31	0.09	0.19	0.24	0.54	0.42	0.45	0.03	0.19	0.10	2.65
1960	0.09	0.08	0.11	0.20	0.33	0.33	0.43	0.25	0.52	-0.26	0.12	-0.10	2.10
1961	0.03	-0.03	0.23	0.26	0.45	0.00	0.21	0.56	0.35	0.24	0.03	0.11	2.44
1962	0.13	0.20	0.24	0.03	0.44	0.19	0.77	0.76	0.25	0.38	0.11	-0.02	3.48
1963	0.15	-0.05	0.30	0.26	0.37	0.39	0.64	0.81	0.48	0.36	0.15	0.07	3.93
1964	0.03	0.05	0.14	0.23	0.06	0.56	0.77	0.55	0.24	0.39	0.24	0.11	3.37
1965	0.06	-0.31	0.18	0.21	-0.33	0.47	0.68	0.54	0.46	0.17	0.24	-0.21	2.16
1966	0.03	-0.03	0.23	0.05	0.13	0.34	0.65	0.31	0.13	0.41	0.45	0.27	2.97
1967	0.20	0.20	0.25	0.37	0.48	0.70	0.34	0.53	-0.94	0.15	-0.01	0.16	2.43
1968	-0.55	-0.04	0.14	0.08	-0.29	-0.17	0.54	0.56	-0.29	0.33	0.09	0.10	0.50
1969	0.00	-0.22	0.09	0.07	-0.15	0.37	0.71	0.62	0.42	-0.01	0.14	0.03	2.07
1970	0.01	-0.08	0.06	0.28	-0.27	0.40	0.68	0.62	0.39	0.40	0.44	0.30	3.23
1971	0.27	0.23	0.44	0.42	0.45	0.07	0.77	0.12	0.33	0.29	0.19	0.02	3.60
1972	-0.01	0.23	0.27	0.39	-0.01	0.35	0.48	0.35	0.33	0.32	0.10	0.14	2.94
1973	-0.02	-0.04	0.07	-0.19	0.46	-0.56	0.50	0.12	-0.62	-0.22	0.28	0.32	0.10
1974	-0.03	0.27	0.24	0.25	0.25	0.55	0.37	0.00	0.06	0.18	0.03	0.09	2.26
1975	0.16	0.08	0.27	0.01	-0.71	0.29	0.53	0.48	0.40	0.33	0.38	0.17	2.39
1976	0.27	0.30	0.21	-0.24	0.07	0.57	0.19	0.46	0.17	-0.23	0.06	0.01	1.84
1977	-0.07	0.13	0.27	-0.31	-0.20	0.43	0.72	0.71	0.48	0.35	0.10	0.25	2.86
1978	0.12	-0.03	0.26	0.11	0.20	0.31	0.74	0.24	0.01	0.41	0.04	0.19	2.60
1979	-0.26	0.04	0.17	-0.18	0.22	0.19	0.35	0.55	0.54	0.55	0.25	0.15	2.57
1980	0.03	0.14	0.28	0.36	-0.11	0.67	0.82	0.31	0.18	0.37	-0.06	0.16	3.15
1981	0.05	0.04	0.13	0.12	0.16	-0.23	0.39	0.38	0.30	0.11	0.24	0.23	1.92
1982	0.14	0.04	0.19	0.18	0.09	0.40	0.69	0.69	0.57	0.26	0.01	0.14	3.40
1983	0.08	0.06	0.08	0.44	0.17	0.36	0.53	0.39	0.00	0.31	0.26	0.16	2.84
1984	0.11	0.22	0.30	0.42	0.43	0.57	0.79	0.77	0.63	-0.49	0.19	0.06	4.00
1985	-0.13	0.08	0.05	0.09	0.39	0.25	0.17	0.77	0.20	-0.06	-0.08	0.16	1.89
1986	0.13	0.22	0.36	0.35	-0.13	-0.32	0.77	0.59	-0.02	-0.19	0.12	-0.26	1.62
1987	0.11	-0.13	0.18	0.40	-0.35	-0.29	0.25	0.51	0.40	0.53	0.21	0.07	1.89
1988	0.18	0.17	0.22	0.36	0.29	0.38	0.56	0.47	0.36	0.45	0.39	0.25	4.08
1989	-0.03	0.15	0.18	0.22	0.35	0.42	0.71	0.75	0.71	0.32	0.25	0.16	4.19
AVG	0.06	0.06	0.19	0.17	0.14	0.29	0.55	0.52	0.26	0.24	0.17	0.09	2.75

NET EVAPORATION IN FEET - CALAVERAS LAKE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	-0.24	0.06	0.09	0.01	0.44	0.61	0.69	0.62	0.24	0.44	-0.03	-0.14	2.79
1935	0.12	-0.15	0.07	-0.02	-0.26	-0.42	0.09	0.63	0.01	0.36	0.08	-0.17	0.34
1936	0.14	0.14	0.03	0.22	-0.21	-0.05	0.14	0.24	0.03	0.12	0.04	0.05	0.89
1937	0.04	0.15	0.05	0.30	0.34	0.41	0.47	0.39	0.42	0.27	0.18	-0.41	2.61
1938	-0.03	0.11	0.21	0.14	0.22	0.43	0.55	0.49	0.31	0.40	0.26	0.07	3.16
1939	0.10	0.15	0.28	0.42	0.46	0.26	0.50	0.35	0.37	0.45	0.16	0.11	3.61
1940	0.09	0.05	0.23	0.22	0.26	-0.12	0.48	0.64	0.58	0.16	-0.08	-0.10	2.41
1941	0.03	-0.08	-0.07	-0.16	-0.02	0.03	0.41	0.55	0.20	0.13	0.22	0.14	1.38
1942	0.18	0.10	0.29	-0.02	0.16	0.38	-0.18	0.34	-0.05	0.04	0.25	0.19	1.68
1943	0.11	0.25	0.20	0.36	0.21	0.34	0.38	0.76	0.15	0.47	0.11	0.04	3.38
1944	-0.13	0.02	0.02	0.33	-0.09	0.44	0.72	0.37	0.41	0.40	-0.05	-0.07	2.37
1945	0.02	-0.02	0.08	0.15	0.47	0.34	0.49	0.57	0.49	0.12	0.30	0.13	3.14
1946	-0.06	0.03	0.16	0.13	0.08	0.19	0.66	0.26	-0.14	0.07	0.09	0.05	1.52
1947	-0.07	0.19	0.16	0.18	0.07	0.51	0.68	0.39	0.68	0.49	0.21	0.05	3.54
1948	0.13	-0.06	0.21	0.31	0.32	0.50	0.55	0.57	0.36	0.27	0.27	0.22	3.65
1949	-0.05	-0.05	0.17	-0.29	0.34	0.22	0.44	0.52	0.51	-0.04	0.32	-0.01	2.08
1950	0.15	0.11	0.33	0.14	0.25	0.29	0.53	0.66	0.43	0.47	0.38	0.29	4.03
1951	0.26	0.04	0.19	0.35	0.09	0.25	0.73	0.86	0.24	0.37	0.18	0.22	3.78
1952	0.22	0.12	0.19	0.16	0.23	0.45	0.52	0.88	0.02	0.56	-0.01	-0.01	3.33
1953	0.27	0.10	0.24	0.21	0.33	0.63	0.77	0.39	0.34	0.04	0.25	0.13	3.70
1954	0.15	0.32	0.36	0.20	0.35	0.53	0.73	0.77	0.67	0.37	0.30	0.32	5.07
1955	0.11	0.02	0.30	0.45	0.30	0.56	0.76	0.60	0.51	0.60	0.33	0.23	4.77
1956	0.17	0.20	0.36	0.35	0.39	0.67	0.82	0.76	0.63	0.43	0.32	0.15	5.25
1957	0.26	0.06	0.05	-0.25	-0.09	0.29	0.79	0.80	0.01	0.13	-0.08	0.15	2.12
1958	-0.14	-0.15	0.11	0.15	0.01	0.35	0.59	0.68	-0.16	-0.15	0.16	0.11	1.56
1959	0.18	-0.09	0.31	0.09	0.19	0.23	0.53	0.42	0.45	0.02	0.19	0.09	2.61
1960	0.09	0.08	0.11	0.20	0.32	0.32	0.44	0.25	0.52	-0.27	0.12	-0.10	2.08
1961	0.03	-0.04	0.23	0.26	0.45	-0.01	0.20	0.56	0.35	0.24	0.03	0.11	2.41
1962	0.12	0.20	0.24	0.02	0.43	0.19	0.77	0.76	0.25	0.38	0.11	-0.02	3.45
1963	0.15	0.00	0.29	0.21	0.32	0.39	0.65	0.73	0.48	0.37	0.11	0.08	3.78
1964	0.01	0.05	0.11	0.24	0.22	0.41	0.71	0.61	0.25	0.39	0.24	0.11	3.35
1965	0.06	-0.23	0.15	0.15	-0.22	0.34	0.73	0.64	0.54	0.15	0.17	-0.14	2.34
1966	-0.08	0.02	0.16	0.13	-0.01	0.32	0.61	0.45	0.17	0.43	0.31	0.20	2.71
1967	0.16	0.11	0.21	0.18	0.24	0.61	0.73	0.55	0.02	0.23	0.11	0.09	3.24
1968	-0.13	-0.02	0.05	0.06	0.02	0.30	0.44	0.55	0.13	0.30	0.27	0.15	2.12
1969	0.09	-0.04	0.19	0.06	0.05	0.40	0.70	0.50	0.26	0.19	0.23	0.15	2.78
1970	0.09	0.05	0.11	0.19	0.11	0.49	0.55	0.57	-0.15	0.25	0.33	0.25	2.84
1971	0.27	0.23	0.44	0.43	0.45	0.08	0.77	0.12	0.33	0.29	0.19	0.03	3.63
1972	-0.01	0.23	0.28	0.39	-0.01	0.35	0.48	0.35	0.33	0.32	0.10	0.14	2.95
1973	-0.02	-0.04	0.07	-0.19	0.46	-0.56	0.50	0.12	-0.62	-0.22	0.28	0.32	0.10
1974	-0.03	0.27	0.24	0.25	0.25	0.55	0.37	0.00	0.06	0.18	0.03	0.09	2.26
1975	0.16	0.08	0.27	0.01	-0.71	0.28	0.53	0.48	0.40	0.33	0.38	0.17	2.38
1976	0.27	0.30	0.21	-0.24	0.07	0.57	0.19	0.46	0.16	-0.23	0.06	0.01	1.83
1977	-0.07	0.13	0.27	-0.31	-0.20	0.43	0.72	0.71	0.48	0.35	0.10	0.25	2.86
1978	0.12	-0.03	0.25	0.11	0.20	0.31	0.74	0.24	0.01	0.41	0.04	0.19	2.59
1979	-0.26	0.04	0.17	-0.18	0.22	0.19	0.35	0.55	0.53	0.55	0.25	0.15	2.56
1980	0.03	0.14	0.28	0.35	-0.12	0.67	0.82	0.31	0.18	0.37	-0.06	0.16	3.13
1981	0.05	0.04	0.13	0.12	0.16	-0.23	0.39	0.38	0.30	0.11	0.24	0.23	1.92
1982	0.14	0.04	0.19	0.18	0.09	0.40	0.68	0.69	0.57	0.26	0.01	0.14	3.39
1983	0.08	0.06	0.08	0.43	0.17	0.35	0.52	0.38	0.00	0.30	0.26	0.16	2.79
1984	0.11	0.22	0.30	0.42	0.43	0.57	0.79	0.77	0.63	-0.49	0.19	0.06	4.00
1985	-0.13	0.08	0.05	0.09	0.38	0.25	0.16	0.77	0.20	-0.06	-0.08	0.16	1.87
1986	0.13	0.22	0.36	0.35	-0.13	-0.32	0.77	0.58	-0.03	-0.19	0.12	-0.26	1.60
1987	0.11	-0.13	0.18	0.40	-0.35	-0.29	0.25	0.51	0.40	0.53	0.21	0.08	1.90
1988	0.18	0.17	0.22	0.36	0.29	0.38	0.56	0.46	0.36	0.45	0.39	0.25	4.07
1989	-0.03	0.15	0.17	0.22	0.35	0.42	0.71	0.74	0.71	0.32	0.25	0.16	4.17
AVG	0.07	0.07	0.19	0.16	0.16	0.29	0.55	0.52	0.28	0.24	0.17	0.09	2.78

NET EVAPORATION IN FEET - CLOPTIN CROSSING/LOWER BLANCO PROJECTS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	-0.41	0.01	0.02	0.05	0.29	0.54	0.42	0.65	0.36	0.46	0.08	-0.22	2.25
1935	0.02	-0.05	0.17	0.13	-0.58	-0.03	0.32	0.60	-0.35	0.27	0.15	-0.12	0.53
1936	0.11	0.07	0.14	0.22	-0.21	0.33	0.00	0.42	-0.06	0.09	-0.01	-0.02	1.08
1937	-0.08	0.17	-0.17	0.27	0.16	0.15	0.48	0.58	0.48	0.13	0.12	-0.30	1.99
1938	-0.17	0.02	0.11	-0.31	0.05	0.32	0.50	0.61	0.42	0.42	0.22	0.13	2.32
1939	-0.04	0.11	0.23	0.24	0.27	0.45	0.32	0.49	0.47	0.36	0.06	0.12	3.08
1940	0.10	-0.01	0.25	0.13	0.27	-0.21	0.46	0.65	0.58	0.20	-0.26	-0.12	2.04
1941	0.06	-0.11	-0.10	-0.12	0.01	-0.02	0.41	0.58	0.36	0.08	0.21	0.12	1.47
1942	0.13	0.17	0.28	-0.16	0.09	0.35	0.10	0.44	-0.01	-0.02	0.20	0.13	1.69
1943	0.11	0.25	0.17	0.35	0.22	0.43	0.34	0.76	0.18	0.42	0.13	0.02	3.38
1944	-0.20	-0.07	0.02	0.29	-0.17	0.43	0.71	0.44	0.40	0.39	-0.12	-0.10	2.01
1945	-0.03	-0.06	0.05	0.05	0.45	0.30	0.49	0.52	0.41	0.17	0.27	0.07	2.67
1946	-0.08	0.03	0.10	0.07	0.08	0.24	0.72	0.41	-0.04	0.18	0.01	0.04	1.75
1947	-0.13	0.18	0.10	0.15	0.17	0.55	0.71	0.42	0.66	0.52	0.21	0.03	3.58
1948	0.07	-0.06	0.21	0.26	0.23	0.53	0.58	0.62	0.44	0.35	0.29	0.19	3.71
1949	-0.12	-0.08	0.13	-0.31	0.34	0.27	0.54	0.56	0.48	0.01	0.36	-0.02	2.16
1950	0.11	0.01	0.31	0.00	0.19	0.29	0.59	0.75	0.34	0.46	0.41	0.29	3.75
1951	0.28	-0.01	0.19	0.31	0.09	0.28	0.78	0.89	0.36	0.45	0.23	0.23	4.08
1952	0.21	0.14	0.16	0.06	0.14	0.44	0.55	0.93	0.05	0.58	-0.02	-0.11	3.14
1953	0.26	0.07	0.18	0.12	0.25	0.65	0.76	0.51	0.37	0.05	0.24	0.10	3.55
1954	0.14	0.30	0.32	0.18	0.31	0.61	0.78	0.83	0.70	0.42	0.30	0.30	5.20
1955	0.07	-0.04	0.26	0.36	0.20	0.37	0.69	0.50	0.50	0.60	0.37	0.18	4.05
1956	0.14	0.14	0.37	0.38	0.36	0.68	0.85	0.83	0.70	0.46	0.32	0.13	5.37
1957	0.21	0.02	0.01	-0.43	-0.13	0.22	0.81	0.84	0.03	0.00	-0.08	0.15	1.67
1958	-0.06	-0.17	0.08	0.12	0.02	0.26	0.58	0.61	-0.02	-0.02	0.16	0.12	1.67
1959	0.15	-0.08	0.31	0.01	0.19	0.22	0.46	0.32	0.44	-0.04	0.18	0.03	2.20
1960	0.05	0.06	0.10	0.16	0.34	0.31	0.40	0.33	0.52	-0.25	0.11	-0.11	2.01
1961	0.03	-0.08	0.20	0.31	0.40	-0.06	0.15	0.65	0.27	0.24	0.06	0.10	2.27
1962	0.10	0.17	0.24	-0.02	0.40	0.16	0.76	0.77	0.25	0.27	0.15	0.01	3.27
1963	0.16	0.03	0.30	0.20	0.33	0.43	0.72	0.77	0.53	0.44	0.13	0.10	4.14
1964	0.01	0.06	0.09	0.17	0.25	0.38	0.75	0.62	0.19	0.38	0.15	0.14	3.17
1965	0.02	-0.21	0.14	0.13	-0.26	0.34	0.65	0.67	0.49	0.15	0.14	-0.13	2.12
1966	-0.01	-0.01	0.18	0.06	0.02	0.37	0.63	0.47	0.17	0.42	0.36	0.16	2.83
1967	0.15	0.11	0.23	0.16	0.18	0.58	0.76	0.63	0.11	0.27	0.07	0.07	3.34
1968	-0.21	-0.01	0.07	0.04	-0.07	0.23	0.48	0.65	0.17	0.33	0.18	0.12	1.97
1969	0.10	-0.06	0.07	0.01	0.08	0.42	0.72	0.49	0.28	0.07	0.17	0.06	2.41
1970	0.12	-0.03	0.06	0.14	0.03	0.48	0.67	0.69	0.03	0.21	0.36	0.26	3.01
1971	0.26	0.22	0.41	0.29	0.36	0.45	0.68	0.18	0.23	0.12	0.19	0.02	3.41
1972	0.07	0.19	0.32	0.32	0.08	0.36	0.43	0.35	0.42	0.25	0.11	0.15	3.05
1973	0.00	-0.03	0.14	0.03	0.31	0.16	0.40	0.55	0.15	0.06	0.26	0.27	2.29
1974	0.03	0.26	0.22	0.31	0.23	0.49	0.69	0.20	0.21	0.17	-0.01	0.06	2.86
1975	0.13	0.04	0.22	0.13	0.05	0.25	0.41	0.44	0.35	0.35	0.32	0.13	2.83
1976	0.21	0.26	0.17	0.01	0.16	0.38	0.22	0.59	0.26	0.12	0.08	0.02	2.50
1977	-0.02	0.13	0.21	0.04	0.19	0.37	0.73	0.72	0.49	0.39	0.12	0.26	3.64
1978	0.08	-0.01	0.26	0.21	0.30	0.38	0.70	0.43	0.14	0.38	-0.02	0.06	2.90
1979	-0.03	-0.02	0.07	0.05	0.15	0.27	0.30	0.41	0.43	0.51	0.22	0.02	2.39
1980	0.06	0.09	0.20	0.30	0.13	0.61	0.80	0.58	0.23	0.31	0.06	0.12	3.50
1981	0.07	0.06	0.09	0.12	0.18	0.05	0.47	0.44	0.36	0.11	0.18	0.20	2.36
1982	0.13	0.06	0.16	0.13	0.10	0.35	0.70	0.64	0.49	0.26	0.10	0.10	3.22
1983	0.04	0.01	0.06	0.39	0.17	0.27	0.40	0.45	0.37	0.26	0.17	0.15	2.74
1984	0.08	0.21	0.26	0.49	0.43	0.48	0.65	0.68	0.54	0.06	0.17	0.01	4.04
1985	0.04	0.03	0.09	0.14	0.29	0.32	0.52	0.76	0.35	0.17	0.14	0.11	2.95
1986	0.15	0.10	0.31	0.30	0.09	0.18	0.74	0.54	0.20	0.05	0.07	-0.08	2.66
1987	0.11	-0.04	0.19	0.37	0.10	0.06	0.43	0.66	0.37	0.49	0.09	0.07	2.89
1988	0.17	0.15	0.20	0.30	0.27	0.40	0.42	0.61	0.49	0.42	0.36	0.16	3.97
1989	-0.04	0.08	0.12	0.24	0.29	0.35	0.65	0.64	0.61	0.34	0.20	0.17	3.65
AVG	0.05	0.05	0.17	0.14	0.16	0.33	0.55	0.58	0.32	0.26	0.16	0.07	2.84

APPENDIX F

Natural Streamflow

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1670 - GUADALUPE RIVER AT COMFORT

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	4247	0	3231	5893	442	0	0	1265	0	1007	1718	1079	18881
1935	2318	0	2833	0	10376	147606	3170	8504	45738	7272	7683	15045	250545
1936	7663	10393	7643	7224	20543	0	65286	0	166733	51607	30402	25579	393071
1937	20052	19199	14290	2514	3	12259	6795	3647	4257	4316	2757	9618	99707
1938	5030	2416	10	8339	17	8852	36	131	19	2063	2752	1607	31272
1939	4794	3641	1387	3642	3251	1047	8898	3037	1814	7972	3101	3071	45655
1940	3172	4642	5834	18326	14838	11123	8576	5074	2708	5744	10312	27592	117941
1941	8692	31092	26315	47667	48199	15434	10218	7106	12659	19265	8972	8222	243841
1942	7521	6202	5744	27726	39247	10272	5895	4343	5648	15674	8492	7741	144505
1943	6514	5245	6249	6582	5085	12394	3650	1797	2796	3198	2994	4014	60518
1944	5434	6295	11479	6953	68516	21885	5941	6358	7517	8489	5424	11974	166265
1945	19523	16824	25297	21730	9622	6028	5143	2551	9422	11667	5413	12203	145423
1946	7525	7666	8472	7557	13761	7804	2852	1548	4063	16552	25475	11615	114890
1947	24685	14885	13240	14044	12376	24426	7102	4189	2638	2639	3605	4245	128074
1948	3894	4895	4670	4945	4158	3390	4207	1504	1930	2520	2204	2644	40961
1949	3434	19266	10811	11986	8369	7052	3379	7625	5861	3751	3175	3795	88504
1950	4265	4327	3704	5211	5696	3513	1833	1108	1838	1684	1946	2205	37330
1951	2278	2361	4263	2993	11831	7128	1016	455	690	819	1649	1829	37312
1952	1820	1793	2378	5021	8140	6634	1644	291	22794	2547	2291	7331	62684
1953	5617	3189	3459	2498	1245	196	630	871	6647	3668	2418	2247	32685
1954	2339	1832	1414	3755	3953	645	217	79	46	2463	1670	1240	19653
1955	2410	2403	1447	827	7019	848	8811	1661	1273	1014	1031	1531	30275
1956	1345	1581	1071	1039	994	67	67	959	382	41	236	652	8434
1957	1062	1381	5744	35921	21267	13513	1522	320	3130	44397	15843	12775	156875
1958	20632	30745	33961	15126	15755	21046	7419	4228	30731	11172	14457	12275	217547
1959	10156	8161	6789	11367	8125	24054	9280	4710	3372	67311	7387	7095	167807
1960	8817	12681	9776	8278	5982	2718	6610	37661	7842	44723	21597	29875	196560
1961	24907	42119	26136	14560	9438	14171	10125	7709	5624	5653	6158	6101	172701
1962	5686	4734	4666	5697	5297	3971	1533	777	1022	3065	2537	3280	42265
1963	3301	2917	3172	3030	2999	2417	1744	1416	2097	2667	4294	2985	33039
1964	2927	4870	8688	5189	3423	1954	1409	6120	34899	9065	5179	4630	88353
1965	4354	11725	8326	6989	30733	22227	5814	3493	3173	4307	3703	5364	110208
1966	4660	4554	4773	10827	10325	4864	4219	30216	13113	6798	5142	4820	104311
1967	4780	3743	3620	3519	2598	1918	4615	2397	7779	13540	10239	6487	65235
1968	50015	20317	21981	21499	21377	12957	10122	5508	4950	4635	5348	6173	184882
1969	4935	5129	5412	8261	5373	3388	2480	4468	6440	59596	14761	17511	137754
1970	12605	11507	21406	13612	16957	10993	6807	4861	5390	5634	4735	4983	119490
1971	4405	3734	4052	4188	3578	2645	2415	107544	10864	36507	19260	14802	213994
1972	11679	10287	8064	6942	47162	14501	8866	15704	8568	6994	7174	6495	152436
1973	7007	8649	11195	10032	7808	10198	25355	13301	8726	44592	15504	11672	174039
1974	10593	8075	8368	6456	41051	7621	4384	29448	26168	22992	30897	18345	214398
1975	18562	45152	23450	18819	69135	38717	20033	12226	9702	9849	8379	8568	282592
1976	7795	6436	6445	11029	9613	8585	22075	8574	11722	10718	11249	14001	128242
1977	14552	12234	11239	95223	40887	17224	9971	6743	5006	7313	7577	7290	235259
1978	6489	6292	5673	5345	4484	9867	3207	294080	34326	15457	14179	12359	411758
1979	14803	20859	33685	35443	23809	56082	19595	15141	9338	7077	7674	8150	251656
1980	8274	7190	6943	6486	8328	4212	2501	2220	31461	24725	10867	11506	124713
1981	9543	8357	34773	43365	24131	86673	28015	14646	13589	68777	19894	15226	366989
1982	12532	10255	11057	8533	23895	20252	7539	5828	4818	4783	6670	6984	123146
1983	6366	7443	10047	6047	6322	8753	5304	4045	3655	4687	4874	5146	72689
1984	5460	3895	4149	3303	3234	2560	1669	1722	1500	8702	6478	31034	73706
1985	22381	18578	22558	16091	40273	11635	10251	4738	5963	148449	15904	14904	331725
1986	12006	17042	8136	7534	15162	24109	9472	5256	25814	36203	26675	44402	231811
1987	35030	23969	31409	22209	48894	167978	121713	29076	22947	16546	15556	15231	550558
1988	13533	11389	11253	8857	15788	10442	68509	17801	10939	9283	7608	7542	192944
1989	10447	11575	11571	10554	9425	4922	3283	3287	3156	4559	5952	5294	84025
AVG	9730	10288	10603	12621	16077	17067	10772	13739	12237	16906	8919	9828	148788

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1675 - GUADALUPE RIVER AT SPRING BRANCH

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	7070	4920	7560	13600	6070	2140	4770	1380	1530	1090	1860	2530	54520
1935	2510	4690	3070	3320	57350	237900	26100	9990	58500	20710	14100	21590	459830
1936	15960	11570	12190	8880	43710	56290	74650	13190	241300	69540	39380	32640	619300
1937	27891	20791	24612	16962	11181	36984	8785	4344	4703	5721	5231	13971	181176
1938	30133	17474	14113	24482	22828	9865	5568	3192	3658	2928	3243	3453	140937
1939	6191	4121	4152	3943	4573	1325	9297	3336	1414	14062	3861	4071	60346
1940	4082	5623	9095	22117	16308	19672	10705	5104	2918	4254	12872	39732	152482
1941	14292	70763	63865	89498	111909	34854	23287	11135	16010	25255	13113	11253	485234
1942	9442	7912	7614	38826	51357	14182	8764	6543	22578	29484	16852	14322	227876
1943	12754	9125	9899	10972	7804	17513	8637	2954	5435	4378	3765	5484	98720
1944	9074	14045	30718	17462	102215	37903	11668	17665	18625	15738	10444	29664	315221
1945	45043	42274	59017	43189	18731	11167	9270	5838	14601	20216	9293	23643	302282
1946	14645	17176	19121	14495	29989	13950	5516	3372	13850	23951	45115	27475	228655
1947	59294	33615	26579	24693	21195	26464	10469	5766	3505	3398	4535	5614	225127
1948	5163	5515	5459	5323	4616	9936	5533	2178	2347	3509	2644	3224	55447
1949	4244	20955	13210	23935	18437	10168	4874	7912	6689	4780	4195	4854	124253
1950	5285	5926	4953	6719	11283	6367	5045	1950	2554	2022	2145	2965	57214
1951	2957	2989	5090	3959	11207	7149	889	115	89	381	1258	2228	38311
1952	1978	1811	2504	6576	20394	9213	2295	505	126149	4673	4679	11509	192286
1953	10036	5968	6716	4984	2798	658	1023	1031	14752	5286	3666	3756	60674
1954	3708	2600	2270	1560	7306	786	96	62	42	1699	1178	1188	22495
1955	2440	4203	1806	994	8510	2386	8602	2417	969	899	819	1440	35485
1956	1530	1698	1081	522	1250	36	38	399	431	438	674	404	8501
1957	763	1967	16169	87979	45524	36805	4175	1652	16332	85544	44091	29665	370666
1958	46591	61024	66191	30856	104534	40355	16383	7161	40259	23172	28947	18635	484108
1959	14206	12711	10939	18369	13568	36948	15294	7454	5030	85923	12257	13156	245855
1960	16907	19712	17118	14890	9553	4945	8710	48449	10944	80694	34288	49056	315266
1961	42348	81630	44115	24521	15447	27682	16142	9600	7068	6608	7327	7021	289509
1962	6485	5942	5924	7274	5967	9160	2272	859	2924	4751	4096	5060	60714
1963	4261	3656	4078	7078	3710	2673	1961	1377	1247	3732	5876	4104	43753
1964	3813	8727	17216	7644	4507	4113	1495	6193	41806	12517	9707	6817	124555
1965	6223	23470	13733	22476	84637	44865	11651	6205	6854	11644	7012	16033	254803
1966	10683	10059	10766	22066	21615	10303	6745	34125	19098	9994	6986	6523	168963
1967	5746	5429	5416	4629	3740	2291	4139	2784	24317	17703	19660	13044	108898
1968	103616	41237	39922	39867	44495	23867	15879	8370	8432	6806	6674	8490	347655
1969	6974	7769	8642	15624	18805	12703	5643	8385	10842	78089	20757	33927	228160
1970	22963	20894	43967	25268	40396	25580	11980	7316	7815	8063	6725	6894	227861
1971	6218	5175	5881	5299	4664	2532	2250	122039	28047	64544	37738	31370	315757
1972	20303	16462	13078	13328	89951	29797	14138	20956	11879	12182	14090	11269	267433
1973	13611	18652	23591	22632	17449	30248	124410	33432	25969	92793	37377	22615	462779
1974	17866	13259	13486	10474	49066	11752	5967	42815	37615	20078	55903	31151	309432
1975	35547	103858	42242	32248	111962	74912	44745	21537	15910	14746	11092	10560	519359
1976	9666	8314	8082	39835	32032	21844	46424	17083	16177	22698	25661	30711	278527
1977	29369	26742	21578	143910	71700	33506	16198	9524	7303	13655	12245	9811	395541
1978	8488	8023	7421	6673	5202	12138	2759	306297	56142	21968	21397	21440	477948
1979	42009	51929	88915	88494	58529	115273	42381	23689	13638	10085	9965	11038	555945
1980	10565	8950	9701	8961	16436	7808	3502	2829	32224	37104	12775	15341	166196
1981	12014	10460	50442	57005	28394	185498	49757	20632	17139	97522	27100	20304	576267
1982	16291	12353	13094	11471	47587	23694	9209	6382	6888	5365	6915	8199	167448
1983	6984	8669	14462	8972	15988	22872	9649	5605	4126	8453	9153	7016	121949
1984	7459	5553	5539	3984	3404	2933	1369	2016	1328	14219	9115	25761	82680
1985	76437	35138	47265	29958	34288	76689	27038	9148	10607	83874	29453	37450	497345
1986	23317	28233	17580	13352	24025	44739	16308	8451	43875	82793	50663	104876	458212
1987	70605	42502	58687	35100	80400	376804	161849	42747	31079	19882	18796	18438	956889
1988	16558	13643	13751	11082	17242	12118	66610	20720	11886	9751	8142	8146	209649
1989	10802	12391	12051	10771	10826	6092	3674	2978	3030	4015	5927	6050	88607
AVG	18239	18755	19745	22663	30833	34651	18153	17486	20366	23846	14693	16375	255805

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1677 - GUADALUPE RIVER AT CANYON LAKE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	9610	7060	10317	15876	7316	3457	6761	2681	4957	2236	3409	5661	79341
1935	3559	6670	4703	5063	63951	231260	26953	10654	57737	21315	14525	22181	468568
1936	17985	12152	13397	11114	43437	58537	72763	18475	229052	68268	40673	32670	618523
1937	28523	20507	28680	19093	14491	39812	9376	5272	5769	7428	6905	15969	201823
1938	35844	21242	18827	35881	34365	10746	8810	4944	4723	4251	4685	4770	189086
1939	6967	5134	5938	4906	5628	2705	9848	4423	2593	14267	4847	5041	72297
1940	5257	6493	9761	22418	17071	22543	12666	6034	4998	5487	13714	44355	170798
1941	17880	72753	69039	94618	121726	53589	25911	11553	16510	25827	14124	12525	536055
1942	10851	9761	8795	39280	50179	18387	11712	7293	27784	32595	18733	14837	250207
1943	13961	10204	11221	14014	10802	19054	9244	5925	6294	5460	4918	6485	117582
1944	11882	17034	36328	26190	97656	43425	13483	18531	21249	17025	12591	34980	350372
1945	49540	48230	70572	44307	21177	12428	11661	7660	15672	21600	10038	24075	336958
1946	16236	20370	32235	16435	31951	15412	10005	6891	18463	24341	52565	35945	280847
1947	61838	32401	30125	24819	24658	26248	13066	9449	4477	4690	5797	7511	245076
1948	7631	7339	6850	6416	7163	10739	7986	3246	3536	5298	4342	4366	74910
1949	6474	20950	14896	24705	19095	10670	7368	10628	7917	6607	5116	6051	140476
1950	6147	7446	6479	7627	12449	7772	5905	3034	3818	3182	3215	3976	71048
1951	4465	4246	6260	5057	11619	9251	2048	1324	2333	1913	2559	3291	54365
1952	3223	3690	3701	7648	21390	9933	3561	1691	133074	5559	8749	13581	215798
1953	11937	7988	7527	7073	4328	2350	10839	2527	16705	7804	5273	7085	91435
1954	4786	4091	3332	3225	11795	1953	1400	1797	1259	3533	2318	2615	42103
1955	4059	5167	2917	2712	14008	3586	9205	3810	2246	2777	2280	3125	55892
1956	2687	2818	2740	2399	2621	1255	1399	4207	1775	1817	2377	1713	27808
1957	2046	3482	19566	97045	48941	41794	7249	4230	21218	86292	48408	34977	415247
1958	48701	64281	68676	35086	105203	38725	20261	7868	39983	26047	31255	20770	506855
1959	15472	15535	13187	19221	16556	35620	15469	11082	7445	84053	15967	13724	263332
1960	21913	21453	19331	24304	14003	10299	9321	53710	11484	87674	37364	53990	364844
1961	40524	81036	42140	23968	15752	31695	18198	12287	7898	7828	8184	8226	297735
1962	7817	7617	7819	8339	7055	11815	2669	750	3136	4978	5091	6357	73443
1963	5136	4776	4823	10844	5499	3148	2540	1715	1335	3101	5434	4360	52711
1964	3914	9183	14981	8415	5231	6125	2415	4938	28385	15665	14661	7617	121530
1965	7697	30478	17518	25304	98762	61359	14567	7382	7021	16054	10124	27644	323910
1966	13092	16271	18004	24573	22930	13859	14571	25776	21310	13262	10375	6409	200432
1967	7333	5989	7750	5604	3102	1173	4070	3478	34177	13558	23630	13639	123503
1968	121867	46129	45643	45097	51256	30861	18261	9673	8007	6981	6901	8536	399212
1969	7373	10453	11369	23184	28285	17643	7636	10009	11094	73668	23086	38226	262026
1970	28458	26738	56665	34401	54335	36367	16843	9410	8449	9168	6674	8174	295682
1971	6902	6315	6361	5819	5380	3352	2837	111802	30760	63922	37623	38614	319687
1972	21747	19049	14017	11954	102291	40207	18082	20707	11562	11396	13574	12064	296650
1973	16849	22980	30117	28144	24325	41582	148275	37642	29240	109382	42173	24801	555510
1974	20288	17069	17016	13595	48820	14485	7409	41003	39863	23830	58910	33424	335712
1975	38723	110109	41905	34670	107394	84980	50061	22273	14937	13719	10918	11515	541204
1976	10057	9673	9511	40171	38942	25024	49509	20769	20355	30408	33842	35851	324112
1977	34563	36345	29581	153177	79192	35210	20118	11602	9135	15505	13288	10033	447749
1978	8338	9298	9890	8878	7245	13729	5623	286946	55775	23368	22842	22024	473956
1979	47845	57875	92530	89466	71192	99969	37921	25521	13927	10361	9212	11260	567079
1980	11154	9732	11692	10746	18778	8322	5346	3697	29015	30750	12763	15011	167006
1981	13130	12850	49691	54419	33148	194095	54883	22340	19480	91294	26579	20445	592354
1982	16786	13338	14877	13474	50025	24432	11001	6900	6410	5213	7945	9076	179477
1983	8810	10654	19571	13590	18490	23403	11865	6550	3383	7603	7715	4538	136172
1984	8512	6228	7028	5590	4114	3866	1726	3162	537	13400	8284	19689	82136
1985	71082	37318	54313	34810	35125	97106	42163	13669	10667	79146	32039	39080	546518
1986	25326	32925	20339	15109	32276	53397	18059	8749	46617	87874	51736	112219	504626
1987	78502	48955	66590	38671	79849	375292	155111	45814	28050	21113	21644	20217	979808
1988	17813	14674	15430	12367	19543	16422	60685	21751	13628	9512	7118	7506	216449
1989	12436	12854	12748	11752	11096	6563	4249	3273	2625	4302	4934	4009	90841
AVG	20385	21168	22774	25405	34161	37804	20553	18367	21247	24888	16322	18158	281230

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1685 - GUADALUPE RIVER AT NEW BRAUNFELS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	9160	9390	16800	22600	8480	3180	5560	2910	1700	1190	2950	3770	87690
1935	3990	8200	4600	4080	79560	272000	44530	21000	65430	28480	17240	24610	573720
1936	18940	13050	15270	10680	45580	45250	119900	18500	249900	78850	42330	33660	691910
1937	30231	24761	34061	22152	13271	48094	12645	6124	5902	7581	6401	22181	233404
1938	50553	29214	21343	38932	42927	15854	8777	5341	5258	4207	4453	5673	232532
1939	7641	5041	4902	4703	5163	2055	9027	3836	1703	12662	3841	4041	64615
1940	4382	5952	8984	23326	15928	21102	13134	4723	2828	2924	15642	55492	174417
1941	18412	77853	79615	109308	144509	51324	38197	18335	19129	32415	17393	14183	620673
1942	12063	10334	9856	45168	52849	16223	13436	8525	48660	51176	27154	22624	318068
1943	17585	11966	12670	14823	10835	21844	14768	5665	7906	6479	5176	6726	136443
1944	18495	28066	54050	28973	121116	55645	20729	20397	25937	18809	14725	43365	450307
1945	64504	63385	76838	63911	30462	18538	14462	8530	14873	27758	12325	25205	420791
1946	20986	26527	36202	22287	37860	24781	9257	6443	30291	41552	71677	50546	378409
1947	78766	48426	38130	31334	28016	29065	13110	10807	5416	4830	5406	6596	299902
1948	5925	6266	6400	5564	6927	11447	7443	2189	2468	4100	3015	3745	65489
1949	5115	21597	20611	33626	30389	14349	7524	9203	6690	9351	5926	6416	170797
1950	6506	10757	7364	8350	13404	8527	6065	2089	2494	2173	2196	3116	73041
1951	3158	3580	5590	5329	11027	9508	1174	393	687	489	1249	2528	44712
1952	2389	2002	2543	8285	23274	13751	2771	734	183250	9593	7810	19390	275792
1953	20357	9799	8807	8144	4658	1419	2193	1929	23933	12306	6878	10187	110610
1954	5878	4190	3240	2239	6926	1551	475	409	247	822	1849	1368	29194
1955	2220	4003	2236	1286	8589	2732	7359	2403	762	1114	715	1551	34970
1956	1580	1818	1249	696	899	66	31	455	312	634	1265	1346	10351
1957	838	1977	19939	115720	65225	61205	10813	4661	27122	105725	57352	40336	510913
1958	61082	79725	87571	44686	134634	50665	24110	12858	49619	37383	44107	27936	654376
1959	22606	21331	21309	25118	18988	39564	20681	11220	7279	91993	19528	20045	319662
1960	28688	26002	21617	22069	18231	17990	17536	60468	19412	112024	60698	70376	475111
1961	64728	98990	60434	33570	20575	34729	22520	14166	10017	9805	11307	10911	391752
1962	9695	7992	8203	9361	7945	11317	3600	1371	5207	6008	6141	8098	84938
1963	6257	6048	6126	11798	6494	3875	2969	2535	1664	2853	5236	4311	60166
1964	4586	10155	14943	8709	5396	9822	3475	5257	29420	17758	18232	8979	136732
1965	10458	42593	25341	32428	120946	71657	21877	12521	9696	21166	14855	42875	426413
1966	21044	22693	25727	31818	30327	19490	17364	28148	26307	16526	12147	7861	259452
1967	8745	6751	8494	5620	3369	844	4273	3760	41864	19292	32512	19851	155375
1968	143729	57821	54916	51851	58650	37528	23909	14911	11772	9564	8942	12497	486090
1969	9734	15564	17460	32034	39397	24265	11397	12533	14245	78789	24947	45636	326001
1970	35268	34360	64656	38552	64148	46278	21815	12224	10960	12359	8895	10484	359999
1971	8717	7576	7142	6530	6131	3883	3519	117543	33751	71203	48224	52205	366424
1972	30208	25990	19438	14575	139782	47838	22684	26858	15993	14827	16825	14685	389703
1973	20459	28201	35877	37235	29446	50643	159876	45993	38521	127003	49904	33011	656169
1974	26409	21703	21708	16888	55466	17391	10056	44673	42586	27352	61843	38595	384670
1975	41064	124611	56047	42442	123197	97483	58394	27705	17469	16490	13389	13656	631947
1976	12028	11264	11092	45382	52365	33858	56994	26914	25009	46810	46173	47252	415141
1977	45483	47995	41011	170078	96152	48712	28130	18065	14066	19087	18779	14043	561601
1978	11368	11958	12381	11269	9075	15989	6945	287647	68315	29758	29292	27595	521592
1979	60325	70447	112880	104384	86718	111075	49762	32630	18107	15241	12412	14299	688280
1980	13411	11641	14338	13436	25015	12450	7643	5464	32473	33388	16181	19128	204568
1981	15588	15057	54638	59366	39396	215773	65933	31662	25435	98168	34082	24121	679219
1982	19534	15245	16491	14496	57264	27512	11839	7898	7348	6127	9220	11191	204165
1983	10884	12907	23699	18876	23944	29517	15173	8897	5651	9453	9523	5542	174066
1984	9133	7117	7668	5878	4212	4254	1874	3470	1095	13888	9723	20407	88719
1985	83120	45367	63521	41608	37142	107543	56400	19345	14454	87041	50922	54016	660479
1986	34190	39861	24676	17137	35322	68862	24705	12396	50743	93540	57416	122287	581135
1987	83794	55645	74322	46773	87599	400267	170594	65201	38648	28320	27210	24922	1103295
1988	21888	17990	18843	14611	21967	18715	61448	22345	14531	10574	8022	8719	239653
1989	13617	14075	14310	13210	12021	7099	4565	3250	2813	4320	5163	4427	98870
AVG	24956	25765	27467	29880	40700	43507	24919	20813	25667	29524	20122	22297	335616

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1690 - COMAL RIVER AT NEW BRAUNFELS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	20100	17000	20800	19800	20200	19300	20700	20000	17800	18990	17320	18120	230130
1935	18220	16480	18050	17990	24330	21560	21070	21000	20840	21210	21120	22760	244630
1936	23050	21220	22020	19930	22450	24090	22870	22050	21870	22490	21470	21760	265270
1937	21420	19480	22410	22320	23700	27970	22100	20960	20070	19630	18720	20410	259190
1938	21260	18310	20280	24950	23800	21760	21740	21000	20930	20880	20140	20350	255400
1939	19910	18250	19700	18780	18710	18130	16570	17770	18320	17670	16440	17600	217850
1940	17540	16570	17581	17491	16411	18612	17622	16962	16441	16831	16280	20100	208441
1941	18280	17380	20000	25030	28210	23300	22020	22190	20330	23060	20350	20570	260720
1942	20780	18710	20610	20480	19440	18900	22550	19640	26510	27840	24120	25560	265140
1943	25060	21660	23020	21180	20471	19971	20171	19571	19411	18860	18840	19280	247495
1944	21550	19220	22740	22800	24680	22440	21831	20141	19800	19980	18680	21080	254942
1945	22900	23050	26431	25691	25481	22372	21292	20982	19911	22391	19710	20640	270851
1946	20100	17820	21120	19720	24310	26400	23020	22090	27170	24300	25620	24650	276320
1947	25980	22610	25010	23420	24390	20551	20231	20121	19020	19190	18390	18990	257903
1948	18730	17740	18260	17600	17490	16511	16411	15831	15361	15850	15530	15760	201074
1949	15900	13830	16680	18840	19240	18880	19180	18820	17160	19250	16750	17490	212020
1950	17460	15870	17170	16350	16590	16550	15700	15120	14720	15370	14330	14470	189700
1951	14270	12490	13700	12890	13440	13130	11840	11150	10790	11290	11410	12460	148860
1952	11830	10460	11160	11070	11250	10850	10020	8300	39470	11880	12070	14040	162400
1953	14190	12600	13490	14540	12540	10590	8820	7840	11190	12060	12180	12630	142670
1954	12680	11350	10580	8800	9220	7200	6470	5250	4670	6790	7390	7960	98360
1955	8420	8000	7950	6310	6030	5550	4160	3390	3350	3700	4350	5610	66820
1956	5650	5410	4340	2690	1950	684	2	4	0	0	1410	2531	24671
1957	3177	2921	4808	19590	20605	17772	9755	5793	10660	14096	14324	15510	139011
1958	17789	20204	20810	20145	21409	18595	18677	16274	19107	20415	19951	20810	234186
1959	20590	18801	20580	20267	19942	17860	18530	17820	17050	19953	18430	19440	229263
1960	19970	18807	20041	19817	19560	19980	18260	18472	17840	26367	20630	22062	241806
1961	22271	20643	22320	20500	19720	19298	22415	19932	18621	21253	20974	20080	248027
1962	19870	17532	18640	17843	17571	15941	14630	12351	13221	14704	14590	16502	193395
1963	16410	14752	16090	14701	14361	11810	11000	8540	8721	10310	11530	12580	150805
1964	13070	13246	13930	12730	11830	11937	9800	7880	8510	10541	12293	12810	138577
1965	13051	16516	16905	16543	29665	19201	16230	13880	12436	16851	15785	23048	210111
1966	18772	17351	18843	17305	18585	16060	14550	13119	14242	15261	14530	14876	193494
1967	15040	12540	12943	11645	10076	6450	5753	5041	13154	13291	15494	15583	137010
1968	31867	20055	21625	22397	22220	20248	19550	17923	17268	18447	17759	18978	248337
1969	18780	17342	20089	19201	21282	18638	16263	13512	15260	16499	17039	18705	212610
1970	18851	17622	21061	20075	24942	20914	18486	17028	15719	17781	17237	17630	227346
1971	17026	13894	13909	11486	10228	7118	7467	12079	13758	16015	17460	19653	160093
1972	19797	18425	18503	15540	57746	21459	19141	18778	17743	18914	19125	19838	265009
1973	20116	18229	20854	22199	22558	24962	28583	24244	30086	30345	26767	26884	295827
1974	26587	23730	24797	22637	26093	21483	20259	20215	21809	23057	29959	25136	285762
1975	24589	24725	25357	24206	34909	26898	25221	23249	22152	22546	21509	22234	297595
1976	21524	19402	19662	20936	30674	24241	24028	21618	21678	28224	24833	26177	282997
1977	27472	25031	25190	32583	26992	24322	23281	21108	20355	20644	22032	22464	291474
1978	21828	19432	20635	19017	18249	18981	14973	18986	20639	20978	24476	23528	241722
1979	27077	23980	25362	24872	24767	25988	27829	26203	24129	22761	20583	21969	295520
1980	22436	20084	19991	18180	19117	17015	12400	12860	14864	16482	16511	18107	208047
1981	18566	16503	18113	17300	19974	28860	20959	19312	18775	20041	20701	20679	239783
1982	20167	17436	18337	17337	25014	17980	15963	13917	12939	14111	14681	16290	204172
1983	17127	15029	16642	15508	15730	15056	13941	13382	11529	12675	13192	13829	173640
1984	13834	13303	12331	8772	6248	4689	2231	2304	2621	7213	9135	10456	93137
1985	12979	12542	15026	15481	14898	17147	24848	13896	13282	16648	23153	20071	199971
1986	19923	17847	18270	15799	17183	24554	18160	14874	15673	18419	18325	29290	228317
1987	22268	22829	22778	20628	21725	35473	23970	21991	21177	21805	21584	22872	279100
1988	22451	21002	20794	19266	17896	15268	15080	14685	13166	14103	13960	14815	202486
1989	15232	14212	15308	14710	12450	7244	5605	4733	4748	6389	8621	10266	119518
AVG	18853	17169	18458	18177	19974	18192	16861	15646	16573	17440	17318	18357	213018

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

H5 - GUADALUPE RIVER AT H-5 DAM

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	30449	26720	37447	40825	30032	24654	28326	25322	21576	22671	21971	23637	333630
1935	23939	25111	24213	23721	92124	242617	59977	41060	76411	47311	38203	46171	740856
1936	42000	34976	37763	31451	62559	64366	122560	40385	225324	89233	58722	52150	861488
1937	48977	42151	53292	43648	38283	71540	35763	29106	27805	28593	26499	41260	486916
1938	65037	44237	40426	60396	62142	37903	32215	28531	28375	27471	26734	27975	481442
1939	28994	24818	26537	25217	25497	22278	25887	23248	22236	30184	21573	23197	299666
1940	23395	23427	27128	38492	31208	38127	30502	22937	20763	21332	30814	67525	375650
1941	35556	81984	86702	116812	148994	68230	56110	40431	38718	52795	37353	35062	798746
1942	33631	29634	31651	59743	64577	34588	36965	29362	70150	73842	49923	48116	562183
1943	43453	34665	36945	36346	32259	40438	35029	26987	28577	26740	25671	27467	394576
1944	39750	44467	69704	49713	125820	70602	41893	39494	43497	38020	33111	59058	655130
1945	78271	77565	92597	81319	54289	40822	36198	31059	34783	48223	32490	43971	651588
1946	39913	41469	53377	40475	58732	50905	34216	30790	56285	61672	87444	69311	624587
1947	93571	65040	59831	52386	50956	46948	33777	31795	26092	25836	25287	26997	538515
1948	26132	25155	25919	24418	25369	27750	24421	19484	19112	21036	19764	20638	279197
1949	21911	32486	35296	48438	46352	33063	27982	28870	24763	29530	23633	24959	377282
1950	24994	26388	25314	25069	29416	25465	22422	18508	18326	18888	17594	18506	270889
1951	18288	16378	19515	18284	23538	21933	13636	12139	11918	12391	13149	15499	196668
1952	14592	12553	13871	18353	30575	22451	12618	8815	194212	20421	19233	30986	398679
1953	31949	21493	21824	22619	17306	12253	10639	9190	31025	22819	18626	21842	241583
1954	18457	15428	13696	10648	14930	8080	6297	4704	3840	6977	8555	8890	120501
1955	10152	11049	9572	6743	12234	6944	8894	3955	2588	3310	3810	6069	85320
1956	6144	6031	4226	1710	931	25	0	0	0	0	539	2014	21619
1957	2431	3016	19769	115076	75914	69140	18712	8786	32889	100133	61720	49602	557188
1958	69077	87034	94092	58934	132505	61764	40619	28582	61563	53430	58226	46370	792196
1959	41828	38549	40779	43429	38116	51957	37693	29224	25098	96543	36638	38327	518181
1960	47090	42882	40839	41129	37523	44995	36148	68457	36902	140566	76076	82834	695441
1961	79999	104438	73532	50358	39770	67129	45958	35661	31431	33641	36136	32683	630736
1962	31438	27376	28792	29444	27394	28222	21362	16373	20686	22414	22576	27250	303327
1963	24689	23661	24198	27072	22504	17315	15624	12327	11906	14734	18880	18501	231409
1964	19300	24751	30738	22224	18626	22146	14547	17755	37231	25639	28810	22679	284445
1965	25571	64502	42546	48253	145438	89982	36876	26788	22087	37887	33691	67350	640973
1966	38724	40552	43607	47932	49924	35176	30970	39154	37835	30495	26723	24354	445446
1967	25480	20377	22997	18327	14499	8137	11636	9714	80208	34042	45938	34077	325431
1968	171693	73732	70881	71983	78658	62752	44083	34061	30495	29650	29437	35799	733223
1969	30397	41676	42390	53836	62205	41530	28709	26342	29904	83338	38805	59612	538743
1970	49399	47336	78103	52626	96272	61926	38650	31253	27568	31653	27662	29832	572280
1971	27195	22696	22433	19313	17515	12069	13140	109506	44737	76435	57383	64410	486831
1972	47307	40424	39927	29866	214471	63546	38794	42553	34945	35384	36691	35801	659709
1973	40504	44706	54691	63196	49238	88232	161011	62120	66900	158327	69172	56411	914506
1974	60320	46137	46394	40418	79103	42484	32157	63135	66820	49109	94512	63458	684044
1975	62198	128247	73666	62945	159748	106027	80246	47851	40033	41086	36971	38632	877648
1976	35502	32796	32339	74652	86449	58546	75632	44491	44750	84471	72094	79104	720826
1977	70314	72845	61316	192206	106312	66365	48361	39791	35951	40856	43183	38316	815814
1978	35593	33378	34662	32757	29392	37136	23555	248856	76676	46111	53621	51066	702802
1979	90197	86435	118563	115769	109759	121554	72471	54839	43089	39677	34748	38284	925384
1980	36067	31841	33468	30438	44783	28012	18367	14844	53266	45938	32355	36293	405672
1981	34881	31869	63962	64702	54726	227478	65821	58094	56054	103567	59355	38210	858719
1982	39347	33695	36307	31299	70773	39578	25043	19357	17962	9046	17862	27196	367465
1983	27240	29550	43452	31935	39682	43083	28603	20743	18507	20593	23451	19601	346440
1984	23472	20919	21080	14576	10051	7419	1520	3634	1413	17375	18072	28789	168320
1985	75627	45611	62363	48239	47543	117252	65999	28815	25709	81375	60423	58604	717560
1986	45551	48737	41008	31938	48347	77816	36878	23049	54402	89020	65754	133692	696192
1987	90235	70927	86236	60534	97675	374219	156202	69756	37792	44573	48352	47239	1183740
1988	43047	38564	39184	32102	37882	31596	65394	29778	24946	21871	19057	21685	405106
1989	28126	26772	29373	27712	24708	14639	7549	3976	3597	8403	13007	14063	201925
AVG	42311	40880	43581	45751	57958	57700	38833	34211	40352	44226	36394	39311	521508

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1700 - SAN MARCOS RIVER AT SAN MARCOS SPRINGS

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	6522	6010	7225	7845	8768	7640	8087	7056	6526	6440	6405	6848	85372
1935	7042	5830	6430	6677	11570	11595	9340	8279	7433	8348	8430	8293	99267
1936	7740	6905	6790	6300	7002	7420	10243	9620	9292	8580	7790	7670	95352
1937	7644	6805	7830	7360	8386	10101	8237	6997	6609	6872	6445	6803	90089
1938	9459	8500	8810	9929	8867	7927	7840	7640	7200	7230	6686	6550	96638
1939	6614	5935	6489	6308	6262	5556	4657	4307	5327	6336	6067	6859	70717
1940	7526	7031	6831	7676	6217	9260	4637	6279	6211	6923	6745	10490	85826
1941	8930	7773	9544	13041	17099	15229	14083	13159	9759	13219	9640	9654	141130
1942	8442	7359	7766	7533	7845	7677	9556	8086	19729	16455	13027	10847	124322
1943	9808	7536	8789	8318	8526	8247	8046	8357	7847	7727	6879	7081	97161
1944	7899	10301	15273	12069	15444	14695	13148	11733	9392	9694	9318	9824	138790
1945	11572	13929	15679	16935	14810	13611	11454	10488	9391	10980	8070	8586	145505
1946	8673	9442	11901	10742	12062	13220	19886	20063	12415	12381	15020	14665	160470
1947	15678	12000	13545	11847	12853	9994	9292	9621	9342	7752	8515	7875	128314
1948	8243	7280	6983	6669	5796	4973	6215	6567	6144	6337	6251	5756	77214
1949	6395	5976	6489	7299	10208	8227	7749	7566	6963	7907	7081	7568	89428
1950	6333	6332	7328	6249	7072	8737	7257	6949	5805	5615	5335	5277	78289
1951	6291	4694	5105	5327	5090	8837	6397	6017	5723	5498	5380	5178	69537
1952	4910	4663	4937	5479	5508	6834	6456	5436	7802	7871	8502	9076	77474
1953	9349	7775	8215	10101	8237	6997	6720	6340	8961	7857	8926	12207	101685
1954	8987	7565	7966	7319	7010	6367	5872	4801	5034	5208	5206	5652	76987
1955	5626	5518	5310	4671	5599	6382	5799	4926	4587	4513	4467	4652	62050
1956	4555	4337	4117	4029	4142	3949	3354	3295	3953	3973	4233	5213	49150
1957	4637	4075	6096	9589	13749	16260	9597	8350	10881	14218	13479	12996	123927
1958	12503	15181	16014	14000	17029	14043	12180	10507	10800	11403	12929	12414	159003
1959	10812	9823	10032	11053	11238	9789	9468	8718	8046	11200	9605	9303	119087
1960	9071	10074	9494	10709	13400	15122	13046	12536	12025	22090	14251	15068	156886
1961	14822	14002	14020	13187	12810	11911	12429	10693	10346	9534	10098	9210	143062
1962	8750	7652	8218	7942	7968	7169	6592	7028	8503	10252	8382	8539	96995
1963	7871	7019	7721	7659	7841	7482	6502	6072	5347	5032	5143	5311	79000
1964	5181	5104	5490	5840	6218	6663	6326	5688	5660	6533	6234	6289	71226
1965	7002	11150	10705	10038	17210	13489	12099	10838	9251	9850	8183	16356	136171
1966	11743	10073	11278	10169	10551	9865	9437	8917	7977	7861	7001	6936	111808
1967	6556	5448	6397	6578	7224	5725	5291	5260	6644	7291	8970	8860	80244
1968	20381	15625	14756	14382	14827	13907	12991	10510	9654	9247	8699	9038	154017
1969	8245	7596	9417	11152	13457	12814	11190	10011	9062	9403	8729	9398	120474
1970	9644	9563	12555	12758	18994	15510	14311	12292	11036	12304	11069	10284	150320
1971	9231	8183	8130	7693	7495	6889	6245	7149	6580	5674	7214	11769	92252
1972	11577	10567	9744	9199	11746	10528	10369	9709	8825	8712	9003	9942	119921
1973	10094	10186	12201	12815	13550	14612	16485	13782	13296	17226	16727	15186	166160
1974	13297	10873	11257	10342	13456	10821	9746	9402	10628	10865	19930	14661	145278
1975	13862	16265	14981	13859	28168	18527	16870	15524	12802	12685	11685	11205	186433
1976	10502	9608	8927	9588	15519	15311	16292	13315	12819	16446	17294	17583	163204
1977	17516	17147	17412	20323	16935	14920	13393	12007	11112	9847	8985	8458	168055
1978	7689	6729	7587	6845	7298	7412	6585	7034	8120	7597	10641	9081	92618
1979	12681	12065	15509	15226	16139	14079	17690	13015	10943	10121	8732	8727	154927
1980	8518	9146	7939	7093	8457	9025	8426	8103	8116	8225	7562	8004	98614
1981	7828	6980	7823	8297	8779	27367	17866	14961	12651	11957	10662	10163	145334
1982	9504	7918	8225	7603	14505	7957	7922	7555	7296	7371	7037	7351	100244
1983	7103	6670	9095	9710	10832	10806	10873	10290	9157	8437	8132	8065	109170
1984	7979	8016	7063	6443	6123	6100	5293	4786	4318	5946	6032	7149	75248
1985	8385	8405	10053	10176	9625	13366	19336	12439	11236	10495	20988	15226	149730
1986	13558	11154	11507	9769	14373	16940	14585	12780	11286	12352	10862	18003	157169
1987	15629	13647	15473	13047	12913	29006	21903	19092	16114	13397	29453	12617	212291
1988	10888	10175	9855	9069	10420	9239	9789	7642	7003	7586	7021	7045	105732
1989	7075	6256	6867	7067	16512	6707	6444	6056	5192	5231	4905	5203	83515
AVG	9364	8783	9486	9445	11067	10944	10212	9208	8824	9288	9465	9430	115516

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1710 - BLANCO RIVER AT WIMBERLY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	3200	3450	8180	16100	4180	1710	1360	1010	508	696	2110	1120	43624
1935	946	2140	986	801	26040	43770	6480	2510	7480	3650	2490	3330	100623
1936	2900	1980	2410	1790	12720	18990	36160	5900	27200	8670	6690	6190	131600
1937	9250	7970	14600	7900	3720	5060	3370	1530	1690	5780	1340	6370	68580
1938	21040	13740	8530	29000	22840	8190	4370	2090	1410	1220	934	1320	114684
1939	1540	1110	1090	2320	877	677	1900	697	526	856	774	782	13149
1940	603	824	1490	3510	1000	4210	2860	1140	1000	383	7730	25480	50230
1941	7860	28810	34530	33730	45740	35920	10910	3570	2380	6220	2590	2110	214370
1942	1820	1750	1830	12600	4770	2670	1770	3810	22650	15770	9640	6590	85670
1943	5220	3580	4410	5660	3590	2770	3890	1480	2890	1550	1230	1180	37450
1944	5270	13910	21590	11740	19280	13390	4950	8680	10570	2860	3040	15520	130800
1945	20590	22400	30380	16680	7700	5690	3780	2070	2020	3180	2020	6100	122610
1946	6240	10890	16470	8450	7450	5070	2850	2120	3430	4740	30290	20230	118230
1947	24350	13480	9420	6830	5100	3280	2050	1730	1310	1310	1230	1270	71360
1948	1180	1150	972	980	3940	1370	1220	699	612	1940	787	793	15643
1949	930	2530	2940	17480	11060	3320	1940	1350	861	990	869	978	45248
1950	908	1660	1080	2700	3850	2560	1460	938	844	724	684	661	18069
1951	624	614	828	828	1150	3200	499	359	784	437	525	534	10382
1952	476	493	552	2420	6180	4750	1460	666	84090	3830	2770	4810	112497
1953	7610	3960	3660	5210	3240	1540	1150	3600	12740	3740	3840	4450	54740
1954	2830	2110	1760	1340	1050	679	531	472	440	669	466	595	12942
1955	703	825	571	499	5670	1030	604	610	448	399	441	484	12284
1956	409	468	364	309	777	207	106	179	557	2186	1754	1634	8950
1957	569	1414	11525	56703	20574	21923	3622	1730	14175	29184	23604	15434	200457
1958	14534	27764	28604	14287	66197	18729	6448	3296	9704	9824	14194	6813	220394
1959	5074	6764	6586	13046	7408	6840	3761	3702	2586	23116	4596	6114	89593
1960	9935	12606	9544	8344	5836	3898	5649	5890	3226	46894	19069	27594	158485
1961	23596	52045	19665	8536	5166	23506	9605	5316	4286	3842	3431	3312	162306
1962	3096	2452	2633	2726	2692	10085	2966	1575	2577	1761	1500	2847	36910
1963	2264	1934	1935	6373	2490	1281	861	747	711	734	747	854	20931
1964	746	1148	2654	1781	1244	1245	621	560	2360	1874	3631	1575	19439
1965	3408	21309	7506	13883	46320	34100	6366	4077	4681	8707	6087	22437	178881
1966	11115	11110	11690	14132	13940	5949	4172	3095	4815	3259	2360	2101	87738
1967	1935	1567	1597	1576	1753	1154	787	639	3041	4414	8666	4946	32075
1968	69758	19706	16432	14202	19146	10073	5705	3394	3421	2970	2379	3450	170636
1969	2569	3458	5622	10023	17595	9798	4558	3287	2863	5670	3810	7769	77022
1970	6580	11568	24121	10945	29929	16442	5702	3580	3088	3271	2278	2149	119653
1971	1755	1421	1491	1358	1186	924	779	1183	1067	3916	4712	10888	30680
1972	5841	3751	3136	2242	16265	8691	4619	3924	2444	3922	5714	4678	65227
1973	7263	12131	13624	13946	12467	33934	57550	12380	8053	53675	17713	8983	251719
1974	6954	6073	5359	4313	4419	3088	2138	4458	7407	6302	13443	8873	72827
1975	10672	37910	12467	9280	33491	32827	17620	8870	6073	6401	6046	4589	186246
1976	4243	3503	4384	25312	30369	16163	19345	9776	6091	11163	16224	16761	163334
1977	14568	16666	11989	51137	21024	9960	5812	3615	2907	4181	3243	2869	147971
1978	2615	2583	2445	2382	1995	4330	1378	2224	6894	2860	3374	3645	36725
1979	16388	20935	39237	37857	28011	13735	9571	5885	4618	3819	3028	2797	185881
1980	2516	2434	2662	3596	8321	4630	2610	1481	2491	4647	2699	2909	40996
1981	2649	2968	11570	5562	4238	57401	11738	4879	3236	21127	8553	5182	139103
1982	3949	3180	3088	2845	20733	5885	3181	3016	1737	1792	2196	2104	53706
1983	1850	2798	8523	7694	9770	10295	5561	3483	2861	4414	3037	2651	62937
1984	2779	2376	2222	1558	1453	1981	1001	854	810	3788	2575	7216	28613
1985	17188	16826	22144	11640	5834	49733	14457	4985	3510	5879	10066	16898	179160
1986	8286	11995	6639	4413	19115	13938	5240	3330	21958	30840	15795	51716	193265
1987	24236	13572	20049	9501	12465	116019	25978	7595	4877	4239	6367	5098	249996
1988	4957	3647	3632	3064	7456	5705	4314	4696	2151	1846	1552	1449	44469
1989	1769	2178	2224	2346	11796	5229	2497	1551	1077	1067	977	948	33659
AVG	7539	8601	8851	10098	12368	13028	6284	3148	6040	7021	5498	6789	95264

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1713 - BLANCO RIVER AT KYLE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	2215	3188	7467	15784	3563	2408	2080	0	868	0	928	593	39094
1935	0	1800	0	0	27967	45140	5338	1228	6506	2470	1359	2119	93927
1936	2259	872	1764	549	11784	18179	37134	5141	26844	8129	6531	5861	125047
1937	8588	6840	15395	7029	3244	4400	2107	214	384	4776	297	5369	58643
1938	22833	13634	8179	30130	24817	7217	3485	1257	530	327	0	170	112579
1939	224	0	50	1032	0	0	650	0	0	0	0	0	1956
1940	0	0	341	2590	0	4974	1715	0	324	0	6600	26573	43117
1941	8267	28668	35660	35875	47955	38975	15525	2313	1815	6094	1761	2198	225106
1942	723	1170	523	11955	3777	2192	3497	2560	24948	18933	9253	5516	85047
1943	4608	2780	3222	4558	2488	1843	2643	165	2016	779	328	0	25430
1944	4642	13710	23735	12314	20452	15647	3853	7676	10331	1665	2298	15091	131414
1945	21639	23477	32257	18117	7092	4969	2661	856	809	2762	774	4987	120400
1946	5197	10291	17452	7903	7486	6695	2036	4178	3165	4079	30879	19773	119134
1947	25277	12510	10076	6269	6767	2032	1610	892	37	0	0	172	65642
1948	44	76	0	0	2954	50	0	264	0	710	0	0	4098
1949	0	1519	1670	17334	10087	2161	636	107	75	616	0	0	34205
1950	0	509	0	1740	2618	2433	142	0	0	0	0	0	7442
1951	0	0	0	0	0	3161	0	0	1437	0	0	0	4598
1952	0	0	0	1237	5041	3931	316	0	87083	2581	2518	3889	106596
1953	6495	3489	2427	5441	2062	2048	0	2458	12086	3334	3008	4039	46887
1954	1698	904	459	258	1171	0	0	0	0	0	0	0	4490
1955	0	1309	0	0	4755	75	0	0	0	0	0	0	6139
1956	0	0	0	0	0	0	0	0	0	859	552	565	1976
1957	2	499	9895	47233	20034	22873	2810	816	13535	30904	23054	15674	187329
1958	16825	28514	29104	14107	70608	15339	5507	2535	10184	10274	15564	7133	225694
1959	4754	6164	5985	12136	7367	5709	3100	3110	1995	21356	4495	5704	81875
1960	10255	12706	9335	7965	5505	3387	4068	4239	2135	38514	20989	28654	147752
1961	25216	54225	20005	8276	4366	23556	8935	3966	2986	2412	2791	2582	159316
1962	2285	1732	1753	1705	1312	9065	2095	678	2316	1201	868	2906	27916
1963	2044	1744	1621	4411	1720	535	65	2	1	1	0	0	12144
1964	15	231	1423	555	132	1081	3	2	18	1182	2800	630	8072
1965	3317	23829	7515	14283	46811	35133	5495	3106	2968	7405	5147	22457	177466
1966	10215	10320	11020	14022	14423	5186	2911	1915	3293	1997	1399	1259	77960
1967	1052	762	637	854	520	239	5	2	2907	2692	9585	3385	22640
1968	81118	20836	15872	12662	19786	9193	5055	2152	1901	1369	1428	3109	174481
1969	1908	3719	6081	10192	20024	8912	2976	1549	1421	3999	2219	6858	69858
1970	6784	13598	27453	12027	40975	20389	5600	2793	2078	2250	1632	1382	136961
1971	1163	909	770	585	255	37	2	923	73	2414	4841	11877	23849
1972	5460	3300	2234	1407	15975	7776	3325	2437	1168	2909	4703	3866	54560
1973	7072	12000	13583	15255	11805	34203	50915	12098	9401	66325	19232	8952	260841
1974	6563	5472	4448	3439	3746	2003	933	3915	6464	6539	19472	10322	73316
1975	11031	36880	12246	8288	35431	39247	20173	7632	3980	5499	3805	2937	187149
1976	2462	1932	2123	28402	35479	17412	19174	7063	4019	10062	15664	16721	160513
1977	14067	16575	11747	53946	22172	8599	4103	2449	1720	2987	2799	2066	143230
1978	1963	2051	2003	1547	1158	2119	125	1032	4412	1496	3183	3113	24202
1979	17977	23534	40467	37117	29421	13675	8920	5033	2845	1936	1755	1954	184634
1980	1863	1592	1649	2095	7799	3447	1054	454	1438	3525	1528	2378	28822
1981	2184	2534	9448	4719	2874	82801	13900	4244	2421	20878	8381	4860	159244
1982	3715	2766	2403	2210	23113	4155	1586	1341	253	269	502	815	43128
1983	1188	1947	8202	7563	10329	8749	4176	2181	1847	3183	2085	1848	53298
1984	1966	1593	1269	637	481	496	49	3	2	1004	783	5175	13458
1985	17417	15815	22113	11619	5432	57682	16956	3730	2536	4887	12606	18878	189671
1986	8335	11154	5687	3610	22454	16487	4565	2145	20707	30630	16194	51516	193484
1987	27666	14901	23028	9949	12413	124419	26477	7521	4434	2996	15046	4926	273776
1988	4295	3085	2849	2109	7374	4920	2360	2402	584	449	383	583	31393
1989	807	1055	1020	1382	11124	4416	1059	118	26	19	13	16	21055
AVG	7459	8299	8494	9579	12652	13603	5605	2195	5274	6280	5215	6276	90930

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1720 - SAN MARCOS RIVER AT LULING

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	11349	13213	21411	32003	12375	8413	9055	6907	5984	5835	8430	12349	147322
1935	8164	16020	6545	6622	63575	85032	16478	10225	26012	11921	10596	17859	279049
1936	10693	8330	9665	7294	39160	29110	140597	16302	42044	21668	15200	16011	356074
1937	18820	15704	33509	16664	11409	26572	11300	7647	7270	12423	6787	14312	182417
1938	46045	25617	19854	71204	39686	18053	12021	8957	7666	7410	6489	6888	269892
1939	7247	5907	6622	8067	10356	7097	9797	6217	5757	5896	5665	5736	84364
1940	5724	6005	7235	11325	7855	37076	11656	5886	5916	7545	29354	64644	200221
1941	23565	42775	52195	92165	88775	64245	32895	16875	12735	19555	11475	11335	468590
1942	10597	8450	9252	22314	13012	9905	59997	10678	80755	54860	26539	21102	327461
1943	17902	14048	15462	14736	14152	12466	12890	8491	11921	8632	9038	9042	148780
1944	18967	25590	52083	26188	54483	36958	18573	17453	16143	12325	18021	38504	335288
1945	48104	49767	68951	51555	22013	17857	14531	11562	10012	12094	10169	12673	329288
1946	19473	24223	41044	22064	20563	21054	11424	18664	31734	19364	55633	43463	328703
1947	54593	30393	27764	26694	22514	13725	11715	26725	9565	8954	7974	8434	249050
1948	8099	8039	8170	6860	11950	6431	6671	5561	5401	9220	5719	5780	87901
1949	6622	19442	9531	70012	22972	11272	8522	7203	6842	45852	7262	7582	223114
1950	7420	10530	8161	17520	11470	28771	7180	6001	6111	5420	5370	5160	119114
1951	5151	5000	5591	5091	6681	26272	5532	4712	6151	4791	4870	5100	84942
1952	5074	4544	5194	6184	17344	13014	6964	5334	93704	10514	16224	18534	202628
1953	18756	11646	10386	38007	12657	8877	6377	6176	21587	16496	12866	21216	185047
1954	11245	8846	9288	7630	12301	5332	4762	4471	4168	4226	4455	4935	81659
1955	4734	8526	5771	5417	16261	10078	4886	4754	4083	3556	3635	5204	76905
1956	4788	4568	4483	4600	7040	3421	3512	3844	4853	4380	4108	5662	55259
1957	4638	6657	17562	109882	61482	52961	12891	9910	39417	57250	45878	33598	452126
1958	41446	93325	54737	33658	98252	32154	18374	12752	28628	28078	32855	21924	496183
1959	18083	20392	18698	39337	22929	17871	13802	12233	9466	46904	19313	16501	255529
1960	23746	25567	20086	46848	21037	74687	18983	16294	12630	90977	46299	51715	448869
1961	47734	73163	37924	24334	17355	56785	23144	14616	12494	12692	19911	12361	352513
1962	11291	9317	9945	10334	8900	14952	8354	6954	13676	12560	8446	10920	125649
1963	9880	11787	9459	11465	9271	6877	6364	5675	5271	5137	6657	5943	93786
1964	6399	6198	9219	6806	6704	9424	6529	5861	9250	7693	11781	7328	93192
1965	22509	64503	25086	29071	90291	68055	19519	13812	12325	16286	15974	51675	429106
1966	24327	24563	24772	24256	27129	17112	12178	10717	12285	13233	8860	8632	208064
1967	8103	6916	7792	7007	6980	5430	5168	5445	26090	12658	32330	13901	137820
1968	141201	42343	34532	48311	40113	29381	18375	13238	12920	11334	14313	21137	427198
1969	11705	24089	25560	33987	47027	25430	15380	12370	11354	13066	11433	20160	251561
1970	16638	24939	43264	26217	93582	42222	22655	17365	14115	18222	12469	11448	343136
1971	10323	8544	8546	7587	7606	6508	5794	8344	9506	8117	10693	23882	115450
1972	16146	12625	11548	9772	106151	27609	15394	13140	9607	11524	13779	12676	259971
1973	17915	25751	34641	42172	28977	65227	74145	30803	31767	119361	44320	28040	543119
1974	28253	19478	18432	16068	26055	16414	10692	15982	44218	17589	84207	37651	335039
1975	29560	64873	30158	24751	127157	75051	45122	28411	18836	18755	15789	15083	493546
1976	13515	11556	12382	58337	90239	52206	41761	24126	18612	61849	57091	53479	495153
1977	45920	52340	36512	110688	52187	30131	19965	13973	12180	12638	13521	11686	411741
1978	11327	10536	10312	8672	8418	10802	6524	7076	11193	8819	17342	14453	125474
1979	43851	39200	62603	78877	61324	31404	26083	21527	15443	13058	11890	12438	417698
1980	11439	10444	10609	9799	22490	12056	8753	7829	15590	12595	11096	11696	144396
1981	12067	10860	19336	14743	14043	184740	47813	31601	24388	45661	39939	15298	460489
1982	13601	11286	11798	10223	53665	15248	10277	8508	7062	6878	7139	8094	163779
1983	9078	11112	23709	17203	27605	35980	16957	12138	11874	11528	10953	9389	197526
1984	9078	8726	8181	6344	5793	5266	4517	4242	3803	7122	6678	10639	80389
1985	30445	23580	34427	22962	24049	92849	49545	17409	13974	18941	63144	46286	437611
1986	28395	25626	18894	14594	39158	43529	18858	14438	28362	42273	29735	91044	394907
1987	49925	51032	45965	25711	44209	290979	53017	26675	20094	16698	34649	21784	680738
1988	17460	14535	14459	10909	14714	15230	11019	9083	6585	6325	5727	6343	132389
1989	7339	6567	6987	8265	25072	11529	6327	5601	4686	5040	5291	5315	98019
AVG	20830	21779	21363	27132	33367	35306	19672	12121	17038	19711	18846	19358	266522

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1730 - PLUM CREEK AT LULING

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	3634	6344	8564	9174	316	71	1914	118	479	108	1784	7874	40375
1935	2383	12473	618	666	35303	33093	672	243	15333	718	520	9173	111194
1936	1092	952	2002	557	25072	884	120552	910	3092	5382	1072	3142	164712
1937	2212	1282	13342	1812	608	17362	380	343	231	275	360	2322	40525
1938	19181	2791	2801	40411	7691	2531	391	198	234	144	274	359	77006
1939	392	346	484	763	1700	324	1100	144	119	49	131	203	5759
1940	223	360	430	1810	456	11800	9470	122	95	990	19730	32680	78162
1941	7399	7949	11359	46969	24989	22089	8419	1299	430	1469	477	568	133417
1942	503	573	494	3379	396	195	44459	323	23349	13619	3609	4089	94983
1943	2648	696	1378	807	2078	548	2208	80	450	181	415	318	11807
1944	7307	8947	15577	1027	19017	10397	1017	2417	4377	249	10227	19217	99781
1945	19157	11097	11087	22187	2797	6507	593	432	354	880	556	724	76370
1946	6296	5776	35506	6066	12746	9666	692	14556	12696	3176	28706	9746	145632
1947	21726	2286	6466	8736	3556	643	450	33056	565	378	358	487	78704
1948	616	679	527	423	4645	766	300	131	36	342	105	141	8714
1949	763	11415	591	37625	1915	538	522	119	19	21415	322	399	75639
1950	345	1624	345	8984	2544	32434	2104	35	99	15	65	107	48702
1951	171	144	460	204	1294	25164	13	0	1114	0	44	153	28757
1952	233	152	171	1053	1793	6083	245	0	4043	0	12673	4603	31050
1953	742	547	361	39303	1753	407	117	0	1533	7503	1113	4813	58187
1954	598	196	122	128	1572	17	252	21	17	0	0	0	2923
1955	5	2612	54	1342	4102	2032	0	214	0	0	0	111	10468
1956	54	195	5	2411	2081	0	0	0	0	0	0	304	5050
1957	0	690	5241	51341	3271	3281	0	0	28831	25561	9181	4621	132014
1958	13290	27240	2720	2240	8290	254	1400	0	8310	4560	2760	733	71797
1959	879	7099	989	14679	2589	1149	342	120	71	8869	3939	1109	41840
1960	3569	4149	1559	45219	4289	25099	911	2749	688	78669	6639	9849	183389
1961	12529	13319	1749	923	428	57679	2669	382	5799	989	5959	1009	103429
1962	1058	881	968	1438	336	1908	238	0	2488	4018	498	3288	17121
1963	464	5338	490	2049	345	82	0	107	152	0	604	140	9770
1964	233	392	2278	334	75	3530	0	0	12789	1738	2598	250	24216
1965	28207	41197	2397	2257	41178	14368	345	70	42	737	6127	26787	163712
1966	1347	7657	5018	3078	4519	749	319	251	909	3137	348	380	27713
1967	321	253	213	127	1217	30	0	46	12847	11346	18926	1386	46713
1968	56916	5276	3036	22726	8506	23746	2206	290	1056	1116	7136	22556	154563
1969	1835	21325	18335	21135	20010	2067	370	269	611	692	1485	7215	95353
1970	2505	13715	15545	5375	32935	3737	595	258	670	7667	950	506	84457
1971	556	564	968	274	188	106	49	4225	600	154	231	3153	11073
1972	569	442	218	85	36900	3528	182	133	88	166	480	332	43123
1973	1744	4286	9239	8158	1110	24754	4516	144	1906	55532	4604	1155	117148
1974	12215	1963	857	480	12248	3603	115	12905	24643	1812	57390	20337	148568
1975	4599	23174	1984	5008	118040	28957	8458	1418	593	4501	862	1624	199218
1976	1565	1050	921	65924	66087	22183	3409	635	685	38852	27442	19947	248700
1977	9590	21239	3201	57068	5796	7131	1108	565	634	978	798	677	108785
1978	796	1156	1247	659	443	8528	188	276	555	189	5813	1581	21433
1979	17815	14053	11437	12234	14230	2770	2381	573	354	254	356	572	77029
1980	640	503	551	404	17994	776	59	0	3455	1008	549	373	26312
1981	798	701	1449	1047	1407	62793	5834	554	392	6342	6899	492	88708
1982	675	783	685	1591	38446	869	413	51	222	222	480	385	44822
1983	1122	6668	16786	2656	17482	4871	639	159	904	535	2319	598	54739
1984	1132	1161	811	333	186	366	116	54	0	3548	279	897	8883
1985	3295	1135	3825	9129	6683	16923	17032	475	1005	958	61876	14167	136503
1986	5554	4464	1734	821	17629	8793	482	194	842	4273	1028	36191	82005
1987	5161	23821	7480	1066	13008	141980	2912	561	504	390	1046	1177	199106
1988	895	808	1771	523	1693	425	231	67	93	203	204	290	7203
1989	502	296	639	578	19005	815	38	0	2	150	72	90	22187
AVG	5180	6004	4269	10300	12053	11811	4525	1470	3239	5822	5757	5096	75528

