Water Management Plan

Hydrologic Modeling
Typical Output

Tarrant Regional Water District

TARRANT REGIONAL WATER DISTRICT

Prepared by

HDR

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Austin, Texas

February 1999

Tarrant Regional Water District System Model
SIMYLD-II Model
With West Fork Enhancement
2050 Sediment Conditions

RIVER BASIN SIMULATION PROGRAM - TEXAS WATER DEVELOPMENT BOARD

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

NUMBER OF NODES =	11	NUMBER OF RESERVOIRS =	8
NUMBER OF LINKS =	17	NUMBER OF RIVER REACHES =	2
CALENDAR YEAR OPERATION STARTS =	1941	NUMBER OF YEARS TO SIMULATE =	36
NUMBER OF DEMAND NODES =	11	NUMBER OF SPILL NODES =	6
YIELD NODE =	0	IMPORT NODE =	0

NODE NO.	NODE NAME	--------- CAPACITIES ---------			YEARLY
		MAXIMUM	MINIMUM	STARTING	DEMAND
1	RCR	923750	140000	923750	0
2	CCR	557265	107000	557265	21119
3	LARL	36584	0	36584	95448
4	BB	73718	42728	73718	10093
5	BP	338276	17047	338276	6119
6	EM	139351	58980	139351	106343
7	LW	37775	22500	37775	0
8	WTLND	10	0	0	300000
9	MANS	0	0	0	109941
10	RHWTP	0	0	0	133500
11	HWTP	0	0	0	85439

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SYSTEM CONFIGURATION

LINK NO.	FROM NODE	TO NODE	MAX. CAPACITY	MIN. CAPACITY
1	5	6	999999999	0
2	6	7	999999999	0
3	1	9	22770	0
4	2	9	18950	0
5	9	3	999999999	0
6	9	10	41720	0
7	10	4	26130	0
8	4	10	18660	0
9	4	11	999999999	0
10	7	11	14930	0
11	11	4	0	0
12	11	7	0	0
13	7	6	0	0
14	8	1	10000	0
15	8	2	9000	0
16	6	4	11600	0
17	4	6	11600	0

LIST OF SPILL RESERVOIRS - 1 2 3 4 7 8

YEARLY IMPORT QUANTITY = 0

MONTHLY IMPORT DISTRIBUTION - .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00

SUB-SYSTEM OF RESERVOIRS 5 6

'AVERAGE' DEFINED AS BETWEEN52.34, AND80.00 PERCENT FULL OF SUBSYSTEM

FACTORS

MULTIPLY LINK CAPACITIES BY 1.000

MULTIPLY INFLOWS BY 10.00

MULTIPLY DEMANDS BY 1.00

RIVER BASIN SIMULATION PROGRAM - TEXAS WATER DEVELOPMENT BOARD

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

MONTHLY DEMAND DISTRIBUTION

NODE NO.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT	OCT.	NOV.	DEC.	* RANK * AVG	DRY	WET
1	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	1	1	1
2	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	10	10	10
3	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	5	5	5
4	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	9	9	9
5	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	8	8	8
6	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	2	2	2
7	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	18	18	18
8	.1000	.1000	.1000	.1000	.1000	.1000	.1000	.1000	.1000	.1000	.1000	.1000	30	30	30
9	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	7	7	7
10	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	4	4	4
11	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	3	3	3

RIVER BASIN SIMULATION PROGRAM - TEXAS WATER DEVELOPMENT BOARD

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

DESIRED MONTHLY STORAGE LEVEL (PERCENT FULL)

RESERVOIR NO.

1	AVRG	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	13
	DRY	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	16
	WET	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	13
2	AVRG	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	12
	DRY	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	15
	WET	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	12
3	AVRG	.8300	.8300	.8300	.8300	.8300	.8300	.8300	.8300	.8300	.8300	.8300	.8300	6
	DRY	.8300	.8300	.8300	.8300	.8300	.8300	.8300	.8300	.8300	.8300	.8300	.8300	6
	WET	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	6
4	AVRG	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	16
	DRY	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	14
	WET	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	16
5	AVRG	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	15
	DRY	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	12
	WET	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	15
6	AVRG	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	14
	DRY	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	13
	WET	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	14
7	AVRG	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	11
	DRY	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	11
	WET	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	11

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

8	AVRG	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	25
	DRY	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	25
	WET	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	25

RIVER BASIN SIMULATION PROGRAM - TEXAS WATER DEVELOPMENT BOARD

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

RESERVOIRS AREA - CAPACITY TABLES

	RESERVOIR NO. 1		RESERVOIR NO. 2		RESERVOIR NO. 3		RESERVOIR NO. 4		RESERVOIR NO. 5		RESERVOIR NO. 6	
POINT	AREA	CAPACITY	AREA	CAPACITY	AREA	CAPACITY	AREA	CAPACITY	AREA	CAPACITY	AREA	CAPACITY
1	0	0	0	0	0	0	0	0	0	0	0	0
2	715	1340	31	55	83	208	63	134	626	1468	854	2194
3	3051	10335	665	1607	233	999	161	470	1682	7466	2125	9456
4	5569	31913	1776	7478	423	2640	355	1502	2546	18123	3390	23019
5	7705	65064	3622	20595	643	5307	560	3333	3350	32800	4874	43635
6	10167	110142	5568	43546	873	9098	828	6803	4102	51356	6458	71693
7	13202	168762	7803	77253	1123	14089	1031	9591	5103	74384	7542	106412
8	16295	242357	10131	122074	1243	16455	1223	11844	6060	102298	8928	139351
9	19722	332350	13849	181432	1353	19052	1601	17499	7110	135278	0	0
10	24028	441639	18489	262152	1523	21928	1952	24626	8100	173349	0	0
11	28606	573402	23347	366468	1703	25155	2241	33012	9412	217028	0	0
12	34178	730420	28450	496957	1843	28701	2617	42728	10846	267548	0	0
13	41356	923750	32623	557265	1973	32518	2988	53942	12383	325620	0	0
14	0	0	0	0	2093	36584	3176	60106	12855	338276	0	0
15	0	0	0	0	0	0	3278	63333	0	0	0	0
16	0	0	0	0	0	0	3382	66663	0	0	0	0
17	0	0	0	0	0	0	3646	73718	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

	RESERVOIR NO. 7		RESERVOIR NO. 8		RESERVOIR NO.
1	0	0	0	0	
2	77	157	1	10	
3	214	577	0	0	
4	340	1121	0	0	
5	429	1503	0	0	
6	538	1986	0	0	
7	748	3266	0	0	
8	1021	5018	0	0	
9	1427	8727	0	0	
10	2014	15599	0	0	
11	2641	24856	0	0	
12	3260	33679	0	0	
13	3470	37054	0	0	
14	3537	37775	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 1 CALENDAR YEAR 1941

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	65110	0	307	41356	.04	1654	0	0	0	15586	47563	923750	923750
2	923750	277210	0	278	41356	-.10	-4135	0	0	0	0	281067	923750	923750
3	923750	160770	0	307	41356	.02	827	0	0	0	0	159636	923750	923750
4	923750	91910	0	298	41356	.06	2481	0	0	0	0	89131	923750	923750
5	923750	170470	0	307	41356	.11	4549	0	0	0	0	165614	923750	923750
6	923750	225910	0	298	41295	-.08	-3303	0	0	0	0	228919	923746	923750
7	923746	168940	0	307	41356	.33	13647	0	0	0	22770	132212	923750	923750
8	923750	11630	0	307	41356	.44	18197	0	0	10000	13384	0	913492	923750
9	913492	730	0	298	40534	.33	13376	0	0	10000	20797	0	889751	923750
10	889751	20710	0	307	40658	.03	1220	0	0	10000	0	0	918934	923750
11	918934	5040	0	298	41267	.17	7015	0	0	10000	3584	0	923077	923750
12	923077	13340	0	307	41343	.00	0	0	0	10000	22360	0	923750	923750
YEAR TOTALS		1211770	0	3619			55528	0	0	50000	98481	1104142		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	12230	0	1478	32623	.06	1957	0	0	0	8795	0	557265	557265
2	557265	56340	0	1478	32623	-.07	-2283	0	0	0	7696	49449	557265	557265
3	557265	66680	0	1478	32623	.03	979	0	0	0	10128	54095	557265	557265
4	557265	19000	0	1690	32623	.02	652	0	0	0	12223	4435	557265	557265
5	557265	89880	0	1690	32623	.18	5872	0	0	0	10791	71527	557265	557265
	557265	268640	0	1901	32623	-.16	-5219	0	0	0	9895	262063	557265	557265
7	557265	23900	0	2323	32623	.34	11092	0	0	8465	18950	0	557265	557265
8	557265	15270	0	2323	32623	.41	13375	0	0	9000	8572	0	557265	557265
9	557265	310	0	1901	32623	.32	10439	0	0	9000	0	0	554235	557265
10	554235	14770	0	1690	32518	.09	2927	0	0	9000	16123	0	557265	557265
11	557265	9920	0	1690	32623	.13	4241	0	0	9000	12989	0	557265	557265
12	557265	17770	0	1478	32623	.01	326	0	0	2984	18950	0	557265	557265
YEAR TOTALS		594710	0	21120			44358	0	0	47449	135112	441569		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 1 CALENDAR YEAR 1941

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36584	2750	0	6681	2093	.12	251	0	0	4182	0	0	36584	36584
2	36584	12910	0	6681	2090	-.11	-229	0	0	0	0	6458	36584	36584
3	36584	4500	0	6681	2093	.12	251	0	0	2432	0	0	36584	36584
4	36584	4000	0	7636	2090	-.10	-208	0	0	3428	0	0	36584	36584
5	36584	6080	0	7636	2093	.21	440	0	0	1996	0	0	36584	36584
6	36584	9860	0	8590	2092	-.02	-41	0	0	0	0	1311	36584	36584
7	36584	1240	0	10499	2093	.53	1109	0	0	10368	0	0	36584	36584
8	36584	1370	0	10499	2093	.35	733	0	0	9862	0	0	36584	36584
9	36584	120	0	8590	2093	.53	1109	0	0	9579	0	0	36584	36584
10	36584	1020	0	7636	2090	-.10	-208	0	0	6408	0	0	36584	36584
11	36584	360	0	7636	2093	.24	502	0	0	7778	0	0	36584	36584
12	36584	550	0	6681	2093	.07	147	0	0	6278	0	0	36584	36584
YEAR TOTALS		44760	0	95446			3856	0	0	62311	0	7769		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	73718	9440	0	707	3646	.13	474	0	0	3158	11417	0	73718	73718
2	73718	45970	0	707	3635	-.16	-581	0	0	11600	9345	48100	73717	73718
3	73717	15500	0	707	3646	.11	401	0	0	5759	9345	10805	73718	73718
4	73718	14110	0	807	3637	-.13	-472	0	0	11600	10680	14696	73717	73718
5	73717	21060	0	807	3646	.17	620	0	0	11600	10680	20552	73718	73718
	73718	34840	0	908	3646	.07	255	0	0	11600	12015	33262	73718	73718
7	73718	3350	0	1110	3580	.49	1754	0	0	4573	8593	0	70184	73718
8	70184	4180	0	1110	3065	.30	919	0	0	0	29607	0	42728	73718
9	42728	300	0	908	2594	.57	1479	0	0	11600	10692	0	41549	73718
10	41549	2850	0	807	2642	.01	26	0	0	11600	9760	0	45406	73718
11	45406	960	0	807	2710	.29	786	0	0	11600	10680	0	45693	73718
12	45693	1590	0	707	3087	.07	216	0	0	22107	0	0	68467	73718
YEAR TOTALS		154150	0	10092			5877	0	0	116797	132814	127415		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 1 CALENDAR YEAR 1941

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	338276	2240	0	428	12855	.12	1543	269	0	0	0	0	338276	338276
2	338276	36610	0	428	12826	-.12	-1538	37724	0	0	0	0	338272	338276
3	338272	0	0	428	12847	.16	2056	0	0	0	0	0	335788	338276
4	335788	62950	0	490	12797	-.05	-639	60611	0	0	0	0	338276	338276
5	338276	82680	0	490	12855	.16	2057	80133	0	0	0	0	338276	338276
6	338276	208930	0	551	12855	.07	900	207479	0	0	0	0	338276	338276
7	338276	6480	0	673	12855	.58	7456	0	0	0	0	0	336627	338276
8	336627	1270	0	673	12704	.41	5209	201	0	0	0	0	331814	338276
9	331814	5940	0	551	12272	.51	6259	19888	0	0	0	0	311056	338276
10	311056	117600	0	490	12358	-.22	-2718	92608	0	0	0	0	338276	338276
11	338276	20880	0	490	12855	.27	3471	16919	0	0	0	0	338276	338276
12	338276	1320	0	428	12855	.12	1543	0	0	0	0	0	337625	338276
YEAR TOTALS		546900	0	6120			25599	515832	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	2950	269	7444	8928	.12	1071	140	0	5436	0	0	139351	139351
2	139351	31620	37724	7444	8907	-.11	-979	51281	0	0	11600	0	139349	139351
3	139349	18530	0	7444	8928	.11	982	4343	0	0	5759	0	139351	139351
4	139351	43810	60611	8507	8911	-.09	-801	85117	0	0	11600	0	139349	139351
5	139349	32200	80133	8507	8928	.20	1786	90438	0	0	11600	0	139351	139351
	139351	156530	207479	9571	8924	-.02	-177	343016	0	0	11600	0	139350	139351
7	139350	16940	0	11698	8928	.51	4553	688	0	0	0	0	139351	139351
8	139351	9220	201	11698	8928	.35	3125	122	0	5524	0	0	139351	139351
9	139351	14110	19888	9571	8928	.53	4732	8095	0	0	11600	0	139351	139351
10	139351	69040	92608	8507	8919	-.05	-445	141986	0	0	11600	0	139351	139351
11	139351	13110	16919	8507	8928	.24	2143	7779	0	0	11600	0	139351	139351
12	139351	17000	0	7444	8928	.12	1071	4369	0	0	4116	0	139351	139351
YEAR TOTALS		425060	515832	106342			17061	737374	0	10960	91075	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 1 CALENDAR YEAR 1941

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	320	140	0	3537	.13	460	0	0	0	0	0	37775	37775
2	37775	3460	51281	0	3514	-.14	-491	0	0	0	5981	49254	37772	37775
3	37772	2030	4343	0	3537	.11	389	0	0	0	5981	0	37775	37775
4	37775	4790	85117	0	3519	-.11	-386	0	0	0	6835	83460	37773	37775
5	37773	3520	90438	0	3537	.18	637	0	0	0	6835	86484	37775	37775
6	37775	17120	343016	0	3537	.03	106	0	0	0	7690	352340	37775	37775
7	37775	1850	688	0	3537	.49	1733	0	0	0	805	0	37775	37775
8	37775	1010	122	0	3537	.32	1132	0	0	0	0	0	37775	37775
9	37775	1540	8095	0	3537	.55	1945	0	0	0	7690	0	37775	37775
10	37775	7550	141986	0	3537	.00	0	0	0	0	6835	142701	37775	37775
11	37775	1430	7779	0	3537	.27	955	0	0	0	6835	1419	37775	37775
12	37775	1860	4369	0	3537	.07	248	0	0	0	5981	0	37775	37775
YEAR TOTALS		46480	737374	0			6728	0	0	0	61468	715658		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	0	27290	0	30000	0	.00	0	0	2720	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	11175	0	8465	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	15694	0	12984	0	10	10
YEAR TOTALS		327480	0	360000			0	0	129979	0	97449	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 1 CALENDAR YEAR 1941

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 1 CALENDAR YEAR 1941

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 2 CALENDAR YEAR 1942

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	4580	0	307	41356	.12	4963	0	0	10000	9310	0	923750	923750
2	923750	10100	0	278	41356	.12	4963	0	0	10000	14859	0	923750	923750
3	923750	12950	0	307	41356	.23	9512	0	0	10000	13131	0	923750	923750
4	923750	678250	0	298	41356	-.31	-12819	0	0	0	0	690771	923750	923750
5	923750	130250	0	307	41356	.06	2481	0	0	0	0	127462	923750	923750
6	923750	82890	0	298	41356	.17	7031	0	0	0	0	75561	923750	923750
7	923750	3620	0	307	40839	.45	18378	0	0	10000	22770	0	895915	923750
8	895915	17740	0	307	40126	.38	15248	0	0	10000	22770	0	885330	923750
9	885330	159410	0	298	40643	.15	6096	0	0	0	22770	91826	923750	923750
10	923750	72740	0	307	41356	.17	7031	0	0	0	22770	42632	923750	923750
11	923750	50050	0	298	41356	.15	6203	0	0	0	22770	20779	923750	923750
12	923750	72350	0	307	41325	-.04	-1652	0	0	0	22770	50926	923749	923750
YEAR TOTALS		1294930	0	3619			67435	0	0	50000	173920	1099957		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	6210	0	1478	32623	.09	2936	0	0	6388	8184	0	557265	557265
2	557265	16760	0	1478	32623	.13	4241	0	0	7909	18950	0	557265	557265
3	557265	11260	0	1478	32623	.18	5872	0	0	9000	12910	0	557265	557265
4	557265	415920	0	1690	32623	-.38	-12396	0	0	0	8795	417831	557265	557265
5	557265	121010	0	1690	32623	.14	4567	0	0	0	8795	105958	557265	557265
	557265	107120	0	1901	32623	.16	5220	0	0	0	13759	86240	557265	557265
7	557265	410	0	2323	32623	.50	16311	0	0	9000	757	0	547284	557265
8	547284	5380	0	2323	31839	.32	10188	0	0	9000	4572	0	544581	557265
9	544581	24090	0	1901	32184	.21	6759	0	0	9000	11746	0	557265	557265
10	557265	9300	0	1690	32623	.16	5220	0	0	9000	11390	0	557265	557265
11	557265	21840	0	1690	32623	.15	4893	0	0	3693	18950	0	557265	557265
12	557265	57300	0	1478	32623	-.07	-2283	0	0	0	18950	39155	557265	557265
YEAR TOTALS		796600	0	21120			51528	0	0	62990	137758	649184		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 2 CALENDAR YEAR 1942

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36584	420	0	6681	2093	.16	335	0	0	6596	0	0	36584	36584
2	36584	320	0	6681	2093	.19	398	0	0	6759	0	0	36584	36584
3	36584	370	0	6681	2093	.32	670	0	0	6981	0	0	36584	36584
4	36584	34200	0	7636	2093	-.53	-1108	0	0	0	0	27672	36584	36584
5	36584	14430	0	7636	2093	.17	356	0	0	0	0	6438	36584	36584
6	36584	5270	0	8590	2093	.26	544	0	0	3864	0	0	36584	36584
7	36584	510	0	10499	2093	.69	1444	0	0	11433	0	0	36584	36584
8	36584	430	0	10499	2093	.47	984	0	0	11053	0	0	36584	36584
9	36584	700	0	8590	2093	.27	565	0	0	8455	0	0	36584	36584
10	36584	6000	0	7636	2093	.04	84	0	0	1720	0	0	36584	36584
11	36584	1380	0	7636	2093	.31	649	0	0	6905	0	0	36584	36584
12	36584	1120	0	6681	2093	.07	147	0	0	5708	0	0	36584	36584
YEAR TOTALS		65150	0	95446			5068	0	0	69474	0	34110		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	68467	1140	0	707	3548	.18	639	0	0	11600	6143	0	73718	73718
2	73718	850	0	707	3587	.23	825	0	0	10009	12464	0	70581	73718
3	70581	950	0	707	3443	.36	1239	0	0	2019	5616	0	65988	73718
4	65988	121430	0	807	3501	-.54	-1890	0	0	11600	10680	115703	73718	73718
5	73718	50640	0	807	3646	.13	474	0	0	11600	10680	50279	73718	73718
	73718	17910	0	908	3646	.25	911	0	0	11600	12015	15676	73718	73718
7	73718	1300	0	1110	3119	.68	2121	0	0	0	29059	0	42728	73718
8	42728	1100	0	1110	2614	.47	1229	0	0	11600	10490	0	42599	73718
9	42599	1800	0	908	2614	.23	601	0	0	4151	4313	0	42728	73718
10	42728	19670	0	807	2883	-.01	-28	0	0	12965	15734	0	58850	73718
11	58850	4200	0	807	3125	.36	1125	0	0	15340	18435	0	58023	73718
12	58023	3760	0	707	3226	.11	355	0	0	18971	14368	0	65324	73718
YEAR TOTALS		224750	0	10092			7601	0	0	121455	149997	181658		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 2 CALENDAR YEAR 1942

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	337625	0	0	428	12823	.19	2436	0	0	0	0	0	334761	338276
2	334761	0	0	428	12664	.22	2786	0	0	0	0	0	331547	338276
3	331547	0	0	428	12514	.35	4380	0	0	0	0	0	326739	338276
4	326739	331600	0	490	12640	-.44	-5561	325134	0	0	0	0	338276	338276
5	338276	201820	0	490	12855	.27	3471	197859	0	0	0	0	338276	338276
6	338276	111000	0	551	12855	.34	4371	106078	0	0	0	0	338276	338276
7	338276	10910	0	673	12589	.75	9442	15074	0	0	0	0	323997	338276
8	323997	8440	0	673	11850	.54	6399	38430	0	0	0	0	286935	338276
9	286935	5220	0	551	11168	.27	3015	16118	0	0	0	0	272471	338276
10	272471	29110	0	490	11355	-.01	-113	0	0	0	0	0	301204	338276
11	301204	0	0	490	11666	.35	4083	788	0	0	0	0	295843	338276
12	295843	0	0	428	11578	.07	810	0	0	0	0	0	294605	338276
YEAR TOTALS		698100	0	6120			35519	699481	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	36150	0	7444	8928	.16	1428	15678	0	0	11600	0	139351	139351
2	139351	3150	0	7444	8928	.20	1786	403	0	6483	0	0	139351	139351
3	139351	10620	0	7444	8928	.31	2768	408	0	0	0	0	139351	139351
4	139351	255210	325134	8507	8928	-.51	-4552	564789	0	0	11600	0	139351	139351
5	139351	0	197859	8507	8928	.16	1428	176324	0	0	11600	0	139351	139351
	139351	0	106078	9571	8928	.25	2232	82675	0	0	11600	0	139351	139351
7	139351	0	15074	11698	8928	.67	5982	2370	0	4976	0	0	139351	139351
8	139351	0	38430	11698	8928	.46	4107	11025	0	0	11600	0	139351	139351
9	139351	0	16118	9571	8928	.26	2321	4226	0	0	0	0	139351	139351
10	139351	0	0	8507	8928	.04	357	35	0	8899	0	0	139351	139351
11	139351	0	788	8507	8928	.30	2678	1203	0	11600	0	0	139351	139351
12	139351	0	0	7444	8928	.07	625	318	0	8387	0	0	139351	139351
YEAR TOTALS		305130	699481	106342			21160	859454	0	40345	58000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 2 CALENDAR YEAR 1942

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	3950	15678	0	3537	.17	601	0	0	0	5981	13046	37775	37775
2	37775	340	403	0	3537	.21	743	0	0	0	0	0	37775	37775
3	37775	1160	408	0	3537	.34	1203	0	0	0	365	0	37775	37775
4	37775	27920	564789	0	3537	-.52	-1838	0	0	0	6835	587712	37775	37775
5	37775	0	176324	0	3537	.14	495	0	0	0	6835	168994	37775	37775
6	37775	0	82675	0	3537	.25	884	0	0	0	7690	74101	37775	37775
7	37775	0	2370	0	3537	.67	2370	0	0	0	0	0	37775	37775
8	37775	0	11025	0	3537	.46	1627	0	0	0	9398	0	37775	37775
9	37775	0	4226	0	3537	.24	849	0	0	0	3377	0	37775	37775
10	37775	0	35	0	3537	.01	35	0	0	0	0	0	37775	37775
11	37775	0	1203	0	3537	.34	1203	0	0	0	0	0	37775	37775
12	37775	0	318	0	3537	.09	318	0	0	0	0	0	37775	37775
YEAR TOTALS		33370	859454	0			8490	0	0	0	40481	843853		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	19098	0	16388	0	10	10
2	10	27290	0	30000	1	.00	0	0	20619	0	17909	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
[illegible]	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	11710	0	9000	0	10	10
10	10	27290	0	30000	1	.00	0	0	11710	0	9000	0	10	10
11	10	27290	0	30000	1	.00	0	0	6403	0	3693	0	10	10
12	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
YEAR TOTALS		327480	0	360000			0	0	145510	0	112990	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 2 CALENDAR YEAR 1942

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 2   CALENDAR YEAR 1942

DEMAND NODE 11   HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 3 CALENDAR YEAR 1943

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923749	18590	0	307	41356	.08	3308	0	0	7796	22770	0	923750	923750
2	923750	5570	0	278	41356	.22	9098	0	0	10000	6194	0	923750	923750
3	923750	55190	0	307	41356	.04	1654	0	0	0	22770	30459	923750	923750
4	923750	61070	0	298	41356	.23	9512	0	0	0	22770	28490	923750	923750
5	923750	255990	0	307	41356	.07	2895	0	0	0	0	252788	923750	923750
6	923750	66530	0	298	41356	.25	10339	0	0	0	0	55893	923750	923750
7	923750	1880	0	307	40822	.43	17553	0	0	10000	22770	0	895000	923750
8	895000	50	0	307	39577	.64	25329	0	0	10000	22770	0	856644	923750
9	856644	59220	0	298	39729	.22	8740	0	0	10000	13598	0	903228	923750
10	903228	50070	0	307	40975	.17	6966	0	0	495	22770	0	923750	923750
11	923750	450	0	298	41076	.20	8215	0	0	10000	17001	0	908686	923750
12	908686	6510	0	307	41023	-.06	-2460	0	0	10000	4028	0	923321	923750
YEAR TOTALS		581120	0	3619			101149	0	0	68291	177441	367630		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	17160	0	1478	32623	.12	3915	0	0	7183	18950	0	557265	557265
2	557265	9040	0	1478	32623	.23	7503	0	0	9000	9059	0	557265	557265
3	557265	51030	0	1478	32623	.04	1305	0	0	0	18950	29297	557265	557265
4	557265	35290	0	1690	32623	.24	7830	0	0	0	18950	6820	557265	557265
5	557265	65860	0	1690	32623	-.10	-3261	0	0	0	11411	56020	557265	557265
	557265	165380	0	1901	32623	.24	7830	0	0	0	17100	138549	557265	557265
7	557265	780	0	2323	32623	.53	17290	0	0	9000	1334	0	546098	557265
8	546098	20	0	2323	31132	.69	21481	0	0	9000	5964	0	525350	557265
9	525350	1870	0	1901	30451	.26	7917	0	0	9000	0	0	526402	557265
10	526402	16320	0	1690	31208	.09	2809	0	0	9000	0	0	547223	557265
11	547223	80	0	1690	31919	.24	7661	0	0	9000	0	0	546952	557265
12	546952	11300	0	1478	32210	-.05	-1610	0	0	9000	10121	0	557263	557265
YEAR TOTALS		374130	0	21120			80670	0	0	70183	111839	230686		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 3 CALENDAR YEAR 1943

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36584	800	0	6681	2093	.20	419	0	0	6300	0	0	36584	36584
2	36584	540	0	6681	2093	.26	544	0	0	6685	0	0	36584	36584
3	36584	2390	0	6681	2093	.07	147	0	0	4438	0	0	36584	36584
4	36584	2160	0	7636	2093	.31	649	0	0	6125	0	0	36584	36584
5	36584	5020	0	7636	2093	.00	0	0	0	2616	0	0	36584	36584
6	36584	2180	0	8590	2093	.38	795	0	0	7205	0	0	36584	36584
7	36584	80	0	10499	2093	.76	1591	0	0	12010	0	0	36584	36584
8	36584	0	0	10499	2093	.93	1946	0	0	12445	0	0	36584	36584
9	36584	770	0	8590	2001	.39	780	0	0	2380	0	0	30364	30365
10	30364	10	0	7636	1900	.39	741	0	0	8367	0	0	30364	30365
11	30364	0	0	7636	1909	.30	573	0	0	8206	0	0	30361	30365
12	30361	80	0	6681	1897	-.08	-151	0	0	6453	0	0	30364	30365
YEAR TOTALS		14030	0	95446			8034	0	0	83230	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	65324	2350	0	707	3397	.21	713	0	0	18379	15828	0	68805	73718
2	68805	1470	0	707	3055	.29	886	0	0	0	25209	0	43473	73718
3	43473	7920	0	707	2850	.12	342	0	0	20241	14528	0	56057	73718
4	56057	6820	0	807	3094	.32	990	0	0	16120	18435	0	58765	73718
5	58765	17660	0	807	3369	.02	67	0	0	11600	10680	2753	73718	73718
	73718	6650	0	908	3646	.43	1568	0	0	11600	12015	3759	73718	73718
7	73718	220	0	1110	3119	.80	2495	0	0	0	27605	0	42728	73718
8	42728	0	0	1110	2570	.94	2416	0	0	11600	10490	0	40312	73718
9	40312	1970	0	908	2545	.34	865	0	0	11600	10692	0	41417	73718
10	41417	20	0	807	2544	.47	1196	0	0	5879	5072	0	40241	73718
11	40241	0	0	807	2504	.34	851	0	0	11487	10680	0	39390	73718
12	39390	210	0	707	2496	-.08	-199	0	0	10052	9345	0	39799	73718
YEAR TOTALS		45290	0	10092			12190	0	0	128558	170579	6512		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 3 CALENDAR YEAR 1943

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	294605	0	0	428	11526	.20	2305	0	0	0	0	0	291872	338276
2	291872	0	0	428	11442	.28	3204	0	0	0	0	0	288240	338276
3	288240	16710	0	428	11594	.10	1159	0	0	0	0	0	303363	338276
4	303363	15610	0	490	11932	.33	3938	771	0	0	0	0	313774	338276
5	313774	0	0	490	12044	.12	1445	0	0	0	0	0	311839	338276
6	311839	11720	0	551	12096	.44	5322	0	0	0	0	0	317686	338276
7	317686	0	0	673	11835	.79	9350	15511	0	0	0	0	292152	338276
8	292152	0	0	673	10758	.99	10650	44074	0	0	0	0	236755	338276
9	236755	0	0	551	9423	.50	4711	33402	0	0	0	0	198091	338276
10	198091	0	0	490	8387	.45	3774	26135	0	0	0	0	167692	338276
11	167692	0	0	490	7516	.32	2405	30729	0	0	0	0	134068	338276
12	134068	0	0	428	6713	-.07	-469	22571	0	0	0	0	111538	338276
YEAR TOTALS		44040	0	6120			47794	173193	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	0	0	7444	8928	.19	1696	707	0	9847	0	0	139351	139351
2	139351	0	0	7444	8928	.26	2321	990	0	10755	0	0	139351	139351
3	139351	0	0	7444	8928	.08	714	389	0	8547	0	0	139351	139351
4	139351	0	771	8507	8928	.31	2768	1096	0	11600	0	0	139351	139351
5	139351	26250	0	8507	8928	.00	0	6143	0	0	11600	0	139351	139351
	139351	30810	0	9571	8928	.37	3303	6336	0	0	11600	0	139351	139351
7	139351	1910	15511	11698	8928	.75	6696	2549	0	3522	0	0	139351	139351
8	139351	0	44074	11698	8928	.91	8124	12652	0	0	11600	0	139351	139351
9	139351	0	33402	9571	8928	.37	3303	8928	0	0	11600	0	139351	139351
10	139351	0	26135	8507	8928	.38	3393	8356	0	0	5879	0	139351	139351
11	139351	0	30729	8507	8928	.31	2768	7967	0	0	11487	0	139351	139351
12	139351	0	22571	7444	8915	-.07	-623	5699	0	0	10052	0	139350	139351
YEAR TOTALS		58970	173193	106342			34463	61812	0	44271	73818	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 3 CALENDAR YEAR 1943

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	0	707	0	3537	.20	707	0	0	0	0	0	37775	37775
2	37775	0	990	0	3537	.28	990	0	0	0	0	0	37775	37775
3	37775	0	389	0	3537	.11	389	0	0	0	0	0	37775	37775
4	37775	0	1096	0	3537	.31	1096	0	0	0	0	0	37775	37775
5	37775	2870	6143	0	3537	.01	35	0	0	0	6835	2143	37775	37775
6	37775	3370	6336	0	3537	.41	1450	0	0	0	7690	566	37775	37775
7	37775	210	2549	0	3537	.78	2759	0	0	0	0	0	37775	37775
8	37775	0	12652	0	3537	.92	3254	0	0	0	9398	0	37775	37775
9	37775	0	8928	0	3537	.35	1238	0	0	0	7690	0	37775	37775
10	37775	0	8356	0	3537	.43	1521	0	0	0	6835	0	37775	37775
11	37775	0	7967	0	3537	.32	1132	0	0	0	6835	0	37775	37775
12	37775	0	5699	0	3524	-.08	-281	0	0	0	5981	0	37774	37775
YEAR TOTALS		6450	61812	0			14290	0	0	0	51264	2709		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	17689	0	14979	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	12205	0	9495	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	170994	0	138474	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 3 CALENDAR YEAR 1943

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 3 CALENDAR YEAR 1943

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 4 CALENDAR YEAR 1944

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923321	81750	0	307	41348	-.19	-7855	0	0	0	22770	66099	923750	923750
2	923750	198580	0	278	41356	-.15	-6202	0	0	0	20646	183858	923750	923750
3	923750	71500	0	307	41341	-.02	-826	0	0	0	5475	66544	923750	923750
4	923750	32040	0	298	41356	.10	4136	0	0	0	9967	17639	923750	923750
5	923750	608490	0	307	41356	-.36	-14887	0	0	0	0	623070	923750	923750
6	923750	56440	0	298	41356	.39	16129	0	0	0	22770	17243	923750	923750
7	923750	4740	0	307	40792	.54	22028	0	0	10000	22770	0	893385	923750
8	893385	50	0	307	39648	.46	18238	0	0	10000	22770	0	862120	923750
9	862120	50	0	298	38544	.45	17345	0	0	10000	20613	0	833914	923750
10	833914	450	0	307	37487	.43	16119	0	0	10000	22770	0	805168	923750
11	805168	8610	0	298	36980	-.16	-5916	0	0	10000	22770	0	806626	923750
12	806626	72650	0	307	38227	-.16	-6115	0	0	10000	22770	0	872314	923750
YEAR TOTALS		1135350	0	3619			52194	0	0	60000	216091	974453		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557263	45260	0	1478	32623	-.09	-2935	0	0	0	18950	27765	557265	557265
2	557265	69340	0	1478	32623	-.12	-3914	0	0	0	18950	52826	557265	557265
3	557265	46180	0	1478	32623	.01	326	0	0	0	18950	25426	557265	557265
4	557265	14820	0	1690	32623	.10	3262	0	0	0	9868	0	557265	557265
5	557265	267800	0	1690	32623	-.30	-9786	0	0	0	8795	267101	557265	557265
[illegible]	557265	19340	0	1901	32623	.44	14354	0	0	9000	12085	0	557265	557265
7	557265	840	0	2323	32623	.51	16638	0	0	9000	947	0	547197	557265
8	547197	0	0	2323	31508	.44	13864	0	0	9000	4912	0	535098	557265
9	535098	170	0	1901	30892	.42	12975	0	0	9000	0	0	529392	557265
10	529392	70	0	1690	29901	.38	11362	0	0	9000	18950	0	506460	557265
11	506460	23190	0	1690	29589	-.08	-2366	0	0	9000	18950	0	520376	557265
12	520376	87350	0	1478	31347	-.18	-5641	0	0	0	18950	35674	557265	557265
YEAR TOTALS		574360	0	21120			48139	0	0	54000	150307	408792		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 4 CALENDAR YEAR 1944

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	190	0	6681	1898	-.04	-75	0	0	6416	0	0	30364	30365
2	30364	2770	0	6681	1997	-.14	-279	0	0	9851	0	0	36583	30365
3	36583	1700	0	6681	2093	.13	272	0	0	5253	0	0	36583	30365
4	36583	1310	0	7636	2093	.17	356	0	0	6682	0	0	36583	30365
5	36583	7990	0	7636	2089	-.14	-291	0	0	0	0	646	36582	30365
6	36582	970	0	8590	2001	.62	1241	0	0	2643	0	0	30364	30365
7	30364	130	0	10499	1900	.66	1254	0	0	11623	0	0	30364	30365
8	30364	360	0	10499	1900	.66	1254	0	0	11393	0	0	30364	30365
9	30364	240	0	8590	1900	.55	1045	0	0	9395	0	0	30364	30365
10	30364	590	0	7636	1911	.34	650	0	0	7692	0	0	30360	30365
11	30360	300	0	7636	1902	.06	114	0	0	7454	0	0	30364	30365
12	30364	880	0	6681	1900	.01	19	0	0	5820	0	0	30364	30365
YEAR TOTALS		17430	0	95446			5560	0	0	84222	0	646		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	39799	480	0	707	2631	-.06	-157	0	0	18263	11485	0	46507	73718
2	46507	7380	0	707	3170	-.13	-411	0	0	20126	0	0	73717	73718
3	73717	4770	0	707	3646	.14	510	0	0	2131	5683	0	73718	73718
4	73718	3630	0	807	3646	.17	620	0	0	4119	6322	0	73718	73718
5	73718	28140	0	807	3631	-.22	-798	0	0	11600	10680	29054	73715	73718
	73715	2580	0	908	3467	.65	2254	0	0	10302	19290	0	64145	73718
7	64145	320	0	1110	2971	.71	2109	0	0	0	18518	0	42728	73718
8	42728	940	0	1110	2601	.68	1769	0	0	11600	10490	0	41899	73718
9	41899	610	0	908	2567	.59	1515	0	0	11600	10692	0	40994	73718
10	40994	1520	0	807	2559	.40	1024	0	0	14553	13746	0	41490	73718
11	41490	770	0	807	2650	.10	265	0	0	14791	10038	0	45941	73718
12	45941	2270	0	707	2993	.04	120	0	0	18859	3974	0	62269	73718
YEAR TOTALS		53410	0	10092			8820	0	0	137944	120918	29054		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 4 CALENDAR YEAR 1944

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	111538	4030	0	428	6414	-.02	-127	0	0	0	0	0	115267	338276
2	115267	21160	0	428	6814	-.10	-680	0	0	0	0	0	136679	338276
3	136679	13780	0	428	7305	.16	1169	0	0	0	0	0	148862	338276
4	148862	13260	0	490	7606	.24	1825	0	0	0	0	0	159807	338276
5	159807	14070	0	490	7919	.05	396	0	0	0	0	0	172991	338276
6	172991	6840	0	551	8029	.67	5379	5649	0	0	0	0	168252	338276
7	168252	0	0	673	7615	.69	5254	21187	0	0	0	0	141138	338276
8	141138	4260	0	673	6757	.74	5000	32499	0	0	0	0	107226	338276
9	107226	3490	0	551	5737	.57	3270	28382	0	0	0	0	78513	338276
10	78513	7510	0	490	5337	.30	1601	0	0	0	0	0	83932	338276
11	83932	5880	0	490	5515	.08	441	0	0	0	0	0	88881	338276
12	88881	5800	0	428	5689	.03	171	0	0	0	0	0	94082	338276
YEAR TOTALS		100080	0	6120			23699	87717	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139350	1270	0	7444	8920	-.04	-356	0	0	5819	0	0	139351	139351
2	139351	17250	0	7444	8902	-.14	-1245	3633	0	0	7422	0	139347	139351
3	139347	8450	0	7444	8928	.13	1161	0	0	159	0	0	139351	139351
4	139351	19450	0	8507	8928	.17	1518	5306	0	0	4119	0	139351	139351
5	139351	40460	0	8507	8898	-.16	-1423	21780	0	0	11600	0	139347	139351
	139347	0	5649	9571	8928	.61	5446	2228	0	11600	0	0	139351	139351
7	139351	3890	21187	11698	8928	.65	5803	7576	0	0	0	0	139351	139351
8	139351	7540	32499	11698	8928	.65	5803	10938	0	0	11600	0	139351	139351
9	139351	6710	28382	9571	8928	.55	4910	9011	0	0	11600	0	139351	139351
10	139351	3640	0	8507	8928	.35	3125	979	0	6911	0	0	137291	139351
11	137291	7370	0	8507	8885	.06	533	0	0	3730	0	0	139351	139351
12	139351	8820	0	7444	8928	.03	268	1108	0	0	0	0	139351	139351
YEAR TOTALS		124850	87717	106342			25543	62559	0	28219	46341	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 4 CALENDAR YEAR 1944

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37774	140	0	0	3529	-.05	-175	0	0	0	315	0	37774	37775
2	37774	1890	3633	0	3516	-.13	-456	0	0	0	5981	0	37772	37775
3	37772	920	0	0	3537	.13	460	0	0	0	457	0	37775	37775
4	37775	2130	5306	0	3537	.17	601	0	0	0	6835	0	37775	37775
5	37775	4430	21780	0	3537	-.20	-706	0	0	0	6835	20081	37775	37775
6	37775	0	2228	0	3537	.63	2228	0	0	0	0	0	37775	37775
7	37775	430	7576	0	3537	.69	2441	0	0	0	5565	0	37775	37775
8	37775	830	10938	0	3537	.67	2370	0	0	0	9398	0	37775	37775
9	37775	730	9011	0	3537	.58	2051	0	0	0	7690	0	37775	37775
10	37775	400	979	0	3537	.39	1379	0	0	0	0	0	37775	37775
11	37775	810	0	0	3537	.08	283	0	0	0	527	0	37775	37775
12	37775	970	1108	0	3537	.02	71	0	0	0	2007	0	37775	37775
YEAR TOTALS		13680	62559	0			10547	0	0	0	45610	20081		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	11710	0	9000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	146520	0	114000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 4 CALENDAR YEAR 1944

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 4 CALENDAR YEAR 1944

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 5 CALENDAR YEAR 1945

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	872314	144410	0	307	40379	-.03	-1210	0	0	0	22770	71108	923749	923750
2	923749	239330	0	278	41356	-.11	-4548	0	0	0	0	243599	923750	923750
3	923750	557840	0	307	41356	-.37	-15301	0	0	0	0	572834	923750	923750
4	923750	301000	0	298	41318	-.05	-2065	0	0	0	0	302769	923748	923750
5	923748	14320	0	307	41356	.25	10339	0	0	8354	12026	0	923750	923750
6	923750	192090	0	298	41356	.13	5376	0	0	0	22770	163646	923750	923750
7	923750	133170	0	307	41356	.14	5790	0	0	0	5010	122063	923750	923750
8	923750	8340	0	307	41115	.20	8223	0	0	10000	22770	0	910790	923750
9	910790	3280	0	298	40362	.49	19777	0	0	10000	20827	0	883168	923750
10	883168	76020	0	307	40603	.02	812	0	0	0	22770	11549	923750	923750
11	923750	18050	0	298	41356	.21	8685	0	0	10000	19067	0	923750	923750
12	923750	33830	0	307	41356	.04	1654	0	0	0	22770	9099	923750	923750
YEAR TOTALS		1721680	0	3619			37532	0	0	38354	170780	1496667		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	58090	0	1478	32623	.00	0	0	0	0	18950	37662	557265	557265
2	557265	122830	0	1478	32623	-.12	-3914	0	0	0	7696	117570	557265	557265
3	557265	339430	0	1478	32623	-.50	-16311	0	0	0	7696	346567	557265	557265
4	557265	127370	0	1690	32623	.07	2284	0	0	0	8795	114601	557265	557265
5	557265	3500	0	1690	32623	.28	9134	0	0	9000	1676	0	557265	557265
	557265	127570	0	1901	32623	.10	3262	0	0	0	18950	103457	557265	557265
7	557265	126440	0	2323	32623	.10	3262	0	0	0	18950	101905	557265	557265
8	557265	1160	0	2323	32623	.32	10439	0	0	9000	939	0	553724	557265
9	553724	1760	0	1901	32500	.42	13650	0	0	9000	0	0	548933	557265
10	548933	20920	0	1690	32335	.07	2263	0	0	9000	17635	0	557265	557265
11	557265	13070	0	1690	32623	.18	5872	0	0	9000	14508	0	557265	557265
12	557265	12350	0	1478	32623	.10	3262	0	0	9000	16610	0	557265	557265
YEAR TOTALS		954490	0	21120			33203	0	0	54000	132405	821762		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 5 CALENDAR YEAR 1945

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	1830	0	6681	1961	.07	137	0	0	8484	0	0	33860	30365
2	33860	16450	0	6681	2047	-.20	-408	0	0	0	0	7456	36581	30365
3	36581	21110	0	6681	2087	-.20	-416	0	0	0	0	14844	36582	36584
4	36582	16730	0	7636	2093	.01	21	0	0	0	0	9071	36584	36584
5	36584	3420	0	7636	2093	.33	691	0	0	4907	0	0	36584	36584
6	36584	1260	0	8590	2093	.27	565	0	0	7895	0	0	36584	36584
7	36584	1280	0	10499	2093	.24	502	0	0	9721	0	0	36584	36584
8	36584	140	0	10499	2093	.60	1256	0	0	11615	0	0	36584	36584
9	36584	90	0	8590	2093	.53	1109	0	0	9609	0	0	36584	36584
10	36584	580	0	7636	2093	.19	398	0	0	7454	0	0	36584	36584
11	36584	360	0	7636	2093	.26	544	0	0	7820	0	0	36584	36584
12	36584	330	0	6681	2093	.18	377	0	0	6728	0	0	36584	36584
YEAR TOTALS		63580	0	95446			4776	0	0	74233	0	31371		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	62269	5090	0	707	3432	.06	206	0	0	16195	8923	0	73718	73718
2	73718	58080	0	707	3630	-.23	-834	0	0	11600	9345	60466	73714	73718
3	73714	74880	0	707	3634	-.17	-617	0	0	11600	9345	77043	73716	73718
4	73716	59120	0	807	3644	-.03	-108	0	0	11600	10680	59339	73718	73718
5	73718	11210	0	807	3646	.23	839	0	0	5590	10680	4474	73718	73718
	73718	3630	0	908	3646	.30	1094	0	0	11915	14133	0	73128	73718
7	73128	3730	0	1110	3635	.30	1090	0	0	11600	12540	0	73718	73718
8	73718	360	0	1110	3119	.63	1965	0	0	0	28275	0	42728	73718
9	42728	240	0	908	2582	.80	2066	0	0	11600	10692	0	40902	73718
10	40902	1500	0	807	2889	.22	636	0	0	20071	0	0	61030	73718
11	61030	920	0	807	3254	.27	879	0	0	6280	2414	0	64130	73718
12	64130	840	0	707	3378	.20	676	0	0	15611	10272	0	68926	73718
YEAR TOTALS		219600	0	10092			7892	0	0	133662	127299	201322		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 5 CALENDAR YEAR 1945

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	94082	4550	0	428	5842	.07	409	0	0	0	0	0	97795	338276
2	97795	11960	0	428	6112	-.12	-732	0	0	0	0	0	110059	338276
3	110059	93100	0	428	7668	-.09	-689	0	0	0	0	0	203420	338276
4	203420	41530	0	490	9601	.05	480	0	0	0	0	0	243980	338276
5	243980	0	0	490	10103	.47	4748	0	0	0	0	0	238742	338276
6	238742	0	0	551	9970	.36	3589	0	0	0	0	0	234602	338276
7	234602	36610	0	673	10371	.34	3526	0	0	0	0	0	267013	338276
8	267013	0	0	673	10566	.70	7396	10556	0	0	0	0	248388	338276
9	248388	7200	0	551	9892	.52	5144	30411	0	0	0	0	219482	338276
10	219482	28140	0	490	9841	.24	2362	0	0	0	0	0	244770	338276
11	244770	0	0	490	10145	.33	3348	0	0	0	0	0	240932	338276
12	240932	0	0	428	10054	.21	2111	0	0	0	0	0	238393	338276
YEAR TOTALS		223090	0	6120			31692	40967	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	4730	0	7444	8928	.06	536	0	0	3250	0	0	139351	139351
2	139351	55750	0	7444	8928	-.21	-1874	38580	0	0	11600	0	139351	139351
3	139351	86360	0	7444	8928	-.22	-1963	69279	0	0	11600	0	139351	139351
4	139351	57460	0	8507	8928	.01	89	37264	0	0	11600	0	139351	139351
5	139351	22190	0	8507	8928	.31	2768	5325	0	0	5590	0	139351	139351
	139351	5720	0	9571	8928	.25	2232	360	0	6443	0	0	139351	139351
7	139351	51120	0	11698	8928	.24	2143	25679	0	0	11600	0	139351	139351
8	139351	3830	10556	11698	8928	.58	5178	1702	0	4192	0	0	139351	139351
9	139351	5450	30411	9571	8928	.57	5089	9601	0	0	11600	0	139351	139351
10	139351	21940	0	8507	8928	.19	1696	5142	0	0	6595	0	139351	139351
11	139351	14490	0	8507	8928	.25	2232	3751	0	0	0	0	139351	139351
12	139351	5140	0	7444	8928	.21	1875	112	0	4291	0	0	139351	139351
YEAR TOTALS		334180	40967	106342			20001	196795	0	18176	70185	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 5 CALENDAR YEAR 1945

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	520	0	0	3537	.06	212	0	0	0	308	0	37775	37775
2	37775	6100	38580	0	3537	-.22	-777	0	0	0	5981	39476	37775	37775
3	37775	9450	69279	0	3537	-.20	-706	0	0	0	5981	73454	37775	37775
4	37775	6290	37264	0	3534	-.02	-70	0	0	0	6835	36789	37775	37775
5	37775	2430	5325	0	3537	.26	920	0	0	0	6835	0	37775	37775
6	37775	630	360	0	3537	.28	990	0	0	0	0	0	37775	37775
7	37775	5590	25679	0	3537	.28	990	0	0	0	9398	20881	37775	37775
8	37775	420	1702	0	3537	.60	2122	0	0	0	0	0	37775	37775
9	37775	600	9601	0	3537	.71	2511	0	0	0	7690	0	37775	37775
10	37775	2400	5142	0	3537	.20	707	0	0	0	6835	0	37775	37775
11	37775	1590	3751	0	3537	.26	920	0	0	0	4421	0	37775	37775
12	37775	560	112	0	3537	.19	672	0	0	0	0	0	37775	37775
YEAR TOTALS		36580	196795	0			8491	0	0	0	54284	170600		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	20064	0	17354	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	11710	0	9000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	11710	0	9000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	124874	0	92354	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 5 CALENDAR YEAR 1945

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 5 CALENDAR YEAR 1945

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 6 CALENDAR YEAR 1946

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	67680	0	307	41356	-.18	-7443	0	0	0	0	74816	923750	923750
2	923750	175630	0	278	41302	-.07	-2890	0	0	0	0	178246	923746	923750
3	923746	69730	0	307	41325	-.04	-1652	0	0	0	0	71072	923749	923750
4	923749	30080	0	298	41356	.13	5376	0	0	0	22770	1635	923750	923750
5	923750	329100	0	307	41356	-.23	-9511	0	0	0	0	338304	923750	923750
6	923750	69990	0	298	41356	.28	11580	0	0	0	11282	46830	923750	923750
7	923750	2090	0	307	40751	.53	21598	0	0	10000	22770	0	891165	923750
8	891165	9660	0	307	39853	.31	12354	0	0	10000	22770	0	875394	923750
9	875394	1430	0	298	39102	.40	15641	0	0	10000	20206	0	850679	923750
10	850679	770	0	307	38429	.30	11529	0	0	10000	10471	0	839142	923750
11	839142	60480	0	298	39761	-.33	-13120	0	0	10000	0	0	922444	923750
12	922444	31820	0	307	41332	.09	3720	0	0	0	0	26487	923750	923750
YEAR TOTALS		848460	0	3619			47182	0	0	50000	110269	737390		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	75060	0	1478	32623	-.17	-5545	0	0	0	13183	65944	557265	557265
2	557265	130180	0	1478	32600	-.02	-651	0	0	0	11342	118011	557265	557265
3	557265	24710	0	1478	32623	.04	1305	0	0	0	12466	9461	557265	557265
4	557265	7820	0	1690	32623	.09	2936	0	0	6727	9921	0	557265	557265
5	557265	131200	0	1690	32623	-.21	-6850	0	0	0	12251	124109	557265	557265
	557265	119020	0	1901	32623	.30	9787	0	0	0	18950	88382	557265	557265
7	557265	140	0	2323	32623	.54	17616	0	0	9000	1345	0	545121	557265
8	545121	7690	0	2323	31908	.22	7020	0	0	9000	3718	0	548750	557265
9	548750	3220	0	1901	32328	.34	10992	0	0	9000	0	0	548077	557265
10	548077	1550	0	1690	32294	.28	9042	0	0	9000	0	0	547895	557265
11	547895	193080	0	1690	32299	-.28	-9043	0	0	0	18950	172113	557265	557265
12	557265	28650	0	1478	32623	.07	2284	0	0	0	14508	10380	557265	557265
YEAR TOTALS		722320	0	21120			38893	0	0	42727	116634	588400		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 6 CALENDAR YEAR 1946

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36584	1130	0	6681	2091	-.07	-145	0	0	5405	0	0	36583	36584
2	36583	3120	0	6681	2093	.04	84	0	0	3646	0	0	36584	36584
3	36584	2120	0	6681	2093	.10	209	0	0	4770	0	0	36584	36584
4	36584	1090	0	7636	2093	.21	440	0	0	6986	0	0	36584	36584
5	36584	3930	0	7636	2089	-.12	-250	0	0	3456	0	0	36584	36584
6	36584	1660	0	8590	2093	.44	921	0	0	7851	0	0	36584	36584
7	36584	90	0	10499	2093	.77	1612	0	0	12021	0	0	36584	36584
8	36584	870	0	10499	2093	.58	1214	0	0	10843	0	0	36584	36584
9	36584	230	0	8590	2093	.30	628	0	0	8988	0	0	36584	36584
10	36584	540	0	7636	2001	.40	800	0	0	1676	0	0	30364	30365
11	30364	7080	0	7636	1895	-.14	-264	0	0	291	0	0	30363	30365
12	30363	6150	0	6681	2001	.03	60	0	0	6812	0	0	36584	36584
YEAR TOTALS		28010	0	95446			5309	0	0	72745	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	68926	2950	0	707	3552	-.06	-212	0	0	11600	9263	0	73718	73718
2	73718	9800	0	707	3646	.04	146	0	0	11600	9345	11202	73718	73718
3	73718	7110	0	707	3646	.07	255	0	0	3348	9345	151	73718	73718
4	73718	3180	0	807	3646	.25	911	0	0	6230	7692	0	73718	73718
5	73718	13780	0	807	3637	-.13	-472	0	0	9927	10680	12693	73717	73718
·	73717	4830	0	908	3646	.51	1859	0	0	471	2533	0	73718	73718
7	73718	240	0	1110	3119	.85	2651	0	0	0	27469	0	42728	73718
8	42728	2240	0	1110	2617	.61	1596	0	0	11600	11134	0	42728	73718
9	42728	600	0	908	2612	.32	836	0	0	11600	10692	0	42492	73718
10	42492	1390	0	807	2612	.46	1202	0	0	11487	10680	0	42680	73718
11	42680	23140	0	807	3100	-.06	-185	0	0	8359	816	0	72741	73718
12	72741	21640	0	707	3628	.10	363	0	0	11600	9345	21848	73718	73718
YEAR TOTALS		90900	0	10092			8950	0	0	97822	118994	45894		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 6 CALENDAR YEAR 1946

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	238393	15920	0	428	10246	-.05	-511	0	0	0	0	0	254396	338276
2	254396	23900	0	428	10792	.09	971	0	0	0	0	0	276897	338276
3	276897	12180	0	428	11225	.16	1796	0	0	0	0	0	286853	338276
4	286853	11990	0	490	11464	.30	3439	0	0	0	0	0	294914	338276
5	294914	14100	0	490	11741	.06	704	0	0	0	0	0	307820	338276
6	307820	5740	0	551	11899	.52	6187	0	0	0	0	0	306822	338276
7	306822	1550	0	673	11570	.87	10066	14662	0	0	0	0	282971	338276
8	282971	660	0	673	10834	.76	8234	23417	0	0	0	0	251307	338276
9	251307	6050	0	551	10003	.28	2801	29621	0	0	0	0	224384	338276
10	224384	710	0	490	9194	.39	3586	25826	0	0	0	0	195192	338276
11	195192	26770	0	490	9152	-.01	-91	0	0	0	0	0	221563	338276
12	221563	33700	0	428	10011	.01	100	0	0	0	0	0	254735	338276
YEAR TOTALS		153270	0	6120			37282	93526	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	29140	0	7444	8917	-.06	-534	10631	0	0	11600	0	139350	139351
2	139350	26420	0	7444	8928	.03	268	7107	0	0	11600	0	139351	139351
3	139351	16100	0	7444	8928	.09	804	4504	0	0	3348	0	139351	139351
4	139351	9240	0	8507	8928	.20	1786	0	0	1053	0	0	139351	139351
5	139351	21330	0	8507	8904	-.13	-1157	4056	0	0	9927	0	139348	139351
	139348	18350	0	9571	8928	.44	3928	4848	0	0	0	0	139351	139351
7	139351	3080	14662	11698	8928	.77	6875	2555	0	3386	0	0	139351	139351
8	139351	14720	23417	11698	8928	.56	5000	9839	0	0	11600	0	139351	139351
9	139351	2830	29621	9571	8928	.31	2768	8512	0	0	11600	0	139351	139351
10	139351	5530	25826	8507	8928	.40	3571	7791	0	0	11487	0	139351	139351
11	139351	19840	0	8507	8900	-.15	-1334	4312	0	0	8359	0	139347	139351
12	139347	30250	0	7444	8928	.01	89	11113	0	0	11600	0	139351	139351
YEAR TOTALS		196830	93526	106342			22064	75268	0	4439	91121	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 6 CALENDAR YEAR 1946

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	3190	10631	0	3527	-.06	-211	0	0	0	5981	8051	37775	37775
2	37775	2890	7107	0	3537	.03	106	0	0	0	5981	3910	37775	37775
3	37775	1760	4504	0	3537	.08	283	0	0	0	5981	0	37775	37775
4	37775	1010	0	0	3537	.23	814	0	0	0	196	0	37775	37775
5	37775	2320	4056	0	3516	-.13	-456	0	0	0	6835	0	37772	37775
6	37772	2010	4848	0	3537	.48	1698	0	0	0	5157	0	37775	37775
7	37775	310	2555	0	3537	.81	2865	0	0	0	0	0	37775	37775
8	37775	1610	9839	0	3537	.58	2051	0	0	0	9398	0	37775	37775
9	37775	310	8512	0	3537	.32	1132	0	0	0	7690	0	37775	37775
10	37775	600	7791	0	3537	.44	1556	0	0	0	6835	0	37775	37775
11	37775	2170	4312	0	3521	-.10	-351	0	0	0	6835	0	37773	37775
12	37773	3310	11113	0	3537	.08	283	0	0	0	5981	8157	37775	37775
YEAR TOTALS		21490	75268	0			9770	0	0	0	66870	20118		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	9437	0	6727	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
[illegible]	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
12	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
YEAR TOTALS		327480	0	360000			0	0	125247	0	92727	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 6 CALENDAR YEAR 1946

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 6 CALENDAR YEAR 1946

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 7 CALENDAR YEAR 1947

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	198360	0	307	41356	-.11	-4548	0	0	0	2919	199682	923750	923750
2	923750	18830	0	278	41356	.15	6203	0	0	5796	18145	0	923750	923750
3	923750	124680	0	307	41325	-.04	-1652	0	0	0	366	125660	923749	923750
4	923749	120100	0	298	41356	.03	1241	0	0	0	0	118560	923750	923750
5	923750	24660	0	307	41356	.00	0	0	0	0	22770	1583	923750	923750
6	923750	69530	0	298	41356	.28	11580	0	0	0	20412	37240	923750	923750
7	923750	470	0	307	40676	.59	23999	0	0	10000	22770	0	887144	923750
8	887144	3560	0	307	39476	.47	18554	0	0	10000	22770	0	859073	923750
9	859073	8370	0	298	38594	.45	17367	0	0	10000	20138	0	839640	923750
10	839640	400	0	307	37919	.42	15926	0	0	10000	11091	0	822716	923750
11	822716	2760	0	298	37637	.08	3011	0	0	10000	7723	0	824444	923750
12	824444	31080	0	307	38504	-.11	-4234	0	0	10000	0	0	869451	923750
YEAR TOTALS		602800	0	3619			87447	0	0	65796	149104	482725		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	52220	0	1478	32555	-.06	-1952	0	0	0	18950	33748	557261	557265
2	557261	3240	0	1478	32623	.14	4567	0	0	9000	6191	0	557265	557265
3	557265	28280	0	1478	32623	.02	652	0	0	0	18950	7200	557265	557265
4	557265	205020	0	1690	32589	-.03	-977	0	0	0	13514	190794	557264	557265
5	557264	6970	0	1690	32623	.17	5546	0	0	3035	2768	0	557265	557265
	557265	46080	0	1901	32623	.25	8156	0	0	0	18950	17073	557265	557265
7	557265	270	0	2323	32623	.64	20879	0	0	9000	1078	0	542255	557265
8	542255	9960	0	2323	31517	.42	13237	0	0	9000	5363	0	540292	557265
9	540292	7610	0	1901	31543	.38	11986	0	0	9000	0	0	543015	557265
10	543015	160	0	1690	31525	.34	10718	0	0	9000	0	0	539767	557265
11	539767	21780	0	1690	32018	.08	2561	0	0	9000	9031	0	557265	557265
12	557265	141390	0	1478	32623	-.11	-3588	0	0	0	18950	124550	557265	557265
YEAR TOTALS		522980	0	21120			71785	0	0	57035	113745	373365		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 7 CALENDAR YEAR 1947

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36584	2790	0	6681	2093	.09	188	0	0	4079	0	0	36584	36584
2	36584	1420	0	6681	2093	.23	481	0	0	5742	0	0	36584	36584
3	36584	2910	0	6681	2093	.10	209	0	0	3980	0	0	36584	36584
4	36584	2980	0	7636	2093	.03	63	0	0	4719	0	0	36584	36584
5	36584	1360	0	7636	2093	.18	377	0	0	6653	0	0	36584	36584
6	36584	2470	0	8590	2093	.36	753	0	0	6873	0	0	36584	36584
7	36584	440	0	10499	2093	.81	1695	0	0	11754	0	0	36584	36584
8	36584	120	0	10499	2093	.70	1465	0	0	11844	0	0	36584	36584
9	36584	1030	0	8590	2093	.65	1360	0	0	8920	0	0	36584	36584
10	36584	0	0	7636	2001	.44	880	0	0	2296	0	0	30364	30365
11	30364	0	0	7636	1905	.17	324	0	0	7959	0	0	30363	30365
12	30363	1320	0	6681	1897	-.07	-132	0	0	5230	0	0	30364	30365
YEAR TOTALS		16840	0	95446			7663	0	0	80049	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	73718	9570	0	707	3646	.07	255	0	0	749	9357	0	73718	73718
2	73718	4490	0	707	3646	.27	984	0	0	1553	4352	0	73718	73718
3	73718	9990	0	707	3646	.11	401	0	0	0	8882	0	73718	73718
4	73718	10170	0	807	3646	.08	292	0	0	10023	10680	8414	73718	73718
5	73718	4240	0	807	3646	.22	802	0	0	0	2631	0	73718	73718
	73718	7860	0	908	3646	.42	1531	0	0	10579	16000	0	73718	73718
7	73718	450	0	1110	3119	.84	2620	0	0	0	27710	0	42728	73718
8	42728	50	0	1110	2584	.67	1731	0	0	11600	10490	0	41047	73718
9	41047	490	0	908	2528	.69	1744	0	0	11600	10692	0	39793	73718
10	39793	880	0	807	2493	.56	1396	0	0	11487	10680	0	39277	73718
11	39277	560	0	807	2483	.23	571	0	0	11487	10680	0	39266	73718
12	39266	6170	0	707	2623	-.08	-209	0	0	4907	3321	0	46524	73718
YEAR TOTALS		54920	0	10092			12118	0	0	73985	125475	8414		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 7 CALENDAR YEAR 1947

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	254735	2050	0	428	10487	.12	1258	0	0	0	0	0	255099	338276
2	255099	0	0	428	10452	.23	2404	0	0	0	0	0	252267	338276
3	252267	240	0	428	10393	.11	1143	0	0	0	0	0	250936	338276
4	250936	17520	0	490	10609	.05	530	0	0	0	0	0	267436	338276
5	267436	26130	0	490	11163	.13	1451	0	0	0	0	0	291625	338276
6	291625	0	0	551	11405	.47	5360	0	0	0	0	0	285714	338276
7	285714	0	0	673	10995	.88	9676	14743	0	0	0	0	260622	338276
8	260622	0	0	673	10283	.85	8741	16422	0	0	0	0	234786	338276
9	234786	0	0	551	9417	.77	7251	27395	0	0	0	0	199589	338276
10	199589	0	0	490	8441	.48	4052	25211	0	0	0	0	169836	338276
11	169836	0	0	490	7668	.18	1380	24309	0	0	0	0	143657	338276
12	143657	4240	0	428	7377	.00	0	0	0	0	0	0	147469	338276
YEAR TOTALS		50180	0	6120			43246	108080	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	4530	0	7444	8928	.08	714	0	0	3628	0	0	139351	139351
2	139351	10830	0	7444	8928	.23	2053	1333	0	0	0	0	139351	139351
3	139351	6790	0	7444	8928	.10	893	0	0	1547	0	0	139351	139351
4	139351	23410	0	8507	8928	.04	357	4523	0	0	10023	0	139351	139351
5	139351	14190	0	8507	8928	.19	1696	3987	0	0	0	0	139351	139351
6	139351	5310	0	9571	8928	.36	3214	835	0	8310	0	0	139351	139351
7	139351	3040	14743	11698	8928	.80	7142	2570	0	3627	0	0	139351	139351
8	139351	22080	16422	11698	8928	.66	5892	9312	0	0	11600	0	139351	139351
9	139351	8620	27395	9571	8928	.64	5714	9130	0	0	11600	0	139351	139351
10	139351	6710	25211	8507	8928	.45	4018	7909	0	0	11487	0	139351	139351
11	139351	4390	24309	8507	8928	.18	1607	7098	0	0	11487	0	139351	139351
12	139351	16270	0	7444	8928	.00	0	3919	0	0	4907	0	139351	139351
YEAR TOTALS		126170	108080	106342			33300	50616	0	17112	61104	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 7   CALENDAR YEAR 1947

RESERVOIR NO 7   LW   MAX. CAPACITY   37775   MIN. OPERATING POOL   22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	500	0	0	3537	.07	248	0	0	0	252	0	37775	37775
2	37775	1180	1333	0	3537	.25	884	0	0	0	1629	0	37775	37775
3	37775	740	0	0	3537	.11	389	0	0	0	351	0	37775	37775
4	37775	2560	4523	0	3537	.07	248	0	0	0	6835	0	37775	37775
5	37775	1550	3987	0	3537	.21	743	0	0	0	4794	0	37775	37775
6	37775	580	835	0	3537	.40	1415	0	0	0	0	0	37775	37775
7	37775	330	2570	0	3537	.82	2900	0	0	0	0	0	37775	37775
8	37775	2420	9312	0	3537	.66	2334	0	0	0	9398	0	37775	37775
9	37775	930	9130	0	3537	.67	2370	0	0	0	7690	0	37775	37775
10	37775	730	7909	0	3537	.51	1804	0	0	0	6835	0	37775	37775
11	37775	480	7098	0	3537	.21	743	0	0	0	6835	0	37775	37775
12	37775	1780	3919	0	3524	-.08	-281	0	0	0	5981	0	37774	37775
YEAR TOTALS		13780	50616	0			13797	0	0	0	50600	0		

RESERVOIR NO 8   WTLND   MAX. CAPACITY   10   MIN. OPERATING POOL   0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	17506	0	14796	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	5745	0	3035	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	155351	0	122831	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 7 CALENDAR YEAR 1947

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 7 CALENDAR YEAR 1947

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 8 CALENDAR YEAR 1948

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	869451	23690	0	307	40034	-.10	-4002	0	0	10000	0	0	906836	923750
2	906836	34540	0	278	41042	-.11	-4514	0	0	0	0	21862	923750	923750
3	923750	61160	0	307	41356	.06	2481	0	0	0	0	58372	923750	923750
4	923750	20570	0	298	41356	.15	6203	0	0	8701	22770	0	923750	923750
5	923750	295420	0	307	41356	.00	0	0	0	0	22770	272343	923750	923750
6	923750	6880	0	298	41015	.42	17226	0	0	10000	17732	0	905374	923750
7	905374	15150	0	307	40293	.56	22564	0	0	10000	22770	0	884883	923750
8	884883	10	0	307	39183	.67	26253	0	0	10000	22770	0	845563	923750
9	845563	0	0	298	37803	.58	21926	0	0	10000	22770	0	810569	923750
10	810569	0	0	307	36639	.40	14656	0	0	10000	22770	0	782836	923750
11	782836	90	0	298	35777	.16	5724	0	0	10000	22770	0	764134	923750
12	764134	150	0	307	35137	.08	2811	0	0	10000	22770	0	748396	923750
YEAR TOTALS		457660	0	3619			111328	0	0	88701	199892	352577		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	45710	0	1478	32623	-.07	-2283	0	0	0	18950	27565	557265	557265
2	557265	58320	0	1478	32623	-.08	-2609	0	0	0	7696	51755	557265	557265
3	557265	74630	0	1478	32623	.04	1305	0	0	0	8588	63259	557265	557265
4	557265	6630	0	1690	32623	.21	6851	0	0	9000	7089	0	557265	557265
5	557265	106440	0	1690	32589	-.03	-977	0	0	0	18950	86778	557264	557265
	557264	750	0	1901	32623	.44	14354	0	0	9000	0	0	550759	557265
7	550759	1950	0	2323	31671	.61	19319	0	0	9000	3801	0	536266	557265
8	536266	460	0	2323	30497	.69	21043	0	0	9000	5557	0	516803	557265
9	516803	90	0	1901	28808	.61	17573	0	0	9000	18950	0	487469	557265
10	487469	0	0	1690	27667	.34	9407	0	0	9000	18950	0	466422	557265
11	466422	2060	0	1690	26989	.15	4048	0	0	9000	18950	0	452794	557265
12	452794	2120	0	1478	26510	.06	1591	0	0	9000	18950	0	441895	557265
YEAR TOTALS		299160	0	21120			89622	0	0	72000	146431	229357		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 8 CALENDAR YEAR 1948

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	2860	0	6681	1902	.06	114	0	0	3935	0	0	30364	30365
2	30364	16310	0	6681	1996	-.16	-318	0	0	0	0	3729	36582	30365
3	36582	7100	0	6681	2093	.19	398	0	0	0	0	20	36583	30365
4	36583	1450	0	7636	2001	.38	760	0	0	727	0	0	30364	30365
5	30364	1790	0	7636	1914	.03	57	0	0	6713	0	0	31174	30365
6	31174	670	0	8590	1913	.38	727	0	0	7837	0	0	30364	30365
7	30364	330	0	10499	1900	.56	1064	0	0	11233	0	0	30364	30365
8	30364	0	0	10499	1900	.81	1539	0	0	12038	0	0	30364	30365
9	30364	0	0	8590	1900	.68	1292	0	0	9882	0	0	30364	30365
10	30364	0	0	7636	1900	.47	893	0	0	8529	0	0	30364	30365
11	30364	0	0	7636	1900	.44	836	0	0	8472	0	0	30364	30365
12	30364	0	0	6681	1908	.25	477	0	0	7156	0	0	30362	30365
YEAR TOTALS		30510	0	95446			7839	0	0	76522	0	3749		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	46524	6780	0	707	2840	.07	199	0	0	2016	2026	0	52388	73718
2	52388	29340	0	707	3259	-.20	-651	0	0	11600	9345	10211	73716	73718
3	73716	16580	0	707	3646	.24	875	0	0	0	14996	0	73718	73718
4	73718	3480	0	807	3530	.37	1306	0	0	9657	17234	0	67508	73718
5	67508	4560	0	807	3530	.10	353	0	0	15532	12722	0	73718	73718
[illegible]	73718	1810	0	908	3119	.37	1154	0	0	0	30738	0	42728	73718
7	42728	2390	0	1110	2617	.55	1439	0	0	11600	11441	0	42728	73718
8	42728	40	0	1110	2575	.86	2214	0	0	11600	10490	0	40554	73718
9	40554	10	0	908	2501	.67	1676	0	0	9928	9020	0	38888	73718
10	38888	0	0	807	2444	.52	1271	0	0	13716	12909	0	37617	73718
11	37617	0	0	807	2396	.49	1174	0	0	13773	12966	0	36443	73718
12	36443	80	0	707	2363	.27	638	0	0	17523	16816	0	35885	73718
YEAR TOTALS		65070	0	10092			11648	0	0	116945	160703	10211		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 8 CALENDAR YEAR 1948

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	147469	2750	0	428	7447	.11	819	0	0	0	0	0	148972	338276
2	148972	11060	0	428	7616	-.12	-913	0	0	0	0	0	160517	338276
3	160517	7560	0	428	7836	.23	1802	0	0	0	0	0	165847	338276
4	165847	2380	0	490	7886	.42	3312	0	0	0	0	0	164425	338276
5	164425	3430	0	490	7894	.12	947	0	0	0	0	0	166418	338276
6	166418	9860	0	551	7959	.37	2945	3364	0	0	0	0	169418	338276
7	169418	3620	0	673	7523	.65	4890	34561	0	0	0	0	132914	338276
8	132914	1140	0	673	6369	.87	5541	36729	0	0	0	0	91111	338276
9	91111	320	0	551	5599	.77	4311	0	0	0	0	0	86569	338276
10	86569	0	0	490	5465	.50	2732	0	0	0	0	0	83347	338276
11	83347	0	0	490	5359	.47	2519	0	0	0	0	0	80338	338276
12	80338	0	0	428	5274	.29	1529	0	0	0	0	0	78381	338276
YEAR TOTALS		42120	0	6120			30434	74654	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	14510	0	7444	8928	.05	446	4604	0	0	2016	0	139351	139351
2	139351	34280	0	7444	8898	-.16	-1423	16663	0	0	11600	0	139347	139351
3	139347	8440	0	7444	8928	.19	1696	0	0	704	0	0	139351	139351
4	139351	2530	0	8507	8928	.38	3393	1029	0	10399	0	0	139351	139351
5	139351	2940	0	8507	8928	.04	357	0	0	5924	0	0	139351	139351
	139351	0	3364	9571	8928	.39	3482	1344	0	11033	0	0	139351	139351
7	139351	4500	34561	11698	8928	.55	4910	10853	0	0	11600	0	139351	139351
8	139351	5560	36729	11698	8928	.81	7232	11759	0	0	11600	0	139351	139351
9	139351	4170	0	9571	8680	.67	5816	1910	0	1330	0	0	127554	139351
10	127554	0	0	8507	8263	.46	3801	1768	0	6074	0	0	119552	139351
11	119552	4410	0	8507	8042	.42	3378	1147	0	6131	0	0	117061	139351
12	117061	6720	0	7444	8150	.29	2363	154	0	10835	0	0	124655	139351
YEAR TOTALS		88060	74654	106342			35451	51231	0	52430	36816	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 8 CALENDAR YEAR 1948

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37774	1590	4604	0	3537	.06	212	0	0	0	5981	0	37775	37775
2	37775	3750	16663	0	3537	-.19	-671	0	0	0	5981	15103	37775	37775
3	37775	920	0	0	3537	.22	778	0	0	0	142	0	37775	37775
4	37775	280	1029	0	3537	.37	1309	0	0	0	0	0	37775	37775
5	37775	320	0	0	3537	.08	283	0	0	0	37	0	37775	37775
6	37775	0	1344	0	3537	.38	1344	0	0	0	0	0	37775	37775
7	37775	490	10853	0	3537	.55	1945	0	0	0	9398	0	37775	37775
8	37775	610	11759	0	3537	.84	2971	0	0	0	9398	0	37775	37775
9	37775	460	1910	0	3537	.67	2370	0	0	0	0	0	37775	37775
10	37775	0	1768	0	3537	.50	1768	0	0	0	0	0	37775	37775
11	37775	480	1147	0	3537	.46	1627	0	0	0	0	0	37775	37775
12	37775	730	154	0	3537	.25	884	0	0	0	0	0	37775	37775
YEAR TOTALS		9630	51231	0			14820	0	0	0	30937	15103		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
2	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	20411	0	17701	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	193221	0	160701	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 8   CALENDAR YEAR 1948

DEMAND NODE 9   MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10   RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 8   CALENDAR YEAR 1948

DEMAND NODE 11   HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 9 CALENDAR YEAR 1949

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	748396	13860	0	307	35055	-.30	-10516	0	0	10000	22770	0	759695	923750
2	759695	51590	0	278	36027	-.07	-2521	0	0	10000	22770	0	800758	923750
3	800758	37180	0	307	37448	.02	749	0	0	10000	10639	0	836243	923750
4	836243	31330	0	298	38712	-.05	-1935	0	0	10000	10356	0	868854	923750
5	868854	44320	0	307	40320	.15	6048	0	0	10000	0	0	916819	923750
6	916819	16110	0	298	41227	.25	10307	0	0	6305	4879	0	923750	923750
7	923750	4880	0	307	41040	.37	15185	0	0	10000	16385	0	906753	923750
8	906753	760	0	307	40220	.37	14881	0	0	10000	22770	0	879555	923750
9	879555	0	0	298	39201	.43	16856	0	0	10000	20549	0	851852	923750
10	851852	6410	0	307	38982	-.23	-8965	0	0	10000	9144	0	867776	923750
11	867776	130	0	298	38918	.32	12454	0	0	10000	16744	0	848410	923750
12	848410	70	0	307	38346	-.04	-1533	0	0	10000	22770	0	836936	923750
YEAR TOTALS		206640	0	3619			51010	0	0	116305	179776	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	441895	45360	0	1478	27141	-.34	-9227	0	0	9000	18950	0	485054	557265
2	485054	87630	0	1478	30125	-.11	-3313	0	0	1696	18950	0	557265	557265
3	557265	22710	0	1478	32623	.04	1305	0	0	0	18950	977	557265	557265
4	557265	21830	0	1690	32567	-.05	-1627	0	0	0	18950	2820	557262	557265
5	557262	25940	0	1690	32623	.14	4567	0	0	0	8795	10885	557265	557265
6	557265	8030	0	1901	32623	.31	10113	0	0	9000	5016	0	557265	557265
7	557265	1490	0	2323	32623	.35	11418	0	0	9000	0	0	554014	557265
8	554014	10	0	2323	32010	.41	13124	0	0	9000	4793	0	542784	557265
9	542784	0	0	1901	31389	.44	13811	0	0	9000	0	0	536072	557265
10	536072	8840	0	1690	31890	-.27	-8609	0	0	9000	3566	0	557265	557265
11	557265	620	0	1690	32623	.29	9461	0	0	9000	0	0	555734	557265
12	555734	430	0	1478	32137	.01	321	0	0	9000	18950	0	544415	557265
YEAR TOTALS		222890	0	21120			41344	0	0	73696	116920	14682		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 9 CALENDAR YEAR 1949

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30362	0	0	6681	1893	-.21	-397	0	0	6285	0	0	30363	30365
2	30363	5030	0	6681	1898	-.04	-75	0	0	1577	0	0	30364	30365
3	30364	9370	0	6681	1941	.12	233	0	0	0	0	0	32820	30365
4	32820	3800	0	7636	1945	.11	214	0	0	1594	0	0	30364	30365
5	30364	53430	0	7636	1999	-.07	-139	0	0	0	0	39714	36583	30365
6	36583	11820	0	8590	2093	.30	628	0	0	0	0	2602	36583	30365
7	36583	1170	0	10499	2001	.59	1181	0	0	4291	0	0	30364	30365
8	30364	270	0	10499	1900	.55	1045	0	0	11274	0	0	30364	30365
9	30364	0	0	8590	1900	.39	741	0	0	9331	0	0	30364	30365
10	30364	3740	0	7636	1900	.01	19	0	0	3915	0	0	30364	30365
11	30364	390	0	7636	1912	.37	707	0	0	7949	0	0	30360	30365
12	30360	230	0	6681	1903	.10	190	0	0	6645	0	0	30364	30365
YEAR TOTALS		89250	0	95446			4347	0	0	52861	0	42316		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	35885	600	0	707	2397	-.22	-526	0	0	18394	16484	0	38214	73718
2	38214	4770	0	707	2664	-.07	-185	0	0	23102	15502	0	50062	73718
3	50062	15170	0	707	3232	.12	388	0	0	12548	2967	0	73718	73718
4	73718	6350	0	807	3646	.05	182	0	0	8237	13598	0	73718	73718
5	73718	121820	0	807	3635	-.16	-581	0	0	11600	10680	122515	73717	73718
	73717	19740	0	908	3646	.27	984	0	0	5007	12015	10839	73718	73718
7	73718	2150	0	1110	3119	.66	2059	0	0	0	29971	0	42728	73718
8	42728	730	0	1110	2602	.57	1483	0	0	11600	10490	0	41975	73718
9	41975	830	0	908	2577	.53	1366	0	0	11600	10692	0	41439	73718
10	41439	9220	0	807	2687	.04	107	0	0	9175	10680	0	48240	73718
11	48240	1140	0	807	2708	.40	1083	0	0	5918	10680	0	42728	73718
12	42728	1150	0	707	2692	.12	323	0	0	18034	13635	0	47247	73718
YEAR TOTALS		183670	0	10092			6683	0	0	135215	157394	133354		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 9 CALENDAR YEAR 1949

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	78381	0	0	428	5247	-.16	-839	0	0	0	0	0	78792	338276
2	78792	0	0	428	5248	-.01	-51	0	0	0	0	0	78415	338276
3	78415	0	0	428	5219	.16	835	0	0	0	0	0	77152	338276
4	77152	210	0	490	5181	.14	725	0	0	0	0	0	76147	338276
5	76147	58210	0	490	6154	-.08	-491	0	0	0	0	0	134358	338276
6	134358	31630	0	551	7456	.35	2610	0	0	0	0	0	162827	338276
7	162827	0	0	673	7601	.69	5245	11386	0	0	0	0	145523	338276
8	145523	1640	0	673	6850	.59	4041	33758	0	0	0	0	108691	338276
9	108691	7270	0	551	5911	.35	2069	26129	0	0	0	0	87212	338276
10	87212	30270	0	490	6043	.10	604	0	0	0	0	0	116388	338276
11	116388	390	0	490	6077	.39	2370	24653	0	0	0	0	89265	338276
12	89265	0	0	428	5594	.12	671	0	0	0	0	0	88166	338276
YEAR TOTALS		129620	0	6120			17789	95926	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	124655	2970	0	7444	8499	-.22	-1869	0	0	11600	0	0	133650	139351
2	133650	2570	0	7444	8797	-.06	-527	0	0	10048	0	0	139351	139351
3	139351	10660	0	7444	8928	.11	982	2234	0	0	0	0	139351	139351
4	139351	2490	0	8507	8928	.09	804	0	0	6821	0	0	139351	139351
5	139351	51860	0	8507	8917	-.06	-534	32288	0	0	11600	0	139350	139351
	139350	23300	0	9571	8928	.29	2589	6132	0	0	5007	0	139351	139351
7	139351	1730	11386	11698	8928	.59	5268	2038	0	5888	0	0	139351	139351
8	139351	5170	33758	11698	8928	.54	4821	10809	0	0	11600	0	139351	139351
9	139351	7440	26129	9571	8928	.42	3750	8648	0	0	11600	0	139351	139351
10	139351	22080	0	8507	8926	-.01	-88	4486	0	0	9175	0	139351	139351
11	139351	1080	24653	8507	8928	.36	3214	8094	0	0	5918	0	139351	139351
12	139351	1130	0	7444	8928	.12	1071	269	0	7654	0	0	139351	139351
YEAR TOTALS		132480	95926	106342			19481	74998	0	42011	54900	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 9 CALENDAR YEAR 1949

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	320	0	0	3537	-.22	-777	0	0	0	1097	0	37775	37775
2	37775	280	0	0	3525	-.07	-246	0	0	0	527	0	37774	37775
3	37774	1170	2234	0	3537	.11	389	0	0	0	3014	0	37775	37775
4	37775	270	0	0	3537	.06	212	0	0	0	58	0	37775	37775
5	37775	5670	32288	0	3519	-.11	-386	0	0	0	6835	31511	37773	37775
6	37773	2550	6132	0	3537	.28	990	0	0	0	7690	0	37775	37775
7	37775	190	2038	0	3537	.63	2228	0	0	0	0	0	37775	37775
8	37775	570	10809	0	3537	.56	1981	0	0	0	9398	0	37775	37775
9	37775	810	8648	0	3537	.50	1768	0	0	0	7690	0	37775	37775
10	37775	2420	4486	0	3537	.02	71	0	0	0	6835	0	37775	37775
11	37775	120	8094	0	3537	.39	1379	0	0	0	6835	0	37775	37775
12	37775	120	269	0	3537	.11	389	0	0	0	0	0	37775	37775
YEAR TOTALS		14490	74998	0			7998	0	0	0	49979	31511		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	14406	0	11696	0	10	10
3	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
4	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
5	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
	10	27290	0	30000	1	.00	0	0	18015	0	15305	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	222521	0	190001	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 9 CALENDAR YEAR 1949

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 9   CALENDAR YEAR 1949

DEMAND NODE 11   HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 10 CALENDAR YEAR 1950

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	836936	6190	0	307	38076	-.10	-3807	0	0	10000	22770	0	833856	923750
2	833856	157260	0	278	39687	-.22	-8730	0	0	0	0	75818	923750	923750
3	923750	8360	0	307	41093	.23	9451	0	0	10000	22770	0	909582	923750
4	909582	89050	0	298	41055	-.05	-2052	0	0	0	0	76638	923748	923750
5	923748	75050	0	307	41341	-.02	-826	0	0	0	0	75567	923750	923750
6	923750	5490	0	298	41356	.26	10753	0	0	10000	11023	0	917166	923750
7	917166	4730	0	307	40926	.30	12278	0	0	10000	12158	0	907153	923750
8	907153	50	0	307	40137	.50	20068	0	0	10000	22138	0	874690	923750
9	874690	730	0	298	39420	.17	6701	0	0	10000	9895	0	868526	923750
10	868526	0	0	307	38913	.35	13620	0	0	10000	17230	0	847369	923750
11	847369	0	0	298	38147	.33	12589	0	0	10000	17186	0	827296	923750
12	827296	0	0	307	37527	.23	8631	0	0	10000	14415	0	813943	923750
YEAR TOTALS		346910	0	3619			78676	0	0	90000	149585	228023		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	544415	40330	0	1478	32178	-.14	-4504	0	0	0	18950	11556	557265	557265
2	557265	209810	0	1478	32623	-.27	-8807	0	0	0	7696	209443	557265	557265
3	557265	3680	0	1478	32623	.22	7177	0	0	9000	5079	0	556211	557265
4	556211	45100	0	1690	32587	-.09	-2932	0	0	0	9821	35467	557265	557265
5	557265	111400	0	1690	32623	-.07	-2283	0	0	0	8795	103198	557265	557265
6	557265	2730	0	1901	32623	.30	9787	0	0	9000	42	0	557265	557265
7	557265	16380	0	2323	32623	.24	7830	0	0	9000	15227	0	557265	557265
8	557265	2940	0	2323	32623	.47	15333	0	0	9000	0	0	551549	557265
9	551549	1090	0	1901	32425	.12	3891	0	0	9000	0	0	555847	557265
10	555847	0	0	1690	32574	.31	10098	0	0	9000	0	0	553059	557265
11	553059	2010	0	1690	32477	.30	9743	0	0	9000	0	0	552636	557265
12	552636	50	0	1478	32463	.22	7142	0	0	9000	0	0	553066	557265
YEAR TOTALS		435520	0	21120			52475	0	0	72000	65610	359664		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 10 CALENDAR YEAR 1950

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	3290	0	6681	1898	-.05	-94	0	0	3297	0	0	30364	30365
2	30364	13730	0	6681	2001	-.02	-39	0	0	0	0	869	36583	30365
3	36583	2700	0	6681	2023	.36	728	0	0	0	0	0	31874	30365
4	31874	11440	0	7636	2023	.06	121	0	0	1026	0	0	36583	30365
5	36583	13960	0	7636	2093	.04	84	0	0	0	0	6239	36584	36584
6	36584	1680	0	8590	2008	.24	482	0	0	1170	0	0	30362	30365
7	30362	1690	0	10499	2001	.13	260	0	0	15291	0	0	36584	36584
8	36584	1460	0	10499	2093	.48	1005	0	0	10044	0	0	36584	36584
9	36584	9260	0	8590	2093	.19	398	0	0	0	0	272	36584	36584
10	36584	310	0	7636	2093	.53	1109	0	0	8435	0	0	36584	36584
11	36584	250	0	7636	2093	.48	1005	0	0	8391	0	0	36584	36584
12	36584	590	0	6681	2093	.30	628	0	0	6719	0	0	36584	36584
YEAR TOTALS		60360	0	95446			5687	0	0	54373	0	7380		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	47247	5880	0	707	3079	-.04	-122	0	0	21382	7170	0	66754	73718
2	66754	23010	0	707	3514	-.03	-104	0	0	3880	9345	9978	73718	73718
3	73718	5620	0	707	3646	.39	1422	0	0	10808	14299	0	73718	73718
4	73718	24320	0	807	3646	.09	328	0	0	7974	10680	20479	73718	73718
5	73718	30810	0	807	3646	.14	510	0	0	11600	10680	30413	73718	73718
	73718	4380	0	908	3397	.26	883	0	0	0	15897	0	60410	73718
7	60410	8920	0	1110	3245	.30	973	0	0	11600	14685	0	64162	73718
8	64162	5010	0	1110	2985	.65	1940	0	0	0	22552	0	43570	73718
9	43570	21760	0	908	2903	.29	842	0	0	7624	12015	0	59189	73718
10	59189	2060	0	807	2889	.56	1618	0	0	0	16096	0	42728	73718
11	42728	1210	0	807	2614	.52	1359	0	0	11487	10680	0	42579	73718
12	42579	1300	0	707	2614	.34	889	0	0	9790	9345	0	42728	73718
YEAR TOTALS		134280	0	10092			10538	0	0	96145	153444	60870		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 10 CALENDAR YEAR 1950

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	88166	2050	0	428	5598	.05	280	0	0	0	0	0	89508	338276
2	89508	4930	0	428	5691	.08	455	0	0	0	0	0	93555	338276
3	93555	1690	0	428	5741	.42	2411	0	0	0	0	0	92406	338276
4	92406	26320	0	490	6145	.11	676	0	0	0	0	0	117560	338276
5	117560	57230	0	490	7384	.03	222	0	0	0	0	0	174078	338276
6	174078	17710	0	551	8341	.31	2586	0	0	0	0	0	188651	338276
7	188651	78210	0	673	9693	.10	969	0	0	0	0	0	265219	338276
8	265219	42000	0	673	11258	.49	5516	0	0	0	0	0	301030	338276
9	301030	26230	0	551	12040	.20	2408	0	0	0	0	0	324301	338276
10	324301	3150	0	490	12071	.59	7122	16479	0	0	0	0	303360	338276
11	303360	0	0	490	11595	.51	5913	8643	0	0	0	0	288314	338276
12	288314	0	0	428	11147	.30	3344	14990	0	0	0	0	269552	338276
YEAR TOTALS		259520	0	6120			31902	40112	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	4890	0	7444	8915	-.07	-623	0	0	1930	0	0	139350	139351
2	139350	15150	0	7444	8920	-.04	-356	4181	0	0	3880	0	139351	139351
3	139351	3210	0	7444	8928	.35	3125	959	0	8318	0	0	139351	139351
4	139351	21720	0	8507	8928	.06	536	4703	0	0	7974	0	139351	139351
5	139351	72670	0	8507	8928	.05	446	52117	0	0	11600	0	139351	139351
	139351	14980	0	9571	8928	.26	2321	3088	0	0	0	0	139351	139351
7	139351	60280	0	11698	8928	.16	1428	35554	0	0	11600	0	139351	139351
8	139351	17830	0	11698	8928	.50	4464	1668	0	0	0	0	139351	139351
9	139351	24950	0	9571	8928	.21	1875	5880	0	0	7624	0	139351	139351
10	139351	0	16479	8507	8928	.52	4643	3329	0	0	0	0	139351	139351
11	139351	21770	8643	8507	8928	.47	4196	6223	0	0	11487	0	139351	139351
12	139351	10880	14990	7444	8928	.30	2678	5958	0	0	9790	0	139351	139351
YEAR TOTALS		268330	40112	106342			24733	123660	0	10248	63955	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 10 CALENDAR YEAR 1950

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	530	0	0	3527	-.06	-211	0	0	0	741	0	37775	37775
2	37775	1660	4181	0	3530	-.04	-140	0	0	0	5981	0	37775	37775
3	37775	350	959	0	3537	.37	1309	0	0	0	0	0	37775	37775
4	37775	2380	4703	0	3537	.07	248	0	0	0	6835	0	37775	37775
5	37775	7950	52117	0	3537	.11	389	0	0	0	6835	52843	37775	37775
6	37775	1640	3088	0	3537	.26	920	0	0	0	3808	0	37775	37775
7	37775	6590	35554	0	3537	.25	884	0	0	0	9398	31862	37775	37775
8	37775	1950	1668	0	3537	.59	2087	0	0	0	1531	0	37775	37775
9	37775	2730	5880	0	3537	.26	920	0	0	0	7690	0	37775	37775
10	37775	0	3329	0	3537	.54	1910	0	0	0	1419	0	37775	37775
11	37775	2380	6223	0	3537	.50	1768	0	0	0	6835	0	37775	37775
12	37775	1190	5958	0	3537	.33	1167	0	0	0	5981	0	37775	37775
YEAR TOTALS		29350	123660	0			11251	0	0	0	57054	84705		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
2	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	194520	0	162000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 10 CALENDAR YEAR 1950

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 10 CALENDAR YEAR 1950

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 11 CALENDAR YEAR 1951

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	813943	720	0	307	37376	.12	4485	0	0	10000	701	0	819170	923750
2	819170	6260	0	278	37812	-.06	-2268	0	0	10000	0	0	837420	923750
3	837420	360	0	307	37967	.20	7593	0	0	10000	12380	0	827500	923750
4	827500	550	0	298	37614	.27	10156	0	0	10000	9142	0	818454	923750
5	818454	6850	0	307	37515	.25	9379	0	0	10000	3485	0	822133	923750
6	822133	57410	0	298	38685	.20	7737	0	0	10000	0	0	881508	923750
7	881508	70	0	307	39060	.67	26170	0	0	10000	22770	0	842331	923750
8	842331	0	0	307	37485	.87	32612	0	0	10000	22770	0	796642	923750
9	796642	8730	0	298	36540	.08	2923	0	0	10000	20739	0	791412	923750
10	791412	0	0	307	36082	.33	11907	0	0	10000	17191	0	772007	923750
11	772007	0	0	298	35348	.20	7070	0	0	10000	22770	0	751869	923750
12	751869	0	0	307	34654	.12	4158	0	0	10000	22770	0	734634	923750
YEAR TOTALS		80950	0	3619			121922	0	0	120000	154718	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	553066	12270	0	1478	32478	.06	1949	0	0	9000	13644	0	557265	557265
2	557265	43570	0	1478	32623	-.09	-2935	0	0	0	18950	26077	557265	557265
3	557265	1050	0	1478	32623	.19	6198	0	0	9000	2374	0	557265	557265
4	557265	1190	0	1690	32623	.21	6851	0	0	9000	1649	0	557265	557265
5	557265	12400	0	1690	32623	.23	7503	0	0	9000	12207	0	557265	557265
	557265	64210	0	1901	32623	.13	4241	0	0	0	18950	39118	557265	557265
7	557265	2870	0	2323	32623	.53	17290	0	0	9000	809	0	548713	557265
8	548713	0	0	2323	31248	.76	23748	0	0	9000	5557	0	526085	557265
9	526085	530	0	1901	30719	.01	307	0	0	9000	0	0	533407	557265
10	533407	2510	0	1690	31054	.24	7453	0	0	9000	0	0	535774	557265
11	535774	400	0	1690	30546	.19	5804	0	0	9000	18950	0	518730	557265
12	518730	0	0	1478	29490	.07	2064	0	0	9000	18950	0	505238	557265
YEAR TOTALS		141000	0	21120			80473	0	0	90000	112040	65195		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 11 CALENDAR YEAR 1951

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36584	430	0	6681	2093	.19	398	0	0	6649	0	0	36584	36584
2	36584	620	0	6681	2092	-.04	-83	0	0	5978	0	0	36584	36584
3	36584	230	0	6681	2093	.29	607	0	0	7058	0	0	36584	36584
4	36584	0	0	7636	2010	.29	583	0	0	1996	0	0	30361	30365
5	30361	970	0	7636	1903	.12	228	0	0	6897	0	0	30364	30365
6	30364	3390	0	8590	1901	.04	76	0	0	5276	0	0	30364	30365
7	30364	230	0	10499	1900	.64	1216	0	0	11485	0	0	30364	30365
8	30364	0	0	10499	1900	.81	1539	0	0	12038	0	0	30364	30365
9	30364	0	0	8590	1900	.49	931	0	0	9521	0	0	30364	30365
10	30364	0	0	7636	1900	.40	760	0	0	8396	0	0	30364	30365
11	30364	0	0	7636	1908	.26	496	0	0	8130	0	0	30362	30365
12	30362	0	0	6681	1907	.24	458	0	0	7139	0	0	30362	30365
YEAR TOTALS		5870	0	95446			7209	0	0	90563	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	42728	1230	0	707	2617	.19	497	0	0	9319	9345	0	42728	73718
2	42728	1580	0	707	2616	-.01	-25	0	0	3171	4069	0	42728	73718
3	42728	1340	0	707	2617	.28	733	0	0	9445	9345	0	42728	73718
4	42728	1040	0	807	2617	.28	733	0	0	11180	10680	0	42728	73718
5	42728	2360	0	807	2617	.09	236	0	0	9363	10680	0	42728	73718
	42728	12880	0	908	2706	.06	162	0	0	1805	8236	0	48107	73718
7	48107	1770	0	1110	2706	.73	1975	0	0	10621	14685	0	42728	73718
8	42728	20	0	1110	2577	.80	2062	0	0	11600	10490	0	40686	73718
9	40686	30	0	908	2511	.57	1431	0	0	11600	10692	0	39285	73718
10	39285	60	0	807	2461	.51	1255	0	0	11487	10680	0	38090	73718
11	38090	220	0	807	2429	.27	656	0	0	14115	13308	0	37654	73718
12	37654	250	0	707	2413	.27	652	0	0	17540	16833	0	37252	73718
YEAR TOTALS		22780	0	10092			10367	0	0	121246	129043	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 11 CALENDAR YEAR 1951

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	269552	0	0	428	10620	.21	2230	17279	0	0	0	0	249615	338276
2	249615	0	0	428	10166	.01	102	11540	0	0	0	0	237545	338276
3	237545	0	0	428	9680	.28	2710	18980	0	0	0	0	215427	338276
4	215427	0	0	490	8874	.32	2840	29322	0	0	0	0	182775	338276
5	182775	0	0	490	8077	.07	565	19570	0	0	0	0	162150	338276
6	162150	42070	0	551	8375	.10	837	0	0	0	0	0	202832	338276
7	202832	6110	0	673	8602	.68	5849	25126	0	0	0	0	177294	338276
8	177294	0	0	673	7932	.82	6504	13668	0	0	0	0	156449	338276
9	156449	0	0	551	7204	.59	4250	30277	0	0	0	0	121371	338276
10	121371	0	0	490	6107	.44	2687	32027	0	0	0	0	86167	338276
11	86167	0	0	490	5474	.26	1423	0	0	0	0	0	84254	338276
12	84254	0	0	428	5410	.26	1407	0	0	0	0	0	82419	338276
YEAR TOTALS		48180	0	6120			31404	197789	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	6870	17279	7444	8928	.17	1518	5868	0	0	9319	0	139351	139351
2	139351	4170	11540	7444	8921	-.04	-356	5451	0	0	3171	0	139351	139351
3	139351	6650	18980	7444	8928	.28	2500	6241	0	0	9445	0	139351	139351
4	139351	620	29322	8507	8928	.28	2500	7755	0	0	11180	0	139351	139351
5	139351	5990	19570	8507	8928	.13	1161	6529	0	0	9363	0	139351	139351
	139351	17670	0	9571	8928	.04	357	5937	0	0	1805	0	139351	139351
7	139351	13400	25126	11698	8928	.65	5803	10404	0	0	10621	0	139351	139351
8	139351	26220	13668	11698	8928	.81	7232	9358	0	0	11600	0	139351	139351
9	139351	4080	30277	9571	8928	.46	4107	9079	0	0	11600	0	139351	139351
10	139351	0	32027	8507	8928	.40	3571	8462	0	0	11487	0	139351	139351
11	139351	0	0	8507	8819	.25	2205	920	0	6473	0	0	134192	139351
12	134192	0	0	7444	8716	.26	2266	884	0	10852	0	0	134450	139351
YEAR TOTALS		85670	197789	106342			32864	76888	0	17325	89591	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 11 CALENDAR YEAR 1951

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	750	5868	0	3537	.18	637	0	0	0	5981	0	37775	37775
2	37775	460	5451	0	3534	-.02	-70	0	0	0	5981	0	37775	37775
3	37775	730	6241	0	3537	.28	990	0	0	0	5981	0	37775	37775
4	37775	70	7755	0	3537	.28	990	0	0	0	6835	0	37775	37775
5	37775	660	6529	0	3537	.10	354	0	0	0	6835	0	37775	37775
6	37775	1930	5937	0	3537	.05	177	0	0	0	7690	0	37775	37775
7	37775	1470	10404	0	3537	.70	2476	0	0	0	9398	0	37775	37775
8	37775	2870	9358	0	3537	.80	2830	0	0	0	9398	0	37775	37775
9	37775	450	9079	0	3537	.52	1839	0	0	0	7690	0	37775	37775
10	37775	0	8462	0	3537	.46	1627	0	0	0	6835	0	37775	37775
11	37775	0	920	0	3537	.26	920	0	0	0	0	0	37775	37775
12	37775	0	884	0	3537	.25	884	0	0	0	0	0	37775	37775
YEAR TOTALS		9390	76888	0			13654	0	0	0	72624	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
;	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	242520	0	210000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 11 CALENDAR YEAR 1951

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 11 CALENDAR YEAR 1951

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 12 CALENDAR YEAR 1952

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	734634	0	0	307	34047	.08	2724	0	0	10000	22770	0	718833	923750
2	718833	4590	0	278	33635	-.03	-1008	0	0	10000	22770	0	711383	923750
3	711383	7480	0	307	33368	.06	2002	0	0	10000	22770	0	703784	923750
4	703784	121490	0	298	35300	-.15	-5294	0	0	10000	22770	0	817500	923750
5	817500	94100	0	307	38930	-.02	-778	0	0	10000	22770	0	899301	923750
6	899301	2070	0	298	39918	.44	17564	0	0	10000	22770	0	870739	923750
7	870739	240	0	307	38825	.45	17471	0	0	10000	22770	0	840431	923750
8	840431	0	0	307	37456	.81	30339	0	0	10000	22770	0	797015	923750
9	797015	0	0	298	35941	.70	25159	0	0	10000	22770	0	758788	923750
10	758788	0	0	307	34590	.62	21446	0	0	10000	22770	0	724265	923750
11	724265	13480	0	298	34070	-.17	-5791	0	0	10000	22770	0	730468	923750
12	730468	51100	0	307	34983	-.15	-5246	0	0	10000	22770	0	773737	923750
YEAR TOTALS		294550	0	3619			98588	0	0	120000	273240	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	505238	1470	0	1478	28570	.11	3143	0	0	9000	18950	0	492137	557265
2	492137	1190	0	1478	28061	.00	0	0	0	9000	18950	0	481899	557265
3	481899	8370	0	1478	27774	.05	1389	0	0	9000	18950	0	477452	557265
4	477452	138650	0	1690	29862	-.15	-4478	0	0	0	18950	42675	557265	557265
5	557265	102370	0	1690	32612	-.01	-325	0	0	0	18950	82055	557265	557265
	557265	7500	0	1901	31997	.43	13759	0	0	9000	18950	0	539155	557265
7	539155	100	0	2323	30433	.49	14912	0	0	9000	18950	0	512070	557265
8	512070	0	0	2323	28325	.86	24360	0	0	9000	18950	0	475437	557265
9	475437	0	0	1901	26991	.73	19703	0	0	9000	18950	0	443883	557265
10	443883	0	0	1690	25834	.62	16017	0	0	9000	18950	0	416226	557265
11	416226	12080	0	1690	25386	-.17	-4315	0	0	9000	18950	0	420981	557265
12	420981	60890	0	1478	26524	-.15	-3978	0	0	9000	18950	0	474421	557265
YEAR TOTALS		332620	0	21120			80187	0	0	90000	227400	124730		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 12 CALENDAR YEAR 1952

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30362	0	0	6681	1905	.18	343	0	0	7025	0	0	30363	30365
2	30363	290	0	6681	1904	.14	267	0	0	6658	0	0	30363	30365
3	30363	520	0	6681	1904	.13	248	0	0	6409	0	0	30363	30365
4	30363	1790	0	7636	1898	-.06	-113	0	0	5734	0	0	30364	30365
5	30364	1630	0	7636	1903	.11	209	0	0	6215	0	0	30364	30365
6	30364	0	0	8590	1900	.65	1235	0	0	9825	0	0	30364	30365
7	30364	0	0	10499	1900	.77	1463	0	0	11962	0	0	30364	30365
8	30364	0	0	10499	1900	.96	1824	0	0	12323	0	0	30364	30365
9	30364	20	0	8590	1900	.73	1387	0	0	9957	0	0	30364	30365
10	30364	0	0	7636	1900	.68	1292	0	0	8928	0	0	30364	30365
11	30364	1200	0	7636	1901	.04	76	0	0	6512	0	0	30364	30365
12	30364	580	0	6681	1898	-.04	-75	0	0	6026	0	0	30364	30365
YEAR TOTALS		6030	0	95446			8156	0	0	97574	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37252	190	0	707	2400	.18	432	0	0	17654	16947	0	37010	73718
2	37010	330	0	707	2395	.15	359	0	0	18021	17314	0	36981	73718
3	36981	280	0	707	2412	.17	410	0	0	18270	16549	0	37865	73718
4	37865	2620	0	807	2516	-.13	-326	0	0	16511	14116	0	42399	73718
5	42399	6680	0	807	2689	.10	269	0	0	16030	16593	0	47440	73718
	47440	430	0	908	2695	.74	1994	0	0	9985	12225	0	42728	73718
7	42728	40	0	1110	2577	.81	2087	0	0	2979	1869	0	40681	73718
8	40681	30	0	1110	2486	1.08	2685	0	0	2618	1508	0	38026	73718
9	38026	30	0	908	2400	.76	1824	0	0	9853	8945	0	36232	73718
10	36232	20	0	807	2333	.72	1680	0	0	13317	12510	0	34572	73718
11	34572	420	0	807	2316	-.15	-346	0	0	15733	14926	0	35338	73718
12	35338	10	0	707	2351	-.08	-187	0	0	18653	17126	0	36355	73718
YEAR TOTALS		11080	0	10092			10881	0	0	159624	150628	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 12 CALENDAR YEAR 1952

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	82419	0	0	428	5354	.19	1017	0	0	0	0	0	80974	338276
2	80974	0	0	428	5304	.19	1008	0	0	0	0	0	79538	338276
3	79538	0	0	428	5255	.19	998	0	0	0	0	0	78112	338276
4	78112	0	0	490	5215	.08	417	0	0	0	0	0	77205	338276
5	77205	0	0	490	5179	.14	725	0	0	0	0	0	75990	338276
6	75990	0	0	551	5081	.72	3658	0	0	0	0	0	71781	338276
7	71781	0	0	673	4887	.83	4056	0	0	0	0	0	67052	338276
8	67052	0	0	673	4657	1.11	5169	0	0	0	0	0	61210	338276
9	61210	0	0	551	4440	.81	3596	0	0	0	0	0	57063	338276
10	57063	0	0	490	4270	.75	3202	0	0	0	0	0	53371	338276
11	53371	0	0	490	4164	.16	666	0	0	0	0	0	52215	338276
12	52215	0	0	428	4126	.05	206	0	0	0	0	0	51581	338276
YEAR TOTALS		0	0	6120			24718	0	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	134450	0	0	7444	8749	.18	1575	637	0	10966	0	0	135760	139351
2	135760	0	0	7444	8848	.13	1150	495	0	11333	0	0	138004	139351
3	138004	0	0	7444	8900	.14	1246	531	0	10568	0	0	139351	139351
4	139351	0	0	8507	8911	-.09	-801	0	0	7704	0	0	139349	139351
5	139349	0	0	8507	8928	.10	893	356	0	9758	0	0	139351	139351
	139351	0	0	9571	8649	.66	5708	2511	0	4535	0	0	126096	139351
7	126096	2890	0	11698	7851	.75	5888	9968	0	0	0	0	101432	139351
8	101432	8130	0	11698	7057	.97	6845	10678	0	0	0	0	80341	139351
9	80341	6670	0	9571	6599	.72	4751	1887	0	1255	0	0	72057	139351
10	72057	3250	0	8507	6309	.68	4290	2151	0	5675	0	0	66034	139351
11	66034	7060	0	8507	6365	-.03	-190	0	0	9284	0	0	74061	139351
12	74061	1970	0	7444	6622	.05	331	0	0	11600	0	0	79856	139351
YEAR TOTALS		29970	0	106342			31686	29214	0	82678	0	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 12 CALENDAR YEAR 1952

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	0	637	0	3537	.18	637	0	0	0	0	0	37775	37775
2	37775	0	495	0	3537	.14	495	0	0	0	0	0	37775	37775
3	37775	0	531	0	3537	.15	531	0	0	0	0	0	37775	37775
4	37775	0	0	0	3517	-.12	-421	0	0	0	423	0	37773	37775
5	37773	0	356	0	3537	.10	354	0	0	0	0	0	37775	37775
6	37775	0	2511	0	3537	.71	2511	0	0	0	0	0	37775	37775
7	37775	320	9968	0	3537	.78	2759	0	0	0	7529	0	37775	37775
8	37775	890	10678	0	3537	1.04	3678	0	0	0	7890	0	37775	37775
9	37775	730	1887	0	3537	.74	2617	0	0	0	0	0	37775	37775
10	37775	360	2151	0	3537	.71	2511	0	0	0	0	0	37775	37775
11	37775	770	0	0	3517	-.12	-421	0	0	0	1193	0	37773	37775
12	37773	210	0	0	3525	-.07	-246	0	0	0	455	0	37774	37775
YEAR TOTALS		3280	29214	0			15005	0	0	0	17490	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
5	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	242520	0	210000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 12 CALENDAR YEAR 1952

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 12 CALENDAR YEAR 1952

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 13 CALENDAR YEAR 1953

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	773737	14290	0	307	35742	.10	3574	0	0	10000	22770	0	771376	923750
2	771376	2610	0	278	35511	-.01	-354	0	0	10000	22770	0	761292	923750
3	761292	96020	0	307	36919	-.08	-2953	0	0	10000	22770	0	847188	923750
4	847188	25520	0	298	38817	-.10	-3881	0	0	10000	22770	0	863521	923750
5	863521	342470	0	307	40238	-.18	-7242	0	0	0	22770	266406	923750	923750
6	923750	730	0	298	40749	.50	20374	0	0	10000	22770	0	891038	923750
7	891038	1400	0	307	39696	.31	12306	0	0	10000	22770	0	867055	923750
8	867055	10	0	307	38728	.39	15104	0	0	10000	22770	0	838884	923750
9	838884	2970	0	298	37772	.35	13220	0	0	10000	22770	0	815566	923750
10	815566	6520	0	307	37087	.19	7047	0	0	10000	22770	0	801962	923750
11	801962	1540	0	298	36552	.10	3655	0	0	10000	22770	0	786779	923750
12	786779	19020	0	307	36469	-.13	-4740	0	0	10000	22770	0	797462	923750
YEAR TOTALS		513100	0	3619			56110	0	0	110000	273240	266406		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	474421	14090	0	1478	27556	.12	3307	0	0	9000	18950	0	473776	557265
2	473776	990	0	1478	27313	.05	1366	0	0	9000	18950	0	461972	557265
3	461972	26210	0	1478	27392	-.04	-1095	0	0	9000	18950	0	477849	557265
4	477849	44460	0	1690	28372	-.05	-1418	0	0	9000	18950	0	512087	557265
5	512087	258260	0	1690	31060	-.08	-2484	0	0	0	18950	194926	557265	557265
	557265	160	0	1901	31628	.54	17079	0	0	9000	18950	0	528495	557265
7	528495	250	0	2323	29988	.22	6597	0	0	9000	18950	0	509875	557265
8	509875	1080	0	2323	28571	.39	11143	0	0	9000	18950	0	487539	557265
9	487539	6210	0	1901	27776	.36	9999	0	0	9000	18950	0	471899	557265
10	471899	110	0	1690	27096	.28	7587	0	0	9000	18950	0	452782	557265
11	452782	150	0	1690	26461	.07	1852	0	0	9000	18950	0	439440	557265
12	439440	17540	0	1478	26351	-.06	-1580	0	0	9000	18950	0	447132	557265
YEAR TOTALS		369510	0	21120			52353	0	0	99000	227400	194926		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 13 CALENDAR YEAR 1953

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	350	0	6681	1906	.20	381	0	0	6711	0	0	30363	30365
2	30363	260	0	6681	1903	.12	228	0	0	6650	0	0	30364	30365
3	30364	460	0	6681	1902	.06	114	0	0	6335	0	0	30364	30365
4	30364	2230	0	7636	1902	.06	114	0	0	5520	0	0	30364	30365
5	30364	3210	0	7636	1904	.15	286	0	0	4711	0	0	30363	30365
6	30363	30	0	8590	1900	.74	1406	0	0	9967	0	0	30364	30365
7	30364	1010	0	10499	1900	.53	1007	0	0	10496	0	0	30364	30365
8	30364	890	0	10499	1900	.59	1121	0	0	10730	0	0	30364	30365
9	30364	140	0	8590	1900	.62	1178	0	0	9628	0	0	30364	30365
10	30364	1220	0	7636	1904	.12	228	0	0	6644	0	0	30364	30365
11	30364	590	0	7636	1904	.13	248	0	0	7293	0	0	30363	30365
12	30363	230	0	6681	1906	.19	362	0	0	6813	0	0	30363	30365
YEAR TOTALS		10620	0	95446			6673	0	0	91498	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36355	0	0	707	2360	.23	543	0	0	17968	17261	0	35812	73718
2	35812	0	0	707	2343	.14	328	0	0	18029	17322	0	35484	73718
3	35484	210	0	707	2338	.08	187	0	0	18344	17581	0	35563	73718
4	35563	1310	0	807	2360	.10	236	0	0	16725	15918	0	36637	73718
5	36637	4460	0	807	2461	.13	320	0	0	17534	16727	0	40777	73718
	40777	0	0	908	2500	.85	2125	0	0	9843	8935	0	38652	73718
7	38652	0	0	1110	2433	.55	1338	0	0	4445	3335	0	37314	73718
8	37314	0	0	1110	2383	.53	1263	0	0	4211	3101	0	36051	73718
9	36051	0	0	908	2330	.63	1468	0	0	10182	9274	0	34583	73718
10	34583	720	0	807	2311	.10	231	0	0	15601	14794	0	35072	73718
11	35072	0	0	807	2314	.15	347	0	0	14952	14145	0	34725	73718
12	34725	0	0	707	2299	.18	414	0	0	17866	17159	0	34311	73718
YEAR TOTALS		6700	0	10092			8800	0	0	165700	155552	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 13 CALENDAR YEAR 1953

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	51581	0	0	428	4085	.21	858	0	0	0	0	0	50295	338276
2	50295	0	0	428	4038	.15	606	0	0	0	0	0	49261	338276
3	49261	0	0	428	3999	.12	480	0	0	0	0	0	48353	338276
4	48353	0	0	490	3956	.18	712	0	0	0	0	0	47151	338276
5	47151	1370	0	490	3931	.23	904	0	0	0	0	0	47127	338276
6	47127	6650	0	551	3990	.79	3152	0	0	0	0	0	50074	338276
7	50074	1810	0	673	4023	.62	2494	0	0	0	0	0	48717	338276
8	48717	3470	0	673	4000	.64	2560	0	0	0	0	0	48954	338276
9	48954	0	0	551	3910	.74	2893	1231	0	0	0	0	44279	338276
10	44279	44590	0	490	4746	.07	332	0	0	0	0	0	88047	338276
11	88047	2110	0	490	5582	.18	1005	0	0	0	0	0	88662	338276
12	88662	1360	0	428	5585	.24	1340	0	0	0	0	0	88254	338276
YEAR TOTALS		61360	0	6120			17336	1231	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	79856	1570	0	7444	6767	.20	1353	574	0	11280	0	0	83335	139351
2	83335	770	0	7444	6875	.12	825	380	0	11341	0	0	86797	139351
3	86797	1610	0	7444	7012	.06	421	68	0	11600	0	0	92074	139351
4	92074	5300	0	8507	7185	.05	359	0	0	9380	0	0	97888	139351
5	97888	12720	0	8507	7494	.14	1049	0	0	10822	0	0	111874	139351
6	111874	2220	0	9571	7487	.76	5690	2625	0	1245	0	0	97453	139351
7	97453	4390	0	11698	6976	.51	3558	7458	0	0	0	0	79129	139351
8	79129	7020	0	11698	6435	.56	3604	7402	0	0	0	0	63445	139351
9	63445	7130	1231	9571	5866	.59	3461	1378	0	1584	0	0	58980	139351
10	58980	12950	0	8507	6096	.13	792	0	0	8955	0	0	71586	139351
11	71586	2340	0	8507	6457	.12	775	200	0	7310	0	0	71754	139351
12	71754	0	0	7444	6485	.24	1556	601	0	11178	0	0	73331	139351
YEAR TOTALS		58020	1231	106342			23443	20686	0	84695	0	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 13 CALENDAR YEAR 1953