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1746 - PEACH CREEK AT DILWORTH

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	452	864	14393	16108	0	0	0	3393	1179	105	9201	1835	47530
1935	0	4214	0	58793	62830	10364	332	19	18941	714	647	23857	180711
1936	1950	0	0	1301	78864	7081	270220	21	324	4320	0	0	364081
1937	1522	377	19128	303	0	9709	0	130	9216	1022	0	0	41407
1938	3096	121	561	38554	3518	1788	2069	6737	0	519	2402	1119	60484
1939	25	5373	3107	0	585	1368	0	1	7755	28	0	273	18515
1940	0	0	0	0	1078	44590	54147	85	0	0	23604	30652	154156
1941	6913	5965	6218	53643	69911	15582	432	43013	0	0	0	0	201677
1942	572	0	1799	8554	0	0	26103	0	0	0	2045	11093	50166
1943	2473	2050	3052	0	4866	14	1492	2586	0	0	79	60	16672
1944	5671	203	5288	0	1929	0	2462	5173	2336	0	3795	10312	37169
1945	13842	6041	14602	19397	3322	4222	68	1654	0	0	0	125	63273
1946	9128	9176	47426	11201	10118	680	357	1294	1638	2050	42505	12552	148125
1947	15801	1429	4539	8480	0	4315	0	18147	0	834	286	3865	57696
1948	118	200	188	5	3510	551	2679	0	0	0	0	0	7251
1949	0	38635	3187	50199	6717	387	148	0	0	6861	0	636	106770
1950	2231	455	17	1626	0	38011	0	826	5944	0	0	0	49110
1951	2	0	0	312	212	24239	0	0	0	0	1125	0	25890
1952	0	184	0	0	5038	908	15105	0	0	0	7679	8021	36935
1953	1302	4547	0	13771	10498	0	0	0	0	6	0	5533	35657
1954	0	1712	0	5535	3685	0	0	1	0	216	0	0	11149
1955	0	142	974	0	4383	3491	0	2233	0	0	0	1	11224
1956	0	2459	118	1230	0	0	0	0	0	0	0	481	4288
1957	0	0	3288	19353	1955	0	0	0	49429	41176	12490	159	127850
1958	18325	21536	25	1858	25500	1339	0	0	678	0	10666	969	80896
1959	2983	1530	0	30147	5800	0	0	137	133	987	1310	1280	44307
1960	2260	4420	415	6930	15610	40340	690	185	0	105700	21980	16620	215150
1961	19120	10050	1000	1120	1830	69520	22380	467	44130	840	31220	988	202665
1962	1670	1180	506	3850	526	1020	3	0	1960	370	13	1330	12428
1963	68	3820	44	24	0	0	0	0	0	0	5820	340	10116
1964	666	1950	16500	818	48	2210	1	153	2520	40	0	0	24906
1965	1190	28300	287	154	28870	15090	44	13	547	7000	43420	23700	148615
1966	897	13980	3530	12890	28690	1400	60	212	37	0	0	0	61696
1967	0	12	1	64	487	162	82	251	26850	2530	1520	231	32190
1968	47060	2160	3240	9670	18710	111100	1740	200	38760	858	3670	23980	261148
1969	1260	40390	35940	26550	11990	533	42	72	202	164	206	479	117828
1970	1820	3990	6000	736	11780	1250	7	0	2850	10580	414	265	39692
1971	260	199	1460	86	171	114	30	2390	13210	521	314	9110	27865
1972	3613	1873	565	53	103893	7623	116	273	5	516	256	129	118915
1973	4723	5150	22333	59353	8471	68701	5340	184	3420	66079	5350	1356	250460
1974	70608	3379	1228	580	890	2196	14	2086	21206	227	20076	2088	124578
1975	1367	9646	970	6179	70483	11644	3534	1307	606	176	537	271	106720
1976	291	191	2086	59323	48044	6778	400	84	122	41452	25723	68491	252985
1977	5224	34294	2035	182182	3246	1248	274	27	81	0	848	85	229544
1978	1054	2168	551	508	234	10856	35	346	9464	102	3783	1658	30759
1979	40880	20773	17193	22442	51119	54952	2923	309	259	0	0	802	211652
1980	1970	18	0	0	34184	7097	9866	0	0	0	11	898	54044
1981	2	256	0	734	219	77699	2167	60845	11025	1217	34067	2112	190343
1982	119	1162	0	0	79715	0	0	9152	0	81	0	0	90229
1983	0	4024	12519	0	7897	0	2815	0	0	0	444	0	27699
1984	2699	47	1621	2	0	0	0	0	4618	1786	0	1292	12065
1985	13809	1355	2571	0	3077	229	0	33509	0	581	16219	0	71350
1986	3018	2813	5594	0	15155	14416	0	0	0	205	4996	48116	94313
1987	5248	21980	1233	0	0	306176	1684	3980	1488	0	1933	250	343972
1988	429	0	2660	0	0	796	0	0	0	0	2178	436	6499
1989	926	0	0	0	19894	3469	678	0	1197	0	0	660	26824
AVG	5690	5836	4821	13118	15528	17594	7688	3598	5038	5355	6122	5688	96076

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET
1750 - SANDIES CREEK AT WESTHOFF

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	13489	6989	18389	2879	70	8	8409	629	270	77	8665	9087	68962
1935	1526	6583	1478	11391	66663	84291	4366	2092	15114	2706	1555	4069	201833
1936	1535	1353	2370	1631	23318	2111	52826	1795	4462	3176	1833	1766	98177
1937	1775	1401	2581	1641	988	41042	1411	1161	2015	1535	916	22090	78557
1938	15881	1958	9654	43931	7091	2927	1545	1142	1036	921	1113	1305	88504
1939	1180	1027	1075	842	1401	905	970	1824	564	586	490	669	11534
1940	767	822	796	6113	1488	21601	6458	534	506	4165	32233	29680	105162
1941	9846	15565	9087	44391	42673	17618	2956	1958	10037	10354	1574	1555	167613
1942	1391	1228	1305	4932	2869	1065	80079	3464	84253	33250	4472	3109	221418
1943	2984	2207	2898	1727	4376	4078	4222	1008	2226	1123	2389	1372	30611
1944	7139	1996	4932	3426	37943	3253	1612	1670	2322	1180	1468	3934	70876
1945	11074	13876	10488	12341	1622	4213	1094	1027	663	3723	1056	1161	62337
1946	1890	2073	5048	15450	36522	13569	1248	53632	47779	14816	6717	3503	202245
1947	10354	2130	4779	2869	14855	2034	1401	1727	1056	919	1132	1315	44572
1948	1286	1459	1257	1046	3819	1142	2572	9529	1593	2313	826	892	27734
1949	1104	2822	1172	44335	5366	15586	2036	2189	1028	30305	1977	3666	111583
1950	1546	1739	1357	2960	1167	15294	1138	1147	1126	698	712	876	29760
1951	930	944	1187	992	2394	10101	616	509	2069	638	778	844	22001
1952	879	1577	935	2656	3494	1035	797	413	46904	1157	1519	4230	65595
1953	1517	1051	1017	2937	4130	812	564	5752	16227	1637	1020	3530	40195
1954	1076	881	888	971	2455	919	484	326	386	912	714	598	10611
1955	726	2202	3052	762	2845	3947	478	1050	1459	654	494	837	18505
1956	627	534	434	504	1138	120	506	173	1508	2611	633	8320	17108
1957	660	1315	5796	60388	37875	28233	1494	870	32156	10076	8137	1958	188959
1958	20257	46723	3570	2466	30510	2263	1910	935	5623	10479	4472	1468	130675
1959	1564	1679	1372	8512	4406	1209	1439	40	0	790	665	434	22110
1960	1200	1120	436	1270	255	19010	5650	4620	483	105660	27910	5910	173524
1961	12209	15069	1309	1029	284	71019	8509	596	1729	1019	7169	723	120664
1962	653	576	436	1939	431	1739	193	0	3019	551	1729	1689	12955
1963	531	4959	304	153	13	22	68	0	242	0	1589	478	8359
1964	898	3488	6198	4458	680	899	0	564	2878	978	259	299	21599
1965	18708	40308	653	458	14968	26568	129	70	42	16558	2998	7558	129018
1966	816	5497	1157	15877	24617	2077	687	138	875	223	76	133	52173
1967	208	182	120	311	562	29	186	2697	241557	12677	8997	997	268523
1968	42327	4507	2147	1557	33507	44237	2397	354	3887	517	535	5087	141059
1969	2686	32226	25656	35756	17246	1276	156	670	1566	2266	465	2726	122695
1970	3546	1886	8076	681	4046	2456	204	28	232	218	174	245	21792
1971	265	219	226	169	53	3816	499	3286	22376	2126	356	2396	35787
1972	2422	1725	560	181	126723	5543	286	360	330	296	390	416	139232
1973	911	3300	4539	42716	5500	96527	1604	639	1567	72434	4567	985	235289
1974	47795	2155	842	476	4235	4705	182	3005	26655	1475	10945	1335	103805
1975	1005	4285	784	14525	61845	19295	7755	735	692	410	535	625	112491
1976	613	617	519	16501	20171	1783	2060	161	4221	32738	27201	59517	166102
1977	9008	18574	1400	80980	10627	1719	374	78	2449	706	11568	565	138048
1978	803	1870	2349	3190	676	2900	127	1269	8130	487	2121	1570	25492
1979	37797	14040	2028	38089	61150	11902	2473	962	889	278	373	808	170789
1980	1004	1244	582	447	12378	545	73	188	6402	533	1226	696	25318
1981	1161	859	906	4884	9212	21985	2645	9384	153855	1729	2546	528	209694
1982	659	7549	960	492	14114	423	86	58	91	1010	2002	1965	29409
1983	616	5468	9542	636	1109	407	1541	1023	6756	845	6764	591	35298
1984	1991	585	4232	525	230	150	14	25	84	1548	451	951	10786
1985	3801	2147	5548	4147	2406	673	351	48	1157	7516	11001	4755	43550
1986	1031	2028	612	425	2248	8232	319	125	144	1250	2822	31721	50957
1987	4547	23786	8786	531	2181	167725	4163	386	272	120	420	1629	214546
1988	610	489	1091	493	397	250	61	22	25	93	50	86	3667
1989	1007	1644	1451	1964	4124	436	46	49	39	663	405	353	12181
AVG	5604	5795	3399	9946	13883	14245	4026	2288	13840	7281	4022	4457	88786

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FeET

1758 - GUADALUPE RIVER AT CUERO

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	81445	71244	131643	99043	44445	28346	42345	28946	23546	24996	59934	103845	739778
1935	39241	100840	38812	61310	510038	581937	110240	70351	315039	91131	58281	119330	2096550
1936	81367	55462	60442	44880	281633	130788	1081459	75450	182980	253529	98860	89387	2436236
1937	80904	70323	164913	76033	54791	153828	53421	38680	35522	45996	35911	66222	876544
1938	153177	89854	83800	295816	287597	76227	54467	43831	38400	33891	34894	37742	1229695
1939	40268	33118	34341	32370	40489	39850	43805	23060	22170	28737	23972	27527	389706
1940	28556	38163	35546	53717	42204	61594	388265	29236	24593	35381	362213	331813	1431281
1941	149393	208754	256846	266890	761781	270444	146565	81253	64562	78250	66315	53275	2404327
1942	49223	41112	45053	147382	92370	50617	368178	53296	247672	161423	98983	84024	1439334
1943	81324	57228	64855	57138	51645	77328	53662	37830	41397	37070	35410	41417	636305
1944	76951	88847	172867	84818	198230	171692	69533	51025	98349	49127	70057	123628	1255124
1945	188472	171268	160678	315273	87808	74452	52465	40102	35128	72914	43975	59270	1301805
1946	72647	96336	179718	86097	119916	132001	45970	59922	273441	241579	206853	130091	1644570
1947	209264	112034	125551	122714	125416	64886	51914	77987	37894	32709	34665	40694	1035727
1948	37805	43756	43702	30044	81769	30709	42626	31070	21117	25916	21035	23543	433092
1949	27108	51527	90546	231739	161229	62914	51181	37520	31246	158974	47010	56661	1007654
1950	39963	46150	38166	71677	52160	131830	33385	20465	20247	19287	18509	22389	514227
1951	21523	20904	23680	24589	31919	128550	17232	9937	20012	12500	16334	17578	344757
1952	18147	20441	18203	32253	78108	76026	26740	9625	225767	40023	53182	109158	707674
1953	95496	42641	36765	40242	148719	18038	17748	27468	97084	97396	37790	50424	709809
1954	32594	25214	22853	26290	40136	13087	7778	5448	4802	5661	9878	12604	206344
1955	13601	48831	17926	15273	44160	44413	11801	11511	7717	4436	4529	9126	233326
1956	9838	12512	7915	7884	12120	2321	2223	1166	1702	8241	2016	27033	94968
1957	5381	20132	66833	234274	407224	300903	38806	20025	218222	465288	237711	115179	2129978
1958	237500	457185	228867	113109	250889	99289	72208	42603	112925	107143	125002	83477	1930196
1959	72908	102559	74855	186239	96850	64399	75662	48289	40586	145471	72111	63700	1043630
1960	82317	81143	68970	72556	139218	163082	154801	105785	60539	540221	439636	191476	2099742
1961	223486	244510	143073	90717	66494	388731	153305	67524	106734	59230	125379	56760	1725942
1962	51621	46201	44347	52333	42626	48780	29148	19019	40505	36832	37259	45497	494168
1963	39623	54104	38432	42183	29513	22268	19456	11866	11486	11709	42835	26345	349819
1964	26468	46346	78811	41567	25756	36918	16628	15554	65070	38436	51922	27685	471161
1965	98259	290090	72223	82173	353179	293487	64355	42468	34225	82343	118252	172116	1703170
1966	75709	99260	100697	132896	161694	68853	50854	51824	57626	50966	39343	34954	924676
1967	35888	29660	32741	28032	23285	15633	15198	18970	538096	104347	126633	57334	1025817
1968	529777	147203	119434	172706	244776	326943	85302	52553	91363	46715	55713	124225	1996710
1969	52262	185239	176742	193524	187495	85941	49281	43419	47248	107686	61932	98812	1289581
1970	88359	99453	170014	100756	222695	138875	71287	49221	44485	66260	40061	40735	1132201
1971	37935	32059	34573	26423	23834	26407	17249	137295	131306	95386	76274	118171	756912
1972	78105	68740	58492	42943	791567	142901	72434	68979	47719	49979	52211	49674	1523744
1973	67570	88833	146801	288071	116930	419266	273533	130592	128071	632152	159804	112654	2564277
1974	213209	90056	81320	66356	128995	85870	44598	91537	222859	78685	275781	153620	1532886
1975	113623	255962	127308	133478	638267	319325	175638	97617	74636	67763	59962	58842	2122421
1976	54670	49953	54288	301364	390426	167350	141789	82239	83403	268520	305425	385671	2285098
1977	160805	247485	119140	695886	255461	129975	85974	64771	61445	58663	90005	55658	2025268
1978	54620	55074	57454	56245	39904	82035	33267	270369	154362	68359	104125	75283	1051097
1979	283060	207845	245074	330833	412340	350750	135987	98267	73150	58661	53428	58542	2307937
1980	63461	54471	52950	49107	154685	51307	32247	28789	85341	63857	47834	52989	737038
1981	52817	48901	92359	106980	101360	597832	189394	128992	664201	161495	230463	86821	2461615
1982	74228	77910	61351	53990	324981	76058	45733	32120	28382	30758	44121	42222	891854
1983	45356	69517	118981	68647	99378	85496	56048	39320	46930	39432	48867	34798	752770
1984	41957	33839	41044	27089	20068	16837	6974	8393	6558	41331	27859	50624	322573
1985	135120	83081	125479	107321	92156	211046	144264	53305	40996	117076	227109	162433	1499386
1986	92722	92585	67433	50672	102712	189368	66265	42636	87776	151174	138500	373942	1455785
1987	205217	192872	245589	112905	178036	1483837	268575	154607	99950	86218	91009	81517	3200332
1988	67837	58980	69400	50098	54845	59206	84437	51955	37617	31974	28375	31716	626440
1989	41233	36469	40226	38596	84528	36941	18235	10220	8119	13798	20121	21227	369713
AVG	91632	94541	91252	113813	171622	160853	99320	54398	96827	98877	90994	85384	1249514

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1765 - GUADALUPE RIVER AT VICTORIA

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	86478	75809	138989	104888	47777	30938	45580	31565	25918	27434	63978	102515	781868
1935	48117	107411	46507	66263	483301	537300	113910	71553	273004	121411	63934	126109	2058820
1936	86399	59302	64511	48233	295892	138096	1132585	80210	192693	266493	104698	94788	2563900
1937	85915	74847	173793	80820	58601	162197	57166	41748	38446	49401	38852	70557	932343
1938	161514	95275	88941	310725	302127	81016	58253	47127	41450	36735	37786	40765	1301714
1939	43410	35931	37209	35147	43638	42969	47105	25407	24479	31348	26365	30084	423092
1940	31160	41208	38469	57475	45432	65712	407434	31865	27012	38297	380186	348384	1512634
1941	157561	219658	269965	280471	798172	284187	154599	86279	68822	83141	70658	57018	2530531
1942	52773	44289	48409	155448	97900	54222	386413	57020	260359	170137	104823	89175	1520968
1943	86356	61151	69127	61052	55307	82169	57411	40851	44586	40063	38329	44611	681013
1944	81779	94222	182111	90004	208639	180875	74006	54645	104156	52671	74566	130604	1328278
1945	198442	180445	169365	331082	93135	79161	56161	43229	38032	77559	47290	63289	1377190
1946	77280	102060	189280	91344	126719	139357	49359	63954	287318	253991	217667	137369	1735698
1947	220187	118478	132614	129643	132467	69143	55566	82841	40914	35496	37546	43853	1098748
1948	40823	47049	46981	32683	86786	33358	45814	33727	23345	28379	23280	25906	468131
1949	29639	55183	95991	243687	169924	67070	54787	40496	33953	167570	50454	60550	1069304
1950	43089	49561	41197	76239	55816	139145	36151	22638	22444	21456	20649	24709	553094
1951	23799	23152	26037	26971	34631	135700	19233	11599	22187	14351	18370	19674	375704
1952	20276	22675	20318	34998	82958	80763	29194	11285	237432	43143	56917	115472	755431
1953	101181	45895	39734	43358	156827	20109	19794	29964	102820	103161	40819	54035	757697
1954	35382	27664	25173	28749	43224	14902	9333	6901	6282	7202	11618	14475	230905
1955	15522	52368	20025	17232	47439	47683	13543	13252	9330	5922	6035	10845	259196
1956	11588	14372	9551	9474	13910	3663	3538	2446	3036	9888	3379	29559	114404
1957	6923	22355	71207	246360	427271	316028	41813	22151	229529	488019	249959	121781	2243396
1958	249741	479549	240708	119600	263726	105103	76778	45800	119414	113378	132060	88624	2034481
1959	77570	108589	79590	196109	102594	68466	80265	51635	43722	153468	76737	67938	1106683
1960	87412	86186	73451	77160	146892	171645	163056	111802	64600	566388	461194	201599	2211385
1961	235085	257078	150930	96151	70790	407887	161654	71907	112908	63241	132452	60682	1820765
1962	55284	49626	47669	56003	45827	52276	31689	21034	43625	39794	40288	48899	532014
1963	42704	57843	41359	45193	31860	24192	21207	13214	13062	13428	46052	28830	378944
1964	27453	46191	74167	41175	28948	36625	18489	19759	58343	45103	54373	32641	483267
1965	99358	286617	83145	87720	339534	278993	70390	47102	38860	85016	117669	181182	1715586
1966	74998	91982	97289	128293	171701	69063	53978	51305	55566	50114	40190	36453	920932
1967	37225	30559	33091	28522	23473	16801	14813	18464	574266	131178	128692	66671	1103755
1968	531960	165757	129930	175815	305527	362285	104233	60362	99148	51603	56457	127300	2170377
1969	56654	182996	181516	226630	202545	89643	52999	46798	53779	108642	65070	103278	1370550
1970	95332	99016	181961	103631	236466	154630	69500	52100	49001	66639	43466	43590	1195332
1971	40909	34501	37392	29087	26050	24522	20989	131605	158406	107423	80053	123790	814727
1972	85195	74104	63047	45400	787753	162405	85191	78622	56194	57313	57723	54046	1606993
1973	71889	95923	158222	308622	128735	464779	282486	149475	127539	689617	179409	117829	2774525
1974	217449	97933	86499	71542	148291	94126	52792	88893	232423	87915	279906	178027	1635796
1975	125147	258808	134809	132211	586415	347551	200509	107532	79111	75291	64096	78402	2189882
1976	57158	50821	55455	318009	391810	190954	152754	87313	90854	264266	309770	417236	2386400
1977	178165	262088	132078	648027	272056	145638	92409	72797	65331	61449	94424	60251	2084713
1978	57699	58524	58647	59390	48215	91944	38808	268735	207047	79747	113639	74014	1156409
1979	298688	209793	237790	323820	452855	350838	132465	109625	96331	59942	53669	54511	2380327
1980	69966	55184	50021	44520	168866	58069	35437	27823	86551	63421	47883	52881	760622
1981	52667	48678	90735	106649	122963	637252	217641	93956	671753	176970	247555	88148	2554967
1982	76067	90760	66106	57290	350346	79960	46405	32193	29963	36631	63426	44549	973696
1983	42896	81984	133870	73726	96430	82334	78273	36949	44699	45532	50532	31973	799198
1984	48150	38081	48323	28464	23551	19496	7796	7690	7048	43188	33668	54645	360100
1985	141303	89072	144887	145245	99933	212235	155366	55937	43455	122699	202243	194488	1606863
1986	103956	99060	75460	57224	105743	197535	68359	41916	83696	152049	136978	378275	1500251
1987	241218	183262	283486	118707	172136	1611559	300014	179784	101017	91029	96840	86753	3465805
1988	68463	59464	72696	53041	55410	58861	80355	52944	38102	33566	29163	33683	635748
1989	46383	42096	46642	45908	90571	38354	18558	12251	8271	13982	20132	23428	406576
AVG	97138	98973	97080	118772	178677	169853	106329	57144	101993	105773	95428	90906	1318067

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FeET

1774 - COLETO CREEK AT COLETO CREEK RESERVOIR

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	58772	1300	4394	3594	1974	3167	14840	1911	2747	2039	16376	5059	116170
1935	1880	3198	1994	2027	12363	13447	1541	2589	47397	1434	1821	12422	102111
1936	1821	2056	1135	2165	57183	5977	18575	3198	9975	1237	1153	1247	105721
1937	1302	2526	2702	1942	1300	1347	1309	1824	1388	2977	1136	14775	34528
1938	1142	1307	2877	12070	14905	1670	1850	1150	1137	2006	1620	2680	44415
1939	1140	1764	2924	2653	3025	1446	9649	845	377	151	150	191	24314
1940	282	3412	464	304	2681	39155	13965	4181	270	8294	61990	22384	157381
1941	2287	2864	11966	26920	53648	15570	20817	1999	1346	1249	1259	1019	140944
1942	1000	2605	1538	1307	613	315	59818	1288	2605	788	825	668	73369
1943	878	783	4238	801	3710	4556	1403	152	527	319	755	1346	19468
1944	3671	1317	13234	1076	17598	1653	406	7689	4527	532	703	1038	53443
1945	810	614	1845	11927	473	905	164	281	60	230	117	291	17718
1946	534	3796	552	410	10889	13157	537	8179	5584	117541	9246	2239	172665
1947	5075	1682	1547	1634	25603	1538	471	538	236	160	298	581	39362
1948	548	1451	957	533	4085	301	553	101	109	65	135	128	8965
1949	209	529	440	7410	3729	3969	3239	934	365	7823	882	3623	33153
1950	829	517	411	467	255	186	145	7	49	21	27	93	3007
1951	80	112	192	126	1855	4815	278	0	15993	416	571	220	24658
1952	172	369	737	3787	19058	2499	218	38	31389	517	10639	2970	72394
1953	567	532	409	294	12485	427	36	21423	7852	1192	431	256	45902
1954	275	181	166	236	1259	48	0	0	0	48	28	24	2266
1955	15	4994	58	115	4726	315	15	1486	536	108	25	31	12422
1956	86	27	27	25	983	17	7	1	782	3427	4913	264	10559
1957	20	339	7484	44594	21728	19091	158	36	6279	12758	34674	1392	148552
1958	23535	83431	4712	1861	20871	1009	1102	56	9465	11741	1740	1874	161399
1959	1226	13508	1834	24486	8568	1137	482	291	1366	2410	604	471	56382
1960	835	814	623	497	548	6734	5650	6600	1000	73645	18930	13521	129396
1961	8140	10228	2196	1566	1633	12397	2838	479	1131	367	3882	604	45462
1962	541	1754	600	2718	550	6707	221	23	5462	301	347	1914	21138
1963	747	1580	471	237	134	652	1673	4	23	23	336	1328	7208
1964	1620	4043	2022	242	348	31	27	7149	4190	91	34	103	19899
1965	9304	26293	1175	400	24968	24941	570	185	78	3240	557	2678	94389
1966	1242	2008	667	4659	12102	1593	4150	276	794	166	83	142	27882
1967	323	171	208	384	213	5	5	905	390514	83592	5047	1901	483269
1968	12022	3601	2691	1317	52787	38891	3708	1012	27860	1433	947	1955	148223
1969	906	8287	3949	50592	42800	23816	1335	854	939	1088	802	1446	136814
1970	4123	2022	7551	1647	8916	4043	825	432	395	328	246	434	30961
1971	384	327	372	212	32	7631	833	3079	45812	17980	1928	3842	82431
1972	9458	3984	5628	1424	54996	4194	1226	1572	4125	1463	793	716	89580
1973	1311	3012	4568	42523	2668	102218	4288	3874	12732	135189	5991	3392	321765
1974	10461	3307	3205	1991	14306	1439	884	1410	8414	1972	2510	1864	51762
1975	2281	1546	1210	1785	16091	2854	2304	756	1109	317	681	9869	40804
1976	1158	959	1238	41206	14633	2854	7976	1234	6149	36271	8129	31085	152891
1977	10559	16333	5121	28454	13081	3959	1993	1181	1647	1726	6026	1420	91499
1978	1889	2200	1728	1931	1146	5210	329	399	45635	1544	4175	1334	67520
1979	34014	10133	3724	12083	51740	25741	3101	2063	9343	1759	1483	1775	156959
1980	17218	2416	1930	1627	15044	1474	440	940	1817	1499	891	935	46231
1981	1359	1017	1086	2719	20704	56299	4777	26242	15061	22889	14839	3174	170166
1982	2498	20925	4349	3454	33224	2747	1023	702	648	1025	29392	2177	102163
1983	1665	5016	12069	2027	1362	959	7767	2357	1858	7616	3797	1414	47907
1984	2896	1641	12956	1515	1240	922	437	545	274	3617	1625	783	28451
1985	2052	1320	12513	13165	2705	5085	4366	443	1874	1708	1872	1488	48590
1986	1023	2094	1018	580	666	5072	324	262	198	7007	958	25611	44810
1987	6259	15594	4258	1731	1925	62954	2229	1082	706	498	1795	1490	100520
1988	1041	1099	944	750	493	313	118	15	0	0	61	241	5073
1989	428	428	389	298	347	134	0	0	0	270	0	58	2351
AVG	4570	5167	3023	6723	12446	9814	3875	2255	13253	10502	4826	3500	79953

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET
OLMOS CREEK (RECHARGE ZONE RUNOFF)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	6	0	8	30	11	0	1	0	0	0	15	2	73
1935	0	0	0	2	373	485	0	3	71	35	0	1	970
1936	0	7	0	0	26	260	26	0	228	0	0	0	547
1937	3	7	5	0	11	213	7	3	41	2	0	26	318
1938	54	0	0	109	31	14	0	0	0	0	1	0	209
1939	3	0	1	4	1	0	1	0	0	5	7	9	31
1940	1	2	5	81	8	210	0	0	0	0	16	92	415
1941	0	0	17	169	133	44	0	19	0	9	0	0	391
1942	0	8	1	47	5	0	66	7	410	77	1	0	622
1943	0	0	30	0	0	8	0	0	3	0	0	0	41
1944	38	18	19	0	47	0	0	0	0	0	0	39	161
1945	76	82	136	117	1	0	0	0	0	23	0	0	435
1946	0	22	13	1	128	67	0	1	115	1	439	7	794
1947	35	0	2	0	1	14	0	8	0	2	0	0	62
1948	0	10	0	0	26	8	0	16	0	0	0	2	62
1949	0	12	6	93	0	9	0	0	0	112	0	1	233
1950	0	0	0	0	0	65	0	0	0	0	3	0	68
1951	0	0	0	0	48	26	0	0	3	0	0	7	84
1952	0	36	0	0	1	55	0	0	112	0	14	14	232
1953	1	0	1	56	0	1	0	0	25	1	0	11	96
1954	0	0	0	0	0	0	0	1	0	0	0	0	1
1955	0	0	0	0	2	8	0	0	0	0	0	0	10
1956	0	0	0	0	0	0	0	0	0	0	0	1	1
1957	0	0	32	193	368	216	0	0	116	105	17	1	1048
1958	52	227	2	3	128	138	1	11	77	29	0	3	671
1959	0	0	0	34	5	0	12	0	3	100	2	0	156
1960	0	62	2	27	0	11	5	19	0	112	1	1	240
1961	28	5	0	0	0	4	18	0	13	4	0	0	72
1962	0	0	0	1	0	15	0	0	0	0	5	11	32
1963	1	1	0	0	1	0	0	0	0	3	0	0	6
1964	3	1	1	1	3	101	0	11	79	139	25	2	366
1965	32	12	8	13	545	11	0	15	0	6	2	168	812
1966	1	5	0	5	6	5	0	1	6	7	0	0	36
1967	1	9	5	2	0	6	9	0	165	3	6	3	209
1968	528	12	5	3	16	2	10	1	4	1	1	0	583
1969	1	1	2	4	86	7	0	5	1	73	2	8	190
1970	4	7	7	5	31	149	7	7	0	1	0	1	219
1971	3	0	2	0	1	1	2	45	1	49	14	20	138
1972	5	0	0	5	1306	3	1	2	3	14	3	2	1344
1973	3	7	3	89	9	100	528	9	895	190	0	0	1833
1974	33	0	29	4	5	3	185	98	208	6	137	16	724
1975	15	86	10	5	365	24	8	25	1	4	7	2	552
1976	2	6	1	16	147	48	53	2	10	169	42	44	540
1977	29	53	50	239	26	20	11	33	21	0	146	7	635
1978	6	22	25	20	73	20	20	8	84	16	19	4	317
1979	59	32	46	228	141	135	11	66	10	0	3	59	790
1980	13	29	0	0	49	24	9	6	0	3	1	5	139
1981	3	0	6	9	58	576	16	1	15	273	0	3	960
1982	2	2	9	5	345	1	0	10	0	0	4	6	384
1983	10	16	31	0	41	30	4	2	3	0	6	0	143
1984	1	2	5	0	7	0	0	0	0	3	1	80	99
1985	19	11	17	20	10	237	159	0	2	197	68	75	815
1986	10	59	20	1	43	864	0	1	1	281	38	54	1372
1987	0	61	2	98	593	976	377	120	3	11	0	34	2275
1988	1	11	2	6	11	28	60	0	0	0	0	0	119
1989	1	0	1	13	0	0	3	0	0	0	3	0	21
AVG	19	17	10	31	94	94	29	10	49	37	19	15	423

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET
1780 - SAN ANTONIO RIVER AT SAN ANTONIO

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	2379	2236	2340	3297	2216	1280	1723	1329	2001	1206	1389	1558	22954
1935	1206	1323	1207	2005	5586	12225	8783	6660	7171	8075	6964	6764	67968
1936	6607	5478	5720	5300	7348	12794	8343	8368	9513	8276	8021	7931	93700
1937	7557	6470	7374	6877	6348	8070	5952	4694	4188	3987	4042	4905	70465
1938	7352	6576	6811	7453	8042	5769	4564	3719	3879	3025	2835	3067	63092
1939	2999	2553	2490	1750	1780	1190	1170	1920	1480	1130	1020	1050	20532
1940	1060	1180	1000	1390	1680	2240	1100	998	1000	1850	1060	1670	16228
1941	1660	3370	4680	7780	9630	7840	6210	4250	4810	6570	6320	6180	69300
1942	5650	4675	4540	5445	5110	3735	4390	2210	7620	13210	9985	8420	74990
1943	7555	5700	6068	4854	3609	3007	3473	2193	2090	1868	1791	1786	43994
1944	2038	1702	4827	4502	5797	6312	2856	1606	2956	2487	2742	5957	43782
1945	7632	9082	8934	9184	7575	4837	3448	2087	1814	3403	2722	2772	63490
1946	2889	2534	3271	3076	3762	3289	1754	1864	13321	8571	8235	7739	60305
1947	8439	7124	7301	6126	4982	2619	2024	2554	1701	1641	1515	1609	47635
1948	1529	1653	1639	1464	1670	1205	1730	3320	1479	1839	1284	1278	20090
1949	1259	1724	1661	3756	2722	3499	2104	1674	1631	3831	1595	1869	27325
1950	1719	1574	1491	1736	1652	1409	1594	1984	1671	1491	1265	1229	18815
1951	1199	1434	1561	1266	1932	2809	1354	1544	1731	1571	1115	1169	18685
1952	1169	1314	1231	1406	1372	1599	1674	1344	1581	969	1055	1369	16083
1953	906	893	904	873	825	944	704	1114	1621	877	650	784	11095
1954	708	650	730	852	892	1042	859	596	621	856	682	580	9068
1955	669	1074	478	524	1432	775	1026	1016	566	502	610	548	9220
1956	470	527	449	429	937	474	476	904	614	906	789	817	7792
1957	498	698	1100	5550	4530	2230	596	509	3860	2310	1280	669	23830
1958	2250	2370	1090	828	1840	1390	1970	877	3580	3490	5350	4830	29865
1959	4200	4070	3780	3600	3370	1280	1030	1060	981	3800	2400	3090	32661
1960	3410	3190	3290	2220	1990	1460	997	2030	741	3300	4660	5890	33178
1961	6060	6360	5710	3070	1240	3680	5780	2550	2330	4030	4200	3830	48840
1962	2510	1630	1360	1950	1230	1410	737	831	1310	792	1620	1220	16600
1963	704	1730	815	1170	972	770	837	665	1380	1940	1030	859	12872
1964	1720	1150	1550	1120	1100	1710	934	1650	1370	1400	2570	1040	17314
1965	1300	3480	1670	1050	7800	1860	803	995	1161	1150	926	1900	24095
1966	986	1200	1550	1790	2010	1480	918	2080	1390	1180	869	904	16357
1967	864	968	1160	730	750	612	939	1160	5700	1200	2040	935	17058
1968	9180	2730	2680	2390	3430	2320	2070	976	1560	1080	1700	1510	31626
1969	1360	1840	1950	1440	4380	1590	748	1860	2490	2860	1250	1680	23448
1970	1350	1830	2270	1590	4440	1370	814	839	1320	873	809	893	18398
1971	863	765	767	1050	1150	1730	759	3840	2500	2960	2440	2830	21654
1972	1800	1400	811	1440	9570	2380	1410	2260	1200	1430	1810	1590	27101
1973	2590	2640	2400	6680	5460	7590	9390	5320	16550	15010	10620	9090	93340
1974	8090	5780	4360	3290	5380	1560	1010	7660	7550	4910	6870	5450	61910
1975	5110	8150	6060	5460	11550	7300	3950	2900	2990	2900	2560	3110	62040
1976	2490	1190	1420	3660	9580	3380	4900	2730	4290	10260	11040	11970	66910
1977	12880	12130	11290	14920	11520	6790	5670	2810	4630	5440	10210	6850	105140
1978	5720	4570	4450	4100	1290	1720	898	2720	7670	2400	4860	5130	45528
1979	6280	5760	6760	9980	11720	13410	5030	4920	4100	2810	3180	4300	78250
1980	3900	2640	1420	1120	3710	721	839	1660	2190	1020	1510	952	21682
1981	1400	1070	1400	1730	3410	9980	5120	3130	3500	8920	4790	3840	48290
1982	3120	2240	2070	1480	9200	2130	821	956	831	1510	2100	1460	27918
1983	1270	1260	2180	822	1890	1490	1230	1300	2630	907	1230	621	16830
1984	796	464	922	596	1290	853	448	1020	772	3320	1660	2200	14341
1985	1680	1570	2430	1910	2340	4290	3480	984	2620	2880	2670	1560	28414
1986	1500	2090	938	989	3470	13050	1140	792	1610	3650	1610	6600	37439
1987	5290	6080	6440	4050	8630	18650	7820	4470	5770	5180	6100	6750	85230
1988	5850	4910	2580	1650	830	1710	2520	1160	1170	1310	1120	1150	25960
1989	1880	1010	1160	1780	1030	2270	818	992	1030	2650	1390	1010	17020
AVG	3278	3032	2974	3153	4089	3806	2567	2280	3176	3340	3146	3157	37995

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1787 - SALADO CREEK (UPPER) AT SAN ANTONIO

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	153	0	180	323	227	0	880	28	4	0	23	180	1998
1935	0	0	0	241	5668	6212	0	33	778	735	0	11	13677
1936	0	20	8	0	1182	6045	0	0	6283	0	0	0	13538
1937	59	0	90	15	2077	6038	26	24	0	8	0	419	8754
1938	1235	0	0	1766	641	0	0	0	0	0	7	0	3650
1939	22	0	15	0	42	0	222	0	0	63	114	14	492
1940	10	26	0	504	204	267	0	0	19	99	0	3914	5044
1941	14	0	221	3746	3306	720	10	0	0	3019	0	0	11035
1942	0	195	0	152	160	0	1188	0	6070	4595	27	0	12387
1943	0	1	82	0	0	438	7	154	164	0	0	0	845
1944	382	835	732	17	538	9	4	0	0	0	0	662	3179
1945	1562	1567	2430	1021	24	0	0	0	0	771	5	0	7380
1946	0	491	407	54	1892	1172	2	156	9028	149	5076	199	18623
1947	499	0	38	0	595	0	2	161	0	4	1	0	1300
1948	0	116	0	0	0	66	0	185	12	0	0	0	380
1949	0	273	31	2585	0	245	0	1	18	709	0	23	3884
1950	0	0	8	0	0	37	54	0	1	0	136	0	236
1951	3	0	0	0	232	495	0	0	22	0	0	0	751
1952	8	524	0	2	4	313	0	0	397	0	324	306	1877
1953	35	0	3	719	54	55	0	227	11	53	0	169	1327
1954	11	11	1	0	0	0	15	62	0	0	152	28	278
1955	0	10	28	3	215	40	0	0	12	0	9	3	319
1956	2	93	0	12	10	15	0	0	0	0	0	0	133
1957	136	54	816	2227	11263	3790	61	0	3671	2351	315	13	24696
1958	1166	2753	33	26	569	615	211	0	3158	502	28	31	9091
1959	0	50	0	218	69	0	16	0	0	466	53	9	880
1960	0	405	46	458	9	637	25	385	0	775	13	19	2771
1961	24	36	11	12	0	49	184	1	2	101	6	0	426
1962	4	2	0	15	5	16	4	17	26	24	869	181	1163
1963	21	33	8	10	15	15	6	9	35	57	58	24	289
1964	60	13	28	14	51	4464	58	201	132	128	422	70	5641
1965	210	580	248	145	8971	123	107	79	76	1561	23	5101	17222
1966	40	66	29	161	163	163	53	170	62	107	41	8	1060
1967	14	40	56	32	238	44	261	180	1151	63	237	54	2368
1968	10650	210	117	61	77	76	52	44	56	37	40	32	11453
1969	25	45	53	38	876	251	86	394	67	125	57	52	2069
1970	52	67	76	52	2500	183	52	51	41	47	6	24	3151
1971	34	34	44	56	56	48	49	284	113	148	141	196	1204
1972	102	96	104	87	15962	53	46	61	45	41	70	52	16719
1973	95	143	129	1898	50	4666	10744	158	12616	2690	450	319	33958
1974	178	166	97	63	204	183	67	3003	590	194	2125	258	7128
1975	175	1085	292	206	2448	631	169	152	80	135	52	95	5520
1976	75	39	14	457	4631	218	537	357	496	3337	1000	982	12144
1977	1032	866	552	5089	857	518	254	341	289	453	6911	148	17312
1978	242	361	262	704	323	1723	15	655	9040	138	689	188	14342
1979	1301	583	966	5049	874	3812	1013	430	236	50	211	417	14943
1980	256	65	105	377	2768	115	53	198	383	99	75	113	4607
1981	97	16	124	257	626	4730	217	95	231	2750	516	237	9896
1982	334	255	178	40	7256	171	55	18	18	37	184	108	8654
1983	224	130	718	92	880	134	37	50	279	21	94	46	2705
1984	53	24	156	0	277	0	0	0	94	309	149	608	1670
1985	608	439	692	740	182	7752	7927	26	1056	1675	1669	555	23321
1986	321	1179	261	59	1765	12247	492	9	104	3525	415	1080	21457
1987	197	1407	336	574	6380	15309	771	465	600	230	310	484	27063
1988	99	409	390	266	46	3667	437	167	73	36	10	5	5605
1989	145	7	106	259	6	310	87	7	56	762	213	34	1992
AVG	392	283	202	552	1562	1587	474	161	1030	592	417	312	7564

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1788 - SALADO CREEK (LOWER) AT SAN ANTONIO

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	1802	1480	1768	2259	2274	1480	2890	1525	1487	1487	1736	1982	22170
1935	1543	1548	1480	2568	11909	12412	1503	1620	4671	2657	1652	1496	45058
1936	1485	1694	1592	1583	3609	11273	1753	1864	11804	1666	1700	1519	41541
1937	1866	1480	1902	1544	4854	12165	1566	1519	1484	1705	1554	2283	33920
1938	4136	1631	1952	4705	3111	1538	2011	1480	1566	1496	1495	1480	26600
1939	1581	1514	1870	1314	1337	894	879	1442	1112	849	766	789	14346
1940	796	886	751	1044	1262	1683	826	750	751	1390	796	1254	12189
1941	1247	2531	3515	5843	7232	5888	4664	3192	3613	4934	4746	4641	52047
1942	4243	3511	3410	4089	3838	2805	3297	1660	5723	9921	7499	6323	56318
1943	5674	4281	4557	3645	2710	2258	2608	1647	1569	1403	1345	1341	33038
1944	1530	1279	3625	3381	4354	4740	2145	1206	2220	1868	2060	4474	32882
1945	5731	6820	6709	6897	5689	3633	2589	1568	1363	2556	2044	2082	47681
1946	2170	1903	2456	2310	2825	2470	1317	1400	10004	6437	6184	5812	45288
1947	6338	5350	5483	4601	3742	1967	1520	1918	1277	1232	1138	1208	35773
1948	1148	1242	1231	1099	1254	905	1299	2493	1110	1381	964	960	15087
1949	946	1295	1247	2821	2044	2628	1580	1257	1225	2877	1198	1404	20520
1950	1291	1182	1120	1304	1241	1058	1197	1490	1255	1119	950	923	14129
1951	901	1077	1172	951	1451	2109	1017	1159	1300	1180	837	878	14032
1952	878	987	924	1056	1030	1201	1257	1009	1187	727	792	1028	12078
1953	681	671	679	656	620	709	529	836	1217	658	488	589	8332
1954	532	488	548	640	670	783	645	447	466	643	512	435	6809
1955	503	807	359	394	1076	582	771	763	425	377	458	412	6923
1956	353	396	337	322	703	356	358	679	461	681	593	613	5852
1957	374	524	826	4168	3402	1675	448	382	2899	1735	961	503	17897
1958	1690	1780	819	622	1382	1044	1480	659	2689	2621	4018	3627	22429
1959	3154	3057	2839	2704	2531	961	774	796	737	2854	1802	2321	24529
1960	2561	2396	2471	1667	1495	1097	749	1525	557	4590	1710	2130	22945
1961	2060	2000	1382	1080	699	2692	3750	1690	1860	1840	2590	1040	22683
1962	1100	942	841	1230	923	1040	450	437	1140	528	2160	1190	11981
1963	787	1862	756	1333	762	575	362	151	360	1573	766	593	9880
1964	1229	1313	1666	800	814	3443	250	1388	749	1184	3752	833	17421
1965	871	4532	1655	1173	13854	1551	653	622	820	1413	894	5677	33715
1966	1019	1202	1285	1923	1764	920	431	799	905	710	572	626	12156
1967	593	559	871	617	356	149	374	308	3785	1283	3061	1137	13093
1968	23299	2882	1614	1753	2344	1601	2382	1010	1795	1143	1671	1857	43351
1969	1366	2166	2262	1508	3938	1751	746	1578	1456	3435	1554	2566	24326
1970	2601	2113	1712	1427	6788	1576	1076	898	1219	945	821	934	22110
1971	957	763	683	639	579	921	284	3104	2145	2036	2156	2694	16961
1972	1481	1228	1134	1163	22396	1574	1317	2047	1186	1281	1579	1420	37806
1973	2334	2517	1648	5537	1870	11106	15318	2145	24889	8728	2872	2496	81460
1974	2524	1697	1743	1596	3531	1581	1164	11407	4691	2879	6784	2346	41943
1975	2170	4892	1990	2155	7927	5627	2116	2086	1697	2470	1206	1694	36030
1976	1310	1231	1871	4517	11323	1895	4664	2140	3090	8332	4159	4302	48834
1977	4926	3706	2854	12580	3930	2466	1596	1316	1726	2317	10447	1799	49663
1978	1774	2089	2193	3980	2186	5596	1053	4008	13544	1518	2886	1658	42485
1979	4731	2835	4025	9463	3774	9091	4227	2565	1679	1549	2455	3248	49642
1980	2362	1786	1813	1762	6287	1196	746	1218	2654	1316	2212	1350	24702
1981	1537	703	1727	1968	3493	10340	1818	2329	1771	5553	3064	1473	35776
1982	1633	1757	1433	1099	10838	1296	807	773	821	1939	2520	1577	26493
1983	1639	1754	3044	1086	3109	1203	1260	957	2514	1054	1578	1137	20335
1984	1387	999	1353	487	1481	379	127	264	415	3844	2618	2801	16155
1985	3901	2677	3700	3441	2398	9623	11949	993	2274	3712	5189	1377	51234
1986	1445	2538	1189	768	4188	20680	1455	791	2711	6043	2257	11485	55550
1987	3286	4795	3152	2490	11980	25264	3673	2230	1948	1717	2807	2646	65988
1988	1719	1976	2004	1505	1010	4288	2193	1246	1029	979	795	1036	19780
1989	1683	788	1029	1435	677	1824	357	348	537	1958	977	874	12487
AVG	2373	2002	1933	2405	3801	3778	1933	1556	2671	2399	2257	2078	29187

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1795 - MEDINA RIVER AT MEDINA LAKE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	2849	2608	1725	5645	1980	417	1267	379	162	154	226	1212	18623
1935	1085	1565	1276	3932	44674	100450	15099	5779	33842	11981	8157	12490	240329
1936	9233	6693	7052	5137	25286	32563	43184	7630	139590	40228	22781	18882	358260
1937	16135	12027	14237	9812	6468	21395	5082	2513	2720	3310	3026	8082	104807
1938	17432	10109	8163	14163	13204	5706	3218	1845	2114	1693	1876	1998	81519
1939	3581	2384	2402	2281	2645	767	5378	1930	817	8135	2234	2355	34909
1940	2361	3252	5261	12794	9434	11380	6192	2952	1688	2461	7446	22985	88207
1941	8268	40936	36945	51773	64738	20162	13471	6442	9261	14610	7585	6509	280700
1942	5462	4577	4405	22461	29710	8204	5069	3785	13061	16954	8851	7242	129778
1943	5855	4504	5152	6538	4378	10618	4646	1728	1930	2196	2057	2869	52471
1944	4499	5695	13327	8265	44925	18676	6112	7553	6422	6534	4419	9518	135943
1945	20763	15429	22852	22373	10851	6074	4280	1910	6440	8418	4220	8711	132319
1946	5597	5648	5955	5998	9924	5676	2150	962	5234	17088	19347	9454	93033
1947	17922	11890	10613	10823	10190	20499	6548	3580	2033	1685	2250	2830	100863
1948	2723	3501	3448	3246	2544	2430	2726	894	1666	1954	1372	1697	28200
1949	2471	19476	12094	15329	12270	8592	4261	6650	5423	4870	3841	3956	99233
1950	4430	4750	4604	4947	5250	4833	2386	947	1167	1045	1198	1411	36967
1951	1517	1585	2912	2215	14536	6161	930	275	410	487	980	1087	33093
1952	1082	1066	1413	3384	7150	5718	1268	189	13551	66	318	2876	38079
1953	3237	1940	1900	1227	589	132	763	3451	10366	15409	3732	2702	45446
1954	2006	1632	1498	1221	6059	1485	491	161	186	125	102	119	15086
1955	684	1552	922	672	5524	664	4642	1606	340	226	161	253	17244
1956	341	470	510	268	478	62	37	1554	366	185	780	89	5139
1957	86	188	7648	46890	28658	26840	3770	1196	13111	31189	22632	14481	196687
1958	34324	35412	48802	19285	23242	59189	14610	5571	37170	41115	37803	16880	373404
1959	10652	8071	6628	11740	8332	18746	10328	3909	2606	26441	7855	6885	122195
1960	8427	7782	9150	7744	5631	2463	8092	38545	9802	13625	15193	23004	149456
1961	22177	37708	23392	11877	6552	17083	9827	6839	4280	3898	4077	4184	151893
1962	3635	2630	2630	3857	2224	1963	500	286	166	9184	2183	2618	31876
1963	2027	1791	1933	2467	2217	1046	490	371	197	165	413	1279	14396
1964	1787	3942	5677	3749	2040	932	351	3446	56794	12221	8137	5235	104312
1965	4061	11057	8694	12992	26667	12429	4133	1712	2245	7349	3269	6589	101194
1966	5344	4559	4754	6404	7669	4738	3599	20535	16986	8207	5127	4095	92015
1967	3360	2647	2557	2414	1189	601	258	448	8417	14935	15232	8144	60202
1968	36187	26564	27902	21379	37682	16016	12969	5147	4606	3895	3604	4185	200136
1969	3356	3201	3868	8918	8174	3275	1239	1022	1710	50242	11373	14740	111117
1970	9320	8718	20985	12810	20581	15074	5573	2893	3576	4974	3383	3281	111167
1971	2820	2296	2202	1958	1878	1152	977	168532	16115	53080	27207	15607	293823
1972	10517	7909	6596	4783	54255	15075	8277	13157	9649	8815	6991	5901	151923
1973	5777	7986	11642	11234	9786	23942	168711	29086	16319	56126	23338	12710	376657
1974	9962	7574	7687	5889	22589	8175	4482	22277	16024	9813	18587	16481	149538
1975	19110	64128	22598	14875	48993	31781	20069	10868	6529	5657	4858	4628	254092
1976	4017	3147	2954	17891	22898	12093	26856	13424	12221	16172	22145	23018	176835
1977	21389	21778	17321	30910	43115	21096	10724	5221	3478	3912	11774	6150	196865
1978	4944	4751	4511	3442	2290	3848	987	177978	27285	14307	12972	11947	269261
1979	15535	19971	44383	41175	23802	56035	18494	9837	5351	4070	3937	4165	246754
1980	4165	3255	3651	3561	5017	2340	1434	1565	33435	19708	10356	11789	100277
1981	9007	6398	25798	41392	30520	88471	29608	12454	8923	91815	15181	11416	370984
1982	9165	6428	6768	5687	23362	12722	5933	4876	4020	2955	3222	3801	88938
1983	3445	3534	5330	4068	4291	12086	5241	2405	1901	3697	8389	3816	58203
1984	6296	4766	3935	2747	1693	1439	570	345	600	2346	2821	16630	44186
1985	32324	14061	23326	15323	21990	12784	7602	3207	3860	12160	7869	9755	164261
1986	7275	7424	5390	4217	12309	37684	19837	5019	22019	57550	32947	43207	254877
1987	33942	18753	28730	18886	63519	246028	34774	14254	9443	7290	7365	6548	489531
1988	5672	5093	5108	3727	4024	2925	40208	6949	4736	3860	3385	3400	89087
1989	5538	6414	5880	4974	3831	2034	1025	731	708	2539	2970	2643	39286
AVG	8842	9522	10305	11139	16318	19014	11085	11765	11126	13627	8456	8188	139387

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

DIVERSION LAKE (RECHARGE ZONE RUNOFF)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	10	0	16	56	21	0	3	0	0	0	28	3	137
1935	0	0	0	4	698	908	0	6	133	65	0	1	1815
1936	0	14	1	0	49	487	49	0	427	0	0	0	1027
1937	6	13	10	1	20	400	12	5	77	4	0	49	597
1938	100	0	0	204	57	27	0	0	0	0	2	0	390
1939	5	0	1	7	3	0	1	0	0	9	13	16	55
1940	1	4	9	151	14	394	0	0	1	0	30	172	776
1941	0	0	31	316	249	81	1	35	0	18	0	0	731
1942	0	14	1	87	10	0	124	14	768	144	1	0	1163
1943	0	0	56	0	0	15	0	0	7	0	0	0	78
1944	71	34	35	1	87	1	0	0	0	0	0	73	302
1945	143	154	254	219	3	0	0	0	0	44	0	0	817
1946	0	40	25	2	240	126	0	2	216	2	821	13	1487
1947	65	0	4	0	2	26	0	15	0	3	0	0	115
1948	0	19	0	0	48	16	0	30	0	0	0	5	118
1949	0	23	12	174	0	17	0	0	0	209	0	3	438
1950	0	0	0	0	0	122	1	0	1	0	5	0	129
1951	0	0	0	0	90	49	0	0	5	0	0	13	157
1952	1	68	0	0	1	104	0	0	210	0	26	26	436
1953	1	0	1	104	0	1	0	0	47	1	0	20	175
1954	1	0	0	0	0	0	0	1	0	0	0	0	2
1955	0	0	0	0	4	15	0	0	0	0	0	0	19
1956	0	0	0	0	0	0	0	0	0	0	0	1	1
1957	0	0	59	362	688	404	0	0	218	196	32	1	1960
1958	98	424	4	6	239	259	2	21	144	55	0	5	1257
1959	0	1	0	65	9	0	22	0	6	187	4	0	294
1960	0	117	3	51	0	21	9	36	0	210	1	1	449
1961	52	10	0	0	0	8	34	0	24	8	0	0	136
1962	0	0	0	2	1	27	0	0	0	0	9	20	59
1963	3	1	0	0	2	0	1	0	0	5	0	0	12
1964	5	2	3	2	6	189	0	21	149	260	46	3	686
1965	60	23	16	24	1021	21	0	27	0	12	4	315	1523
1966	1	9	1	9	11	10	0	3	12	13	0	0	69
1967	1	17	9	4	0	11	17	0	309	7	11	5	391
1968	989	22	9	5	30	4	20	2	8	2	3	1	1095
1969	1	3	3	7	161	13	0	9	2	136	4	14	353
1970	8	12	13	10	58	280	13	13	0	2	0	1	410
1971	6	0	4	0	2	1	3	85	1	92	25	38	257
1972	9	0	0	9	2446	6	2	3	6	26	5	3	2515
1973	6	13	5	167	16	187	990	16	1677	355	0	0	3432
1974	61	0	54	8	10	6	346	184	390	12	257	30	1358
1975	27	162	18	9	684	45	15	46	2	8	13	4	1033
1976	3	11	2	30	275	90	99	4	18	316	80	83	1011
1977	54	100	94	448	49	38	21	62	39	0	273	14	1192
1978	11	41	47	38	136	37	38	15	158	30	35	8	594
1979	111	60	86	427	264	253	21	123	19	0	5	110	1479
1980	24	55	0	0	92	45	16	12	0	6	3	9	262
1981	6	1	12	17	108	1079	30	2	28	512	1	6	1802
1982	4	4	16	10	646	2	0	18	0	0	8	11	719
1983	19	30	57	0	77	57	8	3	6	0	12	0	269
1984	3	3	9	0	14	0	0	0	0	5	1	150	185
1985	35	20	32	38	18	443	298	0	3	370	127	140	1524
1986	18	111	38	2	80	1618	0	1	2	527	72	101	2570
1987	0	115	4	184	1111	1827	707	224	5	21	0	63	4261
1988	1	20	5	11	20	53	112	1	0	0	0	0	223
1989	1	1	1	24	0	1	6	0	0	0	5	0	39
AVG	36	32	19	59	176	175	54	19	91	69	35	27	793

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1805 - MEDINA RIVER AT DIVERSION LAKE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	1569	1355	648	4082	857	0	283	0	0	0	0	243	9038
1935	148	507	287	2501	42160	97156	12856	4154	31045	9968	6328	10385	217496
1936	7328	4995	5310	3568	22675	30158	40057	5842	135331	37126	20211	16467	329067
1937	13848	9961	12048	7869	4794	19278	3531	1280	1527	1957	1710	6308	84112
1938	15180	8145	6334	12172	11116	4109	1874	728	946	607	754	851	62815
1939	2194	1168	1184	1089	1389	0	3787	796	0	6317	1056	1160	20140
1940	1150	1909	3688	10823	7530	9733	4523	1647	604	1412	5703	20580	69300
1941	6432	37815	33960	48716	61355	17776	11313	4786	7354	12410	5800	4813	252528
1942	3861	3081	2915	19990	26913	6372	3632	2380	11692	14768	6974	5484	108063
1943	4217	3003	3638	4839	2890	8638	3129	634	803	1013	899	1576	35276
1944	3069	4106	11210	6429	41794	16270	4451	5771	4732	4835	2926	7666	113260
1945	18414	13325	20533	20038	8843	4416	2803	780	4749	6614	2750	6843	110107
1946	3983	4070	4333	4349	8213	4180	975	64	3872	14753	17734	7547	74072
1947	15614	9818	8622	8815	8223	18043	4848	2204	879	604	1057	1543	80270
1948	1452	2139	2074	1899	1350	1222	1454	45	586	815	360	615	14008
1949	1240	17059	10023	13250	10176	6749	2787	4942	3826	3538	2417	2520	78526
1950	2936	3221	3091	3398	3670	3418	1170	51	208	120	235	388	21907
1951	470	523	1613	1028	12412	4544	40	0	0	0	74	162	20864
1952	146	202	390	2018	5401	4196	281	0	11597	0	0	1608	25840
1953	1892	804	773	355	0	0	0	2229	8433	13153	2321	1454	31413
1954	858	559	456	247	4403	445	0	0	0	0	0	0	6968
1955	0	497	34	0	3921	0	3125	597	0	0	0	0	8175
1956	0	0	0	0	0	0	0	499	0	0	0	0	499
1957	0	0	5917	43987	26573	24531	2354	228	11189	28533	20100	12270	175682
1958	31478	32862	45499	16860	20894	55922	12395	3981	34291	38045	34764	14558	341548
1959	8655	6250	4921	9742	6500	16337	8373	2477	1359	23927	6053	5157	99751
1960	6579	6099	7254	5998	4014	1254	6277	35522	7859	11667	12947	20427	125897
1961	19682	34680	20800	9806	4851	14755	7917	5114	2828	2474	2624	2719	128249
1962	2236	1374	1374	2432	1036	850	0	0	0	7283	1010	1383	18977
1963	877	686	798	1237	1032	120	0	0	0	0	0	291	5041
1964	687	2507	4058	2338	890	230	0	2092	53465	10390	6357	3660	86674
1965	2669	9057	6842	10882	24980	10347	2673	650	1053	5595	1922	5200	81870
1966	3756	3059	3226	4725	5888	3220	2205	18054	14666	6387	3560	2640	71387
1967	1999	1405	1321	1196	223	0	0	0	6879	12707	12994	6321	45045
1968	34180	23882	25163	18868	34676	13734	10857	3579	3101	2465	2212	2720	175436
1969	1995	1862	2443	7041	6505	1937	260	113	623	47038	9336	12530	91683
1970	7417	6861	18497	10697	18155	13112	3975	1609	2185	3424	2017	1930	89877
1971	1540	1095	1022	818	756	197	75	163629	13826	49771	24507	13378	270612
1972	8537	6099	4892	3260	53274	12840	6442	11018	7722	6965	5259	4261	130568
1973	4153	6183	9590	9368	7860	21516	164711	26316	15695	53016	20747	10592	349748
1974	8070	5790	5948	4255	20036	6351	3328	19910	14127	7881	16441	14203	126341
1975	16713	60668	20053	12653	46365	28956	17619	8903	4833	4045	3331	3116	227256
1976	2574	1825	1650	15549	20599	10100	24241	11271	10149	14194	19678	20523	152353
1977	18926	19346	15068	28515	39989	18628	8742	3706	2138	2478	9983	4498	172017
1978	3407	3263	3056	2106	1226	2460	117	172913	24715	12134	10875	9879	246150
1979	13383	17571	41263	38475	21458	52825	16117	8014	3780	2618	2505	2811	220821
1980	2726	1962	2251	2171	3553	1177	423	518	30517	17265	8380	9733	80675
1981	7123	4712	23132	38277	27797	85520	26835	10352	7068	88248	12936	9378	341380
1982	7268	4742	5066	4075	21417	10605	4288	3352	2574	1649	1886	2393	69314
1983	2089	2178	3800	2616	2890	10060	3670	1189	778	2290	6556	2395	40511
1984	4620	3239	2508	1472	620	410	0	0	0	1141	1536	14465	30012
1985	29473	11891	20767	13108	19468	11105	6114	1865	2437	10443	6190	7954	140815
1986	5533	5763	3833	2749	10293	36266	17382	3463	19480	54584	30115	40131	229592
1987	31014	16458	25959	16656	61020	242200	32524	12278	7529	5549	5597	4911	461695
1988	4052	3549	3547	2327	2597	1676	37218	5216	3210	2434	2019	2032	69875
1989	3931	4726	4241	3446	2407	881	111	0	0	1297	1667	1384	24092
AVG	7203	7855	8552	9378	14463	17265	9539	10299	9612	11928	6882	6572	119548

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

MEDINA RIVER AT DIVERSION LAKE (RECHARGE ZONE RUNOFF OUTSIDE DIVERSION LAKE)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	9	0	13	47	17	0	2	0	0	0	23	3	114
1935	0	0	0	4	582	756	0	5	111	54	0	1	1513
1936	0	12	1	0	41	406	41	0	356	0	0	0	857
1937	5	11	8	1	16	333	10	4	65	3	0	41	497
1938	84	0	0	170	48	22	0	0	0	0	1	0	325
1939	4	0	1	6	2	0	1	0	0	8	10	14	46
1940	1	4	7	126	12	328	0	0	0	0	25	144	647
1941	0	0	26	263	208	68	1	29	0	15	0	0	610
1942	0	12	1	73	8	0	104	11	640	120	1	0	970
1943	0	0	47	0	0	12	0	0	5	0	0	0	64
1944	59	29	29	1	73	0	0	0	0	0	0	60	251
1945	119	128	212	183	2	0	0	0	0	36	0	0	680
1946	0	34	21	2	200	105	0	2	180	2	684	11	1241
1947	54	0	3	0	2	21	0	13	0	3	0	0	96
1948	0	16	0	0	40	13	0	25	0	0	0	4	98
1949	0	19	10	145	0	14	0	0	0	174	0	2	364
1950	0	0	0	0	0	102	0	0	1	0	5	0	108
1951	0	0	0	0	75	41	0	0	4	0	0	11	131
1952	0	56	0	0	1	87	0	0	175	0	22	22	363
1953	1	0	1	87	0	1	0	0	39	1	0	16	146
1954	0	0	0	0	0	0	0	1	0	0	0	0	1
1955	0	0	0	0	3	12	0	0	0	0	0	0	15
1956	0	0	0	0	0	0	0	0	0	0	0	1	1
1957	0	0	49	301	574	337	0	0	182	163	27	1	1634
1958	81	354	4	5	200	216	2	17	120	46	0	4	1049
1959	0	0	0	54	8	0	18	0	5	155	4	0	244
1960	0	98	3	43	0	17	7	30	0	175	1	1	375
1961	43	8	0	0	0	7	28	0	20	6	0	0	112
1962	0	0	0	1	0	23	0	0	0	0	7	17	48
1963	2	1	0	0	2	0	0	0	0	4	0	0	9
1964	4	2	2	2	5	158	0	17	124	217	39	3	573
1965	50	19	13	20	851	18	0	23	0	10	3	262	1269
1966	1	7	1	7	9	8	0	2	10	11	0	0	56
1967	1	15	7	3	0	9	14	0	258	5	9	4	325
1968	824	18	8	4	25	4	16	2	7	1	2	1	912
1969	1	2	3	6	134	11	0	8	2	113	3	12	295
1970	7	10	11	8	48	233	11	10	0	1	0	1	340
1971	5	0	3	0	2	1	2	71	1	77	21	32	215
1972	8	0	0	8	2038	5	2	3	5	22	4	3	2098
1973	5	11	4	140	14	156	825	13	1398	296	0	0	2862
1974	51	0	45	7	8	5	288	154	325	10	214	25	1132
1975	23	135	15	7	570	37	12	38	2	6	11	3	859
1976	3	9	1	25	229	75	82	3	15	263	66	69	840
1977	45	83	78	374	41	31	17	51	32	0	228	11	991
1978	10	34	40	32	113	31	31	12	132	25	29	6	495
1979	93	50	71	356	220	211	18	102	16	0	4	92	1233
1980	20	46	0	0	77	38	13	10	0	5	2	8	219
1981	5	1	10	14	90	899	25	2	24	426	1	5	1502
1982	3	3	13	8	539	2	0	15	0	0	6	10	599
1983	16	25	48	0	64	47	7	3	5	0	10	0	225
1984	2	3	8	0	11	0	0	0	0	4	1	125	154
1985	29	16	26	32	15	370	249	0	3	308	106	116	1270
1986	15	92	31	1	67	1349	0	1	2	439	60	84	2141
1987	0	95	3	154	925	1523	589	187	4	17	0	53	3550
1988	1	17	4	9	17	44	93	1	0	0	0	0	186
1989	1	0	1	20	0	1	5	0	0	0	4	0	32
AVG	30	26	16	49	147	146	45	15	76	58	29	23	660

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

SAN GERONIMO CREEK (RECHARGE ZONE RUNOFF)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	174	45	158	727	257	91	58	0	47	0	201	84	1842
1935	0	111	61	125	4187	6000	305	65	938	594	88	211	12685
1936	359	142	295	233	498	3474	502	453	2316	628	479	243	9622
1937	260	117	587	325	221	2068	139	62	681	188	131	380	5159
1938	1252	516	646	1525	1257	279	174	168	52	197	96	147	6309
1939	61	70	126	86	65	69	18	26	158	107	142	174	1102
1940	95	56	101	730	266	2229	540	74	142	0	315	940	5488
1941	215	1215	1245	2409	2140	1845	629	348	117	108	104	277	10652
1942	38	489	18	1311	211	432	1843	149	3690	1238	159	71	9649
1943	140	0	338	496	181	330	221	0	274	411	258	63	2712
1944	486	298	815	1319	774	655	402	254	404	307	419	948	7081
1945	1273	1505	2655	1765	509	298	0	0	129	490	36	197	8857
1946	469	536	1081	258	1463	960	5	180	1282	94	4007	877	11212
1947	803	0	450	68	31	266	333	247	0	39	50	214	2501
1948	114	121	14	107	492	173	267	670	3	156	198	54	2369
1949	42	184	467	1344	22	852	23	0	96	1443	0	128	4601
1950	166	120	82	74	434	798	14	132	17	0	63	0	1900
1951	195	322	129	0	663	694	19	0	303	0	18	144	2487
1952	39	404	55	104	17	1068	1061	0	1983	0	438	368	5537
1953	97	131	39	634	0	134	0	9	472	66	8	226	1816
1954	60	0	0	75	489	58	70	20	0	1	0	0	773
1955	9	12	1	0	66	167	1	0	4	0	37	0	297
1956	9	0	0	0	25	0	0	135	0	63	1	23	256
1957	0	0	761	3366	2941	2056	0	0	1121	1502	946	535	13228
1958	1561	2998	720	840	3262	1533	368	209	971	734	0	694	13890
1959	171	48	234	589	473	5	1115	365	73	2182	420	103	5778
1960	298	712	363	1286	314	159	103	1002	214	2562	581	530	8124
1961	832	838	0	0	0	676	1022	61	312	360	7	4	4112
1962	44	199	31	370	133	400	0	5	0	0	91	301	1574
1963	287	177	82	28	321	6	9	0	27	77	0	15	1029
1964	112	226	39	119	565	1017	0	427	1432	1211	574	98	5820
1965	511	570	510	536	4741	902	0	436	1	80	153	1668	10108
1966	150	516	248	188	658	534	6	103	76	378	0	88	2945
1967	127	99	232	128	4	96	649	21	1894	190	388	271	4099
1968	5186	914	525	429	1200	314	15	1	5	1	8	1	8599
1969	1	28	2	77	1553	108	0	6	1	86	2	558	2422
1970	5	232	613	15	368	1377	8	8	2	1	0	1	2630
1971	4	0	3	0	1	1	2	2547	83	1097	347	1153	5238
1972	174	0	0	6	6184	293	4	25	52	56	287	158	7239
1973	151	764	915	2091	1427	1269	4789	1277	7608	3353	0	0	23644
1974	145	0	33	5	12	3	211	388	2239	10	168	18	3232
1975	17	1972	17	55	556	115	15	28	1	7	8	2	2793
1976	2	7	1	1195	3839	147	69	3	166	2121	3039	1014	11603
1977	1752	1591	507	2460	918	416	16	38	24	0	928	8	8658
1978	7	25	29	50	83	26	23	40	820	18	388	92	1601
1979	2041	1025	3808	2914	1178	4395	182	239	11	0	6	70	15869
1980	15	34	0	0	65	28	10	7	4	12	4	6	185
1981	4	1	10	11	96	15928	315	1	17	530	30	4	16947
1982	2	2	10	6	2575	12	0	11	0	0	5	7	2630
1983	11	18	41	0	56	35	8	5	6	0	7	0	187
1984	2	2	6	0	11	0	0	0	0	141	1	92	255
1985	247	1145	856	139	14	1534	311	0	5	2009	179	142	6581
1986	11	68	23	1	620	7951	0	1	6	904	47	2147	11779
1987	6	70	2	112	2721	7140	612	137	5	13	0	39	10857
1988	1	12	3	9	12	35	74	0	2	0	0	0	148
1989	7	0	3	18	0	0	4	0	0	1	3	0	36
AVG	361	369	357	549	914	1276	296	185	541	460	283	278	5870

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1808 - MEDINA RIVER AT SOMERSET

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	5002	5447	4015	7377	7155	3205	3468	3220	3208	3278	3217	3813	52401
1935	3904	4562	3452	5909	58690	102334	15826	6696	61661	13747	10071	13465	300315
1936	10210	8747	8216	6237	26631	37760	57311	8811	157929	48038	26870	21363	418121
1937	20386	13213	16773	10166	7259	28872	8861	4210	4935	6083	4587	8644	133988
1938	20895	11043	13401	14866	15725	8462	6529	3754	6096	3819	3776	3854	112220
1939	6373	4228	4737	6482	4289	3320	6952	352	262	4493	135	2844	44467
1940	1353	2606	3355	11986	8718	13331	8045	1414	0	3587	8021	23461	85877
1941	7718	48307	32625	53570	64264	17536	11615	5382	5392	11867	6727	6586	271588
1942	4998	5441	4111	18234	29464	6458	12129	4029	50300	40211	12149	7934	195458
1943	8806	5621	6340	6293	5058	9565	4475	1625	4422	3489	4234	3776	63704
1944	6830	5179	12468	7572	39730	15801	3354	9016	7316	7292	5172	12169	131899
1945	25116	20865	24212	23500	11444	9856	4848	3508	6313	8372	3991	8707	150732
1946	8155	6502	7500	8657	12111	9619	3152	42751	48478	23283	21309	11693	203210
1947	19620	12108	11572	10966	10348	18784	6575	4420	3296	3438	4564	5555	111246
1948	4699	5778	4446	4282	1805	1943	3482	447	368	1936	914	527	30627
1949	1709	18630	8284	21254	9841	22850	3262	3736	3420	15688	3395	6686	118755
1950	6666	4630	6037	7012	6725	8135	1636	3896	3532	2315	1786	2826	55194
1951	506	2405	2588	897	16141	4470	0	0	2016	0	0	28	29051
1952	17	2175	590	1523	4456	3412	115	0	10061	0	0	1811	24161
1953	1389	618	1887	312	0	0	0	2733	22001	11191	1840	1192	43163
1954	653	403	317	1207	4444	328	0	0	0	0	0	0	7351
1955	118	2989	983	0	4480	0	2511	1546	0	0	0	0	12626
1956	109	0	0	0	0	0	0	377	702	1980	0	216	3383
1957	0	372	4993	66362	35329	35023	1722	0	10856	27393	19756	12031	213837
1958	33981	39494	42318	16689	42851	58348	15341	4461	44924	45571	40861	19351	404188
1959	11459	10044	6876	11964	8718	14423	9661	2940	1893	30672	7337	5473	121459
1960	7205	7459	9077	6507	4183	1775	7639	31860	6469	13476	12724	17856	126228
1961	17864	28950	22085	11671	5815	13744	13865	5011	4473	10909	6010	5669	146065
1962	5596	2916	1522	4750	2941	2360	0	0	0	4900	0	1565	26551
1963	1076	1362	1087	1493	850	158	0	0	1191	6105	516	1037	14874
1964	1427	3465	7292	2660	1606	3096	0	1725	48268	13038	13209	4585	100370
1965	3235	17429	8487	12833	45122	14401	4124	615	1921	6258	3070	11131	128626
1966	5180	4463	4134	6671	7454	4153	2681	14896	15048	6447	3948	3465	78540
1967	2594	2067	2348	1528	0	49	357	0	10333	13491	14297	7021	54084
1968	78209	28206	27373	20351	40623	15011	14353	4600	5095	3919	4042	5000	246782
1969	3907	4861	5242	7838	18716	5924	829	7138	2292	45006	10271	14303	126327
1970	8921	9681	18309	11894	28840	15728	5029	2368	2843	4510	3505	3314	114941
1971	3041	2086	2036	1919	1855	2648	1476	156424	13593	46123	33783	20649	285633
1972	13106	9089	8030	5758	61179	20060	9806	12724	9151	8053	6614	6186	169756
1973	6452	8724	11444	14630	9816	21724	154620	35398	35492	79584	38100	21716	437700
1974	16054	11848	10586	8103	23508	9051	5835	38144	25788	13059	19035	16061	197072
1975	21168	72962	30354	18421	40786	36677	22390	12128	7318	6760	6393	5961	281318
1976	5642	4456	4567	30574	43253	14852	26160	17760	16472	31605	38089	35737	269167
1977	31126	30979	24956	35106	42935	29255	17011	7861	10092	6622	18669	8576	263188
1978	7521	6605	6487	5407	3944	4627	2114	139077	29460	14263	10315	8530	238350
1979	24504	23417	45629	53716	32714	65515	22516	13819	6910	5676	5858	6510	306784
1980	6290	5261	5282	4792	8281	3791	2191	5811	29364	16732	9595	11417	108807
1981	9304	6670	23121	36317	28110	158273	45329	15598	10426	41718	16474	10871	402211
1982	7426	7226	8077	6666	33485	13318	7167	5150	3806	3523	4449	5089	105382
1983	4831	4548	6527	4999	4932	11475	5658	2817	2050	4029	8023	4275	64164
1984	6300	4640	4220	3168	2196	1761	961	882	1237	4083	2866	13579	45893
1985	27356	12372	22170	14029	19619	13827	7085	2426	3722	15862	8994	9987	157449
1986	7672	7922	5979	4453	12491	61537	19505	5569	20651	60277	33384	49304	288744
1987	43390	26616	36558	24123	91013	376474	53389	26144	16298	12155	12342	11862	730364
1988	10010	7258	7265	5478	5159	4018	35523	6358	5216	3972	3742	4186	98185
1989	6390	6627	6333	5575	3545	2336	1000	843	938	2987	3310	2916	42800
AVG	10776	10921	10869	12406	18940	24312	12134	12366	14380	14694	9685	9149	160632

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

LEON CREEK (RECHARGE ZONE RUNOFF)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	236	56	225	1008	358	114	77	0	58	0	301	111	2544
1935	0	138	76	164	6483	9122	381	92	1411	858	109	265	19099
1936	447	203	369	291	710	5212	715	564	3660	783	597	303	13854
1937	335	170	750	406	312	3301	196	86	989	241	164	562	7512
1938	1742	643	805	2270	1671	396	217	209	65	246	122	183	8569
1939	85	88	160	120	86	86	25	32	197	150	200	247	1476
1940	121	78	141	1184	357	3492	673	92	178	0	448	1484	8248
1941	269	1515	1609	3575	3118	2448	786	497	146	166	130	346	14605
1942	47	636	26	1793	280	539	2523	211	5990	1804	201	88	14138
1943	175	0	522	618	226	438	276	0	353	512	322	78	3520
1944	735	433	1078	1646	1122	818	502	317	504	383	523	1314	9375
1945	1846	2155	3769	2598	640	372	0	0	161	690	46	246	12523
1946	585	741	1393	325	2259	1423	7	229	1989	121	6482	1118	16672
1947	1119	0	568	85	42	378	415	335	0	55	63	267	3327
1948	142	185	18	133	701	245	334	890	3	194	246	76	3167
1949	53	271	603	1991	27	1093	28	0	121	2177	0	164	6528
1950	208	149	103	92	541	1216	19	165	22	0	88	0	2603
1951	244	401	160	0	991	954	24	0	386	0	22	202	3384
1952	50	626	68	131	24	1519	1323	0	2852	0	593	505	7691
1953	123	163	50	979	0	169	0	12	673	85	10	317	2581
1954	76	0	0	93	609	72	88	26	0	1	0	0	965
1955	11	16	1	0	90	235	1	0	5	0	47	0	406
1956	11	0	0	0	31	0	0	169	0	79	2	31	323
1957	0	0	1055	4851	4911	3295	0	0	1791	2227	1237	669	20036
1958	2123	4506	906	1059	4500	2380	463	297	1470	1015	0	874	19593
1959	214	61	292	851	606	6	1430	456	101	3057	532	129	7735
1960	371	1099	459	1697	392	237	144	1314	267	3574	727	663	10944
1961	1131	1062	0	0	0	857	1336	77	433	463	9	5	5373
1962	56	248	38	465	167	549	0	6	0	0	129	411	2069
1963	362	224	103	35	405	8	12	0	34	105	0	19	1307
1964	149	286	53	152	715	1610	0	570	2054	1980	799	127	8495
1965	745	753	664	711	7757	1164	0	593	1	122	198	2649	15357
1966	190	659	310	251	841	683	8	134	116	495	0	110	3797
1967	160	155	305	166	5	139	840	26	2921	248	504	347	5816
1968	8254	1179	671	544	1550	399	54	5	20	4	14	2	12696
1969	3	39	9	108	2227	159	0	24	6	353	10	722	3660
1970	20	312	788	37	564	2223	34	32	2	4	0	3	4019
1971	16	1	11	0	5	3	7	3329	106	1534	479	1506	6997
1972	234	0	0	24	12132	377	9	37	76	117	367	202	13575
1973	201	976	1151	2910	1808	1921	7760	1621	12519	4823	0	0	35690
1974	291	0	140	21	33	15	888	817	3498	35	674	78	6490
1975	71	2751	54	85	1931	224	45	118	6	23	34	10	5352
1976	8	29	4	1545	5285	347	264	11	240	3216	3934	1414	16297
1977	2281	2165	802	3879	1232	586	57	159	99	0	1652	35	12947
1978	29	106	122	130	350	100	97	77	1308	76	547	128	3070
1979	2746	1386	4904	4405	1946	5937	265	520	48	0	16	286	22459
1980	61	142	1	0	248	117	41	30	5	26	10	23	704
1981	15	2	34	45	315	21811	448	5	73	1586	39	16	24389
1982	10	10	41	26	4380	18	0	46	0	1	19	29	4580
1983	48	77	155	0	209	146	24	12	18	0	31	1	721
1984	7	8	24	0	38	0	0	0	0	185	4	386	652
1985	372	1464	1125	242	50	2715	927	0	12	3174	453	429	10963
1986	47	285	96	4	918	12840	0	3	11	2080	189	2860	19333
1987	9	294	9	473	5400	12206	2041	576	15	53	0	163	21239
1988	4	51	12	31	52	140	295	2	3	0	0	0	590
1989	11	1	7	65	0	2	15	0	0	1	14	0	116
AVG	516	518	479	791	1458	1908	466	265	840	699	417	396	8753

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1815 - MEDINA RIVER AT SAN ANTONIO