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37774	170	574	0	3537	.21	743	0	0	0	0	0	37775	37775
2	37775	80	380	0	3537	.13	460	0	0	0	0	0	37775	37775
3	37775	180	68	0	3537	.07	248	0	0	0	0	0	37775	37775
4	37775	580	0	0	3537	.08	283	0	0	0	297	0	37775	37775
5	37775	1390	0	0	3537	.13	460	0	0	0	930	0	37775	37775
6	37775	240	2625	0	3537	.81	2865	0	0	0	0	0	37775	37775
7	37775	480	7458	0	3537	.53	1875	0	0	0	6063	0	37775	37775
8	37775	770	7402	0	3537	.53	1875	0	0	0	6297	0	37775	37775
9	37775	780	1378	0	3537	.61	2158	0	0	0	0	0	37775	37775
10	37775	1420	0	0	3537	.12	424	0	0	0	996	0	37775	37775
11	37775	260	200	0	3537	.13	460	0	0	0	0	0	37775	37775
12	37775	0	601	0	3537	.17	601	0	0	0	0	0	37775	37775
YEAR TOTALS		6350	20686	0			12452	0	0	0	14583	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	241520	0	209000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 13 CALENDAR YEAR 1953

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 13   CALENDAR YEAR 1953

DEMAND NODE 11   HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 14 CALENDAR YEAR 1954

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	797462	11330	0	307	36669	-.05	-1832	0	0	10000	22770	0	797547	923750
2	797547	410	0	278	36294	.21	7622	0	0	10000	22770	0	777287	923750
3	777287	70	0	307	35531	.22	7817	0	0	10000	22770	0	756463	923750
4	756463	1050	0	298	34876	.07	2441	0	0	10000	22770	0	742004	923750
5	742004	31070	0	307	34949	-.01	-348	0	0	10000	22770	0	760345	923750
6	760345	40	0	298	34712	.52	18050	0	0	10000	22770	0	729267	923750
7	729267	0	0	307	33436	.79	26414	0	0	10000	22770	0	689776	923750
8	689776	10	0	307	32021	.85	27218	0	0	10000	22770	0	649491	923750
9	649491	0	0	298	30682	.72	22091	0	0	10000	22770	0	614332	923750
10	614332	1610	0	307	29828	.05	1491	0	0	10000	22770	0	601374	923750
11	601374	3360	0	298	29353	.14	4109	0	0	10000	22770	0	587557	923750
12	587557	30	0	307	28790	.17	4894	0	0	10000	22770	0	569616	923750
YEAR TOTALS		48980	0	3619			119967	0	0	120000	273240	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	447132	42690	0	1478	27155	-.08	-2171	0	0	9000	18950	0	480565	557265
2	480565	5570	0	1478	27592	.19	5242	0	0	9000	18950	0	469465	557265
3	469465	200	0	1478	27044	.21	5679	0	0	9000	18950	0	452558	557265
4	452558	10320	0	1690	26657	.06	1599	0	0	9000	18950	0	449639	557265
5	449639	40620	0	1690	27182	-.03	-814	0	0	9000	18950	0	479433	557265
	479433	1370	0	1901	27298	.49	13376	0	0	9000	18950	0	455576	557265
7	455576	0	0	2323	26162	.84	21976	0	0	9000	18950	0	421327	557265
8	421327	0	0	2323	24811	.91	22578	0	0	9000	18950	0	386476	557265
9	386476	0	0	1901	23584	.68	16037	0	0	9000	18950	0	358588	557265
10	358588	30460	0	1690	23402	.01	234	0	0	9000	18950	0	377174	557265
11	377174	21960	0	1690	23911	.12	2869	0	0	9000	18950	0	384625	557265
12	384625	1200	0	1478	23783	.16	3805	0	0	9000	18950	0	370592	557265
YEAR TOTALS		154390	0	21120			90410	0	0	108000	227400	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 14 CALENDAR YEAR 1954

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30363	380	0	6681	1900	.00	0	0	0	6302	0	0	30364	30365
2	30364	300	0	6681	1909	.29	554	0	0	6932	0	0	30361	30365
3	30361	300	0	6681	1911	.34	650	0	0	7030	0	0	30360	30365
4	30360	260	0	7636	1903	.12	228	0	0	7608	0	0	30364	30365
5	30364	800	0	7636	1901	.04	76	0	0	6912	0	0	30364	30365
6	30364	0	0	8590	1900	.56	1064	0	0	9654	0	0	30364	30365
7	30364	0	0	10499	1900	.88	1672	0	0	12171	0	0	30364	30365
8	30364	0	0	10499	1900	1.03	1957	0	0	12456	0	0	30364	30365
9	30364	0	0	8590	1900	.86	1634	0	0	10224	0	0	30364	30365
10	30364	0	0	7636	1910	.33	630	0	0	8263	0	0	30361	30365
11	30361	0	0	7636	1908	.27	515	0	0	8152	0	0	30362	30365
12	30362	0	0	6681	1908	.25	477	0	0	7158	0	0	30362	30365
YEAR TOTALS		2040	0	95446			9457	0	0	102862	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	34311	70	0	707	2297	.02	46	0	0	18377	17396	0	34609	73718
2	34609	20	0	707	2292	.25	573	0	0	17747	17040	0	34056	73718
3	34056	0	0	707	2269	.29	658	0	0	17649	16942	0	33398	73718
4	33398	1340	0	807	2276	.14	319	0	0	14637	13830	0	34419	73718
5	34419	290	0	807	2296	.12	276	0	0	15333	14526	0	34433	73718
.	34433	20	0	908	2266	.69	1564	0	0	10156	9248	0	32889	73718
7	32889	10	0	1110	2206	.81	1787	0	0	2770	1660	0	31112	73718
8	31112	250	0	1110	2138	1.13	2416	0	0	2485	1375	0	28946	73718
9	28946	220	0	908	2072	.92	1906	0	0	9586	8678	0	27260	73718
10	27260	50	0	807	2028	.44	892	0	0	13982	13175	0	26418	73718
11	26418	30	0	807	2007	.22	442	0	0	14093	13286	0	26006	73718
12	26006	150	0	707	1990	.35	696	0	0	17521	16814	0	25460	73718
YEAR TOTALS		2450	0	10092			11575	0	0	154336	143970	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 14 CALENDAR YEAR 1954

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	88254	1180	0	428	5587	.05	279	0	0	0	0	0	88727	338276
2	88727	1160	0	428	5578	.31	1729	0	0	0	0	0	87730	338276
3	87730	0	0	428	5525	.30	1657	0	0	0	0	0	85645	338276
4	85645	4020	0	490	5542	.08	443	0	0	0	0	0	88732	338276
5	88732	28480	0	490	6075	-.01	-60	0	0	0	0	0	116782	338276
6	116782	4940	0	551	6533	.56	3658	0	0	0	0	0	117513	338276
7	117513	1870	0	673	6327	.89	5631	9238	0	0	0	0	103841	338276
8	103841	480	0	673	5629	1.10	6192	21856	0	0	0	0	75600	338276
9	75600	190	0	551	4801	.96	4609	11366	0	0	0	0	59264	338276
10	59264	14050	0	490	4615	.48	2215	3546	0	0	0	0	67063	338276
11	67063	33180	0	490	5334	.32	1707	2870	0	0	0	0	95176	338276
12	95176	36310	0	428	6380	.24	1531	0	0	0	0	0	129527	338276
YEAR TOTALS		125860	0	6120			29591	48876	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	73331	1980	0	7444	6605	.00	0	0	0	11600	0	0	79467	139351
2	79467	1290	0	7444	6736	.28	1886	780	0	11059	0	0	81706	139351
3	81706	1010	0	7444	6791	.33	2241	951	0	10961	0	0	83041	139351
4	83041	3000	0	8507	6821	.12	819	130	0	6995	0	0	83580	139351
5	83580	2780	0	8507	6854	.05	343	54	0	7691	0	0	85147	139351
6	85147	0	0	9571	6657	.58	3861	2299	0	1558	0	0	70974	139351
7	70974	5850	9238	11698	6079	.88	5350	10034	0	0	0	0	58980	139351
8	58980	6930	21856	11698	5740	1.04	5970	11118	0	0	0	0	58980	139351
9	58980	3050	11366	9571	5693	.83	4725	2783	0	988	0	0	57305	139351
10	57305	0	3546	8507	5597	.31	1735	1379	0	6340	0	0	55570	139351
11	55570	0	2870	8507	5510	.24	1322	814	0	6451	0	0	54248	139351
12	54248	0	0	7444	5501	.24	1320	1096	0	10833	0	0	55221	139351
YEAR TOTALS		25890	48876	106342			29572	31438	0	74476	0	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 14 CALENDAR YEAR 1954

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	220	0	0	3537	.01	35	0	0	0	185	0	37775	37775
2	37775	140	780	0	3537	.26	920	0	0	0	0	0	37775	37775
3	37775	110	951	0	3537	.30	1061	0	0	0	0	0	37775	37775
4	37775	330	130	0	3537	.13	460	0	0	0	0	0	37775	37775
5	37775	300	54	0	3537	.10	354	0	0	0	0	0	37775	37775
6	37775	0	2299	0	3537	.65	2299	0	0	0	0	0	37775	37775
7	37775	640	10034	0	3537	.83	2936	0	0	0	7738	0	37775	37775
8	37775	760	11118	0	3537	1.09	3855	0	0	0	8023	0	37775	37775
9	37775	330	2783	0	3537	.88	3113	0	0	0	0	0	37775	37775
10	37775	0	1379	0	3537	.39	1379	0	0	0	0	0	37775	37775
11	37775	0	814	0	3537	.23	814	0	0	0	0	0	37775	37775
12	37775	0	1096	0	3537	.31	1096	0	0	0	0	0	37775	37775
YEAR TOTALS		2830	31438	0			18322	0	0	0	15946	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
;	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	260520	0	228000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 14 CALENDAR YEAR 1954

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 14 CALENDAR YEAR 1954

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 15 CALENDAR YEAR 1955

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	569616	910	0	307	28258	.01	283	0	0	10000	22770	0	557166	923750
2	557166	12660	0	278	28099	-.13	-3652	0	0	10000	22770	0	560430	923750
3	560430	14930	0	307	28148	.08	2252	0	0	10000	22770	0	560031	923750
4	560031	8990	0	298	28080	-.02	-561	0	0	10000	22770	0	556514	923750
5	556514	13130	0	307	27986	.07	1959	0	0	10000	22770	0	554608	923750
6	554608	13960	0	298	27828	.29	8070	0	0	10000	22770	0	547430	923750
7	547430	520	0	307	27277	.44	12002	0	0	10000	22770	0	522871	923750
8	522871	5710	0	307	26625	.21	5591	0	0	10000	22770	0	509913	923750
9	509913	8110	0	298	26200	.25	6550	0	0	10000	22770	0	498405	923750
10	498405	520	0	307	25556	.51	13034	0	0	10000	22770	0	472814	923750
11	472814	0	0	298	24712	.40	9885	0	0	10000	22770	0	449861	923750
12	449861	0	0	307	24019	.16	3843	0	0	10000	22770	0	432941	923750
YEAR TOTALS		79440	0	3619			59256	0	0	120000	273240	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	370592	3400	0	1478	23336	.03	700	0	0	9000	18950	0	361864	557265
2	361864	22470	0	1478	23433	-.11	-2577	0	0	9000	18950	0	375483	557265
3	375483	27000	0	1478	23981	.05	1199	0	0	9000	18950	0	389856	557265
4	389856	45410	0	1690	24888	.07	1742	0	0	9000	18950	0	421884	557265
5	421884	4550	0	1690	25341	.07	1774	0	0	9000	18950	0	413020	557265
	413020	3420	0	1901	24842	.33	8198	0	0	9000	18950	0	396391	557265
7	396391	170	0	2323	24064	.46	11069	0	0	9000	18950	0	373219	557265
8	373219	390	0	2323	23341	.08	1867	0	0	9000	18950	0	359469	557265
9	359469	880	0	1901	22671	.18	4081	0	0	9000	18950	0	344417	557265
10	344417	90	0	1690	21802	.49	10683	0	0	9000	18950	0	322184	557265
11	322184	0	0	1690	20834	.37	7709	0	0	9000	18950	0	302835	557265
12	302835	0	0	1478	20043	.16	3207	0	0	9000	18950	0	288200	557265
YEAR TOTALS		107780	0	21120			49652	0	0	108000	227400	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 15 CALENDAR YEAR 1955

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30362	0	0	6681	1903	.10	190	0	0	6873	0	0	30364	30365
2	30364	0	0	6681	1901	.05	95	0	0	6776	0	0	30364	30365
3	30364	0	0	6681	1906	.21	400	0	0	7080	0	0	30363	30365
4	30363	270	0	7636	1906	.20	381	0	0	7747	0	0	30363	30365
5	30363	1420	0	7636	1901	.05	95	0	0	6312	0	0	30364	30365
6	30364	2040	0	8590	1904	.15	286	0	0	6835	0	0	30363	30365
7	30363	0	0	10499	1900	.69	1311	0	0	11811	0	0	30364	30365
8	30364	0	0	10499	1900	.63	1197	0	0	11696	0	0	30364	30365
9	30364	0	0	8590	1900	.40	760	0	0	9350	0	0	30364	30365
10	30364	0	0	7636	1900	.61	1159	0	0	8795	0	0	30364	30365
11	30364	0	0	7636	1900	.46	874	0	0	8510	0	0	30364	30365
12	30364	0	0	6681	1908	.25	477	0	0	7156	0	0	30362	30365
YEAR TOTALS		3730	0	95446			7225	0	0	98941	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	25460	0	0	707	1978	.08	158	0	0	17806	17099	0	25302	73718
2	25302	0	0	707	1975	.02	39	0	0	17903	17196	0	25263	73718
3	25263	0	0	707	1965	.25	491	0	0	17599	16892	0	24772	73718
4	24772	0	0	807	1949	.22	429	0	0	14498	13691	0	24343	73718
5	24343	2890	0	807	1994	-.07	-139	0	0	15933	15126	0	27372	73718
.	27372	3290	0	908	2099	.13	273	0	0	12975	12067	0	30389	73718
7	30389	420	0	1110	2131	.72	1534	0	0	3130	2020	0	29275	73718
8	29275	140	0	1110	2090	.68	1421	0	0	3245	2135	0	27994	73718
9	27994	1610	0	908	2079	.46	956	0	0	10460	9552	0	28648	73718
10	28648	460	0	807	2076	.64	1329	0	0	13450	12643	0	27779	73718
11	27779	70	0	807	2045	.47	961	0	0	13735	12928	0	26888	73718
12	26888	10	0	707	2022	.22	445	0	0	17523	16816	0	26453	73718
YEAR TOTALS		8890	0	10092			7897	0	0	158257	148165	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 15 CALENDAR YEAR 1955

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	129527	0	0	428	6910	.09	622	0	0	0	0	0	128477	338276
2	128477	0	0	428	6876	.10	688	0	0	0	0	0	127361	338276
3	127361	1720	0	428	6850	.26	1781	0	0	0	0	0	126872	338276
4	126872	1270	0	490	6829	.24	1639	0	0	0	0	0	126013	338276
5	126013	12930	0	490	7009	.04	280	0	0	0	0	0	138173	338276
6	138173	24880	0	551	7413	.14	1038	5760	0	0	0	0	155704	338276
7	155704	2240	0	673	7312	.73	5338	21552	0	0	0	0	130381	338276
8	130381	0	0	673	6522	.80	5218	21225	0	0	0	0	103265	338276
9	103265	21520	0	551	6239	.39	2433	9230	0	0	0	0	112571	338276
10	112571	1560	0	490	6264	.62	3884	4927	0	0	0	0	104830	338276
11	104830	0	0	490	6017	.51	3069	4041	0	0	0	0	97230	338276
12	97230	0	0	428	5851	.28	1638	0	0	0	0	0	95164	338276
YEAR TOTALS		66120	0	6120			27628	66735	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	55221	0	0	7444	5607	.10	561	318	0	11118	0	0	58016	139351
2	58016	0	0	7444	5787	.02	116	71	0	11215	0	0	61600	139351
3	61600	0	0	7444	5928	.21	1245	814	0	10911	0	0	63008	139351
4	63008	0	0	8507	5869	.19	1115	743	0	6856	0	0	59499	139351
5	59499	0	0	8507	5759	.04	230	0	0	8361	0	0	59123	139351
[illegible]	59123	0	5760	9571	5718	.19	1086	566	0	4377	0	0	58037	139351
7	58037	0	21552	11698	5580	.68	3794	9854	0	0	0	0	54243	139351
8	54243	0	21225	11698	5382	.60	3229	9527	0	0	0	0	51014	139351
9	51014	0	9230	9571	5233	.39	2041	1521	0	1862	0	0	48973	139351
10	48973	0	4927	8507	5089	.60	3053	2228	0	5808	0	0	45920	139351
11	45920	0	4041	8507	4940	.45	2223	1627	0	6093	0	0	43697	139351
12	43697	0	0	7444	4912	.28	1375	778	0	10835	0	0	44935	139351
YEAR TOTALS		0	66735	106342			20068	28047	0	77436	0	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 15 CALENDAR YEAR 1955

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	0	318	0	3537	.09	318	0	0	0	0	0	37775	37775
2	37775	0	71	0	3537	.02	71	0	0	0	0	0	37775	37775
3	37775	0	814	0	3537	.23	814	0	0	0	0	0	37775	37775
4	37775	0	743	0	3537	.21	743	0	0	0	0	0	37775	37775
5	37775	0	0	0	3534	-.02	-70	0	0	0	70	0	37775	37775
6	37775	0	566	0	3537	.16	566	0	0	0	0	0	37775	37775
7	37775	0	9854	0	3537	.70	2476	0	0	0	7378	0	37775	37775
8	37775	0	9527	0	3537	.64	2264	0	0	0	7263	0	37775	37775
9	37775	0	1521	0	3537	.43	1521	0	0	0	0	0	37775	37775
10	37775	0	2228	0	3537	.63	2228	0	0	0	0	0	37775	37775
11	37775	0	1627	0	3537	.46	1627	0	0	0	0	0	37775	37775
12	37775	0	778	0	3537	.22	778	0	0	0	0	0	37775	37775
YEAR TOTALS		0	28047	0			13336	0	0	0	14711	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
6	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	260520	0	228000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 15 CALENDAR YEAR 1955

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 15 CALENDAR YEAR 1955

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 16 CALENDAR YEAR 1956

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	432941	2140	0	307	23461	.02	469	0	0	10000	22770	0	421535	923750
2	421535	19290	0	278	23405	-.10	-2340	0	0	10000	22770	0	430117	923750
3	430117	30	0	307	23221	.21	4876	0	0	10000	22770	0	412194	923750
4	412194	400	0	298	22547	.16	3608	0	0	10000	22770	0	395918	923750
5	395918	68290	0	307	23259	.12	2791	0	0	10000	22770	0	448340	923750
6	448340	7020	0	298	23993	.38	9117	0	0	10000	22770	0	433175	923750
7	433175	20	0	307	23083	.78	18005	0	0	10000	22770	0	402113	923750
8	402113	100	0	307	21913	.70	15339	0	0	10000	22770	0	373797	923750
9	373797	20	0	298	20831	.65	13540	0	0	10000	22770	0	347209	923750
10	347209	130	0	307	19888	.42	8353	0	0	10000	22770	0	325909	923750
11	325909	20490	0	298	19566	.14	2739	0	0	10000	22770	0	330592	923750
12	330592	1490	0	307	19390	.12	2327	0	0	10000	22770	0	316678	923750
YEAR TOTALS		119420	0	3619			78824	0	0	120000	273240	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	288200	100	0	1478	19425	.03	583	0	0	9000	18950	0	276289	557265
2	276289	23920	0	1478	19479	-.09	-1752	0	0	9000	18950	0	290533	557265
3	290533	170	0	1478	19417	.29	5631	0	0	9000	18950	0	273644	557265
4	273644	300	0	1690	18682	.18	3363	0	0	9000	18950	0	258941	557265
5	258941	31870	0	1690	18749	.14	2625	0	0	9000	18950	0	276546	557265
[illegible]	276546	360	0	1901	18713	.41	7672	0	0	9000	18950	0	257383	557265
7	257383	240	0	2323	17458	.82	14316	0	0	9000	18950	0	231034	557265
8	231034	230	0	2323	16014	.74	11850	0	0	9000	18950	0	207141	557265
9	207141	210	0	1901	14713	.66	9711	0	0	9000	18950	0	185789	557265
10	185789	90	0	1690	13603	.37	5033	0	0	9000	18950	0	169206	557265
11	169206	19410	0	1690	13260	.16	2122	0	0	9000	18950	0	174854	557265
12	174854	1110	0	1478	13052	.15	1958	0	0	9000	18950	0	162578	557265
YEAR TOTALS		78010	0	21120			63112	0	0	108000	227400	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 16 CALENDAR YEAR 1956

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30362	0	0	6681	1903	.10	190	0	0	6873	0	0	30364	30365
2	30364	0	0	6681	1900	.02	38	0	0	6719	0	0	30364	30365
3	30364	0	0	6681	1911	.36	688	0	0	7365	0	0	30360	30365
4	30360	680	0	7636	1910	.31	592	0	0	7549	0	0	30361	30365
5	30361	4560	0	7636	1908	.26	496	0	0	3573	0	0	30362	30365
6	30362	720	0	8590	1900	.68	1292	0	0	9164	0	0	30364	30365
7	30364	0	0	10499	1900	1.02	1938	0	0	12437	0	0	30364	30365
8	30364	0	0	10499	1900	1.08	2052	0	0	12551	0	0	30364	30365
9	30364	0	0	8590	1900	1.00	1900	0	0	10490	0	0	30364	30365
10	30364	0	0	7636	1900	.47	893	0	0	8529	0	0	30364	30365
11	30364	0	0	7636	1910	.33	630	0	0	8263	0	0	30361	30365
12	30361	0	0	6681	1904	.14	267	0	0	6950	0	0	30363	30365
YEAR TOTALS		5960	0	95446			10976	0	0	100463	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	26453	0	0	707	2014	.03	60	0	0	17806	17099	0	26393	73718
2	26393	190	0	707	2017	-.03	-60	0	0	17960	17253	0	26643	73718
3	26643	0	0	707	2010	.34	683	0	0	17314	16607	0	25960	73718
4	25960	80	0	807	1991	.24	478	0	0	14696	13889	0	25562	73718
5	25562	3700	0	807	2038	.29	591	0	0	18672	17865	0	28671	73718
	28671	0	0	908	2065	.74	1528	0	0	10646	9738	0	27143	73718
7	27143	190	0	1110	2005	1.07	2145	0	0	2504	1394	0	25188	73718
8	25188	300	0	1110	1934	1.12	2166	0	0	2390	1280	0	23322	73718
9	23322	300	0	908	1850	.98	1813	0	0	9320	8412	0	21809	73718
10	21809	1420	0	807	1823	.57	1039	0	0	13716	12909	0	22190	73718
11	22190	220	0	807	1818	.43	782	0	0	13982	13175	0	21628	73718
12	21628	450	0	707	1808	.17	307	0	0	17729	17022	0	21771	73718
YEAR TOTALS		6850	0	10092			11532	0	0	156735	146643	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 16 CALENDAR YEAR 1956

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	95164	0	0	428	5798	.10	580	0	0	0	0	0	94156	338276
2	94156	0	0	428	5766	.08	461	0	0	0	0	0	93267	338276
3	93267	0	0	428	5704	.40	2282	0	0	0	0	0	90557	338276
4	90557	0	0	490	5575	.36	2007	2337	0	0	0	0	85723	338276
5	85723	8160	0	490	5600	.24	1344	0	0	0	0	0	92049	338276
6	92049	7780	0	551	5589	.75	4192	10034	0	0	0	0	85052	338276
7	85052	0	0	673	4931	1.05	5178	23416	0	0	0	0	55785	338276
8	55785	0	0	673	3703	1.12	4147	23707	0	0	0	0	27258	338276
9	27258	0	0	551	2767	1.05	2905	6755	0	0	0	0	17047	338276
10	17047	4010	0	490	2459	.45	1107	2413	0	0	0	0	17047	338276
11	17047	2380	0	490	2459	.37	910	980	0	0	0	0	17047	338276
12	17047	11050	0	428	2620	.14	367	5383	0	0	0	0	21919	338276
YEAR TOTALS		33380	0	6120			25480	75025	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	44935	0	0	7444	5036	.08	403	141	0	11118	0	0	48065	139351
2	48065	0	0	7444	5234	.00	0	0	0	11342	0	0	51963	139351
3	51963	0	0	7444	5345	.36	1924	1238	0	10626	0	0	51983	139351
4	51983	0	2337	8507	5303	.28	1485	884	0	7054	0	0	50498	139351
5	50498	0	0	8507	5265	.27	1422	990	0	11030	0	0	50609	139351
.	50609	0	10034	9571	5170	.67	3464	2511	0	2048	0	0	47145	139351
7	47145	0	23416	11698	4930	1.02	5029	11718	0	0	0	0	42116	139351
8	42116	0	23707	11698	4586	1.08	4953	12009	0	0	0	0	37163	139351
9	37163	0	6755	9571	4261	.96	4091	0	0	2816	0	0	33072	139351
10	33072	0	2413	8507	4044	.48	1941	0	0	6094	0	0	31131	139351
11	31131	2900	980	8507	4032	.32	1290	0	0	7527	0	0	32741	139351
12	32741	4750	5383	7444	4239	.14	593	8980	0	11041	0	0	36898	139351
YEAR TOTALS		7650	75025	106342			26595	38471	0	80696	0	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 16 CALENDAR YEAR 1956

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	0	141	0	3537	.04	141	0	0	0	0	0	37775	37775
2	37775	0	0	0	3534	-.02	-70	0	0	0	70	0	37775	37775
3	37775	0	1238	0	3537	.35	1238	0	0	0	0	0	37775	37775
4	37775	0	884	0	3537	.25	884	0	0	0	0	0	37775	37775
5	37775	0	990	0	3537	.28	990	0	0	0	0	0	37775	37775
6	37775	0	2511	0	3537	.71	2511	0	0	0	0	0	37775	37775
7	37775	0	11718	0	3537	1.05	3714	0	0	0	8004	0	37775	37775
8	37775	0	12009	0	3537	1.10	3891	0	0	0	8118	0	37775	37775
9	37775	0	0	0	3350	.96	3216	0	0	0	2094	0	32465	37775
10	32465	0	0	0	3116	.53	1651	0	0	0	20	0	30794	37775
11	30794	320	0	0	2987	.38	1135	0	0	0	1187	0	28792	37775
12	28792	520	8980	0	3232	.16	517	0	0	0	0	0	37775	37775
YEAR TOTALS		840	38471	0			19818	0	0	0	19493	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	260520	0	228000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 16 CALENDAR YEAR 1956

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 16 CALENDAR YEAR 1956

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 17 CALENDAR YEAR 1957

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	316678	1640	0	307	18886	.06	1133	0	0	10000	22770	0	304108	923750
2	304108	20720	0	278	18810	-.05	-940	0	0	10000	22770	0	312720	923750
3	312720	21690	0	307	19175	-.10	-1917	0	0	10000	22770	0	323250	923750
4	323250	711430	0	298	30384	-.70	-21268	0	0	0	0	131900	923750	923750
5	923750	404790	0	307	41356	-.11	-4548	0	0	0	0	409031	923750	923750
6	923750	77310	0	298	41356	.13	5376	0	0	0	0	71636	923750	923750
7	923750	510	0	307	40715	.54	21986	0	0	10000	22770	0	889197	923750
8	889197	110	0	307	39604	.31	12277	0	0	10000	22770	0	863953	923750
9	863953	360	0	298	38797	.24	9311	0	0	10000	19003	0	845701	923750
10	845701	58850	0	307	39834	-.14	-5576	0	0	10000	0	0	919820	923750
11	919820	202940	0	298	41283	-.17	-7017	0	0	0	17313	188416	923750	923750
12	923750	12050	0	307	41356	.12	4963	0	0	0	6780	0	923750	923750
YEAR TOTALS		1512400	0	3619			13780	0	0	70000	156946	800983		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	162578	11230	0	1478	12642	.05	632	0	0	9000	18950	0	161748	557265
2	161748	23380	0	1478	12998	-.02	-259	0	0	9000	18950	0	173959	557265
3	173959	43820	0	1478	14371	-.05	-718	0	0	9000	18950	0	207069	557265
4	207069	524200	0	1690	23961	-.68	-16292	0	0	0	8795	179811	557265	557265
5	557265	211910	0	1690	32623	-.18	-5871	0	0	0	8795	207296	557265	557265
	557265	37400	0	1901	32623	.14	4567	0	0	0	14626	16306	557265	557265
7	557265	180	0	2323	32623	.53	17290	0	0	9000	1414	0	545418	557265
8	545418	570	0	2323	31443	.38	11948	0	0	9000	5713	0	535004	557265
9	535004	8190	0	1901	31373	.22	6902	0	0	9000	0	0	543391	557265
10	543391	103440	0	1690	32087	-.05	-1603	0	0	0	18950	70532	557262	557265
11	557262	145440	0	1690	32623	-.17	-5545	0	0	0	18950	130342	557265	557265
12	557265	16360	0	1478	32623	.12	3915	0	0	2159	13126	0	557265	557265
YEAR TOTALS		1126120	0	21120			14966	0	0	56159	147219	604287		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 17 CALENDAR YEAR 1957

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30363	0	0	6681	1903	.11	209	0	0	6891	0	0	30364	30365
2	30364	850	0	6681	1899	-.02	-37	0	0	5794	0	0	30364	30365
3	30364	1240	0	6681	1900	.01	19	0	0	5460	0	0	30364	30365
4	30364	54650	0	7636	2001	-.61	-1220	0	0	0	0	42014	36584	36584
5	36584	38870	0	7636	2093	-.44	-920	0	0	0	0	32154	36584	36584
6	36584	4550	0	8590	2093	.33	691	0	0	4731	0	0	36584	36584
7	36584	0	0	10499	2093	.76	1591	0	0	12090	0	0	36584	36584
8	36584	0	0	10499	2093	.81	1695	0	0	12194	0	0	36584	36584
9	36584	1600	0	8590	2093	.38	795	0	0	7785	0	0	36584	36584
10	36584	3570	0	7636	2093	.12	251	0	0	4317	0	0	36584	36584
11	36584	5420	0	7636	2089	-.13	-271	0	0	1945	0	0	36584	36584
12	36584	1890	0	6681	2093	.19	398	0	0	5189	0	0	36584	36584
YEAR TOTALS		112640	0	95446			3201	0	0	66396	0	74168		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	21771	100	0	707	1808	.12	217	0	0	17788	17081	0	21654	73718
2	21654	330	0	707	1854	-.06	-110	0	0	18885	16661	0	23611	73718
3	23611	60	0	707	1927	.03	58	0	0	19219	17502	0	24623	73718
4	24623	47840	0	807	2830	-.63	-1782	0	0	11600	10680	640	73718	73718
5	73718	121830	0	807	3646	-.51	-1858	0	0	11600	10680	123801	73718	73718
	73718	31850	0	908	3646	.36	1313	0	0	11600	12015	29214	73718	73718
7	73718	2860	0	1110	3119	.86	2682	0	0	0	30058	0	42728	73718
8	42728	1340	0	1110	2592	1.01	2618	0	0	11600	10490	0	41450	73718
9	41450	1550	0	908	2576	.43	1108	0	0	11600	10692	0	41892	73718
10	41892	1860	0	807	2601	.04	104	0	0	4729	4842	0	42728	73718
11	42728	4950	0	807	3112	-.13	-404	0	0	26443	0	0	73718	73718
12	73718	3330	0	707	3646	.18	656	0	0	357	2324	0	73718	73718
YEAR TOTALS		217900	0	10092			4602	0	0	145421	143025	153655		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 17 CALENDAR YEAR 1957

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	21919	0	0	428	2732	.13	355	0	0	0	0	0	21136	338276
2	21136	26350	0	428	3407	-.06	-203	0	0	0	0	0	47261	338276
3	47261	4790	0	428	4018	.08	321	0	0	0	0	0	51302	338276
4	51302	243400	0	490	8146	-.52	-4235	0	0	0	0	0	298447	338276
5	298447	176110	0	490	12191	-.54	-6582	142373	0	0	0	0	338276	338276
6	338276	7630	0	551	12855	.34	4371	2708	0	0	0	0	338276	338276
7	338276	0	0	673	12556	.82	10296	5078	0	0	0	0	322229	338276
8	322229	0	0	673	11576	1.00	11576	41960	0	0	0	0	268020	338276
9	268020	2120	0	551	10348	.51	5277	32310	0	0	0	0	232002	338276
10	232002	14300	0	490	9730	.17	1654	19666	0	0	0	0	224492	338276
11	224492	27060	0	490	10018	-.12	-1201	0	0	0	0	0	252263	338276
12	252263	0	0	428	10374	.22	2282	0	0	0	0	0	249553	338276
YEAR TOTALS		501760	0	6120			23911	244095	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36898	0	0	7444	4489	.11	494	389	0	11100	0	0	39671	139351
2	39671	7150	0	7444	4972	-.02	-98	0	0	11600	0	0	51075	139351
3	51075	1390	0	7444	5449	.01	54	0	0	11600	0	0	56567	139351
4	56567	98810	0	8507	7278	-.61	-4439	358	0	0	11600	0	139351	139351
5	139351	168170	142373	8507	8928	-.43	-3838	294274	0	0	11600	0	139351	139351
	139351	112420	2708	9571	8928	.33	2946	91011	0	0	11600	0	139351	139351
7	139351	9310	5078	11698	8928	.76	6785	1880	0	5975	0	0	139351	139351
8	139351	750	41960	11698	8928	.77	6875	12537	0	0	11600	0	139351	139351
9	139351	1060	32310	9571	8928	.36	3214	8985	0	0	11600	0	139351	139351
10	139351	1360	19666	8507	8928	.10	893	6897	0	0	4729	0	139351	139351
11	139351	33270	0	8507	8902	-.14	-1245	14412	0	0	11600	0	139347	139351
12	139347	14770	0	7444	8928	.22	1964	5001	0	0	357	0	139351	139351
YEAR TOTALS		448460	244095	106342			13605	435744	0	40275	74686	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 17 CALENDAR YEAR 1957

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	0	389	0	3537	.11	389	0	0	0	0	0	37775	37775
2	37775	780	0	0	3530	-.04	-140	0	0	0	920	0	37775	37775
3	37775	150	0	0	3537	.02	71	0	0	0	79	0	37775	37775
4	37775	10810	358	0	3537	-.62	-2192	0	0	0	6835	6525	37775	37775
5	37775	18400	294274	0	3537	-.47	-1661	0	0	0	6835	307500	37775	37775
6	37775	12300	91011	0	3537	.34	1203	0	0	0	7690	94418	37775	37775
7	37775	1020	1880	0	3537	.82	2900	0	0	0	0	0	37775	37775
8	37775	80	12537	0	3537	.91	3219	0	0	0	9398	0	37775	37775
9	37775	120	8985	0	3537	.40	1415	0	0	0	7690	0	37775	37775
10	37775	150	6897	0	3537	.06	212	0	0	0	6835	0	37775	37775
11	37775	3640	14412	0	3516	-.13	-456	0	0	0	6835	11676	37772	37775
12	37772	1620	5001	0	3537	.18	637	0	0	0	5981	0	37775	37775
YEAR TOTALS		49070	435744	0			5597	0	0	0	59098	420119		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
11	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
12	10	27290	0	30000	1	.00	0	0	4869	0	2159	0	10	10
YEAR TOTALS		327480	0	360000			0	0	158679	0	126159	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 17 CALENDAR YEAR 1957

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 17 CALENDAR YEAR 1957

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 18 CALENDAR YEAR 1958

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	33910	0	307	41356	.00	0	0	0	0	3530	30073	923750	923750
2	923750	13770	0	278	41356	.03	1241	0	0	10000	22251	0	923750	923750
3	923750	46100	0	307	41356	.06	2481	0	0	0	0	43312	923750	923750
4	923750	128160	0	298	41356	-.10	-4135	0	0	0	0	131997	923750	923750
5	923750	487670	0	307	41356	.12	4963	0	0	0	0	482400	923750	923750
6	923750	2570	0	298	41002	.29	11891	0	0	10000	19452	0	904679	923750
7	904679	8980	0	307	40588	.41	16641	0	0	10000	5283	0	901428	923750
8	901428	13980	0	307	40342	.27	10892	0	0	10000	22770	0	891439	923750
9	891439	104130	0	298	40756	-.16	-6520	0	0	0	22770	55271	923750	923750
10	923750	10630	0	307	41356	.19	7858	0	0	10000	12465	0	923750	923750
11	923750	2600	0	298	41356	.16	6617	0	0	10000	11925	0	917510	923750
12	917510	5420	0	307	41198	.13	5356	0	0	10000	11168	0	916099	923750
YEAR TOTALS		857920	0	3619			57285	0	0	70000	131614	743053		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	42480	0	1478	32623	.03	979	0	0	0	18950	21073	557265	557265
2	557265	2250	0	1478	32623	.10	3262	0	0	9000	6510	0	557265	557265
3	557265	34730	0	1478	32623	.02	652	0	0	0	11641	20959	557265	557265
4	557265	230570	0	1690	32623	-.20	-6524	0	0	0	8795	226609	557265	557265
5	557265	234370	0	1690	32623	.13	4241	0	0	0	13706	214733	557265	557265
.	557265	1990	0	1901	32623	.31	10113	0	0	9000	0	0	556241	557265
7	556241	23550	0	2323	32588	.38	12383	0	0	9000	16820	0	557265	557265
8	557265	0	0	2323	32623	.34	11092	0	0	9000	5359	0	547491	557265
9	547491	8770	0	1901	32285	-.10	-3228	0	0	9000	9323	0	557265	557265
10	557265	3450	0	1690	32623	.22	7177	0	0	9000	3583	0	557265	557265
11	557265	2280	0	1690	32623	.17	5546	0	0	9000	4044	0	557265	557265
12	557265	1220	0	1478	32623	.17	5546	0	0	9000	3196	0	557265	557265
YEAR TOTALS		585660	0	21120			51239	0	0	72000	101927	483374		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 18 CALENDAR YEAR 1958

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36584	410	0	6681	2093	.03	63	0	0	6334	0	0	36584	36584
2	36584	380	0	6681	2093	.10	209	0	0	6510	0	0	36584	36584
3	36584	2570	0	6681	2091	-.08	-166	0	0	3945	0	0	36584	36584
4	36584	16200	0	7636	2088	-.15	-312	0	0	0	0	8877	36583	36584
5	36583	2810	0	7636	2093	.04	84	0	0	4911	0	0	36584	36584
6	36584	100	0	8590	2093	.51	1067	0	0	9557	0	0	36584	36584
7	36584	1620	0	10499	2093	.54	1130	0	0	10009	0	0	36584	36584
8	36584	40	0	10499	2093	.66	1381	0	0	11840	0	0	36584	36584
9	36584	8440	0	8590	2091	.30	627	0	0	0	0	0	35807	30365
10	35807	3260	0	7636	1995	.34	678	0	0	0	0	0	30753	30365
11	30753	530	0	7636	1914	.24	459	0	0	7174	0	0	30362	30365
12	30362	300	0	6681	1904	.15	286	0	0	6668	0	0	30363	30365
YEAR TOTALS		36660	0	95446			5506	0	0	66948	0	8877		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	73718	3890	0	707	3646	.03	109	0	0	0	3074	0	73718	73718
2	73718	2250	0	707	3592	.06	216	0	0	5210	9621	0	70634	73718
3	70634	7560	0	707	3582	-.09	-321	0	0	11600	9345	6346	73717	73718
4	73717	18110	0	807	3633	-.19	-689	0	0	11600	10680	18914	73715	73718
5	73715	32620	0	807	3646	.08	292	0	0	11600	10680	32438	73718	73718
·	73718	1560	0	908	3202	.56	1793	0	0	0	24449	0	48128	73718
7	48128	2750	0	1110	2706	.58	1569	0	0	9214	14685	0	42728	73718
8	42728	1070	0	1110	2602	.71	1847	0	0	11600	10490	0	41951	73718
9	41951	1720	0	908	2602	.31	807	0	0	10183	9411	0	42728	73718
10	42728	1200	0	807	2617	.35	916	0	0	3950	3427	0	42728	73718
11	42728	800	0	807	2617	.25	654	0	0	11341	10680	0	42728	73718
12	42728	1130	0	707	2617	.15	393	0	0	9315	9345	0	42728	73718
YEAR TOTALS		74660	0	10092			7586	0	0	95613	125887	57698		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 18 CALENDAR YEAR 1958

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	249553	0	0	428	10325	.03	310	0	0	0	0	0	248815	338276
2	248815	0	0	428	10294	.10	1029	0	0	0	0	0	247358	338276
3	247358	0	0	428	10277	-.07	-718	0	0	0	0	0	247648	338276
4	247648	0	0	490	10283	-.06	-616	0	0	0	0	0	247774	338276
5	247774	11460	0	490	10436	.03	313	0	0	0	0	0	258431	338276
6	258431	47710	0	551	11153	.51	5688	0	0	0	0	0	299902	338276
7	299902	0	0	673	11303	.51	5765	23711	0	0	0	0	269753	338276
8	269753	0	0	673	10310	.73	7526	33944	0	0	0	0	227610	338276
9	227610	0	0	551	9538	.43	4101	7641	0	0	0	0	215317	338276
10	215317	0	0	490	8947	.40	3579	23441	0	0	0	0	187807	338276
11	187807	0	0	490	8069	.28	2259	28575	0	0	0	0	156483	338276
12	156483	0	0	428	7378	.17	1254	20109	0	0	0	0	134692	338276
YEAR TOTALS		59170	0	6120			30490	137421	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	10470	0	7444	8928	.03	268	2758	0	0	0	0	139351	139351
2	139351	4490	0	7444	8928	.10	893	0	0	3847	0	0	139351	139351
3	139351	26210	0	7444	8913	-.08	-712	7879	0	0	11600	0	139350	139351
4	139350	26800	0	8507	8900	-.15	-1334	8030	0	0	11600	0	139347	139351
5	139347	122340	0	8507	8928	.06	536	101693	0	0	11600	0	139351	139351
	139351	10180	0	9571	8928	.51	4553	800	0	4744	0	0	139351	139351
7	139351	12160	23711	11698	8928	.55	4910	10049	0	0	9214	0	139351	139351
8	139351	6270	33944	11698	8928	.65	5803	11113	0	0	11600	0	139351	139351
9	139351	3170	7641	9571	8928	.26	2321	640	0	1721	0	0	139351	139351
10	139351	0	23441	8507	8928	.33	2946	8038	0	0	3950	0	139351	139351
11	139351	910	28575	8507	8928	.23	2053	7584	0	0	11341	0	139351	139351
12	139351	4220	20109	7444	8928	.17	1518	6052	0	0	9315	0	139351	139351
YEAR TOTALS		227220	137421	106342			23755	164636	0	10312	80220	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 18 CALENDAR YEAR 1958

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	1150	2758	0	3537	.03	106	0	0	0	3802	0	37775	37775
2	37775	490	0	0	3537	.08	283	0	0	0	207	0	37775	37775
3	37775	2870	7879	0	3524	-.08	-281	0	0	0	5981	5050	37774	37775
4	37774	2930	8030	0	3509	-.17	-596	0	0	0	6835	4724	37771	37775
5	37771	13380	101693	0	3537	.08	283	0	0	0	6835	107951	37775	37775
6	37775	1110	800	0	3537	.54	1910	0	0	0	0	0	37775	37775
7	37775	1330	10049	0	3537	.56	1981	0	0	0	9398	0	37775	37775
8	37775	690	11113	0	3537	.68	2405	0	0	0	9398	0	37775	37775
9	37775	350	640	0	3537	.28	990	0	0	0	0	0	37775	37775
10	37775	0	8038	0	3537	.34	1203	0	0	0	6835	0	37775	37775
11	37775	100	7584	0	3537	.24	849	0	0	0	6835	0	37775	37775
12	37775	460	6052	0	3537	.15	531	0	0	0	5981	0	37775	37775
YEAR TOTALS		24860	164636	0			9664	0	0	0	62107	117725		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	11710	0	9000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	174520	0	142000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 18 CALENDAR YEAR 1958

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 18   CALENDAR YEAR 1958

DEMAND NODE 11   HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 19 CALENDAR YEAR 1959

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	916099	2180	0	307	40893	.20	8179	0	0	10000	13330	0	906463	923750
2	906463	48120	0	278	40989	-.06	-2458	0	0	0	22770	10246	923747	923750
3	923747	7540	0	307	41093	.21	8630	0	0	10000	22770	0	909580	923750
4	909580	81690	0	298	41032	-.08	-3282	0	0	0	22770	47738	923746	923750
5	923746	196660	0	307	41356	-.16	-6616	0	0	0	22770	180195	923750	923750
6	923750	284170	0	298	41356	.00	0	0	0	0	22091	261781	923750	923750
7	923750	12920	0	307	41356	.15	6203	0	0	10000	16410	0	923750	923750
8	923750	1190	0	307	40885	.33	13492	0	0	10000	22770	0	898371	923750
9	898371	1000	0	298	39989	.27	10797	0	0	10000	22770	0	875506	923750
10	875506	146750	0	307	40460	.04	1618	0	0	0	21409	75172	923750	923750
11	923750	10620	0	298	41356	.25	10339	0	0	10000	9983	0	923750	923750
12	923750	133510	0	307	41295	-.08	-3303	0	0	0	22770	113740	923746	923750
YEAR TOTALS		926350	0	3619			43599	0	0	60000	242613	688872		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	890	0	1478	32623	.23	7503	0	0	9000	909	0	557265	557265
2	557265	51980	0	1478	32567	-.05	-1627	0	0	0	18950	33182	557262	557265
3	557262	16150	0	1478	32623	.19	6198	0	0	9000	18950	0	555786	557265
4	555786	81150	0	1690	32561	-.01	-325	0	0	0	18950	59356	557265	557265
5	557265	60760	0	1690	32623	-.14	-4566	0	0	0	18950	44686	557265	557265
[illegible]	557265	21010	0	1901	32589	-.03	-977	0	0	0	18950	1137	557264	557265
7	557264	2240	0	2323	32623	.20	6525	0	0	9000	2391	0	557265	557265
8	557265	170	0	2323	32623	.38	12397	0	0	9000	2786	0	548929	557265
9	548929	70	0	1901	31324	.29	9084	0	0	9000	18950	0	528064	557265
10	528064	36460	0	1690	31613	.00	0	0	0	0	5569	0	557265	557265
11	557265	7700	0	1690	32623	.30	9787	0	0	9000	5223	0	557265	557265
12	557265	96200	0	1478	32623	-.11	-3588	0	0	0	18950	79360	557265	557265
YEAR TOTALS		374780	0	21120			40411	0	0	54000	149528	217721		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 19 CALENDAR YEAR 1959

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30363	500	0	6681	1906	.19	362	0	0	6543	0	0	30363	30365
2	30363	570	0	6681	1902	.06	114	0	0	6226	0	0	30364	30365
3	30364	720	0	6681	1910	.32	611	0	0	6569	0	0	30361	30365
4	30361	1720	0	7636	1907	.22	420	0	0	6337	0	0	30362	30365
5	30362	20	0	7636	1904	.15	286	0	0	7903	0	0	30363	30365
6	30363	4200	0	8590	2001	.05	100	0	0	10710	0	0	36583	30365
7	36583	0	0	10499	2009	.28	563	0	0	4840	0	0	30361	30365
8	30361	0	0	10499	1900	.64	1216	0	0	11718	0	0	30364	30365
9	30364	740	0	8590	1900	.54	1026	0	0	8876	0	0	30364	30365
10	30364	4450	0	7636	1998	-.11	-219	0	0	9187	0	0	36584	36584
11	36584	870	0	7636	2010	.31	623	0	0	1166	0	0	30361	30365
12	30361	1350	0	6681	1901	.03	57	0	0	5391	0	0	30364	30365
YEAR TOTALS		15140	0	95446			5159	0	0	85466	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	42728	990	0	707	2617	.18	471	0	0	9533	9345	0	42728	73718
2	42728	850	0	707	2728	.01	27	0	0	18453	11893	0	49404	73718
3	49404	860	0	707	2868	.36	1032	0	0	18110	15435	0	51200	73718
4	51200	2430	0	807	2999	.21	630	0	0	15908	10714	0	57387	73718
5	57387	200	0	807	3123	.16	500	0	0	14342	11273	0	59349	73718
;	59349	1320	0	908	3378	.09	304	0	0	14261	0	0	73718	73718
7	73718	250	0	1110	3177	.38	1207	0	0	0	25071	0	46580	73718
8	46580	610	0	1110	2681	.75	2011	0	0	11600	12941	0	42728	73718
9	42728	1410	0	908	2612	.64	1672	0	0	10934	10026	0	42466	73718
10	42466	21490	0	807	3105	-.21	-651	0	0	11600	1684	0	73716	73718
11	73716	3120	0	807	3272	.30	982	0	0	0	22489	0	52558	73718
12	52558	6200	0	707	3231	.02	65	0	0	19288	6197	0	71077	73718
YEAR TOTALS		39730	0	10092			8250	0	0	144029	137068	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 19 CALENDAR YEAR 1959

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	134692	0	0	428	6685	.17	1136	23966	0	0	0	0	109162	338276
2	109162	0	0	428	6261	.11	689	0	0	0	0	0	108045	338276
3	108045	0	0	428	6202	.35	2171	0	0	0	0	0	105446	338276
4	105446	0	0	490	6125	.28	1715	0	0	0	0	0	103241	338276
5	103241	0	0	490	6065	.18	1092	0	0	0	0	0	101659	338276
6	101659	4550	0	551	6102	.01	61	0	0	0	0	0	105597	338276
7	105597	7040	0	673	6238	.29	1809	0	0	0	0	0	110155	338276
8	110155	1100	0	673	5571	.70	3900	40756	0	0	0	0	65926	338276
9	65926	810	0	551	4680	.60	2808	0	0	0	0	0	63377	338276
10	63377	88070	0	490	6220	-.05	-310	0	0	0	0	0	151267	338276
11	151267	0	0	490	7488	.32	2396	0	0	0	0	0	148381	338276
12	148381	2080	0	428	7468	.04	299	0	0	0	0	0	149734	338276
YEAR TOTALS		103650	0	6120			17766	64722	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	1230	23966	7444	8928	.19	1696	6523	0	0	9533	0	139351	139351
2	139351	1770	0	7444	8928	.04	357	0	0	6031	0	0	139351	139351
3	139351	1850	0	7444	8928	.32	2857	1003	0	9454	0	0	139351	139351
4	139351	6500	0	8507	8928	.21	1875	0	0	3882	0	0	139351	139351
5	139351	5270	0	8507	8928	.14	1250	0	0	4487	0	0	139351	139351
	139351	21560	0	9571	8928	.06	536	5613	0	0	5840	0	139351	139351
7	139351	11420	0	11698	8928	.29	2589	0	0	2867	0	0	139351	139351
8	139351	120	40756	11698	8928	.64	5714	11864	0	0	11600	0	139351	139351
9	139351	1260	0	9571	8665	.53	4592	1947	0	2336	0	0	126837	139351
10	126837	114200	0	8507	8641	-.13	-1122	82704	0	0	11600	0	139348	139351
11	139348	1830	0	8507	8928	.30	2678	861	0	10219	0	0	139351	139351
12	139351	6870	0	7444	8928	.04	357	0	0	931	0	0	139351	139351
YEAR TOTALS		173880	64722	106342			23379	110515	0	40207	38573	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 19 CALENDAR YEAR 1959

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	130	6523	0	3537	.19	672	0	0	0	5981	0	37775	37775
2	37775	190	0	0	3537	.02	71	0	0	0	119	0	37775	37775
3	37775	200	1003	0	3537	.34	1203	0	0	0	0	0	37775	37775
4	37775	710	0	0	3537	.20	707	0	0	0	3	0	37775	37775
5	37775	580	0	0	3537	.15	531	0	0	0	49	0	37775	37775
6	37775	2360	5613	0	3537	.08	283	0	0	0	7690	0	37775	37775
7	37775	1250	0	0	3537	.35	1238	0	0	0	12	0	37775	37775
8	37775	10	11864	0	3537	.70	2476	0	0	0	9398	0	37775	37775
9	37775	140	1947	0	3537	.59	2087	0	0	0	0	0	37775	37775
10	37775	12490	82704	0	3537	-.18	-636	0	0	0	6835	88995	37775	37775
11	37775	200	861	0	3537	.30	1061	0	0	0	0	0	37775	37775
12	37775	750	0	0	3537	.01	35	0	0	0	715	0	37775	37775
YEAR TOTALS		19010	110515	0			9728	0	0	0	30802	88995		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
YEAR TOTALS		327480	0	360000			0	0	146520	0	114000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 19 CALENDAR YEAR 1959

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 19 CALENDAR YEAR 1959

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 20 CALENDAR YEAR 1960

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923746	221340	0	307	41302	-.07	-2890	0	0	0	0	223923	923746	923750
2	923746	40590	0	278	41348	-.01	-412	0	0	0	4276	36445	923749	923750
3	923749	19680	0	307	41356	.11	4549	0	0	0	14823	0	923750	923750
4	923750	8980	0	298	41356	.14	5790	0	0	10000	12892	0	923750	923750
5	923750	18190	0	307	41356	.27	11166	0	0	10000	16717	0	923750	923750
6	923750	18400	0	298	41356	.03	1241	0	0	5909	22770	0	923750	923750
7	923750	980	0	307	40851	.37	15115	0	0	10000	22770	0	896538	923750
8	896538	7290	0	307	40067	.23	9215	0	0	10000	22770	0	881536	923750
9	881536	160	0	298	39272	.38	14923	0	0	10000	22770	0	853705	923750
10	853705	10900	0	307	38715	.00	0	0	0	10000	22770	0	851528	923750
11	851528	4960	0	298	38503	.03	1155	0	0	10000	22770	0	842265	923750
12	842265	291600	0	307	39843	-.35	-13944	0	0	0	22770	200982	923750	923750
YEAR TOTALS		643070	0	3619			45908	0	0	75909	208098	461350		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	153850	0	1478	32623	-.07	-2283	0	0	0	16157	138498	557265	557265
2	557265	47410	0	1478	32623	.01	326	0	0	0	18950	26656	557265	557265
3	557265	19040	0	1478	32623	.13	4241	0	0	0	13321	0	557265	557265
4	557265	1360	0	1690	32623	.18	5872	0	0	9000	2798	0	557265	557265
5	557265	2920	0	1690	32623	.28	9134	0	0	9000	1096	0	557265	557265
	557265	4510	0	1901	32623	.13	4241	0	0	9000	7368	0	557265	557265
7	557265	2660	0	2323	32623	.30	9787	0	0	9000	3286	0	553529	557265
8	553529	2840	0	2323	32494	.28	9098	0	0	9000	4968	0	548980	557265
9	548980	1330	0	1901	31307	.35	10957	0	0	9000	18950	0	527502	557265
10	527502	760	0	1690	30062	.12	3607	0	0	9000	18950	0	513015	557265
11	513015	6780	0	1690	29231	.16	4677	0	0	9000	18950	0	503478	557265
12	503478	192930	0	1478	30762	-.39	-11996	0	0	0	18950	130711	557265	557265
YEAR TOTALS		436390	0	21120			47661	0	0	72000	143744	295865		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 20 CALENDAR YEAR 1960

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	4400	0	6681	2001	-.02	-39	0	0	8461	0	0	36583	30365
2	36583	420	0	6681	2093	.06	126	0	0	6387	0	0	36583	30365
3	36583	600	0	6681	2048	.17	348	0	0	3372	0	0	33526	30365
4	33526	910	0	7636	1961	.24	471	0	0	4033	0	0	30362	30365
5	30362	550	0	7636	1908	.25	477	0	0	7563	0	0	30362	30365
6	30362	0	0	8590	1900	.41	779	0	0	9371	0	0	30364	30365
7	30364	520	0	10499	1900	.46	874	0	0	10853	0	0	30364	30365
8	30364	0	0	10499	1900	.50	950	0	0	11449	0	0	30364	30365
9	30364	0	0	8590	1900	.54	1026	0	0	9616	0	0	30364	30365
10	30364	0	0	7636	1906	.20	381	0	0	8016	0	0	30363	30365
11	30363	0	0	7636	1910	.33	630	0	0	8264	0	0	30361	30365
12	30361	310	0	6681	1894	-.17	-321	0	0	6052	0	0	30363	30365
YEAR TOTALS		7710	0	95446			5702	0	0	93437	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	71077	17260	0	707	3595	-.03	-107	0	0	11600	9345	16274	73718	73718
2	73718	6640	0	707	3646	.05	182	0	0	0	5751	0	73718	73718
3	73718	3920	0	707	3646	.17	620	0	0	7731	10324	0	73718	73718
4	73718	2600	0	807	3325	.20	665	0	0	0	18886	0	55960	73718
5	55960	2870	0	807	2836	.26	737	0	0	0	14558	0	42728	73718
	42728	150	0	908	2598	.44	1143	0	0	2051	1143	0	41735	73718
7	41735	3560	0	1110	2598	.57	1481	0	0	11600	11576	0	42728	73718
8	42728	1030	0	1110	2604	.65	1693	0	0	11600	10490	0	42065	73718
9	42065	430	0	908	2565	.69	1770	0	0	10194	9286	0	40725	73718
10	40725	0	0	807	2524	.31	782	0	0	14229	13422	0	39943	73718
11	39943	0	0	807	2492	.36	897	0	0	13981	13174	0	39046	73718
12	39046	0	0	707	2516	-.20	-502	0	0	18627	16269	0	41199	73718
YEAR TOTALS		38460	0	10092			9361	0	0	101613	134224	16274		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 20 CALENDAR YEAR 1960

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	149734	16400	0	428	7694	.00	0	0	0	0	0	0	165706	338276
2	165706	8630	0	428	8000	.08	640	0	0	0	0	0	173268	338276
3	173268	4680	0	428	8141	.17	1384	0	0	0	0	0	176136	338276
4	176136	1420	0	490	8171	.22	1798	0	0	0	0	0	175268	338276
5	175268	0	0	490	8055	.23	1853	4980	0	0	0	0	167945	338276
6	167945	4990	0	551	7723	.51	3939	18709	0	0	0	0	149736	338276
7	149736	3540	0	673	7057	.50	3528	31607	0	0	0	0	117468	338276
8	117468	0	0	673	5961	.61	3636	31827	0	0	0	0	81332	338276
9	81332	2040	0	551	5316	.56	2977	0	0	0	0	0	79844	338276
10	79844	18400	0	490	5579	.19	1060	0	0	0	0	0	96694	338276
11	96694	0	0	490	5820	.40	2328	0	0	0	0	0	93876	338276
12	93876	420	0	428	5778	-.07	-403	0	0	0	0	0	94271	338276
YEAR TOTALS		60520	0	6120			22740	87123	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	29540	0	7444	8924	-.02	-177	10674	0	0	11600	0	139350	139351
2	139350	7740	0	7444	8928	.06	536	0	0	241	0	0	139351	139351
3	139351	4620	0	7444	8928	.16	1428	91	0	4343	0	0	139351	139351
4	139351	6450	0	8507	8928	.24	2143	33	0	4233	0	0	139351	139351
5	139351	7450	4980	8507	8928	.26	2321	1602	0	0	0	0	139351	139351
	139351	5100	18709	9571	8928	.40	3571	8616	0	0	2051	0	139351	139351
7	139351	6450	31607	11698	8928	.47	4196	10563	0	0	11600	0	139351	139351
8	139351	6690	31827	11698	8928	.50	4464	10755	0	0	11600	0	139351	139351
9	139351	620	0	9571	8630	.54	4660	2158	0	1596	0	0	125178	139351
10	125178	3530	0	8507	8317	.21	1747	565	0	6587	0	0	124476	139351
11	124476	3210	0	8507	8251	.32	2640	853	0	6339	0	0	122025	139351
12	122025	5180	0	7444	8408	-.07	-588	0	0	11600	0	0	131949	139351
YEAR TOTALS		86580	87123	106342			26941	45910	0	34939	36851	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 20 CALENDAR YEAR 1960

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	3230	10674	0	3532	-.03	-105	0	0	0	5981	8028	37775	37775
2	37775	850	0	0	3537	.05	177	0	0	0	673	0	37775	37775
3	37775	510	91	0	3537	.17	601	0	0	0	0	0	37775	37775
4	37775	710	33	0	3537	.21	743	0	0	0	0	0	37775	37775
5	37775	820	1602	0	3537	.26	920	0	0	0	1502	0	37775	37775
6	37775	560	8616	0	3537	.42	1486	0	0	0	7690	0	37775	37775
7	37775	710	10563	0	3537	.53	1875	0	0	0	9398	0	37775	37775
8	37775	730	10755	0	3537	.59	2087	0	0	0	9398	0	37775	37775
9	37775	70	2158	0	3537	.63	2228	0	0	0	0	0	37775	37775
10	37775	390	565	0	3537	.27	955	0	0	0	0	0	37775	37775
11	37775	350	853	0	3537	.34	1203	0	0	0	0	0	37775	37775
12	37775	570	0	0	3537	-.21	-742	0	0	0	1312	0	37775	37775
YEAR TOTALS		9500	45910	0			11428	0	0	0	35954	8028		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
	10	27290	0	30000	1	.00	0	0	17619	0	14909	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
YEAR TOTALS		327480	0	360000			0	0	180429	0	147909	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 20 CALENDAR YEAR 1960

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 20 CALENDAR YEAR 1960

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 21 CALENDAR YEAR 1961

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	381900	0	307	41356	-.19	-7857	0	0	0	22770	366680	923750	923750
2	923750	248240	0	278	41356	-.09	-3721	0	0	0	21676	230007	923750	923750
3	923750	131800	0	307	41333	-.03	-1239	0	0	0	0	132733	923749	923750
4	923749	18420	0	298	41356	.26	10753	0	0	10000	17368	0	923750	923750
5	923750	7720	0	307	41356	.21	8685	0	0	10000	12522	0	919956	923750
6	919956	148590	0	298	41286	-.09	-3715	0	0	0	22770	125443	923750	923750
7	923750	60950	0	307	41356	.24	9925	0	0	0	22770	27948	923750	923750
8	923750	2030	0	307	40810	.45	18364	0	0	10000	22770	0	894339	923750
9	894339	3970	0	298	39962	.18	7193	0	0	10000	22770	0	878048	923750
10	878048	5700	0	307	39311	.29	11400	0	0	10000	22770	0	859271	923750
11	859271	89480	0	298	40159	.02	803	0	0	0	22770	1130	923750	923750
12	923750	64340	0	307	41341	-.02	-826	0	0	0	22770	42089	923750	923750
YEAR TOTALS		1163140	0	3619			49765	0	0	50000	233726	926030		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	113120	0	1478	32623	-.14	-4566	0	0	0	18950	97258	557265	557265
2	557265	69880	0	1478	32567	-.05	-1627	0	0	0	18950	51082	557262	557265
3	557262	67590	0	1478	32600	-.02	-651	0	0	0	13091	53669	557265	557265
4	557265	10300	0	1690	32623	.28	9134	0	0	9000	8476	0	557265	557265
5	557265	3370	0	1690	32623	.20	6525	0	0	9000	4155	0	557265	557265
	557265	96410	0	1901	32623	-.08	-2609	0	0	0	18950	78168	557265	557265
7	557265	12490	0	2323	32623	.33	10766	0	0	9000	8401	0	557265	557265
8	557265	730	0	2323	32623	.48	15659	0	0	9000	5234	0	543779	557265
9	543779	1590	0	1901	31077	.24	7458	0	0	9000	18950	0	526060	557265
10	526060	300	0	1690	29773	.29	8634	0	0	9000	18950	0	506086	557265
11	506086	17370	0	1690	29320	-.04	-1172	0	0	9000	18950	0	512988	557265
12	512988	37550	0	1478	30442	.02	609	0	0	9000	18950	0	538501	557265
YEAR TOTALS		430700	0	21120			48160	0	0	72000	172007	280177		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 21 CALENDAR YEAR 1961

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30363	3050	0	6681	1897	-.09	-170	0	0	3462	0	0	30364	30365
2	30364	2550	0	6681	2000	-.03	-59	0	0	10291	0	0	36583	30365
3	36583	3410	0	6681	2093	.04	84	0	0	3355	0	0	36583	30365
4	36583	390	0	7636	2010	.31	623	0	0	1647	0	0	30361	30365
5	30361	270	0	7636	1908	.27	515	0	0	7882	0	0	30362	30365
6	30362	10480	0	8590	1932	-.01	-18	0	0	0	0	0	32270	30365
7	32270	0	0	10499	1932	.43	831	0	0	9424	0	0	30364	30365
8	30364	0	0	10499	1900	.64	1216	0	0	11715	0	0	30364	30365
9	30364	130	0	8590	1910	.32	611	0	0	9068	0	0	30361	30365
10	30361	430	0	7636	1907	.24	458	0	0	7665	0	0	30362	30365
11	30362	240	0	7636	1903	.11	209	0	0	7607	0	0	30364	30365
12	30364	910	0	6681	1903	.09	171	0	0	5942	0	0	30364	30365
YEAR TOTALS		21860	0	95446			4471	0	0	78058	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	41199	1850	0	707	2906	-.19	-551	0	0	21217	2358	0	61752	73718
2	61752	4270	0	707	3417	-.08	-272	0	0	13294	5164	0	73717	73718
3	73717	7430	0	707	3646	.12	438	0	0	1021	7305	0	73718	73718
4	73718	3190	0	807	3583	.34	1218	0	0	4722	9246	0	70359	73718
5	70359	870	0	807	3097	.39	1208	0	0	0	24550	0	44664	73718
	44664	3470	0	908	3109	-.03	-92	0	0	23943	0	0	71261	73718
7	71261	460	0	1110	3087	.48	1482	0	0	0	26030	0	43099	73718
8	43099	430	0	1110	2601	.77	2003	0	0	11600	10490	0	41526	73718
9	41526	220	0	908	2552	.46	1174	0	0	10742	9834	0	40572	73718
10	40572	1740	0	807	2553	.28	715	0	0	14580	13773	0	41597	73718
11	41597	470	0	807	2574	.16	412	0	0	14638	13831	0	41655	73718
12	41655	970	0	707	2601	.07	182	0	0	18737	17519	0	42954	73718
YEAR TOTALS		25370	0	10092			7917	0	0	134494	140100	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 21 CALENDAR YEAR 1961

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	94271	22510	0	428	6162	-.06	-369	0	0	0	0	0	116722	338276
2	116722	4310	0	428	6582	-.01	-65	0	0	0	0	0	120669	338276
3	120669	11930	0	428	6819	.08	546	0	0	0	0	0	131625	338276
4	131625	180	0	490	6952	.33	2294	0	0	0	0	0	129021	338276
5	129021	0	0	490	6870	.30	2061	0	0	0	0	0	126470	338276
6	126470	4080	0	551	6885	.01	69	0	0	0	0	0	129930	338276
7	129930	6960	0	673	6967	.45	3135	1468	0	0	0	0	131614	338276
8	131614	1800	0	673	6332	.65	4116	38530	0	0	0	0	90095	338276
9	90095	1990	0	551	5633	.34	1915	0	0	0	0	0	89619	338276
10	89619	2840	0	490	5639	.27	1523	0	0	0	0	0	90446	338276
11	90446	4540	0	490	5711	.12	685	0	0	0	0	0	93811	338276
12	93811	3120	0	428	5804	.11	638	0	0	0	0	0	95865	338276
YEAR TOTALS		64260	0	6120			16548	39998	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	131949	15270	0	7444	8752	-.11	-962	1388	0	0	0	0	139349	139351
2	139349	6940	0	7444	8920	-.04	-356	0	0	150	0	0	139351	139351
3	139351	13710	0	7444	8928	.05	446	4799	0	0	1021	0	139351	139351
4	139351	9120	0	8507	8928	.32	2857	167	0	2411	0	0	139351	139351
5	139351	4700	0	8507	8928	.28	2500	728	0	7035	0	0	139351	139351
	139351	19250	0	9571	8928	.00	0	5546	0	0	4133	0	139351	139351
7	139351	3800	1468	11698	8928	.44	3928	1242	0	11600	0	0	139351	139351
8	139351	2460	38530	11698	8928	.67	5982	11710	0	0	11600	0	139351	139351
9	139351	1950	0	9571	8722	.35	3053	1276	0	2144	0	0	129545	139351
10	129545	0	0	8507	8416	.26	2188	955	0	6938	0	0	124833	139351
11	124833	4770	0	8507	8369	.10	837	0	0	7021	0	0	127280	139351
12	127280	2820	0	7444	8547	.11	940	0	0	11600	0	0	133316	139351
YEAR TOTALS		84790	39998	106342			21413	27811	0	48899	16754	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 21 CALENDAR YEAR 1961

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	1670	1388	0	3511	-.16	-561	0	0	0	3623	0	37771	37775
2	37771	760	0	0	3527	-.06	-211	0	0	0	967	0	37775	37775
3	37775	1500	4799	0	3537	.09	318	0	0	0	5981	0	37775	37775
4	37775	1000	167	0	3537	.33	1167	0	0	0	0	0	37775	37775
5	37775	510	728	0	3537	.35	1238	0	0	0	0	0	37775	37775
6	37775	2110	5546	0	3535	-.01	-34	0	0	0	7690	0	37775	37775
7	37775	420	1242	0	3537	.47	1662	0	0	0	0	0	37775	37775
8	37775	270	11710	0	3537	.73	2582	0	0	0	9398	0	37775	37775
9	37775	210	1276	0	3537	.42	1486	0	0	0	0	0	37775	37775
10	37775	0	955	0	3537	.27	955	0	0	0	0	0	37775	37775
11	37775	520	0	0	3537	.14	495	0	0	0	25	0	37775	37775
12	37775	310	0	0	3537	.07	248	0	0	0	62	0	37775	37775
YEAR TOTALS		9280	27811	0			9345	0	0	0	27746	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	11710	0	9000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	11710	0	9000	0	10	10
12	10	27290	0	30000	1	.00	0	0	11710	0	9000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	154520	0	122000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 21 CALENDAR YEAR 1961

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 21 CALENDAR YEAR 1961

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 22 CALENDAR YEAR 1962

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	10470	0	307	41308	-.02	-825	0	0	10000	22770	0	921968	923750
2	921968	23700	0	278	41323	.02	826	0	0	1956	22770	0	923750	923750
3	923750	9630	0	307	41177	.15	6177	0	0	10000	22770	0	914126	923750
4	914126	52040	0	298	41177	-.09	-3705	0	0	0	22770	23053	923750	923750
5	923750	14680	0	307	41356	.26	10753	0	0	10000	22770	0	914600	923750
6	914600	56750	0	298	41156	-.04	-1645	0	0	0	17006	31942	923749	923750
7	923749	5840	0	307	41356	.40	16542	0	0	10000	0	0	922740	923750
8	922740	790	0	307	40718	.57	23209	0	0	10000	19623	0	890391	923750
9	890391	10670	0	298	40423	.08	3234	0	0	10000	666	0	906863	923750
10	906863	54630	0	307	41042	.09	3694	0	0	0	22770	10972	923750	923750
11	923750	7080	0	298	41356	.03	1241	0	0	1884	7425	0	923750	923750
12	923750	7510	0	307	41356	.05	2068	0	0	0	5135	0	923750	923750
YEAR TOTALS		253790	0	3619			61569	0	0	63840	186475	65967		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	538501	7330	0	1478	31172	.01	312	0	0	9000	18950	0	534091	557265
2	534091	19070	0	1478	31284	-.01	-312	0	0	9000	18950	0	542045	557265
3	542045	9880	0	1478	31354	.15	4703	0	0	9000	18950	0	535794	557265
4	535794	54410	0	1690	31880	-.09	-2868	0	0	0	18950	15167	557265	557265
5	557265	28750	0	1690	32623	.28	9134	0	0	1024	18950	0	557265	557265
	557265	11020	0	1901	32612	-.01	-325	0	0	0	9444	0	557265	557265
7	557265	55490	0	2323	32623	.25	8156	0	0	0	18950	26061	557265	557265
8	557265	4820	0	2323	32623	.54	17616	0	0	9000	0	0	551146	557265
9	551146	20920	0	1901	32411	.03	972	0	0	7022	18950	0	557265	557265
10	557265	12050	0	1690	32623	.03	979	0	0	0	9381	0	557265	557265
11	557265	29470	0	1690	32623	.04	1305	0	0	0	18950	7525	557265	557265
12	557265	11820	0	1478	32623	.11	3589	0	0	2130	8883	0	557265	557265
YEAR TOTALS		265030	0	21120			43261	0	0	46176	179308	48753		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 22 CALENDAR YEAR 1962

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	180	0	6681	1904	.12	228	0	0	6729	0	0	30364	30365
2	30364	500	0	6681	1904	.15	286	0	0	6466	0	0	30363	30365
3	30363	460	0	6681	1906	.20	381	0	0	6602	0	0	30363	30365
4	30363	420	0	7636	1961	-.03	-58	0	0	10796	0	0	34001	30365
5	34001	820	0	7636	1962	.45	883	0	0	4062	0	0	30364	30365
6	30364	1770	0	8590	2001	.00	0	0	0	13039	0	0	36583	30365
7	36583	540	0	10499	2037	.34	693	0	0	6856	0	0	32787	30365
8	32787	1770	0	10499	1941	.63	1223	0	0	7529	0	0	30364	30365
9	30364	5010	0	8590	2000	-.04	-79	0	0	9721	0	0	36584	36584
10	36584	140	0	7636	2093	.23	481	0	0	7961	0	0	36568	30365
11	36568	220	0	7636	2005	.12	241	0	0	1452	0	0	30363	30365
12	30363	740	0	6681	1906	.20	381	0	0	6322	0	0	30363	30365
YEAR TOTALS		12570	0	95446			4660	0	0	87535	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	42954	730	0	707	2651	.13	345	0	0	17950	16002	0	44580	73718
2	44580	1170	0	707	2811	.16	450	0	0	18213	10226	0	52580	73718
3	52580	930	0	707	3056	.23	703	0	0	18077	10429	0	59748	73718
4	59748	2000	0	807	3385	.02	68	0	0	12845	0	0	73718	73718
5	73718	370	0	807	3646	.54	1969	0	0	18183	16164	0	73331	73718
[illegible]	73331	2470	0	908	3639	.09	328	0	0	7652	8499	0	73718	73718
7	73718	9160	0	1110	3646	.39	1422	0	0	11465	14685	3408	73718	73718
8	73718	9100	0	1110	3387	.76	2574	0	0	0	19265	0	59869	73718
9	59869	10160	0	908	3301	.13	429	0	0	11600	12015	0	68277	73718
10	68277	2070	0	807	3544	.28	992	0	0	5170	0	0	73718	73718
11	73718	1050	0	807	3646	.15	547	0	0	5448	5144	0	73718	73718
12	73718	1570	0	707	3646	.15	547	0	0	10928	9345	1899	73718	73718
YEAR TOTALS		40780	0	10092			10374	0	0	137531	121774	5307		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 22 CALENDAR YEAR 1962

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	95865	0	0	428	5818	.14	815	0	0	0	0	0	94622	338276
2	94622	0	0	428	5771	.19	1096	0	0	0	0	0	93098	338276
3	93098	0	0	428	5717	.21	1201	0	0	0	0	0	91469	338276
4	91469	10320	0	490	5857	.00	0	0	0	0	0	0	101299	338276
5	101299	840	0	490	5983	.48	2872	0	0	0	0	0	98777	338276
6	98777	36170	0	551	6515	.00	0	0	0	0	0	0	134396	338276
7	134396	19920	0	673	7310	.29	2120	0	0	0	0	0	151523	338276
8	151523	0	0	673	7457	.69	5145	0	0	0	0	0	145705	338276
9	145705	22650	0	551	7674	-.06	-459	0	0	0	0	0	168263	338276
10	168263	0	0	490	7930	.30	2379	0	0	0	0	0	165394	338276
11	165394	11580	0	490	8021	.16	1283	0	0	0	0	0	175201	338276
12	175201	8100	0	428	8247	.19	1567	0	0	0	0	0	181306	338276
YEAR TOTALS		109580	0	6120			18019	0	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	133316	4370	0	7444	8801	.11	968	0	0	10077	0	0	139351	139351
2	139351	4490	0	7444	8928	.14	1250	41	0	4245	0	0	139351	139351
3	139351	5010	0	7444	8928	.20	1786	228	0	4448	0	0	139351	139351
4	139351	14930	0	8507	8924	-.02	-177	5205	0	0	1396	0	139350	139351
5	139350	4590	0	8507	8928	.46	4107	1304	0	9329	0	0	139351	139351
	139351	22840	0	9571	8928	.02	179	5438	0	0	7652	0	139351	139351
7	139351	33380	0	11698	8928	.35	3125	7092	0	0	11465	0	139351	139351
8	139351	22530	0	11698	8928	.66	5892	4940	0	0	0	0	139351	139351
9	139351	114630	0	9571	8926	-.01	-88	93547	0	0	11600	0	139351	139351
10	139351	16920	0	8507	8928	.23	2053	5905	0	0	455	0	139351	139351
11	139351	10490	0	8507	8928	.11	982	1001	0	0	0	0	139351	139351
12	139351	23960	0	7444	8928	.19	1696	3892	0	0	10928	0	139351	139351
YEAR TOTALS		278140	0	106342			21773	128593	0	28099	43496	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 22 CALENDAR YEAR 1962

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	480	0	0	3537	.12	424	0	0	0	56	0	37775	37775
2	37775	490	41	0	3537	.15	531	0	0	0	0	0	37775	37775
3	37775	550	228	0	3537	.22	778	0	0	0	0	0	37775	37775
4	37775	1630	5205	0	3537	.00	0	0	0	0	6835	0	37775	37775
5	37775	500	1304	0	3537	.51	1804	0	0	0	0	0	37775	37775
6	37775	2500	5438	0	3537	.07	248	0	0	0	7690	0	37775	37775
7	37775	3650	7092	0	3537	.38	1344	0	0	0	9398	0	37775	37775
8	37775	2460	4940	0	3537	.73	2582	0	0	0	4818	0	37775	37775
9	37775	12540	93547	0	3537	.08	283	0	0	0	7690	98114	37775	37775
10	37775	1850	5905	0	3537	.26	920	0	0	0	6835	0	37775	37775
11	37775	1150	1001	0	3537	.13	460	0	0	0	1691	0	37775	37775
12	37775	2620	3892	0	3537	.15	531	0	0	0	5981	0	37775	37775
YEAR TOTALS		30420	128593	0			9905	0	0	0	50994	98114		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	13666	0	10956	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	13734	0	11024	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	19732	0	17022	0	10	10
10	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
11	10	27290	0	30000	1	.00	0	0	4594	0	1884	0	10	10
12	10	27290	0	30000	1	.00	0	0	4840	0	2130	0	10	10
YEAR TOTALS		327480	0	360000			0	0	142536	0	110016	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 22 CALENDAR YEAR 1962

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 22 CALENDAR YEAR 1962

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 23 CALENDAR YEAR 1963

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	3590	0	307	41356	.09	3722	0	0	10000	9561	0	923750	923750
2	923750	1710	0	278	41356	.10	4136	0	0	10000	10917	0	920129	923750
3	920129	3350	0	307	41278	.13	5366	0	0	10000	10017	0	917789	923750
4	917789	24520	0	298	41245	-.12	-4948	0	0	0	22770	439	923750	923750
5	923750	22040	0	307	41356	.10	4136	0	0	0	4091	13506	923750	923750
6	923750	2050	0	298	41127	.27	11104	0	0	10000	13006	0	911392	923750
7	911392	860	0	307	40311	.48	19349	0	0	10000	22770	0	879826	923750
8	879826	1080	0	307	39046	.63	24599	0	0	10000	22770	0	843230	923750
9	843230	720	0	298	37863	.39	14767	0	0	10000	22770	0	816115	923750
10	816115	1020	0	307	36774	.53	19490	0	0	10000	22770	0	784568	923750
11	784568	460	0	298	35841	.17	6093	0	0	10000	22770	0	765867	923750
12	765867	210	0	307	35229	.04	1409	0	0	10000	22770	0	751591	923750
YEAR TOTALS		61610	0	3619			109223	0	0	100000	206982	13945		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	5050	0	1478	32623	.12	3915	0	0	9000	8657	0	557265	557265
2	557265	740	0	1478	32623	.16	5220	0	0	9000	3042	0	557265	557265
3	557265	1210	0	1478	32623	.12	3915	0	0	9000	4817	0	557265	557265
4	557265	71670	0	1690	32623	-.17	-5545	0	0	0	18950	56575	557265	557265
5	557265	31280	0	1690	32623	.10	3262	0	0	0	18950	7378	557265	557265
	557265	230	0	1901	32623	.30	9787	0	0	9000	0	0	554807	557265
7	554807	110	0	2323	31970	.49	15665	0	0	9000	5075	0	540854	557265
8	540854	140	0	2323	30836	.66	20352	0	0	9000	5293	0	522026	557265
9	522026	70	0	1901	29331	.44	12906	0	0	9000	18950	0	497339	557265
10	497339	180	0	1690	27913	.60	16748	0	0	9000	18950	0	469131	557265
11	469131	0	0	1690	27002	.25	6750	0	0	9000	18950	0	450741	557265
12	450741	0	0	1478	26373	.09	2374	0	0	9000	18950	0	436939	557265
YEAR TOTALS		110680	0	21120			95349	0	0	90000	140584	63953		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 23 CALENDAR YEAR 1963

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30363	750	0	6681	1904	.15	286	0	0	6217	0	0	30363	30365
2	30363	780	0	6681	1906	.19	362	0	0	6263	0	0	30363	30365
3	30363	0	0	6681	1907	.24	458	0	0	7138	0	0	30362	30365
4	30362	4520	0	7636	1904	.01	19	0	0	3390	0	0	30617	30365
5	30617	20	0	7636	2005	.14	281	0	0	13863	0	0	36583	30365
6	36583	0	0	8590	2012	.37	744	0	0	3111	0	0	30360	30365
7	30360	220	0	10499	1900	.67	1273	0	0	11556	0	0	30364	30365
8	30364	150	0	10499	1900	.75	1425	0	0	11774	0	0	30364	30365
9	30364	1300	0	8590	1900	.50	950	0	0	8240	0	0	30364	30365
10	30364	40	0	7636	1900	.54	1026	0	0	8622	0	0	30364	30365
11	30364	0	0	7636	1906	.20	381	0	0	8016	0	0	30363	30365
12	30363	0	0	6681	1903	.10	190	0	0	6872	0	0	30364	30365
YEAR TOTALS		7780	0	95446			7395	0	0	95062	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	73718	760	0	707	3298	.14	462	0	0	0	19049	0	54260	73718
2	54260	740	0	707	2808	.19	534	0	0	0	11031	0	42728	73718
3	42728	1340	0	707	2617	.29	759	0	0	9471	9345	0	42728	73718
4	42728	5380	0	807	3119	.04	125	0	0	26542	0	0	73718	73718
5	73718	4700	0	807	3646	.16	583	0	0	6987	10297	0	73718	73718
	73718	880	0	908	3127	.42	1313	0	0	0	29078	0	43299	73718
7	43299	900	0	1110	2609	.94	2452	0	0	11600	10490	0	41747	73718
8	41747	480	0	1110	2546	.86	2190	0	0	11600	10490	0	40037	73718
9	40037	0	0	908	2487	.53	1318	0	0	11570	10662	0	38719	73718
10	38719	280	0	807	2439	.59	1439	0	0	13623	12816	0	37560	73718
11	37560	0	0	807	2410	.14	337	0	0	14229	13422	0	37223	73718
12	37223	0	0	707	2399	.10	240	0	0	17807	17100	0	36983	73718
YEAR TOTALS		15460	0	10092			11752	0	0	123429	153780	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 23 CALENDAR YEAR 1963

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	181306	480	0	428	8320	.16	1331	0	0	0	0	0	180027	338276
2	180027	650	0	428	8095	.19	1538	12418	0	0	0	0	166293	338276
3	166293	1200	0	428	7661	.25	1915	18528	0	0	0	0	146622	338276
4	146622	20860	0	490	7663	.07	536	0	0	0	0	0	166456	338276
5	166456	0	0	490	7902	.12	948	0	0	0	0	0	165018	338276
6	165018	0	0	551	7839	.36	2822	0	0	0	0	0	161645	338276
7	161645	0	0	673	7178	.67	4809	42041	0	0	0	0	114122	338276
8	114122	0	0	673	5654	.73	4127	42507	0	0	0	0	66815	338276
9	66815	0	0	551	4715	.46	2169	0	0	0	0	0	64095	338276
10	64095	0	0	490	4597	.48	2207	0	0	0	0	0	61398	338276
11	61398	0	0	490	4512	.16	722	0	0	0	0	0	60186	338276
12	60186	620	0	428	4477	.13	582	0	0	0	0	0	59796	338276
YEAR TOTALS		23810	0	6120			23706	115494	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	1130	0	7444	8928	.15	1339	375	0	8028	0	0	139351	139351
2	139351	1440	12418	7444	8928	.18	1607	4807	0	0	0	0	139351	139351
3	139351	6840	18528	7444	8928	.25	2232	6221	0	0	9471	0	139351	139351
4	139351	20820	0	8507	8928	.00	0	4626	0	0	7687	0	139351	139351
5	139351	21730	0	8507	8928	.14	1250	4986	0	0	6987	0	139351	139351
	139351	4620	0	9571	8928	.39	3482	940	0	9373	0	0	139351	139351
7	139351	0	42041	11698	8928	.71	6339	12404	0	0	11600	0	139351	139351
8	139351	0	42507	11698	8928	.77	6875	12334	0	0	11600	0	139351	139351
9	139351	2170	0	9571	8708	.51	4441	1599	0	2972	0	0	128882	139351
10	128882	0	0	8507	8293	.56	4644	2051	0	5981	0	0	119661	139351
11	119661	320	0	8507	8021	.20	1604	536	0	6587	0	0	115921	139351
12	115921	0	0	7444	7990	.13	1039	354	0	11119	0	0	118203	139351
YEAR TOTALS		59070	115494	106342			34852	51233	0	44060	47345	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 23 CALENDAR YEAR 1963

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	120	375	0	3537	.14	495	0	0	0	0	0	37775	37775
2	37775	160	4807	0	3537	.19	672	0	0	0	4295	0	37775	37775
3	37775	750	6221	0	3537	.28	990	0	0	0	5981	0	37775	37775
4	37775	2280	4626	0	3537	.02	71	0	0	0	6835	0	37775	37775
5	37775	2380	4986	0	3537	.15	531	0	0	0	6835	0	37775	37775
6	37775	510	940	0	3537	.41	1450	0	0	0	0	0	37775	37775
7	37775	0	12404	0	3537	.85	3006	0	0	0	9398	0	37775	37775
8	37775	0	12334	0	3537	.83	2936	0	0	0	9398	0	37775	37775
9	37775	240	1599	0	3537	.52	1839	0	0	0	0	0	37775	37775
10	37775	0	2051	0	3537	.58	2051	0	0	0	0	0	37775	37775
11	37775	30	536	0	3537	.16	566	0	0	0	0	0	37775	37775
12	37775	0	354	0	3537	.10	354	0	0	0	0	0	37775	37775
YEAR TOTALS		6470	51233	0			14961	0	0	0	42742	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	222520	0	190000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 23   CALENDAR YEAR 1963

DEMAND NODE 9   MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10   RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 23 CALENDAR YEAR 1963

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 24 CALENDAR YEAR 1964

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	751591	560	0	307	34687	.07	2428	0	0	10000	22770	0	736646	923750
2	736646	880	0	278	34159	.04	1366	0	0	10000	22770	0	723112	923750
3	723112	3480	0	307	33742	.01	337	0	0	10000	22770	0	713178	923750
4	713178	5060	0	298	33406	.03	1002	0	0	10000	22770	0	704168	923750
5	704168	2350	0	307	32992	.11	3629	0	0	10000	22770	0	689812	923750
6	689812	1030	0	298	32371	.37	11977	0	0	10000	19378	0	669189	923750
7	669189	1790	0	307	31437	.66	20748	0	0	10000	22770	0	637154	923750
8	637154	1340	0	307	30417	.45	13688	0	0	10000	22770	0	611729	923750
9	611729	220	0	298	29659	.15	4449	0	0	10000	22770	0	594432	923750
10	594432	1220	0	307	28947	.38	11000	0	0	10000	22770	0	571575	923750
11	571575	9040	0	298	28660	.06	1720	0	0	10000	10338	0	578259	923750
12	578259	790	0	307	28507	.11	3136	0	0	10000	22770	0	562836	923750
YEAR TOTALS		27760	0	3619			75480	0	0	120000	257416	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	436939	20	0	1478	25824	.11	2841	0	0	9000	18950	0	422690	557265
2	422690	570	0	1478	25314	.04	1013	0	0	9000	18950	0	410819	557265
3	410819	4440	0	1478	24945	.00	0	0	0	9000	18950	0	403831	557265
4	403831	34640	0	1690	25243	.03	757	0	0	9000	18950	0	426074	557265
5	426074	6300	0	1690	25559	.03	767	0	0	9000	18950	0	419967	557265
	419967	310	0	1901	25400	.37	9398	0	0	9000	0	0	417978	557265
7	417978	170	0	2323	25115	.68	17078	0	0	9000	2385	0	405362	557265
8	405362	70	0	2323	24396	.49	11954	0	0	9000	18950	0	381205	557265
9	381205	5540	0	1901	23753	.10	2375	0	0	9000	18950	0	372519	557265
10	372519	310	0	1690	23144	.41	9489	0	0	9000	18950	0	351700	557265
11	351700	5820	0	1690	22938	.05	1147	0	0	9000	0	0	363683	557265
12	363683	260	0	1478	22899	.11	2519	0	0	9000	18950	0	349996	557265
YEAR TOTALS		58450	0	21120			59338	0	0	108000	172935	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 24 CALENDAR YEAR 1964

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	1040	0	6681	1900	.01	19	0	0	5660	0	0	30364	30365
2	30364	310	0	6681	1903	.10	190	0	0	6561	0	0	30364	30365
3	30364	4250	0	6681	1901	.04	76	0	0	2507	0	0	30364	30365
4	30364	3120	0	7636	1903	.10	190	0	0	4706	0	0	30364	30365
5	30364	1710	0	7636	1903	.11	209	0	0	6135	0	0	30364	30365
6	30364	0	0	8590	1900	.47	893	0	0	9483	0	0	30364	30365
7	30364	0	0	10499	1900	.88	1672	0	0	12171	0	0	30364	30365
8	30364	590	0	10499	1900	.60	1140	0	0	11049	0	0	30364	30365
9	30364	3910	0	8590	1901	.03	57	0	0	4737	0	0	30364	30365
10	30364	10	0	7636	1900	.41	779	0	0	8405	0	0	30364	30365
11	30364	5980	0	7636	1898	-.06	-113	0	0	1543	0	0	30364	30365
12	30364	670	0	6681	1906	.19	362	0	0	6372	0	0	30363	30365
YEAR TOTALS		21590	0	95446			5474	0	0	79329	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36983	120	0	707	2424	-.07	-169	0	0	19019	17091	0	38493	73718
2	38493	410	0	707	2458	.07	172	0	0	18118	17411	0	38731	73718
3	38731	2430	0	707	2653	.03	80	0	0	22172	13616	0	48930	73718
4	48930	1830	0	807	3060	.13	398	0	0	17539	3418	0	63676	73718
5	63676	1150	0	807	3399	.24	816	0	0	16110	8745	0	70568	73718
[illegible]	70568	0	0	908	3154	.53	1672	0	0	0	19785	0	48203	73718
7	48203	430	0	1110	2708	.96	2600	0	0	11600	13795	0	42728	73718
8	42728	690	0	1110	2597	.67	1740	0	0	3892	2782	0	41678	73718
9	41678	5010	0	908	2599	.07	182	0	0	15073	17822	0	42849	73718
10	42849	110	0	807	2605	.37	964	0	0	13840	13033	0	41995	73718
11	41995	8640	0	807	2741	-.08	-218	0	0	11600	10680	0	50966	73718
12	50966	2560	0	707	2992	.20	598	0	0	18307	13335	0	57193	73718
YEAR TOTALS		23380	0	10092			8835	0	0	167270	151513	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 24 CALENDAR YEAR 1964

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	350	0	0	3530	-.04	-140	0	0	0	490	0	37775	37775
2	37775	320	0	0	3537	.08	283	0	0	0	37	0	37775	37775
3	37775	780	0	0	3537	.03	106	0	0	0	674	0	37775	37775
4	37775	1310	2531	0	3537	.12	424	0	0	0	3417	0	37775	37775
5	37775	850	0	0	3537	.21	743	0	0	0	107	0	37775	37775
6	37775	1540	264	0	3537	.51	1804	0	0	0	0	0	37775	37775
7	37775	0	12687	0	3537	.93	3289	0	0	0	9398	0	37775	37775
8	37775	480	8435	0	3537	.65	2299	0	0	0	6616	0	37775	37775
9	37775	1680	0	0	3537	.06	212	0	0	0	1468	0	37775	37775
10	37775	10	1369	0	3537	.39	1379	0	0	0	0	0	37775	37775
11	37775	4820	13596	0	3525	-.07	-246	0	0	0	6835	11828	37774	37775
12	37774	240	433	0	3537	.19	672	0	0	0	0	0	37775	37775
YEAR TOTALS		12380	39315	0			10825	0	0	0	29042	11828		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	260520	0	228000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 24 CALENDAR YEAR 1964

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 24 CALENDAR YEAR 1964

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 25 CALENDAR YEAR 1965

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	562836	6510	0	307	28342	.03	850	0	0	10000	9386	0	568803	923750
2	568803	54190	0	278	29519	-.15	-4427	0	0	10000	7696	0	629446	923750
3	629446	26820	0	307	30841	.01	308	0	0	10000	22354	0	643297	923750
4	643297	12600	0	298	30974	.19	5885	0	0	10000	22770	0	636944	923750
5	636944	381920	0	307	36032	-.38	-13691	0	0	0	0	108498	923750	923750
6	923750	12640	0	298	41356	.29	11993	0	0	10000	11247	0	922852	923750
7	922852	1790	0	307	40645	.62	25200	0	0	10000	22770	0	886365	923750
8	886365	1880	0	307	39365	.54	21257	0	0	10000	22770	0	853911	923750
9	853911	1490	0	298	38420	.18	6916	0	0	10000	22770	0	835417	923750
10	835417	630	0	307	37643	.29	10916	0	0	10000	22770	0	812054	923750
11	812054	4450	0	298	37035	.02	741	0	0	10000	22770	0	802695	923750
12	802695	880	0	307	36683	-.07	-2567	0	0	10000	22770	0	793065	923750
YEAR TOTALS		505800	0	3619			63381	0	0	110000	210073	108498		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	349996	4690	0	1478	22848	.03	685	0	0	9000	0	0	361523	557265
2	361523	92540	0	1478	25199	-.18	-4535	0	0	9000	0	0	466120	557265
3	466120	6360	0	1478	27494	.04	1100	0	0	9000	0	0	478902	557265
4	478902	1850	0	1690	27537	.19	5232	0	0	9000	14509	0	468321	557265
5	468321	152580	0	1690	29546	-.41	-12113	0	0	0	8795	65264	557265	557265
	557265	3080	0	1901	32623	.27	8808	0	0	9000	1371	0	557265	557265
7	557265	210	0	2323	32623	.60	19574	0	0	9000	1080	0	543498	557265
8	543498	70	0	2323	30706	.51	15660	0	0	9000	18950	0	515635	557265
9	515635	8530	0	1901	29505	.12	3541	0	0	9000	18950	0	508773	557265
10	508773	80	0	1690	28591	.28	8005	0	0	9000	18950	0	489208	557265
11	489208	7910	0	1690	28041	.06	1682	0	0	9000	18950	0	483796	557265
12	483796	110	0	1478	27714	.00	0	0	0	9000	18950	0	472478	557265
YEAR TOTALS		278010	0	21120			47639	0	0	99000	120505	65264		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 25 CALENDAR YEAR 1965

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30363	5030	0	6681	1900	.02	38	0	0	1690	0	0	30364	30365
2	30364	10340	0	6681	1962	-.09	-176	0	0	0	0	0	34199	30365
3	34199	520	0	6681	1970	.14	276	0	0	2601	0	0	30363	30365
4	30363	880	0	7636	1905	.16	305	0	0	7061	0	0	30363	30365
5	30363	16710	0	7636	1993	-.27	-537	0	0	0	0	3393	36581	30365
6	36581	250	0	8590	2010	.30	603	0	0	2723	0	0	30361	30365
7	30361	0	0	10499	1900	.66	1254	0	0	11756	0	0	30364	30365
8	30364	0	0	10499	1900	.49	931	0	0	11430	0	0	30364	30365
9	30364	590	0	8590	1910	.31	592	0	0	8589	0	0	30361	30365
10	30361	340	0	7636	1909	.28	535	0	0	7831	0	0	30361	30365
11	30361	550	0	7636	1904	.15	286	0	0	7374	0	0	30363	30365
12	30363	120	0	6681	1903	.10	190	0	0	6752	0	0	30364	30365
YEAR TOTALS		35330	0	95446			4297	0	0	67807	0	3393		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	57193	7080	0	707	3069	.00	0	0	0	1761	9345	0	55982	73718
2	55982	22590	0	707	3318	-.14	-464	0	0	5840	9345	1107	73717	73718
3	73717	5980	0	707	3646	.16	583	0	0	2712	7401	0	73718	73718
4	73718	4170	0	807	3646	.17	620	0	0	10743	13486	0	73718	73718
5	73718	32560	0	807	3646	-.34	-1239	0	0	11600	10680	33912	73718	73718
	73718	4770	0	908	3242	.42	1362	0	0	0	25527	0	50691	73718
7	50691	1010	0	1110	2749	.86	2364	0	0	9186	14685	0	42728	73718
8	42728	200	0	1110	2591	.60	1555	0	0	3511	2401	0	41373	73718
9	41373	2250	0	908	2584	.48	1240	0	0	11221	10313	0	42383	73718
10	42383	520	0	807	2599	.29	754	0	0	14414	13607	0	42149	73718
11	42149	620	0	807	2601	.12	312	0	0	14871	14064	0	42457	73718
12	42457	450	0	707	2612	.04	104	0	0	17927	17295	0	42728	73718
YEAR TOTALS		82200	0	10092			7191	0	0	103786	148149	35019		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 25 CALENDAR YEAR 1965

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	97123	1870	0	428	5903	.04	236	0	0	0	0	0	98329	338276
2	98329	2560	0	428	5960	.00	0	0	0	0	0	0	100461	338276
3	100461	600	0	428	5982	.17	1017	0	0	0	0	0	99616	338276
4	99616	1850	0	490	5979	.12	717	0	0	0	0	0	100259	338276
5	100259	44270	0	490	6722	-.28	-1881	0	0	0	0	0	145920	338276
6	145920	2220	0	551	7381	.29	2140	0	0	0	0	0	145449	338276
7	145449	0	0	673	6788	.65	4412	35455	0	0	0	0	104909	338276
8	104909	1260	0	673	6108	.46	2810	0	0	0	0	0	102686	338276
9	102686	15000	0	551	6262	.40	2505	0	0	0	0	0	114630	338276
10	114630	1890	0	490	6450	.24	1548	0	0	0	0	0	114482	338276
11	114482	470	0	490	6426	.21	1349	0	0	0	0	0	113113	338276
12	113113	0	0	428	6383	.14	894	0	0	0	0	0	111791	338276
YEAR TOTALS		71990	0	6120			15747	35455	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	13880	0	7444	8928	.02	179	4496	0	0	1761	0	139351	139351
2	139351	16040	0	7444	8907	-.11	-979	3737	0	0	5840	0	139349	139351
3	139349	7040	0	7444	8928	.14	1250	0	0	1656	0	0	139351	139351
4	139351	3700	0	8507	8928	.18	1607	237	0	6651	0	0	139351	139351
5	139351	30300	0	8507	8928	-.28	-2499	12692	0	0	11600	0	139351	139351
	139351	7170	0	9571	8928	.32	2857	564	0	5822	0	0	139351	139351
7	139351	3710	35455	11698	8928	.72	6428	11853	0	0	9186	0	139351	139351
8	139351	0	0	11698	8396	.54	4534	9048	0	0	0	0	114071	139351
9	114071	13300	0	9571	7942	.33	2621	36	0	2623	0	0	117766	139351
10	117766	3000	0	8507	7983	.29	2315	696	0	6772	0	0	116020	139351
11	116020	4500	0	8507	7993	.13	1039	0	0	7295	0	0	118269	139351
12	118269	4060	0	7444	8189	.14	1146	0	0	11577	0	0	125316	139351
YEAR TOTALS		106700	35455	106342			20498	43359	0	42396	28387	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 25 CALENDAR YEAR 1965

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	1520	4496	0	3537	.01	35	0	0	0	5981	0	37775	37775
2	37775	1750	3737	0	3514	-.14	-491	0	0	0	5981	0	37772	37775
3	37772	770	0	0	3537	.15	531	0	0	0	236	0	37775	37775
4	37775	400	237	0	3537	.18	637	0	0	0	0	0	37775	37775
5	37775	3310	12692	0	3537	-.32	-1131	0	0	0	6835	10298	37775	37775
6	37775	780	564	0	3537	.38	1344	0	0	0	0	0	37775	37775
7	37775	410	11853	0	3537	.81	2865	0	0	0	9398	0	37775	37775
8	37775	0	9048	0	3537	.58	2051	0	0	0	6997	0	37775	37775
9	37775	1450	36	0	3537	.42	1486	0	0	0	0	0	37775	37775
10	37775	330	696	0	3537	.29	1026	0	0	0	0	0	37775	37775
11	37775	490	0	0	3537	.12	424	0	0	0	66	0	37775	37775
12	37775	440	0	0	3537	.05	177	0	0	0	263	0	37775	37775
YEAR TOTALS		11650	43359	0			8954	0	0	0	35757	10298		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	241520	0	209000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 25 CALENDAR YEAR 1965

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 25 CALENDAR YEAR 1965

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 26 CALENDAR YEAR 1966

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	793065	1330	0	307	36266	.03	1088	0	0	10000	22770	0	780230	923750
2	780230	20170	0	278	36367	.00	0	0	0	10000	11569	0	798553	923750
3	798553	5520	0	307	36647	.12	4398	0	0	10000	14098	0	795270	923750
4	795270	543110	0	298	38971	-.15	-5845	0	0	0	0	420177	923750	923750
5	923750	251710	0	307	41356	.05	2068	0	0	0	0	249335	923750	923750
6	923750	3220	0	298	41356	.36	14888	0	0	10000	10325	0	911459	923750
7	911459	1860	0	307	40347	.46	18560	0	0	10000	22770	0	881682	923750
8	881682	6010	0	307	39465	.27	10656	0	0	10000	22770	0	863959	923750
9	863959	5570	0	298	39199	-.02	-783	0	0	10000	12649	0	867365	923750
10	867365	2900	0	307	39152	.31	12137	0	0	10000	6423	0	861398	923750
11	861398	1030	0	298	38715	.30	11614	0	0	10000	16699	0	843817	923750
12	843817	920	0	307	38021	.20	7604	0	0	10000	22770	0	824056	923750
YEAR TOTALS		843350	0	3619			76385	0	0	100000	162843	669512		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	472478	7190	0	1478	27415	-.01	-273	0	0	9000	18950	0	468513	557265
2	468513	43150	0	1478	28356	-.05	-1417	0	0	9000	0	0	520602	557265
3	520602	4480	0	1478	30407	.09	2737	0	0	9000	0	0	529867	557265
4	529867	399020	0	1690	31675	-.22	-6968	0	0	0	10585	366315	557265	557265
5	557265	147350	0	1690	32623	.06	1957	0	0	0	13264	130439	557265	557265
	557265	2550	0	1901	32623	.36	11744	0	0	9000	0	0	555170	557265
7	555170	1100	0	2323	32550	.45	14647	0	0	9000	660	0	547640	557265
8	547640	2970	0	2323	31994	.21	6719	0	0	9000	1856	0	548712	557265
9	548712	5900	0	1901	32282	-.04	-1290	0	0	9000	5738	0	557263	557265
10	557263	5740	0	1690	32623	.24	7830	0	0	9000	5218	0	557265	557265
11	557265	130	0	1690	32623	.24	7830	0	0	9000	0	0	556875	557265
12	556875	340	0	1478	32090	.11	3530	0	0	9000	18950	0	542257	557265
YEAR TOTALS		619920	0	21120			47046	0	0	90000	75221	496754		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 26 CALENDAR YEAR 1966

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	0	0	6681	1898	-.04	-75	0	0	6606	0	0	30364	30365
2	30364	2790	0	6681	1899	-.01	-18	0	0	3873	0	0	30364	30365
3	30364	640	0	6681	1906	.19	362	0	0	6402	0	0	30363	30365
4	30363	22380	0	7636	2001	.02	40	0	0	0	0	8484	36583	30365
5	36583	3440	0	7636	2093	.13	272	0	0	4469	0	0	36584	36584
6	36584	2740	0	8590	2001	.40	800	0	0	430	0	0	30364	30365
7	30364	170	0	10499	1900	.53	1007	0	0	11336	0	0	30364	30365
8	30364	1650	0	10499	1900	.40	760	0	0	9609	0	0	30364	30365
9	30364	1070	0	8590	1901	.05	95	0	0	7615	0	0	30364	30365
10	30364	5360	0	7636	1909	.30	573	0	0	2846	0	0	30361	30365
11	30361	210	0	7636	1908	.25	477	0	0	7904	0	0	30362	30365
12	30362	230	0	6681	1903	.10	190	0	0	6643	0	0	30364	30365
YEAR TOTALS		40680	0	95446			4483	0	0	67733	0	8484		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	42728	110	0	707	2623	-.01	-25	0	0	18073	17107	0	43122	73718
2	43122	2260	0	707	2624	-.02	-51	0	0	7347	9345	0	42728	73718
3	42728	1530	0	707	2617	.17	445	0	0	8967	9345	0	42728	73718
4	42728	29430	0	807	3119	.11	343	0	0	11600	8890	0	73718	73718
5	73718	38170	0	807	3646	.20	729	0	0	11600	10680	37554	73718	73718
	73718	16310	0	908	3646	.45	1641	0	0	9717	12015	11463	73718	73718
7	73718	1550	0	1110	3119	.53	1653	0	0	0	29777	0	42728	73718
8	42728	2450	0	1110	2617	.45	1178	0	0	11600	11762	0	42728	73718
9	42728	760	0	908	2617	.12	314	0	0	11600	11138	0	42728	73718
10	42728	1910	0	807	2617	.31	811	0	0	10388	10680	0	42728	73718
11	42728	540	0	807	2614	.26	680	0	0	11487	10680	0	42588	73718
12	42588	540	0	707	2712	.16	434	0	0	18036	11427	0	48596	73718
YEAR TOTALS		95560	0	10092			8152	0	0	130415	152846	49017		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 26 CALENDAR YEAR 1966

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	111791	0	0	428	6356	-.01	-63	0	0	0	0	0	111426	338276
2	111426	3770	0	428	6228	.02	125	10907	0	0	0	0	103736	338276
3	103736	4790	0	428	5879	.26	1529	16250	0	0	0	0	90319	338276
4	90319	53780	0	490	6520	.07	456	0	0	0	0	0	143153	338276
5	143153	32140	0	490	7711	.15	1157	0	0	0	0	0	173646	338276
6	173646	0	0	551	8061	.38	3063	0	0	0	0	0	170032	338276
7	170032	0	0	673	7923	.65	5150	1191	0	0	0	0	163018	338276
8	163018	0	0	673	7418	.46	3412	27705	0	0	0	0	131228	338276
9	131228	13580	0	551	6981	.04	279	12755	0	0	0	0	131223	338276
10	131223	0	0	490	6696	.35	2344	15054	0	0	0	0	113335	338276
11	113335	0	0	490	6032	.27	1629	21590	0	0	0	0	89626	338276
12	89626	0	0	428	5606	.13	729	0	0	0	0	0	88469	338276
YEAR TOTALS		108060	0	6120			19810	105452	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	125316	4000	0	7444	8509	-.02	-169	0	0	11600	0	0	133641	139351
2	133641	13820	10907	7444	8804	-.02	-175	4401	0	0	7347	0	139351	139351
3	139351	7530	16250	7444	8928	.18	1607	5762	0	0	8967	0	139351	139351
4	139351	31670	0	8507	8928	.00	0	11563	0	0	11600	0	139351	139351
5	139351	106320	0	8507	8928	.16	1428	84785	0	0	11600	0	139351	139351
	139351	29130	0	9571	8928	.42	3750	6092	0	0	9717	0	139351	139351
7	139351	10290	1191	11698	8928	.53	4732	745	0	5694	0	0	139351	139351
8	139351	8900	27705	11698	8928	.38	3393	9914	0	0	11600	0	139351	139351
9	139351	15290	12755	9571	8928	.06	536	6338	0	0	11600	0	139351	139351
10	139351	13110	15054	8507	8928	.31	2768	6501	0	0	10388	0	139351	139351
11	139351	7640	21590	8507	8928	.26	2321	6915	0	0	11487	0	139351	139351
12	139351	3330	0	7444	8928	.13	1161	171	0	5446	0	0	139351	139351
YEAR TOTALS		251030	105452	106342			21352	143187	0	22740	94306	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 26 CALENDAR YEAR 1966

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	440	0	0	3535	-.01	-34	0	0	0	474	0	37775	37775
2	37775	1510	4401	0	3534	-.02	-70	0	0	0	5981	0	37775	37775
3	37775	820	5762	0	3537	.17	601	0	0	0	5981	0	37775	37775
4	37775	3460	11563	0	3537	.06	212	0	0	0	6835	7976	37775	37775
5	37775	11630	84785	0	3537	.19	672	0	0	0	6835	88908	37775	37775
6	37775	3190	6092	0	3537	.45	1592	0	0	0	7690	0	37775	37775
7	37775	1130	745	0	3537	.53	1875	0	0	0	0	0	37775	37775
8	37775	970	9914	0	3537	.42	1486	0	0	0	9398	0	37775	37775
9	37775	1670	6338	0	3537	.09	318	0	0	0	7690	0	37775	37775
10	37775	1430	6501	0	3537	.31	1096	0	0	0	6835	0	37775	37775
11	37775	840	6915	0	3537	.26	920	0	0	0	6835	0	37775	37775
12	37775	360	171	0	3537	.15	531	0	0	0	0	0	37775	37775
YEAR TOTALS		27450	143187	0			9199	0	0	0	64554	96884		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	222520	0	190000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 26 CALENDAR YEAR 1966

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 26 CALENDAR YEAR 1966

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 27 CALENDAR YEAR 1967

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	824056	670	0	307	37362	.09	3363	0	0	10000	22770	0	808286	923750
2	808286	650	0	278	36737	.15	5511	0	0	10000	22770	0	790377	923750
3	790377	1460	0	307	36021	.25	9005	0	0	10000	22770	0	769755	923750
4	769755	9310	0	298	35575	-.01	-355	0	0	10000	22770	0	766352	923750
5	766352	4720	0	307	35331	.04	1413	0	0	10000	22770	0	756582	923750
6	756582	38790	0	298	35515	.31	11010	0	0	10000	17800	0	776264	923750
7	776264	7470	0	307	35506	.41	14557	0	0	10000	22770	0	756100	923750
8	756100	1310	0	307	34573	.53	18324	0	0	10000	22770	0	726009	923750
9	726009	63710	0	298	34909	.07	2444	0	0	10000	22770	0	774207	923750
10	774207	222750	0	307	38580	.22	8488	0	0	0	22770	41642	923750	923750
11	923750	166310	0	298	41356	.10	4136	0	0	0	22770	139106	923750	923750
12	923750	122500	0	307	41356	.08	3308	0	0	0	22770	96115	923750	923750
YEAR TOTALS		639650	0	3619			81204	0	0	90000	268270	276863		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	542257	430	0	1478	31107	.09	2800	0	0	9000	18950	0	528459	557265
2	528459	260	0	1478	30181	.06	1811	0	0	9000	18950	0	515480	557265
3	515480	2160	0	1478	29239	.17	4971	0	0	9000	18950	0	501241	557265
4	501241	13590	0	1690	28934	-.12	-3471	0	0	9000	18950	0	506662	557265
5	506662	20450	0	1690	29487	-.06	-1768	0	0	9000	18950	0	517240	557265
	517240	26490	0	1901	30613	.38	11633	0	0	9000	0	0	539196	557265
7	539196	11100	0	2323	31589	.35	11056	0	0	9000	481	0	545436	557265
8	545436	180	0	2323	30926	.43	13298	0	0	9000	18950	0	520045	557265
9	520045	13820	0	1901	30084	.03	903	0	0	9000	18950	0	521111	557265
10	521111	255270	0	1690	31372	.11	3451	0	0	0	18950	195025	557265	557265
11	557265	56860	0	1690	32623	.10	3262	0	0	0	18950	32958	557265	557265
12	557265	96090	0	1478	32623	.04	1305	0	0	0	18950	74357	557265	557265
YEAR TOTALS		496700	0	21120			49251	0	0	81000	189981	302340		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 27 CALENDAR YEAR 1967

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	400	0	6681	1906	.20	381	0	0	6661	0	0	30363	30365
2	30363	0	0	6681	1903	.10	190	0	0	6872	0	0	30364	30365
3	30364	560	0	6681	1906	.21	400	0	0	6520	0	0	30363	30365
4	30363	900	0	7636	1902	.06	114	0	0	6851	0	0	30364	30365
5	30364	750	0	7636	1904	.13	248	0	0	7133	0	0	30363	30365
6	30363	1560	0	8590	1900	.46	874	0	0	7905	0	0	30364	30365
7	30364	330	0	10499	1900	.52	988	0	0	11157	0	0	30364	30365
8	30364	0	0	10499	1900	.61	1159	0	0	11658	0	0	30364	30365
9	30364	1620	0	8590	1907	.22	420	0	0	7388	0	0	30362	30365
10	30362	740	0	7636	1906	.19	362	0	0	7259	0	0	30363	30365
11	30363	110	0	7636	1902	.08	152	0	0	7679	0	0	30364	30365
12	30364	660	0	6681	1901	.04	76	0	0	6097	0	0	30364	30365
YEAR TOTALS		7630	0	95446			5364	0	0	93180	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	48596	840	0	707	2904	.22	639	0	0	18018	11894	0	54214	73718
2	54214	170	0	707	3088	.14	432	0	0	17807	10827	0	60225	73718
3	60225	1500	0	707	3278	.28	918	0	0	18159	11843	0	66416	73718
4	66416	620	0	807	3477	.11	382	0	0	15394	9616	0	71625	73718
5	71625	890	0	807	3607	.25	902	0	0	15112	12715	0	73203	73718
	73203	1440	0	908	3629	.42	1524	0	0	11600	12015	0	71796	73718
7	71796	1060	0	1110	3089	.55	1699	0	0	0	27319	0	42728	73718
8	42728	50	0	1110	2585	.66	1706	0	0	3283	2173	0	41072	73718
9	41072	2820	0	908	2585	.28	724	0	0	12422	11954	0	42728	73718
10	42728	0	0	807	2609	.15	391	0	0	14986	14179	0	42337	73718
11	42337	0	0	807	2596	.11	286	0	0	14566	13759	0	42051	73718
12	42051	430	0	707	2600	.10	260	0	0	18582	17581	0	42515	73718
YEAR TOTALS		9820	0	10092			9863	0	0	159929	155875	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 27   CALENDAR YEAR 1967

RESERVOIR NO 5   BP   MAX. CAPACITY 338276   MIN. OPERATING POOL   17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	88469	0	0	428	5557	.23	1278	0	0	0	0	0	86763	338276
2	86763	0	0	428	5510	.11	606	0	0	0	0	0	85729	338276
3	85729	0	0	428	5465	.21	1148	0	0	0	0	0	84153	338276
4	84153	0	0	490	5423	.07	380	0	0	0	0	0	83283	338276
5	83283	8170	0	490	5522	.19	1049	0	0	0	0	0	89914	338276
6	89914	15460	0	551	5840	.51	2978	0	0	0	0	0	101845	338276
7	101845	0	0	673	5972	.57	3404	170	0	0	0	0	97598	338276
8	97598	0	0	673	5817	.71	4130	0	0	0	0	0	92795	338276
9	92795	9690	0	551	5866	.25	1466	0	0	0	0	0	100468	338276
10	100468	0	0	490	5954	.34	2024	0	0	0	0	0	97954	338276
11	97954	0	0	490	5893	.10	589	0	0	0	0	0	96875	338276
12	96875	0	0	428	5859	.08	469	0	0	0	0	0	95978	338276
YEAR TOTALS		33320	0	6120			19521	170	0	0	0	0		