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	6535	6380	5804	8307	5926	5361	5535	5373	5362	5373	5348	5513	70816
1935	5456	5681	5541	7079	39594	86132	15187	8342	39222	16506	11683	15705	256128
1936	12248	9201	9276	7923	26637	30771	66901	9831	177294	54991	30339	24974	460384
1937	21418	15603	17707	11363	8870	20518	7940	6225	6405	6695	6511	9921	139176
1938	16998	11354	10012	14593	13774	8292	6635	5825	5974	5744	5845	5912	110958
1939	6866	6138	6155	6092	6299	5385	8036	2138	1467	5984	2248	4070	60877
1940	2609	4350	4582	12226	9523	14416	9048	2870	2092	5307	11019	23694	101736
1941	8402	50375	31972	52502	61290	18577	11635	6106	8206	12571	7325	7406	276367
1942	5819	6468	5045	22210	28460	7452	16197	5121	58917	47904	13171	9503	226267
1943	9927	7181	7356	7717	6277	10797	6985	3448	5808	4740	5779	5134	81149
1944	8019	7163	12715	8494	38830	15333	6075	11025	8552	8483	6351	13987	145027
1945	26613	22346	24024	23240	12305	11036	6159	5166	8522	10448	6018	9878	165755
1946	9398	7586	8626	10064	13044	11222	4795	50929	56124	25655	22144	13256	232843
1947	19909	12869	12387	11410	11105	18271	7769	5935	4554	4779	5931	6980	121899
1948	5973	7041	5728	5627	2985	3994	4640	3400	1674	3172	2026	1602	47862
1949	2864	18908	8906	24392	11529	27689	4828	5280	4567	18312	4452	8002	139729
1950	8257	5941	6966	8186	7643	9242	3934	5936	5532	3462	4037	3970	73106
1951	1451	4134	3887	1863	17890	6036	786	743	3166	859	810	952	42577
1952	1072	3539	2072	2676	5206	3569	652	443	11396	553	1515	3191	35884
1953	1859	1181	2935	1727	542	459	435	3520	27331	10715	2401	2121	55226
1954	1564	1017	1026	2278	4888	714	384	429	494	1464	727	782	15767
1955	1543	4364	2357	640	6003	670	2432	2517	810	470	508	964	23278
1956	1297	866	620	405	1045	397	425	2006	1720	4510	510	1193	14994
1957	343	1460	5720	68914	40393	36096	2353	596	17022	28782	19029	11896	232604
1958	34870	40773	40665	16287	46952	56394	17703	5243	50205	49996	45233	20839	425160
1959	12937	11429	8421	12939	9573	15317	10930	4557	3176	32450	8083	7271	137083
1960	8149	8501	10793	7358	5322	3397	8562	29590	6789	15837	13281	19523	137102
1961	20168	32553	23766	12241	6646	16830	17655	6499	6584	13494	7405	7107	170948
1962	7049	4631	3033	6804	4486	3752	1327	1626	1330	5697	2066	2858	44659
1963	2347	2829	2431	2810	2335	1483	1216	1190	2589	8178	1900	2384	31692
1964	3314	4675	8687	3958	2897	6821	1152	2684	45823	13983	17709	5498	117201
1965	4439	19153	9851	13350	47595	15377	5084	2650	3055	7119	4160	12780	144613
1966	6069	5536	5294	8321	9298	5010	3581	16059	15103	6902	4682	4334	90189
1967	3529	3085	3538	2959	1802	1311	1614	1190	30185	13494	14795	8258	85760
1968	86341	27886	27021	20347	40526	15107	14783	5481	6129	5047	5106	6309	260083
1969	5297	6724	6449	8863	21290	8258	2676	9657	4093	42758	10604	14668	141337
1970	9508	10927	18410	12212	30062	16068	5864	3459	4036	5068	4387	4240	124241
1971	3684	2765	3132	3098	2845	5375	2454	158568	16963	55255	37968	24647	316754
1972	14685	10712	9287	6404	82529	23510	10856	13995	9859	8578	7997	7512	205924
1973	8278	11784	12256	25024	11176	29153	178150	39589	68487	104969	42534	24619	556019
1974	18469	14006	12803	10232	26172	9819	6814	51418	36340	15474	21864	17714	241125
1975	22913	84241	30996	19066	46462	43046	22679	12501	8200	7225	6276	6527	310132
1976	6080	4812	6351	41883	63809	15097	30499	18571	18004	46292	47189	39373	337960
1977	35839	33640	25914	45289	58366	34355	18236	8022	14256	7584	17302	9181	307984
1978	8099	7540	6846	6811	4790	5475	2152	129522	33447	14647	12963	11032	243324
1979	26809	25600	44594	58664	38979	72385	26135	15936	7783	5082	6010	7627	335604
1980	6968	5758	4953	4051	12490	3799	14	9181	26906	15092	9076	11056	109344
1981	9361	6852	21421	32449	23346	188253	45966	15702	10667	43677	16753	11325	425772
1982	7785	7874	9104	6713	36206	13232	7461	5608	3552	3315	5957	6890	113697
1983	6885	7348	9123	6017	5220	9960	5942	3503	3122	4134	7675	5116	74045
1984	7219	5265	4805	3159	1413	2004	457	900	1087	10874	3820	12853	53856
1985	25464	11221	22285	15432	20067	19015	7752	2542	2797	15899	9974	10417	162865
1986	7630	7887	6394	5096	13359	88947	19088	5975	20308	58680	30340	56854	320558
1987	44161	29059	37462	22516	85789	406659	56560	26695	17635	12742	13117	12798	765193
1988	11078	8477	8519	6580	6488	4912	33136	6120	6684	3553	3484	4053	103084
1989	6870	6191	5642	6343	3989	3769	1674	1313	961	3781	3921	3900	48354
AVG	11942	12337	11637	13807	20577	26720	13713	13728	16935	16863	11060	10539	179858

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

ARROYO SECO AT BRAUNIG LAKE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	49	0	22	132	0	0	0	0	0	0	5	96	304
1935	0	8	0	59	721	1426	126	39	274	162	59	77	2951
1936	64	39	58	30	512	186	1087	101	464	562	195	154	3451
1937	115	71	85	58	17	736	56	8	0	19	3	187	1354
1938	173	45	88	228	128	32	3	0	0	0	0	0	698
1939	9	0	0	0	0	0	0	0	0	0	0	0	9
1940	0	0	0	53	5	80	105	4	0	16	272	136	670
1941	53	190	70	237	330	156	28	12	95	69	9	26	1277
1942	17	17	5	89	57	8	614	28	792	625	117	64	2432
1943	75	41	54	34	31	42	64	4	41	13	22	15	434
1944	85	22	72	29	156	38	12	22	43	16	12	84	590
1945	167	191	142	171	61	90	29	22	10	81	21	21	1006
1946	60	42	80	114	173	188	13	324	1779	393	192	126	3482
1947	171	93	118	70	74	38	14	70	11	6	24	33	723
1948	23	29	15	4	0	0	50	83	0	19	0	0	224
1949	0	47	0	368	78	495	59	27	0	190	15	41	1320
1950	28	0	17	23	13	33	0	1	0	0	0	0	114
1951	0	0	1	0	73	70	0	0	12	0	0	0	156
1952	0	6	0	24	0	0	0	0	8	0	0	0	39
1953	0	0	0	0	0	0	0	0	212	0	0	0	212
1954	0	0	0	0	18	0	0	0	0	1	14	0	32
1955	18	68	41	0	166	41	1	35	5	27	0	31	432
1956	0	0	0	0	21	0	31	3	26	25	1	369	475
1957	0	12	82	1048	690	381	0	0	1160	370	127	6	3878
1958	390	964	101	5	493	19	91	3	49	31	40	1	2188
1959	2	2	0	31	129	15	0	0	0	169	3	5	356
1960	24	1	9	4	0	20	0	0	0	375	62	78	573
1961	9	29	2	0	0	318	82	4	0	1	133	0	577
1962	0	0	0	21	1	87	0	0	0	0	22	14	144
1963	1	22	2	12	4	5	4	3	18	103	134	1	309
1964	66	121	169	4	7	11	4	66	3	37	108	1	596
1965	1	137	2	4	649	9	4	3	3	18	2	45	877
1966	21	5	0	23	10	4	4	0	10	6	0	0	85
1967	1	1	3	3	30	5	4	4	594	10	333	1	990
1968	1332	135	8	116	272	13	0	0	0	0	13	1	1891
1969	44	98	65	39	289	73	0	62	6	60	1	40	777
1970	82	98	107	54	308	112	0	6	17	22	0	0	806
1971	10	10	10	10	173	10	26	899	99	141	0	121	1507
1972	0	366	3	0	1423	19	0	22	0	7	0	0	1839
1973	5	198	0	324	26	1245	371	0	1196	524	0	0	3888
1974	0	0	18	0	144	1	2	253	0	55	0	0	472
1975	346	10	50	35	0	1229	26	206	170	45	0	37	2154
1976	986	0	0	170	491	8	90	2	0	604	54	134	2539
1977	0	239	0	571	1	26	164	2	75	1	234	0	1312
1978	0	37	178	0	145	40	185	1068	54	18	139	9	1872
1979	198	150	87	584	94	209	211	0	0	0	0	54	1587
1980	0	36	88	0	391	0	0	136	0	0	0	0	650
1981	57	0	0	46	4	195	0	13	0	0	39	0	354
1982	110	48	0	34	0	118	0	0	0	0	0	0	311
1983	20	12	0	1	9	4	0	0	0	0	183	0	227
1984	38	0	37	0	45	0	0	0	0	45	47	291	503
1985	0	163	149	25	0	0	0	0	0	54	70	6	466
1986	0	4	125	112	0	38	156	371	0	39	0	432	1277
1987	0	293	0	133	706	1156	0	93	0	0	0	0	2381
1988	25	225	33	70	0	0	0	0	0	0	0	15	367
1989	115	0	0	119	0	0	0	257	0	22	87	0	601
AVG	89	77	39	95	164	161	66	76	129	89	50	49	1085

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1818 - SAN ANTONIO RIVER AT ELMENDORF

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	16653	13259	14862	21553	12058	8102	12630	8946	8659	9771	13454	17685	157632
1935	12278	13920	12020	17436	72048	140526	27344	17763	54850	29967	21563	25881	445596
1936	22143	18428	19270	16892	52378	43749	110465	21475	189595	80060	43607	37162	655223
1937	32340	25327	27800	21075	17220	55078	17938	14374	13046	15249	13953	24874	278274
1938	30548	20390	20956	30534	25944	17170	14086	11018	11147	9652	11332	12625	215402
1939	14771	12496	12251	9968	9454	9667	12727	5813	3401	6102	2839	5207	104696
1940	4406	7157	6472	20531	12571	23256	22561	8685	3769	9812	43330	37430	199979
1941	17225	56974	39172	70873	91690	37887	17875	11486	22923	23288	11666	13030	414087
1942	11082	10681	9172	31170	32440	11982	82842	11600	110086	91969	25224	17826	446072
1943	18129	13263	15294	13744	12175	17339	16319	7547	11950	8743	9629	9282	153413
1944	18348	11494	22413	14043	54839	21976	10581	12767	14474	11314	9550	21360	223157
1945	38842	38105	37488	40642	19406	20064	11576	9444	10365	20083	10309	12979	269301
1946	15601	13408	18208	22347	32114	31178	8064	44798	221803	63137	41128	25775	537559
1947	36781	23294	25669	20006	20152	22597	10672	15575	7688	6881	9235	10582	209132
1948	9151	10299	8726	7386	5946	4709	12874	15798	6236	8732	3782	3137	96775
1949	4695	22427	10978	58762	21513	69705	14480	11764	6062	30409	8601	11799	271194
1950	10343	6868	9681	10759	9921	12205	5174	6160	5173	2297	2552	2813	83945
1951	1166	4542	6606	4007	22785	16994	1587	256	7025	2751	2421	2352	72492
1952	1949	6400	3745	9702	6532	4381	7195	87	13651	49	2174	5971	61834
1953	5625	2746	4148	3462	5012	47	109	6062	38986	9815	3219	3682	82912
1954	3023	1329	1159	3213	10125	248	53	52	46	0	31	34	19312
1955	0	4452	380	43	2370	49	1731	351	46	35	30	34	9522
1956	431	10	30	23	18	22	24	257	7302	2859	8	4	10987
1957	0	769	3611	63344	66296	52019	2738	1	11164	27493	21593	13549	262576
1958	45576	42830	41969	18859	45868	54224	20566	3194	53170	60420	63471	29307	479453
1959	20261	18264	14751	20942	18584	13787	10204	4170	4008	33538	13132	10399	182039
1960	13184	13620	18165	10229	8239	5097	9565	38994	5929	37982	27471	31085	219559
1961	30799	47315	32677	19133	5790	21083	32468	9476	9303	19551	9707	8900	246201
1962	8177	6612	4335	8938	4302	5242	0	0	2355	5002	6260	6703	57925
1963	5622	10053	2195	4262	1746	379	0	312	2774	15364	4712	2995	50414
1964	7465	9177	13583	4426	2297	9259	72	3765	40783	13752	29804	6312	140695
1965	5033	38092	14534	18058	87575	23747	5147	1857	4900	11254	4641	23854	238692
1966	8757	9795	8563	13955	17027	7826	3720	18679	17764	7050	4790	5203	123129
1967	4510	2769	4265	3296	2311	20	6230	3136	66821	17670	25019	11017	147064
1968	149660	36681	32998	26936	47442	18135	19466	5053	11599	5094	9449	13300	375813
1969	9074	10454	11264	10250	30127	7723	0	9879	75	40752	7288	16198	153084
1970	15884	18699	25626	15863	48776	18710	2997	3120	5221	6906	2716	2712	167230
1971	5021	3054	1429	2940	1562	6521	0	167381	22382	59697	41858	33046	344891
1972	18186	14815	11926	9614	123739	29914	16286	20781	12438	10542	12931	12258	293430
1973	15623	20605	20088	44641	19882	70593	201176	48780	139932	136094	55985	36156	809555
1974	30901	22612	20674	16497	37395	12296	5209	81529	50408	26881	40220	27977	372599
1975	30566	95462	38291	29118	72088	68149	31930	23087	16595	16785	12174	12850	447095
1976	9662	6803	9053	54789	101962	23513	41443	22356	27676	69789	62240	56302	485588
1977	56785	50123	41316	101939	74662	44371	25201	12721	22402	15524	55411	22111	522566
1978	16999	18337	16966	20652	10035	20341	0	151993	65549	20083	25270	17682	383907
1979	42469	34556	58836	89687	45916	112840	41392	24274	10100	6779	9295	16408	492552
1980	13968	10407	6563	8498	30847	5219	0	13529	30503	11749	12112	12393	155788
1981	14680	10208	24938	33979	36630	229896	56214	22039	19110	63734	21375	17758	550561
1982	13702	11426	13769	8573	59440	14424	4882	4177	634	8288	12564	10516	162395
1983	10071	11557	15082	5129	13035	15219	6256	5205	12125	6409	10661	4573	115322
1984	8988	7434	9694	3723	5966	252	0	239	0	38945	13521	23098	111860
1985	32256	15969	34830	23494	21845	37024	28015	2842	15419	35080	26381	16081	289236
1986	13658	12776	7040	7307	26291	179362	20469	2232	36620	84528	37001	86883	514167
1987	61566	56913	63619	32135	137539	488747	78289	31652	27964	15387	23256	22095	1039162
1988	18419	14876	15822	9939	6430	11092	37296	3560	6047	3069	3109	3914	133573
1989	12030	6230	9446	9944	3711	7770	0	0	0	6792	5723	6072	67718
AVG	19198	18331	17400	21415	31501	38995	20110	17537	27144	24660	17871	16451	270613

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1825 - CALAVERAS CREEK AT CALAVERAS LAKE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	341	0	151	910	0	0	0	0	0	0	36	666	2104
1935	0	53	0	408	4989	9858	868	270	1893	1121	410	535	20407
1936	442	272	404	205	3538	1284	7519	697	3206	3884	1346	1064	23860
1937	797	488	584	404	118	5089	387	56	0	129	19	1294	9364
1938	1197	310	609	1575	888	220	24	0	0	0	0	0	4824
1939	60	0	0	0	0	0	0	0	0	0	0	0	60
1940	0	0	0	363	33	551	723	30	0	109	1883	938	4632
1941	366	1317	485	1639	2283	1079	196	86	659	475	65	181	8830
1942	116	118	35	616	394	58	4243	191	5480	4320	807	442	16819
1943	516	282	370	233	213	290	443	28	280	93	149	106	3004
1944	586	154	498	200	1077	261	80	153	294	113	83	578	4076
1945	1152	1319	979	1182	420	625	203	155	69	561	147	147	6959
1946	417	288	550	788	1196	1301	88	2241	12300	2719	1325	869	24081
1947	1179	644	819	485	514	260	99	482	78	45	167	228	4999
1948	160	199	105	29	0	0	346	574	3	132	0	0	1548
1949	0	324	0	2544	537	3425	411	184	0	1311	106	284	9126
1950	191	0	116	157	92	226	0	8	0	0	0	0	790
1951	0	0	7	0	506	486	0	0	83	0	0	0	1081
1952	0	39	0	169	0	0	0	0	57	0	0	2	267
1953	0	0	0	0	0	0	0	0	1468	0	0	0	1468
1954	0	0	0	0	123	0	0	0	0	5	95	0	223
1955	124	468	285	0	1145	285	6	240	31	189	0	217	2990
1956	0	0	0	0	143	0	211	22	181	172	5	2551	3285
1957	1	84	567	7249	4774	2635	0	0	8024	2560	876	44	26813
1958	2694	6668	697	36	3410	131	632	21	336	217	275	9	15127
1959	11	14	1	213	893	102	2	0	0	1170	19	37	2461
1960	169	4	60	29	0	139	0	0	0	2593	430	540	3964
1961	63	200	12	0	0	2198	569	25	0	5	918	0	3990
1962	0	2	0	147	6	600	0	0	0	0	150	94	999
1963	6	150	16	81	29	33	28	23	126	713	925	5	2134
1964	457	838	1170	24	50	75	29	453	18	256	747	5	4123
1965	5	950	14	26	4488	64	25	21	24	123	13	308	6061
1966	146	37	0	161	67	30	29	3	70	44	0	0	585
1967	6	8	22	23	206	35	29	31	4109	66	2306	8	6848
1968	9211	935	57	805	1878	93	0	0	0	0	91	4	13073
1969	301	678	451	266	2002	506	0	431	39	412	8	278	5372
1970	570	676	743	372	2126	775	0	41	116	151	0	0	5571
1971	68	67	67	67	1196	67	180	6215	684	975	0	835	10421
1972	0	2528	23	0	9837	128	0	150	0	50	0	0	12716
1973	36	1366	0	2239	177	8611	2565	0	8271	3620	0	0	26885
1974	0	0	124	0	996	9	11	1747	0	377	0	0	3264
1975	2395	67	348	241	0	8498	181	1421	1174	313	0	258	14896
1976	6815	0	0	1173	3395	58	621	11	0	4176	376	930	17555
1977	0	1654	0	3950	6	178	1137	12	516	4	1617	0	9074
1978	0	255	1231	0	1000	274	1279	7385	375	125	961	61	12946
1979	1370	1039	599	4041	650	1443	1461	0	0	0	0	374	10977
1980	0	247	608	0	2703	0	0	939	0	0	0	0	4497
1981	396	0	0	316	26	1345	0	93	0	0	269	0	2445
1982	762	331	0	238	0	819	0	0	0	0	0	0	2150
1983	135	80	0	4	61	27	0	0	0	0	1266	0	1573
1984	260	0	258	0	310	0	0	0	0	314	328	2010	3480
1985	0	1125	1032	175	0	0	0	0	0	372	482	38	3224
1986	0	25	867	773	0	260	1081	2563	0	270	0	2988	8827
1987	0	2026	0	923	4881	7991	0	641	0	0	0	0	16462
1988	172	1556	226	482	0	0	0	0	0	0	0	105	2541
1989	793	0	0	826	0	0	0	1779	0	153	604	0	4155
AVG	616	534	271	657	1132	1115	459	525	892	615	345	340	7500

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1835 - SAN ANTONIO RIVER AT FALLS CITY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	18028	13783	15805	24245	12534	8291	13221	9214	8899	10121	14159	19952	168252
1935	12873	14638	12578	18952	82801	160228	29463	18835	57941	32638	22762	27121	490830
1936	23390	19456	20627	17837	60404	45866	125674	23537	187197	87094	45918	39122	696122
1937	33868	26469	29039	22291	17873	67333	19350	15066	13586	16092	14567	28442	303976
1938	33399	21377	22799	34495	28231	18139	14701	11471	11590	9992	11820	13226	231240
1939	15444	13064	12783	10290	9687	10065	13014	6695	4145	6435	3442	6019	111083
1940	5161	8084	7134	21668	13338	24746	24619	9763	4466	11038	47234	38996	216247
1941	18629	58221	39255	72064	93288	39835	18716	12503	24760	24548	12604	14210	428633
1942	12222	11862	10223	32249	32754	12874	90707	12926	119569	99411	27324	19411	481532
1943	19915	14731	16864	15025	13523	18505	18029	8712	13520	10006	10989	10542	170361
1944	20325	12718	23807	15200	55533	22691	11653	13883	15881	12426	10718	23076	237911
1945	40936	40745	39170	42691	20800	22024	12943	10837	11423	21848	11608	14060	289085
1946	17287	14881	20088	24613	34843	34287	9368	49635	242875	68027	43560	28019	587483
1947	39109	25059	27771	21549	21772	23261	11796	17459	8994	8155	10682	12105	227712
1948	10584	11758	10029	8570	7029	5647	14565	17939	7435	10116	4793	4095	112560
1949	5770	23299	11622	63462	23095	76157	16238	13055	6960	33604	9915	13393	296570
1950	11773	7910	10939	12052	11084	13590	6189	7381	6312	3209	3481	3758	97678
1951	2001	5661	7785	5006	24175	18779	2441	1008	8403	3748	3392	3319	85718
1952	2952	7698	4782	11117	7256	5052	8078	759	14404	788	3147	7192	73225
1953	6772	3627	5217	4542	6211	677	944	7248	41999	10075	4025	4640	95977
1954	3981	2108	2012	4232	11366	1001	666	505	664	2236	2614	2107	33492
1955	2860	9107	4131	2088	10513	3647	3625	3744	2460	2957	2076	3349	50557
1956	2651	2197	2144	2050	2888	1932	3174	2508	10478	6040	2142	12611	50815
1957	2183	3463	8760	102019	92624	67012	4735	2070	55954	41944	27486	15411	423661
1958	60675	79140	45600	20438	65332	54119	25761	5473	56172	63352	66945	31150	574157
1959	22233	20386	16839	23872	25364	16054	12326	6475	6345	40887	15274	12757	218812
1960	16169	15724	20490	12459	10442	8196	11775	39498	7954	53662	31581	35794	263744
1961	33206	50288	34546	20646	7999	34839	37564	11844	11597	21830	16901	11161	292421
1962	10481	8913	6699	12021	6753	10851	2361	2477	4823	5649	6787	8030	85845
1963	6506	11226	5488	6523	3457	1703	1932	1463	3773	15305	7536	4161	69073
1964	5691	15108	16082	6243	2809	11394	1074	4787	38422	13190	25026	7147	146973
1965	6362	37886	11075	21437	93777	23165	6059	2927	4572	10838	4673	21145	243916
1966	9354	11246	9552	15398	18111	8706	5137	17580	17779	7361	5435	5783	131442
1967	5971	3675	5674	4789	3508	922	6785	4858	118329	21467	32582	13137	221697
1968	180298	41812	33878	28532	68225	25794	22051	6226	24241	6761	9441	15711	462970
1969	10172	17392	12601	12342	44144	13746	1326	10413	3451	40377	8186	14988	189138
1970	17637	19519	27144	15820	54618	24900	4049	3771	5158	7109	4002	3508	187235
1971	5881	3234	3648	3647	3691	5775	2425	163927	21928	63996	44900	36134	359186
1972	19826	16771	11121	9188	143426	35149	16148	22414	13733	11858	13381	12688	325703
1973	16381	23359	20515	49667	22496	108816	198447	58028	166477	166404	70615	40765	941970
1974	34698	25339	23254	18753	41755	16866	6776	66462	67849	30081	43159	30295	405287
1975	37169	101636	45875	31744	109027	87880	35932	23545	16801	16416	11702	14167	531894
1976	19301	9972	12872	55481	108686	28737	47004	26036	31747	67131	83517	68287	558771
1977	63964	62048	48487	134631	93772	54769	30368	13763	22881	16996	47678	22128	611485
1978	16535	19636	19732	24268	14103	23378	1311	139960	63155	21869	30677	20374	394998
1979	50111	41069	62383	99528	60792	119096	44601	27503	13975	8638	10390	17236	555322
1980	17460	14280	8289	10287	44835	7099	1173	18806	34269	13886	14744	14612	199740
1981	16684	10916	23864	31889	34788	199940	65372	22010	21181	55704	22505	17211	522064
1982	15066	15233	14890	10014	51766	17454	6702	5308	2459	16011	23328	24080	202311
1983	22190	21822	31317	15063	21230	25670	13956	15782	27323	15312	20801	15259	245725
1984	19150	16886	20415	12079	11312	6024	5858	7084	7030	41080	16977	24895	188790
1985	40857	19102	39915	29656	24488	39677	36328	4870	16948	44452	38099	19241	353633
1986	15747	14368	9624	8774	26227	179328	24507	6174	33177	83977	37662	97168	536733
1987	68061	57364	60808	35837	87047	581852	80439	36121	32004	17341	27005	27445	1111324
1988	23806	18974	19525	14196	9508	12366	35917	4963	9542	4837	6194	6885	166713
1989	16945	8003	10487	13010	8250	12626	1594	3567	1273	6765	11024	9066	102610
AVG	22620	21504	19608	24938	35989	44617	22624	18944	31898	27555	20700	19046	310043

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1839 - CIBOLO CREEK AT BOERNE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	397	528	627	1314	707	15	489	0	0	0	0	12	4089
1935	0	477	0	256	8627	16549	3534	443	1869	2195	1166	1114	36228
1936	1442	388	892	467	3425	8250	1371	1932	10930	2627	1314	1033	34069
1937	1191	297	1680	2271	1637	3822	515	286	261	403	523	859	13743
1938	3888	2357	2067	2592	3343	373	812	463	533	263	232	388	17310
1939	409	254	512	228	368	129	283	212	68	1118	282	316	4177
1940	305	346	694	641	374	1463	537	213	190	0	592	1778	7132
1941	1046	5814	5503	6130	9338	2994	2133	815	683	940	831	670	36897
1942	507	470	490	1625	1773	790	638	520	2697	2167	1451	1190	14317
1943	1136	779	755	866	607	946	915	295	548	346	280	407	7880
1944	746	1356	3027	1764	4938	2347	1057	1878	1854	1288	948	2794	23998
1945	3797	3850	4941	3144	1556	972	814	636	981	1457	781	1875	24804
1946	1269	1619	1786	1243	2556	1127	553	381	1627	1210	2877	2530	18778
1947	5072	2903	2140	1733	1489	297	718	426	284	268	319	396	16043
1948	375	297	318	262	261	1137	389	211	192	298	206	242	4188
1949	297	310	564	1952	1701	681	396	268	338	337	322	342	7509
1950	345	432	368	431	1035	599	597	214	232	170	161	253	4837
1951	244	239	317	309	112	228	66	0	0	10	62	185	1771
1952	150	128	166	436	2023	601	213	60	15151	197	236	673	20032
1953	706	353	446	270	35	0	0	0	1435	284	70	100	3698
1954	73	0	0	0	514	0	0	0	0	0	0	0	586
1955	0	147	0	0	220	2	0	0	0	0	0	0	370
1956	0	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	1818	9314	4195	4228	278	0	2313	7234	5018	2997	37395
1958	4584	5335	5810	2796	15706	3676	1646	448	1680	2392	2749	1165	47986
1959	723	792	705	1244	957	2074	1067	407	169	3200	850	1050	13235
1960	1424	1191	1294	1157	589	246	358	1906	556	6141	2030	3254	20145
1961	2934	6997	3048	1718	1036	2411	1066	314	194	104	148	105	20074
1962	73	122	140	388	222	137	5	0	8	214	6	56	1371
1963	100	110	62	443	83	8	1	1	0	0	6	0	814
1964	482	686	677	390	143	120	4	1	7760	328	332	166	11089
1965	189	1560	972	6420	11950	3661	617	214	133	442	287	1100	27545
1966	638	647	711	1140	1200	550	171	203	803	356	195	137	6751
1967	112	120	77	88	50	18	1	89	1430	694	1340	930	4949
1968	7300	4110	3330	5060	5550	1160	611	150	351	135	182	334	28273
1969	223	506	581	2320	1630	498	91	82	685	3670	1400	4980	16666
1970	2290	2200	4980	2450	3420	3080	874	229	441	307	211	195	20677
1971	154	130	104	180	72	37	2	8290	2980	6170	2560	2790	23469
1972	1549	1037	612	481	6437	1903	689	1065	527	851	717	640	16508
1973	1014	1930	2414	2995	2554	4707	18183	3113	2764	10143	3003	1452	54272
1974	1172	8821	850	413	3293	1015	254	4799	2753	1523	3074	2643	30610
1975	3173	12728	2364	4065	7360	3783	1423	539	274	341	352	274	36676
1976	255	223	181	5509	4420	2570	2110	752	886	2711	3590	4441	27648
1977	2868	3123	2362	7029	2692	3075	931	301	231	172	3544	539	26867
1978	382	384	318	263	167	133	9	281	1547	406	910	2117	6917
1979	4327	4105	10038	7385	3334	6171	2526	1086	575	300	356	359	40562
1980	340	220	248	248	436	212	86	47	259	440	297	487	3320
1981	279	320	949	1068	3937	25579	3737	1763	696	1133	439	311	40211
1982	313	253	287	308	4398	815	358	141	68	93	95	350	7479
1983	396	386	486	445	2144	1817	1104	469	180	664	499	303	8893
1984	397	296	285	198	143	232	73	57	32	145	206	2119	4183
1985	1584	1304	2997	2071	1512	2597	2312	647	589	795	1536	2605	20549
1986	1337	2218	1062	586	1540	5748	1700	893	1337	7131	3661	11723	38936
1987	4628	3345	4039	1660	7261	24145	1815	808	380	228	413	620	49342
1988	482	359	472	417	296	242	90	93	78	60	60	72	2721
1989	138	89	113	114	155	59	48	50	73	93	34	2	968
AVG	1237	1589	1459	1755	2599	2679	1076	687	1297	1325	942	1205	17849

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1850 - CIBOLO CREEK AT SELMA

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	0	0	0	0	0	0	0	0	0	0	0	0	0
1935	0	0	0	0	11614	19205	1821	0	1147	757	0	0	34543
1936	793	0	0	368	1381	6827	0	2212	9800	2189	1247	0	24817
1937	0	0	1928	1094	288	4419	0	0	0	0	0	0	7729
1938	4651	2103	1978	6116	6902	0	0	0	0	0	0	0	21750
1939	0	0	0	0	0	0	0	0	0	0	0	0	0
1940	0	0	0	0	0	1986	1275	0	0	3040	341	1385	8027
1941	0	4269	5048	8968	9742	9093	2066	0	0	0	0	560	39744
1942	0	1566	0	1287	0	1240	3521	0	6791	5264	0	0	19669
1943	0	0	0	430	0	0	1256	0	1451	1226	0	0	4363
1944	0	145	4137	10233	3040	3008	0	0	1583	0	1242	3753	27140
1945	3628	7058	14963	4772	318	281	0	0	0	1328	0	16	32363
1946	1106	1157	7776	0	1600	124	0	0	6940	77	2660	267	21708
1947	9	0	0	0	0	0	0	0	0	0	0	0	9
1948	0	0	0	0	0	0	7	0	0	2	0	0	9
1949	0	0	0	1920	82	0	0	0	0	17	0	0	2019
1950	0	0	0	0	0	0	0	0	0	0	0	0	0
1951	0	0	0	0	0	312	0	0	0	0	0	0	312
1952	0	0	0	1	1	1	1	1	22041	1	0	0	22047
1953	0	0	0	1	0	0	0	1	244	0	0	44	290
1954	0	0	0	0	0	0	0	0	0	0	0	0	0
1955	0	0	0	0	1	0	0	0	0	0	0	0	1
1956	0	0	0	0	0	0	0	0	0	0	0	0	0
1957	0	0	1110	12930	17670	8410	1	0	207	2840	0	0	43168
1958	97	2580	1130	0	22560	0	0	1	1200	936	1050	0	29554
1959	0	0	0	0	0	104	0	1	0	26	0	0	131
1960	0	0	0	6	0	0	0	3060	0	2190	65	0	5321
1961	0	0	0	0	0	0	0	0	0	58	34	0	92
1962	0	0	0	6	0	0	0	0	0	0	0	10	16
1963	0	0	0	0	0	0	0	0	0	0	0	0	0
1964	0	0	0	0	0	3010	0	0	8240	23	0	0	11273
1965	0	14	0	2450	26270	3630	0	0	0	4360	0	4940	41664
1966	0	0	0	0	0	0	0	0	0	0	0	0	0
1967	0	0	0	0	0	0	0	0	426	0	4	0	430
1968	22830	146	0	0	1200	0	0	0	0	0	0	0	24176
1969	0	0	0	0	595	0	0	0	0	0	0	0	595
1970	0	0	0	0	22	0	1	1	0	0	0	0	24
1971	0	0	0	0	0	0	1	4960	0	1610	0	0	6571
1972	0	0	0	0	38260	3	0	0	0	0	0	0	38263
1973	0	0	0	11	0	3260	64200	554	4690	18660	971	0	92346
1974	0	0	0	0	16	0	0	3030	260	0	604	1	3911
1975	0	6310	0	0	746	1	0	0	0	0	0	0	7057
1976	0	0	0	4670	966	2	0	0	0	6550	860	0	13048
1977	0	0	0	5530	16	0	0	0	0	0	1200	0	6746
1978	0	0	0	0	0	145	0	131	1300	0	57	0	1633
1979	142	0	8550	1360	32	1380	89	1	0	0	0	0	11554
1980	0	0	0	0	0	0	0	0	4	15	0	0	19
1981	0	0	0	0	0	27600	5	0	0	0	378	0	27983
1982	0	0	0	0	2690	0	0	0	0	0	0	0	2690
1983	0	0	0	0	400	0	0	0	0	0	0	0	400
1984	0	0	0	0	0	0	0	0	0	81	0	0	81
1985	0	0	0	0	0	21390	2750	0	0	0	244	0	24384
1986	0	0	0	0	6	268	0	0	0	322	0	6440	7036
1987	0	30	0	0	2180	60090	20	0	0	0	0	0	62320
1988	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0	0	0	0	0
AVG	594	453	833	1110	2654	3139	1375	249	1184	921	196	311	13018

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET
1860 - CIBOLO CREEK AT FALLS CITY

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	5850	2470	5400	12400	1230	543	16800	984	982	908	9030	9470	66067
1935	1590	6860	1540	11870	69470	87840	4550	2180	15750	2820	1620	4240	210330
1936	1600	1410	2470	1700	24300	2200	55050	1870	4650	3310	1910	1840	102310
1937	1850	1460	2690	1710	1030	42770	1470	1210	2100	1600	954	23020	81864
1938	16550	2040	10060	45780	7390	3050	1610	1190	1080	960	1160	1360	92230
1939	1230	1070	1120	877	1460	943	1010	1900	588	611	511	697	12017
1940	799	857	829	6370	1550	22510	6730	556	527	4340	33590	30930	109588
1941	10260	16220	9470	46260	44470	18360	3080	2040	10460	10790	1640	1620	174670
1942	1450	1280	1360	5140	2990	1110	83450	3610	87800	34650	4660	3240	230740
1943	3110	2300	3020	1800	4560	4250	4400	1050	2320	1170	2490	1430	31900
1944	7440	2080	5140	3570	39540	3390	1680	1740	2420	1230	1530	4100	73860
1945	11540	14460	10930	12860	1690	4390	1140	1070	691	3880	1100	1210	64961
1946	1970	2160	5260	16100	38060	14140	1300	55890	49790	15440	7000	3650	210760
1947	10790	2220	4980	2990	15480	2120	1460	1800	1100	958	1180	1370	46448
1948	1340	1520	1310	1090	3980	1190	2680	9930	1660	2410	861	930	28901
1949	1150	2940	1221	46201	5592	16242	2122	2281	1071	31580	2060	3820	116280
1950	1611	1812	1414	3085	1217	15938	1186	1195	1174	727	742	913	31014
1951	969	984	1236	1033	2495	10526	642	530	2156	665	811	879	22926
1952	916	1644	975	2769	3641	1079	831	431	48879	1205	1583	4408	68361
1953	1581	1095	1060	3061	4304	847	588	5994	16910	1706	1063	3679	41888
1954	1121	918	926	1012	2558	958	504	340	403	951	744	623	11058
1955	757	2295	3180	794	2964	4113	499	1095	1520	681	514	872	19284
1956	654	556	452	526	1185	125	527	180	1572	2721	660	8671	17829
1957	688	1370	6040	62930	39470	29422	1558	907	33510	10500	8480	2040	196915
1958	21110	48690	3720	2570	31794	2358	1990	975	5860	10920	4660	1530	136177
1959	1630	1750	1430	8870	4591	1260	1500	844	804	11860	1960	1430	37929
1960	2370	1350	1531	1561	1561	8061	2271	3851	832	48040	8110	8600	88138
1961	4140	6840	2210	1980	1620	40790	17732	2190	1680	4900	18770	2470	105322
1962	2145	1920	1910	2970	1464	2345	1110	452	965	764	1760	1850	19655
1963	1189	3454	1163	1399	934	511	434	340	476	891	7522	946	19259
1964	3136	5699	5745	1073	719	3552	488	923	6077	2394	7377	1019	38202
1965	1801	21732	2100	4982	52970	9851	1392	1164	765	14559	2681	16106	130103
1966	1814	2912	3837	5302	6627	1528	1075	1084	2097	998	866	826	28966
1967	1140	793	802	685	538	329	649	2984	86342	4023	19286	2686	120257
1968	100003	7444	3939	11232	17605	9918	2655	1363	9129	1465	3154	8563	176470
1969	2571	20602	5014	5493	12555	5337	1219	1072	1690	2911	1552	2862	62878
1970	2318	2299	4972	1665	28747	4588	1466	1120	877	1199	1096	1315	51662
1971	1116	1064	996	624	526	529	322	24593	6038	7837	1860	6832	52337
1972	1805	1450	1434	1000	137034	9233	3148	2260	1606	1323	1767	1687	163747
1973	2345	4312	4063	24904	3128	63750	59043	6341	93804	61072	9870	4866	337498
1974	6100	3191	3196	2532	6636	1812	1236	13018	13244	1973	16151	4026	73115
1975	3158	15790	2834	4680	37685	15940	4146	3142	1747	1687	1727	2147	94683
1976	1753	1315	1998	16222	41655	3441	6434	1823	4406	38134	19188	14609	150978
1977	11960	12814	4470	88437	16364	4484	2748	1739	14099	2341	29578	2715	191749
1978	2534	2781	2589	6754	2626	16933	1400	9673	14575	1753	20965	3071	85654
1979	20976	11175	11573	50262	15337	21891	5930	3423	2305	1627	1665	2008	148172
1980	2080	1867	1709	1275	18679	1219	630	1928	20118	1246	1884	1504	54139
1981	1753	1348	1490	3099	5871	6062	1008	5331	5837	4038	5258	1543	42638
1982	1451	3498	1838	1306	5428	1276	405	224	537	3265	614	984	20826
1983	1477	2523	3680	1125	1969	689	705	531	2166	490	4661	670	20686
1984	977	632	1936	473	318	187	0	0	0	7190	2244	1109	15066
1985	3486	694	6966	4153	549	13567	14503	321	1834	6668	13764	2371	68876
1986	1575	1349	1129	680	1831	26197	1103	418	1199	4381	2286	35215	77363
1987	6015	16726	6311	2276	27745	166672	6392	3489	2528	1645	1682	2373	243854
1988	1982	1814	1811	1353	1017	1275	1215	443	376	196	313	851	12646
1989	1699	1240	1056	1358	1339	1508	397	418	0	368	710	925	11018
AVG	5472	5055	3242	9897	14430	13128	6065	3526	10592	6928	5373	4549	88255

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1865 - ECLETO CREEK AT RUNGE

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	1682	710	1553	3565	354	156	4830	283	282	261	2596	2723	18994
1935	457	1972	443	3413	19973	25254	1308	627	4528	811	466	1219	60470
1936	460	405	710	489	6986	633	15827	538	1337	952	549	529	29414
1937	532	420	773	492	296	12296	423	348	604	460	274	6618	23536
1938	4758	587	2892	13162	2125	877	463	342	311	276	334	391	26516
1939	354	308	15	168	295	384	1627	404	35	0	32	0	3620
1940	112	971	0	258	30	1106	14108	3010	337	834	22515	14816	58097
1941	3725	3906	4405	5872	36551	14051	9411	3488	6416	2249	3780	899	94752
1942	789	746	458	1280	1488	914	32001	2131	33994	5019	2481	2413	83713
1943	1653	1157	2109	1645	2595	8192	1853	807	553	513	863	826	22765
1944	498	1475	1300	143	16482	3247	831	1683	3724	579	575	980	31518
1945	1160	1149	0	6877	1014	1062	20	0	0	659	80	322	12344
1946	86	988	1547	2663	11777	5467	684	0	0	66265	3489	987	93954
1947	2321	803	997	1138	7392	755	457	0	693	290	275	230	15351
1948	227	328	418	473	1769	0	1283	5021	1278	1323	225	411	12755
1949	335	0	1351	13803	4883	0	6780	560	688	5863	1067	1873	37202
1950	178	230	0	141	93	3720	407	301	0	149	0	9	5227
1951	328	200	0	644	1964	10238	263	162	8242	253	328	333	22955
1952	128	0	407	787	5247	867	72	142	41283	1032	1326	677	51968
1953	1341	362	222	572	11344	265	565	1660	7676	1643	460	591	26702
1954	220	211	154	215	386	648	339	98	35	247	604	106	3261
1955	160	1264	316	260	1347	640	78	792	1746	158	23	0	6783
1956	0	70	64	324	1520	0	0	0	0	2522	1002	1698	7200
1957	161	195	3782	10718	19187	16590	635	457	12127	5750	6928	700	77230
1958	10449	18190	3304	973	12913	535	529	464	0	0	3861	158	51375
1959	464	554	476	2139	1562	1010	802	205	0	523	790	412	8938
1960	525	193	0	833	771	3948	3325	1592	833	19455	16673	3691	51838
1961	2748	3732	686	1413	662	6555	2676	1147	562	529	4077	559	25344
1962	474	431	147	133	25	2470	4	0	983	0	187	1090	5944
1963	34	816	6	0	6	0	42	0	20	2	167	171	1264
1964	251	1390	1400	68	7	0	0	340	66	9	0	0	3531
1965	7360	11650	106	36	3610	1120	0	0	0	7680	35	499	32096
1966	30	86	27	1530	3080	120	118	0	429	0	0	0	5420
1967	0	0	3	37	16	0	0	197	99630	2090	1380	230	103583
1968	20780	1370	762	1030	11810	3210	180	26	792	12	10	1140	41122
1969	414	5610	5040	7900	9300	3280	18	0	318	751	19	393	33043
1970	1550	632	3670	79	228	64	1	23	0	0	0	1	6248
1971	2	4	3	2	0	42	0	1010	2410	909	6	131	4519
1972	90	47	11	3	14390	2320	16	3	22	31	5	7	16945
1973	15	233	237	8240	193	28940	448	346	2090	8710	492	168	50112
1974	336	129	82	25	1240	1140	0	1160	1510	74	551	47	6294
1975	35	232	27	2640	15480	9310	3810	386	49	14	59	59	32101
1976	46	20	17	1600	12840	350	191	6	654	9270	6550	11520	43064
1977	2590	2940	366	29680	7880	404	104	22	1310	91	2620	92	48099
1978	95	184	133	675	123	2320	7	1270	3490	11	276	203	8787
1979	6060	1470	210	19080	16210	10430	1200	396	60	20	50	38	55224
1980	43	73	46	16	4770	13	1	362	5600	139	303	59	11425
1981	144	116	81	373	3150	593	403	50710	17510	4560	456	77	78173
1982	185	3170	218	23	522	1100	1	33	59	2460	107	105	7983
1983	0	327	3520	33	12	75	1670	1	1880	1250	1240	1	10009
1984	285	0	1470	13	5	0	0	0	0	490	2970	52	5285
1985	805	70	3680	1470	2	413	157	0	139	3280	19210	209	29435
1986	45	43	49	35	283	713	0	0	57	461	1200	10800	13686
1987	1170	8010	1210	110	355	55420	359	72	21	9	21	178	66935
1988	30	25	46	16	9	184	68	1	0	0	0	8	387
1989	19	253	67	1050	112	0	0	0	0	0	214	0	1715
AVG	1406	1437	911	2685	4940	4347	1971	1475	4757	2874	2032	1276	30112

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1885 - SAN ANTONIO RIVER AT GOLIAD

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	30608	20185	27442	48773	16837	11492	44555	13171	12854	13940	32034	39355	311246
1935	17858	28726	17470	42022	209103	320635	39553	24776	86090	39924	27554	36177	889888
1936	28139	23988	27154	22923	107457	50677	227606	29343	180183	94727	50374	43691	886262
1937	38512	30683	35272	27285	21593	149829	24267	19313	19370	21051	18351	71830	477356
1938	64606	26841	42707	117309	43465	25561	19613	15757	15673	13903	16056	17793	419284
1939	19687	17116	13626	11478	11511	12235	20030	9898	5248	6933	4360	6850	138972
1940	6661	13230	8055	25892	14657	38618	85898	23167	6714	17204	153939	110830	504865
1941	38665	79562	59421	111527	255325	104478	58367	28260	56095	38478	29297	19528	879003
1942	17024	16485	13590	39748	39353	17747	257727	24139	297265	138768	40924	31796	934566
1943	29418	21666	27979	23511	26961	54059	28751	13522	18170	13774	16752	15658	290221
1944	26980	20610	32041	18127	135373	37338	16640	22333	33119	16265	14750	30058	403634
1945	51275	52822	41479	76436	26699	29768	14779	12477	12392	27548	13618	16786	376079
1946	19993	21090	30061	43417	98716	64481	13931	48376	255841	345109	61988	35386	1038389
1947	54223	30646	35493	28591	58686	27326	15250	19450	13531	10985	13703	15078	322962
1948	13453	15112	13508	12070	16729	6031	22413	44011	14430	17747	7056	7084	189644
1949	8653	22354	18040	140093	46183	60697	46107	17392	11017	71920	16309	23956	482721
1950	14519	10549	12689	15022	13042	35783	9299	10291	7788	5012	4480	5100	143574
1951	4537	7994	8353	9024	34120	65671	4626	2618	43898	6046	6023	5986	198896
1952	4846	9259	7858	16745	30459	9618	9543	2155	199338	6137	10093	12808	318859
1953	13945	6395	7609	9105	54830	2676	4281	17375	81741	17448	7092	9368	231865
1954	6269	4088	3841	6524	15082	4724	2814	1457	1550	4476	5974	3365	60164
1955	4711	16522	7690	3962	18241	8473	4463	8167	11070	4204	2900	4387	94790
1956	3118	3490	3231	4058	10175	1422	2016	1327	8085	18660	7093	23643	86318
1957	3894	5848	27581	170736	189163	147684	8604	4854	121416	69568	59267	19837	828452
1958	112417	173181	59030	25978	132814	54644	30806	8924	60456	71998	90897	35056	856201
1959	26905	25651	21403	37746	35988	21707	17878	9228	8124	48846	21040	16866	291382
1960	21191	19016	21762	18066	15898	28991	27977	47262	12740	154261	104556	56994	528714
1961	49481	72646	41177	28087	12805	79572	58840	19286	16625	28831	42790	16343	466483
1962	15236	13215	9771	14505	9738	35948	5658	3267	12698	6355	8449	17545	152385
1963	8166	16194	7097	7725	5435	3366	3463	1304	3320	12593	14736	8996	92395
1964	7365	26028	23715	7494	4524	13035	2243	24329	36928	18994	32811	9706	207172
1965	30171	97808	17449	27354	168160	43739	10287	5710	5442	33787	9548	40114	489569
1966	13847	16148	15512	25939	34522	13361	7631	18960	24786	10208	6408	7168	194490
1967	7683	5842	7254	7850	7483	1792	7649	20855	715399	65542	58186	20739	926274
1968	276654	64333	46482	43867	139103	50342	31864	13171	45184	13400	13066	30570	768036
1969	16831	49808	29864	39620	78395	29494	5922	7387	13283	42735	12756	21115	347210
1970	24992	22847	45043	19385	73054	77132	9068	8104	6706	11587	7562	7535	313015
1971	9607	6554	7057	5575	5237	8838	4771	167663	53886	78168	50406	45155	442917
1972	27714	22666	16837	27792	271914	59763	27523	28747	26228	31912	20530	17245	578871
1973	19260	29402	27251	102231	31470	254064	267873	77973	116095	424032	88634	52656	1490941
1974	45240	33336	32089	26179	51513	27231	10434	67918	93694	36559	58213	37766	520172
1975	42316	107715	51966	42541	148333	134720	55455	33403	26078	22029	17105	25714	707375
1976	24966	14282	16810	94298	171765	38720	62382	32262	47194	109389	133069	104320	849457
1977	79479	78031	54867	252737	140740	73398	39009	21906	40055	23673	78597	28093	910585
1978	24372	26452	26286	33477	21245	49561	5647	143544	102510	33326	52915	27170	546505
1979	88202	56061	70518	164565	131337	160230	59664	37170	21449	13842	16208	21692	840938
1980	25803	19896	12788	15804	75056	13561	4878	33660	66486	17882	18116	19837	323767
1981	20008	16259	28304	39569	55118	274652	87291	32628	138320	85865	57741	27932	863687
1982	22516	37875	25615	18274	67824	21699	10116	9147	5888	23248	22167	17740	282109
1983	16358	18552	30788	11459	17497	18250	11829	11066	39607	13763	23164	8812	221145
1984	15287	11684	17024	7812	7212	4388	2580	2198	1076	54830	27215	25796	177102
1985	45875	21077	51436	45422	27184	53049	52924	6498	17383	56606	71847	28315	477616
1986	18074	18401	10927	8479	23962	184944	31327	8349	32190	81653	41848	139652	599806
1987	80972	71677	87066	41501	98265	896837	101892	46934	37563	21526	29128	30881	1544242
1988	27199	22675	23868	18014	13336	15583	36049	8538	11090	6744	6612	7281	196989
1989	14913	13872	13074	16984	14270	13207	3125	5159	2649	4051	14789	9770	125863
AVG	31798	30972	26291	41084	64017	72194	37057	24575	59893	47823	33412	28052	497168

GUADALUPE-SAN ANTONIO RIVER BASIN MODEL - NATURAL STREAMFLOW IN ACRE-FEET

1888 - GUADALUPE RIVER AT TIVOLI

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	222373	101714	177145	169248	67431	45283	131805	50449	59892	45222	139849	154274	1364685
1935	70438	146806	82527	122637	669230	822723	155021	95509	431789	158966	93817	184029	3033492
1936	113427	82183	96086	82774	494238	205657	1337735	120232	374342	348965	152402	138596	3546637
1937	129465	103159	212476	105968	80515	303997	89673	71525	69005	83757	65818	175407	1490765
1938	219969	124072	125972	441277	376777	111832	77978	76938	68987	53895	60888	78292	1816877
1939	73256	56351	53663	49511	67891	61784	87357	32790	36471	37046	27605	35834	619559
1940	79176	88886	59970	90710	61179	159045	487457	60347	33921	59310	572449	525750	2278200
1941	232506	338311	362572	440943	1075728	395822	226661	111655	116426	113011	92980	84530	3591145
1942	71091	109805	83760	194008	131958	69066	729104	128660	526751	291569	140063	114388	2590223
1943	121960	87797	113223	88026	82712	129228	80004	49574	56896	48673	50082	84723	992898
1944	180112	144877	237444	112871	363365	219534	91436	81098	131479	63541	82511	151014	1859282
1945	233172	216169	196032	397777	114071	101888	65641	71501	55340	100697	57832	77989	1688109
1946	135478	167039	231406	136470	219933	201216	58965	109021	496663	675543	302511	179105	2913350
1947	295784	157259	165359	155712	233009	106137	73721	97963	51049	43168	46470	56694	1482325
1948	81512	101594	79683	52665	104164	38551	63063	69443	39043	44019	28404	30201	732342
1949	41479	97267	120172	424235	241265	135068	101813	56886	42878	265765	81579	104081	1712488
1950	64597	62843	52855	85765	63880	160397	40970	29301	26957	23573	22370	26692	660200
1951	25347	27845	30876	32264	81511	197187	26425	14777	131729	47636	36826	30299	682722
1952	26166	38410	34408	57007	134973	91795	38400	13123	422605	45186	111002	161821	1174896
1953	127367	70670	56116	53604	208103	22439	22597	76251	180074	115052	45344	63824	1041441
1954	42713	31011	27319	32490	53613	17381	10620	7234	6769	19728	20248	18136	287262
1955	19150	83390	32954	22218	64983	51742	15889	20235	18398	8915	7781	13404	359059
1956	12992	15784	11210	11877	22144	4365	4780	3212	10405	28151	13486	50691	189097
1957	11327	30753	193904	537891	660999	477282	63235	32442	329585	547182	385605	167071	3437276
1958	434778	816646	348746	169151	398222	154201	102804	51280	220839	255834	242858	165807	3361166
1959	123218	226748	139083	262036	144986	88210	92926	58793	49988	201283	102868	115221	1605360
1960	121255	139862	117911	102578	158945	194971	183697	154440	73056	878421	634254	369134	3128524
1961	357630	397534	222070	136512	88364	476715	209994	86288	121389	83985	177943	76911	2435335
1962	68193	60094	53006	69876	52554	85854	33915	21638	55789	41878	44226	77037	664060
1963	59487	91198	55703	53980	36698	26493	24471	12761	14445	22963	61392	60704	520295
1964	70806	109539	112604	55215	35896	47355	19584	46158	89926	58111	78673	40425	764292
1965	134803	429617	118620	148445	500673	329697	77706	49583	40371	114306	130188	263334	2337343
1966	141312	160456	133346	160864	224117	90077	66679	67110	75323	55701	42089	39365	1256439
1967	43470	39222	39771	34538	33071	18950	21100	84904	1685071	353529	225067	102133	2680826
1968	803932	262433	190215	216852	511884	497704	165843	86522	166560	64616	70697	150029	3187287
1969	68850	264587	242299	360119	330256	147258	63378	53577	63198	139107	90584	151757	1974970
1970	163105	145661	266120	139598	337605	237007	84130	60571	63664	87399	53954	50468	1689282
1971	47602	38314	40971	31365	28114	36745	23674	268613	349035	258781	157192	187456	1467862
1972	141670	106945	85264	88185	1098918	239933	120116	106998	81694	115062	100123	81061	2365969
1973	130043	174697	204006	450760	164835	833845	537718	230530	247269	1211708	284535	174908	4644854
1974	272807	132985	115396	92792	215837	121941	63349	144625	306764	115156	328326	221555	2131533
1975	171445	344859	175041	162938	697940	445421	237350	129132	96471	88639	74237	176448	2799921
1976	114231	79686	76487	519798	581975	240461	221201	118266	151172	460497	487121	612887	3663782
1977	335193	394849	207778	880110	400003	263906	151581	115594	103828	82499	168383	85560	3189284
1978	101728	125803	101763	96862	69372	135545	42090	376622	382143	132346	169497	101300	1835071
1979	468641	320225	320256	477873	617470	505994	184744	138962	146545	83809	72499	74183	3411201
1980	140262	96584	80235	66915	264997	80578	43807	71100	151129	81367	73030	77754	1227758
1981	91145	73775	116624	139661	376250	972781	323667	159729	779919	370910	351186	137433	3893080
1982	106164	200720	119629	87408	436404	103355	56325	39844	33744	54430	158407	84605	1481035
1983	58481	117057	177658	79530	106384	93799	143268	67235	79926	95569	78921	41277	1139105
1984	64152	47809	77381	33840	43675	24502	9916	21051	8481	110694	71753	81477	594731
1985	178476	106426	228782	212692	126142	257495	205129	64152	56668	168389	252660	214431	2071442
1986	116200	109913	85772	61101	128222	369869	97695	45807	106051	239899	174034	535179	2069742
1987	314148	265920	348377	148380	255161	2464865	391812	226161	134438	103343	121040	109059	4882704
1988	90679	78718	91908	65272	63067	67927	107410	60217	44212	36198	32094	42833	780535
1989	57367	50739	56800	56872	96181	48064	19645	18052	12070	16276	31172	29878	493116
AVG	146824	151672	135478	170715	255319	246981	146555	84223	173368	168773	138909	132830	1951647

APPENDIX G

GSA Model Program Listing

```

C*****
C***** GUADALUPE - SAN ANTONIO RIVER BASIN MODEL *****
C***** HDR ENGINEERING, INC. *****
C***** SEPTEMBER, 1993 *****
C*****
C** GUADALUPE - SAN ANTONIO RIVER BASIN MODEL FORTRAN CODE SHALL NOT **
C** BE MODIFIED IN ANY WAY WITHOUT PRIOR WRITTEN NOTIFICATION OF HDR **
C** ENGINEERING, INC. NOTE DATED: 9/28/93 **
C*****
C** HDR ENGINEERING, INC. CONTACT: **
C** 3000 SOUTH IH35, SUITE 400 SAMUEL K. VAUGH, P.E. **
C** AUSTIN, TEXAS 78704 KELLY J. KAATZ, P.E. **
C** 512-442-8501 KENNETH L. CHOFFEL, P.E. **
C*****
C
C MAIN PROGRAM
C
C INTEGER*1 KUS(39,15),KRRES(39),KRCR(39),NUSCP(39),KRES(39)
C 1,IDRCH(39),KRCRP(39),NESET(39),ISPR(39),KPPS(39),KPPP(39)
C 2,KWRS(15),I,J,K,NCP,NYRS,NLEV,ISYSOPF,NWRS,KWA,IPASS,NDAYS
C 3,ICAN,ICANX,ICANAVL,ICANCT,ISUPRS,IAPPLE,IMP,IXP,ICOCANCL
C INTEGER QN(39,56,12),QL(39,56,12),RO(39,56,12),DSPR(5,56,12)
C 1,QHUECO(56,12),MPORT(56,12),WR(39,3,4),QINSTRM(39,12)
C 2,ARF(39),STOR1(39),CONSTOR(39),DSTOR(39)
C 3,NP(39),AP(39),NP1(39),AP1(39)
C REAL NPF(39)
C
C COMMON /A/ I,J,K,NCP,NYRS,KRRES,KRCR,NUSCP,IDRCH,KUS,KRES
C 1,KRCRP,NESET,ISYSOPF,NWRS,KWA,KWRS,IPASS,IMP,IXP,ICOCANCL,ISPR
C 2,ICAN,ICANX,ICANAVL,ICANCT,KPPS,KPPP,ISUPRS,IAPPLE,NDAYS,NLEV
C COMMON /B/ QN(39,56,12),EVNT(7,56,12),XPORT(56,12)
C 1,QN,QL,RO,DSPR,WR,ARF,QHUECO,MPORT,QNUS,QMUS,QINSTRM
C COMMON /C/ E(39,20),A(39,20),C(39,20),BSTOR(39),ESTOR(39)
C 1,TARGET(39),RCRATE(39),RCREL(39),APF(39),ACR(39),ACR1(39)
C 2,WRREL(39),SPILL(39),RFRS1(39),STOR1,CONSTOR,DSTOR
C 3,NP,AP,NP1,AP1,NPF
C COMMON /D/ SHORT(3,39),DIV(39),REL(39),RF(39),QIN(39)
C 1,SUMSHORT(5),ESHORT(3),CLOSSQN,CLOSSQM,QAVLMAX
C COMMON /E/ AMAKEUP(39,4),RECHRG(39),EVAP(39),ADDR(39)
C COMMON /F/ DMF(6,12,4),DEBIT(4,39),WRF(39),RFF(39)
C 1,ADLV(39),BDLV(39),DMAX(39),QMAKEUP(39)
C 2,GBRACFS,CANYLD,CANRELY,CANRELN,SPILLNY
C COMMON /G/ XX,FXX,SAREA,WSEL,XLEAKD,XLEAKM,CONV,CHKYR
C
C OPEN (1,FILE='SPRINGS')
C OPEN (4,FILE='WRFULL')
C OPEN (5,FILE='GSADATA')
C OPEN (8,FILE='OTEMP')
C OPEN (9,FILE='OCHECK')
C OPEN (10,FILE='OQAVAIL')
C OPEN (11,FILE='OCANYON')
C OPEN (12,FILE='OMEDINA')
C OPEN (13,FILE='OZILCH')
C
C CALL READIN
C
C CALL FLOWS
C
C END

```

```

C*****
SUBROUTINE READIN
C*****
C
C
C*****READ GBRA/SEGUIN HYDRO REQUIREMENT (CFS)
C
  WRITE (*,2) 'GBRA/SEGUIN HYDRO REQUIRED (CFS) = '
  2 FORMAT(A36)
  READ (*,3) GBRACFS
  3 FORMAT(F10.2)
C
C*****READ ASSUMED CANYON RESERVOIR FIRM YIELD
C
  WRITE (*,2) 'ASSUMED CANYON YIELD (ACFT/YR) = '
  READ (*,3) CANYLD
C
  WRITE (*,2) 'CANYON AVAILABILITY (YES=1.,NO=0.)?'
  READ (*,3) CANAVL
  ICANAVL=IFIX(CANAVL)
C
C*****TRIGGER FOR APPLEWHITE MODELLING
C***** (NOTE DATAFILE ADJUSTMENTS REQ'D)
C
  WRITE (*,2) 'MODEL APPLEWHITE (YES=1.,NO=0.)?'
  READ (*,3) APPLE
  IAPPLE=IFIX(APPLE)
C
C*****READ SOLUTION CONVERGENCE CRITERION
C
  WRITE (*,2) 'CONVERGENCE CRITERION = '
  READ (*,3) CONV
C
C*****READ YEAR FOR DETAILED CHECK OUTPUT
C
  WRITE (*,2) 'DETAILED CHECK YEAR = '
  READ (*,3) CHKYR
C
C*****READ OPTIONAL SUPPRESSION OF OUTPUT
C
  WRITE (*,2) 'SUPPRESSED OUTPUT (YES=1.,NO=0.)?'
  READ (*,3) SUPRS
  ISUPRS=IFIX(SUPRS)
C
C*****READ CONTROL PARAMETERS
C
  READ (5,10) NCP,NYRS,NNE,NWRS,KWA,IMP,IXP,ICOCANCL
  10 FORMAT(8I5)
C
C*****READ WATER RIGHTS RELEASE SOURCES IN PREFERRED SEQUENCE
C***** OR READ WATER AVAILABILITY SOURCE
C
  IF (NWRS.GE.1) THEN
    READ (5,11) (KWRS(NWR),NWR=1,NWRS)
    11 FORMAT(15I3)
  END IF
C
C*****READ MONTHLY DEMAND FACTORS BY REACH
C
  DO 100 N=1,6
    DO 99 J=1,12
      READ (5,12) (DMF(N,J,M),M=1,4)
      12 FORMAT(4X,4F6.1)
    99 CONTINUE
  100 CONTINUE
C
C*****READ NET EVAPORATION FILES
C
  READ (5,14) (((EVNT(N,I,J),J=1,12),I=1,NYRS),N=1,NNE)

```

```

14 FORMAT(4X,12F9.2)
C
C*****ENTER CONTROL POINT DATA
C
DO 500 K=1,NCP
C
WRITE (*,13)' READING DATA FOR CONTROL POINT',K
13 FORMAT(A32,13)
C
C*****IDENTIFY CONTROL POINT TYPE
C
READ (5,15) KRRES(K),KRCR(K),KRES(K),KRCRP(K),NESET(K)
1,ISPR(K),KPPS(K)
15 FORMAT(7I5)
C
C*****READ RETURN FLOW FAC, WATER RIGHTS FAC, PARTNER AREA FAC,
C***** NUMBER OF UPSTREAM POINTS, AND REACH ID
C
READ(5,20) RFF(K),WRF(K),NUSCP(K),IDRCH(K)
20 FORMAT(2F10.4,10X,2I5)
IF (NUSCP(K).GT.0) THEN
READ (5,11) (KUS(K,N),N=1,NUSCP(K))
C
C*****READ DELIVERY LOSS EQUATION COEFFICIENTS FOR UPSTREAM
C***** SEGMENT(S) [LOG(QLOSS)=A+B*LOG(QUS)]
C
READ (5,27) ADLV(K),BDLV(K)
27 FORMAT(2F10.4)
END IF
C
C*****READ CHANGES FROM BASELINE HISTORICAL SPRINGFLOW SEQUENCE
C***** ABOVE CONTROL POINT
C
IF (ISPR(K).GE.1) THEN
READ (1,35) ((DSPR(ISPR(K),I,J),J=1,12),I=1,NYRS)
35 FORMAT(4X,12I9)
END IF
C
C*****READ MONTHLY INSTREAM FLOW REQUIREMENTS (ACFT)
C
READ (5,35) (QINSTRM(K,J),J=1,12)
C
C*****READ NATURAL FLOW AND/OR POTENTIAL RUNOFF
C***** (ALSO NATURAL RECHARGE WITH SCS/FRS PROGRAM)
C
READ (5,35) ((QN(K,I,J),J=1,12),I=1,NYRS)
IF (K.EQ.4) READ (5,35) ((QHUECO(I,J),J=1,12),I=1,NYRS)
IF (KRCR(K).EQ.1) THEN
READ (5,35) ((QL(K,I,J),J=1,12),I=1,NYRS)
IF (KRCRP(K).GT.0) READ (5,35) ((RO(K,I,J),J=1,12),I=1,NYRS)
END IF
C
C*****READ IMPORT
C
IF (K.EQ.IMP) READ (5,35) ((MPORT(I,J),J=1,12),I=1,NYRS)
C
C*****READ RESERVOIR DATA
C***** KRES=1: TYPICAL RESERVOIR
C***** KRES=2: POWER PLANT COOLING RESERVOIR (AND APPLEWHITE)
C***** KRRES=1: TYPE 1 "CATCH & RELEASE" RECHARGE DAM
C***** KRRES=2: TYPE 2 "DIRECT PERCOLATION" RECHARGE DAM
C***** KRRES=3: EXISTING TYPE 2 RECHARGE DAM
C***** KRRES=4: SCS/FRS TYPE 2 RECHARGE DAMS
C
IF (KRES(K).GE.1.OR.KRRES(K).EQ.1) THEN
READ(5,40) NLEV,STOR1(K),CONSTOR(K),DSTOR(K),RCRATE(K),RCREL(K)
40 FORMAT(4I10,2F10.0)
C*****READ POWER PLANT LAKE DATA
C***** KPPS(K)=RIVER DIVERSION SOURCE (CP ID#)

```

```

      IF (KRES(K).EQ.2) THEN
        READ (5,47) TARGET(K),KPPS(K),(AMAKEUP(K,ICAN),ICAN=1,4)
47      FORMAT(F10.0,110,4F10.0)
      END IF
      DO 400 L=1,NLEV
        READ (5,45) E(K,L),A(K,L),C(K,L)
45      FORMAT (F10.2,2F10.0)
400    CONTINUE
      END IF
C
      IF (KRRES(K).GT.1.AND.KRRES(K).LT.4) THEN
        READ (5,50) CONSTOR(K),DSTOR(K)
50      FORMAT (2I10)
      END IF
C
      IF (KRRES(K).EQ.4) THEN
        READ (5,60) NP(K),AP(K),NP1(K),AP1(K),NPF(K),APF(K)
1        ,ACR(K),ACR1(K)
60      FORMAT(4I10,2F10.2,2F10.4)
      END IF
C
500 CONTINUE
C
C*****READ ANNUAL DIVERSION RIGHTS BY TYPE OF USE AND CLASS
C***** AND RETURN FLOW (ACFT)
C***** IWRCLASS=1: ROTR SENIOR TO CANYON
C***** IWRCLASS=2: GBRA CONTRACTS
C***** IWRCLASS=3: ROTR JUNIOR TO CANYON
C
      DO 600 K=1,NCP
        READ (4,80) ((WR(K,IWRCLASS,M),IWRCLASS=1,3),M=1,4),ARF(K)
80      FORMAT(43X,12I10,10X,110)
        WRITE (13,90) ((WR(K,IWRCLASS,M),IWRCLASS=1,3),M=1,4),ARF(K)
90      FORMAT(13I10)
600    CONTINUE
C
      RETURN
      END

```

```

C*****
SUBROUTINE FLOWS
C*****
C
C
C*****BEGIN ANNUAL LOOP INITIATING FLOW CALCULATION IN 1ST YEAR
C***** AT MOST UPSTREAM CONTROL POINT
C
DO 1000 I=1,NYRS
C
WRITE (*,3) 'SIMULATING FLOWS FOR YEAR',I
3 FORMAT(A26,15)
C
C*****BEGIN MONTHLY LOOP
C
DO 990 J=1,12
C
ISYSOPF=0
ICOCANCL=0
C
C*****OBTAIN NUMBER OF DAYS IN MONTH
C
IF (J.EQ.4.OR.J.EQ.6.OR.J.EQ.9.OR.J.EQ.11) THEN
NDAYS=30
ELSE
IF (J.EQ.2) THEN
NDAYS=28
ELSE
NDAYS=31
END IF
END IF
C
C*****BEGIN MULTI-PASS LOOP FOR BASIN WATER RIGHTS
C
DO 985 IPASS=1,3
C
ESHORT(IPASS)=0.
C
C*****ASSESS NEED FOR WATER RIGHTS RELEASES
C
IF (IPASS.EQ.3) THEN
IF (ABS(ESHORT(2)-ESHORT(1)).LT.CONV.OR.NWRS.EQ.0) THEN
ISYSOPF=1
IF (1933+1.EQ.IFIX(CHKYR)) WRITE (9,3) 'ISYSOPF = ',ISYSOPF
DO 4 NWR=1,NWRS
WRREL(KWRS(NWR))=0.
4 CONTINUE
GO TO 5
ELSE
C*****SOLVE FOR WATER RIGHTS RELEASES
CALL WRR
ESHORT(IPASS)=0.
END IF
END IF
C
C*****BEGIN CANYON RELEASE LOOP
C
IF (IPASS.GE.2) GO TO 5
C
DO 982 ICAN=1,4
C
IF (ICAN.LE.2) THEN
ICANCT=0
ELSE
ICANCT=1
END IF
C
DSQ1=0.
DSQ2=0.

```

```

      IF (ICAN.EQ.2.AND.DSQ.EQ.0.)
1 SUMSHORT(1)=SUMSHORT(1)-SHORT(IPASS,16)
C
45 SUMSHORT(ICAN)=0.
   ESHORT(IPASS)=0.
C
C*****DETERMINE CANYON INFLOW PRIOR TO 1st (ICAN=1)
C***** AND 2nd (ICAN=2) CANYON RELEASE TRIAL EACH MONTH
C
      IF (ICAN.LE.2.AND.ICANCT.EQ.0) GO TO 5
C
C*****SOLVE FOR CANYON RELEASE TO HONOR SENIOR D/S ROTR RIGHTS AND CONTRACTS
C
      IF (ICAN.EQ.1.OR.ICAN.EQ.2) THEN
        IF (ICAN.EQ.1) THEN
          XLCMIN=0.
          XRCMAX=QIN(3)
        END IF
        IF (ICAN.EQ.2) THEN
          XLCMIN=REL(3)
          XRCMAX=REL(3)+SPILLNY+40000.
C*****LIMIT MAXIMUM RELEASE TO AVAILABLE STORAGE
          XE=(BSTOR(3)+DSTOR(3))/2.
          CALL STORARE (XE,YE)
          SAREA=YE
          TEST=BSTOR(3)-DSTOR(3)+QIN(3)-DIV(3)
1          -EVNT(NESET(3),I,J)*SAREA
          IF (TEST.LT.XRCMAX) XRCMAX=TEST
        END IF
C
        IF (ICANCT-2) 50,51,52
50      XLC=XLCMIN
          XRC=XRCMAX
          REL(3)=XRC
          GO TO 53
51      REL(3)=XLC
          GO TO 53
52      REL(3)=(XLC+XRC)/2.
53      CONTINUE
        END IF
C
C*****BEGIN CONTROL POINT LOOP
C
5 DO 980 K=1,NCP
C
      RECHRG(K)=0.
      ADDR(K)=0.
      QM(K,I,J)=0.
      IF (IPASS.EQ.1) QMAKEUP(K)=0.
C
      IF (J.EQ.1.AND.IPASS.EQ.1) DEBIT(ICAN,K)=0.
C
C*****COMPUTE MONTHLY UPSTREAM DIVERSIONS & RETURN FLOWS
C
      IF (ICAN.LE.2) THEN
        ICANX=ICAN
      ELSE
        ICANX=3
        IF (ICANAVL.EQ.1) ICANX=2
      END IF
C
      DIV(K)=0.
      DO 500 IWRCLASS=1,ICANX
      DO 499 M=1,4
        DIV(K)=DIV(K)+(DMF(IDRCH(K),J,M)*FLOAT(WR(K,IWRCLASS,M))
1        *WRF(K)/100.)
499 CONTINUE
500 CONTINUE
C

```

```

      RF(K)=RFF(K)*FLOAT(ARF(K))*(FLOAT(NDAYS)/365.)
C
C*****COMPUTE INFLOW TO CONTROL POINT ADJUSTING FOR UPSTREAM
C***** FLOW CHANGES
C
      IF (KRES(K).GE.1) THEN
        QIN(K)=QN(K,I,J)+RF(K)
      ELSE
        QIN(K)=QN(K,I,J)-DIV(K)+RF(K)
      END IF
      IF (ISPR(K).GE.1) QIN(K)=QIN(K)+DSPR(ISPR(K),I,J)
      IF (K.EQ.IMP) QIN(K)=QIN(K)+MPORT(I,J)
C
      IF (NUSCP(K).GT.0) THEN
        QNUS=0.
        QMUS=0.
        DO 550 N=1,NUSCP(K)
          QNUS=QNUS+QN(KUS(K,N),I,J)
          QMUS=QMUS+QM(KUS(K,N),I,J)
550    CONTINUE
C
C*****ASSUME FULL DIVERSION AT WATER AVAILABILITY LOCATION ON SECOND PASS
C***** BASED ON NEXT DOWNSTREAM GAGE AND STORE MAXIMUM AVAILABILITY (QAVLMAX)
C
      IF (K.EQ.KWA.AND.IPASS.EQ.2) THEN
        QAVLMAX=QMUS
        QMUS=0.
      END IF
C
C*****WRITE OUT WATER AVAILABILITY ON FINAL PASS
C
      IF (ISYSOPF.EQ.1.AND.K.EQ.KWA) THEN
        QAVAIL=QMUS-WRREL(K)
C*****FOR AVAILABILITY AT GUAD/COMAL CONFL, ADJUST RESULT FOR GBRA HYDRO
      IF (KWA.EQ.6) THEN
        IF (WRREL(K).LT.HYDRO) THEN
          QAVAIL=QMUS-HYDRO
        ELSE
          QAVAIL=QMUS-WRREL(K)
        END IF
      END IF
      IF (QAVAIL.LT.5.) QAVAIL=0.
      WRITE (10,575) QAVAIL
575    FORMAT(F10.2)
C
      QMUS=QMUS-QAVAIL
      END IF
C
C*****CONSIDER CHANNEL LOSSES ON UPSTREAM FLOW
C
      IF (QMUS.LE.0.) QNUS=0.00001
      IF (QMUS.LE.0.) QMUS=0.00001
      CLOSSQN=10.**((ADLV(K)+BDLV(K))*ALOG10(QMUS))
      IF (CLOSSQN.GT.QMUS) CLOSSQN=QMUS
      CLOSSQM=10.**((ADLV(K)+BDLV(K))*ALOG10(QMUS))
      IF (CLOSSQM.GT.QMUS) CLOSSQM=QMUS
C
      QIN(K)=QIN(K)-(QNUS-CLOSSQN)+(QMUS-CLOSSQM)
C
C*****ADJUST SALTWATER BARRIER FLOWS FOR SAN ANTONIO RIVER
C
      IF (K.EQ.38) THEN
        QN37=QN(37,I,J)
        IF (QN37.LE.0.) QN37=0.00001
        IF (QM(37,I,J).LE.0.) QM(37,I,J)=0.00001
        CLQNSA=10.**((-1.3094+1.0880*ALOG10(QN37))
        CLQMSA=10.**((-1.3094+1.0880*ALOG10(QM(37,I,J))))
        IF (CLQNSA.GT.QN37) CLQNSA=QN37
        IF (CLQMSA.GT.QM(37,I,J)) CLQMSA=QM(37,I,J)

```

```

C      QIN(K)=QIN(K)-(QN37-CLQNSA)+(QM(37,I,J)-CLQMSA)
      END IF
      END IF
C
C*****CHECK WATER AVAILABLE FOR POWER PLANT MAKEUP IF APPLICABLE
C
      IF (KPPP(K).EQ.1) THEN
        DMAX(K)=QIN(K)-QINSTRM(K,J)
        IF (K.EQ.15) DMAX(K)=QIN(K)
        IF (DMAX(K).LT.0.) DMAX(K)=0.
      END IF
C
C*****ADJUST FLOW AT #1815 (CP28) FOR LEON TO APPLEWHITE DIVERSION
C
      IF (K.EQ.28.AND.ICAN.EQ.4.AND.IAPPLE.EQ.1)
        1 QIN(K)=QIN(K)-QMAKEUP(27)
C
C*****RETURN TO BEGINNING OF CONTROL POINT LOOP WITH KNOWN
C***** CANYON LAKE INFLOW ON 1st (ICAN=1) AND 2nd (ICAN=2) RELEASE TRIALS
C
      IF (ICAN.LE.2.AND.ICANCT.EQ.0.AND.K.EQ.3) THEN
        ICANCT=ICANCT+1
        GO TO 45
      END IF
C
C*****SELECT CANYON RELEASE FOR WATER AVAILABILITY BASELINE
C
      IF (ICAN.EQ.4.AND.K.EQ.3) THEN
        IF (CANRELN.GE.CANRELY) THEN
          REL(3)=CANRELN
        ELSE
          REL(3)=CANRELY
        END IF
      END IF
C
C*****CHECK MONTHLY INSTREAM FLOW REQ'D AND CALCULATE
C***** SHORTAGE AT RIVER CONTROL POINTS BELOW CANYON
C
      IF (KRES(K).EQ.0) THEN
        SHORT(IPASS,K)=0.
        IF (QIN(K)-QINSTRM(K,J).LT.0.) THEN
          IF (K.GE.4) THEN
            SHORT(IPASS,K)=ABS(QIN(K)-QINSTRM(K,J))
            IF (QINSTRM(K,J).EQ.0.AND.SHORT(IPASS,K).GT.DIV(K))
              1 SHORT(IPASS,K)=DIV(K)
            SUMSHORT(ICAN)=SUMSHORT(ICAN)+SHORT(IPASS,K)
            ESHORT(IPASS)=ESHORT(IPASS)+SHORT(IPASS,K)
          END IF
          IF (QIN(K).LT.0.) QIN(K)=0.
        END IF
      END IF
C
C*****CHECK CONTROL POINT TYPE AND COMPUTE OUTFLOW
C
      IF (KRCCR(K).EQ.1) CALL RCHRG
      IF (KRRES(K).GE.1.AND.IPASS.GT.1) CALL RRESOP
      IF (KRRES(K).EQ.3.AND.IPASS.EQ.1) CALL RRESOP
      IF (KRRES(K).EQ.4.AND.IPASS.EQ.1) CALL RRESOP
      IF (KRES(K).EQ.1) CALL RESOP
      IF (KRES(K).EQ.2) CALL PPRESOP
      IF (KRES(K).EQ.0.AND.KRCCR(K).EQ.0.AND.KRRES(K).EQ.0)
        1 QM(K,I,J)=QIN(K)
      IF (KRRES(K).EQ.1.AND.IPASS.EQ.1) QM(K,I,J)=QIN(K)
      IF (KRRES(K).EQ.2.AND.IPASS.EQ.1) QM(K,I,J)=QIN(K)-DSTOR(K)
      IF (QM(K,I,J).LT.0.) QM(K,I,J)=0.
C
C*****CALCULATE RECHARGE
C

```

```

      IF (KRCR(K).EQ.1) THEN
        RECHRG(K)=RECHRG(K)+ADDR(K)
        DO 600 N=1,NUSCP(K)
          RECHRG(K)=RECHRG(K)+ADDR(KUS(K,N))
        600 CONTINUE
      END IF

C
C*****WRITE OUT MONTHLY RECHARGE AND MODIFIED FLOW
C***** TO TEMP FILE (8) ON FINAL PASS
C
      IF (ISYSOPF.EQ.1) THEN
        WRITE (8,888) K,I,J,RECHRG(K),QM(K,I,J)
      888 FORMAT(3I5,2F10.0)
      END IF

C
C*****WRITE OUT CHECK DATA AT CONTROL POINT FOR SELECTED YEAR
C
      IF (ISUPRS.EQ.0) THEN
        IF (I+1933.EQ.IFIX(CHKYR).AND.ICAN.EQ.4) THEN
          WRITE (9,7) K,I,J,ICAN,IPASS,QM(K,I,J),DIV(K)
          ,RF(K),QIN(K),QL(K,I,J),QM(K,I,J),RECHRG(K)
        1 7 FORMAT(5I3,19,3F9.0,19,2F9.0)
          IF (SHORT(IPASS,K).GT.0.5) THEN
            WRITE (9,777) 'SHORTAGE = ',SHORT(IPASS,K)
          777 FORMAT(A20,F9.0)
          END IF
        END IF

C
C*****WRITE OUT CHECK DATA AT RESERVOIR CONTROL POINT
C
        IF (KRES(K).GE.1.OR.KRRES(K).GE.1) THEN
          WRITE (9,8) BSTOR(K),QMAKEUP(K),REL(K),WRREL(K),SPILL(K)
          ,EVAP(K),ESTOR(K),DEBIT(ICAN,K)
        1 8 FORMAT(8F10.0)
        END IF
      END IF

C
C*****CHECK GBRA HYDRO MINIMUM RELEASE FROM CANYON
C***** AND COMPARE WITH FERC RELEASE
C
      IF (IPASS.EQ.1.AND.ICAN.EQ.3.AND.K.EQ.5) THEN
        HYDRO=GBRACFS*NDAYS*1.9835
        TEST=QM(K,I,J)+QM(4,I,J)
        IF (TEST.LT.HYDRO) REL(3)=REL(3)+HYDRO-TEST
        IF (REL(3).GT.QIN(3)) REL(3)=QIN(3)
      C*****SET "NORMAL" CANYON RELEASE
        CANRELN=REL(3)
        GO TO 982
      END IF

C
C*****END CONTROL POINT LOOP
C
      980 CONTINUE

C
C*****TRACK YIELD RELEASE TARGET DOWNSTREAM FLOW
C
      IF (ICAN.EQ.1) THEN
        IF (ICANCT.EQ.1) DSQ1=QM(38,I,J)
        IF (ICANCT.EQ.2) DSQ2=QM(38,I,J)
        IF (ABS(DSQ1-DSQ2).LT.CONV.AND.SPILL(3).EQ.0.) THEN
          DSQ=0.
        ELSE
          DSQ=QM(38,I,J)
        END IF
      END IF

C
C*****WRITE OUT SUMMED SHORTAGES
C
      IF (ISUPRS.EQ.0) THEN

```

```

          IF (1933+I.EQ.IFIX(CHKYR).AND.ICAN.EQ.4) THEN
            WRITE (9,9) SUMSHORT(ICAN),ESHORT(IPASS)
          9   FORMAT(2F10.0)
          END IF
        END IF
      C
        IF (IPASS.GE.2) GO TO 985
      C
      C*****EVALUATE ESTIMATED "NON-YIELD" CANYON RELEASE BASED ON D/S SHORTAGES
      C
        IF (ICAN.EQ.1.OR.ICAN.EQ.2) THEN
          IF (ICAN.EQ.1) THEN
            IF (ICANCT-2) 60,61,62
          60   SSR=SUMSHORT(ICAN)
              SST1=SUMSHORT(ICAN)
              GO TO 63
          61   SSL=SUMSHORT(ICAN)
              IF (ABS(SSR-SSL).LT.CONV) GO TO 981
              GO TO 63
          62   IF (XRC-XLC.GT.CONV) THEN
              IF (SUMSHORT(ICAN).GT.CONV) THEN
                IF (ABS(SUMSHORT(ICAN)-SST1).LT.CONV) THEN
                  XRC=REL(3)
                ELSE
                  XLC=REL(3)
                END IF
              ELSE
                XRC=REL(3)
              END IF
            ELSE
              GO TO 981
            END IF
          ELSE
            C
            C*****EVALUATE ESTIMATED "YIELD" CANYON RELEASE BASED ON
            C***** TARGET FLOW AT SALTWATER BARRIER (DSQ>0) OR ON THE
            C***** SUM OF D/S SHORTAGES (DSQ<=0)
            C
              IF (ICANCT-2) 70,71,72
          70   IF (DSQ.GT.0.) THEN
              SSR=DSQ-QM(38,1,J)
              ELSE
                SSR=SUMSHORT(ICAN)-SUMSHORT(1)
              END IF
              GO TO 63
          71   IF (DSQ.GT.0.) THEN
              SSL=DSQ-QM(38,1,J)
              ELSE
                SSL=SUMSHORT(ICAN)-SUMSHORT(1)
              END IF
              IF (ABS(SSR-SSL).LT.CONV) GO TO 981
              GO TO 63
          72   IF (XRC-XLC.GT.CONV) THEN
              IF (SUMSHORT(ICAN)-SUMSHORT(1).GT.CONV
          1   .OR.DSQ-QM(38,1,J).GT.CONV) THEN
                XLC=REL(3)
              ELSE
                XRC=REL(3)
              END IF
            ELSE
              GO TO 981
            END IF
          END IF
        63   ICANCT=ICANCT+1
          IF (ICANCT.EQ.45) THEN
            WRITE (*,64) 'EXCESS ITERATIONS',K,I,J,ICAN,IPASS
          64   FORMAT(A30,5I3)
              GO TO 1001
            END IF

```

```

      GO TO 45
    END IF
  C
  C*****INCREMENT DEBIT FOR COLETO CREEK MAKEUP ONCE CANYON RELEASES FOR
  C***** SENIOR WR (ICAN=1) AND FOR SENIOR WR & CONTRACTS (ICAN=2)
  C***** HAVE BEEN DETERMINED
  C
    981 IF (ICAN.LT.4) DEBIT(ICAN,16)=DEBIT(ICAN,16)+QMAKEUP(16)
      SST1=0.
  C
  C*****END CANYON RELEASE LOOP
  C
    982 CONTINUE
      ICAN=4
  C
  C*****END MULTI-PASS LOOP
  C
    985 CONTINUE
  C
  C*****END MONTHLY LOOP
  C
    990 CONTINUE
  C
  C*****END ANNUAL LOOP
  C
    1000 CONTINUE
    1001 CONTINUE
  C
    RETURN
  END

```

```

C*****
      SUBROUTINE RCHRG
C*****
C
C
C*****CHECK UNGAGED AREA
C
      RECHRG(K)=0.
      IF (IPASS.EQ.1) THEN
        DO 400 N=1,NUSCP(K)
          ADDR(KUS(K,N))=0.
        400 CONTINUE
      END IF
C
      IF (KRRES(K).EQ.4.OR.KRCRP(K).GT.0) GO TO 20
C
C*****CALCULATE BASIC LOCAL RECHARGE FOR GAGED (U/S & D/S) BASINS
C
      QCUSD=(QMUS-CLOSSQ)- (QMUS-CLOSSQM)
      IF (QN(K,I,J).GT.QCUSD) THEN
        RECHRG(K)=QMUS+QL(K,I,J)-QN(K,I,J)+QCUSD
      ELSE
        RECHRG(K)=QMUS+QL(K,I,J)
      END IF
C*****ADJUST RECHARGE FOR HUECO/EDWARDS FLUX
      IF (K.EQ.4) RECHRG(K)=RECHRG(K)+QHUECO(I,J)
C
      IF (RECHRG(K).LT.0.) RECHRG(K)=0.
C
C*****CALCULATE MODIFIED FLOW
C
      IF (ISPR(K).GE.1) THEN
        QM(K,I,J)=QN(K,I,J)-DIV(K)+RF(K)-QCUSD+DSPR(ISPR(K),I,J)
      ELSE
        QM(K,I,J)=QN(K,I,J)-DIV(K)+RF(K)-QCUSD
      END IF
      IF (QM(K,I,J).LT.0.) QM(K,I,J)=0.
      GO TO 1000
C
C*****SET NATURAL RECHARGE FOR COMAL, SAN MARCOS,SAN
C***** ANTONIO, SALADO, DIVERSION LAKE (WATERSHED),
C***** SAN GERONIMO, AND LEON BASINS AND CALCULATE
C***** MODIFIED FLOW
C
      20 RECHRG(K)=RO(K,I,J)
      IF (ISPR(K).GE.1) THEN
        QM(K,I,J)=QN(K,I,J)-DIV(K)+RF(K)+DSPR(ISPR(K),I,J)
      ELSE
        QM(K,I,J)=QL(K,I,J)-RO(K,I,J)-DIV(K)+RF(K)
      END IF
C
      1000 CONTINUE
C
      IF (QM(K,I,J).LT.0.) QM(K,I,J)=0.
C
      RETURN
      END

```

```

C*****
SUBROUTINE RRESOP
C*****
C
C      ADDR(K)=0.
C      REL(K)=0.
C      IF (IPASS.LT.3.OR.NWRS.EQ.0) WRREL(K)=0.
C
C      SPILL(K)=0.
C
C*****CALCULATE MODIFIED FLOW FOR TYPE I RES (TRACK EVAP)
C
C      IF (KRRES(K).EQ.1) THEN
C
C*****APPLY HALF INTERVAL SOLUTION FOR EOM STORAGE
C
C      XL=DSTOR(K)
C      XR=CONSTOR(K)
C      10 XX=(XL+XR)/2.
C
C*****FIND AVERAGE STORAGE AND SURFACE AREA
C
C      IF (I.EQ.1.AND.J.EQ.1) THEN
C          BSTOR(K)=STOR1(K)
C      ELSE
C          BSTOR(K)=ESTOR(K)
C      END IF
C      XE=(BSTOR(K)+XX)/2.
C      CALL STORARE (XE,YE)
C      SAREA=YE
C      EVAP(K)=SAREA*EVNT(NESET(K),I,J)
C
C*****PERFORM MASS BALANCE AND EVALUATE HALF-INTERVAL FUNCTION
C
C      TEST=BSTOR(K)+QIN(K)-EVAP(K)-DIV(K)-WRREL(K)-RCREL(K)-RCRATE(K)
C      IF (TEST.GT.CONSTOR(K)) SPILL(K)=TEST-CONSTOR(K)
C      FXX=XX-TEST
C
C*****CHECK CONVERGENCE & RE-ESTIMATE EOM STORAGE
C
C      IF (ABS(FXX).LT.0.25.OR.XX.LT.DSTOR(K)+0.25.OR.
C      1 XX.GT.CONSTOR(K)-0.25) GO TO 20
C      IF (FXX.LT.0.) THEN
C          XL=XX
C      ELSE
C          XR=XX
C      END IF
C      GO TO 10
C      20 ESTOR(K)=XX
C
C*****CALCULATE RECHARGE & MODIFIED FLOW ASSUMING RECHARGE RELEASE
C***** RECHARGES AT 100% AND WATER RIGHTS RELEASE IS DELIVERED
C
C      IF (ESTOR(K).GT.DSTOR(K)+0.25) THEN
C          ADDR(K)=RCREL(K)+RCRATE(K)
C          REL(K)=WRREL(K)+RCREL(K)
C          QM(K,I,J)=SPILL(K)+WRREL(K)
C      ELSE
C          ADDR(K)=BSTOR(K)+QIN(K)-EVAP(K)-DIV(K)-WRREL(K)-DSTOR(K)
C          IF (ADDR(K).LT.0.) ADDR(K)=0.
C          IF (ADDR(K).GT.RCREL(K)) THEN
C              REL(K)=WRREL(K)+RCREL(K)
C          ELSE
C              REL(K)=WRREL(K)+ADDR(K)
C          END IF
C          QM(K,I,J)=WRREL(K)
C      END IF
C

```

```

      END IF
C
C*****CALCULATE ADDITIONAL RECHARGE & MODIFIED FLOW FOR TYPE2 RES
C***** TYPE2 PROPOSED: KRRES=2      TYPE2 EXISTING: KRRES=3
C
      IF (KRRES(K).EQ.2.OR.KRRES(K).EQ.3) THEN
        IF (KRRES(K).EQ.1) QIN(K)=QM(K,I,J)
        TEST=QIN(K)-CONSTOR(K)-WRREL(K)
        IF (TEST) 110,110,130
110    RECHRG(K)=RECHRG(K)+QIN(K)-WRREL(K)
        QM(K,I,J)=WRREL(K)
        GO TO 140
130    RECHRG(K)=RECHRG(K)+CONSTOR(K)
        QM(K,I,J)=QIN(K)-CONSTOR(K)
C
      IF (KRRES(K).GE.1.AND.KRRES(K).LT.3.AND.IPASS.EQ.2.AND
1    .QM(K,I,J).GT.0.) THEN
        SPILL(K)=QM(K,I,J)
      ELSE
        SPILL(K)=0.
      END IF
C
140  CONTINUE
C
      END IF
C
C*****CALCULATE RECHARGE ENHANCEMENT & MODIFIED FLOW FOR
C***** EXISTING SCS/FRS TYPE 2 RESERVOIRS (KKRES=4)
C
      IF (KRRES(K).EQ.4.AND.IPASS.EQ.1) THEN
C
C*****ESTIMATE RUNOFF FOR POTENTIAL SCS/FRS IMPOUNDMENT
C***** (WHEN SPRINGS PRESENT, DIV & RET D/S OF SPRINGS.
C***** OTHERWISE, DIV & RET U/S OF SCS/FRS.)
C
        IF (ISPR(K).GE.1) THEN
          QPI=(QL(K,I,J)-RO(K,I,J))*ACR(K)
        ELSE
          QPI=(QL(K,I,J)-RO(K,I,J))*ACR(K)-DIV(K)+RF(K)
        END IF
        IF (QPI.LT.0.) GO TO 170
C
        IF (NP(K)+AP(K).LT.QPI) THEN
          RECHRG(K)=RECHRG(K)+NPF(K)*NP(K)+APF(K)*AP(K)
          GO TO 145
        ELSE
          IF (NP(K).LT.QPI) THEN
            RECHRG(K)=RECHRG(K)+NPF(K)*NP(K)
            +APF(K)*(QPI-NP(K))
1          ELSE
            RECHRG(K)=RECHRG(K)+NPF(K)*QPI
          END IF
        END IF
145    IF (RECHRG(K).GT.QL(K,I,J)) THEN
          WRITE (*,147) 'RECHARGE > POTENTIAL',K,I,J
147    FORMAT(A24,315)
        END IF
C
C*****NOTE RECHARGE FOR EXISTING SCS/FRS (USED IN WRR)
C
        RFRS1(K)=RECHRG(K)
C
C*****ASSIGN MODIFIED FLOW
C
        QM(K,I,J)=QM(K,I,J)-(RECHRG(K)-RO(K,I,J))
      END IF
C
C*****CALCULATE RECHARGE ENHANCEMENT & MODIFIED FLOW FOR
C***** NEW OR MODIFIED SCS/FRS TYPE 2 RESERVOIRS (KKRES=4)

```

```

C      IF (KRRES(K).EQ.4.AND.IPASS.GE.2) THEN
C
C*****ESTIMATE RUNOFF FOR POTENTIAL SCS/FRS IMPOUNDMENT
C***** (SEE NOTE ABOVE)
C
      IF (ISPR(K).GE.1) THEN
        QPI=(QL(K,I,J)-R0(K,I,J))*ACR1(K)
      ELSE
        QPI=(QL(K,I,J)-R0(K,I,J))*ACR1(K)-DIV(K)+RF(K)
      END IF
      IF (QPI.LT.0.) GO TO 170
C
      IF (NP1(K)+AP1(K).LT.QPI-WRREL(K)) THEN
        RECHRG(K)=RECHRG(K)+NPF(K)*NP1(K)+APF(K)*AP1(K)
        GO TO 150
      ELSE
        IF (NP1(K).LT.QPI-WRREL(K)) THEN
          RECHRG(K)=RECHRG(K)+NPF(K)*NP1(K)
          +APF(K)*(QPI-WRREL(K)-NP1(K))
        1      ELSE
          RECHRG(K)=RECHRG(K)+NPF(K)*(QPI-WRREL(K))
        END IF
      END IF
C
150    IF (RECHRG(K).GT.QL(K,I,J))
      1      WRITE (*,147) 'RECHARGE > POTENTIAL',K,I,J
C
        QM(K,I,J)=QM(K,I,J)-(RECHRG(K)-R0(K,I,J))
160    CONTINUE
      END IF
C
170  IF (ISYSOPF.LT.1) ESTOR(K)=BSTOR(K)
C
      IF (QM(K,I,J).LT.0.) QM(K,I,J)=0.
C
      RETURN
      END

```

```

C*****
SUBROUTINE WRR
C*****
C
C
C*****BEGIN WATER RIGHTS SOURCE LOOP
C
    DO 1000 NWR=1,NWRS
C
C*****SET RANGE AND BEGIN HALF-INTERVAL SOLUTION FOR WATER RIGHTS RELEASE
C
    IWRCT=1
    EST1=0.
C
    XLA=0.
C
    IF (KRRES(KWRS(NWR)).EQ.4) THEN
        IF (ISPR(KWRS(NWR)).GE.1) THEN
            XRA=(QL(KWRS(NWR),1,J)-RFRS1(KWRS(NWR)))*ACR1(KWRS(NWR))
        ELSE
            XRA=(QL(KWRS(NWR),1,J)-RFRS1(KWRS(NWR)))*ACR1(KWRS(NWR))
            -DIV(KWRS(NWR))+RF(KWRS(NWR))
        1    END IF
    ELSE
        XRA=QIN(KWRS(NWR))
        IF(KRRES(KWRS(NWR)).EQ.2)XRA=QIN(KWRS(NWR))-DSTOR(KWRS(NWR))
        IF (KWA.GT.0) XRA=QAVLMAX
    END IF
    IF (XRA.LT.0.) XRA=0.
C
    10 IF (ISYSOPF.EQ.1) THEN
        WRREL(KWRS(NWR))=0.
        GO TO 1000
    ELSE
        ESHORT(IPASS)=0.
C
        IF (IWRCT-2) 15,16,17
    15    WRREL(KWRS(NWR))=XRA
        GO TO 18
    16    WRREL(KWRS(NWR))=XLA
        GO TO 18
    17    WRREL(KWRS(NWR))=(XLA+XRA)/2.
    18    CONTINUE
    END IF
C
C*****BEGIN CONTROL POINT LOOP
C
    DO 980 K=1,NCP
C
C*****COMPUTE MONTHLY UPSTREAM DIVERSIONS & RETURN FLOWS
C
        DIV(K)=0.
        DO 500 IWRCLASS=1,3
            DO 499 M=1,4
                DIV(K)=DIV(K)+(DMF(IDRCH(K),J,M)*FLOAT(WR(K,IWRCLASS,M))
                1 *WRF(K)/100.)
            499 CONTINUE
        500 CONTINUE
C
        RF(K)=RFF(K)*FLOAT(ARF(K))*(FLOAT(NDAYS)/365.)
C
C*****COMPUTE INFLOW TO CONTROL POINT ADJUSTING FOR UPSTREAM
C***** FLOW CHANGES
C
        IF (KRES(K).GE.1) THEN
            QIN(K)=QN(K,1,J)+RF(K)
        ELSE
            QIN(K)=QN(K,1,J)-DIV(K)+RF(K)
        END IF

```

```

      IF (ISPR(K).GE.1) QIN(K)=QIN(K)+DSPR(ISPR(K),I,J)
      IF (K.EQ.IMP) QIN(K)=QIN(K)+MPORT(I,J)
C
      IF (NUSCP(K).GT.0) THEN
        QNUS=0.
        QMUS=0.
        DO 550 N=1,NUSCP(K)
          QNUS=QNUS+QN(KUS(K,N),I,J)
          QMUS=QMUS+QM(KUS(K,N),I,J)
550      CONTINUE
C
C*****ADJUST UPSTREAM FLOW FOR WATER AVAILABILITY CALCULATION
C
      IF (K.EQ.KWA) QMUS=WRREL(K)
C
C*****CONSIDER CHANNEL LOSSES ON UPSTREAM FLOW
C
      IF (QNUS.LE.0.) QNUS=0.00001
      IF (QMUS.LE.0.) QMUS=0.00001
      CLOSSQN=10.**((ADLV(K)+BDLV(K))*ALOG10(QNUS))
      IF (CLOSSQN.GT.QNUS) CLOSSQN=QNUS
      CLOSSQM=10.**((ADLV(K)+BDLV(K))*ALOG10(QMUS))
      IF (CLOSSQM.GT.QMUS) CLOSSQM=QMUS
C
      QIN(K)=QIN(K)-(QNUS-CLOSSQN)+(QMUS-CLOSSQM)
C
C*****ADJUST SALTWATER BARRIER FLOWS FOR SAN ANTONIO RIVER
C
      IF (K.EQ.38) THEN
        QN37=QN(37,I,J)
        IF (QN37.LE.0.) QN37=0.00001
        IF (QM(37,I,J).LE.0.) QM(37,I,J)=0.00001
        CLQNSA=10.**((-1.3094+1.0880*ALOG10(QN37))
        CLQMSA=10.**((-1.3094+1.0880*ALOG10(QM(37,I,J))))
        IF (CLQNSA.GT.QN37) CLQNSA=QN37
        IF (CLQMSA.GT.QM(37,I,J)) CLQMSA=QM(37,I,J)
C
        QIN(K)=QIN(K)-(QN37-CLQNSA)+(QM(37,I,J)-CLQMSA)
      END IF
    END IF
C
C*****ADJUST FLOW AT #1815 (CP28) FOR LEON CREEK TO APPLEWHITE DIVERSION
C
      IF (K.EQ.28.AND.IAPPLE.EQ.1) QIN(K)=QIN(K)-QMAKEUP(27)
C
C*****CHECK MONTHLY INSTREAM FLOW REQ'D AND CALCULATE
C***** SHORTAGE AT RIVER CONTROL POINTS
C
      IF (KRES(K).EQ.0) THEN
        SHORT(IPASS,K)=0.
        IF (QIN(K)-QINSTRM(K,J).LT.0.) THEN
          IF (K.GE.4) THEN
            SHORT(IPASS,K)=ABS(QIN(K)-QINSTRM(K,J))
            IF (QINSTRM(K,J).EQ.0.AND.SHORT(IPASS,K).GT.DIV(K))
1          SHORT(IPASS,K)=DIV(K)
            SUMSHORT(ICAN)=SUMSHORT(ICAN)+SHORT(IPASS,K)
            ESHORT(IPASS)=ESHORT(IPASS)+SHORT(IPASS,K)
          END IF
          IF (QIN(K).LT.0.) QIN(K)=0.
        END IF
      END IF
C
C*****CHECK CONTROL POINT TYPE AND COMPUTE OUTFLOW
C
      IF (KRCR(K).EQ.1) CALL RCHRG
      IF (KRRES(K).GE.1.AND.IPASS.GT.1) CALL RRESOP
      IF (KRES(K).EQ.1) CALL RESOP
      IF (KRES(K).EQ.2) CALL PPRESOP
      IF (KRES(K).EQ.0.AND.KRCR(K).EQ.0.AND.KRRES(K).EQ.0)

```

```

      1QM(K,I,J)=QIN(K)
C
C*****END CONTROL POINT LOOP
C
      980 CONTINUE
C
C*****EVALUATE SHORTAGES WITH WATER RIGHTS RELEASES
C
C      WRITE (*,700) XLA,XRA,WRREL(KWRS(NWR)),ESHORT(1),ESHORT(2)
C      1 ,ESHORT(IPASS)
C 700 FORMAT(6F10.0)
C
      IF (IWRCT-2) 20,21,22
20  SSR=ESHORT(IPASS)
    EST1=ESHORT(IPASS)
    GO TO 23
21  SSL=ESHORT(IPASS)
    IF (ABS(SSL-SSR).LT.5.) GO TO 25
    GO TO 23
22  IF (XRA-XLA.GT.0.1) THEN
      IF (ESHORT(IPASS)-ESHORT(1).GT.CONV) THEN
        IF (ABS(ESHORT(IPASS)-EST1).LT.CONV) THEN
          XRA=WRREL(KWRS(NWR))
        ELSE
          XLA=WRREL(KWRS(NWR))
        END IF
      ELSE
        XRA=WRREL(KWRS(NWR))
      END IF
23  IWRCT=IWRCT+1
    GO TO 10
  END IF
25 IF (ABS(ESHORT(IPASS)-ESHORT(1)).LT.5.) THEN
  ISYSOPF=1
  IF (1933+1.EQ.IFIX(CHKYR)) WRITE (9,40) 'ISYSOPF = ',ISYSOPF
40  FORMAT(A26,I5)
  END IF
C
C*****END WATER RIGHTS SOURCE LOOP
C
      1000 CONTINUE
C
      ISYSOPF=1
C
      IF (ABS(ESHORT(IPASS)-ESHORT(1)).GT.10.) THEN
        WRITE (13,50) I,J,ESHORT(1),ESHORT(2),ESHORT(IPASS)
50  FORMAT(2I5,3F10.0)
      END IF
C
      RETURN
      END

```

```

C*****
SUBROUTINE RESOP
C*****
C
C
C*****TRACK DEBITS TO CANYON YIELD
C***** CANRELY = "NON-YIELD" RELEASE (ICAN=1)
C***** CANRELY = "YIELD" RELEASE (ICAN=2)
C***** CANRELY = "NORMAL" RELEASE (ICAN=4)
C
  IF (K.EQ.3) THEN
    IF (ICAN.EQ.1) CANRELY=REL(K)
    IF (ICAN.EQ.2) CANRELY=REL(K)
    IF (ICAN.EQ.4) CANRELY=REL(K)
    IF (IPASS.EQ.1.AND.ICAN.EQ.4) THEN
C*****CALCULATE MONTHLY CANYON CONTRACT DIVERSION DIRECT FROM LAKE (CANCON)
      CANCON=0.
      DO 5 M=1,4
        CANCON=CANCON+DMF(IDRCH(K),J,M)*FLOAT(WR(K,2,M))/100.
      5 CONTINUE
      DEBIT(ICAN,K)=DEBIT(ICAN,K)+CANRELY-CANRELY-SPILLNY+CANCON
C*****WRITE OUT CANYON YIELD UTILIZATION
      TEMP=CANRELY-CANRELY-SPILLNY+CANCON
      WRITE (11,7) TEMP
      7 FORMAT(F10.0)
      END IF
C
C*****DEBIT CANYON STORAGE FOR UNUTILIZED YIELD IN DECEMBER
C
  IF (J.EQ.12.AND.ICAN.EQ.4) THEN
    IF (DEBIT(ICAN,K).GT.CANYLD) THEN
      WRITE (*,8) 'ASSUMED CANYON YIELD EXCEEDED',I,J,ICAN
      8 FORMAT(A30,3I5)
      DEBIT(ICAN,K)=CANYLD
    END IF
    IF (ICANAVL.EQ.0) DIV(K)=DIV(K)+CANYLD-DEBIT(ICAN,K)
  END IF
C
C
C*****APPLY HALF INTERVAL METHOD SOLUTION FOR EOM STORAGE IN RESERVOIR
C
  XL=DSTOR(K)
  XR=CONSTOR(K)
  10 XX=(XL+XR)/2.
C
C*****FIND AVERAGE STORAGE, SURFACE AREA (SAREA), & LAKE LEVEL (WSEL)
C
  IF (I.EQ.1.AND.J.EQ.1) THEN
    BSTOR(K)=STOR1(K)
  ELSE
    BSTOR(K)=ESTOR(K)
  END IF
C
  AVSTOR=(BSTOR(K)+XX)/2.
  XE=AVSTOR
  CALL STORARE (XE,YE)
  SAREA=YE
  CALL STORELV (XE,YE)
  WSEL=YE
C
C*****DETERMINE RESERVOIR TO BE SIMULATED
C
  IF (K.EQ.3) CALL CANYON
  IF (K.EQ.21) CALL MEDINA
  IF (K.EQ.23) CALL DIVLAKE
  IF (KRES(K).EQ.2) CALL PPSIM
C
C*****CHECK CONVERGENCE & RE-ESTIMATE EOM STORAGE

```

```

C      IF (ABS(FXX).LT..25.OR.XX.LT.DSTOR(K)+.25.OR.XX.GT.CONSTOR(K)-.25)
1 GO TO 20
      IF (FXX.LT.0.) THEN
        XL=XX
      ELSE
        XR=XX
      END IF
      GO TO 10
20 ESTOR(K)=XX
C
C*****SAVE "NON-YIELD" (ICAN=1) SPILL AT CANYON FOR DEBIT
C***** ADJUSTMENT TO "YIELD" RELEASE
C
      IF (K.EQ.3.AND.ICAN.EQ.1) SPILLNY=SPILL(K)
C
C*****TRACK STORAGE "SHORTAGES" EXCEPT AT CANYON LAKE
C
      IF (K.EQ.3) THEN
        SHORT(IPASS,K)=0.
      ELSE
        SHORT(IPASS,K)=CONSTOR(K)-ESTOR(K)
        SUMSHORT(ICAN)=SUMSHORT(ICAN)+SHORT(IPASS,K)
        ESHORT(IPASS)=ESHORT(IPASS)+SHORT(IPASS,K)
      END IF
C
C*****RE-CALCULATE MEDINA LAKE RELEASE & MODIFIED FLOW
C***** IF ENDING STORAGE IS DEAD STORAGE (INSUFFICIENT
C***** STORAGE FOR FULL DESIRED RELEASE)
C
      IF (K.EQ.21) THEN
        IF (ESTOR(K).LT.DSTOR(K)+0.25) THEN
          TEMP=QM(K,I,J)-REL(K)
          REL(K)=BSTOR(K)-DSTOR(K)+QIN(K)-EVAP(K)
1          -RECHRG(K)-DIV(K)-XLEAKM
          IF (REL(K).LT.0.) REL(K)=0.
          QM(K,I,J)=TEMP+REL(K)
        END IF
      END IF
C
C*****ESTIMATE WATER AVAILABILITY UNDER
C***** BMA IRRIGATION RIGHT (67,830 ACFT/YR)
C
      IF (ISYSOPF.EQ.1.AND.K.EQ.23) THEN
        IF (ESTOR(K)-DSTOR(K).GT.0.25) THEN
          OQMED=67830.*DMF(1DRCH(K),J,3)/100.
        ELSE
          OQMED=BSTOR(K)-DSTOR(K)+QIN(K)-EVAP(K)-RECHRG(K)-XLEAKD
          IF (OQMED.LT.0.) OQMED=0.
        END IF
C
        WRITE (12,7) OQMED
      END IF
C
      IF (ISYSOPF.LT.1) ESTOR(K)=BSTOR(K)
C
      RETURN
      END

```

```

C*****
SUBROUTINE CANYON
C*****
C
C
C*****ASSIGN PREVIOUS MONTH INFLOWS
C
      IF (IPASS.EQ.1.AND.ICAN.EQ.1) QIN3T1=QIN(3)
C
C*****CALCULATE REQ'D INSTREAM FLOW RELEASE PER FERC
C
      IF (IPASS.EQ.1.AND.ICAN.EQ.3) THEN
        IF (J.GE.2.AND.J.LE.5) THEN
          FERC=120.*NDAYS*1.9835
        ELSE
          FERC=100.*NDAYS*1.9835
        END IF
C
        FERCMIN=90.*NDAYS*1.9835
        IF (QIN3T1.LT.FERCMIN.AND.BSTOR(K).LT.CONSTOR(K)) FERC=FERCMIN
C
        IF (QIN(K).LT.FERC) THEN
          REL(K)=QIN(K)
        ELSE
          IF (FERC.GT.REL(3)) REL(K)=FERC
        END IF
      END IF
C
C*****PERFORM MASS BALANCE AT CANYON LAKE
C
      30 TEST=BSTOR(K)+QIN(K)-EVNT(NESET(K),I,J)*SAREA-REL(K)-DIV(K)
      EVAP(K)=EVNT(NESET(K),I,J)*SAREA
      IF (TEST.GT.CONSTOR(K)) THEN
        SPILL(K)=TEST-CONSTOR(K)
      ELSE
        SPILL(K)=0.
      END IF
C
C*****EVALUATE HALF INTERVAL FUNCTION & MODIFIED FLOW
C
      FXX=XX-TEST
      QM(K,I,J)=SPILL(K)+REL(K)
C
      RETURN
      END

```

```

C*****
SUBROUTINE MEDINA
C*****
C
C
C*****CALCULATE MEDINA LAKE RECHARGE
C
      IF (WSEL.LE.940.) THEN
        RECHRG(K)=0.
      ELSE
        RECHRG(K)=24.3559*WSEL-22894.53
      END IF
C
C*****CALCULATE MEDINA LAKE LEAKAGE
C
      IF (WSEL.LE.952.2) THEN
        XLEAKM=8.9938*WSEL-8274.29
        IF (XLEAKM.LT.0.) XLEAKM=0.
      ELSE
        IF (WSEL.GT.987.0) THEN
          XLEAKM=28.9560*WSEL-28289.93
        ELSE
          XLEAKM=289.6
        END IF
      END IF
C
C*****ESTIMATE MEDINA LAKE RELEASE BASED ON MEDINA LAKE LEAKAGE;
C***** CURRENT DIVERSION LAKE DIVERSION; AND PREVIOUS EOM STORAGE,
C***** LEAKAGE, AND RECHARGE AT DIVERSION LAKE NOTING TARGET LEVEL
C***** 5.0 FEET DOWN (3037 ACFT)
C***** NOTE: RELEASE CALC. ONLY PERFORMED 1st TIME THROUGH
C
      IF (ICAN.EQ.1.AND.ICANCT.EQ.1) THEN
        DIV(23)=0.
        DO 11 IWRCLASS=1,ICANX
          DO 10 M=1,4
            DIV(23)=DIV(23)+(DMF(IDRCH(23),J,M)*FLOAT(WR(23,IWRCLASS,M))
1          *WRF(23)/100.)
10        CONTINUE
11      CONTINUE
C
        REL(K)=DIV(23)-XLEAKM-ESTOR(23)+3037.+XLEAKD+RECHRG(K)
        IF (REL(K).LT.0.) REL(K)=0.
      END IF
C
C*****PERFORM MASS BALANCE AT MEDINA LAKE
C
      20 TEST=BSTOR(K)+QIN(K)-EVNT(NESET(K),I,J)*SAREA-XLEAKM
1      -RECHRG(K)-REL(K)-DIV(K)
      EVAP(K)=EVNT(NESET(K),I,J)*SAREA
C
      IF (TEST.GT.CONSTOR(K)) THEN
        SPILL(K)=TEST-CONSTOR(K)
      ELSE
        SPILL(K)=0.
      END IF
C
C*****EVALUATE HALF INTERVAL FUNCTION & MODIFIED FLOW
C
      FXX=XX-TEST
      QM(K,I,J)=XLEAKM+SPILL(K)+REL(K)
C
      RETURN
      END

```

```

C*****
SUBROUTINE DIVLAKE
C*****
C
C
C*****CALCULATE DIVERSION LAKE RECHARGE
C
    IF (WSEL.GE.913.7) THEN
        RECHRG(K)=1408.
    ELSE
        RECHRG(K)=32.3678*WSEL-28166.5
    END IF
C
C*****CALCULATE DIVERSION LAKE LEAKAGE
C
    IF (WSEL.GE.918.7) XLEAKD=1689.
    IF (WSEL.LT.918.7.AND.WSEL.GT.913.7) XLEAKD=132.6*WSEL-120130.6
    IF (WSEL.LE.913.7) XLEAKD=23.5862*WSEL-20524.7
C
C*****PERFORM MASS BALANCE
C
    TEST=BSTOR(K)+QIN(K)-EVNT(NESET(K),I,J)*SAREA-RECHRG(K)
    1 -XLEAKD-DIV(K)
    EVAP(K)=EVNT(NESET(K),I,J)*SAREA
C
    IF (TEST.GT.CONSTOR(K)) THEN
        SPILL(K)=TEST-CONSTOR(K)
    ELSE
        SPILL(K)=0.
    END IF
C
C*****EVALUATE HALF INTERVAL FUNCTION & MODIFIED FLOW
C
    FXX=XX-TEST
    QM(K,I,J)=XLEAKD+SPILL(K)
C
    RETURN
END

```

```

C*****
SUBROUTINE PPRESOP
C*****
C
C
C*****APPLEWHITE, CALAVERAS, & BRAUNIG JUNIOR TO CANYON, SO BYPASS
C***** UNTIL CANYON RELEASES DETERMINED
C
IF (ICAN.LT.4) THEN
  IF (K.EQ.27.OR.K.EQ.30.OR.K.EQ.31) THEN
    QM(K,I,J)=QIN(K)-DIV(K)
    IF (QM(K,I,J).LT.0.) QM(K,I,J)=0.
    SHORT(IPASS,K)=0.
    RETURN
  END IF
END IF
C
C*****INCLUDE MINIMUM RELEASE AT COLETO CREEK (5 CFS) AND
C***** APPLEWHITE (4 CFS) BASED ON AVAILABLE INFLOW
C
IF (K.EQ.16.OR.K.EQ.27) THEN
  IF (K.EQ.16) REL(K)=5.*NDAYS*1.9835
  IF (K.EQ.27) REL(K)=4.*NDAYS*1.9835
  IF (REL(K).GT.QIN(K)) REL(K)=QIN(K)
  IF (REL(K).LT.0.) REL(K)=0.
  IF (QIN(K).LT.0.) QIN(K)=0.
ELSE
  REL(K)=0.
END IF
C
C*****ESTIMATE SURFACE AREA ASSUMING TARGET IS MET BY EOM
C
IF (I.EQ.1.AND.J.EQ.1) THEN
  BSTOR(K)=STOR1(K)
ELSE
  BSTOR(K)=ESTOR(K)
END IF
C
AVSTOR=(BSTOR(K)+TARGET(K))/2.
XE=AVSTOR
CALL STORARE (XE,YE)
SAREA=YE
C
C*****MAKEUP DIVERSIONS FIXED AFTER 1st PASS
C
IF (IPASS.GT.1) GO TO 10
C
C*****CALCULATE MAKEUP NECESSARY TO MEET TARGET BY EOM
C
QMAKEUP(K)=TARGET(K)-BSTOR(K)-QIN(K)
1 +EVNT(NESET(K),I,J)*SAREA+DIV(K)+REL(K)
EVAP(K)=EVNT(NESET(K),I,J)*SAREA
C
C*****CANCEL COLETO MAKEUP DIVERSION IS NO FLOW OVER SALTWATER
C***** BARRIER WITH FULL INFLOW PASSAGE AT CANYON LAKE
C
IF (K.EQ.16.AND.QMAKEUP(K).GT.0..AND.QM(38,I,J).LE.0..AND.
1 ICAN.EQ.1.AND.ICANCT.EQ.2) ICOCANCL=1
IF (K.EQ.16.AND.ICAN.EQ.1.AND.ICOCANCL.EQ.1) THEN
  QMAKEUP(K)=0.
  GO TO 10
ELSE
  ICOCANCL=0
END IF
C
C*****BASED ON WATER AVAILABLE, SEE IF TARGET CAN BE MET
C
IF (K.EQ.27) CALL APPLEON
IF (K.EQ.31) DMAX(KPPS(K))=DMAX(KPPS(K))-QMAKEUP(30)

```

```

C
  IF (QMAKEUP(K).GE.0..AND.
1  QMAKEUP(K).LE.AMAKEUP(K,ICAN)-DEBIT(ICAN,K).AND.
2  QMAKEUP(K).LE.DMAX(KPPS(K))) THEN
  ESTOR(K)=TARGET(K)
  SPILL(K)=0.
  SHORT(IPASS,K)=0.
ELSE
  IF (QMAKEUP(K).LT.0.) QMAKEUP(K)=0.
  IF (QMAKEUP(K).GT.AMAKEUP(K,ICAN)-DEBIT(ICAN,K))
1  QMAKEUP(K)=AMAKEUP(K,ICAN)-DEBIT(ICAN,K)
  IF (QMAKEUP(K).GT.DMAX(KPPS(K))) QMAKEUP(K)=DMAX(KPPS(K))
C
C*****FIX MAKEUP DIVERSION WHEN TARGET NOT ATTAINED (OR WHEN IPASS > 1)
C***** AND SOLVE FOR EOM STORAGE USING THE HALF INTERVAL METHOD
C
10  CALL RESOP
  END IF
C
  IF (IPASS.EQ.1.AND.ICAN.EQ.4) DEBIT(ICAN,K)=DEBIT(ICAN,K)
1  +QMAKEUP(K)
C
  IF (ISYSOPF.LT.1) ESTOR(K)=BSTOR(K)
C
C*****ADJUST MODIFIED FLOW AT RIVER SOURCE FOR MAKEUP DIVERSION
C***** (EXCEPT AT #1815) AND SET LOCAL MODIFIED FLOW
C
  IF (K.NE.27) QM(KPPS(K),I,J)=QM(KPPS(K),I,J)-QMAKEUP(K)
  QM(K,I,J)=SPILL(K)+REL(K)
C
C*****MODIFY SHORTAGE AT VICTORIA (IF ANY) AND SHORTAGE SUMS FOR
C***** COLETO CREEK MAKEUP TAKEN
C
  IF (K.EQ.16.AND.QMAKEUP(K).GT.0.) THEN
    SUMSHORT(ICAN)=SUMSHORT(ICAN)-SHORT(IPASS,15)
    ESHORT(IPASS)=ESHORT(IPASS)-SHORT(IPASS,15)
    SHORT(IPASS,15)=0.
    IF (QM(15,I,J)-QINSTRM(15,J).LT.0.) THEN
      SHORT(IPASS,15)=ABS(QM(15,I,J)-QINSTRM(15,J))
      SUMSHORT(ICAN)=SUMSHORT(ICAN)+SHORT(IPASS,15)
      ESHORT(IPASS)=ESHORT(IPASS)+SHORT(IPASS,15)
    END IF
  END IF
C
  RETURN
END

```

```

C*****
      SUBROUTINE PPSIM
C*****
C
C
C*****PERFORM MASS BALANCE
C
      TEST=BSTOR(K)+QIN(K)+QMAKEUP(K)-EVNT(NESET(K),I,J)*SAREA
      1 -DIV(K)-REL(K)
      EVAP(K)=EVNT(NESET(K),I,J)*SAREA
C
      IF (TEST.GT.CONSTOR(K)) THEN
        SPILL(K)=TEST-CONSTOR(K)
      ELSE
        SPILL=0.
      END IF
C
C*****EVALUATE HALF INTERVAL FUNCTION
C
      FXX=XX-TEST
C
      RETURN
      END

```

```

C*****
SUBROUTINE APPLEON
C*****
C
C
C*****CHECK LEON CREEK WATER AVAILABLE BASED ON FLOW AT #1815
C
    DIV(28)=0.
    DO 10 IWRCLASS=1,ICANX
    DO 9 M=1,4
    DIV(28)=DIV(28)+(DMF(IDRCH(28),J,M)*FLOAT(WR(28,IWRCLASS,M))
    1 *WRF(28)/100.)
    9 CONTINUE
    10 CONTINUE
C
    RF(28)=RFF(28)*FLOAT(ARF(28))*(FLOAT(NDAYS)/365.)
C
    QNUS=QN(26,I,J)+QN(27,I,J)
    QMUS=QM(26,I,J)+REL(K)
    IF (QNUS.EQ.0.) QNUS=0.00001
    IF (QMUS.EQ.0.) QMUS=0.00001
    CLOSSQN=10.**((ADLV(28)+BDLV(28)*ALOG10(QNUS))
    IF (CLOSSQN.GT.QNUS) CLOSSQN=QNUS
    CLOSSQM=10.**((ADLV(28)+BDLV(28)*ALOG10(QMUS))
    IF (CLOSSQM.GT.QMUS) CLOSSQM=QMUS
    QIN(28)=QN(28,I,J)-DIV(28)+RF(28)-(QNUS-CLOSSQN)+(QMUS-CLOSSQM)
C
C*****CHECK MAXIMUM AVAILABLE FOR LEON DIVERSION
C
    DMAX(28)=QIN(28)-QINSTRM(28,J)
    IF (DMAX(28).LT.0.) DMAX(28)=0.
C
    RETURN
    END

```

```

C*****
      SUBROUTINE STORARE (XE,YE)
C*****
C
C
C*****COMPUTE SURFACE AREA FROM STORAGE BY LINEAR INTERPOLATION
C
      L=2
      9 IF (XE-C(K,L)) 12,11,10
      10 L=L+1
      GO TO 9
      11 YE=A(K,L)
      GO TO 13
      12 YE=A(K,L-1)+(A(K,L)-A(K,L-1))/
        1(C(K,L)-C(K,L-1))*(XE-C(K,L-1))
      13 CONTINUE
      RETURN
      END
C*****
      SUBROUTINE STORELV (XE,YE)
C*****
C
C
C*****COMPUTE WSEL FROM STORAGE BY LINEAR INTERPOLATION
C
      L=2
      9 IF (XE-C(K,L)) 12,11,10
      10 L=L+1
      GO TO 9
      11 YE=E(K,L)
      GO TO 13
      12 YE=E(K,L-1)+(E(K,L)-E(K,L-1))/
        1(C(K,L)-C(K,L-1))*(XE-C(K,L-1))
      13 CONTINUE
      RETURN
      END

```

APPENDIX H

Reservoir Elevation-Area-Capacity Relationships

ELEVATION - AREA - CAPACITY DATA FOR CANYON LAKE		
ELEVATION (FT-MSL)	SURFACE AREA (ACRES)	CAPACITY (ACFT)
769	0	0
770	35	17
780	96	623
790	179	1967
800	281	4140
810	531	7992
820	930	15045
830	1352	26417
840	2101	43591
850	2762	67964
860	3552	99591
870	4453	139648
880	5286	188111
890	6212	245333
900	7223	312280
909	8231	381999
910	8389	390309
920	9506	479557
930	10943	581650
940	12451	698686
950	13890	830357

ELEVATION - AREA - CAPACITY DATA FOR
COLETO CREEK RESERVOIR

ELEVATION (FT-MSL)	SURFACE AREA (ACRES)	CAPACITY (ACFT)
58	0	0
65	60	209
70	170	769
75	360	2074
80	640	4544
85	1090	8869
90	1720	15864
92	2060	19644
94	2400	24104
96	2740	29244
98	3100	35084

ELEVATION - AREA - CAPACITY DATA FOR MEDINA LAKE		
ELEVATION (FT-MSL)	SURFACE AREA (ACRES)	CAPACITY (ACFT)
912.2	0	0
922.2	25	115
932.2	54	500
942.2	128	1200
952.2	226	3050
958.7	377	4786
962.2	459	5720
972.2	670	12220
982.2	896	19120
992.2	1261	30140
1002.2	1622	44330
1012.2	2077	62580
1022.2	2597	85860
1032.2	3205	114520
1042.2	3874	149950
1052.2	4624	192000
1062.2	5417	242430
1064.2	5575	254000
1068.2	5910	276000
1072.2	6200	300000

ELEVATION - AREA - CAPACITY DATA FOR DIVERSION LAKE		
ELEVATION (FT-MSL)	SURFACE AREA (ACRES)	CAPACITY (ACFT)
870.2	0	0
872.2	7	7
882.2	32	203
892.2	62	724
902.2	100	1536
912.2	148	2778
913.7	160	3037
918.7	197	3901

ELEVATION - AREA - CAPACITY DATA FOR BRAUNIG LAKE		
ELEVATION (FT-MSL)	SURFACE AREA (ACRES)	CAPACITY (ACFT)
440	0	0
450	15	150
460	90	750
470	210	2100
480	385	5100
490	615	10100
500	1050	18800
505	1265	24000
507	1350	26500

ELEVATION - AREA - CAPACITY DATA FOR CALAVERAS LAKE		
ELEVATION (FT-MSL)	SURFACE AREA (ACRES)	CAPACITY (ACFT)
428	0	0
440	90	600
450	440	2800
460	970	9590
470	1780	23200
475	2325	33500
480	2880	46750
481	3030	49750
482	3125	52500
483	3260	56000
484	3375	59500
485	3450	62800
486	3665	66850
487	3780	70400

**ELEVATION - AREA - CAPACITY DATA FOR
CLOPTIN CROSSING RESERVOIR**

ELEVATION (FT-MSL)	SURFACE AREA (ACRES)	CAPACITY (ACFT)
840	0	0
860	121	1212
870	242	3030
880	394	6211
890	616	11261
900	949	19089
910	1444	31057
920	1990	48227
930	2535	70851
940	3131	99181
950	3808	133874
960	4494	175384
970	5242	224065
980.5	6060	283400

**ELEVATION - AREA - CAPACITY DATA FOR
LOWER BLANCO RESERVOIR**

ELEVATION (FT-MSL)	SURFACE AREA (ACRES)	CAPACITY (ACFT)
647	0	0
650	4	4
660	10	74
670	101	550
680	158	1835
690	263	3919
700	382	7125
710	522	11626
720	689	17664
730	890	25535
740	1052	35230
750	1338	47150

ELEVATION - AREA - CAPACITY DATA FOR COMAL SCS/FRS		
ELEVATION (FT-MSL)	SURFACE AREA (ACRES)	CAPACITY (ACFT)
647	0	0
650	13	13
660	81	433
670	265	2074

ELEVATION - AREA - CAPACITY DATA FOR
APPLEWHITE RESERVOIR

ELEVATION (FT-MSL)	SURFACE AREA (ACRES)	CAPACITY (ACFT)
465	0	0
480	73	460
485	123	940
490	200	1734
495	325	3046
500	450	4984
505	580	7559
510	713	10788
515	858	14706
520	1028	19411
525	1293	25143
530	1738	32642
535	2358	42882
536	2500	45251

ELEVATION - AREA - CAPACITY DATA FOR CIBOLO DAM #1		
ELEVATION (FT-MSL)	SURFACE AREA (ACRES)	CAPACITY (ACFT)
805	0	0
810	7	18
815	19	84
820	31	210
825	55	426
930	79	762
835	95	1197
840	111	1710
845	150	2362
850	189	3210
855	245	4295
860	335	5745
865	465	7745
870	500	10000

APPENDIX I

Historical Edwards Aquifer Recharge

RECHARGE ESTIMATES FOR THE EDWARDS AQUIFER
HDR ENGINEERING, INC.
AUSTIN, TEXAS
OCTOBER 25, 1993

YEAR	MUECES RIVER AND WEST MUECES RIVER RECHARGE (ACFT)	FRODO RIVER AND DRY FRODO RIVER RECHARGE (ACFT)	SABINAL RIVER RECHARGE (ACFT)	SECO CREEK RECHARGE (ACFT)	MONDO CREEK RECHARGE (ACFT)	VERDE & ELM CREEK RECHARGE (ACFT)	AREA BETWEEN SABINAL RIVER AND MEDINA RIVER RECHARGE (ACFT)	MEDINA LAKE AND DIVERSION LAKE RECHARGE (ACFT)	RECHARGE FOR AREA BETWEEN MEDINA LAKE AND SALADO CREEK ON RECHARGE ZONE (ACFT)	RECHARGE FOR AREA BETWEEN MEDINA LAKE AND SALADO CREEK ABOVE RECHARGE ZONE (ACFT)	SAN GERONIMO DAM RECHARGE (ACFT)	SALADO CREEK RECHARGE (ACFT)	AREA BETWEEN MEDINA LAKE AND CIBOLO CREEK TOTAL RECHARGE (ACFT)	CIBOLO CREEK RECHARGE (ACFT)	DRY COMAL CREEK RECHARGE (ACFT)	CIBOLO CREEK AND DRY COMAL CREEK TOTAL RECHARGE (ACFT)	ESTIMATED GUADALUPE RIVER RECHARGE (ACFT)	BLANCO RIVER RECHARGE (ACFT)	BLANCO RIVER PARTNER AREA YORK, ECK & PURBATORY CREEK RECHARGE (ACFT)	BLANCO RIVER AND PARTNER AREA TOTAL RECHARGE (ACFT)	MUECES RIVER BASIN TOTAL RECHARGE (ACFT)	GUADALUPE SAN ANTONIO RIVER BASIN TOTAL RECHARGE (ACFT)	TOTAL RECHARGE (ACFT)
1934	32889	34733	9383	6433	9163	20156	35752	44497	6388	6867	0	33859	47114	16848	38790	55638	32323	29549	45199	74747	112757	254319	367076
1935	132831	321509	70191	112557	86159	97982	296698	47117	32974	31360	0	59167	123501	84493	34374	118867	6469	22676	25559	48234	821230	344188	1165418
1936	209504	168722	48431	68287	45294	51129	164710	53275	31785	30885	0	89011	131681	84026	44154	128180	37170	22058	29587	51645	591367	401951	993317
1937	40180	72612	21505	14152	17962	21428	53542	52235	15614	15384	0	38400	69398	46363	32606	78969	12258	21388	20845	42231	187839	255091	442931
1938	65582	65301	17441	11345	17908	24168	53420	48820	27304	26193	0	83425	116923	65812	78144	143956	31032	30418	49773	80191	201744	420922	622666
1939	219904	70809	16369	11545	15549	15657	42751	40604	4226	4663	0	9328	18217	11356	3971	15327	19266	12887	3868	16755	349833	110170	460003
1940	71156	66029	18404	11474	17418	21206	50098	30201	12908	12846	0	19909	45662	36522	19212	55734	26689	22401	21203	43504	205887	201891	407578
1941	102464	143376	44657	44741	45640	59226	149607	43076	45120	42864	0	83039	171023	102432	98172	200604	21540	43520	89837	133357	440104	569599	1009703
1942	79296	85483	26855	16652	25497	28841	70991	44469	29016	28037	0	33483	120536	66812	74746	141558	27158	35016	51894	86909	262625	420630	683255
1943	53958	45464	14284	8393	11707	16431	36531	42925	12957	13066	0	35990	62013	38514	35492	74006	12020	20022	15956	35978	150236	226943	377179
1944	96031	103684	22108	17417	21856	20627	59900	40824	33504	32174	0	81370	147049	87892	64032	151924	5573	33588	59560	93176	281724	438546	720269
1945	58175	96568	27181	23698	24346	29815	77860	42124	33414	31457	0	53454	118325	86502	71717	158219	16971	29689	45012	74701	259785	410340	670124
1946	105067	78828	22448	13634	15454	26802	55891	39602	30699	29752	0	90221	150672	107285	94639	201934	22840	35009	58781	93770	282234	508917	771151
1947	100972	81214	19759	13217	15794	16045	45056	38385	11061	11101	0	34219	46381	48102	39040	87142	16725	27722	39035	66757	247002	255390	502392
1948	55926	50832	12338	5392	3399	15744	24535	18890	10011	10265	0	15382	35658	18741	13704	32445	21505	16822	10592	27414	143631	135912	279543
1949	116471	111923	28351	23123	25142	35757	84022	30907	15882	15717	0	33401	64979	37414	31540	68954	10570	18319	12904	31223	340788	207032	547800
1950	59750	40605	14007	7994	10040	12442	30476	13274	7106	7454	0	17310	31870	21069	7626	28695	9537	15840	8853	24493	144837	107868	252706
1951	57189	35386	6326	8016	7324	24124	39465	10256	9726	10097	0	9778	29601	16856	13446	30302	16634	16051	19671	35722	138366	122515	260881
1952	30359	27428	9703	5547	8050	14600	28197	12922	21814	20868	0	17230	59912	70425	14477	84902	9841	17489	20863	38352	85688	205928	301616
1953	28556	30446	4618	7331	12891	15988	36210	19343	6536	5902	0	17215	28652	25078	33314	58392	17827	25585	31226	56811	99831	181026	280857
1954	43278	27478	4017	4110	4374	2739	11223	23430	4020	4178	0	18500	26698	9370	15717	25087	18376	14678	12185	26882	85998	120453	206449
1955	205474	30774	3206	1544	3627	6544	11715	10789	910	1146	0	6783	8839	2984	12193	15177	27389	15159	17475	32634	251170	94828	345996
1956	25319	9345	4224	1451	5692	12685	19828	11076	1104	1348	0	12244	14695	1683	17726	19409	27156	12224	10108	22330	68716	94666	153383
1957	104250	92879	22490	36832	39567	49204	125602	29316	32085	30416	0	18741	121242	99482	52531	152013	7977	45215	47132	92347	345221	402894	748115
1958	199766	255735	70117	80232	68194	70146	228572	51508	52854	49554	0	33127	195535	149136	82545	231681	6626	29650	56265	85915	754190	571265	1325455
1959	104504	172540	51863	30689	30588	41055	102332	52939	26241	25378	0	24574	76193	60568	40888	101456	7648	37040	52205	89245	431239	327481	758720
1960	95579	133568	60338	39273	41160	41089	118522	52554	36751	34909	0	18222	127882	121568	59948	181516	10639	50778	58381	109159	408007	481750	889756
1961	123931	163843	52613	33361	35205	22624	91180	52799	20296	19646	0	19753	59695	80595	21204	81799	5734	12750	11017	23767	431577	223794	655370
1962	57671	53458	5202	3378	3794	6671	13843	48709	6924	7265	0	12656	36945	15857	21759	37616	12355	19538	20465	40003	130174	175528	305702
1963	47126	38198	6559	2060	2543	2687	7290	41556	4900	5334	0	16879	27113	5242	23186	28438	8237	17184	17336	34530	99173	139874	239047
1964	134656	67406	19802	24441	19384	32095	75920	35347	16588	16659	0	12200	55448	46856	28452	73308	5107	21413	19453	40866	297884	210076	507960
1965	114710	90686	44792	26648	32312	39658	98618	40898	23555	22851	0	16493	92899	63800	57754	121554	0	33815	48391	82006	348806	337357	686163
1966	123092	100837	33251	27216	25714	24609	77539	41191	14853	14601	0	18408	77862	32628	54978	87606	4470	33285	42767	76052	334719	287181	621900
1967	82245	139032	39003	31879	19708	24248	75835	37456	13758	13891	0	17913	65562	40724	39636	80360	11690	17911	15798	33709	338115	228778	564892
1968	95065	183488	75500	78061	62831	52483	193375	46319	28920	29244	0	10765	108929	114126	55085	169211	436	22694	37478	60172	547428	385067	932495
1969	120252	116967	35794	23247	34233	40125	97605	46448	24813	31883	0	17075	93772	65919	43854	109773	7578	27589	38011	65600	370817	323171	693788
1970	77417	124183	33424	16833	31828	28530	77191	49115	25941	32348	0	14652	92941	92674	53411	146085	8991	15243	45530	60772	312215	357804	670119
1971	167028	178302	32839	43109	29702	51433	124244	48401	20526	18352	0	12061	60940	78457	19802	98259	1900	16740	19523	36263	502413	245762	748175
1972	62963	126817	44298	52925	38546	37071	128543	52951	12102	22671	0	17631	62404	67772	34090	101862	640	24779	26028	50807	382621	268664	631284
1973	146650	210451	56717	91223	89441	88739	269403	52974	57142	51776	0	17150	226068	127151	121146	248297	7479	43888	84078	127866	683221	682785	1346006
1974	45291	142177	41640	23890	31591	28018	83499	53005	13937	24472	0	10466	68875	10363	53837	134200	11461	28982	48191	75173	312607	342715	655321
1975	68271	127406	43110	40778	65172	46420	152370	53026	36706	51565	0	8566	146837	139624	69074	208698	2811	53952	86324	140276	391157	551648	942805
1976	123277	250626	65417	50701	68496	64781	183978	52628	40204	36837	0	12385	179426	123955	93529	217484	9272	40947	63168	104115	623298	562925	1188223
1977	18157	180811	60106	36184	55301	36313	127799	52908	29056	30241	0	12860	132158	106450	69564	176014	0	37082	54249	91331	386873	452410	839283
1978	63320	80599	37764	22716	23751	31220	77687	51880	10422	17181	0	15035	52638	31904	35328	67232	5178	23075	17529	40604	259370	217532	476902
1979	87809	152844	52182	53886	73367	61484	188737	53015	42277	33473	0	11955	167705	147184	80866	238050	2385	40487	65294	105781	481572	566936	1048508
1980	52312	68291	23481	5980	11429	12339	29749	50168	7619	12961	0	19210	39790	31829	32450	64079	3073	21489	17504	38993	173833	188103	369935
1981	99236	236963	79443	77455	73218	65448	216121	52361	40474	31177	1407	85963	139021										

APPENDIX J

Enhanced Recharge Summaries

**KEY TO RECHARGE SUMMARIES
GUADALUPE - SAN ANTONIO RIVER BASIN**

<u>ID#</u>	<u>USGS ID#</u>	<u>STREAM NAME, LOCATION</u>
1	1670	GUADALUPE RIVER @ COMFORT
2	1675	GUADALUPE RIVER @ SPRING BRANCH
3	1677	GUADALUPE RIVER @ CANYON LAKE
4	1685	GUADALUPE RIVER @ NEW BRAUNFELS
5	1690	COMAL RIVER @ NEW BRAUNFELS
6		HYDRO DAM H5 (LAKE WOOD)
7	1700	SAN MARCOS RIVER @ SAN MARCOS
8	1710	BLANCO RIVER @ WIMBERLEY
9	1713	BLANCO RIVER @ KYLE
10	1720	SAN MARCOS RIVER @ LULING
11	1730	PLUM CREEK @ LULING
12	1746	PEACH CREEK @ DILWORTH
13	1750	SANDIES CREEK @ WESTHOFF
14	1758	GUADALUPE RIVER @ CUERO
15	1765	GUADALUPE RIVER @ VICTORIA
16	1774	COLETO CREEK @ COLETO CREEK DAM
17		OLMOS CREEK (RECHARGE ZONE RUNOFF)
18	1780	SAN ANTONIO RIVER @ SAN ANTONIO
19	1787	SALADO CREEK, UPPER STATION @ SAN ANTONIO
20	1788	SALADO CREEK, LOWER STATION @ SAN ANTONIO
21	1795	MEDINA RIVER @ MEDINA LAKE
22		DIVERSION LAKE (RECHARGE ZONE RUNOFF)
23		MEDINA RIVER @ DIVERSION LAKE
24		DEEP CREEK (RECHARGE ZONE RUNOFF)
25		SAN GERNIMO CREEK (RECHARGE ZONE RUNOFF)
26		LEON CREEK (RECHARGE ZONE RUNOFF)
27	1808	MEDINA RIVER @ SOMERSET
28	1815	MEDINA RIVER @ SAN ANTONIO
29	1818	SAN ANTONIO RIVER @ ELMENDORF
30		ARROYO SECO @ BRAUNIG LAKE
31	1825	CALAVERAS CREEK @ CALAVERAS DAM
32	1835	SAN ANTONIO RIVER @ FALLS CITY
33	1839	CIBOLO CREEK @ BOERNE
34	1850	CIBOLO CREEK @ SELMA
35	1860	CIBOLO CREEK @ FALLS CITY
36	1865	ECLITO CREEK @ RUNGE
37	1885	SAN ANTONIO RIVER @ GOLIAD
38	1888	GUADALUPE RIVER @ TIVOLI

HISTORICAL RECHARGE, PUMPAGE: 250,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1934	0.	0.	0.	32323.	40029.	0.	47609.	0.	29154.	0.	0.	0.	0.	0.	0.	0.	616.	0.	35100.
1935	0.	0.	0.	6470.	38397.	0.	30621.	0.	22418.	0.	0.	0.	0.	0.	0.	0.	3175.	0.	66602.
1936	0.	0.	0.	37170.	45394.	0.	31232.	0.	21974.	0.	0.	0.	0.	0.	0.	0.	3062.	0.	76274.
1937	0.	0.	0.	12261.	36279.	0.	23079.	0.	21259.	0.	0.	0.	0.	0.	0.	0.	1504.	0.	43291.
1938	0.	0.	0.	31033.	81672.	0.	53198.	0.	30258.	0.	0.	0.	0.	0.	0.	0.	2629.	0.	65695.
1939	0.	0.	0.	19268.	4006.	0.	4005.	0.	12200.	0.	0.	0.	0.	0.	0.	0.	409.	0.	9634.
1940	0.	0.	0.	26689.	22292.	0.	28278.	0.	21943.	0.	0.	0.	0.	0.	0.	0.	1243.	0.	22888.
1941	0.	0.	0.	21539.	103903.	0.	96773.	0.	43446.	0.	0.	0.	0.	0.	0.	0.	4345.	0.	89730.
1942	0.	0.	0.	27159.	80385.	0.	61272.	0.	34894.	0.	0.	0.	0.	0.	0.	0.	2793.	0.	70341.
1943	0.	0.	0.	12022.	35957.	0.	16267.	0.	19834.	0.	0.	0.	0.	0.	0.	0.	1247.	0.	36516.
1944	0.	0.	0.	5574.	66423.	0.	63543.	0.	33525.	0.	0.	0.	0.	0.	0.	0.	3227.	0.	83348.
1945	0.	0.	0.	16971.	76891.	0.	51264.	0.	29580.	0.	0.	0.	0.	0.	0.	0.	3217.	0.	58045.
1946	0.	0.	0.	22941.	102315.	0.	67000.	0.	34908.	0.	0.	0.	0.	0.	0.	0.	2957.	0.	100316.
1947	0.	0.	0.	16725.	40664.	0.	41663.	0.	27455.	0.	0.	0.	0.	0.	0.	0.	1065.	0.	25027.
1948	0.	0.	0.	21507.	14090.	0.	11507.	0.	16123.	0.	0.	0.	0.	0.	0.	0.	961.	0.	15618.
1949	0.	0.	0.	10970.	33959.	0.	15165.	0.	17972.	0.	0.	0.	0.	0.	0.	0.	1528.	0.	35817.
1950	0.	0.	0.	9540.	8027.	0.	10368.	0.	15075.	0.	0.	0.	0.	0.	0.	0.	685.	0.	17458.
1951	0.	0.	0.	16633.	13742.	0.	20592.	0.	15209.	0.	0.	0.	0.	0.	0.	0.	937.	0.	10245.
1952	0.	0.	0.	9842.	20151.	0.	23139.	0.	17115.	0.	0.	0.	0.	0.	0.	0.	2100.	0.	18396.
1953	0.	0.	0.	17827.	35227.	0.	34550.	0.	25339.	0.	0.	0.	0.	0.	0.	0.	533.	0.	18040.
1954	0.	0.	0.	18378.	15769.	0.	12442.	0.	13978.	0.	0.	0.	0.	0.	0.	0.	388.	0.	18674.
1955	0.	0.	0.	27389.	12536.	0.	18361.	0.	14374.	0.	0.	0.	0.	0.	0.	0.	87.	0.	6981.
1956	0.	0.	0.	27113.	18483.	0.	11657.	0.	11465.	0.	0.	0.	0.	0.	0.	0.	106.	0.	12326.
1957	0.	0.	0.	7977.	67081.	0.	58219.	0.	45099.	0.	0.	0.	0.	0.	0.	0.	3091.	0.	72324.
1958	0.	0.	0.	6626.	86362.	0.	61096.	0.	29590.	0.	0.	0.	0.	0.	0.	0.	5092.	0.	98764.
1959	0.	0.	0.	7647.	42151.	0.	55025.	0.	36954.	0.	0.	0.	0.	0.	0.	0.	2527.	0.	25122.
1960	0.	0.	0.	10639.	65402.	0.	70286.	0.	50704.	0.	0.	0.	0.	0.	0.	0.	3540.	0.	57946.
1961	0.	0.	0.	5734.	24563.	0.	15500.	0.	12682.	0.	0.	0.	0.	0.	0.	0.	1954.	0.	20003.
1962	0.	0.	0.	12353.	22543.	0.	21593.	0.	19395.	0.	0.	0.	0.	0.	0.	0.	667.	0.	23379.
1963	0.	0.	0.	8237.	23469.	0.	17610.	0.	16710.	0.	0.	0.	0.	0.	0.	0.	471.	0.	17056.
1964	0.	0.	0.	5108.	27406.	0.	20450.	0.	21016.	0.	0.	0.	0.	0.	0.	0.	1598.	0.	25349.
1965	0.	0.	0.	0.	66646.	0.	58624.	0.	33572.	0.	0.	0.	0.	0.	0.	0.	2268.	0.	55725.
1966	0.	0.	0.	4470.	55257.	0.	43167.	0.	33230.	0.	0.	0.	0.	0.	0.	0.	1432.	0.	49022.

HISTORICAL RECHARGE, PUMPAGE: 250,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1967	0.	0.	0.	11689.	41674.	0.	17765.	0.	17734.	0.	0.	0.	0.	0.	0.	0.	1325.	0.	39318.
1968	0.	0.	0.	437.	61412.	0.	44599.	0.	22621.	0.	0.	0.	0.	0.	0.	0.	2785.	0.	56473.
1969	0.	0.	0.	7579.	44816.	0.	39903.	0.	27511.	0.	0.	0.	0.	0.	0.	0.	2390.	0.	38362.
1970	0.	0.	0.	8991.	55598.	0.	49072.	0.	15183.	0.	0.	0.	0.	0.	0.	0.	2498.	0.	36608.
1971	0.	0.	0.	1899.	20305.	0.	20333.	0.	16468.	0.	0.	0.	0.	0.	0.	0.	1977.	0.	22741.
1972	0.	0.	0.	639.	48764.	0.	28238.	0.	24709.	0.	0.	0.	0.	0.	0.	0.	1165.	0.	35066.
1973	0.	0.	0.	7480.	127235.	0.	89659.	0.	43858.	0.	0.	0.	0.	0.	0.	0.	5502.	0.	130133.
1974	0.	0.	0.	11462.	56929.	0.	53336.	0.	28925.	0.	0.	0.	0.	0.	0.	0.	1343.	0.	33158.
1975	0.	0.	0.	2811.	72492.	0.	96599.	0.	53919.	0.	0.	0.	0.	0.	0.	0.	3536.	0.	60521.
1976	0.	0.	0.	9273.	98154.	0.	70209.	0.	40902.	0.	0.	0.	0.	0.	0.	0.	3872.	0.	104990.
1977	0.	0.	0.	0.	72204.	0.	58515.	0.	37043.	0.	0.	0.	0.	0.	0.	0.	2799.	0.	75690.
1978	0.	0.	0.	5179.	38115.	0.	21031.	0.	22977.	0.	0.	0.	0.	0.	0.	0.	1001.	0.	31173.
1979	0.	0.	0.	2385.	92437.	0.	71949.	0.	40439.	0.	0.	0.	0.	0.	0.	0.	4071.	0.	94497.
1980	0.	0.	0.	3074.	33246.	0.	19151.	0.	21382.	0.	0.	0.	0.	0.	0.	0.	733.	0.	19802.
1981	0.	0.	0.	746.	82787.	0.	101375.	0.	39065.	0.	0.	0.	0.	0.	0.	0.	3897.	0.	67224.
1982	0.	0.	0.	5192.	25869.	0.	20368.	0.	21310.	0.	0.	0.	0.	0.	0.	0.	863.	0.	31709.
1983	0.	0.	0.	3638.	29754.	0.	35559.	0.	27480.	0.	0.	0.	0.	0.	0.	0.	804.	0.	17653.
1984	0.	0.	0.	1830.	10956.	0.	15085.	0.	22108.	0.	0.	0.	0.	0.	0.	0.	941.	0.	28909.
1985	0.	0.	0.	691.	72140.	0.	75247.	0.	35672.	0.	0.	0.	0.	0.	0.	0.	2113.	0.	83735.
1986	0.	0.	0.	10783.	90147.	0.	60930.	0.	33345.	0.	0.	0.	0.	0.	0.	0.	4851.	0.	94263.
1987	0.	0.	0.	8368.	86511.	0.	81570.	0.	28586.	0.	0.	0.	0.	0.	0.	0.	3986.	0.	79570.
1988	0.	0.	0.	3348.	27169.	0.	23669.	0.	25200.	0.	0.	0.	0.	0.	0.	0.	761.	0.	30475.
1989	0.	0.	0.	6635.	23491.	0.	25176.	0.	26065.	0.	0.	0.	0.	0.	0.	0.	447.	0.	30179.
AVERAGE																			
1934-89	0.	0.	0.	11255.	48923.	0.	41330.	0.	26803.	0.	0.	0.	0.	0.	0.	0.	2056.	0.	46845.
1947-56	0.	0.	0.	17592.	21265.	0.	19944.	0.	17411.	0.	0.	0.	0.	0.	0.	0.	839.	0.	17858.
1953-56	0.	0.	0.	22677.	20504.	0.	19253.	0.	16289.	0.	0.	0.	0.	0.	0.	0.	279.	0.	14005.

HISTORICAL RECHARGE, PUMPAGE: 250,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1934	0.	32088.	1150.	16896.	961.	5144.	6771.	0.	0.	0.	0.	0.	0.	0.	17759.	0.	0.	0.	0.	265600.
1935	0.	29668.	5948.	15089.	4958.	19598.	32674.	0.	0.	0.	0.	0.	0.	0.	84401.	0.	0.	0.	0.	360019.
1936	0.	34446.	5733.	15780.	4776.	20297.	31859.	0.	0.	0.	0.	0.	0.	0.	83592.	0.	0.	0.	0.	411589.
1937	0.	34800.	2815.	16773.	2346.	11037.	15769.	0.	0.	0.	0.	0.	0.	0.	45929.	0.	0.	0.	0.	267142.
1938	0.	30525.	4924.	15911.	4104.	17119.	27181.	0.	0.	0.	0.	0.	0.	0.	65378.	0.	0.	0.	0.	429627.
1939	0.	18408.	764.	14416.	637.	3642.	4545.	0.	0.	0.	0.	0.	0.	0.	10922.	0.	0.	0.	0.	102856.
1940	0.	6234.	2330.	5269.	1941.	9225.	13105.	0.	0.	0.	0.	0.	0.	0.	44722.	0.	0.	0.	0.	206159.
1941	0.	26658.	8137.	12664.	6781.	26750.	44683.	0.	0.	0.	0.	0.	0.	0.	101994.	0.	0.	0.	0.	587403.
1942	0.	28515.	5234.	14963.	4361.	17940.	28998.	0.	0.	0.	0.	0.	0.	0.	66377.	0.	0.	0.	0.	443232.
1943	0.	22613.	2337.	14648.	1948.	9457.	13250.	0.	0.	0.	0.	0.	0.	0.	38079.	0.	0.	0.	0.	224175.
1944	0.	16667.	6043.	12207.	5035.	21239.	33371.	0.	0.	0.	0.	0.	0.	0.	87455.	0.	0.	0.	0.	437657.
1945	0.	18067.	6027.	12581.	5022.	19931.	32931.	0.	0.	0.	0.	0.	0.	0.	86065.	0.	0.	0.	0.	416592.
1946	0.	9932.	5538.	8736.	4614.	19322.	30729.	0.	0.	0.	0.	0.	0.	0.	106860.	0.	0.	0.	0.	516168.
1947	0.	13439.	1995.	10414.	1664.	7884.	11284.	0.	0.	0.	0.	0.	0.	0.	47668.	0.	0.	0.	0.	246947.
1948	0.	5460.	1805.	24.	1504.	7416.	10334.	0.	0.	0.	0.	0.	0.	0.	18305.	0.	0.	0.	0.	124654.
1949	0.	8755.	2860.	5497.	2384.	10319.	16067.	0.	0.	0.	0.	0.	0.	0.	36977.	0.	0.	0.	0.	198270.
1950	0.	5460.	1282.	433.	1068.	5308.	7427.	0.	0.	0.	0.	0.	0.	0.	20633.	0.	0.	0.	0.	102764.
1951	0.	5698.	1755.	970.	1462.	7151.	10107.	0.	0.	0.	0.	0.	0.	0.	22034.	0.	0.	0.	0.	126535.
1952	0.	5684.	3934.	1030.	3277.	13526.	21683.	0.	0.	0.	0.	0.	0.	0.	70005.	0.	0.	0.	0.	209882.
1953	0.	5990.	999.	2870.	833.	4486.	5839.	0.	0.	0.	0.	0.	0.	0.	52435.	0.	0.	0.	0.	204968.
1954	0.	5460.	725.	570.	605.	2855.	4180.	0.	0.	0.	0.	0.	0.	0.	18990.	0.	0.	0.	0.	113014.
1955	0.	5460.	164.	24.	137.	909.	1058.	0.	0.	0.	0.	0.	0.	0.	15342.	0.	0.	0.	0.	102822.
1956	0.	5460.	199.	24.	166.	979.	1259.	0.	0.	0.	0.	0.	0.	0.	12291.	0.	0.	0.	0.	101528.
1957	0.	15804.	5787.	8775.	4822.	19231.	31738.	0.	0.	0.	0.	0.	0.	0.	103897.	0.	0.	0.	0.	443845.
1958	0.	32444.	9532.	14285.	7944.	30784.	51977.	0.	0.	0.	0.	0.	0.	0.	149347.	0.	0.	0.	0.	583843.
1959	0.	35098.	4732.	16291.	3944.	16439.	26237.	0.	0.	0.	0.	0.	0.	0.	60135.	0.	0.	0.	0.	332302.
1960	0.	32662.	6628.	15490.	5524.	22491.	36394.	0.	0.	0.	0.	0.	0.	0.	121135.	0.	0.	0.	0.	498841.
1961	0.	34379.	3659.	15585.	3050.	12672.	20302.	0.	0.	0.	0.	0.	0.	0.	60162.	0.	0.	0.	0.	230245.
1962	0.	27197.	1249.	16327.	1040.	5309.	7238.	0.	0.	0.	0.	0.	0.	0.	16093.	0.	0.	0.	0.	174383.
1963	0.	11857.	882.	8086.	738.	3878.	5230.	0.	0.	0.	0.	0.	0.	0.	10408.	0.	0.	0.	0.	124632.
1964	0.	9604.	2992.	3306.	2493.	11457.	16929.	0.	0.	0.	0.	0.	0.	0.	46565.	0.	0.	0.	0.	194273.
1965	0.	16769.	4248.	13039.	3539.	15163.	23590.	0.	0.	0.	0.	0.	0.	0.	63394.	0.	0.	0.	0.	356577.
1966	0.	8529.	2678.	8178.	2232.	10073.	14983.	0.	0.	0.	0.	0.	0.	0.	32197.	0.	0.	0.	0.	265448.

HISTORICAL RECHARGE, PUMPAGE: 250,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1967	0.	6876.	2481.	4619.	2067.	9675.	14081.	0.	0.	0.	0.	0.	0.	0.	40398.	0.	0.	0.	0.	209702.
1968	0.	23419.	5216.	12975.	4347.	17850.	29624.	0.	0.	0.	0.	0.	0.	0.	113693.	0.	0.	0.	0.	395451.
1969	0.	17027.	4475.	12434.	3729.	17771.	29186.	0.	0.	0.	0.	0.	0.	0.	65486.	0.	0.	0.	0.	310669.
1970	0.	19354.	4679.	13032.	3899.	18332.	29965.	0.	0.	0.	0.	0.	0.	0.	92270.	0.	0.	0.	0.	349481.
1971	0.	17695.	3701.	8146.	3085.	11601.	19690.	0.	0.	0.	0.	0.	0.	0.	78138.	0.	0.	0.	0.	225779.
1972	0.	34438.	2182.	16089.	1820.	12707.	18186.	0.	0.	0.	0.	0.	0.	0.	67188.	0.	0.	0.	0.	291191.
1973	0.	34670.	10306.	16334.	8588.	31914.	55197.	0.	0.	0.	0.	0.	0.	0.	126547.	0.	0.	0.	0.	687423.
1974	0.	35254.	2514.	16162.	2094.	13573.	20036.	0.	0.	0.	0.	0.	0.	0.	79792.	0.	0.	0.	0.	354578.
1975	0.	35745.	6620.	16709.	5517.	27793.	45616.	0.	0.	0.	0.	0.	0.	0.	138965.	0.	0.	0.	0.	566843.
1976	0.	33701.	7252.	15511.	6041.	22563.	39061.	0.	0.	0.	0.	0.	0.	0.	123325.	0.	0.	0.	0.	574854.
1977	0.	35294.	5241.	16620.	4367.	18635.	30238.	0.	0.	0.	0.	0.	0.	0.	105751.	0.	0.	0.	0.	462397.
1978	0.	33274.	1880.	16728.	1568.	9726.	14361.	0.	0.	0.	0.	0.	0.	0.	31133.	0.	0.	0.	0.	228146.
1979	0.	35699.	7624.	16822.	6354.	21678.	38153.	0.	0.	0.	0.	0.	0.	0.	146718.	0.	0.	0.	0.	578826.
1980	0.	30665.	1373.	15808.	1146.	6791.	10719.	0.	0.	0.	0.	0.	0.	0.	31361.	0.	0.	0.	0.	195251.
1981	0.	33789.	7299.	15668.	6083.	19312.	36046.	0.	0.	0.	0.	0.	0.	0.	111812.	0.	0.	0.	0.	525103.
1982	0.	34529.	1612.	16580.	1344.	7193.	11479.	0.	0.	0.	0.	0.	0.	0.	36452.	0.	0.	0.	0.	214500.
1983	0.	27793.	1505.	15653.	1254.	7531.	11879.	0.	0.	0.	0.	0.	0.	0.	32248.	0.	0.	0.	0.	212751.
1984	0.	14585.	1765.	11057.	1471.	7919.	12751.	0.	0.	0.	0.	0.	0.	0.	27383.	0.	0.	0.	0.	156760.
1985	0.	18617.	3959.	12110.	3299.	17550.	26446.	0.	0.	0.	0.	0.	0.	0.	72360.	0.	0.	0.	0.	423939.
1986	0.	19515.	9088.	12288.	7573.	34291.	57639.	0.	0.	0.	0.	0.	0.	0.	148138.	0.	0.	0.	0.	582851.
1987	0.	34623.	7467.	15654.	6224.	35269.	55985.	0.	0.	0.	0.	0.	0.	0.	122125.	0.	0.	0.	0.	565938.
1988	0.	32365.	1426.	16132.	1186.	6762.	10822.	0.	0.	0.	0.	0.	0.	0.	20411.	0.	0.	0.	0.	199726.
1989	0.	24380.	840.	15457.	698.	3772.	6175.	0.	0.	0.	0.	0.	0.	0.	13064.	0.	0.	0.	0.	176379.
AVERAGE																				
1934-89	0.	22020.	3850.	11531.	3208.	14094.	22555.	0.	0.	0.	0.	0.	0.	0.	65041.	0.	0.	0.	0.	319510.
1947-56	0.	6687.	1572.	2186.	1310.	6083.	8924.	0.	0.	0.	0.	0.	0.	0.	31468.	0.	0.	0.	0.	153138.
1953-56	0.	5593.	522.	872.	435.	2307.	3084.	0.	0.	0.	0.	0.	0.	0.	24765.	0.	0.	0.	0.	130583.