RESERVOIR NO 6   EM   MAX. CAPACITY 139351   MIN. OPERATING POOL   58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	3660	0	7444	8928	.20	1786	343	0	5913	0	0	139351	139351
2	139351	3640	0	7444	8928	.11	982	60	0	4846	0	0	139351	139351
3	139351	4140	0	7444	8928	.23	2053	505	0	5862	0	0	139351	139351
4	139351	5930	0	8507	8928	.06	536	0	0	3113	0	0	139351	139351
5	139351	4160	0	8507	8928	.14	1250	283	0	5880	0	0	139351	139351
	139351	35600	0	9571	8928	.45	4018	10411	0	0	11600	0	139351	139351
7	139351	13270	170	11698	8928	.51	4553	425	0	3236	0	0	139351	139351
8	139351	5900	0	11698	8508	.62	5275	8874	0	0	0	0	119404	139351
9	119404	5810	0	9571	8061	.20	1612	209	0	4264	0	0	118086	139351
10	118086	3240	0	8507	8042	.18	1448	216	0	7344	0	0	118499	139351
11	118499	1360	0	8507	8026	.09	722	204	0	6924	0	0	117350	139351
12	117350	2680	0	7444	8132	.08	651	28	0	11600	0	0	123507	139351
YEAR TOTALS		89390	170	106342			24886	21558	0	58982	11600	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 27 CALENDAR YEAR 1967

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	400	343	0	3537	.21	743	0	0	0	0	0	37775	37775
2	37775	400	60	0	3537	.13	460	0	0	0	0	0	37775	37775
3	37775	450	505	0	3537	.27	955	0	0	0	0	0	37775	37775
4	37775	650	0	0	3537	.09	318	0	0	0	332	0	37775	37775
5	37775	460	283	0	3537	.21	743	0	0	0	0	0	37775	37775
6	37775	3890	10411	0	3537	.43	1521	0	0	0	7690	5090	37775	37775
7	37775	1450	425	0	3537	.53	1875	0	0	0	0	0	37775	37775
8	37775	650	8874	0	3537	.65	2299	0	0	0	7225	0	37775	37775
9	37775	640	209	0	3537	.24	849	0	0	0	0	0	37775	37775
10	37775	350	216	0	3537	.16	566	0	0	0	0	0	37775	37775
11	37775	150	204	0	3537	.10	354	0	0	0	0	0	37775	37775
12	37775	290	28	0	3537	.09	318	0	0	0	0	0	37775	37775
YEAR TOTALS		9780	21558	0			11001	0	0	0	15247	5090		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
11	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
12	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
YEAR TOTALS		327480	0	360000			0	0	203520	0	171000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 27 CALENDAR YEAR 1967

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 27 CALENDAR YEAR 1967

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 28 CALENDAR YEAR 1968

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	176990	0	307	41356	.00	0	0	0	0	22770	153913	923750	923750
2	923750	99220	0	278	41356	.02	827	0	0	0	22770	75345	923750	923750
3	923750	181850	0	307	41356	.03	1241	0	0	0	0	180302	923750	923750
4	923750	199480	0	298	41341	-.02	-826	0	0	0	0	200008	923750	923750
5	923750	556420	0	307	41302	-.07	-2890	0	0	0	0	559007	923746	923750
6	923746	134310	0	298	41356	.18	7444	0	0	0	15643	110921	923750	923750
7	923750	9650	0	307	41356	.33	13647	0	0	10000	16864	0	912582	923750
8	912582	2170	0	307	40387	.47	18982	0	0	10000	22770	0	882693	923750
9	882693	1270	0	298	39519	.19	7509	0	0	10000	20302	0	865854	923750
10	865854	2920	0	307	38838	.25	9709	0	0	10000	22770	0	845988	923750
11	845988	5490	0	298	38236	.13	4971	0	0	10000	22770	0	833439	923750
12	833439	19950	0	307	38067	.09	3426	0	0	10000	22770	0	836886	923750
YEAR TOTALS		1389720	0	3619			64040	0	0	60000	189429	1279496		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	96870	0	1478	32623	.02	652	0	0	0	18950	75790	557265	557265
2	557265	49870	0	1478	32623	.04	1305	0	0	0	18950	28137	557265	557265
3	557265	142390	0	1478	32623	.00	0	0	0	0	7696	133216	557265	557265
4	557265	61100	0	1690	32623	.00	0	0	0	0	16022	43388	557265	557265
5	557265	134160	0	1690	32612	-.01	-325	0	0	0	8795	124000	557265	557265
	557265	20950	0	1901	32623	.27	8808	0	0	0	10241	0	557265	557265
7	557265	2890	0	2323	32623	.31	10113	0	0	9000	0	0	556719	557265
8	556719	270	0	2323	32604	.60	19562	0	0	9000	3254	0	540850	557265
9	540850	440	0	1901	31454	.27	8493	0	0	9000	0	0	539896	557265
10	539896	280	0	1690	30751	.26	7995	0	0	9000	18950	0	520541	557265
11	520541	5650	0	1690	29690	.18	5344	0	0	9000	18950	0	509207	557265
12	509207	17910	0	1478	29420	.10	2942	0	0	9000	18950	0	512747	557265
YEAR TOTALS		532780	0	21120			64889	0	0	54000	140758	404531		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 28 CALENDAR YEAR 1968

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	5500	0	6681	1900	.01	19	0	0	1200	0	0	30364	30365
2	30364	1620	0	6681	1988	.03	60	0	0	10420	0	0	35663	30365
3	35663	16940	0	6681	2079	.03	62	0	0	0	0	9277	36583	30365
4	36583	640	0	7636	2093	.11	230	0	0	7227	0	0	36584	36584
5	36584	11660	0	7636	2093	.08	167	0	0	0	0	3858	36583	30365
6	36583	920	0	8590	2093	.32	670	0	0	8340	0	0	36583	30365
7	36583	450	0	10499	2001	.47	940	0	0	4770	0	0	30364	30365
8	30364	250	0	10499	1900	.58	1102	0	0	11351	0	0	30364	30365
9	30364	0	0	8590	1908	.26	496	0	0	9084	0	0	30362	30365
10	30362	0	0	7636	1909	.28	535	0	0	8170	0	0	30361	30365
11	30361	220	0	7636	1906	.19	362	0	0	7780	0	0	30363	30365
12	30363	550	0	6681	1905	.16	305	0	0	6436	0	0	30363	30365
YEAR TOTALS		38750	0	95446			4948	0	0	74778	0	13135		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	42515	10560	0	707	2910	.01	29	0	0	23479	15189	0	60629	73718
2	60629	6450	0	707	3401	.02	68	0	0	14259	6845	0	73718	73718
3	73718	38070	0	707	3646	.07	255	0	0	11600	9345	39363	73718	73718
4	73718	13340	0	807	3646	.17	620	0	0	11600	10680	12833	73718	73718
5	73718	29500	0	807	3646	.09	328	0	0	11600	10680	29285	73718	73718
	73718	4860	0	908	3646	.38	1385	0	0	1799	4366	0	73718	73718
7	73718	2190	0	1110	3148	.60	1889	0	0	0	28227	0	44682	73718
8	44682	1410	0	1110	2649	.66	1748	0	0	11600	12106	0	42728	73718
9	42728	460	0	908	2613	.25	653	0	0	11600	10692	0	42535	73718
10	42535	230	0	807	2596	.36	935	0	0	14075	13268	0	41830	73718
11	41830	1060	0	807	2593	.22	570	0	0	14465	13613	0	42365	73718
12	42365	510	0	707	2716	.18	489	0	0	18243	10873	0	49049	73718
YEAR TOTALS		108640	0	10092			8969	0	0	144320	145884	81481		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 28 CALENDAR YEAR 1968

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	95978	22000	0	428	6205	-.03	-185	0	0	0	0	0	117735	338276
2	117735	2200	0	428	6577	.03	197	0	0	0	0	0	119310	338276
3	119310	52440	0	428	7366	.05	368	0	0	0	0	0	170954	338276
4	170954	0	0	490	8016	.15	1202	0	0	0	0	0	169262	338276
5	169262	0	0	490	7978	.09	718	0	0	0	0	0	168054	338276
6	168054	0	0	551	7916	.38	3008	0	0	0	0	0	164495	338276
7	164495	0	0	673	7811	.49	3827	0	0	0	0	0	159995	338276
8	159995	0	0	673	7305	.62	4529	29217	0	0	0	0	125576	338276
9	125576	0	0	551	6398	.36	2303	22497	0	0	0	0	100225	338276
10	100225	0	0	490	5945	.35	2081	0	0	0	0	0	97654	338276
11	97654	0	0	490	5870	.22	1291	0	0	0	0	0	95873	338276
12	95873	0	0	428	5814	.18	1047	0	0	0	0	0	94398	338276
YEAR TOTALS		76640	0	6120			20386	51714	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	123507	12690	0	7444	8595	.00	0	0	0	10598	0	0	139351	139351
2	139351	6160	0	7444	8928	.02	179	0	0	1463	0	0	139351	139351
3	139351	60820	0	7444	8928	.03	268	41508	0	0	11600	0	139351	139351
4	139351	72880	0	8507	8928	.11	982	51791	0	0	11600	0	139351	139351
5	139351	43200	0	8507	8928	.08	714	22379	0	0	11600	0	139351	139351
	139351	20900	0	9571	8928	.32	2857	6673	0	0	1799	0	139351	139351
7	139351	12540	0	11698	8928	.49	4375	611	0	4144	0	0	139351	139351
8	139351	10010	29217	11698	8928	.60	5357	10572	0	0	11600	0	139351	139351
9	139351	8550	22497	9571	8928	.25	2232	7644	0	0	11600	0	139351	139351
10	139351	3060	0	8507	8928	.29	2589	837	0	6433	0	0	136911	139351
11	136911	5870	0	8507	8877	.18	1598	103	0	6778	0	0	139351	139351
12	139351	4290	0	7444	8928	.18	1607	131	0	4892	0	0	139351	139351
YEAR TOTALS		260970	51714	106342			22758	142249	0	34308	59799	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 28 CALENDAR YEAR 1968

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	1390	0	0	3537	.00	0	0	0	0	1390	0	37775	37775
2	37775	670	0	0	3537	.02	71	0	0	0	599	0	37775	37775
3	37775	6650	41508	0	3537	.05	177	0	0	0	5981	42000	37775	37775
4	37775	7970	51791	0	3537	.15	531	0	0	0	6835	52395	37775	37775
5	37775	4730	22379	0	3537	.08	283	0	0	0	6835	19991	37775	37775
6	37775	2290	6673	0	3537	.36	1273	0	0	0	7690	0	37775	37775
7	37775	1370	611	0	3537	.56	1981	0	0	0	0	0	37775	37775
8	37775	1090	10572	0	3537	.64	2264	0	0	0	9398	0	37775	37775
9	37775	930	7644	0	3537	.25	884	0	0	0	7690	0	37775	37775
10	37775	330	837	0	3537	.33	1167	0	0	0	0	0	37775	37775
11	37775	640	103	0	3537	.21	743	0	0	0	0	0	37775	37775
12	37775	470	131	0	3537	.17	601	0	0	0	0	0	37775	37775
YEAR TOTALS		28530	142249	0			9975	0	0	0	46418	114386		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	146520	0	114000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 28 CALENDAR YEAR 1968

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 28 CALENDAR YEAR 1968

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 29 CALENDAR YEAR 1969

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	836886	2660	0	307	37902	.05	1895	0	0	10000	22770	0	824574	923750
2	824574	56430	0	278	38486	-.01	-384	0	0	10000	22770	0	868340	923750
3	868340	171410	0	307	40327	.03	1210	0	0	0	0	114483	923750	923750
4	923750	98200	0	298	41356	.01	414	0	0	0	0	97488	923750	923750
5	923750	509880	0	307	41356	-.16	-6616	0	0	0	0	516189	923750	923750
6	923750	20310	0	298	41356	.43	17783	0	0	10000	13165	0	922814	923750
7	922814	2480	0	307	40597	.70	28418	0	0	10000	22770	0	883799	923750
8	883799	1720	0	307	39254	.56	21982	0	0	10000	22770	0	850460	923750
9	850460	140	0	298	38196	.28	10695	0	0	10000	22770	0	826837	923750
10	826837	4440	0	307	37362	.34	12703	0	0	10000	22770	0	805497	923750
11	805497	4650	0	298	36659	.22	8065	0	0	10000	22770	0	789014	923750
12	789014	40410	0	307	37001	.06	2220	0	0	10000	13001	0	823896	923750
YEAR TOTALS		912730	0	3619			98385	0	0	90000	185556	728160		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	512747	5470	0	1478	29347	-.01	-292	0	0	9000	18950	0	507081	557265
2	507081	60130	0	1478	30835	-.02	-616	0	0	9000	18950	0	556399	557265
3	556399	122220	0	1478	32593	.02	652	0	0	0	18346	100878	557265	557265
4	557265	26130	0	1690	32612	-.01	-325	0	0	0	15295	9470	557265	557265
5	557265	344200	0	1690	32623	-.27	-8807	0	0	0	8795	342522	557265	557265
	557265	3190	0	1901	32623	.41	13375	0	0	9000	0	0	554179	557265
7	554179	480	0	2323	32516	.69	22436	0	0	9000	1248	0	537652	557265
8	537652	400	0	2323	30759	.55	16917	0	0	9000	4797	0	523015	557265
9	523015	280	0	1901	29485	.36	10615	0	0	9000	18950	0	500829	557265
10	500829	13690	0	1690	28464	.33	9393	0	0	9000	18950	0	493486	557265
11	493486	4160	0	1690	28086	.15	4213	0	0	9000	18950	0	481793	557265
12	481793	59230	0	1478	29690	.02	594	0	0	9000	0	0	547951	557265
YEAR TOTALS		639580	0	21120			68155	0	0	81000	143231	452870		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 29 CALENDAR YEAR 1969

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30363	160	0	6681	1901	.04	76	0	0	6598	0	0	30364	30365
2	30364	710	0	6681	1900	.01	19	0	0	5990	0	0	30364	30365
3	30364	2330	0	6681	2001	.04	80	0	0	10650	0	0	36583	30365
4	36583	970	0	7636	2091	-.08	-166	0	0	6500	0	0	36583	30365
5	36583	22590	0	7636	2093	.05	105	0	0	0	0	14848	36584	36584
6	36584	0	0	8590	2001	.45	900	0	0	3270	0	0	30364	30365
7	30364	0	0	10499	1900	.75	1425	0	0	11924	0	0	30364	30365
8	30364	0	0	10499	1900	.41	779	0	0	11278	0	0	30364	30365
9	30364	550	0	8590	1907	.24	458	0	0	8496	0	0	30362	30365
10	30362	2340	0	7636	1910	.33	630	0	0	5925	0	0	30361	30365
11	30361	650	0	7636	1907	.23	439	0	0	7426	0	0	30362	30365
12	30362	1530	0	6681	1902	.08	152	0	0	5305	0	0	30364	30365
YEAR TOTALS		31830	0	95446			4897	0	0	83362	0	14848		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	49049	470	0	707	2938	.06	176	0	0	18081	10919	0	55798	73718
2	55798	1210	0	707	3271	.05	164	0	0	18689	4560	0	70266	73718
3	70266	10100	0	707	3581	.08	286	0	0	11600	9345	7910	73718	73718
4	73718	12350	0	807	3641	-.08	-290	0	0	11600	10680	12754	73717	73718
5	73717	37950	0	807	3646	.06	219	0	0	11600	10680	37843	73718	73718
	73718	2560	0	908	3544	.44	1559	0	0	6445	12015	0	68241	73718
7	68241	1000	0	1110	3035	.79	2398	0	0	0	23005	0	42728	73718
8	42728	0	0	1110	2594	.45	1167	0	0	11600	10490	0	41561	73718
9	41561	2990	0	908	2594	.22	571	0	0	11314	11658	0	42728	73718
10	42728	3860	0	807	2767	.36	996	0	0	16320	9333	0	51772	73718
11	51772	1040	0	807	2929	.22	644	0	0	14819	13634	0	52546	73718
12	52546	4510	0	707	2858	.11	314	0	0	768	9345	0	47458	73718
YEAR TOTALS		78040	0	10092			8204	0	0	132836	135664	58507		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 29 CALENDAR YEAR 1969

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	94398	0	0	428	5774	.08	462	0	0	0	0	0	93508	338276
2	93508	0	0	428	5746	.05	287	0	0	0	0	0	92793	338276
3	92793	39470	0	428	6374	.05	319	0	0	0	0	0	131516	338276
4	131516	950	0	490	7004	-.06	-419	0	0	0	0	0	132395	338276
5	132395	33710	0	490	7450	.17	1266	0	0	0	0	0	164349	338276
6	164349	0	0	551	7810	.48	3749	0	0	0	0	0	160049	338276
7	160049	0	0	673	7501	.68	5101	13670	0	0	0	0	140605	338276
8	140605	0	0	673	6624	.35	2318	38216	0	0	0	0	99398	338276
9	99398	0	0	551	5933	.18	1068	0	0	0	0	0	97779	338276
10	97779	0	0	490	5865	.31	1818	0	0	0	0	0	95471	338276
11	95471	0	0	490	5794	.24	1391	0	0	0	0	0	93590	338276
12	93590	16850	0	428	6033	.10	603	0	0	0	0	0	109409	338276
YEAR TOTALS		90980	0	6120			17963	51886	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	2740	0	7444	8928	.04	357	0	0	5061	0	0	139351	139351
2	139351	8170	0	7444	8928	.01	89	637	0	0	0	0	139351	139351
3	139351	47120	0	7444	8928	.05	446	27630	0	0	11600	0	139351	139351
4	139351	24850	0	8507	8919	-.05	-445	5188	0	0	11600	0	139351	139351
5	139351	96840	0	8507	8928	.03	268	76465	0	0	11600	0	139351	139351
	139351	26390	0	9571	8928	.45	4018	6356	0	0	6445	0	139351	139351
7	139351	7880	13670	11698	8928	.77	6875	2977	0	0	0	0	139351	139351
8	139351	0	38216	11698	8928	.44	3928	10990	0	0	11600	0	139351	139351
9	139351	5850	0	9571	8928	.24	2143	174	0	3968	0	0	137281	139351
10	137281	10960	0	8507	8884	.32	2843	38	0	2498	0	0	139351	139351
11	139351	4010	0	8507	8928	.22	1964	338	0	6799	0	0	139351	139351
12	139351	13920	0	7444	8928	.10	893	4815	0	0	768	0	139351	139351
YEAR TOTALS		248730	51886	106342			23379	135608	0	18326	53613	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 29 CALENDAR YEAR 1969

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	300	0	0	3537	.05	177	0	0	0	123	0	37775	37775
2	37775	890	637	0	3537	.03	106	0	0	0	1421	0	37775	37775
3	37775	5160	27630	0	3537	.06	212	0	0	0	5981	26597	37775	37775
4	37775	2720	5188	0	3527	-.06	-211	0	0	0	6835	1284	37775	37775
5	37775	10590	76465	0	3537	.04	141	0	0	0	6835	80079	37775	37775
6	37775	2890	6356	0	3537	.44	1556	0	0	0	7690	0	37775	37775
7	37775	860	2977	0	3537	.78	2759	0	0	0	1078	0	37775	37775
8	37775	0	10990	0	3537	.45	1592	0	0	0	9398	0	37775	37775
9	37775	640	174	0	3537	.23	814	0	0	0	0	0	37775	37775
10	37775	1200	38	0	3537	.35	1238	0	0	0	0	0	37775	37775
11	37775	440	338	0	3537	.22	778	0	0	0	0	0	37775	37775
12	37775	1520	4815	0	3537	.10	354	0	0	0	5981	0	37775	37775
YEAR TOTALS		27210	135608	0			9516	0	0	0	45342	107960		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	203520	0	171000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 29 CALENDAR YEAR 1969

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 30 CALENDAR YEAR 1970

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	823896	10330	0	307	37964	.02	759	0	0	10000	2245	0	840915	923750
2	840915	92880	0	278	39781	-.05	-1988	0	0	0	11757	0	923748	923750
3	923748	266750	0	307	41356	.04	1654	0	0	0	0	264787	923750	923750
4	923750	76510	0	298	41356	-.18	-7443	0	0	0	0	83655	923750	923750
5	923750	15220	0	307	41356	.11	4549	0	0	0	2580	7784	923750	923750
6	923750	15140	0	298	41356	.46	19024	0	0	10000	5818	0	923750	923750
7	923750	2450	0	307	40646	.68	27639	0	0	10000	22770	0	885484	923750
8	885484	1450	0	307	39304	.57	22403	0	0	10000	22770	0	851454	923750
9	851454	8600	0	298	38439	.21	8072	0	0	10000	22770	0	838914	923750
10	838914	74350	0	307	39205	.19	7449	0	0	10000	22770	0	892738	923750
11	892738	8820	0	298	39889	.32	12764	0	0	10000	22770	0	875726	923750
12	875726	1920	0	307	39293	.10	3929	0	0	10000	22770	0	860640	923750
YEAR TOTALS		574420	0	3619			98811	0	0	80000	159020	356226		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	547951	14950	0	1478	32301	.05	1615	0	0	9000	11543	0	557265	557265
2	557265	102770	0	1478	32623	-.07	-2283	0	0	0	18950	84625	557265	557265
3	557265	193740	0	1478	32567	-.05	-1627	0	0	0	9411	184481	557262	557265
4	557262	68900	0	1690	32623	-.09	-2935	0	0	0	10159	59983	557265	557265
5	557265	14450	0	1690	32623	.04	1305	0	0	0	11455	0	557265	557265
	557265	15960	0	1901	32623	.40	13049	0	0	9000	10010	0	557265	557265
7	557265	530	0	2323	32623	.66	21531	0	0	9000	1039	0	541902	557265
8	541902	480	0	2323	30498	.62	18909	0	0	9000	18950	0	511200	557265
9	511200	31110	0	1901	29833	.26	7757	0	0	9000	18950	0	522702	557265
10	522702	66680	0	1690	31427	.13	4086	0	0	0	18950	7391	557265	557265
11	557265	2900	0	1690	32032	.26	8328	0	0	9000	18950	0	540197	557265
12	540197	840	0	1478	31033	.04	1241	0	0	9000	18950	0	528368	557265
YEAR TOTALS		513310	0	21120			70976	0	0	63000	167317	336480		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 30 CALENDAR YEAR 1970

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	760	0	6681	1903	.09	171	0	0	6092	0	0	30364	30365
2	30364	7030	0	6681	1917	.04	77	0	0	654	0	0	31290	30365
3	31290	10360	0	6681	2015	.05	101	0	0	1715	0	0	36583	30365
4	36583	6210	0	7636	2092	-.03	-62	0	0	1364	0	0	36583	30365
5	36583	2710	0	7636	2093	.15	314	0	0	5240	0	0	36583	30365
6	36583	520	0	8590	2001	.45	900	0	0	2751	0	0	30364	30365
7	30364	0	0	10499	1900	.64	1216	0	0	11715	0	0	30364	30365
8	30364	0	0	10499	1900	.71	1349	0	0	11848	0	0	30364	30365
9	30364	2040	0	8590	1903	.11	209	0	0	6759	0	0	30364	30365
10	30364	270	0	7636	1905	.16	305	0	0	7670	0	0	30363	30365
11	30363	70	0	7636	1909	.30	573	0	0	8137	0	0	30361	30365
12	30361	0	0	6681	1905	.17	324	0	0	7007	0	0	30363	30365
YEAR TOTALS		29970	0	95446			5477	0	0	70952	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	47458	5810	0	707	2736	.08	219	0	0	2218	9345	0	45215	73718
2	45215	13020	0	707	3156	.07	221	0	0	16411	0	0	73718	73718
3	73718	43370	0	707	3646	.04	146	0	0	11600	9345	44772	73718	73718
4	73718	16270	0	807	3646	.02	73	0	0	11600	10680	16310	73718	73718
5	73718	10570	0	807	3646	.20	729	0	0	11600	10680	9954	73718	73718
	73718	2790	0	908	3437	.49	1684	0	0	0	11388	0	62528	73718
7	62528	0	0	1110	2944	.65	1914	0	0	0	16776	0	42728	73718
8	42728	590	0	1110	2591	.75	1943	0	0	3093	1983	0	41375	73718
9	41375	870	0	908	2574	.14	360	0	0	13051	12143	0	41885	73718
10	41885	0	0	807	2580	.08	206	0	0	14575	13768	0	41679	73718
11	41679	0	0	807	2563	.27	692	0	0	14108	13301	0	40987	73718
12	40987	0	0	707	2543	.13	331	0	0	17672	16965	0	40656	73718
YEAR TOTALS		93290	0	10092			8518	0	0	115928	126374	71036		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 30 CALENDAR YEAR 1970

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	109409	5460	0	428	6356	.10	636	0	0	0	0	0	113805	338276
2	113805	6460	0	428	6515	.07	456	0	0	0	0	0	119381	338276
3	119381	11440	0	428	6773	.06	406	0	0	0	0	0	129987	338276
4	129987	10320	0	490	7097	.01	71	0	0	0	0	0	139746	338276
5	139746	450	0	490	7212	.15	1082	0	0	0	0	0	138624	338276
6	138624	0	0	551	7150	.43	3074	0	0	0	0	0	134999	338276
7	134999	0	0	673	6703	.72	4826	19487	0	0	0	0	110013	338276
8	110013	0	0	673	6225	.71	4420	0	0	0	0	0	104920	338276
9	104920	4560	0	551	6190	.17	1052	0	0	0	0	0	107877	338276
10	107877	0	0	490	6208	.22	1366	0	0	0	0	0	106021	338276
11	106021	0	0	490	6137	.34	2087	0	0	0	0	0	103444	338276
12	103444	0	0	428	6069	.21	1274	0	0	0	0	0	101742	338276
YEAR TOTALS		38690	0	6120			20750	19487	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	15000	0	7444	8928	.08	714	4624	0	0	2218	0	139351	139351
2	139351	15490	0	7444	8928	.02	179	4468	0	0	3399	0	139351	139351
3	139351	61490	0	7444	8928	.04	357	42089	0	0	11600	0	139351	139351
4	139351	42330	0	8507	8922	-.03	-267	22490	0	0	11600	0	139351	139351
5	139351	47500	0	8507	8928	.15	1339	26054	0	0	11600	0	139351	139351
	139351	18570	0	9571	8928	.47	4196	4803	0	0	0	0	139351	139351
7	139351	6870	19487	11698	8928	.65	5803	8856	0	0	0	0	139351	139351
8	139351	100	0	11698	8351	.70	5846	9987	0	0	0	0	111920	139351
9	111920	25920	0	9571	8242	.11	907	0	0	6833	0	0	134195	139351
10	134195	3270	0	8507	8723	.13	1134	0	0	6939	0	0	134763	139351
11	134763	2120	0	8507	8668	.29	2514	760	0	6466	0	0	131568	139351
12	131568	5140	0	7444	8764	.21	1840	0	0	11049	0	0	138473	139351
YEAR TOTALS		243800	19487	106342			24562	124131	0	31287	40417	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 30 CALENDAR YEAR 1970

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	1640	4624	0	3537	.08	283	0	0	0	5981	0	37775	37775
2	37775	1690	4468	0	3537	.05	177	0	0	0	5981	0	37775	37775
3	37775	6730	42089	0	3537	.04	141	0	0	0	5981	42697	37775	37775
4	37775	4630	22490	0	3537	.00	0	0	0	0	6835	20285	37775	37775
5	37775	5200	26054	0	3537	.18	637	0	0	0	6835	23782	37775	37775
6	37775	2030	4803	0	3537	.48	1698	0	0	0	5135	0	37775	37775
7	37775	750	8856	0	3537	.65	2299	0	0	0	7307	0	37775	37775
8	37775	10	9987	0	3537	.73	2582	0	0	0	7415	0	37775	37775
9	37775	2840	0	0	3537	.13	460	0	0	0	2380	0	37775	37775
10	37775	360	0	0	3537	.10	354	0	0	0	6	0	37775	37775
11	37775	230	760	0	3537	.28	990	0	0	0	0	0	37775	37775
12	37775	560	0	0	3537	.14	495	0	0	0	65	0	37775	37775
YEAR TOTALS		26670	124131	0			10116	0	0	0	53921	86764		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	175520	0	143000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 30 CALENDAR YEAR 1970

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 30 CALENDAR YEAR 1970

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 31 CALENDAR YEAR 1971

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	860640	1930	0	307	38648	.22	8503	0	0	10000	22770	0	840990	923750
2	840990	5110	0	278	38072	.09	3426	0	0	10000	22770	0	829626	923750
3	829626	3510	0	307	37468	.31	11615	0	0	10000	22770	0	808444	923750
4	808444	11910	0	298	36889	.24	8853	0	0	10000	22770	0	798433	923750
5	798433	5030	0	307	36412	.21	7647	0	0	10000	22770	0	782739	923750
6	782739	1430	0	298	35581	.49	17435	0	0	10000	22770	0	753666	923750
7	753666	3060	0	307	34549	.48	16584	0	0	10000	22669	0	727166	923750
8	727166	3150	0	307	33737	.25	8434	0	0	10000	22770	0	708805	923750
9	708805	1130	0	298	32988	.36	11876	0	0	10000	22770	0	684991	923750
10	684991	70440	0	307	33506	.13	4356	0	0	10000	22770	0	737998	923750
11	737998	25070	0	298	34573	.17	5877	0	0	10000	22770	0	744123	923750
12	744123	271420	0	307	37986	-.05	-1898	0	0	0	0	93386	923748	923750
YEAR TOTALS		403190	0	3619			102708	0	0	110000	250369	93386		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	528368	720	0	1478	30024	.22	6605	0	0	9000	18950	0	511055	557265
2	511055	6880	0	1478	29207	.06	1752	0	0	9000	18950	0	504755	557265
3	504755	3070	0	1478	28436	.28	7962	0	0	9000	18950	0	488435	557265
4	488435	1300	0	1690	27773	.26	7221	0	0	9000	18950	0	470874	557265
5	470874	3280	0	1690	27123	.27	7323	0	0	9000	18950	0	455191	557265
	455191	650	0	1901	26310	.56	14734	0	0	9000	18950	0	429256	557265
7	429256	66990	0	2323	27000	.46	12420	0	0	9000	0	0	490503	557265
8	490503	10840	0	2323	28011	.29	8123	0	0	9000	18950	0	480947	557265
9	480947	1370	0	1901	27415	.38	10418	0	0	9000	18950	0	460048	557265
10	460048	182210	0	1690	29260	.12	3511	0	0	0	18950	60842	557265	557265
11	557265	10120	0	1690	32391	.16	5183	0	0	9000	18950	0	550562	557265
12	550562	271550	0	1478	32313	-.07	-2261	0	0	0	7696	257939	557260	557265
YEAR TOTALS		558980	0	21120			82991	0	0	90000	197196	318781		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 31 CALENDAR YEAR 1971

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30363	50	0	6681	1906	.19	362	0	0	6993	0	0	30363	30365
2	30363	330	0	6681	1904	.13	248	0	0	6599	0	0	30363	30365
3	30363	0	0	6681	1911	.35	669	0	0	7347	0	0	30360	30365
4	30360	1730	0	7636	1909	.28	535	0	0	6442	0	0	30361	30365
5	30361	790	0	7636	1910	.31	592	0	0	7438	0	0	30361	30365
6	30361	0	0	8590	1900	.60	1140	0	0	9733	0	0	30364	30365
7	30364	950	0	10499	1900	.54	1026	0	0	10575	0	0	30364	30365
8	30364	1270	0	10499	1908	.26	496	0	0	9723	0	0	30362	30365
9	30362	40	0	8590	1911	.35	669	0	0	9217	0	0	30360	30365
10	30360	13180	0	7636	1991	.10	199	0	0	0	0	0	35705	30365
11	35705	260	0	7636	1994	.20	399	0	0	2433	0	0	30363	30365
12	30363	16430	0	6681	2000	-.04	-79	0	0	0	0	3608	36583	30365
YEAR TOTALS		35030	0	95446			6256	0	0	76500	0	3608		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	40656	220	0	707	2649	.22	583	0	0	17686	10518	0	46754	73718
2	46754	780	0	707	2893	.15	434	0	0	18080	9081	0	55392	73718
3	55392	570	0	707	3068	.37	1135	0	0	17332	13693	0	57759	73718
4	57759	1310	0	807	3143	.28	880	0	0	15803	12912	0	60273	73718
5	60273	920	0	807	3190	.36	1148	0	0	14807	13237	0	60808	73718
	60808	470	0	908	3035	.61	1851	0	0	10077	18456	0	50140	73718
7	50140	2070	0	1110	2740	.54	1480	0	0	7793	14685	0	42728	73718
8	42728	600	0	1110	2614	.28	732	0	0	5218	4108	0	42596	73718
9	42596	180	0	908	2595	.40	1038	0	0	10593	9685	0	41738	73718
10	41738	10600	0	807	2825	.13	367	0	0	22245	17119	0	56290	73718
11	56290	2400	0	807	3138	.21	659	0	0	19812	15600	0	61436	73718
12	61436	47870	0	707	3416	-.01	-33	0	0	5503	9345	31072	73718	73718
YEAR TOTALS		67990	0	10092			10274	0	0	164949	148439	31072		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 31 CALENDAR YEAR 1971

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	101742	0	0	428	6013	.20	1203	0	0	0	0	0	100111	338276
2	100111	0	0	428	5960	.17	1013	0	0	0	0	0	98670	338276
3	98670	750	0	428	5904	.37	2184	0	0	0	0	0	96808	338276
4	96808	2290	0	490	5871	.31	1820	0	0	0	0	0	96788	338276
5	96788	4550	0	490	5905	.35	2067	0	0	0	0	0	98781	338276
6	98781	3250	0	551	5923	.62	3672	0	0	0	0	0	97808	338276
7	97808	9010	0	673	5552	.59	3276	25720	0	0	0	0	77149	338276
8	77149	8530	0	673	5311	.24	1275	0	0	0	0	0	83731	338276
9	83731	9040	0	551	5538	.33	1828	0	0	0	0	0	90392	338276
10	90392	9970	0	490	5804	.10	580	0	0	0	0	0	99292	338276
11	99292	1040	0	490	5945	.21	1248	0	0	0	0	0	98594	338276
12	98594	15440	0	428	6183	-.02	-123	0	0	0	0	0	113729	338276
YEAR TOTALS		63870	0	6120			20043	25720	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	138473	5690	0	7444	8910	.20	1782	123	0	4537	0	0	139351	139351
2	139351	5330	0	7444	8928	.12	1071	0	0	3185	0	0	139351	139351
3	139351	3720	0	7444	8928	.35	3125	863	0	7712	0	0	139351	139351
4	139351	5340	0	8507	8928	.28	2500	410	0	6077	0	0	139351	139351
5	139351	5590	0	8507	8928	.32	2857	628	0	6402	0	0	139351	139351
	139351	5700	0	9571	8928	.60	5357	1538	0	10766	0	0	139351	139351
7	139351	8920	25720	11698	8928	.54	4821	10328	0	0	7793	0	139351	139351
8	139351	6170	0	11698	8647	.26	2248	5575	0	0	0	0	126000	139351
9	126000	3250	0	9571	8192	.36	2949	1019	0	1995	0	0	117706	139351
10	117706	15910	0	8507	8417	.10	842	0	0	11600	0	0	135867	139351
11	135867	5170	0	8507	8855	.20	1771	173	0	8765	0	0	139351	139351
12	139351	16840	0	7444	8924	-.02	-177	4071	0	0	5503	0	139350	139351
YEAR TOTALS		87630	25720	106342			29146	24728	0	61039	13296	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 31 CALENDAR YEAR 1971

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	620	123	0	3537	.21	743	0	0	0	0	0	37775	37775
2	37775	580	0	0	3537	.14	495	0	0	0	85	0	37775	37775
3	37775	410	863	0	3537	.36	1273	0	0	0	0	0	37775	37775
4	37775	580	410	0	3537	.28	990	0	0	0	0	0	37775	37775
5	37775	610	628	0	3537	.35	1238	0	0	0	0	0	37775	37775
6	37775	620	1538	0	3537	.61	2158	0	0	0	0	0	37775	37775
7	37775	980	10328	0	3537	.54	1910	0	0	0	9398	0	37775	37775
8	37775	670	5575	0	3537	.27	955	0	0	0	5290	0	37775	37775
9	37775	360	1019	0	3537	.39	1379	0	0	0	0	0	37775	37775
10	37775	1740	0	0	3537	.12	424	0	0	0	1316	0	37775	37775
11	37775	570	173	0	3537	.21	743	0	0	0	0	0	37775	37775
12	37775	1840	4071	0	3534	-.02	-70	0	0	0	5981	0	37775	37775
YEAR TOTALS		9580	24728	0			12238	0	0	0	22070	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
YEAR TOTALS		327480	0	360000			0	0	232520	0	200000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 31 CALENDAR YEAR 1971

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 31   CALENDAR YEAR 1971

DEMAND NODE 11   HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 32 CALENDAR YEAR 1972

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923748	132130	0	307	41348	-.01	-412	0	0	0	4730	127504	923749	923750
2	923749	12830	0	278	41356	.19	7858	0	0	10000	14693	0	923750	923750
3	923750	4280	0	307	41356	.22	9098	0	0	10000	13220	0	915405	923750
4	915405	2170	0	298	40897	.19	7770	0	0	10000	12120	0	907387	923750
5	907387	4340	0	307	40505	.29	11746	0	0	10000	15414	0	894260	923750
6	894260	2380	0	298	39877	.31	12362	0	0	10000	20393	0	873587	923750
7	873587	3010	0	307	38988	.44	17155	0	0	10000	22770	0	846365	923750
8	846365	1490	0	307	37909	.51	19334	0	0	10000	22770	0	815444	923750
9	815444	1750	0	298	36926	.29	10709	0	0	10000	22770	0	793417	923750
10	793417	22270	0	307	36559	.19	6946	0	0	10000	22770	0	795664	923750
11	795664	12510	0	298	36570	.03	1097	0	0	10000	22770	0	794009	923750
12	794009	8230	0	307	36429	.03	1093	0	0	10000	22770	0	788069	923750
YEAR TOTALS		207390	0	3619			104756	0	0	110000	217190	127504		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557260	75510	0	1478	32600	-.02	-651	0	0	0	18950	55728	557265	557265
2	557265	2870	0	1478	32623	.19	6198	0	0	9000	4194	0	557265	557265
3	557265	1690	0	1478	32623	.24	7830	0	0	9000	1382	0	557265	557265
4	557265	1270	0	1690	32623	.21	6851	0	0	9000	1729	0	557265	557265
5	557265	1420	0	1690	32623	.35	11418	0	0	9000	0	0	554577	557265
	554577	5340	0	1901	32530	.32	10410	0	0	9000	0	0	556606	557265
7	556606	900	0	2323	32600	.52	16952	0	0	9000	5253	0	541978	557265
8	541978	750	0	2323	30585	.55	16822	0	0	9000	18950	0	513633	557265
9	513633	490	0	1901	28911	.30	8673	0	0	9000	18950	0	493599	557265
10	493599	8850	0	1690	28159	.19	5350	0	0	9000	18950	0	485459	557265
11	485459	15630	0	1690	28073	.01	281	0	0	9000	18950	0	489168	557265
12	489168	15100	0	1478	28201	.03	846	0	0	9000	18950	0	491994	557265
YEAR TOTALS		129820	0	21120			90980	0	0	99000	126258	55728		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 32 CALENDAR YEAR 1972

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36583	1230	0	6681	2093	.09	188	0	0	5639	0	0	36583	30365
2	36583	710	0	6681	2007	.19	381	0	0	132	0	0	30363	30365
3	30363	460	0	6681	1911	.36	688	0	0	6906	0	0	30360	30365
4	30360	3080	0	7636	1908	.26	496	0	0	5054	0	0	30362	30365
5	30362	1570	0	7636	1909	.29	554	0	0	6619	0	0	30361	30365
6	30361	330	0	8590	1900	.48	912	0	0	9175	0	0	30364	30365
7	30364	0	0	10499	1900	.65	1235	0	0	11734	0	0	30364	30365
8	30364	0	0	10499	1900	.55	1045	0	0	11544	0	0	30364	30365
9	30364	0	0	8590	1911	.35	669	0	0	9255	0	0	30360	30365
10	30360	2730	0	7636	1906	.20	381	0	0	5290	0	0	30363	30365
11	30363	950	0	7636	1902	.08	152	0	0	6839	0	0	30364	30365
12	30364	100	0	6681	1903	.10	190	0	0	6771	0	0	30364	30365
YEAR TOTALS		11160	0	95446			6891	0	0	84958	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	73718	9270	0	707	3646	.07	255	0	0	1000	9308	0	73718	73718
2	73718	3170	0	707	3507	.21	736	0	0	1714	10848	0	66311	73718
3	66311	2220	0	707	3030	.39	1182	0	0	0	22288	0	44354	73718
4	44354	4640	0	807	2644	.30	793	0	0	6014	10680	0	42728	73718
5	42728	1600	0	807	2617	.28	733	0	0	10620	10680	0	42728	73718
	42728	0	0	908	2594	.46	1193	0	0	11600	10692	0	41535	73718
7	41535	0	0	1110	2542	.58	1474	0	0	11600	10490	0	40061	73718
8	40061	0	0	1110	2488	.53	1319	0	0	3397	2287	0	38742	73718
9	38742	110	0	908	2447	.37	905	0	0	10555	9647	0	37947	73718
10	37947	2010	0	807	2462	.19	468	0	0	16955	16148	0	39489	73718
11	39489	910	0	807	2505	.09	225	0	0	15406	14599	0	40174	73718
12	40174	680	0	707	2525	.12	303	0	0	17908	17201	0	40551	73718
YEAR TOTALS		24610	0	10092			9586	0	0	106769	144868	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 32 CALENDAR YEAR 1972

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	113729	650	0	428	6414	.13	834	0	0	0	0	0	113117	338276
2	113117	810	0	428	6391	.19	1214	0	0	0	0	0	112285	338276
3	112285	1820	0	428	6361	.39	2481	0	0	0	0	0	111196	338276
4	111196	7330	0	490	6181	.29	1792	15217	0	0	0	0	101027	338276
5	101027	71700	0	490	6996	.26	1819	8036	0	0	0	0	162382	338276
6	162382	6180	0	551	7388	.51	3768	34684	0	0	0	0	129559	338276
7	129559	8120	0	673	6339	.62	3930	40532	0	0	0	0	92544	338276
8	92544	9090	0	673	5818	.52	3025	0	0	0	0	0	97936	338276
9	97936	4080	0	551	5933	.37	2195	0	0	0	0	0	99270	338276
10	99270	11090	0	490	6112	.21	1284	0	0	0	0	0	108586	338276
11	108586	7550	0	490	6361	.11	700	0	0	0	0	0	114946	338276
12	114946	3940	0	428	6503	.15	975	0	0	0	0	0	117483	338276
YEAR TOTALS		132360	0	6120			24017	98469	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139350	4580	0	7444	8928	.08	714	0	0	3579	0	0	139351	139351
2	139351	4490	0	7444	8928	.19	1696	217	0	4867	0	0	139351	139351
3	139351	4540	0	7444	8928	.36	3214	844	0	6962	0	0	139351	139351
4	139351	8520	15217	8507	8928	.26	2321	6895	0	0	6014	0	139351	139351
5	139351	19500	8036	8507	8928	.30	2678	5731	0	0	10620	0	139351	139351
	139351	0	34684	9571	8928	.47	4196	9317	0	0	11600	0	139351	139351
7	139351	0	40532	11698	8928	.64	5714	11520	0	0	11600	0	139351	139351
8	139351	0	0	11698	8395	.55	4617	9021	0	0	0	0	114015	139351
9	114015	0	0	9571	7619	.35	2667	1273	0	1957	0	0	102461	139351
10	102461	0	0	8507	7398	.20	1480	672	0	9313	0	0	101115	139351
11	101115	6580	0	8507	7466	.07	523	0	0	8201	0	0	106866	139351
12	106866	10	0	7444	7608	.15	1141	389	0	11220	0	0	109122	139351
YEAR TOTALS		48220	98469	106342			30961	45879	0	46099	39834	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 32 CALENDAR YEAR 1972

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	500	0	0	3537	.07	248	0	0	0	252	0	37775	37775
2	37775	490	217	0	3537	.20	707	0	0	0	0	0	37775	37775
3	37775	500	844	0	3537	.38	1344	0	0	0	0	0	37775	37775
4	37775	930	6895	0	3537	.28	990	0	0	0	6835	0	37775	37775
5	37775	2130	5731	0	3537	.29	1026	0	0	0	6835	0	37775	37775
6	37775	0	9317	0	3537	.46	1627	0	0	0	7690	0	37775	37775
7	37775	0	11520	0	3537	.60	2122	0	0	0	9398	0	37775	37775
8	37775	0	9021	0	3537	.54	1910	0	0	0	7111	0	37775	37775
9	37775	0	1273	0	3537	.36	1273	0	0	0	0	0	37775	37775
10	37775	0	672	0	3537	.19	672	0	0	0	0	0	37775	37775
11	37775	720	0	0	3537	.08	283	0	0	0	437	0	37775	37775
12	37775	0	389	0	3537	.11	389	0	0	0	0	0	37775	37775
YEAR TOTALS		5270	45879	0			12591	0	0	0	38558	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	241520	0	209000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 32 CALENDAR YEAR 1972

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 32 CALENDAR YEAR 1972

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 33 CALENDAR YEAR 1973

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	788069	53940	0	307	37118	-.06	-2226	0	0	10000	22770	0	831158	923750
2	831158	57960	0	278	39175	.00	0	0	0	10000	0	0	898840	923750
3	898840	164220	0	307	40894	.06	2454	0	0	0	22770	113779	923750	923750
4	923750	362390	0	298	41333	-.03	-1239	0	0	0	0	363332	923749	923750
5	923749	92620	0	307	41356	.25	10339	0	0	0	11628	70345	923750	923750
6	923750	297350	0	298	41356	.16	6617	0	0	0	0	290435	923750	923750
7	923750	23590	0	307	41356	.34	14061	0	0	10000	19222	0	923750	923750
8	923750	5810	0	307	40827	.52	21230	0	0	10000	22770	0	895253	923750
9	895253	27070	0	298	40579	.17	6898	0	0	10000	14730	0	910397	923750
10	910397	146990	0	307	41108	.06	2466	0	0	0	22770	108094	923750	923750
11	923750	33400	0	298	41356	.13	5376	0	0	0	16904	10822	923750	923750
12	923750	25210	0	307	41356	.13	5376	0	0	0	16985	2542	923750	923750
YEAR TOTALS		1290550	0	3619			71352	0	0	50000	170549	959349		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	491994	61780	0	1478	29921	-.07	-2093	0	0	9000	18950	0	544439	557265
2	544439	50320	0	1478	32168	-.01	-321	0	0	0	18950	17387	557265	557265
3	557265	89280	0	1478	32623	.07	2284	0	0	0	18950	66568	557265	557265
4	557265	194790	0	1690	32567	-.05	-1627	0	0	0	8795	185935	557262	557265
5	557262	14580	0	1690	32623	.28	9134	0	0	0	3753	0	557265	557265
	557265	211340	0	1901	32623	.18	5872	0	0	0	9895	193672	557265	557265
7	557265	5800	0	2323	32623	.34	11092	0	0	9000	1385	0	557265	557265
8	557265	1290	0	2323	32623	.60	19574	0	0	9000	909	0	544749	557265
9	544749	15150	0	1901	32190	.14	4507	0	0	9000	5226	0	557265	557265
10	557265	98690	0	1690	32623	.08	2610	0	0	0	18950	75440	557265	557265
11	557265	73520	0	1690	32623	.09	2936	0	0	0	18950	49944	557265	557265
12	557265	69050	0	1478	32623	.13	4241	0	0	0	18950	44381	557265	557265
YEAR TOTALS		885590	0	21120			58209	0	0	36000	143663	633327		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 33 CALENDAR YEAR 1973

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	1900	0	6681	1897	-.07	-132	0	0	4649	0	0	30364	30365
2	30364	2830	0	6681	1899	-.01	-18	0	0	3833	0	0	30364	30365
3	30364	2750	0	6681	1904	.12	228	0	0	4159	0	0	30364	30365
4	30364	14250	0	7636	2001	.03	60	0	0	0	0	335	36583	30365
5	36583	1720	0	7636	2093	.32	670	0	0	6586	0	0	36583	30365
6	36583	15920	0	8590	2093	.23	481	0	0	0	0	6849	36583	30365
7	36583	3560	0	10499	2011	.33	664	0	0	1380	0	0	30360	30365
8	30360	210	0	10499	1900	.68	1292	0	0	11585	0	0	30364	30365
9	30364	0	0	8590	1905	.18	343	0	0	8932	0	0	30363	30365
10	30363	5920	0	7636	1991	.11	219	0	0	7228	0	0	35656	30365
11	35656	1250	0	7636	2079	.14	291	0	0	7604	0	0	36583	30365
12	36583	250	0	6681	2093	.23	481	0	0	6912	0	0	36583	30365
YEAR TOTALS		50560	0	95446			4579	0	0	62868	0	7184		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	40551	4350	0	707	2663	-.06	-159	0	0	20030	16670	0	47713	73718
2	47713	7910	0	707	2699	-.01	-26	0	0	0	12214	0	42728	73718
3	42728	8380	0	707	2956	.14	414	0	0	20520	7256	0	63251	73718
4	63251	19480	0	807	3450	.02	69	0	0	10428	10680	7885	73718	73718
5	73718	7740	0	807	3646	.31	1130	0	0	7224	10680	2347	73718	73718
	73718	19870	0	908	3646	.22	802	0	0	0	12428	5732	73718	73718
7	73718	6640	0	1110	3334	.36	1200	0	0	0	21532	0	56516	73718
8	56516	3850	0	1110	2845	.70	1991	0	0	148	14685	0	42728	73718
9	42728	770	0	908	2617	.22	576	0	0	11600	10886	0	42728	73718
10	42728	6700	0	807	3119	.10	312	0	0	25409	0	0	73718	73718
11	73718	2080	0	807	3646	.18	656	0	0	8775	9392	0	73718	73718
12	73718	1540	0	707	3646	.24	875	0	0	11982	11940	0	73718	73718
YEAR TOTALS		89310	0	10092			7840	0	0	116116	138363	15964		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 33 CALENDAR YEAR 1973

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	117483	10830	0	428	6714	-.05	-335	0	0	0	0	0	128220	338276
2	128220	1980	0	428	6685	.00	0	14119	0	0	0	0	115653	338276
3	115653	3920	0	428	6527	.13	849	0	0	0	0	0	118296	338276
4	118296	11390	0	490	6734	.08	539	0	0	0	0	0	128657	338276
5	128657	7920	0	490	6977	.36	2512	0	0	0	0	0	133575	338276
6	133575	5660	0	551	7105	.28	1989	0	0	0	0	0	136695	338276
7	136695	10040	0	673	7236	.35	2533	0	0	0	0	0	143529	338276
8	143529	9080	0	673	7286	.70	5100	6276	0	0	0	0	140560	338276
9	140560	4000	0	551	6983	.19	1327	20681	0	0	0	0	122001	338276
10	122001	22040	0	490	7015	.14	982	0	0	0	0	0	142569	338276
11	142569	4970	0	490	7343	.16	1175	0	0	0	0	0	145874	338276
12	145874	0	0	428	7354	.27	1986	0	0	0	0	0	143460	338276
YEAR TOTALS		91830	0	6120			18657	41076	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	109122	6410	0	7444	7890	-.07	-551	0	0	11600	0	0	120239	139351
2	120239	7220	14119	7444	8524	-.01	-84	0	0	5133	0	0	139351	139351
3	139351	6940	0	7444	8928	.12	1071	0	0	1575	0	0	139351	139351
4	139351	23450	0	8507	8928	.02	179	4336	0	0	10428	0	139351	139351
5	139351	23820	0	8507	8928	.31	2768	5321	0	0	7224	0	139351	139351
	139351	17660	0	9571	8928	.22	1964	6125	0	0	0	0	139351	139351
7	139351	10270	0	11698	8928	.34	3036	118	0	4582	0	0	139351	139351
8	139351	21160	6276	11698	8928	.68	6071	9519	0	0	148	0	139351	139351
9	139351	9490	20681	9571	8928	.18	1607	7393	0	0	11600	0	139351	139351
10	139351	24400	0	8507	8928	.11	982	4519	0	0	10392	0	139351	139351
11	139351	7110	0	8507	8928	.15	1339	0	0	2736	0	0	139351	139351
12	139351	4250	0	7444	8928	.27	2411	354	0	5959	0	0	139351	139351
YEAR TOTALS		162180	41076	106342			20793	37685	0	31585	39792	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 33 CALENDAR YEAR 1973

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	700	0	0	3527	-.06	-211	0	0	0	911	0	37775	37775
2	37775	790	0	0	3535	-.01	-34	0	0	0	824	0	37775	37775
3	37775	760	0	0	3537	.13	460	0	0	0	300	0	37775	37775
4	37775	2570	4336	0	3537	.02	71	0	0	0	6835	0	37775	37775
5	37775	2610	5321	0	3537	.31	1096	0	0	0	6835	0	37775	37775
6	37775	1930	6125	0	3537	.22	778	0	0	0	7277	0	37775	37775
7	37775	1120	118	0	3537	.35	1238	0	0	0	0	0	37775	37775
8	37775	2320	9519	0	3537	.69	2441	0	0	0	9398	0	37775	37775
9	37775	1040	7393	0	3537	.21	743	0	0	0	7690	0	37775	37775
10	37775	2670	4519	0	3537	.10	354	0	0	0	6835	0	37775	37775
11	37775	780	0	0	3537	.17	601	0	0	0	179	0	37775	37775
12	37775	460	354	0	3537	.23	814	0	0	0	0	0	37775	37775
YEAR TOTALS		17750	37685	0			8351	0	0	0	47084	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
/	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
11	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
12	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
YEAR TOTALS		327480	0	360000			0	0	118520	0	86000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 33 CALENDAR YEAR 1973

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 33 CALENDAR YEAR 1973

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 34 CALENDAR YEAR 1974

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	50270	0	307	41356	-.09	-3721	0	0	0	7443	46241	923750	923750
2	923750	19090	0	278	41356	.17	7031	0	0	1224	13005	0	923750	923750
3	923750	11250	0	307	41356	.20	8271	0	0	10000	12672	0	923750	923750
4	923750	4560	0	298	41356	.25	10339	0	0	10000	3923	0	923750	923750
5	923750	34230	0	307	41356	.21	8685	0	0	0	22770	2468	923750	923750
6	923750	3640	0	298	41356	.41	16956	0	0	10000	0	0	920136	923750
7	920136	2020	0	307	40542	.63	25541	0	0	10000	22770	0	883538	923750
8	883538	4510	0	307	39484	.30	11845	0	0	10000	22770	0	863126	923750
9	863126	73570	0	298	40231	.07	2816	0	0	10000	19832	0	923750	923750
10	923750	85910	0	307	41356	.12	4963	0	0	0	17891	62749	923750	923750
11	923750	399810	0	298	41356	.00	0	0	0	0	0	399512	923750	923750
12	923750	70830	0	307	41356	.01	414	0	0	0	2239	67870	923750	923750
YEAR TOTALS		759690	0	3619			93140	0	0	61224	145315	578840		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	154300	0	1478	32623	-.10	-3261	0	0	0	18950	137133	557265	557265
2	557265	9200	0	1478	32623	.15	4893	0	0	9000	11829	0	557265	557265
3	557265	4690	0	1478	32623	.22	7177	0	0	9000	5035	0	557265	557265
4	557265	19660	0	1690	32623	.25	8156	0	0	9000	18814	0	557265	557265
5	557265	83900	0	1690	32623	.21	6851	0	0	0	18950	56409	557265	557265
	557265	92210	0	1901	32623	.34	11092	0	0	0	18950	60267	557265	557265
7	557265	480	0	2323	32623	.67	21857	0	0	9000	5447	0	537118	557265
8	537118	0	0	2323	30498	.29	8844	0	0	9000	18950	0	516001	557265
9	516001	12670	0	1901	30410	.04	1216	0	0	9000	0	0	534554	557265
10	534554	37230	0	1690	31837	.12	3820	0	0	0	9009	0	557265	557265
11	557265	272200	0	1690	32623	.00	0	0	0	0	11468	259042	557265	557265
12	557265	67110	0	1478	32623	.00	0	0	0	0	18950	46682	557265	557265
YEAR TOTALS		753650	0	21120			70645	0	0	54000	156352	559533		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 34 CALENDAR YEAR 1974

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36583	1600	0	6681	2093	.06	126	0	0	5207	0	0	36583	30365
2	36583	990	0	6681	2004	.17	341	0	0	0	0	0	30551	30365
3	30551	960	0	6681	1912	.28	535	0	0	6067	0	0	30362	30365
4	30362	220	0	7636	1908	.27	515	0	0	7931	0	0	30362	30365
5	30362	4000	0	7636	1911	.34	650	0	0	4284	0	0	30360	30365
6	30360	1750	0	8590	1900	.49	931	0	0	7775	0	0	30364	30365
7	30364	110	0	10499	1900	.81	1539	0	0	11928	0	0	30364	30365
8	30364	3030	0	10499	1911	.34	650	0	0	8115	0	0	30360	30365
9	30360	3420	0	8590	1902	.07	133	0	0	5307	0	0	30364	30365
10	30364	7460	0	7636	2001	.12	240	0	0	6635	0	0	36583	30365
11	36583	5090	0	7636	2093	.06	126	0	0	2673	0	0	36584	36584
12	36584	1320	0	6681	2093	.04	84	0	0	5444	0	0	36583	30365
YEAR TOTALS		29950	0	95446			5870	0	0	71366	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	73718	4330	0	707	3646	.06	219	0	0	4145	7549	0	73718	73718
2	73718	2450	0	707	3646	.18	656	0	0	7793	8880	0	73718	73718
3	73718	2230	0	707	3377	.29	979	0	0	0	14982	0	59280	73718
4	59280	1150	0	807	2980	.27	805	0	0	0	10687	0	48131	73718
5	48131	2360	0	807	2887	.31	895	0	0	17961	13105	0	53645	73718
	53645	1000	0	908	2798	.49	1371	0	0	1097	10735	0	42728	73718
7	42728	960	0	1110	2595	.80	2076	0	0	11600	10490	0	41612	73718
8	41612	7610	0	1110	2595	.33	856	0	0	6826	11354	0	42728	73718
9	42728	3950	0	908	2617	.08	209	0	0	4552	7385	0	42728	73718
10	42728	19750	0	807	3119	.11	343	0	0	12390	0	0	73718	73718
11	73718	42050	0	807	3646	.04	146	0	0	11600	10680	42017	73718	73718
12	73718	7150	0	707	3646	.04	146	0	0	0	6297	0	73718	73718
YEAR TOTALS		94990	0	10092			8701	0	0	77964	112144	42017		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 34 CALENDAR YEAR 1974

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	143460	1320	0	428	7324	.11	806	0	0	0	0	0	143546	338276
2	143546	1570	0	428	7323	.18	1318	0	0	0	0	0	143370	338276
3	143370	1730	0	428	7309	.30	2193	0	0	0	0	0	142479	338276
4	142479	9830	0	490	7391	.29	2143	0	0	0	0	0	149676	338276
5	149676	6150	0	490	7517	.42	3157	0	0	0	0	0	152179	338276
6	152179	5920	0	551	7305	.59	4310	19872	0	0	0	0	133366	338276
7	133366	2800	0	673	6411	.83	5321	36898	0	0	0	0	93274	338276
8	93274	10390	0	673	5881	.36	2117	0	0	0	0	0	100874	338276
9	100874	17930	0	551	6125	.09	551	9918	0	0	0	0	107784	338276
10	107784	20380	0	490	6535	.16	1046	0	0	0	0	0	126628	338276
11	126628	36120	0	490	7336	.13	954	0	0	0	0	0	161304	338276
12	161304	940	0	428	7786	.07	545	0	0	0	0	0	161271	338276
YEAR TOTALS		115080	0	6120			24461	66688	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	5780	0	7444	8928	.04	357	0	0	2021	0	0	139351	139351
2	139351	6040	0	7444	8928	.17	1518	0	0	2922	0	0	139351	139351
3	139351	6640	0	7444	8928	.28	2500	296	0	3600	0	0	139351	139351
4	139351	11440	0	8507	8928	.27	2411	522	0	0	0	0	139351	139351
5	139351	5580	0	8507	8928	.32	2857	486	0	6270	0	0	139351	139351
	139351	3950	19872	9571	8928	.47	4196	8958	0	0	1097	0	139351	139351
7	139351	5200	36898	11698	8928	.80	7142	11658	0	0	11600	0	139351	139351
8	139351	5140	0	11698	8758	.33	2890	607	0	1956	0	0	131252	139351
9	131252	18830	9918	9571	8758	.07	613	5913	0	0	4552	0	139351	139351
10	139351	40210	0	8507	8928	.12	1071	19032	0	0	11600	0	139351	139351
11	139351	81060	0	8507	8928	.05	446	60507	0	0	11600	0	139351	139351
12	139351	8280	0	7444	8928	.07	625	211	0	0	0	0	139351	139351
YEAR TOTALS		198150	66688	106342			26626	108190	0	16769	40449	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 34 CALENDAR YEAR 1974

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	630	0	0	3537	.05	177	0	0	0	453	0	37775	37775
2	37775	660	0	0	3537	.18	637	0	0	0	23	0	37775	37775
3	37775	730	296	0	3537	.29	1026	0	0	0	0	0	37775	37775
4	37775	1250	522	0	3537	.27	955	0	0	0	817	0	37775	37775
5	37775	610	486	0	3537	.31	1096	0	0	0	0	0	37775	37775
6	37775	430	8958	0	3537	.48	1698	0	0	0	7690	0	37775	37775
7	37775	570	11658	0	3537	.80	2830	0	0	0	9398	0	37775	37775
8	37775	560	607	0	3537	.33	1167	0	0	0	0	0	37775	37775
9	37775	2060	5913	0	3537	.08	283	0	0	0	7690	0	37775	37775
10	37775	4400	19032	0	3537	.11	389	0	0	0	6835	16208	37775	37775
11	37775	8870	60507	0	3537	.04	141	0	0	0	6835	62401	37775	37775
12	37775	910	211	0	3537	.04	141	0	0	0	980	0	37775	37775
YEAR TOTALS		21680	108190	0			10540	0	0	0	40721	78609		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	12934	0	10224	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
11	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
12	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
YEAR TOTALS		327480	0	360000			0	0	147744	0	115224	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 34 CALENDAR YEAR 1974

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 35 CALENDAR YEAR 1975

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	50590	0	307	41356	.03	1241	0	0	0	1794	47248	923750	923750
2	923750	203520	0	278	41333	-.03	-1239	0	0	0	0	204482	923749	923750
3	923749	50810	0	307	41356	.06	2481	0	0	0	0	48021	923750	923750
4	923750	176760	0	298	41356	.08	3308	0	0	0	0	173154	923750	923750
5	923750	393280	0	307	41356	.06	2481	0	0	0	0	390492	923750	923750
6	923750	102410	0	298	41356	.31	12820	0	0	0	9582	79710	923750	923750
7	923750	15020	0	307	41356	.42	17370	0	0	10000	20472	0	910621	923750
8	910621	3270	0	307	40297	.52	20954	0	0	10000	22770	0	879860	923750
9	879860	2860	0	298	39289	.40	15716	0	0	10000	20389	0	856317	923750
10	856317	1840	0	307	38539	.29	11176	0	0	10000	17207	0	839467	923750
11	839467	1980	0	298	37970	.23	8733	0	0	10000	16796	0	825620	923750
12	825620	1450	0	307	37715	.07	2640	0	0	10000	8377	0	825746	923750
YEAR TOTALS		1003790	0	3619			97681	0	0	60000	117387	943107		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	19200	0	1478	32623	.02	652	0	0	0	17070	0	557265	557265
2	557265	183100	0	1478	32578	-.04	-1302	0	0	0	9945	172981	557263	557265
3	557263	43920	0	1478	32623	.04	1305	0	0	0	11254	29881	557265	557265
4	557265	99780	0	1690	32623	.08	2610	0	0	0	8795	86685	557265	557265
5	557265	31860	0	1690	32623	.09	2936	0	0	0	10451	16783	557265	557265
	557265	13820	0	1901	32623	.31	10113	0	0	0	1806	0	557265	557265
7	557265	2090	0	2323	32623	.43	14028	0	0	9000	0	0	552004	557265
8	552004	400	0	2323	32441	.56	18167	0	0	9000	908	0	540006	557265
9	540006	410	0	1901	31192	.46	14348	0	0	9000	0	0	533167	557265
10	533167	590	0	1690	30824	.38	11713	0	0	9000	0	0	529354	557265
11	529354	170	0	1690	30717	.22	6758	0	0	9000	0	0	530076	557265
12	530076	130	0	1478	30931	.07	2165	0	0	9000	0	0	535563	557265
YEAR TOTALS		395470	0	21120			83493	0	0	54000	60229	306330		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 35 CALENDAR YEAR 1975

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36583	3530	0	6681	2093	.05	105	0	0	3256	0	0	36583	30365
2	36583	4370	0	6681	2092	-.03	-62	0	0	2249	0	0	36583	30365
3	36583	3290	0	6681	2093	.08	167	0	0	3558	0	0	36583	30365
4	36583	8430	0	7636	2093	.16	335	0	0	0	0	459	36583	30365
5	36583	6190	0	7636	2093	.10	209	0	0	1656	0	0	36584	36584
6	36584	7850	0	8590	2093	.36	753	0	0	1493	0	0	36584	36584
7	36584	3000	0	10499	2093	.42	879	0	0	8378	0	0	36584	36584
8	36584	150	0	10499	2093	.59	1235	0	0	11584	0	0	36584	36584
9	36584	0	0	8590	2093	.44	921	0	0	9511	0	0	36584	36584
10	36584	250	0	7636	2093	.49	1026	0	0	8412	0	0	36584	36584
11	36584	200	0	7636	2093	.27	565	0	0	8001	0	0	36584	36584
12	36584	0	0	6681	2004	.11	220	0	0	681	0	0	30364	30365
YEAR TOTALS		37260	0	95446			6353	0	0	58779	0	459		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	73718	8590	0	707	3646	.05	182	0	0	0	7701	0	73718	73718
2	73718	33410	0	707	3645	-.02	-72	0	0	11600	9345	35030	73718	73718
3	73718	7520	0	707	3646	.12	438	0	0	8037	9345	5067	73718	73718
4	73718	22990	0	807	3646	.12	438	0	0	11600	10680	22665	73718	73718
5	73718	8260	0	807	3646	.07	255	0	0	11600	10680	8118	73718	73718
	73718	43940	0	908	3646	.36	1313	0	0	11600	12015	41304	73718	73718
7	73718	7450	0	1110	3646	.46	1677	0	0	11600	14685	1578	73718	73718
8	73718	1420	0	1110	3143	.62	1949	0	0	0	27772	0	44307	73718
9	44307	30	0	908	2643	.48	1269	0	0	11600	11032	0	42728	73718
10	42728	510	0	807	2603	.48	1249	0	0	11487	10680	0	41989	73718
11	41989	350	0	807	2580	.30	774	0	0	11487	10680	0	41565	73718
12	41565	850	0	707	2582	.12	310	0	0	10052	9345	0	42105	73718
YEAR TOTALS		135320	0	10092			9782	0	0	110663	143960	113762		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 35 CALENDAR YEAR 1975

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	161271	3010	0	428	7811	.08	625	0	0	0	0	0	163228	338276
2	163228	27940	0	428	8210	-.01	-81	0	0	0	0	0	190821	338276
3	190821	10470	0	428	8758	.13	1139	0	0	0	0	0	199724	338276
4	199724	12840	0	490	9050	.20	1810	0	0	0	0	0	210264	338276
5	210264	56080	0	490	9990	.13	1299	0	0	0	0	0	264555	338276
6	264555	84220	0	551	11742	.39	4579	5369	0	0	0	0	338276	338276
7	338276	31920	0	673	12855	.43	5528	25719	0	0	0	0	338276	338276
8	338276	9480	0	673	12855	.61	7842	965	0	0	0	0	338276	338276
9	338276	0	0	551	12243	.41	5020	30341	0	0	0	0	302364	338276
10	302364	3000	0	490	11291	.50	5645	32902	0	0	0	0	266327	338276
11	266327	2840	0	490	10376	.27	2802	30230	0	0	0	0	235645	338276
12	235645	6340	0	428	9651	.13	1255	25027	0	0	0	0	215275	338276
YEAR TOTALS		248140	0	6120			37463	150553	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	7010	0	7444	8928	.05	446	0	0	880	0	0	139351	139351
2	139351	32630	0	7444	8922	-.03	-267	13853	0	0	11600	0	139351	139351
3	139351	20310	0	7444	8928	.08	714	4115	0	0	8037	0	139351	139351
4	139351	29100	0	8507	8928	.15	1339	7654	0	0	11600	0	139351	139351
5	139351	30050	0	8507	8928	.09	804	9139	0	0	11600	0	139351	139351
	139351	43720	5369	9571	8928	.36	3214	24704	0	0	11600	0	139351	139351
7	139351	18330	25719	11698	8928	.42	3750	17001	0	0	11600	0	139351	139351
8	139351	13040	965	11698	8928	.59	5268	728	0	3689	0	0	139351	139351
9	139351	3790	30341	9571	8928	.45	4018	8942	0	0	11600	0	139351	139351
10	139351	0	32902	8507	8928	.49	4375	8533	0	0	11487	0	139351	139351
11	139351	0	30230	8507	8928	.27	2411	7825	0	0	11487	0	139351	139351
12	139351	0	25027	7444	8928	.13	1161	6370	0	0	10052	0	139351	139351
YEAR TOTALS		197980	150553	106342			27233	108864	0	4569	110663	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 35 CALENDAR YEAR 1975

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	770	0	0	3537	.05	177	0	0	0	593	0	37775	37775
2	37775	3570	13853	0	3534	-.02	-70	0	0	0	5981	11512	37775	37775
3	37775	2220	4115	0	3537	.10	354	0	0	0	5981	0	37775	37775
4	37775	3180	7654	0	3537	.13	460	0	0	0	6835	3539	37775	37775
5	37775	3290	9139	0	3537	.08	283	0	0	0	6835	5311	37775	37775
6	37775	4780	24704	0	3537	.36	1273	0	0	0	7690	20521	37775	37775
7	37775	2000	17001	0	3537	.45	1592	0	0	0	9398	8011	37775	37775
8	37775	1430	728	0	3537	.61	2158	0	0	0	0	0	37775	37775
9	37775	410	8942	0	3537	.47	1662	0	0	0	7690	0	37775	37775
10	37775	0	8533	0	3537	.48	1698	0	0	0	6835	0	37775	37775
11	37775	0	7825	0	3537	.28	990	0	0	0	6835	0	37775	37775
12	37775	0	6370	0	3537	.11	389	0	0	0	5981	0	37775	37775
YEAR TOTALS		21650	108864	0			10966	0	0	0	70654	48894		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	146520	0	114000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 35 CALENDAR YEAR 1975

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 35 CALENDAR YEAR 1975

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 36 CALENDAR YEAR 1976

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	825746	2660	0	307	37559	.16	6009	0	0	10000	14852	0	817238	923750
2	817238	3590	0	278	37232	.20	7446	0	0	10000	14968	0	808136	923750
3	808136	21020	0	307	37300	.10	3730	0	0	10000	14227	0	820892	923750
4	820892	145040	0	298	39447	.04	1578	0	0	0	22770	17536	923750	923750
5	923750	173570	0	307	41356	.11	4549	0	0	0	0	168714	923750	923750
6	923750	89580	0	298	41356	.26	10753	0	0	0	19521	59008	923750	923750
7	923750	84900	0	307	41356	.25	10339	0	0	0	22770	51484	923750	923750
8	923750	3330	0	307	40766	.54	22014	0	0	10000	22770	0	891989	923750
9	891989	54750	0	298	40766	.08	3261	0	0	3340	22770	0	923750	923750
10	923750	47580	0	307	41356	.07	2895	0	0	0	22770	21608	923750	923750
11	923750	11260	0	298	41356	.13	5376	0	0	10000	15586	0	923750	923750
12	923750	73790	0	307	41348	-.01	-412	0	0	0	22770	51126	923749	923750
YEAR TOTALS		711070	0	3619			77538	0	0	53340	215774	369476		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	535563	390	0	1478	31211	.17	5306	0	0	9000	0	0	538169	557265
2	538169	590	0	1478	31354	.21	6584	0	0	9000	0	0	539697	557265
3	539697	2500	0	1478	31645	.10	3164	0	0	9000	0	0	546555	557265
4	546555	359750	0	1690	32252	.05	1613	0	0	0	18950	326787	557265	557265
5	557265	89020	0	1690	32623	.11	3589	0	0	0	13519	70222	557265	557265
	557265	26260	0	1901	32623	.27	8808	0	0	0	15551	0	557265	557265
7	557265	19240	0	2323	32623	.25	8156	0	0	9000	17761	0	557265	557265
8	557265	830	0	2323	32623	.52	16964	0	0	9000	918	0	546890	557265
9	546890	11550	0	1901	32264	.05	1613	0	0	9000	6661	0	557265	557265
10	557265	25830	0	1690	32623	.09	2936	0	0	0	18950	2254	557265	557265
11	557265	2130	0	1690	32623	.17	5546	0	0	9000	3894	0	557265	557265
12	557265	35130	0	1478	32623	.02	652	0	0	0	18950	14050	557265	557265
YEAR TOTALS		573220	0	21120			64931	0	0	63000	115154	413313		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 36 CALENDAR YEAR 1976

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	0	0	6681	1908	.25	477	0	0	7156	0	0	30362	30365
2	30362	0	0	6681	1910	.31	592	0	0	7272	0	0	30361	30365
3	30361	590	0	6681	1907	.23	439	0	0	6531	0	0	30362	30365
4	30362	13620	0	7636	1998	.07	140	0	0	0	0	0	36206	30365
5	36206	7570	0	7636	2087	.15	313	0	0	756	0	0	36583	30365
6	36583	1430	0	8590	2093	.42	879	0	0	8039	0	0	36583	30365
7	36583	910	0	10499	2011	.33	664	0	0	4030	0	0	30360	30365
8	30360	30	0	10499	1900	.59	1121	0	0	11594	0	0	30364	30365
9	30364	110	0	8590	1906	.19	362	0	0	8841	0	0	30363	30365
10	30363	1140	0	7636	1903	.10	190	0	0	6687	0	0	30364	30365
11	30364	0	0	7636	1906	.19	362	0	0	7997	0	0	30363	30365
12	30363	1230	0	6681	1903	.09	171	0	0	5623	0	0	30364	30365
YEAR TOTALS		26630	0	95446			5710	0	0	74526	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	42105	850	0	707	2597	.25	649	0	0	10052	9345	0	42306	73718
2	42306	1250	0	707	2609	.31	809	0	0	10033	9345	0	42728	73718
3	42728	1310	0	707	2617	.25	654	0	0	9396	9345	0	42728	73718
4	42728	7560	0	807	2947	.06	177	0	0	22245	8900	0	62649	73718
5	62649	17830	0	807	3439	.16	550	0	0	1308	6712	0	73718	73718
	73718	3660	0	908	3646	.43	1568	0	0	5123	6307	0	73718	73718
7	73718	1770	0	1110	3494	.31	1083	0	0	9722	17439	0	65578	73718
8	65578	300	0	1110	2994	.56	1677	0	0	0	20363	0	42728	73718
9	42728	400	0	908	2615	.20	523	0	0	2228	1320	0	42605	73718
10	42605	2500	0	807	2745	.09	247	0	0	15558	9033	0	50576	73718
11	50576	1530	0	807	2747	.19	522	0	0	0	8049	0	42728	73718
12	42728	5070	0	707	2859	.08	229	0	0	19056	8560	0	57358	73718
YEAR TOTALS		44030	0	10092			8688	0	0	104721	114718	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 36 CALENDAR YEAR 1976

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	215275	6730	0	428	9022	.25	2255	26513	0	0	0	0	192809	338276
2	192809	8120	0	428	8347	.34	2838	27322	0	0	0	0	170341	338276
3	170341	8490	0	428	7765	.28	2174	25599	0	0	0	0	150630	338276
4	150630	25150	0	490	7820	.10	782	0	0	0	0	0	174508	338276
5	174508	13110	0	490	8301	.19	1577	0	0	0	0	0	185551	338276
6	185551	9750	0	551	8543	.48	4101	0	0	0	0	0	190649	338276
7	190649	6080	0	673	8654	.36	3115	0	0	0	0	0	192941	338276
8	192941	70	0	673	8265	.60	4959	22612	0	0	0	0	164767	338276
9	164767	24130	0	551	7957	.21	1671	15768	0	0	0	0	170907	338276
10	170907	11840	0	490	8185	.10	818	0	0	0	0	0	181439	338276
11	181439	8940	0	490	8291	.19	1575	10353	0	0	0	0	177961	338276
12	177961	1960	0	428	8248	.11	907	0	0	0	0	0	178586	338276
YEAR TOTALS		124370	0	6120			26772	128167	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	80	26513	7444	8928	.25	2232	6865	0	0	10052	0	139351	139351
2	139351	0	27322	7444	8928	.31	2768	7077	0	0	10033	0	139351	139351
3	139351	0	25599	7444	8928	.22	1964	6795	0	0	9396	0	139351	139351
4	139351	7110	0	8507	8928	.06	536	132	0	2065	0	0	139351	139351
5	139351	18320	0	8507	8928	.15	1339	7166	0	0	1308	0	139351	139351
	139351	15930	0	9571	8928	.41	3660	2699	0	0	0	0	139351	139351
/	139351	7530	0	11698	8928	.32	2857	1016	0	8041	0	0	139351	139351
8	139351	0	22612	11698	8928	.58	5178	5736	0	0	0	0	139351	139351
9	139351	5940	15768	9571	8928	.18	1607	8302	0	0	2228	0	139351	139351
10	139351	7440	0	8507	8928	.10	893	238	0	2198	0	0	139351	139351
11	139351	7220	10353	8507	8928	.19	1696	7370	0	0	0	0	139351	139351
12	139351	6070	0	7444	8928	.11	982	223	0	2579	0	0	139351	139351
YEAR TOTALS		75640	128167	106342			25712	53619	0	14883	33017	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 36 CALENDAR YEAR 1976

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	0	6865	0	3537	.25	884	0	0	0	5981	0	37775	37775
2	37775	0	7077	0	3537	.31	1096	0	0	0	5981	0	37775	37775
3	37775	0	6795	0	3537	.23	814	0	0	0	5981	0	37775	37775
4	37775	80	132	0	3537	.06	212	0	0	0	0	0	37775	37775
5	37775	200	7166	0	3537	.15	531	0	0	0	6835	0	37775	37775
6	37775	170	2699	0	3537	.42	1486	0	0	0	1383	0	37775	37775
7	37775	80	1016	0	3537	.31	1096	0	0	0	0	0	37775	37775
8	37775	0	5736	0	3537	.57	2016	0	0	0	3720	0	37775	37775
9	37775	60	8302	0	3537	.19	672	0	0	0	7690	0	37775	37775
10	37775	80	238	0	3537	.09	318	0	0	0	0	0	37775	37775
11	37775	80	7370	0	3537	.19	672	0	0	0	6778	0	37775	37775
12	37775	60	223	0	3537	.08	283	0	0	0	0	0	37775	37775
YEAR TOTALS		810	53619	0			10080	0	0	0	44349	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	11710	0	9000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	15050	0	12340	0	10	10
10	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
YEAR TOTALS		327480	0	360000			0	0	148860	0	116340	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 36 CALENDAR YEAR 1976

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 36 CALENDAR YEAR 1976

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 1

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	923750	1211770	3619	0	55528	1104142	923750
2	923750	1294930	3619	0	67435	1099957	923749
3	923749	581120	3619	0	101149	367630	923321
4	923321	1135350	3619	0	52194	974453	872314
5	872314	1721680	3619	0	37532	1496667	923750
6	923750	848460	3619	0	47182	737390	923750
7	923750	602800	3619	0	87447	482725	869451
8	869451	457660	3619	0	111328	352577	748396
9	748396	206640	3619	0	51010	0	836936
10	836936	346910	3619	0	78676	228023	813943
11	813943	80950	3619	0	121922	0	734634
12	734634	294550	3619	0	98588	0	773737
13	773737	513100	3619	0	56110	266406	797462
14	797462	48980	3619	0	119967	0	569616
15	569616	79440	3619	0	59256	0	432941
16	432941	119420	3619	0	78824	0	316678
17	316678	1512400	3619	0	13780	800983	923750
18	923750	857920	3619	0	57285	743053	916099
19	916099	926350	3619	0	43599	688872	923746
20	923746	643070	3619	0	45908	461350	923750
21	923750	1163140	3619	0	49765	926030	923750
22	923750	253790	3619	0	61569	65967	923750
23	923750	61610	3619	0	109223	13945	751591
24	751591	27760	3619	0	75480	0	562836
25	562836	505800	3619	0	63381	108498	793065
26	793065	843350	3619	0	76385	669512	824056
27	824056	639650	3619	0	81204	276863	923750
28	923750	1389720	3619	0	64040	1279496	836886
29	836886	912730	3619	0	98385	728160	823896
30	823896	574420	3619	0	98811	356226	860640
31	860640	403190	3619	0	102708	93386	923748
32	923748	207390	3619	0	104756	127504	788069
33	788069	1290550	3619	0	71352	959349	923750
34	923750	759690	3619	0	93140	578840	923750
35	923750	1003790	3619	0	97681	943107	825746
36	825746	711070	3619	0	77538	369476	923749
PERIOD TOTALS		24231150	130284	0	2710138	17300587	
PERIOD AVERAGES		673087	3619	0	75281	480571	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 2

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	557265	594710	21120	0	44358	441569	557265
2	557265	796600	21120	0	51528	649184	557265
3	557265	374130	21120	0	80670	230686	557263
4	557263	574360	21120	0	48139	408792	557265
5	557265	954490	21120	0	33203	821762	557265
6	557265	722320	21120	0	38893	588400	557265
7	557265	522980	21120	0	71785	373365	557265
8	557265	299160	21120	0	89622	229357	441895
9	441895	222890	21120	0	41344	14682	544415
10	544415	435520	21120	0	52475	359664	553066
11	553066	141000	21120	0	80473	65195	505238
12	505238	332620	21120	0	80187	124730	474421
13	474421	369510	21120	0	52353	194926	447132
14	447132	154390	21120	0	90410	0	370592
15	370592	107780	21120	0	49652	0	288200
16	288200	78010	21120	0	63112	0	162578
17	162578	1126120	21120	0	14966	604287	557265
18	557265	585660	21120	0	51239	483374	557265
19	557265	374780	21120	0	40411	217721	557265
20	557265	436390	21120	0	47661	295865	557265
21	557265	430700	21120	0	48160	280177	538501
22	538501	265030	21120	0	43261	48753	557265
23	557265	110680	21120	0	95349	63953	436939
24	436939	58450	21120	0	59338	0	349996
25	349996	278010	21120	0	47639	65264	472478
26	472478	619920	21120	0	47046	496754	542257
27	542257	496700	21120	0	49251	302340	557265
28	557265	532780	21120	0	64889	404531	512747
29	512747	639580	21120	0	68155	452870	547951
30	547951	513310	21120	0	70976	336480	528368
31	528368	558980	21120	0	82991	318781	557260
32	557260	129820	21120	0	90980	55728	491994
33	491994	885590	21120	0	58209	633327	557265
34	557265	753650	21120	0	70645	559533	557265
35	557265	395470	21120	0	83493	306330	535563
36	535563	573220	21120	0	64931	413313	557265
PERIOD TOTALS		16445310	760320	0	2167794	10841693	
PERIOD AVERAGES		456814	21120	0	60216	301158	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 3

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	36584	44760	95446	0	3856	7769	36584
2	36584	65150	95446	0	5068	34110	36584
3	36584	14030	95446	0	8034	0	30364
4	30364	17430	95446	0	5560	646	30364
5	30364	63580	95446	0	4776	31371	36584
6	36584	28010	95446	0	5309	0	36584
7	36584	16840	95446	0	7663	0	30364
8	30364	30510	95446	0	7839	3749	30362
9	30362	89250	95446	0	4347	42316	30364
10	30364	60360	95446	0	5687	7380	36584
11	36584	5870	95446	0	7209	0	30362
12	30362	6030	95446	0	8156	0	30364
13	30364	10620	95446	0	6673	0	30363
14	30363	2040	95446	0	9457	0	30362
15	30362	3730	95446	0	7225	0	30362
16	30362	5960	95446	0	10976	0	30363
17	30363	112640	95446	0	3201	74168	36584
18	36584	36660	95446	0	5506	8877	30363
19	30363	15140	95446	0	5159	0	30364
20	30364	7710	95446	0	5702	0	30363
21	30363	21860	95446	0	4471	0	30364
22	30364	12570	95446	0	4660	0	30363
23	30363	7780	95446	0	7395	0	30364
24	30364	21590	95446	0	5474	0	30363
25	30363	35330	95446	0	4297	3393	30364
26	30364	40680	95446	0	4483	8484	30364
27	30364	7630	95446	0	5364	0	30364
28	30364	38750	95446	0	4948	13135	30363
29	30363	31830	95446	0	4897	14848	30364
30	30364	29970	95446	0	5477	0	30363
31	30363	35030	95446	0	6256	3608	36583
32	36583	11160	95446	0	6891	0	30364
33	30364	50560	95446	0	4579	7184	36583
34	36583	29950	95446	0	5870	0	36583
35	36583	37260	95446	0	6353	459	30364
36	30364	26630	95446	0	5710	0	30364
PERIOD TOTALS		1074900	3436056	0	214528	261497	
PERIOD AVERAGES		29858	95446	0	5959	7263	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 4

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	73718	154150	10092	0	5877	127415	68467
2	68467	224750	10092	0	7601	181658	65324
3	65324	45290	10092	0	12190	6512	39799
4	39799	53410	10092	0	8820	29054	62269
5	62269	219600	10092	0	7892	201322	68926
6	68926	90900	10092	0	8950	45894	73718
7	73718	54920	10092	0	12118	8414	46524
8	46524	65070	10092	0	11648	10211	35885
9	35885	183670	10092	0	6683	133354	47247
10	47247	134280	10092	0	10538	60870	42728
11	42728	22780	10092	0	10367	0	37252
12	37252	11080	10092	0	10881	0	36355
13	36355	6700	10092	0	8800	0	34311
14	34311	2450	10092	0	11575	0	25460
15	25460	8890	10092	0	7897	0	26453
16	26453	6850	10092	0	11532	0	21771
17	21771	217900	10092	0	4602	153655	73718
18	73718	74660	10092	0	7586	57698	42728
19	42728	39730	10092	0	8250	0	71077
20	71077	38460	10092	0	9361	16274	41199
21	41199	25370	10092	0	7917	0	42954
22	42954	40780	10092	0	10374	5307	73718
23	73718	15460	10092	0	11752	0	36983
24	36983	23380	10092	0	8835	0	57193
25	57193	82200	10092	0	7191	35019	42728
26	42728	95560	10092	0	8152	49017	48596
27	48596	9820	10092	0	9863	0	42515
28	42515	108640	10092	0	8969	81481	49049
29	49049	78040	10092	0	8204	58507	47458
30	47458	93290	10092	0	8518	71036	40656
31	40656	67990	10092	0	10274	31072	73718
32	73718	24610	10092	0	9586	0	40551
33	40551	89310	10092	0	7840	15964	73718
34	73718	94990	10092	0	8701	42017	73718
35	73718	135320	10092	0	9782	113762	42105
36	42105	44030	10092	0	8688	0	57358
PERIOD TOTALS		2684330	363312	0	327814	1535513	
PERIOD AVERAGES		74564	10092	0	9105	42653	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 5

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	338276	546900	6120	0	25599	0	337625
2	337625	698100	6120	0	35519	0	294605
3	294605	44040	6120	0	47794	0	111538
4	111538	100080	6120	0	23699	0	94082
5	94082	223090	6120	0	31692	0	238393
6	238393	153270	6120	0	37282	0	254735
7	254735	50180	6120	0	43246	0	147469
8	147469	42120	6120	0	30434	0	78381
9	78381	129620	6120	0	17789	0	88166
10	88166	259520	6120	0	31902	0	269552
11	269552	48180	6120	0	31404	0	82419
12	82419	0	6120	0	24718	0	51581
13	51581	61360	6120	0	17336	0	88254
14	88254	125860	6120	0	29591	0	129527
15	129527	66120	6120	0	27628	0	95164
16	95164	33380	6120	0	25480	0	21919
17	21919	501760	6120	0	23911	0	249553
18	249553	59170	6120	0	30490	0	134692
19	134692	103650	6120	0	17766	0	149734
20	149734	60520	6120	0	22740	0	94271
21	94271	64260	6120	0	16548	0	95865
22	95865	109580	6120	0	18019	0	181306
23	181306	23810	6120	0	23706	0	59796
24	59796	103240	6120	0	15892	0	97123
25	97123	71990	6120	0	15747	0	111791
26	111791	108060	6120	0	19810	0	88469
27	88469	33320	6120	0	19521	0	95978
28	95978	76640	6120	0	20386	0	94398
29	94398	90980	6120	0	17963	0	109409
30	109409	38690	6120	0	20750	0	101742
31	101742	63870	6120	0	20043	0	113729
32	113729	132360	6120	0	24017	0	117483
33	117483	91830	6120	0	18657	0	143460
34	143460	115080	6120	0	24461	0	161271
35	161271	248140	6120	0	37463	0	215275
36	215275	124370	6120	0	26772	0	178586
PERIOD TOTALS		4803140	220320	0	915775	0	
PERIOD AVERAGES		133420	6120	0	25438	0	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 6

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	139351	425060	106342	0	17061	0	139351
2	139351	305130	106342	0	21160	0	139351
3	139351	58970	106342	0	34463	0	139350
4	139350	124850	106342	0	25543	0	139351
5	139351	334180	106342	0	20001	0	139351
6	139351	196830	106342	0	22064	0	139351
7	139351	126170	106342	0	33300	0	139351
8	139351	88060	106342	0	35451	0	124655
9	124655	132480	106342	0	19481	0	139351
10	139351	268330	106342	0	24733	0	139351
11	139351	85670	106342	0	32864	0	134450
12	134450	29970	106342	0	31686	0	79856
13	79856	58020	106342	0	23443	0	73331
14	73331	25890	106342	0	29572	0	55221
15	55221	0	106342	0	20068	0	44935
16	44935	7650	106342	0	26595	0	36898
17	36898	448460	106342	0	13605	0	139351
18	139351	227220	106342	0	23755	0	139351
19	139351	173880	106342	0	23379	0	139351
20	139351	86580	106342	0	26941	0	131949
21	131949	84790	106342	0	21413	0	133316
22	133316	278140	106342	0	21773	0	139351
23	139351	59070	106342	0	34852	0	118203
24	118203	113190	106342	0	25711	0	139351
25	139351	106700	106342	0	20498	0	125316
26	125316	251030	106342	0	21352	0	139351
27	139351	89390	106342	0	24886	0	123507
28	123507	260970	106342	0	22758	0	139351
29	139351	248730	106342	0	23379	0	139351
30	139351	243800	106342	0	24562	0	138473
31	138473	87630	106342	0	29146	0	139350
32	139350	48220	106342	0	30961	0	109122
33	109122	162180	106342	0	20793	0	139351
34	139351	198150	106342	0	26626	0	139351
35	139351	197980	106342	0	27233	0	139351
36	139351	75640	106342	0	25712	0	139351
PERIOD TOTALS		5709010	3828312	0	906820	0	
PERIOD AVERAGES		158583	106342	0	25189	0	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 7

ƎAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	37775	46480	0	0	6728	715658	37775
2	37775	33370	0	0	8490	843853	37775
3	37775	6450	0	0	14290	2709	37774
4	37774	13680	0	0	10547	20081	37775
5	37775	36580	0	0	8491	170600	37775
6	37775	21490	0	0	9770	20118	37775
7	37775	13780	0	0	13797	0	37774
8	37774	9630	0	0	14820	15103	37775
9	37775	14490	0	0	7998	31511	37775
10	37775	29350	0	0	11251	84705	37775
11	37775	9390	0	0	13654	0	37775
12	37775	3280	0	0	15005	0	37774
13	37774	6350	0	0	12452	0	37775
14	37775	2830	0	0	18322	0	37775
15	37775	0	0	0	13336	0	37775
16	37775	840	0	0	19818	0	37775
17	37775	49070	0	0	5597	420119	37775
18	37775	24860	0	0	9664	117725	37775
19	37775	19010	0	0	9728	88995	37775
20	37775	9500	0	0	11428	8028	37775
21	37775	9280	0	0	9345	0	37775
22	37775	30420	0	0	9905	98114	37775
23	37775	6470	0	0	14961	0	37775
24	37775	12380	0	0	10825	11828	37775
25	37775	11650	0	0	8954	10298	37775
26	37775	27450	0	0	9199	96884	37775
27	37775	9780	0	0	11001	5090	37775
28	37775	28530	0	0	9975	114386	37775
29	37775	27210	0	0	9516	107960	37775
30	37775	26670	0	0	10116	86764	37775
31	37775	9580	0	0	12238	0	37775
32	37775	5270	0	0	12591	0	37775
33	37775	17750	0	0	8351	0	37775
34	37775	21680	0	0	10540	78609	37775
35	37775	21650	0	0	10966	48894	37775
36	37775	810	0	0	10080	0	37775
PERIOD TOTALS		617010	0	0	403749	3198032	
PERIOD AVERAGES		17139	0	0	11215	88834	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 8

.EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	0	327480	360000	129979	0	0	10
2	10	327480	360000	145510	0	0	10
3	10	327480	360000	170994	0	0	10
4	10	327480	360000	146520	0	0	10
5	10	327480	360000	124874	0	0	10
6	10	327480	360000	125247	0	0	10
7	10	327480	360000	155351	0	0	10
8	10	327480	360000	193221	0	0	10
9	10	327480	360000	222521	0	0	10
10	10	327480	360000	194520	0	0	10
11	10	327480	360000	242520	0	0	10
12	10	327480	360000	242520	0	0	10
13	10	327480	360000	241520	0	0	10
14	10	327480	360000	260520	0	0	10
15	10	327480	360000	260520	0	0	10
16	10	327480	360000	260520	0	0	10
17	10	327480	360000	158679	0	0	10
18	10	327480	360000	174520	0	0	10
19	10	327480	360000	146520	0	0	10
20	10	327480	360000	180429	0	0	10
21	10	327480	360000	154520	0	0	10
22	10	327480	360000	142536	0	0	10
23	10	327480	360000	222520	0	0	10
24	10	327480	360000	260520	0	0	10
25	10	327480	360000	241520	0	0	10
26	10	327480	360000	222520	0	0	10
27	10	327480	360000	203520	0	0	10
28	10	327480	360000	146520	0	0	10
29	10	327480	360000	203520	0	0	10
30	10	327480	360000	175520	0	0	10
31	10	327480	360000	232520	0	0	10
32	10	327480	360000	241520	0	0	10
33	10	327480	360000	118520	0	0	10
34	10	327480	360000	147744	0	0	10
35	10	327480	360000	146520	0	0	10
36	10	327480	360000	148860	0	0	10
PERIOD TOTALS		11789280	12960000	6785905	0	0	
PERIOD AVERAGES		327480	360000	188497	0	0	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 9

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	0	0	109942	0	0	0	0
2	0	0	109942	0	0	0	0
3	0	0	109942	0	0	0	0
4	0	0	109942	0	0	0	0
5	0	0	109942	0	0	0	0
6	0	0	109942	0	0	0	0
7	0	0	109942	0	0	0	0
8	0	0	109942	0	0	0	0
9	0	0	109942	0	0	0	0
10	0	0	109942	0	0	0	0
11	0	0	109942	0	0	0	0
12	0	0	109942	0	0	0	0
13	0	0	109942	0	0	0	0
14	0	0	109942	0	0	0	0
15	0	0	109942	0	0	0	0
16	0	0	109942	0	0	0	0
17	0	0	109942	0	0	0	0
18	0	0	109942	0	0	0	0
19	0	0	109942	0	0	0	0
20	0	0	109942	0	0	0	0
21	0	0	109942	0	0	0	0
22	0	0	109942	0	0	0	0
23	0	0	109942	0	0	0	0
24	0	0	109942	0	0	0	0
25	0	0	109942	0	0	0	0
26	0	0	109942	0	0	0	0
27	0	0	109942	0	0	0	0
28	0	0	109942	0	0	0	0
29	0	0	109942	0	0	0	0
30	0	0	109942	0	0	0	0
31	0	0	109942	0	0	0	0
32	0	0	109942	0	0	0	0
33	0	0	109942	0	0	0	0
34	0	0	109942	0	0	0	0
35	0	0	109942	0	0	0	0
36	0	0	109942	0	0	0	0
PERIOD TOTALS		0	3957912	0	0	0	
PERIOD AVERAGES		0	109942	0	0	0	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 10

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	0	0	133500	0	0	0	0
2	0	0	133500	0	0	0	0
3	0	0	133500	0	0	0	0
4	0	0	133500	0	0	0	0
5	0	0	133500	0	0	0	0
6	0	0	133500	0	0	0	0
7	0	0	133500	0	0	0	0
8	0	0	133500	0	0	0	0
9	0	0	133500	0	0	0	0
10	0	0	133500	0	0	0	0
11	0	0	133500	0	0	0	0
12	0	0	133500	0	0	0	0
13	0	0	133500	0	0	0	0
14	0	0	133500	0	0	0	0
15	0	0	133500	0	0	0	0
16	0	0	133500	0	0	0	0
17	0	0	133500	0	0	0	0
18	0	0	133500	0	0	0	0
19	0	0	133500	0	0	0	0
20	0	0	133500	0	0	0	0
21	0	0	133500	0	0	0	0
22	0	0	133500	0	0	0	0
23	0	0	133500	0	0	0	0
24	0	0	133500	0	0	0	0
25	0	0	133500	0	0	0	0
26	0	0	133500	0	0	0	0
27	0	0	133500	0	0	0	0
28	0	0	133500	0	0	0	0
29	0	0	133500	0	0	0	0
30	0	0	133500	0	0	0	0
31	0	0	133500	0	0	0	0
32	0	0	133500	0	0	0	0
33	0	0	133500	0	0	0	0
34	0	0	133500	0	0	0	0
35	0	0	133500	0	0	0	0
36	0	0	133500	0	0	0	0
PERIOD TOTALS		0	4806000	0	0	0	
PERIOD AVERAGES		0	133500	0	0	0	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 11

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	0	0	85440	0	0	0	0
2	0	0	85440	0	0	0	0
3	0	0	85440	0	0	0	0
4	0	0	85440	0	0	0	0
5	0	0	85440	0	0	0	0
6	0	0	85440	0	0	0	0
7	0	0	85440	0	0	0	0
8	0	0	85440	0	0	0	0
9	0	0	85440	0	0	0	0
10	0	0	85440	0	0	0	0
11	0	0	85440	0	0	0	0
12	0	0	85440	0	0	0	0
13	0	0	85440	0	0	0	0
14	0	0	85440	0	0	0	0
15	0	0	85440	0	0	0	0
16	0	0	85440	0	0	0	0
17	0	0	85440	0	0	0	0
18	0	0	85440	0	0	0	0
19	0	0	85440	0	0	0	0
20	0	0	85440	0	0	0	0
21	0	0	85440	0	0	0	0
22	0	0	85440	0	0	0	0
23	0	0	85440	0	0	0	0
24	0	0	85440	0	0	0	0
25	0	0	85440	0	0	0	0
26	0	0	85440	0	0	0	0
27	0	0	85440	0	0	0	0
28	0	0	85440	0	0	0	0
29	0	0	85440	0	0	0	0
30	0	0	85440	0	0	0	0
31	0	0	85440	0	0	0	0
32	0	0	85440	0	0	0	0
33	0	0	85440	0	0	0	0
34	0	0	85440	0	0	0	0
35	0	0	85440	0	0	0	0
36	0	0	85440	0	0	0	0
PERIOD TOTALS		0	3075840	0	0	0	
PERIOD AVERAGES		0	85440	0	0	0	

Tarrant Regional Water District East Texas System Model
SIMYLD-II Model
System Operations of East Texas System
2050 Sediment Conditions

RIVER BASIN SIMULATION PROGRAM - TEXAS WATER DEVELOPMENT BOARD

TITLE CARD EAST TEXAS RESERVOIR SYSTEM, TRWD, 2050

NUMBER OF NODES = 3 NUMBER OF RESERVOIRS = 2

NUMBER OF LINKS = 2 NUMBER OF RIVER REACHES = 0

CALENDAR YEAR OPERATION STARTS = 1941 NUMBER OF YEARS TO SIMULATE = 36

NUMBER OF DEMAND NODES = 3 NUMBER OF SPILL NODES = 2

YIELD NODE = 0 IMPORT NODE = 0

NODE NO.	NODE NAME	--------- CAPACITIES ---------			YEARLY
		MAXIMUM	MINIMUM	STARTING	DEMAND
1	RCR	923750	0	923750	182000
2	CCR	557265	0	557265	110000
3	TRWD	0	0	0	131000

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SYSTEM CONFIGURATION

LINK NO.	FROM NODE	TO NODE	MAX. CAPACITY	MIN. CAPACITY
1	1	3	999999999	0
2	2	3	999999999	0

LIST OF SPILL RESERVOIRS - 1 2

YEARLY IMPORT QUANTITY = 0

MONTHLY IMPORT DISTRIBUTION - .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00

SUB-SYSTEM OF RESERVOIRS 1 2

'AVERAGE' DEFINED AS BETWEEN10.00, AND40.00 PERCENT FULL OF SUBSYSTEM

FACTORS

MULTIPLY LINK CAPACITIES BY 1.000

MULTIPLY INFLOWS BY 10.00

MULTIPLY DEMANDS BY 1.00

RIVER BASIN SIMULATION PROGRAM - TEXAS WATER DEVELOPMENT BOARD

TITLE CARD EAST TEXAS RESERVOIR SYSTEM, TRWD, 2050

MONTHLY DEMAND DISTRIBUTION

NODE NO.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT	OCT.	NOV.	DEC.	* RANK * AVG	DRY	WET
1	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	1	1	1
2	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	1	1	1
3	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	2	2	2

RIVER BASIN SIMULATION PROGRAM - TEXAS WATER DEVELOPMENT BOARD

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

DESIRED MONTHLY STORAGE LEVEL (PERCENT FULL)

RESERVOIR NO.

1	AVRG	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	10
	DRY	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	10
	WET	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	3
2	AVRG	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	3
	DRY	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	3
	WET	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	10

RIVER BASIN SIMULATION PROGRAM - TEXAS WATER DEVELOPMENT BOARD

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

RESERVOIRS AREA - CAPACITY TABLES

	RESERVOIR NO. 1		RESERVOIR NO. 2		RESERVOIR NO.
1	0	0	0	0	
2	715	1340	31	55	
3	3051	10335	665	1607	
4	5569	31913	1776	7478	
5	7705	65064	3622	20595	
6	10167	110142	5568	43546	
7	13202	168762	7803	77253	
8	16295	242357	10131	122074	
9	19722	332350	13849	181432	
10	24028	441639	18489	262152	
11	28606	573402	23347	366468	
12	34178	730420	28450	496957	
13	41356	923750	32623	557265	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 1 CALENDAR YEAR 1941

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	63910	0	12740	41356	.04	1654	0	0	0	6077	43439	923750	923750
2	923750	276290	0	12740	41356	-.10	-4135	0	0	0	0	267685	923750	923750
3	923750	159090	0	12740	41356	.02	827	0	0	0	0	145523	923750	923750
4	923750	91570	0	14560	41356	.06	2481	0	0	0	612	73917	923750	923750
5	923750	168120	0	14560	41356	.11	4549	0	0	0	0	149011	923750	923750
6	923750	222620	0	16380	41295	-.08	-3303	0	0	0	0	209547	923746	923750
7	923746	163250	0	20020	41356	.33	13647	0	0	0	14302	115277	923750	923750
8	923750	8870	0	20020	40816	.44	17959	0	0	0	0	0	894641	923750
9	894641	210	0	16380	39732	.33	13112	0	0	0	0	0	865359	923750
10	865359	15940	0	14560	39192	.03	1176	0	0	0	0	0	865563	923750
11	865563	3930	0	14560	38876	.17	6609	0	0	0	0	0	848324	923750
12	848324	12160	0	12740	38545	.00	0	0	0	0	0	0	847744	923750
YEAR TOTALS		1185960	0	182000			54576	0	0	0	20991	1004399		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	12750	0	7700	32623	.06	1957	0	0	0	3093	0	557265	557265
2	557265	54710	0	7700	32623	-.07	-2283	0	0	0	9170	40123	557265	557265
3	557265	64380	0	7700	32623	.03	979	0	0	0	9170	46531	557265	557265
4	557265	19320	0	8800	32623	.02	652	0	0	0	9868	0	557265	557265
5	557265	87660	0	8800	32623	.18	5872	0	0	0	10480	62508	557265	557265
	557265	268310	0	9900	32623	-.16	-5219	0	0	0	11790	251839	557265	557265
7	557265	23300	0	12100	32623	.34	11092	0	0	0	108	0	557265	557265
8	557265	14710	0	12100	31764	.41	13023	0	0	0	14410	0	532442	557265
9	532442	900	0	9900	29856	.32	9554	0	0	0	11790	0	502098	557265
10	502098	13730	0	8800	28525	.09	2567	0	0	0	10480	0	493981	557265
11	493981	10160	0	8800	28084	.13	3651	0	0	0	10480	0	481210	557265
12	481210	18470	0	7700	27860	.01	279	0	0	0	9170	0	482531	557265
YEAR TOTALS		588400	0	110000			42124	0	0	0	110009	401001		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 1 CALENDAR YEAR 1941

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 2 CALENDAR YEAR 1942

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	847744	3790	0	12740	38283	.12	4594	0	0	0	0	0	834200	923750
2	834200	8700	0	12740	37872	.12	4545	0	0	0	0	0	825615	923750
3	825615	10390	0	12740	37509	.23	8627	0	0	0	0	0	814638	923750
4	814638	673250	0	14560	39330	-.31	-12191	0	0	0	0	561769	923750	923750
5	923750	129220	0	14560	41356	.06	2481	0	0	0	0	112179	923750	923750
6	923750	79810	0	16380	41356	.17	7031	0	0	0	0	56399	923750	923750
7	923750	1370	0	20020	40670	.45	18301	0	0	0	0	0	886799	923750
8	886799	14980	0	20020	39611	.38	15052	0	0	0	0	0	866707	923750
9	866707	152740	0	16380	40297	.15	6045	0	0	0	11790	61482	923750	923750
10	923750	71470	0	14560	41356	.17	7031	0	0	0	10480	39399	923750	923750
11	923750	47610	0	14560	41356	.15	6203	0	0	0	10480	16367	923750	923750
12	923750	71410	0	12740	41325	-.04	-1652	0	0	0	9170	51153	923749	923750
YEAR TOTALS		1264740	0	182000			66067	0	0	0	41920	898748		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	482531	6680	0	7700	27638	.09	2487	0	0	0	9170	0	469854	557265
2	469854	17110	0	7700	27325	.13	3552	0	0	0	9170	0	466542	557265
3	466542	11420	0	7700	27059	.18	4871	0	0	0	9170	0	456221	557265
4	456221	404040	0	8800	29127	-.38	-11067	0	0	0	10480	294783	557265	557265
5	557265	120050	0	8800	32623	.14	4567	0	0	0	10480	96203	557265	557265
	557265	105870	0	9900	32623	.16	5220	0	0	0	11790	78960	557265	557265
7	557265	940	0	12100	31199	.50	15599	0	0	0	14410	0	516096	557265
8	516096	4660	0	12100	28701	.32	9184	0	0	0	14410	0	485062	557265
9	485062	23360	0	9900	28132	.21	5908	0	0	0	0	0	492614	557265
10	492614	9560	0	8800	28207	.16	4513	0	0	0	0	0	488861	557265
11	488861	22100	0	8800	28310	.15	4246	0	0	0	0	0	497915	557265
12	497915	56810	0	7700	30289	-.07	-2119	0	0	0	0	0	549144	557265
YEAR TOTALS		782600	0	110000			46961	0	0	0	89080	469946		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 2 CALENDAR YEAR 1942

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 3 CALENDAR YEAR 1943

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923749	17120	0	12740	41356	.08	3308	0	0	0	1071	0	923750	923750
2	923750	4250	0	12740	41031	.22	9027	0	0	0	0	0	906233	923750
3	906233	52790	0	12740	41031	.04	1641	0	0	0	0	20892	923750	923750
4	923750	57910	0	14560	41356	.23	9512	0	0	0	0	33838	923750	923750
5	923750	253280	0	14560	41356	.07	2895	0	0	0	0	235825	923750	923750
6	923750	62120	0	16380	41356	.25	10339	0	0	0	0	35401	923750	923750
7	923750	420	0	20020	40667	.43	17487	0	0	0	0	0	886663	923750
8	886663	20	0	20020	39143	.64	25052	0	0	0	0	0	841611	923750
9	841611	52260	0	16380	38814	.22	8539	0	0	0	0	0	868952	923750
10	868952	40820	0	14560	39684	.17	6746	0	0	0	0	0	888466	923750
11	888466	70	0	14560	39630	.20	7926	0	0	0	0	0	866050	923750
12	866050	3180	0	12740	39080	-.06	-2344	0	0	0	0	0	858834	923750
YEAR TOTALS		544240	0	182000			100128	0	0	0	1071	325956		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	549144	17390	0	7700	31983	.12	3838	0	0	0	8099	0	546897	557265
2	546897	9120	0	7700	31388	.23	7219	0	0	0	9170	0	531928	557265
3	531928	49880	0	7700	31746	.04	1270	0	0	0	9170	6403	557265	557265
4	557265	34190	0	8800	32623	.24	7830	0	0	0	10480	7080	557265	557265
5	557265	63630	0	8800	32623	-.10	-3261	0	0	0	10480	47611	557265	557265
	557265	157430	0	9900	32623	.24	7830	0	0	0	11790	127910	557265	557265
7	557265	1090	0	12100	31172	.53	16521	0	0	0	14410	0	515324	557265
8	515324	810	0	12100	28284	.69	19516	0	0	0	14410	0	470108	557265
9	470108	1590	0	9900	26870	.26	6986	0	0	0	11790	0	443022	557265
10	443022	13900	0	8800	26189	.09	2357	0	0	0	10480	0	435285	557265
11	435285	830	0	8800	25557	.24	6134	0	0	0	10480	0	410701	557265
12	410701	10010	0	7700	24967	-.05	-1247	0	0	0	9170	0	405088	557265
YEAR TOTALS		359870	0	110000			74993	0	0	0	129929	189004		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 3 CALENDAR YEAR 1943

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 4 CALENDAR YEAR 1944

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	858834	76310	0	12740	40151	-.19	-7628	0	0	0	6282	0	923750	923750
2	923750	199040	0	12740	41356	-.15	-6202	0	0	0	9170	183332	923750	923750
3	923750	70650	0	12740	41341	-.02	-826	0	0	0	9170	49566	923750	923750
4	923750	30530	0	14560	41356	.10	4136	0	0	0	10480	1354	923750	923750
5	923750	606550	0	14560	41356	-.36	-14887	0	0	0	0	606877	923750	923750
6	923750	51170	0	16380	41356	.39	16129	0	0	0	11790	6871	923750	923750
7	923750	2280	0	20020	40619	.54	21934	0	0	0	0	0	884076	923750
8	884076	10	0	20020	39177	.46	18021	0	0	0	0	0	846045	923750
9	846045	0	0	16380	37851	.45	17033	0	0	0	0	0	812632	923750
10	812632	40	0	14560	36668	.43	15767	0	0	0	0	0	782345	923750
11	782345	3250	0	14560	36003	-.16	-5759	0	0	0	0	0	776794	923750
12	776794	68000	0	12740	37036	-.16	-5925	0	0	0	0	0	837979	923750
YEAR TOTALS		1107830	0	182000			51793	0	0	0	46892	848000		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	405088	45460	0	7700	25584	-.09	-2302	0	0	0	2888	0	442262	557265
2	442262	68990	0	7700	27574	-.12	-3308	0	0	0	0	0	506860	557265
3	506860	44950	0	7700	30424	.01	304	0	0	0	0	0	543806	557265
4	543806	15050	0	8800	31798	.10	3180	0	0	0	0	0	546876	557265
5	546876	256390	0	8800	32264	-.30	-9678	0	0	0	10480	236399	557265	557265
	557265	18680	0	9900	32623	.44	14354	0	0	0	0	0	551691	557265
7	551691	1120	0	12100	30815	.51	15716	0	0	0	14410	0	510585	557265
8	510585	750	0	12100	28236	.44	12424	0	0	0	14410	0	472401	557265
9	472401	870	0	9900	26862	.42	11282	0	0	0	11790	0	440299	557265
10	440299	820	0	8800	25682	.38	9759	0	0	0	10480	0	412080	557265
11	412080	20150	0	8800	25187	-.08	-2014	0	0	0	10480	0	414964	557265
12	414964	87210	0	7700	26713	-.18	-4807	0	0	0	9170	0	490111	557265
YEAR TOTALS		560440	0	110000			44910	0	0	0	84108	236399		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 4 CALENDAR YEAR 1944

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 5 CALENDAR YEAR 1945

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	837979	136890	0	12740	39742	-.03	-1191	0	0	0	9170	30401	923749	923750
2	923749	239660	0	12740	41356	-.11	-4548	0	0	0	0	231467	923750	923750
3	923750	555560	0	12740	41356	-.37	-15301	0	0	0	0	558121	923750	923750
4	923750	299800	0	14560	41318	-.05	-2065	0	0	0	0	287307	923748	923750
5	923748	12200	0	14560	41121	.25	10280	0	0	0	0	0	911108	923750
6	911108	188130	0	16380	41121	.13	5346	0	0	0	0	153762	923750	923750
7	923750	128550	0	20020	41356	.14	5790	0	0	0	0	102740	923750	923750
8	923750	5990	0	20020	40944	.20	8189	0	0	0	0	0	901531	923750
9	901531	1870	0	16380	39899	.49	19551	0	0	0	0	0	867470	923750
10	867470	70250	0	14560	40300	.02	806	0	0	0	0	0	922354	923750
11	922354	16170	0	14560	41330	.21	8679	0	0	0	0	0	915285	923750
12	915285	32870	0	12740	41199	.04	1648	0	0	0	9170	847	923750	923750
YEAR TOTALS		1687940	0	182000			37184	0	0	0	18340	1364645		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	490111	56270	0	7700	29657	.00	0	0	0	0	0	0	538681	557265
2	538681	117900	0	7700	31980	-.12	-3837	0	0	0	9170	86283	557265	557265
3	557265	336480	0	7700	32623	-.50	-16311	0	0	0	9170	335921	557265	557265
4	557265	126620	0	8800	32623	.07	2284	0	0	0	10480	105056	557265	557265
5	557265	3570	0	8800	31772	.28	8896	0	0	0	10480	0	532659	557265
	532659	125000	0	9900	31772	.10	3177	0	0	0	11790	75527	557265	557265
7	557265	125300	0	12100	32623	.10	3262	0	0	0	14410	95528	557265	557265
8	557265	1420	0	12100	31407	.32	10050	0	0	0	14410	0	522125	557265
9	522125	1830	0	9900	29082	.42	12214	0	0	0	11790	0	490051	557265
10	490051	20360	0	8800	28162	.07	1971	0	0	0	10480	0	489160	557265
11	489160	13230	0	8800	27928	.18	5027	0	0	0	10480	0	478083	557265
12	478083	12800	0	7700	27757	.10	2776	0	0	0	0	0	480407	557265
YEAR TOTALS		940780	0	110000			29509	0	0	0	112660	698315		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 5 CALENDAR YEAR 1945

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 6 CALENDAR YEAR 1946

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	65630	0	12740	41356	-.18	-7443	0	0	0	9170	51163	923750	923750
2	923750	173010	0	12740	41302	-.07	-2890	0	0	0	0	163164	923746	923750
3	923746	68850	0	12740	41325	-.04	-1652	0	0	0	0	57759	923749	923750
4	923749	28020	0	14560	41356	.13	5376	0	0	0	8083	0	923750	923750
5	923750	326650	0	14560	41356	-.23	-9511	0	0	0	0	321601	923750	923750
6	923750	65470	0	16380	41356	.28	11580	0	0	0	0	37510	923750	923750
7	923750	630	0	20020	40597	.53	21516	0	0	0	0	0	882844	923750
8	882844	6140	0	20020	39353	.31	12199	0	0	0	0	0	856765	923750
9	856765	250	0	16380	38285	.40	15314	0	0	0	0	0	825321	923750
10	825321	200	0	14560	37228	.30	11168	0	0	0	0	0	799793	923750
11	799793	52910	0	14560	37697	-.33	-12439	0	0	0	0	0	850582	923750
12	850582	28320	0	12740	38864	.09	3498	0	0	0	0	0	862664	923750
YEAR TOTALS		816080	0	182000			46716	0	0	0	17253	631197		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	480407	74050	0	7700	29775	-.17	-5061	0	0	0	0	0	551818	557265
2	551818	124570	0	7700	32412	-.02	-647	0	0	0	9170	102901	557264	557265
3	557264	24620	0	7700	32623	.04	1305	0	0	0	9170	6444	557265	557265
4	557265	8290	0	8800	32421	.09	2918	0	0	0	2397	0	551440	557265
5	551440	127770	0	8800	32421	-.21	-6807	0	0	0	10480	109472	557265	557265
	557265	117340	0	9900	32623	.30	9787	0	0	0	11790	85863	557265	557265
7	557265	850	0	12100	31153	.54	16823	0	0	0	14410	0	514782	557265
8	514782	6630	0	12100	28777	.22	6331	0	0	0	14410	0	488571	557265
9	488571	2450	0	9900	27563	.34	9371	0	0	0	11790	0	459960	557265
10	459960	1750	0	8800	26515	.28	7424	0	0	0	10480	0	435006	557265
11	435006	185970	0	8800	28418	-.28	-7956	0	0	0	10480	52387	557265	557265
12	557265	28360	0	7700	32623	.07	2284	0	0	0	9170	9206	557265	557265
YEAR TOTALS		702650	0	110000			35772	0	0	0	113747	366273		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM, TRWD, 2050

SIMULATION YEAR 6 CALENDAR YEAR 1946

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 7 CALENDAR YEAR 1947

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 8 CALENDAR YEAR 1948

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	783219	19560	0	12740	36332	-.10	-3632	0	0	0	0	0	793671	923750
2	793671	30770	0	12740	36937	-.11	-4062	0	0	0	0	0	815763	923750
3	815763	58870	0	12740	38160	.06	2290	0	0	0	0	0	859603	923750
4	859603	18850	0	14560	38945	.15	5842	0	0	0	0	0	858051	923750
5	858051	289170	0	14560	40136	.00	0	0	0	0	0	208911	923750	923750
6	923750	4660	0	16380	40820	.42	17144	0	0	0	0	0	894886	923750
7	894886	11410	0	20020	39712	.56	22239	0	0	0	0	0	864037	923750
8	864037	10	0	20020	38291	.67	25655	0	0	0	0	0	818372	923750
9	818372	0	0	16380	36744	.58	21312	0	0	0	0	0	780680	923750
10	780680	0	0	14560	35510	.40	14204	0	0	0	0	0	751916	923750
11	751916	0	0	14560	34603	.16	5536	0	0	0	0	0	731820	923750
12	731820	0	0	12740	33953	.08	2716	0	0	0	0	0	716364	923750
YEAR TOTALS		433300	0	182000			109244	0	0	0	0	208911		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	547763	44690	0	7700	32294	-.07	-2260	0	0	0	9170	20578	557265	557265
2	557265	56640	0	7700	32623	-.08	-2609	0	0	0	9170	42379	557265	557265
3	557265	71880	0	7700	32623	.04	1305	0	0	0	9170	53705	557265	557265
4	557265	6650	0	8800	31954	.21	6710	0	0	0	10480	0	537925	557265
5	537925	102770	0	8800	31921	-.03	-957	0	0	0	10480	65108	557264	557265
6	557264	1100	0	9900	31432	.44	13830	0	0	0	11790	0	522844	557265
7	522844	1800	0	12100	28779	.61	17555	0	0	0	14410	0	480579	557265
8	480579	890	0	12100	26945	.69	18592	0	0	0	14410	0	436367	557265
9	436367	790	0	9900	25369	.61	15475	0	0	0	11790	0	399992	557265
10	399992	800	0	8800	24136	.34	8206	0	0	0	10480	0	373306	557265
11	373306	1520	0	8800	23171	.15	3476	0	0	0	10480	0	352070	557265
12	352070	1550	0	7700	22289	.06	1337	0	0	0	9170	0	335413	557265
YEAR TOTALS		291080	0	110000			80660	0	0	0	131000	181770		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 8 CALENDAR YEAR 1948

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 9 CALENDAR YEAR 1949

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	716364	8660	0	12740	33787	-.30	-10135	0	0	0	0	0	722419	923750
2	722419	46700	0	12740	34556	-.07	-2418	0	0	0	0	0	758797	923750
3	758797	32510	0	12740	35585	.02	712	0	0	0	0	0	777855	923750
4	777855	30080	0	14560	36261	-.05	-1812	0	0	0	0	0	795187	923750
5	795187	42610	0	14560	37000	.15	5550	0	0	0	0	0	817687	923750
6	817687	13780	0	16380	37197	.25	9299	0	0	0	0	0	805788	923750
7	805788	3110	0	20020	36412	.37	13472	0	0	0	0	0	775406	923750
8	775406	290	0	20020	35240	.37	13039	0	0	0	0	0	742637	923750
9	742637	0	0	16380	34061	.43	14646	0	0	0	0	0	711611	923750
10	711611	3210	0	14560	33446	-.23	-7692	0	0	0	0	0	707953	923750
11	707953	10	0	14560	32936	.32	10540	0	0	0	0	0	682863	923750
12	682863	10	0	12740	32287	-.04	-1290	0	0	0	0	0	671423	923750
YEAR TOTALS		180970	0	182000			43911	0	0	0	0	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	335413	42230	0	7700	22671	-.34	-7707	0	0	0	9170	0	368480	557265
2	368480	86900	0	7700	24848	-.11	-2732	0	0	0	9170	0	441242	557265
3	441242	23050	0	7700	26371	.04	1055	0	0	0	9170	0	446367	557265
4	446367	21920	0	8800	26549	-.05	-1326	0	0	0	10480	0	450333	557265
5	450333	25620	0	8800	26678	.14	3735	0	0	0	10480	0	452938	557265
	452938	7850	0	9900	26299	.31	8153	0	0	0	11790	0	430945	557265
7	430945	870	0	12100	25195	.35	8818	0	0	0	14410	0	396487	557265
8	396487	0	0	12100	23812	.41	9763	0	0	0	14410	0	360214	557265
9	360214	0	0	9900	22322	.44	9822	0	0	0	11790	0	328702	557265
10	328702	7340	0	8800	21445	-.27	-5789	0	0	0	10480	0	322551	557265
11	322551	280	0	8800	20719	.29	6009	0	0	0	10480	0	297542	557265
12	297542	300	0	7700	19747	.01	197	0	0	0	9170	0	280775	557265
YEAR TOTALS		216360	0	110000			29998	0	0	0	131000	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 9 CALENDAR YEAR 1949

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 10 CALENDAR YEAR 1950

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	671423	3540	0	12740	31978	-.10	-3197	0	0	0	0	0	665420	923750
2	665420	145040	0	12740	34361	-.22	-7558	0	0	0	0	0	805278	923750
3	805278	6710	0	12740	36689	.23	8438	0	0	0	0	0	790810	923750
4	790810	85280	0	14560	37768	-.05	-1887	0	0	0	0	0	863417	923750
5	863417	73460	0	14560	40209	-.02	-803	0	0	0	0	0	923120	923750
6	923120	3730	0	16380	40900	.26	10634	0	0	0	0	0	899836	923750
7	899836	2680	0	20020	39924	.30	11977	0	0	0	0	0	870519	923750
8	870519	20	0	20020	38650	.50	19325	0	0	0	0	0	831194	923750
9	831194	220	0	16380	37501	.17	6375	0	0	0	0	0	808659	923750
10	808659	0	0	14560	36575	.35	12801	0	0	0	0	0	781298	923750
11	781298	0	0	14560	35579	.33	11741	0	0	0	0	0	754997	923750
12	754997	0	0	12740	34706	.23	7982	0	0	0	0	0	734275	923750
YEAR TOTALS		320680	0	182000			75828	0	0	0	0	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	280775	40550	0	7700	19973	-.14	-2795	0	0	0	9170	0	307250	557265
2	307250	203160	0	7700	24805	-.27	-6696	0	0	0	9170	0	500236	557265
3	500236	3820	0	7700	28202	.22	6204	0	0	0	9170	0	480982	557265
4	480982	44560	0	8800	28369	-.09	-2552	0	0	0	10480	0	508814	557265
5	508814	106930	0	8800	30872	-.07	-2160	0	0	0	10480	41364	557260	557265
[illegible]	557260	2810	0	9900	31641	.30	9492	0	0	0	11790	0	528888	557265
7	528888	16320	0	12100	30057	.24	7214	0	0	0	14410	0	511484	557265
8	511484	2830	0	12100	28295	.47	13299	0	0	0	14410	0	474505	557265
9	474505	1320	0	9900	27110	.12	3253	0	0	0	11790	0	450882	557265
10	450882	800	0	8800	26128	.31	8100	0	0	0	10480	0	424302	557265
11	424302	1630	0	8800	25116	.30	7535	0	0	0	10480	0	399117	557265
12	399117	130	0	7700	24192	.22	5322	0	0	0	9170	0	377055	557265
YEAR TOTALS		424860	0	110000			46216	0	0	0	131000	41364		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 10 CALENDAR YEAR 1950

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 11 CALENDAR YEAR 1951

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	734275	120	0	12740	34018	.12	4082	0	0	0	0	0	717573	923750
2	717573	2350	0	12740	33573	-.06	-2013	0	0	0	0	0	709196	923750
3	709196	100	0	12740	33083	.20	6617	0	0	0	0	0	689939	923750
4	689939	150	0	14560	32331	.27	8729	0	0	0	0	0	666800	923750
5	666800	3720	0	14560	31588	.25	7897	0	0	0	0	0	648063	923750
6	648063	50340	0	16380	31745	.20	6349	0	0	0	0	0	675674	923750
7	675674	10	0	20020	31506	.67	21109	0	0	0	0	0	634555	923750
8	634555	0	0	20020	29958	.87	26063	0	0	0	0	0	588472	923750
9	588472	5440	0	16380	28906	.08	2312	0	0	0	0	0	575220	923750
10	575220	0	0	14560	28254	.33	9324	0	0	0	0	0	551336	923750
11	551336	0	0	14560	27491	.20	5498	0	0	0	0	0	531278	923750
12	531278	0	0	12740	26865	.12	3224	0	0	0	0	0	515314	923750
YEAR TOTALS		62230	0	182000			99191	0	0	0	0	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	377055	10110	0	7700	23601	.06	1416	0	0	0	9170	0	368879	557265
2	368879	43820	0	7700	24010	-.09	-2160	0	0	0	9170	0	397989	557265
3	397989	830	0	7700	24176	.19	4593	0	0	0	9170	0	377356	557265
4	377356	780	0	8800	23309	.21	4895	0	0	0	10480	0	353961	557265
5	353961	11570	0	8800	22465	.23	5167	0	0	0	10480	0	341084	557265
	341084	63780	0	9900	23075	.13	3000	0	0	0	11790	0	380174	557265
7	380174	2330	0	12100	23137	.53	12263	0	0	0	14410	0	343731	557265
8	343731	0	0	12100	21294	.76	16183	0	0	0	14410	0	301038	557265
9	301038	200	0	9900	19795	.01	198	0	0	0	11790	0	279350	557265
10	279350	1070	0	8800	18761	.24	4503	0	0	0	10480	0	256637	557265
11	256637	150	0	8800	17526	.19	3330	0	0	0	10480	0	234177	557265
12	234177	0	0	7700	16363	.07	1145	0	0	0	9170	0	216162	557265
YEAR TOTALS		134640	0	110000			54533	0	0	0	131000	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 11 CALENDAR YEAR 1951

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 12 CALENDAR YEAR 1952

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	515314	0	0	12740	26330	.08	2106	0	0	0	0	0	500468	923750
2	500468	1980	0	12740	25899	-.03	-776	0	0	0	0	0	490484	923750
3	490484	4950	0	12740	25563	.06	1534	0	0	0	0	0	481160	923750
4	481160	116650	0	14560	27246	-.15	-4086	0	0	0	0	0	587336	923750
5	587336	85590	0	14560	30372	-.02	-606	0	0	0	0	0	658972	923750
6	658972	620	0	16380	31120	.44	13693	0	0	0	0	0	629519	923750
7	629519	80	0	20020	30004	.45	13502	0	0	0	0	0	596077	923750
8	596077	0	0	20020	28644	.81	23202	0	0	0	0	0	552855	923750
9	552855	0	0	16380	27276	.70	19093	0	0	0	0	0	517382	923750
10	517382	0	0	14560	26125	.62	16197	0	0	0	0	0	486625	923750
11	486625	8280	0	14560	25557	-.17	-4344	0	0	0	0	0	484689	923750
12	484689	45730	0	12740	26165	-.15	-3924	0	0	0	0	0	521603	923750
YEAR TOTALS		263880	0	182000			75591	0	0	0	0	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	216162	540	0	7700	15328	.11	1686	0	0	0	9170	0	198146	557265
2	198146	440	0	7700	14338	.00	0	0	0	0	9170	0	181716	557265
3	181716	6340	0	7700	13516	.05	676	0	0	0	9170	0	170510	557265
4	170510	138330	0	8800	16715	-.15	-2506	0	0	0	10480	0	292066	557265
5	292066	98980	0	8800	21743	-.01	-216	0	0	0	10480	0	371982	557265
6	371982	6980	0	9900	23031	.43	9903	0	0	0	11790	0	347369	557265
7	347369	730	0	12100	21611	.49	10589	0	0	0	14410	0	311000	557265
8	311000	600	0	12100	19765	.86	16998	0	0	0	14410	0	268092	557265
9	268092	670	0	9900	17852	.73	13032	0	0	0	11790	0	234040	557265
10	234040	140	0	8800	16037	.62	9943	0	0	0	10480	0	204957	557265
11	204957	9760	0	8800	15001	-.17	-2549	0	0	0	10480	0	197986	557265
12	197986	58900	0	7700	16078	-.15	-2411	0	0	0	9170	0	242427	557265
YEAR TOTALS		322410	0	110000			55145	0	0	0	131000	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 12   CALENDAR YEAR 1952

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 13 CALENDAR YEAR 1953

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	521603	13180	0	12740	26767	.10	2677	0	0	0	0	0	519366	923750
2	519366	2190	0	12740	26550	-.01	-265	0	0	0	0	0	509081	923750
3	509081	83690	0	12740	27642	-.08	-2210	0	0	0	0	0	582241	923750
4	582241	24700	0	14560	29151	-.10	-2914	0	0	0	0	0	595295	923750
5	595295	333400	0	14560	35198	-.18	-6335	0	0	0	0	0	920470	923750
6	920470	300	0	16380	40559	.50	20279	0	0	0	0	0	884111	923750
7	884111	520	0	20020	39296	.31	12182	0	0	0	0	0	852429	923750
8	852429	0	0	20020	38061	.39	14844	0	0	0	0	0	817565	923750
9	817565	1480	0	16380	36897	.35	12914	0	0	0	0	0	789751	923750
10	789751	3440	0	14560	36047	.19	6849	0	0	0	0	0	771782	923750
11	771782	520	0	14560	35387	.10	3539	0	0	0	0	0	754203	923750
12	754203	13930	0	12740	35168	-.13	-4571	0	0	0	0	0	759964	923750
YEAR TOTALS		477350	0	182000			56989	0	0	0	0	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	242427	14480	0	7700	17227	.12	2067	0	0	0	9170	0	237970	557265
2	237970	920	0	7700	16617	.05	831	0	0	0	9170	0	221189	557265
3	221189	26830	0	7700	16439	-.04	-657	0	0	0	9170	0	231806	557265
4	231806	45460	0	8800	17522	-.05	-875	0	0	0	10480	0	258861	557265
5	258861	246380	0	8800	23616	-.08	-1888	0	0	0	10480	0	487849	557265
[illegible]	487849	850	0	9900	27397	.54	14794	0	0	0	11790	0	452215	557265
7	452215	840	0	12100	26086	.22	5739	0	0	0	14410	0	420806	557265
8	420806	1090	0	12100	24786	.39	9667	0	0	0	14410	0	385719	557265
9	385719	4580	0	9900	23599	.36	8496	0	0	0	11790	0	360113	557265
10	360113	840	0	8800	22475	.28	6293	0	0	0	10480	0	335380	557265
11	335380	630	0	8800	21430	.07	1500	0	0	0	10480	0	315230	557265
12	315230	14820	0	7700	20942	-.06	-1256	0	0	0	9170	0	314436	557265
YEAR TOTALS		357720	0	110000			44711	0	0	0	131000	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 13 CALENDAR YEAR 1953

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 14 CALENDAR YEAR 1954

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	759964	10600	0	12740	35268	-.05	-1762	0	0	0	0	0	759586	923750
2	759586	90	0	12740	34890	.21	7327	0	0	0	0	0	739609	923750
3	739609	30	0	12740	34145	.22	7512	0	0	0	0	0	719387	923750
4	719387	290	0	14560	33492	.07	2344	0	0	0	0	0	702773	923750
5	702773	26960	0	14560	33423	-.01	-333	0	0	0	0	0	715506	923750
6	715506	10	0	16380	33053	.52	17188	0	0	0	0	0	681948	923750
7	681948	0	0	20020	31659	.79	25011	0	0	0	0	0	636917	923750
8	636917	10	0	20020	30052	.85	25544	0	0	0	0	0	591363	923750
9	591363	0	0	16380	28588	.72	20583	0	0	0	0	0	554400	923750
10	554400	250	0	14560	27673	.05	1384	0	0	0	0	0	538706	923750
11	538706	750	0	14560	27095	.14	3793	0	0	0	0	0	521103	923750
12	521103	10	0	12740	26490	.17	4503	0	0	0	0	0	503870	923750
YEAR TOTALS		39000	0	182000			113094	0	0	0	0	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	314436	42980	0	7700	21572	-.08	-1725	0	0	0	9170	0	342271	557265
2	342271	5190	0	7700	21851	.19	4152	0	0	0	9170	0	326439	557265
3	326439	100	0	7700	20990	.21	4408	0	0	0	9170	0	305261	557265
4	305261	9630	0	8800	20244	.06	1215	0	0	0	10480	0	294396	557265
5	294396	40590	0	8800	20501	-.03	-614	0	0	0	10480	0	316320	557265
	316320	840	0	9900	20295	.49	9945	0	0	0	11790	0	285525	557265
7	285525	10	0	12100	18597	.84	15621	0	0	0	14410	0	243404	557265
8	243404	10	0	12100	16225	.91	14765	0	0	0	14410	0	202139	557265
9	202139	10	0	9900	14140	.68	9615	0	0	0	11790	0	170844	557265
10	170844	27660	0	8800	13444	.01	134	0	0	0	10480	0	179090	557265
11	179090	19170	0	8800	13647	.12	1638	0	0	0	10480	0	177342	557265
12	177342	880	0	7700	13027	.16	2084	0	0	0	9170	0	159268	557265
YEAR TOTALS		147070	0	110000			61238	0	0	0	131000	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 14   CALENDAR YEAR 1954

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 15 CALENDAR YEAR 1955

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	503870	450	0	12740	25972	.01	260	0	0	0	0	0	491320	923750
2	491320	9010	0	12740	25747	-.13	-3346	0	0	0	0	0	490936	923750
3	490936	13290	0	12740	25715	.08	2057	0	0	0	0	0	489429	923750
4	489429	8020	0	14560	25584	-.02	-511	0	0	0	0	0	483400	923750
5	483400	12250	0	14560	25408	.07	1779	0	0	0	0	0	479311	923750
6	479311	11810	0	16380	25131	.29	7288	0	0	0	0	0	467453	923750
7	467453	200	0	20020	24394	.44	10733	0	0	0	0	0	436900	923750
8	436900	1930	0	20020	23105	.21	4852	0	0	0	14410	0	399548	923750
9	399548	3930	0	16380	21785	.25	5446	0	0	0	11790	0	369862	923750
10	369862	210	0	14560	20505	.51	10458	0	0	0	10480	0	334574	923750
11	334574	0	0	14560	19184	.40	7674	0	0	0	10480	0	301860	923750
12	301860	0	0	12740	18089	.16	2894	0	0	0	9170	0	277056	923750
YEAR TOTALS		61100	0	182000			49584	0	0	0	56330	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	159268	3150	0	7700	12020	.03	361	0	0	0	9170	0	145187	557265
2	145187	22770	0	7700	11804	-.11	-1297	0	0	0	9170	0	152384	557265
3	152384	27010	0	7700	12328	.05	616	0	0	0	9170	0	161908	557265
4	161908	45950	0	8800	13432	.07	940	0	0	0	10480	0	187638	557265
5	187638	4500	0	8800	13745	.07	962	0	0	0	10480	0	171896	557265
	171896	2640	0	9900	12526	.33	4134	0	0	0	11790	0	148712	557265
7	148712	40	0	12100	10815	.46	4975	0	0	0	14410	0	117267	557265
8	117267	110	0	12100	9550	.08	764	0	0	0	0	0	104513	557265
9	104513	300	0	9900	8928	.18	1607	0	0	0	0	0	93306	557265
10	93306	20	0	8800	8303	.49	4068	0	0	0	0	0	80458	557265
11	80458	0	0	8800	7630	.37	2823	0	0	0	0	0	68835	557265
12	68835	0	0	7700	6953	.16	1112	0	0	0	0	0	60023	557265
YEAR TOTALS		106490	0	110000			21065	0	0	0	74670	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 15   CALENDAR YEAR 1955

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 16 CALENDAR YEAR 1956

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	277056	730	0	12740	17206	.02	344	0	0	0	9170	0	255532	923750
2	255532	13950	0	12740	16677	-.10	-1667	0	0	0	9170	0	249239	923750
3	249239	0	0	12740	16053	.21	3371	0	0	0	9170	0	223958	923750
4	223958	60	0	14560	14947	.16	2392	0	0	0	10480	0	196586	923750
5	196586	63690	0	14560	15145	.12	1817	0	0	0	10480	0	233419	923750
6	233419	2980	0	16380	15268	.38	5802	0	0	0	11790	0	202427	923750
7	202427	10	0	20020	13670	.78	10663	0	0	0	14410	0	157344	923750
8	157344	0	0	20020	11511	.70	8058	0	0	0	14410	0	114856	923750
9	114856	0	0	16380	9487	.65	6167	0	0	0	11790	0	80519	923750
10	80519	0	0	14560	7776	.42	3266	0	0	0	10480	0	52213	923750
11	52213	14080	0	14560	6494	.14	909	0	0	0	10480	0	40344	923750
12	40344	440	0	12740	5263	.12	632	0	0	0	9170	0	18242	923750
YEAR TOTALS		95940	0	182000			41754	0	0	0	131000	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	60023	60	0	7700	6401	.03	192	0	0	0	0	0	52191	557265
2	52191	21440	0	7700	6616	-.09	-594	0	0	0	0	0	66525	557265
3	66525	70	0	7700	6774	.29	1964	0	0	0	0	0	56931	557265
4	56931	120	0	8800	6131	.18	1104	0	0	0	0	0	47147	557265
5	47147	30600	0	8800	6499	.14	910	0	0	0	0	0	68037	557265
6	68037	120	0	9900	6776	.41	2778	0	0	0	0	0	55479	557265
7	55479	50	0	12100	5802	.82	4758	0	0	0	0	0	38671	557265
8	38671	50	0	12100	4503	.74	3332	0	0	0	0	0	23289	557265
9	23289	50	0	9900	3161	.66	2086	0	0	0	0	0	11353	557265
10	11353	30	0	8800	1623	.37	601	0	0	0	0	0	1982	557265
11	1982	16340	0	8800	1427	.16	228	0	0	0	0	0	9294	557265
12	9294	430	0	7700	1411	.15	212	0	0	0	0	0	1812	557265
YEAR TOTALS		69360	0	110000			17571	0	0	0	0	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 16 CALENDAR YEAR 1956

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 17   CALENDAR YEAR 1957

RESERVOIR NO 1   RCR   MAX. CAPACITY 923750   MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	18242	680	0	12740	2736	.06	164	0	0	0	6018	0	0	923750
2	0	15780	0	12740	0	-.05	0	0	0	0	3040	0	0	923750
3	0	19730	0	12740	0	-.10	0	0	0	0	6990	0	0	923750
4	0	685340	0	14560	20119	-.70	-14082	0	0	0	0	0	684862	923750
5	684862	393820	0	14560	36921	-.11	-4060	0	0	0	0	144432	923750	923750
6	923750	73450	0	16380	41356	.13	5376	0	0	0	0	51694	923750	923750
7	923750	200	0	20020	40581	.54	21914	0	0	0	0	0	882016	923750
8	882016	30	0	20020	39210	.31	12155	0	0	0	0	0	849871	923750
9	849871	80	0	16380	38140	.24	9154	0	0	0	0	0	824417	923750
10	824417	52280	0	14560	38468	-.14	-5385	0	0	0	0	0	867522	923750
11	867522	198470	0	14560	40312	-.17	-6852	0	0	0	0	134534	923750	923750
12	923750	10650	0	12740	41317	.12	4958	0	0	0	0	0	916702	923750
YEAR TOTALS		1450510	0	182000			23342	0	0	0	16048	330660		

RESERVOIR NO 2   CCR   MAX. CAPACITY 557265   MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	1812	9100	0	7700	386	.05	19	0	0	0	3152	0	41	557265
2	41	21300	0	7700	1077	-.02	-21	0	0	0	6130	0	7532	557265
3	7532	43370	0	7700	3943	-.05	-196	0	0	0	2180	0	41218	557265
4	41218	520860	0	8800	20199	-.68	-13734	0	0	0	10480	0	556532	557265
5	556532	211550	0	8800	32598	-.18	-5867	0	0	0	10480	197404	557265	557265
·	557265	35580	0	9900	32623	.14	4567	0	0	0	11790	9323	557265	557265
7	557265	850	0	12100	31164	.53	16517	0	0	0	14410	0	515088	557265
8	515088	970	0	12100	28448	.38	10810	0	0	0	14410	0	478738	557265
9	478738	6590	0	9900	27325	.22	6011	0	0	0	11790	0	457627	557265
10	457627	97950	0	8800	28500	-.05	-1424	0	0	0	10480	0	537721	557265
11	537721	141710	0	8800	31947	-.17	-5430	0	0	0	10480	108316	557265	557265
12	557265	15880	0	7700	32589	.12	3911	0	0	0	9170	0	552364	557265
YEAR TOTALS		1105710	0	110000			15163	0	0	0	114952	315043		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM, TRWD, 2050

SIMULATION YEAR 17 CALENDAR YEAR 1957

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 18 CALENDAR YEAR 1958

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	916702	32950	0	12740	41225	.00	0	0	0	0	0	13162	923750	923750
2	923750	13670	0	12740	41356	.03	1241	0	0	0	0	0	923439	923750
3	923439	45410	0	12740	41350	.06	2481	0	0	0	0	29878	923750	923750
4	923750	128300	0	14560	41356	-.10	-4135	0	0	0	0	117875	923750	923750
5	923750	484680	0	14560	41356	.12	4963	0	0	0	0	465157	923750	923750
6	923750	790	0	16380	40847	.29	11846	0	0	0	0	0	896314	923750
7	896314	5430	0	20020	39764	.41	16303	0	0	0	0	0	865421	923750
8	865421	8890	0	20020	38789	.27	10473	0	0	0	0	0	843818	923750
9	843818	91760	0	16380	39872	-.16	-6379	0	0	0	1827	0	923750	923750
10	923750	8740	0	14560	41103	.19	7810	0	0	0	0	0	910120	923750
11	910120	1930	0	14560	40495	.16	6479	0	0	0	0	0	891011	923750
12	891011	4290	0	12740	39887	.13	5185	0	0	0	0	0	877376	923750
YEAR TOTALS		826840	0	182000			56267	0	0	0	1827	626072		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	552364	43240	0	7700	32453	.03	974	0	0	0	9170	20495	557265	557265
2	557265	2710	0	7700	32022	.10	3202	0	0	0	9170	0	539903	557265
3	539903	35510	0	7700	32022	.02	640	0	0	0	9170	638	557265	557265
4	557265	230620	0	8800	32623	-.20	-6524	0	0	0	10480	217864	557265	557265
5	557265	233390	0	8800	32623	.13	4241	0	0	0	10480	209869	557265	557265
	557265	2040	0	9900	31604	.31	9797	0	0	0	11790	0	527818	557265
7	527818	22650	0	12100	30057	.38	11422	0	0	0	14410	0	512536	557265
8	512536	770	0	12100	28367	.34	9645	0	0	0	14410	0	477151	557265
9	477151	7990	0	9900	27497	-.10	-2749	0	0	0	9963	0	468027	557265
10	468027	3550	0	8800	26895	.22	5917	0	0	0	10480	0	446380	557265
11	446380	2590	0	8800	26059	.17	4430	0	0	0	10480	0	425260	557265
12	425260	1660	0	7700	25265	.17	4295	0	0	0	9170	0	405755	557265
YEAR TOTALS		586720	0	110000			45290	0	0	0	129173	448866		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 18   CALENDAR YEAR 1958

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 19 CALENDAR YEAR 1959

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	877376	1300	0	12740	39276	.20	7855	0	0	0	0	0	858081	923750
2	858081	43840	0	12740	39539	-.06	-2371	0	0	0	0	0	891552	923750
3	891552	6100	0	12740	39882	.21	8375	0	0	0	0	0	876537	923750
4	876537	79260	0	14560	40419	-.08	-3233	0	0	0	10480	10244	923746	923750
5	923746	195370	0	14560	41356	-.16	-6616	0	0	0	10480	176942	923750	923750
6	923750	282250	0	16380	41356	.00	0	0	0	0	11790	254080	923750	923750
7	923750	10650	0	20020	41068	.15	6160	0	0	0	0	0	908220	923750
8	908220	320	0	20020	40168	.33	13255	0	0	0	0	0	875265	923750
9	875265	420	0	16380	39064	.27	10547	0	0	0	0	0	848758	923750
10	848758	138800	0	14560	39964	.04	1599	0	0	0	10480	37169	923750	923750
11	923750	8820	0	14560	41059	.25	10265	0	0	0	0	0	907745	923750
12	907745	132050	0	12740	40998	-.08	-3279	0	0	0	9170	97419	923745	923750
YEAR TOTALS		899180	0	182000			42557	0	0	0	52400	575854		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	405755	1260	0	7700	24468	.23	5628	0	0	0	9170	0	384517	557265
2	384517	52190	0	7700	24768	-.05	-1237	0	0	0	9170	0	421074	557265
3	421074	16250	0	7700	25376	.19	4821	0	0	0	9170	0	415633	557265
4	415633	79670	0	8800	26661	-.01	-266	0	0	0	0	0	486769	557265
5	486769	58810	0	8800	29619	-.14	-4146	0	0	0	0	0	540925	557265
6	540925	21120	0	9900	31914	-.03	-956	0	0	0	0	0	553101	557265
7	553101	2540	0	12100	31289	.20	6258	0	0	0	14410	0	522873	557265
8	522873	820	0	12100	28974	.38	11010	0	0	0	14410	0	486173	557265
9	486173	10	0	9900	27449	.29	7960	0	0	0	11790	0	456533	557265
10	456533	35450	0	8800	27390	.00	0	0	0	0	0	0	483183	557265
11	483183	7010	0	8800	27510	.30	8253	0	0	0	10480	0	462660	557265
12	462660	94200	0	7700	29180	-.11	-3209	0	0	0	0	0	552369	557265
YEAR TOTALS		369330	0	110000			34116	0	0	0	78600	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 19 CALENDAR YEAR 1959

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 20 CALENDAR YEAR 1960

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923745	220430	0	12740	41302	-.07	-2890	0	0	0	0	210579	923746	923750
2	923746	39840	0	12740	41348	-.01	-412	0	0	0	0	27509	923749	923750
3	923749	18420	0	12740	41356	.11	4549	0	0	0	1130	0	923750	923750
4	923750	7910	0	14560	41126	.14	5758	0	0	0	0	0	911342	923750
5	911342	16050	0	14560	40719	.27	10994	0	0	0	0	0	901838	923750
6	901838	15920	0	16380	40511	.03	1215	0	0	0	0	0	900163	923750
7	900163	460	0	20020	39843	.37	14742	0	0	0	0	0	865861	923750
8	865861	3720	0	20020	38739	.23	8910	0	0	0	0	0	840651	923750
9	840651	60	0	16380	37702	.38	14327	0	0	0	0	0	810004	923750
10	810004	7980	0	14560	37011	.00	0	0	0	0	0	0	803424	923750
11	803424	4190	0	14560	36676	.03	1100	0	0	0	0	0	791954	923750
12	791954	282150	0	12740	38909	-.35	-13617	0	0	0	9170	142061	923750	923750
YEAR TOTALS		617130	0	182000			44676	0	0	0	10300	380149		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	552369	147120	0	7700	32454	-.07	-2271	0	0	0	9170	127625	557265	557265
2	557265	46090	0	7700	32623	.01	326	0	0	0	9170	28894	557265	557265
3	557265	19060	0	7700	32623	.13	4241	0	0	0	8040	0	556344	557265
4	556344	1670	0	8800	31752	.18	5715	0	0	0	10480	0	533019	557265
5	533019	2930	0	8800	30088	.28	8425	0	0	0	10480	0	508244	557265
	508244	4630	0	9900	28512	.13	3707	0	0	0	11790	0	487477	557265
/	487477	2640	0	12100	27451	.30	8235	0	0	0	14410	0	455372	557265
8	455372	2290	0	12100	26207	.28	7338	0	0	0	14410	0	423814	557265
9	423814	570	0	9900	25006	.35	8752	0	0	0	11790	0	393942	557265
10	393942	330	0	8800	23995	.12	2879	0	0	0	10480	0	372113	557265
11	372113	5400	0	8800	23200	.16	3712	0	0	0	10480	0	354521	557265
12	354521	188910	0	7700	26626	-.39	-10383	0	0	0	0	0	546114	557265
YEAR TOTALS		421640	0	110000			40676	0	0	0	120700	156519		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 20   CALENDAR YEAR 1960

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 21 CALENDAR YEAR 1961

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	380710	0	12740	41356	-.19	-7857	0	0	0	0	375827	923750	923750
2	923750	247220	0	12740	41356	-.09	-3721	0	0	0	0	238201	923750	923750
3	923750	130110	0	12740	41333	-.03	-1239	0	0	0	0	118610	923749	923750
4	923749	15930	0	14560	41356	.26	10753	0	0	0	0	0	914366	923750
5	914366	6170	0	14560	40693	.21	8546	0	0	0	0	0	897430	923750
6	897430	143910	0	16380	40867	-.09	-3677	0	0	0	0	104887	923750	923750
7	923750	57360	0	20020	41356	.24	9925	0	0	0	14410	13005	923750	923750
8	923750	710	0	20020	40658	.45	18296	0	0	0	0	0	886144	923750
9	886144	1580	0	16380	39553	.18	7120	0	0	0	0	0	864224	923750
10	864224	3130	0	14560	38725	.29	11230	0	0	0	0	0	841564	923750
11	841564	83580	0	14560	39586	.02	792	0	0	0	0	0	909792	923750
12	909792	61440	0	12740	41082	-.02	-821	0	0	0	9170	26393	923750	923750
YEAR TOTALS		1131850	0	182000			49347	0	0	0	23580	876923		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	546114	108430	0	7700	32237	-.14	-4512	0	0	0	9170	84921	557265	557265
2	557265	67510	0	7700	32567	-.05	-1627	0	0	0	9170	52270	557262	557265
3	557262	65450	0	7700	32600	-.02	-651	0	0	0	9170	49228	557265	557265
4	557265	10180	0	8800	31998	.28	8959	0	0	0	10480	0	539206	557265
5	539206	3560	0	8800	30618	.20	6124	0	0	0	10480	0	517362	557265
6	517362	92870	0	9900	31242	-.08	-2498	0	0	0	11790	33775	557265	557265
7	557265	12170	0	12100	32623	.33	10766	0	0	0	0	0	546569	557265
8	546569	1070	0	12100	30496	.48	14638	0	0	0	14410	0	506491	557265
9	506491	1620	0	9900	28298	.24	6792	0	0	0	11790	0	479629	557265
10	479629	900	0	8800	27258	.29	7905	0	0	0	10480	0	453344	557265
11	453344	16860	0	8800	26718	-.04	-1068	0	0	0	10480	0	451992	557265
12	451992	37320	0	7700	27260	.02	545	0	0	0	0	0	481067	557265
YEAR TOTALS		417940	0	110000			45373	0	0	0	107420	220194		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 21 CALENDAR YEAR 1961

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 22 CALENDAR YEAR 1962

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	9270	0	12740	41292	-.02	-825	0	0	0	0	0	921105	923750
2	921105	22360	0	12740	41307	.02	826	0	0	0	6149	0	923750	923750
3	923750	8420	0	12740	41161	.15	6174	0	0	0	0	0	913256	923750
4	913256	50770	0	14560	41161	-.09	-3703	0	0	0	10480	18939	923750	923750
5	923750	11780	0	14560	41106	.26	10688	0	0	0	0	0	910282	923750
6	910282	54460	0	16380	41075	-.04	-1642	0	0	0	11790	14465	923749	923750
7	923749	3180	0	20020	40741	.40	16296	0	0	0	0	0	890613	923750
8	890613	140	0	20020	39340	.57	22424	0	0	0	0	0	848309	923750
9	848309	7150	0	16380	38327	.08	3066	0	0	0	0	0	836013	923750
10	836013	48380	0	14560	38662	.09	3480	0	0	0	0	0	866353	923750
11	866353	5160	0	14560	39029	.03	1171	0	0	0	0	0	855782	923750
12	855782	6520	0	12740	38681	.05	1934	0	0	0	0	0	847628	923750
YEAR TOTALS		227590	0	182000			59889	0	0	0	28419	33404		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	481067	8040	0	7700	27651	.01	277	0	0	0	9170	0	471960	557265
2	471960	19770	0	7700	27655	-.01	-276	0	0	0	3021	0	481285	557265
3	481285	10160	0	7700	27625	.15	4144	0	0	0	9170	0	470431	557265
4	470431	53760	0	8800	28342	-.09	-2550	0	0	0	0	0	517941	557265
5	517941	27900	0	8800	29910	.28	8375	0	0	0	10480	0	518186	557265
	518186	11760	0	9900	29994	-.01	-299	0	0	0	0	0	520345	557265
7	520345	53150	0	12100	30724	.25	7681	0	0	0	14410	0	539304	557265
8	539304	3810	0	12100	30034	.54	16218	0	0	0	14410	0	500386	557265
9	500386	19850	0	9900	28594	.03	858	0	0	0	11790	0	497688	557265
10	497688	10790	0	8800	28296	.03	849	0	0	0	10480	0	488349	557265
11	488349	28520	0	8800	28272	.04	1131	0	0	0	10480	0	496458	557265
12	496458	11740	0	7700	28269	.11	3110	0	0	0	9170	0	488218	557265
YEAR TOTALS		259250	0	110000			39518	0	0	0	102581	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 22 CALENDAR YEAR 1962

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 23 CALENDAR YEAR 1963

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	847628	3200	0	12740	38289	.09	3446	0	0	0	0	0	834642	923750
2	834642	1250	0	12740	37764	.10	3776	0	0	0	0	0	819376	923750
3	819376	2520	0	12740	37201	.13	4836	0	0	0	0	0	804320	923750
4	804320	23210	0	14560	37165	-.12	-4459	0	0	0	0	0	817429	923750
5	817429	17970	0	14560	37402	.10	3740	0	0	0	0	0	817099	923750
6	817099	580	0	16380	36918	.27	9968	0	0	0	0	0	791331	923750
7	791331	170	0	20020	35752	.48	17161	0	0	0	0	0	754320	923750
8	754320	240	0	20020	34297	.63	21607	0	0	0	0	0	712933	923750
9	712933	140	0	16380	33041	.39	12886	0	0	0	0	0	683807	923750
10	683807	220	0	14560	31969	.53	16944	0	0	0	0	0	652523	923750
11	652523	110	0	14560	31064	.17	5281	0	0	0	0	0	632792	923750
12	632792	40	0	12740	30467	.04	1219	0	0	0	0	0	618873	923750
YEAR TOTALS		49650	0	182000			96405	0	0	0	0	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	488218	4820	0	7700	27807	.12	3337	0	0	0	9170	0	472831	557265
2	472831	420	0	7700	27100	.16	4336	0	0	0	9170	0	452045	557265
3	452045	860	0	7700	26319	.12	3158	0	0	0	9170	0	432877	557265
4	432877	70850	0	8800	27042	-.17	-4596	0	0	0	10480	0	489043	557265
5	489043	30680	0	8800	28308	.10	2831	0	0	0	10480	0	497612	557265
6	497612	670	0	9900	27901	.30	8370	0	0	0	11790	0	468222	557265
7	468222	40	0	12100	26554	.49	13011	0	0	0	14410	0	428741	557265
8	428741	40	0	12100	24943	.66	16462	0	0	0	14410	0	385809	557265
9	385809	20	0	9900	23478	.44	10330	0	0	0	11790	0	353809	557265
10	353809	50	0	8800	22002	.60	13201	0	0	0	10480	0	321378	557265
11	321378	20	0	8800	20678	.25	5169	0	0	0	10480	0	296949	557265
12	296949	0	0	7700	19675	.09	1771	0	0	0	9170	0	278308	557265
YEAR TOTALS		108470	0	110000			77380	0	0	0	131000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 31 CALENDAR YEAR 1971

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	860640	1930	0	307	38648	.22	8503	0	0	10000	22770	0	840990	923750
2	840990	5110	0	278	38072	.09	3426	0	0	10000	22770	0	829626	923750
3	829626	3510	0	307	37468	.31	11615	0	0	10000	22770	0	808444	923750
4	808444	11910	0	298	36889	.24	8853	0	0	10000	22770	0	798433	923750
5	798433	5030	0	307	36412	.21	7647	0	0	10000	22770	0	782739	923750
6	782739	1430	0	298	35581	.49	17435	0	0	10000	22770	0	753666	923750
7	753666	3060	0	307	34549	.48	16584	0	0	10000	22669	0	727166	923750
8	727166	3150	0	307	33737	.25	8434	0	0	10000	22770	0	708805	923750
9	708805	1130	0	298	32988	.36	11876	0	0	10000	22770	0	684991	923750
10	684991	70440	0	307	33506	.13	4356	0	0	10000	22770	0	737998	923750
11	737998	25070	0	298	34573	.17	5877	0	0	10000	22770	0	744123	923750
12	744123	271420	0	307	37986	-.05	-1898	0	0	0	0	93386	923748	923750
YEAR TOTALS		403190	0	3619			102708	0	0	110000	250369	93386		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	528368	720	0	1478	30024	.22	6605	0	0	9000	18950	0	511055	557265
2	511055	6880	0	1478	29207	.06	1752	0	0	9000	18950	0	504755	557265
3	504755	3070	0	1478	28436	.28	7962	0	0	9000	18950	0	488435	557265
4	488435	1300	0	1690	27773	.26	7221	0	0	9000	18950	0	470874	557265
5	470874	3280	0	1690	27123	.27	7323	0	0	9000	18950	0	455191	557265
	455191	650	0	1901	26310	.56	14734	0	0	9000	18950	0	429256	557265
7	429256	66990	0	2323	27000	.46	12420	0	0	9000	0	0	490503	557265
8	490503	10840	0	2323	28011	.29	8123	0	0	9000	18950	0	480947	557265
9	480947	1370	0	1901	27415	.38	10418	0	0	9000	18950	0	460048	557265
10	460048	182210	0	1690	29260	.12	3511	0	0	0	18950	60842	557265	557265
11	557265	10120	0	1690	32391	.16	5183	0	0	9000	18950	0	550562	557265
12	550562	271550	0	1478	32313	-.07	-2261	0	0	0	7696	257939	557260	557265
YEAR TOTALS		558980	0	21120			82991	0	0	90000	197196	318781		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 31 CALENDAR YEAR 1971

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30363	50	0	6681	1906	.19	362	0	0	6993	0	0	30363	30365
2	30363	330	0	6681	1904	.13	248	0	0	6599	0	0	30363	30365
3	30363	0	0	6681	1911	.35	669	0	0	7347	0	0	30360	30365
4	30360	1730	0	7636	1909	.28	535	0	0	6442	0	0	30361	30365
5	30361	790	0	7636	1910	.31	592	0	0	7438	0	0	30361	30365
6	30361	0	0	8590	1900	.60	1140	0	0	9733	0	0	30364	30365
7	30364	950	0	10499	1900	.54	1026	0	0	10575	0	0	30364	30365
8	30364	1270	0	10499	1908	.26	496	0	0	9723	0	0	30362	30365
9	30362	40	0	8590	1911	.35	669	0	0	9217	0	0	30360	30365
10	30360	13180	0	7636	1991	.10	199	0	0	0	0	0	35705	30365
11	35705	260	0	7636	1994	.20	399	0	0	2433	0	0	30363	30365
12	30363	16430	0	6681	2000	-.04	-79	0	0	0	0	3608	36583	30365
YEAR TOTALS		35030	0	95446			6256	0	0	76500	0	3608		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	40656	220	0	707	2649	.22	583	0	0	17686	10518	0	46754	73718
2	46754	780	0	707	2893	.15	434	0	0	18080	9081	0	55392	73718
3	55392	570	0	707	3068	.37	1135	0	0	17332	13693	0	57759	73718
4	57759	1310	0	807	3143	.28	880	0	0	15803	12912	0	60273	73718
5	60273	920	0	807	3190	.36	1148	0	0	14807	13237	0	60808	73718
	60808	470	0	908	3035	.61	1851	0	0	10077	18456	0	50140	73718
7	50140	2070	0	1110	2740	.54	1480	0	0	7793	14685	0	42728	73718
8	42728	600	0	1110	2614	.28	732	0	0	5218	4108	0	42596	73718
9	42596	180	0	908	2595	.40	1038	0	0	10593	9685	0	41738	73718
10	41738	10600	0	807	2825	.13	367	0	0	22245	17119	0	56290	73718
11	56290	2400	0	807	3138	.21	659	0	0	19812	15600	0	61436	73718
12	61436	47870	0	707	3416	-.01	-33	0	0	5503	9345	31072	73718	73718
YEAR TOTALS		67990	0	10092			10274	0	0	164949	148439	31072		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 31 CALENDAR YEAR 1971

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	101742	0	0	428	6013	.20	1203	0	0	0	0	0	100111	338276
2	100111	0	0	428	5960	.17	1013	0	0	0	0	0	98670	338276
3	98670	750	0	428	5904	.37	2184	0	0	0	0	0	96808	338276
4	96808	2290	0	490	5871	.31	1820	0	0	0	0	0	96788	338276
5	96788	4550	0	490	5905	.35	2067	0	0	0	0	0	98781	338276
6	98781	3250	0	551	5923	.62	3672	0	0	0	0	0	97808	338276
7	97808	9010	0	673	5552	.59	3276	25720	0	0	0	0	77149	338276
8	77149	8530	0	673	5311	.24	1275	0	0	0	0	0	83731	338276
9	83731	9040	0	551	5538	.33	1828	0	0	0	0	0	90392	338276
10	90392	9970	0	490	5804	.10	580	0	0	0	0	0	99292	338276
11	99292	1040	0	490	5945	.21	1248	0	0	0	0	0	98594	338276
12	98594	15440	0	428	6183	-.02	-123	0	0	0	0	0	113729	338276
YEAR TOTALS		63870	0	6120			20043	25720	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	138473	5690	0	7444	8910	.20	1782	123	0	4537	0	0	139351	139351
2	139351	5330	0	7444	8928	.12	1071	0	0	3185	0	0	139351	139351
3	139351	3720	0	7444	8928	.35	3125	863	0	7712	0	0	139351	139351
4	139351	5340	0	8507	8928	.28	2500	410	0	6077	0	0	139351	139351
5	139351	5590	0	8507	8928	.32	2857	628	0	6402	0	0	139351	139351
	139351	5700	0	9571	8928	.60	5357	1538	0	10766	0	0	139351	139351
7	139351	8920	25720	11698	8928	.54	4821	10328	0	0	7793	0	139351	139351
8	139351	6170	0	11698	8647	.26	2248	5575	0	0	0	0	126000	139351
9	126000	3250	0	9571	8192	.36	2949	1019	0	1995	0	0	117706	139351
10	117706	15910	0	8507	8417	.10	842	0	0	11600	0	0	135867	139351
11	135867	5170	0	8507	8855	.20	1771	173	0	8765	0	0	139351	139351
12	139351	16840	0	7444	8924	-.02	-177	4071	0	0	5503	0	139350	139351
YEAR TOTALS		87630	25720	106342			29146	24728	0	61039	13296	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 31 CALENDAR YEAR 1971

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	620	123	0	3537	.21	743	0	0	0	0	0	37775	37775
2	37775	580	0	0	3537	.14	495	0	0	0	85	0	37775	37775
3	37775	410	863	0	3537	.36	1273	0	0	0	0	0	37775	37775
4	37775	580	410	0	3537	.28	990	0	0	0	0	0	37775	37775
5	37775	610	628	0	3537	.35	1238	0	0	0	0	0	37775	37775
6	37775	620	1538	0	3537	.61	2158	0	0	0	0	0	37775	37775
7	37775	980	10328	0	3537	.54	1910	0	0	0	9398	0	37775	37775
8	37775	670	5575	0	3537	.27	955	0	0	0	5290	0	37775	37775
9	37775	360	1019	0	3537	.39	1379	0	0	0	0	0	37775	37775
10	37775	1740	0	0	3537	.12	424	0	0	0	1316	0	37775	37775
11	37775	570	173	0	3537	.21	743	0	0	0	0	0	37775	37775
12	37775	1840	4071	0	3534	-.02	-70	0	0	0	5981	0	37775	37775
YEAR TOTALS		9580	24728	0			12238	0	0	0	22070	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
YEAR TOTALS		327480	0	360000			0	0	232520	0	200000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 31 CALENDAR YEAR 1971

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 31 CALENDAR YEAR 1971

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 32 CALENDAR YEAR 1972

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923748	132130	0	307	41348	-.01	-412	0	0	0	4730	127504	923749	923750
2	923749	12830	0	278	41356	.19	7858	0	0	10000	14693	0	923750	923750
3	923750	4280	0	307	41356	.22	9098	0	0	10000	13220	0	915405	923750
4	915405	2170	0	298	40897	.19	7770	0	0	10000	12120	0	907387	923750
5	907387	4340	0	307	40505	.29	11746	0	0	10000	15414	0	894260	923750
6	894260	2380	0	298	39877	.31	12362	0	0	10000	20393	0	873587	923750
7	873587	3010	0	307	38988	.44	17155	0	0	10000	22770	0	846365	923750
8	846365	1490	0	307	37909	.51	19334	0	0	10000	22770	0	815444	923750
9	815444	1750	0	298	36926	.29	10709	0	0	10000	22770	0	793417	923750
10	793417	22270	0	307	36559	.19	6946	0	0	10000	22770	0	795664	923750
11	795664	12510	0	298	36570	.03	1097	0	0	10000	22770	0	794009	923750
12	794009	8230	0	307	36429	.03	1093	0	0	10000	22770	0	788069	923750
YEAR TOTALS		207390	0	3619			104756	0	0	110000	217190	127504		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557260	75510	0	1478	32600	-.02	-651	0	0	0	18950	55728	557265	557265
2	557265	2870	0	1478	32623	.19	6198	0	0	9000	4194	0	557265	557265
3	557265	1690	0	1478	32623	.24	7830	0	0	9000	1382	0	557265	557265
4	557265	1270	0	1690	32623	.21	6851	0	0	9000	1729	0	557265	557265
5	557265	1420	0	1690	32623	.35	11418	0	0	9000	0	0	554577	557265
	554577	5340	0	1901	32530	.32	10410	0	0	9000	0	0	556606	557265
7	556606	900	0	2323	32600	.52	16952	0	0	9000	5253	0	541978	557265
8	541978	750	0	2323	30585	.55	16822	0	0	9000	18950	0	513633	557265
9	513633	490	0	1901	28911	.30	8673	0	0	9000	18950	0	493599	557265
10	493599	8850	0	1690	28159	.19	5350	0	0	9000	18950	0	485459	557265
11	485459	15630	0	1690	28073	.01	281	0	0	9000	18950	0	489168	557265
12	489168	15100	0	1478	28201	.03	846	0	0	9000	18950	0	491994	557265
YEAR TOTALS		129820	0	21120			90980	0	0	99000	126258	55728		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 32 CALENDAR YEAR 1972

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36583	1230	0	6681	2093	.09	188	0	0	5639	0	0	36583	30365
2	36583	710	0	6681	2007	.19	381	0	0	132	0	0	30363	30365
3	30363	460	0	6681	1911	.36	688	0	0	6906	0	0	30360	30365
4	30360	3080	0	7636	1908	.26	496	0	0	5054	0	0	30362	30365
5	30362	1570	0	7636	1909	.29	554	0	0	6619	0	0	30361	30365
6	30361	330	0	8590	1900	.48	912	0	0	9175	0	0	30364	30365
7	30364	0	0	10499	1900	.65	1235	0	0	11734	0	0	30364	30365
8	30364	0	0	10499	1900	.55	1045	0	0	11544	0	0	30364	30365
9	30364	0	0	8590	1911	.35	669	0	0	9255	0	0	30360	30365
10	30360	2730	0	7636	1906	.20	381	0	0	5290	0	0	30363	30365
11	30363	950	0	7636	1902	.08	152	0	0	6839	0	0	30364	30365
12	30364	100	0	6681	1903	.10	190	0	0	6771	0	0	30364	30365
YEAR TOTALS		11160	0	95446			6891	0	0	84958	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	73718	9270	0	707	3646	.07	255	0	0	1000	9308	0	73718	73718
2	73718	3170	0	707	3507	.21	736	0	0	1714	10848	0	66311	73718
3	66311	2220	0	707	3030	.39	1182	0	0	0	22288	0	44354	73718
4	44354	4640	0	807	2644	.30	793	0	0	6014	10680	0	42728	73718
5	42728	1600	0	807	2617	.28	733	0	0	10620	10680	0	42728	73718
	42728	0	0	908	2594	.46	1193	0	0	11600	10692	0	41535	73718
7	41535	0	0	1110	2542	.58	1474	0	0	11600	10490	0	40061	73718
8	40061	0	0	1110	2488	.53	1319	0	0	3397	2287	0	38742	73718
9	38742	110	0	908	2447	.37	905	0	0	10555	9647	0	37947	73718
10	37947	2010	0	807	2462	.19	468	0	0	16955	16148	0	39489	73718
11	39489	910	0	807	2505	.09	225	0	0	15406	14599	0	40174	73718
12	40174	680	0	707	2525	.12	303	0	0	17908	17201	0	40551	73718
YEAR TOTALS		24610	0	10092			9586	0	0	106769	144868	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 32 CALENDAR YEAR 1972

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	113729	650	0	428	6414	.13	834	0	0	0	0	0	113117	338276
2	113117	810	0	428	6391	.19	1214	0	0	0	0	0	112285	338276
3	112285	1820	0	428	6361	.39	2481	0	0	0	0	0	111196	338276
4	111196	7330	0	490	6181	.29	1792	15217	0	0	0	0	101027	338276
5	101027	71700	0	490	6996	.26	1819	8036	0	0	0	0	162382	338276
6	162382	6180	0	551	7388	.51	3768	34684	0	0	0	0	129559	338276
7	129559	8120	0	673	6339	.62	3930	40532	0	0	0	0	92544	338276
8	92544	9090	0	673	5818	.52	3025	0	0	0	0	0	97936	338276
9	97936	4080	0	551	5933	.37	2195	0	0	0	0	0	99270	338276
10	99270	11090	0	490	6112	.21	1284	0	0	0	0	0	108586	338276
11	108586	7550	0	490	6361	.11	700	0	0	0	0	0	114946	338276
12	114946	3940	0	428	6503	.15	975	0	0	0	0	0	117483	338276
YEAR TOTALS		132360	0	6120			24017	98469	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139350	4580	0	7444	8928	.08	714	0	0	3579	0	0	139351	139351
2	139351	4490	0	7444	8928	.19	1696	217	0	4867	0	0	139351	139351
3	139351	4540	0	7444	8928	.36	3214	844	0	6962	0	0	139351	139351
4	139351	8520	15217	8507	8928	.26	2321	6895	0	0	6014	0	139351	139351
5	139351	19500	8036	8507	8928	.30	2678	5731	0	0	10620	0	139351	139351
	139351	0	34684	9571	8928	.47	4196	9317	0	0	11600	0	139351	139351
7	139351	0	40532	11698	8928	.64	5714	11520	0	0	11600	0	139351	139351
8	139351	0	0	11698	8395	.55	4617	9021	0	0	0	0	114015	139351
9	114015	0	0	9571	7619	.35	2667	1273	0	1957	0	0	102461	139351
10	102461	0	0	8507	7398	.20	1480	672	0	9313	0	0	101115	139351
11	101115	6580	0	8507	7466	.07	523	0	0	8201	0	0	106866	139351
12	106866	10	0	7444	7608	.15	1141	389	0	11220	0	0	109122	139351
YEAR TOTALS		48220	98469	106342			30961	45879	0	46099	39834	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 32 CALENDAR YEAR 1972

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	500	0	0	3537	.07	248	0	0	0	252	0	37775	37775
2	37775	490	217	0	3537	.20	707	0	0	0	0	0	37775	37775
3	37775	500	844	0	3537	.38	1344	0	0	0	0	0	37775	37775
4	37775	930	6895	0	3537	.28	990	0	0	0	6835	0	37775	37775
5	37775	2130	5731	0	3537	.29	1026	0	0	0	6835	0	37775	37775
6	37775	0	9317	0	3537	.46	1627	0	0	0	7690	0	37775	37775
7	37775	0	11520	0	3537	.60	2122	0	0	0	9398	0	37775	37775
8	37775	0	9021	0	3537	.54	1910	0	0	0	7111	0	37775	37775
9	37775	0	1273	0	3537	.36	1273	0	0	0	0	0	37775	37775
10	37775	0	672	0	3537	.19	672	0	0	0	0	0	37775	37775
11	37775	720	0	0	3537	.08	283	0	0	0	437	0	37775	37775
12	37775	0	389	0	3537	.11	389	0	0	0	0	0	37775	37775
YEAR TOTALS		5270	45879	0			12591	0	0	0	38558	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	241520	0	209000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 32 CALENDAR YEAR 1972

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 32 CALENDAR YEAR 1972

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 33 CALENDAR YEAR 1973

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	788069	53940	0	307	37118	-.06	-2226	0	0	10000	22770	0	831158	923750
2	831158	57960	0	278	39175	.00	0	0	0	10000	0	0	898840	923750
3	898840	164220	0	307	40894	.06	2454	0	0	0	22770	113779	923750	923750
4	923750	362390	0	298	41333	-.03	-1239	0	0	0	0	363332	923749	923750
5	923749	92620	0	307	41356	.25	10339	0	0	0	11628	70345	923750	923750
6	923750	297350	0	298	41356	.16	6617	0	0	0	0	290435	923750	923750
7	923750	23590	0	307	41356	.34	14061	0	0	10000	19222	0	923750	923750
8	923750	5810	0	307	40827	.52	21230	0	0	10000	22770	0	895253	923750
9	895253	27070	0	298	40579	.17	6898	0	0	10000	14730	0	910397	923750
10	910397	146990	0	307	41108	.06	2466	0	0	0	22770	108094	923750	923750
11	923750	33400	0	298	41356	.13	5376	0	0	0	16904	10822	923750	923750
12	923750	25210	0	307	41356	.13	5376	0	0	0	16985	2542	923750	923750
YEAR TOTALS		1290550	0	3619			71352	0	0	50000	170549	959349		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	491994	61780	0	1478	29921	-.07	-2093	0	0	9000	18950	0	544439	557265
2	544439	50320	0	1478	32168	-.01	-321	0	0	0	18950	17387	557265	557265
3	557265	89280	0	1478	32623	.07	2284	0	0	0	18950	66568	557265	557265
4	557265	194790	0	1690	32567	-.05	-1627	0	0	0	8795	185935	557262	557265
5	557262	14580	0	1690	32623	.28	9134	0	0	0	3753	0	557265	557265
	557265	211340	0	1901	32623	.18	5872	0	0	0	9895	193672	557265	557265
7	557265	5800	0	2323	32623	.34	11092	0	0	9000	1385	0	557265	557265
8	557265	1290	0	2323	32623	.60	19574	0	0	9000	909	0	544749	557265
9	544749	15150	0	1901	32190	.14	4507	0	0	9000	5226	0	557265	557265
10	557265	98690	0	1690	32623	.08	2610	0	0	0	18950	75440	557265	557265
11	557265	73520	0	1690	32623	.09	2936	0	0	0	18950	49944	557265	557265
12	557265	69050	0	1478	32623	.13	4241	0	0	0	18950	44381	557265	557265
YEAR TOTALS		885590	0	21120			58209	0	0	36000	143663	633327		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 33 CALENDAR YEAR 1973

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	1900	0	6681	1897	-.07	-132	0	0	4649	0	0	30364	30365
2	30364	2830	0	6681	1899	-.01	-18	0	0	3833	0	0	30364	30365
3	30364	2750	0	6681	1904	.12	228	0	0	4159	0	0	30364	30365
4	30364	14250	0	7636	2001	.03	60	0	0	0	0	335	36583	30365
5	36583	1720	0	7636	2093	.32	670	0	0	6586	0	0	36583	30365
6	36583	15920	0	8590	2093	.23	481	0	0	0	0	6849	36583	30365
7	36583	3560	0	10499	2011	.33	664	0	0	1380	0	0	30360	30365
8	30360	210	0	10499	1900	.68	1292	0	0	11585	0	0	30364	30365
9	30364	0	0	8590	1905	.18	343	0	0	8932	0	0	30363	30365
10	30363	5920	0	7636	1991	.11	219	0	0	7228	0	0	35656	30365
11	35656	1250	0	7636	2079	.14	291	0	0	7604	0	0	36583	30365
12	36583	250	0	6681	2093	.23	481	0	0	6912	0	0	36583	30365
YEAR TOTALS		50560	0	95446			4579	0	0	62868	0	7184		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	40551	4350	0	707	2663	-.06	-159	0	0	20030	16670	0	47713	73718
2	47713	7910	0	707	2699	-.01	-26	0	0	0	12214	0	42728	73718
3	42728	8380	0	707	2956	.14	414	0	0	20520	7256	0	63251	73718
4	63251	19480	0	807	3450	.02	69	0	0	10428	10680	7885	73718	73718
5	73718	7740	0	807	3646	.31	1130	0	0	7224	10680	2347	73718	73718
	73718	19870	0	908	3646	.22	802	0	0	0	12428	5732	73718	73718
7	73718	6640	0	1110	3334	.36	1200	0	0	0	21532	0	56516	73718
8	56516	3850	0	1110	2845	.70	1991	0	0	148	14685	0	42728	73718
9	42728	770	0	908	2617	.22	576	0	0	11600	10886	0	42728	73718
10	42728	6700	0	807	3119	.10	312	0	0	25409	0	0	73718	73718
11	73718	2080	0	807	3646	.18	656	0	0	8775	9392	0	73718	73718
12	73718	1540	0	707	3646	.24	875	0	0	11982	11940	0	73718	73718
YEAR TOTALS		89310	0	10092			7840	0	0	116116	138363	15964		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 33 CALENDAR YEAR 1973

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	117483	10830	0	428	6714	-.05	-335	0	0	0	0	0	128220	338276
2	128220	1980	0	428	6685	.00	0	14119	0	0	0	0	115653	338276
3	115653	3920	0	428	6527	.13	849	0	0	0	0	0	118296	338276
4	118296	11390	0	490	6734	.08	539	0	0	0	0	0	128657	338276
5	128657	7920	0	490	6977	.36	2512	0	0	0	0	0	133575	338276
6	133575	5660	0	551	7105	.28	1989	0	0	0	0	0	136695	338276
7	136695	10040	0	673	7236	.35	2533	0	0	0	0	0	143529	338276
8	143529	9080	0	673	7286	.70	5100	6276	0	0	0	0	140560	338276
9	140560	4000	0	551	6983	.19	1327	20681	0	0	0	0	122001	338276
10	122001	22040	0	490	7015	.14	982	0	0	0	0	0	142569	338276
11	142569	4970	0	490	7343	.16	1175	0	0	0	0	0	145874	338276
12	145874	0	0	428	7354	.27	1986	0	0	0	0	0	143460	338276
YEAR TOTALS		91830	0	6120			18657	41076	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	109122	6410	0	7444	7890	-.07	-551	0	0	11600	0	0	120239	139351
2	120239	7220	14119	7444	8524	-.01	-84	0	0	5133	0	0	139351	139351
3	139351	6940	0	7444	8928	.12	1071	0	0	1575	0	0	139351	139351
4	139351	23450	0	8507	8928	.02	179	4336	0	0	10428	0	139351	139351
5	139351	23820	0	8507	8928	.31	2768	5321	0	0	7224	0	139351	139351
	139351	17660	0	9571	8928	.22	1964	6125	0	0	0	0	139351	139351
7	139351	10270	0	11698	8928	.34	3036	118	0	4582	0	0	139351	139351
8	139351	21160	6276	11698	8928	.68	6071	9519	0	0	148	0	139351	139351
9	139351	9490	20681	9571	8928	.18	1607	7393	0	0	11600	0	139351	139351
10	139351	24400	0	8507	8928	.11	982	4519	0	0	10392	0	139351	139351
11	139351	7110	0	8507	8928	.15	1339	0	0	2736	0	0	139351	139351
12	139351	4250	0	7444	8928	.27	2411	354	0	5959	0	0	139351	139351
YEAR TOTALS		162180	41076	106342			20793	37685	0	31585	39792	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 33 CALENDAR YEAR 1973

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	700	0	0	3527	-.06	-211	0	0	0	911	0	37775	37775
2	37775	790	0	0	3535	-.01	-34	0	0	0	824	0	37775	37775
3	37775	760	0	0	3537	.13	460	0	0	0	300	0	37775	37775
4	37775	2570	4336	0	3537	.02	71	0	0	0	6835	0	37775	37775
5	37775	2610	5321	0	3537	.31	1096	0	0	0	6835	0	37775	37775
6	37775	1930	6125	0	3537	.22	778	0	0	0	7277	0	37775	37775
7	37775	1120	118	0	3537	.35	1238	0	0	0	0	0	37775	37775
8	37775	2320	9519	0	3537	.69	2441	0	0	0	9398	0	37775	37775
9	37775	1040	7393	0	3537	.21	743	0	0	0	7690	0	37775	37775
10	37775	2670	4519	0	3537	.10	354	0	0	0	6835	0	37775	37775
11	37775	780	0	0	3537	.17	601	0	0	0	179	0	37775	37775
12	37775	460	354	0	3537	.23	814	0	0	0	0	0	37775	37775
YEAR TOTALS		17750	37685	0			8351	0	0	0	47084	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
/	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
11	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
12	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
YEAR TOTALS		327480	0	360000			0	0	118520	0	86000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 33 CALENDAR YEAR 1973

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 33 CALENDAR YEAR 1973

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 34 CALENDAR YEAR 1974

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	50270	0	307	41356	-.09	-3721	0	0	0	7443	46241	923750	923750
2	923750	19090	0	278	41356	.17	7031	0	0	1224	13005	0	923750	923750
3	923750	11250	0	307	41356	.20	8271	0	0	10000	12672	0	923750	923750
4	923750	4560	0	298	41356	.25	10339	0	0	10000	3923	0	923750	923750
5	923750	34230	0	307	41356	.21	8685	0	0	0	22770	2468	923750	923750
6	923750	3640	0	298	41356	.41	16956	0	0	10000	0	0	920136	923750
7	920136	2020	0	307	40542	.63	25541	0	0	10000	22770	0	883538	923750
8	883538	4510	0	307	39484	.30	11845	0	0	10000	22770	0	863126	923750
9	863126	73570	0	298	40231	.07	2816	0	0	10000	19832	0	923750	923750
10	923750	85910	0	307	41356	.12	4963	0	0	0	17891	62749	923750	923750
11	923750	399810	0	298	41356	.00	0	0	0	0	0	399512	923750	923750
12	923750	70830	0	307	41356	.01	414	0	0	0	2239	67870	923750	923750
YEAR TOTALS		759690	0	3619			93140	0	0	61224	145315	578840		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	154300	0	1478	32623	-.10	-3261	0	0	0	18950	137133	557265	557265
2	557265	9200	0	1478	32623	.15	4893	0	0	9000	11829	0	557265	557265
3	557265	4690	0	1478	32623	.22	7177	0	0	9000	5035	0	557265	557265
4	557265	19660	0	1690	32623	.25	8156	0	0	9000	18814	0	557265	557265
5	557265	83900	0	1690	32623	.21	6851	0	0	0	18950	56409	557265	557265
	557265	92210	0	1901	32623	.34	11092	0	0	0	18950	60267	557265	557265
7	557265	480	0	2323	32623	.67	21857	0	0	9000	5447	0	537118	557265
8	537118	0	0	2323	30498	.29	8844	0	0	9000	18950	0	516001	557265
9	516001	12670	0	1901	30410	.04	1216	0	0	9000	0	0	534554	557265
10	534554	37230	0	1690	31837	.12	3820	0	0	0	9009	0	557265	557265
11	557265	272200	0	1690	32623	.00	0	0	0	0	11468	259042	557265	557265
12	557265	67110	0	1478	32623	.00	0	0	0	0	18950	46682	557265	557265
YEAR TOTALS		753650	0	21120			70645	0	0	54000	156352	559533		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 34 CALENDAR YEAR 1974

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36583	1600	0	6681	2093	.06	126	0	0	5207	0	0	36583	30365
2	36583	990	0	6681	2004	.17	341	0	0	0	0	0	30551	30365
3	30551	960	0	6681	1912	.28	535	0	0	6067	0	0	30362	30365
4	30362	220	0	7636	1908	.27	515	0	0	7931	0	0	30362	30365
5	30362	4000	0	7636	1911	.34	650	0	0	4284	0	0	30360	30365
6	30360	1750	0	8590	1900	.49	931	0	0	7775	0	0	30364	30365
7	30364	110	0	10499	1900	.81	1539	0	0	11928	0	0	30364	30365
8	30364	3030	0	10499	1911	.34	650	0	0	8115	0	0	30360	30365
9	30360	3420	0	8590	1902	.07	133	0	0	5307	0	0	30364	30365
10	30364	7460	0	7636	2001	.12	240	0	0	6635	0	0	36583	30365
11	36583	5090	0	7636	2093	.06	126	0	0	2673	0	0	36584	36584
12	36584	1320	0	6681	2093	.04	84	0	0	5444	0	0	36583	30365
YEAR TOTALS		29950	0	95446			5870	0	0	71366	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	73718	4330	0	707	3646	.06	219	0	0	4145	7549	0	73718	73718
2	73718	2450	0	707	3646	.18	656	0	0	7793	8880	0	73718	73718
3	73718	2230	0	707	3377	.29	979	0	0	0	14982	0	59280	73718
4	59280	1150	0	807	2980	.27	805	0	0	0	10687	0	48131	73718
5	48131	2360	0	807	2887	.31	895	0	0	17961	13105	0	53645	73718
	53645	1000	0	908	2798	.49	1371	0	0	1097	10735	0	42728	73718
7	42728	960	0	1110	2595	.80	2076	0	0	11600	10490	0	41612	73718
8	41612	7610	0	1110	2595	.33	856	0	0	6826	11354	0	42728	73718
9	42728	3950	0	908	2617	.08	209	0	0	4552	7385	0	42728	73718
10	42728	19750	0	807	3119	.11	343	0	0	12390	0	0	73718	73718
11	73718	42050	0	807	3646	.04	146	0	0	11600	10680	42017	73718	73718
12	73718	7150	0	707	3646	.04	146	0	0	0	6297	0	73718	73718
YEAR TOTALS		94990	0	10092			8701	0	0	77964	112144	42017		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 34 CALENDAR YEAR 1974

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	143460	1320	0	428	7324	.11	806	0	0	0	0	0	143546	338276
2	143546	1570	0	428	7323	.18	1318	0	0	0	0	0	143370	338276
3	143370	1730	0	428	7309	.30	2193	0	0	0	0	0	142479	338276
4	142479	9830	0	490	7391	.29	2143	0	0	0	0	0	149676	338276
5	149676	6150	0	490	7517	.42	3157	0	0	0	0	0	152179	338276
6	152179	5920	0	551	7305	.59	4310	19872	0	0	0	0	133366	338276
7	133366	2800	0	673	6411	.83	5321	36898	0	0	0	0	93274	338276
8	93274	10390	0	673	5881	.36	2117	0	0	0	0	0	100874	338276
9	100874	17930	0	551	6125	.09	551	9918	0	0	0	0	107784	338276
10	107784	20380	0	490	6535	.16	1046	0	0	0	0	0	126628	338276
11	126628	36120	0	490	7336	.13	954	0	0	0	0	0	161304	338276
12	161304	940	0	428	7786	.07	545	0	0	0	0	0	161271	338276
YEAR TOTALS		115080	0	6120			24461	66688	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	5780	0	7444	8928	.04	357	0	0	2021	0	0	139351	139351
2	139351	6040	0	7444	8928	.17	1518	0	0	2922	0	0	139351	139351
3	139351	6640	0	7444	8928	.28	2500	296	0	3600	0	0	139351	139351
4	139351	11440	0	8507	8928	.27	2411	522	0	0	0	0	139351	139351
5	139351	5580	0	8507	8928	.32	2857	486	0	6270	0	0	139351	139351
	139351	3950	19872	9571	8928	.47	4196	8958	0	0	1097	0	139351	139351
7	139351	5200	36898	11698	8928	.80	7142	11658	0	0	11600	0	139351	139351
8	139351	5140	0	11698	8758	.33	2890	607	0	1956	0	0	131252	139351
9	131252	18830	9918	9571	8758	.07	613	5913	0	0	4552	0	139351	139351
10	139351	40210	0	8507	8928	.12	1071	19032	0	0	11600	0	139351	139351
11	139351	81060	0	8507	8928	.05	446	60507	0	0	11600	0	139351	139351
12	139351	8280	0	7444	8928	.07	625	211	0	0	0	0	139351	139351
YEAR TOTALS		198150	66688	106342			26626	108190	0	16769	40449	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 34 CALENDAR YEAR 1974

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	630	0	0	3537	.05	177	0	0	0	453	0	37775	37775
2	37775	660	0	0	3537	.18	637	0	0	0	23	0	37775	37775
3	37775	730	296	0	3537	.29	1026	0	0	0	0	0	37775	37775
4	37775	1250	522	0	3537	.27	955	0	0	0	817	0	37775	37775
5	37775	610	486	0	3537	.31	1096	0	0	0	0	0	37775	37775
6	37775	430	8958	0	3537	.48	1698	0	0	0	7690	0	37775	37775
7	37775	570	11658	0	3537	.80	2830	0	0	0	9398	0	37775	37775
8	37775	560	607	0	3537	.33	1167	0	0	0	0	0	37775	37775
9	37775	2060	5913	0	3537	.08	283	0	0	0	7690	0	37775	37775
10	37775	4400	19032	0	3537	.11	389	0	0	0	6835	16208	37775	37775
11	37775	8870	60507	0	3537	.04	141	0	0	0	6835	62401	37775	37775
12	37775	910	211	0	3537	.04	141	0	0	0	980	0	37775	37775
YEAR TOTALS		21680	108190	0			10540	0	0	0	40721	78609		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	12934	0	10224	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	12710	0	10000	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
11	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
12	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
YEAR TOTALS		327480	0	360000			0	0	147744	0	115224	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 34 CALENDAR YEAR 1974

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 35 CALENDAR YEAR 1975

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	50590	0	307	41356	.03	1241	0	0	0	1794	47248	923750	923750
2	923750	203520	0	278	41333	-.03	-1239	0	0	0	0	204482	923749	923750
3	923749	50810	0	307	41356	.06	2481	0	0	0	0	48021	923750	923750
4	923750	176760	0	298	41356	.08	3308	0	0	0	0	173154	923750	923750
5	923750	393280	0	307	41356	.06	2481	0	0	0	0	390492	923750	923750
6	923750	102410	0	298	41356	.31	12820	0	0	0	9582	79710	923750	923750
7	923750	15020	0	307	41356	.42	17370	0	0	10000	20472	0	910621	923750
8	910621	3270	0	307	40297	.52	20954	0	0	10000	22770	0	879860	923750
9	879860	2860	0	298	39289	.40	15716	0	0	10000	20389	0	856317	923750
10	856317	1840	0	307	38539	.29	11176	0	0	10000	17207	0	839467	923750
11	839467	1980	0	298	37970	.23	8733	0	0	10000	16796	0	825620	923750
12	825620	1450	0	307	37715	.07	2640	0	0	10000	8377	0	825746	923750
YEAR TOTALS		1003790	0	3619			97681	0	0	60000	117387	943107		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	19200	0	1478	32623	.02	652	0	0	0	17070	0	557265	557265
2	557265	183100	0	1478	32578	-.04	-1302	0	0	0	9945	172981	557263	557265
3	557263	43920	0	1478	32623	.04	1305	0	0	0	11254	29881	557265	557265
4	557265	99780	0	1690	32623	.08	2610	0	0	0	8795	86685	557265	557265
5	557265	31860	0	1690	32623	.09	2936	0	0	0	10451	16783	557265	557265
	557265	13820	0	1901	32623	.31	10113	0	0	0	1806	0	557265	557265
7	557265	2090	0	2323	32623	.43	14028	0	0	9000	0	0	552004	557265
8	552004	400	0	2323	32441	.56	18167	0	0	9000	908	0	540006	557265
9	540006	410	0	1901	31192	.46	14348	0	0	9000	0	0	533167	557265
10	533167	590	0	1690	30824	.38	11713	0	0	9000	0	0	529354	557265
11	529354	170	0	1690	30717	.22	6758	0	0	9000	0	0	530076	557265
12	530076	130	0	1478	30931	.07	2165	0	0	9000	0	0	535563	557265
YEAR TOTALS		395470	0	21120			83493	0	0	54000	60229	306330		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 35 CALENDAR YEAR 1975

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	36583	3530	0	6681	2093	.05	105	0	0	3256	0	0	36583	30365
2	36583	4370	0	6681	2092	-.03	-62	0	0	2249	0	0	36583	30365
3	36583	3290	0	6681	2093	.08	167	0	0	3558	0	0	36583	30365
4	36583	8430	0	7636	2093	.16	335	0	0	0	0	459	36583	30365
5	36583	6190	0	7636	2093	.10	209	0	0	1656	0	0	36584	36584
6	36584	7850	0	8590	2093	.36	753	0	0	1493	0	0	36584	36584
7	36584	3000	0	10499	2093	.42	879	0	0	8378	0	0	36584	36584
8	36584	150	0	10499	2093	.59	1235	0	0	11584	0	0	36584	36584
9	36584	0	0	8590	2093	.44	921	0	0	9511	0	0	36584	36584
10	36584	250	0	7636	2093	.49	1026	0	0	8412	0	0	36584	36584
11	36584	200	0	7636	2093	.27	565	0	0	8001	0	0	36584	36584
12	36584	0	0	6681	2004	.11	220	0	0	681	0	0	30364	30365
YEAR TOTALS		37260	0	95446			6353	0	0	58779	0	459		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	73718	8590	0	707	3646	.05	182	0	0	0	7701	0	73718	73718
2	73718	33410	0	707	3645	-.02	-72	0	0	11600	9345	35030	73718	73718
3	73718	7520	0	707	3646	.12	438	0	0	8037	9345	5067	73718	73718
4	73718	22990	0	807	3646	.12	438	0	0	11600	10680	22665	73718	73718
5	73718	8260	0	807	3646	.07	255	0	0	11600	10680	8118	73718	73718
	73718	43940	0	908	3646	.36	1313	0	0	11600	12015	41304	73718	73718
7	73718	7450	0	1110	3646	.46	1677	0	0	11600	14685	1578	73718	73718
8	73718	1420	0	1110	3143	.62	1949	0	0	0	27772	0	44307	73718
9	44307	30	0	908	2643	.48	1269	0	0	11600	11032	0	42728	73718
10	42728	510	0	807	2603	.48	1249	0	0	11487	10680	0	41989	73718
11	41989	350	0	807	2580	.30	774	0	0	11487	10680	0	41565	73718
12	41565	850	0	707	2582	.12	310	0	0	10052	9345	0	42105	73718
YEAR TOTALS		135320	0	10092			9782	0	0	110663	143960	113762		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 35 CALENDAR YEAR 1975

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	161271	3010	0	428	7811	.08	625	0	0	0	0	0	163228	338276
2	163228	27940	0	428	8210	-.01	-81	0	0	0	0	0	190821	338276
3	190821	10470	0	428	8758	.13	1139	0	0	0	0	0	199724	338276
4	199724	12840	0	490	9050	.20	1810	0	0	0	0	0	210264	338276
5	210264	56080	0	490	9990	.13	1299	0	0	0	0	0	264555	338276
6	264555	84220	0	551	11742	.39	4579	5369	0	0	0	0	338276	338276
7	338276	31920	0	673	12855	.43	5528	25719	0	0	0	0	338276	338276
8	338276	9480	0	673	12855	.61	7842	965	0	0	0	0	338276	338276
9	338276	0	0	551	12243	.41	5020	30341	0	0	0	0	302364	338276
10	302364	3000	0	490	11291	.50	5645	32902	0	0	0	0	266327	338276
11	266327	2840	0	490	10376	.27	2802	30230	0	0	0	0	235645	338276
12	235645	6340	0	428	9651	.13	1255	25027	0	0	0	0	215275	338276
YEAR TOTALS		248140	0	6120			37463	150553	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	7010	0	7444	8928	.05	446	0	0	880	0	0	139351	139351
2	139351	32630	0	7444	8922	-.03	-267	13853	0	0	11600	0	139351	139351
3	139351	20310	0	7444	8928	.08	714	4115	0	0	8037	0	139351	139351
4	139351	29100	0	8507	8928	.15	1339	7654	0	0	11600	0	139351	139351
5	139351	30050	0	8507	8928	.09	804	9139	0	0	11600	0	139351	139351
	139351	43720	5369	9571	8928	.36	3214	24704	0	0	11600	0	139351	139351
7	139351	18330	25719	11698	8928	.42	3750	17001	0	0	11600	0	139351	139351
8	139351	13040	965	11698	8928	.59	5268	728	0	3689	0	0	139351	139351
9	139351	3790	30341	9571	8928	.45	4018	8942	0	0	11600	0	139351	139351
10	139351	0	32902	8507	8928	.49	4375	8533	0	0	11487	0	139351	139351
11	139351	0	30230	8507	8928	.27	2411	7825	0	0	11487	0	139351	139351
12	139351	0	25027	7444	8928	.13	1161	6370	0	0	10052	0	139351	139351
YEAR TOTALS		197980	150553	106342			27233	108864	0	4569	110663	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 35 CALENDAR YEAR 1975

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	770	0	0	3537	.05	177	0	0	0	593	0	37775	37775
2	37775	3570	13853	0	3534	-.02	-70	0	0	0	5981	11512	37775	37775
3	37775	2220	4115	0	3537	.10	354	0	0	0	5981	0	37775	37775
4	37775	3180	7654	0	3537	.13	460	0	0	0	6835	3539	37775	37775
5	37775	3290	9139	0	3537	.08	283	0	0	0	6835	5311	37775	37775
6	37775	4780	24704	0	3537	.36	1273	0	0	0	7690	20521	37775	37775
7	37775	2000	17001	0	3537	.45	1592	0	0	0	9398	8011	37775	37775
8	37775	1430	728	0	3537	.61	2158	0	0	0	0	0	37775	37775
9	37775	410	8942	0	3537	.47	1662	0	0	0	7690	0	37775	37775
10	37775	0	8533	0	3537	.48	1698	0	0	0	6835	0	37775	37775
11	37775	0	7825	0	3537	.28	990	0	0	0	6835	0	37775	37775
12	37775	0	6370	0	3537	.11	389	0	0	0	5981	0	37775	37775
YEAR TOTALS		21650	108864	0			10966	0	0	0	70654	48894		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
2	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
3	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
10	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
YEAR TOTALS		327480	0	360000			0	0	146520	0	114000	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 35 CALENDAR YEAR 1975

DEMAND NODE 9 MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10 RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 35 CALENDAR YEAR 1975

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 36   CALENDAR YEAR 1976

RESERVOIR NO 1   RCR   MAX. CAPACITY 923750 MIN. OPERATING POOL 140000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	825746	2660	0	307	37559	.16	6009	0	0	10000	14852	0	817238	923750
2	817238	3590	0	278	37232	.20	7446	0	0	10000	14968	0	808136	923750
3	808136	21020	0	307	37300	.10	3730	0	0	10000	14227	0	820892	923750
4	820892	145040	0	298	39447	.04	1578	0	0	0	22770	17536	923750	923750
5	923750	173570	0	307	41356	.11	4549	0	0	0	0	168714	923750	923750
6	923750	89580	0	298	41356	.26	10753	0	0	0	19521	59008	923750	923750
7	923750	84900	0	307	41356	.25	10339	0	0	0	22770	51484	923750	923750
8	923750	3330	0	307	40766	.54	22014	0	0	10000	22770	0	891989	923750
9	891989	54750	0	298	40766	.08	3261	0	0	3340	22770	0	923750	923750
10	923750	47580	0	307	41356	.07	2895	0	0	0	22770	21608	923750	923750
11	923750	11260	0	298	41356	.13	5376	0	0	10000	15586	0	923750	923750
12	923750	73790	0	307	41348	-.01	-412	0	0	0	22770	51126	923749	923750
YEAR TOTALS		711070	0	3619			77538	0	0	53340	215774	369476		

RESERVOIR NO 2   CCR   MAX. CAPACITY 557265 MIN. OPERATING POOL 107000

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	535563	390	0	1478	31211	.17	5306	0	0	9000	0	0	538169	557265
2	538169	590	0	1478	31354	.21	6584	0	0	9000	0	0	539697	557265
3	539697	2500	0	1478	31645	.10	3164	0	0	9000	0	0	546555	557265
4	546555	359750	0	1690	32252	.05	1613	0	0	0	18950	326787	557265	557265
5	557265	89020	0	1690	32623	.11	3589	0	0	0	13519	70222	557265	557265
	557265	26260	0	1901	32623	.27	8808	0	0	0	15551	0	557265	557265
7	557265	19240	0	2323	32623	.25	8156	0	0	9000	17761	0	557265	557265
8	557265	830	0	2323	32623	.52	16964	0	0	9000	918	0	546890	557265
9	546890	11550	0	1901	32264	.05	1613	0	0	9000	6661	0	557265	557265
10	557265	25830	0	1690	32623	.09	2936	0	0	0	18950	2254	557265	557265
11	557265	2130	0	1690	32623	.17	5546	0	0	9000	3894	0	557265	557265
12	557265	35130	0	1478	32623	.02	652	0	0	0	18950	14050	557265	557265
YEAR TOTALS		573220	0	21120			64931	0	0	63000	115154	413313		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 36 CALENDAR YEAR 1976

RESERVOIR NO 3 LARL MAX. CAPACITY 36584 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	30364	0	0	6681	1908	.25	477	0	0	7156	0	0	30362	30365
2	30362	0	0	6681	1910	.31	592	0	0	7272	0	0	30361	30365
3	30361	590	0	6681	1907	.23	439	0	0	6531	0	0	30362	30365
4	30362	13620	0	7636	1998	.07	140	0	0	0	0	0	36206	30365
5	36206	7570	0	7636	2087	.15	313	0	0	756	0	0	36583	30365
6	36583	1430	0	8590	2093	.42	879	0	0	8039	0	0	36583	30365
7	36583	910	0	10499	2011	.33	664	0	0	4030	0	0	30360	30365
8	30360	30	0	10499	1900	.59	1121	0	0	11594	0	0	30364	30365
9	30364	110	0	8590	1906	.19	362	0	0	8841	0	0	30363	30365
10	30363	1140	0	7636	1903	.10	190	0	0	6687	0	0	30364	30365
11	30364	0	0	7636	1906	.19	362	0	0	7997	0	0	30363	30365
12	30363	1230	0	6681	1903	.09	171	0	0	5623	0	0	30364	30365
YEAR TOTALS		26630	0	95446			5710	0	0	74526	0	0		

RESERVOIR NO 4 BB MAX. CAPACITY 73718 MIN. OPERATING POOL 42728

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	42105	850	0	707	2597	.25	649	0	0	10052	9345	0	42306	73718
2	42306	1250	0	707	2609	.31	809	0	0	10033	9345	0	42728	73718
3	42728	1310	0	707	2617	.25	654	0	0	9396	9345	0	42728	73718
4	42728	7560	0	807	2947	.06	177	0	0	22245	8900	0	62649	73718
5	62649	17830	0	807	3439	.16	550	0	0	1308	6712	0	73718	73718
	73718	3660	0	908	3646	.43	1568	0	0	5123	6307	0	73718	73718
7	73718	1770	0	1110	3494	.31	1083	0	0	9722	17439	0	65578	73718
8	65578	300	0	1110	2994	.56	1677	0	0	0	20363	0	42728	73718
9	42728	400	0	908	2615	.20	523	0	0	2228	1320	0	42605	73718
10	42605	2500	0	807	2745	.09	247	0	0	15558	9033	0	50576	73718
11	50576	1530	0	807	2747	.19	522	0	0	0	8049	0	42728	73718
12	42728	5070	0	707	2859	.08	229	0	0	19056	8560	0	57358	73718
YEAR TOTALS		44030	0	10092			8688	0	0	104721	114718	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 36 CALENDAR YEAR 1976

RESERVOIR NO 5 BP MAX. CAPACITY 338276 MIN. OPERATING POOL 17047

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	215275	6730	0	428	9022	.25	2255	26513	0	0	0	0	192809	338276
2	192809	8120	0	428	8347	.34	2838	27322	0	0	0	0	170341	338276
3	170341	8490	0	428	7765	.28	2174	25599	0	0	0	0	150630	338276
4	150630	25150	0	490	7820	.10	782	0	0	0	0	0	174508	338276
5	174508	13110	0	490	8301	.19	1577	0	0	0	0	0	185551	338276
6	185551	9750	0	551	8543	.48	4101	0	0	0	0	0	190649	338276
7	190649	6080	0	673	8654	.36	3115	0	0	0	0	0	192941	338276
8	192941	70	0	673	8265	.60	4959	22612	0	0	0	0	164767	338276
9	164767	24130	0	551	7957	.21	1671	15768	0	0	0	0	170907	338276
10	170907	11840	0	490	8185	.10	818	0	0	0	0	0	181439	338276
11	181439	8940	0	490	8291	.19	1575	10353	0	0	0	0	177961	338276
12	177961	1960	0	428	8248	.11	907	0	0	0	0	0	178586	338276
YEAR TOTALS		124370	0	6120			26772	128167	0	0	0	0		

RESERVOIR NO 6 EM MAX. CAPACITY 139351 MIN. OPERATING POOL 58980

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139351	80	26513	7444	8928	.25	2232	6865	0	0	10052	0	139351	139351
2	139351	0	27322	7444	8928	.31	2768	7077	0	0	10033	0	139351	139351
3	139351	0	25599	7444	8928	.22	1964	6795	0	0	9396	0	139351	139351
4	139351	7110	0	8507	8928	.06	536	132	0	2065	0	0	139351	139351
5	139351	18320	0	8507	8928	.15	1339	7166	0	0	1308	0	139351	139351
	139351	15930	0	9571	8928	.41	3660	2699	0	0	0	0	139351	139351
7	139351	7530	0	11698	8928	.32	2857	1016	0	8041	0	0	139351	139351
8	139351	0	22612	11698	8928	.58	5178	5736	0	0	0	0	139351	139351
9	139351	5940	15768	9571	8928	.18	1607	8302	0	0	2228	0	139351	139351
10	139351	7440	0	8507	8928	.10	893	238	0	2198	0	0	139351	139351
11	139351	7220	10353	8507	8928	.19	1696	7370	0	0	0	0	139351	139351
12	139351	6070	0	7444	8928	.11	982	223	0	2579	0	0	139351	139351
YEAR TOTALS		75640	128167	106342			25712	53619	0	14883	33017	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 36 CALENDAR YEAR 1976

RESERVOIR NO 7 LW MAX. CAPACITY 37775 MIN. OPERATING POOL 22500

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	37775	0	6865	0	3537	.25	884	0	0	0	5981	0	37775	37775
2	37775	0	7077	0	3537	.31	1096	0	0	0	5981	0	37775	37775
3	37775	0	6795	0	3537	.23	814	0	0	0	5981	0	37775	37775
4	37775	80	132	0	3537	.06	212	0	0	0	0	0	37775	37775
5	37775	200	7166	0	3537	.15	531	0	0	0	6835	0	37775	37775
6	37775	170	2699	0	3537	.42	1486	0	0	0	1383	0	37775	37775
7	37775	80	1016	0	3537	.31	1096	0	0	0	0	0	37775	37775
8	37775	0	5736	0	3537	.57	2016	0	0	0	3720	0	37775	37775
9	37775	60	8302	0	3537	.19	672	0	0	0	7690	0	37775	37775
10	37775	80	238	0	3537	.09	318	0	0	0	0	0	37775	37775
11	37775	80	7370	0	3537	.19	672	0	0	0	6778	0	37775	37775
12	37775	60	223	0	3537	.08	283	0	0	0	0	0	37775	37775
YEAR TOTALS		810	53619	0			10080	0	0	0	44349	0		

RESERVOIR NO 8 WTLND MAX. CAPACITY 10 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
2	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
3	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
4	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
5	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
7	10	27290	0	30000	1	.00	0	0	11710	0	9000	0	10	10
8	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
9	10	27290	0	30000	1	.00	0	0	15050	0	12340	0	10	10
10	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
11	10	27290	0	30000	1	.00	0	0	21710	0	19000	0	10	10
12	10	27290	0	30000	1	.00	0	0	2710	0	0	0	10	10
YEAR TOTALS		327480	0	360000			0	0	148860	0	116340	0		

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 36   CALENDAR YEAR 1976

DEMAND NODE 9   MANS

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	7696	0	0
2	7696	0	0
3	7696	0	0
4	8795	0	0
5	8795	0	0
6	9895	0	0
7	12094	0	0
8	12094	0	0
9	9895	0	0
10	8795	0	0
11	8795	0	0
12	7696	0	0
YEAR TOTALS	109942	0	0

DEMAND NODE 10   RHWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9345	0	0
2	9345	0	0
3	9345	0	0
4	10680	0	0
5	10680	0	0
6	12015	0	0
7	14685	0	0
8	14685	0	0
9	12015	0	0
10	10680	0	0
11	10680	0	0
12	9345	0	0
YEAR TOTALS	133500	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION YEAR 36 CALENDAR YEAR 1976

DEMAND NODE 11 HWTP

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	5981	0	0
2	5981	0	0
3	5981	0	0
4	6835	0	0
5	6835	0	0
6	7690	0	0
7	9398	0	0
8	9398	0	0
9	7690	0	0
10	6835	0	0
11	6835	0	0
12	5981	0	0
YEAR TOTALS	85440	0	0

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 1

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	923750	1211770	3619	0	55528	1104142	923750
2	923750	1294930	3619	0	67435	1099957	923749
3	923749	581120	3619	0	101149	367630	923321
4	923321	1135350	3619	0	52194	974453	872314
5	872314	1721680	3619	0	37532	1496667	923750
6	923750	848460	3619	0	47182	737390	923750
7	923750	602800	3619	0	87447	482725	869451
8	869451	457660	3619	0	111328	352577	748396
9	748396	206640	3619	0	51010	0	836936
10	836936	346910	3619	0	78676	228023	813943
11	813943	80950	3619	0	121922	0	734634
12	734634	294550	3619	0	98588	0	773737
13	773737	513100	3619	0	56110	266406	797462
14	797462	48980	3619	0	119967	0	569616
15	569616	79440	3619	0	59256	0	432941
16	432941	119420	3619	0	78824	0	316678
17	316678	1512400	3619	0	13780	800983	923750
18	923750	857920	3619	0	57285	743053	916099
19	916099	926350	3619	0	43599	688872	923746
20	923746	643070	3619	0	45908	461350	923750
21	923750	1163140	3619	0	49765	926030	923750
22	923750	253790	3619	0	61569	65967	923750
23	923750	61610	3619	0	109223	13945	751591
24	751591	27760	3619	0	75480	0	562836
25	562836	505800	3619	0	63381	108498	793065
26	793065	843350	3619	0	76385	669512	824056
27	824056	639650	3619	0	81204	276863	923750
28	923750	1389720	3619	0	64040	1279496	836886
29	836886	912730	3619	0	98385	728160	823896
30	823896	574420	3619	0	98811	356226	860640
31	860640	403190	3619	0	102708	93386	923748
32	923748	207390	3619	0	104756	127504	788069
33	788069	1290550	3619	0	71352	959349	923750
34	923750	759690	3619	0	93140	578840	923750
35	923750	1003790	3619	0	97681	943107	825746
36	825746	711070	3619	0	77538	369476	923749
PERIOD TOTALS		24231150	130284	0	2710138	17300587	
PERIOD AVERAGES		673087	3619	0	75281	480571	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 2

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	557265	594710	21120	0	44358	441569	557265
2	557265	796600	21120	0	51528	649184	557265
3	557265	374130	21120	0	80670	230686	557263
4	557263	574360	21120	0	48139	408792	557265
5	557265	954490	21120	0	33203	821762	557265
6	557265	722320	21120	0	38893	588400	557265
7	557265	522980	21120	0	71785	373365	557265
8	557265	299160	21120	0	89622	229357	441895
9	441895	222890	21120	0	41344	14682	544415
10	544415	435520	21120	0	52475	359664	553066
11	553066	141000	21120	0	80473	65195	505238
12	505238	332620	21120	0	80187	124730	474421
13	474421	369510	21120	0	52353	194926	447132
14	447132	154390	21120	0	90410	0	370592
15	370592	107780	21120	0	49652	0	288200
16	288200	78010	21120	0	63112	0	162578
17	162578	1126120	21120	0	14966	604287	557265
18	557265	585660	21120	0	51239	483374	557265
19	557265	374780	21120	0	40411	217721	557265
20	557265	436390	21120	0	47661	295865	557265
21	557265	430700	21120	0	48160	280177	538501
22	538501	265030	21120	0	43261	48753	557265
23	557265	110680	21120	0	95349	63953	436939
24	436939	58450	21120	0	59338	0	349996
25	349996	278010	21120	0	47639	65264	472478
26	472478	619920	21120	0	47046	496754	542257
27	542257	496700	21120	0	49251	302340	557265
28	557265	532780	21120	0	64889	404531	512747
29	512747	639580	21120	0	68155	452870	547951
30	547951	513310	21120	0	70976	336480	528368
31	528368	558980	21120	0	82991	318781	557260
32	557260	129820	21120	0	90980	55728	491994
33	491994	885590	21120	0	58209	633327	557265
34	557265	753650	21120	0	70645	559533	557265
35	557265	395470	21120	0	83493	306330	535563
36	535563	573220	21120	0	64931	413313	557265
PERIOD TOTALS		16445310	760320	0	2167794	10841693	
PERIOD AVERAGES		456814	21120	0	60216	301158	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 3

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	36584	44760	95446	0	3856	7769	36584
2	36584	65150	95446	0	5068	34110	36584
3	36584	14030	95446	0	8034	0	30364
4	30364	17430	95446	0	5560	646	30364
5	30364	63580	95446	0	4776	31371	36584
6	36584	28010	95446	0	5309	0	36584
7	36584	16840	95446	0	7663	0	30364
8	30364	30510	95446	0	7839	3749	30362
9	30362	89250	95446	0	4347	42316	30364
10	30364	60360	95446	0	5687	7380	36584
11	36584	5870	95446	0	7209	0	30362
12	30362	6030	95446	0	8156	0	30364
13	30364	10620	95446	0	6673	0	30363
14	30363	2040	95446	0	9457	0	30362
15	30362	3730	95446	0	7225	0	30362
16	30362	5960	95446	0	10976	0	30363
17	30363	112640	95446	0	3201	74168	36584
18	36584	36660	95446	0	5506	8877	30363
19	30363	15140	95446	0	5159	0	30364
20	30364	7710	95446	0	5702	0	30363
21	30363	21860	95446	0	4471	0	30364
22	30364	12570	95446	0	4660	0	30363
23	30363	7780	95446	0	7395	0	30364
24	30364	21590	95446	0	5474	0	30363
25	30363	35330	95446	0	4297	3393	30364
26	30364	40680	95446	0	4483	8484	30364
27	30364	7630	95446	0	5364	0	30364
28	30364	38750	95446	0	4948	13135	30363
29	30363	31830	95446	0	4897	14848	30364
30	30364	29970	95446	0	5477	0	30363
31	30363	35030	95446	0	6256	3608	36583
32	36583	11160	95446	0	6891	0	30364
33	30364	50560	95446	0	4579	7184	36583
34	36583	29950	95446	0	5870	0	36583
35	36583	37260	95446	0	6353	459	30364
36	30364	26630	95446	0	5710	0	30364
PERIOD TOTALS		1074900	3436056	0	214528	261497	
PERIOD AVERAGES		29858	95446	0	5959	7263	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 4

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	73718	154150	10092	0	5877	127415	68467
2	68467	224750	10092	0	7601	181658	65324
3	65324	45290	10092	0	12190	6512	39799
4	39799	53410	10092	0	8820	29054	62269
5	62269	219600	10092	0	7892	201322	68926
6	68926	90900	10092	0	8950	45894	73718
7	73718	54920	10092	0	12118	8414	46524
8	46524	65070	10092	0	11648	10211	35885
9	35885	183670	10092	0	6683	133354	47247
10	47247	134280	10092	0	10538	60870	42728
11	42728	22780	10092	0	10367	0	37252
12	37252	11080	10092	0	10881	0	36355
13	36355	6700	10092	0	8800	0	34311
14	34311	2450	10092	0	11575	0	25460
15	25460	8890	10092	0	7897	0	26453
16	26453	6850	10092	0	11532	0	21771
17	21771	217900	10092	0	4602	153655	73718
18	73718	74660	10092	0	7586	57698	42728
19	42728	39730	10092	0	8250	0	71077
20	71077	38460	10092	0	9361	16274	41199
21	41199	25370	10092	0	7917	0	42954
22	42954	40780	10092	0	10374	5307	73718
23	73718	15460	10092	0	11752	0	36983
24	36983	23380	10092	0	8835	0	57193
25	57193	82200	10092	0	7191	35019	42728
26	42728	95560	10092	0	8152	49017	48596
27	48596	9820	10092	0	9863	0	42515
28	42515	108640	10092	0	8969	81481	49049
29	49049	78040	10092	0	8204	58507	47458
30	47458	93290	10092	0	8518	71036	40656
31	40656	67990	10092	0	10274	31072	73718
32	73718	24610	10092	0	9586	0	40551
33	40551	89310	10092	0	7840	15964	73718
34	73718	94990	10092	0	8701	42017	73718
35	73718	135320	10092	0	9782	113762	42105
36	42105	44030	10092	0	8688	0	57358
PERIOD TOTALS		2684330	363312	0	327814	1535513	
PERIOD AVERAGES		74564	10092	0	9105	42653	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 5

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	338276	546900	6120	0	25599	0	337625
2	337625	698100	6120	0	35519	0	294605
3	294605	44040	6120	0	47794	0	111538
4	111538	100080	6120	0	23699	0	94082
5	94082	223090	6120	0	31692	0	238393
6	238393	153270	6120	0	37282	0	254735
7	254735	50180	6120	0	43246	0	147469
8	147469	42120	6120	0	30434	0	78381
9	78381	129620	6120	0	17789	0	88166
10	88166	259520	6120	0	31902	0	269552
11	269552	48180	6120	0	31404	0	82419
12	82419	0	6120	0	24718	0	51581
13	51581	61360	6120	0	17336	0	88254
14	88254	125860	6120	0	29591	0	129527
15	129527	66120	6120	0	27628	0	95164
16	95164	33380	6120	0	25480	0	21919
17	21919	501760	6120	0	23911	0	249553
18	249553	59170	6120	0	30490	0	134692
19	134692	103650	6120	0	17766	0	149734
20	149734	60520	6120	0	22740	0	94271
21	94271	64260	6120	0	16548	0	95865
22	95865	109580	6120	0	18019	0	181306
23	181306	23810	6120	0	23706	0	59796
24	59796	103240	6120	0	15892	0	97123
25	97123	71990	6120	0	15747	0	111791
26	111791	108060	6120	0	19810	0	88469
27	88469	33320	6120	0	19521	0	95978
28	95978	76640	6120	0	20386	0	94398
29	94398	90980	6120	0	17963	0	109409
30	109409	38690	6120	0	20750	0	101742
31	101742	63870	6120	0	20043	0	113729
32	113729	132360	6120	0	24017	0	117483
33	117483	91830	6120	0	18657	0	143460
34	143460	115080	6120	0	24461	0	161271
35	161271	248140	6120	0	37463	0	215275
36	215275	124370	6120	0	26772	0	178586
PERIOD TOTALS		4803140	220320	0	915775	0	
PERIOD AVERAGES		133420	6120	0	25438	0	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 6

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	139351	425060	106342	0	17061	0	139351
2	139351	305130	106342	0	21160	0	139351
3	139351	58970	106342	0	34463	0	139350
4	139350	124850	106342	0	25543	0	139351
5	139351	334180	106342	0	20001	0	139351
6	139351	196830	106342	0	22064	0	139351
7	139351	126170	106342	0	33300	0	139351
8	139351	88060	106342	0	35451	0	124655
9	124655	132480	106342	0	19481	0	139351
10	139351	268330	106342	0	24733	0	139351
11	139351	85670	106342	0	32864	0	134450
12	134450	29970	106342	0	31686	0	79856
13	79856	58020	106342	0	23443	0	73331
14	73331	25890	106342	0	29572	0	55221
15	55221	0	106342	0	20068	0	44935
16	44935	7650	106342	0	26595	0	36898
17	36898	448460	106342	0	13605	0	139351
18	139351	227220	106342	0	23755	0	139351
19	139351	173880	106342	0	23379	0	139351
20	139351	86580	106342	0	26941	0	131949
21	131949	84790	106342	0	21413	0	133316
22	133316	278140	106342	0	21773	0	139351
23	139351	59070	106342	0	34852	0	118203
24	118203	113190	106342	0	25711	0	139351
25	139351	106700	106342	0	20498	0	125316
26	125316	251030	106342	0	21352	0	139351
27	139351	89390	106342	0	24886	0	123507
28	123507	260970	106342	0	22758	0	139351
29	139351	248730	106342	0	23379	0	139351
30	139351	243800	106342	0	24562	0	138473
31	138473	87630	106342	0	29146	0	139350
32	139350	48220	106342	0	30961	0	109122
33	109122	162180	106342	0	20793	0	139351
34	139351	198150	106342	0	26626	0	139351
35	139351	197980	106342	0	27233	0	139351
36	139351	75640	106342	0	25712	0	139351
PERIOD TOTALS		5709010	3828312	0	906820	0	
PERIOD AVERAGES		158583	106342	0	25189	0	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 7

ƎAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	37775	46480	0	0	6728	715658	37775
2	37775	33370	0	0	8490	843853	37775
3	37775	6450	0	0	14290	2709	37774
4	37774	13680	0	0	10547	20081	37775
5	37775	36580	0	0	8491	170600	37775
6	37775	21490	0	0	9770	20118	37775
7	37775	13780	0	0	13797	0	37774
8	37774	9630	0	0	14820	15103	37775
9	37775	14490	0	0	7998	31511	37775
10	37775	29350	0	0	11251	84705	37775
11	37775	9390	0	0	13654	0	37775
12	37775	3280	0	0	15005	0	37774
13	37774	6350	0	0	12452	0	37775
14	37775	2830	0	0	18322	0	37775
15	37775	0	0	0	13336	0	37775
16	37775	840	0	0	19818	0	37775
17	37775	49070	0	0	5597	420119	37775
18	37775	24860	0	0	9664	117725	37775
19	37775	19010	0	0	9728	88995	37775
20	37775	9500	0	0	11428	8028	37775
21	37775	9280	0	0	9345	0	37775
22	37775	30420	0	0	9905	98114	37775
23	37775	6470	0	0	14961	0	37775
24	37775	12380	0	0	10825	11828	37775
25	37775	11650	0	0	8954	10298	37775
26	37775	27450	0	0	9199	96884	37775
27	37775	9780	0	0	11001	5090	37775
28	37775	28530	0	0	9975	114386	37775
29	37775	27210	0	0	9516	107960	37775
30	37775	26670	0	0	10116	86764	37775
31	37775	9580	0	0	12238	0	37775
32	37775	5270	0	0	12591	0	37775
33	37775	17750	0	0	8351	0	37775
34	37775	21680	0	0	10540	78609	37775
35	37775	21650	0	0	10966	48894	37775
36	37775	810	0	0	10080	0	37775
PERIOD TOTALS		617010	0	0	403749	3198032	
PERIOD AVERAGES		17139	0	0	11215	88834	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 8

.EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	0	327480	360000	129979	0	0	10
2	10	327480	360000	145510	0	0	10
3	10	327480	360000	170994	0	0	10
4	10	327480	360000	146520	0	0	10
5	10	327480	360000	124874	0	0	10
6	10	327480	360000	125247	0	0	10
7	10	327480	360000	155351	0	0	10
8	10	327480	360000	193221	0	0	10
9	10	327480	360000	222521	0	0	10
10	10	327480	360000	194520	0	0	10
11	10	327480	360000	242520	0	0	10
12	10	327480	360000	242520	0	0	10
13	10	327480	360000	241520	0	0	10
14	10	327480	360000	260520	0	0	10
15	10	327480	360000	260520	0	0	10
16	10	327480	360000	260520	0	0	10
17	10	327480	360000	158679	0	0	10
18	10	327480	360000	174520	0	0	10
19	10	327480	360000	146520	0	0	10
20	10	327480	360000	180429	0	0	10
21	10	327480	360000	154520	0	0	10
22	10	327480	360000	142536	0	0	10
23	10	327480	360000	222520	0	0	10
24	10	327480	360000	260520	0	0	10
25	10	327480	360000	241520	0	0	10
26	10	327480	360000	222520	0	0	10
27	10	327480	360000	203520	0	0	10
28	10	327480	360000	146520	0	0	10
29	10	327480	360000	203520	0	0	10
30	10	327480	360000	175520	0	0	10
31	10	327480	360000	232520	0	0	10
32	10	327480	360000	241520	0	0	10
33	10	327480	360000	118520	0	0	10
34	10	327480	360000	147744	0	0	10
35	10	327480	360000	146520	0	0	10
36	10	327480	360000	148860	0	0	10
PERIOD TOTALS		11789280	12960000	6785905	0	0	
PERIOD AVERAGES		327480	360000	188497	0	0	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 9

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	0	0	109942	0	0	0	0
2	0	0	109942	0	0	0	0
3	0	0	109942	0	0	0	0
4	0	0	109942	0	0	0	0
5	0	0	109942	0	0	0	0
6	0	0	109942	0	0	0	0
7	0	0	109942	0	0	0	0
8	0	0	109942	0	0	0	0
9	0	0	109942	0	0	0	0
10	0	0	109942	0	0	0	0
11	0	0	109942	0	0	0	0
12	0	0	109942	0	0	0	0
13	0	0	109942	0	0	0	0
14	0	0	109942	0	0	0	0
15	0	0	109942	0	0	0	0
16	0	0	109942	0	0	0	0
17	0	0	109942	0	0	0	0
18	0	0	109942	0	0	0	0
19	0	0	109942	0	0	0	0
20	0	0	109942	0	0	0	0
21	0	0	109942	0	0	0	0
22	0	0	109942	0	0	0	0
23	0	0	109942	0	0	0	0
24	0	0	109942	0	0	0	0
25	0	0	109942	0	0	0	0
26	0	0	109942	0	0	0	0
27	0	0	109942	0	0	0	0
28	0	0	109942	0	0	0	0
29	0	0	109942	0	0	0	0
30	0	0	109942	0	0	0	0
31	0	0	109942	0	0	0	0
32	0	0	109942	0	0	0	0
33	0	0	109942	0	0	0	0
34	0	0	109942	0	0	0	0
35	0	0	109942	0	0	0	0
36	0	0	109942	0	0	0	0
PERIOD TOTALS		0	3957912	0	0	0	
PERIOD AVERAGES		0	109942	0	0	0	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 10

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	0	0	133500	0	0	0	0
2	0	0	133500	0	0	0	0
3	0	0	133500	0	0	0	0
4	0	0	133500	0	0	0	0
5	0	0	133500	0	0	0	0
6	0	0	133500	0	0	0	0
7	0	0	133500	0	0	0	0
8	0	0	133500	0	0	0	0
9	0	0	133500	0	0	0	0
10	0	0	133500	0	0	0	0
11	0	0	133500	0	0	0	0
12	0	0	133500	0	0	0	0
13	0	0	133500	0	0	0	0
14	0	0	133500	0	0	0	0
15	0	0	133500	0	0	0	0
16	0	0	133500	0	0	0	0
17	0	0	133500	0	0	0	0
18	0	0	133500	0	0	0	0
19	0	0	133500	0	0	0	0
20	0	0	133500	0	0	0	0
21	0	0	133500	0	0	0	0
22	0	0	133500	0	0	0	0
23	0	0	133500	0	0	0	0
24	0	0	133500	0	0	0	0
25	0	0	133500	0	0	0	0
26	0	0	133500	0	0	0	0
27	0	0	133500	0	0	0	0
28	0	0	133500	0	0	0	0
29	0	0	133500	0	0	0	0
30	0	0	133500	0	0	0	0
31	0	0	133500	0	0	0	0
32	0	0	133500	0	0	0	0
33	0	0	133500	0	0	0	0
34	0	0	133500	0	0	0	0
35	0	0	133500	0	0	0	0
36	0	0	133500	0	0	0	0
PERIOD TOTALS		0	4806000	0	0	0	
PERIOD AVERAGES		0	133500	0	0	0	

TITLE CARD TRWD SYSTEM WITH 2050 SEDIMENT CONDITIONS

SIMULATION PERIOD TOTAL SUMMARY BY NODE 11

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	0	0	85440	0	0	0	0
2	0	0	85440	0	0	0	0
3	0	0	85440	0	0	0	0
4	0	0	85440	0	0	0	0
5	0	0	85440	0	0	0	0
6	0	0	85440	0	0	0	0
7	0	0	85440	0	0	0	0
8	0	0	85440	0	0	0	0
9	0	0	85440	0	0	0	0
10	0	0	85440	0	0	0	0
11	0	0	85440	0	0	0	0
12	0	0	85440	0	0	0	0
13	0	0	85440	0	0	0	0
14	0	0	85440	0	0	0	0
15	0	0	85440	0	0	0	0
16	0	0	85440	0	0	0	0
17	0	0	85440	0	0	0	0
18	0	0	85440	0	0	0	0
19	0	0	85440	0	0	0	0
20	0	0	85440	0	0	0	0
21	0	0	85440	0	0	0	0
22	0	0	85440	0	0	0	0
23	0	0	85440	0	0	0	0
24	0	0	85440	0	0	0	0
25	0	0	85440	0	0	0	0
26	0	0	85440	0	0	0	0
27	0	0	85440	0	0	0	0
28	0	0	85440	0	0	0	0
29	0	0	85440	0	0	0	0
30	0	0	85440	0	0	0	0
31	0	0	85440	0	0	0	0
32	0	0	85440	0	0	0	0
33	0	0	85440	0	0	0	0
34	0	0	85440	0	0	0	0
35	0	0	85440	0	0	0	0
36	0	0	85440	0	0	0	0
PERIOD TOTALS		0	3075840	0	0	0	
PERIOD AVERAGES		0	85440	0	0	0	

Tarrant Regional Water District East Texas System Model
SIMYLD-II Model
System Operations of East Texas System
2050 Sediment Conditions

RIVER BASIN SIMULATION PROGRAM - TEXAS WATER DEVELOPMENT BOARD

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

NUMBER OF NODES = 3 NUMBER OF RESERVOIRS = 2

NUMBER OF LINKS = 2 NUMBER OF RIVER REACHES = 0

CALENDAR YEAR OPERATION STARTS = 1941 NUMBER OF YEARS TO SIMULATE = 36

NUMBER OF DEMAND NODES = 3 NUMBER OF SPILL NODES = 2

YIELD NODE = 0 IMPORT NODE = 0

NODE NO.	NODE NAME	--------- CAPACITIES ---------			YEARLY
		MAXIMUM	MINIMUM	STARTING	DEMAND
1	RCR	923750	0	923750	182000
2	CCR	557265	0	557265	110000
3	TRWD	0	0	0	131000

RIVER BASIN SIMULATION PROGRAM - TEXAS WATER DEVELOPMENT BOARD

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SYSTEM CONFIGURATION

LINK NO.	FROM NODE	TO NODE	MAX. CAPACITY	MIN. CAPACITY
1	1	3	999999999	0
2	2	3	999999999	0

LIST OF SPILL RESERVOIRS - 1 2

YEARLY IMPORT QUANTITY = 0

MONTHLY IMPORT DISTRIBUTION - .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00 .00

SUB-SYSTEM OF RESERVOIRS 1 2

'AVERAGE' DEFINED AS BETWEEN10.00, AND40.00 PERCENT FULL OF SUBSYSTEM

FACTORS

MULTIPLY LINK CAPACITIES BY 1.000

MULTIPLY INFLOWS BY 10.00

MULTIPLY DEMANDS BY 1.00

TITLE CARD EAST TEXAS RESERVOIR SYSTEM, TRWD, 2050

MONTHLY DEMAND DISTRIBUTION

NODE NO.	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT	OCT.	NOV.	DEC.	* RANK * AVG	DRY	WET
1	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	1	1	1
2	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	1	1	1
3	.0700	.0700	.0700	.0800	.0800	.0900	.1100	.1100	.0900	.0800	.0800	.0700	2	2	2

RIVER BASIN SIMULATION PROGRAM - TEXAS WATER DEVELOPMENT BOARD

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

DESIRED MONTHLY STORAGE LEVEL (PERCENT FULL)

RESERVOIR NO.