HISTORICAL RECHARGE, PUMPAGE: 400,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1934	0.	0.	0.	32323.	40029.	0.	47609.	0.	29154.	0.	0.	0.	0.	0.	0.	0.	616.	0.	35100.
1935	0.	0.	0.	6470.	38397.	0.	30621.	0.	22418.	0.	0.	0.	0.	0.	0.	0.	3175.	0.	66602.
1936	0.	0.	0.	37170.	45394.	0.	31232.	0.	21974.	0.	0.	0.	0.	0.	0.	0.	3062.	0.	76274.
1937	0.	0.	0.	12261.	36279.	0.	23079.	0.	21259.	0.	0.	0.	0.	0.	0.	0.	1504.	0.	43291.
1938	0.	0.	0.	31033.	81672.	0.	53198.	0.	30258.	0.	0.	0.	0.	0.	0.	0.	2629.	0.	65695.
1939	0.	0.	0.	19268.	4006.	0.	4005.	0.	12200.	0.	0.	0.	0.	0.	0.	0.	409.	0.	9634.
1940	0.	0.	0.	26689.	22292.	0.	28278.	0.	21943.	0.	0.	0.	0.	0.	0.	0.	1243.	0.	22888.
1941	0.	0.	0.	21539.	103903.	0.	96773.	0.	43446.	0.	0.	0.	0.	0.	0.	0.	4345.	0.	89730.
1942	0.	0.	0.	27159.	80385.	0.	61272.	0.	34894.	0.	0.	0.	0.	0.	0.	0.	2793.	0.	70341.
1943	0.	0.	0.	12022.	35957.	0.	16267.	0.	19834.	0.	0.	0.	0.	0.	0.	0.	1247.	0.	36516.
1944	0.	0.	0.	5574.	66423.	0.	63543.	0.	33525.	0.	0.	0.	0.	0.	0.	0.	3227.	0.	83348.
1945	0.	0.	0.	16971.	76891.	0.	51264.	0.	29580.	0.	0.	0.	0.	0.	0.	0.	3217.	0.	58045.
1946	0.	0.	0.	22941.	102315.	0.	67000.	0.	34908.	0.	0.	0.	0.	0.	0.	0.	2957.	0.	100316.
1947	0.	0.	0.	16725.	40664.	0.	41663.	0.	27455.	0.	0.	0.	0.	0.	0.	0.	1065.	0.	25027.
1948	0.	0.	0.	21507.	14090.	0.	11507.	0.	16123.	0.	0.	0.	0.	0.	0.	0.	961.	0.	15618.
1949	0.	0.	0.	10970.	33959.	0.	15165.	0.	17972.	0.	0.	0.	0.	0.	0.	0.	1528.	0.	35817.
1950	0.	0.	0.	9540.	8027.	0.	10368.	0.	15075.	0.	0.	0.	0.	0.	0.	0.	685.	0.	17458.
1951	0.	0.	0.	16633.	13742.	0.	20592.	0.	15209.	0.	0.	0.	0.	0.	0.	0.	937.	0.	10245.
1952	0.	0.	0.	9842.	20151.	0.	23139.	0.	17115.	0.	0.	0.	0.	0.	0.	0.	2100.	0.	18396.
1953	0.	0.	0.	17827.	35227.	0.	34550.	0.	25339.	0.	0.	0.	0.	0.	0.	0.	533.	0.	18040.
1954	0.	0.	0.	18378.	15769.	0.	12442.	0.	13978.	0.	0.	0.	0.	0.	0.	0.	388.	0.	18674.
1955	0.	0.	0.	27389.	12536.	0.	18361.	0.	14374.	0.	0.	0.	0.	0.	0.	0.	87.	0.	6981.
1956	0.	0.	0.	27113.	18483.	0.	11657.	0.	11465.	0.	0.	0.	0.	0.	0.	0.	106.	0.	12326.
1957	0.	0.	0.	7977.	67081.	0.	58219.	0.	45099.	0.	0.	0.	0.	0.	0.	0.	3091.	0.	72324.
1958	0.	0.	0.	6626.	86362.	0.	61096.	0.	29590.	0.	0.	0.	0.	0.	0.	0.	5092.	0.	98764.
1959	0.	0.	0.	7647.	42151.	0.	55025.	0.	36954.	0.	0.	0.	0.	0.	0.	0.	2527.	0.	25122.
1960	0.	0.	0.	10639.	65402.	0.	70286.	0.	50704.	0.	0.	0.	0.	0.	0.	0.	3540.	0.	57946.
1961	0.	0.	0.	5734.	24563.	0.	15500.	0.	12682.	0.	0.	0.	0.	0.	0.	0.	1954.	0.	20003.
1962	0.	0.	0.	12353.	22543.	0.	21593.	0.	19395.	0.	0.	0.	0.	0.	0.	0.	667.	0.	23379.
1963	0.	0.	0.	8237.	23469.	0.	17610.	0.	16710.	0.	0.	0.	0.	0.	0.	0.	471.	0.	17056.
1964	0.	0.	0.	5108.	27406.	0.	20450.	0.	21016.	0.	0.	0.	0.	0.	0.	0.	1598.	0.	25349.
1965	0.	0.	0.	0.	66646.	0.	58624.	0.	33572.	0.	0.	0.	0.	0.	0.	0.	2268.	0.	55725.
1966	0.	0.	0.	4470.	55257.	0.	43167.	0.	33230.	0.	0.	0.	0.	0.	0.	0.	1432.	0.	49022.

HISTORICAL RECHARGE, PUMPAGE: 400,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1967	0.	0.	0.	11689.	41674.	0.	17765.	0.	17734.	0.	0.	0.	0.	0.	0.	0.	1325.	0.	39318.
1968	0.	0.	0.	437.	61412.	0.	44599.	0.	22621.	0.	0.	0.	0.	0.	0.	0.	2785.	0.	56473.
1969	0.	0.	0.	7579.	44816.	0.	39903.	0.	27511.	0.	0.	0.	0.	0.	0.	0.	2390.	0.	38362.
1970	0.	0.	0.	8991.	55598.	0.	49072.	0.	15183.	0.	0.	0.	0.	0.	0.	0.	2498.	0.	36608.
1971	0.	0.	0.	1899.	20305.	0.	20333.	0.	16468.	0.	0.	0.	0.	0.	0.	0.	1977.	0.	22741.
1972	0.	0.	0.	639.	48764.	0.	28238.	0.	24709.	0.	0.	0.	0.	0.	0.	0.	1165.	0.	35066.
1973	0.	0.	0.	7480.	127235.	0.	89659.	0.	43858.	0.	0.	0.	0.	0.	0.	0.	5502.	0.	130133.
1974	0.	0.	0.	11462.	56929.	0.	53336.	0.	28925.	0.	0.	0.	0.	0.	0.	0.	1343.	0.	33158.
1975	0.	0.	0.	2811.	72492.	0.	96599.	0.	53919.	0.	0.	0.	0.	0.	0.	0.	3536.	0.	60521.
1976	0.	0.	0.	9273.	98154.	0.	70209.	0.	40902.	0.	0.	0.	0.	0.	0.	0.	3872.	0.	104990.
1977	0.	0.	0.	0.	72204.	0.	58515.	0.	37043.	0.	0.	0.	0.	0.	0.	0.	2799.	0.	75690.
1978	0.	0.	0.	5179.	38115.	0.	21031.	0.	22977.	0.	0.	0.	0.	0.	0.	0.	1001.	0.	31173.
1979	0.	0.	0.	2385.	92437.	0.	71949.	0.	40439.	0.	0.	0.	0.	0.	0.	0.	4071.	0.	94497.
1980	0.	0.	0.	3074.	33246.	0.	19151.	0.	21382.	0.	0.	0.	0.	0.	0.	0.	733.	0.	19802.
1981	0.	0.	0.	746.	82787.	0.	101375.	0.	39065.	0.	0.	0.	0.	0.	0.	0.	3897.	0.	67224.
1982	0.	0.	0.	5192.	25869.	0.	20368.	0.	21310.	0.	0.	0.	0.	0.	0.	0.	863.	0.	31709.
1983	0.	0.	0.	3638.	29754.	0.	35559.	0.	27480.	0.	0.	0.	0.	0.	0.	0.	804.	0.	17653.
1984	0.	0.	0.	1830.	10956.	0.	15085.	0.	22108.	0.	0.	0.	0.	0.	0.	0.	941.	0.	28909.
1985	0.	0.	0.	691.	72140.	0.	75247.	0.	35672.	0.	0.	0.	0.	0.	0.	0.	2113.	0.	83735.
1986	0.	0.	0.	10783.	90147.	0.	60930.	0.	33345.	0.	0.	0.	0.	0.	0.	0.	4851.	0.	94263.
1987	0.	0.	0.	8368.	86511.	0.	81570.	0.	28586.	0.	0.	0.	0.	0.	0.	0.	3986.	0.	79570.
1988	0.	0.	0.	3348.	27169.	0.	23669.	0.	25200.	0.	0.	0.	0.	0.	0.	0.	761.	0.	30475.
1989	0.	0.	0.	6635.	23491.	0.	25176.	0.	26065.	0.	0.	0.	0.	0.	0.	0.	447.	0.	30179.
AVERAGE																			
1934-89	0.	0.	0.	11255.	48923.	0.	41330.	0.	26803.	0.	0.	0.	0.	0.	0.	0.	2056.	0.	46845.
1947-56	0.	0.	0.	17592.	21265.	0.	19944.	0.	17411.	0.	0.	0.	0.	0.	0.	0.	839.	0.	17858.
1953-56	0.	0.	0.	22677.	20504.	0.	19253.	0.	16289.	0.	0.	0.	0.	0.	0.	0.	279.	0.	14005.

HISTORICAL RECHARGE, PUMPAGE: 400,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1934	0.	32088.	1150.	16896.	961.	5144.	6771.	0.	0.	0.	0.	0.	0.	0.	17759.	0.	0.	0.	0.	265600.
1935	0.	29668.	5948.	15089.	4958.	19598.	32674.	0.	0.	0.	0.	0.	0.	0.	84401.	0.	0.	0.	0.	360019.
1936	0.	34446.	5733.	15780.	4776.	20297.	31859.	0.	0.	0.	0.	0.	0.	0.	83592.	0.	0.	0.	0.	411589.
1937	0.	34800.	2815.	16773.	2346.	11037.	15769.	0.	0.	0.	0.	0.	0.	0.	45929.	0.	0.	0.	0.	267142.
1938	0.	30525.	4924.	15911.	4104.	17119.	27181.	0.	0.	0.	0.	0.	0.	0.	65378.	0.	0.	0.	0.	429627.
1939	0.	18408.	764.	14416.	637.	3642.	4545.	0.	0.	0.	0.	0.	0.	0.	10922.	0.	0.	0.	0.	102856.
1940	0.	6234.	2330.	5269.	1941.	9225.	13105.	0.	0.	0.	0.	0.	0.	0.	44722.	0.	0.	0.	0.	206159.
1941	0.	26658.	8137.	12664.	6781.	26750.	44683.	0.	0.	0.	0.	0.	0.	0.	101994.	0.	0.	0.	0.	587403.
1942	0.	28515.	5234.	14963.	4361.	17940.	28998.	0.	0.	0.	0.	0.	0.	0.	66377.	0.	0.	0.	0.	443232.
1943	0.	22613.	2337.	14648.	1948.	9457.	13250.	0.	0.	0.	0.	0.	0.	0.	38079.	0.	0.	0.	0.	224175.
1944	0.	16667.	6043.	12207.	5035.	21239.	33371.	0.	0.	0.	0.	0.	0.	0.	87455.	0.	0.	0.	0.	437657.
1945	0.	18067.	6027.	12581.	5022.	19931.	32931.	0.	0.	0.	0.	0.	0.	0.	86065.	0.	0.	0.	0.	416592.
1946	0.	9932.	5538.	8736.	4614.	19322.	30729.	0.	0.	0.	0.	0.	0.	0.	106860.	0.	0.	0.	0.	516168.
1947	0.	13439.	1995.	10414.	1664.	7884.	11284.	0.	0.	0.	0.	0.	0.	0.	47668.	0.	0.	0.	0.	246947.
1948	0.	5460.	1805.	24.	1504.	7416.	10334.	0.	0.	0.	0.	0.	0.	0.	18305.	0.	0.	0.	0.	124654.
1949	0.	8755.	2860.	5497.	2384.	10319.	16067.	0.	0.	0.	0.	0.	0.	0.	36977.	0.	0.	0.	0.	198270.
1950	0.	5460.	1282.	433.	1068.	5308.	7427.	0.	0.	0.	0.	0.	0.	0.	20633.	0.	0.	0.	0.	102764.
1951	0.	5698.	1755.	970.	1462.	7151.	10107.	0.	0.	0.	0.	0.	0.	0.	22034.	0.	0.	0.	0.	126535.
1952	0.	5684.	3934.	1030.	3277.	13526.	21683.	0.	0.	0.	0.	0.	0.	0.	70005.	0.	0.	0.	0.	209882.
1953	0.	5990.	999.	2870.	833.	4486.	5839.	0.	0.	0.	0.	0.	0.	0.	52435.	0.	0.	0.	0.	204968.
1954	0.	5460.	725.	570.	605.	2855.	4180.	0.	0.	0.	0.	0.	0.	0.	18990.	0.	0.	0.	0.	113014.
1955	0.	5460.	164.	24.	137.	909.	1058.	0.	0.	0.	0.	0.	0.	0.	15342.	0.	0.	0.	0.	102822.
1956	0.	5460.	199.	24.	166.	979.	1259.	0.	0.	0.	0.	0.	0.	0.	12291.	0.	0.	0.	0.	101528.
1957	0.	15804.	5787.	8775.	4822.	19231.	31738.	0.	0.	0.	0.	0.	0.	0.	103897.	0.	0.	0.	0.	443845.
1958	0.	32444.	9532.	14285.	7944.	30784.	51977.	0.	0.	0.	0.	0.	0.	0.	149347.	0.	0.	0.	0.	583843.
1959	0.	35098.	4732.	16291.	3944.	16439.	26237.	0.	0.	0.	0.	0.	0.	0.	60135.	0.	0.	0.	0.	332302.
1960	0.	32662.	6628.	15490.	5524.	22491.	36394.	0.	0.	0.	0.	0.	0.	0.	121135.	0.	0.	0.	0.	498841.
1961	0.	34379.	3659.	15585.	3050.	12672.	20302.	0.	0.	0.	0.	0.	0.	0.	60162.	0.	0.	0.	0.	230245.
1962	0.	27197.	1249.	16327.	1040.	5309.	7238.	0.	0.	0.	0.	0.	0.	0.	16093.	0.	0.	0.	0.	174383.
1963	0.	11857.	882.	8086.	738.	3878.	5230.	0.	0.	0.	0.	0.	0.	0.	10408.	0.	0.	0.	0.	124632.
1964	0.	9604.	2992.	3306.	2493.	11457.	16929.	0.	0.	0.	0.	0.	0.	0.	46565.	0.	0.	0.	0.	194273.
1965	0.	16769.	4248.	13039.	3539.	15163.	23590.	0.	0.	0.	0.	0.	0.	0.	63394.	0.	0.	0.	0.	356577.
1966	0.	8529.	2678.	8178.	2232.	10073.	14983.	0.	0.	0.	0.	0.	0.	0.	32197.	0.	0.	0.	0.	265448.

HISTORICAL RECHARGE, PUMPAGE: 400,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1967	0.	6876.	2481.	4619.	2067.	9675.	14081.	0.	0.	0.	0.	0.	0.	0.	40398.	0.	0.	0.	0.	209702.
1968	0.	23419.	5216.	12975.	4347.	17850.	29624.	0.	0.	0.	0.	0.	0.	0.	113693.	0.	0.	0.	0.	395451.
1969	0.	17027.	4475.	12434.	3729.	17771.	29186.	0.	0.	0.	0.	0.	0.	0.	65486.	0.	0.	0.	0.	310669.
1970	0.	19354.	4679.	13032.	3899.	18332.	29965.	0.	0.	0.	0.	0.	0.	0.	92270.	0.	0.	0.	0.	349481.
1971	0.	17695.	3701.	8146.	3085.	11601.	19690.	0.	0.	0.	0.	0.	0.	0.	78138.	0.	0.	0.	0.	225779.
1972	0.	34438.	2182.	16089.	1820.	12707.	18186.	0.	0.	0.	0.	0.	0.	0.	67188.	0.	0.	0.	0.	291191.
1973	0.	34670.	10306.	16334.	8588.	31914.	55197.	0.	0.	0.	0.	0.	0.	0.	126547.	0.	0.	0.	0.	687423.
1974	0.	35254.	2514.	16162.	2094.	13573.	20036.	0.	0.	0.	0.	0.	0.	0.	79792.	0.	0.	0.	0.	354578.
1975	0.	35745.	6620.	16709.	5517.	27793.	45616.	0.	0.	0.	0.	0.	0.	0.	138965.	0.	0.	0.	0.	566843.
1976	0.	33701.	7252.	15511.	6041.	22563.	39061.	0.	0.	0.	0.	0.	0.	0.	123325.	0.	0.	0.	0.	574854.
1977	0.	35294.	5241.	16620.	4367.	18635.	30238.	0.	0.	0.	0.	0.	0.	0.	105751.	0.	0.	0.	0.	462397.
1978	0.	33274.	1880.	16728.	1568.	9726.	14361.	0.	0.	0.	0.	0.	0.	0.	31133.	0.	0.	0.	0.	228146.
1979	0.	35699.	7624.	16822.	6354.	21678.	38153.	0.	0.	0.	0.	0.	0.	0.	146718.	0.	0.	0.	0.	578826.
1980	0.	30665.	1373.	15808.	1146.	6791.	10719.	0.	0.	0.	0.	0.	0.	0.	31361.	0.	0.	0.	0.	195251.
1981	0.	33789.	7299.	15668.	6083.	19312.	36046.	0.	0.	0.	0.	0.	0.	0.	111812.	0.	0.	0.	0.	525103.
1982	0.	34529.	1612.	16580.	1344.	7193.	11479.	0.	0.	0.	0.	0.	0.	0.	36452.	0.	0.	0.	0.	214500.
1983	0.	27793.	1505.	15653.	1254.	7531.	11879.	0.	0.	0.	0.	0.	0.	0.	32248.	0.	0.	0.	0.	212751.
1984	0.	14585.	1765.	11057.	1471.	7919.	12751.	0.	0.	0.	0.	0.	0.	0.	27383.	0.	0.	0.	0.	156760.
1985	0.	18617.	3959.	12110.	3299.	17550.	26446.	0.	0.	0.	0.	0.	0.	0.	72360.	0.	0.	0.	0.	423939.
1986	0.	19515.	9088.	12288.	7573.	34291.	57639.	0.	0.	0.	0.	0.	0.	0.	148138.	0.	0.	0.	0.	582851.
1987	0.	34623.	7467.	15654.	6224.	35269.	55985.	0.	0.	0.	0.	0.	0.	0.	122125.	0.	0.	0.	0.	565938.
1988	0.	32365.	1426.	16132.	1186.	6762.	10822.	0.	0.	0.	0.	0.	0.	0.	20411.	0.	0.	0.	0.	199726.
1989	0.	24380.	840.	15457.	698.	3772.	6175.	0.	0.	0.	0.	0.	0.	0.	13064.	0.	0.	0.	0.	176379.
AVERAGE																				
1934-89	0.	22020.	3850.	11531.	3208.	14094.	22555.	0.	0.	0.	0.	0.	0.	0.	65041.	0.	0.	0.	0.	319510.
1947-56	0.	6687.	1572.	2186.	1310.	6083.	8924.	0.	0.	0.	0.	0.	0.	0.	31468.	0.	0.	0.	0.	153138.
1953-56	0.	5593.	522.	872.	435.	2307.	3084.	0.	0.	0.	0.	0.	0.	0.	24765.	0.	0.	0.	0.	130583.

HISTORICAL RECHARGE, PUMPAGE: 450,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1934	0.	0.	0.	32323.	40029.	0.	47609.	0.	29154.	0.	0.	0.	0.	0.	0.	0.	616.	0.	35100.
1935	0.	0.	0.	6470.	38397.	0.	30621.	0.	22418.	0.	0.	0.	0.	0.	0.	0.	3175.	0.	66602.
1936	0.	0.	0.	37170.	45394.	0.	31232.	0.	21974.	0.	0.	0.	0.	0.	0.	0.	3062.	0.	76274.
1937	0.	0.	0.	12261.	36279.	0.	23079.	0.	21259.	0.	0.	0.	0.	0.	0.	0.	1504.	0.	43291.
1938	0.	0.	0.	31033.	81672.	0.	53198.	0.	30258.	0.	0.	0.	0.	0.	0.	0.	2629.	0.	65695.
1939	0.	0.	0.	19268.	4006.	0.	4005.	0.	12200.	0.	0.	0.	0.	0.	0.	0.	409.	0.	9634.
1940	0.	0.	0.	26689.	22292.	0.	28278.	0.	21943.	0.	0.	0.	0.	0.	0.	0.	1243.	0.	22888.
1941	0.	0.	0.	21539.	103903.	0.	96773.	0.	43446.	0.	0.	0.	0.	0.	0.	0.	4345.	0.	89730.
1942	0.	0.	0.	27159.	80385.	0.	61272.	0.	34894.	0.	0.	0.	0.	0.	0.	0.	2793.	0.	70341.
1943	0.	0.	0.	12022.	35957.	0.	16267.	0.	19834.	0.	0.	0.	0.	0.	0.	0.	1247.	0.	36516.
1944	0.	0.	0.	5574.	66423.	0.	63543.	0.	33525.	0.	0.	0.	0.	0.	0.	0.	3227.	0.	83348.
1945	0.	0.	0.	16971.	76891.	0.	51264.	0.	29580.	0.	0.	0.	0.	0.	0.	0.	3217.	0.	58045.
1946	0.	0.	0.	22941.	102315.	0.	67000.	0.	34908.	0.	0.	0.	0.	0.	0.	0.	2957.	0.	100316.
1947	0.	0.	0.	16725.	40664.	0.	41663.	0.	27455.	0.	0.	0.	0.	0.	0.	0.	1065.	0.	25027.
1948	0.	0.	0.	21507.	14090.	0.	11507.	0.	16123.	0.	0.	0.	0.	0.	0.	0.	961.	0.	15618.
1949	0.	0.	0.	10970.	33959.	0.	15165.	0.	17972.	0.	0.	0.	0.	0.	0.	0.	1528.	0.	35817.
1950	0.	0.	0.	9540.	8027.	0.	10368.	0.	15075.	0.	0.	0.	0.	0.	0.	0.	685.	0.	17458.
1951	0.	0.	0.	16633.	13742.	0.	20592.	0.	15209.	0.	0.	0.	0.	0.	0.	0.	937.	0.	10245.
1952	0.	0.	0.	9842.	20151.	0.	23139.	0.	17115.	0.	0.	0.	0.	0.	0.	0.	2100.	0.	18396.
1953	0.	0.	0.	17827.	35227.	0.	34550.	0.	25339.	0.	0.	0.	0.	0.	0.	0.	533.	0.	18040.
1954	0.	0.	0.	18378.	15769.	0.	12442.	0.	13978.	0.	0.	0.	0.	0.	0.	0.	388.	0.	18674.
1955	0.	0.	0.	27389.	12536.	0.	18361.	0.	14374.	0.	0.	0.	0.	0.	0.	0.	87.	0.	6981.
1956	0.	0.	0.	27113.	18483.	0.	11657.	0.	11465.	0.	0.	0.	0.	0.	0.	0.	106.	0.	12326.
1957	0.	0.	0.	7977.	67081.	0.	58219.	0.	45099.	0.	0.	0.	0.	0.	0.	0.	3091.	0.	72324.
1958	0.	0.	0.	6626.	86362.	0.	61096.	0.	29590.	0.	0.	0.	0.	0.	0.	0.	5092.	0.	98764.
1959	0.	0.	0.	7647.	42151.	0.	55025.	0.	36954.	0.	0.	0.	0.	0.	0.	0.	2527.	0.	25122.
1960	0.	0.	0.	10639.	65402.	0.	70286.	0.	50704.	0.	0.	0.	0.	0.	0.	0.	3540.	0.	57946.
1961	0.	0.	0.	5734.	24563.	0.	15500.	0.	12682.	0.	0.	0.	0.	0.	0.	0.	1954.	0.	20003.
1962	0.	0.	0.	12353.	22543.	0.	21593.	0.	19395.	0.	0.	0.	0.	0.	0.	0.	667.	0.	23379.
1963	0.	0.	0.	8237.	23469.	0.	17610.	0.	16710.	0.	0.	0.	0.	0.	0.	0.	471.	0.	17056.
1964	0.	0.	0.	5108.	27406.	0.	20450.	0.	21016.	0.	0.	0.	0.	0.	0.	0.	1598.	0.	25349.
1965	0.	0.	0.	0.	66646.	0.	58624.	0.	33572.	0.	0.	0.	0.	0.	0.	0.	2268.	0.	55725.
1966	0.	0.	0.	4470.	55257.	0.	43167.	0.	33230.	0.	0.	0.	0.	0.	0.	0.	1432.	0.	49022.

HISTORICAL RECHARGE, PUMPAGE: 450,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1967	0.	0.	0.	11689.	41674.	0.	17765.	0.	17734.	0.	0.	0.	0.	0.	0.	0.	1325.	0.	39318.
1968	0.	0.	0.	437.	61412.	0.	44599.	0.	22621.	0.	0.	0.	0.	0.	0.	0.	2785.	0.	56473.
1969	0.	0.	0.	7579.	44816.	0.	39903.	0.	27511.	0.	0.	0.	0.	0.	0.	0.	2390.	0.	38362.
1970	0.	0.	0.	8991.	55598.	0.	49072.	0.	15183.	0.	0.	0.	0.	0.	0.	0.	2498.	0.	36608.
1971	0.	0.	0.	1899.	20305.	0.	20333.	0.	16468.	0.	0.	0.	0.	0.	0.	0.	1977.	0.	22741.
1972	0.	0.	0.	639.	48764.	0.	28238.	0.	24709.	0.	0.	0.	0.	0.	0.	0.	1165.	0.	35066.
1973	0.	0.	0.	7480.	127235.	0.	89659.	0.	43858.	0.	0.	0.	0.	0.	0.	0.	5502.	0.	130133.
1974	0.	0.	0.	11462.	56929.	0.	53336.	0.	28925.	0.	0.	0.	0.	0.	0.	0.	1343.	0.	33158.
1975	0.	0.	0.	2811.	72492.	0.	96599.	0.	53919.	0.	0.	0.	0.	0.	0.	0.	3536.	0.	60521.
1976	0.	0.	0.	9273.	98154.	0.	70209.	0.	40902.	0.	0.	0.	0.	0.	0.	0.	3872.	0.	104990.
1977	0.	0.	0.	0.	72204.	0.	58515.	0.	37043.	0.	0.	0.	0.	0.	0.	0.	2799.	0.	75690.
1978	0.	0.	0.	5179.	38115.	0.	21031.	0.	22977.	0.	0.	0.	0.	0.	0.	0.	1001.	0.	31173.
1979	0.	0.	0.	2385.	92437.	0.	71949.	0.	40439.	0.	0.	0.	0.	0.	0.	0.	4071.	0.	94497.
1980	0.	0.	0.	3074.	33246.	0.	19151.	0.	21382.	0.	0.	0.	0.	0.	0.	0.	733.	0.	19802.
1981	0.	0.	0.	746.	82787.	0.	101375.	0.	39065.	0.	0.	0.	0.	0.	0.	0.	3897.	0.	67224.
1982	0.	0.	0.	5192.	25869.	0.	20368.	0.	21310.	0.	0.	0.	0.	0.	0.	0.	863.	0.	31709.
1983	0.	0.	0.	3638.	29754.	0.	35559.	0.	27480.	0.	0.	0.	0.	0.	0.	0.	804.	0.	17653.
1984	0.	0.	0.	1830.	10956.	0.	15085.	0.	22108.	0.	0.	0.	0.	0.	0.	0.	941.	0.	28909.
1985	0.	0.	0.	691.	72140.	0.	75247.	0.	35672.	0.	0.	0.	0.	0.	0.	0.	2113.	0.	83735.
1986	0.	0.	0.	10783.	90147.	0.	60930.	0.	33345.	0.	0.	0.	0.	0.	0.	0.	4851.	0.	94263.
1987	0.	0.	0.	8368.	86511.	0.	81570.	0.	28586.	0.	0.	0.	0.	0.	0.	0.	3986.	0.	79570.
1988	0.	0.	0.	3348.	27169.	0.	23669.	0.	25200.	0.	0.	0.	0.	0.	0.	0.	761.	0.	30475.
1989	0.	0.	0.	6635.	23491.	0.	25176.	0.	26065.	0.	0.	0.	0.	0.	0.	0.	447.	0.	30179.
AVERAGE																			
1934-89	0.	0.	0.	11255.	48923.	0.	41330.	0.	26803.	0.	0.	0.	0.	0.	0.	0.	2056.	0.	46845.
1947-56	0.	0.	0.	17592.	21265.	0.	19944.	0.	17411.	0.	0.	0.	0.	0.	0.	0.	839.	0.	17858.
1953-56	0.	0.	0.	22677.	20504.	0.	19253.	0.	16289.	0.	0.	0.	0.	0.	0.	0.	279.	0.	14005.

HISTORICAL RECHARGE, PUMPAGE: 450,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1934	0.	32088.	1150.	16896.	961.	5144.	6771.	0.	0.	0.	0.	0.	0.	0.	17759.	0.	0.	0.	0.	265600.
1935	0.	29668.	5948.	15089.	4958.	19598.	32674.	0.	0.	0.	0.	0.	0.	0.	84401.	0.	0.	0.	0.	360019.
1936	0.	34446.	5733.	15780.	4776.	20297.	31859.	0.	0.	0.	0.	0.	0.	0.	83592.	0.	0.	0.	0.	411589.
1937	0.	34800.	2815.	16773.	2346.	11037.	15769.	0.	0.	0.	0.	0.	0.	0.	45929.	0.	0.	0.	0.	267142.
1938	0.	30525.	4924.	15911.	4104.	17119.	27181.	0.	0.	0.	0.	0.	0.	0.	65378.	0.	0.	0.	0.	429627.
1939	0.	18408.	764.	14416.	637.	3642.	4545.	0.	0.	0.	0.	0.	0.	0.	10922.	0.	0.	0.	0.	102856.
1940	0.	6234.	2330.	5269.	1941.	9225.	13105.	0.	0.	0.	0.	0.	0.	0.	44722.	0.	0.	0.	0.	206159.
1941	0.	26658.	8137.	12664.	6781.	26750.	44683.	0.	0.	0.	0.	0.	0.	0.	101994.	0.	0.	0.	0.	587403.
1942	0.	28515.	5234.	14963.	4361.	17940.	28998.	0.	0.	0.	0.	0.	0.	0.	66377.	0.	0.	0.	0.	443232.
1943	0.	22613.	2337.	14648.	1948.	9457.	13250.	0.	0.	0.	0.	0.	0.	0.	38079.	0.	0.	0.	0.	224175.
1944	0.	16667.	6043.	12207.	5035.	21239.	33371.	0.	0.	0.	0.	0.	0.	0.	87455.	0.	0.	0.	0.	437657.
1945	0.	18067.	6027.	12581.	5022.	19931.	32931.	0.	0.	0.	0.	0.	0.	0.	86065.	0.	0.	0.	0.	416592.
1946	0.	9932.	5538.	8736.	4614.	19322.	30729.	0.	0.	0.	0.	0.	0.	0.	106860.	0.	0.	0.	0.	516168.
1947	0.	13439.	1995.	10414.	1664.	7884.	11284.	0.	0.	0.	0.	0.	0.	0.	47668.	0.	0.	0.	0.	246947.
1948	0.	5460.	1805.	24.	1504.	7416.	10334.	0.	0.	0.	0.	0.	0.	0.	18305.	0.	0.	0.	0.	124654.
1949	0.	8755.	2860.	5497.	2384.	10319.	16067.	0.	0.	0.	0.	0.	0.	0.	36977.	0.	0.	0.	0.	198270.
1950	0.	5460.	1282.	433.	1068.	5308.	7427.	0.	0.	0.	0.	0.	0.	0.	20633.	0.	0.	0.	0.	102764.
1951	0.	5698.	1755.	970.	1462.	7151.	10107.	0.	0.	0.	0.	0.	0.	0.	22034.	0.	0.	0.	0.	126535.
1952	0.	5684.	3934.	1030.	3277.	13526.	21683.	0.	0.	0.	0.	0.	0.	0.	70005.	0.	0.	0.	0.	209882.
1953	0.	5990.	999.	2870.	833.	4486.	5839.	0.	0.	0.	0.	0.	0.	0.	52435.	0.	0.	0.	0.	204968.
1954	0.	5460.	725.	570.	605.	2855.	4180.	0.	0.	0.	0.	0.	0.	0.	18990.	0.	0.	0.	0.	113014.
1955	0.	5460.	164.	24.	137.	909.	1058.	0.	0.	0.	0.	0.	0.	0.	15342.	0.	0.	0.	0.	102822.
1956	0.	5460.	199.	24.	166.	979.	1259.	0.	0.	0.	0.	0.	0.	0.	12291.	0.	0.	0.	0.	101528.
1957	0.	15804.	5787.	8775.	4822.	19231.	31738.	0.	0.	0.	0.	0.	0.	0.	103897.	0.	0.	0.	0.	443845.
1958	0.	32444.	9532.	14285.	7944.	30784.	51977.	0.	0.	0.	0.	0.	0.	0.	149347.	0.	0.	0.	0.	583843.
1959	0.	35098.	4732.	16291.	3944.	16439.	26237.	0.	0.	0.	0.	0.	0.	0.	60135.	0.	0.	0.	0.	332302.
1960	0.	32662.	6628.	15490.	5524.	22491.	36394.	0.	0.	0.	0.	0.	0.	0.	121135.	0.	0.	0.	0.	498841.
1961	0.	34379.	3659.	15585.	3050.	12672.	20302.	0.	0.	0.	0.	0.	0.	0.	60162.	0.	0.	0.	0.	230245.
1962	0.	27197.	1249.	16327.	1040.	5309.	7238.	0.	0.	0.	0.	0.	0.	0.	16093.	0.	0.	0.	0.	174383.
1963	0.	11857.	882.	8086.	738.	3878.	5230.	0.	0.	0.	0.	0.	0.	0.	10408.	0.	0.	0.	0.	124632.
1964	0.	9604.	2992.	3306.	2493.	11457.	16929.	0.	0.	0.	0.	0.	0.	0.	46565.	0.	0.	0.	0.	194273.
1965	0.	16769.	4248.	13039.	3539.	15163.	23590.	0.	0.	0.	0.	0.	0.	0.	63394.	0.	0.	0.	0.	356577.
1966	0.	8529.	2678.	8178.	2232.	10073.	14983.	0.	0.	0.	0.	0.	0.	0.	32197.	0.	0.	0.	0.	265448.

HISTORICAL RECHARGE, PUMPAGE: 450,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1967	0.	6876.	2481.	4619.	2067.	9675.	14081.	0.	0.	0.	0.	0.	0.	0.	40398.	0.	0.	0.	0.	209702.
1968	0.	23419.	5216.	12975.	4347.	17850.	29624.	0.	0.	0.	0.	0.	0.	0.	113693.	0.	0.	0.	0.	395451.
1969	0.	17027.	4475.	12434.	3729.	17771.	29186.	0.	0.	0.	0.	0.	0.	0.	65486.	0.	0.	0.	0.	310669.
1970	0.	19354.	4679.	13032.	3899.	18332.	29965.	0.	0.	0.	0.	0.	0.	0.	92270.	0.	0.	0.	0.	349481.
1971	0.	17695.	3701.	8146.	3085.	11601.	19690.	0.	0.	0.	0.	0.	0.	0.	78138.	0.	0.	0.	0.	225779.
1972	0.	34438.	2182.	16089.	1820.	12707.	18186.	0.	0.	0.	0.	0.	0.	0.	67188.	0.	0.	0.	0.	291191.
1973	0.	34670.	10306.	16334.	8588.	31914.	55197.	0.	0.	0.	0.	0.	0.	0.	126547.	0.	0.	0.	0.	687423.
1974	0.	35254.	2514.	16162.	2094.	13573.	20036.	0.	0.	0.	0.	0.	0.	0.	79792.	0.	0.	0.	0.	354578.
1975	0.	35745.	6620.	16709.	5517.	27793.	45616.	0.	0.	0.	0.	0.	0.	0.	138965.	0.	0.	0.	0.	566843.
1976	0.	33701.	7252.	15511.	6041.	22563.	39061.	0.	0.	0.	0.	0.	0.	0.	123325.	0.	0.	0.	0.	574854.
1977	0.	35294.	5241.	16620.	4367.	18635.	30238.	0.	0.	0.	0.	0.	0.	0.	105751.	0.	0.	0.	0.	462397.
1978	0.	33274.	1880.	16728.	1568.	9726.	14361.	0.	0.	0.	0.	0.	0.	0.	31133.	0.	0.	0.	0.	228146.
1979	0.	35699.	7624.	16822.	6354.	21678.	38153.	0.	0.	0.	0.	0.	0.	0.	146718.	0.	0.	0.	0.	578826.
1980	0.	30665.	1373.	15808.	1146.	6791.	10719.	0.	0.	0.	0.	0.	0.	0.	31361.	0.	0.	0.	0.	195251.
1981	0.	33789.	7299.	15668.	6083.	19312.	36046.	0.	0.	0.	0.	0.	0.	0.	111812.	0.	0.	0.	0.	525103.
1982	0.	34529.	1612.	16580.	1344.	7193.	11479.	0.	0.	0.	0.	0.	0.	0.	36452.	0.	0.	0.	0.	214500.
1983	0.	27793.	1505.	15653.	1254.	7531.	11879.	0.	0.	0.	0.	0.	0.	0.	32248.	0.	0.	0.	0.	212751.
1984	0.	14585.	1765.	11057.	1471.	7919.	12751.	0.	0.	0.	0.	0.	0.	0.	27383.	0.	0.	0.	0.	156760.
1985	0.	18617.	3959.	12110.	3299.	17550.	26446.	0.	0.	0.	0.	0.	0.	0.	72360.	0.	0.	0.	0.	423939.
1986	0.	19515.	9088.	12288.	7573.	34291.	57639.	0.	0.	0.	0.	0.	0.	0.	148138.	0.	0.	0.	0.	582851.
1987	0.	34623.	7467.	15654.	6224.	35269.	55985.	0.	0.	0.	0.	0.	0.	0.	122125.	0.	0.	0.	0.	565938.
1988	0.	32365.	1426.	16132.	1186.	6762.	10822.	0.	0.	0.	0.	0.	0.	0.	20411.	0.	0.	0.	0.	199726.
1989	0.	24380.	840.	15457.	698.	3772.	6175.	0.	0.	0.	0.	0.	0.	0.	13064.	0.	0.	0.	0.	176379.
AVERAGE																				
1934-89	0.	22020.	3850.	11531.	3208.	14094.	22555.	0.	0.	0.	0.	0.	0.	0.	65041.	0.	0.	0.	0.	319510.
1947-56	0.	6687.	1572.	2186.	1310.	6083.	8924.	0.	0.	0.	0.	0.	0.	0.	31468.	0.	0.	0.	0.	153138.
1953-56	0.	5593.	522.	872.	435.	2307.	3084.	0.	0.	0.	0.	0.	0.	0.	24765.	0.	0.	0.	0.	130583.

HISTORICAL RECHARGE, PUMPAGE: 250,000 AF, 1988 WATER USE, HYDRO=0 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1934	0.	0.	0.	32323.	40029.	0.	47609.	0.	29418.	0.	0.	0.	0.	0.	0.	0.	616.	0.	35100.
1935	0.	0.	0.	6470.	38397.	0.	30621.	0.	22583.	0.	0.	0.	0.	0.	0.	0.	3175.	0.	66602.
1936	0.	0.	0.	37170.	45394.	0.	31232.	0.	22026.	0.	0.	0.	0.	0.	0.	0.	3062.	0.	76274.
1937	0.	0.	0.	12261.	36279.	0.	23079.	0.	21344.	0.	0.	0.	0.	0.	0.	0.	1504.	0.	43291.
1938	0.	0.	0.	31033.	81672.	0.	53198.	0.	30359.	0.	0.	0.	0.	0.	0.	0.	2629.	0.	65695.
1939	0.	0.	0.	19268.	4006.	0.	4005.	0.	12655.	0.	0.	0.	0.	0.	0.	0.	409.	0.	9634.
1940	0.	0.	0.	26689.	22292.	0.	28278.	0.	22245.	0.	0.	0.	0.	0.	0.	0.	1243.	0.	22888.
1941	0.	0.	0.	21539.	103903.	0.	96773.	0.	43495.	0.	0.	0.	0.	0.	0.	0.	4345.	0.	89730.
1942	0.	0.	0.	27159.	80385.	0.	61272.	0.	34976.	0.	0.	0.	0.	0.	0.	0.	2793.	0.	70341.
1943	0.	0.	0.	12022.	35957.	0.	16267.	0.	19956.	0.	0.	0.	0.	0.	0.	0.	1247.	0.	36516.
1944	0.	0.	0.	5574.	66423.	0.	63543.	0.	33572.	0.	0.	0.	0.	0.	0.	0.	3227.	0.	83348.
1945	0.	0.	0.	16971.	76891.	0.	51264.	0.	29651.	0.	0.	0.	0.	0.	0.	0.	3217.	0.	58045.
1946	0.	0.	0.	22941.	102315.	0.	67000.	0.	34976.	0.	0.	0.	0.	0.	0.	0.	2957.	0.	100316.
1947	0.	0.	0.	16725.	40664.	0.	41663.	0.	27637.	0.	0.	0.	0.	0.	0.	0.	1065.	0.	25027.
1948	0.	0.	0.	21507.	14090.	0.	11507.	0.	16598.	0.	0.	0.	0.	0.	0.	0.	961.	0.	15618.
1949	0.	0.	0.	10970.	33959.	0.	15165.	0.	18195.	0.	0.	0.	0.	0.	0.	0.	1528.	0.	35817.
1950	0.	0.	0.	9540.	8027.	0.	10368.	0.	15443.	0.	0.	0.	0.	0.	0.	0.	685.	0.	17458.
1951	0.	0.	0.	16633.	13742.	0.	20592.	0.	15761.	0.	0.	0.	0.	0.	0.	0.	937.	0.	10245.
1952	0.	0.	0.	9842.	20151.	0.	23139.	0.	17359.	0.	0.	0.	0.	0.	0.	0.	2100.	0.	18396.
1953	0.	0.	0.	17827.	35227.	0.	34550.	0.	25505.	0.	0.	0.	0.	0.	0.	0.	533.	0.	18040.
1954	0.	0.	0.	18378.	15769.	0.	12442.	0.	14446.	0.	0.	0.	0.	0.	0.	0.	388.	0.	18674.
1955	0.	0.	0.	27389.	12536.	0.	18361.	0.	14889.	0.	0.	0.	0.	0.	0.	0.	87.	0.	6981.
1956	0.	0.	0.	27156.	18483.	0.	11657.	0.	11976.	0.	0.	0.	0.	0.	0.	0.	106.	0.	12326.
1957	0.	0.	0.	7977.	67081.	0.	58219.	0.	45181.	0.	0.	0.	0.	0.	0.	0.	3091.	0.	72324.
1958	0.	0.	0.	6626.	86362.	0.	61096.	0.	29631.	0.	0.	0.	0.	0.	0.	0.	5092.	0.	98764.
1959	0.	0.	0.	7647.	42151.	0.	55025.	0.	37016.	0.	0.	0.	0.	0.	0.	0.	2527.	0.	25122.
1960	0.	0.	0.	10639.	65402.	0.	70286.	0.	50756.	0.	0.	0.	0.	0.	0.	0.	3540.	0.	57946.
1961	0.	0.	0.	5734.	24563.	0.	15500.	0.	12728.	0.	0.	0.	0.	0.	0.	0.	1954.	0.	20003.
1962	0.	0.	0.	12353.	22543.	0.	21593.	0.	19495.	0.	0.	0.	0.	0.	0.	0.	667.	0.	23379.
1963	0.	0.	0.	8237.	23469.	0.	17610.	0.	17104.	0.	0.	0.	0.	0.	0.	0.	471.	0.	17056.
1964	0.	0.	0.	5108.	27406.	0.	20450.	0.	21370.	0.	0.	0.	0.	0.	0.	0.	1598.	0.	25349.
1965	0.	0.	0.	0.	66646.	0.	58624.	0.	33617.	0.	0.	0.	0.	0.	0.	0.	2268.	0.	55725.
1966	0.	0.	0.	4470.	55257.	0.	43167.	0.	33295.	0.	0.	0.	0.	0.	0.	0.	1432.	0.	49022.

HISTORICAL RECHARGE, PUMPAGE: 250,000 AF, 1988 WATER USE, HYDRO=0 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1967	0.	0.	0.	11689.	41674.	0.	17765.	0.	18009.	0.	0.	0.	0.	0.	0.	0.	1325.	0.	39318.
1968	0.	0.	0.	437.	61412.	0.	44599.	0.	22679.	0.	0.	0.	0.	0.	0.	0.	2785.	0.	56473.
1969	0.	0.	0.	7579.	44816.	0.	39903.	0.	27575.	0.	0.	0.	0.	0.	0.	0.	2390.	0.	38362.
1970	0.	0.	0.	8991.	55598.	0.	49072.	0.	15235.	0.	0.	0.	0.	0.	0.	0.	2498.	0.	36608.
1971	0.	0.	0.	1899.	20305.	0.	20333.	0.	16733.	0.	0.	0.	0.	0.	0.	0.	1977.	0.	22741.
1972	0.	0.	0.	639.	48764.	0.	28238.	0.	24779.	0.	0.	0.	0.	0.	0.	0.	1165.	0.	35066.
1973	0.	0.	0.	7480.	127235.	0.	89659.	0.	43888.	0.	0.	0.	0.	0.	0.	0.	5502.	0.	130133.
1974	0.	0.	0.	11462.	56929.	0.	53336.	0.	28995.	0.	0.	0.	0.	0.	0.	0.	1343.	0.	33158.
1975	0.	0.	0.	2811.	72492.	0.	96599.	0.	53953.	0.	0.	0.	0.	0.	0.	0.	3536.	0.	60521.
1976	0.	0.	0.	9273.	98154.	0.	70209.	0.	40941.	0.	0.	0.	0.	0.	0.	0.	3872.	0.	104990.
1977	0.	0.	0.	0.	72204.	0.	58515.	0.	37098.	0.	0.	0.	0.	0.	0.	0.	2799.	0.	75690.
1978	0.	0.	0.	5179.	38115.	0.	21031.	0.	23081.	0.	0.	0.	0.	0.	0.	0.	1001.	0.	31173.
1979	0.	0.	0.	2385.	92437.	0.	71949.	0.	40482.	0.	0.	0.	0.	0.	0.	0.	4071.	0.	94497.
1980	0.	0.	0.	3074.	33246.	0.	19151.	0.	21479.	0.	0.	0.	0.	0.	0.	0.	733.	0.	19802.
1981	0.	0.	0.	746.	82787.	0.	101375.	0.	39119.	0.	0.	0.	0.	0.	0.	0.	3897.	0.	67224.
1982	0.	0.	0.	5192.	25869.	0.	20368.	0.	21397.	0.	0.	0.	0.	0.	0.	0.	863.	0.	31709.
1983	0.	0.	0.	3638.	29754.	0.	35559.	0.	27548.	0.	0.	0.	0.	0.	0.	0.	804.	0.	17653.
1984	0.	0.	0.	1830.	10956.	0.	15085.	0.	22405.	0.	0.	0.	0.	0.	0.	0.	941.	0.	28909.
1985	0.	0.	0.	691.	72140.	0.	75247.	0.	35711.	0.	0.	0.	0.	0.	0.	0.	2113.	0.	83735.
1986	0.	0.	0.	10783.	90147.	0.	60930.	0.	33391.	0.	0.	0.	0.	0.	0.	0.	4851.	0.	94263.
1987	0.	0.	0.	8368.	86511.	0.	81570.	0.	28619.	0.	0.	0.	0.	0.	0.	0.	3986.	0.	79570.
1988	0.	0.	0.	3348.	27169.	0.	23669.	0.	25286.	0.	0.	0.	0.	0.	0.	0.	761.	0.	30475.
1989	0.	0.	0.	6635.	23491.	0.	25176.	0.	26281.	0.	0.	0.	0.	0.	0.	0.	447.	0.	30179.
AVERAGE																			
1934-89	0.	0.	0.	11255.	48923.	0.	41330.	0.	26963.	0.	0.	0.	0.	0.	0.	0.	2056.	0.	46845.
1947-56	0.	0.	0.	17597.	21265.	0.	19944.	0.	17781.	0.	0.	0.	0.	0.	0.	0.	839.	0.	17858.
1953-56	0.	0.	0.	22688.	20504.	0.	19253.	0.	16704.	0.	0.	0.	0.	0.	0.	0.	279.	0.	14005.

HISTORICAL RECHARGE, PUMPAGE: 250,000 AF, 1988 WATER USE, HYDRO=0 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1934	0.	32407.	1150.	16896.	961.	5144.	6771.	0.	0.	0.	0.	0.	0.	0.	17970.	0.	0.	0.	0.	266394.
1935	0.	30572.	5948.	15261.	4958.	19598.	32674.	0.	0.	0.	0.	0.	0.	0.	84741.	0.	0.	0.	0.	361600.
1936	0.	35164.	5733.	16323.	4776.	20297.	31859.	0.	0.	0.	0.	0.	0.	0.	83972.	0.	0.	0.	0.	413282.
1937	0.	35002.	2815.	16789.	2346.	11037.	15769.	0.	0.	0.	0.	0.	0.	0.	46309.	0.	0.	0.	0.	267825.
1938	0.	31365.	4924.	16055.	4104.	17119.	27181.	0.	0.	0.	0.	0.	0.	0.	65758.	0.	0.	0.	0.	431092.
1939	0.	21593.	764.	15030.	637.	3642.	4545.	0.	0.	0.	0.	0.	0.	0.	11302.	0.	0.	0.	0.	107490.
1940	0.	9817.	2330.	8880.	1941.	9225.	13105.	0.	0.	0.	0.	0.	0.	0.	45077.	0.	0.	0.	0.	214010.
1941	0.	27057.	8137.	12750.	6781.	26750.	44683.	0.	0.	0.	0.	0.	0.	0.	102374.	0.	0.	0.	0.	588317.
1942	0.	29562.	5234.	15170.	4361.	17940.	28998.	0.	0.	0.	0.	0.	0.	0.	66757.	0.	0.	0.	0.	444948.
1943	0.	24983.	2337.	15111.	1948.	9457.	13250.	0.	0.	0.	0.	0.	0.	0.	38459.	0.	0.	0.	0.	227510.
1944	0.	20553.	6043.	13080.	5035.	21239.	33371.	0.	0.	0.	0.	0.	0.	0.	87835.	0.	0.	0.	0.	442843.
1945	0.	21984.	6027.	13448.	5022.	19931.	32931.	0.	0.	0.	0.	0.	0.	0.	86445.	0.	0.	0.	0.	421827.
1946	0.	14024.	5538.	11939.	4614.	19322.	30729.	0.	0.	0.	0.	0.	0.	0.	107240.	0.	0.	0.	0.	523911.
1947	0.	14730.	1995.	12094.	1664.	7884.	11284.	0.	0.	0.	0.	0.	0.	0.	48048.	0.	0.	0.	0.	250480.
1948	0.	5460.	1805.	657.	1504.	7416.	10334.	0.	0.	0.	0.	0.	0.	0.	18685.	0.	0.	0.	0.	126142.
1949	0.	9290.	2860.	6413.	2384.	10319.	16067.	0.	0.	0.	0.	0.	0.	0.	37357.	0.	0.	0.	0.	200324.
1950	0.	5460.	1282.	848.	1068.	5308.	7427.	0.	0.	0.	0.	0.	0.	0.	21013.	0.	0.	0.	0.	103927.
1951	0.	5732.	1755.	976.	1462.	7151.	10107.	0.	0.	0.	0.	0.	0.	0.	22312.	0.	0.	0.	0.	127405.
1952	0.	5714.	3934.	1036.	3277.	13526.	21683.	0.	0.	0.	0.	0.	0.	0.	70371.	0.	0.	0.	0.	210528.
1953	0.	6178.	999.	2993.	833.	4486.	5839.	0.	0.	0.	0.	0.	0.	0.	52679.	0.	0.	0.	0.	205689.
1954	0.	5527.	725.	795.	605.	2855.	4180.	0.	0.	0.	0.	0.	0.	0.	19066.	0.	0.	0.	0.	113850.
1955	0.	5460.	164.	24.	137.	909.	1058.	0.	0.	0.	0.	0.	0.	0.	15422.	0.	0.	0.	0.	103417.
1956	0.	5460.	199.	24.	166.	979.	1259.	0.	0.	0.	0.	0.	0.	0.	12318.	0.	0.	0.	0.	102109.
1957	0.	16290.	5787.	9214.	4822.	19231.	31738.	0.	0.	0.	0.	0.	0.	0.	104162.	0.	0.	0.	0.	445117.
1958	0.	32977.	9532.	14409.	7944.	30784.	51977.	0.	0.	0.	0.	0.	0.	0.	149727.	0.	0.	0.	0.	584921.
1959	0.	35341.	4732.	16338.	3944.	16439.	26237.	0.	0.	0.	0.	0.	0.	0.	60515.	0.	0.	0.	0.	333034.
1960	0.	33457.	6628.	15643.	5524.	22491.	36394.	0.	0.	0.	0.	0.	0.	0.	121515.	0.	0.	0.	0.	500221.
1961	0.	35006.	3659.	16417.	3050.	12672.	20302.	0.	0.	0.	0.	0.	0.	0.	60542.	0.	0.	0.	0.	232130.
1962	0.	28687.	1249.	16528.	1040.	5309.	7238.	0.	0.	0.	0.	0.	0.	0.	16328.	0.	0.	0.	0.	176409.
1963	0.	14580.	882.	10929.	738.	3878.	5230.	0.	0.	0.	0.	0.	0.	0.	10565.	0.	0.	0.	0.	130749.
1964	0.	9675.	2992.	3320.	2493.	11457.	16929.	0.	0.	0.	0.	0.	0.	0.	46851.	0.	0.	0.	0.	194998.
1965	0.	18070.	4248.	13283.	3539.	15163.	23590.	0.	0.	0.	0.	0.	0.	0.	63747.	0.	0.	0.	0.	358520.
1966	0.	10621.	2678.	10628.	2232.	10073.	14983.	0.	0.	0.	0.	0.	0.	0.	32577.	0.	0.	0.	0.	270435.

HISTORICAL RECHARGE, PUMPAGE: 250,000 AF, 1988 WATER USE, HYDRO=0 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1967	0.	7262.	2481.	5351.	2067.	9675.	14081.	0.	0.	0.	0.	0.	0.	0.	40698.	0.	0.	0.	0.	211395.
1968	0.	24048.	5216.	13108.	4347.	17850.	29624.	0.	0.	0.	0.	0.	0.	0.	114073.	0.	0.	0.	0.	396651.
1969	0.	19384.	4475.	13569.	3729.	17771.	29186.	0.	0.	0.	0.	0.	0.	0.	65866.	0.	0.	0.	0.	314605.
1970	0.	21689.	4679.	13502.	3899.	18332.	29965.	0.	0.	0.	0.	0.	0.	0.	92650.	0.	0.	0.	0.	352718.
1971	0.	19926.	3701.	10607.	3085.	11601.	19690.	0.	0.	0.	0.	0.	0.	0.	78457.	0.	0.	0.	0.	231055.
1972	0.	34881.	2182.	16165.	1820.	12707.	18186.	0.	0.	0.	0.	0.	0.	0.	67568.	0.	0.	0.	0.	292160.
1973	0.	35095.	10306.	16408.	8588.	31914.	55197.	0.	0.	0.	0.	0.	0.	0.	126927.	0.	0.	0.	0.	688332.
1974	0.	35495.	2514.	16212.	2094.	13573.	20036.	0.	0.	0.	0.	0.	0.	0.	80172.	0.	0.	0.	0.	355319.
1975	0.	35856.	6620.	16723.	5517.	27793.	45616.	0.	0.	0.	0.	0.	0.	0.	139345.	0.	0.	0.	0.	567382.
1976	0.	34153.	7252.	15594.	6041.	22563.	39061.	0.	0.	0.	0.	0.	0.	0.	123705.	0.	0.	0.	0.	575808.
1977	0.	35450.	5241.	16813.	4367.	18635.	30238.	0.	0.	0.	0.	0.	0.	0.	106131.	0.	0.	0.	0.	463181.
1978	0.	33568.	1880.	16768.	1568.	9726.	14361.	0.	0.	0.	0.	0.	0.	0.	31466.	0.	0.	0.	0.	228917.
1979	0.	35783.	7624.	16858.	6354.	21678.	38153.	0.	0.	0.	0.	0.	0.	0.	147098.	0.	0.	0.	0.	579369.
1980	0.	31298.	1373.	15913.	1146.	6791.	10719.	0.	0.	0.	0.	0.	0.	0.	31715.	0.	0.	0.	0.	196440.
1981	0.	34226.	7299.	15754.	6083.	19312.	36046.	0.	0.	0.	0.	0.	0.	0.	112192.	0.	0.	0.	0.	526060.
1982	0.	34802.	1612.	16627.	1344.	7193.	11479.	0.	0.	0.	0.	0.	0.	0.	36832.	0.	0.	0.	0.	215287.
1983	0.	28887.	1505.	15859.	1254.	7531.	11879.	0.	0.	0.	0.	0.	0.	0.	32628.	0.	0.	0.	0.	214499.
1984	0.	17643.	1765.	14345.	1471.	7919.	12751.	0.	0.	0.	0.	0.	0.	0.	27737.	0.	0.	0.	0.	163757.
1985	0.	19677.	3959.	12440.	3299.	17550.	26446.	0.	0.	0.	0.	0.	0.	0.	72703.	0.	0.	0.	0.	425711.
1986	0.	21439.	9088.	12729.	7573.	34291.	57639.	0.	0.	0.	0.	0.	0.	0.	148518.	0.	0.	0.	0.	585642.
1987	0.	35060.	7467.	15738.	6224.	35269.	55985.	0.	0.	0.	0.	0.	0.	0.	122505.	0.	0.	0.	0.	566872.
1988	0.	32872.	1426.	16220.	1186.	6762.	10822.	0.	0.	0.	0.	0.	0.	0.	20791.	0.	0.	0.	0.	200787.
1989	0.	26058.	840.	15775.	698.	3772.	6175.	0.	0.	0.	0.	0.	0.	0.	13383.	0.	0.	0.	0.	178910.
AVERAGE																				
1934-89	0.	23078.	3850.	12114.	3208.	14094.	22555.	0.	0.	0.	0.	0.	0.	0.	65379.	0.	0.	0.	0.	321648.
1947-56	0.	6901.	1572.	2586.	1310.	6083.	8924.	0.	0.	0.	0.	0.	0.	0.	31727.	0.	0.	0.	0.	154387.
1953-56	0.	5656.	522.	959.	435.	2307.	3084.	0.	0.	0.	0.	0.	0.	0.	24871.	0.	0.	0.	0.	131266.

HISTORICAL RECHARGE, PUMPAGE: 400,000 AF, 1988 WATER USE, HYDRO=0 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1934	0.	0.	0.	32323.	40029.	0.	47609.	0.	29418.	0.	0.	0.	0.	0.	0.	0.	616.	0.	35100.
1935	0.	0.	0.	6470.	38397.	0.	30621.	0.	22583.	0.	0.	0.	0.	0.	0.	0.	3175.	0.	66602.
1936	0.	0.	0.	37170.	45394.	0.	31232.	0.	22026.	0.	0.	0.	0.	0.	0.	0.	3062.	0.	76274.
1937	0.	0.	0.	12261.	36279.	0.	23079.	0.	21344.	0.	0.	0.	0.	0.	0.	0.	1504.	0.	43291.
1938	0.	0.	0.	31033.	81672.	0.	53198.	0.	30359.	0.	0.	0.	0.	0.	0.	0.	2629.	0.	65695.
1939	0.	0.	0.	19268.	4006.	0.	4005.	0.	12655.	0.	0.	0.	0.	0.	0.	0.	409.	0.	9634.
1940	0.	0.	0.	26689.	22292.	0.	28278.	0.	22245.	0.	0.	0.	0.	0.	0.	0.	1243.	0.	22888.
1941	0.	0.	0.	21539.	103903.	0.	96773.	0.	43495.	0.	0.	0.	0.	0.	0.	0.	4345.	0.	89730.
1942	0.	0.	0.	27159.	80385.	0.	61272.	0.	34976.	0.	0.	0.	0.	0.	0.	0.	2793.	0.	70341.
1943	0.	0.	0.	12022.	35957.	0.	16267.	0.	19956.	0.	0.	0.	0.	0.	0.	0.	1247.	0.	36516.
1944	0.	0.	0.	5574.	66423.	0.	63543.	0.	33572.	0.	0.	0.	0.	0.	0.	0.	3227.	0.	83348.
1945	0.	0.	0.	16971.	76891.	0.	51264.	0.	29651.	0.	0.	0.	0.	0.	0.	0.	3217.	0.	58045.
1946	0.	0.	0.	22941.	102315.	0.	67000.	0.	34976.	0.	0.	0.	0.	0.	0.	0.	2957.	0.	100316.
1947	0.	0.	0.	16725.	40664.	0.	41663.	0.	27637.	0.	0.	0.	0.	0.	0.	0.	1065.	0.	25027.
1948	0.	0.	0.	21507.	14090.	0.	11507.	0.	16598.	0.	0.	0.	0.	0.	0.	0.	961.	0.	15618.
1949	0.	0.	0.	10970.	33959.	0.	15165.	0.	18195.	0.	0.	0.	0.	0.	0.	0.	1528.	0.	35817.
1950	0.	0.	0.	9540.	8027.	0.	10368.	0.	15443.	0.	0.	0.	0.	0.	0.	0.	685.	0.	17458.
1951	0.	0.	0.	16633.	13742.	0.	20592.	0.	15761.	0.	0.	0.	0.	0.	0.	0.	937.	0.	10245.
1952	0.	0.	0.	9842.	20151.	0.	23139.	0.	17359.	0.	0.	0.	0.	0.	0.	0.	2100.	0.	18396.
1953	0.	0.	0.	17827.	35227.	0.	34550.	0.	25505.	0.	0.	0.	0.	0.	0.	0.	533.	0.	18040.
1954	0.	0.	0.	18378.	15769.	0.	12442.	0.	14446.	0.	0.	0.	0.	0.	0.	0.	388.	0.	18674.
1955	0.	0.	0.	27389.	12536.	0.	18361.	0.	14889.	0.	0.	0.	0.	0.	0.	0.	87.	0.	6981.
1956	0.	0.	0.	27156.	18483.	0.	11657.	0.	11976.	0.	0.	0.	0.	0.	0.	0.	106.	0.	12326.
1957	0.	0.	0.	7977.	67081.	0.	58219.	0.	45181.	0.	0.	0.	0.	0.	0.	0.	3091.	0.	72324.
1958	0.	0.	0.	6626.	86362.	0.	61096.	0.	29631.	0.	0.	0.	0.	0.	0.	0.	5092.	0.	98764.
1959	0.	0.	0.	7647.	42151.	0.	55025.	0.	37016.	0.	0.	0.	0.	0.	0.	0.	2527.	0.	25122.
1960	0.	0.	0.	10639.	65402.	0.	70286.	0.	50756.	0.	0.	0.	0.	0.	0.	0.	3540.	0.	57946.
1961	0.	0.	0.	5734.	24563.	0.	15500.	0.	12728.	0.	0.	0.	0.	0.	0.	0.	1954.	0.	20003.
1962	0.	0.	0.	12353.	22543.	0.	21593.	0.	19495.	0.	0.	0.	0.	0.	0.	0.	667.	0.	23379.
1963	0.	0.	0.	8237.	23469.	0.	17610.	0.	17104.	0.	0.	0.	0.	0.	0.	0.	471.	0.	17056.
1964	0.	0.	0.	5108.	27406.	0.	20450.	0.	21370.	0.	0.	0.	0.	0.	0.	0.	1598.	0.	25349.
1965	0.	0.	0.	0.	66646.	0.	58624.	0.	33617.	0.	0.	0.	0.	0.	0.	0.	2268.	0.	55725.
1966	0.	0.	0.	4470.	55257.	0.	43167.	0.	33295.	0.	0.	0.	0.	0.	0.	0.	1432.	0.	49022.

HISTORICAL RECHARGE, PUMPAGE: 400,000 AF, 1988 WATER USE, HYDRO=0 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1967	0.	0.	0.	11689.	41674.	0.	17765.	0.	18009.	0.	0.	0.	0.	0.	0.	0.	1325.	0.	39318.
1968	0.	0.	0.	437.	61412.	0.	44599.	0.	22679.	0.	0.	0.	0.	0.	0.	0.	2785.	0.	56473.
1969	0.	0.	0.	7579.	44816.	0.	39903.	0.	27575.	0.	0.	0.	0.	0.	0.	0.	2390.	0.	38362.
1970	0.	0.	0.	8991.	55598.	0.	49072.	0.	15235.	0.	0.	0.	0.	0.	0.	0.	2498.	0.	36608.
1971	0.	0.	0.	1899.	20305.	0.	20333.	0.	16733.	0.	0.	0.	0.	0.	0.	0.	1977.	0.	22741.
1972	0.	0.	0.	639.	48764.	0.	28238.	0.	24779.	0.	0.	0.	0.	0.	0.	0.	1165.	0.	35066.
1973	0.	0.	0.	7480.	127235.	0.	89659.	0.	43888.	0.	0.	0.	0.	0.	0.	0.	5502.	0.	130133.
1974	0.	0.	0.	11462.	56929.	0.	53336.	0.	28995.	0.	0.	0.	0.	0.	0.	0.	1343.	0.	33158.
1975	0.	0.	0.	2811.	72492.	0.	96599.	0.	53953.	0.	0.	0.	0.	0.	0.	0.	3536.	0.	60521.
1976	0.	0.	0.	9273.	98154.	0.	70209.	0.	40941.	0.	0.	0.	0.	0.	0.	0.	3872.	0.	104990.
1977	0.	0.	0.	0.	72204.	0.	58515.	0.	37098.	0.	0.	0.	0.	0.	0.	0.	2799.	0.	75690.
1978	0.	0.	0.	5179.	38115.	0.	21031.	0.	23081.	0.	0.	0.	0.	0.	0.	0.	1001.	0.	31173.
1979	0.	0.	0.	2385.	92437.	0.	71949.	0.	40482.	0.	0.	0.	0.	0.	0.	0.	4071.	0.	94497.
1980	0.	0.	0.	3074.	33246.	0.	19151.	0.	21479.	0.	0.	0.	0.	0.	0.	0.	733.	0.	19802.
1981	0.	0.	0.	746.	82787.	0.	101375.	0.	39119.	0.	0.	0.	0.	0.	0.	0.	3897.	0.	67224.
1982	0.	0.	0.	5192.	25869.	0.	20368.	0.	21397.	0.	0.	0.	0.	0.	0.	0.	863.	0.	31709.
1983	0.	0.	0.	3638.	29754.	0.	35559.	0.	27548.	0.	0.	0.	0.	0.	0.	0.	804.	0.	17653.
1984	0.	0.	0.	1830.	10956.	0.	15085.	0.	22405.	0.	0.	0.	0.	0.	0.	0.	941.	0.	28909.
1985	0.	0.	0.	691.	72140.	0.	75247.	0.	35711.	0.	0.	0.	0.	0.	0.	0.	2113.	0.	83735.
1986	0.	0.	0.	10783.	90147.	0.	60930.	0.	33391.	0.	0.	0.	0.	0.	0.	0.	4851.	0.	94263.
1987	0.	0.	0.	8368.	86511.	0.	81570.	0.	28619.	0.	0.	0.	0.	0.	0.	0.	3986.	0.	79570.
1988	0.	0.	0.	3348.	27169.	0.	23669.	0.	25286.	0.	0.	0.	0.	0.	0.	0.	761.	0.	30475.
1989	0.	0.	0.	6635.	23491.	0.	25176.	0.	26281.	0.	0.	0.	0.	0.	0.	0.	447.	0.	30179.
AVERAGE																			
1934-89	0.	0.	0.	11255.	48923.	0.	41330.	0.	26963.	0.	0.	0.	0.	0.	0.	0.	2056.	0.	46845.
1947-56	0.	0.	0.	17597.	21265.	0.	19944.	0.	17781.	0.	0.	0.	0.	0.	0.	0.	839.	0.	17858.
1953-56	0.	0.	0.	22688.	20504.	0.	19253.	0.	16704.	0.	0.	0.	0.	0.	0.	0.	279.	0.	14005.

HISTORICAL RECHARGE, PUMPAGE: 400,000 AF, 1988 WATER USE, HYDRO=0 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1934	0.	32407.	1150.	16896.	961.	5144.	6771.	0.	0.	0.	0.	0.	0.	0.	17970.	0.	0.	0.	0.	266394.
1935	0.	30572.	5948.	15261.	4958.	19598.	32674.	0.	0.	0.	0.	0.	0.	0.	84741.	0.	0.	0.	0.	361600.
1936	0.	35164.	5733.	16323.	4776.	20297.	31859.	0.	0.	0.	0.	0.	0.	0.	83972.	0.	0.	0.	0.	413282.
1937	0.	35002.	2815.	16789.	2346.	11037.	15769.	0.	0.	0.	0.	0.	0.	0.	46309.	0.	0.	0.	0.	267825.
1938	0.	31365.	4924.	16055.	4104.	17119.	27181.	0.	0.	0.	0.	0.	0.	0.	65758.	0.	0.	0.	0.	431092.
1939	0.	21593.	764.	15030.	637.	3642.	4545.	0.	0.	0.	0.	0.	0.	0.	11302.	0.	0.	0.	0.	107490.
1940	0.	9817.	2330.	8880.	1941.	9225.	13105.	0.	0.	0.	0.	0.	0.	0.	45077.	0.	0.	0.	0.	214010.
1941	0.	27057.	8137.	12750.	6781.	26750.	44683.	0.	0.	0.	0.	0.	0.	0.	102374.	0.	0.	0.	0.	588317.
1942	0.	29562.	5234.	15170.	4361.	17940.	28998.	0.	0.	0.	0.	0.	0.	0.	66757.	0.	0.	0.	0.	444948.
1943	0.	24983.	2337.	15111.	1948.	9457.	13250.	0.	0.	0.	0.	0.	0.	0.	38459.	0.	0.	0.	0.	227510.
1944	0.	20553.	6043.	13080.	5035.	21239.	33371.	0.	0.	0.	0.	0.	0.	0.	87835.	0.	0.	0.	0.	442843.
1945	0.	21984.	6027.	13448.	5022.	19931.	32931.	0.	0.	0.	0.	0.	0.	0.	86445.	0.	0.	0.	0.	421827.
1946	0.	14024.	5538.	11939.	4614.	19322.	30729.	0.	0.	0.	0.	0.	0.	0.	107240.	0.	0.	0.	0.	523911.
1947	0.	14730.	1995.	12094.	1664.	7884.	11284.	0.	0.	0.	0.	0.	0.	0.	48048.	0.	0.	0.	0.	250480.
1948	0.	5460.	1805.	657.	1504.	7416.	10334.	0.	0.	0.	0.	0.	0.	0.	18685.	0.	0.	0.	0.	126142.
1949	0.	9290.	2860.	6413.	2384.	10319.	16067.	0.	0.	0.	0.	0.	0.	0.	37357.	0.	0.	0.	0.	200324.
1950	0.	5460.	1282.	848.	1068.	5308.	7427.	0.	0.	0.	0.	0.	0.	0.	21013.	0.	0.	0.	0.	103927.
1951	0.	5732.	1755.	976.	1462.	7151.	10107.	0.	0.	0.	0.	0.	0.	0.	22312.	0.	0.	0.	0.	127405.
1952	0.	5714.	3934.	1036.	3277.	13526.	21683.	0.	0.	0.	0.	0.	0.	0.	70371.	0.	0.	0.	0.	210528.
1953	0.	6178.	999.	2993.	833.	4486.	5839.	0.	0.	0.	0.	0.	0.	0.	52679.	0.	0.	0.	0.	205689.
1954	0.	5527.	725.	795.	605.	2855.	4180.	0.	0.	0.	0.	0.	0.	0.	19066.	0.	0.	0.	0.	113850.
1955	0.	5460.	164.	24.	137.	909.	1058.	0.	0.	0.	0.	0.	0.	0.	15422.	0.	0.	0.	0.	103417.
1956	0.	5460.	199.	24.	166.	979.	1259.	0.	0.	0.	0.	0.	0.	0.	12318.	0.	0.	0.	0.	102109.
1957	0.	16290.	5787.	9214.	4822.	19231.	31738.	0.	0.	0.	0.	0.	0.	0.	104162.	0.	0.	0.	0.	445117.
1958	0.	32977.	9532.	14409.	7944.	30784.	51977.	0.	0.	0.	0.	0.	0.	0.	149727.	0.	0.	0.	0.	584921.
1959	0.	35341.	4732.	16338.	3944.	16439.	26237.	0.	0.	0.	0.	0.	0.	0.	60515.	0.	0.	0.	0.	333034.
1960	0.	33457.	6628.	15643.	5524.	22491.	36394.	0.	0.	0.	0.	0.	0.	0.	121515.	0.	0.	0.	0.	500221.
1961	0.	35006.	3659.	16417.	3050.	12672.	20302.	0.	0.	0.	0.	0.	0.	0.	60542.	0.	0.	0.	0.	232130.
1962	0.	28687.	1249.	16528.	1040.	5309.	7238.	0.	0.	0.	0.	0.	0.	0.	16328.	0.	0.	0.	0.	176409.
1963	0.	14580.	882.	10929.	738.	3878.	5230.	0.	0.	0.	0.	0.	0.	0.	10565.	0.	0.	0.	0.	130749.
1964	0.	9675.	2992.	3320.	2493.	11457.	16929.	0.	0.	0.	0.	0.	0.	0.	46851.	0.	0.	0.	0.	194998.
1965	0.	18070.	4248.	13283.	3539.	15163.	23590.	0.	0.	0.	0.	0.	0.	0.	63747.	0.	0.	0.	0.	358520.
1966	0.	10621.	2678.	10628.	2232.	10073.	14983.	0.	0.	0.	0.	0.	0.	0.	32577.	0.	0.	0.	0.	270435.

HISTORICAL RECHARGE, PUMPAGE: 400,000 AF, 1988 WATER USE, HYDRO=0 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1967	0.	7262.	2481.	5351.	2067.	9675.	14081.	0.	0.	0.	0.	0.	0.	0.	40698.	0.	0.	0.	0.	211395.
1968	0.	24048.	5216.	13108.	4347.	17850.	29624.	0.	0.	0.	0.	0.	0.	0.	114073.	0.	0.	0.	0.	396651.
1969	0.	19384.	4475.	13569.	3729.	17771.	29186.	0.	0.	0.	0.	0.	0.	0.	65866.	0.	0.	0.	0.	314605.
1970	0.	21689.	4679.	13502.	3899.	18332.	29965.	0.	0.	0.	0.	0.	0.	0.	92650.	0.	0.	0.	0.	352718.
1971	0.	19926.	3701.	10607.	3085.	11601.	19690.	0.	0.	0.	0.	0.	0.	0.	78457.	0.	0.	0.	0.	231055.
1972	0.	34881.	2182.	16165.	1820.	12707.	18186.	0.	0.	0.	0.	0.	0.	0.	67568.	0.	0.	0.	0.	292160.
1973	0.	35095.	10306.	16408.	8588.	31914.	55197.	0.	0.	0.	0.	0.	0.	0.	126927.	0.	0.	0.	0.	688332.
1974	0.	35495.	2514.	16212.	2094.	13573.	20036.	0.	0.	0.	0.	0.	0.	0.	80172.	0.	0.	0.	0.	355319.
1975	0.	35856.	6620.	16723.	5517.	27793.	45616.	0.	0.	0.	0.	0.	0.	0.	139345.	0.	0.	0.	0.	567382.
1976	0.	34153.	7252.	15594.	6041.	22563.	39061.	0.	0.	0.	0.	0.	0.	0.	123705.	0.	0.	0.	0.	575808.
1977	0.	35450.	5241.	16813.	4367.	18635.	30238.	0.	0.	0.	0.	0.	0.	0.	106131.	0.	0.	0.	0.	463181.
1978	0.	33568.	1880.	16768.	1568.	9726.	14361.	0.	0.	0.	0.	0.	0.	0.	31466.	0.	0.	0.	0.	228917.
1979	0.	35783.	7624.	16858.	6354.	21678.	38153.	0.	0.	0.	0.	0.	0.	0.	147098.	0.	0.	0.	0.	579369.
1980	0.	31298.	1373.	15913.	1146.	6791.	10719.	0.	0.	0.	0.	0.	0.	0.	31715.	0.	0.	0.	0.	196440.
1981	0.	34226.	7299.	15754.	6083.	19312.	36046.	0.	0.	0.	0.	0.	0.	0.	112192.	0.	0.	0.	0.	526060.
1982	0.	34802.	1612.	16627.	1344.	7193.	11479.	0.	0.	0.	0.	0.	0.	0.	36832.	0.	0.	0.	0.	215287.
1983	0.	28887.	1505.	15859.	1254.	7531.	11879.	0.	0.	0.	0.	0.	0.	0.	32628.	0.	0.	0.	0.	214499.
1984	0.	17643.	1765.	14345.	1471.	7919.	12751.	0.	0.	0.	0.	0.	0.	0.	27737.	0.	0.	0.	0.	163757.
1985	0.	19677.	3959.	12440.	3299.	17550.	26446.	0.	0.	0.	0.	0.	0.	0.	72703.	0.	0.	0.	0.	425711.
1986	0.	21439.	9088.	12729.	7573.	34291.	57639.	0.	0.	0.	0.	0.	0.	0.	148518.	0.	0.	0.	0.	585642.
1987	0.	35060.	7467.	15738.	6224.	35269.	55985.	0.	0.	0.	0.	0.	0.	0.	122505.	0.	0.	0.	0.	566872.
1988	0.	32872.	1426.	16220.	1186.	6762.	10822.	0.	0.	0.	0.	0.	0.	0.	20791.	0.	0.	0.	0.	200787.
1989	0.	26058.	840.	15775.	698.	3772.	6175.	0.	0.	0.	0.	0.	0.	0.	13383.	0.	0.	0.	0.	178910.
AVERAGE																				
1934-89	0.	23078.	3850.	12114.	3208.	14094.	22555.	0.	0.	0.	0.	0.	0.	0.	65379.	0.	0.	0.	0.	321648.
1947-56	0.	6901.	1572.	2586.	1310.	6083.	8924.	0.	0.	0.	0.	0.	0.	0.	31727.	0.	0.	0.	0.	154387.
1953-56	0.	5656.	522.	959.	435.	2307.	3084.	0.	0.	0.	0.	0.	0.	0.	24871.	0.	0.	0.	0.	131266.

HISTORICAL RECHARGE, PUMPAGE: 450,000 AF, 1988 WATER USE, HYDRO=0 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1934	0.	0.	0.	32323.	40029.	0.	47609.	0.	29418.	0.	0.	0.	0.	0.	0.	0.	616.	0.	35100.
1935	0.	0.	0.	6470.	38397.	0.	30621.	0.	22583.	0.	0.	0.	0.	0.	0.	0.	3175.	0.	66602.
1936	0.	0.	0.	37170.	45394.	0.	31232.	0.	22026.	0.	0.	0.	0.	0.	0.	0.	3062.	0.	76274.
1937	0.	0.	0.	12261.	36279.	0.	23079.	0.	21344.	0.	0.	0.	0.	0.	0.	0.	1504.	0.	43291.
1938	0.	0.	0.	31033.	81672.	0.	53198.	0.	30359.	0.	0.	0.	0.	0.	0.	0.	2629.	0.	65695.
1939	0.	0.	0.	19268.	4006.	0.	4005.	0.	12655.	0.	0.	0.	0.	0.	0.	0.	409.	0.	9634.
1940	0.	0.	0.	26689.	22292.	0.	28278.	0.	22245.	0.	0.	0.	0.	0.	0.	0.	1243.	0.	22888.
1941	0.	0.	0.	21539.	103903.	0.	96773.	0.	43495.	0.	0.	0.	0.	0.	0.	0.	4345.	0.	89730.
1942	0.	0.	0.	27159.	80385.	0.	61272.	0.	34976.	0.	0.	0.	0.	0.	0.	0.	2793.	0.	70341.
1943	0.	0.	0.	12022.	35957.	0.	16267.	0.	19956.	0.	0.	0.	0.	0.	0.	0.	1247.	0.	36516.
1944	0.	0.	0.	5574.	66423.	0.	63543.	0.	33572.	0.	0.	0.	0.	0.	0.	0.	3227.	0.	83348.
1945	0.	0.	0.	16971.	76891.	0.	51264.	0.	29651.	0.	0.	0.	0.	0.	0.	0.	3217.	0.	58045.
1946	0.	0.	0.	22941.	102315.	0.	67000.	0.	34976.	0.	0.	0.	0.	0.	0.	0.	2957.	0.	100316.
1947	0.	0.	0.	16725.	40664.	0.	41663.	0.	27637.	0.	0.	0.	0.	0.	0.	0.	1065.	0.	25027.
1948	0.	0.	0.	21507.	14090.	0.	11507.	0.	16598.	0.	0.	0.	0.	0.	0.	0.	961.	0.	15618.
1949	0.	0.	0.	10970.	33959.	0.	15165.	0.	18195.	0.	0.	0.	0.	0.	0.	0.	1528.	0.	35817.
1950	0.	0.	0.	9540.	8027.	0.	10368.	0.	15443.	0.	0.	0.	0.	0.	0.	0.	685.	0.	17458.
1951	0.	0.	0.	16633.	13742.	0.	20592.	0.	15761.	0.	0.	0.	0.	0.	0.	0.	937.	0.	10245.
1952	0.	0.	0.	9842.	20151.	0.	23139.	0.	17359.	0.	0.	0.	0.	0.	0.	0.	2100.	0.	18396.
1953	0.	0.	0.	17827.	35227.	0.	34550.	0.	25505.	0.	0.	0.	0.	0.	0.	0.	533.	0.	18040.
1954	0.	0.	0.	18378.	15769.	0.	12442.	0.	14446.	0.	0.	0.	0.	0.	0.	0.	388.	0.	18674.
1955	0.	0.	0.	27389.	12536.	0.	18361.	0.	14889.	0.	0.	0.	0.	0.	0.	0.	87.	0.	6981.
1956	0.	0.	0.	27156.	18483.	0.	11657.	0.	11976.	0.	0.	0.	0.	0.	0.	0.	106.	0.	12326.
1957	0.	0.	0.	7977.	67081.	0.	58219.	0.	45181.	0.	0.	0.	0.	0.	0.	0.	3091.	0.	72324.
1958	0.	0.	0.	6626.	86362.	0.	61096.	0.	29631.	0.	0.	0.	0.	0.	0.	0.	5092.	0.	98764.
1959	0.	0.	0.	7647.	42151.	0.	55025.	0.	37016.	0.	0.	0.	0.	0.	0.	0.	2527.	0.	25122.
1960	0.	0.	0.	10639.	65402.	0.	70286.	0.	50756.	0.	0.	0.	0.	0.	0.	0.	3540.	0.	57946.
1961	0.	0.	0.	5734.	24563.	0.	15500.	0.	12728.	0.	0.	0.	0.	0.	0.	0.	1954.	0.	20003.
1962	0.	0.	0.	12353.	22543.	0.	21593.	0.	19495.	0.	0.	0.	0.	0.	0.	0.	667.	0.	23379.
1963	0.	0.	0.	8237.	23469.	0.	17610.	0.	17104.	0.	0.	0.	0.	0.	0.	0.	471.	0.	17056.
1964	0.	0.	0.	5108.	27406.	0.	20450.	0.	21370.	0.	0.	0.	0.	0.	0.	0.	1598.	0.	25349.
1965	0.	0.	0.	0.	66646.	0.	58624.	0.	33617.	0.	0.	0.	0.	0.	0.	0.	2268.	0.	55725.
1966	0.	0.	0.	4470.	55257.	0.	43167.	0.	33295.	0.	0.	0.	0.	0.	0.	0.	1432.	0.	49022.