1	AVRG	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	10
	DRY	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	10
	WET	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	3
2	AVRG	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	3
	DRY	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	3
	WET	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	10

RIVER BASIN SIMULATION PROGRAM - TEXAS WATER DEVELOPMENT BOARD

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

RESERVOIRS AREA - CAPACITY TABLES

	RESERVOIR NO. 1		RESERVOIR NO. 2		RESERVOIR NO.
1	0	0	0	0	
2	715	1340	31	55	
3	3051	10335	665	1607	
4	5569	31913	1776	7478	
5	7705	65064	3622	20595	
6	10167	110142	5568	43546	
7	13202	168762	7803	77253	
8	16295	242357	10131	122074	
9	19722	332350	13849	181432	
10	24028	441639	18489	262152	
11	28606	573402	23347	366468	
12	34178	730420	28450	496957	
13	41356	923750	32623	557265	
14	0	0	0	0	
15	0	0	0	0	
16	0	0	0	0	
17	0	0	0	0	
18	0	0	0	0	

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 1 CALENDAR YEAR 1941

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	63910	0	12740	41356	.04	1654	0	0	0	6077	43439	923750	923750
2	923750	276290	0	12740	41356	-.10	-4135	0	0	0	0	267685	923750	923750
3	923750	159090	0	12740	41356	.02	827	0	0	0	0	145523	923750	923750
4	923750	91570	0	14560	41356	.06	2481	0	0	0	612	73917	923750	923750
5	923750	168120	0	14560	41356	.11	4549	0	0	0	0	149011	923750	923750
6	923750	222620	0	16380	41295	-.08	-3303	0	0	0	0	209547	923746	923750
7	923746	163250	0	20020	41356	.33	13647	0	0	0	14302	115277	923750	923750
8	923750	8870	0	20020	40816	.44	17959	0	0	0	0	0	894641	923750
9	894641	210	0	16380	39732	.33	13112	0	0	0	0	0	865359	923750
10	865359	15940	0	14560	39192	.03	1176	0	0	0	0	0	865563	923750
11	865563	3930	0	14560	38876	.17	6609	0	0	0	0	0	848324	923750
12	848324	12160	0	12740	38545	.00	0	0	0	0	0	0	847744	923750
YEAR TOTALS		1185960	0	182000			54576	0	0	0	20991	1004399		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	12750	0	7700	32623	.06	1957	0	0	0	3093	0	557265	557265
2	557265	54710	0	7700	32623	-.07	-2283	0	0	0	9170	40123	557265	557265
3	557265	64380	0	7700	32623	.03	979	0	0	0	9170	46531	557265	557265
4	557265	19320	0	8800	32623	.02	652	0	0	0	9868	0	557265	557265
5	557265	87660	0	8800	32623	.18	5872	0	0	0	10480	62508	557265	557265
	557265	268310	0	9900	32623	-.16	-5219	0	0	0	11790	251839	557265	557265
7	557265	23300	0	12100	32623	.34	11092	0	0	0	108	0	557265	557265
8	557265	14710	0	12100	31764	.41	13023	0	0	0	14410	0	532442	557265
9	532442	900	0	9900	29856	.32	9554	0	0	0	11790	0	502098	557265
10	502098	13730	0	8800	28525	.09	2567	0	0	0	10480	0	493981	557265
11	493981	10160	0	8800	28084	.13	3651	0	0	0	10480	0	481210	557265
12	481210	18470	0	7700	27860	.01	279	0	0	0	9170	0	482531	557265
YEAR TOTALS		588400	0	110000			42124	0	0	0	110009	401001		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 1 CALENDAR YEAR 1941

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 2 CALENDAR YEAR 1942

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	847744	3790	0	12740	38283	.12	4594	0	0	0	0	0	834200	923750
2	834200	8700	0	12740	37872	.12	4545	0	0	0	0	0	825615	923750
3	825615	10390	0	12740	37509	.23	8627	0	0	0	0	0	814638	923750
4	814638	673250	0	14560	39330	-.31	-12191	0	0	0	0	561769	923750	923750
5	923750	129220	0	14560	41356	.06	2481	0	0	0	0	112179	923750	923750
6	923750	79810	0	16380	41356	.17	7031	0	0	0	0	56399	923750	923750
7	923750	1370	0	20020	40670	.45	18301	0	0	0	0	0	886799	923750
8	886799	14980	0	20020	39611	.38	15052	0	0	0	0	0	866707	923750
9	866707	152740	0	16380	40297	.15	6045	0	0	0	11790	61482	923750	923750
10	923750	71470	0	14560	41356	.17	7031	0	0	0	10480	39399	923750	923750
11	923750	47610	0	14560	41356	.15	6203	0	0	0	10480	16367	923750	923750
12	923750	71410	0	12740	41325	-.04	-1652	0	0	0	9170	51153	923749	923750
YEAR TOTALS		1264740	0	182000			66067	0	0	0	41920	898748		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	482531	6680	0	7700	27638	.09	2487	0	0	0	9170	0	469854	557265
2	469854	17110	0	7700	27325	.13	3552	0	0	0	9170	0	466542	557265
3	466542	11420	0	7700	27059	.18	4871	0	0	0	9170	0	456221	557265
4	456221	404040	0	8800	29127	-.38	-11067	0	0	0	10480	294783	557265	557265
5	557265	120050	0	8800	32623	.14	4567	0	0	0	10480	96203	557265	557265
	557265	105870	0	9900	32623	.16	5220	0	0	0	11790	78960	557265	557265
7	557265	940	0	12100	31199	.50	15599	0	0	0	14410	0	516096	557265
8	516096	4660	0	12100	28701	.32	9184	0	0	0	14410	0	485062	557265
9	485062	23360	0	9900	28132	.21	5908	0	0	0	0	0	492614	557265
10	492614	9560	0	8800	28207	.16	4513	0	0	0	0	0	488861	557265
11	488861	22100	0	8800	28310	.15	4246	0	0	0	0	0	497915	557265
12	497915	56810	0	7700	30289	-.07	-2119	0	0	0	0	0	549144	557265
YEAR TOTALS		782600	0	110000			46961	0	0	0	89080	469946		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 2 CALENDAR YEAR 1942

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 3 CALENDAR YEAR 1943

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923749	17120	0	12740	41356	.08	3308	0	0	0	1071	0	923750	923750
2	923750	4250	0	12740	41031	.22	9027	0	0	0	0	0	906233	923750
3	906233	52790	0	12740	41031	.04	1641	0	0	0	0	20892	923750	923750
4	923750	57910	0	14560	41356	.23	9512	0	0	0	0	33838	923750	923750
5	923750	253280	0	14560	41356	.07	2895	0	0	0	0	235825	923750	923750
6	923750	62120	0	16380	41356	.25	10339	0	0	0	0	35401	923750	923750
7	923750	420	0	20020	40667	.43	17487	0	0	0	0	0	886663	923750
8	886663	20	0	20020	39143	.64	25052	0	0	0	0	0	841611	923750
9	841611	52260	0	16380	38814	.22	8539	0	0	0	0	0	868952	923750
10	868952	40820	0	14560	39684	.17	6746	0	0	0	0	0	888466	923750
11	888466	70	0	14560	39630	.20	7926	0	0	0	0	0	866050	923750
12	866050	3180	0	12740	39080	-.06	-2344	0	0	0	0	0	858834	923750
YEAR TOTALS		544240	0	182000			100128	0	0	0	1071	325956		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	549144	17390	0	7700	31983	.12	3838	0	0	0	8099	0	546897	557265
2	546897	9120	0	7700	31388	.23	7219	0	0	0	9170	0	531928	557265
3	531928	49880	0	7700	31746	.04	1270	0	0	0	9170	6403	557265	557265
4	557265	34190	0	8800	32623	.24	7830	0	0	0	10480	7080	557265	557265
5	557265	63630	0	8800	32623	-.10	-3261	0	0	0	10480	47611	557265	557265
	557265	157430	0	9900	32623	.24	7830	0	0	0	11790	127910	557265	557265
7	557265	1090	0	12100	31172	.53	16521	0	0	0	14410	0	515324	557265
8	515324	810	0	12100	28284	.69	19516	0	0	0	14410	0	470108	557265
9	470108	1590	0	9900	26870	.26	6986	0	0	0	11790	0	443022	557265
10	443022	13900	0	8800	26189	.09	2357	0	0	0	10480	0	435285	557265
11	435285	830	0	8800	25557	.24	6134	0	0	0	10480	0	410701	557265
12	410701	10010	0	7700	24967	-.05	-1247	0	0	0	9170	0	405088	557265
YEAR TOTALS		359870	0	110000			74993	0	0	0	129929	189004		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 3 CALENDAR YEAR 1943

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 4 CALENDAR YEAR 1944

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	858834	76310	0	12740	40151	-.19	-7628	0	0	0	6282	0	923750	923750
2	923750	199040	0	12740	41356	-.15	-6202	0	0	0	9170	183332	923750	923750
3	923750	70650	0	12740	41341	-.02	-826	0	0	0	9170	49566	923750	923750
4	923750	30530	0	14560	41356	.10	4136	0	0	0	10480	1354	923750	923750
5	923750	606550	0	14560	41356	-.36	-14887	0	0	0	0	606877	923750	923750
6	923750	51170	0	16380	41356	.39	16129	0	0	0	11790	6871	923750	923750
7	923750	2280	0	20020	40619	.54	21934	0	0	0	0	0	884076	923750
8	884076	10	0	20020	39177	.46	18021	0	0	0	0	0	846045	923750
9	846045	0	0	16380	37851	.45	17033	0	0	0	0	0	812632	923750
10	812632	40	0	14560	36668	.43	15767	0	0	0	0	0	782345	923750
11	782345	3250	0	14560	36003	-.16	-5759	0	0	0	0	0	776794	923750
12	776794	68000	0	12740	37036	-.16	-5925	0	0	0	0	0	837979	923750
YEAR TOTALS		1107830	0	182000			51793	0	0	0	46892	848000		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	405088	45460	0	7700	25584	-.09	-2302	0	0	0	2888	0	442262	557265
2	442262	68990	0	7700	27574	-.12	-3308	0	0	0	0	0	506860	557265
3	506860	44950	0	7700	30424	.01	304	0	0	0	0	0	543806	557265
4	543806	15050	0	8800	31798	.10	3180	0	0	0	0	0	546876	557265
5	546876	256390	0	8800	32264	-.30	-9678	0	0	0	10480	236399	557265	557265
	557265	18680	0	9900	32623	.44	14354	0	0	0	0	0	551691	557265
7	551691	1120	0	12100	30815	.51	15716	0	0	0	14410	0	510585	557265
8	510585	750	0	12100	28236	.44	12424	0	0	0	14410	0	472401	557265
9	472401	870	0	9900	26862	.42	11282	0	0	0	11790	0	440299	557265
10	440299	820	0	8800	25682	.38	9759	0	0	0	10480	0	412080	557265
11	412080	20150	0	8800	25187	-.08	-2014	0	0	0	10480	0	414964	557265
12	414964	87210	0	7700	26713	-.18	-4807	0	0	0	9170	0	490111	557265
YEAR TOTALS		560440	0	110000			44910	0	0	0	84108	236399		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 4 CALENDAR YEAR 1944

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 5 CALENDAR YEAR 1945

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	837979	136890	0	12740	39742	-.03	-1191	0	0	0	9170	30401	923749	923750
2	923749	239660	0	12740	41356	-.11	-4548	0	0	0	0	231467	923750	923750
3	923750	555560	0	12740	41356	-.37	-15301	0	0	0	0	558121	923750	923750
4	923750	299800	0	14560	41318	-.05	-2065	0	0	0	0	287307	923748	923750
5	923748	12200	0	14560	41121	.25	10280	0	0	0	0	0	911108	923750
6	911108	188130	0	16380	41121	.13	5346	0	0	0	0	153762	923750	923750
7	923750	128550	0	20020	41356	.14	5790	0	0	0	0	102740	923750	923750
8	923750	5990	0	20020	40944	.20	8189	0	0	0	0	0	901531	923750
9	901531	1870	0	16380	39899	.49	19551	0	0	0	0	0	867470	923750
10	867470	70250	0	14560	40300	.02	806	0	0	0	0	0	922354	923750
11	922354	16170	0	14560	41330	.21	8679	0	0	0	0	0	915285	923750
12	915285	32870	0	12740	41199	.04	1648	0	0	0	9170	847	923750	923750
YEAR TOTALS		1687940	0	182000			37184	0	0	0	18340	1364645		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	490111	56270	0	7700	29657	.00	0	0	0	0	0	0	538681	557265
2	538681	117900	0	7700	31980	-.12	-3837	0	0	0	9170	86283	557265	557265
3	557265	336480	0	7700	32623	-.50	-16311	0	0	0	9170	335921	557265	557265
4	557265	126620	0	8800	32623	.07	2284	0	0	0	10480	105056	557265	557265
5	557265	3570	0	8800	31772	.28	8896	0	0	0	10480	0	532659	557265
	532659	125000	0	9900	31772	.10	3177	0	0	0	11790	75527	557265	557265
7	557265	125300	0	12100	32623	.10	3262	0	0	0	14410	95528	557265	557265
8	557265	1420	0	12100	31407	.32	10050	0	0	0	14410	0	522125	557265
9	522125	1830	0	9900	29082	.42	12214	0	0	0	11790	0	490051	557265
10	490051	20360	0	8800	28162	.07	1971	0	0	0	10480	0	489160	557265
11	489160	13230	0	8800	27928	.18	5027	0	0	0	10480	0	478083	557265
12	478083	12800	0	7700	27757	.10	2776	0	0	0	0	0	480407	557265
YEAR TOTALS		940780	0	110000			29509	0	0	0	112660	698315		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 5 CALENDAR YEAR 1945

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 6 CALENDAR YEAR 1946

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	65630	0	12740	41356	-.18	-7443	0	0	0	9170	51163	923750	923750
2	923750	173010	0	12740	41302	-.07	-2890	0	0	0	0	163164	923746	923750
3	923746	68850	0	12740	41325	-.04	-1652	0	0	0	0	57759	923749	923750
4	923749	28020	0	14560	41356	.13	5376	0	0	0	8083	0	923750	923750
5	923750	326650	0	14560	41356	-.23	-9511	0	0	0	0	321601	923750	923750
6	923750	65470	0	16380	41356	.28	11580	0	0	0	0	37510	923750	923750
7	923750	630	0	20020	40597	.53	21516	0	0	0	0	0	882844	923750
8	882844	6140	0	20020	39353	.31	12199	0	0	0	0	0	856765	923750
9	856765	250	0	16380	38285	.40	15314	0	0	0	0	0	825321	923750
10	825321	200	0	14560	37228	.30	11168	0	0	0	0	0	799793	923750
11	799793	52910	0	14560	37697	-.33	-12439	0	0	0	0	0	850582	923750
12	850582	28320	0	12740	38864	.09	3498	0	0	0	0	0	862664	923750
YEAR TOTALS		816080	0	182000			46716	0	0	0	17253	631197		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	480407	74050	0	7700	29775	-.17	-5061	0	0	0	0	0	551818	557265
2	551818	124570	0	7700	32412	-.02	-647	0	0	0	9170	102901	557264	557265
3	557264	24620	0	7700	32623	.04	1305	0	0	0	9170	6444	557265	557265
4	557265	8290	0	8800	32421	.09	2918	0	0	0	2397	0	551440	557265
5	551440	127770	0	8800	32421	-.21	-6807	0	0	0	10480	109472	557265	557265
	557265	117340	0	9900	32623	.30	9787	0	0	0	11790	85863	557265	557265
7	557265	850	0	12100	31153	.54	16823	0	0	0	14410	0	514782	557265
8	514782	6630	0	12100	28777	.22	6331	0	0	0	14410	0	488571	557265
9	488571	2450	0	9900	27563	.34	9371	0	0	0	11790	0	459960	557265
10	459960	1750	0	8800	26515	.28	7424	0	0	0	10480	0	435006	557265
11	435006	185970	0	8800	28418	-.28	-7956	0	0	0	10480	52387	557265	557265
12	557265	28360	0	7700	32623	.07	2284	0	0	0	9170	9206	557265	557265
YEAR TOTALS		702650	0	110000			35772	0	0	0	113747	366273		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 6   CALENDAR YEAR 1946

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 7 CALENDAR YEAR 1947

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 8 CALENDAR YEAR 1948

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	783219	19560	0	12740	36332	-.10	-3632	0	0	0	0	0	793671	923750
2	793671	30770	0	12740	36937	-.11	-4062	0	0	0	0	0	815763	923750
3	815763	58870	0	12740	38160	.06	2290	0	0	0	0	0	859603	923750
4	859603	18850	0	14560	38945	.15	5842	0	0	0	0	0	858051	923750
5	858051	289170	0	14560	40136	.00	0	0	0	0	0	208911	923750	923750
6	923750	4660	0	16380	40820	.42	17144	0	0	0	0	0	894886	923750
7	894886	11410	0	20020	39712	.56	22239	0	0	0	0	0	864037	923750
8	864037	10	0	20020	38291	.67	25655	0	0	0	0	0	818372	923750
9	818372	0	0	16380	36744	.58	21312	0	0	0	0	0	780680	923750
10	780680	0	0	14560	35510	.40	14204	0	0	0	0	0	751916	923750
11	751916	0	0	14560	34603	.16	5536	0	0	0	0	0	731820	923750
12	731820	0	0	12740	33953	.08	2716	0	0	0	0	0	716364	923750
YEAR TOTALS		433300	0	182000			109244	0	0	0	0	208911		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	547763	44690	0	7700	32294	-.07	-2260	0	0	0	9170	20578	557265	557265
2	557265	56640	0	7700	32623	-.08	-2609	0	0	0	9170	42379	557265	557265
3	557265	71880	0	7700	32623	.04	1305	0	0	0	9170	53705	557265	557265
4	557265	6650	0	8800	31954	.21	6710	0	0	0	10480	0	537925	557265
5	537925	102770	0	8800	31921	-.03	-957	0	0	0	10480	65108	557264	557265
[illegible]	557264	1100	0	9900	31432	.44	13830	0	0	0	11790	0	522844	557265
7	522844	1800	0	12100	28779	.61	17555	0	0	0	14410	0	480579	557265
8	480579	890	0	12100	26945	.69	18592	0	0	0	14410	0	436367	557265
9	436367	790	0	9900	25369	.61	15475	0	0	0	11790	0	399992	557265
10	399992	800	0	8800	24136	.34	8206	0	0	0	10480	0	373306	557265
11	373306	1520	0	8800	23171	.15	3476	0	0	0	10480	0	352070	557265
12	352070	1550	0	7700	22289	.06	1337	0	0	0	9170	0	335413	557265
YEAR TOTALS		291080	0	110000			80660	0	0	0	131000	181770		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 8 CALENDAR YEAR 1948

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 9 CALENDAR YEAR 1949

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	716364	8660	0	12740	33787	-.30	-10135	0	0	0	0	0	722419	923750
2	722419	46700	0	12740	34556	-.07	-2418	0	0	0	0	0	758797	923750
3	758797	32510	0	12740	35585	.02	712	0	0	0	0	0	777855	923750
4	777855	30080	0	14560	36261	-.05	-1812	0	0	0	0	0	795187	923750
5	795187	42610	0	14560	37000	.15	5550	0	0	0	0	0	817687	923750
6	817687	13780	0	16380	37197	.25	9299	0	0	0	0	0	805788	923750
7	805788	3110	0	20020	36412	.37	13472	0	0	0	0	0	775406	923750
8	775406	290	0	20020	35240	.37	13039	0	0	0	0	0	742637	923750
9	742637	0	0	16380	34061	.43	14646	0	0	0	0	0	711611	923750
10	711611	3210	0	14560	33446	-.23	-7692	0	0	0	0	0	707953	923750
11	707953	10	0	14560	32936	.32	10540	0	0	0	0	0	682863	923750
12	682863	10	0	12740	32287	-.04	-1290	0	0	0	0	0	671423	923750
YEAR TOTALS		180970	0	182000			43911	0	0	0	0	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	335413	42230	0	7700	22671	-.34	-7707	0	0	0	9170	0	368480	557265
2	368480	86900	0	7700	24848	-.11	-2732	0	0	0	9170	0	441242	557265
3	441242	23050	0	7700	26371	.04	1055	0	0	0	9170	0	446367	557265
4	446367	21920	0	8800	26549	-.05	-1326	0	0	0	10480	0	450333	557265
5	450333	25620	0	8800	26678	.14	3735	0	0	0	10480	0	452938	557265
	452938	7850	0	9900	26299	.31	8153	0	0	0	11790	0	430945	557265
7	430945	870	0	12100	25195	.35	8818	0	0	0	14410	0	396487	557265
8	396487	0	0	12100	23812	.41	9763	0	0	0	14410	0	360214	557265
9	360214	0	0	9900	22322	.44	9822	0	0	0	11790	0	328702	557265
10	328702	7340	0	8800	21445	-.27	-5789	0	0	0	10480	0	322551	557265
11	322551	280	0	8800	20719	.29	6009	0	0	0	10480	0	297542	557265
12	297542	300	0	7700	19747	.01	197	0	0	0	9170	0	280775	557265
YEAR TOTALS		216360	0	110000			29998	0	0	0	131000	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 9 CALENDAR YEAR 1949

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 10 CALENDAR YEAR 1950

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	671423	3540	0	12740	31978	-.10	-3197	0	0	0	0	0	665420	923750
2	665420	145040	0	12740	34361	-.22	-7558	0	0	0	0	0	805278	923750
3	805278	6710	0	12740	36689	.23	8438	0	0	0	0	0	790810	923750
4	790810	85280	0	14560	37768	-.05	-1887	0	0	0	0	0	863417	923750
5	863417	73460	0	14560	40209	-.02	-803	0	0	0	0	0	923120	923750
6	923120	3730	0	16380	40900	.26	10634	0	0	0	0	0	899836	923750
7	899836	2680	0	20020	39924	.30	11977	0	0	0	0	0	870519	923750
8	870519	20	0	20020	38650	.50	19325	0	0	0	0	0	831194	923750
9	831194	220	0	16380	37501	.17	6375	0	0	0	0	0	808659	923750
10	808659	0	0	14560	36575	.35	12801	0	0	0	0	0	781298	923750
11	781298	0	0	14560	35579	.33	11741	0	0	0	0	0	754997	923750
12	754997	0	0	12740	34706	.23	7982	0	0	0	0	0	734275	923750
YEAR TOTALS		320680	0	182000			75828	0	0	0	0	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	280775	40550	0	7700	19973	-.14	-2795	0	0	0	9170	0	307250	557265
2	307250	203160	0	7700	24805	-.27	-6696	0	0	0	9170	0	500236	557265
3	500236	3820	0	7700	28202	.22	6204	0	0	0	9170	0	480982	557265
4	480982	44560	0	8800	28369	-.09	-2552	0	0	0	10480	0	508814	557265
5	508814	106930	0	8800	30872	-.07	-2160	0	0	0	10480	41364	557260	557265
;	557260	2810	0	9900	31641	.30	9492	0	0	0	11790	0	528888	557265
7	528888	16320	0	12100	30057	.24	7214	0	0	0	14410	0	511484	557265
8	511484	2830	0	12100	28295	.47	13299	0	0	0	14410	0	474505	557265
9	474505	1320	0	9900	27110	.12	3253	0	0	0	11790	0	450882	557265
10	450882	800	0	8800	26128	.31	8100	0	0	0	10480	0	424302	557265
11	424302	1630	0	8800	25116	.30	7535	0	0	0	10480	0	399117	557265
12	399117	130	0	7700	24192	.22	5322	0	0	0	9170	0	377055	557265
YEAR TOTALS		424860	0	110000			46216	0	0	0	131000	41364		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 10 CALENDAR YEAR 1950

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 11 CALENDAR YEAR 1951

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	734275	120	0	12740	34018	.12	4082	0	0	0	0	0	717573	923750
2	717573	2350	0	12740	33573	-.06	-2013	0	0	0	0	0	709196	923750
3	709196	100	0	12740	33083	.20	6617	0	0	0	0	0	689939	923750
4	689939	150	0	14560	32331	.27	8729	0	0	0	0	0	666800	923750
5	666800	3720	0	14560	31588	.25	7897	0	0	0	0	0	648063	923750
6	648063	50340	0	16380	31745	.20	6349	0	0	0	0	0	675674	923750
7	675674	10	0	20020	31506	.67	21109	0	0	0	0	0	634555	923750
8	634555	0	0	20020	29958	.87	26063	0	0	0	0	0	588472	923750
9	588472	5440	0	16380	28906	.08	2312	0	0	0	0	0	575220	923750
10	575220	0	0	14560	28254	.33	9324	0	0	0	0	0	551336	923750
11	551336	0	0	14560	27491	.20	5498	0	0	0	0	0	531278	923750
12	531278	0	0	12740	26865	.12	3224	0	0	0	0	0	515314	923750
YEAR TOTALS		62230	0	182000			99191	0	0	0	0	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	377055	10110	0	7700	23601	.06	1416	0	0	0	9170	0	368879	557265
2	368879	43820	0	7700	24010	-.09	-2160	0	0	0	9170	0	397989	557265
3	397989	830	0	7700	24176	.19	4593	0	0	0	9170	0	377356	557265
4	377356	780	0	8800	23309	.21	4895	0	0	0	10480	0	353961	557265
5	353961	11570	0	8800	22465	.23	5167	0	0	0	10480	0	341084	557265
	341084	63780	0	9900	23075	.13	3000	0	0	0	11790	0	380174	557265
/	380174	2330	0	12100	23137	.53	12263	0	0	0	14410	0	343731	557265
8	343731	0	0	12100	21294	.76	16183	0	0	0	14410	0	301038	557265
9	301038	200	0	9900	19795	.01	198	0	0	0	11790	0	279350	557265
10	279350	1070	0	8800	18761	.24	4503	0	0	0	10480	0	256637	557265
11	256637	150	0	8800	17526	.19	3330	0	0	0	10480	0	234177	557265
12	234177	0	0	7700	16363	.07	1145	0	0	0	9170	0	216162	557265
YEAR TOTALS		134640	0	110000			54533	0	0	0	131000	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 11 CALENDAR YEAR 1951

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 12 CALENDAR YEAR 1952

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	515314	0	0	12740	26330	.08	2106	0	0	0	0	0	500468	923750
2	500468	1980	0	12740	25899	-.03	-776	0	0	0	0	0	490484	923750
3	490484	4950	0	12740	25563	.06	1534	0	0	0	0	0	481160	923750
4	481160	116650	0	14560	27246	-.15	-4086	0	0	0	0	0	587336	923750
5	587336	85590	0	14560	30372	-.02	-606	0	0	0	0	0	658972	923750
6	658972	620	0	16380	31120	.44	13693	0	0	0	0	0	629519	923750
7	629519	80	0	20020	30004	.45	13502	0	0	0	0	0	596077	923750
8	596077	0	0	20020	28644	.81	23202	0	0	0	0	0	552855	923750
9	552855	0	0	16380	27276	.70	19093	0	0	0	0	0	517382	923750
10	517382	0	0	14560	26125	.62	16197	0	0	0	0	0	486625	923750
11	486625	8280	0	14560	25557	-.17	-4344	0	0	0	0	0	484689	923750
12	484689	45730	0	12740	26165	-.15	-3924	0	0	0	0	0	521603	923750
YEAR TOTALS		263880	0	182000			75591	0	0	0	0	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	216162	540	0	7700	15328	.11	1686	0	0	0	9170	0	198146	557265
2	198146	440	0	7700	14338	.00	0	0	0	0	9170	0	181716	557265
3	181716	6340	0	7700	13516	.05	676	0	0	0	9170	0	170510	557265
4	170510	138330	0	8800	16715	-.15	-2506	0	0	0	10480	0	292066	557265
5	292066	98980	0	8800	21743	-.01	-216	0	0	0	10480	0	371982	557265
6	371982	6980	0	9900	23031	.43	9903	0	0	0	11790	0	347369	557265
7	347369	730	0	12100	21611	.49	10589	0	0	0	14410	0	311000	557265
8	311000	600	0	12100	19765	.86	16998	0	0	0	14410	0	268092	557265
9	268092	670	0	9900	17852	.73	13032	0	0	0	11790	0	234040	557265
10	234040	140	0	8800	16037	.62	9943	0	0	0	10480	0	204957	557265
11	204957	9760	0	8800	15001	-.17	-2549	0	0	0	10480	0	197986	557265
12	197986	58900	0	7700	16078	-.15	-2411	0	0	0	9170	0	242427	557265
YEAR TOTALS		322410	0	110000			55145	0	0	0	131000	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 12 CALENDAR YEAR 1952

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 13 CALENDAR YEAR 1953

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	521603	13180	0	12740	26767	.10	2677	0	0	0	0	0	519366	923750
2	519366	2190	0	12740	26550	-.01	-265	0	0	0	0	0	509081	923750
3	509081	83690	0	12740	27642	-.08	-2210	0	0	0	0	0	582241	923750
4	582241	24700	0	14560	29151	-.10	-2914	0	0	0	0	0	595295	923750
5	595295	333400	0	14560	35198	-.18	-6335	0	0	0	0	0	920470	923750
6	920470	300	0	16380	40559	.50	20279	0	0	0	0	0	884111	923750
7	884111	520	0	20020	39296	.31	12182	0	0	0	0	0	852429	923750
8	852429	0	0	20020	38061	.39	14844	0	0	0	0	0	817565	923750
9	817565	1480	0	16380	36897	.35	12914	0	0	0	0	0	789751	923750
10	789751	3440	0	14560	36047	.19	6849	0	0	0	0	0	771782	923750
11	771782	520	0	14560	35387	.10	3539	0	0	0	0	0	754203	923750
12	754203	13930	0	12740	35168	-.13	-4571	0	0	0	0	0	759964	923750
YEAR TOTALS		477350	0	182000			56989	0	0	0	0	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	242427	14480	0	7700	17227	.12	2067	0	0	0	9170	0	237970	557265
2	237970	920	0	7700	16617	.05	831	0	0	0	9170	0	221189	557265
3	221189	26830	0	7700	16439	-.04	-657	0	0	0	9170	0	231806	557265
4	231806	45460	0	8800	17522	-.05	-875	0	0	0	10480	0	258861	557265
5	258861	246380	0	8800	23616	-.08	-1888	0	0	0	10480	0	487849	557265
[illegible]	487849	850	0	9900	27397	.54	14794	0	0	0	11790	0	452215	557265
7	452215	840	0	12100	26086	.22	5739	0	0	0	14410	0	420806	557265
8	420806	1090	0	12100	24786	.39	9667	0	0	0	14410	0	385719	557265
9	385719	4580	0	9900	23599	.36	8496	0	0	0	11790	0	360113	557265
10	360113	840	0	8800	22475	.28	6293	0	0	0	10480	0	335380	557265
11	335380	630	0	8800	21430	.07	1500	0	0	0	10480	0	315230	557265
12	315230	14820	0	7700	20942	-.06	-1256	0	0	0	9170	0	314436	557265
YEAR TOTALS		357720	0	110000			44711	0	0	0	131000	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 13 CALENDAR YEAR 1953

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 14 CALENDAR YEAR 1954

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	759964	10600	0	12740	35268	-.05	-1762	0	0	0	0	0	759586	923750
2	759586	90	0	12740	34890	.21	7327	0	0	0	0	0	739609	923750
3	739609	30	0	12740	34145	.22	7512	0	0	0	0	0	719387	923750
4	719387	290	0	14560	33492	.07	2344	0	0	0	0	0	702773	923750
5	702773	26960	0	14560	33423	-.01	-333	0	0	0	0	0	715506	923750
6	715506	10	0	16380	33053	.52	17188	0	0	0	0	0	681948	923750
7	681948	0	0	20020	31659	.79	25011	0	0	0	0	0	636917	923750
8	636917	10	0	20020	30052	.85	25544	0	0	0	0	0	591363	923750
9	591363	0	0	16380	28588	.72	20583	0	0	0	0	0	554400	923750
10	554400	250	0	14560	27673	.05	1384	0	0	0	0	0	538706	923750
11	538706	750	0	14560	27095	.14	3793	0	0	0	0	0	521103	923750
12	521103	10	0	12740	26490	.17	4503	0	0	0	0	0	503870	923750
YEAR TOTALS		39000	0	182000			113094	0	0	0	0	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	314436	42980	0	7700	21572	-.08	-1725	0	0	0	9170	0	342271	557265
2	342271	5190	0	7700	21851	.19	4152	0	0	0	9170	0	326439	557265
3	326439	100	0	7700	20990	.21	4408	0	0	0	9170	0	305261	557265
4	305261	9630	0	8800	20244	.06	1215	0	0	0	10480	0	294396	557265
5	294396	40590	0	8800	20501	-.03	-614	0	0	0	10480	0	316320	557265
	316320	840	0	9900	20295	.49	9945	0	0	0	11790	0	285525	557265
7	285525	10	0	12100	18597	.84	15621	0	0	0	14410	0	243404	557265
8	243404	10	0	12100	16225	.91	14765	0	0	0	14410	0	202139	557265
9	202139	10	0	9900	14140	.68	9615	0	0	0	11790	0	170844	557265
10	170844	27660	0	8800	13444	.01	134	0	0	0	10480	0	179090	557265
11	179090	19170	0	8800	13647	.12	1638	0	0	0	10480	0	177342	557265
12	177342	880	0	7700	13027	.16	2084	0	0	0	9170	0	159268	557265
YEAR TOTALS		147070	0	110000			61238	0	0	0	131000	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 14   CALENDAR YEAR 1954

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 15 CALENDAR YEAR 1955

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	503870	450	0	12740	25972	.01	260	0	0	0	0	0	491320	923750
2	491320	9010	0	12740	25747	-.13	-3346	0	0	0	0	0	490936	923750
3	490936	13290	0	12740	25715	.08	2057	0	0	0	0	0	489429	923750
4	489429	8020	0	14560	25584	-.02	-511	0	0	0	0	0	483400	923750
5	483400	12250	0	14560	25408	.07	1779	0	0	0	0	0	479311	923750
6	479311	11810	0	16380	25131	.29	7288	0	0	0	0	0	467453	923750
7	467453	200	0	20020	24394	.44	10733	0	0	0	0	0	436900	923750
8	436900	1930	0	20020	23105	.21	4852	0	0	0	14410	0	399548	923750
9	399548	3930	0	16380	21785	.25	5446	0	0	0	11790	0	369862	923750
10	369862	210	0	14560	20505	.51	10458	0	0	0	10480	0	334574	923750
11	334574	0	0	14560	19184	.40	7674	0	0	0	10480	0	301860	923750
12	301860	0	0	12740	18089	.16	2894	0	0	0	9170	0	277056	923750
YEAR TOTALS		61100	0	182000			49584	0	0	0	56330	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	159268	3150	0	7700	12020	.03	361	0	0	0	9170	0	145187	557265
2	145187	22770	0	7700	11804	-.11	-1297	0	0	0	9170	0	152384	557265
3	152384	27010	0	7700	12328	.05	616	0	0	0	9170	0	161908	557265
4	161908	45950	0	8800	13432	.07	940	0	0	0	10480	0	187638	557265
5	187638	4500	0	8800	13745	.07	962	0	0	0	10480	0	171896	557265
	171896	2640	0	9900	12526	.33	4134	0	0	0	11790	0	148712	557265
7	148712	40	0	12100	10815	.46	4975	0	0	0	14410	0	117267	557265
8	117267	110	0	12100	9550	.08	764	0	0	0	0	0	104513	557265
9	104513	300	0	9900	8928	.18	1607	0	0	0	0	0	93306	557265
10	93306	20	0	8800	8303	.49	4068	0	0	0	0	0	80458	557265
11	80458	0	0	8800	7630	.37	2823	0	0	0	0	0	68835	557265
12	68835	0	0	7700	6953	.16	1112	0	0	0	0	0	60023	557265
YEAR TOTALS		106490	0	110000			21065	0	0	0	74670	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 15 CALENDAR YEAR 1955

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 16 CALENDAR YEAR 1956

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	277056	730	0	12740	17206	.02	344	0	0	0	9170	0	255532	923750
2	255532	13950	0	12740	16677	-.10	-1667	0	0	0	9170	0	249239	923750
3	249239	0	0	12740	16053	.21	3371	0	0	0	9170	0	223958	923750
4	223958	60	0	14560	14947	.16	2392	0	0	0	10480	0	196586	923750
5	196586	63690	0	14560	15145	.12	1817	0	0	0	10480	0	233419	923750
6	233419	2980	0	16380	15268	.38	5802	0	0	0	11790	0	202427	923750
7	202427	10	0	20020	13670	.78	10663	0	0	0	14410	0	157344	923750
8	157344	0	0	20020	11511	.70	8058	0	0	0	14410	0	114856	923750
9	114856	0	0	16380	9487	.65	6167	0	0	0	11790	0	80519	923750
10	80519	0	0	14560	7776	.42	3266	0	0	0	10480	0	52213	923750
11	52213	14080	0	14560	6494	.14	909	0	0	0	10480	0	40344	923750
12	40344	440	0	12740	5263	.12	632	0	0	0	9170	0	18242	923750
YEAR TOTALS		95940	0	182000			41754	0	0	0	131000	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	60023	60	0	7700	6401	.03	192	0	0	0	0	0	52191	557265
2	52191	21440	0	7700	6616	-.09	-594	0	0	0	0	0	66525	557265
3	66525	70	0	7700	6774	.29	1964	0	0	0	0	0	56931	557265
4	56931	120	0	8800	6131	.18	1104	0	0	0	0	0	47147	557265
5	47147	30600	0	8800	6499	.14	910	0	0	0	0	0	68037	557265
6	68037	120	0	9900	6776	.41	2778	0	0	0	0	0	55479	557265
7	55479	50	0	12100	5802	.82	4758	0	0	0	0	0	38671	557265
8	38671	50	0	12100	4503	.74	3332	0	0	0	0	0	23289	557265
9	23289	50	0	9900	3161	.66	2086	0	0	0	0	0	11353	557265
10	11353	30	0	8800	1623	.37	601	0	0	0	0	0	1982	557265
11	1982	16340	0	8800	1427	.16	228	0	0	0	0	0	9294	557265
12	9294	430	0	7700	1411	.15	212	0	0	0	0	0	1812	557265
YEAR TOTALS		69360	0	110000			17571	0	0	0	0	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 16 CALENDAR YEAR 1956

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 17 CALENDAR YEAR 1957

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	18242	680	0	12740	2736	.06	164	0	0	0	6018	0	0	923750
2	0	15780	0	12740	0	-.05	0	0	0	0	3040	0	0	923750
3	0	19730	0	12740	0	-.10	0	0	0	0	6990	0	0	923750
4	0	685340	0	14560	20119	-.70	-14082	0	0	0	0	0	684862	923750
5	684862	393820	0	14560	36921	-.11	-4060	0	0	0	0	144432	923750	923750
6	923750	73450	0	16380	41356	.13	5376	0	0	0	0	51694	923750	923750
7	923750	200	0	20020	40581	.54	21914	0	0	0	0	0	882016	923750
8	882016	30	0	20020	39210	.31	12155	0	0	0	0	0	849871	923750
9	849871	80	0	16380	38140	.24	9154	0	0	0	0	0	824417	923750
10	824417	52280	0	14560	38468	-.14	-5385	0	0	0	0	0	867522	923750
11	867522	198470	0	14560	40312	-.17	-6852	0	0	0	0	134534	923750	923750
12	923750	10650	0	12740	41317	.12	4958	0	0	0	0	0	916702	923750
YEAR TOTALS		1450510	0	182000			23342	0	0	0	16048	330660		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	1812	9100	0	7700	386	.05	19	0	0	0	3152	0	41	557265
2	41	21300	0	7700	1077	-.02	-21	0	0	0	6130	0	7532	557265
3	7532	43370	0	7700	3943	-.05	-196	0	0	0	2180	0	41218	557265
4	41218	520860	0	8800	20199	-.68	-13734	0	0	0	10480	0	556532	557265
5	556532	211550	0	8800	32598	-.18	-5867	0	0	0	10480	197404	557265	557265
[illegible]	557265	35580	0	9900	32623	.14	4567	0	0	0	11790	9323	557265	557265
7	557265	850	0	12100	31164	.53	16517	0	0	0	14410	0	515088	557265
8	515088	970	0	12100	28448	.38	10810	0	0	0	14410	0	478738	557265
9	478738	6590	0	9900	27325	.22	6011	0	0	0	11790	0	457627	557265
10	457627	97950	0	8800	28500	-.05	-1424	0	0	0	10480	0	537721	557265
11	537721	141710	0	8800	31947	-.17	-5430	0	0	0	10480	108316	557265	557265
12	557265	15880	0	7700	32589	.12	3911	0	0	0	9170	0	552364	557265
YEAR TOTALS		1105710	0	110000			15163	0	0	0	114952	315043		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 17 CALENDAR YEAR 1957

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 18   CALENDAR YEAR 1958

RESERVOIR NO 1   RCR   MAX. CAPACITY 923750   MIN. OPERATING POOL   0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	916702	32950	0	12740	41225	.00	0	0	0	0	0	13162	923750	923750
2	923750	13670	0	12740	41356	.03	1241	0	0	0	0	0	923439	923750
3	923439	45410	0	12740	41350	.06	2481	0	0	0	0	29878	923750	923750
4	923750	128300	0	14560	41356	-.10	-4135	0	0	0	0	117875	923750	923750
5	923750	484680	0	14560	41356	.12	4963	0	0	0	0	465157	923750	923750
6	923750	790	0	16380	40847	.29	11846	0	0	0	0	0	896314	923750
7	896314	5430	0	20020	39764	.41	16303	0	0	0	0	0	865421	923750
8	865421	8890	0	20020	38789	.27	10473	0	0	0	0	0	843818	923750
9	843818	91760	0	16380	39872	-.16	-6379	0	0	0	1827	0	923750	923750
10	923750	8740	0	14560	41103	.19	7810	0	0	0	0	0	910120	923750
11	910120	1930	0	14560	40495	.16	6479	0	0	0	0	0	891011	923750
12	891011	4290	0	12740	39887	.13	5185	0	0	0	0	0	877376	923750
YEAR TOTALS		826840	0	182000			56267	0	0	0	1827	626072		

RESERVOIR NO 2   CCR   MAX. CAPACITY 557265   MIN. OPERATING POOL   0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	552364	43240	0	7700	32453	.03	974	0	0	0	9170	20495	557265	557265
2	557265	2710	0	7700	32022	.10	3202	0	0	0	9170	0	539903	557265
3	539903	35510	0	7700	32022	.02	640	0	0	0	9170	638	557265	557265
4	557265	230620	0	8800	32623	-.20	-6524	0	0	0	10480	217864	557265	557265
5	557265	233390	0	8800	32623	.13	4241	0	0	0	10480	209869	557265	557265
	557265	2040	0	9900	31604	.31	9797	0	0	0	11790	0	527818	557265
7	527818	22650	0	12100	30057	.38	11422	0	0	0	14410	0	512536	557265
8	512536	770	0	12100	28367	.34	9645	0	0	0	14410	0	477151	557265
9	477151	7990	0	9900	27497	-.10	-2749	0	0	0	9963	0	468027	557265
10	468027	3550	0	8800	26895	.22	5917	0	0	0	10480	0	446380	557265
11	446380	2590	0	8800	26059	.17	4430	0	0	0	10480	0	425260	557265
12	425260	1660	0	7700	25265	.17	4295	0	0	0	9170	0	405755	557265
YEAR TOTALS		586720	0	110000			45290	0	0	0	129173	448866		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 18 CALENDAR YEAR 1958

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 19 CALENDAR YEAR 1959

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	877376	1300	0	12740	39276	.20	7855	0	0	0	0	0	858081	923750
2	858081	43840	0	12740	39539	-.06	-2371	0	0	0	0	0	891552	923750
3	891552	6100	0	12740	39882	.21	8375	0	0	0	0	0	876537	923750
4	876537	79260	0	14560	40419	-.08	-3233	0	0	0	10480	10244	923746	923750
5	923746	195370	0	14560	41356	-.16	-6616	0	0	0	10480	176942	923750	923750
6	923750	282250	0	16380	41356	.00	0	0	0	0	11790	254080	923750	923750
7	923750	10650	0	20020	41068	.15	6160	0	0	0	0	0	908220	923750
8	908220	320	0	20020	40168	.33	13255	0	0	0	0	0	875265	923750
9	875265	420	0	16380	39064	.27	10547	0	0	0	0	0	848758	923750
10	848758	138800	0	14560	39964	.04	1599	0	0	0	10480	37169	923750	923750
11	923750	8820	0	14560	41059	.25	10265	0	0	0	0	0	907745	923750
12	907745	132050	0	12740	40998	-.08	-3279	0	0	0	9170	97419	923745	923750
YEAR TOTALS		899180	0	182000			42557	0	0	0	52400	575854		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	405755	1260	0	7700	24468	.23	5628	0	0	0	9170	0	384517	557265
2	384517	52190	0	7700	24768	-.05	-1237	0	0	0	9170	0	421074	557265
3	421074	16250	0	7700	25376	.19	4821	0	0	0	9170	0	415633	557265
4	415633	79670	0	8800	26661	-.01	-266	0	0	0	0	0	486769	557265
5	486769	58810	0	8800	29619	-.14	-4146	0	0	0	0	0	540925	557265
6	540925	21120	0	9900	31914	-.03	-956	0	0	0	0	0	553101	557265
7	553101	2540	0	12100	31289	.20	6258	0	0	0	14410	0	522873	557265
8	522873	820	0	12100	28974	.38	11010	0	0	0	14410	0	486173	557265
9	486173	10	0	9900	27449	.29	7960	0	0	0	11790	0	456533	557265
10	456533	35450	0	8800	27390	.00	0	0	0	0	0	0	483183	557265
11	483183	7010	0	8800	27510	.30	8253	0	0	0	10480	0	462660	557265
12	462660	94200	0	7700	29180	-.11	-3209	0	0	0	0	0	552369	557265
YEAR TOTALS		369330	0	110000			34116	0	0	0	78600	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 19 CALENDAR YEAR 1959

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 20 CALENDAR YEAR 1960

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923745	220430	0	12740	41302	-.07	-2890	0	0	0	0	210579	923746	923750
2	923746	39840	0	12740	41348	-.01	-412	0	0	0	0	27509	923749	923750
3	923749	18420	0	12740	41356	.11	4549	0	0	0	1130	0	923750	923750
4	923750	7910	0	14560	41126	.14	5758	0	0	0	0	0	911342	923750
5	911342	16050	0	14560	40719	.27	10994	0	0	0	0	0	901838	923750
6	901838	15920	0	16380	40511	.03	1215	0	0	0	0	0	900163	923750
7	900163	460	0	20020	39843	.37	14742	0	0	0	0	0	865861	923750
8	865861	3720	0	20020	38739	.23	8910	0	0	0	0	0	840651	923750
9	840651	60	0	16380	37702	.38	14327	0	0	0	0	0	810004	923750
10	810004	7980	0	14560	37011	.00	0	0	0	0	0	0	803424	923750
11	803424	4190	0	14560	36676	.03	1100	0	0	0	0	0	791954	923750
12	791954	282150	0	12740	38909	-.35	-13617	0	0	0	9170	142061	923750	923750
YEAR TOTALS		617130	0	182000			44676	0	0	0	10300	380149		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	552369	147120	0	7700	32454	-.07	-2271	0	0	0	9170	127625	557265	557265
2	557265	46090	0	7700	32623	.01	326	0	0	0	9170	28894	557265	557265
3	557265	19060	0	7700	32623	.13	4241	0	0	0	8040	0	556344	557265
4	556344	1670	0	8800	31752	.18	5715	0	0	0	10480	0	533019	557265
5	533019	2930	0	8800	30088	.28	8425	0	0	0	10480	0	508244	557265
	508244	4630	0	9900	28512	.13	3707	0	0	0	11790	0	487477	557265
/	487477	2640	0	12100	27451	.30	8235	0	0	0	14410	0	455372	557265
8	455372	2290	0	12100	26207	.28	7338	0	0	0	14410	0	423814	557265
9	423814	570	0	9900	25006	.35	8752	0	0	0	11790	0	393942	557265
10	393942	330	0	8800	23995	.12	2879	0	0	0	10480	0	372113	557265
11	372113	5400	0	8800	23200	.16	3712	0	0	0	10480	0	354521	557265
12	354521	188910	0	7700	26626	-.39	-10383	0	0	0	0	0	546114	557265
YEAR TOTALS		421640	0	110000			40676	0	0	0	120700	156519		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 20 CALENDAR YEAR 1960

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 21 CALENDAR YEAR 1961

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	380710	0	12740	41356	-.19	-7857	0	0	0	0	375827	923750	923750
2	923750	247220	0	12740	41356	-.09	-3721	0	0	0	0	238201	923750	923750
3	923750	130110	0	12740	41333	-.03	-1239	0	0	0	0	118610	923749	923750
4	923749	15930	0	14560	41356	.26	10753	0	0	0	0	0	914366	923750
5	914366	6170	0	14560	40693	.21	8546	0	0	0	0	0	897430	923750
6	897430	143910	0	16380	40867	-.09	-3677	0	0	0	0	104887	923750	923750
7	923750	57360	0	20020	41356	.24	9925	0	0	0	14410	13005	923750	923750
8	923750	710	0	20020	40658	.45	18296	0	0	0	0	0	886144	923750
9	886144	1580	0	16380	39553	.18	7120	0	0	0	0	0	864224	923750
10	864224	3130	0	14560	38725	.29	11230	0	0	0	0	0	841564	923750
11	841564	83580	0	14560	39586	.02	792	0	0	0	0	0	909792	923750
12	909792	61440	0	12740	41082	-.02	-821	0	0	0	9170	26393	923750	923750
YEAR TOTALS		1131850	0	182000			49347	0	0	0	23580	876923		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	546114	108430	0	7700	32237	-.14	-4512	0	0	0	9170	84921	557265	557265
2	557265	67510	0	7700	32567	-.05	-1627	0	0	0	9170	52270	557262	557265
3	557262	65450	0	7700	32600	-.02	-651	0	0	0	9170	49228	557265	557265
4	557265	10180	0	8800	31998	.28	8959	0	0	0	10480	0	539206	557265
5	539206	3560	0	8800	30618	.20	6124	0	0	0	10480	0	517362	557265
6	517362	92870	0	9900	31242	-.08	-2498	0	0	0	11790	33775	557265	557265
7	557265	12170	0	12100	32623	.33	10766	0	0	0	0	0	546569	557265
8	546569	1070	0	12100	30496	.48	14638	0	0	0	14410	0	506491	557265
9	506491	1620	0	9900	28298	.24	6792	0	0	0	11790	0	479629	557265
10	479629	900	0	8800	27258	.29	7905	0	0	0	10480	0	453344	557265
11	453344	16860	0	8800	26718	-.04	-1068	0	0	0	10480	0	451992	557265
12	451992	37320	0	7700	27260	.02	545	0	0	0	0	0	481067	557265
YEAR TOTALS		417940	0	110000			45373	0	0	0	107420	220194		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 21 CALENDAR YEAR 1961

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 22 CALENDAR YEAR 1962

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	9270	0	12740	41292	-.02	-825	0	0	0	0	0	921105	923750
2	921105	22360	0	12740	41307	.02	826	0	0	0	6149	0	923750	923750
3	923750	8420	0	12740	41161	.15	6174	0	0	0	0	0	913256	923750
4	913256	50770	0	14560	41161	-.09	-3703	0	0	0	10480	18939	923750	923750
5	923750	11780	0	14560	41106	.26	10688	0	0	0	0	0	910282	923750
6	910282	54460	0	16380	41075	-.04	-1642	0	0	0	11790	14465	923749	923750
7	923749	3180	0	20020	40741	.40	16296	0	0	0	0	0	890613	923750
8	890613	140	0	20020	39340	.57	22424	0	0	0	0	0	848309	923750
9	848309	7150	0	16380	38327	.08	3066	0	0	0	0	0	836013	923750
10	836013	48380	0	14560	38662	.09	3480	0	0	0	0	0	866353	923750
11	866353	5160	0	14560	39029	.03	1171	0	0	0	0	0	855782	923750
12	855782	6520	0	12740	38681	.05	1934	0	0	0	0	0	847628	923750
YEAR TOTALS		227590	0	182000			59889	0	0	0	28419	33404		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	481067	8040	0	7700	27651	.01	277	0	0	0	9170	0	471960	557265
2	471960	19770	0	7700	27655	-.01	-276	0	0	0	3021	0	481285	557265
3	481285	10160	0	7700	27625	.15	4144	0	0	0	9170	0	470431	557265
4	470431	53760	0	8800	28342	-.09	-2550	0	0	0	0	0	517941	557265
5	517941	27900	0	8800	29910	.28	8375	0	0	0	10480	0	518186	557265
	518186	11760	0	9900	29994	-.01	-299	0	0	0	0	0	520345	557265
7	520345	53150	0	12100	30724	.25	7681	0	0	0	14410	0	539304	557265
8	539304	3810	0	12100	30034	.54	16218	0	0	0	14410	0	500386	557265
9	500386	19850	0	9900	28594	.03	858	0	0	0	11790	0	497688	557265
10	497688	10790	0	8800	28296	.03	849	0	0	0	10480	0	488349	557265
11	488349	28520	0	8800	28272	.04	1131	0	0	0	10480	0	496458	557265
12	496458	11740	0	7700	28269	.11	3110	0	0	0	9170	0	488218	557265
YEAR TOTALS		259250	0	110000			39518	0	0	0	102581	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 22 CALENDAR YEAR 1962

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 23   CALENDAR YEAR 1963

RESERVOIR NO 1   RCR   MAX. CAPACITY 923750 MIN. OPERATING POOL   0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	847628	3200	0	12740	38289	.09	3446	0	0	0	0	0	834642	923750
2	834642	1250	0	12740	37764	.10	3776	0	0	0	0	0	819376	923750
3	819376	2520	0	12740	37201	.13	4836	0	0	0	0	0	804320	923750
4	804320	23210	0	14560	37165	-.12	-4459	0	0	0	0	0	817429	923750
5	817429	17970	0	14560	37402	.10	3740	0	0	0	0	0	817099	923750
6	817099	580	0	16380	36918	.27	9968	0	0	0	0	0	791331	923750
7	791331	170	0	20020	35752	.48	17161	0	0	0	0	0	754320	923750
8	754320	240	0	20020	34297	.63	21607	0	0	0	0	0	712933	923750
9	712933	140	0	16380	33041	.39	12886	0	0	0	0	0	683807	923750
10	683807	220	0	14560	31969	.53	16944	0	0	0	0	0	652523	923750
11	652523	110	0	14560	31064	.17	5281	0	0	0	0	0	632792	923750
12	632792	40	0	12740	30467	.04	1219	0	0	0	0	0	618873	923750
YEAR TOTALS		49650	0	182000			96405	0	0	0	0	0		

RESERVOIR NO 2   CCR   MAX. CAPACITY 557265 MIN. OPERATING POOL   0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	488218	4820	0	7700	27807	.12	3337	0	0	0	9170	0	472831	557265
2	472831	420	0	7700	27100	.16	4336	0	0	0	9170	0	452045	557265
3	452045	860	0	7700	26319	.12	3158	0	0	0	9170	0	432877	557265
4	432877	70850	0	8800	27042	-.17	-4596	0	0	0	10480	0	489043	557265
5	489043	30680	0	8800	28308	.10	2831	0	0	0	10480	0	497612	557265
[illegible]	497612	670	0	9900	27901	.30	8370	0	0	0	11790	0	468222	557265
7	468222	40	0	12100	26554	.49	13011	0	0	0	14410	0	428741	557265
8	428741	40	0	12100	24943	.66	16462	0	0	0	14410	0	385809	557265
9	385809	20	0	9900	23478	.44	10330	0	0	0	11790	0	353809	557265
10	353809	50	0	8800	22002	.60	13201	0	0	0	10480	0	321378	557265
11	321378	20	0	8800	20678	.25	5169	0	0	0	10480	0	296949	557265
12	296949	0	0	7700	19675	.09	1771	0	0	0	9170	0	278308	557265
YEAR TOTALS		108470	0	110000			77380	0	0	0	131000	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 23 CALENDAR YEAR 1963

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 24 CALENDAR YEAR 1964

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	618873	270	0	12740	29961	.07	2097	0	0	0	0	0	604306	923750
2	604306	370	0	12740	29462	.04	1178	0	0	0	0	0	590758	923750
3	590758	2310	0	12740	29032	.01	290	0	0	0	0	0	580038	923750
4	580038	4420	0	14560	28646	.03	859	0	0	0	0	0	569039	923750
5	569039	1640	0	14560	28176	.11	3099	0	0	0	0	0	553020	923750
6	553020	300	0	16380	27442	.37	10154	0	0	0	0	0	526786	923750
7	526786	510	0	20020	26345	.66	17388	0	0	0	0	0	489888	923750
8	489888	390	0	20020	25167	.45	11325	0	0	0	0	0	458933	923750
9	458933	0	0	16380	24281	.15	3642	0	0	0	0	0	438911	923750
10	438911	330	0	14560	23260	.38	8839	0	0	0	10480	0	405362	923750
11	405362	7880	0	14560	22234	.06	1334	0	0	0	10480	0	386868	923750
12	386868	210	0	12740	21396	.11	2354	0	0	0	9170	0	362814	923750
YEAR TOTALS		18630	0	182000			62559	0	0	0	30130	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	278308	30	0	7700	18801	.11	2068	0	0	0	9170	0	259400	557265
2	259400	170	0	7700	17830	.04	713	0	0	0	9170	0	241987	557265
3	241987	3540	0	7700	16947	.00	0	0	0	0	9170	0	228657	557265
4	228657	34520	0	8800	16987	.03	510	0	0	0	10480	0	243387	557265
5	243387	5950	0	8800	17012	.03	510	0	0	0	10480	0	229547	557265
[illegible]	229547	70	0	9900	15825	.37	5855	0	0	0	11790	0	202072	557265
7	202072	90	0	12100	14002	.68	9521	0	0	0	14410	0	166131	557265
8	166131	20	0	12100	11879	.49	5821	0	0	0	14410	0	133820	557265
9	133820	4280	0	9900	10289	.10	1029	0	0	0	11790	0	115381	557265
10	115381	90	0	8800	9456	.41	3877	0	0	0	0	0	102794	557265
11	102794	5230	0	8800	9025	.05	451	0	0	0	0	0	98773	557265
12	98773	70	0	7700	8698	.11	957	0	0	0	0	0	90186	557265
YEAR TOTALS		54060	0	110000			31312	0	0	0	100870	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM, TRWD, 2050

SIMULATION YEAR 24 CALENDAR YEAR 1964

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 25 CALENDAR YEAR 1965

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	362814	5040	0	12740	20578	.03	617	0	0	0	9170	0	345327	923750
2	345327	54130	0	12740	20930	-.15	-3139	0	0	0	9170	0	380686	923750
3	380686	25960	0	12740	21702	.01	217	0	0	0	9170	0	384519	923750
4	384519	11620	0	14560	21433	.19	4072	0	0	0	10480	0	367027	923750
5	367027	361180	0	14560	27640	-.38	-10502	0	0	0	0	0	724149	923750
6	724149	10010	0	16380	33669	.29	9764	0	0	0	0	0	708015	923750
7	708015	570	0	20020	32678	.62	20260	0	0	0	0	0	668305	923750
8	668305	720	0	20020	31331	.54	16919	0	0	0	0	0	632086	923750
9	632086	710	0	16380	30314	.18	5457	0	0	0	0	0	610959	923750
10	610959	190	0	14560	29532	.29	8564	0	0	0	0	0	588025	923750
11	588025	3220	0	14560	28913	.02	578	0	0	0	0	0	576107	923750
12	576107	760	0	12740	28526	-.07	-1996	0	0	0	0	0	566123	923750
YEAR TOTALS		474110	0	182000			50811	0	0	0	37990	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	90186	3730	0	7700	8365	.03	251	0	0	0	0	0	85965	557265
2	85965	92400	0	7700	10582	-.18	-1904	0	0	0	0	0	172569	557265
3	172569	6950	0	7700	13254	.04	530	0	0	0	0	0	171289	557265
4	171289	2000	0	8800	12924	.19	2456	0	0	0	0	0	162033	557265
5	162033	154200	0	8800	16810	-.41	-6891	0	0	0	10480	0	303844	557265
[illegible]	303844	3230	0	9900	19876	.27	5367	0	0	0	11790	0	280017	557265
7	280017	900	0	12100	18462	.60	11077	0	0	0	14410	0	243330	557265
8	243330	650	0	12100	16423	.51	8376	0	0	0	14410	0	209094	557265
9	209094	7630	0	9900	14983	.12	1798	0	0	0	11790	0	193236	557265
10	193236	0	0	8800	13862	.28	3881	0	0	0	10480	0	170075	557265
11	170075	6680	0	8800	12719	.06	763	0	0	0	10480	0	156712	557265
12	156712	150	0	7700	11777	.00	0	0	0	0	9170	0	139992	557265
YEAR TOTALS		278520	0	110000			25704	0	0	0	93010	0		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 25 CALENDAR YEAR 1965

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 26 CALENDAR YEAR 1966

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	566123	1060	0	12740	28135	.03	844	0	0	0	0	0	553599	923750
2	553599	19260	0	12740	28031	.00	0	0	0	0	0	0	560119	923750
3	560119	4680	0	12740	27946	.12	3354	0	0	0	0	0	548705	923750
4	548705	530500	0	14560	34394	-.15	-5158	0	0	0	10480	135573	923750	923750
5	923750	250350	0	14560	41356	.05	2068	0	0	0	0	233722	923750	923750
6	923750	1490	0	16380	40807	.36	14691	0	0	0	0	0	894169	923750
7	894169	670	0	20020	39561	.46	18198	0	0	0	0	0	856621	923750
8	856621	3710	0	20020	38369	.27	10360	0	0	0	0	0	829951	923750
9	829951	5080	0	16380	37678	-.02	-753	0	0	0	0	0	819404	923750
10	819404	1690	0	14560	37030	.31	11479	0	0	0	0	0	795055	923750
11	795055	350	0	14560	36113	.30	10834	0	0	0	0	0	770011	923750
12	770011	540	0	12740	35290	.20	7058	0	0	0	0	0	750753	923750
YEAR TOTALS		819380	0	182000			72975	0	0	0	10480	369295		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	139992	7110	0	7700	10951	-.01	-109	0	0	0	9170	0	130341	557265
2	130341	43440	0	7700	11499	-.05	-574	0	0	0	9170	0	157485	557265
3	157485	4340	0	7700	11923	.09	1073	0	0	0	9170	0	143882	557265
4	143882	386700	0	8800	21893	-.22	-4815	0	0	0	0	0	526597	557265
5	526597	146330	0	8800	31562	.06	1894	0	0	0	10480	94488	557265	557265
[illegible]	557265	2440	0	9900	31564	.36	11363	0	0	0	11790	0	526652	557265
7	526652	1370	0	12100	29181	.45	13131	0	0	0	14410	0	488381	557265
8	488381	3300	0	12100	27548	.21	5785	0	0	0	14410	0	459386	557265
9	459386	6330	0	9900	26701	-.04	-1067	0	0	0	11790	0	445093	557265
10	445093	5750	0	8800	26035	.24	6248	0	0	0	10480	0	425315	557265
11	425315	810	0	8800	25169	.24	6041	0	0	0	10480	0	400804	557265
12	400804	1290	0	7700	24333	.11	2677	0	0	0	9170	0	382547	557265
YEAR TOTALS		609210	0	110000			41647	0	0	0	120520	94488		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 26 CALENDAR YEAR 1966

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 27 CALENDAR YEAR 1967

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	750753	240	0	12740	34643	.09	3118	0	0	0	0	0	735135	923750
2	735135	270	0	12740	34033	.15	5105	0	0	0	0	0	717560	923750
3	717560	650	0	12740	33359	.25	8340	0	0	0	0	0	697130	923750
4	697130	8310	0	14560	32892	-.01	-328	0	0	0	0	0	691208	923750
5	691208	3800	0	14560	32572	.04	1303	0	0	0	0	0	679145	923750
6	679145	32300	0	16380	32462	.31	10063	0	0	0	0	0	685002	923750
7	685002	5030	0	20020	32067	.41	13147	0	0	0	0	0	656865	923750
8	656865	420	0	20020	30929	.53	16392	0	0	0	0	0	620873	923750
9	620873	59010	0	16380	31008	.07	2171	0	0	0	0	0	661332	923750
10	661332	215570	0	14560	35201	.22	7744	0	0	0	0	0	854598	923750
11	854598	153700	0	14560	40072	.10	4007	0	0	0	10480	55501	923750	923750
12	923750	117820	0	12740	41356	.08	3308	0	0	0	0	101772	923750	923750
YEAR TOTALS		597120	0	182000			74370	0	0	0	10480	157273		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	382547	920	0	7700	23622	.09	2126	0	0	0	9170	0	364471	557265
2	364471	500	0	7700	22841	.06	1370	0	0	0	9170	0	346731	557265
3	346731	1550	0	7700	21984	.17	3737	0	0	0	9170	0	327674	557265
4	327674	13330	0	8800	21462	-.12	-2574	0	0	0	10480	0	324298	557265
5	324298	20650	0	8800	21445	-.06	-1286	0	0	0	10480	0	326954	557265
[illegible]	326954	25700	0	9900	21411	.38	8136	0	0	0	11790	0	322828	557265
7	322828	9680	0	12100	20754	.35	7264	0	0	0	14410	0	298734	557265
8	298734	0	0	12100	19381	.43	8334	0	0	0	14410	0	263890	557265
9	263890	13040	0	9900	18324	.03	550	0	0	0	11790	0	254690	557265
10	254690	246920	0	8800	23377	.11	2571	0	0	0	10480	0	479759	557265
11	479759	54020	0	8800	28725	.10	2872	0	0	0	0	0	522107	557265
12	522107	91250	0	7700	31407	.04	1256	0	0	0	9170	37966	557265	557265
YEAR TOTALS		477560	0	110000			34356	0	0	0	120520	37966		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 27 CALENDAR YEAR 1967

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 28 CALENDAR YEAR 1968

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	176580	0	12740	41356	.00	0	0	0	0	0	163840	923750	923750
2	923750	98640	0	12740	41356	.02	827	0	0	0	0	85073	923750	923750
3	923750	180910	0	12740	41356	.03	1241	0	0	0	0	166929	923750	923750
4	923750	198510	0	14560	41341	-.02	-826	0	0	0	0	184776	923750	923750
5	923750	551880	0	14560	41302	-.07	-2890	0	0	0	0	540214	923746	923750
6	923746	129950	0	16380	41356	.18	7444	0	0	0	9748	96374	923750	923750
7	923750	6410	0	20020	40853	.33	13481	0	0	0	0	0	896659	923750
8	896659	740	0	20020	39646	.47	18634	0	0	0	0	0	858745	923750
9	858745	480	0	16380	38511	.19	7317	0	0	0	0	0	835528	923750
10	835528	1560	0	14560	37664	.25	9416	0	0	0	0	0	813112	923750
11	813112	4770	0	14560	36977	.13	4807	0	0	0	0	0	798515	923750
12	798515	17430	0	12740	36732	.09	3306	0	0	0	0	0	799899	923750
YEAR TOTALS		1367860	0	182000			62757	0	0	0	9748	1237206		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	95930	0	7700	32623	.02	652	0	0	0	9170	78408	557265	557265
2	557265	49080	0	7700	32623	.04	1305	0	0	0	9170	30905	557265	557265
3	557265	141750	0	7700	32623	.00	0	0	0	0	9170	124880	557265	557265
4	557265	60430	0	8800	32623	.00	0	0	0	0	10480	41150	557265	557265
5	557265	133580	0	8800	32612	-.01	-325	0	0	0	10480	114625	557265	557265
6	557265	20750	0	9900	32623	.27	8808	0	0	0	2042	0	557265	557265
7	557265	2800	0	12100	31465	.31	9754	0	0	0	14410	0	523801	557265
8	523801	810	0	12100	28820	.60	17292	0	0	0	14410	0	480809	557265
9	480809	1260	0	9900	27275	.27	7364	0	0	0	11790	0	453015	557265
10	453015	890	0	8800	26239	.26	6822	0	0	0	10480	0	427803	557265
11	427803	5710	0	8800	25391	.18	4570	0	0	0	10480	0	409663	557265
12	409663	17970	0	7700	25009	.10	2501	0	0	0	9170	0	408262	557265
YEAR TOTALS		530960	0	110000			58743	0	0	0	121252	389968		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 28 CALENDAR YEAR 1968

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 29 CALENDAR YEAR 1969

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	799899	2260	0	12740	36529	.05	1826	0	0	0	0	0	787593	923750
2	787593	49740	0	12740	36994	-.01	-369	0	0	0	0	0	824962	923750
3	824962	169180	0	12740	39522	.03	1186	0	0	0	9170	47296	923750	923750
4	923750	98020	0	14560	41356	.01	414	0	0	0	0	83046	923750	923750
5	923750	507440	0	14560	41356	-.16	-6616	0	0	0	0	499496	923750	923750
6	923750	16380	0	16380	41356	.43	17783	0	0	0	0	0	905967	923750
7	905967	820	0	20020	39822	.70	27875	0	0	0	0	0	858892	923750
8	858892	860	0	20020	38195	.56	21389	0	0	0	0	0	818343	923750
9	818343	0	0	16380	36946	.28	10345	0	0	0	0	0	791618	923750
10	791618	3180	0	14560	36012	.34	12244	0	0	0	0	0	767994	923750
11	767994	3120	0	14560	35217	.22	7748	0	0	0	0	0	748806	923750
12	748806	38630	0	12740	35302	.06	2118	0	0	0	0	0	772578	923750
YEAR TOTALS		889630	0	182000			95943	0	0	0	9170	629838		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	408262	6150	0	7700	24777	-.01	-247	0	0	0	9170	0	397789	557265
2	397789	60720	0	7700	25439	-.02	-508	0	0	0	9170	0	442147	557265
3	442147	118310	0	7700	28484	.02	570	0	0	0	0	0	552187	557265
4	552187	25910	0	8800	32436	-.01	-323	0	0	0	10480	1875	557265	557265
5	557265	334700	0	8800	32623	-.27	-8807	0	0	0	10480	324227	557265	557265
	557265	2950	0	9900	31527	.41	12926	0	0	0	11790	0	525599	557265
7	525599	840	0	12100	28855	.69	19910	0	0	0	14410	0	480019	557265
8	480019	1090	0	12100	27000	.55	14850	0	0	0	14410	0	439749	557265
9	439749	860	0	9900	25625	.36	9225	0	0	0	11790	0	409694	557265
10	409694	12940	0	8800	24754	.33	8169	0	0	0	10480	0	395185	557265
11	395185	4220	0	8800	24105	.15	3616	0	0	0	10480	0	376509	557265
12	376509	58560	0	7700	24545	.02	491	0	0	0	9170	0	417708	557265
YEAR TOTALS		627250	0	110000			59872	0	0	0	121830	326102		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 29 CALENDAR YEAR 1969

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 30   CALENDAR YEAR 1970

RESERVOIR NO 1   RCR   MAX. CAPACITY 923750   MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	772578	9880	0	12740	35677	.02	714	0	0	0	0	0	769004	923750
2	769004	83750	0	12740	36963	-.05	-1847	0	0	0	0	0	841861	923750
3	841861	264520	0	12740	39836	.04	1593	0	0	0	0	168298	923750	923750
4	923750	76630	0	14560	41356	-.18	-7443	0	0	0	0	69513	923750	923750
5	923750	14660	0	14560	41356	.11	4549	0	0	0	0	0	919301	923750
6	919301	12580	0	16380	40772	.46	18755	0	0	0	0	0	896746	923750
7	896746	740	0	20020	39497	.68	26858	0	0	0	0	0	850608	923750
8	850608	320	0	20020	37874	.57	21588	0	0	0	0	0	809320	923750
9	809320	6940	0	16380	36789	.21	7726	0	0	0	0	0	792154	923750
10	792154	66990	0	14560	37312	.19	7089	0	0	0	0	0	837495	923750
11	837495	7910	0	14560	37805	.32	12098	0	0	0	0	0	818747	923750
12	818747	1660	0	12740	37183	.10	3718	0	0	0	0	0	803949	923750
YEAR TOTALS		546580	0	182000			95398	0	0	0	0	237811		

RESERVOIR NO 2   CCR   MAX. CAPACITY 557265   MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	417708	15550	0	7700	25300	.05	1265	0	0	0	9170	0	415123	557265
2	415123	100870	0	7700	26929	-.07	-1884	0	0	0	9170	0	501007	557265
3	501007	184910	0	7700	30624	-.05	-1530	0	0	0	9170	113315	557262	557265
4	557262	67700	0	8800	32623	-.09	-2935	0	0	0	10480	51352	557265	557265
5	557265	14820	0	8800	32424	.04	1297	0	0	0	10480	0	551508	557265
6	551508	15270	0	9900	31566	.40	12626	0	0	0	11790	0	532462	557265
7	532462	830	0	12100	29348	.66	19370	0	0	0	14410	0	487412	557265
8	487412	1080	0	12100	27249	.62	16894	0	0	0	14410	0	445088	557265
9	445088	30130	0	9900	26452	.26	6878	0	0	0	11790	0	446650	557265
10	446650	65330	0	8800	27314	.13	3551	0	0	0	10480	0	489149	557265
11	489149	2960	0	8800	27685	.26	7198	0	0	0	10480	0	465631	557265
12	465631	1460	0	7700	26903	.04	1076	0	0	0	9170	0	449145	557265
YEAR TOTALS		500910	0	110000			63806	0	0	0	131000	164667		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 30   CALENDAR YEAR 1970

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 31 CALENDAR YEAR 1971

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	803949	990	0	12740	36541	.22	8039	0	0	0	0	0	784160	923750
2	784160	4160	0	12740	35954	.09	3236	0	0	0	0	0	772344	923750
3	772344	2010	0	12740	35332	.31	10953	0	0	0	0	0	750661	923750
4	750661	10670	0	14560	34703	.24	8329	0	0	0	0	0	738442	923750
5	738442	3450	0	14560	34138	.21	7169	0	0	0	0	0	720163	923750
6	720163	410	0	16380	33242	.49	16289	0	0	0	0	0	687904	923750
7	687904	1620	0	20020	32070	.48	15394	0	0	0	0	0	654110	923750
8	654110	1790	0	20020	31009	.25	7752	0	0	0	0	0	628128	923750
9	628128	310	0	16380	30071	.36	10826	0	0	0	0	0	601232	923750
10	601232	61670	0	14560	30359	.13	3947	0	0	0	0	0	644395	923750
11	644395	23280	0	14560	31186	.17	5302	0	0	0	0	0	647813	923750
12	647813	260230	0	12740	35738	-.05	-1786	0	0	0	0	0	897089	923750
YEAR TOTALS		370590	0	182000			95450	0	0	0	0	0		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	449145	1180	0	7700	26161	.22	5755	0	0	0	9170	0	427700	557265
2	427700	7450	0	7700	25527	.06	1532	0	0	0	9170	0	416748	557265
3	416748	2740	0	7700	24901	.28	6972	0	0	0	9170	0	395646	557265
4	395646	640	0	8800	24002	.26	6241	0	0	0	10480	0	370765	557265
5	370765	2230	0	8800	23005	.27	6211	0	0	0	10480	0	347504	557265
	347504	150	0	9900	21680	.56	12141	0	0	0	11790	0	313823	557265
7	313823	65300	0	12100	21568	.46	9921	0	0	0	14410	0	342692	557265
8	342692	10170	0	12100	21713	.29	6297	0	0	0	14410	0	320055	557265
9	320055	730	0	9900	20516	.38	7796	0	0	0	11790	0	291299	557265
10	291299	175820	0	8800	23413	.12	2810	0	0	0	10480	0	445029	557265
11	445029	10150	0	8800	26159	.16	4185	0	0	0	10480	0	431714	557265
12	431714	261200	0	7700	28315	-.07	-1981	0	0	0	9170	120763	557262	557265
YEAR TOTALS		537760	0	110000			67880	0	0	0	131000	120763		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 32 CALENDAR YEAR 1972

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	897089	131190	0	12740	40853	-.01	-408	0	0	0	0	92197	923750	923750
2	923750	11010	0	12740	41179	.19	7824	0	0	0	0	0	914196	923750
3	914196	2770	0	12740	40650	.22	8943	0	0	0	0	0	895283	923750
4	895283	1230	0	14560	39911	.19	7583	0	0	0	0	0	874370	923750
5	874370	3290	0	14560	39103	.29	11340	0	0	0	0	0	851760	923750
6	851760	1310	0	16380	38184	.31	11837	0	0	0	0	0	824853	923750
7	824853	1580	0	20020	37039	.44	16297	0	0	0	0	0	790116	923750
8	790116	300	0	20020	35690	.51	18202	0	0	0	0	0	752194	923750
9	752194	1700	0	16380	34528	.29	10013	0	0	0	0	0	727501	923750
10	727501	19960	0	14560	34055	.19	6470	0	0	0	0	0	726431	923750
11	726431	11600	0	14560	33966	.03	1019	0	0	0	0	0	722452	923750
12	722452	7720	0	12740	33788	.03	1014	0	0	0	0	0	716418	923750
YEAR TOTALS		193660	0	182000			100134	0	0	0	0	92197		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557262	74830	0	7700	32600	-.02	-651	0	0	0	9170	58608	557265	557265
2	557265	3140	0	7700	31938	.19	6068	0	0	0	9170	0	537467	557265
3	537467	1900	0	7700	30482	.24	7316	0	0	0	9170	0	515181	557265
4	515181	2100	0	8800	28907	.21	6070	0	0	0	10480	0	491931	557265
5	491931	1510	0	8800	27716	.35	9701	0	0	0	10480	0	464460	557265
[illegible]	464460	5640	0	9900	26698	.32	8543	0	0	0	11790	0	439867	557265
7	439867	970	0	12100	25459	.52	13239	0	0	0	14410	0	401088	557265
8	401088	1320	0	12100	23951	.55	13173	0	0	0	14410	0	362725	557265
9	362725	710	0	9900	22527	.30	6758	0	0	0	11790	0	334987	557265
10	334987	8210	0	8800	21528	.19	4090	0	0	0	10480	0	319827	557265
11	319827	15150	0	8800	21074	.01	211	0	0	0	10480	0	315486	557265
12	315486	15140	0	7700	20918	.03	628	0	0	0	9170	0	313128	557265
YEAR TOTALS		130620	0	110000			75146	0	0	0	131000	58608		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 32 CALENDAR YEAR 1972

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 33 CALENDAR YEAR 1973

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	716418	49700	0	12740	34383	-.06	-2062	0	0	0	0	0	755440	923750
2	755440	51900	0	12740	35834	.00	0	0	0	0	0	0	794600	923750
3	794600	161480	0	12740	38958	.06	2337	0	0	0	9170	8083	923750	923750
4	923750	361750	0	14560	41333	-.03	-1239	0	0	0	0	348430	923749	923750
5	923749	89620	0	14560	41356	.25	10339	0	0	0	10480	54240	923750	923750
6	923750	294440	0	16380	41356	.16	6617	0	0	0	0	271443	923750	923750
7	923750	20020	0	20020	41356	.34	14061	0	0	0	0	0	909689	923750
8	909689	2940	0	20020	40129	.52	20867	0	0	0	0	0	871742	923750
9	871742	23730	0	16380	39437	.17	6704	0	0	0	0	0	872388	923750
10	872388	143870	0	14560	40403	.06	2424	0	0	0	9592	65932	923750	923750
11	923750	31330	0	14560	41356	.13	5376	0	0	0	0	11394	923750	923750
12	923750	23260	0	12740	41356	.13	5376	0	0	0	0	5144	923750	923750
YEAR TOTALS		1254040	0	182000			70800	0	0	0	29242	764666		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	313128	62260	0	7700	21956	-.07	-1536	0	0	0	9170	0	360054	557265
2	360054	51130	0	7700	23771	-.01	-237	0	0	0	9170	0	394551	557265
3	394551	86500	0	7700	25950	.07	1816	0	0	0	0	0	471535	557265
4	471535	185900	0	8800	29606	-.05	-1479	0	0	0	10480	82372	557262	557265
5	557262	14480	0	8800	32623	.28	9134	0	0	0	0	0	553808	557265
	553808	206080	0	9900	32503	.18	5851	0	0	0	11790	175082	557265	557265
7	557265	5610	0	12100	31529	.34	10720	0	0	0	14410	0	525645	557265
8	525645	1210	0	12100	28959	.60	17375	0	0	0	14410	0	482970	557265
9	482970	15740	0	9900	27711	.14	3880	0	0	0	11790	0	473140	557265
10	473140	96190	0	8800	29712	.08	2377	0	0	0	888	0	557265	557265
11	557265	70780	0	8800	32623	.09	2936	0	0	0	10480	48564	557265	557265
12	557265	67220	0	7700	32623	.13	4241	0	0	0	9170	46109	557265	557265
YEAR TOTALS		863100	0	110000			55078	0	0	0	101758	352127		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 33   CALENDAR YEAR 1973

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 34 CALENDAR YEAR 1974

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	49800	0	12740	41356	-.09	-3721	0	0	0	0	40781	923750	923750
2	923750	17240	0	12740	41356	.17	7031	0	0	0	0	0	921219	923750
3	921219	9360	0	12740	41047	.20	8209	0	0	0	0	0	909630	923750
4	909630	3370	0	14560	40436	.25	10109	0	0	0	0	0	888331	923750
5	888331	31830	0	14560	40205	.21	8443	0	0	0	0	0	897158	923750
6	897158	1610	0	16380	39792	.41	16315	0	0	0	0	0	866073	923750
7	866073	590	0	20020	38405	.63	24195	0	0	0	0	0	822448	923750
8	822448	4460	0	20020	37099	.30	11130	0	0	0	0	0	795758	923750
9	795758	68890	0	16380	37530	.07	2627	0	0	0	0	0	845641	923750
10	845641	80770	0	14560	39597	.12	4752	0	0	0	0	0	907099	923750
11	907099	397420	0	14560	41047	.00	0	0	0	0	0	366209	923750	923750
12	923750	70170	0	12740	41356	.01	414	0	0	0	0	57016	923750	923750
YEAR TOTALS		735510	0	182000			89504	0	0	0	0	464006		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	153880	0	7700	32623	-.10	-3261	0	0	0	9170	140271	557265	557265
2	557265	9460	0	7700	32199	.15	4830	0	0	0	9170	0	545025	557265
3	545025	4790	0	7700	31121	.22	6847	0	0	0	9170	0	526098	557265
4	526098	19620	0	8800	30217	.25	7554	0	0	0	10480	0	518884	557265
5	518884	80840	0	8800	31295	.21	6572	0	0	0	10480	16607	557265	557265
6	557265	87970	0	9900	32623	.34	11092	0	0	0	11790	55188	557265	557265
7	557265	550	0	12100	31006	.67	20774	0	0	0	14410	0	510531	557265
8	510531	0	0	12100	28302	.29	8208	0	0	0	14410	0	475813	557265
9	475813	15170	0	9900	27474	.04	1099	0	0	0	11790	0	468194	557265
10	468194	37360	0	8800	27614	.12	3314	0	0	0	10480	0	482960	557265
11	482960	270660	0	8800	30052	.00	0	0	0	0	10480	177075	557265	557265
12	557265	66480	0	7700	32623	.00	0	0	0	0	9170	49610	557265	557265
YEAR TOTALS		746780	0	110000			67029	0	0	0	131000	438751		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 34 CALENDAR YEAR 1974

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 35 CALENDAR YEAR 1975

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	923750	49760	0	12740	41356	.03	1241	0	0	0	0	35779	923750	923750
2	923750	203200	0	12740	41333	-.03	-1239	0	0	0	0	191700	923749	923750
3	923749	49440	0	12740	41356	.06	2481	0	0	0	0	34218	923750	923750
4	923750	175490	0	14560	41356	.08	3308	0	0	0	0	157622	923750	923750
5	923750	392480	0	14560	41356	.06	2481	0	0	0	0	375439	923750	923750
6	923750	97770	0	16380	41356	.31	12820	0	0	0	11790	56780	923750	923750
7	923750	11490	0	20020	40879	.42	17169	0	0	0	0	0	898051	923750
8	898051	1360	0	20020	39672	.52	20629	0	0	0	0	0	858762	923750
9	858762	1600	0	16380	38384	.40	15354	0	0	0	0	0	828628	923750
10	828628	750	0	14560	37367	.29	10836	0	0	0	0	0	803982	923750
11	803982	3230	0	14560	36543	.23	8405	0	0	0	0	0	784247	923750
12	784247	1020	0	12740	35912	.07	2514	0	0	0	0	0	770013	923750
YEAR TOTALS		987590	0	182000			95999	0	0	0	11790	851538		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	557265	19580	0	7700	32623	.02	652	0	0	0	9170	2058	557265	557265
2	557265	182490	0	7700	32578	-.04	-1302	0	0	0	9170	166924	557263	557265
3	557263	43130	0	7700	32623	.04	1305	0	0	0	9170	24953	557265	557265
4	557265	98810	0	8800	32623	.08	2610	0	0	0	10480	76920	557265	557265
5	557265	31340	0	8800	32623	.09	2936	0	0	0	10480	9124	557265	557265
	557265	13620	0	9900	32623	.31	10113	0	0	0	0	0	550872	557265
7	550872	1990	0	12100	30873	.43	13275	0	0	0	14410	0	513077	557265
8	513077	440	0	12100	28261	.56	15826	0	0	0	14410	0	471181	557265
9	471181	1390	0	9900	26804	.46	12330	0	0	0	11790	0	438551	557265
10	438551	1080	0	8800	25620	.38	9736	0	0	0	10480	0	410615	557265
11	410615	1540	0	8800	24621	.22	5417	0	0	0	10480	0	387458	557265
12	387458	1150	0	7700	23828	.07	1668	0	0	0	9170	0	370070	557265
YEAR TOTALS		396560	0	110000			74566	0	0	0	119210	279979		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 35 CALENDAR YEAR 1975

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 36 CALENDAR YEAR 1976

RESERVOIR NO 1 RCR MAX. CAPACITY 923750 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	770013	1710	0	12740	35338	.16	5654	0	0	0	0	0	753329	923750
2	753329	2920	0	12740	34717	.20	6943	0	0	0	0	0	736566	923750
3	736566	19830	0	12740	34474	.10	3447	0	0	0	0	0	740209	923750
4	740209	135510	0	14560	36759	.04	1470	0	0	0	0	0	859689	923750
5	859689	171400	0	14560	40167	.11	4418	0	0	0	0	88361	923750	923750
6	923750	85250	0	16380	41356	.26	10753	0	0	0	4738	53379	923750	923750
7	923750	81810	0	20020	41356	.25	10339	0	0	0	14410	37041	923750	923750
8	923750	1750	0	20020	40610	.54	21929	0	0	0	0	0	883551	923750
9	883551	55370	0	16380	40587	.08	3247	0	0	0	0	0	919294	923750
10	919294	46210	0	14560	41273	.07	2889	0	0	0	10480	13825	923750	923750
11	923750	9990	0	14560	41172	.13	5352	0	0	0	0	0	913828	923750
12	913828	75940	0	12740	41164	-.01	-411	0	0	0	9170	44519	923750	923750
YEAR TOTALS		687690	0	182000			76030	0	0	0	38798	237125		

RESERVOIR NO 2 CCR MAX. CAPACITY 557265 MIN. OPERATING POOL 0

MONTH	INITIAL STORAGE	UREG INFLOWS	UPSTRM SPILLS	DEMAND	SURFACE AREA	EVAP RATE	EVAP LOSS	DWNSTRM SPILLS	SHORTAGE	PUMPED INTO	PUMPED OUT	SYSTEM LOSS	END MO. CONTENT	OPER. RULE
1	370070	530	0	7700	23043	.17	3917	0	0	0	9170	0	349813	557265
2	349813	1000	0	7700	22094	.21	4640	0	0	0	9170	0	329303	557265
3	329303	2340	0	7700	21228	.10	2123	0	0	0	9170	0	312650	557265
4	312650	350460	0	8800	26025	.05	1301	0	0	0	10480	85264	557265	557265
5	557265	88250	0	8800	32623	.11	3589	0	0	0	10480	65381	557265	557265
6	557265	25760	0	9900	32623	.27	8808	0	0	0	7052	0	557265	557265
7	557265	19180	0	12100	32623	.25	8156	0	0	0	0	0	556189	557265
8	556189	890	0	12100	31103	.52	16174	0	0	0	14410	0	514395	557265
9	514395	12740	0	9900	29296	.05	1465	0	0	0	11790	0	503980	557265
10	503980	26190	0	8800	29446	.09	2650	0	0	0	0	0	518720	557265
11	518720	2430	0	8800	29201	.17	4964	0	0	0	10480	0	496906	557265
12	496906	35490	0	7700	29388	.02	588	0	0	0	0	0	524108	557265
YEAR TOTALS		565260	0	110000			58375	0	0	0	92202	150645		

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION YEAR 36 CALENDAR YEAR 1976

DEMAND NODE 3 TRWD

MONTH	DEMAND	SHORTAGE	UREG. FLOW
1	9170	0	0
2	9170	0	0
3	9170	0	0
4	10480	0	0
5	10480	0	0
6	11790	0	0
7	14410	0	0
8	14410	0	0
9	11790	0	0
10	10480	0	0
11	10480	0	0
12	9170	0	0
YEAR TOTALS	131000	0	0

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION PERIOD TOTAL SUMMARY BY NODE 1

:EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	923750	1185960	182000	0	54576	1004399	847744
2	847744	1264740	182000	0	66067	898748	923749
3	923749	544240	182000	0	100128	325956	858834
4	858834	1107830	182000	0	51793	848000	837979
5	837979	1687940	182000	0	37184	1364645	923750
6	923750	816080	182000	0	46716	631197	862664
7	862664	573750	182000	0	86531	368969	783219
8	783219	433300	182000	0	109244	208911	716364
9	716364	180970	182000	0	43911	0	671423
10	671423	320680	182000	0	75828	0	734275
11	734275	62230	182000	0	99191	0	515314
12	515314	263880	182000	0	75591	0	521603
13	521603	477350	182000	0	56989	0	759964
14	759964	39000	182000	0	113094	0	503870
15	503870	61100	182000	0	49584	0	277056
16	277056	95940	182000	0	41754	0	18242
17	18242	1450510	182000	0	23342	330660	916702
18	916702	826840	182000	0	56267	626072	877376
19	877376	899180	182000	0	42557	575854	923745
20	923745	617130	182000	0	44676	380149	923750
21	923750	1131850	182000	0	49347	876923	923750
22	923750	227590	182000	0	59889	33404	847628
23	847628	49650	182000	0	96405	0	618873
24	618873	18630	182000	0	62559	0	362814
25	362814	474110	182000	0	50811	0	566123
26	566123	819380	182000	0	72975	369295	750753
27	750753	597120	182000	0	74370	157273	923750
28	923750	1367860	182000	0	62757	1237206	799899
29	799899	889630	182000	0	95943	629838	772578
30	772578	546580	182000	0	95398	237811	803949
31	803949	370590	182000	0	95450	0	897089
32	897089	193660	182000	0	100134	92197	716418
33	716418	1254040	182000	0	70800	764666	923750
34	923750	735510	182000	0	89504	464006	923750
35	923750	987590	182000	0	95999	851538	770013
36	770013	687690	182000	0	76030	237125	923750
PERIOD TOTALS		23260130	6552000	0	2523394	13514842	
PERIOD AVERAGES		646114	182000	0	70094	375412	

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION PERIOD TOTAL SUMMARY BY NODE 2

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	557265	588400	110000	0	42124	401001	482531
2	482531	782600	110000	0	46961	469946	549144
3	549144	359870	110000	0	74993	189004	405088
4	405088	560440	110000	0	44910	236399	490111
5	490111	940780	110000	0	29509	698315	480407
6	480407	702650	110000	0	35772	366273	557265
7	557265	507720	110000	0	65880	226037	547763
8	547763	291080	110000	0	80660	181770	335413
9	335413	216360	110000	0	29998	0	280775
10	280775	424860	110000	0	46216	41364	377055
11	377055	134640	110000	0	54533	0	216162
12	216162	322410	110000	0	55145	0	242427
13	242427	357720	110000	0	44711	0	314436
14	314436	147070	110000	0	61238	0	159268
15	159268	106490	110000	0	21065	0	60023
16	60023	69360	110000	0	17571	0	1812
17	1812	1105710	110000	0	15163	315043	552364
18	552364	586720	110000	0	45290	448866	405755
19	405755	369330	110000	0	34116	0	552369
20	552369	421640	110000	0	40676	156519	546114
21	546114	417940	110000	0	45373	220194	481067
22	481067	259250	110000	0	39518	0	488218
23	488218	108470	110000	0	77380	0	278308
24	278308	54060	110000	0	31312	0	90186
25	90186	278520	110000	0	25704	0	139992
26	139992	609210	110000	0	41647	94488	382547
27	382547	477560	110000	0	34356	37966	557265
28	557265	530960	110000	0	58743	389968	408262
29	408262	627250	110000	0	59872	326102	417708
30	417708	500910	110000	0	63806	164667	449145
31	449145	537760	110000	0	67880	120763	557262
32	557262	130620	110000	0	75146	58608	313128
33	313128	863100	110000	0	55078	352127	557265
34	557265	746780	110000	0	67029	438751	557265
35	557265	396560	110000	0	74566	279979	370070
36	370070	565260	110000	0	58375	150645	524108
PERIOD TOTALS		16100060	3960000	0	1762316	6364795	
PERIOD AVERAGES		447223	110000	0	48953	176799	

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION PERIOD TOTAL SUMMARY BY NODE 3

EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	0	0	131000	0	0	0	0
2	0	0	131000	0	0	0	0
3	0	0	131000	0	0	0	0
4	0	0	131000	0	0	0	0
5	0	0	131000	0	0	0	0
6	0	0	131000	0	0	0	0
7	0	0	131000	0	0	0	0
8	0	0	131000	0	0	0	0
9	0	0	131000	0	0	0	0
10	0	0	131000	0	0	0	0
11	0	0	131000	0	0	0	0
12	0	0	131000	0	0	0	0
13	0	0	131000	0	0	0	0
14	0	0	131000	0	0	0	0
15	0	0	131000	0	0	0	0
16	0	0	131000	0	0	0	0
17	0	0	131000	0	0	0	0
18	0	0	131000	0	0	0	0
19	0	0	131000	0	0	0	0
20	0	0	131000	0	0	0	0
21	0	0	131000	0	0	0	0
22	0	0	131000	0	0	0	0
23	0	0	131000	0	0	0	0
24	0	0	131000	0	0	0	0
25	0	0	131000	0	0	0	0
26	0	0	131000	0	0	0	0
27	0	0	131000	0	0	0	0
28	0	0	131000	0	0	0	0
29	0	0	131000	0	0	0	0
30	0	0	131000	0	0	0	0
31	0	0	131000	0	0	0	0
32	0	0	131000	0	0	0	0
33	0	0	131000	0	0	0	0
34	0	0	131000	0	0	0	0
35	0	0	131000	0	0	0	0
36	0	0	131000	0	0	0	0
PERIOD TOTALS		0	4716000	0	0	0	
PERIOD AVERAGES		0	131000	0	0	0	

TITLE CARD EAST TEXAS RESERVOIR SYSTEM,TRWD, 2050

SIMULATION PERIOD TOTAL SUMMARY BY YEAR***

'EAR	START. STRG.	UNREG. FLOW	DEMANDS	SHORTAGES	EVAPORATION	SYSTEM LOSS	ENDING STRG.
1	1481015	1774360	423000	0	96700	1405400	1330275
2	1330275	2047340	423000	0	113028	1368694	1472893
3	1472893	904110	423000	0	175121	514960	1263922
4	1263922	1668270	423000	0	96703	1084399	1328090
5	1328090	2628720	423000	0	66693	2062960	1404157
6	1404157	1518730	423000	0	82488	997470	1419929
7	1419929	1081470	423000	0	152411	595006	1330982
8	1330982	724380	423000	0	189904	390681	1051777
9	1051777	397330	423000	0	73909	0	952198
10	952198	745540	423000	0	122044	41364	1111330
11	1111330	196870	423000	0	153724	0	731476
12	731476	586290	423000	0	130736	0	764030
13	764030	835070	423000	0	101700	0	1074400
14	1074400	186070	423000	0	174332	0	663138
15	663138	167590	423000	0	70649	0	337079
16	337079	165300	423000	0	59325	0	20054
17	20054	2556220	423000	0	38505	645703	1469066
18	1469066	1413560	423000	0	101557	1074938	1283131
19	1283131	1268510	423000	0	76673	575854	1476114
20	1476114	1038770	423000	0	85352	536668	1469864
21	1469864	1549790	423000	0	94720	1097117	1404817
22	1404817	486840	423000	0	99407	33404	1335846
23	1335846	158120	423000	0	173785	0	897181
24	897181	72690	423000	0	93871	0	453000
25	453000	752630	423000	0	76515	0	706115
26	706115	1428590	423000	0	114622	463783	1133300
27	1133300	1074680	423000	0	108726	195239	1481015
28	1481015	1898820	423000	0	121500	1627174	1208161
29	1208161	1516880	423000	0	155815	955940	1190286
30	1190286	1047490	423000	0	159204	402478	1253094
31	1253094	908350	423000	0	163330	120763	1454351
32	1454351	324280	423000	0	175280	150805	1029546
33	1029546	2117140	423000	0	125878	1116793	1481015
34	1481015	1482290	423000	0	156533	902757	1481015
35	1481015	1384150	423000	0	170565	1131517	1140083
36	1140083	1252950	423000	0	134405	387770	1447858
PERIOD TOTALS		39360190	15228000	0	4285710	19879637	
PERIOD AVERAGES		1093338	423000	0	119047	552212	

1	15	8	14410
2	1	8	14410
3	0	0	0

Richland-Chambers Reservoir Model
SIMDLY Model
Richland-Chambers Reservoir Drought Reserves Analyses
2050 Sediment Conditions

DAILY RESERVOIR RELEASE SIMULATION PROGRAM-TWDB
RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS
NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE
PERIOD 1941 TO 1981

* DEMAND DISTRIBUTION FACTORS *

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
.070	.070	.070	.080	.080	.090	.110	.110	.090	.080	.080	.070

* AREA VERSUS CAPACITY TABLE *

NUM	ACRES	ACRE-FEET
1	0.	0.
2	715.	1340.
3	3051.	10335.
4	5569.	31913.
5	7705.	65064.
6	10167.	110142.
7	13202.	168762.
8	16295.	242357.
9	19722.	332350.
10	24028.	441639.
11	28606.	573402.
12	34178.	730420.
13	41356.	923750.
14	0.	0.
15	0.	0.
16	0.	0.
17	0.	0.
18	0.	0.

SIZE * INFORMATION	CAPACITY ACRE-FEET *
TOP CONS. POOL	923750.
TOP MIN. POOL	197000.

ANNUAL DEMAND 188088. INCLUDES CORSICANA DEMAND

CONTENT RELEASE REQUIREMENT TABLES

923750.	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0

****

OUT PUT EDITED FOR BREVITY
ONLY CRITICAL PERIOD DAILY SIMULATIONS PRINTED

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAY, 1953

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL INFLOW CFS	UPSTREAM SPILLS CFS	DAILY DEMAND AC-FT	RES. AREA ACRES	EVAP DEPTH FEET	EVAP LOSS AC-FT	DWNSTRM SPILLS CFS	DEMAND SHTGE. AC-FT	E-O-DAY CONTENT AC-FT	REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	2861	0	485	30810	-.0058	-178	0	0	638187	5	5	0	0
2	404	0	485	30914	-.0058	-178	0	0	638672	5	5	0	0
3	188	0	485	30923	-.0058	-179	0	0	638730	5	5	0	0
4	115	0	485	30923	-.0058	-179	0	0	638642	5	5	0	0
5	79	0	485	30918	-.0058	-179	0	0	638483	5	5	0	0
6	57	0	485	30912	-.0058	-178	0	0	638280	5	5	0	0
7	22	0	485	30903	-.0058	-178	0	0	638008	5	5	0	0
8	24	0	485	30894	-.0058	-178	0	0	637740	5	5	0	0
9	18	0	485	30884	-.0058	-178	0	0	637459	5	5	0	0
10	18	0	485	30874	-.0058	-178	0	0	637179	5	5	0	0
11	150	0	485	30869	-.0058	-178	0	0	637160	5	5	0	0
12	9036	0	485	31181	-.0058	-180	0	0	654769	5	5	0	0
13	35497	0	485	32737	-.0058	-189	0	0	724871	5	5	0	0
14	25239	0	485	34896	-.0058	-202	0	0	774639	5	5	0	0
15	28030	0	485	36847	-.0058	-213	0	0	829954	5	5	0	0
16	26701	0	485	38852	-.0058	-225	0	0	882645	5	5	0	0
17	23294	0	485	40683	-.0058	-235	2440	0	923750	5	5	0	0
18	12263	0	485	41356	-.0058	-239	12134	0	923750	5	5	0	0
19	3643	0	485	41356	-.0058	-239	3514	0	923750	5	5	0	0
20	1244	0	485	41356	-.0058	-239	1115	0	923750	5	5	0	0
21	739	0	485	41356	-.0058	-239	610	0	923750	5	5	0	0
22	580	0	485	41356	-.0058	-239	451	0	923750	5	5	0	0
[illegible]	480	0	485	41356	-.0058	-239	351	0	923750	5	5	0	0
	393	0	485	41356	-.0058	-239	264	0	923750	5	5	0	0
[illegible]	335	0	485	41356	-.0058	-239	206	0	923750	5	5	0	0
26	297	0	485	41356	-.0058	-239	168	0	923750	5	5	0	0
27	256	0	485	41356	-.0058	-239	127	0	923750	5	5	0	0
28	224	0	485	41356	-.0058	-239	95	0	923750	5	5	0	0
29	192	0	485	41356	-.0058	-239	63	0	923750	5	5	0	0
30	149	0	485	41356	-.0058	-239	20	0	923750	5	5	0	0
31	133	0	485	41356	-.0058	-239	4	0	923750	5	5	0	0
TOT	1899271	0	185869		-.1800	-69649	278203	0		1705	1705	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUN, 1953

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL INFLOW CFS	UPSTREAM SPILLS CFS	DAILY DEMAND AC-FT	RES. AREA ACRES	EVAP DEPTH FEET	EVAP LOSS AC-FT	DWNSTRM SPILLS CFS	DEMAND SHTGE. AC-FT	E-O-DAY CONTENT AC-FT	REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	53	0	564	41335	.0167	689	0	0	922592	5	5	0	0
2	43	0	564	41291	.0167	688	0	0	921415	5	5	0	0
3	37	0	564	41247	.0167	687	0	0	920227	5	5	0	0
4	31	0	564	41203	.0167	687	0	0	919027	5	5	0	0
5	26	0	564	41158	.0167	686	0	0	917819	5	5	0	0
6	20	0	564	41113	.0167	685	0	0	916599	5	5	0	0
7	17	0	564	41068	.0167	684	0	0	915374	5	5	0	0
8	15	0	564	41022	.0167	684	0	0	914146	5	5	0	0
9	17	0	564	40977	.0167	683	0	0	912923	5	5	0	0
10	15	0	564	40931	.0167	682	0	0	911696	5	5	0	0
11	15	0	564	40886	.0167	681	0	0	910470	5	5	0	0
12	13	0	564	40840	.0167	681	0	0	909241	5	5	0	0
13	11	0	564	40794	.0167	680	0	0	908009	5	5	0	0
14	10	0	564	40749	.0167	679	0	0	906775	5	5	0	0
15	8	0	564	40703	.0167	678	0	0	905539	5	5	0	0
16	8	0	564	40657	.0167	678	0	0	904303	5	5	0	0
17	7	0	564	40611	.0167	677	0	0	903065	5	5	0	0
18	6	0	564	40565	.0167	676	0	0	901827	5	5	0	0
19	4	0	564	40519	.0167	675	0	0	900586	5	4	1	0
20	4	0	564	40473	.0167	675	0	0	899345	5	4	1	0
21	3	0	564	40427	.0167	674	0	0	898103	5	3	2	0
22	3	0	564	40381	.0167	673	0	0	896861	5	3	2	0
[illegible]	2	0	564	40335	.0167	672	0	0	895619	5	2	3	0
[illegible]	1	0	564	40288	.0167	671	0	0	894375	5	1	4	0
[illegible]	1	0	564	40242	.0167	671	0	0	893132	5	1	4	0
26	1	0	564	40196	.0167	670	0	0	891890	5	1	4	0
27	1	0	564	40150	.0167	669	0	0	890649	5	1	4	0
28	0	0	564	40104	.0167	668	0	0	889406	5	0	5	0
29	0	0	564	40058	.0167	668	0	0	888165	5	0	5	0
30	0	0	564	40012	.0167	667	0	0	886924	5	0	5	0
TOT	4092	0	209102		.5000	215150	0	0		1650	1210	440	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUL, 1953

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	667	39969	.0100	400	0	0	885847	5	0	5	0
2	0	0	667	39929	.0100	399	0	0	884770	5	0	5	0
3	0	0	667	39889	.0100	399	0	0	883694	5	0	5	0
4	0	0	667	39849	.0100	398	0	0	882618	5	0	5	0
5	0	0	667	39809	.0100	398	0	0	881543	5	0	5	0
6	0	0	667	39769	.0100	398	0	0	880468	5	0	5	0
7	0	0	667	39729	.0100	397	0	0	879393	5	0	5	0
8	0	0	667	39689	.0100	397	0	0	878319	5	0	5	0
9	0	0	667	39649	.0100	396	0	0	877245	5	0	5	0
10	0	0	667	39609	.0100	396	0	0	876171	5	0	5	0
11	0	0	667	39570	.0100	396	0	0	875098	5	0	5	0
12	0	0	667	39530	.0100	395	0	0	874026	5	0	5	0
13	0	0	667	39490	.0100	395	0	0	872954	5	0	5	0
14	0	0	667	39450	.0100	395	0	0	871882	5	0	5	0
15	0	0	667	39410	.0100	394	0	0	870810	5	0	5	0
16	0	0	667	39371	.0100	394	0	0	869739	5	0	5	0
17	0	0	667	39331	.0100	393	0	0	868669	5	0	5	0
18	0	0	667	39291	.0100	393	0	0	867599	5	0	5	0
19	432	0	667	39267	.0100	393	0	0	867385	5	5	0	0
20	213	0	667	39251	.0100	393	0	0	866738	5	5	0	0
21	16	0	667	39220	.0100	392	0	0	865700	5	5	0	0
22	6	0	667	39181	.0100	392	0	0	864643	5	5	0	0
[illegible]	1	0	667	39142	.0100	391	0	0	863576	5	1	4	0
	1	0	667	39102	.0100	391	0	0	862510	5	1	4	0
[illegible]	1	0	667	39062	.0100	391	0	0	861444	5	1	4	0
26	1	0	667	39023	.0100	390	0	0	860378	5	1	4	0
27	1	0	667	38983	.0100	390	0	0	859313	5	1	4	0
28	24	0	667	38945	.0100	389	0	0	858294	5	5	0	0
29	6	0	667	38906	.0100	389	0	0	857240	5	5	0	0
30	2	0	667	38867	.0100	389	0	0	856178	5	2	3	0
31	1	0	667	38827	.0100	388	0	0	855114	5	1	4	0
TOT	7755	0	255570		.3100	128833	0	0		1705	418	1287	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ AUG, 1953

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

	TOTAL*	UPSTREAM*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-DAY*	***** REQ. RELEASE **************			
DAY	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	FROM STR	STORED
* *	CFS*	CFS*	AC-FT*	ACRES*	FEET*	AC-FT*	CFS*	AC-FT*	AC-FT *	CFS	CFS	CFS	CFS
1	0	0	667	38786	.0126	488	0	0	853949	5	0	5	0
2	0	0	667	38743	.0126	487	0	0	852784	5	0	5	0
3	0	0	667	38700	.0126	487	0	0	851620	5	0	5	0
4	0	0	667	38656	.0126	486	0	0	850456	5	0	5	0
5	0	0	667	38613	.0126	486	0	0	849293	5	0	5	0
6	0	0	667	38570	.0126	485	0	0	848131	5	0	5	0
7	0	0	667	38527	.0126	485	0	0	846969	5	0	5	0
8	0	0	667	38484	.0126	484	0	0	845807	5	0	5	0
9	0	0	667	38441	.0126	484	0	0	844646	5	0	5	0
10	0	0	667	38397	.0126	483	0	0	843486	5	0	5	0
11	0	0	667	38354	.0126	483	0	0	842326	5	0	5	0
12	0	0	667	38311	.0126	482	0	0	841167	5	0	5	0
13	0	0	667	38268	.0126	481	0	0	840008	5	0	5	0
14	0	0	667	38225	.0126	481	0	0	838850	5	0	5	0
15	0	0	667	38182	.0126	480	0	0	837692	5	0	5	0
16	0	0	667	38139	.0126	480	0	0	836535	5	0	5	0
17	0	0	667	38096	.0126	479	0	0	835378	5	0	5	0
18	0	0	667	38053	.0126	479	0	0	834222	5	0	5	0
19	0	0	667	38011	.0126	478	0	0	833067	5	0	5	0
20	0	0	667	37968	.0126	478	0	0	831912	5	0	5	0
21	0	0	667	37925	.0126	477	0	0	830757	5	0	5	0
22	0	0	667	37882	.0126	477	0	0	829604	5	0	5	0
[illegible]	1	0	667	37839	.0126	476	0	0	828452	5	1	4	0
	0	0	667	37796	.0126	476	0	0	827299	5	0	5	0
[illegible]	0	0	667	37754	.0126	475	0	0	826147	5	0	5	0
26	0	0	667	37711	.0126	474	0	0	824995	5	0	5	0
27	0	0	667	37668	.0126	474	0	0	823844	5	0	5	0
28	0	0	667	37625	.0126	473	0	0	822693	5	0	5	0
29	0	0	667	37583	.0126	473	0	0	821543	5	0	5	0
30	0	0	667	37540	.0126	472	0	0	820394	5	0	5	0
31	0	0	667	37497	.0126	472	0	0	819245	5	0	5	0
TOT	11	0	255570		.3900	156434	0	0		1705	11	1694	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ SEP, 1953

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL INFLOW CFS	UPSTREAM SPILLS CFS	DAILY DEMAND AC-FT	RES. AREA ACRES	EVAP DEPTH FEET	EVAP LOSS AC-FT	DWNSTRM SPILLS CFS	DEMAND SHTGE. AC-FT	E-O-DAY CONTENT AC-FT	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	1	0	564	37457	.0117	437	0	0	818236	5	1	4	0
2	1	0	564	37420	.0117	437	0	0	817227	5	1	4	0
3	0	0	564	37382	.0117	436	0	0	816216	5	0	5	0
4	676	0	564	37370	.0117	436	0	0	816547	5	5	0	0
5	710	0	564	37383	.0117	436	0	0	816945	5	5	0	0
6	68	0	564	37374	.0117	436	0	0	816070	5	5	0	0
7	18	0	564	37340	.0117	436	0	0	815096	5	5	0	0
8	10	0	564	37303	.0117	435	0	0	814106	5	5	0	0
9	5	0	564	37267	.0117	435	0	0	813107	5	5	0	0
10	2	0	564	37229	.0117	434	0	0	812102	5	2	3	0
11	2	0	564	37192	.0117	434	0	0	811098	5	2	3	0
12	2	0	564	37155	.0117	433	0	0	810095	5	2	3	0
13	1	0	564	37118	.0117	433	0	0	809089	5	1	4	0
14	1	0	564	37080	.0117	433	0	0	808085	5	1	4	0
15	0	0	564	37043	.0117	432	0	0	807078	5	0	5	0
16	0	0	564	37006	.0117	432	0	0	806072	5	0	5	0
17	0	0	564	36968	.0117	431	0	0	805067	5	0	5	0
18	0	0	564	36931	.0117	431	0	0	804062	5	0	5	0
19	0	0	564	36894	.0117	430	0	0	803057	5	0	5	0
20	0	0	564	36856	.0117	430	0	0	802053	5	0	5	0
21	0	0	564	36819	.0117	430	0	0	801049	5	0	5	0
22	0	0	564	36782	.0117	429	0	0	800046	5	0	5	0
[illegible]	0	0	564	36744	.0117	429	0	0	799043	5	0	5	0
[illegible]	0	0	564	36707	.0117	428	0	0	798041	5	0	5	0
[illegible]	0	0	564	36670	.0117	428	0	0	797039	5	0	5	0
26	0	0	564	36633	.0117	427	0	0	796037	5	0	5	0
27	0	0	564	36596	.0117	427	0	0	795036	5	0	5	0
28	0	0	564	36558	.0117	427	0	0	794035	5	0	5	0
29	0	0	564	36521	.0117	426	0	0	793035	5	0	5	0
30	0	0	564	36484	.0117	426	0	0	792035	5	0	5	0
TOT	16467	0	209102		.3500	135776	0	0		1650	440	1210	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ OCT, 1953

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	485	36452	.0061	223	0	0	791316	5	0	5	0
2	0	0	485	36426	.0061	223	0	0	790598	5	0	5	0
3	0	0	485	36399	.0061	223	0	0	789879	5	0	5	0
4	0	0	485	36372	.0061	223	0	0	789161	5	0	5	0
5	0	0	485	36346	.0061	223	0	0	788443	5	0	5	0
6	0	0	485	36319	.0061	223	0	0	787725	5	0	5	0
7	0	0	485	36292	.0061	222	0	0	787007	5	0	5	0
8	0	0	485	36266	.0061	222	0	0	786290	5	0	5	0
9	0	0	485	36239	.0061	222	0	0	785572	5	0	5	0
10	0	0	485	36212	.0061	222	0	0	784855	5	0	5	0
11	0	0	485	36186	.0061	222	0	0	784138	5	0	5	0
12	0	0	485	36159	.0061	222	0	0	783421	5	0	5	0
13	0	0	485	36133	.0061	221	0	0	782704	5	0	5	0
14	0	0	485	36106	.0061	221	0	0	781988	5	0	5	0
15	0	0	485	36079	.0061	221	0	0	781271	5	0	5	0
16	0	0	485	36053	.0061	221	0	0	780555	5	0	5	0
17	0	0	485	36026	.0061	221	0	0	779839	5	0	5	0
18	0	0	485	36000	.0061	221	0	0	779123	5	0	5	0
19	0	0	485	35973	.0061	220	0	0	778407	5	0	5	0
20	0	0	485	35946	.0061	220	0	0	777692	5	0	5	0
21	0	0	485	35920	.0061	220	0	0	776976	5	0	5	0
22	0	0	485	35893	.0061	220	0	0	776261	5	0	5	0
[illegible]	0	0	485	35867	.0061	220	0	0	775546	5	0	5	0
	0	0	485	35840	.0061	220	0	0	774831	5	0	5	0
[illegible]	0	0	485	35814	.0061	220	0	0	774116	5	0	5	0
26	1223	0	485	35832	.0061	220	0	0	775827	5	5	0	0
27	1795	0	485	35917	.0061	220	0	0	778672	5	5	0	0
28	207	0	485	35964	.0061	220	0	0	778366	5	5	0	0
29	38	0	485	35946	.0061	220	0	0	777726	5	5	0	0
30	16	0	485	35922	.0061	220	0	0	777042	5	5	0	0
31	9	0	485	35896	.0061	220	0	0	776345	5	5	0	0
TOT	36168	0	185869		.1900	71661	0	0		1705	330	1375	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ NOV, 1953

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL INFLOW CFS	UPSTREAM SPILLS CFS	DAILY DEMAND AC-FT	RES. AREA ACRES	EVAP DEPTH FEET	EVAP LOSS AC-FT	DWNSTRM SPILLS CFS	DEMAND SHTGE. AC-FT	E-O-DAY CONTENT AC-FT	REQ. RELEASE NEED CFS	REQ. RELEASE PASSED CFS	REQ. RELEASE FROM STR CFS	REQ. RELEASE STORED CFS
1	6	0	502	35872	.0033	120	0	0	775726	5	5	0	0
2	3	0	502	35849	.0033	119	0	0	775101	5	3	2	0
3	3	0	502	35825	.0033	119	0	0	774476	5	3	2	0
4	4	0	502	35802	.0033	119	0	0	773853	5	4	1	0
5	48	0	502	35781	.0033	119	0	0	773317	5	5	0	0
6	98	0	502	35763	.0033	119	0	0	772881	5	5	0	0
7	55	0	502	35745	.0033	119	0	0	772360	5	5	0	0
8	35	0	502	35725	.0033	119	0	0	771798	5	5	0	0
9	18	0	502	35703	.0033	119	0	0	771204	5	5	0	0
10	10	0	502	35681	.0033	119	0	0	770593	5	5	0	0
11	7	0	502	35658	.0033	119	0	0	769977	5	5	0	0
12	4	0	502	35635	.0033	119	0	0	769354	5	4	1	0
13	3	0	502	35612	.0033	119	0	0	768730	5	3	2	0
14	3	0	502	35589	.0033	119	0	0	768106	5	3	2	0
15	2	0	502	35566	.0033	119	0	0	767480	5	2	3	0
16	1	0	502	35542	.0033	118	0	0	766852	5	1	4	0
17	1	0	502	35519	.0033	118	0	0	766224	5	1	4	0
18	0	0	502	35496	.0033	118	0	0	765594	5	0	5	0
19	0	0	502	35472	.0033	118	0	0	764964	5	0	5	0
20	84	0	502	35452	.0033	118	0	0	764501	5	5	0	0
21	199	0	502	35439	.0033	118	0	0	764266	5	5	0	0
22	109	0	502	35427	.0033	118	0	0	763853	5	5	0	0
23	35	0	502	35409	.0033	118	0	0	763293	5	5	0	0
[illegible]	19	0	502	35388	.0033	118	0	0	762701	5	5	0	0
25	11	0	502	35365	.0033	118	0	0	762094	5	5	0	0
26	7	0	502	35343	.0033	118	0	0	761478	5	5	0	0
27	4	0	502	35320	.0033	118	0	0	760857	5	4	1	0
28	3	0	502	35296	.0033	118	0	0	760234	5	3	2	0
29	3	0	502	35273	.0033	118	0	0	759611	5	3	2	0
30	2	0	502	35250	.0033	118	0	0	758986	5	2	3	0
TOT	8547	0	185868		.1000	37067	0	0		1650	1221	429	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ DEC, 1953

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. NEED CFS	RELEASE PASSED CFS	FROM STR CFS	************** STORED CFS
1	2	0	425	35233	-.0042	-147	0	0	758703	5	2	3	0
2	1428	0	425	35275	-.0042	-147	0	0	761248	5	5	0	0
3	3363	0	425	35441	-.0042	-148	0	0	767633	5	5	0	0
4	1655	0	425	35615	-.0042	-148	0	0	770630	5	5	0	0
5	196	0	425	35673	-.0042	-149	0	0	770734	5	5	0	0
6	56	0	425	35672	-.0042	-149	0	0	770560	5	5	0	0
7	28	0	425	35664	-.0042	-149	0	0	770330	5	5	0	0
8	17	0	425	35655	-.0042	-149	0	0	770079	5	5	0	0
9	13	0	425	35646	-.0042	-148	0	0	769819	5	5	0	0
10	11	0	425	35636	-.0042	-148	0	0	769556	5	5	0	0
11	100	0	425	35629	-.0042	-148	0	0	769469	5	5	0	0
12	1140	0	425	35665	-.0042	-149	0	0	771445	5	5	0	0
13	347	0	425	35709	-.0042	-149	0	0	771849	5	5	0	0
14	89	0	425	35714	-.0042	-149	0	0	771740	5	5	0	0
15	33	0	425	35708	-.0042	-149	0	0	771521	5	5	0	0
16	19	0	425	35699	-.0042	-149	0	0	771274	5	5	0	0
17	11	0	425	35690	-.0042	-149	0	0	771010	5	5	0	0
18	10	0	425	35680	-.0042	-149	0	0	770745	5	5	0	0
19	8	0	425	35670	-.0042	-149	0	0	770476	5	5	0	0
20	183	0	425	35667	-.0042	-149	0	0	770554	5	5	0	0
21	505	0	425	35681	-.0042	-149	0	0	771271	5	5	0	0
22	118	0	425	35694	-.0042	-149	0	0	771220	5	5	0	0
23	41	0	425	35689	-.0042	-149	0	0	771016	5	5	0	0
[illegible]	19	0	425	35681	-.0042	-149	0	0	770769	5	5	0	0
25	12	0	425	35671	-.0042	-149	0	0	770508	5	5	0	0
26	9	0	425	35661	-.0042	-149	0	0	770240	5	5	0	0
27	7	0	425	35651	-.0042	-149	0	0	769969	5	5	0	0
28	11	0	425	35641	-.0042	-148	0	0	769706	5	5	0	0
29	85	0	425	35634	-.0042	-148	0	0	769589	5	5	0	0
30	49	0	425	35629	-.0042	-148	0	0	769401	5	5	0	0
31	25	0	425	35621	-.0042	-148	0	0	769165	5	5	0	0
TOT	105490	0	162635		-.1300	-48194	0	0		1705	1672	33	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JAN, 1954

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	16	0	425	35610	-.0016	-56	0	0	768820	5	5	0	0
2	12	0	425	35597	-.0016	-56	0	0	768467	5	5	0	0
3	9	0	425	35584	-.0016	-56	0	0	768107	5	5	0	0
4	6	0	425	35570	-.0016	-56	0	0	767742	5	5	0	0
5	4	0	425	35557	-.0016	-56	0	0	767373	5	4	1	0
6	3	0	425	35543	-.0016	-56	0	0	767001	5	3	2	0
7	3	0	425	35529	-.0016	-56	0	0	766630	5	3	2	0
8	3	0	425	35516	-.0016	-56	0	0	766258	5	3	2	0
9	3	0	425	35502	-.0016	-56	0	0	765887	5	3	2	0
10	6	0	425	35488	-.0016	-56	0	0	765521	5	5	0	0
11	10	0	425	35475	-.0016	-56	0	0	765164	5	5	0	0
12	18	0	425	35462	-.0016	-56	0	0	764822	5	5	0	0
13	10	0	425	35449	-.0016	-56	0	0	764464	5	5	0	0
14	744	0	425	35462	-.0016	-56	0	0	765563	5	5	0	0
15	1852	0	425	35544	-.0016	-56	0	0	768859	5	5	0	0
16	1938	0	425	35670	-.0016	-57	0	0	772326	5	5	0	0
17	464	0	425	35744	-.0016	-57	0	0	772869	5	5	0	0
18	184	0	425	35754	-.0016	-57	0	0	772857	5	5	0	0
19	73	0	425	35749	-.0016	-57	0	0	772625	5	5	0	0
20	49	0	425	35740	-.0016	-57	0	0	772345	5	5	0	0
21	38	0	425	35729	-.0016	-57	0	0	772043	5	5	0	0
22	28	0	425	35717	-.0016	-57	0	0	771722	5	5	0	0
23	23	0	425	35705	-.0016	-57	0	0	771390	5	5	0	0
	18	0	425	35693	-.0016	-57	0	0	771049	5	5	0	0
25	45	0	425	35681	-.0016	-57	0	0	770761	5	5	0	0
26	31	0	425	35670	-.0016	-57	0	0	770446	5	5	0	0
27	33	0	425	35658	-.0016	-57	0	0	770134	5	5	0	0
28	35	0	425	35647	-.0016	-56	0	0	769826	5	5	0	0
29	21	0	425	35635	-.0016	-56	0	0	769491	5	5	0	0
30	17	0	425	35622	-.0016	-56	0	0	769147	5	5	0	0
31	14	0	425	35609	-.0016	-56	0	0	768798	5	5	0	0
TOT	5710	0	13166		-.0500	-1780	0	0		155	146	9	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ FEB, 1954

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY * *	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	12	0	470	35589	.0075	267	0	0	768075	5	5	0	0
2	12	0	470	35563	.0075	267	0	0	767352	5	5	0	0
3	11	0	470	35536	.0075	267	0	0	766627	5	5	0	0
4	10	0	470	35509	.0075	266	0	0	765900	5	5	0	0
5	9	0	470	35482	.0075	266	0	0	765172	5	5	0	0
6	9	0	470	35455	.0075	266	0	0	764443	5	5	0	0
7	8	0	470	35428	.0075	266	0	0	763714	5	5	0	0
8	8	0	470	35401	.0075	266	0	0	762984	5	5	0	0
9	7	0	470	35373	.0075	265	0	0	762252	5	5	0	0
10	7	0	470	35346	.0075	265	0	0	761521	5	5	0	0
11	12	0	470	35319	.0075	265	0	0	760800	5	5	0	0
12	7	0	470	35292	.0075	265	0	0	760069	5	5	0	0
13	5	0	470	35265	.0075	264	0	0	759334	5	5	0	0
14	6	0	470	35238	.0075	264	0	0	758601	5	5	0	0
15	6	0	470	35211	.0075	264	0	0	757869	5	5	0	0
16	5	0	470	35184	.0075	264	0	0	757135	5	5	0	0
17	5	0	470	35156	.0075	264	0	0	756401	5	5	0	0
18	5	0	470	35129	.0075	263	0	0	755667	5	5	0	0
19	7	0	470	35102	.0075	263	0	0	754938	5	5	0	0
20	12	0	470	35075	.0075	263	0	0	754218	5	5	0	0
21	16	0	470	35048	.0075	263	0	0	753507	5	5	0	0
22	8	0	470	35022	.0075	263	0	0	752780	5	5	0	0
[illegible]	8	0	470	34995	.0075	262	0	0	752054	5	5	0	0
	2	0	470	34968	.0075	262	0	0	751315	5	2	3	0
[illegible]	2	0	470	34940	.0075	262	0	0	750577	5	2	3	0
26	2	0	470	34913	.0075	262	0	0	749839	5	2	3	0
27	2	0	470	34885	.0075	262	0	0	749101	5	2	3	0
28	2	0	470	34858	.0075	261	0	0	748363	5	2	3	0
TOT	2255	0	162635		.2100	76618	0	0		1540	1375	165	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAR, 1954

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	1	0	425	34832	.0071	247	0	0	747684	5	1	4	0
2	1	0	425	34806	.0071	247	0	0	747004	5	1	4	0
3	1	0	425	34781	.0071	247	0	0	746325	5	1	4	0
4	1	0	425	34756	.0071	247	0	0	745645	5	1	4	0
5	1	0	425	34731	.0071	246	0	0	744966	5	1	4	0
6	1	0	425	34705	.0071	246	0	0	744287	5	1	4	0
7	1	0	425	34680	.0071	246	0	0	743608	5	1	4	0
8	1	0	425	34655	.0071	246	0	0	742930	5	1	4	0
9	1	0	425	34630	.0071	246	0	0	742252	5	1	4	0
10	1	0	425	34605	.0071	246	0	0	741573	5	1	4	0
11	1	0	425	34580	.0071	245	0	0	740895	5	1	4	0
12	1	0	425	34554	.0071	245	0	0	740217	5	1	4	0
13	1	0	425	34529	.0071	245	0	0	739540	5	1	4	0
14	1	0	425	34504	.0071	245	0	0	738862	5	1	4	0
15	1	0	425	34479	.0071	245	0	0	738185	5	1	4	0
16	1	0	425	34454	.0071	245	0	0	737508	5	1	4	0
17	1	0	425	34429	.0071	244	0	0	736831	5	1	4	0
18	1	0	425	34403	.0071	244	0	0	736154	5	1	4	0
19	1	0	425	34378	.0071	244	0	0	735478	5	1	4	0
20	1	0	425	34353	.0071	244	0	0	734801	5	1	4	0
21	1	0	425	34328	.0071	244	0	0	734125	5	1	4	0
22	1	0	425	34303	.0071	243	0	0	733449	5	1	4	0
[illegible]	1	0	425	34278	.0071	243	0	0	732773	5	1	4	0
	1	0	425	34253	.0071	243	0	0	732097	5	1	4	0
[illegible]	1	0	425	34228	.0071	243	0	0	731422	5	1	4	0
26	1	0	425	34203	.0071	243	0	0	730746	5	1	4	0
27	1	0	425	34178	.0071	243	0	0	730071	5	1	4	0
28	3	0	425	34154	.0071	242	0	0	729400	5	3	2	0
29	7	0	425	34130	.0071	242	0	0	728737	5	5	0	0
30	2	0	425	34106	.0071	242	0	0	728064	5	2	3	0
31	3	0	425	34083	.0071	242	0	0	727394	5	3	2	0
TOT	462	0	162635		.2200	78325	0	19661		1705	440	1265	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ APR, 1954

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	3	0	502	34060	.0023	79	0	0	726809	5	3	2	0
2	2	0	502	34039	.0023	79	0	0	726222	5	2	3	0
3	2	0	502	34019	.0023	79	0	0	725635	5	2	3	0
4	1	0	502	33998	.0023	79	0	0	725046	5	1	4	0
5	1	0	502	33977	.0023	79	0	0	724457	5	1	4	0
6	1	0	502	33956	.0023	79	0	0	723869	5	1	4	0
7	0	0	502	33935	.0023	79	0	0	723278	5	0	5	0
8	0	0	502	33914	.0023	79	0	0	722687	5	0	5	0
9	0	0	502	33893	.0023	79	0	0	722097	5	0	5	0
10	0	0	502	33872	.0023	79	0	0	721506	5	0	5	0
11	0	0	502	33851	.0023	79	0	0	720916	5	0	5	0
12	0	0	502	33830	.0023	79	0	0	720325	5	0	5	0
13	0	0	502	33809	.0023	79	0	0	719735	5	0	5	0
14	106	0	502	33792	.0023	79	0	0	719355	5	5	0	0
15	130	0	502	33779	.0023	79	0	0	719022	5	5	0	0
16	94	0	502	33766	.0023	79	0	0	718618	5	5	0	0
17	21	0	502	33749	.0023	79	0	0	718070	5	5	0	0
18	5	0	502	33729	.0023	79	0	0	717490	5	5	0	0
19	2	0	502	33709	.0023	79	0	0	716903	5	2	3	0
20	1	0	502	33688	.0023	79	0	0	716315	5	1	4	0
21	1	0	502	33667	.0023	79	0	0	715727	5	1	4	0
22	1	0	502	33646	.0023	79	0	0	715139	5	1	4	0
[illegible]	1	0	502	33625	.0023	78	0	0	714551	5	1	4	0
	1	0	502	33604	.0023	78	0	0	713963	5	1	4	0
[illegible]	1	0	502	33584	.0023	78	0	0	713376	5	1	4	0
26	0	0	502	33563	.0023	78	0	0	712786	5	0	5	0
27	0	0	502	33542	.0023	78	0	0	712196	5	0	5	0
28	0	0	502	33521	.0023	78	0	0	711606	5	0	5	0
29	0	0	502	33500	.0023	78	0	0	711017	5	0	5	0
30	157	0	502	33485	.0023	78	0	0	710738	5	5	0	0
TOT	5841	0	185868		.0700	24436	0	36950		1650	528	1122	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAY, 1954

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL INFLOW CFS	UPSTREAM SPILLS CFS	DAILY DEMAND AC-FT	RES. AREA ACRES	EVAP DEPTH FEET	EVAP LOSS AC-FT	DWNSTRM SPILLS CFS	DEMAND SHTGE. AC-FT	E-O-DAY CONTENT AC-FT	REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	1806	0	485	33535	-.0003	-10	0	0	713836	5	5	0	0
2	683	0	485	33605	-.0003	-10	0	0	714706	5	5	0	0
3	493	0	485	33629	-.0003	-10	0	0	715200	5	5	0	0
4	80	0	485	33632	-.0003	-10	0	0	714874	5	5	0	0
5	27	0	485	33619	-.0003	-10	0	0	714443	5	5	0	0
6	10	0	485	33603	-.0003	-10	0	0	713978	5	5	0	0
7	5	0	485	33586	-.0003	-10	0	0	713504	5	5	0	0
8	3	0	485	33569	-.0003	-10	0	0	713025	5	3	2	0
9	2	0	485	33552	-.0003	-10	0	0	712545	5	2	3	0
10	66	0	485	33537	-.0003	-10	0	0	712191	5	5	0	0
11	554	0	485	33542	-.0003	-10	0	0	712806	5	5	0	0
12	4389	0	485	33699	-.0003	-10	0	0	721027	5	5	0	0
13	5698	0	485	34037	-.0003	-10	0	0	731844	5	5	0	0
14	1216	0	485	34267	-.0003	-10	0	0	733772	5	5	0	0
15	190	0	485	34300	-.0003	-10	0	0	733664	5	5	0	0
16	63	0	485	34292	-.0003	-10	0	0	733305	5	5	0	0
17	30	0	485	34277	-.0003	-10	0	0	732880	5	5	0	0
18	17	0	485	34261	-.0003	-10	0	0	732430	5	5	0	0
19	13	0	485	34244	-.0003	-10	0	0	731971	5	5	0	0
20	171	0	485	34233	-.0003	-10	0	0	731826	5	5	0	0
21	71	0	485	34224	-.0003	-10	0	0	731483	5	5	0	0
22	17	0	485	34209	-.0003	-10	0	0	731032	5	5	0	0
23	9	0	485	34192	-.0003	-10	0	0	730566	5	5	0	0
[illegible]	7	0	485	34175	-.0003	-10	0	0	730095	5	5	0	0
25	6	0	485	34158	-.0003	-10	0	0	729623	5	5	0	0
26	5	0	485	34141	-.0003	-10	0	0	729149	5	5	0	0
27	4	0	485	34124	-.0003	-10	0	0	728672	5	4	1	0
28	7	0	485	34108	-.0003	-10	0	0	728202	5	5	0	0
29	9	0	485	34091	-.0003	-10	0	0	727735	5	5	0	0
30	5	0	485	34074	-.0003	-10	0	0	727261	5	5	0	0
31	4	0	485	34057	-.0003	-10	0	0	726785	5	4	1	0
TOT	172260	0	185869		-.0100	-3513	0	7921		1705	1628	76	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUN, 1954

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	3	0	564	34028	.0173	590	0	0	725627	5	3	2	0
2	3	0	564	33987	.0173	589	0	0	724469	5	3	2	0
3	5	0	564	33946	.0173	588	0	0	723317	5	5	0	0
4	4	0	564	33905	.0173	588	0	0	722163	5	4	1	0
5	2	0	564	33864	.0173	587	0	0	721006	5	2	3	0
6	1	0	564	33823	.0173	586	0	0	719847	5	1	4	0
7	1	0	564	33782	.0173	586	0	0	718689	5	1	4	0
8	1	0	564	33741	.0173	585	0	0	717532	5	1	4	0
9	0	0	564	33700	.0173	584	0	0	716374	5	0	5	0
10	0	0	564	33659	.0173	583	0	0	715216	5	0	5	0
11	0	0	564	33618	.0173	583	0	0	714059	5	0	5	0
12	0	0	564	33577	.0173	582	0	0	712903	5	0	5	0
13	0	0	564	33536	.0173	581	0	0	711748	5	0	5	0
14	0	0	564	33495	.0173	581	0	0	710593	5	0	5	0
15	0	0	564	33454	.0173	580	0	0	709439	5	0	5	0
16	0	0	564	33413	.0173	579	0	0	708286	5	0	5	0
17	0	0	564	33372	.0173	578	0	0	707133	5	0	5	0
18	0	0	564	33331	.0173	578	0	0	705981	5	0	5	0
19	0	0	564	33290	.0173	577	0	0	704830	5	0	5	0
20	0	0	564	33249	.0173	576	0	0	703679	5	0	5	0
21	0	0	564	33209	.0173	576	0	0	702529	5	0	5	0
22	0	0	564	33168	.0173	575	0	0	701380	5	0	5	0
[illegible]	0	0	564	33127	.0173	574	0	0	700232	5	0	5	0
	0	0	564	33086	.0173	573	0	0	699084	5	0	5	0
[illegible]	0	0	564	33046	.0173	573	0	0	697937	5	0	5	0
26	0	0	564	33005	.0173	572	0	0	696791	5	0	5	0
27	0	0	564	32964	.0173	571	0	0	695645	5	0	5	0
28	0	0	564	32924	.0173	571	0	0	694501	5	0	5	0
29	0	0	564	32883	.0173	570	0	0	693356	5	0	5	0
30	0	0	564	32842	.0173	569	0	0	692213	5	0	5	0
TOT	220	0	209102		.5200	179815	0	41569		1650	220	1430	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUL, 1954

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED FROM CFS	STR CFS	STORED CFS
1	0	0	667	32795	.0255	836	0	0	690700	5	0	5	0
2	0	0	667	32742	.0255	834	0	0	689188	5	0	5	0
3	0	0	667	32688	.0255	833	0	0	687678	5	0	5	0
4	0	0	667	32634	.0255	832	0	0	686169	5	0	5	0
5	0	0	667	32581	.0255	830	0	0	684661	5	0	5	0
6	0	0	667	32527	.0255	829	0	0	683155	5	0	5	0
7	0	0	667	32474	.0255	828	0	0	681650	5	0	5	0
8	0	0	667	32421	.0255	826	0	0	680147	5	0	5	0
9	0	0	667	32367	.0255	825	0	0	678645	5	0	5	0
10	0	0	667	32314	.0255	823	0	0	677144	5	0	5	0
11	0	0	667	32261	.0255	822	0	0	675644	5	0	5	0
12	0	0	667	32208	.0255	821	0	0	674146	5	0	5	0
13	0	0	667	32154	.0255	819	0	0	672649	5	0	5	0
14	0	0	667	32101	.0255	818	0	0	671154	5	0	5	0
15	0	0	667	32048	.0255	817	0	0	669660	5	0	5	0
16	0	0	667	31995	.0255	815	0	0	668167	5	0	5	0
17	0	0	667	31942	.0255	814	0	0	666676	5	0	5	0
18	0	0	667	31890	.0255	813	0	0	665186	5	0	5	0
19	0	0	667	31837	.0255	811	0	0	663697	5	0	5	0
20	0	0	667	31784	.0255	810	0	0	662210	5	0	5	0
21	0	0	667	31731	.0255	809	0	0	660724	5	0	5	0
22	0	0	667	31678	.0255	807	0	0	659240	5	0	5	0
[illegible]	0	0	667	31626	.0255	806	0	0	657756	5	0	5	0
	0	0	667	31573	.0255	805	0	0	656274	5	0	5	0
[illegible]	0	0	667	31521	.0255	803	0	0	654794	5	0	5	0
26	0	0	667	31468	.0255	802	0	0	653315	5	0	5	0
27	0	0	667	31416	.0255	801	0	0	651837	5	0	5	0
28	0	0	667	31363	.0255	799	0	0	650360	5	0	5	0
29	0	0	667	31311	.0255	798	0	0	648885	5	0	5	0
30	0	0	667	31258	.0255	797	0	0	647411	5	0	5	0
31	0	0	667	31206	.0255	795	0	0	645938	5	0	5	0
TOT	0	0	255570		.7900	261604	0	50806		1705	0	1705	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ AUG, 1954

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	667	31153	.0274	854	0	0	644407	5	0	5	0
2	0	0	667	31099	.0274	853	0	0	642877	5	0	5	0
3	0	0	667	31044	.0274	851	0	0	641348	5	0	5	0
4	0	0	667	30990	.0274	850	0	0	639821	5	0	5	0
5	0	0	667	30936	.0274	848	0	0	638296	5	0	5	0
6	0	0	667	30882	.0274	847	0	0	636772	5	0	5	0
7	0	0	667	30828	.0274	845	0	0	635249	5	0	5	0
8	0	0	667	30774	.0274	844	0	0	633728	5	0	5	0
9	0	0	667	30720	.0274	842	0	0	632208	5	0	5	0
10	0	0	667	30666	.0274	841	0	0	630690	5	0	5	0
11	0	0	667	30612	.0274	839	0	0	629174	5	0	5	0
12	0	0	667	30558	.0274	838	0	0	627658	5	0	5	0
13	0	0	667	30504	.0274	836	0	0	626145	5	0	5	0
14	0	0	667	30451	.0274	835	0	0	624632	5	0	5	0
15	0	0	667	30397	.0274	833	0	0	623122	5	0	5	0
16	0	0	667	30344	.0274	832	0	0	621612	5	0	5	0
17	0	0	667	30290	.0274	831	0	0	620104	5	0	5	0
18	0	0	667	30237	.0274	829	0	0	618598	5	0	5	0
19	0	0	667	30183	.0274	828	0	0	617093	5	0	5	0
20	0	0	667	30130	.0274	826	0	0	615590	5	0	5	0
21	0	0	667	30076	.0274	825	0	0	614088	5	0	5	0
22	0	0	667	30023	.0274	823	0	0	612587	5	0	5	0
[illegible]	0	0	667	29970	.0274	822	0	0	611088	5	0	5	0
[illegible]	0	0	667	29917	.0274	820	0	0	609591	5	0	5	0
[illegible]	3	0	667	29864	.0274	819	0	0	608100	5	3	2	0
26	2	0	667	29811	.0274	817	0	0	606610	5	2	3	0
27	0	0	667	29758	.0274	816	0	0	605116	5	0	5	0
28	0	0	667	29705	.0274	814	0	0	603624	5	0	5	0
29	0	0	667	29652	.0274	813	0	0	602134	5	0	5	0
30	0	0	667	29599	.0274	812	0	0	600645	5	0	5	0
31	0	0	667	29546	.0274	810	0	0	599158	5	0	5	0
TOT	55	0	255570		.8500	267169	0	50806		1705	55	1650	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ SEP, 1954

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY * *	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	0	0	564	29497	.0240	708	0	0	597876	5	0	5	0
2	0	0	564	29452	.0240	707	0	0	596595	5	0	5	0
3	0	0	564	29406	.0240	706	0	0	595315	5	0	5	0
4	0	0	564	29361	.0240	705	0	0	594036	5	0	5	0
5	0	0	564	29316	.0240	704	0	0	592758	5	0	5	0
6	0	0	564	29270	.0240	702	0	0	591481	5	0	5	0
7	0	0	564	29225	.0240	701	0	0	590206	5	0	5	0
8	0	0	564	29180	.0240	700	0	0	588931	5	0	5	0
9	0	0	564	29134	.0240	699	0	0	587658	5	0	5	0
10	0	0	564	29089	.0240	698	0	0	586386	5	0	5	0
11	0	0	564	29044	.0240	697	0	0	585114	5	0	5	0
12	0	0	564	28999	.0240	696	0	0	583844	5	0	5	0
13	0	0	564	28954	.0240	695	0	0	582575	5	0	5	0
14	0	0	564	28909	.0240	694	0	0	581307	5	0	5	0
15	0	0	564	28864	.0240	693	0	0	580040	5	0	5	0
16	0	0	564	28819	.0240	692	0	0	578774	5	0	5	0
17	0	0	564	28774	.0240	691	0	0	577510	5	0	5	0
18	0	0	564	28729	.0240	690	0	0	576246	5	0	5	0
19	0	0	564	28685	.0240	688	0	0	574983	5	0	5	0
20	0	0	564	28640	.0240	687	0	0	573722	5	0	5	0
21	0	0	564	28595	.0240	686	0	0	572461	5	0	5	0
22	0	0	564	28551	.0240	685	0	0	571202	5	0	5	0
[illegible]	0	0	564	28508	.0240	684	0	0	569943	5	0	5	0
	0	0	564	28464	.0240	683	0	0	568686	5	0	5	0
[illegible]	0	0	564	28420	.0240	682	0	0	567430	5	0	5	0
26	0	0	564	28377	.0240	681	0	0	566175	5	0	5	0
27	0	0	564	28333	.0240	680	0	0	564920	5	0	5	0
28	0	0	564	28290	.0240	679	0	0	563667	5	0	5	0
29	0	0	564	28246	.0240	678	0	0	562415	5	0	5	0
30	0	0	564	28203	.0240	677	0	0	561164	5	0	5	0
TOT	0	0	209102		.7200	215241	0	41569		1650	0	1650	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ OCT, 1954

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	************** FROM STR CFS	STORED CFS
1	31	0	485	28172	.0016	45	0	0	560685	5	5	0	0
2	333	0	485	28166	.0016	45	0	0	560805	5	5	0	0
3	144	0	485	28164	.0016	45	0	0	560549	5	5	0	0
4	127	0	485	28154	.0016	45	0	0	560261	5	5	0	0
5	28	0	485	28141	.0016	45	0	0	559776	5	5	0	0
6	9	0	485	28123	.0016	45	0	0	559253	5	5	0	0
7	1	0	485	28105	.0016	45	0	0	558714	5	1	4	0
8	4	0	485	28086	.0016	45	0	0	558181	5	4	1	0
9	7	0	485	28068	.0016	45	0	0	557655	5	5	0	0
10	2	0	485	28050	.0016	45	0	0	557118	5	2	3	0
11	0	0	485	28031	.0016	45	0	0	556578	5	0	5	0
12	0	0	485	28012	.0016	45	0	0	556037	5	0	5	0
13	0	0	485	27993	.0016	45	0	0	555497	5	0	5	0
14	0	0	485	27975	.0016	45	0	0	554956	5	0	5	0
15	0	0	485	27956	.0016	45	0	0	554416	5	0	5	0
16	0	0	485	27937	.0016	45	0	0	553876	5	0	5	0
17	0	0	485	27918	.0016	45	0	0	553335	5	0	5	0
18	0	0	485	27899	.0016	45	0	0	552795	5	0	5	0
19	0	0	485	27881	.0016	45	0	0	552255	5	0	5	0
20	0	0	485	27862	.0016	45	0	0	551714	5	0	5	0
21	0	0	485	27843	.0016	45	0	0	551174	5	0	5	0
22	1	0	485	27824	.0016	45	0	0	550636	5	1	4	0
[illegible]	1	0	485	27806	.0016	45	0	0	550098	5	1	4	0
	1	0	485	27787	.0016	45	0	0	549560	5	1	4	0
[illegible]	6	0	485	27768	.0016	45	0	0	549031	5	5	0	0
26	4	0	485	27750	.0016	45	0	0	548499	5	4	1	0
27	3	0	485	27731	.0016	45	0	0	547965	5	3	2	0
28	19	0	485	27713	.0016	45	0	0	547463	5	5	0	0
29	63	0	485	27698	.0016	45	0	0	547048	5	5	0	0
30	19	0	485	27682	.0016	45	0	0	546546	5	5	0	0
31	7	0	485	27664	.0016	45	0	0	546019	5	5	0	0
TOT	8910	0	185869		.0500	14481	0	36950		1705	847	858	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ NOV, 1954

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	3	0	502	27644	.0047	129	0	0	545385	5	3	2	0
2	2	0	502	27622	.0047	129	0	0	544749	5	2	3	0
3	7	0	502	27600	.0047	129	0	0	544122	5	5	0	0
4	545	0	502	27596	.0047	129	0	0	544563	5	5	0	0
5	402	0	502	27607	.0047	129	0	0	544720	5	5	0	0
6	72	0	502	27601	.0047	129	0	0	544222	5	5	0	0
7	22	0	502	27582	.0047	129	0	0	543626	5	5	0	0
8	8	0	502	27561	.0047	129	0	0	543002	5	5	0	0
9	2	0	502	27539	.0047	129	0	0	542366	5	2	3	0
10	2	0	502	27517	.0047	128	0	0	541730	5	2	3	0
11	2	0	502	27495	.0047	128	0	0	541094	5	2	3	0
12	2	0	502	27472	.0047	128	0	0	540458	5	2	3	0
13	2	0	502	27450	.0047	128	0	0	539822	5	2	3	0
14	5	0	502	27428	.0047	128	0	0	539193	5	5	0	0
15	47	0	502	27408	.0047	128	0	0	538647	5	5	0	0
16	298	0	502	27398	.0047	128	0	0	538598	5	5	0	0
17	185	0	502	27392	.0047	128	0	0	538326	5	5	0	0
18	52	0	502	27378	.0047	128	0	0	537790	5	5	0	0
19	19	0	502	27358	.0047	128	0	0	537188	5	5	0	0
20	9	0	502	27337	.0047	128	0	0	536567	5	5	0	0
21	2	0	502	27315	.0047	127	0	0	535932	5	2	3	0
22	2	0	502	27293	.0047	127	0	0	535297	5	2	3	0
23	1	0	502	27271	.0047	127	0	0	534661	5	1	4	0
[illegible]	1	0	502	27249	.0047	127	0	0	534024	5	1	4	0
25	1	0	502	27227	.0047	127	0	0	533387	5	1	4	0
26	1	0	502	27205	.0047	127	0	0	532751	5	1	4	0
27	1	0	502	27183	.0047	127	0	0	532115	5	1	4	0
28	0	0	502	27160	.0047	127	0	0	531476	5	0	5	0
29	0	0	502	27138	.0047	127	0	0	530838	5	0	5	0
30	0	0	502	27116	.0047	127	0	0	530200	5	0	5	0
TOT	18645	0	185868		.1400	39810	0	36950		1650	979	671	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ DEC, 1954

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	425	27095	.0055	149	0	0	529617	5	0	5	0
2	0	0	425	27075	.0055	148	0	0	529034	5	0	5	0
3	0	0	425	27054	.0055	148	0	0	528451	5	0	5	0
4	0	0	425	27034	.0055	148	0	0	527868	5	0	5	0
5	0	0	425	27014	.0055	148	0	0	527285	5	0	5	0
6	0	0	425	26994	.0055	148	0	0	526703	5	0	5	0
7	0	0	425	26973	.0055	148	0	0	526120	5	0	5	0
8	0	0	425	26953	.0055	148	0	0	525538	5	0	5	0
9	0	0	425	26933	.0055	148	0	0	524955	5	0	5	0
10	0	0	425	26913	.0055	148	0	0	524373	5	0	5	0
11	0	0	425	26892	.0055	147	0	0	523791	5	0	5	0
12	0	0	425	26872	.0055	147	0	0	523209	5	0	5	0
13	0	0	425	26852	.0055	147	0	0	522627	5	0	5	0
14	0	0	425	26832	.0055	147	0	0	522045	5	0	5	0
15	4	0	425	26812	.0055	147	0	0	521472	5	4	1	0
16	4	0	425	26792	.0055	147	0	0	520898	5	4	1	0
17	3	0	425	26772	.0055	147	0	0	520322	5	3	2	0
18	2	0	425	26752	.0055	147	0	0	519745	5	2	3	0
19	1	0	425	26732	.0055	147	0	0	519166	5	1	4	0
20	1	0	425	26712	.0055	146	0	0	518587	5	1	4	0
21	1	0	425	26691	.0055	146	0	0	518008	5	1	4	0
22	0	0	425	26671	.0055	146	0	0	517427	5	0	5	0
[illegible]	0	0	425	26651	.0055	146	0	0	516846	5	0	5	0
[illegible]	0	0	425	26631	.0055	146	0	0	516265	5	0	5	0
[illegible]	0	0	425	26611	.0055	146	0	0	515685	5	0	5	0
26	0	0	425	26591	.0055	146	0	0	515104	5	0	5	0
27	0	0	425	26570	.0055	146	0	0	514524	5	0	5	0
28	0	0	425	26550	.0055	146	0	0	513944	5	0	5	0
29	0	0	425	26530	.0055	145	0	0	513364	5	0	5	0
30	0	0	425	26510	.0055	145	0	0	512784	5	0	5	0
31	0	0	425	26490	.0055	145	0	0	512204	5	0	5	0
TOT	176	0	162635		.1700	47284	0	32331		1705	176	1529	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JAN, 1955

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	425	26472	.0003	9	0	0	511761	5	0	5	0
2	0	0	425	26457	.0003	9	0	0	511317	5	0	5	0
3	0	0	425	26441	.0003	9	0	0	510874	5	0	5	0
4	0	0	425	26426	.0003	9	0	0	510431	5	0	5	0
5	0	0	425	26410	.0003	9	0	0	509988	5	0	5	0
6	0	0	425	26395	.0003	9	0	0	509545	5	0	5	0
7	0	0	425	26380	.0003	9	0	0	509102	5	0	5	0
8	0	0	425	26364	.0003	9	0	0	508659	5	0	5	0
9	0	0	425	26349	.0003	8	0	0	508216	5	0	5	0
10	0	0	425	26333	.0003	8	0	0	507772	5	0	5	0
11	0	0	425	26318	.0003	8	0	0	507329	5	0	5	0
12	0	0	425	26303	.0003	8	0	0	506886	5	0	5	0
13	0	0	425	26287	.0003	8	0	0	506443	5	0	5	0
14	0	0	425	26272	.0003	8	0	0	506000	5	0	5	0
15	0	0	425	26256	.0003	8	0	0	505557	5	0	5	0
16	0	0	425	26241	.0003	8	0	0	505114	5	0	5	0
17	0	0	425	26226	.0003	8	0	0	504671	5	0	5	0
18	13	0	425	26211	.0003	8	0	0	504253	5	5	0	0
19	332	0	425	26207	.0003	8	0	0	504469	5	5	0	0
20	69	0	425	26206	.0003	8	0	0	504163	5	5	0	0
21	22	0	425	26193	.0003	8	0	0	503763	5	5	0	0
22	10	0	425	26179	.0003	8	0	0	503340	5	5	0	0
[illegible]	4	0	425	26164	.0003	8	0	0	502905	5	4	1	0
	3	0	425	26149	.0003	8	0	0	502468	5	3	2	0
25	2	0	425	26134	.0003	8	0	0	502028	5	2	3	0
26	1	0	425	26119	.0003	8	0	0	501587	5	1	4	0
27	1	0	425	26103	.0003	8	0	0	501146	5	1	4	0
28	1	0	425	26088	.0003	8	0	0	500705	5	1	4	0
29	1	0	425	26073	.0003	8	0	0	500264	5	1	4	0
30	1	0	425	26057	.0003	8	0	0	499823	5	1	4	0
31	1	0	425	26042	.0003	8	0	0	499382	5	1	4	0
TOT	461	0	13166		.0100	263	0	0		155	40	115	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ FEB, 1955

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	1	0	470	26028	-.0046	-120	0	0	499025	5	1	4	0
2	1	0	470	26016	-.0046	-120	0	0	498667	5	1	4	0
3	1	0	470	26003	-.0046	-120	0	0	498310	5	1	4	0
4	75	0	470	25993	-.0046	-120	0	0	498099	5	5	0	0
5	1633	0	470	26040	-.0046	-120	0	0	500979	5	5	0	0
6	363	0	470	26096	-.0046	-120	0	0	501340	5	5	0	0
7	79	0	470	26099	-.0046	-120	0	0	501138	5	5	0	0
8	34	0	470	26090	-.0046	-120	0	0	500846	5	5	0	0
9	16	0	470	26079	-.0046	-120	0	0	500519	5	5	0	0
10	9	0	470	26068	-.0046	-120	0	0	500178	5	5	0	0
11	3	0	470	26056	-.0046	-120	0	0	499824	5	3	2	0
12	2	0	470	26043	-.0046	-120	0	0	499469	5	2	3	0
13	1	0	470	26031	-.0046	-120	0	0	499112	5	1	4	0
14	1	0	470	26019	-.0046	-120	0	0	498755	5	1	4	0
15	1	0	470	26006	-.0046	-120	0	0	498397	5	1	4	0
16	1	0	470	25994	-.0046	-120	0	0	498040	5	1	4	0
17	1	0	470	25981	-.0046	-120	0	0	497682	5	1	4	0
18	1	0	470	25969	-.0046	-120	0	0	497325	5	1	4	0
19	20	0	470	25957	-.0046	-120	0	0	497005	5	5	0	0
20	2615	0	470	26035	-.0046	-120	0	0	501832	5	5	0	0
21	1319	0	470	26159	-.0046	-120	0	0	504090	5	5	0	0
22	122	0	470	26196	-.0046	-121	0	0	503973	5	5	0	0
23	40	0	470	26189	-.0046	-121	0	0	503694	5	5	0	0
	21	0	470	26179	-.0046	-121	0	0	503377	5	5	0	0
[illegible]	10	0	470	26167	-.0046	-120	0	0	503038	5	5	0	0
26	7	0	470	26155	-.0046	-120	0	0	502693	5	5	0	0
27	4	0	470	26143	-.0046	-120	0	0	502342	5	4	1	0
28	3	0	470	26131	-.0046	-120	0	0	501990	5	3	2	0
TOT	70224	0	162635		-.1300	-35254	0	32331		1540	1056	484	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAR, 1955

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	2	0	425	26116	.0026	67	0	0	501492	5	2	3	0
2	2	0	425	26099	.0026	67	0	0	500994	5	2	3	0
3	2	0	425	26082	.0026	67	0	0	500496	5	2	3	0
4	2	0	425	26064	.0026	67	0	0	499998	5	2	3	0
5	2	0	425	26047	.0026	67	0	0	499500	5	2	3	0
6	1	0	425	26030	.0026	67	0	0	499000	5	1	4	0
7	1	0	425	26012	.0026	67	0	0	498500	5	1	4	0
8	1	0	425	25995	.0026	67	0	0	498000	5	1	4	0
9	1	0	425	25978	.0026	67	0	0	497501	5	1	4	0
10	1	0	425	25960	.0026	67	0	0	497001	5	1	4	0
11	1	0	425	25943	.0026	67	0	0	496501	5	1	4	0
12	1	0	425	25925	.0026	67	0	0	496002	5	1	4	0
13	1	0	425	25908	.0026	67	0	0	495502	5	1	4	0
14	1	0	425	25891	.0026	67	0	0	495003	5	1	4	0
15	1	0	425	25873	.0026	67	0	0	494503	5	1	4	0
16	1	0	425	25856	.0026	67	0	0	494004	5	1	4	0
17	1	0	425	25839	.0026	67	0	0	493505	5	1	4	0
18	1	0	425	25821	.0026	67	0	0	493005	5	1	4	0
19	1	0	425	25804	.0026	67	0	0	492506	5	1	4	0
20	1	0	425	25787	.0026	67	0	0	492007	5	1	4	0
21	1506	0	425	25821	.0026	67	0	0	494493	5	5	0	0
22	4438	0	425	26009	.0026	67	0	0	502794	5	5	0	0
[illegible]	1329	0	425	26190	.0026	68	0	0	504928	5	5	0	0
	123	0	425	26222	.0026	68	0	0	504669	5	5	0	0
[illegible]	41	0	425	26211	.0026	68	0	0	504248	5	5	0	0
26	25	0	425	26195	.0026	68	0	0	503796	5	5	0	0
27	14	0	425	26179	.0026	68	0	0	503321	5	5	0	0
28	14	0	425	26163	.0026	68	0	0	502847	5	5	0	0
29	9	0	425	26146	.0026	67	0	0	502363	5	5	0	0
30	3	0	425	26129	.0026	67	0	0	501866	5	3	2	0
31	3	0	425	26112	.0026	67	0	0	501370	5	3	2	0
TOT	82830	0	162635		.0800	21694	0	32331		1705	836	869	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ APR, 1955

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	31	0	502	26096	-.0007	-16	0	0	500938	5	5	0	0
2	63	0	502	26082	-.0007	-16	0	0	500569	5	5	0	0
3	18	0	502	26068	-.0007	-16	0	0	500110	5	5	0	0
4	12	0	502	26051	-.0007	-16	0	0	499640	5	5	0	0
5	8	0	502	26035	-.0007	-16	0	0	499162	5	5	0	0
6	5	0	502	26018	-.0007	-16	0	0	498677	5	5	0	0
7	23	0	502	26002	-.0007	-16	0	0	498229	5	5	0	0
8	42	0	502	25987	-.0007	-16	0	0	497818	5	5	0	0
9	19	0	502	25972	-.0007	-16	0	0	497362	5	5	0	0
10	29	0	502	25956	-.0007	-16	0	0	496925	5	5	0	0
11	468	0	502	25956	-.0007	-16	0	0	497359	5	5	0	0
12	257	0	502	25964	-.0007	-16	0	0	497375	5	5	0	0
13	1925	0	502	26022	-.0007	-16	0	0	500699	5	5	0	0
14	1145	0	502	26111	-.0007	-16	0	0	502476	5	5	0	0
15	256	0	502	26142	-.0007	-16	0	0	502489	5	5	0	0
16	33	0	502	26135	-.0007	-16	0	0	502061	5	5	0	0
17	21	0	502	26119	-.0007	-16	0	0	501608	5	5	0	0
18	21	0	502	26104	-.0007	-16	0	0	501156	5	5	0	0
19	12	0	502	26088	-.0007	-16	0	0	500686	5	5	0	0
20	9	0	502	26071	-.0007	-16	0	0	500209	5	5	0	0
21	16	0	502	26055	-.0007	-16	0	0	499747	5	5	0	0
22	68	0	502	26041	-.0007	-16	0	0	499388	5	5	0	0
[illegible]	27	0	502	26027	-.0007	-16	0	0	498947	5	5	0	0
	12	0	502	26011	-.0007	-16	0	0	498477	5	5	0	0
[illegible]	6	0	502	25994	-.0007	-16	0	0	497995	5	5	0	0
26	3	0	502	25978	-.0007	-16	0	0	497506	5	3	2	0
27	2	0	502	25961	-.0007	-16	0	0	497016	5	2	3	0
28	1	0	502	25943	-.0007	-16	0	0	496524	5	1	4	0
29	1	0	502	25926	-.0007	-16	0	0	496032	5	1	4	0
30	1	0	502	25909	-.0007	-16	0	0	495539	5	1	4	0
TOT	49874	0	185868		-.0200	-5439	0	36950		1650	1463	187	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAY, 1955

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	1	0	485	25891	.0023	58	0	0	494988	5	1	4	0
2	1	0	485	25872	.0023	58	0	0	494436	5	1	4	0
3	0	0	485	25853	.0023	58	0	0	493882	5	0	5	0
4	0	0	485	25834	.0023	58	0	0	493329	5	0	5	0
5	0	0	485	25814	.0023	58	0	0	492775	5	0	5	0
6	0	0	485	25795	.0023	58	0	0	492221	5	0	5	0
7	0	0	485	25776	.0023	58	0	0	491668	5	0	5	0
8	0	0	485	25757	.0023	58	0	0	491114	5	0	5	0
9	9	0	485	25738	.0023	58	0	0	490579	5	5	0	0
10	7	0	485	25719	.0023	58	0	0	490039	5	5	0	0
11	3	0	485	25700	.0023	58	0	0	489492	5	3	2	0
12	7	0	485	25681	.0023	58	0	0	488953	5	5	0	0
13	20	0	485	25663	.0023	58	0	0	488439	5	5	0	0
14	21	0	485	25645	.0023	58	0	0	487927	5	5	0	0
15	55	0	485	25629	.0023	58	0	0	487483	5	5	0	0
16	14	0	485	25612	.0023	58	0	0	486958	5	5	0	0
17	116	0	485	25597	.0023	58	0	0	486635	5	5	0	0
18	101	0	485	25585	.0023	58	0	0	486282	5	5	0	0
19	83	0	485	25572	.0023	58	0	0	485894	5	5	0	0
20	1807	0	485	25618	.0023	58	0	0	488925	5	5	0	0
21	2179	0	485	25736	.0023	58	0	0	492693	5	5	0	0
22	709	0	485	25817	.0023	58	0	0	493546	5	5	0	0
23	134	0	485	25826	.0023	58	0	0	493258	5	5	0	0
	574	0	485	25832	.0023	58	0	0	493843	5	5	0	0
25	141	0	485	25837	.0023	58	0	0	493569	5	5	0	0
26	65	0	485	25825	.0023	58	0	0	493144	5	5	0	0
27	240	0	485	25816	.0023	58	0	0	493067	5	5	0	0
28	191	0	485	25812	.0023	58	0	0	492892	5	5	0	0
29	97	0	485	25802	.0023	58	0	0	492531	5	5	0	0
30	26	0	485	25787	.0023	58	0	0	492029	5	5	0	0
31	17	0	485	25770	.0023	58	0	0	491509	5	5	0	0
TOT	72798	0	185869		.0700	18860	0	26389		1705	1265	440	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUN, 1955

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	10	0	564	25747	.0097	249	0	0	490706	5	5	0	0
2	4	0	564	25719	.0097	249	0	0	489891	5	4	1	0
3	2	0	564	25690	.0097	248	0	0	489073	5	2	3	0
4	2	0	564	25662	.0097	248	0	0	488254	5	2	3	0
5	2	0	564	25633	.0097	248	0	0	487436	5	2	3	0
6	1	0	564	25605	.0097	248	0	0	486617	5	1	4	0
7	1	0	564	25576	.0097	247	0	0	485797	5	1	4	0
8	1	0	564	25548	.0097	247	0	0	484978	5	1	4	0
9	59	0	564	25522	.0097	247	0	0	484274	5	5	0	0
10	156	0	564	25500	.0097	247	0	0	483763	5	5	0	0
11	54	0	564	25479	.0097	246	0	0	483049	5	5	0	0
12	17	0	564	25453	.0097	246	0	0	482263	5	5	0	0
13	10	0	564	25426	.0097	246	0	0	481463	5	5	0	0
14	3	0	564	25398	.0097	246	0	0	480649	5	3	2	0
15	2	0	564	25369	.0097	245	0	0	479834	5	2	3	0
16	69	0	564	25343	.0097	245	0	0	479151	5	5	0	0
17	1337	0	564	25363	.0097	245	0	0	480984	5	5	0	0
18	835	0	564	25410	.0097	246	0	0	481820	5	5	0	0
19	1538	0	564	25463	.0097	246	0	0	484051	5	5	0	0
20	1372	0	564	25535	.0097	247	0	0	485951	5	5	0	0
21	693	0	564	25577	.0097	247	0	0	486504	5	5	0	0
22	600	0	564	25593	.0097	247	0	0	486873	5	5	0	0
[illegible]	117	0	564	25589	.0097	247	0	0	486283	5	5	0	0
	41	0	564	25566	.0097	247	0	0	485543	5	5	0	0
[illegible]	54	0	564	25541	.0097	247	0	0	484829	5	5	0	0
26	36	0	564	25516	.0097	247	0	0	484080	5	5	0	0
27	15	0	564	25489	.0097	246	0	0	483289	5	5	0	0
28	6	0	564	25461	.0097	246	0	0	482480	5	5	0	0
29	2	0	564	25433	.0097	246	0	0	481664	5	2	3	0
30	2	0	564	25404	.0097	246	0	0	480849	5	2	3	0
TOT	77451	0	209102		.2900	77484	0	31361		1650	1287	363	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUL, 1955

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	1	0	667	25372	.0142	360	0	0	479813	5	1	4	0
2	1	0	667	25336	.0142	360	0	0	478778	5	1	4	0
3	1	0	667	25300	.0142	359	0	0	477744	5	1	4	0
4	0	0	667	25264	.0142	359	0	0	476708	5	0	5	0
5	0	0	667	25228	.0142	358	0	0	475672	5	0	5	0
6	0	0	667	25192	.0142	358	0	0	474637	5	0	5	0
7	0	0	667	25157	.0142	357	0	0	473603	5	0	5	0
8	0	0	667	25121	.0142	357	0	0	472569	5	0	5	0
9	0	0	667	25085	.0142	356	0	0	471536	5	0	5	0
10	0	0	667	25049	.0142	356	0	0	470503	5	0	5	0
11	0	0	667	25013	.0142	355	0	0	469471	5	0	5	0
12	0	0	667	24977	.0142	355	0	0	468439	5	0	5	0
13	0	0	667	24941	.0142	354	0	0	467408	5	0	5	0
14	0	0	667	24905	.0142	353	0	0	466377	5	0	5	0
15	0	0	667	24870	.0142	353	0	0	465346	5	0	5	0
16	0	0	667	24834	.0142	352	0	0	464317	5	0	5	0
17	17	0	667	24799	.0142	352	0	0	463321	5	5	0	0
18	63	0	667	24766	.0142	352	0	0	462417	5	5	0	0
19	86	0	667	24735	.0142	351	0	0	461559	5	5	0	0
20	53	0	667	24704	.0142	351	0	0	460637	5	5	0	0
21	14	0	667	24671	.0142	350	0	0	459637	5	5	0	0
22	5	0	667	24636	.0142	350	0	0	458620	5	5	0	0
23	3	0	667	24600	.0142	349	0	0	457599	5	3	2	0
[illegible]	7	0	667	24565	.0142	349	0	0	456587	5	5	0	0
[illegible]	5	0	667	24530	.0142	348	0	0	455572	5	5	0	0
26	2	0	667	24494	.0142	348	0	0	454551	5	2	3	0
27	1	0	667	24459	.0142	347	0	0	453528	5	1	4	0
28	1	0	667	24423	.0142	347	0	0	452506	5	1	4	0
29	0	0	667	24388	.0142	346	0	0	451483	5	0	5	0
30	0	0	667	24352	.0142	346	0	0	450460	5	0	5	0
31	0	0	667	24317	.0142	345	0	0	449437	5	0	5	0
TOT	2860	0	255570		.4400	114505	0	50806		1705	550	1155	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ AUG, 1955

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY * *	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	667	24284	.0068	165	0	0	448595	5	0	5	0
2	0	0	667	24255	.0068	164	0	0	447754	5	0	5	0
3	0	0	667	24226	.0068	164	0	0	446912	5	0	5	0
4	0	0	667	24197	.0068	164	0	0	446071	5	0	5	0
5	0	0	667	24167	.0068	164	0	0	445230	5	0	5	0
6	0	0	667	24138	.0068	164	0	0	444389	5	0	5	0
7	0	0	667	24109	.0068	163	0	0	443549	5	0	5	0
8	0	0	667	24080	.0068	163	0	0	442708	5	0	5	0
9	0	0	667	24051	.0068	163	0	0	441868	5	0	5	0
10	0	0	667	24020	.0068	163	0	0	441028	5	0	5	0
11	26	0	667	23988	.0068	163	0	0	440240	5	5	0	0
12	494	0	667	23976	.0068	162	0	0	440380	5	5	0	0
13	470	0	667	23980	.0068	162	0	0	440472	5	5	0	0
14	91	0	667	23969	.0068	162	0	0	439813	5	5	0	0
15	12	0	667	23940	.0068	162	0	0	438997	5	5	0	0
16	7	0	667	23908	.0068	162	0	0	438172	5	5	0	0
17	2	0	667	23875	.0068	162	0	0	437337	5	2	3	0
18	146	0	667	23848	.0068	162	0	0	436788	5	5	0	0
19	445	0	667	23838	.0068	161	0	0	436831	5	5	0	0
20	208	0	667	23830	.0068	161	0	0	436405	5	5	0	0
21	91	0	667	23809	.0068	161	0	0	435747	5	5	0	0
22	13	0	667	23780	.0068	161	0	0	434934	5	5	0	0
[illegible]	4	0	667	23747	.0068	161	0	0	434104	5	4	1	0
[illegible]	2	0	667	23715	.0068	161	0	0	433270	5	2	3	0
25	1	0	667	23682	.0068	160	0	0	432434	5	1	4	0
26	1	0	667	23649	.0068	160	0	0	431599	5	1	4	0
27	0	0	667	23616	.0068	160	0	0	430762	5	0	5	0
28	0	0	667	23583	.0068	160	0	0	429925	5	0	5	0
29	0	0	667	23550	.0068	160	0	0	429088	5	0	5	0
30	0	0	667	23517	.0068	159	0	0	428251	5	0	5	0
31	866	0	667	23518	.0068	159	0	0	429132	5	5	0	0
TOT	31669	0	255570		.2100	52619	0	50806		1705	770	935	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ SEP, 1955

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY * *	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	1053	0	564	23561	.0083	196	0	0	430450	5	5	0	0
2	571	0	564	23594	.0083	197	0	0	430812	5	5	0	0
3	49	0	564	23588	.0083	197	0	0	430138	5	5	0	0
4	12	0	564	23560	.0083	196	0	0	429392	5	5	0	0
5	8	0	564	23531	.0083	196	0	0	428637	5	5	0	0
6	4	0	564	23501	.0083	196	0	0	427875	5	4	1	0
7	3	0	564	23471	.0083	196	0	0	427111	5	3	2	0
8	3	0	564	23441	.0083	195	0	0	426348	5	3	2	0
9	3	0	564	23410	.0083	195	0	0	425584	5	3	2	0
10	3	0	564	23380	.0083	195	0	0	424821	5	3	2	0
11	2	0	564	23350	.0083	195	0	0	424057	5	2	3	0
12	2	0	564	23320	.0083	194	0	0	423292	5	2	3	0
13	2	0	564	23290	.0083	194	0	0	422528	5	2	3	0
14	2	0	564	23260	.0083	194	0	0	421764	5	2	3	0
15	4	0	564	23230	.0083	194	0	0	421004	5	4	1	0
16	4	0	564	23200	.0083	193	0	0	420244	5	4	1	0
17	3	0	564	23170	.0083	193	0	0	419483	5	3	2	0
18	2	0	564	23140	.0083	193	0	0	418720	5	2	3	0
19	2	0	564	23110	.0083	193	0	0	417957	5	2	3	0
20	2	0	564	23080	.0083	192	0	0	417194	5	2	3	0
21	2	0	564	23050	.0083	192	0	0	416432	5	2	3	0
22	76	0	564	23023	.0083	192	0	0	415817	5	5	0	0
[illegible]	53	0	564	22998	.0083	192	0	0	415156	5	5	0	0
[illegible]	404	0	564	22985	.0083	192	0	0	415192	5	5	0	0
[illegible]	1394	0	564	23025	.0083	192	0	0	417191	5	5	0	0
26	322	0	564	23062	.0083	192	0	0	417063	5	5	0	0
27	57	0	564	23047	.0083	192	0	0	416410	5	5	0	0
28	28	0	564	23020	.0083	192	0	0	415699	5	5	0	0
29	11	0	564	22991	.0083	192	0	0	414955	5	5	0	0
30	5	0	564	22962	.0083	191	0	0	414200	5	5	0	0
TOT	44946	0	209102		.2500	61103	0	40847		1650	1243	407	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ OCT, 1955

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	1	0	485	22930	.0165	377	0	0	413329	5	1	4	0
2	74	0	485	22898	.0165	377	0	0	412604	5	5	0	0
3	131	0	485	22872	.0165	376	0	0	411992	5	5	0	0
4	25	0	485	22844	.0165	376	0	0	411171	5	5	0	0
5	8	0	485	22811	.0165	375	0	0	410316	5	5	0	0
6	3	0	485	22777	.0165	375	0	0	409452	5	3	2	0
7	3	0	485	22743	.0165	374	0	0	408588	5	3	2	0
8	1	0	485	22709	.0165	374	0	0	407721	5	1	4	0
9	1	0	485	22675	.0165	373	0	0	406855	5	1	4	0
10	10	0	485	22641	.0165	372	0	0	406007	5	5	0	0
11	5	0	485	22607	.0165	372	0	0	405150	5	5	0	0
12	1	0	485	22573	.0165	371	0	0	404285	5	1	4	0
13	0	0	485	22539	.0165	371	0	0	403419	5	0	5	0
14	0	0	485	22505	.0165	370	0	0	402554	5	0	5	0
15	0	0	485	22471	.0165	370	0	0	401689	5	0	5	0
16	0	0	485	22437	.0165	369	0	0	400824	5	0	5	0
17	0	0	485	22403	.0165	369	0	0	399960	5	0	5	0
18	0	0	485	22369	.0165	368	0	0	399097	5	0	5	0
19	0	0	485	22335	.0165	367	0	0	398234	5	0	5	0
20	0	0	485	22301	.0165	367	0	0	397372	5	0	5	0
21	0	0	485	22267	.0165	366	0	0	396510	5	0	5	0
22	0	0	485	22233	.0165	366	0	0	395649	5	0	5	0
[illegible]	0	0	485	22199	.0165	365	0	0	394789	5	0	5	0
[illegible]	0	0	485	22165	.0165	365	0	0	393929	5	0	5	0
[illegible]	0	0	485	22131	.0165	364	0	0	393069	5	0	5	0
26	0	0	485	22097	.0165	364	0	0	392210	5	0	5	0
27	0	0	485	22064	.0165	363	0	0	391352	5	0	5	0
28	0	0	485	22030	.0165	362	0	0	390494	5	0	5	0
29	0	0	485	21996	.0165	362	0	0	389637	5	0	5	0
30	0	0	485	21962	.0165	361	0	0	388781	5	0	5	0
31	0	0	485	21929	.0165	361	0	0	387925	5	0	5	0
TOT	2893	0	185869		.5100	120578	0	36950		1705	440	1265	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ NOV, 1955

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	502	21896	.0133	292	0	0	387121	5	0	5	0
2	0	0	502	21864	.0133	292	0	0	386318	5	0	5	0
3	0	0	502	21833	.0133	291	0	0	385516	5	0	5	0
4	0	0	502	21801	.0133	291	0	0	384713	5	0	5	0
5	0	0	502	21769	.0133	290	0	0	383912	5	0	5	0
6	0	0	502	21738	.0133	290	0	0	383110	5	0	5	0
7	0	0	502	21706	.0133	289	0	0	382309	5	0	5	0
8	0	0	502	21675	.0133	289	0	0	381509	5	0	5	0
9	0	0	502	21643	.0133	289	0	0	380709	5	0	5	0
10	0	0	502	21612	.0133	288	0	0	379909	5	0	5	0
11	0	0	502	21580	.0133	288	0	0	379110	5	0	5	0
12	0	0	502	21549	.0133	287	0	0	378311	5	0	5	0
13	0	0	502	21517	.0133	287	0	0	377513	5	0	5	0
14	0	0	502	21486	.0133	286	0	0	376715	5	0	5	0
15	0	0	502	21454	.0133	286	0	0	375917	5	0	5	0
16	0	0	502	21423	.0133	286	0	0	375120	5	0	5	0
17	0	0	502	21391	.0133	285	0	0	374323	5	0	5	0
18	0	0	502	21360	.0133	285	0	0	373527	5	0	5	0
19	0	0	502	21329	.0133	284	0	0	372731	5	0	5	0
20	0	0	502	21297	.0133	284	0	0	371936	5	0	5	0
21	0	0	502	21266	.0133	284	0	0	371141	5	0	5	0
22	0	0	502	21235	.0133	283	0	0	370346	5	0	5	0
23	0	0	502	21203	.0133	283	0	0	369552	5	0	5	0
[illegible]	0	0	502	21172	.0133	282	0	0	368758	5	0	5	0
25	0	0	502	21141	.0133	282	0	0	367965	5	0	5	0
26	0	0	502	21110	.0133	281	0	0	367172	5	0	5	0
27	0	0	502	21078	.0133	281	0	0	366379	5	0	5	0
28	0	0	502	21047	.0133	281	0	0	365587	5	0	5	0
29	0	0	502	21016	.0133	280	0	0	364795	5	0	5	0
30	0	0	502	20985	.0133	280	0	0	364004	5	0	5	0
TOT	0	0	185868		.4000	90570	0	46115		1650	0	1650	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ DEC, 1955

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	425	20958	.0052	108	0	0	363461	5	0	5	0
2	0	0	425	20937	.0052	108	0	0	362918	5	0	5	0
3	0	0	425	20916	.0052	108	0	0	362376	5	0	5	0
4	0	0	425	20894	.0052	108	0	0	361833	5	0	5	0
5	0	0	425	20873	.0052	108	0	0	361291	5	0	5	0
6	0	0	425	20852	.0052	108	0	0	360749	5	0	5	0
7	0	0	425	20830	.0052	108	0	0	360207	5	0	5	0
8	0	0	425	20809	.0052	107	0	0	359665	5	0	5	0
9	0	0	425	20788	.0052	107	0	0	359123	5	0	5	0
10	0	0	425	20766	.0052	107	0	0	358581	5	0	5	0
11	0	0	425	20745	.0052	107	0	0	358039	5	0	5	0
12	0	0	425	20723	.0052	107	0	0	357498	5	0	5	0
13	0	0	425	20702	.0052	107	0	0	356956	5	0	5	0
14	0	0	425	20681	.0052	107	0	0	356415	5	0	5	0
15	0	0	425	20659	.0052	107	0	0	355874	5	0	5	0
16	0	0	425	20638	.0052	107	0	0	355332	5	0	5	0
17	0	0	425	20617	.0052	106	0	0	354791	5	0	5	0
18	0	0	425	20596	.0052	106	0	0	354250	5	0	5	0
19	0	0	425	20574	.0052	106	0	0	353710	5	0	5	0
20	0	0	425	20553	.0052	106	0	0	353169	5	0	5	0
21	0	0	425	20532	.0052	106	0	0	352628	5	0	5	0
22	0	0	425	20510	.0052	106	0	0	352088	5	0	5	0
[illegible]	0	0	425	20489	.0052	106	0	0	351547	5	0	5	0
[illegible]	0	0	425	20468	.0052	106	0	0	351007	5	0	5	0
[illegible]	0	0	425	20446	.0052	106	0	0	350467	5	0	5	0
26	0	0	425	20425	.0052	105	0	0	349927	5	0	5	0
27	0	0	425	20404	.0052	105	0	0	349387	5	0	5	0
28	0	0	425	20383	.0052	105	0	0	348847	5	0	5	0
29	0	0	425	20361	.0052	105	0	0	348308	5	0	5	0
30	0	0	425	20340	.0052	105	0	0	347768	5	0	5	0
31	0	0	425	20319	.0052	105	0	0	347228	5	0	5	0
TOT	0	0	162635		.1600	35040	0	48497		1705	0	1705	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JAN, 1956

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	425	20299	.0006	13	0	0	346781	5	0	5	0
2	0	0	425	20282	.0006	13	0	0	346333	5	0	5	0
3	0	0	425	20264	.0006	13	0	0	345885	5	0	5	0
4	0	0	425	20246	.0006	13	0	0	345438	5	0	5	0
5	0	0	425	20229	.0006	13	0	0	344990	5	0	5	0
6	0	0	425	20211	.0006	13	0	0	344542	5	0	5	0
7	0	0	425	20194	.0006	13	0	0	344095	5	0	5	0
8	0	0	425	20176	.0006	13	0	0	343647	5	0	5	0
9	0	0	425	20158	.0006	13	0	0	343199	5	0	5	0
10	0	0	425	20141	.0006	13	0	0	342752	5	0	5	0
11	0	0	425	20123	.0006	13	0	0	342304	5	0	5	0
12	0	0	425	20105	.0006	13	0	0	341857	5	0	5	0
13	0	0	425	20088	.0006	13	0	0	341409	5	0	5	0
14	0	0	425	20070	.0006	13	0	0	340961	5	0	5	0
15	0	0	425	20052	.0006	13	0	0	340514	5	0	5	0
16	0	0	425	20035	.0006	13	0	0	340066	5	0	5	0
17	0	0	425	20017	.0006	13	0	0	339619	5	0	5	0
18	0	0	425	20000	.0006	13	0	0	339171	5	0	5	0
19	0	0	425	19982	.0006	13	0	0	338724	5	0	5	0
20	0	0	425	19964	.0006	13	0	0	338276	5	0	5	0
21	0	0	425	19947	.0006	13	0	0	337829	5	0	5	0
22	118	0	425	19934	.0006	13	0	0	337615	5	5	0	0
[illegible]	693	0	425	19948	.0006	13	0	0	338542	5	5	0	0
[illegible]	183	0	425	19964	.0006	13	0	0	338458	5	5	0	0
25	46	0	425	19956	.0006	13	0	0	338101	5	5	0	0
26	22	0	425	19941	.0006	13	0	0	337698	5	5	0	0
27	9	0	425	19924	.0006	13	0	0	337268	5	5	0	0
28	3	0	425	19907	.0006	13	0	0	336826	5	3	2	0
29	2	0	425	19890	.0006	13	0	0	336383	5	2	3	0
30	1	0	425	19872	.0006	13	0	0	335937	5	1	4	0
31	0	0	425	19855	.0006	13	0	0	335490	5	0	5	0
TOT	1077	0	13166		.0200	401	0	0		155	36	119	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ FEB, 1956

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	49	0	454	19840	-.0034	-67	0	0	335192	5	5	0	0
2	1138	0	454	19871	-.0034	-68	0	0	337053	5	5	0	0
3	493	0	454	19919	-.0034	-68	0	0	337636	5	5	0	0
4	137	0	454	19928	-.0034	-68	0	0	337513	5	5	0	0
5	523	0	454	19938	-.0034	-68	0	0	338155	5	5	0	0
6	906	0	454	19978	-.0034	-68	0	0	339557	5	5	0	0
7	468	0	454	20016	-.0034	-68	0	0	340090	5	5	0	0
8	953	0	454	20056	-.0034	-68	0	0	341586	5	5	0	0
9	3002	0	454	20195	-.0034	-69	0	0	347146	5	5	0	0
10	780	0	454	20328	-.0034	-69	0	0	348299	5	5	0	0
11	161	0	454	20349	-.0034	-69	0	0	348225	5	5	0	0
12	56	0	454	20342	-.0034	-69	0	0	347942	5	5	0	0
13	32	0	454	20330	-.0034	-69	0	0	347612	5	5	0	0
14	21	0	454	20316	-.0034	-69	0	0	347259	5	5	0	0
15	14	0	454	20302	-.0034	-69	0	0	346893	5	5	0	0
16	10	0	454	20288	-.0034	-69	0	0	346519	5	5	0	0
17	23	0	454	20273	-.0034	-69	0	0	346171	5	5	0	0
18	210	0	454	20267	-.0034	-69	0	0	346193	5	5	0	0
19	463	0	454	20278	-.0034	-69	0	0	346718	5	5	0	0
20	148	0	454	20286	-.0034	-69	0	0	346617	5	5	0	0
21	45	0	454	20278	-.0034	-69	0	0	346312	5	5	0	0
22	26	0	454	20265	-.0034	-69	0	0	345970	5	5	0	0
23	16	0	454	20251	-.0034	-69	0	0	345608	5	5	0	0
	14	0	454	20237	-.0034	-69	0	0	345241	5	5	0	0
	14	0	454	20223	-.0034	-69	0	0	344875	5	5	0	0
26	11	0	454	20208	-.0034	-69	0	0	344502	5	5	0	0
27	7	0	454	20193	-.0034	-69	0	0	344122	5	5	0	0
28	3	0	454	20178	-.0034	-69	0	0	343734	5	3	2	0
29	2	0	454	20163	-.0034	-69	0	0	343343	5	2	3	0
TOT	106975	0	162635		-.1000	-21605	0	26686		1595	1540	55	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAR, 1956

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	1	0	425	20144	.0068	136	0	0	342774	5	1	4	0
2	0	0	425	20121	.0068	136	0	0	342203	5	0	5	0
3	0	0	425	20099	.0068	136	0	0	341632	5	0	5	0
4	0	0	425	20076	.0068	136	0	0	341062	5	0	5	0
5	3	0	425	20054	.0068	136	0	0	340497	5	3	2	0
6	4	0	425	20032	.0068	136	0	0	339935	5	4	1	0
7	4	0	425	20010	.0068	136	0	0	339372	5	4	1	0
8	1	0	425	19987	.0068	135	0	0	338804	5	1	4	0
9	0	0	425	19965	.0068	135	0	0	338235	5	0	5	0
10	0	0	425	19943	.0068	135	0	0	337665	5	0	5	0
11	0	0	425	19920	.0068	135	0	0	337095	5	0	5	0
12	0	0	425	19898	.0068	135	0	0	336526	5	0	5	0
13	0	0	425	19875	.0068	135	0	0	335957	5	0	5	0
14	0	0	425	19853	.0068	134	0	0	335387	5	0	5	0
15	0	0	425	19830	.0068	134	0	0	334819	5	0	5	0
16	0	0	425	19808	.0068	134	0	0	334250	5	0	5	0
17	0	0	425	19786	.0068	134	0	0	333681	5	0	5	0
18	0	0	425	19763	.0068	134	0	0	333113	5	0	5	0
19	0	0	425	19741	.0068	134	0	0	332544	5	0	5	0
20	0	0	425	19719	.0068	134	0	0	331976	5	0	5	0
21	0	0	425	19697	.0068	133	0	0	331408	5	0	5	0
22	0	0	425	19675	.0068	133	0	0	330840	5	0	5	0
[illegible]	0	0	425	19654	.0068	133	0	0	330272	5	0	5	0
	0	0	425	19632	.0068	133	0	0	329705	5	0	5	0
25	0	0	425	19610	.0068	133	0	0	329137	5	0	5	0
26	0	0	425	19589	.0068	133	0	0	328570	5	0	5	0
27	0	0	425	19567	.0068	133	0	0	328003	5	0	5	0
28	0	0	425	19546	.0068	132	0	0	327436	5	0	5	0
29	0	0	425	19524	.0068	132	0	0	326869	5	0	5	0
30	0	0	425	19502	.0068	132	0	0	326302	5	0	5	0
31	0	0	425	19481	.0068	132	0	0	325735	5	0	5	0
TOT	143	0	162635		.2100	44680	0	46264		1705	143	1562	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ APR, 1956

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	502	19458	.0053	104	0	0	325120	5	0	5	0
2	0	0	502	19435	.0053	104	0	0	324505	5	0	5	0
3	0	0	502	19412	.0053	104	0	0	323890	5	0	5	0
4	0	0	502	19388	.0053	103	0	0	323275	5	0	5	0
5	0	0	502	19365	.0053	103	0	0	322660	5	0	5	0
6	90	0	502	19345	.0053	103	0	0	322224	5	5	0	0
7	77	0	502	19328	.0053	103	0	0	321762	5	5	0	0
8	7	0	502	19307	.0053	103	0	0	321162	5	5	0	0
9	14	0	502	19285	.0053	103	0	0	320575	5	5	0	0
10	6	0	502	19262	.0053	103	0	0	319973	5	5	0	0
11	2	0	502	19239	.0053	103	0	0	319363	5	2	3	0
12	2	0	502	19216	.0053	102	0	0	318753	5	2	3	0
13	1	0	502	19193	.0053	102	0	0	318141	5	1	4	0
14	0	0	502	19169	.0053	102	0	0	317527	5	0	5	0
15	0	0	502	19146	.0053	102	0	0	316914	5	0	5	0
16	0	0	502	19122	.0053	102	0	0	316300	5	0	5	0
17	0	0	502	19099	.0053	102	0	0	315687	5	0	5	0
18	0	0	502	19076	.0053	102	0	0	315073	5	0	5	0
19	0	0	502	19052	.0053	102	0	0	314460	5	0	5	0
20	0	0	502	19029	.0053	101	0	0	313847	5	0	5	0
21	0	0	502	19006	.0053	101	0	0	313234	5	0	5	0
22	0	0	502	18982	.0053	101	0	0	312622	5	0	5	0
[illegible]	0	0	502	18959	.0053	101	0	0	312009	5	0	5	0
	0	0	502	18936	.0053	101	0	0	311397	5	0	5	0
[illegible]	0	0	502	18912	.0053	101	0	0	310784	5	0	5	0
26	0	0	502	18889	.0053	101	0	0	310172	5	0	5	0
27	0	0	502	18866	.0053	101	0	0	309560	5	0	5	0
28	0	0	502	18842	.0053	100	0	0	308948	5	0	5	0
29	0	0	502	18819	.0053	100	0	0	308336	5	0	5	0
30	1	0	502	18796	.0053	100	0	0	307726	5	1	4	0
TOT	2200	0	185868		.1600	33061	0	55425		1650	341	1309	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAY, 1956

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	437	0	485	18790	.0039	73	0	0	308025	5	5	0	0
2	11518	0	485	19220	.0039	74	0	0	330301	5	5	0	0
3	15690	0	485	20243	.0039	78	0	0	360848	5	5	0	0
4	5741	0	485	21058	.0039	82	0	0	371658	5	5	0	0
5	671	0	485	21286	.0039	82	0	0	372411	5	5	0	0
6	148	0	485	21295	.0039	82	0	0	372127	5	5	0	0
7	73	0	485	21281	.0039	82	0	0	371694	5	5	0	0
8	44	0	485	21263	.0039	82	0	0	371204	5	5	0	0
9	30	0	485	21243	.0039	82	0	0	370686	5	5	0	0
10	20	0	485	21222	.0039	82	0	0	370148	5	5	0	0
11	17	0	485	21201	.0039	82	0	0	369604	5	5	0	0
12	11	0	485	21179	.0039	82	0	0	369049	5	5	0	0
13	9	0	485	21157	.0039	82	0	0	368490	5	5	0	0
14	7	0	485	21135	.0039	82	0	0	367926	5	5	0	0
15	5	0	485	21113	.0039	82	0	0	367359	5	5	0	0
16	4	0	485	21090	.0039	82	0	0	366790	5	4	1	0
17	3	0	485	21068	.0039	82	0	0	366219	5	3	2	0
18	1	0	485	21045	.0039	81	0	0	365645	5	1	4	0
19	1	0	485	21022	.0039	81	0	0	365070	5	1	4	0
20	1	0	485	21000	.0039	81	0	0	364495	5	1	4	0
21	1	0	485	20977	.0039	81	0	0	363921	5	1	4	0
22	0	0	485	20955	.0039	81	0	0	363344	5	0	5	0
[illegible]	0	0	485	20932	.0039	81	0	0	362768	5	0	5	0
[illegible]	0	0	485	20909	.0039	81	0	0	362192	5	0	5	0
[illegible]	0	0	485	20886	.0039	81	0	0	361616	5	0	5	0
26	0	0	485	20864	.0039	81	0	0	361039	5	0	5	0
27	0	0	485	20841	.0039	81	0	0	360463	5	0	5	0
28	0	0	485	20818	.0039	81	0	0	359888	5	0	5	0
29	0	0	485	20796	.0039	80	0	0	359312	5	0	5	0
30	0	0	485	20773	.0039	80	0	0	358736	5	0	5	0
31	0	0	485	20750	.0039	80	0	0	358160	5	0	5	0
TOT	378752	0	185869		.1200	27155	0	1788		1705	946	759	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUN, 1956

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

	TOTAL*	UPSTREAM*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-DAY*	***** REQ. RELEASE		**************	
DAY	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	FROM STR	STORED
* *	CFS*	CFS*	AC-FT*	ACRES*	FEET*	AC-FT*	CFS*	AC-FT*	AC-FT *	CFS	CFS	CFS	CFS
1	5	0	564	20723	.0127	262	0	0	357334	5	5	0	0
2	21	0	564	20691	.0127	262	0	0	356539	5	5	0	0
3	23	0	564	20659	.0127	262	0	0	355749	5	5	0	0
4	884	0	564	20662	.0127	262	0	0	356666	5	5	0	0
5	1928	0	564	20739	.0127	263	0	0	359654	5	5	0	0
6	538	0	564	20802	.0127	263	0	0	359883	5	5	0	0
7	84	0	564	20794	.0127	263	0	0	359212	5	5	0	0
8	31	0	564	20765	.0127	263	0	0	358436	5	5	0	0
9	15	0	564	20734	.0127	263	0	0	357629	5	5	0	0
10	6	0	564	20702	.0127	262	0	0	356805	5	5	0	0
11	2	0	564	20669	.0127	262	0	0	355973	5	2	3	0
12	2	0	564	20636	.0127	261	0	0	355141	5	2	3	0
13	1	0	564	20604	.0127	261	0	0	354308	5	1	4	0
14	1	0	564	20571	.0127	261	0	0	353475	5	1	4	0
15	0	0	564	20538	.0127	260	0	0	352641	5	0	5	0
16	0	0	564	20505	.0127	260	0	0	351807	5	0	5	0
17	0	0	564	20472	.0127	259	0	0	350973	5	0	5	0
18	0	0	564	20439	.0127	259	0	0	350140	5	0	5	0
19	0	0	564	20407	.0127	258	0	0	349308	5	0	5	0
20	0	0	564	20374	.0127	258	0	0	348475	5	0	5	0
21	0	0	564	20341	.0127	258	0	0	347644	5	0	5	0
22	0	0	564	20308	.0127	257	0	0	346812	5	0	5	0
23	0	0	564	20275	.0127	257	0	0	345981	5	0	5	0
	0	0	564	20243	.0127	256	0	0	345151	5	0	5	0
25	0	0	564	20210	.0127	256	0	0	344320	5	0	5	0
26	0	0	564	20177	.0127	256	0	0	343491	5	0	5	0
27	0	0	564	20145	.0127	255	0	0	342661	5	0	5	0
28	0	0	564	20112	.0127	255	0	0	341832	5	0	5	0
29	0	0	564	20079	.0127	254	0	0	341004	5	0	5	0
30	0	0	564	20047	.0127	254	0	0	340176	5	0	5	0
TOT	38951	0	209102		.3800	84017	0	13385		1650	616	1034	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUL, 1956

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	0	0	667	20007	.0252	503	0	0	338995	5	0	5	0
2	0	0	667	19961	.0252	502	0	0	337815	5	0	5	0
3	0	0	667	19914	.0252	501	0	0	336637	5	0	5	0
4	0	0	667	19868	.0252	500	0	0	335460	5	0	5	0
5	0	0	667	19821	.0252	499	0	0	334284	5	0	5	0
6	0	0	667	19775	.0252	498	0	0	333109	5	0	5	0
7	0	0	667	19729	.0252	496	0	0	331935	5	0	5	0
8	0	0	667	19684	.0252	495	0	0	330763	5	0	5	0
9	0	0	667	19639	.0252	494	0	0	329591	5	0	5	0
10	0	0	667	19595	.0252	493	0	0	328421	5	0	5	0
11	0	0	667	19550	.0252	492	0	0	327252	5	0	5	0
12	0	0	667	19506	.0252	491	0	0	326083	5	0	5	0
13	0	0	667	19461	.0252	490	0	0	324917	5	0	5	0
14	0	0	667	19417	.0252	489	0	0	323751	5	0	5	0
15	0	0	667	19372	.0252	487	0	0	322586	5	0	5	0
16	0	0	667	19328	.0252	486	0	0	321422	5	0	5	0
17	0	0	667	19284	.0252	485	0	0	320260	5	0	5	0
18	0	0	667	19239	.0252	484	0	0	319098	5	0	5	0
19	0	0	667	19195	.0252	483	0	0	317938	5	0	5	0
20	5	0	667	19151	.0252	482	0	0	316789	5	5	0	0
21	2	0	667	19107	.0252	481	0	0	315635	5	2	3	0
22	2	0	667	19064	.0252	480	0	0	314482	5	2	3	0
23	0	0	667	19020	.0252	479	0	0	313326	5	0	5	0
	0	0	667	18976	.0252	477	0	0	312171	5	0	5	0
[illegible]	0	0	667	18932	.0252	476	0	0	311017	5	0	5	0
26	0	0	667	18888	.0252	475	0	0	309865	5	0	5	0
27	0	0	667	18844	.0252	474	0	0	308713	5	0	5	0
28	0	0	667	18800	.0252	473	0	0	307563	5	0	5	0
29	0	0	667	18756	.0252	472	0	0	306414	5	0	5	0
30	0	0	667	18712	.0252	471	0	0	305266	5	0	5	0
31	0	0	667	18669	.0252	470	0	0	304119	5	0	5	0
TOT	99	0	255570		.7800	163070	0	60314		1705	99	1606	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ AUG, 1956

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL INFLOW CFS	UPSTREAM SPILLS CFS	DAILY DEMAND AC-FT	RES. AREA ACRES	EVAP DEPTH FEET	EVAP LOSS AC-FT	DWNSTRM SPILLS CFS	DEMAND SHTGE. AC-FT	E-O-DAY CONTENT AC-FT	REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	667	18626	.0226	421	0	0	303021	5	0	5	0
2	0	0	667	18584	.0226	420	0	0	301924	5	0	5	0
3	0	0	667	18542	.0226	419	0	0	300828	5	0	5	0
4	0	0	667	18501	.0226	418	0	0	299733	5	0	5	0
5	0	0	667	18459	.0226	417	0	0	298639	5	0	5	0
6	0	0	667	18417	.0226	416	0	0	297545	5	0	5	0
7	0	0	667	18376	.0226	415	0	0	296453	5	0	5	0
8	0	0	667	18334	.0226	414	0	0	295362	5	0	5	0
9	0	0	667	18293	.0226	413	0	0	294271	5	0	5	0
10	0	0	667	18251	.0226	412	0	0	293182	5	0	5	0
11	0	0	667	18210	.0226	411	0	0	292093	5	0	5	0
12	0	0	667	18168	.0226	410	0	0	291006	5	0	5	0
13	0	0	667	18127	.0226	409	0	0	289919	5	0	5	0
14	0	0	667	18086	.0226	408	0	0	288834	5	0	5	0
15	0	0	667	18044	.0226	407	0	0	287749	5	0	5	0
16	0	0	667	18003	.0226	407	0	0	286665	5	0	5	0
17	0	0	667	17962	.0226	406	0	0	285582	5	0	5	0
18	0	0	667	17920	.0226	405	0	0	284500	5	0	5	0
19	0	0	667	17879	.0226	404	0	0	283419	5	0	5	0
20	0	0	667	17838	.0226	403	0	0	282339	5	0	5	0
21	0	0	667	17797	.0226	402	0	0	281260	5	0	5	0
22	0	0	667	17756	.0226	401	0	0	280182	5	0	5	0
[illegible]	0	0	667	17715	.0226	400	0	0	279104	5	0	5	0
	0	0	667	17674	.0226	399	0	0	278028	5	0	5	0
[illegible]	0	0	667	17633	.0226	398	0	0	276952	5	0	5	0
26	0	0	667	17592	.0226	397	0	0	275878	5	0	5	0
27	0	0	667	17551	.0226	396	0	0	274804	5	0	5	0
28	0	0	667	17510	.0226	395	0	0	273731	5	0	5	0
29	0	0	667	17469	.0226	394	0	0	272660	5	0	5	0
30	5	0	667	17429	.0226	394	0	0	271599	5	5	0	0
31	44	0	667	17390	.0226	393	0	0	270616	5	5	0	0
TOT	539	0	255570		.7000	137333	0	76209		1705	110	1595	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ SEP, 1956

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY * *	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. NEED CFS	RELEASE PASSED CFS	FROM STR CFS	************** STORED CFS
1	8	0	564	17353	.0217	376	0	0	269682	5	5	0	0
2	1	0	564	17318	.0217	375	0	0	268734	5	1	4	0
3	0	0	564	17281	.0217	374	0	0	267786	5	0	5	0
4	0	0	564	17245	.0217	374	0	0	266838	5	0	5	0
5	0	0	564	17209	.0217	373	0	0	265891	5	0	5	0
6	0	0	564	17173	.0217	372	0	0	264944	5	0	5	0
7	0	0	564	17137	.0217	371	0	0	263999	5	0	5	0
8	0	0	564	17101	.0217	371	0	0	263054	5	0	5	0
9	0	0	564	17065	.0217	370	0	0	262110	5	0	5	0
10	0	0	564	17029	.0217	369	0	0	261167	5	0	5	0
11	0	0	564	16993	.0217	368	0	0	260225	5	0	5	0
12	0	0	564	16957	.0217	367	0	0	259283	5	0	5	0
13	0	0	564	16922	.0217	367	0	0	258342	5	0	5	0
14	0	0	564	16886	.0217	366	0	0	257402	5	0	5	0
15	0	0	564	16850	.0217	365	0	0	256463	5	0	5	0
16	0	0	564	16814	.0217	364	0	0	255524	5	0	5	0
17	0	0	564	16779	.0217	364	0	0	254587	5	0	5	0
18	0	0	564	16743	.0217	363	0	0	253650	5	0	5	0
19	0	0	564	16707	.0217	362	0	0	252714	5	0	5	0
20	0	0	564	16672	.0217	361	0	0	251778	5	0	5	0
21	0	0	564	16636	.0217	360	0	0	250844	5	0	5	0
22	0	0	564	16600	.0217	360	0	0	249910	5	0	5	0
[illegible]	0	0	564	16565	.0217	359	0	0	248977	5	0	5	0
	0	0	564	16529	.0217	358	0	0	248044	5	0	5	0
[illegible]	0	0	564	16494	.0217	357	0	0	247113	5	0	5	0
26	0	0	564	16458	.0217	357	0	0	246182	5	0	5	0
27	0	0	564	16423	.0217	356	0	0	245252	5	0	5	0
28	0	0	564	16388	.0217	355	0	0	244323	5	0	5	0
29	0	0	564	16352	.0217	354	0	0	243394	5	0	5	0
30	0	0	564	16317	.0217	354	0	0	242467	5	0	5	0
TOT	99	0	209102		.6500	120198	0	62353		1650	66	1584	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ OCT, 1956

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED ************** CFS
1	0	0	485	16285	.0135	221	0	0	241751	5	0	5	0
2	0	0	485	16254	.0135	220	0	0	241035	5	0	5	0
3	0	0	485	16224	.0135	220	0	0	240320	5	0	5	0
4	0	0	485	16194	.0135	219	0	0	239605	5	0	5	0
5	0	0	485	16164	.0135	219	0	0	238891	5	0	5	0
6	0	0	485	16134	.0135	219	0	0	238177	5	0	5	0
7	0	0	485	16104	.0135	218	0	0	237463	5	0	5	0
8	0	0	485	16074	.0135	218	0	0	236750	5	0	5	0
9	0	0	485	16044	.0135	217	0	0	236038	5	0	5	0
10	0	0	485	16014	.0135	217	0	0	235325	5	0	5	0
11	0	0	485	15985	.0135	217	0	0	234614	5	0	5	0
12	0	0	485	15955	.0135	216	0	0	233902	5	0	5	0
13	0	0	485	15925	.0135	216	0	0	233191	5	0	5	0
14	0	0	485	15895	.0135	215	0	0	232480	5	0	5	0
15	0	0	485	15865	.0135	215	0	0	231770	5	0	5	0
16	0	0	485	15835	.0135	215	0	0	231060	5	0	5	0
17	62	0	485	15808	.0135	214	0	0	230474	5	5	0	0
18	3	0	485	15781	.0135	214	0	0	229771	5	3	2	0
19	0	0	485	15751	.0135	213	0	0	229062	5	0	5	0
20	0	0	485	15721	.0135	213	0	0	228354	5	0	5	0
21	0	0	485	15692	.0135	213	0	0	227646	5	0	5	0
22	0	0	485	15662	.0135	212	0	0	226938	5	0	5	0
[illegible]	0	0	485	15632	.0135	212	0	0	226231	5	0	5	0
	0	0	485	15602	.0135	211	0	0	225524	5	0	5	0
25	0	0	485	15573	.0135	211	0	0	224818	5	0	5	0
26	0	0	485	15543	.0135	211	0	0	224112	5	0	5	0
27	0	0	485	15513	.0135	210	0	0	223407	5	0	5	0
28	0	0	485	15484	.0135	210	0	0	222702	5	0	5	0
29	0	0	485	15454	.0135	209	0	0	221997	5	0	5	0
30	0	0	485	15425	.0135	209	0	0	221293	5	0	5	0
31	0	0	485	15395	.0135	209	0	0	220589	5	0	5	0
TOT	715	0	185869		.4200	73727	0	66761		1705	88	1617	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ NOV, 1956

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY * *	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. NEED CFS	RELEASE PASSED CFS	FROM STR CFS	************** STORED CFS
1	0	0	502	15368	.0047	72	0	0	220005	5	0	5	0
2	0	0	502	15343	.0047	72	0	0	219422	5	0	5	0
3	0	0	502	15319	.0047	71	0	0	218839	5	0	5	0
4	507	0	502	15316	.0047	71	0	0	219262	5	5	0	0
5	5154	0	502	15527	.0047	72	0	0	228901	5	5	0	0
6	3988	0	502	15883	.0047	74	0	0	236225	5	5	0	0
7	569	0	502	16049	.0047	75	0	0	236768	5	5	0	0
8	75	0	502	16051	.0047	75	0	0	236330	5	5	0	0
9	22	0	502	16030	.0047	75	0	0	235787	5	5	0	0
10	10	0	502	16007	.0047	75	0	0	235221	5	5	0	0
11	4	0	502	15983	.0047	75	0	0	234643	5	4	1	0
12	2	0	502	15959	.0047	74	0	0	234061	5	2	3	0
13	1	0	502	15934	.0047	74	0	0	233477	5	1	4	0
14	1	0	502	15910	.0047	74	0	0	232893	5	1	4	0
15	0	0	502	15885	.0047	74	0	0	232308	5	0	5	0
16	0	0	502	15860	.0047	74	0	0	231722	5	0	5	0
17	0	0	502	15836	.0047	74	0	0	231137	5	0	5	0
18	0	0	502	15811	.0047	74	0	0	230552	5	0	5	0
19	0	0	502	15787	.0047	74	0	0	229966	5	0	5	0
20	0	0	502	15762	.0047	74	0	0	229381	5	0	5	0
21	0	0	502	15737	.0047	73	0	0	228796	5	0	5	0
22	0	0	502	15713	.0047	73	0	0	228212	5	0	5	0
[illegible]	0	0	502	15688	.0047	73	0	0	227627	5	0	5	0
	0	0	502	15664	.0047	73	0	0	227042	5	0	5	0
25	0	0	502	15639	.0047	73	0	0	226458	5	0	5	0
26	0	0	502	15615	.0047	73	0	0	225873	5	0	5	0
27	0	0	502	15590	.0047	73	0	0	225289	5	0	5	0
28	0	0	502	15565	.0047	73	0	0	224705	5	0	5	0
29	0	0	502	15541	.0047	73	0	0	224121	5	0	5	0
30	0	0	502	15516	.0047	72	0	0	223537	5	0	5	0
TOT	113663	0	185868		.1400	24676	0	57580		1650	473	1177	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ DEC, 1956

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	0	0	425	15494	.0039	60	0	0	223043	5	0	5	0
2	0	0	425	15473	.0039	60	0	0	222548	5	0	5	0
3	0	0	425	15452	.0039	60	0	0	222054	5	0	5	0
4	0	0	425	15431	.0039	60	0	0	221559	5	0	5	0
5	0	0	425	15411	.0039	60	0	0	221065	5	0	5	0
6	0	0	425	15390	.0039	60	0	0	220571	5	0	5	0
7	0	0	425	15369	.0039	59	0	0	220077	5	0	5	0
8	0	0	425	15348	.0039	59	0	0	219583	5	0	5	0
9	0	0	425	15327	.0039	59	0	0	219089	5	0	5	0
10	0	0	425	15307	.0039	59	0	0	218595	5	0	5	0
11	0	0	425	15286	.0039	59	0	0	218101	5	0	5	0
12	0	0	425	15265	.0039	59	0	0	217607	5	0	5	0
13	0	0	425	15244	.0039	59	0	0	217114	5	0	5	0
14	0	0	425	15224	.0039	59	0	0	216620	5	0	5	0
15	0	0	425	15203	.0039	59	0	0	216127	5	0	5	0
16	0	0	425	15182	.0039	59	0	0	215633	5	0	5	0
17	0	0	425	15162	.0039	59	0	0	215140	5	0	5	0
18	0	0	425	15141	.0039	59	0	0	214647	5	0	5	0
19	0	0	425	15120	.0039	59	0	0	214154	5	0	5	0
20	187	0	425	15107	.0039	58	0	0	214031	5	5	0	0
21	407	0	425	15111	.0039	58	0	0	214345	5	5	0	0
22	103	0	425	15112	.0039	58	0	0	214057	5	5	0	0
23	29	0	425	15096	.0039	58	0	0	213621	5	5	0	0
	13	0	425	15077	.0039	58	0	0	213154	5	5	0	0
25	5	0	425	15058	.0039	58	0	0	212671	5	5	0	0
26	3	0	425	15037	.0039	58	0	0	212184	5	3	2	0
27	2	0	425	15017	.0039	58	0	0	211695	5	2	3	0
28	1	0	425	14996	.0039	58	0	0	211205	5	1	4	0
29	1	0	425	14975	.0039	58	0	0	210714	5	1	4	0
30	0	0	425	14955	.0039	58	0	0	210221	5	0	5	0
31	0	0	425	14934	.0039	58	0	0	209729	5	0	5	0
TOT	8261	0	162635		.1200	20676	0	68758		1705	407	1298	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JAN, 1957

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL INFLOW CFS	UPSTREAM SPILLS CFS	DAILY DEMAND AC-FT	RES. AREA ACRES	EVAP DEPTH FEET	EVAP LOSS AC-FT	DWNSTRM SPILLS CFS	DEMAND SHTGE. AC-FT	E-O-DAY CONTENT AC-FT	REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	425	14914	.0019	29	0	0	209265	5	0	5	0
2	0	0	425	14895	.0019	29	0	0	208802	5	0	5	0
3	0	0	425	14875	.0019	29	0	0	208339	5	0	5	0
4	0	0	425	14856	.0019	29	0	0	207875	5	0	5	0
5	1	0	425	14836	.0019	29	0	0	207414	5	1	4	0
6	3	0	425	14817	.0019	29	0	0	206957	5	3	2	0
7	0	0	425	14797	.0019	29	0	0	206493	5	0	5	0
8	0	0	425	14778	.0019	29	0	0	206030	5	0	5	0
9	0	0	425	14759	.0019	29	0	0	205567	5	0	5	0
10	0	0	425	14739	.0019	29	0	0	205104	5	0	5	0
11	0	0	425	14720	.0019	28	0	0	204641	5	0	5	0
12	0	0	425	14700	.0019	28	0	0	204177	5	0	5	0
13	0	0	425	14681	.0019	28	0	0	203714	5	0	5	0
14	0	0	425	14661	.0019	28	0	0	203251	5	0	5	0
15	0	0	425	14642	.0019	28	0	0	202788	5	0	5	0
16	0	0	425	14622	.0019	28	0	0	202326	5	0	5	0
17	0	0	425	14603	.0019	28	0	0	201863	5	0	5	0
18	0	0	425	14583	.0019	28	0	0	201400	5	0	5	0
19	0	0	425	14564	.0019	28	0	0	200937	5	0	5	0
20	0	0	425	14545	.0019	28	0	0	200474	5	0	5	0
21	0	0	425	14525	.0019	28	0	0	200011	5	0	5	0
22	358	0	425	14521	.0019	28	0	0	200259	5	5	0	0
[illegible]	194	0	425	14524	.0019	28	0	0	200181	5	5	0	0
[illegible]	15	0	425	14513	.0019	28	0	0	199748	5	5	0	0
25	16	0	425	14495	.0019	28	0	0	199317	5	5	0	0
26	17	0	425	14477	.0019	28	0	0	198888	5	5	0	0
27	19	0	425	14459	.0019	28	0	0	198463	5	5	0	0
28	10	0	425	14441	.0019	28	0	0	198020	5	5	0	0
29	22	0	425	14423	.0019	28	0	0	197601	5	5	0	0
30	79	0	425	14408	.0019	28	0	0	197296	5	5	0	0
31	92	0	425	14395	.0019	28	0	0	197016	5	5	0	0
TOT	826	0	13166		.0600	878	0	0		155	54	101	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ FEB, 1957

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	2564	0	470	14487	-.0018	-25	0	0	201647	5	5	0	0
2	5240	0	470	14793	-.0018	-25	0	0	211587	5	5	0	0
3	2025	0	470	15077	-.0018	-26	0	0	215150	5	5	0	0
4	326	0	470	15156	-.0018	-26	0	0	215343	5	5	0	0
5	132	0	470	15156	-.0018	-26	0	0	215152	5	5	0	0
6	74	0	470	15145	-.0018	-26	0	0	214846	5	5	0	0
7	40	0	470	15131	-.0018	-26	0	0	214472	5	5	0	0
8	15	0	470	15114	-.0018	-26	0	0	214049	5	5	0	0
9	6	0	470	15096	-.0018	-26	0	0	213607	5	5	0	0
10	3	0	470	15077	-.0018	-26	0	0	213160	5	3	2	0
11	0	0	470	15058	-.0018	-26	0	0	212707	5	0	5	0
12	0	0	470	15039	-.0018	-26	0	0	212254	5	0	5	0
13	0	0	470	15020	-.0018	-26	0	0	211800	5	0	5	0
14	0	0	470	15001	-.0018	-26	0	0	211347	5	0	5	0
15	0	0	470	14982	-.0018	-26	0	0	210894	5	0	5	0
16	0	0	470	14963	-.0018	-26	0	0	210440	5	0	5	0
17	1	0	470	14944	-.0018	-26	0	0	209989	5	1	4	0
18	2	0	470	14925	-.0018	-26	0	0	209539	5	2	3	0
19	2	0	470	14906	-.0018	-26	0	0	209090	5	2	3	0
20	3	0	470	14887	-.0018	-26	0	0	208642	5	3	2	0
21	3	0	470	14869	-.0018	-26	0	0	208194	5	3	2	0
22	2	0	470	14850	-.0018	-26	0	0	207745	5	2	3	0
23	2	0	470	14831	-.0018	-25	0	0	207295	5	2	3	0
	2	0	470	14812	-.0018	-25	0	0	206845	5	2	3	0
[illegible]	1	0	470	14793	-.0018	-25	0	0	206394	5	1	4	0
26	1	0	470	14774	-.0018	-25	0	0	205942	5	1	4	0
27	3	0	470	14755	-.0018	-25	0	0	205494	5	3	2	0
28	3	0	470	14736	-.0018	-25	0	0	205046	5	3	2	0
TOT	114950	0	162635		-.0500	-8692	0	32324		1540	803	737	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAR, 1957

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY * *	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	2	0	425	14719	-.0032	-46	0	0	204663	5	2	3	0
2	13	0	425	14703	-.0032	-46	0	0	204301	5	5	0	0
3	114	0	425	14692	-.0032	-46	0	0	204140	5	5	0	0
4	108	0	425	14685	-.0032	-46	0	0	203967	5	5	0	0
5	42	0	425	14675	-.0032	-46	0	0	203663	5	5	0	0
6	21	0	425	14662	-.0032	-46	0	0	203318	5	5	0	0
7	16	0	425	14647	-.0032	-46	0	0	202962	5	5	0	0
8	3	0	425	14631	-.0032	-46	0	0	202581	5	3	2	0
9	2	0	425	14615	-.0032	-46	0	0	202197	5	2	3	0
10	1	0	425	14599	-.0032	-46	0	0	201811	5	1	4	0
11	15	0	425	14583	-.0032	-46	0	0	201454	5	5	0	0
12	3	0	425	14568	-.0032	-46	0	0	201072	5	3	2	0
13	2	0	425	14552	-.0032	-46	0	0	200688	5	2	3	0
14	2	0	425	14536	-.0032	-46	0	0	200304	5	2	3	0
15	10	0	425	14520	-.0032	-46	0	0	199936	5	5	0	0
16	9	0	425	14504	-.0032	-46	0	0	199566	5	5	0	0
17	10	0	425	14489	-.0032	-46	0	0	199198	5	5	0	0
18	152	0	425	14479	-.0032	-46	0	0	199112	5	5	0	0
19	294	0	425	14482	-.0032	-46	0	0	199307	5	5	0	0
20	105	0	425	14482	-.0032	-46	0	0	199128	5	5	0	0
21	2366	0	425	14569	-.0032	-46	0	0	203433	5	5	0	0
22	2907	0	425	14772	-.0032	-47	0	0	208812	5	5	0	0
[illegible]	1020	0	425	14920	-.0032	-47	0	0	210448	5	5	0	0
	184	0	425	14954	-.0032	-47	0	0	210427	5	5	0	0
25	79	0	425	14948	-.0032	-47	0	0	210197	5	5	0	0
26	50	0	425	14937	-.0032	-47	0	0	209910	5	5	0	0
27	245	0	425	14933	-.0032	-47	0	0	210009	5	5	0	0
28	1888	0	425	15006	-.0032	-47	0	0	213368	5	5	0	0
29	919	0	425	15107	-.0032	-48	0	0	214805	5	5	0	0
30	150	0	425	15135	-.0032	-48	0	0	214717	5	5	0	0
31	204	0	425	15134	-.0032	-48	0	0	214735	5	5	0	0
TOT	120296	0	162635		-.1000	-17222	0	26163		1705	1485	220	0

NOTE:
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OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ APR, 1957

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

*	TOTAL*	UPSTREAM*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-DAY*	***** REQ.	RELEASE	**************	
DAY	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	FROM STR	STORED
* *	CFS*	CFS*	AC-FT*	ACRES*	FEET*	AC-FT*	CFS*	AC-FT*	AC-FT *	CFS	CFS	CFS	CFS
1	3449	0	502	15275	-.0233	-355	0	0	221421	5	5	0	0
2	4159	0	502	15585	-.0233	-363	0	0	229523	5	5	0	0
3	3336	0	502	15892	-.0233	-370	0	0	235999	5	5	0	0
4	5278	0	502	16245	-.0233	-378	0	0	246335	5	5	0	0
5	1831	0	502	16513	-.0233	-384	0	0	249841	5	5	0	0
6	604	0	502	16600	-.0233	-386	0	0	250915	5	5	0	0
7	201	0	502	16626	-.0233	-387	0	0	251190	5	5	0	0
8	91	0	502	16632	-.0233	-387	0	0	251247	5	5	0	0
9	68	0	502	16634	-.0233	-387	0	0	251258	5	5	0	0
10	46	0	502	16633	-.0233	-387	0	0	251226	5	5	0	0
11	20	0	502	16631	-.0233	-387	0	0	251143	5	5	0	0
12	15	0	502	16628	-.0233	-387	0	0	251049	5	5	0	0
13	13	0	502	16624	-.0233	-387	0	0	250951	5	5	0	0
14	12	0	502	16620	-.0233	-387	0	0	250851	5	5	0	0
15	11	0	502	16617	-.0233	-387	0	0	250749	5	5	0	0
16	32	0	502	16613	-.0233	-387	0	0	250689	5	5	0	0
17	47	0	502	16612	-.0233	-387	0	0	250658	5	5	0	0
18	10	0	502	16609	-.0233	-387	0	0	250554	5	5	0	0
19	267	0	502	16615	-.0233	-387	0	0	250960	5	5	0	0
20	17031	0	502	17264	-.0233	-402	0	0	284632	5	5	0	0
21	54647	0	502	19976	-.0233	-465	0	0	392977	5	5	0	0
22	44222	0	502	23840	-.0233	-555	0	0	480735	5	5	0	0
23	26457	0	502	26300	-.0233	-613	0	0	533314	5	5	0	0
	58817	0	502	29256	-.0233	-682	0	0	650147	5	5	0	0
25	44113	0	502	32886	-.0233	-766	0	0	737899	5	5	0	0
26	34346	0	502	35726	-.0233	-833	0	0	806346	5	5	0	0
27	18907	0	502	37700	-.0233	-879	0	0	844216	5	5	0	0
28	17886	0	502	39069	-.0233	-911	0	0	880092	5	5	0	0
29	14254	0	502	40268	-.0233	-939	0	0	908793	5	5	0	0
30	8504	0	502	41122	-.0233	-959	1189	0	923750	5	5	0	0
TOT	3945414	0	185868		-.7000	-174161	154643	0		1650	1650	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON * *	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1941													
1	716225	0	162635	42735	.040	18195	537991	0	923750	3382	3382	0	0
2	3049244	0	162635	42888	-.100	-45489	2923057	0	923750	3055	3055	0	0
3	1768407	0	162635	42735	.020	9098	1593770	0	923750	3382	3382	0	0
4	1011033	0	185868	42781	.060	27284	794134	0	923750	3273	3273	0	0
5	1875164	0	185869	42732	.110	50033	1650695	0	922847	3382	3382	0	0
6	2484938	0	209102	42780	-.080	-36389	2294147	0	923750	3273	3273	0	0
7	1858276	0	255570	42669	.330	149851	1522609	0	917787	3382	3382	0	0
8	127920	0	255570	41967	.440	196221	0	0	890549	3382	3382	0	0
9	7920	0	209102	40941	.330	143094	0	0	860984	3273	3273	0	0
10	227738	0	185869	40633	.030	12901	0	0	865153	3382	3382	0	0
11	55440	0	185868	40185	.170	72088	0	0	848244	3273	3273	0	0
12	146727	0	162635	39870	.000	0	0	0	848110	3382	3382	0	0
YEAR 1942													
1	4580	0	13166	39557	.120	4594	0	0	834622	307	307	0	0
2	111033	0	162635	39373	.120	49497	0	0	826716	3055	3055	0	0
3	142473	0	162635	38964	.230	94078	0	0	817522	3382	3382	0	0
4	7460727	0	185868	41750	-.310	-136704	6073476	0	923750	3273	3273	0	0
[illegible]	1432713	0	185869	42735	.060	27293	1218832	0	923748	3382	3382	0	0
	911760	0	209102	42755	.170	77263	670422	0	919911	3273	3273	0	0
[illegible]	39753	0	255570	41935	.450	200503	0	0	884266	3382	3382	0	0
8	195120	0	255570	40734	.380	164070	0	0	866028	3382	3382	0	0
9	1753418	0	209102	42100	.150	67004	877137	0	915750	3273	3273	0	0
10	800116	0	185869	42442	.170	76720	436562	0	923750	3382	3382	0	0
11	550604	0	185868	42750	.150	68153	339122	0	920620	3273	3273	0	0
12	795862	0	162635	42634	-.040	-18126	598161	0	923750	3382	3382	0	0
YEAR 1943													
1	18595	0	13166	42694	.080	3305	5847	0	919720	307	307	0	0
2	61222	0	162635	42415	.220	98797	0	0	902843	3055	3055	0	0
3	607069	0	162635	41964	.040	17812	194873	0	923750	3382	3382	0	0
4	671716	0	185868	42751	.230	104393	398010	0	920280	3273	3273	0	0
5	2815833	0	185869	42700	.070	31808	2542381	0	923750	3382	3382	0	0
6	731716	0	209102	42691	.250	113436	519316	0	914834	3273	3273	0	0
7	20684	0	255570	41693	.430	190383	0	0	878367	3382	3316	65	0
8	524	0	255570	40112	.640	271943	0	0	832575	3382	524	2858	0
9	651404	0	209102	40499	.220	94083	0	0	865955	3273	2902	371	0
10	550800	0	185869	41300	.170	74068	9226	0	893879	3382	3382	0	0
11	4953	0	185868	41195	.200	86640	0	0	871020	3273	3273	0	0
12	71629	0	162635	40587	-.060	-25592	0	0	866415	3382	3382	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

YEAR 1944

MON *	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	************** STORED AC-FT
1	81743	0	13166	42177	-.190	-7754	18690	0	923750	307	307	0	0
2	2184393	0	162635	42833	-.150	-67665	1914661	0	923750	3164	3164	0	0
3	786480	0	162635	42735	-.020	-9097	630932	0	923750	3382	3382	0	0
4	352429	0	185868	42680	.100	45341	127237	0	923750	3273	3273	0	0
5	6693316	0	185869	42735	-.360	-163769	6657172	0	923750	3382	3382	0	0
6	620727	0	209102	42588	.390	176530	432555	0	906951	3273	3273	0	0
7	52080	0	255570	41327	.540	236970	0	0	869092	3382	3382	0	0
8	502	0	255570	39893	.460	194377	0	0	830381	3382	502	2880	0
9	524	0	209102	38543	.450	183079	0	0	796438	3273	524	2749	0
10	4996	0	185869	37269	.430	169022	0	0	766028	3382	1222	2160	0
11	94647	0	185868	36590	-.160	-61557	0	0	764947	3273	1375	1898	0
12	799113	0	162635	37325	-.160	-62761	0	0	829900	3382	3382	0	0

YEAR 1945

MON *	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
1	144411	0	13166	41268	-.030	-1197	38285	0	923750	307	307	0	0
2	2632560	0	162635	42888	-.110	-49634	2373663	0	923750	3055	3055	0	0
3	6136102	0	162635	42735	-.370	-168318	6138412	0	923750	3382	3382	0	0
4	3310996	0	185868	42782	-.050	-22745	3144605	0	923750	3273	3273	0	0
[illegible]	157505	0	185869	42565	.250	113182	1758	0	912273	3382	3382	0	0
[illegible]	2113025	0	209102	42652	.130	58901	1730521	0	921295	3273	3273	0	0
[illegible]	1464807	0	255570	42669	.140	63558	1183693	0	917939	3382	3382	0	0
8	91636	0	255570	42024	.200	89272	0	0	897139	3382	3382	0	0
9	35956	0	209102	41076	.490	213080	0	0	863726	3273	2793	480	0
10	836204	0	185869	42024	.020	8892	88580	0	915607	3382	3382	0	0
11	198567	0	185868	42440	.210	94019	3761	0	909699	3273	3273	0	0
12	372240	0	162635	42550	.040	17971	135891	0	914346	3382	3382	0	0

YEAR 1946

MON *	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
1	67674	0	13166	42643	-.180	-7427	52224	0	923750	307	307	0	0
2	1931891	0	162635	42888	-.070	-31764	1723268	0	923750	3055	3055	0	0
3	767084	0	162635	42735	-.040	-18195	619588	0	923750	3382	3382	0	0
4	330851	0	185868	42695	.130	58964	95228	0	923750	3273	3273	0	0
5	3620073	0	185869	42735	-.230	-104629	3522643	0	923750	3382	3382	0	0
6	769811	0	209102	42696	.280	127069	527054	0	916274	3273	3273	0	0
7	23084	0	255570	41672	.530	234553	0	0	876002	3382	3382	0	0
8	106255	0	255570	40290	.310	132318	0	0	852578	3382	1484	1898	0
9	15687	0	209102	39441	.400	166569	0	0	821528	3273	2378	895	0
10	8487	0	185869	38324	.300	121283	0	0	795819	3382	2793	589	0
11	665302	0	185868	39603	-.330	-137495	0	0	853590	3273	3185	87	0
12	350007	0	162635	40436	.090	38273	0	0	868413	3382	3382	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1947													
1	198355	0	13166	41601	-.110	-4428	133973	0	923750	307	307	0	0
2	207164	0	162635	42794	.150	67780	14130	0	921762	3055	3055	0	0
3	1371447	0	162635	42719	-.040	-18158	1138401	0	923750	3382	3382	0	0
4	1321113	0	185868	42781	.030	13645	1116672	0	923750	3273	3273	0	0
5	271244	0	185869	42718	.000	0	95928	0	923750	3382	3382	0	0
6	764771	0	209102	42575	.280	126586	447221	0	920843	3273	3273	0	0
7	5105	0	255570	41773	.590	261983	0	0	876460	3382	2422	960	0
8	39164	0	255570	40178	.470	200241	0	0	840749	3382	742	2640	0
9	92051	0	209102	39110	.450	185990	0	0	814878	3273	3142	131	0
10	4429	0	185869	37972	.420	168395	0	0	784493	3382	2553	829	0
11	30327	0	185868	37122	.080	31265	0	0	769035	3273	3164	109	0
12	341869	0	162635	37247	-.110	-43107	0	0	790605	3382	3382	0	0
YEAR 1948													
1	23689	0	13166	38060	-.100	-3682	0	0	804503	307	307	0	0
2	379942	0	162635	38851	-.110	-44731	0	0	829716	3164	3164	0	0
3	672698	0	162635	40732	.060	25608	6342	0	875032	3382	3382	0	0
4	226320	0	185868	40904	.150	64081	7711	0	874331	3273	3273	0	0
-	3249534	0	185869	42077	.000	0	2309997	0	923750	3382	3382	0	0
	75665	0	209102	42209	.420	188049	0	0	896267	3273	3273	0	0
,	166582	0	255570	41299	.560	245075	0	0	868032	3382	3316	65	0
8	87	0	255570	39697	.670	281130	0	0	821304	3382	87	3295	0
9	0	0	209102	38103	.580	232801	0	0	782715	3273	0	3273	0
10	0	0	185869	36754	.400	154734	0	0	753133	3382	0	3382	0
11	938	0	185868	35828	.160	60150	0	0	732332	3273	436	2836	0
12	1615	0	162635	35092	.080	29435	0	0	716288	3382	1156	2225	0
YEAR 1949													
1	13860	0	13166	34800	-.300	-10102	0	0	726778	307	198	109	0
2	567491	0	162635	35391	-.070	-25793	0	0	767313	3055	3055	0	0
3	408960	0	162635	37066	.020	7738	0	0	790300	3382	3382	0	0
4	344662	0	185868	37833	-.050	-19693	0	0	808117	3273	3273	0	0
5	487484	0	185869	38228	.150	59673	0	0	831530	3382	3382	0	0
6	177207	0	209102	39113	.250	101513	0	0	820962	3273	3273	0	0
7	53629	0	255570	38205	.370	146569	0	0	791160	3382	3055	327	0
8	8422	0	255570	37008	.370	141556	0	0	757678	3382	1418	1964	0
9	0	0	209102	35785	.430	158384	0	0	725577	3273	0	3273	0
10	70516	0	185869	35067	-.230	-82866	0	0	724438	3382	2356	1025	0
11	1440	0	185868	34660	.320	113515	0	0	698503	3273	1200	2073	0
12	785	0	162635	33924	-.040	-13862	0	0	686414	3382	785	2596	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON * *	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1950													
1	6190	0	13166	33641	-.100	-3255	0	0	682387	307	278	30	0
2	1729855	0	162635	37226	-.220	-83244	33773	0	834100	3055	3055	0	0
3	91920	0	162635	39062	.230	91537	0	0	820288	3382	3382	0	0
4	979484	0	185868	39844	-.050	-20211	72054	0	895913	3273	3273	0	0
5	825491	0	185869	42658	-.020	-8650	311763	0	923288	3382	3382	0	0
6	60371	0	209102	42381	.260	111817	0	0	900899	3273	3273	0	0
7	52080	0	255570	41322	.300	125539	0	0	872639	3382	3382	0	0
8	458	0	255570	39998	.500	201791	0	0	832330	3382	436	2945	0
9	7942	0	209102	38826	.170	66283	0	0	809447	3273	1571	1702	0
10	0	0	185869	37808	.350	132650	0	20845	781286	3382	0	3382	0
11	0	0	185868	36789	.330	121608	0	36950	754206	3273	0	3273	0
12	0	0	162635	35817	.230	82674	0	32331	732760	3382	0	3382	0
YEAR 1951													
1	720	0	13166	35096	.120	4076	0	0	715931	307	91	216	0
2	68902	0	162635	34776	-.060	-20896	0	32331	710763	3055	2378	676	0
3	3927	0	162635	34232	.200	68878	0	32331	691021	3382	1876	1505	0
4	6065	0	185868	33472	.270	90876	0	36950	667492	3273	1244	2029	0
5	75425	0	185869	32780	.250	82594	0	36950	651063	3382	3055	327	0
	631549	0	209102	33322	.200	67224	0	5543	684809	3273	3055	218	0
	807	0	255570	32868	.670	222177	0	42281	642574	3382	676	2705	0
8	0	0	255570	31224	.870	274330	0	50806	595289	3382	0	3382	0
9	96044	0	209102	30216	.080	24422	0	41569	584457	3273	764	2509	0
10	22	0	185869	29512	.330	98643	0	36950	559680	3382	22	3360	0
11	0	0	185868	28722	.200	58171	0	36950	538782	3273	0	3273	0
12	0	0	162635	28015	.120	34105	0	32331	522055	3382	0	3382	0
YEAR 1952													
1	0	0	13166	27435	.080	2124	0	0	506457	307	0	307	0
2	50487	0	162635	27068	-.030	-8231	0	32331	498377	3164	2705	458	0
3	82255	0	162635	26777	.060	16348	0	32331	490827	3382	3033	349	0
4	1336385	0	185868	27499	-.150	-42076	0	25865	600959	3273	2465	807	0
5	1035055	0	185869	31071	-.020	-6382	0	0	680302	3382	2880	502	0
6	22778	0	209102	33002	.440	149054	0	0	651110	3273	2531	742	0
7	2618	0	255570	31774	.450	146340	0	0	616514	3382	807	2575	0
8	0	0	255570	30315	.810	250081	0	9833	571753	3382	0	3382	0
9	0	0	209102	28869	.700	205291	0	41569	534992	3273	0	3273	0
10	0	0	185869	27604	.620	174111	0	36950	503074	3382	0	3382	0
11	148255	0	185868	26941	-.170	-46582	0	36950	505635	3273	982	2291	0
12	562124	0	162635	27734	-.150	-42483	0	10158	547289	3382	3076	305	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. NEED AC-FT	RELEASE PASSED AC-FT	******** RELEASED AC-FT	****** STORED AC-FT
YEAR 1953													
1	14287	0	13166	28738	.100	2781	0	0	545322	307	307	0	0
2	28669	0	162635	28460	-.010	-2890	0	23745	534759	3055	3055	0	0
3	1056262	0	162635	30115	-.080	-24667	0	8572	619640	3382	3382	0	0
4	280647	0	185868	31235	-.100	-31943	0	0	632829	3273	3273	0	0
5	3767149	0	185869	37799	-.180	-69649	551807	0	923750	3382	3382	0	0
6	8116	0	209102	42080	.500	215150	0	0	886924	3273	2400	873	0
7	15382	0	255570	40704	.310	128833	0	0	855114	3382	829	2553	0
8	22	0	255570	39411	.390	156434	0	0	819245	3382	22	3360	0
9	32662	0	209102	38285	.350	135776	0	0	792035	3273	873	2400	0
10	71738	0	185869	37293	.190	71661	0	0	776345	3382	655	2727	0
11	16953	0	185868	36786	.100	37067	0	0	758986	3273	2422	851	0
12	209236	0	162635	36820	-.130	-48194	0	0	769165	3382	3316	65	0
YEAR 1954													
1	11326	0	13166	36797	-.050	-1780	0	0	768798	307	290	18	0
2	4473	0	162635	36528	.210	76618	0	0	748363	3055	2727	327	0
3	916	0	162635	35602	.220	78325	0	19661	727394	3382	873	2509	0
4	11585	0	185868	34934	.070	24436	0	36950	710738	3273	1047	2225	0
-	341673	0	185869	35085	-.010	-3513	0	7921	726785	3382	3229	151	0
	436	0	209102	34587	.520	179815	0	41569	692213	3273	436	2836	0
,	0	0	255570	33063	.790	261604	0	50806	645938	3382	0	3382	0
8	109	0	255570	31357	.850	267169	0	50806	599158	3382	109	3273	0
9	0	0	209102	29838	.720	215241	0	41569	561164	3273	0	3273	0
10	17673	0	185869	28865	.050	14481	0	36950	546019	3382	1680	1702	0
11	36982	0	185868	28349	.140	39810	0	36950	530200	3273	1942	1331	0
12	349	0	162635	27684	.170	47284	0	32331	512204	3382	349	3033	0
YEAR 1955													
1	914	0	13166	27128	.010	263	0	0	499382	307	79	228	0
2	139287	0	162635	27033	-.130	-35254	0	32331	501990	3055	2095	960	0
3	164291	0	162635	26879	.080	21694	0	32331	501370	3382	1658	1724	0
4	98924	0	185868	26924	-.020	-5439	0	36950	495539	3273	2902	371	0
5	144393	0	185869	26606	.070	18860	0	26389	491509	3382	2509	873	0
6	153622	0	209102	26399	.290	77484	0	31361	480849	3273	2553	720	0
7	5673	0	255570	25668	.440	114505	0	50806	449437	3382	1091	2291	0
8	62815	0	255570	24694	.210	52619	0	50806	429132	3382	1527	1855	0
9	89149	0	209102	24045	.250	61103	0	40847	414200	3273	2465	807	0
10	5738	0	185869	23182	.510	120578	0	36950	387925	3382	873	2509	0
11	0	0	185868	22177	.400	90570	0	46115	364004	3273	0	3273	0
12	0	0	162635	21325	.160	35040	0	48497	347228	3382	0	3382	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	************** STORED AC-FT
YEAR 1956													
1	2136	0	13166	20724	.020	401	0	0	335490	307	71	236	0
2	212182	0	162635	20895	-.100	-21605	0	26686	343343	3164	3055	109	0
3	284	0	162635	20469	.210	44680	0	46264	325735	3382	284	3098	0
4	4364	0	185868	19789	.160	33061	0	55425	307726	3273	676	2596	0
5	751244	0	185869	21579	.120	27155	0	1788	358160	3382	1876	1505	0
6	77258	0	209102	21185	.380	84017	0	13385	340176	3273	1222	2051	0
7	196	0	255570	19974	.780	163070	0	60314	304119	3382	196	3185	0
8	1069	0	255570	18603	.700	137333	0	76209	270616	3382	218	3164	0
9	196	0	209102	17412	.650	120198	0	62353	242467	3273	131	3142	0
10	1418	0	185869	16364	.420	73727	0	66761	220589	3382	175	3207	0
11	225447	0	185868	16270	.140	24676	0	57580	223537	3273	938	2335	0
12	16385	0	162635	15708	.120	20676	0	68758	209729	3382	807	2575	0
YEAR 1957													
1	1638	0	13166	15124	.060	878	0	0	197016	307	107	200	0
2	228000	0	162635	15495	-.050	-8692	0	32324	205046	3055	1593	1462	0
3	238604	0	162635	15208	-.100	-17222	0	26163	214735	3382	2945	436	0
4	7825614	0	185868	22607	-.700	-174161	306731	0	923750	3273	3273	0	0
	4452633	0	185869	42735	-.110	-50037	4279188	0	923750	3382	3382	0	0
	850364	0	209102	42738	.130	59045	658483	0	918207	3273	3273	0	0
	5673	0	255570	41706	.540	239094	0	0	875931	3382	1484	1898	0
8	1244	0	255570	40267	.310	132196	0	0	842967	3382	284	3098	0
9	3971	0	209102	39176	.240	99229	0	0	817013	3273	633	2640	0
10	647411	0	185869	39477	-.140	-58286	0	0	865863	3382	1964	1418	0
11	2232305	0	185868	42332	-.170	-76064	1375111	0	923750	3273	3273	0	0
12	132502	0	162635	42646	.120	54396	5143	0	916960	3382	3382	0	0
YEAR 1958													
1	33911	0	13166	42554	.000	0	13648	0	923750	307	307	0	0
2	151505	0	162635	42842	.030	13585	4338	0	922831	3055	3055	0	0
3	507120	0	162635	42723	.060	27188	290945	0	923750	3382	3382	0	0
4	1409760	0	185868	42781	-.100	-45335	1223754	0	923750	3273	3273	0	0
5	5364349	0	185869	42730	.120	54575	5128213	0	923704	3382	3382	0	0
6	28211	0	209102	42274	.290	130161	0	0	897192	3273	3273	0	0
7	98815	0	255570	41259	.410	179413	0	0	868807	3382	1767	1615	0
8	153731	0	255570	40148	.270	114682	0	0	851296	3382	1527	1855	0
9	1145367	0	209102	40806	-.160	-68863	215150	0	923750	3273	2684	589	0
10	116902	0	185869	42511	.190	85244	2471	0	910972	3382	3382	0	0
11	28604	0	185868	41911	.160	70568	0	0	891745	3273	3273	0	0
12	59607	0	162635	41290	.130	56453	0	0	878496	3382	3382	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++
RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS
NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE
IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ***** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1959													
1	2184	0	13166	40640	.200	7866	0	0	859340	307	307	0	0
2	529265	0	162635	41040	-.060	-25728	0	0	896386	3055	3055	0	0
3	82975	0	162635	41441	.210	91142	0	0	882034	3382	3382	0	0
4	898516	0	185868	42043	-.080	-35139	288591	0	923750	3273	3273	0	0
5	2163207	0	185869	42735	-.160	-72141	1880726	0	923750	3382	3382	0	0
6	3125847	0	209102	42780	.000	0	2873884	0	923750	3273	3273	0	0
7	142102	0	255570	42450	.150	67705	71	0	909509	3382	3382	0	0
8	13025	0	255570	41556	.330	145471	0	0	876425	3382	3382	0	0
9	11018	0	209102	40443	.270	115444	0	0	849646	3273	2444	829	0
10	1614153	0	185869	42275	.040	17923	573847	0	922818	3382	3382	0	0
11	116815	0	185868	42540	.250	112520	3425	0	907660	3273	3273	0	0
12	1468560	0	162635	42421	-.080	-36004	1090467	0	923750	3382	3382	0	0