HISTORICAL RECHARGE, PUMPAGE: 450,000 AF, 1988 WATER USE, HYDRO=0 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1967	0.	0.	0.	11689.	41674.	0.	17765.	0.	18009.	0.	0.	0.	0.	0.	0.	0.	1325.	0.	39318.
1968	0.	0.	0.	437.	61412.	0.	44599.	0.	22679.	0.	0.	0.	0.	0.	0.	0.	2785.	0.	56473.
1969	0.	0.	0.	7579.	44816.	0.	39903.	0.	27575.	0.	0.	0.	0.	0.	0.	0.	2390.	0.	38362.
1970	0.	0.	0.	8991.	55598.	0.	49072.	0.	15235.	0.	0.	0.	0.	0.	0.	0.	2498.	0.	36608.
1971	0.	0.	0.	1899.	20305.	0.	20333.	0.	16733.	0.	0.	0.	0.	0.	0.	0.	1977.	0.	22741.
1972	0.	0.	0.	639.	48764.	0.	28238.	0.	24779.	0.	0.	0.	0.	0.	0.	0.	1165.	0.	35066.
1973	0.	0.	0.	7480.	127235.	0.	89659.	0.	43888.	0.	0.	0.	0.	0.	0.	0.	5502.	0.	130133.
1974	0.	0.	0.	11462.	56929.	0.	53336.	0.	28995.	0.	0.	0.	0.	0.	0.	0.	1343.	0.	33158.
1975	0.	0.	0.	2811.	72492.	0.	96599.	0.	53953.	0.	0.	0.	0.	0.	0.	0.	3536.	0.	60521.
1976	0.	0.	0.	9273.	98154.	0.	70209.	0.	40941.	0.	0.	0.	0.	0.	0.	0.	3872.	0.	104990.
1977	0.	0.	0.	0.	72204.	0.	58515.	0.	37098.	0.	0.	0.	0.	0.	0.	0.	2799.	0.	75690.
1978	0.	0.	0.	5179.	38115.	0.	21031.	0.	23081.	0.	0.	0.	0.	0.	0.	0.	1001.	0.	31173.
1979	0.	0.	0.	2385.	92437.	0.	71949.	0.	40482.	0.	0.	0.	0.	0.	0.	0.	4071.	0.	94497.
1980	0.	0.	0.	3074.	33246.	0.	19151.	0.	21479.	0.	0.	0.	0.	0.	0.	0.	733.	0.	19802.
1981	0.	0.	0.	746.	82787.	0.	101375.	0.	39119.	0.	0.	0.	0.	0.	0.	0.	3897.	0.	67224.
1982	0.	0.	0.	5192.	25869.	0.	20368.	0.	21397.	0.	0.	0.	0.	0.	0.	0.	863.	0.	31709.
1983	0.	0.	0.	3638.	29754.	0.	35559.	0.	27548.	0.	0.	0.	0.	0.	0.	0.	804.	0.	17653.
1984	0.	0.	0.	1830.	10956.	0.	15085.	0.	22405.	0.	0.	0.	0.	0.	0.	0.	941.	0.	28909.
1985	0.	0.	0.	691.	72140.	0.	75247.	0.	35711.	0.	0.	0.	0.	0.	0.	0.	2113.	0.	83735.
1986	0.	0.	0.	10783.	90147.	0.	60930.	0.	33391.	0.	0.	0.	0.	0.	0.	0.	4851.	0.	94263.
1987	0.	0.	0.	8368.	86511.	0.	81570.	0.	28619.	0.	0.	0.	0.	0.	0.	0.	3986.	0.	79570.
1988	0.	0.	0.	3348.	27169.	0.	23669.	0.	25286.	0.	0.	0.	0.	0.	0.	0.	761.	0.	30475.
1989	0.	0.	0.	6635.	23491.	0.	25176.	0.	26281.	0.	0.	0.	0.	0.	0.	0.	447.	0.	30179.
AVERAGE																			
1934-89	0.	0.	0.	11255.	48923.	0.	41330.	0.	26963.	0.	0.	0.	0.	0.	0.	0.	2056.	0.	46845.
1947-56	0.	0.	0.	17597.	21265.	0.	19944.	0.	17781.	0.	0.	0.	0.	0.	0.	0.	839.	0.	17858.
1953-56	0.	0.	0.	22688.	20504.	0.	19253.	0.	16704.	0.	0.	0.	0.	0.	0.	0.	279.	0.	14005.

HISTORICAL RECHARGE, PUMPAGE: 450,000 AF, 1988 WATER USE, HYDRO=0 CFS
08/26/93

EXISTING PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1967	0.	7262.	2481.	5351.	2067.	9675.	14081.	0.	0.	0.	0.	0.	0.	0.	40698.	0.	0.	0.	0.	211395.
1968	0.	24048.	5216.	13108.	4347.	17850.	29624.	0.	0.	0.	0.	0.	0.	0.	114073.	0.	0.	0.	0.	396651.
1969	0.	19384.	4475.	13569.	3729.	17771.	29186.	0.	0.	0.	0.	0.	0.	0.	65866.	0.	0.	0.	0.	314605.
1970	0.	21689.	4679.	13502.	3899.	18332.	29965.	0.	0.	0.	0.	0.	0.	0.	92650.	0.	0.	0.	0.	352718.
1971	0.	19926.	3701.	10607.	3085.	11601.	19690.	0.	0.	0.	0.	0.	0.	0.	78457.	0.	0.	0.	0.	231055.
1972	0.	34881.	2182.	16165.	1820.	12707.	18186.	0.	0.	0.	0.	0.	0.	0.	67568.	0.	0.	0.	0.	292160.
1973	0.	35095.	10306.	16408.	8588.	31914.	55197.	0.	0.	0.	0.	0.	0.	0.	126927.	0.	0.	0.	0.	688332.
1974	0.	35495.	2514.	16212.	2094.	13573.	20036.	0.	0.	0.	0.	0.	0.	0.	80172.	0.	0.	0.	0.	355319.
1975	0.	35856.	6620.	16723.	5517.	27793.	45616.	0.	0.	0.	0.	0.	0.	0.	139345.	0.	0.	0.	0.	567382.
1976	0.	34153.	7252.	15594.	6041.	22563.	39061.	0.	0.	0.	0.	0.	0.	0.	123705.	0.	0.	0.	0.	575808.
1977	0.	35450.	5241.	16813.	4367.	18635.	30238.	0.	0.	0.	0.	0.	0.	0.	106131.	0.	0.	0.	0.	463181.
1978	0.	33568.	1880.	16768.	1568.	9726.	14361.	0.	0.	0.	0.	0.	0.	0.	31466.	0.	0.	0.	0.	228917.
1979	0.	35783.	7624.	16858.	6354.	21678.	38153.	0.	0.	0.	0.	0.	0.	0.	147098.	0.	0.	0.	0.	579369.
1980	0.	31298.	1373.	15913.	1146.	6791.	10719.	0.	0.	0.	0.	0.	0.	0.	31715.	0.	0.	0.	0.	196440.
1981	0.	34226.	7299.	15754.	6083.	19312.	36046.	0.	0.	0.	0.	0.	0.	0.	112192.	0.	0.	0.	0.	526060.
1982	0.	34802.	1612.	16627.	1344.	7193.	11479.	0.	0.	0.	0.	0.	0.	0.	36832.	0.	0.	0.	0.	215287.
1983	0.	28887.	1505.	15859.	1254.	7531.	11879.	0.	0.	0.	0.	0.	0.	0.	32628.	0.	0.	0.	0.	214499.
1984	0.	17643.	1765.	14345.	1471.	7919.	12751.	0.	0.	0.	0.	0.	0.	0.	27737.	0.	0.	0.	0.	163757.
1985	0.	19677.	3959.	12440.	3299.	17550.	26446.	0.	0.	0.	0.	0.	0.	0.	72703.	0.	0.	0.	0.	425711.
1986	0.	21439.	9088.	12729.	7573.	34291.	57639.	0.	0.	0.	0.	0.	0.	0.	148518.	0.	0.	0.	0.	585642.
1987	0.	35060.	7467.	15738.	6224.	35269.	55985.	0.	0.	0.	0.	0.	0.	0.	122505.	0.	0.	0.	0.	566872.
1988	0.	32872.	1426.	16220.	1186.	6762.	10822.	0.	0.	0.	0.	0.	0.	0.	20791.	0.	0.	0.	0.	200787.
1989	0.	26058.	840.	15775.	698.	3772.	6175.	0.	0.	0.	0.	0.	0.	0.	13383.	0.	0.	0.	0.	178910.
AVERAGE																				
1934-89	0.	23078.	3850.	12114.	3208.	14094.	22555.	0.	0.	0.	0.	0.	0.	0.	65379.	0.	0.	0.	0.	321648.
1947-56	0.	6901.	1572.	2586.	1310.	6083.	8924.	0.	0.	0.	0.	0.	0.	0.	31727.	0.	0.	0.	0.	154387.
1953-56	0.	5656.	522.	959.	435.	2307.	3084.	0.	0.	0.	0.	0.	0.	0.	24871.	0.	0.	0.	0.	131266.

ENHANCED RECHARGE, PUMPAGE: 250,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1934	0.	0.	0.	32323.	40541.	0.	47609.	0.	64330.	0.	0.	0.	0.	0.	0.	0.	616.	0.	35100.
1935	0.	0.	0.	6470.	39932.	0.	30621.	0.	49944.	0.	0.	0.	0.	0.	0.	0.	3175.	0.	66602.
1936	0.	0.	0.	37170.	45856.	0.	31232.	0.	57974.	0.	0.	0.	0.	0.	0.	0.	3062.	0.	76274.
1937	0.	0.	0.	12261.	37669.	0.	23079.	0.	57259.	0.	0.	0.	0.	0.	0.	0.	1504.	0.	43291.
1938	0.	0.	0.	31033.	82944.	0.	53198.	0.	66258.	0.	0.	0.	0.	0.	0.	0.	2629.	0.	65695.
1939	0.	0.	0.	19268.	4020.	0.	4005.	0.	33640.	0.	0.	0.	0.	0.	0.	0.	409.	0.	9634.
1940	0.	0.	0.	26689.	23427.	0.	28278.	0.	37413.	0.	0.	0.	0.	0.	0.	0.	1243.	0.	22888.
1941	0.	0.	0.	21539.	106080.	0.	96773.	0.	79446.	0.	0.	0.	0.	0.	0.	0.	4345.	0.	89730.
1942	0.	0.	0.	27159.	82522.	0.	61272.	0.	70894.	0.	0.	0.	0.	0.	0.	0.	2793.	0.	70341.
1943	0.	0.	0.	12022.	36149.	0.	16267.	0.	55834.	0.	0.	0.	0.	0.	0.	0.	1247.	0.	36516.
1944	0.	0.	0.	5574.	67347.	0.	63543.	0.	69525.	0.	0.	0.	0.	0.	0.	0.	3227.	0.	83348.
1945	0.	0.	0.	16971.	78706.	0.	51264.	0.	65580.	0.	0.	0.	0.	0.	0.	0.	3217.	0.	58045.
1946	0.	0.	0.	22941.	105231.	0.	67000.	0.	70908.	0.	0.	0.	0.	0.	0.	0.	2957.	0.	100316.
1947	0.	0.	0.	16725.	41270.	0.	41663.	0.	63455.	0.	0.	0.	0.	0.	0.	0.	1065.	0.	25027.
1948	0.	0.	0.	21507.	14249.	0.	11507.	0.	35288.	0.	0.	0.	0.	0.	0.	0.	961.	0.	15618.
1949	0.	0.	0.	10970.	34831.	0.	15165.	0.	48068.	0.	0.	0.	0.	0.	0.	0.	1528.	0.	35817.
1950	0.	0.	0.	9540.	8193.	0.	10368.	0.	24143.	0.	0.	0.	0.	0.	0.	0.	685.	0.	17458.
1951	0.	0.	0.	16633.	13839.	0.	20592.	0.	19076.	0.	0.	0.	0.	0.	0.	0.	937.	0.	10245.
1952	0.	0.	0.	9842.	22428.	0.	23139.	0.	39103.	0.	0.	0.	0.	0.	0.	0.	2100.	0.	18396.
1953	0.	0.	0.	17827.	35911.	0.	34550.	0.	61339.	0.	0.	0.	0.	0.	0.	0.	533.	0.	18040.
1954	0.	0.	0.	18378.	15783.	0.	12442.	0.	49818.	0.	0.	0.	0.	0.	0.	0.	388.	0.	18674.
1955	0.	0.	0.	27389.	12646.	0.	18361.	0.	20289.	0.	0.	0.	0.	0.	0.	0.	87.	0.	6981.
1956	0.	0.	0.	27113.	18705.	0.	11657.	0.	12014.	0.	0.	0.	0.	0.	0.	0.	106.	0.	12326.
1957	0.	0.	0.	7977.	72711.	0.	58219.	0.	75563.	0.	0.	0.	0.	0.	0.	0.	3091.	0.	72324.
1958	0.	0.	0.	6626.	87845.	0.	61096.	0.	65590.	0.	0.	0.	0.	0.	0.	0.	5092.	0.	98764.
1959	0.	0.	0.	7647.	42618.	0.	55025.	0.	72954.	0.	0.	0.	0.	0.	0.	0.	2527.	0.	25122.
1960	0.	0.	0.	10639.	67579.	0.	70286.	0.	86704.	0.	0.	0.	0.	0.	0.	0.	3540.	0.	57946.
1961	0.	0.	0.	5734.	25786.	0.	15500.	0.	48682.	0.	0.	0.	0.	0.	0.	0.	1954.	0.	20003.
1962	0.	0.	0.	12353.	22857.	0.	21593.	0.	55395.	0.	0.	0.	0.	0.	0.	0.	667.	0.	23379.
1963	0.	0.	0.	8237.	23547.	0.	17610.	0.	46688.	0.	0.	0.	0.	0.	0.	0.	471.	0.	17056.
1964	0.	0.	0.	5108.	27801.	0.	20450.	0.	28633.	0.	0.	0.	0.	0.	0.	0.	1598.	0.	25349.
1965	0.	0.	0.	0.	70430.	0.	58624.	0.	69572.	0.	0.	0.	0.	0.	0.	0.	2268.	0.	55725.
1966	0.	0.	0.	4470.	55400.	0.	43167.	0.	69230.	0.	0.	0.	0.	0.	0.	0.	1432.	0.	49022.

ENHANCED RECHARGE, PUMPAGE: 250,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1967	0.	0.	0.	11689.	42573.	0.	17765.	0.	53734.	0.	0.	0.	0.	0.	0.	0.	1325.	0.	39318.
1968	0.	0.	0.	437.	64557.	0.	44599.	0.	58621.	0.	0.	0.	0.	0.	0.	0.	2785.	0.	56473.
1969	0.	0.	0.	7579.	45311.	0.	39903.	0.	63511.	0.	0.	0.	0.	0.	0.	0.	2390.	0.	38362.
1970	0.	0.	0.	8991.	56684.	0.	49072.	0.	51183.	0.	0.	0.	0.	0.	0.	0.	2498.	0.	36608.
1971	0.	0.	0.	1899.	20556.	0.	20333.	0.	52468.	0.	0.	0.	0.	0.	0.	0.	1977.	0.	22741.
1972	0.	0.	0.	639.	51002.	0.	28238.	0.	60709.	0.	0.	0.	0.	0.	0.	0.	1165.	0.	35066.
1973	0.	0.	0.	7480.	130154.	0.	89659.	0.	79858.	0.	0.	0.	0.	0.	0.	0.	5502.	0.	130133.
1974	0.	0.	0.	11462.	58809.	0.	53336.	0.	64925.	0.	0.	0.	0.	0.	0.	0.	1343.	0.	33158.
1975	0.	0.	0.	2811.	74572.	0.	96599.	0.	89919.	0.	0.	0.	0.	0.	0.	0.	3536.	0.	60521.
1976	0.	0.	0.	9273.	100969.	0.	70209.	0.	76902.	0.	0.	0.	0.	0.	0.	0.	3872.	0.	104990.
1977	0.	0.	0.	0.	73839.	0.	58515.	0.	73043.	0.	0.	0.	0.	0.	0.	0.	2799.	0.	75690.
1978	0.	0.	0.	5179.	39780.	0.	21031.	0.	58977.	0.	0.	0.	0.	0.	0.	0.	1001.	0.	31173.
1979	0.	0.	0.	2385.	93908.	0.	71949.	0.	76439.	0.	0.	0.	0.	0.	0.	0.	4071.	0.	94497.
1980	0.	0.	0.	3074.	33812.	0.	19151.	0.	57382.	0.	0.	0.	0.	0.	0.	0.	733.	0.	19802.
1981	0.	0.	0.	746.	84805.	0.	101375.	0.	75065.	0.	0.	0.	0.	0.	0.	0.	3897.	0.	67224.
1982	0.	0.	0.	5192.	26943.	0.	20368.	0.	57310.	0.	0.	0.	0.	0.	0.	0.	863.	0.	31709.
1983	0.	0.	0.	3638.	30353.	0.	35559.	0.	63480.	0.	0.	0.	0.	0.	0.	0.	804.	0.	17653.
1984	0.	0.	0.	1830.	11471.	0.	15085.	0.	58108.	0.	0.	0.	0.	0.	0.	0.	941.	0.	28909.
1985	0.	0.	0.	691.	74921.	0.	75247.	0.	71672.	0.	0.	0.	0.	0.	0.	0.	2113.	0.	83735.
1986	0.	0.	0.	10783.	93381.	0.	60930.	0.	69345.	0.	0.	0.	0.	0.	0.	0.	4851.	0.	94263.
1987	0.	0.	0.	8368.	89434.	0.	81570.	0.	64587.	0.	0.	0.	0.	0.	0.	0.	3986.	0.	79570.
1988	0.	0.	0.	3348.	27686.	0.	23669.	0.	61200.	0.	0.	0.	0.	0.	0.	0.	761.	0.	30475.
1989	0.	0.	0.	6635.	23883.	0.	25176.	0.	62065.	0.	0.	0.	0.	0.	0.	0.	447.	0.	30179.
AVERAGE																			
1934-89	0.	0.	0.	11255.	50255.	0.	41330.	0.	58413.	0.	0.	0.	0.	0.	0.	0.	2056.	0.	46845.
1947-56	0.	0.	0.	17592.	21786.	0.	19944.	0.	37259.	0.	0.	0.	0.	0.	0.	0.	839.	0.	17858.
1953-56	0.	0.	0.	22677.	20761.	0.	19253.	0.	35865.	0.	0.	0.	0.	0.	0.	0.	279.	0.	14005.

ENHANCED RECHARGE, PUMPAGE: 250,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1934	0.	32088.	1150.	16896.	961.	5147.	8657.	0.	0.	0.	0.	0.	0.	0.	17759.	0.	0.	0.	0.	303177.
1935	0.	29668.	5948.	15089.	4958.	22250.	35052.	0.	0.	0.	0.	0.	0.	0.	108126.	0.	0.	0.	0.	417835.
1936	0.	34446.	5733.	15780.	4776.	26576.	38107.	0.	0.	0.	0.	0.	0.	0.	106628.	0.	0.	0.	0.	483614.
1937	0.	34800.	2815.	16773.	2346.	11680.	18923.	0.	0.	0.	0.	0.	0.	0.	53658.	0.	0.	0.	0.	316058.
1938	0.	30525.	4924.	15911.	4104.	17505.	31422.	0.	0.	0.	0.	0.	0.	0.	87128.	0.	0.	0.	0.	493276.
1939	0.	18408.	764.	14416.	637.	3642.	5468.	0.	0.	0.	0.	0.	0.	0.	10922.	0.	0.	0.	0.	125233.
1940	0.	6234.	2330.	5269.	1941.	11956.	18962.	0.	0.	0.	0.	0.	0.	0.	52749.	0.	0.	0.	0.	239379.
1941	0.	26658.	8137.	12664.	6781.	26773.	54269.	0.	0.	0.	0.	0.	0.	0.	141740.	0.	0.	0.	0.	674935.
1942	0.	28515.	5234.	14963.	4361.	19078.	38284.	0.	0.	0.	0.	0.	0.	0.	86046.	0.	0.	0.	0.	511462.
1943	0.	22613.	2337.	14648.	1948.	9470.	15397.	0.	0.	0.	0.	0.	0.	0.	42442.	0.	0.	0.	0.	266890.
1944	0.	16667.	6043.	12207.	5035.	21573.	39045.	0.	0.	0.	0.	0.	0.	0.	112905.	0.	0.	0.	0.	506039.
1945	0.	18067.	6027.	12581.	5022.	19947.	38947.	0.	0.	0.	0.	0.	0.	0.	113466.	0.	0.	0.	0.	487840.
1946	0.	9932.	5538.	8736.	4614.	21745.	40401.	0.	0.	0.	0.	0.	0.	0.	128567.	0.	0.	0.	0.	588886.
1947	0.	13439.	1995.	10414.	1664.	8421.	13646.	0.	0.	0.	0.	0.	0.	0.	47677.	0.	0.	0.	0.	286461.
1948	0.	5460.	1805.	24.	1504.	7819.	12599.	0.	0.	0.	0.	0.	0.	0.	18314.	0.	0.	0.	0.	146655.
1949	0.	8755.	2860.	5497.	2384.	10328.	20277.	0.	0.	0.	0.	0.	0.	0.	38996.	0.	0.	0.	0.	235476.
1950	0.	5460.	1282.	433.	1068.	5312.	9024.	0.	0.	0.	0.	0.	0.	0.	20633.	0.	0.	0.	0.	113599.
1951	0.	5698.	1755.	970.	1462.	8000.	12164.	0.	0.	0.	0.	0.	0.	0.	22346.	0.	0.	0.	0.	133717.
1952	0.	5684.	3934.	1030.	3277.	17093.	26830.	0.	0.	0.	0.	0.	0.	0.	80011.	0.	0.	0.	0.	252867.
1953	0.	5990.	999.	2870.	833.	4492.	6765.	0.	0.	0.	0.	0.	0.	0.	52725.	0.	0.	0.	0.	242874.
1954	0.	5460.	725.	570.	605.	3072.	4686.	0.	0.	0.	0.	0.	0.	0.	18990.	0.	0.	0.	0.	149591.
1955	0.	5460.	164.	24.	137.	909.	1366.	0.	0.	0.	0.	0.	0.	0.	15343.	0.	0.	0.	0.	109156.
1956	0.	5460.	199.	24.	166.	979.	1359.	0.	0.	0.	0.	0.	0.	0.	12291.	0.	0.	0.	0.	102399.
1957	0.	15804.	5787.	8775.	4822.	19250.	44628.	0.	0.	0.	0.	0.	0.	0.	136465.	0.	0.	0.	0.	525416.
1958	0.	32444.	9532.	14285.	7944.	31227.	63167.	0.	0.	0.	0.	0.	0.	0.	166341.	0.	0.	0.	0.	649953.
1959	0.	35098.	4732.	16291.	3944.	16455.	32052.	0.	0.	0.	0.	0.	0.	0.	60266.	0.	0.	0.	0.	374731.
1960	0.	32662.	6628.	15490.	5524.	26094.	43203.	0.	0.	0.	0.	0.	0.	0.	126456.	0.	0.	0.	0.	552751.
1961	0.	34379.	3659.	15585.	3050.	14441.	23697.	0.	0.	0.	0.	0.	0.	0.	60254.	0.	0.	0.	0.	272724.
1962	0.	27197.	1249.	16327.	1040.	5470.	8630.	0.	0.	0.	0.	0.	0.	0.	16109.	0.	0.	0.	0.	212266.
1963	0.	11857.	882.	8086.	738.	3944.	5733.	0.	0.	0.	0.	0.	0.	0.	10408.	0.	0.	0.	0.	155257.
1964	0.	9604.	2992.	3306.	2493.	14757.	23066.	0.	0.	0.	0.	0.	0.	0.	57838.	0.	0.	0.	0.	222995.
1965	0.	16769.	4248.	13039.	3539.	15182.	32905.	0.	0.	0.	0.	0.	0.	0.	88788.	0.	0.	0.	0.	431089.
1966	0.	8529.	2678.	8178.	2232.	10448.	17098.	0.	0.	0.	0.	0.	0.	0.	32197.	0.	0.	0.	0.	304081.

ENHANCED RECHARGE, PUMPAGE: 250,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1967	0.	6876.	2481.	4619.	2067.	11745.	17130.	0.	0.	0.	0.	0.	0.	0.	40828.	0.	0.	0.	0.	252150.
1968	0.	23419.	5216.	12975.	4347.	19684.	37791.	0.	0.	0.	0.	0.	0.	0.	125039.	0.	0.	0.	0.	455943.
1969	0.	17027.	4475.	12434.	3729.	17776.	31910.	0.	0.	0.	0.	0.	0.	0.	66081.	0.	0.	0.	0.	350488.
1970	0.	19354.	4679.	13032.	3899.	18340.	32119.	0.	0.	0.	0.	0.	0.	0.	92294.	0.	0.	0.	0.	388753.
1971	0.	17695.	3701.	8146.	3085.	14708.	24824.	0.	0.	0.	0.	0.	0.	0.	84709.	0.	0.	0.	0.	276842.
1972	0.	34438.	2182.	16089.	1820.	12713.	26312.	0.	0.	0.	0.	0.	0.	0.	77191.	0.	0.	0.	0.	347564.
1973	0.	34670.	10306.	16334.	8588.	42472.	77326.	0.	0.	0.	0.	0.	0.	0.	156033.	0.	0.	0.	0.	788515.
1974	0.	35254.	2514.	16162.	2094.	15658.	24031.	0.	0.	0.	0.	0.	0.	0.	83703.	0.	0.	0.	0.	402449.
1975	0.	35745.	6620.	16709.	5517.	29780.	49403.	0.	0.	0.	0.	0.	0.	0.	146022.	0.	0.	0.	0.	617754.
1976	0.	33701.	7252.	15511.	6041.	32077.	50184.	0.	0.	0.	0.	0.	0.	0.	136373.	0.	0.	0.	0.	647354.
1977	0.	35294.	5241.	16620.	4367.	25309.	39519.	0.	0.	0.	0.	0.	0.	0.	112497.	0.	0.	0.	0.	522733.
1978	0.	33274.	1880.	16728.	1568.	10278.	16390.	0.	0.	0.	0.	0.	0.	0.	32766.	0.	0.	0.	0.	270025.
1979	0.	35699.	7624.	16822.	6354.	34209.	53137.	0.	0.	0.	0.	0.	0.	0.	158272.	0.	0.	0.	0.	655366.
1980	0.	30665.	1373.	15808.	1146.	6791.	11164.	0.	0.	0.	0.	0.	0.	0.	31380.	0.	0.	0.	0.	232281.
1981	0.	33789.	7299.	15668.	6083.	22844.	50346.	0.	0.	0.	0.	0.	0.	0.	122195.	0.	0.	0.	0.	591336.
1982	0.	34529.	1612.	16580.	1344.	9497.	14450.	0.	0.	0.	0.	0.	0.	0.	39142.	0.	0.	0.	0.	259539.
1983	0.	27793.	1505.	15653.	1254.	7531.	12360.	0.	0.	0.	0.	0.	0.	0.	32648.	0.	0.	0.	0.	250231.
1984	0.	14585.	1765.	11057.	1471.	7919.	13255.	0.	0.	0.	0.	0.	0.	0.	27464.	0.	0.	0.	0.	193860.
1985	0.	18617.	3959.	12110.	3299.	18859.	32160.	0.	0.	0.	0.	0.	0.	0.	85354.	0.	0.	0.	0.	482737.
1986	0.	19515.	9088.	12288.	7573.	34300.	69586.	0.	0.	0.	0.	0.	0.	0.	155174.	0.	0.	0.	0.	641077.
1987	0.	34623.	7467.	15654.	6224.	41289.	69340.	0.	0.	0.	0.	0.	0.	0.	134355.	0.	0.	0.	0.	636467.
1988	0.	32365.	1426.	16132.	1186.	6762.	11187.	0.	0.	0.	0.	0.	0.	0.	20411.	0.	0.	0.	0.	236608.
1989	0.	24380.	840.	15457.	698.	3772.	6206.	0.	0.	0.	0.	0.	0.	0.	13064.	0.	0.	0.	0.	212802.
AVERAGE																				
1934-89	0.	22020.	3850.	11531.	3208.	15810.	27785.	0.	0.	0.	0.	0.	0.	0.	73528.	0.	0.	0.	0.	367885.
1947-56	0.	6687.	1572.	2186.	1310.	6643.	10872.	0.	0.	0.	0.	0.	0.	0.	32733.	0.	0.	0.	0.	177280.
1953-56	0.	5593.	522.	872.	435.	2363.	3544.	0.	0.	0.	0.	0.	0.	0.	24837.	0.	0.	0.	0.	151005.

ENHANCED RECHARGE, PUMPAGE: 400,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1934	0.	0.	0.	32323.	40541.	0.	47609.	0.	64330.	0.	0.	0.	0.	0.	0.	0.	616.	0.	35100.
1935	0.	0.	0.	6470.	39932.	0.	30621.	0.	49944.	0.	0.	0.	0.	0.	0.	0.	3175.	0.	66602.
1936	0.	0.	0.	37170.	45856.	0.	31232.	0.	57974.	0.	0.	0.	0.	0.	0.	0.	3062.	0.	76274.
1937	0.	0.	0.	12261.	37669.	0.	23079.	0.	57259.	0.	0.	0.	0.	0.	0.	0.	1504.	0.	43291.
1938	0.	0.	0.	31033.	82944.	0.	53198.	0.	66258.	0.	0.	0.	0.	0.	0.	0.	2629.	0.	65695.
1939	0.	0.	0.	19268.	4020.	0.	4005.	0.	33640.	0.	0.	0.	0.	0.	0.	0.	409.	0.	9634.
1940	0.	0.	0.	26689.	23427.	0.	28278.	0.	37154.	0.	0.	0.	0.	0.	0.	0.	1243.	0.	22888.
1941	0.	0.	0.	21539.	106080.	0.	96773.	0.	79446.	0.	0.	0.	0.	0.	0.	0.	4345.	0.	89730.
1942	0.	0.	0.	27159.	82522.	0.	61272.	0.	70894.	0.	0.	0.	0.	0.	0.	0.	2793.	0.	70341.
1943	0.	0.	0.	12022.	36149.	0.	16267.	0.	55834.	0.	0.	0.	0.	0.	0.	0.	1247.	0.	36516.
1944	0.	0.	0.	5574.	67347.	0.	63543.	0.	69525.	0.	0.	0.	0.	0.	0.	0.	3227.	0.	83348.
1945	0.	0.	0.	16971.	78706.	0.	51264.	0.	65580.	0.	0.	0.	0.	0.	0.	0.	3217.	0.	58045.
1946	0.	0.	0.	22941.	105231.	0.	67000.	0.	70908.	0.	0.	0.	0.	0.	0.	0.	2957.	0.	100316.
1947	0.	0.	0.	16725.	41270.	0.	41663.	0.	63455.	0.	0.	0.	0.	0.	0.	0.	1065.	0.	25027.
1948	0.	0.	0.	21507.	14241.	0.	11507.	0.	34373.	0.	0.	0.	0.	0.	0.	0.	961.	0.	15618.
1949	0.	0.	0.	10970.	34831.	0.	15165.	0.	48068.	0.	0.	0.	0.	0.	0.	0.	1528.	0.	35817.
1950	0.	0.	0.	9540.	8187.	0.	10368.	0.	24114.	0.	0.	0.	0.	0.	0.	0.	685.	0.	17458.
1951	0.	0.	0.	16633.	13864.	0.	20592.	0.	18258.	0.	0.	0.	0.	0.	0.	0.	937.	0.	10245.
1952	0.	0.	0.	9842.	22309.	0.	23139.	0.	38898.	0.	0.	0.	0.	0.	0.	0.	2100.	0.	18396.
1953	0.	0.	0.	17827.	35917.	0.	34550.	0.	61339.	0.	0.	0.	0.	0.	0.	0.	533.	0.	18040.
1954	0.	0.	0.	18378.	15791.	0.	12442.	0.	48471.	0.	0.	0.	0.	0.	0.	0.	388.	0.	18674.
1955	0.	0.	0.	27389.	12677.	0.	18361.	0.	20289.	0.	0.	0.	0.	0.	0.	0.	87.	0.	6981.
1956	0.	0.	0.	27113.	18796.	0.	11657.	0.	12000.	0.	0.	0.	0.	0.	0.	0.	106.	0.	12326.
1957	0.	0.	0.	7977.	72867.	0.	58219.	0.	75563.	0.	0.	0.	0.	0.	0.	0.	3091.	0.	72324.
1958	0.	0.	0.	6626.	87845.	0.	61096.	0.	65590.	0.	0.	0.	0.	0.	0.	0.	5092.	0.	98764.
1959	0.	0.	0.	7647.	42618.	0.	55025.	0.	72954.	0.	0.	0.	0.	0.	0.	0.	2527.	0.	25122.
1960	0.	0.	0.	10639.	67579.	0.	70286.	0.	86704.	0.	0.	0.	0.	0.	0.	0.	3540.	0.	57946.
1961	0.	0.	0.	5734.	25786.	0.	15500.	0.	48682.	0.	0.	0.	0.	0.	0.	0.	1954.	0.	20003.
1962	0.	0.	0.	12353.	22857.	0.	21593.	0.	55395.	0.	0.	0.	0.	0.	0.	0.	667.	0.	23379.
1963	0.	0.	0.	8237.	23546.	0.	17610.	0.	45005.	0.	0.	0.	0.	0.	0.	0.	471.	0.	17056.
1964	0.	0.	0.	5108.	27801.	0.	20450.	0.	28633.	0.	0.	0.	0.	0.	0.	0.	1598.	0.	25349.
1965	0.	0.	0.	0.	70430.	0.	58624.	0.	69572.	0.	0.	0.	0.	0.	0.	0.	2268.	0.	55725.
1966	0.	0.	0.	4470.	55400.	0.	43167.	0.	69230.	0.	0.	0.	0.	0.	0.	0.	1432.	0.	49022.

ENHANCED RECHARGE, PUMPAGE: 400,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1967	0.	0.	0.	11689.	42516.	0.	17765.	0.	53734.	0.	0.	0.	0.	0.	0.	0.	1325.	0.	39318.
1968	0.	0.	0.	437.	64557.	0.	44599.	0.	58621.	0.	0.	0.	0.	0.	0.	0.	2785.	0.	56473.
1969	0.	0.	0.	7579.	45311.	0.	39903.	0.	63511.	0.	0.	0.	0.	0.	0.	0.	2390.	0.	38362.
1970	0.	0.	0.	8991.	56684.	0.	49072.	0.	51183.	0.	0.	0.	0.	0.	0.	0.	2498.	0.	36608.
1971	0.	0.	0.	1899.	20509.	0.	20333.	0.	52468.	0.	0.	0.	0.	0.	0.	0.	1977.	0.	22741.
1972	0.	0.	0.	639.	51002.	0.	28238.	0.	60709.	0.	0.	0.	0.	0.	0.	0.	1165.	0.	35066.
1973	0.	0.	0.	7480.	130154.	0.	89659.	0.	79858.	0.	0.	0.	0.	0.	0.	0.	5502.	0.	130133.
1974	0.	0.	0.	11462.	58809.	0.	53336.	0.	64925.	0.	0.	0.	0.	0.	0.	0.	1343.	0.	33158.
1975	0.	0.	0.	2811.	74572.	0.	96599.	0.	89919.	0.	0.	0.	0.	0.	0.	0.	3536.	0.	60521.
1976	0.	0.	0.	9273.	100969.	0.	70209.	0.	76902.	0.	0.	0.	0.	0.	0.	0.	3872.	0.	104990.
1977	0.	0.	0.	0.	73839.	0.	58515.	0.	73043.	0.	0.	0.	0.	0.	0.	0.	2799.	0.	75690.
1978	0.	0.	0.	5179.	39780.	0.	21031.	0.	58977.	0.	0.	0.	0.	0.	0.	0.	1001.	0.	31173.
1979	0.	0.	0.	2385.	93908.	0.	71949.	0.	76439.	0.	0.	0.	0.	0.	0.	0.	4071.	0.	94497.
1980	0.	0.	0.	3074.	33812.	0.	19151.	0.	57382.	0.	0.	0.	0.	0.	0.	0.	733.	0.	19802.
1981	0.	0.	0.	746.	84805.	0.	101375.	0.	75065.	0.	0.	0.	0.	0.	0.	0.	3897.	0.	67224.
1982	0.	0.	0.	5192.	26943.	0.	20368.	0.	57310.	0.	0.	0.	0.	0.	0.	0.	863.	0.	31709.
1983	0.	0.	0.	3638.	30353.	0.	35559.	0.	63480.	0.	0.	0.	0.	0.	0.	0.	804.	0.	17653.
1984	0.	0.	0.	1830.	11470.	0.	15085.	0.	58108.	0.	0.	0.	0.	0.	0.	0.	941.	0.	28909.
1985	0.	0.	0.	691.	74921.	0.	75247.	0.	71672.	0.	0.	0.	0.	0.	0.	0.	2113.	0.	83735.
1986	0.	0.	0.	10783.	93381.	0.	60930.	0.	69345.	0.	0.	0.	0.	0.	0.	0.	4851.	0.	94263.
1987	0.	0.	0.	8368.	89434.	0.	81570.	0.	64587.	0.	0.	0.	0.	0.	0.	0.	3986.	0.	79570.
1988	0.	0.	0.	3348.	27686.	0.	23669.	0.	61200.	0.	0.	0.	0.	0.	0.	0.	761.	0.	30475.
1989	0.	0.	0.	6635.	23883.	0.	25176.	0.	62065.	0.	0.	0.	0.	0.	0.	0.	447.	0.	30179.
AVERAGE																			
1934-89	0.	0.	0.	11255.	50256.	0.	41330.	0.	58319.	0.	0.	0.	0.	0.	0.	0.	2056.	0.	46845.
1947-56	0.	0.	0.	17592.	21788.	0.	19944.	0.	36927.	0.	0.	0.	0.	0.	0.	0.	839.	0.	17858.
1953-56	0.	0.	0.	22677.	20795.	0.	19253.	0.	35525.	0.	0.	0.	0.	0.	0.	0.	279.	0.	14005.

ENHANCED RECHARGE, PUMPAGE: 400,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1934	0.	32088.	1150.	16896.	961.	5147.	8657.	0.	0.	0.	0.	0.	0.	0.	17759.	0.	0.	0.	0.	303177.
1935	0.	29668.	5948.	15089.	4958.	22250.	35052.	0.	0.	0.	0.	0.	0.	0.	108126.	0.	0.	0.	0.	417835.
1936	0.	34446.	5733.	15780.	4776.	26576.	38107.	0.	0.	0.	0.	0.	0.	0.	106628.	0.	0.	0.	0.	483614.
1937	0.	34800.	2815.	16773.	2346.	11680.	18923.	0.	0.	0.	0.	0.	0.	0.	53658.	0.	0.	0.	0.	316058.
1938	0.	30525.	4924.	15911.	4104.	17505.	31422.	0.	0.	0.	0.	0.	0.	0.	87128.	0.	0.	0.	0.	493276.
1939	0.	18408.	764.	14416.	637.	3642.	5446.	0.	0.	0.	0.	0.	0.	0.	10922.	0.	0.	0.	0.	125211.
1940	0.	6234.	2330.	5269.	1941.	11956.	18962.	0.	0.	0.	0.	0.	0.	0.	52749.	0.	0.	0.	0.	239120.
1941	0.	26658.	8137.	12664.	6781.	26773.	54269.	0.	0.	0.	0.	0.	0.	0.	141740.	0.	0.	0.	0.	674935.
1942	0.	28515.	5234.	14963.	4361.	19078.	38284.	0.	0.	0.	0.	0.	0.	0.	86046.	0.	0.	0.	0.	511462.
1943	0.	22613.	2337.	14648.	1948.	9470.	15397.	0.	0.	0.	0.	0.	0.	0.	42442.	0.	0.	0.	0.	266890.
1944	0.	16667.	6043.	12207.	5035.	21573.	39045.	0.	0.	0.	0.	0.	0.	0.	112905.	0.	0.	0.	0.	506039.
1945	0.	18067.	6027.	12581.	5022.	19947.	38947.	0.	0.	0.	0.	0.	0.	0.	113466.	0.	0.	0.	0.	487840.
1946	0.	9932.	5538.	8736.	4614.	21745.	40401.	0.	0.	0.	0.	0.	0.	0.	128567.	0.	0.	0.	0.	588886.
1947	0.	13439.	1995.	10414.	1664.	8421.	13646.	0.	0.	0.	0.	0.	0.	0.	47677.	0.	0.	0.	0.	286461.
1948	0.	5460.	1805.	24.	1504.	7819.	12407.	0.	0.	0.	0.	0.	0.	0.	18314.	0.	0.	0.	0.	145540.
1949	0.	8755.	2860.	5497.	2384.	10328.	20276.	0.	0.	0.	0.	0.	0.	0.	38996.	0.	0.	0.	0.	235475.
1950	0.	5460.	1282.	433.	1068.	5312.	8999.	0.	0.	0.	0.	0.	0.	0.	20633.	0.	0.	0.	0.	113539.
1951	0.	5698.	1755.	970.	1462.	8000.	12164.	0.	0.	0.	0.	0.	0.	0.	22346.	0.	0.	0.	0.	132924.
1952	0.	5684.	3934.	1030.	3277.	17128.	25776.	0.	0.	0.	0.	0.	0.	0.	80011.	0.	0.	0.	0.	251524.
1953	0.	5990.	999.	2870.	833.	4492.	6764.	0.	0.	0.	0.	0.	0.	0.	52725.	0.	0.	0.	0.	242879.
1954	0.	5460.	725.	570.	605.	3072.	4686.	0.	0.	0.	0.	0.	0.	0.	18990.	0.	0.	0.	0.	148252.
1955	0.	5460.	164.	24.	137.	909.	1332.	0.	0.	0.	0.	0.	0.	0.	15343.	0.	0.	0.	0.	109153.
1956	0.	5460.	199.	24.	166.	979.	1358.	0.	0.	0.	0.	0.	0.	0.	12291.	0.	0.	0.	0.	102475.
1957	0.	15804.	5787.	8775.	4822.	19250.	44628.	0.	0.	0.	0.	0.	0.	0.	136465.	0.	0.	0.	0.	525572.
1958	0.	32444.	9532.	14285.	7944.	31227.	63167.	0.	0.	0.	0.	0.	0.	0.	166341.	0.	0.	0.	0.	649953.
1959	0.	35098.	4732.	16291.	3944.	16455.	32052.	0.	0.	0.	0.	0.	0.	0.	60266.	0.	0.	0.	0.	374731.
1960	0.	32662.	6628.	15490.	5524.	26094.	43203.	0.	0.	0.	0.	0.	0.	0.	126456.	0.	0.	0.	0.	552751.
1961	0.	34379.	3659.	15585.	3050.	14441.	23697.	0.	0.	0.	0.	0.	0.	0.	60254.	0.	0.	0.	0.	272724.
1962	0.	27197.	1249.	16327.	1040.	5470.	8630.	0.	0.	0.	0.	0.	0.	0.	16109.	0.	0.	0.	0.	212266.
1963	0.	11857.	882.	8086.	738.	3944.	5733.	0.	0.	0.	0.	0.	0.	0.	10408.	0.	0.	0.	0.	153573.
1964	0.	9604.	2992.	3306.	2493.	14757.	23066.	0.	0.	0.	0.	0.	0.	0.	57838.	0.	0.	0.	0.	222995.
1965	0.	16769.	4248.	13039.	3539.	15182.	32905.	0.	0.	0.	0.	0.	0.	0.	88788.	0.	0.	0.	0.	431089.
1966	0.	8529.	2678.	8178.	2232.	10448.	17098.	0.	0.	0.	0.	0.	0.	0.	32197.	0.	0.	0.	0.	304081.

ENHANCED RECHARGE, PUMPAGE: 400,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1967	0.	6876.	2481.	4619.	2067.	11742.	17130.	0.	0.	0.	0.	0.	0.	0.	40828.	0.	0.	0.	0.	252090.
1968	0.	23419.	5216.	12975.	4347.	19684.	37791.	0.	0.	0.	0.	0.	0.	0.	125039.	0.	0.	0.	0.	455943.
1969	0.	17027.	4475.	12434.	3729.	17776.	31910.	0.	0.	0.	0.	0.	0.	0.	66081.	0.	0.	0.	0.	350488.
1970	0.	19354.	4679.	13032.	3899.	18340.	32119.	0.	0.	0.	0.	0.	0.	0.	92294.	0.	0.	0.	0.	388753.
1971	0.	17695.	3701.	8146.	3085.	14708.	24824.	0.	0.	0.	0.	0.	0.	0.	84709.	0.	0.	0.	0.	276795.
1972	0.	34438.	2182.	16089.	1820.	12713.	26312.	0.	0.	0.	0.	0.	0.	0.	77191.	0.	0.	0.	0.	347564.
1973	0.	34670.	10306.	16334.	8588.	42472.	77326.	0.	0.	0.	0.	0.	0.	0.	156033.	0.	0.	0.	0.	788515.
1974	0.	35254.	2514.	16162.	2094.	15658.	24031.	0.	0.	0.	0.	0.	0.	0.	83703.	0.	0.	0.	0.	402449.
1975	0.	35745.	6620.	16709.	5517.	29780.	49403.	0.	0.	0.	0.	0.	0.	0.	146022.	0.	0.	0.	0.	617754.
1976	0.	33701.	7252.	15511.	6041.	32077.	50184.	0.	0.	0.	0.	0.	0.	0.	136373.	0.	0.	0.	0.	647354.
1977	0.	35294.	5241.	16620.	4367.	25309.	39519.	0.	0.	0.	0.	0.	0.	0.	112497.	0.	0.	0.	0.	522733.
1978	0.	33274.	1880.	16728.	1568.	10278.	16390.	0.	0.	0.	0.	0.	0.	0.	32766.	0.	0.	0.	0.	270025.
1979	0.	35699.	7624.	16822.	6354.	34209.	53137.	0.	0.	0.	0.	0.	0.	0.	158272.	0.	0.	0.	0.	655366.
1980	0.	30665.	1373.	15808.	1146.	6791.	11164.	0.	0.	0.	0.	0.	0.	0.	31380.	0.	0.	0.	0.	232281.
1981	0.	33789.	7299.	15668.	6083.	22844.	50346.	0.	0.	0.	0.	0.	0.	0.	122195.	0.	0.	0.	0.	591336.
1982	0.	34529.	1612.	16580.	1344.	9497.	14450.	0.	0.	0.	0.	0.	0.	0.	39142.	0.	0.	0.	0.	259539.
1983	0.	27793.	1505.	15653.	1254.	7531.	12360.	0.	0.	0.	0.	0.	0.	0.	32648.	0.	0.	0.	0.	250231.
1984	0.	14585.	1765.	11057.	1471.	7919.	13255.	0.	0.	0.	0.	0.	0.	0.	27464.	0.	0.	0.	0.	193859.
1985	0.	18617.	3959.	12110.	3299.	18859.	32160.	0.	0.	0.	0.	0.	0.	0.	85354.	0.	0.	0.	0.	482737.
1986	0.	19515.	9088.	12288.	7573.	34300.	69586.	0.	0.	0.	0.	0.	0.	0.	155174.	0.	0.	0.	0.	641077.
1987	0.	34623.	7467.	15654.	6224.	41289.	69340.	0.	0.	0.	0.	0.	0.	0.	134355.	0.	0.	0.	0.	636467.
1988	0.	32365.	1426.	16132.	1186.	6762.	11187.	0.	0.	0.	0.	0.	0.	0.	20411.	0.	0.	0.	0.	236608.
1989	0.	24380.	840.	15457.	698.	3772.	6206.	0.	0.	0.	0.	0.	0.	0.	13064.	0.	0.	0.	0.	212802.
AVERAGE																				
1934-89	0.	22020.	3850.	11531.	3208.	15810.	27761.	0.	0.	0.	0.	0.	0.	0.	73528.	0.	0.	0.	0.	367769.
1947-56	0.	6687.	1572.	2186.	1310.	6646.	10741.	0.	0.	0.	0.	0.	0.	0.	32733.	0.	0.	0.	0.	176822.
1953-56	0.	5593.	522.	872.	435.	2363.	3535.	0.	0.	0.	0.	0.	0.	0.	24837.	0.	0.	0.	0.	150690.

ENHANCED RECHARGE, PUMPAGE: 450,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1934	0.	0.	0.	32323.	40541.	0.	47609.	0.	64330.	0.	0.	0.	0.	0.	0.	0.	616.	0.	35100.
1935	0.	0.	0.	6470.	39932.	0.	30621.	0.	49944.	0.	0.	0.	0.	0.	0.	0.	3175.	0.	66602.
1936	0.	0.	0.	37170.	45856.	0.	31232.	0.	57974.	0.	0.	0.	0.	0.	0.	0.	3062.	0.	76274.
1937	0.	0.	0.	12261.	37669.	0.	23079.	0.	57259.	0.	0.	0.	0.	0.	0.	0.	1504.	0.	43291.
1938	0.	0.	0.	31033.	82944.	0.	53198.	0.	66258.	0.	0.	0.	0.	0.	0.	0.	2629.	0.	65695.
1939	0.	0.	0.	19268.	4020.	0.	4005.	0.	33640.	0.	0.	0.	0.	0.	0.	0.	409.	0.	9634.
1940	0.	0.	0.	26689.	23427.	0.	28278.	0.	37154.	0.	0.	0.	0.	0.	0.	0.	1243.	0.	22888.
1941	0.	0.	0.	21539.	106080.	0.	96773.	0.	79446.	0.	0.	0.	0.	0.	0.	0.	4345.	0.	89730.
1942	0.	0.	0.	27159.	82522.	0.	61272.	0.	70894.	0.	0.	0.	0.	0.	0.	0.	2793.	0.	70341.
1943	0.	0.	0.	12022.	36149.	0.	16267.	0.	55834.	0.	0.	0.	0.	0.	0.	0.	1247.	0.	36516.
1944	0.	0.	0.	5574.	67347.	0.	63543.	0.	69525.	0.	0.	0.	0.	0.	0.	0.	3227.	0.	83348.
1945	0.	0.	0.	16971.	78706.	0.	51264.	0.	65580.	0.	0.	0.	0.	0.	0.	0.	3217.	0.	58045.
1946	0.	0.	0.	22941.	105231.	0.	67000.	0.	70908.	0.	0.	0.	0.	0.	0.	0.	2957.	0.	100316.
1947	0.	0.	0.	16725.	41270.	0.	41663.	0.	63455.	0.	0.	0.	0.	0.	0.	0.	1065.	0.	25027.
1948	0.	0.	0.	21507.	14241.	0.	11507.	0.	34373.	0.	0.	0.	0.	0.	0.	0.	961.	0.	15618.
1949	0.	0.	0.	10970.	34825.	0.	15165.	0.	48068.	0.	0.	0.	0.	0.	0.	0.	1528.	0.	35817.
1950	0.	0.	0.	9540.	8187.	0.	10368.	0.	24046.	0.	0.	0.	0.	0.	0.	0.	685.	0.	17458.
1951	0.	0.	0.	16633.	13864.	0.	20592.	0.	18258.	0.	0.	0.	0.	0.	0.	0.	937.	0.	10245.
1952	0.	0.	0.	9842.	22433.	0.	23139.	0.	38898.	0.	0.	0.	0.	0.	0.	0.	2100.	0.	18396.
1953	0.	0.	0.	17827.	35956.	0.	34550.	0.	61339.	0.	0.	0.	0.	0.	0.	0.	533.	0.	18040.
1954	0.	0.	0.	18378.	15791.	0.	12442.	0.	47518.	0.	0.	0.	0.	0.	0.	0.	388.	0.	18674.
1955	0.	0.	0.	27389.	12677.	0.	18361.	0.	20289.	0.	0.	0.	0.	0.	0.	0.	87.	0.	6981.
1956	0.	0.	0.	27113.	18796.	0.	11657.	0.	12509.	0.	0.	0.	0.	0.	0.	0.	106.	0.	12326.
1957	0.	0.	0.	7977.	72867.	0.	58219.	0.	75563.	0.	0.	0.	0.	0.	0.	0.	3091.	0.	72324.
1958	0.	0.	0.	6626.	87845.	0.	61096.	0.	65590.	0.	0.	0.	0.	0.	0.	0.	5092.	0.	98764.
1959	0.	0.	0.	7647.	42618.	0.	55025.	0.	72954.	0.	0.	0.	0.	0.	0.	0.	2527.	0.	25122.
1960	0.	0.	0.	10639.	67579.	0.	70286.	0.	86704.	0.	0.	0.	0.	0.	0.	0.	3540.	0.	57946.
1961	0.	0.	0.	5734.	25786.	0.	15500.	0.	48682.	0.	0.	0.	0.	0.	0.	0.	1954.	0.	20003.
1962	0.	0.	0.	12353.	22857.	0.	21593.	0.	55395.	0.	0.	0.	0.	0.	0.	0.	667.	0.	23379.
1963	0.	0.	0.	8237.	23545.	0.	17610.	0.	44466.	0.	0.	0.	0.	0.	0.	0.	471.	0.	17056.
1964	0.	0.	0.	5108.	27796.	0.	20450.	0.	28567.	0.	0.	0.	0.	0.	0.	0.	1598.	0.	25349.
1965	0.	0.	0.	0.	70430.	0.	58624.	0.	69572.	0.	0.	0.	0.	0.	0.	0.	2268.	0.	55725.
1966	0.	0.	0.	4470.	55400.	0.	43167.	0.	69230.	0.	0.	0.	0.	0.	0.	0.	1432.	0.	49022.

ENHANCED RECHARGE, PUMPAGE: 450,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1967	0.	0.	0.	11689.	42576.	0.	17765.	0.	53734.	0.	0.	0.	0.	0.	0.	0.	1325.	0.	39318.
1968	0.	0.	0.	437.	64557.	0.	44599.	0.	58621.	0.	0.	0.	0.	0.	0.	0.	2785.	0.	56473.
1969	0.	0.	0.	7579.	45311.	0.	39903.	0.	63511.	0.	0.	0.	0.	0.	0.	0.	2390.	0.	38362.
1970	0.	0.	0.	8991.	56684.	0.	49072.	0.	51183.	0.	0.	0.	0.	0.	0.	0.	2498.	0.	36608.
1971	0.	0.	0.	1899.	20511.	0.	20333.	0.	52468.	0.	0.	0.	0.	0.	0.	0.	1977.	0.	22741.
1972	0.	0.	0.	639.	51002.	0.	28238.	0.	60709.	0.	0.	0.	0.	0.	0.	0.	1165.	0.	35066.
1973	0.	0.	0.	7480.	130154.	0.	89659.	0.	79858.	0.	0.	0.	0.	0.	0.	0.	5502.	0.	130133.
1974	0.	0.	0.	11462.	58809.	0.	53336.	0.	64925.	0.	0.	0.	0.	0.	0.	0.	1343.	0.	33158.
1975	0.	0.	0.	2811.	74572.	0.	96599.	0.	89919.	0.	0.	0.	0.	0.	0.	0.	3536.	0.	60521.
1976	0.	0.	0.	9273.	100969.	0.	70209.	0.	76902.	0.	0.	0.	0.	0.	0.	0.	3872.	0.	104990.
1977	0.	0.	0.	0.	73839.	0.	58515.	0.	73043.	0.	0.	0.	0.	0.	0.	0.	2799.	0.	75690.
1978	0.	0.	0.	5179.	39780.	0.	21031.	0.	58977.	0.	0.	0.	0.	0.	0.	0.	1001.	0.	31173.
1979	0.	0.	0.	2385.	93908.	0.	71949.	0.	76439.	0.	0.	0.	0.	0.	0.	0.	4071.	0.	94497.
1980	0.	0.	0.	3074.	33790.	0.	19151.	0.	57382.	0.	0.	0.	0.	0.	0.	0.	733.	0.	19802.
1981	0.	0.	0.	746.	84805.	0.	101375.	0.	75065.	0.	0.	0.	0.	0.	0.	0.	3897.	0.	67224.
1982	0.	0.	0.	5192.	26943.	0.	20368.	0.	57310.	0.	0.	0.	0.	0.	0.	0.	863.	0.	31709.
1983	0.	0.	0.	3638.	30353.	0.	35559.	0.	63480.	0.	0.	0.	0.	0.	0.	0.	804.	0.	17653.
1984	0.	0.	0.	1830.	11497.	0.	15085.	0.	58108.	0.	0.	0.	0.	0.	0.	0.	941.	0.	28909.
1985	0.	0.	0.	691.	74921.	0.	75247.	0.	71672.	0.	0.	0.	0.	0.	0.	0.	2113.	0.	83735.
1986	0.	0.	0.	10783.	93381.	0.	60930.	0.	69345.	0.	0.	0.	0.	0.	0.	0.	4851.	0.	94263.
1987	0.	0.	0.	8368.	89434.	0.	81570.	0.	64587.	0.	0.	0.	0.	0.	0.	0.	3986.	0.	79570.
1988	0.	0.	0.	3348.	27686.	0.	23669.	0.	61200.	0.	0.	0.	0.	0.	0.	0.	761.	0.	30475.
1989	0.	0.	0.	6635.	23873.	0.	25176.	0.	62065.	0.	0.	0.	0.	0.	0.	0.	447.	0.	30179.
AVERAGE																			
1934-89	0.	0.	0.	11255.	50260.	0.	41330.	0.	58299.	0.	0.	0.	0.	0.	0.	0.	2056.	0.	46845.
1947-56	0.	0.	0.	17592.	21804.	0.	19944.	0.	36875.	0.	0.	0.	0.	0.	0.	0.	839.	0.	17858.
1953-56	0.	0.	0.	22677.	20805.	0.	19253.	0.	35414.	0.	0.	0.	0.	0.	0.	0.	279.	0.	14005.

ENHANCED RECHARGE, PUMPAGE: 450,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1934	0.	32088.	1150.	16896.	961.	5147.	8657.	0.	0.	0.	0.	0.	0.	0.	17759.	0.	0.	0.	0.	303177.
1935	0.	29668.	5948.	15089.	4958.	22250.	35052.	0.	0.	0.	0.	0.	0.	0.	108126.	0.	0.	0.	0.	417835.
1936	0.	34446.	5733.	15780.	4776.	26576.	38107.	0.	0.	0.	0.	0.	0.	0.	106628.	0.	0.	0.	0.	483614.
1937	0.	34800.	2815.	16773.	2346.	11680.	18923.	0.	0.	0.	0.	0.	0.	0.	53658.	0.	0.	0.	0.	316058.
1938	0.	30525.	4924.	15911.	4104.	17505.	31422.	0.	0.	0.	0.	0.	0.	0.	87128.	0.	0.	0.	0.	493276.
1939	0.	18408.	764.	14416.	637.	3642.	5446.	0.	0.	0.	0.	0.	0.	0.	10922.	0.	0.	0.	0.	125211.
1940	0.	6234.	2330.	5269.	1941.	11956.	18962.	0.	0.	0.	0.	0.	0.	0.	52749.	0.	0.	0.	0.	239120.
1941	0.	26658.	8137.	12664.	6781.	26773.	54269.	0.	0.	0.	0.	0.	0.	0.	141740.	0.	0.	0.	0.	674935.
1942	0.	28515.	5234.	14963.	4361.	19078.	38284.	0.	0.	0.	0.	0.	0.	0.	86046.	0.	0.	0.	0.	511462.
1943	0.	22613.	2337.	14648.	1948.	9470.	15397.	0.	0.	0.	0.	0.	0.	0.	42442.	0.	0.	0.	0.	266890.
1944	0.	16667.	6043.	12207.	5035.	21573.	39045.	0.	0.	0.	0.	0.	0.	0.	112905.	0.	0.	0.	0.	506039.
1945	0.	18067.	6027.	12581.	5022.	19947.	38947.	0.	0.	0.	0.	0.	0.	0.	113466.	0.	0.	0.	0.	487840.
1946	0.	9932.	5538.	8736.	4614.	21745.	40401.	0.	0.	0.	0.	0.	0.	0.	128567.	0.	0.	0.	0.	588886.
1947	0.	13439.	1995.	10414.	1664.	8421.	13646.	0.	0.	0.	0.	0.	0.	0.	47677.	0.	0.	0.	0.	286461.
1948	0.	5460.	1805.	24.	1504.	7819.	12407.	0.	0.	0.	0.	0.	0.	0.	18314.	0.	0.	0.	0.	145540.
1949	0.	8755.	2860.	5497.	2384.	10328.	20276.	0.	0.	0.	0.	0.	0.	0.	38996.	0.	0.	0.	0.	235469.
1950	0.	5460.	1282.	433.	1068.	5312.	8999.	0.	0.	0.	0.	0.	0.	0.	20633.	0.	0.	0.	0.	113471.
1951	0.	5698.	1755.	970.	1462.	8000.	12164.	0.	0.	0.	0.	0.	0.	0.	22346.	0.	0.	0.	0.	132924.
1952	0.	5684.	3934.	1030.	3277.	17093.	25776.	0.	0.	0.	0.	0.	0.	0.	80011.	0.	0.	0.	0.	251613.
1953	0.	5990.	999.	2870.	833.	4492.	6734.	0.	0.	0.	0.	0.	0.	0.	52725.	0.	0.	0.	0.	242888.
1954	0.	5460.	725.	570.	605.	3072.	4686.	0.	0.	0.	0.	0.	0.	0.	18990.	0.	0.	0.	0.	147299.
1955	0.	5460.	164.	24.	137.	909.	1332.	0.	0.	0.	0.	0.	0.	0.	15343.	0.	0.	0.	0.	109153.
1956	0.	5460.	199.	24.	166.	979.	1358.	0.	0.	0.	0.	0.	0.	0.	12291.	0.	0.	0.	0.	102984.
1957	0.	15804.	5787.	8775.	4822.	19250.	44628.	0.	0.	0.	0.	0.	0.	0.	136465.	0.	0.	0.	0.	525572.
1958	0.	32444.	9532.	14285.	7944.	31227.	63167.	0.	0.	0.	0.	0.	0.	0.	166341.	0.	0.	0.	0.	649953.
1959	0.	35098.	4732.	16291.	3944.	16455.	32052.	0.	0.	0.	0.	0.	0.	0.	60266.	0.	0.	0.	0.	374731.
1960	0.	32662.	6628.	15490.	5524.	26094.	43203.	0.	0.	0.	0.	0.	0.	0.	126456.	0.	0.	0.	0.	552751.
1961	0.	34379.	3659.	15585.	3050.	14441.	23697.	0.	0.	0.	0.	0.	0.	0.	60254.	0.	0.	0.	0.	272724.
1962	0.	27197.	1249.	16327.	1040.	5470.	8630.	0.	0.	0.	0.	0.	0.	0.	16109.	0.	0.	0.	0.	212266.
1963	0.	11857.	882.	8086.	738.	3944.	5709.	0.	0.	0.	0.	0.	0.	0.	10408.	0.	0.	0.	0.	153009.
1964	0.	9604.	2992.	3306.	2493.	14757.	23066.	0.	0.	0.	0.	0.	0.	0.	57838.	0.	0.	0.	0.	222924.
1965	0.	16769.	4248.	13039.	3539.	15182.	32905.	0.	0.	0.	0.	0.	0.	0.	88788.	0.	0.	0.	0.	431089.
1966	0.	8529.	2678.	8178.	2232.	10448.	17098.	0.	0.	0.	0.	0.	0.	0.	32197.	0.	0.	0.	0.	304081.

ENHANCED RECHARGE, PUMPAGE: 450,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1967	0.	6876.	2481.	4619.	2067.	11662.	17130.	0.	0.	0.	0.	0.	0.	0.	40828.	0.	0.	0.	0.	252070.
1968	0.	23419.	5216.	12975.	4347.	19684.	37791.	0.	0.	0.	0.	0.	0.	0.	125039.	0.	0.	0.	0.	455943.
1969	0.	17027.	4475.	12434.	3729.	17776.	31910.	0.	0.	0.	0.	0.	0.	0.	66081.	0.	0.	0.	0.	350488.
1970	0.	19354.	4679.	13032.	3899.	18340.	32119.	0.	0.	0.	0.	0.	0.	0.	92294.	0.	0.	0.	0.	388753.
1971	0.	17695.	3701.	8146.	3085.	14708.	24824.	0.	0.	0.	0.	0.	0.	0.	84709.	0.	0.	0.	0.	276797.
1972	0.	34438.	2182.	16089.	1820.	12713.	26312.	0.	0.	0.	0.	0.	0.	0.	77191.	0.	0.	0.	0.	347564.
1973	0.	34670.	10306.	16334.	8588.	42472.	77326.	0.	0.	0.	0.	0.	0.	0.	156033.	0.	0.	0.	0.	788515.
1974	0.	35254.	2514.	16162.	2094.	15658.	24031.	0.	0.	0.	0.	0.	0.	0.	83703.	0.	0.	0.	0.	402449.
1975	0.	35745.	6620.	16709.	5517.	29780.	49403.	0.	0.	0.	0.	0.	0.	0.	146022.	0.	0.	0.	0.	617754.
1976	0.	33701.	7252.	15511.	6041.	32077.	50184.	0.	0.	0.	0.	0.	0.	0.	136373.	0.	0.	0.	0.	647354.
1977	0.	35294.	5241.	16620.	4367.	25309.	39519.	0.	0.	0.	0.	0.	0.	0.	112497.	0.	0.	0.	0.	522733.
1978	0.	33274.	1880.	16728.	1568.	10278.	16390.	0.	0.	0.	0.	0.	0.	0.	32766.	0.	0.	0.	0.	270025.
1979	0.	35699.	7624.	16822.	6354.	34209.	53137.	0.	0.	0.	0.	0.	0.	0.	158272.	0.	0.	0.	0.	655366.
1980	0.	30665.	1373.	15808.	1146.	6791.	11164.	0.	0.	0.	0.	0.	0.	0.	31380.	0.	0.	0.	0.	232259.
1981	0.	33789.	7299.	15668.	6083.	22844.	50346.	0.	0.	0.	0.	0.	0.	0.	122195.	0.	0.	0.	0.	591336.
1982	0.	34529.	1612.	16580.	1344.	9497.	14450.	0.	0.	0.	0.	0.	0.	0.	39142.	0.	0.	0.	0.	259539.
1983	0.	27793.	1505.	15653.	1254.	7531.	12360.	0.	0.	0.	0.	0.	0.	0.	32648.	0.	0.	0.	0.	250231.
1984	0.	14585.	1765.	11057.	1471.	7919.	13255.	0.	0.	0.	0.	0.	0.	0.	27464.	0.	0.	0.	0.	193886.
1985	0.	18617.	3959.	12110.	3299.	18859.	32160.	0.	0.	0.	0.	0.	0.	0.	85354.	0.	0.	0.	0.	482737.
1986	0.	19515.	9088.	12288.	7573.	34300.	69586.	0.	0.	0.	0.	0.	0.	0.	155174.	0.	0.	0.	0.	641077.
1987	0.	34623.	7467.	15654.	6224.	41289.	69340.	0.	0.	0.	0.	0.	0.	0.	134355.	0.	0.	0.	0.	636467.
1988	0.	32365.	1426.	16132.	1186.	6762.	11187.	0.	0.	0.	0.	0.	0.	0.	20411.	0.	0.	0.	0.	236608.
1989	0.	24380.	840.	15457.	698.	3772.	6206.	0.	0.	0.	0.	0.	0.	0.	13064.	0.	0.	0.	0.	212792.
AVERAGE																				
1934-89	0.	22020.	3850.	11531.	3208.	15808.	27760.	0.	0.	0.	0.	0.	0.	0.	73528.	0.	0.	0.	0.	367750.
1947-56	0.	6687.	1572.	2186.	1310.	6643.	10738.	0.	0.	0.	0.	0.	0.	0.	32733.	0.	0.	0.	0.	176780.
1953-56	0.	5593.	522.	872.	435.	2363.	3528.	0.	0.	0.	0.	0.	0.	0.	24837.	0.	0.	0.	0.	150581.

ENHANCED RECHARGE, PUMPAGE: 250,000 AF, 1988 USE, HYDRO=0 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1934	0.	0.	0.	32323.	40541.	0.	47609.	0.	64618.	0.	0.	0.	0.	0.	0.	0.	616.	0.	35100.
1935	0.	0.	0.	6470.	39932.	0.	30621.	0.	50483.	0.	0.	0.	0.	0.	0.	0.	3175.	0.	66602.
1936	0.	0.	0.	37170.	45856.	0.	31232.	0.	58026.	0.	0.	0.	0.	0.	0.	0.	3062.	0.	76274.
1937	0.	0.	0.	12261.	37669.	0.	23079.	0.	57344.	0.	0.	0.	0.	0.	0.	0.	1504.	0.	43291.
1938	0.	0.	0.	31033.	82944.	0.	53198.	0.	66359.	0.	0.	0.	0.	0.	0.	0.	2629.	0.	65695.
1939	0.	0.	0.	19268.	4020.	0.	4005.	0.	34512.	0.	0.	0.	0.	0.	0.	0.	409.	0.	9634.
1940	0.	0.	0.	26689.	23427.	0.	28278.	0.	37995.	0.	0.	0.	0.	0.	0.	0.	1243.	0.	22888.
1941	0.	0.	0.	21539.	106080.	0.	96773.	0.	79495.	0.	0.	0.	0.	0.	0.	0.	4345.	0.	89730.
1942	0.	0.	0.	27159.	82522.	0.	61272.	0.	70976.	0.	0.	0.	0.	0.	0.	0.	2793.	0.	70341.
1943	0.	0.	0.	12022.	36149.	0.	16267.	0.	55956.	0.	0.	0.	0.	0.	0.	0.	1247.	0.	36516.
1944	0.	0.	0.	5574.	67347.	0.	63543.	0.	69572.	0.	0.	0.	0.	0.	0.	0.	3227.	0.	83348.
1945	0.	0.	0.	16971.	78706.	0.	51264.	0.	65651.	0.	0.	0.	0.	0.	0.	0.	3217.	0.	58045.
1946	0.	0.	0.	22941.	105231.	0.	67000.	0.	70976.	0.	0.	0.	0.	0.	0.	0.	2957.	0.	100316.
1947	0.	0.	0.	16725.	41270.	0.	41663.	0.	63637.	0.	0.	0.	0.	0.	0.	0.	1065.	0.	25027.
1948	0.	0.	0.	21507.	14249.	0.	11507.	0.	36160.	0.	0.	0.	0.	0.	0.	0.	961.	0.	15618.
1949	0.	0.	0.	10970.	34831.	0.	15165.	0.	48350.	0.	0.	0.	0.	0.	0.	0.	1528.	0.	35817.
1950	0.	0.	0.	9540.	8193.	0.	10368.	0.	25142.	0.	0.	0.	0.	0.	0.	0.	685.	0.	17458.
1951	0.	0.	0.	16633.	13864.	0.	20592.	0.	20321.	0.	0.	0.	0.	0.	0.	0.	937.	0.	10245.
1952	0.	0.	0.	9842.	22433.	0.	23139.	0.	39595.	0.	0.	0.	0.	0.	0.	0.	2100.	0.	18396.
1953	0.	0.	0.	17827.	35913.	0.	34550.	0.	61505.	0.	0.	0.	0.	0.	0.	0.	533.	0.	18040.
1954	0.	0.	0.	18378.	15783.	0.	12442.	0.	50446.	0.	0.	0.	0.	0.	0.	0.	388.	0.	18674.
1955	0.	0.	0.	27389.	12649.	0.	18361.	0.	21159.	0.	0.	0.	0.	0.	0.	0.	87.	0.	6981.
1956	0.	0.	0.	27156.	18712.	0.	11657.	0.	12543.	0.	0.	0.	0.	0.	0.	0.	106.	0.	12326.
1957	0.	0.	0.	7977.	72711.	0.	58219.	0.	75668.	0.	0.	0.	0.	0.	0.	0.	3091.	0.	72324.
1958	0.	0.	0.	6626.	87845.	0.	61096.	0.	65631.	0.	0.	0.	0.	0.	0.	0.	5092.	0.	98764.
1959	0.	0.	0.	7647.	42618.	0.	55025.	0.	73016.	0.	0.	0.	0.	0.	0.	0.	2527.	0.	25122.
1960	0.	0.	0.	10639.	67579.	0.	70286.	0.	86756.	0.	0.	0.	0.	0.	0.	0.	3540.	0.	57946.
1961	0.	0.	0.	5734.	25786.	0.	15500.	0.	48728.	0.	0.	0.	0.	0.	0.	0.	1954.	0.	20003.
1962	0.	0.	0.	12353.	22874.	0.	21593.	0.	55495.	0.	0.	0.	0.	0.	0.	0.	667.	0.	23379.
1963	0.	0.	0.	8237.	23554.	0.	17610.	0.	48850.	0.	0.	0.	0.	0.	0.	0.	471.	0.	17056.
1964	0.	0.	0.	5108.	27806.	0.	20450.	0.	29277.	0.	0.	0.	0.	0.	0.	0.	1598.	0.	25349.
1965	0.	0.	0.	0.	70430.	0.	58624.	0.	69617.	0.	0.	0.	0.	0.	0.	0.	2268.	0.	55725.
1966	0.	0.	0.	4470.	55400.	0.	43167.	0.	69295.	0.	0.	0.	0.	0.	0.	0.	1432.	0.	49022.

ENHANCED RECHARGE, PUMPAGE: 250,000 AF, 1988 USE, HYDRO=0 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1967	0.	0.	0.	11689.	42597.	0.	17765.	0.	54009.	0.	0.	0.	0.	0.	0.	0.	1325.	0.	39318.
1968	0.	0.	0.	437.	64557.	0.	44599.	0.	58679.	0.	0.	0.	0.	0.	0.	0.	2785.	0.	56473.
1969	0.	0.	0.	7579.	45311.	0.	39903.	0.	63575.	0.	0.	0.	0.	0.	0.	0.	2390.	0.	38362.
1970	0.	0.	0.	8991.	56684.	0.	49072.	0.	51235.	0.	0.	0.	0.	0.	0.	0.	2498.	0.	36608.
1971	0.	0.	0.	1899.	20563.	0.	20333.	0.	52733.	0.	0.	0.	0.	0.	0.	0.	1977.	0.	22741.
1972	0.	0.	0.	639.	51002.	0.	28238.	0.	60779.	0.	0.	0.	0.	0.	0.	0.	1165.	0.	35066.
1973	0.	0.	0.	7480.	130154.	0.	89659.	0.	79888.	0.	0.	0.	0.	0.	0.	0.	5502.	0.	130133.
1974	0.	0.	0.	11462.	58809.	0.	53336.	0.	64995.	0.	0.	0.	0.	0.	0.	0.	1343.	0.	33158.
1975	0.	0.	0.	2811.	74572.	0.	96599.	0.	89953.	0.	0.	0.	0.	0.	0.	0.	3536.	0.	60521.
1976	0.	0.	0.	9273.	100969.	0.	70209.	0.	76941.	0.	0.	0.	0.	0.	0.	0.	3872.	0.	104990.
1977	0.	0.	0.	0.	73839.	0.	58515.	0.	73098.	0.	0.	0.	0.	0.	0.	0.	2799.	0.	75690.
1978	0.	0.	0.	5179.	39780.	0.	21031.	0.	59081.	0.	0.	0.	0.	0.	0.	0.	1001.	0.	31173.
1979	0.	0.	0.	2385.	93908.	0.	71949.	0.	76482.	0.	0.	0.	0.	0.	0.	0.	4071.	0.	94497.
1980	0.	0.	0.	3074.	33812.	0.	19151.	0.	57479.	0.	0.	0.	0.	0.	0.	0.	733.	0.	19802.
1981	0.	0.	0.	746.	84805.	0.	101375.	0.	75119.	0.	0.	0.	0.	0.	0.	0.	3897.	0.	67224.
1982	0.	0.	0.	5192.	26943.	0.	20368.	0.	57397.	0.	0.	0.	0.	0.	0.	0.	863.	0.	31709.
1983	0.	0.	0.	3638.	30353.	0.	35559.	0.	63548.	0.	0.	0.	0.	0.	0.	0.	804.	0.	17653.
1984	0.	0.	0.	1830.	11477.	0.	15085.	0.	58405.	0.	0.	0.	0.	0.	0.	0.	941.	0.	28909.
1985	0.	0.	0.	691.	74921.	0.	75247.	0.	71711.	0.	0.	0.	0.	0.	0.	0.	2113.	0.	83735.
1986	0.	0.	0.	10783.	93381.	0.	60930.	0.	69391.	0.	0.	0.	0.	0.	0.	0.	4851.	0.	94263.
1987	0.	0.	0.	8368.	89434.	0.	81570.	0.	64619.	0.	0.	0.	0.	0.	0.	0.	3986.	0.	79570.
1988	0.	0.	0.	3348.	27686.	0.	23669.	0.	61286.	0.	0.	0.	0.	0.	0.	0.	761.	0.	30475.
1989	0.	0.	0.	6635.	23979.	0.	25176.	0.	62281.	0.	0.	0.	0.	0.	0.	0.	447.	0.	30179.
AVERAGE																			
1934-89	0.	0.	0.	11255.	50258.	0.	41330.	0.	58676.	0.	0.	0.	0.	0.	0.	0.	2056.	0.	46845.
1947-56	0.	0.	0.	17597.	21790.	0.	19944.	0.	37886.	0.	0.	0.	0.	0.	0.	0.	839.	0.	17858.
1953-56	0.	0.	0.	22688.	20764.	0.	19253.	0.	36413.	0.	0.	0.	0.	0.	0.	0.	279.	0.	14005.

ENHANCED RECHARGE, PUMPAGE: 250,000 AF, 1988 USE, HYDRO=0 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1934	0.	32407.	1150.	16896.	961.	5600.	8803.	0.	0.	0.	0.	0.	0.	0.	17970.	0.	0.	0.	0.	304594.
1935	0.	30572.	5948.	15261.	4958.	27080.	44892.	0.	0.	0.	0.	0.	0.	0.	108466.	0.	0.	0.	0.	434460.
1936	0.	35164.	5733.	16323.	4776.	26862.	41534.	0.	0.	0.	0.	0.	0.	0.	108068.	0.	0.	0.	0.	490080.
1937	0.	35002.	2815.	16789.	2346.	13724.	21350.	0.	0.	0.	0.	0.	0.	0.	54038.	0.	0.	0.	0.	321212.
1938	0.	31365.	4924.	16055.	4104.	20967.	33754.	0.	0.	0.	0.	0.	0.	0.	87508.	0.	0.	0.	0.	500535.
1939	0.	21593.	764.	15030.	637.	3642.	5725.	0.	0.	0.	0.	0.	0.	0.	11302.	0.	0.	0.	0.	130541.
1940	0.	9817.	2330.	8880.	1941.	12623.	19227.	0.	0.	0.	0.	0.	0.	0.	53104.	0.	0.	0.	0.	248442.
1941	0.	27057.	8137.	12750.	6781.	34691.	55226.	0.	0.	0.	0.	0.	0.	0.	142120.	0.	0.	0.	0.	684724.
1942	0.	29562.	5234.	15170.	4361.	25128.	38841.	0.	0.	0.	0.	0.	0.	0.	86426.	0.	0.	0.	0.	519785.
1943	0.	24983.	2337.	15111.	1948.	9951.	16066.	0.	0.	0.	0.	0.	0.	0.	42822.	0.	0.	0.	0.	271375.
1944	0.	20553.	6043.	13080.	5035.	24955.	40833.	0.	0.	0.	0.	0.	0.	0.	113974.	0.	0.	0.	0.	517084.
1945	0.	21984.	6027.	13448.	5022.	26532.	41904.	0.	0.	0.	0.	0.	0.	0.	113846.	0.	0.	0.	0.	502617.
1946	0.	14024.	5538.	11939.	4614.	27322.	42570.	0.	0.	0.	0.	0.	0.	0.	128947.	0.	0.	0.	0.	604375.
1947	0.	14730.	1995.	12094.	1664.	8657.	13945.	0.	0.	0.	0.	0.	0.	0.	48057.	0.	0.	0.	0.	290529.
1948	0.	5460.	1805.	657.	1504.	7701.	12865.	0.	0.	0.	0.	0.	0.	0.	18694.	0.	0.	0.	0.	148688.
1949	0.	9290.	2860.	6413.	2384.	13162.	21010.	0.	0.	0.	0.	0.	0.	0.	39376.	0.	0.	0.	0.	241156.
1950	0.	5460.	1282.	848.	1068.	5998.	9511.	0.	0.	0.	0.	0.	0.	0.	21013.	0.	0.	0.	0.	116566.
1951	0.	5732.	1755.	976.	1462.	8048.	12813.	0.	0.	0.	0.	0.	0.	0.	22624.	0.	0.	0.	0.	136002.
1952	0.	5714.	3934.	1036.	3277.	15465.	27505.	0.	0.	0.	0.	0.	0.	0.	80377.	0.	0.	0.	0.	252813.
1953	0.	6178.	999.	2993.	833.	4690.	7905.	0.	0.	0.	0.	0.	0.	0.	52969.	0.	0.	0.	0.	244935.
1954	0.	5527.	725.	795.	605.	3072.	4872.	0.	0.	0.	0.	0.	0.	0.	19066.	0.	0.	0.	0.	150773.
1955	0.	5460.	164.	24.	137.	909.	1382.	0.	0.	0.	0.	0.	0.	0.	15423.	0.	0.	0.	0.	110125.
1956	0.	5460.	199.	24.	166.	979.	1389.	0.	0.	0.	0.	0.	0.	0.	12318.	0.	0.	0.	0.	103035.
1957	0.	16290.	5787.	9214.	4822.	29897.	45470.	0.	0.	0.	0.	0.	0.	0.	136730.	0.	0.	0.	0.	538200.
1958	0.	32977.	9532.	14409.	7944.	41757.	65851.	0.	0.	0.	0.	0.	0.	0.	166721.	0.	0.	0.	0.	664245.
1959	0.	35341.	4732.	16338.	3944.	19959.	32052.	0.	0.	0.	0.	0.	0.	0.	60646.	0.	0.	0.	0.	378967.
1960	0.	33457.	6628.	15643.	5524.	27701.	44604.	0.	0.	0.	0.	0.	0.	0.	126836.	0.	0.	0.	0.	557139.
1961	0.	35006.	3659.	16417.	3050.	15086.	24599.	0.	0.	0.	0.	0.	0.	0.	60634.	0.	0.	0.	0.	276156.
1962	0.	28687.	1249.	16528.	1040.	5567.	8894.	0.	0.	0.	0.	0.	0.	0.	16344.	0.	0.	0.	0.	214670.
1963	0.	14580.	882.	10929.	738.	3944.	6274.	0.	0.	0.	0.	0.	0.	0.	10565.	0.	0.	0.	0.	163690.
1964	0.	9675.	2992.	3320.	2493.	14355.	23448.	0.	0.	0.	0.	0.	0.	0.	58124.	0.	0.	0.	0.	223995.
1965	0.	18070.	4248.	13283.	3539.	21627.	34098.	0.	0.	0.	0.	0.	0.	0.	89141.	0.	0.	0.	0.	440670.
1966	0.	10621.	2678.	10628.	2232.	11076.	18016.	0.	0.	0.	0.	0.	0.	0.	32577.	0.	0.	0.	0.	310614.