YEAR 1960													
1	221332	0	13166	42735	-.070	-2894	210753	0	923750	307	307	0	0
2	446422	0	162635	42833	-.010	-4547	291270	0	923750	3164	3164	0	0
3	216371	0	162635	42704	.110	49958	49341	0	920601	3382	3382	0	0
4	98705	0	185868	42366	.140	62909	0	0	908496	3273	3273	0	0
[illegible]	199942	0	185869	42176	.270	120698	1999	0	900298	3382	3382	0	0
[illegible]	202385	0	209102	41733	.030	13230	0	0	900261	3273	3273	0	0
[illegible]	10800	0	255570	41172	.370	160808	0	0	865504	3382	3185	196	0
8	80182	0	255570	40017	.230	96910	0	0	842889	3382	2727	655	0
9	1745	0	209102	39071	.380	155805	0	0	811469	3273	1200	2073	0
10	119891	0	185869	38270	.000	0	0	0	807014	3382	1985	1396	0
11	54589	0	185868	38034	.030	11928	0	0	795529	3273	2662	611	0
12	3207578	0	162635	41489	-.350	-153044	1652696	0	923750	3382	3382	0	0

YEAR 1961													
1	381892	0	13166	42735	-.190	-7857	376276	0	923750	307	307	0	0
2	2730654	0	162635	42888	-.090	-40941	2605909	0	923750	3055	3055	0	0
3	1449753	0	162635	42735	-.030	-13646	1297376	0	923750	3382	3382	0	0
4	202582	0	185868	42646	.260	117812	18486	0	914359	3273	3273	0	0
5	84938	0	185869	42046	.210	93763	0	0	898181	3382	3382	0	0
6	1634487	0	209102	42185	-.090	-40272	1141735	0	923750	3273	3273	0	0
7	670451	0	255570	42594	.240	108753	468636	0	910463	3382	3382	0	0
8	22364	0	255570	41515	.450	198309	0	0	873420	3382	3251	131	0
9	43724	0	209102	40464	.180	77055	0	0	853128	3273	2138	1135	0
10	62749	0	185869	39667	.290	121598	0	0	832346	3382	3382	0	0
11	984175	0	185868	39773	.020	8383	12717	0	905703	3273	3273	0	0
12	707738	0	162635	42528	-.020	-8966	333282	0	923750	3382	3382	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

	TOTAL*	OTHER*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-MON*	***** REQ. RELEASE **************			
MON	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	RELEASED	STORED
* *	AC-FT*	AC-FT*	AC-FT*	ACRES*	FEET*	AC-FT*	AC-FT*	AC-FT*	AC-FT *	AC-FT	AC-FT	AC-FT	AC-FT
YEAR 1962													
1	10461	0	13166	42696	-.020	-825	42	0	921522	307	307	0	0
2	260684	0	162635	42795	.020	8980	71842	0	923750	3055	3055	0	0
3	105971	0	162635	42574	.150	67183	33	0	913730	3382	3382	0	0
4	572465	0	185868	42339	-.090	-39979	306485	0	923750	3273	3273	0	0
5	161389	0	185869	42418	.260	115970	66085	0	905801	3382	3382	0	0
6	624262	0	209102	42528	-.040	-17852	235351	0	923750	3273	3273	0	0
7	64342	0	255570	42153	.400	176947	18901	0	890409	3382	2967	415	0
8	8618	0	255570	40646	.570	242535	0	0	847774	3382	982	2400	0
9	117404	0	209102	39753	.080	33180	0	0	838147	3273	2553	720	0
10	600873	0	185869	40340	.090	37863	0	0	873904	3382	3382	0	0
11	77847	0	185868	40625	.030	12676	0	0	864458	3273	3273	0	0
12	82647	0	162635	40292	.050	20942	0	0	856549	3382	3382	0	0
YEAR 1963													
1	3580	0	13166	39911	.090	3476	0	0	843179	307	307	0	0
2	18785	0	162635	39487	.100	40766	0	0	827635	3055	3055	0	0
3	36785	0	162635	38779	.130	52141	0	0	812627	3382	3338	44	0
4	269760	0	185868	38358	-.120	-47460	0	0	826256	3273	2749	524	0
[illegible]	242422	0	185869	39007	.100	40212	0	0	829165	3382	3382	0	0
	22516	0	209102	38690	.270	107332	0	0	803888	3273	2705	567	0
[illegible]	9469	0	255570	37429	.480	184172	0	0	766365	3382	327	3055	0
8	11498	0	255570	35891	.630	230933	0	0	724531	3382	3382	0	0
9	7855	0	209102	34596	.390	137133	0	0	694977	3273	3273	0	0
10	11498	0	185869	33438	.530	179722	0	19071	663517	3382	3382	0	0
11	5236	0	185868	32528	.170	56028	0	36950	643303	3273	3273	0	0
12	2029	0	162635	31856	.040	12936	0	32331	628780	3382	2029	1353	0
YEAR 1964													
1	557	0	13166	31310	.070	2121	0	0	613743	307	131	177	0
2	9644	0	162635	30862	.040	12527	0	32331	599974	3164	3142	22	0
3	38269	0	162635	30328	.010	3088	0	32331	589686	3382	3207	175	0
4	55680	0	185868	29937	.030	9146	0	36216	578535	3273	3207	65	0
5	25855	0	185869	29454	.110	33075	0	36212	562396	3382	2247	1135	0
6	11411	0	209102	28733	.370	108542	0	41536	535931	3273	1767	1505	0
7	19615	0	255570	27550	.660	186074	0	50806	499119	3382	3382	0	0
8	14880	0	255570	26332	.450	121384	0	50806	468008	3382	3382	0	0
9	2444	0	209102	25428	.150	39061	0	41569	447317	3273	524	2749	0
10	13418	0	185869	24602	.380	95928	0	36950	424135	3382	1200	2182	0
11	99382	0	185868	24014	.060	14804	0	36950	416432	3273	2836	436	0
12	8575	0	162635	23496	.110	26646	0	32331	401237	3382	3098	284	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++
RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS
NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE
IDNUM = 0 *MONTHLY SUMMARY*

*	TOTAL*	OTHER*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-MON*	***** REQ. RELEASE	**************		
MON	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	RELEASED	STORED
* *	AC-FT*	AC-FT*	AC-FT*	ACRES*	FEET*	AC-FT*	AC-FT*	AC-FT*	AC-FT *	AC-FT	AC-FT	AC-FT	AC-FT
YEAR 1965													
1	6512	0	13166	22967	.030	667	0	0	393608	307	307	0	0
2	596029	0	162635	23847	-.150	-36880	0	10392	437798	3055	3055	0	0
3	295113	0	162635	24658	.010	2546	0	0	450914	3382	3382	0	0
4	138589	0	185868	25165	.190	49234	0	9904	443546	3273	3273	0	0
5	4201156	0	185869	31279	-.380	-123278	89896	7672	821618	3382	3382	0	0
6	139025	0	209102	38717	.290	116087	5347	0	806177	3273	3273	0	0
7	19811	0	255570	37422	.620	239561	0	0	764527	3382	3382	0	0
8	20749	0	255570	35896	.540	199561	0	0	726657	3382	3382	0	0
9	16429	0	209102	34817	.180	64222	0	0	704867	3273	3273	0	0
10	7004	0	185869	33933	.290	100607	0	0	680626	3382	3251	131	0
11	48742	0	185868	33356	.020	6793	0	0	669067	3273	3273	0	0
12	9665	0	162635	32874	-.070	-23387	0	0	658700	3382	3382	0	0
YEAR 1966													
1	1335	0	13166	32443	.030	942	0	0	645619	307	307	0	0
2	221891	0	162635	32459	.000	0	0	0	652347	3055	3055	0	0
3	60655	0	162635	32221	.120	39055	0	27278	640646	3382	3382	0	0
4	5974036	0	185868	34127	-.150	-51967	2472219	18912	923750	3273	3273	0	0
-	2768749	0	185869	42735	.050	22698	2357429	0	923750	3382	3382	0	0
	35498	0	209102	42242	.360	161550	0	0	895051	3273	3164	109	0
.	20444	0	255570	40922	.460	199761	0	0	857696	3382	3382	0	0
8	66044	0	255570	39698	.270	113460	0	0	832330	3382	3382	0	0
9	61309	0	209102	39048	-.020	-8237	0	0	821434	3273	3273	0	0
10	31811	0	185869	38378	.310	125401	0	0	797458	3382	3382	0	0
11	11302	0	185868	37446	.300	118059	0	0	772281	3273	3273	0	0
12	10080	0	162635	36545	.200	76758	0	0	752650	3382	3382	0	0
YEAR 1967													
1	678	0	13166	35865	.090	3124	0	0	736731	307	307	0	0
2	7309	0	162635	35348	.150	55295	0	0	718839	3055	3055	0	0
3	16167	0	162635	34518	.250	90140	0	0	698484	3382	3382	0	0
4	102371	0	185868	34061	-.010	-3546	0	0	692775	3273	3273	0	0
5	51927	0	185869	33751	.040	14041	0	0	680835	3382	3382	0	0
6	426676	0	209102	33693	.310	108255	0	0	692301	3273	3273	0	0
7	82145	0	255570	33523	.410	142237	0	0	665470	3382	3382	0	0
8	14378	0	255570	32269	.530	176224	0	0	629230	3382	3382	0	0
9	700865	0	209102	32396	.070	23285	0	0	673527	3273	3273	0	0
10	2450225	0	185869	34559	.220	78207	50167	0	873563	3382	3382	0	0
11	1829345	0	185868	42545	.100	43907	944808	0	923750	3273	3273	0	0
12	1347469	0	162635	42734	.080	35619	1058502	0	923750	3382	3382	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1968													
1	176983	0	13166	42735	.000	0	163510	0	923750	307	307	0	0
2	1091455	0	162635	42833	.020	9079	850786	0	923750	3164	3164	0	0
3	2000269	0	162635	42735	.030	13647	1815609	0	923750	3382	3382	0	0
4	2194255	0	185868	42782	-.020	-9097	2014209	0	923750	3273	3273	0	0
5	6120524	0	185869	42735	-.070	-31843	5963113	0	923750	3382	3382	0	0
6	1477396	0	209102	42782	.180	81885	1183140	0	923750	3273	3273	0	0
7	106211	0	255570	42317	.330	148486	0	0	898894	3382	3360	22	0
8	23913	0	255570	41077	.470	204796	0	0	861387	3382	3382	0	0
9	13876	0	209102	39932	.190	80208	0	0	838089	3273	3098	175	0
10	32160	0	185869	39041	.250	103091	0	0	816213	3382	2465	916	0
11	60480	0	185868	38297	.130	52432	0	0	801554	3273	3098	175	0
12	219404	0	162635	38333	.090	36314	0	0	804687	3382	3382	0	0
YEAR 1969													
1	2666	0	13166	37905	.050	1834	0	0	792045	307	307	0	0
2	620749	0	162635	38237	-.010	-3997	0	0	835402	3055	3055	0	0
3	1885571	0	162635	41197	.030	12961	698277	0	923750	3382	3382	0	0
4	1080240	0	185868	42781	.010	4516	826000	0	923750	3273	3273	0	0
	5608604	0	185869	42735	-.160	-72710	5419433	0	923750	3382	3382	0	0
	223375	0	209102	42602	.430	194639	30860	0	906108	3273	3273	0	0
7	27316	0	255570	41174	.700	305927	0	0	859703	3382	2945	436	0
8	18895	0	255570	39471	.560	234031	0	0	819033	3382	109	3273	0
9	1593	0	209102	38232	.280	112951	0	0	791604	3273	545	2727	0
10	48916	0	185869	37140	.340	133124	0	0	768476	3382	1004	2378	0
11	51076	0	185868	36468	.220	84329	0	0	750019	3273	1964	1309	0
12	444480	0	162635	36747	.060	23163	0	0	774819	3382	3033	349	0
YEAR 1970													
1	10326	0	13166	37049	.020	717	0	0	770955	307	307	0	0
2	1021571	0	162635	37720	-.050	-19683	0	0	852200	3055	3055	0	0
3	2934240	0	162635	42495	.040	17899	1816000	0	923750	3382	3382	0	0
4	841658	0	185868	42782	-.180	-81644	693413	0	923750	3273	3273	0	0
5	167345	0	185869	42654	.110	49912	35300	0	915611	3382	3382	0	0
6	166516	0	209102	42285	.460	206288	3121	0	894720	3273	3273	0	0
7	26967	0	255570	40760	.680	293625	0	0	849353	3382	2945	436	0
8	15927	0	255570	39063	.570	235276	0	0	808256	3382	218	3164	0
9	94495	0	209102	37987	.210	84007	0	0	791910	3273	2618	655	0
10	817920	0	185869	37678	.190	75330	0	0	843984	3382	3316	65	0
11	97025	0	185868	39460	.320	132551	0	0	825254	3273	3273	0	0
12	21098	0	162635	38653	.100	40550	0	0	809958	3382	3382	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1971													
1	1914	0	13166	37994	.220	8089	0	0	790309	307	307	0	0
2	56160	0	162635	37479	.090	35141	0	0	778718	3055	3055	0	0
3	38575	0	162635	36786	.310	119032	0	0	757715	3382	3382	0	0
4	131040	0	185868	36108	.240	90194	0	0	745906	3273	3273	0	0
5	55331	0	185869	35577	.210	77704	0	0	728351	3382	3382	0	0
6	15775	0	209102	34703	.490	176216	0	0	696122	3273	1462	1811	0
7	33644	0	255570	33402	.480	165685	0	0	662668	3382	1265	2116	0
8	34669	0	255570	32368	.250	83274	0	0	636991	3382	2989	393	0
9	12415	0	209102	31429	.360	115858	0	0	609956	3273	2007	1265	0
10	774720	0	185869	31326	.130	41649	0	0	661090	3382	2487	895	0
11	275716	0	185868	32957	.170	57261	0	0	665394	3273	3273	0	0
12	2985665	0	162635	39041	-.050	-19977	139268	0	923750	3382	3382	0	0
YEAR 1972													
1	132129	0	13166	42734	-.010	-413	119068	0	923750	307	307	0	0
2	141164	0	162635	42658	.190	83792	24783	0	912858	3164	3164	0	0
3	47018	0	162635	41962	.220	95511	0	0	894725	3382	3382	0	0
4	23956	0	185868	41260	.190	80876	0	0	873980	3273	3273	0	0
[illegible]	47738	0	185869	40424	.290	120846	0	0	851620	3382	3382	0	0
[illegible]	26095	0	209102	39492	.310	125778	0	0	824933	3273	3273	0	0
[illegible]	33098	0	255570	38324	.440	172888	0	0	790626	3382	1571	1811	0
8	16429	0	255570	36925	.510	192348	0	0	752899	3382	655	2727	0
9	19309	0	209102	35712	.290	105297	0	0	727417	3273	2160	1113	0
10	244931	0	185869	34911	.190	67307	0	0	727910	3382	2204	1178	0
11	137651	0	185868	35317	.030	10724	0	0	724055	3273	3273	0	0
12	90436	0	162635	34964	.030	10605	0	15843	717788	3382	3382	0	0
YEAR 1973													
1	53946	0	13166	35313	-.060	-2049	0	0	760311	307	307	0	0
2	637571	0	162635	37815	.000	0	0	0	804828	3055	3055	0	0
3	1806349	0	162635	40210	.060	24442	333206	0	923750	3382	3382	0	0
4	3986225	0	185868	42782	-.030	-13122	3467054	0	923750	3273	3273	0	0
5	1018691	0	185869	42735	.250	112002	670705	0	923750	3382	3382	0	0
6	3270720	0	209102	42782	.160	72481	2813750	0	923750	3273	3273	0	0
7	259462	0	255570	42553	.340	153864	35256	0	908956	3382	3382	0	0
8	63884	0	255570	41531	.520	229133	0	0	872866	3382	3338	44	0
9	297709	0	209102	40469	.170	72748	0	0	876055	3273	3273	0	0
10	1616749	0	185869	42114	.060	26763	821150	0	923750	3382	3382	0	0
11	367418	0	185868	42777	.130	59030	131146	0	923639	3273	3273	0	0
12	277287	0	162635	42686	.130	58884	64480	0	923521	3382	3382	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++
RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS
NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE
IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	************** STORED AC-FT
YEAR 1974													
1	50271	0	13166	42724	-.090	-3720	40289	0	923750	307	307	0	0
2	210087	0	162635	42785	.170	76963	10760	0	921528	3055	3055	0	0
3	123796	0	162635	42469	.200	90056	0	0	911089	3382	3382	0	0
4	50051	0	185868	41883	.250	110714	0	0	890173	3273	3273	0	0
5	376473	0	185869	41938	.210	93063	1790	0	900521	3382	3382	0	0
6	40058	0	209102	41319	.410	178474	0	0	870561	3273	3273	0	0
7	22320	0	255570	39859	.630	264235	0	0	827292	3382	3382	0	0
8	49702	0	255570	38449	.300	121072	0	0	799650	3382	3382	0	0
9	809236	0	209102	38624	.070	28288	0	0	853378	3273	3273	0	0
10	945011	0	185869	40994	.120	51453	51934	0	919173	3382	3382	0	0
11	4397913	0	185868	42782	.000	0	3893538	0	923750	3273	3273	0	0
12	779149	0	162635	42733	.010	4549	613461	0	923750	3382	3382	0	0
YEAR 1975													
1	50590	0	13166	42734	.030	1241	36224	0	923403	307	307	0	0
2	2238676	0	162635	42887	-.030	-13645	2078653	0	923750	3055	3055	0	0
3	558807	0	162635	42731	.060	27285	366903	0	923750	3382	3382	0	0
4	1944284	0	185868	42781	.080	36387	1716292	0	923750	3273	3273	0	0
-	4326087	0	185869	42735	.060	27295	4108392	0	923750	3382	3382	0	0
	1126538	0	209102	42782	.310	141023	774854	0	923750	3273	3273	0	0
,	165185	0	255570	42327	.420	189027	17564	0	898816	3382	3382	0	0
8	36000	0	255570	41069	.520	226538	0	0	860425	3382	3382	0	0
9	31505	0	209102	39770	.400	168175	0	0	830686	3273	3251	22	0
10	20247	0	185869	38687	.290	118503	0	0	806315	3382	3382	0	0
11	21818	0	185868	37864	.230	91716	0	0	784535	3273	3273	0	0
12	15927	0	162635	37103	.070	27334	0	0	769996	3382	3382	0	0
YEAR 1976													
1	2668	0	13166	36496	.160	5651	0	0	753539	307	307	0	0
2	39578	0	162635	35953	.200	75249	0	0	736740	3164	3164	0	0
3	231120	0	162635	35560	.100	37239	0	0	740836	3382	3382	0	0
4	1595411	0	185868	36827	.040	15389	3362	0	869105	3273	3273	0	0
5	1909331	0	185869	42389	.110	48755	1004361	0	923750	3382	3382	0	0
6	985287	0	209102	42751	.260	117162	617756	0	923750	3273	3273	0	0
7	933840	0	255570	42724	.250	112908	566960	0	920801	3382	3382	0	0
8	36676	0	255570	41887	.540	238992	0	0	881249	3382	3382	0	0
9	602247	0	209102	42312	.080	35634	11449	0	915501	3273	3273	0	0
10	523396	0	185869	42606	.070	31425	218671	0	922518	3382	3382	0	0
11	123796	0	185868	42566	.130	58184	27801	0	910213	3273	3273	0	0
12	811724	0	162635	42601	-.010	-4486	484427	0	922753	3382	3382	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++
RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS
NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE
IDNUM = 0 *MONTHLY SUMMARY*

	TOTAL*	OTHER*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-MON*	***** REQ. RELEASE **************			
MON	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	RELEASED	STORED
* *	AC-FT*	AC-FT*	AC-FT*	ACRES*	FEET*	AC-FT*	AC-FT*	AC-FT*	AC-FT *	AC-FT	AC-FT	AC-FT	AC-FT
YEAR 1977													
1	17064	0	13166	42711	-.060	-2479	5291	0	923533	307	307	0	0
2	1799127	0	162635	42888	.050	22607	1478272	0	923750	3055	3055	0	0
3	1707273	0	162635	42731	.100	45482	1492616	0	923750	3382	3382	0	0
4	3009534	0	185868	42782	.110	50041	2770356	0	923750	3273	3273	0	0
5	373069	0	185869	42585	.330	149540	186685	0	911127	3382	3382	0	0
6	58036	0	209102	41787	.390	172929	0	0	883424	3273	3273	0	0
7	28124	0	255570	40307	.700	299070	0	0	837678	3382	3382	0	0
8	26291	0	255570	38712	.500	204639	0	0	800339	3382	3382	0	0
9	24175	0	209102	37441	.450	177525	0	0	769024	3273	3273	0	0
10	11738	0	185869	36258	.390	148861	0	0	741053	3382	3382	0	0
11	12480	0	185868	35439	.090	33475	0	0	723759	3273	3273	0	0
12	19527	0	162635	34752	.180	65595	0	0	706008	3382	3382	0	0
YEAR 1978													
1	1065	0	13166	34229	-.060	-1987	0	0	695587	307	307	0	0
2	167193	0	162635	34218	-.060	-21371	0	0	699322	3055	3055	0	0
3	566662	0	162635	35123	.170	62313	0	0	731585	3382	3382	0	0
4	24349	0	185868	35002	.260	94711	0	0	709656	3273	3273	0	0
[illegible]	94255	0	185869	34303	.220	78444	0	0	695567	3382	3382	0	0
[illegible]	25615	0	209102	33541	.470	163194	0	0	665431	3273	3273	0	0
[illegible]	24524	0	255570	32168	.730	242395	0	0	623938	3382	3382	0	0
8	33251	0	255570	30775	.600	189793	0	0	588094	3382	3382	0	0
9	35345	0	209102	29720	.290	88120	0	0	565750	3273	3273	0	0
10	20029	0	185869	28823	.430	126531	0	29798	540222	3382	3382	0	0
11	28364	0	185868	28158	-.020	-5748	0	36950	528001	3273	3185	87	0
12	8444	0	162635	27679	.050	14163	0	32331	513956	3382	3382	0	0
YEAR 1979													
1	20817	0	13166	27603	-.070	-1869	0	0	523168	307	307	0	0
2	195665	0	162635	27980	-.040	-11415	0	14630	528592	3055	3055	0	0
3	960960	0	162635	28854	.060	17742	0	6562	600803	3382	3382	0	0
4	767084	0	185868	32150	.100	33018	0	0	652085	3273	3273	0	0
5	2882073	0	185869	36425	.100	37477	108359	0	895212	3382	3382	0	0
6	1549309	0	209102	42742	.390	172075	742032	0	921832	3273	3273	0	0
7	103025	0	255570	42194	.320	139801	0	0	897134	3382	3382	0	0
8	118844	0	255570	41275	.400	170533	0	0	870964	3382	3382	0	0
9	70036	0	209102	40267	.320	132635	0	0	847649	3273	3273	0	0
10	25375	0	185869	39267	.390	157459	0	0	819781	3382	3382	0	0
11	23542	0	185868	38426	.170	66918	0	0	800262	3273	3273	0	0
12	354611	0	162635	38032	.000	0	0	0	819026	3382	3382	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1980													
1	107820	0	13166	39419	-.030	-1143	0	0	914516	307	307	0	0
2	605825	0	162635	42734	.070	30583	290638	0	921711	3164	3164	0	0
3	130124	0	162635	42423	.140	60894	0	0	914319	3382	3382	0	0
4	1407644	0	185868	42617	.140	61143	977434	0	923750	3273	3273	0	0
5	2319120	0	185869	42735	.150	66474	1894259	0	923750	3382	3382	0	0
6	63360	0	209102	42208	.540	237708	0	0	890252	3273	3273	0	0
7	29062	0	255570	40492	.790	333236	0	0	840940	3382	3382	0	0
8	26618	0	255570	38647	.770	309200	0	0	793565	3382	3382	0	0
9	17236	0	209102	37185	.430	165541	0	0	762449	3273	3273	0	0
10	17978	0	185869	36046	.360	134176	0	0	736172	3382	3382	0	0
11	9535	0	185868	35224	.120	43538	0	0	717608	3273	3273	0	0
12	30938	0	162635	34603	.100	35584	0	0	703598	3382	3382	0	0
YEAR 1981													
1	1027	0	13166	34043	.100	3295	0	0	687858	307	307	0	0
2	10560	0	162635	33618	.050	17133	0	0	673753	3055	3055	0	0
3	95782	0	162635	33120	.090	30418	0	0	666102	3382	3382	0	0
4	68029	0	185868	32762	.200	66610	0	0	650608	3273	3273	0	0
[illegible]	318916	0	185869	32476	.140	46143	0	0	659846	3382	3382	0	0
[illegible]	3217985	0	209102	37627	.160	61292	125584	0	923750	3273	3273	0	0
[illegible]	308029	0	255570	42468	.460	199505	94244	0	900497	3382	3382	0	0
8	22756	0	255570	41043	.570	238242	0	0	858928	3382	3382	0	0
9	18109	0	209102	39766	.320	129012	0	0	831048	3273	3273	0	0
10	896575	0	185869	40272	.080	32669	0	0	894083	3382	3295	87	0
11	96742	0	185868	41508	.150	63055	0	0	881514	3273	3273	0	0
12	46865	0	162635	40825	.200	82597	0	0	864399	3382	3382	0	0

++ TWDB SIMDLY/RELEASE PROGRAM ++

RICHLAND CHAMBERS RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM= 0

** R U N S U M M A R Y **

TOTAL INFLOW	=	274249920	AC-FT	AVGANN INFLOW	=	6689022	AC-FT/YR
TOTAL EVAP LOSS	=	33362964	AC-FT	AVGANN EVAP LOSS	=	813731	AC-FT/YR
TOTAL D.S. SPILLS	=	155895578	AC-FT	AVGANN D.S. SPILLS	=	3802331	AC-FT/YR
TOTAL INF.PASSED	=	1253005	AC-FT	AVGANN INF.PASSED	=	30561	AC-FT/YR
TOTAL RELEASES	=	257710	AC-FT	AVGANN RELEASES	=	6286	AC-FT/YR

Cedar Creek Reservoir Model
SIMDLY Model
Cedar Creek Reservoir Drought Reserves Analyses
2050 Sediment Conditions

DAILY RESERVOIR RELEASE SIMULATION PROGRAM-TWDB
CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS
NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE
PERIOD 1941 TO 1981

* DEMAND DISTRIBUTION FACTORS *

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
.070	.070	.070	.080	.080	.090	.110	.110	.090	.080	.080	.070

* AREA VERSUS CAPACITY TABLE *

NUM	ACRES	ACRE-FEET
1	0.	0.
2	31.	55.
3	665.	1607.
4	1776.	7478.
5	3622.	20595.
6	5568.	43546.
7	7803.	77253.
8	10131.	122074.
9	13849.	181432.
10	18489.	262152.
11	23347.	366468.
12	28450.	496957.
13	32623.	557265.
14	0.	0.
15	0.	0.
16	0.	0.
17	0.	0.
18	0.	0.

* SIZE INFORMATION	CAPACITY ACRE-FEET *
TOP CONS. POOL	557265.
TOP MIN. POOL	157000.
ANNUAL DEMAND	138636. INCLUDES TU ELEC. DEMAND

CONTENT RELEASE REQUIREMENT TABLES

557265.	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

****

OUTPUT EDITED FOR BREVITY
ONLY CRITICAL PERIOD DAILY SIMULATIONS PRINTED

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAY, 1953

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	15384	0	358	30585	-.0026	-78	0	0	542923	0	0	0	0
2	7152	0	358	32112	-.0026	-82	0	0	556834	0	0	0	0
3	1538	0	358	32623	-.0026	-83	1183	0	557265	0	0	0	0
4	186	0	358	32623	-.0026	-83	48	0	557265	0	0	0	0
5	103	0	358	32621	-.0026	-83	0	0	557196	0	0	0	0
6	70	0	358	32614	-.0026	-83	0	0	557061	0	0	0	0
7	54	0	358	32603	-.0026	-83	0	0	556894	0	0	0	0
8	43	0	358	32591	-.0026	-83	0	0	556706	0	0	0	0
9	38	0	358	32577	-.0026	-83	0	0	556508	0	0	0	0
10	35	0	358	32564	-.0026	-83	0	0	556303	0	0	0	0
11	51	0	358	32550	-.0026	-83	0	0	556131	0	0	0	0
12	564	0	358	32574	-.0026	-83	0	0	556976	0	0	0	0
13	2780	0	358	32623	-.0026	-83	2496	0	557265	0	0	0	0
14	6383	0	358	32623	-.0026	-83	6245	0	557265	0	0	0	0
15	12213	0	358	32623	-.0026	-83	12075	0	557265	0	0	0	0
16	25775	0	358	32623	-.0026	-83	25637	0	557265	0	0	0	0
17	28339	0	358	32623	-.0026	-83	28201	0	557265	0	0	0	0
18	14440	0	358	32623	-.0026	-83	14302	0	557265	0	0	0	0
19	8637	0	358	32623	-.0026	-83	8499	0	557265	0	0	0	0
20	4291	0	358	32623	-.0026	-83	4153	0	557265	0	0	0	0
21	1403	0	358	32623	-.0026	-83	1265	0	557265	0	0	0	0
22	318	0	358	32623	-.0026	-83	180	0	557265	0	0	0	0
[illegible]	107	0	358	32621	-.0026	-83	0	0	557204	0	0	0	0
[illegible]	70	0	358	32614	-.0026	-83	0	0	557069	0	0	0	0
[illegible]	53	0	358	32604	-.0026	-83	0	0	556900	0	0	0	0
26	42	0	358	32591	-.0026	-83	0	0	556710	0	0	0	0
27	34	0	358	32577	-.0026	-83	0	0	556504	0	0	0	0
28	30	0	358	32563	-.0026	-83	0	0	556290	0	0	0	0
29	26	0	358	32548	-.0026	-83	0	0	556067	0	0	0	0
30	23	0	358	32532	-.0026	-83	0	0	555839	0	0	0	0
31	19	0	358	32516	-.0026	-83	0	0	555603	0	0	0	0
TOT	1562412	0	133668		-.0800	-30436	1202061	0		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUN, 1953

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	13	0	416	32474	.0180	585	0	0	554628	0	0	0	0
2	10	0	416	32407	.0180	583	0	0	553649	0	0	0	0
3	8	0	416	32339	.0180	582	0	0	552667	0	0	0	0
4	6	0	416	32271	.0180	581	0	0	551682	0	0	0	0
5	5	0	416	32203	.0180	580	0	0	550696	0	0	0	0
6	5	0	416	32134	.0180	578	0	0	549712	0	0	0	0
7	5	0	416	32066	.0180	577	0	0	548729	0	0	0	0
8	4	0	416	31998	.0180	576	0	0	547745	0	0	0	0
9	4	0	416	31930	.0180	575	0	0	546762	0	0	0	0
10	3	0	416	31862	.0180	574	0	0	545779	0	0	0	0
11	3	0	416	31794	.0180	572	0	0	544796	0	0	0	0
12	3	0	416	31726	.0180	571	0	0	543815	0	0	0	0
13	3	0	416	31658	.0180	570	0	0	542836	0	0	0	0
14	3	0	416	31591	.0180	569	0	0	541857	0	0	0	0
15	1	0	416	31523	.0180	567	0	0	540876	0	0	0	0
16	1	0	416	31455	.0180	566	0	0	539895	0	0	0	0
17	1	0	416	31387	.0180	565	0	0	538917	0	0	0	0
18	1	0	416	31320	.0180	564	0	0	537939	0	0	0	0
19	1	0	416	31252	.0180	563	0	0	536962	0	0	0	0
20	0	0	416	31184	.0180	561	0	0	535985	0	0	0	0
21	0	0	416	31117	.0180	560	0	0	535009	0	0	0	0
22	0	0	416	31049	.0180	559	0	0	534034	0	0	0	0
[illegible]	0	0	416	30982	.0180	558	0	0	533061	0	0	0	0
	0	0	416	30915	.0180	556	0	0	532088	0	0	0	0
[illegible]	0	0	416	30847	.0180	555	0	0	531117	0	0	0	0
26	0	0	416	30780	.0180	554	0	0	530147	0	0	0	0
27	0	0	416	30713	.0180	553	0	0	529178	0	0	0	0
28	0	0	416	30646	.0180	552	0	0	528211	0	0	0	0
29	0	0	416	30579	.0180	550	0	0	527244	0	0	0	0
30	0	0	416	30512	.0180	549	0	0	526279	0	0	0	0
TOT	960	0	150376		.5400	201452	0	0		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUL, 1953

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ***** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	492	30454	.0071	216	0	0	525571	0	0	0	0
2	0	0	492	30405	.0071	216	0	0	524863	0	0	0	0
3	0	0	492	30356	.0071	215	0	0	524156	0	0	0	0
4	0	0	492	30308	.0071	215	0	0	523449	0	0	0	0
5	0	0	492	30259	.0071	215	0	0	522742	0	0	0	0
6	0	0	492	30210	.0071	214	0	0	522036	0	0	0	0
7	0	0	492	30161	.0071	214	0	0	521330	0	0	0	0
8	0	0	492	30112	.0071	214	0	0	520624	0	0	0	0
9	0	0	492	30063	.0071	213	0	0	519919	0	0	0	0
10	0	0	492	30014	.0071	213	0	0	519214	0	0	0	0
11	0	0	492	29966	.0071	213	0	0	518510	0	0	0	0
12	0	0	492	29917	.0071	212	0	0	517805	0	0	0	0
13	0	0	492	29868	.0071	212	0	0	517101	0	0	0	0
14	0	0	492	29820	.0071	212	0	0	516398	0	0	0	0
15	0	0	492	29771	.0071	211	0	0	515695	0	0	0	0
16	0	0	492	29722	.0071	211	0	0	514992	0	0	0	0
17	0	0	492	29674	.0071	211	0	0	514289	0	0	0	0
18	0	0	492	29625	.0071	210	0	0	513587	0	0	0	0
19	0	0	492	29576	.0071	210	0	0	512885	0	0	0	0
20	0	0	492	29528	.0071	210	0	0	512184	0	0	0	0
21	0	0	492	29479	.0071	209	0	0	511483	0	0	0	0
22	0	0	492	29431	.0071	209	0	0	510782	0	0	0	0
23	0	0	492	29382	.0071	209	0	0	510081	0	0	0	0
	0	0	492	29334	.0071	208	0	0	509381	0	0	0	0
25	2	0	492	29286	.0071	208	0	0	508685	0	0	0	0
26	79	0	492	29243	.0071	208	0	0	508143	0	0	0	0
27	28	0	492	29202	.0071	207	0	0	507499	0	0	0	0
28	8	0	492	29156	.0071	207	0	0	506816	0	0	0	0
29	4	0	492	29108	.0071	207	0	0	506125	0	0	0	0
30	3	0	492	29060	.0071	206	0	0	505433	0	0	0	0
31	2	0	492	29012	.0071	206	0	0	504739	0	0	0	0
TOT	1512	0	183793		.2200	77677	0	0		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ AUG, 1953

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

*	TOTAL*	UPSTREAM*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-DAY*	***** REQ.	RELEASE	**************	
DAY	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	FROM STR	STORED
* *	CFS*	CFS*	AC-FT*	ACRES*	FEET*	AC-FT*	CFS*	AC-FT*	AC-FT *	CFS	CFS	CFS	CFS
1	2	0	492	28959	.0126	364	0	0	503887	0	0	0	0
2	1	0	492	28900	.0126	364	0	0	503033	0	0	0	0
3	1	0	492	28841	.0126	363	0	0	502181	0	0	0	0
4	0	0	492	28782	.0126	362	0	0	501327	0	0	0	0
5	0	0	492	28723	.0126	361	0	0	500473	0	0	0	0
6	0	0	492	28664	.0126	361	0	0	499621	0	0	0	0
7	0	0	492	28605	.0126	360	0	0	498769	0	0	0	0
8	0	0	492	28546	.0126	359	0	0	497918	0	0	0	0
9	0	0	492	28487	.0126	358	0	0	497068	0	0	0	0
10	0	0	492	28438	.0126	358	0	0	496218	0	0	0	0
11	0	0	492	28404	.0126	357	0	0	495369	0	0	0	0
12	0	0	492	28371	.0126	357	0	0	494520	0	0	0	0
13	0	0	492	28338	.0126	357	0	0	493671	0	0	0	0
14	0	0	492	28305	.0126	356	0	0	492823	0	0	0	0
15	0	0	492	28272	.0126	356	0	0	491976	0	0	0	0
16	0	0	492	28239	.0126	355	0	0	491128	0	0	0	0
17	0	0	492	28206	.0126	355	0	0	490282	0	0	0	0
18	0	0	492	28172	.0126	354	0	0	489435	0	0	0	0
19	451	0	492	28157	.0126	354	0	0	489484	0	0	0	0
20	62	0	492	28144	.0126	354	0	0	488761	0	0	0	0
21	10	0	492	28113	.0126	354	0	0	487935	0	0	0	0
22	4	0	492	28081	.0126	353	0	0	487098	0	0	0	0
[illegible]	3	0	492	28048	.0126	353	0	0	486259	0	0	0	0
	2	0	492	28015	.0126	352	0	0	485418	0	0	0	0
25	2	0	492	27982	.0126	352	0	0	484578	0	0	0	0
26	2	0	492	27949	.0126	352	0	0	483739	0	0	0	0
27	1	0	492	27917	.0126	351	0	0	482898	0	0	0	0
28	1	0	492	27884	.0126	351	0	0	482057	0	0	0	0
29	0	0	492	27851	.0126	350	0	0	481215	0	0	0	0
30	0	0	492	27818	.0126	350	0	0	480373	0	0	0	0
31	0	0	492	27785	.0126	350	0	0	479531	0	0	0	0
TOT	6504	0	183793		.3900	131131	0	0		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ SEP, 1953

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	416	27754	.0120	333	0	0	478782	0	0	0	0
2	0	0	416	27725	.0120	333	0	0	478034	0	0	0	0
3	182	0	416	27702	.0120	332	0	0	477646	0	0	0	0
4	1844	0	416	27752	.0120	333	0	0	480555	0	0	0	0
5	840	0	416	27826	.0120	334	0	0	481471	0	0	0	0
6	181	0	416	27837	.0120	334	0	0	481080	0	0	0	0
7	48	0	416	27816	.0120	334	0	0	480426	0	0	0	0
8	18	0	416	27790	.0120	333	0	0	479712	0	0	0	0
9	8	0	416	27761	.0120	333	0	0	478979	0	0	0	0
10	5	0	416	27732	.0120	333	0	0	478240	0	0	0	0
11	3	0	416	27704	.0120	332	0	0	477498	0	0	0	0
12	1	0	416	27674	.0120	332	0	0	476752	0	0	0	0
13	1	0	416	27645	.0120	332	0	0	476006	0	0	0	0
14	1	0	416	27616	.0120	331	0	0	475261	0	0	0	0
15	0	0	416	27587	.0120	331	0	0	474514	0	0	0	0
16	0	0	416	27558	.0120	331	0	0	473767	0	0	0	0
17	0	0	416	27529	.0120	330	0	0	473021	0	0	0	0
18	0	0	416	27499	.0120	330	0	0	472275	0	0	0	0
19	0	0	416	27470	.0120	330	0	0	471529	0	0	0	0
20	0	0	416	27441	.0120	329	0	0	470784	0	0	0	0
21	0	0	416	27412	.0120	329	0	0	470039	0	0	0	0
22	0	0	416	27383	.0120	329	0	0	469295	0	0	0	0
[illegible]	0	0	416	27354	.0120	328	0	0	468551	0	0	0	0
[illegible]	0	0	416	27325	.0120	328	0	0	467807	0	0	0	0
25	0	0	416	27295	.0120	328	0	0	467064	0	0	0	0
26	0	0	416	27266	.0120	327	0	0	466320	0	0	0	0
27	0	0	416	27237	.0120	327	0	0	465578	0	0	0	0
28	0	0	416	27208	.0120	327	0	0	464835	0	0	0	0
29	0	0	416	27179	.0120	326	0	0	464093	0	0	0	0
30	0	0	416	27150	.0120	326	0	0	463352	0	0	0	0
TOT	37584	0	150376		.3600	117580	0	0		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ OCT, 1953

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

*	TOTAL*	UPSTREAM*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-DAY*	***** REQ. RELEASE **************			
DAY	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	FROM STR	STORED
* *	CFS*	CFS*	AC-FT*	ACRES*	FEET*	AC-FT*	CFS*	AC-FT*	AC-FT *	CFS	CFS	CFS	CFS
1	0	0	358	27124	.0090	245	0	0	462749	0	0	0	0
2	0	0	358	27100	.0090	245	0	0	462146	0	0	0	0
3	0	0	358	27077	.0090	245	0	0	461544	0	0	0	0
4	0	0	358	27053	.0090	244	0	0	460942	0	0	0	0
5	0	0	358	27030	.0090	244	0	0	460340	0	0	0	0
6	0	0	358	27006	.0090	244	0	0	459738	0	0	0	0
7	0	0	358	26983	.0090	244	0	0	459137	0	0	0	0
8	0	0	358	26959	.0090	244	0	0	458535	0	0	0	0
9	0	0	358	26936	.0090	243	0	0	457934	0	0	0	0
10	0	0	358	26912	.0090	243	0	0	457333	0	0	0	0
11	0	0	358	26889	.0090	243	0	0	456733	0	0	0	0
12	0	0	358	26865	.0090	243	0	0	456132	0	0	0	0
13	0	0	358	26842	.0090	242	0	0	455532	0	0	0	0
14	0	0	358	26818	.0090	242	0	0	454932	0	0	0	0
15	0	0	358	26795	.0090	242	0	0	454332	0	0	0	0
16	0	0	358	26771	.0090	242	0	0	453733	0	0	0	0
17	0	0	358	26748	.0090	242	0	0	453133	0	0	0	0
18	0	0	358	26724	.0090	241	0	0	452534	0	0	0	0
19	0	0	358	26701	.0090	241	0	0	451935	0	0	0	0
20	0	0	358	26678	.0090	241	0	0	451336	0	0	0	0
21	0	0	358	26654	.0090	241	0	0	450738	0	0	0	0
22	0	0	358	26631	.0090	241	0	0	450140	0	0	0	0
[illegible]	0	0	358	26607	.0090	240	0	0	449542	0	0	0	0
	0	0	358	26584	.0090	240	0	0	448944	0	0	0	0
25	0	0	358	26561	.0090	240	0	0	448346	0	0	0	0
26	40	0	358	26539	.0090	240	0	0	447828	0	0	0	0
27	13	0	358	26518	.0090	240	0	0	447256	0	0	0	0
28	3	0	358	26495	.0090	239	0	0	446665	0	0	0	0
29	0	0	358	26472	.0090	239	0	0	446068	0	0	0	0
30	0	0	358	26448	.0090	239	0	0	445472	0	0	0	0
31	0	0	358	26425	.0090	239	0	0	444875	0	0	0	0
TOT	672	0	133668		.2800	88791	0	0		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ NOV, 1953

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	370	26405	.0023	62	0	0	444444	0	0	0	0
2	0	0	370	26388	.0023	62	0	0	444013	0	0	0	0
3	0	0	370	26371	.0023	62	0	0	443581	0	0	0	0
4	1	0	370	26354	.0023	61	0	0	443152	0	0	0	0
5	4	0	370	26338	.0023	61	0	0	442729	0	0	0	0
6	3	0	370	26321	.0023	61	0	0	442304	0	0	0	0
7	19	0	370	26305	.0023	61	0	0	441910	0	0	0	0
8	15	0	370	26289	.0023	61	0	0	441509	0	0	0	0
9	7	0	370	26273	.0023	61	0	0	441092	0	0	0	0
10	5	0	370	26257	.0023	61	0	0	440671	0	0	0	0
11	3	0	370	26241	.0023	61	0	0	440246	0	0	0	0
12	1	0	370	26224	.0023	61	0	0	439817	0	0	0	0
13	1	0	370	26207	.0023	61	0	0	439388	0	0	0	0
14	0	0	370	26190	.0023	61	0	0	438957	0	0	0	0
15	0	0	370	26173	.0023	61	0	0	438527	0	0	0	0
16	0	0	370	26157	.0023	61	0	0	438096	0	0	0	0
17	0	0	370	26140	.0023	61	0	0	437665	0	0	0	0
18	0	0	370	26123	.0023	61	0	0	437235	0	0	0	0
19	0	0	370	26106	.0023	61	0	0	436804	0	0	0	0
20	0	0	370	26089	.0023	61	0	0	436373	0	0	0	0
21	0	0	370	26072	.0023	61	0	0	435943	0	0	0	0
22	0	0	370	26056	.0023	61	0	0	435512	0	0	0	0
[illegible]	0	0	370	26039	.0023	61	0	0	435082	0	0	0	0
[illegible]	0	0	370	26022	.0023	61	0	0	434652	0	0	0	0
[illegible]	0	0	370	26005	.0023	61	0	0	434221	0	0	0	0
26	0	0	370	25988	.0023	61	0	0	433791	0	0	0	0
27	1	0	370	25971	.0023	61	0	0	433363	0	0	0	0
28	5	0	370	25955	.0023	61	0	0	432942	0	0	0	0
29	7	0	370	25938	.0023	61	0	0	432526	0	0	0	0
30	5	0	370	25922	.0023	60	0	0	432106	0	0	0	0
TOT	924	0	133667		.0700	21674	0	0		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ DEC, 1953

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED ************** CFS
1	5	0	313	25909	-.0019	-49	0	0	431853	0	0	0	0
2	333	0	313	25912	-.0019	-49	0	0	432250	0	0	0	0
3	1179	0	313	25960	-.0019	-49	0	0	434326	0	0	0	0
4	1522	0	313	26055	-.0019	-49	0	0	437082	0	0	0	0
5	707	0	313	26131	-.0019	-50	0	0	438222	0	0	0	0
6	183	0	313	26155	-.0019	-50	0	0	438323	0	0	0	0
7	70	0	313	26155	-.0019	-50	0	0	438199	0	0	0	0
8	37	0	313	26148	-.0019	-50	0	0	438010	0	0	0	0
9	22	0	313	26140	-.0019	-50	0	0	437791	0	0	0	0
10	13	0	313	26132	-.0019	-50	0	0	437554	0	0	0	0
11	275	0	313	26132	-.0019	-50	0	0	437837	0	0	0	0
12	1612	0	313	26195	-.0019	-50	0	0	440772	0	0	0	0
13	1701	0	313	26314	-.0019	-50	0	0	443884	0	0	0	0
14	788	0	313	26400	-.0019	-50	0	0	445185	0	0	0	0
15	157	0	313	26426	-.0019	-50	0	0	445235	0	0	0	0
16	73	0	313	26425	-.0019	-50	0	0	445118	0	0	0	0
17	43	0	313	26419	-.0019	-50	0	0	444941	0	0	0	0
18	26	0	313	26412	-.0019	-50	0	0	444731	0	0	0	0
19	17	0	313	26403	-.0019	-50	0	0	444502	0	0	0	0
20	14	0	313	26394	-.0019	-50	0	0	444268	0	0	0	0
21	12	0	313	26385	-.0019	-50	0	0	444030	0	0	0	0
22	8	0	313	26375	-.0019	-50	0	0	443784	0	0	0	0
[illegible]	6	0	313	26366	-.0019	-50	0	0	443534	0	0	0	0
[illegible]	4	0	313	26356	-.0019	-50	0	0	443280	0	0	0	0
[illegible]	4	0	313	26346	-.0019	-50	0	0	443026	0	0	0	0
26	4	0	313	26336	-.0019	-50	0	0	442771	0	0	0	0
27	3	0	313	26326	-.0019	-50	0	0	442515	0	0	0	0
28	6	0	313	26316	-.0019	-50	0	0	442265	0	0	0	0
29	8	0	313	26306	-.0019	-50	0	0	442019	0	0	0	0
30	6	0	313	26297	-.0019	-50	0	0	441768	0	0	0	0
31	5	0	313	26287	-.0019	-50	0	0	441516	0	0	0	0
TOT	106116	0	116959		-.0600	-18637	0	0		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JAN, 1954

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	6	0	313	26277	-.0026	-67	0	0	441283	0	0	0	0
2	5	0	313	26268	-.0026	-67	0	0	441048	0	0	0	0
3	5	0	313	26259	-.0026	-67	0	0	440812	0	0	0	0
4	5	0	313	26250	-.0026	-67	0	0	440577	0	0	0	0
5	4	0	313	26241	-.0026	-67	0	0	440339	0	0	0	0
6	3	0	313	26231	-.0026	-67	0	0	440100	0	0	0	0
7	3	0	313	26222	-.0026	-67	0	0	439861	0	0	0	0
8	3	0	313	26212	-.0026	-67	0	0	439621	0	0	0	0
9	3	0	313	26203	-.0026	-67	0	0	439382	0	0	0	0
10	3	0	313	26194	-.0026	-67	0	0	439142	0	0	0	0
11	81	0	313	26187	-.0026	-67	0	0	439057	0	0	0	0
12	232	0	313	26190	-.0026	-67	0	0	439272	0	0	0	0
13	110	0	313	26194	-.0026	-67	0	0	439245	0	0	0	0
14	341	0	313	26201	-.0026	-67	0	0	439676	0	0	0	0
15	1640	0	313	26269	-.0026	-67	0	0	442683	0	0	0	0
16	3485	0	313	26458	-.0026	-67	0	0	449351	0	0	0	0
17	4804	0	313	26770	-.0026	-68	0	0	458636	0	0	0	0
18	5637	0	313	27165	-.0026	-69	0	0	469573	0	0	0	0
19	2434	0	313	27469	-.0026	-70	0	0	474159	0	0	0	0
20	347	0	313	27567	-.0026	-70	0	0	474605	0	0	0	0
21	133	0	313	27576	-.0026	-70	0	0	474627	0	0	0	0
22	118	0	313	27577	-.0026	-70	0	0	474620	0	0	0	0
[illegible]	101	0	313	27576	-.0026	-70	0	0	474578	0	0	0	0
	127	0	313	27575	-.0026	-70	0	0	474588	0	0	0	0
[illegible]	210	0	313	27579	-.0026	-70	0	0	474763	0	0	0	0
26	514	0	313	27597	-.0026	-70	0	0	475540	0	0	0	0
27	392	0	313	27623	-.0026	-70	0	0	476076	0	0	0	0
28	320	0	313	27641	-.0026	-70	0	0	476469	0	0	0	0
29	195	0	313	27652	-.0026	-70	0	0	476614	0	0	0	0
30	120	0	313	27654	-.0026	-70	0	0	476610	0	0	0	0
31	145	0	313	27655	-.0026	-70	0	0	476656	0	0	0	0
TOT	21526	0	9705		-.0800	-2147	0	0		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAR, 1954

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	7	0	313	27281	.0068	185	0	0	466813	0	0	0	0
2	6	0	313	27262	.0068	185	0	0	466327	0	0	0	0
3	5	0	313	27243	.0068	185	0	0	465839	0	0	0	0
4	4	0	313	27224	.0068	184	0	0	465350	0	0	0	0
5	4	0	313	27204	.0068	184	0	0	464860	0	0	0	0
6	3	0	313	27185	.0068	184	0	0	464369	0	0	0	0
7	3	0	313	27166	.0068	184	0	0	463878	0	0	0	0
8	2	0	313	27147	.0068	184	0	0	463385	0	0	0	0
9	2	0	313	27127	.0068	184	0	0	462892	0	0	0	0
10	2	0	313	27108	.0068	184	0	0	462399	0	0	0	0
11	2	0	313	27089	.0068	184	0	0	461907	0	0	0	0
12	2	0	313	27070	.0068	183	0	0	461414	0	0	0	0
13	2	0	313	27050	.0068	183	0	0	460922	0	0	0	0
14	2	0	313	27031	.0068	183	0	0	460430	0	0	0	0
15	2	0	313	27012	.0068	183	0	0	459938	0	0	0	0
16	2	0	313	26993	.0068	183	0	0	459446	0	0	0	0
17	2	0	313	26973	.0068	183	0	0	458954	0	0	0	0
18	2	0	313	26954	.0068	183	0	0	458462	0	0	0	0
19	2	0	313	26935	.0068	182	0	0	457971	0	0	0	0
20	3	0	313	26916	.0068	182	0	0	457481	0	0	0	0
21	2	0	313	26897	.0068	182	0	0	456990	0	0	0	0
22	3	0	313	26877	.0068	182	0	0	456501	0	0	0	0
[illegible]	3	0	313	26858	.0068	182	0	0	456012	0	0	0	0
	2	0	313	26839	.0068	182	0	0	455521	0	0	0	0
25	3	0	313	26820	.0068	182	0	0	455032	0	0	0	0
26	5	0	313	26801	.0068	182	0	0	454547	0	0	0	0
27	6	0	313	26782	.0068	181	0	0	454065	0	0	0	0
28	6	0	313	26763	.0068	181	0	0	453582	0	0	0	0
29	6	0	313	26744	.0068	181	0	0	453100	0	0	0	0
30	5	0	313	26725	.0068	181	0	0	452616	0	0	0	0
31	4	0	313	26706	.0068	181	0	0	452130	0	0	0	0
TOT	1248	0	116959		.2100	67172	0	0		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ APR, 1954

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	4	0	370	26689	.0020	53	0	0	451715	0	0	0	0
2	4	0	370	26673	.0020	53	0	0	451300	0	0	0	0
3	4	0	370	26656	.0020	53	0	0	450885	0	0	0	0
4	4	0	370	26640	.0020	53	0	0	450470	0	0	0	0
5	3	0	370	26624	.0020	53	0	0	450053	0	0	0	0
6	3	0	370	26608	.0020	53	0	0	449636	0	0	0	0
7	3	0	370	26591	.0020	53	0	0	449219	0	0	0	0
8	129	0	370	26580	.0020	53	0	0	449052	0	0	0	0
9	854	0	370	26601	.0020	53	0	0	450323	0	0	0	0
10	1269	0	370	26667	.0020	53	0	0	452417	0	0	0	0
11	391	0	370	26715	.0020	53	0	0	452769	0	0	0	0
12	117	0	370	26718	.0020	53	0	0	452578	0	0	0	0
13	267	0	370	26717	.0020	53	0	0	452684	0	0	0	0
14	1238	0	370	26758	.0020	54	0	0	454717	0	0	0	0
15	528	0	370	26810	.0020	54	0	0	455341	0	0	0	0
16	122	0	370	26819	.0020	54	0	0	455159	0	0	0	0
17	100	0	370	26811	.0020	54	0	0	454934	0	0	0	0
18	60	0	370	26801	.0020	54	0	0	454630	0	0	0	0
19	33	0	370	26788	.0020	54	0	0	454272	0	0	0	0
20	20	0	370	26773	.0020	54	0	0	453889	0	0	0	0
21	11	0	370	26758	.0020	54	0	0	453487	0	0	0	0
22	6	0	370	26742	.0020	53	0	0	453076	0	0	0	0
[illegible]	6	0	370	26726	.0020	53	0	0	452665	0	0	0	0
	5	0	370	26710	.0020	53	0	0	452252	0	0	0	0
[illegible]	5	0	370	26694	.0020	53	0	0	451839	0	0	0	0
26	4	0	370	26677	.0020	53	0	0	451423	0	0	0	0
27	3	0	370	26661	.0020	53	0	0	451006	0	0	0	0
28	1	0	370	26645	.0020	53	0	0	450585	0	0	0	0
29	1	0	370	26628	.0020	53	0	0	450164	0	0	0	0
30	6	0	370	26612	.0020	53	0	0	449753	0	0	0	0
TOT	62412	0	133667		.0600	18956	0	0		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAY, 1954

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY * *	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	37	0	358	26599	-.0010	-25	0	0	449495	0	0	0	0
2	150	0	358	26593	-.0010	-25	0	0	449460	0	0	0	0
3	132	0	358	26591	-.0010	-25	0	0	449390	0	0	0	0
4	95	0	358	26587	-.0010	-25	0	0	449246	0	0	0	0
5	67	0	358	26580	-.0010	-25	0	0	449047	0	0	0	0
6	33	0	358	26571	-.0010	-25	0	0	448781	0	0	0	0
7	19	0	358	26560	-.0010	-25	0	0	448486	0	0	0	0
8	12	0	358	26548	-.0010	-25	0	0	448178	0	0	0	0
9	6	0	358	26536	-.0010	-25	0	0	447858	0	0	0	0
10	6	0	358	26524	-.0010	-25	0	0	447538	0	0	0	0
11	907	0	358	26546	-.0010	-25	0	0	449005	0	0	0	0
12	5750	0	358	26791	-.0010	-25	0	0	460078	0	0	0	0
13	8132	0	358	27317	-.0010	-25	0	0	475876	0	0	0	0
14	3317	0	358	27748	-.0010	-26	0	0	482124	0	0	0	0
15	1139	0	358	27908	-.0010	-26	0	0	484053	0	0	0	0
16	197	0	358	27947	-.0010	-26	0	0	484113	0	0	0	0
17	102	0	358	27945	-.0010	-26	0	0	483984	0	0	0	0
18	78	0	358	27939	-.0010	-26	0	0	483808	0	0	0	0
19	74	0	358	27932	-.0010	-26	0	0	483624	0	0	0	0
20	50	0	358	27924	-.0010	-26	0	0	483393	0	0	0	0
21	36	0	358	27914	-.0010	-26	0	0	483133	0	0	0	0
22	27	0	358	27904	-.0010	-26	0	0	482856	0	0	0	0
[illegible]	22	0	358	27893	-.0010	-26	0	0	482569	0	0	0	0
[illegible]	18	0	358	27882	-.0010	-26	0	0	482274	0	0	0	0
25	14	0	358	27870	-.0010	-26	0	0	481971	0	0	0	0
26	13	0	358	27858	-.0010	-26	0	0	481666	0	0	0	0
27	12	0	358	27846	-.0010	-26	0	0	481359	0	0	0	0
28	10	0	358	27834	-.0010	-26	0	0	481048	0	0	0	0
29	9	0	358	27822	-.0010	-26	0	0	480735	0	0	0	0
30	9	0	358	27809	-.0010	-26	0	0	480422	0	0	0	0
31	8	0	358	27797	-.0010	-26	0	0	480107	0	0	0	0
TOT	245772	0	133668		-.0300	-9749	0	0		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUN, 1954

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	6	0	416	27774	.0163	454	0	0	479249	0	0	0	0
2	228	0	416	27749	.0163	453	0	0	478832	0	0	0	0
3	308	0	416	27736	.0163	453	0	0	478574	0	0	0	0
4	80	0	416	27717	.0163	453	0	0	477864	0	0	0	0
5	32	0	416	27688	.0163	452	0	0	477059	0	0	0	0
6	14	0	416	27655	.0163	452	0	0	476220	0	0	0	0
7	8	0	416	27622	.0163	451	0	0	475368	0	0	0	0
8	5	0	416	27589	.0163	451	0	0	474512	0	0	0	0
9	4	0	416	27555	.0163	450	0	0	473654	0	0	0	0
10	2	0	416	27522	.0163	450	0	0	472792	0	0	0	0
11	2	0	416	27488	.0163	449	0	0	471931	0	0	0	0
12	1	0	416	27454	.0163	448	0	0	471069	0	0	0	0
13	1	0	416	27421	.0163	448	0	0	470207	0	0	0	0
14	0	0	416	27387	.0163	447	0	0	469344	0	0	0	0
15	0	0	416	27353	.0163	447	0	0	468481	0	0	0	0
16	0	0	416	27320	.0163	446	0	0	467619	0	0	0	0
17	0	0	416	27286	.0163	446	0	0	466758	0	0	0	0
18	0	0	416	27252	.0163	445	0	0	465897	0	0	0	0
19	0	0	416	27219	.0163	445	0	0	465036	0	0	0	0
20	0	0	416	27185	.0163	444	0	0	464176	0	0	0	0
21	0	0	416	27151	.0163	443	0	0	463317	0	0	0	0
22	0	0	416	27118	.0163	443	0	0	462458	0	0	0	0
[illegible]	0	0	416	27084	.0163	442	0	0	461600	0	0	0	0
	0	0	416	27051	.0163	442	0	0	460742	0	0	0	0
25	0	0	416	27017	.0163	441	0	0	459885	0	0	0	0
26	0	0	416	26983	.0163	441	0	0	459028	0	0	0	0
27	0	0	416	26950	.0163	440	0	0	458172	0	0	0	0
28	0	0	416	26917	.0163	440	0	0	457317	0	0	0	0
29	0	0	416	26883	.0163	439	0	0	456462	0	0	0	0
30	0	0	416	26850	.0163	439	0	0	455607	0	0	0	0
TOT	8292	0	150376		.4900	158996	0	0		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUL, 1954

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

*	TOTAL*	UPSTREAM*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-DAY*	***** REQ.	RELEASE	**************	
DAY	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	FROM STR	STORED
* *	CFS*	CFS*	AC-FT*	ACRES*	FEET*	AC-FT*	CFS*	AC-FT*	AC-FT *	CFS	CFS	CFS	CFS
1	0	0	492	26809	.0271	726	0	0	454389	0	0	0	0
2	0	0	492	26761	.0271	725	0	0	453172	0	0	0	0
3	0	0	492	26714	.0271	724	0	0	451956	0	0	0	0
4	0	0	492	26666	.0271	723	0	0	450741	0	0	0	0
5	0	0	492	26619	.0271	721	0	0	449528	0	0	0	0
6	0	0	492	26572	.0271	720	0	0	448316	0	0	0	0
7	0	0	492	26524	.0271	719	0	0	447106	0	0	0	0
8	0	0	492	26477	.0271	717	0	0	445896	0	0	0	0
9	0	0	492	26430	.0271	716	0	0	444688	0	0	0	0
10	0	0	492	26382	.0271	715	0	0	443481	0	0	0	0
11	0	0	492	26335	.0271	714	0	0	442276	0	0	0	0
12	0	0	492	26288	.0271	712	0	0	441071	0	0	0	0
13	0	0	492	26241	.0271	711	0	0	439869	0	0	0	0
14	0	0	492	26194	.0271	710	0	0	438667	0	0	0	0
15	0	0	492	26147	.0271	708	0	0	437466	0	0	0	0
16	0	0	492	26100	.0271	707	0	0	436267	0	0	0	0
17	0	0	492	26053	.0271	706	0	0	435069	0	0	0	0
18	0	0	492	26006	.0271	705	0	0	433873	0	0	0	0
19	0	0	492	25960	.0271	703	0	0	432677	0	0	0	0
20	0	0	492	25913	.0271	702	0	0	431483	0	0	0	0
21	0	0	492	25866	.0271	701	0	0	430290	0	0	0	0
22	0	0	492	25820	.0271	700	0	0	429099	0	0	0	0
23	0	0	492	25773	.0271	698	0	0	427909	0	0	0	0
[illegible]	0	0	492	25726	.0271	697	0	0	426719	0	0	0	0
25	0	0	492	25680	.0271	696	0	0	425532	0	0	0	0
26	0	0	492	25634	.0271	695	0	0	424345	0	0	0	0
27	0	0	492	25587	.0271	693	0	0	423160	0	0	0	0
28	0	0	492	25541	.0271	692	0	0	421976	0	0	0	0
29	0	0	492	25495	.0271	691	0	0	420793	0	0	0	0
30	0	0	492	25448	.0271	690	0	0	419612	0	0	0	0
31	0	0	492	25402	.0271	688	0	0	418431	0	0	0	0
TOT	0	0	183793		.8400	258787	0	0		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ AUG, 1954

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	0	0	492	25355	.0294	744	0	0	417195	0	0	0	0
2	0	0	492	25307	.0294	743	0	0	415960	0	0	0	0
3	0	0	492	25258	.0294	741	0	0	414727	0	0	0	0
4	0	0	492	25210	.0294	740	0	0	413495	0	0	0	0
5	0	0	492	25162	.0294	739	0	0	412264	0	0	0	0
6	0	0	492	25114	.0294	737	0	0	411035	0	0	0	0
7	0	0	492	25066	.0294	736	0	0	409808	0	0	0	0
8	0	0	492	25018	.0294	734	0	0	408581	0	0	0	0
9	0	0	492	24970	.0294	733	0	0	407356	0	0	0	0
10	0	0	492	24922	.0294	732	0	0	406133	0	0	0	0
11	0	0	492	24874	.0294	730	0	0	404911	0	0	0	0
12	0	0	492	24826	.0294	729	0	0	403690	0	0	0	0
13	0	0	492	24779	.0294	727	0	0	402471	0	0	0	0
14	0	0	492	24731	.0294	726	0	0	401253	0	0	0	0
15	0	0	492	24684	.0294	725	0	0	400036	0	0	0	0
16	0	0	492	24636	.0294	723	0	0	398821	0	0	0	0
17	0	0	492	24588	.0294	722	0	0	397607	0	0	0	0
18	0	0	492	24541	.0294	720	0	0	396395	0	0	0	0
19	0	0	492	24494	.0294	719	0	0	395184	0	0	0	0
20	0	0	492	24446	.0294	718	0	0	393974	0	0	0	0
21	0	0	492	24399	.0294	716	0	0	392766	0	0	0	0
22	0	0	492	24352	.0294	715	0	0	391559	0	0	0	0
[illegible]	0	0	492	24305	.0294	713	0	0	390354	0	0	0	0
[illegible]	0	0	492	24258	.0294	712	0	0	389150	0	0	0	0
25	0	0	492	24210	.0294	711	0	0	387947	0	0	0	0
26	0	0	492	24163	.0294	709	0	0	386746	0	0	0	0
27	0	0	492	24117	.0294	708	0	0	385546	0	0	0	0
28	0	0	492	24070	.0294	707	0	0	384348	0	0	0	0
29	0	0	492	24023	.0294	705	0	0	383151	0	0	0	0
30	0	0	492	23976	.0294	704	0	0	381955	0	0	0	0
31	0	0	492	23929	.0294	702	0	0	380761	0	0	0	0
TOT	0	0	183793		.9100	263525	0	15819		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ SEP, 1954

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY * *	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	416	23887	.0227	541	0	0	379803	0	0	0	0
2	0	0	416	23850	.0227	541	0	0	378847	0	0	0	0
3	0	0	416	23812	.0227	540	0	0	377891	0	0	0	0
4	0	0	416	23775	.0227	539	0	0	376936	0	0	0	0
5	0	0	416	23738	.0227	538	0	0	375982	0	0	0	0
6	0	0	416	23700	.0227	537	0	0	375029	0	0	0	0
7	0	0	416	23663	.0227	536	0	0	374077	0	0	0	0
8	0	0	416	23626	.0227	536	0	0	373125	0	0	0	0
9	0	0	416	23589	.0227	535	0	0	372175	0	0	0	0
10	0	0	416	23552	.0227	534	0	0	371225	0	0	0	0
11	0	0	416	23514	.0227	533	0	0	370276	0	0	0	0
12	0	0	416	23477	.0227	532	0	0	369328	0	0	0	0
13	0	0	416	23440	.0227	531	0	0	368381	0	0	0	0
14	0	0	416	23403	.0227	530	0	0	367435	0	0	0	0
15	0	0	416	23366	.0227	530	0	0	366489	0	0	0	0
16	0	0	416	23326	.0227	529	0	0	365544	0	0	0	0
17	0	0	416	23282	.0227	528	0	0	364601	0	0	0	0
18	0	0	416	23238	.0227	527	0	0	363658	0	0	0	0
19	0	0	416	23194	.0227	526	0	0	362716	0	0	0	0
20	0	0	416	23150	.0227	525	0	0	361776	0	0	0	0
21	0	0	416	23107	.0227	524	0	0	360836	0	0	0	0
22	0	0	416	23063	.0227	523	0	0	359898	0	0	0	0
[illegible]	0	0	416	23019	.0227	522	0	0	358960	0	0	0	0
	0	0	416	22976	.0227	521	0	0	358023	0	0	0	0
25	0	0	416	22932	.0227	520	0	0	357087	0	0	0	0
26	0	0	416	22888	.0227	519	0	0	356153	0	0	0	0
27	0	0	416	22845	.0227	518	0	0	355219	0	0	0	0
28	0	0	416	22801	.0227	517	0	0	354286	0	0	0	0
29	0	0	416	22758	.0227	516	0	0	353355	0	0	0	0
30	0	0	416	22715	.0227	515	0	0	352424	0	0	0	0
TOT	0	0	150376		.6800	186826	0	25077		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ OCT, 1954

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	180	0	358	22693	.0003	7	0	0	352416	0	0	0	0
2	121	0	358	22690	.0003	7	0	0	352291	0	0	0	0
3	83	0	358	22682	.0003	7	0	0	352090	0	0	0	0
4	24	0	358	22670	.0003	7	0	0	351773	0	0	0	0
5	10	0	358	22655	.0003	7	0	0	351427	0	0	0	0
6	5	0	358	22638	.0003	7	0	0	351072	0	0	0	0
7	4	0	358	22622	.0003	7	0	0	350715	0	0	0	0
8	3	0	358	22605	.0003	7	0	0	350356	0	0	0	0
9	1	0	358	22588	.0003	7	0	0	349993	0	0	0	0
10	1	0	358	22571	.0003	7	0	0	349630	0	0	0	0
11	0	0	358	22554	.0003	7	0	0	349265	0	0	0	0
12	0	0	358	22537	.0003	7	0	0	348900	0	0	0	0
13	0	0	358	22520	.0003	7	0	0	348535	0	0	0	0
14	0	0	358	22503	.0003	7	0	0	348170	0	0	0	0
15	0	0	358	22486	.0003	7	0	0	347805	0	0	0	0
16	0	0	358	22469	.0003	7	0	0	347440	0	0	0	0
17	0	0	358	22452	.0003	7	0	0	347075	0	0	0	0
18	0	0	358	22435	.0003	7	0	0	346710	0	0	0	0
19	0	0	358	22418	.0003	7	0	0	346345	0	0	0	0
20	0	0	358	22401	.0003	7	0	0	345980	0	0	0	0
21	0	0	358	22384	.0003	7	0	0	345615	0	0	0	0
22	389	0	358	22385	.0003	7	0	0	346021	0	0	0	0
[illegible]	2076	0	358	22482	.0003	7	0	0	349774	0	0	0	0
[illegible]	3586	0	358	22727	.0003	7	0	0	356521	0	0	0	0
25	4316	0	358	23075	.0003	7	0	0	364717	0	0	0	0
26	2554	0	358	23370	.0003	8	0	0	369417	0	0	0	0
27	1048	0	358	23496	.0003	8	0	0	371131	0	0	0	0
28	375	0	358	23537	.0003	8	0	0	371509	0	0	0	0
29	266	0	358	23547	.0003	8	0	0	371671	0	0	0	0
30	186	0	358	23551	.0003	8	0	0	371675	0	0	0	0
31	126	0	358	23548	.0003	8	0	0	371559	0	0	0	0
TOT	184248	0	133668		.0100	2692	0	17257		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ NOV, 1954

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS **************
1	74	0	370	23540	.0040	94	0	0	371242	0	0	0	0
2	43	0	370	23526	.0040	94	0	0	370864	0	0	0	0
3	104	0	370	23514	.0040	94	0	0	370606	0	0	0	0
4	1662	0	370	23564	.0040	94	0	0	373439	0	0	0	0
5	2404	0	370	23704	.0040	95	0	0	377743	0	0	0	0
6	1598	0	370	23841	.0040	95	0	0	380447	0	0	0	0
7	252	0	370	23894	.0040	96	0	0	380482	0	0	0	0
8	104	0	370	23890	.0040	96	0	0	380223	0	0	0	0
9	66	0	370	23878	.0040	96	0	0	379889	0	0	0	0
10	46	0	370	23865	.0040	95	0	0	379515	0	0	0	0
11	33	0	370	23849	.0040	95	0	0	379115	0	0	0	0
12	23	0	370	23833	.0040	95	0	0	378696	0	0	0	0
13	20	0	370	23817	.0040	95	0	0	378270	0	0	0	0
14	24	0	370	23800	.0040	95	0	0	377853	0	0	0	0
15	408	0	370	23799	.0040	95	0	0	378197	0	0	0	0
16	1637	0	370	23860	.0040	95	0	0	380979	0	0	0	0
17	1765	0	370	23974	.0040	96	0	0	384014	0	0	0	0
18	534	0	370	24045	.0040	96	0	0	384608	0	0	0	0
19	98	0	370	24051	.0040	96	0	0	384336	0	0	0	0
20	61	0	370	24039	.0040	96	0	0	383991	0	0	0	0
21	36	0	370	24025	.0040	96	0	0	383597	0	0	0	0
22	20	0	370	24009	.0040	96	0	0	383171	0	0	0	0
[illegible]	15	0	370	23992	.0040	96	0	0	382735	0	0	0	0
	10	0	370	23974	.0040	96	0	0	382289	0	0	0	0
[illegible]	8	0	370	23957	.0040	96	0	0	381840	0	0	0	0
26	6	0	370	23939	.0040	96	0	0	381386	0	0	0	0
27	6	0	370	23922	.0040	96	0	0	380933	0	0	0	0
28	5	0	370	23904	.0040	96	0	0	380477	0	0	0	0
29	4	0	370	23886	.0040	96	0	0	380020	0	0	0	0
30	4	0	370	23868	.0040	95	0	0	379563	0	0	0	0
TOT	132840	0	133667		.1200	33935	0	0		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ DEC, 1954

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

	TOTAL*	UPSTREAM*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-DAY*	***** REQ.	RELEASE	**************	
DAY	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	FROM STR	STORED
* *	CFS*	CFS*	AC-FT*	ACRES*	FEET*	AC-FT*	CFS*	AC-FT*	AC-FT *	CFS	CFS	CFS	CFS
1	4	0	313	23851	.0052	123	0	0	379134	0	0	0	0
2	2	0	313	23834	.0052	123	0	0	378702	0	0	0	0
3	2	0	313	23817	.0052	123	0	0	378270	0	0	0	0
4	2	0	313	23800	.0052	123	0	0	377838	0	0	0	0
5	2	0	313	23783	.0052	123	0	0	377407	0	0	0	0
6	2	0	313	23766	.0052	123	0	0	376975	0	0	0	0
7	1	0	313	23749	.0052	123	0	0	376541	0	0	0	0
8	1	0	313	23732	.0052	122	0	0	376108	0	0	0	0
9	2	0	313	23716	.0052	122	0	0	375676	0	0	0	0
10	2	0	313	23699	.0052	122	0	0	375245	0	0	0	0
11	5	0	313	23682	.0052	122	0	0	374819	0	0	0	0
12	158	0	313	23671	.0052	122	0	0	374697	0	0	0	0
13	147	0	313	23666	.0052	122	0	0	374554	0	0	0	0
14	102	0	313	23659	.0052	122	0	0	374321	0	0	0	0
15	47	0	313	23647	.0052	122	0	0	373979	0	0	0	0
16	22	0	313	23633	.0052	122	0	0	373588	0	0	0	0
17	12	0	313	23617	.0052	122	0	0	373177	0	0	0	0
18	7	0	313	23601	.0052	122	0	0	372756	0	0	0	0
19	6	0	313	23585	.0052	122	0	0	372333	0	0	0	0
20	5	0	313	23568	.0052	122	0	0	371908	0	0	0	0
21	5	0	313	23551	.0052	122	0	0	371483	0	0	0	0
22	4	0	313	23535	.0052	121	0	0	371057	0	0	0	0
[illegible]	4	0	313	23518	.0052	121	0	0	370630	0	0	0	0
[illegible]	4	0	313	23501	.0052	121	0	0	370204	0	0	0	0
[illegible]	2	0	313	23485	.0052	121	0	0	369773	0	0	0	0
26	2	0	313	23468	.0052	121	0	0	369343	0	0	0	0
27	2	0	313	23451	.0052	121	0	0	368913	0	0	0	0
28	4	0	313	23434	.0052	121	0	0	368487	0	0	0	0
29	4	0	313	23418	.0052	121	0	0	368061	0	0	0	0
30	6	0	313	23401	.0052	121	0	0	367639	0	0	0	0
31	34	0	313	23386	.0052	121	0	0	367273	0	0	0	0
TOT	7224	0	116959		.1600	44756	0	9663		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JAN, 1955

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

	TOTAL*	UPSTREAM*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-DAY*	***** REQ.	RELEASE	********	******
DAY	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	FROM STR	STORED
* *	CFS*	CFS*	AC-FT*	ACRES*	FEET*	AC-FT*	CFS*	AC-FT*	AC-FT *	CFS	CFS	CFS	CFS
1	33	0	313	23373	.0010	23	0	0	367003	0	0	0	0
2	23	0	313	23362	.0010	23	0	0	366713	0	0	0	0
3	15	0	313	23351	.0010	23	0	0	366407	0	0	0	0
4	10	0	313	23337	.0010	23	0	0	366091	0	0	0	0
5	9	0	313	23322	.0010	23	0	0	365773	0	0	0	0
6	8	0	313	23307	.0010	23	0	0	365453	0	0	0	0
7	6	0	313	23292	.0010	23	0	0	365130	0	0	0	0
8	5	0	313	23277	.0010	23	0	0	364804	0	0	0	0
9	5	0	313	23262	.0010	23	0	0	364478	0	0	0	0
10	8	0	313	23247	.0010	22	0	0	364159	0	0	0	0
11	28	0	313	23233	.0010	22	0	0	363879	0	0	0	0
12	140	0	313	23225	.0010	22	0	0	363821	0	0	0	0
13	76	0	313	23219	.0010	22	0	0	363636	0	0	0	0
14	46	0	313	23209	.0010	22	0	0	363392	0	0	0	0
15	31	0	313	23197	.0010	22	0	0	363118	0	0	0	0
16	24	0	313	23184	.0010	22	0	0	362830	0	0	0	0
17	27	0	313	23171	.0010	22	0	0	362548	0	0	0	0
18	170	0	313	23164	.0010	22	0	0	362550	0	0	0	0
19	386	0	313	23175	.0010	22	0	0	362980	0	0	0	0
20	274	0	313	23189	.0010	22	0	0	363188	0	0	0	0
21	135	0	313	23193	.0010	22	0	0	363120	0	0	0	0
22	79	0	313	23187	.0010	22	0	0	362941	0	0	0	0
[illegible]	51	0	313	23177	.0010	22	0	0	362707	0	0	0	0
	32	0	313	23166	.0010	22	0	0	362435	0	0	0	0
25	22	0	313	23152	.0010	22	0	0	362143	0	0	0	0
26	17	0	313	23139	.0010	22	0	0	361841	0	0	0	0
27	13	0	313	23124	.0010	22	0	0	361532	0	0	0	0
28	12	0	313	23110	.0010	22	0	0	361220	0	0	0	0
29	10	0	313	23095	.0010	22	0	0	360905	0	0	0	0
30	9	0	313	23081	.0010	22	0	0	360587	0	0	0	0
31	8	0	313	23066	.0010	22	0	0	360268	0	0	0	0
TOT	1712	0	9705		.0300	696	0	0		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	8	0	347	23053	-.0039	-90	0	0	360027	0	0	0	0
2	8	0	347	23041	-.0039	-90	0	0	359787	0	0	0	0
3	6	0	347	23030	-.0039	-89	0	0	359543	0	0	0	0
4	300	0	347	23032	-.0039	-89	0	0	359882	0	0	0	0
5	2373	0	347	23144	-.0039	-90	0	0	364333	0	0	0	0
6	3079	0	347	23378	-.0039	-91	0	0	370186	0	0	0	0
7	1860	0	347	23560	-.0039	-92	0	0	373621	0	0	0	0
8	298	0	347	23633	-.0039	-92	0	0	373958	0	0	0	0
9	110	0	347	23639	-.0039	-92	0	0	373923	0	0	0	0
10	73	0	347	23636	-.0039	-92	0	0	373814	0	0	0	0
11	49	0	347	23631	-.0039	-92	0	0	373657	0	0	0	0
12	31	0	347	23624	-.0039	-92	0	0	373465	0	0	0	0
13	21	0	347	23616	-.0039	-92	0	0	373253	0	0	0	0
14	17	0	347	23608	-.0039	-92	0	0	373032	0	0	0	0
15	14	0	347	23599	-.0039	-92	0	0	372806	0	0	0	0
16	12	0	347	23590	-.0039	-92	0	0	372576	0	0	0	0
17	10	0	347	23581	-.0039	-92	0	0	372342	0	0	0	0
18	10	0	347	23572	-.0039	-92	0	0	372108	0	0	0	0
19	62	0	347	23565	-.0039	-92	0	0	371977	0	0	0	0
20	1071	0	347	23599	-.0039	-92	0	0	373847	0	0	0	0
21	1134	0	347	23675	-.0039	-92	0	0	375843	0	0	0	0
22	414	0	347	23725	-.0039	-92	0	0	376411	0	0	0	0
23	148	0	347	23737	-.0039	-92	0	0	376451	0	0	0	0
	82	0	347	23736	-.0039	-92	0	0	376360	0	0	0	0
25	51	0	347	23731	-.0039	-92	0	0	376208	0	0	0	0
26	36	0	347	23724	-.0039	-92	0	0	376026	0	0	0	0
27	28	0	347	23717	-.0039	-92	0	0	375828	0	0	0	0
28	23	0	347	23709	-.0039	-92	0	0	375620	0	0	0	0
TOT	135936	0	116959		-.1100	-30781	0	1954		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAR, 1955

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	19	0	313	23699	.0016	38	0	0	375307	0	0	0	0
2	17	0	313	23686	.0016	38	0	0	374989	0	0	0	0
3	14	0	313	23674	.0016	38	0	0	374666	0	0	0	0
4	13	0	313	23661	.0016	38	0	0	374340	0	0	0	0
5	12	0	313	23648	.0016	38	0	0	374013	0	0	0	0
6	12	0	313	23636	.0016	38	0	0	373686	0	0	0	0
7	10	0	313	23623	.0016	38	0	0	373354	0	0	0	0
8	8	0	313	23610	.0016	38	0	0	373019	0	0	0	0
9	6	0	313	23597	.0016	38	0	0	372680	0	0	0	0
10	6	0	313	23583	.0016	38	0	0	372341	0	0	0	0
11	6	0	313	23570	.0016	38	0	0	372001	0	0	0	0
12	6	0	313	23557	.0016	38	0	0	371662	0	0	0	0
13	6	0	313	23544	.0016	38	0	0	371323	0	0	0	0
14	5	0	313	23530	.0016	38	0	0	370982	0	0	0	0
15	5	0	313	23517	.0016	38	0	0	370641	0	0	0	0
16	5	0	313	23504	.0016	38	0	0	370300	0	0	0	0
17	5	0	313	23490	.0016	38	0	0	369959	0	0	0	0
18	4	0	313	23477	.0016	38	0	0	369616	0	0	0	0
19	5	0	313	23463	.0016	38	0	0	369275	0	0	0	0
20	56	0	313	23452	.0016	38	0	0	369035	0	0	0	0
21	2038	0	313	23520	.0016	38	0	0	372727	0	0	0	0
22	5474	0	313	23797	.0016	38	0	0	383233	0	0	0	0
[illegible]	3564	0	313	24134	.0016	39	0	0	389950	0	0	0	0
[illegible]	1820	0	313	24329	.0016	39	0	0	393207	0	0	0	0
25	222	0	313	24394	.0016	39	0	0	393295	0	0	0	0
26	92	0	313	24393	.0016	39	0	0	393125	0	0	0	0
27	58	0	313	24385	.0016	39	0	0	392888	0	0	0	0
28	41	0	313	24375	.0016	39	0	0	392617	0	0	0	0
29	31	0	313	24364	.0016	39	0	0	392326	0	0	0	0
30	26	0	313	24352	.0016	39	0	0	392025	0	0	0	0
31	23	0	313	24340	.0016	39	0	0	391719	0	0	0	0
TOT	163308	0	116959		.0500	14162	0	6222		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ APR, 1955

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	23	0	370	24327	.0023	57	0	0	391338	0	0	0	0
2	217	0	370	24320	.0023	57	0	0	391342	0	0	0	0
3	277	0	370	24322	.0023	57	0	0	391465	0	0	0	0
4	96	0	370	24320	.0023	57	0	0	391229	0	0	0	0
5	51	0	370	24309	.0023	57	0	0	390904	0	0	0	0
6	35	0	370	24296	.0023	57	0	0	390547	0	0	0	0
7	23	0	370	24281	.0023	57	0	0	390166	0	0	0	0
8	17	0	370	24266	.0023	57	0	0	389773	0	0	0	0
9	15	0	370	24251	.0023	57	0	0	389377	0	0	0	0
10	546	0	370	24256	.0023	57	0	0	390033	0	0	0	0
11	2205	0	370	24346	.0023	57	0	0	393981	0	0	0	0
12	2667	0	370	24518	.0023	57	0	0	398844	0	0	0	0
13	4873	0	370	24794	.0023	58	0	0	408081	0	0	0	0
14	5385	0	370	25175	.0023	59	0	0	418334	0	0	0	0
15	4539	0	370	25543	.0023	60	0	0	426908	0	0	0	0
16	1295	0	370	25752	.0023	60	0	0	429046	0	0	0	0
17	164	0	370	25792	.0023	60	0	0	428942	0	0	0	0
18	96	0	370	25785	.0023	60	0	0	428702	0	0	0	0
19	67	0	370	25775	.0023	60	0	0	428405	0	0	0	0
20	54	0	370	25763	.0023	60	0	0	428083	0	0	0	0
21	50	0	370	25750	.0023	60	0	0	427752	0	0	0	0
22	38	0	370	25737	.0023	60	0	0	427398	0	0	0	0
[illegible]	33	0	370	25723	.0023	60	0	0	427033	0	0	0	0
	27	0	370	25708	.0023	60	0	0	426657	0	0	0	0
25	21	0	370	25693	.0023	60	0	0	426269	0	0	0	0
26	18	0	370	25678	.0023	60	0	0	425875	0	0	0	0
27	23	0	370	25663	.0023	60	0	0	425491	0	0	0	0
28	18	0	370	25648	.0023	60	0	0	425098	0	0	0	0
29	12	0	370	25632	.0023	60	0	0	424692	0	0	0	0
30	9	0	370	25616	.0023	60	0	0	424280	0	0	0	0
TOT	274728	0	133667		.0700	21024	0	0		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAY, 1955

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL INFLOW CFS	UPSTREAM SPILLS CFS	DAILY DEMAND AC-FT	RES. AREA ACRES	EVAP DEPTH FEET	EVAP LOSS AC-FT	DWNSTRM SPILLS CFS	DEMAND SHTGE. AC-FT	E-O-DAY CONTENT AC-FT	REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	6	0	358	25600	.0023	58	0	0	423877	0	0	0	0
2	5	0	358	25584	.0023	58	0	0	423471	0	0	0	0
3	4	0	358	25568	.0023	58	0	0	423063	0	0	0	0
4	4	0	358	25552	.0023	58	0	0	422656	0	0	0	0
5	4	0	358	25536	.0023	58	0	0	422248	0	0	0	0
6	3	0	358	25520	.0023	58	0	0	421839	0	0	0	0
7	3	0	358	25504	.0023	58	0	0	421430	0	0	0	0
8	3	0	358	25488	.0023	58	0	0	421020	0	0	0	0
9	3	0	358	25472	.0023	58	0	0	420611	0	0	0	0
10	1	0	358	25456	.0023	57	0	0	420198	0	0	0	0
11	1	0	358	25440	.0023	57	0	0	419784	0	0	0	0
12	3	0	358	25424	.0023	57	0	0	419375	0	0	0	0
13	3	0	358	25408	.0023	57	0	0	418966	0	0	0	0
14	1	0	358	25392	.0023	57	0	0	418553	0	0	0	0
15	1	0	358	25376	.0023	57	0	0	418140	0	0	0	0
16	112	0	358	25364	.0023	57	0	0	417947	0	0	0	0
17	852	0	358	25385	.0023	57	0	0	419222	0	0	0	0
18	325	0	358	25415	.0023	57	0	0	419451	0	0	0	0
19	127	0	358	25416	.0023	57	0	0	419288	0	0	0	0
20	250	0	358	25414	.0023	57	0	0	419369	0	0	0	0
21	298	0	358	25419	.0023	57	0	0	419544	0	0	0	0
22	126	0	358	25419	.0023	57	0	0	419379	0	0	0	0
[illegible]	55	0	358	25410	.0023	57	0	0	419073	0	0	0	0
	28	0	358	25397	.0023	57	0	0	418714	0	0	0	0
25	17	0	358	25383	.0023	57	0	0	418332	0	0	0	0
26	10	0	358	25368	.0023	57	0	0	417937	0	0	0	0
27	15	0	358	25352	.0023	57	0	0	417552	0	0	0	0
28	15	0	358	25337	.0023	57	0	0	417166	0	0	0	0
29	9	0	358	25322	.0023	57	0	0	416769	0	0	0	0
30	5	0	358	25306	.0023	57	0	0	416364	0	0	0	0
31	6	0	358	25290	.0023	57	0	0	415961	0	0	0	0
TOT	27540	0	133668		.0700	21326	0	0		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUN, 1955

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	4	0	416	25269	.0110	278	0	0	415275	0	0	0	0
2	3	0	416	25242	.0110	278	0	0	414588	0	0	0	0
3	1	0	416	25215	.0110	277	0	0	413897	0	0	0	0
4	1	0	416	25188	.0110	277	0	0	413206	0	0	0	0
5	1	0	416	25161	.0110	277	0	0	412515	0	0	0	0
6	0	0	416	25134	.0110	276	0	0	411822	0	0	0	0
7	0	0	416	25107	.0110	276	0	0	411130	0	0	0	0
8	0	0	416	25080	.0110	276	0	0	410439	0	0	0	0
9	0	0	416	25053	.0110	276	0	0	409747	0	0	0	0
10	0	0	416	25026	.0110	275	0	0	409056	0	0	0	0
11	0	0	416	24999	.0110	275	0	0	408365	0	0	0	0
12	0	0	416	24972	.0110	275	0	0	407674	0	0	0	0
13	0	0	416	24945	.0110	274	0	0	406984	0	0	0	0
14	0	0	416	24918	.0110	274	0	0	406294	0	0	0	0
15	0	0	416	24891	.0110	274	0	0	405604	0	0	0	0
16	37	0	416	24865	.0110	274	0	0	404988	0	0	0	0
17	633	0	416	24864	.0110	274	0	0	405554	0	0	0	0
18	338	0	416	24875	.0110	274	0	0	405535	0	0	0	0
19	58	0	416	24864	.0110	273	0	0	404961	0	0	0	0
20	35	0	416	24840	.0110	273	0	0	404341	0	0	0	0
21	229	0	416	24824	.0110	273	0	0	404106	0	0	0	0
22	173	0	416	24812	.0110	273	0	0	403761	0	0	0	0
[illegible]	29	0	416	24793	.0110	273	0	0	403130	0	0	0	0
[illegible]	116	0	416	24772	.0110	272	0	0	402671	0	0	0	0
25	40	0	416	24751	.0110	272	0	0	402062	0	0	0	0
26	13	0	416	24726	.0110	272	0	0	401400	0	0	0	0
27	5	0	416	24700	.0110	272	0	0	400723	0	0	0	0
28	4	0	416	24673	.0110	271	0	0	400043	0	0	0	0
29	4	0	416	24647	.0110	271	0	0	399364	0	0	0	0
30	3	0	416	24620	.0110	271	0	0	398683	0	0	0	0
TOT	20724	0	150376		.3300	98302	0	2756		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUL, 1955

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL INFLOW CFS	UPSTREAM SPILLS CFS	DAILY DEMAND AC-FT	RES. AREA ACRES	EVAP DEPTH FEET	EVAP LOSS AC-FT	DWNSTRM SPILLS CFS	DEMAND SHTGE. AC-FT	E-O-DAY CONTENT AC-FT	REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	2	0	492	24590	.0148	365	0	0	397831	0	0	0	0
2	1	0	492	24557	.0148	364	0	0	396976	0	0	0	0
3	1	0	492	24523	.0148	364	0	0	396122	0	0	0	0
4	1	0	492	24490	.0148	363	0	0	395269	0	0	0	0
5	1	0	492	24457	.0148	363	0	0	394416	0	0	0	0
6	1	0	492	24423	.0148	362	0	0	393564	0	0	0	0
7	0	0	492	24390	.0148	362	0	0	392710	0	0	0	0
8	0	0	492	24357	.0148	361	0	0	391857	0	0	0	0
9	0	0	492	24323	.0148	361	0	0	391004	0	0	0	0
10	0	0	492	24290	.0148	360	0	0	390151	0	0	0	0
11	0	0	492	24257	.0148	360	0	0	389300	0	0	0	0
12	0	0	492	24223	.0148	359	0	0	388448	0	0	0	0
13	0	0	492	24190	.0148	359	0	0	387597	0	0	0	0
14	0	0	492	24157	.0148	358	0	0	386747	0	0	0	0
15	0	0	492	24123	.0148	358	0	0	385897	0	0	0	0
16	0	0	492	24090	.0148	357	0	0	385048	0	0	0	0
17	0	0	492	24057	.0148	357	0	0	384199	0	0	0	0
18	0	0	492	24024	.0148	356	0	0	383350	0	0	0	0
19	12	0	492	23991	.0148	356	0	0	382526	0	0	0	0
20	37	0	492	23960	.0148	356	0	0	381752	0	0	0	0
21	12	0	492	23929	.0148	355	0	0	380929	0	0	0	0
22	4	0	492	23896	.0148	355	0	0	380090	0	0	0	0
[illegible]	3	0	492	23863	.0148	354	0	0	379250	0	0	0	0
	2	0	492	23830	.0148	354	0	0	378409	0	0	0	0
25	2	0	492	23798	.0148	353	0	0	377568	0	0	0	0
26	1	0	492	23765	.0148	353	0	0	376725	0	0	0	0
27	1	0	492	23732	.0148	352	0	0	375883	0	0	0	0
28	1	0	492	23699	.0148	352	0	0	375041	0	0	0	0
29	1	0	492	23666	.0148	351	0	0	374200	0	0	0	0
30	1	0	492	23633	.0148	351	0	0	373360	0	0	0	0
31	0	0	492	23600	.0148	350	0	0	372517	0	0	0	0
TOT	1008	0	183793		.4600	132370	0	30650		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ AUG, 1955

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	492	23573	.0026	61	0	0	371965	0	0	0	0
2	0	0	492	23551	.0026	61	0	0	371412	0	0	0	0
3	0	0	492	23530	.0026	61	0	0	370859	0	0	0	0
4	0	0	492	23508	.0026	61	0	0	370307	0	0	0	0
5	0	0	492	23486	.0026	61	0	0	369754	0	0	0	0
6	74	0	492	23468	.0026	61	0	0	369348	0	0	0	0
7	34	0	492	23450	.0026	61	0	0	368863	0	0	0	0
8	11	0	492	23430	.0026	60	0	0	368333	0	0	0	0
9	4	0	492	23409	.0026	60	0	0	367788	0	0	0	0
10	3	0	492	23388	.0026	60	0	0	367242	0	0	0	0
11	2	0	492	23367	.0026	60	0	0	366694	0	0	0	0
12	2	0	492	23345	.0026	60	0	0	366146	0	0	0	0
13	2	0	492	23319	.0026	60	0	0	365597	0	0	0	0
14	2	0	492	23294	.0026	60	0	0	365049	0	0	0	0
15	1	0	492	23268	.0026	60	0	0	364499	0	0	0	0
16	1	0	492	23243	.0026	60	0	0	363949	0	0	0	0
17	1	0	492	23217	.0026	60	0	0	363400	0	0	0	0
18	1	0	492	23191	.0026	60	0	0	362850	0	0	0	0
19	1	0	492	23166	.0026	60	0	0	362300	0	0	0	0
20	21	0	492	23141	.0026	60	0	0	361790	0	0	0	0
21	20	0	492	23117	.0026	60	0	0	361278	0	0	0	0
22	7	0	492	23093	.0026	60	0	0	360741	0	0	0	0
[illegible]	4	0	492	23068	.0026	60	0	0	360197	0	0	0	0
	2	0	492	23042	.0026	59	0	0	359650	0	0	0	0
25	1	0	492	23017	.0026	59	0	0	359100	0	0	0	0
26	1	0	492	22991	.0026	59	0	0	358551	0	0	0	0
27	1	0	492	22966	.0026	59	0	0	358002	0	0	0	0
28	0	0	492	22940	.0026	59	0	0	357451	0	0	0	0
29	0	0	492	22914	.0026	59	0	0	356900	0	0	0	0
30	0	0	492	22889	.0026	59	0	0	356349	0	0	0	0
31	0	0	492	22863	.0026	59	0	0	355798	0	0	0	0
TOT	2352	0	183793		.0800	22261	0	30650		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ SEP, 1955

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED FROM CFS	STR CFS	************** STORED CFS
1	91	0	416	22841	.0060	137	0	0	355425	0	0	0	0
2	36	0	416	22822	.0060	137	0	0	354944	0	0	0	0
3	12	0	416	22798	.0060	137	0	0	354415	0	0	0	0
4	6	0	416	22773	.0060	137	0	0	353874	0	0	0	0
5	2	0	416	22748	.0060	136	0	0	353326	0	0	0	0
6	1	0	416	22722	.0060	136	0	0	352775	0	0	0	0
7	1	0	416	22697	.0060	136	0	0	352225	0	0	0	0
8	0	0	416	22671	.0060	136	0	0	351673	0	0	0	0
9	0	0	416	22645	.0060	136	0	0	351122	0	0	0	0
10	0	0	416	22619	.0060	136	0	0	350570	0	0	0	0
11	0	0	416	22594	.0060	136	0	0	350019	0	0	0	0
12	0	0	416	22568	.0060	135	0	0	349467	0	0	0	0
13	0	0	416	22542	.0060	135	0	0	348916	0	0	0	0
14	0	0	416	22517	.0060	135	0	0	348365	0	0	0	0
15	0	0	416	22491	.0060	135	0	0	347814	0	0	0	0
16	0	0	416	22465	.0060	135	0	0	347264	0	0	0	0
17	0	0	416	22440	.0060	135	0	0	346713	0	0	0	0
18	0	0	416	22414	.0060	134	0	0	346163	0	0	0	0
19	0	0	416	22389	.0060	134	0	0	345612	0	0	0	0
20	0	0	416	22363	.0060	134	0	0	345062	0	0	0	0
21	0	0	416	22337	.0060	134	0	0	344512	0	0	0	0
22	0	0	416	22312	.0060	134	0	0	343963	0	0	0	0
[illegible]	0	0	416	22286	.0060	134	0	0	343413	0	0	0	0
	6	0	416	22261	.0060	134	0	0	342875	0	0	0	0
25	6	0	416	22236	.0060	133	0	0	342338	0	0	0	0
26	75	0	416	22214	.0060	133	0	0	341938	0	0	0	0
27	143	0	416	22198	.0060	133	0	0	341672	0	0	0	0
28	44	0	416	22182	.0060	133	0	0	341210	0	0	0	0
29	15	0	416	22159	.0060	133	0	0	340691	0	0	0	0
30	7	0	416	22134	.0060	133	0	0	340156	0	0	0	0
TOT	5340	0	150376		.1800	48726	0	25077		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ OCT, 1955

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

	TOTAL*	UPSTREAM*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-DAY*	***** REQ. RELEASE			**************
DAY	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	FROM STR	STORED
* *	CFS*	CFS*	AC-FT*	ACRES*	FEET*	AC-FT*	CFS*	AC-FT*	AC-FT *	CFS	CFS	CFS	CFS
1	2	0	358	22105	.0158	349	0	0	339453	0	0	0	0
2	2	0	358	22073	.0158	349	0	0	338750	0	0	0	0
3	8	0	358	22040	.0158	348	0	0	338060	0	0	0	0
4	20	0	358	22009	.0158	348	0	0	337394	0	0	0	0
5	7	0	358	21977	.0158	347	0	0	336703	0	0	0	0
6	3	0	358	21945	.0158	347	0	0	336004	0	0	0	0
7	2	0	358	21912	.0158	346	0	0	335304	0	0	0	0
8	1	0	358	21879	.0158	346	0	0	334603	0	0	0	0
9	1	0	358	21847	.0158	345	0	0	333901	0	0	0	0
10	0	0	358	21814	.0158	345	0	0	333199	0	0	0	0
11	0	0	358	21781	.0158	344	0	0	332497	0	0	0	0
12	0	0	358	21749	.0158	344	0	0	331795	0	0	0	0
13	0	0	358	21716	.0158	343	0	0	331094	0	0	0	0
14	0	0	358	21683	.0158	343	0	0	330394	0	0	0	0
15	0	0	358	21651	.0158	342	0	0	329694	0	0	0	0
16	0	0	358	21618	.0158	342	0	0	328994	0	0	0	0
17	0	0	358	21586	.0158	341	0	0	328295	0	0	0	0
18	0	0	358	21553	.0158	341	0	0	327597	0	0	0	0
19	0	0	358	21521	.0158	340	0	0	326899	0	0	0	0
20	0	0	358	21488	.0158	340	0	0	326201	0	0	0	0
21	0	0	358	21456	.0158	339	0	0	325504	0	0	0	0
22	0	0	358	21423	.0158	339	0	0	324808	0	0	0	0
-	0	0	358	21391	.0158	338	0	0	324112	0	0	0	0
	0	0	358	21358	.0158	338	0	0	323417	0	0	0	0
25	0	0	358	21326	.0158	337	0	0	322722	0	0	0	0
26	0	0	358	21294	.0158	337	0	0	322028	0	0	0	0
27	0	0	358	21261	.0158	336	0	0	321334	0	0	0	0
28	0	0	358	21229	.0158	336	0	0	320640	0	0	0	0
29	0	0	358	21197	.0158	335	0	0	319948	0	0	0	0
30	0	0	358	21164	.0158	335	0	0	319255	0	0	0	0
31	0	0	358	21132	.0158	334	0	0	318563	0	0	0	0
TOT	552	0	133668		.4900	128229	0	22291		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ NOV, 1955

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	0	0	370	21101	.0123	260	0	0	317933	0	0	0	0
2	0	0	370	21072	.0123	260	0	0	317304	0	0	0	0
3	0	0	370	21043	.0123	260	0	0	316675	0	0	0	0
4	0	0	370	21013	.0123	259	0	0	316046	0	0	0	0
5	0	0	370	20984	.0123	259	0	0	315417	0	0	0	0
6	0	0	370	20955	.0123	258	0	0	314789	0	0	0	0
7	0	0	370	20926	.0123	258	0	0	314161	0	0	0	0
8	0	0	370	20896	.0123	258	0	0	313534	0	0	0	0
9	0	0	370	20867	.0123	257	0	0	312907	0	0	0	0
10	0	0	370	20838	.0123	257	0	0	312280	0	0	0	0
11	0	0	370	20809	.0123	257	0	0	311654	0	0	0	0
12	0	0	370	20780	.0123	256	0	0	311028	0	0	0	0
13	0	0	370	20751	.0123	256	0	0	310402	0	0	0	0
14	0	0	370	20721	.0123	256	0	0	309777	0	0	0	0
15	0	0	370	20692	.0123	255	0	0	309152	0	0	0	0
16	0	0	370	20663	.0123	255	0	0	308528	0	0	0	0
17	0	0	370	20634	.0123	254	0	0	307903	0	0	0	0
18	0	0	370	20605	.0123	254	0	0	307280	0	0	0	0
19	0	0	370	20576	.0123	254	0	0	306656	0	0	0	0
20	0	0	370	20547	.0123	253	0	0	306033	0	0	0	0
21	0	0	370	20518	.0123	253	0	0	305410	0	0	0	0
22	0	0	370	20489	.0123	253	0	0	304788	0	0	0	0
[illegible]	0	0	370	20460	.0123	252	0	0	304166	0	0	0	0
	0	0	370	20431	.0123	252	0	0	303544	0	0	0	0
25	0	0	370	20402	.0123	252	0	0	302923	0	0	0	0
26	0	0	370	20373	.0123	251	0	0	302302	0	0	0	0
27	0	0	370	20344	.0123	251	0	0	301681	0	0	0	0
28	0	0	370	20315	.0123	251	0	0	301061	0	0	0	0
29	0	0	370	20287	.0123	250	0	0	300441	0	0	0	0
30	0	0	370	20258	.0123	250	0	0	299822	0	0	0	0
TOT	0	0	133667		.3700	93082	0	22291		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ DEC, 1955

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS **************
1	0	0	313	20234	.0052	104	0	0	299404	0	0	0	0
2	0	0	313	20214	.0052	104	0	0	298987	0	0	0	0
3	0	0	313	20195	.0052	104	0	0	298570	0	0	0	0
4	0	0	313	20175	.0052	104	0	0	298152	0	0	0	0
5	0	0	313	20156	.0052	104	0	0	297735	0	0	0	0
6	0	0	313	20136	.0052	104	0	0	297318	0	0	0	0
7	0	0	313	20117	.0052	104	0	0	296901	0	0	0	0
8	0	0	313	20098	.0052	104	0	0	296485	0	0	0	0
9	0	0	313	20078	.0052	104	0	0	296068	0	0	0	0
10	0	0	313	20059	.0052	104	0	0	295651	0	0	0	0
11	0	0	313	20039	.0052	103	0	0	295235	0	0	0	0
12	0	0	313	20020	.0052	103	0	0	294818	0	0	0	0
13	0	0	313	20001	.0052	103	0	0	294402	0	0	0	0
14	0	0	313	19981	.0052	103	0	0	293986	0	0	0	0
15	0	0	313	19962	.0052	103	0	0	293570	0	0	0	0
16	0	0	313	19942	.0052	103	0	0	293154	0	0	0	0
17	0	0	313	19923	.0052	103	0	0	292738	0	0	0	0
18	0	0	313	19904	.0052	103	0	0	292322	0	0	0	0
19	0	0	313	19884	.0052	103	0	0	291906	0	0	0	0
20	0	0	313	19865	.0052	103	0	0	291491	0	0	0	0
21	0	0	313	19846	.0052	102	0	0	291075	0	0	0	0
22	0	0	313	19826	.0052	102	0	0	290660	0	0	0	0
-	0	0	313	19807	.0052	102	0	0	290245	0	0	0	0
	0	0	313	19788	.0052	102	0	0	289829	0	0	0	0
25	0	0	313	19768	.0052	102	0	0	289414	0	0	0	0
26	0	0	313	19749	.0052	102	0	0	288999	0	0	0	0
27	0	0	313	19730	.0052	102	0	0	288584	0	0	0	0
28	0	0	313	19710	.0052	102	0	0	288170	0	0	0	0
29	0	0	313	19691	.0052	102	0	0	287755	0	0	0	0
30	0	0	313	19672	.0052	102	0	0	287340	0	0	0	0
31	0	0	313	19652	.0052	101	0	0	286926	0	0	0	0
TOT	0	0	116959		.1600	39007	0	19504		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JAN, 1956

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL INFLOW CFS	UPSTREAM SPILLS CFS	DAILY DEMAND AC-FT	RES. AREA ACRES	EVAP DEPTH FEET	EVAP LOSS AC-FT	DWNSTRM SPILLS CFS	DEMAND SHTGE. AC-FT	E-O-DAY CONTENT AC-FT	REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	313	19635	.0010	19	0	0	286594	0	0	0	0
2	0	0	313	19620	.0010	19	0	0	286262	0	0	0	0
3	0	0	313	19604	.0010	19	0	0	285930	0	0	0	0
4	0	0	313	19589	.0010	19	0	0	285598	0	0	0	0
5	0	0	313	19573	.0010	19	0	0	285266	0	0	0	0
6	0	0	313	19558	.0010	19	0	0	284934	0	0	0	0
7	0	0	313	19542	.0010	19	0	0	284602	0	0	0	0
8	0	0	313	19527	.0010	19	0	0	284270	0	0	0	0
9	0	0	313	19511	.0010	19	0	0	283938	0	0	0	0
10	0	0	313	19496	.0010	19	0	0	283606	0	0	0	0
11	0	0	313	19480	.0010	19	0	0	283274	0	0	0	0
12	0	0	313	19465	.0010	19	0	0	282942	0	0	0	0
13	0	0	313	19449	.0010	19	0	0	282610	0	0	0	0
14	0	0	313	19434	.0010	19	0	0	282278	0	0	0	0
15	0	0	313	19419	.0010	19	0	0	281947	0	0	0	0
16	0	0	313	19403	.0010	19	0	0	281615	0	0	0	0
17	0	0	313	19388	.0010	19	0	0	281283	0	0	0	0
18	0	0	313	19372	.0010	19	0	0	280951	0	0	0	0
19	0	0	313	19357	.0010	19	0	0	280619	0	0	0	0
20	0	0	313	19341	.0010	19	0	0	280287	0	0	0	0
21	0	0	313	19326	.0010	19	0	0	279956	0	0	0	0
22	5	0	313	19311	.0010	19	0	0	279634	0	0	0	0
2[illegible]	15	0	313	19296	.0010	19	0	0	279332	0	0	0	0
[illegible]	8	0	313	19282	.0010	19	0	0	279016	0	0	0	0
2[illegible]	7	0	313	19267	.0010	19	0	0	278698	0	0	0	0
26	6	0	313	19252	.0010	19	0	0	278378	0	0	0	0
27	4	0	313	19237	.0010	19	0	0	278055	0	0	0	0
28	2	0	313	19222	.0010	19	0	0	277727	0	0	0	0
29	2	0	313	19207	.0010	19	0	0	277399	0	0	0	0
30	2	0	313	19191	.0010	19	0	0	277072	0	0	0	0
31	1	0	313	19176	.0010	19	0	0	276742	0	0	0	0
TOT	52	0	9705		.0300	582	0	0		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ FEB, 1956