ENHANCED RECHARGE, PUMPAGE: 250,000 AF, 1988 USE, HYDRO=0 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1967	0.	7262.	2481.	5351.	2067.	11433.	18392.	0.	0.	0.	0.	0.	0.	0.	41128.	0.	0.	0.	0.	254817.
1968	0.	24048.	5216.	13108.	4347.	23106.	38147.	0.	0.	0.	0.	0.	0.	0.	125419.	0.	0.	0.	0.	460921.
1969	0.	19384.	4475.	13569.	3729.	19340.	31938.	0.	0.	0.	0.	0.	0.	0.	66461.	0.	0.	0.	0.	356016.
1970	0.	21689.	4679.	13502.	3899.	19878.	33008.	0.	0.	0.	0.	0.	0.	0.	92674.	0.	0.	0.	0.	394417.
1971	0.	19926.	3701.	10607.	3085.	15661.	24840.	0.	0.	0.	0.	0.	0.	0.	85028.	0.	0.	0.	0.	283094.
1972	0.	34881.	2182.	16165.	1820.	15974.	26496.	0.	0.	0.	0.	0.	0.	0.	77571.	0.	0.	0.	0.	351978.
1973	0.	35095.	10306.	16408.	8588.	47574.	78262.	0.	0.	0.	0.	0.	0.	0.	156413.	0.	0.	0.	0.	795462.
1974	0.	35495.	2514.	16212.	2094.	15658.	24748.	0.	0.	0.	0.	0.	0.	0.	84083.	0.	0.	0.	0.	403907.
1975	0.	35856.	6620.	16723.	5517.	29780.	49494.	0.	0.	0.	0.	0.	0.	0.	146402.	0.	0.	0.	0.	618384.
1976	0.	34153.	7252.	15594.	6041.	32077.	50184.	0.	0.	0.	0.	0.	0.	0.	136753.	0.	0.	0.	0.	648308.
1977	0.	35450.	5241.	16813.	4367.	25309.	39643.	0.	0.	0.	0.	0.	0.	0.	112877.	0.	0.	0.	0.	523641.
1978	0.	33568.	1880.	16768.	1568.	10393.	16819.	0.	0.	0.	0.	0.	0.	0.	33099.	0.	0.	0.	0.	271340.
1979	0.	35783.	7624.	16858.	6354.	34209.	53137.	0.	0.	0.	0.	0.	0.	0.	158652.	0.	0.	0.	0.	655909.
1980	0.	31298.	1373.	15913.	1146.	6791.	11285.	0.	0.	0.	0.	0.	0.	0.	31734.	0.	0.	0.	0.	233591.
1981	0.	34226.	7299.	15754.	6083.	22844.	50661.	0.	0.	0.	0.	0.	0.	0.	122575.	0.	0.	0.	0.	592608.
1982	0.	34802.	1612.	16627.	1344.	9497.	14455.	0.	0.	0.	0.	0.	0.	0.	39522.	0.	0.	0.	0.	260331.
1983	0.	28887.	1505.	15859.	1254.	7531.	12454.	0.	0.	0.	0.	0.	0.	0.	33028.	0.	0.	0.	0.	252073.
1984	0.	17643.	1765.	14345.	1471.	7919.	13271.	0.	0.	0.	0.	0.	0.	0.	27818.	0.	0.	0.	0.	200879.
1985	0.	19677.	3959.	12440.	3299.	22051.	34521.	0.	0.	0.	0.	0.	0.	0.	85697.	0.	0.	0.	0.	490062.
1986	0.	21439.	9088.	12729.	7573.	40378.	69920.	0.	0.	0.	0.	0.	0.	0.	155554.	0.	0.	0.	0.	650280.
1987	0.	35060.	7467.	15738.	6224.	41289.	69340.	0.	0.	0.	0.	0.	0.	0.	134735.	0.	0.	0.	0.	637400.
1988	0.	32872.	1426.	16220.	1186.	6762.	11295.	0.	0.	0.	0.	0.	0.	0.	20791.	0.	0.	0.	0.	237777.
1989	0.	26058.	840.	15775.	698.	3772.	6268.	0.	0.	0.	0.	0.	0.	0.	13383.	0.	0.	0.	0.	215491.
AVERAGE																				
1934-89	0.	23078.	3850.	12114.	3208.	17642.	28675.	0.	0.	0.	0.	0.	0.	0.	73897.	0.	0.	0.	0.	372884.
1947-56	0.	6901.	1572.	2586.	1310.	6868.	11320.	0.	0.	0.	0.	0.	0.	0.	32992.	0.	0.	0.	0.	179462.
1953-56	0.	5656.	522.	959.	435.	2413.	3887.	0.	0.	0.	0.	0.	0.	0.	24944.	0.	0.	0.	0.	152217.

ENHANCED RECHARGE, PUMPAGE: 400,000 AF, 1988 USE, HYDRO=0 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1934	0.	0.	0.	32323.	40541.	0.	47609.	0.	64618.	0.	0.	0.	0.	0.	0.	0.	616.	0.	35100.
1935	0.	0.	0.	6470.	39932.	0.	30621.	0.	50483.	0.	0.	0.	0.	0.	0.	0.	3175.	0.	66602.
1936	0.	0.	0.	37170.	45856.	0.	31232.	0.	58026.	0.	0.	0.	0.	0.	0.	0.	3062.	0.	76274.
1937	0.	0.	0.	12261.	37669.	0.	23079.	0.	57344.	0.	0.	0.	0.	0.	0.	0.	1504.	0.	43291.
1938	0.	0.	0.	31033.	82944.	0.	53198.	0.	66359.	0.	0.	0.	0.	0.	0.	0.	2629.	0.	65695.
1939	0.	0.	0.	19268.	4020.	0.	4005.	0.	34512.	0.	0.	0.	0.	0.	0.	0.	409.	0.	9634.
1940	0.	0.	0.	26689.	23427.	0.	28278.	0.	37694.	0.	0.	0.	0.	0.	0.	0.	1243.	0.	22888.
1941	0.	0.	0.	21539.	106080.	0.	96773.	0.	79495.	0.	0.	0.	0.	0.	0.	0.	4345.	0.	89730.
1942	0.	0.	0.	27159.	82522.	0.	61272.	0.	70976.	0.	0.	0.	0.	0.	0.	0.	2793.	0.	70341.
1943	0.	0.	0.	12022.	36149.	0.	16267.	0.	55956.	0.	0.	0.	0.	0.	0.	0.	1247.	0.	36516.
1944	0.	0.	0.	5574.	67347.	0.	63543.	0.	69572.	0.	0.	0.	0.	0.	0.	0.	3227.	0.	83348.
1945	0.	0.	0.	16971.	78706.	0.	51264.	0.	65651.	0.	0.	0.	0.	0.	0.	0.	3217.	0.	58045.
1946	0.	0.	0.	22941.	105231.	0.	67000.	0.	70976.	0.	0.	0.	0.	0.	0.	0.	2957.	0.	100316.
1947	0.	0.	0.	16725.	41270.	0.	41663.	0.	63637.	0.	0.	0.	0.	0.	0.	0.	1065.	0.	25027.
1948	0.	0.	0.	21507.	14249.	0.	11507.	0.	35470.	0.	0.	0.	0.	0.	0.	0.	961.	0.	15618.
1949	0.	0.	0.	10970.	34831.	0.	15165.	0.	48350.	0.	0.	0.	0.	0.	0.	0.	1528.	0.	35817.
1950	0.	0.	0.	9540.	8193.	0.	10368.	0.	25142.	0.	0.	0.	0.	0.	0.	0.	685.	0.	17458.
1951	0.	0.	0.	16633.	13864.	0.	20592.	0.	18887.	0.	0.	0.	0.	0.	0.	0.	937.	0.	10245.
1952	0.	0.	0.	9842.	22349.	0.	23139.	0.	39595.	0.	0.	0.	0.	0.	0.	0.	2100.	0.	18396.
1953	0.	0.	0.	17827.	35918.	0.	34550.	0.	61505.	0.	0.	0.	0.	0.	0.	0.	533.	0.	18040.
1954	0.	0.	0.	18378.	15791.	0.	12442.	0.	50307.	0.	0.	0.	0.	0.	0.	0.	388.	0.	18674.
1955	0.	0.	0.	27389.	12677.	0.	18361.	0.	20914.	0.	0.	0.	0.	0.	0.	0.	87.	0.	6981.
1956	0.	0.	0.	27156.	18796.	0.	11657.	0.	12533.	0.	0.	0.	0.	0.	0.	0.	106.	0.	12326.
1957	0.	0.	0.	7977.	72867.	0.	58219.	0.	75668.	0.	0.	0.	0.	0.	0.	0.	3091.	0.	72324.
1958	0.	0.	0.	6626.	87845.	0.	61096.	0.	65631.	0.	0.	0.	0.	0.	0.	0.	5092.	0.	98764.
1959	0.	0.	0.	7647.	42618.	0.	55025.	0.	73016.	0.	0.	0.	0.	0.	0.	0.	2527.	0.	25122.
1960	0.	0.	0.	10639.	67579.	0.	70286.	0.	86756.	0.	0.	0.	0.	0.	0.	0.	3540.	0.	57946.
1961	0.	0.	0.	5734.	25786.	0.	15500.	0.	48728.	0.	0.	0.	0.	0.	0.	0.	1954.	0.	20003.
1962	0.	0.	0.	12353.	22858.	0.	21593.	0.	55495.	0.	0.	0.	0.	0.	0.	0.	667.	0.	23379.
1963	0.	0.	0.	8237.	23554.	0.	17610.	0.	48240.	0.	0.	0.	0.	0.	0.	0.	471.	0.	17056.
1964	0.	0.	0.	5108.	27800.	0.	20450.	0.	29277.	0.	0.	0.	0.	0.	0.	0.	1598.	0.	25349.
1965	0.	0.	0.	0.	70430.	0.	58624.	0.	69617.	0.	0.	0.	0.	0.	0.	0.	2268.	0.	55725.
1966	0.	0.	0.	4470.	55400.	0.	43167.	0.	69295.	0.	0.	0.	0.	0.	0.	0.	1432.	0.	49022.

ENHANCED RECHARGE, PUMPAGE: 400,000 AF, 1988 USE, HYDRO=0 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1967	0.	0.	0.	11689.	42492.	0.	17765.	0.	54009.	0.	0.	0.	0.	0.	0.	0.	1325.	0.	39318.
1968	0.	0.	0.	437.	64557.	0.	44599.	0.	58679.	0.	0.	0.	0.	0.	0.	0.	2785.	0.	56473.
1969	0.	0.	0.	7579.	45311.	0.	39903.	0.	63575.	0.	0.	0.	0.	0.	0.	0.	2390.	0.	38362.
1970	0.	0.	0.	8991.	56684.	0.	49072.	0.	51235.	0.	0.	0.	0.	0.	0.	0.	2498.	0.	36608.
1971	0.	0.	0.	1899.	20556.	0.	20333.	0.	52733.	0.	0.	0.	0.	0.	0.	0.	1977.	0.	22741.
1972	0.	0.	0.	639.	51002.	0.	28238.	0.	60779.	0.	0.	0.	0.	0.	0.	0.	1165.	0.	35066.
1973	0.	0.	0.	7480.	130154.	0.	89659.	0.	79888.	0.	0.	0.	0.	0.	0.	0.	5502.	0.	130133.
1974	0.	0.	0.	11462.	58809.	0.	53336.	0.	64995.	0.	0.	0.	0.	0.	0.	0.	1343.	0.	33158.
1975	0.	0.	0.	2811.	74572.	0.	96599.	0.	89953.	0.	0.	0.	0.	0.	0.	0.	3536.	0.	60521.
1976	0.	0.	0.	9273.	100969.	0.	70209.	0.	76941.	0.	0.	0.	0.	0.	0.	0.	3872.	0.	104990.
1977	0.	0.	0.	0.	73839.	0.	58515.	0.	73098.	0.	0.	0.	0.	0.	0.	0.	2799.	0.	75690.
1978	0.	0.	0.	5179.	39780.	0.	21031.	0.	59081.	0.	0.	0.	0.	0.	0.	0.	1001.	0.	31173.
1979	0.	0.	0.	2385.	93908.	0.	71949.	0.	76482.	0.	0.	0.	0.	0.	0.	0.	4071.	0.	94497.
1980	0.	0.	0.	3074.	33812.	0.	19151.	0.	57479.	0.	0.	0.	0.	0.	0.	0.	733.	0.	19802.
1981	0.	0.	0.	746.	84805.	0.	101375.	0.	75119.	0.	0.	0.	0.	0.	0.	0.	3897.	0.	67224.
1982	0.	0.	0.	5192.	26943.	0.	20368.	0.	57397.	0.	0.	0.	0.	0.	0.	0.	863.	0.	31709.
1983	0.	0.	0.	3638.	30353.	0.	35559.	0.	63548.	0.	0.	0.	0.	0.	0.	0.	804.	0.	17653.
1984	0.	0.	0.	1830.	11464.	0.	15085.	0.	58405.	0.	0.	0.	0.	0.	0.	0.	941.	0.	28909.
1985	0.	0.	0.	691.	74921.	0.	75247.	0.	71711.	0.	0.	0.	0.	0.	0.	0.	2113.	0.	83735.
1986	0.	0.	0.	10783.	93381.	0.	60930.	0.	69391.	0.	0.	0.	0.	0.	0.	0.	4851.	0.	94263.
1987	0.	0.	0.	8368.	89434.	0.	81570.	0.	64619.	0.	0.	0.	0.	0.	0.	0.	3986.	0.	79570.
1988	0.	0.	0.	3348.	27686.	0.	23669.	0.	61286.	0.	0.	0.	0.	0.	0.	0.	761.	0.	30475.
1989	0.	0.	0.	6635.	23883.	0.	25176.	0.	62281.	0.	0.	0.	0.	0.	0.	0.	447.	0.	30179.
AVERAGE																			
1934-89	0.	0.	0.	11255.	50257.	0.	41330.	0.	58614.	0.	0.	0.	0.	0.	0.	0.	2056.	0.	46845.
1947-56	0.	0.	0.	17597.	21794.	0.	19944.	0.	37634.	0.	0.	0.	0.	0.	0.	0.	839.	0.	17858.
1953-56	0.	0.	0.	22688.	20796.	0.	19253.	0.	36315.	0.	0.	0.	0.	0.	0.	0.	279.	0.	14005.

ENHANCED RECHARGE, PUMPAGE: 400,000 AF, 1988 USE, HYDRO=0 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1934	0.	32407.	1150.	16896.	961.	5600.	8803.	0.	0.	0.	0.	0.	0.	0.	17970.	0.	0.	0.	0.	304594.
1935	0.	30572.	5948.	15261.	4958.	27080.	44892.	0.	0.	0.	0.	0.	0.	0.	108466.	0.	0.	0.	0.	434460.
1936	0.	35164.	5733.	16323.	4776.	26862.	41534.	0.	0.	0.	0.	0.	0.	0.	108068.	0.	0.	0.	0.	490080.
1937	0.	35002.	2815.	16789.	2346.	13724.	21350.	0.	0.	0.	0.	0.	0.	0.	54038.	0.	0.	0.	0.	321212.
1938	0.	31365.	4924.	16055.	4104.	20967.	33754.	0.	0.	0.	0.	0.	0.	0.	87508.	0.	0.	0.	0.	500535.
1939	0.	21593.	764.	15030.	637.	3642.	5725.	0.	0.	0.	0.	0.	0.	0.	11302.	0.	0.	0.	0.	130541.
1940	0.	9817.	2330.	8880.	1941.	12623.	19227.	0.	0.	0.	0.	0.	0.	0.	53104.	0.	0.	0.	0.	248141.
1941	0.	27057.	8137.	12750.	6781.	34691.	55226.	0.	0.	0.	0.	0.	0.	0.	142120.	0.	0.	0.	0.	684724.
1942	0.	29562.	5234.	15170.	4361.	25128.	38841.	0.	0.	0.	0.	0.	0.	0.	86426.	0.	0.	0.	0.	519785.
1943	0.	24983.	2337.	15111.	1948.	9951.	16066.	0.	0.	0.	0.	0.	0.	0.	42822.	0.	0.	0.	0.	271375.
1944	0.	20553.	6043.	13080.	5035.	24955.	40833.	0.	0.	0.	0.	0.	0.	0.	113974.	0.	0.	0.	0.	517084.
1945	0.	21984.	6027.	13448.	5022.	26532.	41904.	0.	0.	0.	0.	0.	0.	0.	113846.	0.	0.	0.	0.	502617.
1946	0.	14024.	5538.	11939.	4614.	27322.	42570.	0.	0.	0.	0.	0.	0.	0.	128947.	0.	0.	0.	0.	604375.
1947	0.	14730.	1995.	12094.	1664.	8657.	13945.	0.	0.	0.	0.	0.	0.	0.	48057.	0.	0.	0.	0.	290529.
1948	0.	5460.	1805.	657.	1504.	7701.	12865.	0.	0.	0.	0.	0.	0.	0.	18694.	0.	0.	0.	0.	147998.
1949	0.	9290.	2860.	6413.	2384.	13162.	21010.	0.	0.	0.	0.	0.	0.	0.	39376.	0.	0.	0.	0.	241156.
1950	0.	5460.	1282.	848.	1068.	5998.	9511.	0.	0.	0.	0.	0.	0.	0.	21013.	0.	0.	0.	0.	116566.
1951	0.	5732.	1755.	976.	1462.	8048.	12813.	0.	0.	0.	0.	0.	0.	0.	22624.	0.	0.	0.	0.	134568.
1952	0.	5714.	3934.	1036.	3277.	15465.	27505.	0.	0.	0.	0.	0.	0.	0.	80377.	0.	0.	0.	0.	252729.
1953	0.	6178.	999.	2993.	833.	4690.	7905.	0.	0.	0.	0.	0.	0.	0.	52969.	0.	0.	0.	0.	244940.
1954	0.	5527.	725.	795.	605.	3072.	4872.	0.	0.	0.	0.	0.	0.	0.	19066.	0.	0.	0.	0.	150642.
1955	0.	5460.	164.	24.	137.	909.	1382.	0.	0.	0.	0.	0.	0.	0.	15423.	0.	0.	0.	0.	109908.
1956	0.	5460.	199.	24.	166.	979.	1389.	0.	0.	0.	0.	0.	0.	0.	12318.	0.	0.	0.	0.	103109.
1957	0.	16290.	5787.	9214.	4822.	29897.	45470.	0.	0.	0.	0.	0.	0.	0.	136730.	0.	0.	0.	0.	538356.
1958	0.	32977.	9532.	14409.	7944.	41757.	65851.	0.	0.	0.	0.	0.	0.	0.	166721.	0.	0.	0.	0.	664245.
1959	0.	35341.	4732.	16338.	3944.	19959.	32052.	0.	0.	0.	0.	0.	0.	0.	60646.	0.	0.	0.	0.	378967.
1960	0.	33457.	6628.	15643.	5524.	27701.	44604.	0.	0.	0.	0.	0.	0.	0.	126836.	0.	0.	0.	0.	557139.
1961	0.	35006.	3659.	16417.	3050.	15086.	24599.	0.	0.	0.	0.	0.	0.	0.	60634.	0.	0.	0.	0.	276156.
1962	0.	28687.	1249.	16528.	1040.	5567.	8894.	0.	0.	0.	0.	0.	0.	0.	16344.	0.	0.	0.	0.	214654.
1963	0.	14580.	882.	10929.	738.	3944.	6274.	0.	0.	0.	0.	0.	0.	0.	10565.	0.	0.	0.	0.	163080.
1964	0.	9675.	2992.	3320.	2493.	14355.	23448.	0.	0.	0.	0.	0.	0.	0.	58124.	0.	0.	0.	0.	223989.
1965	0.	18070.	4248.	13283.	3539.	21627.	34098.	0.	0.	0.	0.	0.	0.	0.	89141.	0.	0.	0.	0.	440670.
1966	0.	10621.	2678.	10628.	2232.	11076.	18016.	0.	0.	0.	0.	0.	0.	0.	32577.	0.	0.	0.	0.	310614.

ENHANCED RECHARGE, PUMPAGE: 400,000 AF, 1988 USE, HYDRO=0 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1967	0.	7262.	2481.	5351.	2067.	11433.	18392.	0.	0.	0.	0.	0.	0.	0.	41128.	0.	0.	0.	0.	254712.
1968	0.	24048.	5216.	13108.	4347.	23106.	38147.	0.	0.	0.	0.	0.	0.	0.	125419.	0.	0.	0.	0.	460921.
1969	0.	19384.	4475.	13569.	3729.	19340.	31938.	0.	0.	0.	0.	0.	0.	0.	66461.	0.	0.	0.	0.	356016.
1970	0.	21689.	4679.	13502.	3899.	19878.	33008.	0.	0.	0.	0.	0.	0.	0.	92674.	0.	0.	0.	0.	394417.
1971	0.	19926.	3701.	10607.	3085.	15661.	24840.	0.	0.	0.	0.	0.	0.	0.	85028.	0.	0.	0.	0.	283087.
1972	0.	34881.	2182.	16165.	1820.	15974.	26496.	0.	0.	0.	0.	0.	0.	0.	77571.	0.	0.	0.	0.	351978.
1973	0.	35095.	10306.	16408.	8588.	47574.	78262.	0.	0.	0.	0.	0.	0.	0.	156413.	0.	0.	0.	0.	795462.
1974	0.	35495.	2514.	16212.	2094.	15658.	24748.	0.	0.	0.	0.	0.	0.	0.	84083.	0.	0.	0.	0.	403907.
1975	0.	35856.	6620.	16723.	5517.	29780.	49494.	0.	0.	0.	0.	0.	0.	0.	146402.	0.	0.	0.	0.	618384.
1976	0.	34153.	7252.	15594.	6041.	32077.	50184.	0.	0.	0.	0.	0.	0.	0.	136753.	0.	0.	0.	0.	648308.
1977	0.	35450.	5241.	16813.	4367.	25309.	39643.	0.	0.	0.	0.	0.	0.	0.	112877.	0.	0.	0.	0.	523641.
1978	0.	33568.	1880.	16768.	1568.	10393.	16819.	0.	0.	0.	0.	0.	0.	0.	33099.	0.	0.	0.	0.	271340.
1979	0.	35783.	7624.	16858.	6354.	34209.	53137.	0.	0.	0.	0.	0.	0.	0.	158652.	0.	0.	0.	0.	655909.
1980	0.	31298.	1373.	15913.	1146.	6791.	11285.	0.	0.	0.	0.	0.	0.	0.	31734.	0.	0.	0.	0.	233591.
1981	0.	34226.	7299.	15754.	6083.	22844.	50661.	0.	0.	0.	0.	0.	0.	0.	122575.	0.	0.	0.	0.	592608.
1982	0.	34802.	1612.	16627.	1344.	9497.	14455.	0.	0.	0.	0.	0.	0.	0.	39522.	0.	0.	0.	0.	260331.
1983	0.	28887.	1505.	15859.	1254.	7531.	12454.	0.	0.	0.	0.	0.	0.	0.	33028.	0.	0.	0.	0.	252073.
1984	0.	17643.	1765.	14345.	1471.	7919.	13271.	0.	0.	0.	0.	0.	0.	0.	27818.	0.	0.	0.	0.	200866.
1985	0.	19677.	3959.	12440.	3299.	22051.	34521.	0.	0.	0.	0.	0.	0.	0.	85697.	0.	0.	0.	0.	490062.
1986	0.	21439.	9088.	12729.	7573.	40378.	69920.	0.	0.	0.	0.	0.	0.	0.	155554.	0.	0.	0.	0.	650280.
1987	0.	35060.	7467.	15738.	6224.	41289.	69340.	0.	0.	0.	0.	0.	0.	0.	134735.	0.	0.	0.	0.	637400.
1988	0.	32872.	1426.	16220.	1186.	6762.	11295.	0.	0.	0.	0.	0.	0.	0.	20791.	0.	0.	0.	0.	237777.
1989	0.	26058.	840.	15775.	698.	3772.	6268.	0.	0.	0.	0.	0.	0.	0.	13383.	0.	0.	0.	0.	215395.
AVERAGE																				
1934-89	0.	23078.	3850.	12114.	3208.	17642.	28675.	0.	0.	0.	0.	0.	0.	0.	73897.	0.	0.	0.	0.	372822.
1947-56	0.	6901.	1572.	2586.	1310.	6868.	11320.	0.	0.	0.	0.	0.	0.	0.	32992.	0.	0.	0.	0.	179215.
1953-56	0.	5656.	522.	959.	435.	2413.	3887.	0.	0.	0.	0.	0.	0.	0.	24944.	0.	0.	0.	0.	152150.

ENHANCED RECHARGE, PUMPAGE: 450,000 AF, 1988 USE, HYDRO=0 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1934	0.	0.	0.	32323.	40541.	0.	47609.	0.	64618.	0.	0.	0.	0.	0.	0.	0.	616.	0.	35100.
1935	0.	0.	0.	6470.	39932.	0.	30621.	0.	50483.	0.	0.	0.	0.	0.	0.	0.	3175.	0.	66602.
1936	0.	0.	0.	37170.	45856.	0.	31232.	0.	58026.	0.	0.	0.	0.	0.	0.	0.	3062.	0.	76274.
1937	0.	0.	0.	12261.	37669.	0.	23079.	0.	57344.	0.	0.	0.	0.	0.	0.	0.	1504.	0.	43291.
1938	0.	0.	0.	31033.	82944.	0.	53198.	0.	66359.	0.	0.	0.	0.	0.	0.	0.	2629.	0.	65695.
1939	0.	0.	0.	19268.	4020.	0.	4005.	0.	34512.	0.	0.	0.	0.	0.	0.	0.	409.	0.	9634.
1940	0.	0.	0.	26689.	23427.	0.	28278.	0.	37694.	0.	0.	0.	0.	0.	0.	0.	1243.	0.	22888.
1941	0.	0.	0.	21539.	106080.	0.	96773.	0.	79495.	0.	0.	0.	0.	0.	0.	0.	4345.	0.	89730.
1942	0.	0.	0.	27159.	82522.	0.	61272.	0.	70976.	0.	0.	0.	0.	0.	0.	0.	2793.	0.	70341.
1943	0.	0.	0.	12022.	36149.	0.	16267.	0.	55956.	0.	0.	0.	0.	0.	0.	0.	1247.	0.	36516.
1944	0.	0.	0.	5574.	67347.	0.	63543.	0.	69572.	0.	0.	0.	0.	0.	0.	0.	3227.	0.	83348.
1945	0.	0.	0.	16971.	78706.	0.	51264.	0.	65651.	0.	0.	0.	0.	0.	0.	0.	3217.	0.	58045.
1946	0.	0.	0.	22941.	105231.	0.	67000.	0.	70976.	0.	0.	0.	0.	0.	0.	0.	2957.	0.	100316.
1947	0.	0.	0.	16725.	41270.	0.	41663.	0.	63637.	0.	0.	0.	0.	0.	0.	0.	1065.	0.	25027.
1948	0.	0.	0.	21507.	14249.	0.	11507.	0.	35449.	0.	0.	0.	0.	0.	0.	0.	961.	0.	15618.
1949	0.	0.	0.	10970.	34831.	0.	15165.	0.	48350.	0.	0.	0.	0.	0.	0.	0.	1528.	0.	35817.
1950	0.	0.	0.	9540.	8193.	0.	10368.	0.	25142.	0.	0.	0.	0.	0.	0.	0.	685.	0.	17458.
1951	0.	0.	0.	16633.	13864.	0.	20592.	0.	18887.	0.	0.	0.	0.	0.	0.	0.	937.	0.	10245.
1952	0.	0.	0.	9842.	22433.	0.	23139.	0.	39453.	0.	0.	0.	0.	0.	0.	0.	2100.	0.	18396.
1953	0.	0.	0.	17827.	35956.	0.	34550.	0.	61505.	0.	0.	0.	0.	0.	0.	0.	533.	0.	18040.
1954	0.	0.	0.	18378.	15791.	0.	12442.	0.	50307.	0.	0.	0.	0.	0.	0.	0.	388.	0.	18674.
1955	0.	0.	0.	27389.	12677.	0.	18361.	0.	20914.	0.	0.	0.	0.	0.	0.	0.	87.	0.	6981.
1956	0.	0.	0.	27156.	18796.	0.	11657.	0.	12533.	0.	0.	0.	0.	0.	0.	0.	106.	0.	12326.
1957	0.	0.	0.	7977.	72867.	0.	58219.	0.	75668.	0.	0.	0.	0.	0.	0.	0.	3091.	0.	72324.
1958	0.	0.	0.	6626.	87845.	0.	61096.	0.	65631.	0.	0.	0.	0.	0.	0.	0.	5092.	0.	98764.
1959	0.	0.	0.	7647.	42618.	0.	55025.	0.	73016.	0.	0.	0.	0.	0.	0.	0.	2527.	0.	25122.
1960	0.	0.	0.	10639.	67579.	0.	70286.	0.	86756.	0.	0.	0.	0.	0.	0.	0.	3540.	0.	57946.
1961	0.	0.	0.	5734.	25786.	0.	15500.	0.	48728.	0.	0.	0.	0.	0.	0.	0.	1954.	0.	20003.
1962	0.	0.	0.	12353.	22858.	0.	21593.	0.	55495.	0.	0.	0.	0.	0.	0.	0.	667.	0.	23379.
1963	0.	0.	0.	8237.	23554.	0.	17610.	0.	47781.	0.	0.	0.	0.	0.	0.	0.	471.	0.	17056.
1964	0.	0.	0.	5108.	27800.	0.	20450.	0.	29277.	0.	0.	0.	0.	0.	0.	0.	1598.	0.	25349.
1965	0.	0.	0.	0.	70430.	0.	58624.	0.	69617.	0.	0.	0.	0.	0.	0.	0.	2268.	0.	55725.
1966	0.	0.	0.	4470.	55400.	0.	43167.	0.	69295.	0.	0.	0.	0.	0.	0.	0.	1432.	0.	49022.

ENHANCED RECHARGE, PUMPAGE: 450,000 AF, 1988 USE, HYDRO=0 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12	CP13	CP14	CP15	CP16	CP17	CP18	CP19
1967	0.	0.	0.	11689.	42588.	0.	17765.	0.	54009.	0.	0.	0.	0.	0.	0.	0.	1325.	0.	39318.
1968	0.	0.	0.	437.	64557.	0.	44599.	0.	58679.	0.	0.	0.	0.	0.	0.	0.	2785.	0.	56473.
1969	0.	0.	0.	7579.	45311.	0.	39903.	0.	63575.	0.	0.	0.	0.	0.	0.	0.	2390.	0.	38362.
1970	0.	0.	0.	8991.	56684.	0.	49072.	0.	51235.	0.	0.	0.	0.	0.	0.	0.	2498.	0.	36608.
1971	0.	0.	0.	1899.	20556.	0.	20333.	0.	52733.	0.	0.	0.	0.	0.	0.	0.	1977.	0.	22741.
1972	0.	0.	0.	639.	51002.	0.	28238.	0.	60779.	0.	0.	0.	0.	0.	0.	0.	1165.	0.	35066.
1973	0.	0.	0.	7480.	130154.	0.	89659.	0.	79888.	0.	0.	0.	0.	0.	0.	0.	5502.	0.	130133.
1974	0.	0.	0.	11462.	58809.	0.	53336.	0.	64995.	0.	0.	0.	0.	0.	0.	0.	1343.	0.	33158.
1975	0.	0.	0.	2811.	74572.	0.	96599.	0.	89953.	0.	0.	0.	0.	0.	0.	0.	3536.	0.	60521.
1976	0.	0.	0.	9273.	100969.	0.	70209.	0.	76941.	0.	0.	0.	0.	0.	0.	0.	3872.	0.	104990.
1977	0.	0.	0.	0.	73839.	0.	58515.	0.	73098.	0.	0.	0.	0.	0.	0.	0.	2799.	0.	75690.
1978	0.	0.	0.	5179.	39780.	0.	21031.	0.	59081.	0.	0.	0.	0.	0.	0.	0.	1001.	0.	31173.
1979	0.	0.	0.	2385.	93908.	0.	71949.	0.	76482.	0.	0.	0.	0.	0.	0.	0.	4071.	0.	94497.
1980	0.	0.	0.	3074.	33812.	0.	19151.	0.	57479.	0.	0.	0.	0.	0.	0.	0.	733.	0.	19802.
1981	0.	0.	0.	746.	84805.	0.	101375.	0.	75119.	0.	0.	0.	0.	0.	0.	0.	3897.	0.	67224.
1982	0.	0.	0.	5192.	26943.	0.	20368.	0.	57397.	0.	0.	0.	0.	0.	0.	0.	863.	0.	31709.
1983	0.	0.	0.	3638.	30353.	0.	35559.	0.	63548.	0.	0.	0.	0.	0.	0.	0.	804.	0.	17653.
1984	0.	0.	0.	1830.	11498.	0.	15085.	0.	58405.	0.	0.	0.	0.	0.	0.	0.	941.	0.	28909.
1985	0.	0.	0.	691.	74921.	0.	75247.	0.	71711.	0.	0.	0.	0.	0.	0.	0.	2113.	0.	83735.
1986	0.	0.	0.	10783.	93381.	0.	60930.	0.	69391.	0.	0.	0.	0.	0.	0.	0.	4851.	0.	94263.
1987	0.	0.	0.	8368.	89434.	0.	81570.	0.	64619.	0.	0.	0.	0.	0.	0.	0.	3986.	0.	79570.
1988	0.	0.	0.	3348.	27686.	0.	23669.	0.	61286.	0.	0.	0.	0.	0.	0.	0.	761.	0.	30475.
1989	0.	0.	0.	6635.	23873.	0.	25176.	0.	62281.	0.	0.	0.	0.	0.	0.	0.	447.	0.	30179.
AVERAGE																			
1934-89	0.	0.	0.	11255.	50262.	0.	41330.	0.	58603.	0.	0.	0.	0.	0.	0.	0.	2056.	0.	46845.
1947-56	0.	0.	0.	17597.	21806.	0.	19944.	0.	37618.	0.	0.	0.	0.	0.	0.	0.	839.	0.	17858.
1953-56	0.	0.	0.	22688.	20805.	0.	19253.	0.	36315.	0.	0.	0.	0.	0.	0.	0.	279.	0.	14005.

ENHANCED RECHARGE, PUMPAGE: 450,000 AF, 1988 USE, HYDRO=0 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1934	0.	32407.	1150.	16896.	961.	5600.	8803.	0.	0.	0.	0.	0.	0.	0.	17970.	0.	0.	0.	0.	304594.
1935	0.	30572.	5948.	15261.	4958.	27080.	44892.	0.	0.	0.	0.	0.	0.	0.	108466.	0.	0.	0.	0.	434460.
1936	0.	35164.	5733.	16323.	4776.	26862.	41534.	0.	0.	0.	0.	0.	0.	0.	108068.	0.	0.	0.	0.	490080.
1937	0.	35002.	2815.	16789.	2346.	13724.	21350.	0.	0.	0.	0.	0.	0.	0.	54038.	0.	0.	0.	0.	321212.
1938	0.	31365.	4924.	16055.	4104.	20967.	33754.	0.	0.	0.	0.	0.	0.	0.	87508.	0.	0.	0.	0.	500535.
1939	0.	21593.	764.	15030.	637.	3642.	5725.	0.	0.	0.	0.	0.	0.	0.	11302.	0.	0.	0.	0.	130541.
1940	0.	9817.	2330.	8880.	1941.	12623.	19227.	0.	0.	0.	0.	0.	0.	0.	53104.	0.	0.	0.	0.	248141.
1941	0.	27057.	8137.	12750.	6781.	34691.	55226.	0.	0.	0.	0.	0.	0.	0.	142120.	0.	0.	0.	0.	684724.
1942	0.	29562.	5234.	15170.	4361.	25128.	38841.	0.	0.	0.	0.	0.	0.	0.	86426.	0.	0.	0.	0.	519785.
1943	0.	24983.	2337.	15111.	1948.	9951.	16066.	0.	0.	0.	0.	0.	0.	0.	42822.	0.	0.	0.	0.	271375.
1944	0.	20553.	6043.	13080.	5035.	24955.	40833.	0.	0.	0.	0.	0.	0.	0.	113974.	0.	0.	0.	0.	517084.
1945	0.	21984.	6027.	13448.	5022.	26532.	41904.	0.	0.	0.	0.	0.	0.	0.	113846.	0.	0.	0.	0.	502617.
1946	0.	14024.	5538.	11939.	4614.	27322.	42570.	0.	0.	0.	0.	0.	0.	0.	128947.	0.	0.	0.	0.	604375.
1947	0.	14730.	1995.	12094.	1664.	8657.	13945.	0.	0.	0.	0.	0.	0.	0.	48057.	0.	0.	0.	0.	290529.
1948	0.	5460.	1805.	657.	1504.	7701.	12865.	0.	0.	0.	0.	0.	0.	0.	18694.	0.	0.	0.	0.	147977.
1949	0.	9290.	2860.	6413.	2384.	13162.	21010.	0.	0.	0.	0.	0.	0.	0.	39376.	0.	0.	0.	0.	241156.
1950	0.	5460.	1282.	848.	1068.	5998.	9511.	0.	0.	0.	0.	0.	0.	0.	21013.	0.	0.	0.	0.	116566.
1951	0.	5732.	1755.	976.	1462.	8048.	12813.	0.	0.	0.	0.	0.	0.	0.	22624.	0.	0.	0.	0.	134568.
1952	0.	5714.	3934.	1036.	3277.	15465.	27505.	0.	0.	0.	0.	0.	0.	0.	80377.	0.	0.	0.	0.	252671.
1953	0.	6178.	999.	2993.	833.	4690.	7905.	0.	0.	0.	0.	0.	0.	0.	52969.	0.	0.	0.	0.	244978.
1954	0.	5527.	725.	795.	605.	3072.	4872.	0.	0.	0.	0.	0.	0.	0.	19066.	0.	0.	0.	0.	150642.
1955	0.	5460.	164.	24.	137.	909.	1382.	0.	0.	0.	0.	0.	0.	0.	15423.	0.	0.	0.	0.	109908.
1956	0.	5460.	199.	24.	166.	979.	1389.	0.	0.	0.	0.	0.	0.	0.	12318.	0.	0.	0.	0.	103109.
1957	0.	16290.	5787.	9214.	4822.	29897.	45470.	0.	0.	0.	0.	0.	0.	0.	136730.	0.	0.	0.	0.	538356.
1958	0.	32977.	9532.	14409.	7944.	41757.	65851.	0.	0.	0.	0.	0.	0.	0.	166721.	0.	0.	0.	0.	664245.
1959	0.	35341.	4732.	16338.	3944.	19959.	32052.	0.	0.	0.	0.	0.	0.	0.	60646.	0.	0.	0.	0.	378967.
1960	0.	33457.	6628.	15643.	5524.	27701.	44604.	0.	0.	0.	0.	0.	0.	0.	126836.	0.	0.	0.	0.	557139.
1961	0.	35006.	3659.	16417.	3050.	15086.	24599.	0.	0.	0.	0.	0.	0.	0.	60634.	0.	0.	0.	0.	276156.
1962	0.	28687.	1249.	16528.	1040.	5567.	8894.	0.	0.	0.	0.	0.	0.	0.	16344.	0.	0.	0.	0.	214654.
1963	0.	14580.	882.	10929.	738.	3944.	6274.	0.	0.	0.	0.	0.	0.	0.	10565.	0.	0.	0.	0.	162621.
1964	0.	9675.	2992.	3320.	2493.	14355.	23448.	0.	0.	0.	0.	0.	0.	0.	58124.	0.	0.	0.	0.	223989.
1965	0.	18070.	4248.	13283.	3539.	21627.	34098.	0.	0.	0.	0.	0.	0.	0.	89141.	0.	0.	0.	0.	440670.
1966	0.	10621.	2678.	10628.	2232.	11076.	18016.	0.	0.	0.	0.	0.	0.	0.	32577.	0.	0.	0.	0.	310614.

ENHANCED RECHARGE, PUMPAGE: 450,000 AF, 1988 USE, HYDRO=0 CFS
08/26/93

STRUCTURAL PROGRAM

YEAR	CP20	CP21	CP22	CP23	CP24	CP25	CP26	CP27	CP28	CP29	CP30	CP31	CP32	CP33	CP34	CP35	CP36	CP37	CP38	TOTAL
1967	0.	7262.	2481.	5351.	2067.	11419.	18392.	0.	0.	0.	0.	0.	0.	0.	41128.	0.	0.	0.	0.	254794.
1968	0.	24048.	5216.	13108.	4347.	23106.	38147.	0.	0.	0.	0.	0.	0.	0.	125419.	0.	0.	0.	0.	460921.
1969	0.	19384.	4475.	13569.	3729.	19340.	31938.	0.	0.	0.	0.	0.	0.	0.	66461.	0.	0.	0.	0.	356016.
1970	0.	21689.	4679.	13502.	3899.	19878.	33008.	0.	0.	0.	0.	0.	0.	0.	92674.	0.	0.	0.	0.	394417.
1971	0.	19926.	3701.	10607.	3085.	15661.	24840.	0.	0.	0.	0.	0.	0.	0.	85028.	0.	0.	0.	0.	283087.
1972	0.	34881.	2182.	16165.	1820.	15974.	26496.	0.	0.	0.	0.	0.	0.	0.	77571.	0.	0.	0.	0.	351978.
1973	0.	35095.	10306.	16408.	8588.	47574.	78262.	0.	0.	0.	0.	0.	0.	0.	156413.	0.	0.	0.	0.	795462.
1974	0.	35495.	2514.	16212.	2094.	15658.	24748.	0.	0.	0.	0.	0.	0.	0.	84083.	0.	0.	0.	0.	403907.
1975	0.	35856.	6620.	16723.	5517.	29780.	49494.	0.	0.	0.	0.	0.	0.	0.	146402.	0.	0.	0.	0.	618384.
1976	0.	34153.	7252.	15594.	6041.	32077.	50184.	0.	0.	0.	0.	0.	0.	0.	136753.	0.	0.	0.	0.	648308.
1977	0.	35450.	5241.	16813.	4367.	25309.	39643.	0.	0.	0.	0.	0.	0.	0.	112877.	0.	0.	0.	0.	523641.
1978	0.	33568.	1880.	16768.	1568.	10393.	16819.	0.	0.	0.	0.	0.	0.	0.	33099.	0.	0.	0.	0.	271340.
1979	0.	35783.	7624.	16858.	6354.	34209.	53137.	0.	0.	0.	0.	0.	0.	0.	158652.	0.	0.	0.	0.	655909.
1980	0.	31298.	1373.	15913.	1146.	6791.	11285.	0.	0.	0.	0.	0.	0.	0.	31734.	0.	0.	0.	0.	233591.
1981	0.	34226.	7299.	15754.	6083.	22844.	50661.	0.	0.	0.	0.	0.	0.	0.	122575.	0.	0.	0.	0.	592608.
1982	0.	34802.	1612.	16627.	1344.	9497.	14455.	0.	0.	0.	0.	0.	0.	0.	39522.	0.	0.	0.	0.	260331.
1983	0.	28887.	1505.	15859.	1254.	7531.	12454.	0.	0.	0.	0.	0.	0.	0.	33028.	0.	0.	0.	0.	252073.
1984	0.	17643.	1765.	14345.	1471.	7919.	13271.	0.	0.	0.	0.	0.	0.	0.	27818.	0.	0.	0.	0.	200900.
1985	0.	19677.	3959.	12440.	3299.	22051.	34521.	0.	0.	0.	0.	0.	0.	0.	85697.	0.	0.	0.	0.	490062.
1986	0.	21439.	9088.	12729.	7573.	40378.	69920.	0.	0.	0.	0.	0.	0.	0.	155554.	0.	0.	0.	0.	650280.
1987	0.	35060.	7467.	15738.	6224.	41289.	69340.	0.	0.	0.	0.	0.	0.	0.	134735.	0.	0.	0.	0.	637400.
1988	0.	32872.	1426.	16220.	1186.	6762.	11295.	0.	0.	0.	0.	0.	0.	0.	20791.	0.	0.	0.	0.	237777.
1989	0.	26058.	840.	15775.	698.	3772.	6268.	0.	0.	0.	0.	0.	0.	0.	13383.	0.	0.	0.	0.	215385.
AVERAGE																				
1934-89	0.	23078.	3850.	12114.	3208.	17642.	28675.	0.	0.	0.	0.	0.	0.	0.	73897.	0.	0.	0.	0.	372814.
1947-56	0.	6901.	1572.	2586.	1310.	6868.	11320.	0.	0.	0.	0.	0.	0.	0.	32992.	0.	0.	0.	0.	179210.
1953-56	0.	5656.	522.	959.	435.	2413.	3887.	0.	0.	0.	0.	0.	0.	0.	24944.	0.	0.	0.	0.	152159.

ANNUAL RECHARGE SUMMARY - ACFT/YR - PAGE 1 OF 2

ENHANCED RECHARGE, PUMPAGE: 450,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS

OPERATIONAL PROGRAM

YR	CP4	CP5	CP7	CP9	CP17	CP19	CP21	CP22	CP23	CP24	CP25	CP26	CP34	TOTAL
1934	32323	40541	47609	56375	616	35100	32088	1150	16896	961	5147	8657	17759	295222
1935	6470	41210	31740	54512	3175	67674	29668	5948	15089	4958	22250	35052	108126	425872
1936	37170	45908	31248	71554	3062	77431	34446	5733	15780	4776	26576	38107	106628	498419
1937	12261	38879	23210	70338	1504	43846	34800	2815	16773	2346	11679	18923	53658	331032
1938	31033	83980	53576	76915	2629	65695	30525	4924	15911	4104	17505	31422	87128	505347
1939	19268	4020	4005	68174	409	9634	18408	764	14416	637	3642	5446	10922	159745
1940	26689	24065	29960	75796	1243	23047	6234	2330	5269	1941	11956	18962	52749	280241
1941	21539	108079	98183	86575	4345	89902	26658	8137	12664	6781	26773	54269	141740	685645
1942	27159	84645	63997	83181	2793	71188	28515	5234	14963	4361	19078	38284	86046	529444
1943	12022	36149	16267	71138	1247	36516	22613	2337	14648	1948	9470	15397	42442	282194
1944	5574	67412	63768	78178	3227	83348	16667	6043	12207	5035	21573	39045	112905	514982
1945	16971	79992	51979	74843	3217	58045	18067	6027	12581	5022	19947	38947	113466	499104
1946	22941	107921	68658	81993	2957	101803	9932	5538	8736	4614	21745	40401	128567	605806
1947	16725	41463	41878	81469	1065	25027	13439	1995	10414	1664	8421	13646	47677	304883
1948	21507	14244	11507	72260	961	15618	5460	1805	24	1504	7819	12407	18314	183430
1949	10970	35395	15263	70687	1528	35817	8755	2860	5497	2384	10328	20276	38996	258756
1950	9540	8187	10636	71308	685	17458	5460	1282	433	1068	5312	8999	20633	161001
1951	16633	13864	20592	74008	937	10245	5698	1755	970	1462	8000	12164	22346	188674
1952	9842	25071	23285	46225	2100	18396	5684	3934	1030	3277	17093	25776	80011	261724
1953	17827	36246	35049	77973	533	18040	5990	999	2870	833	4492	6734	52725	260311
1954	18378	15791	12442	57804	388	18674	5460	725	570	605	3072	4686	18990	157585
1955	27389	12677	18361	17409	87	6981	5460	164	24	137	909	1332	15343	106273
1956	27113	18802	11657	11871	106	12326	5460	199	24	166	979	1358	12291	102352
1957	7977	79271	60713	74065	3091	74102	15804	5787	8775	4822	19250	44628	136465	534750
1958	6626	88764	61791	79511	5092	98781	32444	9532	14285	7944	31226	63167	166341	665504
1959	7647	42689	55186	88779	2527	25122	35098	4732	16291	3944	16455	32052	60266	390788
1960	10639	69562	73802	106087	3540	57946	32662	6628	15490	5524	26094	43203	126456	577633
1961	5734	26290	15814	69801	1954	20003	34379	3659	15585	3050	14441	23697	60254	294661
1962	12353	22857	21593	73601	667	23379	27197	1249	16327	1040	5470	8630	16109	230472
1963	8237	23545	17610	73925	471	17056	11857	882	8086	738	3944	5709	10408	182468
1964	5108	27796	20450	76253	1598	25611	9604	2992	3306	2493	14757	23066	57838	270872
1965	0	74388	61140	77950	2268	57207	16769	4248	13039	3539	15182	32905	88788	447423
1966	4470	55400	43167	82767	1432	49022	8529	2678	8178	2232	10448	17098	32197	317618

ANNUAL RECHARGE SUMMARY - ACFT/YR - PAGE 2 OF 2

OPERATIONAL PROGRAM

ENHANCED RECHARGE, PUMPAGE: 450,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS

YR	CP4	CP5	CP7	CP9	CP17	CP19	CP21	CP22	CP23	CP24	CP25	CP26	CP34	TOTAL
1967	11689	43211	17775	74537	1325	39318	6876	2481	4619	2067	11662	17130	40828	273518
1968	437	67824	46860	72356	2785	57888	23419	5216	12975	4347	19684	37791	125039	476621
1969	7579	45311	39903	76111	2390	38362	17027	4475	12434	3729	17776	31910	66081	363088
1970	8991	57580	50025	71637	2498	36608	19354	4679	13032	3899	18340	32119	92294	411056
1971	1899	20529	20333	72685	1977	22741	17695	3701	8146	3085	14708	24824	84709	297032
1972	639	57202	28386	74041	1165	37472	34438	2182	16089	1820	12713	26312	77191	369650
1973	7480	132857	90379	94777	5502	133647	34670	10306	16334	8588	42472	77326	156033	810371
1974	11462	60542	55767	80462	1343	33158	35254	2514	16162	2094	15658	24031	83703	422150
1975	2811	76430	100150	107772	3536	60521	35745	6620	16709	5517	29780	49403	146022	641016
1976	9273	102939	71477	93969	3872	105333	33701	7252	15511	6041	32077	50184	136373	668002
1977	0	75060	59458	93444	2799	76785	35294	5241	16620	4367	25309	39519	112497	546393
1978	5179	40812	21702	73476	1001	32288	33274	1880	16728	1568	10278	16390	32766	287342
1979	2385	94528	73494	90873	4071	95006	35699	7624	16822	6354	34209	53137	158272	672474
1980	3074	33790	19293	73152	733	19802	30665	1373	15808	1146	6791	11164	31380	248171
1981	746	86516	104900	86547	3897	67535	33789	7299	15668	6083	22844	50346	122195	608365
1982	5192	27976	21901	70771	863	32491	34529	1612	16580	1344	9497	14450	39142	276348
1983	3638	30354	35559	78595	804	17653	27793	1505	15653	1254	7531	12360	32648	265347
1984	1830	11552	15123	75011	941	28909	14585	1765	11057	1471	7919	13255	27464	210882
1985	691	77553	79341	83941	2113	85518	18617	3959	12110	3299	18859	32160	85354	503515
1986	10783	96715	63220	84632	4851	96063	19515	9088	12288	7573	34300	69586	155174	663788
1987	8368	92474	88727	87430	3986	82473	34623	7467	15654	6224	41289	69340	134355	672410
1988	3348	27830	23901	74304	761	30588	32365	1426	16132	1186	6762	11187	20411	250201
1989	6635	23873	27783	80483	447	30179	24380	840	15457	698	3772	6206	13064	233817
1934-89 AVG	11255	51403	42350	75077	2056	47328	22020	3850	11531	3208	15808	27760	73528	387175
1947-56 AVG	17592	22174	20067	58101	839	17858	6687	1572	2186	1310	6643	10738	32733	198499

APPENDIX K

Summaries of Water Potentially Available

SAN MARCOS RIVER BELOW THE BLANCO RIVER CONFLUENCE

AVAILABLE FLOW SUMMARY - ACFT: HISTORICAL RECHARGE, PUMPAGE: 250,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS													08/26/93
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	5500.	9544.	15517.	24812.	13561.	9480.	9236.	7567.	7251.	7408.	8354.	8402.	126632.
1935	7865.	8638.	7393.	7125.	37427.	55825.	15177.	9971.	14071.	11124.	10170.	10744.	195529.
1936	10315.	7885.	8762.	7013.	18844.	25652.	46416.	14722.	35562.	16645.	14278.	13469.	219563.
1937	16111.	13561.	22951.	14227.	10911.	13099.	10049.	6541.	6665.	11330.	6489.	11666.	143600.
1938	30882.	21861.	16691.	38239.	32728.	14629.	10880.	7914.	7202.	7149.	6313.	6342.	200831.
1939	6478.	5602.	6142.	6912.	5910.	5199.	4732.	0.	2663.	5671.	5524.	5762.	60594.
1940	5793.	5954.	6727.	8658.	5815.	11031.	5778.	4439.	2631.	6045.	12835.	33833.	109542.
1941	16713.	35963.	44510.	46398.	63104.	52877.	28951.	14877.	10968.	16239.	10870.	11325.	352795.
1942	8661.	7904.	7767.	18779.	10996.	8889.	11348.	9688.	38696.	32216.	21689.	15810.	192443.
1943	13887.	9782.	11323.	12305.	10448.	9390.	10028.	7183.	9157.	7902.	6648.	6557.	114610.
1944	11142.	22689.	37785.	23792.	33906.	29709.	16319.	17759.	17151.	10731.	11031.	24076.	256090.
1945	31365.	35714.	46171.	32858.	21286.	17947.	13330.	10226.	9525.	12127.	8246.	12978.	251774.
1946	13299.	18913.	28550.	18009.	17341.	16973.	10972.	19337.	13442.	15731.	43264.	33806.	249637.
1947	39520.	23926.	22948.	17497.	17626.	11331.	10204.	9635.	8673.	7152.	7947.	7449.	183906.
1948	7718.	6123.	6446.	5982.	8144.	4432.	5046.	3764.	0.	4315.	509.	3421.	55898.
1949	5865.	6558.	7573.	23271.	19689.	9745.	7056.	5721.	6099.	6784.	6521.	7004.	111885.
1950	5801.	6270.	6785.	7384.	9088.	9041.	5413.	0.	0.	0.	0.	1959.	51741.
1951	1989.	3913.	3734.	3180.	4401.	10814.	0.	0.	814.	0.	0.	0.	28846.
1952	0.	3765.	0.	5220.	9851.	9863.	2529.	0.	92997.	9825.	10055.	12222.	156328.
1953	15284.	10706.	10064.	12911.	9600.	0.	0.	4595.	20110.	10459.	11352.	15083.	120163.
1954	10127.	7908.	2756.	6839.	7627.	0.	0.	0.	0.	0.	0.	0.	35257.
1955	0.	6048.	0.	0.	9719.	5658.	0.	0.	0.	0.	0.	0.	21425.
1956	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4559.	4559.
1957	0.	4074.	15163.	54911.	32045.	35020.	11750.	0.	21587.	42978.	35771.	28189.	281486.
1958	28509.	40815.	44592.	27574.	86608.	28795.	16978.	12113.	19425.	20858.	27927.	19026.	373219.
1959	15066.	15378.	15494.	21608.	17678.	14795.	11943.	11249.	9140.	30893.	13503.	14481.	191228.
1960	19057.	21558.	18615.	17785.	18741.	16019.	17075.	16607.	13386.	53057.	35143.	43445.	290487.
1961	39758.	67765.	33971.	21389.	17147.	35014.	20196.	14671.	12168.	11986.	11895.	11808.	297768.
1962	11051.	9283.	9987.	9590.	8812.	15267.	4096.	0.	10796.	11485.	9257.	11245.	110869.
1963	9998.	8710.	9429.	11860.	9283.	0.	0.	0.	0.	0.	5329.	5477.	60086.
1964	5365.	5218.	7044.	6536.	6337.	7490.	0.	0.	5793.	7797.	9159.	7084.	67822.
1965	10152.	33817.	18242.	24274.	60234.	48494.	17851.	14164.	12358.	16586.	13383.	35763.	305319.
1966	22122.	20374.	22439.	24345.	25092.	15246.	12238.	10554.	11445.	10103.	8632.	8371.	190962.
1967	7812.	6382.	7233.	6915.	4235.	0.	0.	0.	9149.	10237.	18218.	12457.	82637.
1968	95561.	36028.	30709.	26503.	34461.	23251.	18345.	12907.	11724.	10870.	10228.	12078.	322665.
1969	10321.	11310.	15508.	20724.	33089.	21892.	14450.	11788.	10694.	13663.	11066.	16252.	190756.
1970	16611.	23184.	40017.	24810.	57069.	36119.	20121.	15326.	13242.	14445.	12950.	11850.	285746.
1971	10613.	9173.	9082.	7433.	7464.	5723.	0.	7897.	6764.	8338.	11955.	23689.	108130.
1972	17258.	13540.	12195.	10156.	26713.	18184.	13998.	12348.	10101.	11592.	13806.	13990.	173881.
1973	17296.	22154.	25987.	27788.	25013.	47663.	66056.	26024.	21762.	82821.	36135.	24364.	423063.
1974	19849.	16532.	15845.	13953.	15907.	13047.	10569.	13476.	16933.	17529.	33756.	25127.	212523.
1975	25086.	51943.	27378.	21815.	55289.	56993.	37200.	22981.	16942.	18320.	15734.	14306.	363988.
1976	13109.	11198.	11131.	37401.	48833.	32682.	34803.	20609.	16695.	24496.	32640.	34286.	317883.
1977	31260.	33040.	29322.	71394.	39201.	23489.	17796.	14379.	12872.	13097.	11957.	10712.	308519.
1978	9797.	8904.	9407.	8579.	8395.	9632.	5794.	6422.	11414.	9336.	11593.	11847.	111119.
1979	29317.	35172.	54975.	51656.	45557.	27914.	23239.	18261.	14008.	12346.	10737.	10791.	333973.
1980	10551.	9725.	9686.	9208.	16319.	12142.	8381.	7435.	9655.	11966.	9291.	10587.	124946.
1981	10184.	9694.	17467.	12951.	11706.	101218.	31707.	19283.	15359.	32931.	19100.	15240.	296841.
1982	13478.	10920.	10837.	9906.	33380.	12235.	9828.	8255.	7328.	7545.	7817.	8389.	139916.
1983	8551.	8854.	17152.	17532.	20631.	19558.	15163.	11918.	10828.	11884.	10308.	10221.	162600.
1984	10213.	8827.	8583.	6257.	5657.	0.	0.	0.	0.	6720.	7055.	11898.	65209.
1985	26034.	24455.	32489.	22020.	15340.	69853.	33156.	16614.	13946.	15258.	26753.	34391.	330308.
1986	22236.	22660.	17611.	13800.	35103.	32057.	19478.	15033.	32081.	42776.	27507.	65782.	346123.
1987	43503.	27549.	38921.	23509.	24947.	148731.	47801.	27136.	20954.	16886.	29585.	17971.	467492.
1988	15608.	13079.	13115.	11638.	15145.	14659.	9959.	9088.	7004.	6967.	6649.	7357.	130269.
1989	8291.	7513.	7555.	8133.	21142.	11410.	0.	0.	0.	0.	5479.	5763.	75286.
AVERAGE FLOW AVAILABLE - ACFT/YR					1934-89:	192621.	1947-56:	77001.	1953-56:	45351.			

SAN MARCOS RIVER BELOW THE BLANCO RIVER CONFLUENCE

AVAILABLE FLOW SUMMARY - ACFT: HISTORICAL RECHARGE, PUMPAGE: 400,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS													08/26/93
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	5377.	9380.	15336.	24609.	13348.	9245.	8961.	7288.	6949.	7112.	8079.	8121.	123805.
1935	7590.	8357.	7099.	6817.	37115.	55495.	14811.	9606.	13686.	10751.	9820.	10392.	191538.
1936	9972.	7538.	8406.	6643.	18471.	25264.	45995.	14304.	35129.	16226.	13886.	13076.	214910.
1937	15728.	13175.	22556.	13819.	10502.	12675.	9593.	6090.	6200.	10882.	6070.	11248.	138538.
1938	30478.	21456.	16278.	37815.	32302.	14187.	10404.	7443.	6715.	6679.	5872.	5903.	195533.
1939	6052.	5176.	5711.	6470.	5469.	4746.	4249.	0.	0.	2785.	0.	4727.	45384.
1940	5363.	5525.	6292.	8213.	5370.	10574.	5287.	0.	0.	5551.	12365.	33363.	97905.
1941	16256.	35505.	44046.	45923.	62628.	52386.	28425.	14351.	10425.	15711.	10369.	10825.	346850.
1942	8174.	7417.	7273.	18276.	10494.	8376.	10806.	9151.	38147.	31683.	21183.	15306.	186286.
1943	13396.	9291.	10826.	11798.	9942.	8873.	9482.	5829.	8606.	7366.	6141.	6052.	107602.
1944	10653.	22201.	37292.	23289.	33403.	29193.	15768.	17214.	16591.	10186.	10515.	23562.	249867.
1945	30865.	35214.	45664.	32338.	20763.	17410.	12760.	9662.	6898.	11569.	7719.	12455.	243318.
1946	12792.	18408.	28041.	17490.	16823.	16444.	10410.	18782.	12871.	15175.	42736.	33281.	243253.
1947	39008.	23413.	22428.	16965.	17095.	10786.	9629.	9069.	8094.	5652.	7415.	6921.	176473.
1948	7206.	5615.	5933.	3645.	7626.	0.	4487.	0.	0.	0.	0.	0.	34512.
1949	2236.	6034.	7046.	22736.	19156.	9201.	6478.	5146.	1192.	6196.	5955.	6436.	97811.
1950	5245.	5717.	6229.	6822.	8528.	8470.	0.	0.	0.	0.	0.	0.	41011.
1951	0.	0.	0.	0.	3814.	10216.	0.	0.	0.	0.	0.	0.	14030.
1952	0.	0.	0.	4600.	9233.	9234.	0.	0.	92317.	9153.	9406.	11572.	145516.
1953	14647.	10072.	9427.	12270.	8962.	0.	0.	1383.	19411.	9770.	10685.	14416.	111041.
1954	9090.	1063.	0.	0.	6972.	0.	0.	0.	0.	0.	0.	0.	17125.
1955	0.	5384.	0.	0.	9048.	4976.	0.	0.	0.	0.	0.	0.	19408.
1956	0.	0.	0.	0.	0.	0.	0.	1482.	2335.	0.	0.	3778.	7595.
1957	0.	2044.	14386.	54130.	31268.	34238.	8284.	0.	20775.	42183.	35004.	27426.	269737.
1958	27762.	40075.	43851.	26831.	85875.	28056.	16214.	10973.	18655.	20105.	27204.	18309.	363909.
1959	14369.	14690.	14810.	20925.	17005.	14114.	11236.	10550.	8426.	30193.	12828.	13807.	182953.
1960	18401.	20907.	17964.	17132.	18091.	15361.	16386.	15925.	12687.	52370.	34481.	42784.	282488.
1961	39113.	67125.	33331.	20744.	16509.	34369.	19521.	14003.	11484.	11315.	11250.	11165.	289929.
1962	10423.	8659.	9364.	8962.	8189.	14635.	0.	0.	10117.	10815.	8610.	10597.	100371.
1963	9363.	8077.	8793.	11218.	4272.	0.	0.	0.	0.	0.	4659.	4804.	51186.
1964	4705.	4560.	6383.	5869.	1980.	6814.	0.	0.	5065.	7078.	8463.	6386.	57302.
1965	9469.	33137.	17559.	23586.	59551.	47801.	17125.	13443.	11620.	15859.	12681.	35063.	296895.
1966	21435.	19691.	21757.	23658.	24411.	14556.	11515.	9838.	10710.	9380.	7934.	7674.	182560.
1967	7129.	5704.	6554.	3363.	0.	0.	0.	0.	8415.	9514.	17518.	11756.	69952.
1968	94874.	35345.	30024.	25813.	33777.	22560.	17624.	12194.	10995.	10155.	9541.	11394.	314296.
1969	9653.	10648.	14847.	20060.	32431.	21226.	13755.	11098.	9987.	12968.	10396.	15582.	182650.
1970	15955.	22533.	39366.	24155.	56418.	35458.	19430.	14641.	12538.	13754.	12284.	11186.	277720.
1971	9965.	8530.	8439.	3665.	0.	0.	0.	7220.	6069.	7653.	11294.	23029.	85863.
1972	16610.	12896.	11549.	9504.	26066.	17526.	13310.	11666.	9401.	10905.	13144.	13328.	165905.
1973	16649.	21512.	25344.	27139.	24368.	47008.	65372.	25343.	21063.	82136.	35474.	23705.	415113.
1974	19203.	15887.	15196.	13298.	15256.	12387.	9882.	12801.	16249.	16862.	33122.	24497.	204640.
1975	24474.	51335.	26765.	21192.	54667.	56358.	36534.	22324.	16271.	17669.	15114.	13692.	356396.
1976	12511.	10604.	10534.	36799.	48234.	32072.	34165.	19978.	16053.	23872.	32045.	33693.	310560.
1977	30680.	32459.	28733.	70794.	38599.	22873.	17148.	13740.	12222.	12467.	11361.	10123.	301199.
1978	9226.	8337.	8837.	8003.	7822.	9051.	4357.	5824.	10806.	8747.	11036.	11295.	103340.
1979	28780.	34635.	54433.	51103.	45001.	27344.	22636.	17661.	13393.	11748.	10168.	10225.	327127.
1980	10000.	9177.	9133.	8648.	15763.	11575.	7787.	3070.	9061.	11390.	8747.	10048.	114398.
1981	9660.	9172.	16940.	12415.	11170.	100672.	31125.	18706.	14765.	32352.	18548.	14689.	290215.
1982	12940.	10382.	10293.	9353.	32829.	11674.	9237.	5856.	6400.	6970.	7272.	7849.	131054.
1983	8026.	8330.	16623.	16993.	20093.	19009.	14583.	11345.	10241.	11310.	9761.	9676.	155990.
1984	9682.	8297.	8047.	5712.	494.	0.	0.	0.	0.	6131.	6491.	11334.	56186.
1985	25484.	23905.	31935.	21455.	14775.	69275.	32544.	16007.	13321.	14645.	26168.	33803.	323316.
1986	21663.	22087.	17033.	13212.	34516.	31457.	18848.	14410.	31444.	42154.	26914.	65192.	338929.
1987	42922.	26967.	38329.	22904.	24342.	148114.	47147.	26488.	20291.	16240.	28970.	17359.	460072.
1988	15014.	12491.	12526.	11044.	14556.	14063.	9337.	8477.	6385.	6370.	6086.	6800.	123150.
1989	7751.	6976.	7016.	7585.	20597.	10854.	0.	0.	0.	0.	205.	3876.	64860.
AVERAGE FLOW AVAILABLE - ACFT/YR				1934-89: 183921.			1947-56: 66452.		1953-56: 38792.				

SAN MARCOS RIVER BELOW THE BLANCO RIVER CONFLUENCE

AVAILABLE FLOW SUMMARY - ACFT: HISTORICAL RECHARGE, PUMPAGE: 450,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS													08/26/93
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	5335.	9325.	15275.	24541.	13277.	9166.	8869.	7195.	6848.	7015.	7989.	8030.	122865.
1935	7501.	8265.	7003.	6715.	37011.	55385.	14689.	9484.	13558.	10627.	9704.	10275.	190216.
1936	9857.	7421.	8286.	6518.	18344.	25132.	45851.	14161.	34980.	16082.	13750.	12939.	213321.
1937	15595.	13041.	22420.	13678.	10360.	12528.	9435.	5934.	6038.	10725.	5922.	11101.	136777.
1938	30335.	21313.	16132.	37665.	32152.	14031.	10237.	7277.	6544.	6512.	5714.	5745.	193658.
1939	5899.	5023.	5557.	6313.	5312.	4585.	4077.	0.	0.	245.	0.	2216.	39226.
1940	5108.	5356.	6122.	8041.	5200.	10400.	5101.	0.	0.	5356.	12176.	33172.	96033.
1941	16069.	35318.	43859.	45735.	62442.	52197.	28226.	14152.	10220.	15507.	10173.	10629.	344527.
1942	7983.	7229.	7085.	18087.	10307.	8187.	10606.	8951.	37939.	31477.	20983.	15106.	183940.
1943	13202.	9098.	10633.	11605.	9752.	8680.	9278.	2913.	8396.	7157.	5938.	5848.	102500.
1944	10453.	22003.	37095.	23091.	33207.	28995.	15559.	17007.	16376.	9973.	10308.	23353.	247420.
1945	30662.	35013.	45464.	32137.	20563.	17207.	12548.	7711.	3924.	11355.	7511.	12246.	236341.
1946	12589.	18207.	27841.	17289.	16625.	16243.	10198.	18571.	12650.	14956.	42523.	33066.	240759.
1947	38798.	23205.	22221.	16757.	16889.	10578.	9412.	8852.	6749.	2666.	7199.	6704.	170028.
1948	6993.	5403.	5722.	844.	7417.	0.	4262.	0.	0.	0.	0.	0.	30640.
1949	0.	5813.	6823.	22510.	18931.	8970.	6236.	2223.	0.	5953.	5720.	6201.	89379.
1950	5014.	5486.	5996.	6586.	8293.	8232.	0.	0.	0.	0.	0.	0.	39607.
1951	0.	0.	0.	0.	2025.	9977.	0.	0.	0.	0.	0.	0.	12002.
1952	0.	0.	0.	4358.	8991.	8989.	0.	0.	92060.	8900.	9163.	11329.	143790.
1953	14409.	9835.	9189.	10154.	8722.	0.	0.	1131.	19153.	9516.	10440.	14172.	106719.
1954	6327.	0.	0.	0.	6734.	0.	0.	0.	0.	0.	0.	0.	13061.
1955	0.	5086.	0.	0.	8738.	4655.	0.	0.	0.	0.	0.	0.	18479.
1956	0.	0.	0.	0.	0.	470.	507.	934.	1766.	0.	2383.	3173.	9233.
1957	0.	1416.	13744.	53476.	30605.	33570.	7603.	0.	20082.	41488.	34315.	26743.	263042.
1958	27097.	39431.	43225.	26224.	85291.	27489.	15658.	6366.	18130.	19602.	26727.	17848.	353087.
1959	13927.	14264.	14395.	20520.	16613.	13726.	10848.	10174.	8053.	29834.	12483.	13469.	178306.
1960	18074.	20586.	17647.	16818.	17779.	15050.	16067.	15612.	12371.	52062.	34183.	42489.	278737.
1961	38825.	66840.	33046.	20461.	16229.	34087.	19231.	13715.	11193.	11030.	10974.	10891.	286522.
1962	10155.	8393.	9097.	8694.	7923.	14366.	0.	0.	9838.	10541.	8346.	10334.	97687.
1963	9106.	7822.	8537.	10960.	1032.	0.	0.	0.	0.	0.	4391.	3262.	45110.
1964	2125.	4299.	6122.	5606.	0.	5475.	0.	0.	4785.	6800.	8192.	6115.	49518.
1965	9203.	32873.	17293.	23319.	59286.	47533.	16848.	13168.	10400.	15586.	12418.	34801.	292728.
1966	21179.	19437.	21502.	23400.	24155.	14297.	11246.	9572.	10439.	9114.	7678.	7419.	179439.
1967	6880.	5455.	6305.	259.	0.	0.	0.	0.	8150.	9253.	17266.	11504.	65071.
1968	94627.	35098.	29775.	25561.	33525.	22303.	17356.	11927.	10723.	9888.	9283.	11136.	311202.
1969	9401.	10396.	14594.	19805.	32177.	20968.	13487.	10833.	9717.	12702.	10140.	15326.	179545.
1970	15704.	22283.	39114.	23901.	56165.	35200.	19161.	14373.	12265.	13485.	12024.	10926.	274603.
1971	9711.	8276.	8184.	483.	0.	0.	0.	6956.	5800.	7389.	11040.	22775.	80613.
1972	16360.	12646.	11298.	9250.	25814.	17269.	13043.	11400.	9130.	10638.	12886.	13070.	162804.
1973	16396.	21260.	25091.	26883.	24114.	46750.	65103.	25073.	20786.	81864.	35210.	23441.	411971.
1974	18948.	15636.	14949.	13053.	15017.	12147.	9633.	12553.	15994.	16610.	32877.	24250.	201667.
1975	24233.	51097.	26528.	20957.	54435.	56125.	36292.	22084.	16024.	17424.	14878.	13457.	353535.
1976	12282.	10378.	10310.	36575.	48013.	31849.	33932.	19746.	15813.	23633.	31812.	33460.	307803.
1977	30453.	32234.	28507.	70567.	38373.	22644.	16910.	13506.	11985.	12236.	11141.	9905.	298461.
1978	9014.	8128.	8628.	7792.	7613.	8839.	1006.	5604.	10578.	8521.	10816.	11072.	97610.
1979	28563.	34421.	54219.	50887.	44785.	27124.	22405.	17430.	13157.	11514.	9944.	10002.	324451.
1980	9782.	8960.	8917.	8430.	15547.	11356.	5670.	0.	8824.	11155.	8517.	9816.	106973.
1981	9433.	8947.	16716.	12190.	10948.	100448.	30888.	18470.	14520.	32108.	18311.	14451.	287431.
1982	12707.	10151.	10062.	9121.	32600.	11443.	8996.	2251.	2877.	6724.	7032.	7608.	121570.
1983	7791.	8098.	16391.	16762.	19865.	18778.	14340.	8936.	9989.	11058.	9515.	9429.	150953.
1984	9438.	8055.	7806.	3957.	0.	0.	0.	0.	0.	5872.	6239.	11080.	52446.
1985	25234.	23655.	31683.	21202.	14522.	69020.	32277.	15739.	13046.	14373.	25904.	33537.	320191.
1986	21403.	21830.	16779.	12959.	34268.	31206.	18586.	12347.	31175.	41888.	26655.	64933.	334029.
1987	42668.	26717.	38081.	22656.	24097.	147869.	46892.	26237.	20037.	15993.	28735.	17125.	457106.
1988	14787.	12265.	12301.	10817.	14332.	13835.	9101.	8245.	6147.	6135.	5858.	6572.	120396.
1989	7529.	6757.	6797.	7365.	20380.	10633.	0.	0.	0.	0.	0.	346.	59807.
AVERAGE FLOW AVAILABLE - ACFT/YR				1934-89: 180088.			1947-56: 63294.		1953-56: 36873.				

SAN MARCOS RIVER BELOW THE BLANCO RIVER CONFLUENCE

AVAILABLE FLOW SUMMARY - ACFT: HISTORICAL RECHARGE, PUMPAGE: 250,000 AF, 1988 WATER USE, HYDRO=0 CFS													08/26/93
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	5522.	9569.	15554.	24861.	13613.	11011.	10867.	8607.	8158.	7799.	8378.	8421.	132359.
1935	7865.	8661.	7393.	7524.	37483.	55904.	15270.	10051.	14128.	11159.	10194.	10767.	196399.
1936	10338.	7908.	8796.	7054.	18899.	25730.	46514.	14809.	35621.	16682.	14304.	13493.	220149.
1937	16136.	13587.	22989.	14274.	10962.	13172.	10137.	7012.	6713.	11366.	6511.	11691.	144550.
1938	30908.	21888.	16728.	38289.	32785.	14704.	10970.	8556.	7340.	7178.	6313.	6362.	202020.
1939	6498.	5602.	6170.	6954.	5910.	5199.	4813.	3922.	4884.	5902.	5630.	6177.	67661.
1940	6220.	6393.	6758.	8702.	5815.	11104.	5864.	5844.	6009.	6045.	12862.	33859.	115476.
1941	16737.	35990.	44549.	46447.	63161.	52956.	29047.	14961.	11019.	16275.	10895.	11347.	353383.
1942	8682.	7927.	7799.	18827.	11048.	9365.	11429.	10112.	38755.	32254.	21716.	15834.	193748.
1943	13911.	9807.	11358.	12351.	10499.	9459.	10117.	7970.	9209.	7933.	6669.	6557.	115841.
1944	11165.	22716.	37823.	23840.	33962.	29786.	16410.	18836.	18120.	10764.	11056.	24102.	258581.
1945	31391.	35742.	46210.	32906.	21340.	18021.	13419.	10347.	9575.	12587.	8270.	13002.	252809.
1946	13323.	18940.	28588.	18056.	17395.	17046.	12741.	20951.	13495.	15766.	43293.	33832.	253427.
1947	39545.	23953.	22985.	17543.	17679.	11401.	10286.	9710.	8688.	7152.	7947.	7468.	184359.
1948	7737.	6143.	6446.	6125.	8195.	4457.	5644.	5268.	2214.	6439.	3660.	5191.	67520.
1949	5865.	6582.	7607.	23319.	19744.	9815.	7785.	7095.	6421.	6812.	6521.	7004.	114570.
1950	5801.	6293.	6785.	7427.	9139.	9109.	6804.	0.	1009.	0.	259.	4721.	57347.
1951	4770.	4163.	4576.	4792.	4401.	10884.	0.	0.	3338.	0.	0.	0.	36924.
1952	608.	4060.	1274.	6164.	9904.	9936.	6196.	0.	93057.	9860.	10080.	12246.	163385.
1953	15308.	10731.	10099.	12956.	9651.	0.	0.	6206.	20168.	10494.	11377.	15106.	122096.
1954	10150.	7931.	6896.	7047.	7668.	0.	0.	0.	0.	0.	0.	0.	39691.
1955	0.	6048.	588.	0.	9772.	5710.	0.	0.	0.	0.	0.	0.	22118.
1956	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	4580.	4580.
1957	0.	4095.	15201.	54960.	32101.	35098.	11839.	297.	21645.	43016.	35799.	28215.	282265.
1958	28534.	40842.	44631.	27623.	86665.	28873.	17071.	12506.	19482.	20895.	27955.	19050.	374126.
1959	15090.	15404.	15531.	21656.	17731.	14870.	12032.	11333.	9494.	30931.	13529.	14505.	192106.
1960	19082.	21585.	18652.	17832.	18794.	16091.	17167.	16694.	14110.	53095.	35171.	43471.	291744.
1961	39784.	67792.	34010.	21436.	17200.	35092.	20291.	14758.	12301.	12021.	11920.	11831.	298435.
1962	11073.	9307.	10020.	9633.	9369.	16132.	8923.	3276.	10848.	11517.	9382.	11268.	120749.
1963	10020.	8733.	9461.	12117.	9705.	7726.	6883.	0.	0.	0.	5329.	5477.	75451.
1964	5365.	5239.	7077.	6577.	6511.	7550.	2866.	6009.	5793.	7828.	9184.	7105.	77105.
1965	10175.	33845.	18279.	24322.	60292.	48573.	17944.	14252.	12413.	16623.	13410.	35789.	305915.
1966	22147.	20401.	22477.	24394.	25147.	15320.	12713.	11103.	11500.	10137.	8656.	8393.	192389.
1967	7833.	6404.	7264.	7646.	7085.	1201.	0.	4113.	9202.	10272.	18245.	12481.	91745.
1968	95587.	36055.	30747.	26551.	34517.	23327.	18437.	12990.	11777.	10904.	10252.	12101.	323246.
1969	10343.	11334.	15544.	20772.	33145.	21968.	14541.	11871.	10746.	13699.	11091.	16276.	191331.
1970	16635.	23211.	40056.	24858.	57126.	36196.	20213.	15410.	13295.	14479.	12974.	11872.	286326.
1971	10634.	9194.	9137.	8331.	7978.	7041.	6654.	8421.	6808.	8373.	12253.	23714.	118536.
1972	17281.	13564.	12230.	10873.	26769.	18259.	14089.	12433.	10265.	11627.	13833.	14014.	175236.
1973	17320.	22181.	26025.	27836.	25068.	47742.	66155.	26115.	21819.	82859.	36163.	24389.	423672.
1974	19874.	16558.	15881.	13998.	15959.	13116.	11100.	13561.	16990.	17565.	33784.	25152.	213538.
1975	25111.	51971.	27416.	21863.	55345.	57072.	37297.	23071.	16998.	18356.	15761.	14330.	364590.
1976	13132.	11222.	11166.	37450.	48890.	32760.	34900.	20699.	16751.	24533.	32668.	34312.	318483.
1977	31285.	33067.	29360.	71443.	39257.	23565.	17888.	14748.	12924.	13132.	11983.	10735.	309387.
1978	9819.	8928.	9441.	8622.	8705.	9705.	7090.	7987.	12201.	9369.	11618.	11871.	115355.
1979	29342.	35199.	55014.	51706.	45614.	27991.	23333.	18348.	14063.	12381.	10762.	10814.	334567.
1980	10573.	9749.	9719.	9253.	16373.	12704.	9884.	8965.	9706.	12001.	9316.	10609.	128853.
1981	10207.	9718.	17505.	12997.	11758.	101297.	31803.	19369.	15412.	32969.	19127.	15264.	297426.
1982	13501.	10944.	10871.	9949.	33436.	12309.	9915.	9378.	7936.	7975.	7841.	8411.	142468.
1983	8572.	8878.	17189.	17579.	20685.	19634.	15255.	12446.	10880.	11919.	10333.	10244.	163616.
1984	10236.	8964.	8616.	7330.	6838.	6011.	0.	0.	0.	6754.	7079.	12333.	74160.
1985	26059.	24482.	32528.	22068.	15394.	69932.	33252.	16701.	13999.	15294.	26780.	34417.	330904.
1986	22260.	22687.	17648.	13845.	35159.	32135.	19569.	15328.	32140.	42814.	27535.	65808.	346928.
1987	43529.	27575.	38960.	23556.	25002.	148811.	47899.	27225.	21009.	16920.	30102.	17995.	468583.
1988	15632.	13104.	13150.	11682.	16352.	14733.	11492.	10647.	7949.	7576.	7149.	7793.	137258.
1989	8312.	7820.	8325.	8474.	21198.	11483.	5826.	0.	0.	3004.	5479.	5767.	85687.
AVERAGE FLOW AVAILABLE - ACFT/YR				1934-89: 195914.		1947-56: 81259.		1953-56: 47121.					

SAN MARCOS RIVER BELOW THE BLANCO RIVER CONFLUENCE

AVAILABLE FLOW SUMMARY - ACFT: HISTORICAL RECHARGE, PLUMPAGE: 400,000 AF, 1988 WATER USE, HYDRO=0 CFS													08/26/93
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	5399.	9405.	15373.	24658.	13400.	10776.	10592.	8328.	7856.	7503.	8103.	8140.	129532.
1935	7590.	8380.	7099.	7216.	37171.	55574.	14904.	9686.	13743.	10786.	9844.	10415.	192408.
1936	9995.	7561.	8440.	6684.	18526.	25342.	46093.	14391.	35188.	16263.	13912.	13100.	215496.
1937	15753.	13201.	22594.	13866.	10553.	12748.	9681.	6561.	6248.	10918.	6092.	11273.	139488.
1938	30504.	21483.	16315.	37865.	32359.	14262.	10494.	8085.	6853.	6708.	5872.	5923.	196722.
1939	6072.	5176.	5739.	6512.	5469.	4746.	4330.	0.	0.	0.	2995.	5734.	46773.
1940	5790.	5964.	6323.	8257.	5370.	10647.	5373.	5357.	0.	5551.	12392.	33389.	104414.
1941	16280.	35532.	44085.	45972.	62685.	52465.	28521.	14435.	10476.	15747.	10394.	10847.	347438.
1942	8195.	7440.	7305.	18324.	10546.	8852.	10887.	9575.	38206.	31721.	21210.	15330.	187591.
1943	13420.	9316.	10861.	11844.	9993.	8942.	9571.	7432.	8658.	7397.	6162.	6052.	109649.
1944	10676.	22228.	37330.	23337.	33459.	29270.	15859.	18291.	17560.	10219.	10540.	23588.	252358.
1945	30891.	35242.	45703.	32386.	20817.	17484.	12849.	9783.	5503.	12029.	7743.	12479.	242908.
1946	12816.	18435.	28079.	17537.	16877.	16517.	12180.	20396.	12924.	15210.	42765.	33307.	247043.
1947	39033.	23440.	22465.	17011.	17148.	10856.	9711.	9144.	8109.	6589.	7415.	6940.	177863.
1948	7225.	5635.	5933.	5605.	7677.	2191.	5085.	3711.	0.	0.	0.	0.	43062.
1949	4761.	6058.	7080.	22784.	19211.	9271.	7207.	6520.	4840.	6224.	5955.	6436.	106348.
1950	5245.	5740.	6229.	6865.	8579.	8538.	6199.	0.	0.	0.	0.	0.	47395.
1951	0.	0.	0.	67.	3814.	10286.	0.	0.	0.	0.	0.	0.	14167.
1952	0.	0.	0.	5544.	9286.	9307.	392.	0.	92377.	9188.	9431.	11596.	147121.
1953	14671.	10097.	9462.	12315.	9013.	0.	0.	5527.	19469.	9805.	10710.	14439.	115508.
1954	9496.	4100.	0.	3815.	7013.	0.	0.	0.	0.	3619.	0.	0.	28042.
1955	0.	5384.	0.	0.	9101.	5028.	0.	0.	0.	0.	0.	0.	19513.
1956	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3799.	3799.
1957	0.	3321.	14424.	54179.	31324.	34316.	11030.	0.	20833.	42221.	35032.	27452.	274131.
1958	27787.	40102.	43890.	26880.	85932.	28134.	16307.	11748.	18712.	20142.	27232.	18333.	365198.
1959	14393.	14716.	14847.	20973.	17058.	14189.	11325.	10634.	8780.	30231.	12854.	13831.	183831.
1960	18426.	20934.	18001.	17179.	18144.	15433.	16478.	16012.	13411.	52408.	34509.	42810.	283745.
1961	39139.	67152.	33370.	20791.	16562.	34447.	19616.	14090.	11617.	11350.	11275.	11188.	290596.
1962	10445.	8683.	9397.	9005.	8746.	15500.	7906.	0.	10169.	10847.	8735.	10620.	110054.
1963	9385.	8100.	8825.	11475.	9067.	1965.	0.	0.	0.	0.	4659.	4804.	58280.
1964	4705.	4581.	6416.	5910.	5847.	6874.	0.	0.	5065.	7109.	8488.	6407.	61403.
1965	9492.	33165.	17596.	23634.	59609.	47880.	17218.	13531.	11675.	15896.	12708.	35089.	297491.
1966	21460.	19718.	21795.	23707.	24466.	14630.	11990.	10387.	10765.	9414.	7958.	7696.	183987.
1967	7150.	5726.	6585.	6963.	191.	0.	0.	0.	8468.	9549.	17545.	11780.	73957.
1968	94900.	35372.	30062.	25861.	33833.	22636.	17716.	12277.	11048.	10189.	9565.	11417.	314877.
1969	9675.	10672.	14883.	20108.	32487.	21302.	13846.	11181.	10039.	13004.	10421.	15606.	183225.
1970	15979.	22560.	39405.	24203.	56475.	35535.	19522.	14725.	12591.	13788.	12308.	11208.	278300.
1971	9986.	8551.	8494.	7684.	3900.	4308.	0.	7744.	6113.	7688.	11592.	23054.	99112.
1972	16633.	12920.	11584.	10221.	26122.	17601.	13401.	11751.	9565.	10940.	13171.	13352.	167260.
1973	16673.	21539.	25382.	27187.	24423.	47087.	65471.	25434.	21120.	82174.	35502.	23730.	415722.
1974	19228.	15913.	15232.	13343.	15308.	12456.	10413.	12886.	16306.	16898.	33150.	24522.	205655.
1975	24499.	51363.	26803.	21240.	54723.	56437.	36631.	22414.	16327.	17705.	15141.	13716.	356998.
1976	12534.	10628.	10569.	36848.	48291.	32150.	34262.	20068.	16109.	23909.	32073.	33719.	311160.
1977	30705.	32486.	28771.	70843.	38655.	22949.	17240.	14109.	12274.	12502.	11387.	10146.	302067.
1978	9248.	8361.	8871.	8046.	8132.	9124.	6481.	7389.	11593.	8780.	11061.	11319.	108404.
1979	28805.	34662.	54472.	51153.	45058.	27421.	22730.	17748.	13448.	11783.	10193.	10248.	327721.
1980	10022.	9201.	9166.	8693.	15817.	12137.	9290.	8380.	9112.	11425.	8772.	10070.	122086.
1981	9683.	9196.	16978.	12461.	11222.	100751.	31221.	18792.	14818.	32390.	18575.	14713.	290800.
1982	12963.	10406.	10327.	9396.	32885.	11748.	9324.	8796.	7342.	7400.	7296.	7871.	135756.
1983	8047.	8354.	16660.	17040.	20147.	19085.	14675.	11873.	10293.	11345.	9786.	9699.	157006.
1984	9705.	8434.	8080.	6785.	6091.	0.	0.	0.	0.	6165.	6515.	11769.	63544.
1985	25509.	23932.	31974.	21503.	14829.	69354.	32640.	16094.	13374.	14681.	26195.	33829.	323912.
1986	21687.	22114.	17070.	13257.	34572.	31535.	18939.	14705.	31503.	42192.	26942.	65218.	339734.
1987	42948.	26993.	38368.	22951.	24397.	148194.	47245.	26577.	20346.	16274.	29487.	17383.	461163.
1988	15038.	12516.	12561.	11088.	15763.	14137.	10870.	10036.	7330.	6979.	6586.	7236.	130139.
1989	7772.	7283.	7786.	7926.	20653.	10927.	0.	0.	0.	0.	3349.	5224.	70919.
AVERAGE FLOW AVAILABLE - ACFT/YR				1934-89:	186837.	1947-56:	70282.	1953-56:	41715.				

SAN MARCOS RIVER BELOW THE BLANCO RIVER CONFLUENCE

AVAILABLE FLOW SUMMARY - ACFT: HISTORICAL RECHARGE, PUMPAGE: 450,000 AF, 1988 WATER USE, HYDRO=0 CFS													08/26/93
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	5357.	9350.	15312.	24590.	13329.	10697.	10500.	8235.	7755.	7406.	8013.	8049.	128592.
1935	7501.	8288.	7003.	7114.	37067.	55464.	14782.	9564.	13615.	10662.	9728.	10298.	191086.
1936	9880.	7444.	8320.	6559.	18399.	25210.	45949.	14248.	35039.	16119.	13776.	12963.	213907.
1937	15620.	13067.	22458.	13725.	10411.	12601.	9523.	6405.	6086.	10761.	5944.	11126.	137727.
1938	30361.	21340.	16169.	37715.	32209.	14106.	10327.	7919.	6682.	6541.	5714.	5765.	194847.
1939	5919.	5023.	5585.	6355.	5312.	4585.	4158.	0.	0.	0.	369.	5210.	42517.
1940	5620.	5795.	6153.	8085.	5200.	10473.	5187.	3908.	0.	5356.	12203.	33198.	101179.
1941	16093.	35345.	43898.	45784.	62499.	52276.	28322.	14236.	10271.	15543.	10198.	10651.	345115.
1942	8004.	7252.	7117.	18135.	10359.	8663.	10687.	9375.	37998.	31515.	21010.	15130.	185245.
1943	13226.	9123.	10668.	11651.	9803.	8749.	9367.	7230.	8448.	7188.	5959.	5848.	107261.
1944	10476.	22030.	37133.	23139.	33263.	29072.	15650.	18084.	17345.	10006.	10333.	23379.	249911.
1945	30688.	35041.	45503.	32185.	20617.	17281.	12637.	9574.	2487.	11815.	7535.	12270.	237632.
1946	12613.	18234.	27879.	17336.	16679.	16316.	11968.	20185.	12703.	14991.	42552.	33092.	244548.
1947	38823.	23232.	22258.	16803.	16942.	10648.	9494.	8927.	7885.	6329.	7199.	6723.	175265.
1948	7012.	5423.	5722.	5393.	7468.	0.	4860.	546.	0.	0.	0.	0.	36425.
1949	2021.	5837.	6857.	22558.	18986.	9040.	6965.	6059.	1648.	5981.	5720.	6201.	97873.
1950	5014.	5509.	5996.	6629.	8344.	8300.	4548.	0.	0.	0.	0.	0.	44340.
1951	0.	0.	0.	0.	3216.	10047.	0.	3657.	0.	0.	0.	0.	16920.
1952	0.	0.	0.	5301.	9044.	9062.	138.	0.	92120.	8935.	9188.	11353.	145141.
1953	14433.	9860.	9224.	12074.	8773.	0.	0.	5275.	19211.	9551.	10465.	14195.	113061.
1954	9102.	1395.	0.	3480.	6775.	0.	0.	0.	0.	3345.	0.	0.	24097.
1955	0.	5086.	0.	0.	8791.	4707.	0.	0.	0.	0.	0.	0.	18584.
1956	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	3194.	3194.
1957	0.	2693.	13782.	53525.	30661.	33648.	10349.	0.	20140.	41526.	34343.	26769.	267435.
1958	27122.	39458.	43264.	26273.	85348.	27567.	15751.	11210.	18187.	19639.	26755.	17872.	358445.
1959	13951.	14290.	14432.	20568.	16666.	13801.	10937.	10258.	8407.	29872.	12509.	13493.	179184.
1960	18099.	20613.	17684.	16865.	17832.	15122.	16159.	15699.	13095.	52100.	34211.	42515.	279994.
1961	38851.	66867.	33085.	20508.	16282.	34165.	19326.	13802.	11326.	11065.	10999.	10914.	287189.
1962	10177.	8417.	9130.	8737.	8480.	15231.	4552.	0.	9890.	10573.	8471.	10357.	104016.
1963	9128.	7845.	8569.	11217.	6720.	0.	0.	0.	0.	0.	4391.	4536.	52406.
1964	4443.	4320.	6155.	5647.	4435.	6611.	0.	0.	4785.	6831.	8217.	6136.	57580.
1965	9226.	32901.	17330.	23367.	59344.	47612.	16941.	13256.	11396.	15623.	12445.	34827.	294266.
1966	21204.	19464.	21540.	23449.	24210.	14371.	11721.	10121.	10494.	9148.	7702.	7441.	180866.
1967	6901.	5477.	6336.	5562.	0.	0.	0.	0.	8203.	9288.	17293.	11528.	70587.
1968	94653.	35125.	29813.	25609.	33581.	22379.	17448.	12010.	10776.	9922.	9307.	11159.	311783.
1969	9423.	10420.	14630.	19853.	32233.	21044.	13578.	10916.	9769.	12738.	10165.	15350.	180120.
1970	15728.	22310.	39153.	23949.	56222.	35277.	19253.	14457.	12318.	13519.	12048.	10948.	275183.
1971	9732.	8297.	8239.	5814.	635.	1042.	0.	7480.	5844.	7424.	11338.	22800.	88644.
1972	16383.	12670.	11333.	9967.	25870.	17344.	13134.	11485.	9294.	10673.	12913.	13094.	164159.
1973	16420.	21287.	25129.	26931.	24169.	46829.	65202.	25164.	20843.	81902.	35238.	23466.	412580.
1974	18973.	15662.	14985.	13098.	15069.	12216.	10164.	12638.	16051.	16646.	32905.	24275.	202682.
1975	24258.	51125.	26566.	21005.	54491.	56204.	36389.	22174.	16080.	17460.	14905.	13481.	354137.
1976	12305.	10402.	10345.	36624.	48070.	31927.	34029.	19836.	15869.	23670.	31840.	33486.	308403.
1977	30478.	32261.	28545.	70616.	38429.	22720.	17002.	13875.	12037.	12271.	11167.	9928.	299329.
1978	9036.	8152.	8662.	7835.	7923.	8912.	6260.	7169.	11365.	8554.	10841.	11096.	105804.
1979	28588.	34448.	54258.	50937.	44842.	27201.	22499.	17517.	13212.	11549.	9969.	10025.	325045.
1980	9804.	8984.	8950.	8475.	15601.	11918.	9061.	6619.	8875.	11190.	8542.	9838.	117858.
1981	9456.	8971.	16754.	12236.	11000.	100527.	30984.	18556.	14573.	32146.	18338.	14475.	288016.
1982	12730.	10175.	10096.	9164.	32656.	11517.	9083.	8557.	7095.	7154.	7056.	7630.	132915.
1983	7812.	8122.	16428.	16809.	19919.	18854.	14432.	11629.	10041.	11093.	9540.	9452.	154133.
1984	9461.	8192.	7839.	6543.	2801.	0.	0.	0.	0.	5906.	6263.	11515.	58520.
1985	25259.	23682.	31722.	21250.	14576.	69099.	32373.	15826.	13099.	14409.	25931.	33563.	320787.
1986	21427.	21857.	16816.	13004.	34324.	31284.	18677.	14444.	31234.	41926.	26683.	64959.	336635.
1987	42694.	26743.	38120.	22703.	24152.	147949.	46990.	26326.	20092.	16027.	29252.	17149.	458197.
1988	14811.	12290.	12336.	10861.	15539.	13909.	10634.	9804.	7092.	6744.	6358.	7008.	127385.
1989	7550.	7064.	7567.	7706.	20436.	10706.	0.	0.	0.	0.	0.	3388.	64416.
AVERAGE FLOW AVAILABLE - ACFT/YR				1934-89: 183449.		1947-56: 67490.		1953-56: 39734.					

GUADALUPE RIVER BELOW THE COMAL RIVER CONFLUENCE

AVAILABLE FLOW SUMMARY - ACFT: HISTORICAL RECHARGE, PUMPAGE: 250,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS													08/26/93
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	4311.	3669.	10888.	15718.	700.	0.	0.	0.	0.	0.	0.	0.	35287.
1935	0.	0.	0.	0.	19984.	259455.	26993.	1769.	50006.	11070.	2616.	12808.	384702.
1936	0.	0.	0.	0.	16590.	30690.	103503.	0.	211150.	62016.	27302.	18045.	469296.
1937	0.	2647.	20321.	5822.	0.	33834.	0.	0.	0.	0.	0.	0.	62625.
1938	3979.	10891.	2898.	27176.	26479.	0.	0.	0.	0.	0.	0.	0.	71423.
1939	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1940	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1941	0.	0.	21857.	94705.	129807.	34531.	14854.	0.	0.	3143.	0.	0.	298897.
1942	0.	0.	0.	0.	27826.	0.	0.	0.	23767.	36050.	10393.	7083.	105119.
1943	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1944	0.	1162.	8195.	0.	85126.	34261.	0.	0.	0.	0.	0.	11428.	140173.
1945	24873.	49665.	61575.	48930.	11031.	0.	0.	0.	0.	0.	0.	0.	196075.
1946	0.	0.	0.	0.	17380.	6727.	0.	0.	3605.	22332.	56424.	34310.	140777.
1947	43144.	33113.	22063.	13891.	8686.	4617.	0.	0.	0.	0.	0.	0.	125513.
1948	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1949	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1950	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1951	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1952	0.	0.	0.	0.	0.	0.	0.	0.	51279.	0.	0.	0.	51279.
1953	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1954	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1955	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1956	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1957	0.	0.	0.	3881.	2047.	4175.	0.	0.	0.	0.	0.	0.	10102.
1958	0.	6090.	41695.	25323.	115179.	27528.	0.	0.	16664.	16302.	23271.	7563.	279616.
1959	0.	0.	0.	0.	0.	6352.	0.	0.	0.	58107.	0.	0.	64459.
1960	0.	0.	0.	0.	0.	0.	0.	27371.	0.	94496.	44457.	56350.	222673.
1961	27894.	86623.	44394.	15748.	0.	18298.	6557.	0.	0.	0.	0.	0.	199514.
1962	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1963	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1964	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1965	0.	4235.	0.	0.	21051.	3372.	0.	0.	0.	0.	0.	15666.	44323.
1966	0.	779.	2343.	15730.	13873.	0.	0.	0.	0.	0.	0.	0.	32725.
1967	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1968	91424.	47314.	42525.	40625.	46135.	23864.	6585.	0.	0.	0.	0.	0.	298472.
1969	0.	0.	685.	3212.	14268.	6969.	0.	0.	0.	48618.	9520.	32026.	115298.
1970	0.	21871.	52679.	25058.	53883.	30462.	1367.	0.	0.	0.	0.	0.	185320.
1971	0.	0.	0.	0.	0.	0.	0.	37195.	12392.	53419.	34144.	40064.	177213.
1972	2055.	5322.	2052.	0.	152132.	34408.	4980.	10343.	0.	0.	0.	0.	211291.
1973	0.	2586.	23005.	28642.	15058.	43119.	153626.	31497.	33562.	124010.	41491.	22991.	519587.
1974	4905.	4534.	10442.	3481.	45609.	772.	0.	25915.	30117.	14203.	57022.	29103.	226104.
1975	8247.	117447.	44745.	33021.	120117.	89441.	45572.	11470.	796.	2087.	0.	0.	472943.
1976	0.	0.	0.	5395.	45571.	20429.	46966.	8840.	9153.	42645.	35642.	37758.	252398.
1977	16017.	39858.	28938.	166966.	85707.	34676.	9722.	0.	0.	0.	0.	0.	381883.
1978	0.	0.	0.	0.	0.	0.	0.	226936.	54169.	11658.	21106.	15250.	329119.
1979	30953.	62450.	103976.	93373.	73071.	98565.	40481.	17076.	2577.	0.	0.	0.	522522.
1980	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1981	0.	0.	11405.	42508.	21665.	210161.	46902.	10918.	4848.	82456.	19560.	8003.	458425.
1982	0.	0.	0.	0.	26181.	8534.	0.	0.	0.	0.	0.	0.	34715.
1983	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1985	1395.	505.	22676.	25388.	19054.	95106.	44500.	0.	0.	65617.	46448.	41944.	362632.
1986	4328.	24084.	9776.	426.	21646.	58169.	5005.	0.	31351.	81213.	44290.	118833.	399123.
1987	50371.	49375.	62445.	32156.	75995.	400756.	154936.	46057.	21837.	11099.	16212.	12673.	933913.
1988	0.	0.	0.	0.	2426.	0.	37840.	0.	0.	0.	0.	0.	40266.
1989	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AVERAGE FLOW AVAILABLE - ACFT/YR				1934-89:	158139.	1947-56:	17679.	1953-56:	0.				

GUADALUPE RIVER BELOW THE COMAL RIVER CONFLUENCE

AVAILABLE FLOW SUMMARY - ACFT: HISTORICAL RECHARGE, PUMPAGE: 400,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS													08/26/93
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	3456.	2665.	9595.	14114.	0.	0.	0.	0.	0.	0.	0.	0.	29830.
1935	0.	0.	0.	0.	16078.	255884.	22920.	0.	42877.	7043.	0.	8909.	353711.
1936	0.	0.	0.	0.	5880.	26399.	98591.	0.	203262.	57305.	23373.	14394.	429205.
1937	0.	0.	13213.	2288.	0.	29401.	0.	0.	0.	0.	0.	0.	44902.
1938	0.	2772.	0.	21954.	21853.	0.	0.	0.	0.	0.	0.	0.	46579.
1939	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1940	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1941	0.	0.	0.	80340.	122947.	27436.	7312.	0.	0.	0.	0.	0.	238035.
1942	0.	0.	0.	0.	11094.	0.	0.	0.	15864.	28615.	3849.	825.	60248.
1943	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1944	0.	0.	1811.	0.	62245.	26936.	0.	0.	0.	0.	0.	0.	90991.
1945	17695.	43881.	55663.	42945.	4652.	0.	0.	0.	0.	0.	0.	0.	164837.
1946	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	38750.	27618.	66368.
1947	36996.	27515.	16242.	7699.	1947.	0.	0.	0.	0.	0.	0.	0.	90399.
1948	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1949	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1950	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1951	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1952	0.	0.	0.	0.	0.	0.	0.	0.	42323.	0.	0.	0.	42323.
1953	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1954	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1955	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1956	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1957	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1958	0.	0.	0.	0.	101242.	18469.	0.	0.	6436.	6793.	14005.	0.	146945.
1959	0.	0.	0.	0.	0.	0.	0.	0.	0.	27362.	0.	0.	27362.
1960	0.	0.	0.	0.	0.	0.	0.	0.	0.	76932.	34861.	46995.	158788.
1961	18983.	78175.	35788.	6859.	0.	5772.	0.	0.	0.	0.	0.	0.	145577.
1962	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1963	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1964	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1965	0.	0.	0.	0.	11767.	0.	0.	0.	0.	0.	0.	0.	11767.
1966	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1967	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1968	12116.	18959.	33361.	31160.	36479.	13979.	0.	0.	0.	0.	0.	0.	146054.
1969	0.	0.	0.	0.	0.	0.	0.	0.	0.	24948.	0.	22095.	47043.
1970	0.	3342.	43423.	15635.	44361.	20777.	0.	0.	0.	0.	0.	0.	127538.
1971	0.	0.	0.	0.	0.	0.	0.	20153.	2320.	43264.	24296.	30342.	120375.
1972	0.	0.	0.	0.	128413.	24644.	0.	0.	0.	0.	0.	0.	153057.
1973	0.	0.	0.	6449.	5579.	33270.	143328.	20855.	23209.	114212.	32767.	14660.	394328.
1974	0.	0.	0.	0.	32528.	0.	0.	11751.	20516.	4904.	48531.	20976.	139205.
1975	608.	110354.	37710.	25757.	112335.	81395.	37045.	2455.	0.	0.	0.	0.	407659.
1976	0.	0.	0.	0.	26618.	12522.	38494.	0.	331.	34463.	28446.	31098.	171972.
1977	9889.	34215.	23247.	161127.	79639.	28264.	2672.	0.	0.	0.	0.	0.	339051.
1978	0.	0.	0.	0.	0.	0.	0.	204229.	45841.	3647.	13842.	8267.	275827.
1979	24427.	56347.	97727.	87145.	66555.	91710.	33155.	9304.	0.	0.	0.	0.	466371.
1980	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1981	0.	0.	0.	2105.	14128.	202526.	38965.	2585.	0.	71668.	12747.	1575.	346297.
1982	0.	0.	0.	0.	12148.	1159.	0.	0.	0.	0.	0.	0.	13306.
1983	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	4377.	86105.	35047.	0.	0.	53318.	37760.	33661.	250267.
1986	0.	13362.	2306.	0.	10840.	49342.	0.	0.	17909.	72155.	36228.	111338.	313480.
1987	43653.	43203.	56210.	25716.	69183.	393917.	147851.	38653.	14797.	4411.	10288.	6916.	854800.
1988	0.	0.	0.	0.	0.	0.	8225.	0.	0.	0.	0.	0.	8225.
1989	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AVERAGE FLOW AVAILABLE - ACFT/YR				1934-89: 120049.			1947-56: 13272.		1953-56: 0.				

GUADALUPE RIVER BELOW THE COMAL RIVER CONFLUENCE

AVAILABLE FLOW SUMMARY - ACFT: HISTORICAL RECHARGE, PUMPAGE: 450,000 AF, FULL WATER RIGHTS, HYDRO=600 CFS													08/26/93
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	3179.	2350.	9177.	13583.	0.	0.	0.	0.	0.	0.	0.	0.	28289.
1935	0.	0.	0.	0.	14212.	254194.	21044.	0.	40673.	5112.	0.	6219.	341455.
1936	0.	0.	0.	0.	2563.	24502.	96494.	0.	200802.	55106.	21352.	12431.	413249.
1937	0.	0.	8319.	375.	0.	27251.	0.	0.	0.	0.	0.	0.	35946.
1938	0.	0.	0.	18721.	19693.	0.	0.	0.	0.	0.	0.	0.	38414.
1939	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1940	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1941	0.	0.	0.	67468.	120331.	24636.	4582.	0.	0.	0.	0.	0.	217017.
1942	0.	0.	0.	0.	3031.	0.	0.	0.	13078.	25723.	1019.	0.	42851.
1943	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1944	0.	0.	0.	0.	51797.	24181.	0.	0.	0.	0.	0.	0.	75978.
1945	11968.	41090.	52891.	40136.	1734.	0.	0.	0.	0.	0.	0.	0.	147818.
1946	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	20206.	24623.	44829.
1947	34102.	24747.	13430.	4848.	0.	0.	0.	0.	0.	0.	0.	0.	77127.
1948	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1949	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1950	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1951	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1952	0.	0.	0.	0.	0.	0.	0.	0.	39369.	0.	0.	0.	39369.
1953	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1954	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1955	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1956	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1957	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1958	0.	0.	0.	0.	59836.	14154.	0.	0.	2252.	2747.	10149.	0.	89138.
1959	0.	0.	0.	0.	0.	0.	0.	0.	0.	20401.	0.	0.	20401.
1960	0.	0.	0.	0.	0.	0.	0.	0.	0.	68247.	31565.	43808.	143620.
1961	15811.	74989.	32727.	3832.	0.	2583.	0.	0.	0.	0.	0.	0.	129942.
1962	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1963	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1964	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1965	0.	0.	0.	0.	8758.	0.	0.	0.	0.	0.	0.	0.	8758.
1966	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1967	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1968	9125.	0.	20802.	28201.	33432.	10888.	0.	0.	0.	0.	0.	0.	102448.
1969	0.	0.	0.	0.	0.	0.	0.	0.	0.	15275.	0.	18235.	33510.
1970	0.	0.	37970.	12634.	41281.	17662.	0.	0.	0.	0.	0.	0.	109547.
1971	0.	0.	0.	0.	0.	0.	0.	11854.	0.	38989.	21122.	27232.	99197.
1972	0.	0.	0.	0.	119347.	21502.	0.	0.	0.	0.	0.	0.	140849.
1973	0.	0.	0.	0.	0.	28472.	140023.	17488.	19848.	110785.	29238.	11206.	357059.
1974	0.	0.	0.	0.	19355.	0.	0.	8380.	17137.	1607.	45124.	17591.	109196.
1975	0.	104344.	34403.	22345.	108920.	77909.	33581.	0.	0.	0.	0.	0.	381501.
1976	0.	0.	0.	0.	18867.	9091.	35072.	0.	0.	24143.	24876.	27602.	139650.
1977	6546.	31053.	20039.	157916.	76271.	24853.	0.	0.	0.	0.	0.	0.	316677.
1978	0.	0.	0.	0.	0.	0.	0.	199817.	42517.	273.	10385.	4921.	257914.
1979	21122.	53146.	94480.	83812.	63097.	88138.	29539.	5724.	0.	0.	0.	0.	439058.
1980	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1981	0.	0.	0.	0.	0.	196700.	35375.	0.	0.	64474.	9154.	0.	305704.
1982	0.	0.	0.	0.	6751.	0.	0.	0.	0.	0.	0.	0.	6751.
1983	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1984	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1985	0.	0.	0.	0.	0.	66038.	31624.	0.	0.	49882.	34286.	30201.	212030.
1986	0.	6375.	0.	0.	6426.	45957.	0.	0.	12381.	68588.	32506.	107660.	279894.
1987	40115.	39812.	52804.	22202.	65588.	390238.	144003.	34692.	10891.	636.	6745.	3592.	811317.
1988	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1989	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AVERAGE FLOW AVAILABLE - ACFT/YR				1934-89:	107080.	1947-56:	11650.	1953-56:	0.				

GUADALUPE RIVER BELOW THE COMAL RIVER CONFLUENCE

AVAILABLE FLOW SUMMARY - ACFT: HISTORICAL RECHARGE, PUMPAGE: 250,000 AF, 1988 WATER USE, HYDRO=0 CFS													08/26/93
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	40781.	38157.	49309.	53192.	39045.	28870.	34461.	25499.	20563.	21454.	26964.	27983.	406279.
1935	28536.	31128.	28461.	27658.	50020.	281953.	66732.	40332.	90701.	50245.	40064.	51168.	786997.
1936	32904.	31557.	33841.	28980.	47277.	68307.	141608.	37592.	218884.	101236.	64762.	56394.	863341.
1937	30418.	31731.	46541.	43289.	35591.	73368.	31587.	26250.	25481.	25827.	24326.	35730.	430137.
1938	41732.	33553.	38681.	64517.	65278.	34765.	27267.	25169.	25284.	23677.	24051.	25526.	429500.
1939	26589.	23304.	24378.	22505.	23203.	19382.	21041.	5107.	6883.	6225.	9919.	14703.	203238.
1940	16963.	22393.	23489.	24961.	21895.	21231.	22905.	14707.	7908.	18024.	23077.	35195.	252749.
1941	24381.	36359.	99611.	132218.	168514.	72578.	54591.	33126.	34334.	52057.	34415.	32365.	774549.
1942	27108.	25028.	28133.	32378.	59682.	30383.	31786.	24639.	67450.	75217.	47848.	45419.	495071.
1943	33544.	29072.	30723.	27881.	26396.	26793.	29610.	21911.	24315.	23069.	22161.	23976.	319451.
1944	32242.	35381.	46121.	31258.	125581.	72315.	34044.	33657.	39431.	33066.	32249.	63015.	578358.
1945	41491.	80099.	99924.	86445.	50038.	36120.	28972.	25269.	14130.	45357.	27710.	43171.	578727.
1946	29394.	28999.	30821.	39567.	57898.	44753.	25898.	24524.	46784.	61495.	93883.	72650.	556665.
1947	55868.	67848.	60408.	51383.	47719.	42628.	24336.	24257.	21329.	18269.	21496.	22063.	457604.
1948	21285.	21397.	22825.	16857.	21938.	10480.	18902.	12655.	2259.	8294.	3757.	6655.	167303.
1949	13134.	19216.	27774.	31734.	35626.	25976.	22530.	18868.	14355.	24042.	19903.	21239.	274396.
1950	21871.	24244.	22730.	22329.	22658.	20599.	17057.	0.	1027.	0.	264.	5140.	157920.
1951	4924.	7157.	8156.	8682.	15121.	17241.	0.	0.	3385.	0.	0.	0.	64667.
1952	622.	6984.	1306.	17347.	18797.	18781.	9149.	0.	88275.	18830.	14684.	23672.	218446.
1953	27130.	19961.	21105.	20120.	15526.	0.	0.	7131.	22091.	20379.	17343.	19440.	190227.
1954	17201.	12817.	7039.	10135.	10734.	0.	0.	0.	0.	0.	0.	0.	57924.
1955	0.	11500.	598.	0.	6890.	6947.	0.	0.	0.	0.	0.	0.	25936.
1956	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	2371.	2371.
1957	0.	4087.	10701.	38463.	40141.	41228.	18834.	294.	19711.	33303.	27820.	26235.	260817.
1958	35117.	52113.	106910.	62813.	151444.	65560.	35722.	25389.	61447.	55491.	60738.	45898.	758641.
1959	32643.	30393.	35191.	31988.	28516.	46454.	33477.	23938.	21033.	106429.	34730.	37487.	462276.
1960	32210.	29275.	29869.	33027.	35209.	35090.	35335.	76880.	33834.	138819.	81929.	94691.	656168.
1961	54107.	107567.	82735.	53234.	38700.	56679.	46288.	31277.	29216.	31719.	32250.	32669.	596440.
1962	30627.	27104.	29409.	28769.	28153.	25051.	18089.	3304.	21534.	24186.	24388.	27654.	288269.
1963	26028.	23937.	25747.	26336.	19638.	11741.	7854.	0.	0.	0.	20868.	19145.	181293.
1964	17474.	24535.	25460.	24150.	17337.	25425.	2911.	6458.	19630.	23077.	26190.	22218.	234862.
1965	26286.	38453.	36493.	35157.	59146.	47806.	37772.	30254.	25492.	34269.	34217.	71021.	476365.
1966	37614.	34997.	38870.	36450.	46789.	36334.	31440.	41690.	43171.	32926.	28116.	27303.	435699.
1967	27581.	23497.	23819.	18609.	10078.	1213.	0.	4231.	30101.	30285.	35050.	33035.	237499.
1968	124048.	82057.	80868.	78133.	85189.	61910.	46297.	35157.	32247.	32803.	31101.	34063.	723872.
1969	32370.	33887.	38610.	40083.	44623.	43466.	32890.	28044.	29712.	98864.	46989.	70382.	539920.
1970	37136.	36884.	85959.	62547.	92937.	68488.	41065.	32059.	30985.	33652.	31021.	31272.	584004.
1971	30140.	26172.	26178.	18842.	13795.	14444.	7436.	63806.	51413.	92590.	71614.	78423.	494853.
1972	39808.	36723.	36719.	30565.	177500.	72448.	44702.	50645.	35286.	37243.	41935.	38765.	642338.
1973	35192.	35087.	41355.	66153.	54071.	81169.	191041.	71825.	72533.	163226.	78947.	61325.	951924.
1974	42658.	38638.	40790.	36898.	72253.	38793.	35480.	66952.	69144.	53370.	94510.	67449.	656937.
1975	36910.	134996.	83086.	70524.	159194.	125446.	85337.	51772.	39746.	41251.	35434.	38207.	901903.
1976	32958.	30149.	32040.	36014.	77312.	58444.	86713.	49150.	48109.	81852.	73115.	76109.	681968.
1977	46956.	56069.	67266.	204497.	124373.	72710.	49442.	37636.	34262.	36341.	43185.	36951.	809688.
1978	33704.	31274.	32811.	31257.	30063.	30269.	26913.	246107.	92611.	50829.	58580.	53592.	718011.
1979	48148.	92270.	141223.	130894.	112126.	136616.	80247.	57403.	41532.	37007.	33343.	38738.	949547.
1980	33557.	31043.	33306.	31699.	36099.	32426.	25990.	19321.	30070.	38648.	37872.	41438.	391469.
1981	31901.	29778.	41489.	77981.	60715.	248251.	75567.	51230.	43832.	121604.	57042.	45667.	885057.
1982	32791.	29425.	31072.	29562.	63103.	46448.	29496.	22766.	20948.	16425.	24017.	29347.	375400.
1983	30145.	28453.	32740.	33215.	33436.	32688.	29212.	27838.	23194.	26695.	26644.	24922.	349182.
1984	26580.	25347.	26124.	21226.	15090.	9070.	0.	0.	0.	20546.	24378.	24730.	193090.
1985	30600.	29553.	67004.	61396.	58089.	133165.	78893.	35106.	37053.	100596.	79696.	73993.	785144.
1986	40614.	36635.	43572.	37900.	60692.	92471.	44026.	32704.	69318.	111437.	81768.	157202.	808340.
1987	60924.	84124.	100799.	69640.	115051.	438411.	180959.	79464.	44633.	50271.	53674.	51019.	1328969.
1988	36776.	34213.	35996.	33445.	33786.	30362.	74335.	37018.	28279.	22831.	20459.	26218.	413716.
1989	28551.	27681.	30279.	29472.	27771.	21510.	5922.	0.	0.	3078.	12001.	15402.	201667.
AVERAGE FLOW AVAILABLE - ACFT/YR				1934-89: 486914.			1947-56: 161679.		1953-56: 69115.				

GUADALUPE RIVER BELOW THE COMAL RIVER CONFLUENCE

AVAILABLE FLOW SUMMARY - ACFT: HISTORICAL RECHARGE, PUMPAGE: 400,000 AF, 1988 WATER USE, HYDRO=0 CFS													08/26/93
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	39926.	37153.	48016.	51588.	37131.	26427.	31855.	22037.	17212.	18318.	24432.	25480.	379575.
1935	26153.	28865.	26069.	24885.	46584.	279440.	62656.	35783.	86351.	46216.	36698.	48019.	747718.
1936	29901.	28730.	30920.	25713.	43702.	64014.	136697.	32083.	213305.	96528.	60832.	52742.	815167.
1937	27068.	28586.	43518.	39754.	31555.	68935.	26451.	20445.	19868.	20472.	19663.	31205.	377520.
1938	37651.	29843.	35817.	60301.	60653.	29822.	21654.	18960.	19315.	17592.	19083.	20719.	371410.
1939	22102.	19251.	19920.	17233.	17683.	13330.	14438.	0.	0.	0.	3075.	7990.	135021.
1940	10674.	16985.	17242.	18810.	15386.	14425.	15750.	6806.	0.	10538.	15994.	28284.	170895.
1941	17817.	33486.	93265.	125704.	161653.	65483.	47049.	25174.	26627.	44712.	27850.	26122.	694944.
1942	21279.	19606.	22456.	26352.	53127.	23345.	24139.	16757.	59550.	67782.	41304.	39161.	414858.
1943	27814.	23859.	25132.	21868.	19817.	19693.	22103.	13794.	16440.	15168.	15022.	17030.	237740.
1944	25772.	29289.	39737.	24760.	120855.	64992.	26128.	25507.	31242.	25159.	25096.	56207.	494742.
1945	35171.	74313.	94012.	80460.	43659.	29306.	21404.	17318.	5545.	37588.	20715.	36373.	495864.
1946	23031.	23062.	24606.	33057.	50928.	37346.	18070.	16421.	38537.	53533.	86748.	65957.	471296.
1947	50462.	62249.	54585.	45193.	40979.	35386.	16564.	16177.	13197.	9642.	14019.	14717.	373171.
1948	14355.	14934.	15953.	9139.	14491.	2270.	10847.	3786.	0.	0.	0.	0.	85773.
1949	4927.	11758.	20252.	23875.	27606.	17714.	13994.	9558.	4977.	15247.	11433.	12967.	174306.
1950	13883.	16398.	14898.	14406.	14581.	12253.	7865.	0.	0.	0.	0.	0.	94285.
1951	0.	0.	0.	68.	6392.	8890.	0.	0.	0.	0.	0.	0.	15350.
1952	0.	0.	0.	9300.	10633.	10397.	392.	0.	79319.	9937.	6041.	15219.	141237.
1953	18871.	11863.	13023.	11952.	7263.	0.	0.	1438.	13157.	11415.	8677.	11056.	108716.
1954	8983.	4130.	0.	2044.	2520.	0.	0.	0.	0.	664.	0.	0.	18339.
1955	0.	3838.	0.	0.	1509.	2064.	0.	0.	0.	0.	0.	0.	7411.
1956	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	88.	88.
1957	0.	786.	5954.	29913.	31608.	32571.	9843.	0.	11871.	24286.	18977.	17506.	183317.
1958	26414.	39528.	98195.	54023.	142588.	56500.	26322.	15814.	51867.	45982.	51472.	36799.	645503.
1959	23823.	21769.	26608.	23297.	19671.	37455.	24240.	14532.	11545.	96833.	25435.	28412.	353618.
1960	23372.	20521.	21188.	24053.	26124.	25899.	25908.	67081.	23995.	128978.	72333.	85333.	544784.
1961	45203.	99112.	74130.	44345.	29689.	47485.	36786.	21583.	19479.	21963.	22838.	23501.	486113.
1962	21700.	18355.	20680.	19924.	19201.	15924.	8089.	0.	11877.	14527.	15059.	18575.	183913.
1963	17120.	15184.	17011.	17499.	10047.	1969.	0.	0.	0.	0.	11555.	9346.	99730.
1964	7953.	15811.	16749.	15359.	7781.	16029.	0.	0.	9988.	13493.	16795.	12360.	132316.
1965	17331.	29636.	27630.	26108.	49862.	36509.	28101.	20458.	15664.	24431.	24689.	61649.	362068.
1966	28460.	25937.	29868.	27324.	37558.	26855.	21674.	31112.	33250.	22964.	18493.	17910.	321404.
1967	18407.	13875.	14214.	8830.	192.	0.	0.	0.	20230.	20466.	25435.	23597.	145246.
1968	113527.	72840.	71702.	68670.	75532.	52027.	36260.	24977.	22083.	22682.	21325.	24583.	606208.
1969	23073.	24835.	29545.	30889.	35140.	33699.	22944.	17901.	19608.	88766.	37201.	60719.	424319.
1970	27720.	27777.	76697.	53125.	83417.	58801.	31063.	21750.	20676.	23426.	21186.	21662.	467299.
1971	20910.	17377.	17222.	9129.	3943.	4377.	0.	53149.	41344.	82434.	61765.	68701.	380351.
1972	30384.	27742.	27598.	21270.	167970.	62680.	34684.	40424.	25066.	27053.	32087.	29101.	526059.
1973	25849.	26197.	32246.	56853.	44589.	71322.	180742.	61182.	62181.	153429.	70221.	52994.	837806.
1974	34878.	31432.	33339.	29079.	63965.	30137.	26252.	57356.	59545.	44071.	86020.	59320.	555395.
1975	29269.	127898.	76051.	63260.	151414.	117399.	76807.	42759.	31079.	32948.	27882.	30890.	807657.
1976	26057.	23754.	25288.	28962.	69776.	50537.	78240.	40171.	39424.	73671.	65921.	69448.	591251.
1977	40832.	50425.	61575.	198658.	118305.	66298.	42392.	29968.	26833.	29316.	36855.	30875.	732332.
1978	28034.	26074.	27214.	25244.	23487.	23195.	19062.	237698.	84285.	42816.	51316.	46609.	635034.
1979	41616.	86167.	134974.	124666.	105610.	129761.	72921.	49631.	34056.	29987.	27018.	32614.	869021.
1980	27866.	25850.	27751.	25718.	29458.	25310.	17516.	10319.	21683.	30496.	30455.	34304.	306725.
1981	25136.	23494.	34839.	70996.	53179.	240616.	67629.	42897.	35825.	113962.	50231.	39237.	798042.
1982	26715.	23866.	25153.	23272.	56140.	39070.	21455.	13637.	11891.	8226.	16568.	22176.	288168.
1983	23406.	22090.	26046.	26156.	25777.	24608.	20578.	18956.	14219.	17812.	18440.	16521.	254609.
1984	19014.	18214.	18711.	12923.	6264.	0.	0.	0.	0.	11350.	15462.	15991.	117929.
1985	22272.	21692.	58955.	53145.	49418.	124163.	69440.	25419.	27414.	91156.	71010.	65710.	679795.
1986	32807.	29380.	36100.	30124.	52395.	83644.	34885.	23210.	59960.	102380.	73706.	149708.	708300.
1987	54201.	77950.	94565.	63200.	108239.	431572.	173873.	72060.	37593.	43583.	47750.	45262.	1249848.
1988	31495.	29233.	30792.	27889.	27711.	23812.	66984.	29070.	19911.	14782.	13134.	19109.	333921.
1989	22337.	21901.	24100.	22828.	20582.	13832.	0.	0.	0.	0.	3457.	7138.	136174.
AVERAGE FLOW AVAILABLE - ACFT/YR				1934-89:	403387.	1947-56:	101868.	1953-56:	33638.				

GUADALUPE RIVER BELOW THE COMAL RIVER CONFLUENCE

AVAILABLE FLOW SUMMARY - ACFT: HISTORICAL RECHARGE, PUMPAGE: 450,000 AF, 1988 WATER USE, HYDRO=0 CFS													08/26/93
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	39649.	36838.	47598.	51057.	36494.	25583.	30607.	20505.	15646.	16758.	23326.	24331.	368393.
1935	25246.	28019.	24900.	23559.	45083.	278550.	60781.	33727.	84298.	44285.	34939.	46216.	729601.
1936	28401.	27465.	29359.	24035.	42047.	62115.	134600.	29792.	210844.	94329.	58811.	50778.	792577.
1937	25333.	27171.	41956.	37842.	29545.	66787.	24097.	18043.	17341.	18072.	17444.	29089.	352718.
1938	35607.	27876.	34611.	58336.	58495.	27524.	19186.	16465.	16676.	14876.	16709.	18377.	344737.
1939	19957.	17140.	17735.	14802.	15310.	11024.	12121.	0.	0.	0.	375.	5381.	113844.
1940	8129.	14692.	14728.	16454.	13124.	12104.	13275.	4022.	0.	8015.	13498.	25769.	143810.
1941	15313.	29112.	90743.	123151.	159037.	62683.	44319.	22445.	23789.	41872.	25072.	23423.	660960.
1942	18686.	17151.	19933.	23722.	50742.	20737.	21490.	13999.	56768.	64886.	38474.	36410.	382998.
1943	25120.	21160.	22485.	19142.	17135.	17040.	19414.	10789.	13668.	12435.	12186.	14265.	204838.
1944	23065.	26692.	37056.	21972.	118779.	62236.	23389.	22649.	28376.	22315.	22162.	53303.	461992.
1945	32354.	71521.	91238.	77653.	40741.	26358.	18602.	14433.	2481.	34682.	17747.	33456.	461266.
1946	20202.	20278.	21803.	30199.	48102.	34518.	15215.	13464.	35572.	50577.	83696.	62961.	436587.
1947	47573.	59482.	51774.	42342.	38104.	32567.	13708.	13205.	10230.	6539.	11096.	11856.	338476.
1948	11499.	12112.	13231.	6257.	11794.	0.	7962.	549.	0.	0.	0.	0.	63403.
1949	2060.	9066.	17616.	21160.	24838.	14900.	11013.	6239.	1668.	12251.	8574.	10223.	139606.
1950	11166.	13706.	12221.	11693.	11770.	9400.	4647.	0.	0.	0.	0.	0.	74604.
1951	0.	0.	0.	0.	3360.	6061.	0.	922.	0.	0.	0.	0.	10343.
1952	0.	0.	0.	7439.	9011.	9553.	138.	0.	76365.	9064.	4545.	12409.	128523.
1953	16191.	9224.	10410.	9266.	4527.	0.	0.	1438.	13021.	10387.	6539.	8924.	89927.
1954	6331.	1391.	0.	1947.	2455.	0.	0.	0.	0.	664.	0.	0.	12787.
1955	0.	3838.	0.	0.	1509.	2064.	0.	0.	0.	0.	0.	0.	7411.
1956	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	88.	88.
1957	0.	786.	5954.	28384.	28955.	30313.	9729.	0.	11871.	22330.	14404.	11646.	164373.
1958	21192.	34724.	93599.	49521.	138195.	52183.	21995.	11499.	47683.	41936.	47616.	33043.	593186.
1959	20164.	18206.	23137.	19841.	16177.	33946.	20665.	10864.	7951.	93316.	22017.	25043.	311325.
1960	20149.	17402.	18068.	20878.	22861.	22623.	22551.	63635.	20534.	125581.	69036.	82145.	505462.
1961	42039.	95923.	71068.	41316.	26571.	44297.	33490.	18202.	16118.	18643.	19659.	20397.	447723.
1962	18678.	15371.	17715.	16927.	16113.	12817.	4584.	0.	8606.	11289.	11933.	15491.	149525.
1963	14159.	12329.	14127.	14583.	6794.	0.	0.	0.	0.	0.	8296.	5957.	76245.
1964	4682.	12954.	13881.	12471.	4557.	12766.	0.	0.	7736.	10301.	13575.	8931.	101853.
1965	14330.	26669.	24713.	23156.	46853.	32967.	24934.	17191.	12443.	21278.	21652.	58622.	324808.
1966	25513.	23075.	27001.	24410.	34577.	23858.	18574.	27620.	30045.	19818.	15439.	14896.	284825.
1967	15499.	10731.	11102.	5689.	0.	0.	0.	0.	16998.	17302.	22381.	20578.	120279.
1968	110091.	69950.	68802.	65711.	72485.	48936.	33049.	21689.	18817.	19455.	18210.	21522.	568718.
1969	20088.	21882.	26622.	27933.	32077.	30598.	19732.	14601.	16329.	85525.	34063.	57683.	387132.
1970	24754.	24870.	73778.	50124.	80337.	55686.	27820.	18414.	17305.	20137.	18045.	18592.	429860.
1971	17929.	14421.	14298.	5918.	635.	1044.	0.	49850.	38014.	79167.	58593.	65591.	345460.
1972	27334.	24746.	24659.	18314.	164891.	59538.	31452.	37099.	21754.	23776.	28955.	26033.	488552.
1973	22879.	23145.	29285.	53788.	41464.	68112.	177437.	57815.	58819.	150003.	66693.	49540.	798980.
1974	31531.	28065.	30013.	25803.	60759.	26943.	22996.	53985.	56167.	40772.	82614.	55936.	515587.
1975	25913.	124632.	72743.	59848.	147999.	113913.	73343.	39328.	27541.	29423.	24369.	27398.	766450.
1976	22696.	20376.	21959.	25567.	66391.	47103.	74819.	36727.	35863.	70018.	62349.	65953.	549824.
1977	37493.	47260.	58367.	195447.	114937.	62887.	38770.	26431.	23193.	25698.	33428.	27534.	691446.
1978	24815.	22960.	24088.	22049.	20160.	19918.	15841.	234391.	80959.	39443.	47862.	43261.	595747.
1979	38307.	82960.	131728.	121334.	102152.	126189.	69305.	46051.	30314.	26304.	23541.	29190.	827374.
1980	24597.	22638.	24533.	22421.	26121.	21977.	14019.	6730.	18356.	27128.	27000.	30846.	266367.
1981	21790.	20107.	31494.	67589.	49875.	237041.	64037.	39314.	32103.	110249.	46638.	35697.	755935.
1982	23368.	20510.	21815.	19900.	52695.	35628.	18085.	9964.	8230.	4768.	13028.	18699.	246690.
1983	20006.	18721.	22683.	22817.	22533.	21359.	17255.	15498.	10796.	14458.	15059.	12928.	214113.
1984	15695.	14807.	15448.	9435.	2830.	0.	0.	0.	0.	7939.	12192.	12725.	91071.
1985	18999.	18371.	55677.	49840.	46168.	120839.	66017.	21887.	23919.	87719.	67536.	62250.	639221.
1986	29332.	25861.	32664.	26746.	49111.	80257.	31424.	19646.	56397.	98813.	69985.	146030.	666265.
1987	50657.	74559.	91158.	59686.	104644.	427894.	170024.	68098.	33687.	39808.	44207.	41938.	1206360.
1988	28182.	26072.	27569.	24603.	24262.	20238.	63495.	25610.	16120.	10955.	9348.	15322.	291775.
1989	18969.	18573.	20746.	19468.	17287.	10573.	0.	0.	0.	0.	0.	3490.	109106.
AVERAGE FLOW AVAILABLE - ACFT/YR				1934-89: 372341.		1947-56: 86517.		1953-56: 27553.					

APPENDIX L

Canyon Lake Firm Yield Utilization Summaries

UTILIZATION SUMMARY - ACFT: AT CANYON LAKE FOR FULL WATER RIGHTS, PUMPAGE SCENARIO 1 (250,000 ACFT/YR)

09/28/93

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	1812.	1797.	2046.	2298.	2390.	2737.	3263.	3290.	2591.	2181.	1964.	1946.	28315.
1935	1827.	1791.	2069.	2303.	2354.	2698.	3250.	3273.	2544.	2156.	1970.	1943.	28178.
1936	1819.	1804.	2063.	2317.	2359.	2711.	3214.	3269.	2563.	2145.	1964.	1952.	28180.
1937	1820.	1801.	2045.	2306.	2388.	2707.	3264.	3288.	2586.	2170.	1982.	1955.	28312.
1938	1809.	1796.	2056.	2280.	2361.	2717.	3264.	3283.	2585.	2180.	1982.	1969.	28282.
1939	1832.	1815.	2076.	2328.	2393.	2733.	3267.	3306.	2602.	2196.	1992.	1979.	28519.
1940	1841.	1814.	2078.	2320.	2399.	2715.	3211.	3296.	2602.	2174.	1933.	1925.	28308.
1941	1805.	1787.	2041.	2288.	2354.	2695.	3241.	3265.	2571.	2163.	1968.	1962.	28140.
1942	1828.	1812.	2070.	2295.	2382.	2730.	3210.	3277.	2542.	2148.	1961.	1951.	28206.
1943	1818.	1804.	2061.	2314.	2388.	2718.	3265.	3290.	2584.	2179.	1981.	1968.	28370.
1944	1819.	1798.	2044.	2306.	2371.	2706.	3259.	3281.	2560.	2174.	1964.	1945.	28227.
1945	1809.	1789.	2049.	2283.	2380.	2718.	3266.	3289.	2602.	2166.	1980.	1963.	28294.
1946	1819.	1795.	2042.	2301.	2373.	2706.	3272.	3268.	2539.	2139.	1952.	1946.	28152.
1947	1808.	1795.	2050.	2297.	2371.	2726.	3266.	3261.	2586.	2181.	1983.	1969.	28293.
1948	1836.	1812.	2071.	2333.	2376.	2751.	3270.	3293.	2605.	2190.	1995.	1986.	28518.
1949	1843.	1807.	2056.	2278.	2366.	2722.	3265.	3294.	2596.	2139.	1974.	1958.	28298.
1950	1832.	1809.	2074.	2302.	2390.	2696.	3279.	3310.	2603.	2195.	1997.	3489.	29976.
1951	1848.	1830.	2090.	2339.	2407.	2693.	7286.	7884.	2592.	2209.	1998.	1989.	37165.
1952	1847.	1827.	2090.	2327.	2375.	2713.	3278.	7233.	2559.	2175.	1965.	1943.	32332.
1953	1815.	1809.	2075.	2317.	2360.	4769.	6919.	3280.	2557.	2151.	1977.	1959.	33988.
1954	1835.	1821.	2085.	2328.	2390.	5632.	6942.	7113.	6125.	2246.	2014.	1998.	42529.
1955	1853.	1803.	2087.	2344.	2383.	2720.	7261.	4594.	2641.	5774.	2047.	2008.	37515.
1956	1860.	1835.	2114.	4430.	2414.	5879.	7966.	8268.	5647.	2200.	2047.	1967.	46627.
1957	1880.	1821.	2052.	2284.	2352.	2691.	3272.	3304.	2533.	2128.	1943.	1946.	28206.
1958	1804.	1776.	2044.	2300.	2369.	2717.	3257.	3288.	2561.	2154.	1959.	1952.	28181.
1959	1821.	1793.	2059.	2284.	2374.	2726.	3255.	3281.	2584.	2155.	1965.	1958.	28255.
1960	1819.	1798.	2061.	2304.	2367.	2696.	3236.	3269.	2573.	2132.	1941.	1941.	28137.
1961	1806.	1785.	2050.	2304.	2385.	2685.	3238.	3272.	2553.	2165.	1953.	1959.	28155.
1962	1826.	1808.	2069.	2312.	2393.	2726.	3278.	3304.	2577.	2174.	1977.	1963.	28407.
1963	1830.	1802.	2071.	2320.	2402.	2747.	3289.	7025.	6109.	2200.	1972.	1975.	35742.
1964	1837.	1808.	2056.	2319.	2403.	2735.	5017.	3304.	2573.	2178.	1974.	1976.	30180.
1965	1810.	1776.	2059.	2306.	2361.	2696.	3258.	3283.	2585.	2157.	1954.	1938.	28183.
1966	1819.	1794.	2053.	2295.	2367.	2721.	3264.	3284.	2577.	2170.	1979.	1970.	28293.
1967	1833.	1818.	2076.	2329.	2405.	6389.	3295.	3300.	2517.	2145.	1955.	1958.	32020.
1968	1800.	1790.	2052.	2292.	2361.	2688.	3251.	3276.	2555.	2169.	1970.	1941.	28145.
1969	1825.	1781.	2039.	2283.	2364.	2714.	3264.	3283.	2578.	2161.	1969.	1951.	28212.
1970	1818.	1795.	2047.	2302.	2365.	2708.	3258.	3278.	2577.	2162.	1977.	1968.	28255.
1971	1832.	1815.	2074.	2330.	2405.	2737.	3289.	3270.	2551.	2160.	1968.	1947.	28378.
1972	1820.	1801.	2062.	2318.	2354.	2708.	3256.	3272.	2576.	2168.	1971.	1961.	28267.
1973	1821.	1796.	2046.	2280.	2373.	2686.	3242.	3261.	2558.	2132.	1955.	1947.	28097.
1974	1804.	1795.	2057.	2308.	2374.	2713.	3267.	3269.	2545.	2161.	1948.	1941.	28182.
1975	1815.	1787.	2053.	2297.	2356.	2699.	3241.	3265.	2567.	2161.	1969.	1954.	28164.
1976	1824.	1807.	2065.	2279.	2356.	2702.	3246.	3269.	2564.	2139.	1944.	1926.	28121.
1977	1809.	1782.	2051.	2277.	2368.	2710.	3254.	3273.	2573.	2168.	1961.	1960.	28186.
1978	1825.	1804.	2063.	2312.	2393.	2713.	3274.	3265.	2553.	2165.	1961.	1955.	28283.
1979	1802.	1786.	2045.	2285.	2358.	2699.	3249.	3266.	2565.	2166.	1972.	1960.	28153.
1980	1820.	1806.	2066.	2319.	2365.	2725.	3274.	3294.	2565.	2166.	1973.	1962.	28335.
1981	1826.	1807.	2058.	2304.	2376.	2695.	3240.	3258.	2523.	2152.	1946.	1952.	28137.
1982	1820.	1795.	2061.	2312.	2358.	2719.	3269.	3290.	2592.	2180.	1969.	1967.	28332.
1983	1830.	1797.	2046.	2308.	2374.	2715.	3255.	3285.	2574.	2170.	1971.	1970.	28295.
1984	1827.	1814.	2064.	2328.	2404.	2751.	6309.	3322.	5695.	2172.	1982.	1964.	34632.
1985	1816.	1799.	2051.	2297.	2378.	2706.	3245.	3275.	2580.	2159.	1950.	1941.	28197.
1986	1816.	1797.	2059.	2312.	2376.	2706.	3260.	3284.	2568.	2153.	1958.	1933.	28222.
1987	1808.	1787.	2042.	2301.	2373.	2689.	3242.	3260.	2565.	2159.	1964.	1952.	28142.
1988	1822.	1804.	2060.	2315.	2389.	2724.	3261.	3282.	2585.	2181.	2815.	3501.	30739.
1989	1831.	1815.	2073.	2322.	2375.	2730.	3289.	3313.	2616.	2192.	2843.	3912.	31311.

AVERAGE UTILIZATION - ACFT/YR

1934-89: 29808.

1947-56:

34524.

1953-56:

40165.

UTILIZATION SUMMARY - ACFT: AT CANYON LAKE FOR FULL WATER RIGHTS, PUMPAGE SCENARIO 3 (450,000 ACFT/YR)

09/28/93

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	1812.	1797.	2046.	2298.	2390.	2740.	3264.	3291.	2594.	2183.	1965.	1945.	28325.
1935	1829.	1791.	2070.	2303.	2353.	2698.	3250.	3274.	2542.	2155.	1970.	1944.	28179.
1936	1820.	1805.	2063.	2318.	2358.	2710.	3214.	3269.	2563.	2146.	1964.	1952.	28182.
1937	1820.	1801.	2045.	2307.	2389.	2707.	3266.	3293.	2591.	2173.	1984.	1955.	28331.
1938	1810.	1796.	2056.	2280.	2359.	2717.	3264.	3285.	2590.	2185.	1984.	1971.	28297.
1939	1835.	1819.	2078.	2331.	2396.	2734.	3268.	3317.	2611.	2195.	1995.	1985.	28564.
1940	1846.	1816.	2082.	2323.	2402.	2712.	3202.	3301.	2610.	2175.	1928.	1923.	28320.
1941	1803.	1783.	2041.	2287.	2354.	2694.	3239.	3264.	2573.	2164.	1969.	1965.	28136.
1942	1831.	1816.	2073.	2294.	2383.	2732.	3205.	3275.	2541.	2149.	1962.	1953.	28214.
1943	1818.	1805.	2060.	2315.	2390.	2717.	3265.	3294.	2586.	2183.	1986.	1970.	28389.
1944	1819.	1798.	2043.	2306.	2372.	2705.	3258.	3282.	2559.	2179.	1964.	1945.	28230.
1945	1808.	1788.	2049.	2283.	2380.	2718.	3268.	3295.	2605.	2166.	1982.	1966.	28308.
1946	1821.	1793.	2038.	2301.	2372.	2704.	3275.	3263.	2535.	2137.	1952.	1946.	28137.
1947	1808.	1796.	2051.	2296.	2370.	2727.	3269.	3255.	2590.	2187.	1987.	1970.	28306.
1948	1837.	1813.	2073.	2337.	2371.	2753.	3267.	3290.	2625.	2195.	2008.	1993.	28562.
1949	1846.	1804.	2054.	2274.	2364.	2719.	3262.	3296.	2601.	2131.	1972.	1956.	28279.
1950	1835.	1810.	2078.	2297.	2388.	2684.	3281.	6641.	4720.	2220.	2016.	1996.	33966.
1951	1854.	1836.	2095.	2345.	2408.	2669.	6919.	9695.	2589.	2255.	2011.	2009.	38685.
1952	1860.	1831.	2103.	2322.	2365.	2707.	3274.	7439.	2559.	2175.	1949.	1938.	32522.
1953	1813.	1807.	2075.	2313.	2339.	5408.	6962.	3266.	2552.	2145.	1975.	1956.	34611.
1954	1833.	1825.	2089.	2318.	2375.	5683.	7145.	7765.	6577.	1042.	2046.	2018.	42716.
1955	1869.	1788.	2095.	2352.	2375.	2712.	7307.	4608.	5671.	5548.	1363.	2034.	39722.
1956	1879.	1846.	2143.	4852.	2653.	6268.	8119.	8694.	5896.	2206.	1366.	1967.	47889.
1957	1259.	1824.	2049.	2281.	2348.	2687.	3272.	3311.	2527.	2125.	1938.	1941.	27562.
1958	1798.	1768.	2044.	2300.	2368.	2718.	3258.	3290.	2561.	2154.	1958.	1953.	28170.
1959	1822.	1791.	2059.	2281.	2372.	2732.	3255.	3279.	2585.	2155.	1965.	1959.	28255.
1960	1820.	1799.	2061.	2305.	2364.	2691.	3232.	3269.	2575.	2131.	1940.	1940.	28127.
1961	1806.	1785.	2050.	2304.	2385.	2682.	3235.	3270.	2548.	2165.	1950.	1960.	28140.
1962	1827.	1810.	2071.	2313.	2396.	2726.	3285.	7414.	2575.	2175.	1980.	1964.	32536.
1963	1832.	1801.	2074.	2323.	2407.	4194.	4762.	7151.	5798.	2242.	1970.	1982.	38536.
1964	1843.	1808.	2053.	2320.	2408.	2739.	6266.	3315.	2563.	2183.	1975.	1985.	31458.
1965	1805.	1772.	2059.	2306.	2357.	2693.	3260.	3285.	2591.	2156.	1952.	1937.	28173.
1966	1819.	1794.	2054.	2294.	2364.	2720.	3266.	3290.	2583.	2174.	1984.	1975.	28317.
1967	1837.	1824.	2082.	2335.	2411.	6032.	6794.	3308.	2509.	2141.	1953.	1960.	35186.
1968	1798.	1791.	2052.	2292.	2361.	2686.	3249.	3279.	2551.	2172.	1970.	1938.	28139.
1969	1826.	1777.	2037.	2280.	2362.	2714.	3265.	3284.	2580.	2162.	1972.	1951.	28210.
1970	1818.	1796.	2046.	2303.	2364.	2707.	3259.	3280.	2580.	2161.	1980.	1971.	28265.
1971	1836.	1820.	2078.	2336.	2410.	2737.	6680.	3274.	2550.	2161.	1969.	1948.	31799.
1972	1820.	1803.	2064.	2323.	2355.	2708.	3256.	3274.	2581.	2172.	1976.	1967.	28299.
1973	1823.	1797.	2045.	2278.	2372.	2684.	3242.	3261.	2559.	2131.	1954.	1947.	28093.
1974	1802.	1797.	2058.	2310.	2374.	2713.	3270.	3271.	2543.	2161.	1947.	1940.	28186.
1975	1815.	1787.	2053.	2297.	2355.	2698.	3239.	3265.	2568.	2162.	1971.	1957.	28167.
1976	1827.	1810.	2067.	2276.	2356.	2700.	3245.	3269.	2565.	2138.	1944.	1926.	28123.
1977	1809.	1781.	2052.	2277.	2366.	2710.	3254.	3273.	2573.	2170.	1961.	1963.	28189.
1978	1827.	1807.	2067.	2313.	2396.	2711.	3279.	3266.	2553.	2165.	1961.	1957.	28302.
1979	1802.	1786.	2045.	2285.	2356.	2698.	3249.	3266.	2565.	2169.	1975.	1964.	28160.
1980	1821.	1808.	2070.	2323.	2361.	2726.	3278.	3301.	2564.	2174.	1978.	1968.	28372.
1981	1830.	1812.	2062.	2304.	2376.	2695.	3239.	3255.	2519.	2152.	1946.	1952.	28142.
1982	1821.	1795.	2062.	2314.	2357.	2721.	3271.	3297.	2602.	2189.	1970.	1970.	28369.
1983	1832.	1797.	2043.	2308.	2372.	2715.	3253.	3289.	2574.	2172.	1971.	1974.	28300.
1984	1829.	1816.	2065.	2334.	2409.	4538.	7086.	6569.	6672.	2169.	1988.	1965.	41440.
1985	1816.	1803.	2052.	2297.	2378.	2706.	3245.	3276.	2585.	2160.	1951.	1941.	28210.
1986	1818.	1797.	2060.	2316.	2375.	2705.	3262.	3289.	2571.	2154.	1958.	1932.	28237.
1987	1809.	1786.	2042.	2302.	2373.	2689.	3242.	3260.	2565.	2161.	1965.	1953.	28147.
1988	1824.	1806.	2061.	2317.	2392.	2727.	3264.	3284.	2595.	2189.	2827.	3516.	30802.
1989	1833.	1819.	2075.	2325.	2371.	2729.	6641.	6737.	5792.	2209.	1994.	1985.	38510.

AVERAGE UTILIZATION - ACFT/YR

1934-89: 30496.

1947-56:

35526.

1953-56:

41235.

UTILIZATION SUMMARY - ACFT: AT CANYON LAKE FOR 1988 USAGE, PUMPAGE SCENARIO 1 (250,000 ACFT/YR)

09/28/93

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	137.	130.	153.	173.	184.	219.	1038.	264.	3052.	860.	217.	1703.	8130.
1935	139.	130.	154.	731.	185.	222.	264.	265.	201.	172.	146.	151.	2760.
1936	138.	130.	154.	172.	185.	220.	266.	265.	203.	173.	146.	151.	2203.
1937	138.	130.	154.	173.	184.	220.	262.	264.	200.	172.	545.	150.	2592.
1938	138.	131.	153.	173.	184.	218.	262.	264.	200.	181.	295.	151.	2350.
1939	139.	130.	1100.	294.	572.	781.	1057.	945.	1042.	1723.	1047.	1080.	9910.
1940	876.	496.	745.	173.	183.	219.	262.	1416.	2392.	2737.	145.	151.	9795.
1941	137.	131.	155.	174.	187.	220.	263.	264.	200.	172.	145.	150.	2198.
1942	138.	130.	154.	173.	185.	219.	262.	264.	202.	172.	146.	151.	2196.
1943	137.	130.	153.	172.	184.	218.	262.	701.	200.	172.	146.	151.	2626.
1944	138.	130.	155.	172.	186.	220.	262.	264.	200.	171.	146.	150.	2194.
1945	139.	130.	154.	173.	185.	218.	262.	264.	199.	172.	145.	150.	2191.
1946	138.	129.	154.	173.	185.	219.	262.	263.	200.	172.	146.	151.	2192.
1947	138.	130.	154.	172.	185.	219.	262.	263.	200.	172.	543.	1081.	3519.
1948	1837.	1163.	589.	1026.	493.	218.	1011.	1569.	1439.	1518.	1572.	851.	13286.
1949	1498.	130.	154.	172.	184.	219.	261.	263.	1348.	171.	146.	150.	4696.
1950	137.	130.	153.	173.	183.	218.	262.	263.	198.	170.	145.	1053.	3085.
1951	1436.	688.	790.	172.	779.	218.	261.	262.	1899.	170.	145.	150.	6970.
1952	137.	1723.	152.	172.	184.	218.	1116.	261.	202.	171.	144.	149.	4629.
1953	138.	129.	153.	171.	184.	217.	259.	909.	200.	172.	146.	150.	2828.
1954	137.	129.	153.	1002.	4970.	217.	259.	261.	197.	169.	145.	148.	7787.
1955	136.	1099.	152.	170.	5584.	1054.	261.	261.	197.	169.	143.	148.	9374.
1956	136.	129.	152.	170.	181.	3056.	4522.	4619.	195.	168.	143.	497.	13968.
1957	136.	1566.	152.	173.	184.	220.	260.	262.	198.	173.	146.	151.	3621.
1958	138.	131.	155.	173.	186.	220.	262.	263.	200.	172.	146.	151.	2197.
1959	137.	131.	153.	173.	184.	219.	263.	263.	199.	172.	145.	150.	2189.
1960	138.	131.	154.	173.	184.	219.	262.	266.	200.	173.	147.	151.	2198.
1961	138.	131.	155.	173.	184.	219.	262.	264.	199.	171.	146.	150.	2192.
1962	137.	129.	153.	171.	184.	218.	262.	263.	200.	172.	146.	151.	2186.
1963	139.	130.	154.	173.	184.	218.	262.	263.	198.	170.	146.	150.	2187.
1964	137.	130.	153.	173.	184.	219.	262.	263.	200.	172.	146.	151.	2190.
1965	139.	130.	154.	173.	185.	220.	263.	263.	200.	172.	146.	150.	2195.
1966	138.	129.	154.	173.	185.	219.	262.	265.	199.	171.	145.	150.	2190.
1967	138.	129.	153.	173.	184.	225.	261.	263.	200.	172.	145.	150.	2193.
1968	139.	131.	154.	173.	185.	219.	263.	265.	199.	171.	145.	151.	2195.
1969	137.	129.	153.	172.	185.	219.	261.	263.	199.	173.	147.	150.	2188.
1970	138.	130.	154.	172.	185.	219.	263.	263.	200.	171.	145.	150.	2190.
1971	137.	129.	154.	173.	184.	218.	262.	267.	200.	173.	147.	150.	2194.
1972	139.	130.	154.	172.	186.	220.	262.	264.	199.	171.	146.	150.	2193.
1973	137.	131.	154.	173.	185.	220.	265.	265.	201.	174.	147.	151.	2203.
1974	137.	129.	153.	173.	185.	218.	262.	265.	200.	173.	146.	150.	2191.
1975	139.	131.	155.	173.	186.	221.	263.	265.	199.	172.	145.	150.	2199.
1976	138.	129.	153.	173.	185.	219.	264.	264.	201.	173.	146.	151.	2196.
1977	139.	131.	154.	174.	185.	219.	264.	264.	199.	171.	146.	150.	2196.
1978	138.	130.	153.	172.	183.	218.	262.	269.	201.	172.	146.	151.	2195.
1979	138.	131.	155.	173.	186.	221.	264.	264.	199.	171.	145.	150.	2197.
1980	138.	130.	153.	173.	185.	218.	262.	264.	200.	172.	145.	149.	2189.
1981	138.	130.	154.	174.	185.	222.	264.	265.	200.	173.	146.	151.	2202.
1982	139.	130.	154.	173.	186.	219.	262.	263.	200.	172.	146.	150.	2194.
1983	137.	129.	154.	172.	184.	220.	262.	264.	200.	170.	145.	151.	2188.
1984	137.	129.	154.	173.	184.	218.	261.	263.	198.	172.	146.	151.	2186.
1985	139.	130.	154.	173.	184.	221.	264.	264.	200.	172.	146.	151.	2198.
1986	139.	130.	154.	172.	184.	221.	262.	264.	201.	172.	147.	151.	2197.
1987	138.	130.	154.	173.	185.	223.	265.	266.	200.	172.	146.	150.	2202.
1988	137.	130.	154.	173.	184.	219.	264.	264.	199.	170.	146.	150.	2190.
1989	138.	130.	154.	171.	184.	218.	262.	263.	198.	170.	146.	151.	2185.

AVERAGE UTILIZATION - ACFT/YR

1934-89: 3487.

1947-56: 7014.

1953-56:

8489.

UTILIZATION SUMMARY - ACFT: AT CANYON LAKE FOR 1988 USAGE, PUMPAGE SCENARIO 3 (450,000 ACFT/YR)

09/28/93

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1934	137.	130.	153.	173.	184.	320.	1440.	264.	3499.	1254.	450.	1973.	9977.
1935	139.	130.	172.	1114.	185.	222.	264.	263.	201.	172.	146.	151.	3159.
1936	138.	130.	154.	172.	185.	220.	266.	263.	203.	173.	146.	151.	2201.
1937	138.	130.	154.	173.	184.	219.	261.	292.	871.	726.	1130.	150.	4428.
1938	138.	129.	154.	173.	185.	218.	261.	775.	536.	984.	925.	150.	4628.
1939	137.	590.	1738.	999.	1462.	1634.	1784.	262.	198.	170.	145.	1954.	11073.
1940	1695.	1212.	1616.	172.	2005.	217.	261.	1957.	198.	3445.	145.	150.	13073.
1941	137.	131.	155.	174.	185.	219.	262.	263.	199.	172.	145.	149.	2191.
1942	138.	128.	153.	172.	185.	217.	261.	262.	201.	172.	146.	150.	2185.
1943	137.	130.	153.	172.	182.	219.	262.	1385.	198.	170.	789.	814.	4611.
1944	137.	130.	155.	172.	186.	220.	262.	264.	200.	171.	146.	150.	2193.
1945	139.	130.	154.	173.	185.	218.	261.	262.	198.	171.	145.	150.	2186.
1946	137.	130.	153.	172.	185.	219.	260.	520.	200.	172.	146.	151.	2445.
1947	138.	130.	154.	172.	185.	219.	260.	262.	198.	932.	1452.	1985.	6087.
1948	2752.	2029.	1476.	1857.	1209.	217.	1542.	2027.	197.	169.	143.	148.	13766.
1949	136.	261.	153.	172.	183.	217.	259.	260.	197.	169.	145.	563.	2715.
1950	515.	129.	152.	170.	182.	217.	589.	259.	196.	169.	143.	148.	2869.
1951	136.	128.	152.	170.	181.	284.	257.	2036.	195.	167.	142.	147.	3995.
1952	135.	128.	151.	168.	181.	217.	257.	257.	201.	169.	142.	149.	2155.
1953	138.	128.	152.	170.	180.	214.	258.	915.	198.	170.	143.	148.	2814.
1954	136.	128.	151.	1230.	5101.	214.	3743.	3932.	193.	1.	143.	147.	15119.
1955	135.	1360.	151.	169.	179.	212.	259.	259.	196.	168.	142.	147.	3377.
1956	135.	128.	151.	169.	180.	3253.	4601.	4760.	193.	168.	143.	147.	14028.
1957	135.	128.	151.	173.	183.	219.	258.	261.	199.	174.	146.	150.	2177.
1958	139.	131.	154.	172.	186.	220.	262.	261.	200.	172.	146.	149.	2192.
1959	138.	129.	154.	172.	183.	219.	261.	262.	197.	172.	145.	150.	2182.
1960	138.	129.	153.	172.	184.	218.	262.	265.	199.	173.	147.	151.	2191.
1961	138.	131.	154.	172.	183.	219.	262.	263.	198.	171.	145.	149.	2185.
1962	136.	129.	152.	171.	183.	217.	261.	261.	198.	170.	145.	150.	2173.
1963	137.	129.	153.	172.	182.	217.	259.	261.	196.	169.	325.	180.	2380.
1964	137.	129.	173.	172.	182.	217.	259.	261.	197.	170.	145.	150.	2192.
1965	137.	129.	154.	173.	186.	220.	261.	262.	198.	171.	145.	150.	2186.
1966	138.	129.	154.	173.	185.	218.	261.	265.	199.	171.	145.	149.	2187.
1967	136.	129.	152.	170.	181.	214.	258.	261.	199.	170.	146.	150.	2166.
1968	140.	131.	154.	173.	185.	219.	262.	263.	199.	170.	144.	150.	2190.
1969	137.	129.	153.	172.	185.	219.	261.	262.	198.	173.	145.	151.	2185.
1970	137.	129.	154.	172.	185.	219.	262.	262.	199.	171.	144.	149.	2183.
1971	137.	128.	153.	170.	182.	214.	259.	266.	199.	173.	147.	150.	2178.
1972	137.	129.	153.	171.	186.	220.	262.	264.	199.	171.	145.	150.	2187.
1973	138.	129.	154.	173.	183.	220.	265.	265.	201.	173.	146.	151.	2198.
1974	139.	129.	153.	171.	185.	217.	261.	265.	200.	171.	147.	151.	2189.
1975	138.	130.	154.	173.	185.	221.	263.	265.	199.	172.	145.	150.	2195.
1976	137.	129.	153.	172.	185.	219.	264.	264.	199.	173.	146.	151.	2192.
1977	139.	131.	154.	174.	185.	219.	262.	263.	199.	171.	146.	150.	2193.
1978	137.	129.	153.	172.	183.	218.	261.	269.	201.	172.	146.	151.	2192.
1979	138.	131.	155.	173.	186.	221.	263.	265.	200.	170.	145.	149.	2196.
1980	138.	129.	153.	172.	185.	218.	261.	263.	200.	172.	145.	149.	2185.
1981	137.	129.	154.	174.	184.	221.	264.	265.	200.	173.	146.	150.	2197.
1982	138.	129.	153.	171.	185.	219.	261.	262.	198.	170.	146.	149.	2181.
1983	137.	129.	154.	172.	184.	218.	262.	262.	198.	170.	144.	150.	2180.
1984	137.	128.	153.	170.	181.	215.	258.	261.	895.	169.	145.	150.	2862.
1985	139.	130.	154.	173.	184.	221.	264.	264.	199.	172.	146.	151.	2197.
1986	139.	130.	154.	172.	184.	221.	262.	263.	200.	172.	147.	152.	2196.
1987	139.	130.	154.	173.	185.	223.	265.	266.	200.	172.	146.	150.	2203.
1988	137.	129.	153.	172.	185.	218.	264.	264.	199.	170.	145.	150.	2186.
1989	137.	130.	153.	171.	184.	216.	259.	261.	197.	170.	145.	148.	2171.

AVERAGE UTILIZATION - ACFT/YR

1934-89: 3649.

1947-56:

6693.

1953-56:

8835.