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	45	0	335	19164	-.0031	-58	0	0	276556	0	0	0	0
2	613	0	335	19182	-.0031	-59	0	0	277497	0	0	0	0
3	419	0	335	19217	-.0031	-59	0	0	278053	0	0	0	0
4	330	0	335	19238	-.0031	-59	0	0	278433	0	0	0	0
5	625	0	335	19270	-.0031	-59	0	0	279397	0	0	0	0
6	801	0	335	19323	-.0031	-59	0	0	280712	0	0	0	0
7	496	0	335	19370	-.0031	-59	0	0	281421	0	0	0	0
8	679	0	335	19411	-.0031	-59	0	0	282493	0	0	0	0
9	1751	0	335	19511	-.0031	-60	0	0	285692	0	0	0	0
10	1687	0	335	19657	-.0031	-60	0	0	288765	0	0	0	0
11	559	0	335	19748	-.0031	-60	0	0	289600	0	0	0	0
12	114	0	335	19766	-.0031	-60	0	0	289553	0	0	0	0
13	58	0	335	19761	-.0031	-60	0	0	289395	0	0	0	0
14	36	0	335	19753	-.0031	-60	0	0	289193	0	0	0	0
15	26	0	335	19743	-.0031	-60	0	0	288971	0	0	0	0
16	643	0	335	19761	-.0031	-60	0	0	289973	0	0	0	0
17	396	0	335	19797	-.0031	-60	0	0	290485	0	0	0	0
18	893	0	335	19843	-.0031	-61	0	0	291983	0	0	0	0
19	1129	0	335	19924	-.0031	-61	0	0	293950	0	0	0	0
20	487	0	335	19986	-.0031	-61	0	0	294643	0	0	0	0
21	119	0	335	20001	-.0031	-61	0	0	294607	0	0	0	0
22	56	0	335	19997	-.0031	-61	0	0	294445	0	0	0	0
[illegible]	32	0	335	19988	-.0031	-61	0	0	294236	0	0	0	0
	20	0	335	19978	-.0031	-61	0	0	294003	0	0	0	0
25	14	0	335	19967	-.0031	-61	0	0	293758	0	0	0	0
26	10	0	335	19955	-.0031	-61	0	0	293505	0	0	0	0
27	9	0	335	19943	-.0031	-61	0	0	293251	0	0	0	0
28	6	0	335	19931	-.0031	-61	0	0	292990	0	0	0	0
29	5	0	335	19919	-.0031	-61	0	0	292727	0	0	0	0
TOT	144696	0	116959		-.0900	-21839	0	13969		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAR, 1956

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	6	0	313	19902	.0094	186	0	0	292239	0	0	0	0
2	6	0	313	19879	.0094	186	0	0	291752	0	0	0	0
3	6	0	313	19856	.0094	186	0	0	291265	0	0	0	0
4	4	0	313	19833	.0094	186	0	0	290775	0	0	0	0
5	4	0	313	19811	.0094	185	0	0	290284	0	0	0	0
6	4	0	313	19788	.0094	185	0	0	289794	0	0	0	0
7	4	0	313	19765	.0094	185	0	0	289304	0	0	0	0
8	4	0	313	19742	.0094	185	0	0	288814	0	0	0	0
9	2	0	313	19719	.0094	184	0	0	288321	0	0	0	0
10	2	0	313	19696	.0094	184	0	0	287827	0	0	0	0
11	2	0	313	19673	.0094	184	0	0	287334	0	0	0	0
12	2	0	313	19650	.0094	184	0	0	286841	0	0	0	0
13	2	0	313	19627	.0094	184	0	0	286348	0	0	0	0
14	2	0	313	19604	.0094	183	0	0	285856	0	0	0	0
15	2	0	313	19581	.0094	183	0	0	285364	0	0	0	0
16	2	0	313	19559	.0094	183	0	0	284872	0	0	0	0
17	2	0	313	19536	.0094	183	0	0	284380	0	0	0	0
18	2	0	313	19513	.0094	183	0	0	283888	0	0	0	0
19	2	0	313	19490	.0094	182	0	0	283397	0	0	0	0
20	2	0	313	19467	.0094	182	0	0	282906	0	0	0	0
21	2	0	313	19444	.0094	182	0	0	282415	0	0	0	0
22	2	0	313	19421	.0094	182	0	0	281924	0	0	0	0
	2	0	313	19398	.0094	181	0	0	281433	0	0	0	0
	2	0	313	19376	.0094	181	0	0	280943	0	0	0	0
25	2	0	313	19353	.0094	181	0	0	280453	0	0	0	0
26	2	0	313	19330	.0094	181	0	0	279963	0	0	0	0
27	2	0	313	19307	.0094	181	0	0	279473	0	0	0	0
28	2	0	313	19284	.0094	180	0	0	278984	0	0	0	0
29	2	0	313	19261	.0094	180	0	0	278494	0	0	0	0
30	2	0	313	19239	.0094	180	0	0	278005	0	0	0	0
31	2	0	313	19216	.0094	180	0	0	277516	0	0	0	0
TOT	1008	0	116959		.2900	70115	0	19504		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ APR, 1956

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW*	UPSTREAM* SPILLS*	DAILY* DEMAND*	RES.* AREA*	EVAP* DEPTH*	EVAP* LOSS*	DWNSTRM* SPILLS*	DEMAND* SHTGE.*	E-O-DAY* CONTENT*	***** REQ. RELEASE ***** NEED	PASSED	FROM STR	STORED
* *	CFS*	CFS*	AC-FT*	ACRES*	FEET*	AC-FT*	CFS*	AC-FT*	AC-FT *	CFS	CFS	CFS	CFS
1	1	0	370	19193	.0060	115	0	0	277034	0	0	0	0
2	1	0	370	19171	.0060	115	0	0	276551	0	0	0	0
3	1	0	370	19148	.0060	115	0	0	276068	0	0	0	0
4	1	0	370	19126	.0060	115	0	0	275586	0	0	0	0
5	1	0	370	19103	.0060	115	0	0	275103	0	0	0	0
6	1	0	370	19081	.0060	114	0	0	274621	0	0	0	0
7	1	0	370	19058	.0060	114	0	0	274139	0	0	0	0
8	1	0	370	19036	.0060	114	0	0	273657	0	0	0	0
9	0	0	370	19014	.0060	114	0	0	273173	0	0	0	0
10	0	0	370	18991	.0060	114	0	0	272690	0	0	0	0
11	0	0	370	18968	.0060	114	0	0	272206	0	0	0	0
12	0	0	370	18946	.0060	114	0	0	271723	0	0	0	0
13	0	0	370	18923	.0060	114	0	0	271240	0	0	0	0
14	7	0	370	18901	.0060	113	0	0	270770	0	0	0	0
15	44	0	370	18881	.0060	113	0	0	270375	0	0	0	0
16	29	0	370	18862	.0060	113	0	0	269949	0	0	0	0
17	22	0	370	18842	.0060	113	0	0	269510	0	0	0	0
18	15	0	370	18821	.0060	113	0	0	269057	0	0	0	0
19	9	0	370	18800	.0060	113	0	0	268593	0	0	0	0
20	4	0	370	18778	.0060	113	0	0	268118	0	0	0	0
21	3	0	370	18756	.0060	113	0	0	267642	0	0	0	0
22	1	0	370	18733	.0060	112	0	0	267162	0	0	0	0
	1	0	370	18711	.0060	112	0	0	266682	0	0	0	0
	1	0	370	18689	.0060	112	0	0	266202	0	0	0	0
25	0	0	370	18666	.0060	112	0	0	265720	0	0	0	0
26	0	0	370	18644	.0060	112	0	0	265239	0	0	0	0
27	0	0	370	18622	.0060	112	0	0	264757	0	0	0	0
28	0	0	370	18599	.0060	112	0	0	264276	0	0	0	0
29	0	0	370	18577	.0060	111	0	0	263795	0	0	0	0
30	0	0	370	18554	.0060	111	0	0	263314	0	0	0	0
TOT	1728	0	133667		.1800	42206	0	22291		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAY, 1956

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

	TOTAL*	UPSTREAM*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-DAY*	***** REQ.	RELEASE	**************	
DAY	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	FROM STR	STORED
* *	CFS*	CFS*	AC-FT*	ACRES*	FEET*	AC-FT*	CFS*	AC-FT*	AC-FT *	CFS	CFS	CFS	CFS
1	163	0	358	18540	.0045	84	0	0	263196	0	0	0	0
2	2273	0	358	18632	.0045	84	0	0	267262	0	0	0	0
3	5167	0	358	18955	.0045	86	0	0	277067	0	0	0	0
4	6277	0	358	19463	.0045	88	0	0	289072	0	0	0	0
5	1860	0	358	19818	.0045	90	0	0	292314	0	0	0	0
6	191	0	358	19892	.0045	90	0	0	292245	0	0	0	0
7	66	0	358	19883	.0045	90	0	0	291929	0	0	0	0
8	35	0	358	19867	.0045	90	0	0	291551	0	0	0	0
9	18	0	358	19849	.0045	90	0	0	291139	0	0	0	0
10	10	0	358	19829	.0045	90	0	0	290711	0	0	0	0
11	4	0	358	19809	.0045	89	0	0	290272	0	0	0	0
12	1	0	358	19788	.0045	89	0	0	289827	0	0	0	0
13	0	0	358	19767	.0045	89	0	0	289380	0	0	0	0
14	0	0	358	19747	.0045	89	0	0	288933	0	0	0	0
15	0	0	358	19726	.0045	89	0	0	288486	0	0	0	0
16	0	0	358	19705	.0045	89	0	0	288039	0	0	0	0
17	0	0	358	19684	.0045	89	0	0	287593	0	0	0	0
18	0	0	358	19663	.0045	89	0	0	287146	0	0	0	0
19	0	0	358	19643	.0045	89	0	0	286699	0	0	0	0
20	0	0	358	19622	.0045	89	0	0	286253	0	0	0	0
21	0	0	358	19601	.0045	89	0	0	285807	0	0	0	0
22	0	0	358	19580	.0045	88	0	0	285360	0	0	0	0
[illegible]	0	0	358	19559	.0045	88	0	0	284914	0	0	0	0
	0	0	358	19539	.0045	88	0	0	284468	0	0	0	0
25	0	0	358	19518	.0045	88	0	0	284022	0	0	0	0
26	0	0	358	19497	.0045	88	0	0	283577	0	0	0	0
27	0	0	358	19476	.0045	88	0	0	283131	0	0	0	0
28	0	0	358	19456	.0045	88	0	0	282685	0	0	0	0
29	0	0	358	19435	.0045	88	0	0	282240	0	0	0	0
30	0	0	358	19414	.0045	88	0	0	281794	0	0	0	0
31	0	0	358	19393	.0045	88	0	0	281349	0	0	0	0
TOT	192780	0	133668		.1400	34061	0	1438		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUN, 1956

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	0	0	416	19367	.0137	265	0	0	280668	0	0	0	0
2	37	0	416	19337	.0137	264	0	0	280061	0	0	0	0
3	73	0	416	19311	.0137	264	0	0	279526	0	0	0	0
4	50	0	416	19285	.0137	264	0	0	278946	0	0	0	0
5	18	0	416	19256	.0137	263	0	0	278303	0	0	0	0
6	4	0	416	19226	.0137	263	0	0	277632	0	0	0	0
7	0	0	416	19194	.0137	262	0	0	276954	0	0	0	0
8	0	0	416	19163	.0137	262	0	0	276276	0	0	0	0
9	0	0	416	19131	.0137	261	0	0	275599	0	0	0	0
10	0	0	416	19099	.0137	261	0	0	274922	0	0	0	0
11	0	0	416	19068	.0137	261	0	0	274245	0	0	0	0
12	0	0	416	19036	.0137	260	0	0	273569	0	0	0	0
13	0	0	416	19005	.0137	260	0	0	272893	0	0	0	0
14	0	0	416	18974	.0137	259	0	0	272218	0	0	0	0
15	0	0	416	18942	.0137	259	0	0	271543	0	0	0	0
16	0	0	416	18911	.0137	258	0	0	270869	0	0	0	0
17	0	0	416	18879	.0137	258	0	0	270195	0	0	0	0
18	0	0	416	18848	.0137	258	0	0	269522	0	0	0	0
19	0	0	416	18817	.0137	257	0	0	268849	0	0	0	0
20	0	0	416	18785	.0137	257	0	0	268176	0	0	0	0
21	0	0	416	18754	.0137	256	0	0	267504	0	0	0	0
22	0	0	416	18723	.0137	256	0	0	266832	0	0	0	0
[illegible]	0	0	416	18691	.0137	255	0	0	266161	0	0	0	0
	0	0	416	18660	.0137	255	0	0	265490	0	0	0	0
25	0	0	416	18629	.0137	255	0	0	264819	0	0	0	0
26	0	0	416	18598	.0137	254	0	0	264149	0	0	0	0
27	0	0	416	18566	.0137	254	0	0	263479	0	0	0	0
28	0	0	416	18535	.0137	253	0	0	262810	0	0	0	0
29	0	0	416	18504	.0137	253	0	0	262141	0	0	0	0
30	0	0	416	18469	.0137	252	0	0	261473	0	0	0	0
TOT	2184	0	150376		.4100	96709	0	21656		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JUL, 1956

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY *	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. NEED CFS	RELEASE PASSED CFS	************** FROM STR CFS	STORED CFS
1	4	0	492	18422	.0265	487	0	0	260502	0	0	0	0
2	4	0	492	18366	.0265	486	0	0	259532	0	0	0	0
3	4	0	492	18311	.0265	484	0	0	258564	0	0	0	0
4	4	0	492	18255	.0265	483	0	0	257597	0	0	0	0
5	4	0	492	18199	.0265	481	0	0	256631	0	0	0	0
6	4	0	492	18144	.0265	480	0	0	255667	0	0	0	0
7	4	0	492	18089	.0265	478	0	0	254705	0	0	0	0
8	4	0	492	18033	.0265	477	0	0	253744	0	0	0	0
9	4	0	492	17978	.0265	476	0	0	252784	0	0	0	0
10	4	0	492	17923	.0265	474	0	0	251826	0	0	0	0
11	4	0	492	17868	.0265	473	0	0	250870	0	0	0	0
12	4	0	492	17813	.0265	471	0	0	249914	0	0	0	0
13	4	0	492	17758	.0265	470	0	0	248961	0	0	0	0
14	4	0	492	17703	.0265	468	0	0	248008	0	0	0	0
15	4	0	492	17649	.0265	467	0	0	247058	0	0	0	0
16	4	0	492	17594	.0265	465	0	0	246108	0	0	0	0
17	4	0	492	17540	.0265	464	0	0	245160	0	0	0	0
18	4	0	492	17485	.0265	463	0	0	244214	0	0	0	0
19	4	0	492	17431	.0265	461	0	0	243269	0	0	0	0
20	4	0	492	17376	.0265	460	0	0	242325	0	0	0	0
21	4	0	492	17322	.0265	458	0	0	241383	0	0	0	0
22	4	0	492	17268	.0265	457	0	0	240442	0	0	0	0
[illegible]	4	0	492	17214	.0265	455	0	0	239503	0	0	0	0
	4	0	492	17160	.0265	454	0	0	238565	0	0	0	0
25	4	0	492	17106	.0265	452	0	0	237628	0	0	0	0
26	4	0	492	17052	.0265	451	0	0	236693	0	0	0	0
27	4	0	492	16999	.0265	450	0	0	235760	0	0	0	0
28	4	0	492	16945	.0265	448	0	0	234827	0	0	0	0
29	4	0	492	16892	.0265	447	0	0	233897	0	0	0	0
30	4	0	492	16838	.0265	445	0	0	232967	0	0	0	0
31	4	0	492	16785	.0265	444	0	0	232039	0	0	0	0
TOT	1488	0	183793		.8200	181973	0	30650		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ AUG, 1956

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	4	0	492	16733	.0239	399	0	0	231156	0	0	0	0
2	4	0	492	16682	.0239	398	0	0	230274	0	0	0	0
3	4	0	492	16631	.0239	397	0	0	229393	0	0	0	0
4	4	0	492	16581	.0239	396	0	0	228513	0	0	0	0
5	4	0	492	16530	.0239	395	0	0	227634	0	0	0	0
6	4	0	492	16480	.0239	393	0	0	226757	0	0	0	0
7	4	0	492	16429	.0239	392	0	0	225881	0	0	0	0
8	4	0	492	16379	.0239	391	0	0	225006	0	0	0	0
9	4	0	492	16329	.0239	390	0	0	224132	0	0	0	0
10	4	0	492	16278	.0239	389	0	0	223259	0	0	0	0
11	4	0	492	16228	.0239	387	0	0	222388	0	0	0	0
12	4	0	492	16178	.0239	386	0	0	221518	0	0	0	0
13	4	0	492	16128	.0239	385	0	0	220649	0	0	0	0
14	4	0	492	16078	.0239	384	0	0	219781	0	0	0	0
15	4	0	492	16028	.0239	383	0	0	218914	0	0	0	0
16	4	0	492	15979	.0239	381	0	0	218049	0	0	0	0
17	4	0	492	15929	.0239	380	0	0	217185	0	0	0	0
18	4	0	492	15879	.0239	379	0	0	216322	0	0	0	0
19	4	0	492	15830	.0239	378	0	0	215460	0	0	0	0
20	4	0	492	15780	.0239	377	0	0	214599	0	0	0	0
21	4	0	492	15731	.0239	376	0	0	213739	0	0	0	0
22	4	0	492	15681	.0239	374	0	0	212881	0	0	0	0
[illegible]	4	0	492	15632	.0239	373	0	0	212024	0	0	0	0
[illegible]	4	0	492	15583	.0239	372	0	0	211168	0	0	0	0
25	4	0	492	15534	.0239	371	0	0	210313	0	0	0	0
26	4	0	492	15485	.0239	370	0	0	209460	0	0	0	0
27	4	0	492	15436	.0239	368	0	0	208607	0	0	0	0
28	4	0	492	15387	.0239	367	0	0	207756	0	0	0	0
29	4	0	492	15338	.0239	366	0	0	206906	0	0	0	0
30	4	0	492	15289	.0239	365	0	0	206057	0	0	0	0
31	4	0	492	15240	.0239	364	0	0	205209	0	0	0	0
TOT	1488	0	183793		.7400	151575	0	30650		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ SEP, 1956

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ***** NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	4	0	416	15194	.0220	334	0	0	204467	0	0	0	0
2	4	0	416	15152	.0220	333	0	0	203725	0	0	0	0
3	4	0	416	15109	.0220	332	0	0	202985	0	0	0	0
4	4	0	416	15067	.0220	331	0	0	202246	0	0	0	0
5	4	0	416	15024	.0220	331	0	0	201507	0	0	0	0
6	4	0	416	14982	.0220	330	0	0	200769	0	0	0	0
7	4	0	416	14939	.0220	329	0	0	200033	0	0	0	0
8	4	0	416	14897	.0220	328	0	0	199297	0	0	0	0
9	4	0	416	14855	.0220	327	0	0	198562	0	0	0	0
10	4	0	416	14813	.0220	326	0	0	197829	0	0	0	0
11	4	0	416	14770	.0220	325	0	0	197096	0	0	0	0
12	4	0	416	14728	.0220	324	0	0	196364	0	0	0	0
13	4	0	416	14686	.0220	323	0	0	195633	0	0	0	0
14	4	0	416	14644	.0220	322	0	0	194902	0	0	0	0
15	4	0	416	14602	.0220	321	0	0	194173	0	0	0	0
16	4	0	416	14560	.0220	320	0	0	193445	0	0	0	0
17	4	0	416	14519	.0220	319	0	0	192718	0	0	0	0
18	4	0	416	14477	.0220	318	0	0	191991	0	0	0	0
19	4	0	416	14435	.0220	318	0	0	191266	0	0	0	0
20	4	0	416	14393	.0220	317	0	0	190541	0	0	0	0
21	4	0	416	14352	.0220	316	0	0	189817	0	0	0	0
22	4	0	416	14310	.0220	315	0	0	189094	0	0	0	0
	4	0	416	14269	.0220	314	0	0	188373	0	0	0	0
	4	0	416	14227	.0220	313	0	0	187652	0	0	0	0
25	4	0	416	14186	.0220	312	0	0	186931	0	0	0	0
26	4	0	416	14144	.0220	311	0	0	186212	0	0	0	0
27	4	0	416	14103	.0220	310	0	0	185494	0	0	0	0
28	4	0	416	14062	.0220	309	0	0	184777	0	0	0	0
29	4	0	416	14021	.0220	308	0	0	184060	0	0	0	0
30	4	0	416	13980	.0220	308	0	0	183345	0	0	0	0
TOT	1440	0	150376		.6600	125239	0	25077		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ OCT, 1956

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	1	0	358	13944	.0119	166	0	0	182823	0	0	0	0
2	1	0	358	13914	.0119	166	0	0	182301	0	0	0	0
3	1	0	358	13884	.0119	166	0	0	181779	0	0	0	0
4	1	0	358	13854	.0119	165	0	0	181258	0	0	0	0
5	1	0	358	13822	.0119	165	0	0	180737	0	0	0	0
6	1	0	358	13789	.0119	165	0	0	180217	0	0	0	0
7	1	0	358	13757	.0119	164	0	0	179697	0	0	0	0
8	1	0	358	13724	.0119	164	0	0	179177	0	0	0	0
9	1	0	358	13692	.0119	163	0	0	178658	0	0	0	0
10	1	0	358	13659	.0119	163	0	0	178139	0	0	0	0
11	1	0	358	13627	.0119	163	0	0	177621	0	0	0	0
12	1	0	358	13594	.0119	162	0	0	177103	0	0	0	0
13	1	0	358	13562	.0119	162	0	0	176585	0	0	0	0
14	1	0	358	13529	.0119	161	0	0	176068	0	0	0	0
15	1	0	358	13497	.0119	161	0	0	175551	0	0	0	0
16	1	0	358	13464	.0119	161	0	0	175035	0	0	0	0
17	1	0	358	13432	.0119	160	0	0	174519	0	0	0	0
18	1	0	358	13400	.0119	160	0	0	174003	0	0	0	0
19	1	0	358	13368	.0119	160	0	0	173488	0	0	0	0
20	1	0	358	13335	.0119	159	0	0	172973	0	0	0	0
21	1	0	358	13303	.0119	159	0	0	172458	0	0	0	0
22	1	0	358	13271	.0119	158	0	0	171944	0	0	0	0
[illegible]	1	0	358	13239	.0119	158	0	0	171430	0	0	0	0
	1	0	358	13206	.0119	158	0	0	170917	0	0	0	0
25	1	0	358	13174	.0119	157	0	0	170404	0	0	0	0
26	1	0	358	13142	.0119	157	0	0	169891	0	0	0	0
27	1	0	358	13110	.0119	156	0	0	169379	0	0	0	0
28	1	0	358	13078	.0119	156	0	0	168867	0	0	0	0
29	1	0	358	13046	.0119	156	0	0	168355	0	0	0	0
30	1	0	358	13014	.0119	155	0	0	167844	0	0	0	0
31	1	0	358	12982	.0119	155	0	0	167334	0	0	0	0
TOT	372	0	133668		.3700	65805	0	22291		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ NOV, 1956

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW*	UPSTREAM* SPILLS*	DAILY* DEMAND*	RES.* AREA*	EVAP* DEPTH*	EVAP* LOSS*	DWNSTRM* SPILLS*	DEMAND* SHTGE.*	E-O-DAY* CONTENT*	***** REQ. RELEASE ************** NEED	PASSED	FROM STR	STORED
* *	CFS*	CFS*	AC-FT*	ACRES*	FEET*	AC-FT*	CFS*	AC-FT*	AC-FT *	CFS	CFS	CFS	CFS
1	0	0	370	12952	.0053	69	0	0	166895	0	0	0	0
2	0	0	370	12925	.0053	69	0	0	166456	0	0	0	0
3	0	0	370	12897	.0053	69	0	0	166018	0	0	0	0
4	632	0	370	12909	.0053	69	0	0	166833	0	0	0	0
5	2574	0	370	13081	.0053	70	0	0	171499	0	0	0	0
6	2828	0	370	13389	.0053	71	0	0	176667	0	0	0	0
7	2727	0	370	13706	.0053	73	0	0	181633	0	0	0	0
8	807	0	370	13894	.0053	74	0	0	182790	0	0	0	0
9	105	0	370	13920	.0053	74	0	0	182554	0	0	0	0
10	51	0	370	13904	.0053	74	0	0	182212	0	0	0	0
11	28	0	370	13883	.0053	74	0	0	181823	0	0	0	0
12	15	0	370	13860	.0053	74	0	0	181409	0	0	0	0
13	9	0	370	13834	.0053	74	0	0	180984	0	0	0	0
14	5	0	370	13807	.0053	74	0	0	180550	0	0	0	0
15	3	0	370	13780	.0053	73	0	0	180113	0	0	0	0
16	1	0	370	13753	.0053	73	0	0	179672	0	0	0	0
17	1	0	370	13725	.0053	73	0	0	179231	0	0	0	0
18	1	0	370	13697	.0053	73	0	0	178790	0	0	0	0
19	1	0	370	13670	.0053	73	0	0	178350	0	0	0	0
20	0	0	370	13642	.0053	73	0	0	177907	0	0	0	0
21	0	0	370	13614	.0053	73	0	0	177465	0	0	0	0
22	0	0	370	13587	.0053	72	0	0	177023	0	0	0	0
[illegible]	0	0	370	13559	.0053	72	0	0	176581	0	0	0	0
	0	0	370	13531	.0053	72	0	0	176139	0	0	0	0
25	0	0	370	13504	.0053	72	0	0	175697	0	0	0	0
26	0	0	370	13476	.0053	72	0	0	175256	0	0	0	0
27	0	0	370	13448	.0053	72	0	0	174814	0	0	0	0
28	0	0	370	13421	.0053	72	0	0	174373	0	0	0	0
29	0	0	370	13393	.0053	71	0	0	173932	0	0	0	0
30	0	0	370	13365	.0053	71	0	0	173491	0	0	0	0
TOT	117456	0	133667		.1600	28747	0	22291		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ DEC, 1956

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY * *	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	0	0	313	13340	.0048	65	0	0	173113	0	0	0	0
2	0	0	313	13316	.0048	64	0	0	172736	0	0	0	0
3	0	0	313	13292	.0048	64	0	0	172358	0	0	0	0
4	0	0	313	13269	.0048	64	0	0	171981	0	0	0	0
5	0	0	313	13245	.0048	64	0	0	171604	0	0	0	0
6	0	0	313	13222	.0048	64	0	0	171227	0	0	0	0
7	0	0	313	13198	.0048	64	0	0	170850	0	0	0	0
8	0	0	313	13174	.0048	64	0	0	170473	0	0	0	0
9	0	0	313	13151	.0048	64	0	0	170097	0	0	0	0
10	0	0	313	13127	.0048	64	0	0	169720	0	0	0	0
11	0	0	313	13104	.0048	63	0	0	169344	0	0	0	0
12	0	0	313	13080	.0048	63	0	0	168967	0	0	0	0
13	0	0	313	13056	.0048	63	0	0	168591	0	0	0	0
14	0	0	313	13033	.0048	63	0	0	168215	0	0	0	0
15	0	0	313	13009	.0048	63	0	0	167839	0	0	0	0
16	0	0	313	12986	.0048	63	0	0	167463	0	0	0	0
17	0	0	313	12962	.0048	63	0	0	167087	0	0	0	0
18	0	0	313	12939	.0048	63	0	0	166712	0	0	0	0
19	6	0	313	12916	.0048	62	0	0	166348	0	0	0	0
20	119	0	313	12900	.0048	62	0	0	166209	0	0	0	0
21	128	0	313	12892	.0048	62	0	0	166087	0	0	0	0
22	120	0	313	12884	.0048	62	0	0	165950	0	0	0	0
[illegible]	54	0	313	12871	.0048	62	0	0	165681	0	0	0	0
[illegible]	40	0	313	12853	.0048	62	0	0	165386	0	0	0	0
25	38	0	313	12835	.0048	62	0	0	165086	0	0	0	0
26	22	0	313	12815	.0048	62	0	0	164754	0	0	0	0
27	13	0	313	12793	.0048	62	0	0	164405	0	0	0	0
28	9	0	313	12771	.0048	62	0	0	164048	0	0	0	0
29	5	0	313	12749	.0048	62	0	0	163683	0	0	0	0
30	3	0	313	12726	.0048	62	0	0	163315	0	0	0	0
31	3	0	313	12703	.0048	61	0	0	162946	0	0	0	0
TOT	6720	0	116959		.1500	26204	0	19504		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ JAN, 1957

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	1	0	313	12681	.0016	20	0	0	162615	0	0	0	0
2	1	0	313	12660	.0016	20	0	0	162283	0	0	0	0
3	1	0	313	12639	.0016	20	0	0	161952	0	0	0	0
4	1	0	313	12618	.0016	20	0	0	161620	0	0	0	0
5	66	0	313	12602	.0016	20	0	0	161418	0	0	0	0
6	171	0	313	12596	.0016	20	0	0	161424	0	0	0	0
7	149	0	313	12595	.0016	20	0	0	161386	0	0	0	0
8	87	0	313	12588	.0016	20	0	0	161225	0	0	0	0
9	51	0	313	12576	.0016	20	0	0	160993	0	0	0	0
10	28	0	313	12560	.0016	20	0	0	160715	0	0	0	0
11	17	0	313	12542	.0016	20	0	0	160415	0	0	0	0
12	10	0	313	12523	.0016	20	0	0	160102	0	0	0	0
13	8	0	313	12503	.0016	20	0	0	159785	0	0	0	0
14	4	0	313	12483	.0016	20	0	0	159459	0	0	0	0
15	3	0	313	12462	.0016	20	0	0	159132	0	0	0	0
16	1	0	313	12442	.0016	20	0	0	158801	0	0	0	0
17	1	0	313	12421	.0016	20	0	0	158470	0	0	0	0
18	1	0	313	12400	.0016	20	0	0	158139	0	0	0	0
19	1	0	313	12380	.0016	20	0	0	157808	0	0	0	0
20	1	0	313	12359	.0016	20	0	0	157477	0	0	0	0
21	1	0	313	12338	.0016	20	0	0	157146	0	0	0	0
22	1084	0	313	12385	.0016	20	0	0	158963	0	0	0	0
[illegible]	2030	0	313	12557	.0016	20	0	0	162656	0	0	0	0
[illegible]	1241	0	313	12740	.0016	21	0	0	164784	0	0	0	0
[illegible]	247	0	313	12811	.0016	21	0	0	164940	0	0	0	0
26	72	0	313	12810	.0016	21	0	0	164749	0	0	0	0
27	45	0	313	12796	.0016	21	0	0	164505	0	0	0	0
28	45	0	313	12781	.0016	21	0	0	164261	0	0	0	0
29	57	0	313	12767	.0016	21	0	0	164040	0	0	0	0
30	75	0	313	12754	.0016	21	0	0	163855	0	0	0	0
31	159	0	313	12747	.0016	21	0	0	163837	0	0	0	0
TOT	5659	0	9705		.0500	629	0	0		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ FEB, 1957

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL* INFLOW* CFS*	UPSTREAM* SPILLS* CFS*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* CFS*	DEMAND* SHTGE.* AC-FT*	E-O-DAY* CONTENT* AC-FT *	***** REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	************** STORED CFS
1	1969	0	347	12859	-.0007	-8	0	0	167405	0	0	0	0
2	3552	0	347	13180	-.0007	-8	0	0	174113	0	0	0	0
3	3359	0	347	13589	-.0007	-9	0	0	180439	0	0	0	0
4	1519	0	347	13869	-.0007	-9	0	0	183115	0	0	0	0
5	229	0	347	13949	-.0007	-9	0	0	183232	0	0	0	0
6	89	0	347	13948	-.0007	-9	0	0	183072	0	0	0	0
7	51	0	347	13937	-.0007	-9	0	0	182837	0	0	0	0
8	35	0	347	13922	-.0007	-9	0	0	182570	0	0	0	0
9	26	0	347	13906	-.0007	-9	0	0	182285	0	0	0	0
10	18	0	347	13889	-.0007	-9	0	0	181984	0	0	0	0
11	14	0	347	13872	-.0007	-9	0	0	181675	0	0	0	0
12	12	0	347	13854	-.0007	-9	0	0	181362	0	0	0	0
13	9	0	347	13835	-.0007	-9	0	0	181043	0	0	0	0
14	8	0	347	13815	-.0007	-9	0	0	180722	0	0	0	0
15	6	0	347	13794	-.0007	-9	0	0	180397	0	0	0	0
16	5	0	347	13774	-.0007	-9	0	0	180070	0	0	0	0
17	4	0	347	13753	-.0007	-9	0	0	179742	0	0	0	0
18	6	0	347	13733	-.0007	-9	0	0	179417	0	0	0	0
19	12	0	347	13713	-.0007	-9	0	0	179104	0	0	0	0
20	14	0	347	13693	-.0007	-9	0	0	178795	0	0	0	0
21	13	0	347	13674	-.0007	-9	0	0	178484	0	0	0	0
22	10	0	347	13654	-.0007	-9	0	0	178167	0	0	0	0
[illegible]	9	0	347	13634	-.0007	-9	0	0	177848	0	0	0	0
	10	0	347	13615	-.0007	-9	0	0	177531	0	0	0	0
25	175	0	347	13605	-.0007	-9	0	0	177541	0	0	0	0
26	342	0	347	13616	-.0007	-9	0	0	177882	0	0	0	0
27	214	0	347	13629	-.0007	-9	0	0	177970	0	0	0	0
28	77	0	347	13626	-.0007	-9	0	0	177786	0	0	0	0
TOT	141444	0	116959		-.0200	-3682	0	697		0	0	0	0

NOTE:
PRINTED VALUES ARE INTEGER REPRESENTATIONS
OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ MAR, 1957

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

	TOTAL*	UPSTREAM*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-DAY*	***** REQ. RELEASE *************			
DAY	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	FROM STR	STORED
* *	CFS*	CFS*	AC-FT*	ACRES*	FEET*	AC-FT*	CFS*	AC-FT*	AC-FT *	CFS	CFS	CFS	CFS
1	45	0	313	13614	-.0016	-21	0	0	177584	0	0	0	0
2	27	0	313	13601	-.0016	-21	0	0	177346	0	0	0	0
3	17	0	313	13585	-.0016	-21	0	0	177089	0	0	0	0
4	12	0	313	13569	-.0016	-21	0	0	176822	0	0	0	0
5	9	0	313	13552	-.0016	-21	0	0	176548	0	0	0	0
6	6	0	313	13534	-.0016	-21	0	0	176269	0	0	0	0
7	5	0	313	13517	-.0016	-21	0	0	175988	0	0	0	0
8	4	0	313	13499	-.0016	-21	0	0	175704	0	0	0	0
9	4	0	313	13481	-.0016	-21	0	0	175421	0	0	0	0
10	4	0	313	13464	-.0016	-21	0	0	175138	0	0	0	0
11	5	0	313	13446	-.0016	-21	0	0	174856	0	0	0	0
12	10	0	313	13429	-.0016	-21	0	0	174585	0	0	0	0
13	6	0	313	13411	-.0016	-21	0	0	174305	0	0	0	0
14	5	0	313	13394	-.0016	-21	0	0	174024	0	0	0	0
15	5	0	313	13376	-.0016	-21	0	0	173742	0	0	0	0
16	4	0	313	13358	-.0016	-21	0	0	173458	0	0	0	0
17	27	0	313	13342	-.0016	-21	0	0	173220	0	0	0	0
18	1236	0	313	13402	-.0016	-21	0	0	175381	0	0	0	0
19	3120	0	313	13655	-.0016	-21	0	0	181278	0	0	0	0
20	4048	0	313	14063	-.0016	-22	0	0	189017	0	0	0	0
21	3378	0	313	14469	-.0016	-22	0	0	195427	0	0	0	0
22	3855	0	313	14865	-.0016	-23	0	0	202784	0	0	0	0
	3661	0	313	15277	-.0016	-24	0	0	209757	0	0	0	0
	1573	0	313	15559	-.0016	-24	0	0	212589	0	0	0	0
25	219	0	313	15644	-.0016	-24	0	0	212736	0	0	0	0
26	106	0	313	15646	-.0016	-24	0	0	212658	0	0	0	0
27	75	0	313	15640	-.0016	-24	0	0	212519	0	0	0	0
28	75	0	313	15632	-.0016	-24	0	0	212380	0	0	0	0
29	273	0	313	15635	-.0016	-24	0	0	212634	0	0	0	0
30	178	0	313	15644	-.0016	-24	0	0	212699	0	0	0	0
31	98	0	313	15644	-.0016	-24	0	0	212606	0	0	0	0
TOT	265080	0	116959		-.0500	-9498	0	9733		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++ APR, 1957

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0

DAY	TOTAL INFLOW CFS	UPSTREAM SPILLS CFS	DAILY DEMAND AC-FT	RES. AREA ACRES	EVAP DEPTH FEET	EVAP LOSS AC-FT	DWNSTRM SPILLS CFS	DEMAND SHTGE. AC-FT	E-O-DAY CONTENT AC-FT	REQ. RELEASE NEED CFS	PASSED CFS	FROM STR CFS	STORED CFS
1	927	0	370	15693	-.0227	-355	0	0	214431	0	0	0	0
2	2277	0	370	15875	-.0227	-359	0	0	218937	0	0	0	0
3	3023	0	370	16177	-.0227	-366	0	0	224930	0	0	0	0
4	5899	0	370	16686	-.0227	-377	0	0	236639	0	0	0	0
5	8123	0	370	17486	-.0227	-395	0	0	252777	0	0	0	0
6	7803	0	370	18396	-.0227	-416	0	0	268302	0	0	0	0
7	2450	0	370	18890	-.0227	-427	0	0	273220	0	0	0	0
8	372	0	370	19023	-.0227	-430	0	0	274019	0	0	0	0
9	141	0	370	19050	-.0227	-431	0	0	274361	0	0	0	0
10	99	0	370	19064	-.0227	-431	0	0	274620	0	0	0	0
11	80	0	370	19075	-.0227	-431	0	0	274841	0	0	0	0
12	64	0	370	19084	-.0227	-432	0	0	275031	0	0	0	0
13	56	0	370	19093	-.0227	-432	0	0	275205	0	0	0	0
14	49	0	370	19101	-.0227	-432	0	0	275365	0	0	0	0
15	36	0	370	19107	-.0227	-432	0	0	275500	0	0	0	0
16	29	0	370	19113	-.0227	-432	0	0	275621	0	0	0	0
17	25	0	370	19119	-.0227	-432	0	0	275735	0	0	0	0
18	21	0	370	19124	-.0227	-432	0	0	275840	0	0	0	0
19	52	0	370	19130	-.0227	-433	0	0	276007	0	0	0	0
20	4940	0	370	19364	-.0227	-438	0	0	285875	0	0	0	0
21	17977	0	370	20426	-.0227	-462	0	0	321625	0	0	0	0
22	22771	0	370	22313	-.0227	-505	0	0	366926	0	0	0	0
	21173	0	370	24190	-.0227	-547	0	0	409101	0	0	0	0
	26366	0	370	26041	-.0227	-589	0	0	461618	0	0	0	0
25	30760	0	370	28266	-.0227	-640	0	0	522900	0	0	0	0
26	26233	0	370	32058	-.0227	-726	9087	0	557265	0	0	0	0
27	23037	0	370	32623	-.0227	-738	23223	0	557265	0	0	0	0
28	31426	0	370	32623	-.0227	-738	31612	0	557265	0	0	0	0
29	18243	0	370	32623	-.0227	-738	18429	0	557265	0	0	0	0
30	9827	0	370	32623	-.0227	-738	10013	0	557265	0	0	0	0
TOT	3171348	0	133667		-.6800	-186735	1303163	0		0	0	0	0

NOTE:

PRINTED VALUES ARE INTEGER REPRESENTATIONS

OF FLOATING POINT COMPUTATIONS

TWDB ++ SIMDLY/RELEASE PROGRAM ++

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON * *	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1941													
1	146713	0	116959	33630	.060	23427	48870	0	553889	0	0	0	0
2	676015	0	116959	33783	-.070	-27357	543875	0	557265	0	0	0	0
3	800140	0	116959	33689	.030	11735	678125	0	556925	0	0	0	0
4	227925	0	133667	33543	.020	7777	91787	0	556763	0	0	0	0
5	1078643	0	133668	33498	.180	70014	979737	0	547586	0	0	0	0
6	3223696	0	150376	33673	-.160	-62489	3019050	0	557265	0	0	0	0
7	286858	0	183793	33431	.340	131943	101642	0	546745	0	0	0	0
8	183154	0	183793	32093	.410	152672	0	0	534025	0	0	0	0
9	3713	0	150376	31305	.320	116160	0	0	512173	0	0	0	0
10	177227	0	133668	30759	.090	32177	0	0	513172	0	0	0	0
11	119008	0	133667	30549	.130	46160	0	0	508159	0	0	0	0
12	213025	0	116959	30660	.010	3570	0	0	515910	0	0	0	0
YEAR 1942													
1	6220	0	9705	30352	.090	2644	0	0	509782	0	0	0	0
2	201172	0	116959	30872	.130	46617	0	0	512972	0	0	0	0
3	135122	0	116959	30704	.180	64418	4834	0	509180	0	0	0	0
4	4990897	0	133667	32877	-.380	-144980	4410975	0	557265	0	0	0	0
	1452115	0	133668	33680	.140	54756	1282127	0	555738	0	0	0	0
	1285384	0	150376	33677	.160	62497	1091566	0	554292	0	0	0	0
7	4879	0	183793	32408	.500	188102	0	0	523767	0	0	0	0
8	64598	0	183793	30513	.320	113438	0	0	504451	0	0	0	0
9	289119	0	150376	30535	.210	74486	0	0	509868	0	0	0	0
10	111582	0	133668	30089	.160	56059	0	0	503417	0	0	0	0
11	262175	0	133667	30285	.150	52869	0	0	509783	0	0	0	0
12	687630	0	116959	30730	-.070	-25033	96057	0	557265	0	0	0	0
YEAR 1943													
1	17161	0	9705	33543	.120	3895	10865	0	549962	0	0	0	0
2	108417	0	116959	32960	.230	86853	0	0	541982	0	0	0	0
3	612321	0	116959	32615	.040	15008	298179	0	557144	0	0	0	0
4	423503	0	133667	33623	.240	92666	250253	0	551429	0	0	0	0
5	790191	0	133668	33587	-.100	-38794	588417	0	557265	0	0	0	0
6	1984534	0	150376	33546	.240	93341	1843265	0	547514	0	0	0	0
7	9425	0	183793	31916	.530	196408	0	0	516680	0	0	0	0
8	238	0	183793	29654	.690	237853	0	0	481649	0	0	0	0
9	22421	0	150376	28418	.260	85684	0	0	463898	0	0	0	0
10	195769	0	133668	28191	.090	29455	0	0	466666	0	0	0	0
11	857	0	133667	27852	.240	77505	0	0	449185	0	0	0	0
12	135550	0	116959	27553	-.050	-15990	0	0	452109	0	0	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1944													
1	45257	0	9705	28400	-.090	-2473	0	0	490135	0	0	0	0
2	832034	0	116959	30740	-.120	-42867	76773	0	553328	0	0	0	0
3	554126	0	116959	33620	.010	3852	382930	0	557261	0	0	0	0
4	177822	0	133667	33611	.100	38511	39335	0	554594	0	0	0	0
5	3213604	0	133668	33710	-.300	-117342	3084661	0	557265	0	0	0	0
6	232090	0	150376	33463	.440	170756	79860	0	543366	0	0	0	0
7	9997	0	183793	31637	.510	187295	0	0	513335	0	0	0	0
8	0	0	183793	29643	.440	151617	0	0	485462	0	0	0	0
9	1999	0	150376	28484	.420	138722	0	0	461587	0	0	0	0
10	762	0	133668	27541	.380	121467	0	0	440432	0	0	0	0
11	278289	0	133667	27079	-.080	-25112	0	0	454626	0	0	0	0
12	1048225	0	116959	28933	-.180	-60605	19853	0	537313	0	0	0	0
YEAR 1945													
1	58094	0	9705	33572	.000	0	29447	0	556255	0	0	0	0
2	1473941	0	116959	33769	-.120	-46517	1330277	0	557265	0	0	0	0
3	4073177	0	116959	33710	-.500	-195737	4151957	0	557265	0	0	0	0
4	1528423	0	133667	33727	.070	27385	1374943	0	556644	0	0	0	0
[illegible]	42058	0	133668	33077	.280	107545	0	0	540095	0	0	0	0
[illegible]	1530732	0	150376	33158	.100	38454	1162424	0	555190	0	0	0	0
[illegible]	1517332	0	183793	33530	.100	38929	1355574	0	549977	0	0	0	0
8	13972	0	183793	32322	.320	120086	0	0	525882	0	0	0	0
9	21017	0	150376	30637	.420	149362	0	0	502717	0	0	0	0
10	251012	0	133668	30420	.070	24770	0	0	510483	0	0	0	0
11	156829	0	133667	30391	.180	63619	0	0	507174	0	0	0	0
12	148165	0	116959	30450	.100	35473	0	0	506869	0	0	0	0
YEAR 1946													
1	75059	0	9705	32390	-.170	-5328	20287	0	557265	0	0	0	0
2	1562055	0	116959	33829	-.020	-7809	1403149	0	556803	0	0	0	0
3	296473	0	116959	33623	.040	15613	157951	0	557265	0	0	0	0
4	93802	0	133667	33379	.090	34844	0	0	551087	0	0	0	0
5	1574265	0	133668	33695	-.210	-82098	1447752	0	557265	0	0	0	0
6	1428218	0	150376	33425	.300	116309	1321948	0	543964	0	0	0	0
7	1547	0	183793	31623	.540	198281	0	0	512318	0	0	0	0
8	92279	0	183793	29777	.220	76212	0	0	498418	0	0	0	0
9	38606	0	150376	29109	.340	114975	0	0	479591	0	0	0	0
10	18708	0	133668	28352	.280	92173	0	0	462376	0	0	0	0
11	2316996	0	133667	32732	-.280	-106245	1150695	0	557265	0	0	0	0
12	343886	0	116959	33590	.070	27298	246345	0	553093	0	0	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON * *	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1947													
1	52219	0	9705	33616	-.060	-1951	40838	0	556721	0	0	0	0
2	38844	0	116959	33367	.140	54041	0	0	545750	0	0	0	0
3	339459	0	116959	33352	.020	7738	118676	0	554325	0	0	0	0
4	2460091	0	133667	33676	-.030	-11712	2296029	0	557265	0	0	0	0
5	83687	0	133668	33305	.170	65742	22523	0	545684	0	0	0	0
6	552984	0	150376	32774	.250	94987	188660	0	556112	0	0	0	0
7	3166	0	183793	32372	.640	240267	0	0	521077	0	0	0	0
8	119580	0	183793	30181	.420	147216	0	0	503525	0	0	0	0
9	91351	0	150376	29425	.380	129868	0	0	487851	0	0	0	0
10	1904	0	133668	28616	.340	112906	0	0	467503	0	0	0	0
11	261342	0	133667	28225	.080	26167	0	0	476008	0	0	0	0
12	1696653	0	116959	32142	-.110	-40902	669701	0	556403	0	0	0	0
YEAR 1948													
1	45707	0	9705	33681	-.070	-2281	37423	0	557265	0	0	0	0
2	699840	0	116959	33781	-.080	-31307	616701	0	557265	0	0	0	0
3	895561	0	116959	33679	.040	15643	773823	0	556182	0	0	0	0
4	79593	0	133667	33244	.210	80972	0	0	544975	0	0	0	0
	1277220	0	133668	33334	-.030	-11610	1023761	0	556005	0	0	0	0
	9092	0	150376	32734	.440	167008	0	0	530363	0	0	0	0
/	23254	0	183793	30641	.610	217121	0	0	498963	0	0	0	0
8	5522	0	183793	28785	.690	230693	0	0	464952	0	0	0	0
9	1119	0	150376	27556	.610	194877	0	0	436319	0	0	0	0
10	0	0	133668	26547	.340	104735	0	0	416493	0	0	0	0
11	24730	0	133667	25910	.150	45017	0	0	403707	0	0	0	0
12	25301	0	116959	25444	.060	17692	0	0	394633	0	0	0	0
YEAR 1949													
1	45366	0	9705	25479	-.340	-8382	0	0	438678	0	0	0	0
2	1051581	0	116959	27537	-.110	-35023	14972	0	519526	0	0	0	0
3	272386	0	116959	31285	.040	14557	19709	0	531309	0	0	0	0
4	261985	0	133667	32084	-.050	-18556	34662	0	543601	0	0	0	0
5	311254	0	133668	32733	.140	52764	45690	0	554014	0	0	0	0
6	96373	0	150376	33028	.310	116985	1677	0	539670	0	0	0	0
7	17756	0	183793	31556	.350	126597	0	0	515212	0	0	0	0
8	71	0	183793	29778	.410	140124	0	0	488153	0	0	0	0
9	0	0	150376	28575	.440	143590	0	0	463522	0	0	0	0
10	106084	0	133668	28051	-.270	-86475	0	0	468601	0	0	0	0
11	7331	0	133667	27915	.290	92263	0	0	450296	0	0	0	0
12	5236	0	116959	27319	.010	3111	0	0	440763	0	0	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

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NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

	TOTAL*	OTHER*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-MON*	***** REQ. RELEASE **************			
MON	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	RELEASED	STORED
* *	AC-FT*	AC-FT*	AC-FT*	ACRES*	FEET*	AC-FT*	AC-FT*	AC-FT*	AC-FT *	AC-FT	AC-FT	AC-FT	AC-FT
YEAR 1950													
1	40340	0	9705	27909	-.140	-3780	0	0	475180	0	0	0	0
2	2517691	0	116959	32969	-.270	-101208	1507847	0	557265	0	0	0	0
3	44152	0	116959	33266	.220	83679	0	0	544158	0	0	0	0
4	541202	0	133667	33055	-.090	-33997	288863	0	556429	0	0	0	0
5	1336844	0	133668	33698	-.070	-27215	1131772	0	557265	0	0	0	0
6	32751	0	150376	33069	.300	114674	8882	0	537156	0	0	0	0
7	196506	0	183793	31800	.240	88343	0	0	530895	0	0	0	0
8	35298	0	183793	30976	.470	168839	0	0	504498	0	0	0	0
9	13115	0	150376	29491	.120	41081	0	0	489692	0	0	0	0
10	0	0	133668	28706	.310	103197	0	0	469990	0	0	0	0
11	24159	0	133667	27986	.300	97137	0	0	452796	0	0	0	0
12	476	0	116959	27301	.220	69525	0	0	437319	0	0	0	0
YEAR 1951													
1	12270	0	9705	27033	.060	1570	0	0	438315	0	0	0	0
2	522827	0	116959	27573	-.090	-28631	0	0	474572	0	0	0	0
3	12567	0	116959	28217	.190	62185	0	0	460727	0	0	0	0
4	14400	0	133667	27646	.210	67156	0	0	445223	0	0	0	0
	148737	0	133668	27265	.230	72556	0	0	440459	0	0	0	0
.	770436	0	150376	28444	.130	42950	4978	0	488610	0	0	0	0
7	34393	0	183793	28558	.530	175944	0	0	461578	0	0	0	0
8	0	0	183793	27252	.760	239454	0	0	426285	0	0	0	0
9	6379	0	150376	26327	.010	3029	0	0	414085	0	0	0	0
10	30085	0	133668	25714	.240	70933	0	0	399528	0	0	0	0
11	4856	0	133667	25185	.190	54846	0	0	384217	0	0	0	0
12	0	0	116959	24613	.070	19733	0	6574	372844	0	0	0	0
YEAR 1952													
1	1462	0	9705	24177	.110	2574	0	0	362028	0	0	0	0
2	14138	0	116959	23739	.000	0	0	19194	353502	0	0	0	0
3	100419	0	116959	23500	.050	13563	0	11738	351028	0	0	0	0
4	1663783	0	133667	24837	-.150	-43170	41368	6032	482187	0	0	0	0
5	1228451	0	133668	29604	-.010	-3442	380422	0	557265	0	0	0	0
6	90018	0	150376	33160	.430	161502	14658	0	537209	0	0	0	0
7	1166	0	183793	31201	.490	173616	0	0	507261	0	0	0	0
8	0	0	183793	29054	.860	283549	0	0	467830	0	0	0	0
9	0	0	150376	27603	.730	227591	0	0	435875	0	0	0	0
10	0	0	133668	26384	.620	184474	0	0	408953	0	0	0	0
11	144976	0	133667	25794	-.170	-49283	0	0	414183	0	0	0	0
12	730758	0	116959	27232	-.150	-46114	0	0	469328	0	0	0	0

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NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

* *	TOTAL*	OTHER*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-MON*	***** REQ. RELEASE			**************
MON	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	RELEASED	STORED
* *	AC-FT*	AC-FT*	AC-FT*	ACRES*	FEET*	AC-FT*	AC-FT*	AC-FT*	AC-FT *	AC-FT	AC-FT	AC-FT	AC-FT
YEAR 1953													
1	14085	0	9705	28411	.120	3299	0	0	470408	0	0	0	0
2	11853	0	116959	28218	.050	15909	0	0	460331	0	0	0	0
3	314539	0	116959	28415	-.040	-12884	0	0	477938	0	0	0	0
4	533538	0	133667	28542	-.050	-16164	16552	0	512688	0	0	0	0
5	3098999	0	133668	33601	-.080	-30436	2384254	0	555603	0	0	0	0
6	1904	0	150376	32576	.540	201452	0	0	526279	0	0	0	0
7	2999	0	183793	30717	.220	77677	0	0	504739	0	0	0	0
8	12900	0	183793	29233	.390	131131	0	0	479531	0	0	0	0
9	74547	0	150376	28491	.360	117580	0	0	463352	0	0	0	0
10	1333	0	133668	27665	.280	88791	0	0	444875	0	0	0	0
11	1833	0	133667	27066	.070	21674	0	0	432106	0	0	0	0
12	210478	0	116959	27131	-.060	-18637	0	0	441516	0	0	0	0
YEAR 1954													
1	42696	0	9705	27751	-.080	-2147	0	0	476656	0	0	0	0
2	66787	0	116959	28494	.190	61968	0	0	467297	0	0	0	0
3	2475	0	116959	27893	.210	67172	0	0	452130	0	0	0	0
4	123792	0	133667	27617	.060	18956	0	0	449753	0	0	0	0
	487482	0	133668	28271	-.030	-9749	0	0	480107	0	0	0	0
	16447	0	150376	28275	.490	158996	0	0	455607	0	0	0	0
7	0	0	183793	26972	.840	258787	0	0	418431	0	0	0	0
8	0	0	183793	25460	.910	263525	0	15819	380761	0	0	0	0
9	0	0	150376	24127	.680	186826	0	25077	352424	0	0	0	0
10	365451	0	133668	23510	.010	2692	0	17257	371559	0	0	0	0
11	263484	0	133667	24682	.120	33935	0	0	379563	0	0	0	0
12	14329	0	116959	24408	.160	44756	0	9663	367273	0	0	0	0
YEAR 1955													
1	3396	0	9705	23987	.030	696	0	0	360268	0	0	0	0
2	269625	0	116959	24404	-.110	-30781	0	1954	375620	0	0	0	0
3	323917	0	116959	24597	.050	14162	0	6222	391719	0	0	0	0
4	544915	0	133667	25967	.070	21024	0	0	424280	0	0	0	0
5	54625	0	133668	26278	.070	21326	0	0	415961	0	0	0	0
6	41105	0	150376	25787	.330	98302	0	2756	398683	0	0	0	0
7	1999	0	183793	24896	.460	132370	0	30650	372517	0	0	0	0
8	4665	0	183793	24008	.080	22261	0	30650	355798	0	0	0	0
9	10592	0	150376	23257	.180	48726	0	25077	340156	0	0	0	0
10	1095	0	133668	22340	.490	128229	0	22291	318563	0	0	0	0
11	0	0	133667	21392	.370	93082	0	22291	299822	0	0	0	0
12	0	0	116959	20608	.160	39007	0	19504	286926	0	0	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++
CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS
NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE
IDNUM = 0 *MONTHLY SUMMARY*

*	TOTAL*	OTHER*	DAILY*	RES.*	EVAP*	EVAP*	DWNSTRM*	DEMAND*	E-O-MON*	***** REQ. RELEASE **************			
MON	INFLOW*	SPILLS*	DEMAND*	AREA*	DEPTH*	LOSS*	SPILLS*	SHTGE.*	CONTENT*	NEED	PASSED	RELEASED	STORED
* *	AC-FT*	AC-FT*	AC-FT*	ACRES*	FEET*	AC-FT*	AC-FT*	AC-FT*	AC-FT *	AC-FT	AC-FT	AC-FT	AC-FT
YEAR 1956													
1	103	0	9705	20051	.030	582	0	0	276742	0	0	0	0
2	287000	0	116959	20397	-.090	-21839	0	13969	292727	0	0	0	0
3	1999	0	116959	20211	.290	70115	0	19504	277516	0	0	0	0
4	3427	0	133667	19525	.180	42206	0	22291	263314	0	0	0	0
5	382374	0	133668	20212	.140	34061	0	1438	281349	0	0	0	0
6	4332	0	150376	19579	.410	96709	0	21656	261473	0	0	0	0
7	2951	0	183793	18185	.820	181973	0	30650	232039	0	0	0	0
8	2951	0	183793	16515	.740	151575	0	30650	205209	0	0	0	0
9	2856	0	150376	15087	.660	125239	0	25077	183345	0	0	0	0
10	738	0	133668	13914	.370	65805	0	22291	167334	0	0	0	0
11	232971	0	133667	14005	.160	28747	0	22291	173491	0	0	0	0
12	13329	0	116959	13441	.150	26204	0	19504	162946	0	0	0	0
YEAR 1957													
1	11224	0	9705	13005	.050	629	0	0	163837	0	0	0	0
2	280550	0	116959	14221	-.020	-3682	0	697	177786	0	0	0	0
3	525779	0	116959	14666	-.050	-9498	0	9733	212606	0	0	0	0
4	6290277	0	133667	22464	-.680	-186735	2584786	0	557265	0	0	0	0
	2542873	0	133668	33710	-.180	-70464	2479717	0	557265	0	0	0	0
	448780	0	150376	33470	.140	54353	379989	0	545980	0	0	0	0
7	2214	0	183793	31772	.530	195525	0	0	514618	0	0	0	0
8	6855	0	183793	29785	.380	131632	0	0	488986	0	0	0	0
9	98206	0	150376	28806	.220	73534	0	0	478567	0	0	0	0
10	1241209	0	133668	31010	-.050	-17939	232387	0	556516	0	0	0	0
11	1745232	0	133667	33737	-.170	-66407	1624106	0	557265	0	0	0	0
12	196316	0	116959	33469	.120	46628	40932	0	557129	0	0	0	0
YEAR 1958													
1	42474	0	9705	33650	.030	977	32321	0	556601	0	0	0	0
2	27062	0	116959	33405	.100	38649	0	0	545931	0	0	0	0
3	416838	0	116959	33440	.020	7762	163385	0	557265	0	0	0	0
4	2766823	0	133667	33739	-.200	-78176	2703006	0	557265	0	0	0	0
5	2812308	0	133668	33589	.130	50704	2705926	0	550853	0	0	0	0
6	23849	0	150376	32539	.310	116981	0	0	530612	0	0	0	0
7	282645	0	183793	32086	.380	141542	0	0	527116	0	0	0	0
8	0	0	183793	30646	.340	121188	0	0	501783	0	0	0	0
9	105299	0	150376	29627	-.100	-34500	0	0	500944	0	0	0	0
10	41343	0	133668	29261	.220	75023	0	0	487069	0	0	0	0
11	27229	0	133667	28724	.170	56727	0	0	473526	0	0	0	0
12	14852	0	116959	28204	.170	55710	0	0	460420	0	0	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON * *	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1959													
1	902	0	9705	27632	.230	6150	0	0	445467	0	0	0	0
2	623770	0	116959	28178	-.050	-16329	0	0	489102	0	0	0	0
3	193769	0	116959	29208	.190	64890	0	0	490175	0	0	0	0
4	973868	0	133667	30761	-.010	-3562	170476	0	556116	0	0	0	0
5	729140	0	133668	33692	-.140	-53976	603859	0	556428	0	0	0	0
6	252131	0	150376	33636	-.030	-11559	151579	0	552830	0	0	0	0
7	26967	0	183793	32666	.200	75059	0	0	533504	0	0	0	0
8	2023	0	183793	31065	.380	135967	0	0	506999	0	0	0	0
9	714	0	150376	29493	.290	98568	0	0	486313	0	0	0	0
10	437474	0	133668	30307	.000	0	0	0	511678	0	0	0	0
11	92565	0	133667	30260	.300	104814	0	0	499526	0	0	0	0
12	1154475	0	116959	31559	-.110	-39893	428780	0	557265	0	0	0	0
YEAR 1960													
1	153842	0	9705	33706	-.070	-2282	146964	0	556722	0	0	0	0
2	569002	0	116959	33774	.010	3912	444502	0	557265	0	0	0	0
3	228424	0	116959	33497	.130	50563	155213	0	549100	0	0	0	0
4	16233	0	133667	32602	.180	68062	0	0	533689	0	0	0	0
[illegible]	34917	0	133668	31476	.280	102331	0	0	516979	0	0	0	0
[illegible]	54006	0	150376	30337	.130	45821	0	0	505190	0	0	0	0
7	31966	0	183793	29340	.300	102459	0	0	484086	0	0	0	0
8	34132	0	183793	28445	.280	92515	0	0	463972	0	0	0	0
9	15971	0	150376	27660	.350	112233	0	0	443468	0	0	0	0
10	9164	0	133668	26960	.120	37529	0	0	430010	0	0	0	0
11	81354	0	133667	26510	.160	49118	0	0	421598	0	0	0	0
12	2315139	0	116959	31616	-.390	-142099	762855	0	557265	0	0	0	0
YEAR 1961													
1	113123	0	9705	33710	-.140	-4566	107986	0	557265	0	0	0	0
2	838532	0	116959	33831	-.050	-19571	741838	0	557240	0	0	0	0
3	810970	0	116959	33664	-.020	-7816	700573	0	557265	0	0	0	0
4	123602	0	133667	33496	.280	108749	17381	0	546212	0	0	0	0
5	40463	0	133668	32385	.200	75164	0	0	532225	0	0	0	0
6	1156879	0	150376	32452	-.080	-30075	732015	0	557265	0	0	0	0
7	149855	0	183793	33192	.330	127190	23007	0	541983	0	0	0	0
8	8711	0	183793	31556	.480	175889	0	0	512800	0	0	0	0
9	19089	0	150376	29941	.240	83516	0	0	494967	0	0	0	0
10	3523	0	133668	28938	.290	97539	0	0	476049	0	0	0	0
11	208431	0	133667	28547	-.040	-13247	0	0	483431	0	0	0	0
12	450708	0	116959	29741	.020	6930	0	0	510710	0	0	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++
CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS
NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE
IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1962													
1	7327	0	9705	30151	.010	292	0	0	508040	0	0	0	0
2	228853	0	116959	30175	-.010	-3510	5341	0	517698	0	0	0	0
3	118532	0	116959	30842	.150	53925	4039	0	513394	0	0	0	0
4	652903	0	133667	31124	-.090	-32562	120410	0	557265	0	0	0	0
5	345029	0	133668	33341	.280	106989	247449	0	543560	0	0	0	0
6	132194	0	150376	32555	-.010	-3732	0	0	542413	0	0	0	0
7	665899	0	183793	32782	.250	94039	227013	0	557265	0	0	0	0
8	57767	0	183793	32808	.540	202833	1464	0	529594	0	0	0	0
9	250988	0	150376	32269	.030	11088	0	0	537097	0	0	0	0
10	144595	0	133668	32232	.030	11097	0	0	537120	0	0	0	0
11	353597	0	133667	32063	.040	14714	33272	0	554256	0	0	0	0
12	141882	0	116959	33458	.110	41944	11333	0	552813	0	0	0	0
YEAR 1963													
1	5048	0	9705	33180	.120	3853	0	0	544303	0	0	0	0
2	8759	0	116959	32398	.160	58955	0	0	530330	0	0	0	0
3	14567	0	116959	31365	.120	43000	0	0	518198	0	0	0	0
4	860097	0	133667	31027	-.170	-60210	341814	0	557265	0	0	0	0
	375328	0	133668	33460	.100	38103	296033	0	547551	0	0	0	0
	2713	0	150376	32275	.300	110326	0	0	525940	0	0	0	0
/	1404	0	183793	30411	.490	170287	0	0	496386	0	0	0	0
8	1666	0	183793	28699	.660	215983	0	0	462945	0	0	0	0
9	714	0	150376	27565	.440	137838	0	0	438802	0	0	0	0
10	2214	0	133668	26515	.600	180575	0	0	412500	0	0	0	0
11	24	0	133667	25664	.250	72578	0	0	395209	0	0	0	0
12	0	0	116959	25046	.090	25472	0	0	383323	0	0	0	0
YEAR 1964													
1	12	0	9705	24558	.110	2614	0	0	371016	0	0	0	0
2	6760	0	116959	24155	.040	10909	0	19504	360941	0	0	0	0
3	53268	0	116959	23765	.000	0	0	16070	355676	0	0	0	0
4	415696	0	133667	23726	.030	8098	0	14144	378538	0	0	0	0
5	75618	0	133668	24567	.030	8403	0	0	373036	0	0	0	0
6	3832	0	150376	23964	.370	100927	0	16718	352307	0	0	0	0
7	2214	0	183793	22718	.680	176960	0	30650	322292	0	0	0	0
8	738	0	183793	21388	.490	120729	0	30650	296962	0	0	0	0
9	66502	0	150376	20482	.100	23694	0	25077	288047	0	0	0	0
10	3713	0	133668	19907	.410	94994	0	22291	269366	0	0	0	0
11	69929	0	133667	19291	.050	11266	0	22291	263170	0	0	0	0
12	3142	0	116959	18826	.110	24362	0	19504	251724	0	0	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1965													
1	4687	0	9705	18253	.030	530	0	0	246176	0	0	0	0
2	1110395	0	116959	20262	-.180	-43057	0	6269	332522	0	0	0	0
3	76213	0	116959	22375	.040	10570	0	0	328302	0	0	0	0
4	22112	0	133667	22019	.190	49335	0	0	315010	0	0	0	0
5	1830823	0	133668	24599	-.410	-119081	41475	0	466248	0	0	0	0
6	36940	0	150376	27851	.270	88611	120	0	449580	0	0	0	0
7	2523	0	183793	26865	.600	189334	0	0	418941	0	0	0	0
8	738	0	183793	25681	.510	153125	0	0	391079	0	0	0	0
9	102466	0	150376	24978	.120	34900	0	0	384243	0	0	0	0
10	952	0	133668	24487	.280	79807	0	0	366596	0	0	0	0
11	94945	0	133667	24151	.060	16827	0	0	362017	0	0	0	0
12	1285	0	116959	23680	.000	0	0	13914	352419	0	0	0	0
YEAR 1966													
1	7202	0	9705	23348	-.010	-225	0	0	350142	0	0	0	0
2	517781	0	116959	24427	-.050	-14241	0	2753	384764	0	0	0	0
3	53911	0	116959	24692	.090	26002	0	0	377401	0	0	0	0
4	4788155	0	133667	26325	-.220	-67410	2669059	0	557265	0	0	0	0
	1768201	0	133668	33694	.060	23475	1616933	0	556230	0	0	0	0
	30633	0	150376	32896	.360	137356	0	0	534858	0	0	0	0
/	13091	0	183793	31109	.450	162579	0	0	507152	0	0	0	0
8	35607	0	183793	29465	.210	71982	0	0	488881	0	0	0	0
9	70834	0	150376	29049	-.040	-13495	0	0	483430	0	0	0	0
10	68739	0	133668	28686	.240	80008	0	0	471405	0	0	0	0
11	1476	0	133667	28043	.240	78048	0	0	453931	0	0	0	0
12	4260	0	116959	27408	.110	34988	0	0	441664	0	0	0	0
YEAR 1967													
1	440	0	9705	26932	.090	2346	0	0	430054	0	0	0	0
2	3118	0	116959	26567	.060	18412	0	0	419072	0	0	0	0
3	26039	0	116959	25989	.170	51184	0	0	407262	0	0	0	0
4	163089	0	133667	25838	-.120	-35862	0	0	412759	0	0	0	0
5	245466	0	133668	26410	-.060	-18349	0	0	423657	0	0	0	0
6	317942	0	150376	26850	.380	118093	0	0	427813	0	0	0	0
7	133170	0	183793	26517	.350	107465	0	0	414678	0	0	0	0
8	2356	0	183793	25553	.430	126898	0	0	388992	0	0	0	0
9	165779	0	150376	25050	.030	8654	0	0	389603	0	0	0	0
10	3063154	0	133668	27350	.110	34864	996344	0	557265	0	0	0	0
11	682322	0	133667	33670	.100	38532	528900	0	552200	0	0	0	0
12	1153023	0	116959	33508	.040	15438	894573	0	557265	0	0	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON *	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1968													
1	96867	0	9705	33710	.020	652	86509	0	557265	0	0	0	0
2	598397	0	116959	33784	.040	15654	465783	0	557265	0	0	0	0
3	1708602	0	116959	33709	.000	0	1596497	0	556941	0	0	0	0
4	733138	0	133667	33739	.000	0	599026	0	557265	0	0	0	0
5	1609991	0	133668	33702	-.010	-3911	1488012	0	556391	0	0	0	0
6	251464	0	150376	33225	.270	103993	15250	0	555919	0	0	0	0
7	34679	0	183793	32822	.310	117850	0	0	533712	0	0	0	0
8	3285	0	183793	30842	.600	214601	0	0	500828	0	0	0	0
9	5260	0	150376	29202	.270	91432	0	0	481167	0	0	0	0
10	3499	0	133668	28398	.260	85589	0	0	463222	0	0	0	0
11	67740	0	133667	27771	.180	57869	0	0	452944	0	0	0	0
12	214881	0	116959	27896	.100	32329	0	0	458447	0	0	0	0
YEAR 1969													
1	5470	0	9705	27676	-.010	-267	0	0	454481	0	0	0	0
2	721547	0	116959	28598	-.020	-6619	0	0	505457	0	0	0	0
3	1466610	0	116959	31801	.020	7363	759255	0	557236	0	0	0	0
4	313468	0	133667	33698	-.010	-3872	179354	0	557265	0	0	0	0
	4130325	0	133668	33710	-.270	-105517	4049697	0	557265	0	0	0	0
	38225	0	150376	32975	.410	156818	9464	0	534114	0	0	0	0
7	5808	0	183793	30784	.690	246747	0	0	498792	0	0	0	0
8	4903	0	183793	28861	.550	184403	0	0	468589	0	0	0	0
9	3237	0	150376	27840	.360	116221	0	0	446694	0	0	0	0
10	164374	0	133668	26997	.330	103418	0	0	440679	0	0	0	0
11	49888	0	133667	27004	.150	46962	0	0	429830	0	0	0	0
12	710813	0	116959	27396	.020	6360	0	0	478830	0	0	0	0
YEAR 1970													
1	14945	0	9705	28921	.050	1399	0	0	482671	0	0	0	0
2	1233259	0	116959	31223	-.070	-25327	324750	0	557265	0	0	0	0
3	2324850	0	116959	33710	-.050	-19556	2145208	0	557265	0	0	0	0
4	826774	0	133667	33650	-.090	-35119	727109	0	557265	0	0	0	0
5	173419	0	133668	33489	.040	15554	36263	0	556995	0	0	0	0
6	191508	0	150376	33073	.400	153443	132800	0	535887	0	0	0	0
7	6331	0	183793	30940	.660	237190	0	0	501403	0	0	0	0
8	5927	0	183793	28933	.620	208421	0	0	469286	0	0	0	0
9	373281	0	150376	28522	.260	86027	0	0	480747	0	0	0	0
10	800235	0	133668	29205	.130	44152	6580	0	532668	0	0	0	0
11	34774	0	133667	31452	.260	94987	0	0	516571	0	0	0	0
12	10044	0	116959	30435	.040	14184	0	0	506525	0	0	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1971													
1	714	0	9705	29578	.220	6297	0	0	491237	0	0	0	0
2	82544	0	116959	29103	.060	20260	0	0	486727	0	0	0	0
3	36869	0	116959	28728	.280	93587	0	0	472311	0	0	0	0
4	15566	0	133667	28084	.260	84653	0	0	455459	0	0	0	0
5	39416	0	133668	27432	.270	85823	0	0	440485	0	0	0	0
6	8069	0	150376	26616	.560	172266	0	0	414272	0	0	0	0
7	803829	0	183793	25793	.460	137155	0	0	454526	0	0	0	0
8	130124	0	183793	27579	.290	92782	0	0	442380	0	0	0	0
9	16471	0	150376	26785	.380	117656	0	0	421436	0	0	0	0
10	2186491	0	133668	28985	.120	39966	521544	0	557221	0	0	0	0
11	121460	0	133667	33487	.160	60940	1586	0	551073	0	0	0	0
12	3258518	0	116959	33675	-.070	-27226	2946496	0	556835	0	0	0	0
YEAR 1972													
1	75509	0	9705	33663	-.020	-651	66539	0	556752	0	0	0	0
2	34417	0	116959	33307	.190	73258	0	0	543806	0	0	0	0
3	20184	0	116959	32196	.240	89649	0	0	528306	0	0	0	0
4	15209	0	133667	31085	.210	75695	0	0	512172	0	0	0	0
	17161	0	133668	29805	.350	121342	0	0	492416	0	0	0	0
	64003	0	150376	28879	.320	107213	0	0	476339	0	0	0	0
7	10830	0	183793	27997	.520	168919	0	0	447903	0	0	0	0
8	8854	0	183793	26832	.550	171145	0	0	419109	0	0	0	0
9	6022	0	150376	25885	.300	89865	0	0	399628	0	0	0	0
10	106036	0	133668	25193	.190	55409	0	0	392741	0	0	0	0
11	187462	0	133667	25500	.010	2948	0	0	397025	0	0	0	0
12	181131	0	116959	25457	.030	8836	0	0	401676	0	0	0	0
YEAR 1973													
1	61777	0	9705	26644	-.070	-1804	0	0	455553	0	0	0	0
2	603896	0	116959	29221	-.010	-3401	11171	0	496455	0	0	0	0
3	1071312	0	116959	31745	.070	25651	319703	0	557097	0	0	0	0
4	2337441	0	133667	33698	-.050	-19275	2079680	0	557265	0	0	0	0
5	175014	0	133668	33503	.280	108913	42111	0	548302	0	0	0	0
6	2536090	0	150376	33617	.180	70186	2267790	0	552169	0	0	0	0
7	69572	0	183793	32531	.340	128416	0	0	532013	0	0	0	0
8	15376	0	183793	30776	.600	214558	0	0	500174	0	0	0	0
9	181845	0	150376	29351	.140	47770	0	0	498879	0	0	0	0
10	1184275	0	133668	31989	.080	29652	349116	0	557265	0	0	0	0
11	882232	0	133667	33684	.090	35112	681434	0	557265	0	0	0	0
12	828512	0	116959	33681	.130	50844	662275	0	557182	0	0	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1974													
1	154300	0	9705	33709	-.100	-3261	147775	0	557265	0	0	0	0
2	110416	0	116959	33586	.150	58291	275	0	551904	0	0	0	0
3	56315	0	116959	32927	.220	84109	0	0	539882	0	0	0	0
4	235993	0	133667	32170	.250	93267	0	0	540682	0	0	0	0
5	1006786	0	133668	33507	.210	81663	639079	0	553283	0	0	0	0
6	1106444	0	150376	33635	.340	132611	865256	0	549773	0	0	0	0
7	5831	0	183793	31899	.670	248162	0	0	514326	0	0	0	0
8	0	0	183793	29819	.290	100548	0	0	490707	0	0	0	0
9	152069	0	150376	29103	.040	13517	0	0	489777	0	0	0	0
10	446828	0	133668	28956	.120	40400	0	0	512559	0	0	0	0
11	3266348	0	133667	33709	.000	0	2592924	0	557265	0	0	0	0
12	805329	0	116959	33690	.000	0	702436	0	556226	0	0	0	0
YEAR 1975													
1	19200	0	9705	33648	.020	651	9487	0	555583	0	0	0	0
2	2197131	0	116959	33819	-.040	-15649	2080496	0	557141	0	0	0	0
3	526992	0	116959	33663	.040	15630	388086	0	557265	0	0	0	0
4	1197271	0	133667	33713	.080	31282	1036773	0	557265	0	0	0	0
	382302	0	133668	33683	.090	35184	209001	0	557265	0	0	0	0
	165850	0	150376	33501	.310	120416	22710	0	546944	0	0	0	0
7	25135	0	183793	32002	.430	159679	0	0	520472	0	0	0	0
8	4903	0	183793	29991	.560	195201	0	0	489377	0	0	0	0
9	4927	0	150376	28621	.460	152660	0	0	464584	0	0	0	0
10	7164	0	133668	27673	.380	122026	0	0	443913	0	0	0	0
11	1928	0	133667	26948	.220	68709	0	0	427252	0	0	0	0
12	1380	0	116959	26351	.070	21389	0	0	415877	0	0	0	0
YEAR 1976													
1	397	0	9705	25847	.170	4252	0	0	402317	0	0	0	0
2	7188	0	116959	25343	.210	61490	0	0	388073	0	0	0	0
3	29919	0	116959	24821	.100	28725	0	0	378460	0	0	0	0
4	4316953	0	133667	27978	.050	16178	2012827	0	557265	0	0	0	0
5	1068147	0	133668	33695	.110	43042	891439	0	557265	0	0	0	0
6	315181	0	150376	33499	.270	104888	117262	0	552846	0	0	0	0
7	230924	0	183793	33220	.250	96336	4521	0	548802	0	0	0	0
8	10068	0	183793	32012	.520	193008	0	0	518282	0	0	0	0
9	138645	0	150376	31065	.050	18013	0	0	515857	0	0	0	0
10	310064	0	133668	31311	.090	32734	0	0	527878	0	0	0	0
11	25611	0	133667	31175	.170	61554	0	0	513798	0	0	0	0
12	421551	0	116959	31889	.020	7398	19941	0	538606	0	0	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ************** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1977													
1	20176	0	9705	32821	-.070	-2222	0	0	551300	0	0	0	0
2	1889732	0	116959	33792	.040	15566	1632135	0	556399	0	0	0	0
3	1686656	0	116959	33662	.090	35180	1522640	0	557265	0	0	0	0
4	975249	0	133667	33719	.120	46934	809376	0	556070	0	0	0	0
5	22897	0	133668	32932	.340	130014	0	0	536052	0	0	0	0
6	371139	0	150376	32314	.410	153638	1306	0	541695	0	0	0	0
7	18780	0	183793	31366	.680	247715	0	0	507369	0	0	0	0
8	20541	0	183793	29322	.470	160303	0	0	480494	0	0	0	0
9	14924	0	150376	28289	.460	150887	0	0	456681	0	0	0	0
10	12305	0	133668	27352	.390	123793	0	0	436293	0	0	0	0
11	198482	0	133667	27285	.070	22137	0	0	439896	0	0	0	0
12	24468	0	116959	26868	.190	59201	0	0	427290	0	0	0	0
YEAR 1978													
1	1995	0	9705	26435	-.050	-1278	0	0	420860	0	0	0	0
2	615915	0	116959	27319	-.070	-22110	0	0	464326	0	0	0	0
3	606918	0	116959	29404	.140	48092	4510	0	501214	0	0	0	0
4	52625	0	133667	29331	.260	89086	0	0	487137	0	0	0	0
	76118	0	133668	28796	.190	63779	0	0	477095	0	0	0	0
	14662	0	150376	28125	.500	163220	0	0	452245	0	0	0	0
7	32156	0	183793	26904	.760	236680	0	0	419888	0	0	0	0
8	32561	0	183793	25773	.570	169543	0	0	393134	0	0	0	0
9	73761	0	150376	24906	.340	97399	0	0	378618	0	0	0	0
10	15447	0	133668	24189	.460	127920	0	0	358046	0	0	0	0
11	55910	0	133667	23591	-.030	-8123	0	7704	352299	0	0	0	0
12	61551	0	116959	23197	.060	16039	0	18731	346377	0	0	0	0
YEAR 1979													
1	78496	0	9705	24764	-.080	-1916	0	0	417085	0	0	0	0
2	550580	0	116959	26688	-.030	-9266	6114	0	454035	0	0	0	0
3	927408	0	116959	28262	.060	19780	92280	0	519973	0	0	0	0
4	314777	0	133667	32019	.140	51483	42387	0	530780	0	0	0	0
5	2677162	0	133668	33491	.150	57586	2093333	0	556958	0	0	0	0
6	164446	0	150376	33239	.420	160508	69514	0	538743	0	0	0	0
7	1523	0	183793	31406	.400	144948	0	0	511464	0	0	0	0
8	123197	0	183793	30114	.400	139324	0	0	494823	0	0	0	0
9	56362	0	150376	28957	.350	116993	0	0	477246	0	0	0	0
10	15447	0	133668	28178	.390	126836	0	0	456807	0	0	0	0
11	16161	0	133667	27501	.210	66525	0	0	441481	0	0	0	0
12	511140	0	116959	27356	.010	3155	0	0	474106	0	0	0	0

TWDB ++ SIMDLY/RELEASE PROGRAM ++

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS

NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE

IDNUM = 0 *MONTHLY SUMMARY*

MON	TOTAL* INFLOW* AC-FT*	OTHER* SPILLS* AC-FT*	DAILY* DEMAND* AC-FT*	RES.* AREA* ACRES*	EVAP* DEPTH* FEET*	EVAP* LOSS* AC-FT*	DWNSTRM* SPILLS* AC-FT*	DEMAND* SHTGE.* AC-FT*	E-O-MON* CONTENT* AC-FT *	***** REQ. RELEASE ***** NEED AC-FT	PASSED AC-FT	RELEASED AC-FT	STORED AC-FT
YEAR 1980													
1	109950	0	9705	29914	-.060	-1736	18824	0	557265	0	0	0	0
2	318252	0	116959	33721	.070	26922	206558	0	553469	0	0	0	0
3	119389	0	116959	33124	.160	60672	0	0	548585	0	0	0	0
4	421337	0	133667	33331	.150	57142	169857	0	554122	0	0	0	0
5	1061101	0	133668	33635	.180	69422	808650	0	553139	0	0	0	0
6	55386	0	150376	32518	.510	190849	0	0	529246	0	0	0	0
7	20398	0	183793	30374	.820	287802	0	0	491593	0	0	0	0
8	20017	0	183793	28468	.780	256400	0	0	456523	0	0	0	0
9	72071	0	150376	27320	.430	135397	0	0	438695	0	0	0	0
10	54482	0	133668	26782	.360	111171	0	0	422814	0	0	0	0
11	16828	0	133667	26168	.150	45173	0	0	409331	0	0	0	0
12	143500	0	116959	25954	.080	23910	0	0	409576	0	0	0	0
YEAR 1981													
1	678	0	9705	25635	.100	2481	0	0	398069	0	0	0	0
2	6974	0	116959	25268	.080	23153	0	0	386996	0	0	0	0
3	50769	0	116959	24788	.100	28453	0	0	379124	0	0	0	0
4	15114	0	133667	24367	.220	61372	0	0	364110	0	0	0	0
	319513	0	133668	24094	.130	35867	0	0	376614	0	0	0	0
	3190231	0	150376	30432	.180	62854	905070	0	554930	0	0	0	0
7	569502	0	183793	33353	.490	187159	337669	0	541272	0	0	0	0
8	21207	0	183793	31442	.580	209489	0	0	510141	0	0	0	0
9	59623	0	150376	29889	.380	130631	0	0	491653	0	0	0	0
10	482388	0	133668	30028	.080	27657	0	0	518437	0	0	0	0
11	134598	0	133667	30940	.130	46310	0	0	514674	0	0	0	0
12	53816	0	116959	30374	.210	73605	0	0	503282	0	0	0	0

++ TWDB SIMDLY/RELEASE PROGRAM ++

CEDAR CREEK RESERVOIR-FIRM YIELD BASED ON #0000 GAGED FLOWS
NO RELEASES, 2050 EAC, MUN DEMAND FACTORS, MIN POOL=1YR STORAGE
IDNUM= 0

** R U N S U M M A R Y **

TOTAL INFLOW	=	203405253	AC-FT	AVGANN INFLOW	=	4961104	AC-FT/YR
TOTAL EVAP LOSS	=	29111271	AC-FT	AVGANN EVAP LOSS	=	710031	AC-FT/YR
TOTAL D.S. SPILLS	=	115060894	AC-FT	AVGANN D.S. SPILLS	=	2806363	AC-FT/YR
TOTAL INF.PASSED	=	0	AC-FT	AVGANN INF.PASSED	=	0	AC-FT/YR
TOTAL RELEASES	=	0	AC-FT	AVGANN RELEASES	=	0	AC-FT/YR

WATER MANAGEMENT PLAN

TARRANT REGIONAL WATER DISTRICT

HDR Engineering, Inc.
Austin, Texas

in Association with

Alan Plummer Associates, Inc.

June 1999

TARRANT REGIONAL WATER DISTRICT
WATER MANAGEMENT PLAN

SIGNATURE PAGE

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Tarrant Regional Water District
Water Management Plan

Acknowledgements

Several organizations and individuals provided information, guidance, and assistance in preparing this document. We gratefully acknowledge the following organizations for their assistance.

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George W. Shannon, President
Victor W. Henderson, Vice President
Charles B. Campbell, Secretary
Hal S. Sparks, III, Director
Brian C. Newby, Director

Jim Oliver, General Manager
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Executive Summary

ES-1 Introduction

The Tarrant Regional Water District (District) authorized HDR Engineering, Inc. in association with Alan Plummer Associates, Inc. to prepare a Water Management Plan for the District. The fundamental purpose of this effort is to provide planning to meet the projected 50-year needs of the District. This planning effort included:

- Projections of Population Growth and Water Demand
- Estimates of Water Supply from Existing Sources
- Options for Increased Water Supply from Existing Sources
- Options for New Water Supplies
- Integrated Water Supply Planning.

In addition to the water planning items listed above, the District authorized work on other important items, including:

- Water Conservation and Drought Contingency Plan (contained in a separate document)
- Water Quality and Treatment Considerations (Section 4, this document)
- Assessment of Reservoir Sedimentation Rates (Appendix A, this document)
- Recreation Analysis (Appendix C, this document)
- Risk and Reliability Assessment (Appendix D, this document)
- Survey of Customers Related to Water Quality and Treatment Issues (Appendix E, this document).

ES-2 Projected Population, Water Demand and Supply Comparison

Population and Water Demand Projections

Currently, about 1.5 million people are supplied water from District lakes and reservoirs. Population of the District's service area, including potential new customers, is projected to grow to 2.11 million in 2020 and to 2.66 million in 2050. Projected base case water demands to meet the needs of this growing population are estimated to be 381,078 acft/yr in 2000, 485,108 acft/yr in 2020, and 591,083 acft/yr in 2050. (Base case water demands are for dry-year conditions with water conservation savings resulting only from the low-flow plumbing fixture regulations.) By meeting the water conservation goals established by the major District customers (Fort Worth, Arlington, Mansfield, and Trinity River Authority), projected water demand in 2050 is reduced by 3.9 percent to 568,001 acft/yr.

Current Water Supply

As shown in Table ES-1, existing water supply is currently about 441,800 acft/yr and decreases to 383,000 acft/yr in 2050. This decrease in water supply over time is due to loss of storage capacity in the District's lakes and reservoirs as sedimentation occurs.

Water Demand and Supply Comparison

Figure ES-1 provides a graphical comparison of projected water demands and current supplies. Beginning about 2009, projected dry-year demands will exceed current District supplies. Projected water shortages for base case (i.e., plumbing fixture only conservation) are 67,051 acft/yr in 2020 and 208,083 acft/yr in 2050.

Table ES-1
Tarrant Regional Water District
Water Supply Summary

System Component	Water Supply (acft/yr)		
	1995	2015	2050
West Fork System[1]	**78,000**	**74,000**	**67,000**
Benbrook Reservoir[2]	**6,800**	**6,700**	**6,000**
Cedar Creek Reservoir Safe Yield[3]	**154,900**	**148,000**	**135,600**
Richland-Chambers Reservoir Safe Yield[3]	**202,100**	**195,200**	**174,400**
Total Existing System Supply	**441,800**	**423,900**	**383,000**

1 Includes Lake Bridgeport, Eagle Mountain Lake, and Lake Worth. TRWD has diversion rights on the West Fork in excess of the yield of the reservoirs. Such diversion authorizations allow the District to improve operational efficiency.

2 TRWD's portion of yield in Benbrook Reservoir that is generated by natural streamflows in the Benbrook watershed. Does not include pass-through flows from East Texas Reservoirs via the Benbrook connection. The District's Benbrook Reservoir water right also includes diversion authority in excess of reservoir yield.

3 Safe yield is defined as the volume of water that can be diverted each year such that the minimum volume remaining in the reservoir during the most severe drought on record approximates a one-year supply if diverted at the safe annual yield. The minimum volume of water remaining in the reservoirs during the critical drought for the analysis reported here is 430,000 acft (197,000 acft at Richland-Chambers; 157,000 acft at Cedar Creek; and 76,000 acft in West Fork reservoirs. Safe yield operation provides a significant degree of protection in the event a future drought occurs which is worse than historic droughts.

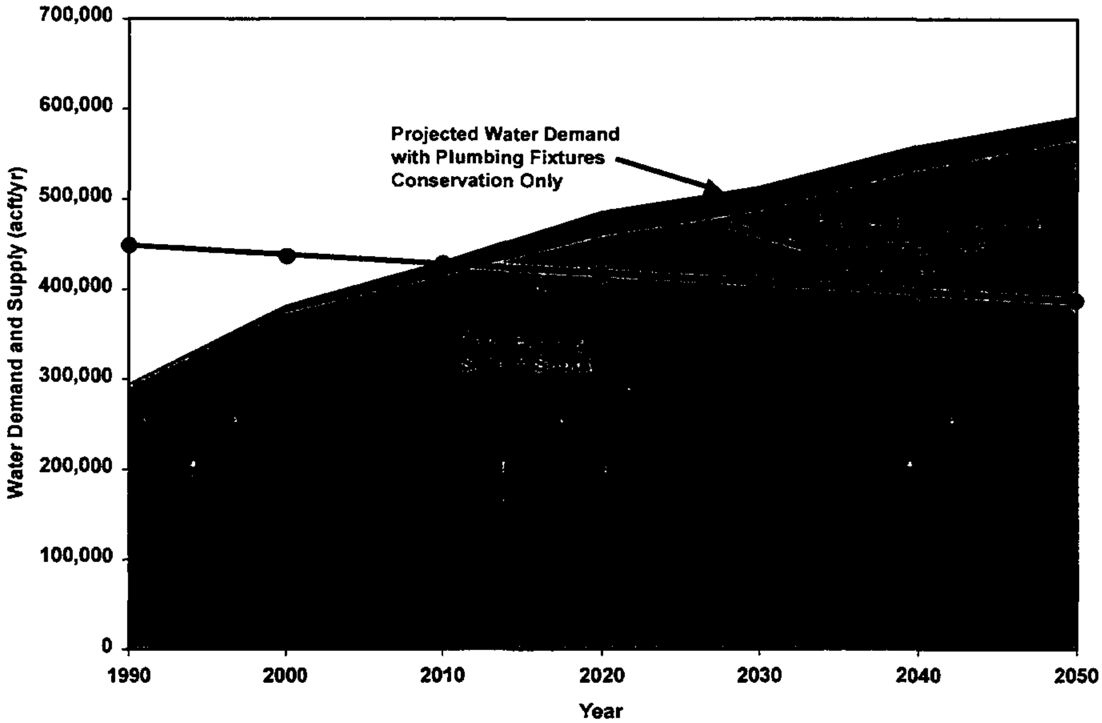

Figure ES-1. Water Demand and Supply

ES-3 Integrated Water Supply Plans to Meet Projected Demands

Integrated water supply planning includes the following elements:

- Customer involvement (i.e., review and input to the planning process);
- Water conservation and demand management;
- Maximization of supply from existing sources;
- Delivery system capabilities; and
- Supply side alternatives (i.e., new water supplies).

Two alternative integrated plans have been developed.[1] Plan 1 includes water conservation, the Trinity River reuse project, interim reservoir operation changes, Tehuacana Reservoir, and construction of associated delivery system facilities. Plan 2 includes water conservation, the Trinity River reuse project, and Marvin Nichols I Reservoir in the Sulphur River Basin. The components of each plan and water supply to be obtained from each component are listed in Table ES-2.

[1] The order presented for Plan 1 and Plan 2 is not indicative of a recommended alternative, as elements of each plan will require additional study before plan adoption by the District.

Table ES-2
Integrated Water Supply Plan Components

Plan 1		Plan 2	
Component	**2050 Yield (acft/yr)**	**Component**	**2050 Yield (acft/yr)**
Safe yield operation of existing system	**383,000**	**Safe yield operation of existing system**	**383,000**
Achieve water conservation goals	**23,082**	**Achieve water conservation goals**	**23,082**
Trinity River Project Reuse		**Trinity River Project Reuse**	
Richland-Chambers Reuse	**63,000**	**Richland-Chambers Reuse**	**63,000**
Cedar Creek Reuse	**52,500**	**Cedar Creek Reuse**	**52,500**
Tehuacana Reservoir	**65,547**	**Marvin Nichols I Reservoir****	**187,000**
Total 2050 Supply	**587,129**	**Total 2050 Supply**	**708,582**
Projected 2050 Demand	**591,083**	**Projected 2050 Demand**	**591,083**
Potential Shortage*	**(3,954)**	**Potential Shortage**	**0**
* Shortage can be supplied by temporarily reducing drought reserves or by implementing reuse at Tehuacana Reservoir.		** Full project yield is 560,151 acft/yr. TRWD has indicated an interest in contracting for up to 187,000 acft/yr from the project.	

Figure ES-2 is a plot of projected District water demand and existing system supply. Superimposed onto Figure ES-2 is a step-diagram of increased water supply available from each component of integrated supply Plan 1. As shown on Figure ES-2, achieving the adopted water conservation goals would be accomplished gradually throughout the 50-year planning period. The Richland-Chambers portion of the Trinity River reuse project would need to be completed[2] by the end of 2006, and the Cedar Creek portion would be needed by 2022. Supply from Tehuacana Reservoir would be needed by 2034.

Figure ES-3 also is a plot of projected District water demand and existing system supply. Superimposed onto Figure ES-2 is a step-diagram of increased water supply available from each component of integrated supply Plan 2. As shown on Figure ES-3, achieving the adopted water conservation goals would be accomplished gradually throughout the 50-year planning period. As with Plan 1, the Richland-Chambers portion of the Trinity River reuse project would need to be completed by the end of 2006, and the Cedar Creek portion would be needed by 2022. Supply from Marvin Nichols I Reservoir would be needed by 2034. Under both alternatives the reuse project is critical, as neither Tehuacana nor Marvin Nichols can realistically be online by 2006.

[2] Project implementation year is set 3 years earlier than date of projected shortage to allow for potential delays or needs greater than projected.

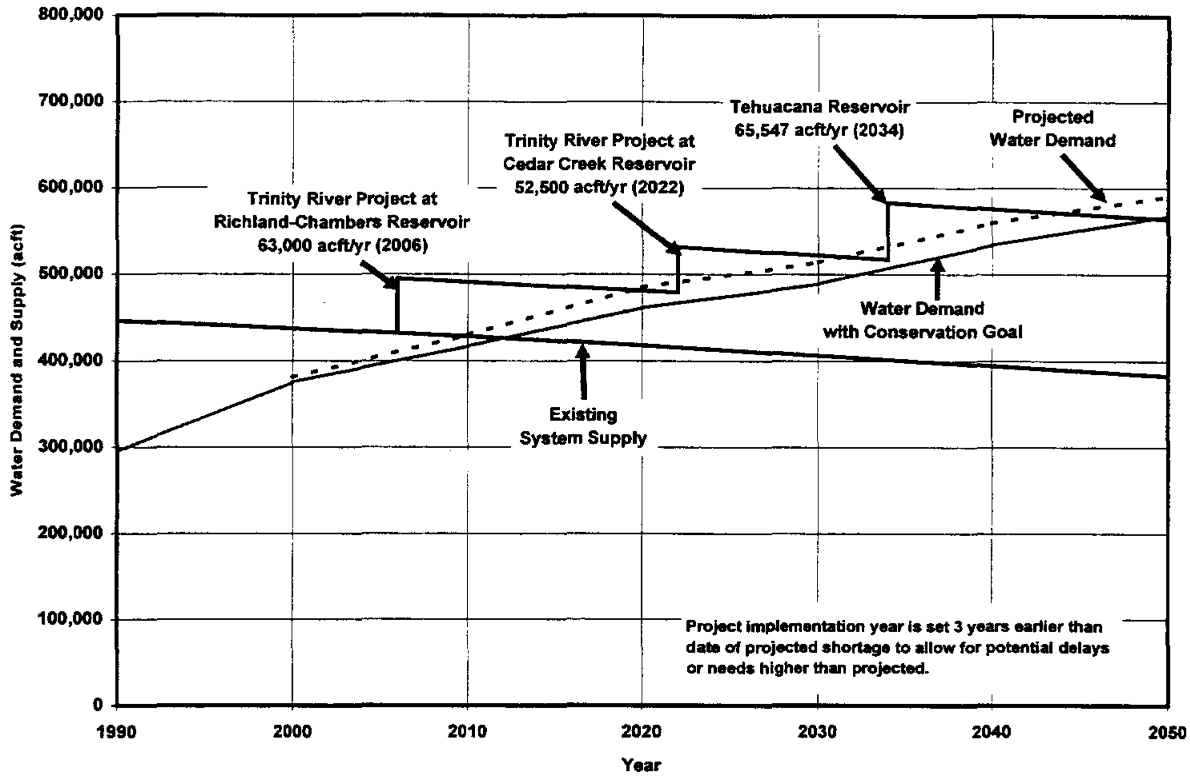

Figure ES-2. Water Demand and Supply with Integrated Water Supply Plan 1

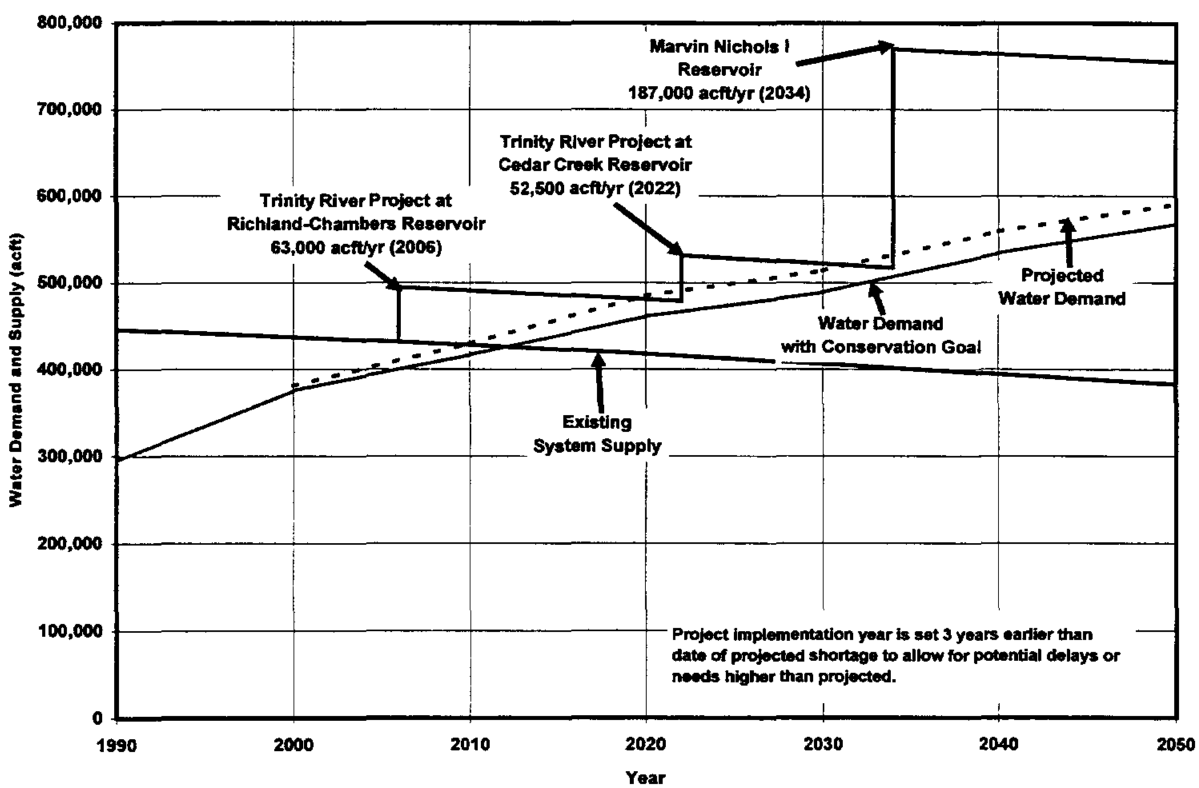

Figure ES-3. Water Demand and Supply with Integrated Water Supply Plan 2

Table ES-3 summarizes capital costs in 1998 dollars of each of the components of Plans 1 and 2 through 2034. The total capital cost of Plan 1 through 2034 is $490.1 million and the total capital cost of Plan 2 through 2034 is $431.1 million. Plan 1 costs an additional $59 million compared to Plan 2 because the delivery facilities from Richland/Chambers Reservoir to Kennedale have been upsized to accommodate the future supply potentially available from Tehuacana Reservoir. Marvin Nichols Reservoir, being a significantly larger project, offers the advantage of providing water supply to the District well beyond year 2050.

Recommendations

To continue to meet the water supply needs of the Tarrant Regional Water District service area for the 2000 to 2050 period, it is recommended the District pursue the following:

a) Continue to monitor amendments to the Safe Drinking Water Act, particularly the Source Water Protection Rules, for impacts to the District and treatment requirements that may be placed on it's customers. Current District programs for monitoring and modeling water quality of it's water supplies is thorough and reasonable.

b) Continue working closely with its customers to achieve the water conservation goals established under the Average Water Conservation demand projections.

c) Construct and operate a field-scale wetland to demonstrate the effectiveness of wetlands for improving water quality in conjunction with the Trinity River reuse project.

d) Obtain the necessary TNRCC permits and implement the Trinity River reuse project at Richland-Chambers and Cedar Creek Reservoirs. This would include construction of a full-scale wetland treatment system.

e) To assist customers in efficiently and cost-effectively treating raw water supplied by the District, the District should strive to effectively communicate water supply changes to treatment plant operators. Further, adding flexibility (i.e. storage and alternate supplies) to the raw water delivery system will reduce abrupt changes in raw water characteristics and aid effective water treatment.

f) Proceed with planning of delivery facilities for increased supplies at Richland-Chambers Reservoir.

g) Conduct studies of Marvin Nichols I Reservoir to compare permitting issues, construction costs, and delivery facility costs to Tehuacana Reservoir.

h) Proceed with engineering design studies for enhancement of water supply to the West Fork in order to provide water supply to the rapidly growing northwest Tarrant County area.

Table ES-3
Estimated Costs for Integrated Water Supply Plans 1 and 2

Component	Date Needed[1]	Plan 1 Estimated Cost		Plan 2 Estimated Cost	
		Delivery Capacity (MGD)	Estimated Cost (millions, 1998 dollars)	Delivery Capacity (MGD)	Estimated Cost (millions, 1998 dollars)
Richland-Chambers Pipeline High Capacity Operation	end of 2006	98	$16.4	98	$16.4
Trinity River Reuse Project – Richland-Chambers Portion	end of 2006	122	$24.1	122	$24.1
Richland-Chambers Pipeline No. 2, from lake to Ennis PS[2]	2014	172	$127.5	88	$83.5
Pipeline, Ennis PS to Kennedale [2]	2014	280	$217.4	196	$202.4
Kennedale Resv Expansion and Booster PS	2022	280	$16.4	280	$16.4
Trinity River Reuse Project – Cedar Creek Portion	2022	99	$28.6	99	$28.6
Cedar Creek Pipeline No. 2, from lake to Ennis PS	2022	108	$59.7	108	$59.7
Total Cost			$490.1		$431.1
New Reservoir	2034	84 (Tehuacana Resv.)	Note 3	240 (Marvin Nichols 1 Resv.)	Note 3

(1) Project implementation year is set 3 years prior to date of projected shortage to allow for potential delays or needs greater than projected.
(2) Cost for Plan 1 is higher due to upsized pipeline and pumping capacity to accommodate future supply from Tehuacana Reservoir.
(3) Cost for reservoirs and delivery facilities is dependent on terminus locations, potential phasing, and cost share arrangements with other entities. Further study is needed to quantify District costs.

i) Field surveys of the reservoir volume of Richland-Chambers and Cedar Creek Reservoirs should be performed approximately every five years to monitor the actual sedimentation rate occurring in the reservoirs.

j) Continue to update the Risk Index database to track the reliability of system components and to spot increasing risk trends in order to make timely maintenance decisions. This will become increasingly important as demands on the system increase and there is less unused system capacity.

k) Regarding Regional Water Supply Planning under SB 1 (75th Texas Legislature), the District should coordinate with the Regional Water Planning Group to inform them of District water demand and supplies, and incorporate the result of this water management plan into the regional water plan.

Section 1

Introduction

Section 1
Introduction

The Tarrant Regional Water District (herein referred to as either TRWD or District) authorized HDR Engineering, Inc., in association with Alan Plummer Associates, Inc., to prepare a Water Management Plan for the District. The fundamental purpose of this effort was to provide planning to meet the projected 50-year needs of the District. Included in this work are a presentation of water demand projections (Section 2), a current depiction of the District's water supply (Section 3.1), a study of potential new water supplies (Section 3.2), information on issues affecting the District's customers (Section 4), and integrated water supply plans for long-range needs (Section 5).

The Scope of Work authorized by the District included the development of the following elements:

- Water Management Plan
  - Population and Water Demand Projections
  - Existing Water Supply
  - Maximizing Water Supply Resources
  - Water Quality and Treatment Considerations
  - Integrated Water Supply Planning
- Water Conservation and Drought Contingency Plan
- Assessment of Reservoir Sedimentation Rates
- Recreation Analysis
- Risk and Reliability Assessment
- Customers Survey Related to Water Quality and Treatment Issues

This document is the Water Management Plan, containing not only the items listed above, but also appendices for reservoir sedimentation rates, hydrologic analyses, survey questionnaires on water quality and treatment issues, and environmental water needs criteria and implementation methods. The Water Conservation and Drought Contingency Plan was published in 1997 as a separate document. The Recreation Analysis and the Risk and Reliability Assessment are standalone documents that are included as appendices in this document.

Funding and assistance for completion of this work was provided by the District and a grant from the Texas Water Development Board (TWDB).

1.1 Background

On April 12, 1922, Fort Worth, Texas suffered a severe flood in which property damage and the loss of life were catastrophic. As a result, on October 7, 1924, the Tarrant County Commissioners' Court created the Tarrant County Water Improvement District Number One, whose purpose was to provide flood protection within Tarrant County. In 1925, the Texas Legislature broadened the powers of water control and improvement districts to include water supply in their respective counties. On January 12, 1926, the District became the Tarrant County Water Control and Improvement District Number One. Over the past 70 years, the District has provided significant raw water supplies, flood protection, and assisted in the protection of water quality. On October 1, 1996, by action of the Texas Natural Resource Conservation Commission (TNRCC), the District's name was changed to "Tarrant Regional Water District: A Water Control and Improvement District." TRWD is a wholesaler of raw water to four major wholesale customers (City of Fort Worth, Trinity River Authority, City of Arlington, and City of Mansfield) and to individual water utilities throughout it's ten-county service area. The District's authority to operate is its enabling legislation, Tex. Civ. Stat. Ann. art. 8280-207 (Vernon, 1959), and Chapters 49 and 51 of the Water Code, which enumerates the powers and duties of water control and improvement districts.

The District is governed by a five-member board of directors who are elected by the voters of the District. Directors' terms of office are 4 years, with three directors elected and seated in January of an even numbered year and two directors elected and seated in January of the next consecutive even numbered year, such that there is an overlapping of terms of office for directors to provide continuity on the Board. The District has a staff of approximately 150. An Advisory Committee was established by the TRWD Amendatory Contract of 1980 with its Initial Contracting Parties (City of Fort Worth, Trinity River Authority, City of Arlington, and City of Mansfield). Annually, the governing body of each of the Initial Contracting Parties and the Board of Directors of the District appoints one of the members of its governing body or one of its officers as a voting member of the Advisory Committee, with the term of membership being for 12 months, beginning on March 1 of each year.

The Advisory Committee consults with and advises the District, through its General Manager, with regard to:

- The issuance of bonds;
- The operation and maintenance of the system;
- Additional customers and sales of water to entities that are not contracting parties, including prices, terms, and conditions of such sales, in order to assure consistency;
- The District's annual budget and review of the District's annual audit;
- Matters pertinent to the management of the system; and
- Improvements and extensions of the system, including provisions for any additional source of water supply.

1.2 Tarrant Regional Water District Water Supply System

The District's main water supply system facilities include Lake Bridgeport, Eagle Mountain Lake, Lake Worth, Lake Arlington, Cedar Creek Reservoir, Richland-Chambers Reservoir, Lake Benbrook, a 72-inch diameter 68-mile pipeline from Cedar Creek Reservoir to a balancing reservoir in south central Tarrant County, a 90-inch diameter 72-mile pipeline from Richland-Chambers Reservoir to the balancing reservoir in south central Tarrant County, and a 90-inch diameter 18-mile pipeline connecting Lake Benbrook to the system (Figure 1-1). Lake Bridgeport, Eagle Mountain Lake, Cedar Creek Reservoir and Richland-Chambers Reservoir are owned and operated by the District. Lake Worth is owned and operated by the City of Fort Worth, and Lake Arlington is owned and operated by the City of Arlington. Lake Benbrook is owned and operated by the U.S. Army Corps of Engineers.

Lake Bridgeport, Eagle Mountain Lake, and Lake Worth are located on the West Fork of the Trinity River and were completed in 1931, 1932, and 1914, respectively. Lake Bridgeport is located in Wise County, Eagle Mountain Lake is located downstream of Lake Bridgeport in northwest Tarrant County, and Lake Worth is located downstream of Eagle Mountain Lake in Tarrant County. The estimated safe yield of these West Fork reservoirs (Western Division) is 78,000 acre-feet per year (acft/yr), which is gravity-fed to water treatment plants in Fort Worth and neighboring cities and industries.

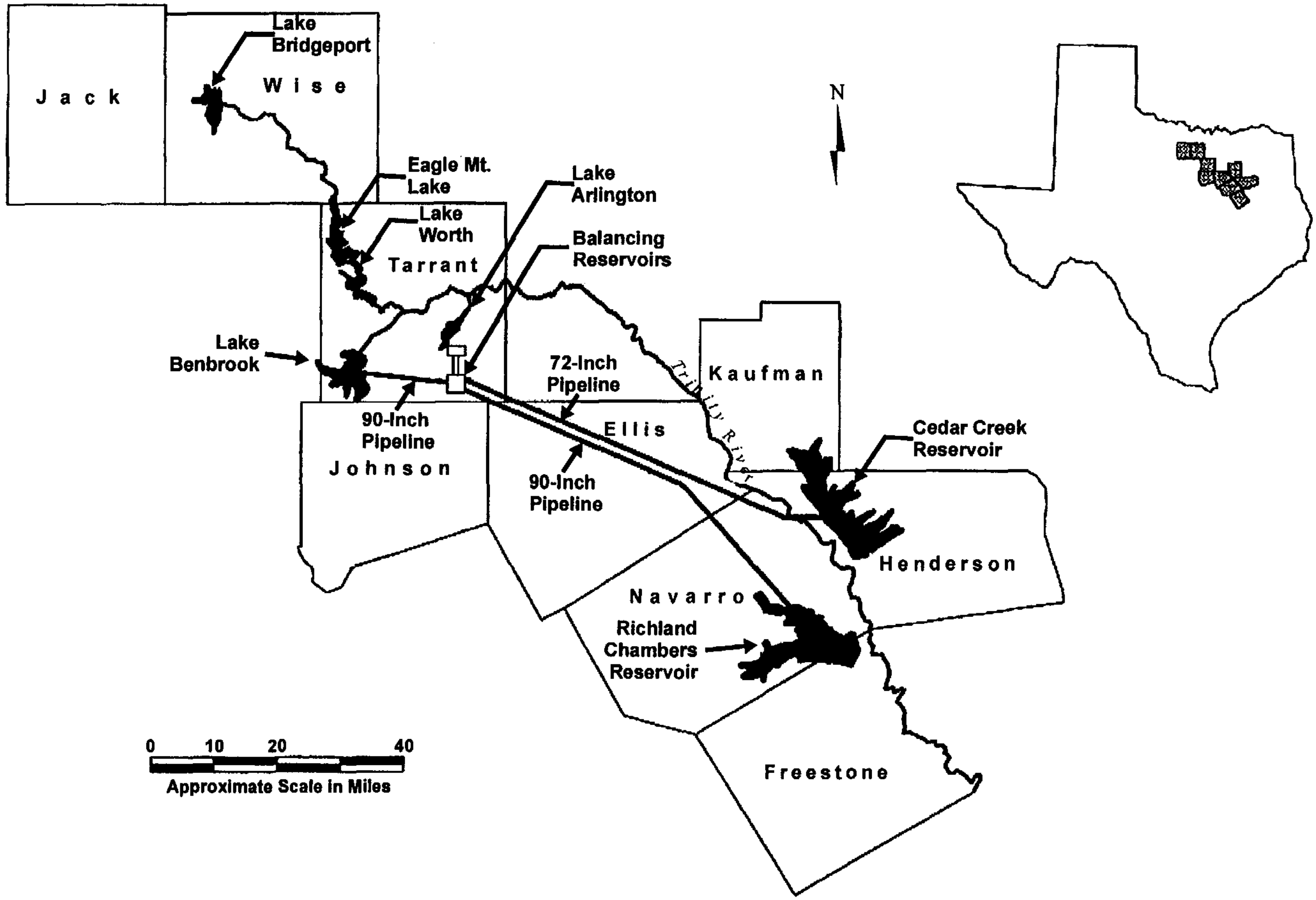

Figure 1-1. Tarrant Regional Water District Water Supply System

Lake Arlington, located on Village Creek in Tarrant County, was completed in 1957. Lake Arlington has a yield of approximately 7,050 acft/yr, and supplies water to the Trinity River Authority (TRA), City of Arlington, and TU Electric Company. However, Lake Arlington's yield is not adequate to meet the needs of these customers and is supplemented from TRWD's pipelines from its Eastern Division Reservoirs, as is explained below.

The District's Eastern Division reservoirs (Cedar Creek and Richland-Chambers) were completed in 1966 and 1987, respectively. Cedar Creek Reservoir, located in Henderson and Kaufman Counties, has a diversion water right of 175,000 acft/yr, and its water is pumped approximately 74 miles to Tarrant County via a 72-inch diameter pipeline that was completed in 1971.

The District's Richland-Chambers Reservoir, located in Navarro and Freestone Counties, has a permitted annual safe yield of 210,000 acft/yr. Richland-Chambers water is pumped approximately 78 miles to Tarrant County via a 90-inch diameter pipeline. The Richland-Chambers pipeline is interconnected with the Cedar Creek pipeline at the Ennis pump station and at other points closer to Tarrant County. The interconnections allow each pipeline to convey either Cedar Creek Reservoir water or Richland-Chambers Reservoir water and discharge to the balancing reservoirs at Kennedale. At the Kennedale balancing reservoirs, a 108-inch diameter pipeline delivers water to an outlet on Village Creek upstream of Lake Arlington, in order to maintain Lake Arlington water levels to meet the water supply needs of customers who obtain water from Lake Arlington, including the cooling needs of Texas Electric Service Company's electric power generation plant.

In addition to the reservoirs of the Western and Eastern Divisions mentioned above, in 1987 the District acquired a permit to use Benbrook Reservoir as a storage reservoir for water from the Eastern Division reservoirs in order to decrease pumping costs by storing water pumped during off-peak periods. Benbrook, completed in 1952, is a U.S. Army Corps of Engineers project located in southwest Tarrant County. A 90-inch diameter pipeline connects Fort Worth's Rolling Hills Water Treatment Plant to Lake Benbrook.

At the present time, the District supplies raw water to meet the needs of approximately 1.5 million people. Projected population of the District's service area is 1.9 million in 2020, and

2.4 million in 2050.[1] In order to meet the needs of its customers in future years, the District is developing a water management plan to increase efficiency of its present water resources through water conservation and reuse, systems operation of present supplies, system expansion, or some combination of available options. The water supply operations of each of the District's wholesale customers are described below.

1.3 City of Fort Worth Water System

The City of Fort Worth Water Department obtains raw water from four sources: (1) West Fork of Trinity River via Lake Worth, Eagle Mountain Lake, and Lake Bridgeport; (2) Clear Fork of Trinity River via Lake Benbrook; (3) Richland-Chambers Reservoir; and (4) Cedar Creek Reservoir. Fort Worth operates 4 water treatment plants, 15 pump stations, 19 treated water storage tanks, and a treated water distribution system. The distribution system supplies treated water retail to the citizens of Fort Worth, and wholesale water to 22 customers in Tarrant County, 3 customers in neighboring Denton County, 2 customers in neighboring Johnson County, plus DFW Airport and Haslet (which supplies Alliance Airport), and TRA, which supplies a part of Grand Prairie. Present treatment capacity of the system is 350 million gallons per day (MGD). Total population served by the system was approximately 700,000 in 1990, of which 448,000 were residents of Fort Worth and 252,000 were served by Fort Worth wholesale customers listed below.

Fort Worth Wholesale Water Customers

1. Bethesda Water Supply Corp.
2. Burleson
3. Crowley
4. Dalworthington Gardens
5. Edgecliff Village
6. Everman
7. Forest Hill
8. Haltom City
9. Hurst
10. Keller
11. Kennedale
12. Lake Worth
13. North Richland Hills
14. Richland Hills
15. Roanoke
16. Saginaw
17. Sansom Park Village
18. Southlake
19. Tarrant County MUD No. 1
20. Trophy Club MUD No. 1
21. Watagua
22. Westover Hills
23. Westworth Village
24. White Settlement
25. DFW Airport
26. Haslet (Alliance Airport)
27. Trinity River Authority
    a. Mosier Valley
    b. Grand Prairie
28. Benbrook
29. River Oaks

[1] Texas Water Development Board, 1996 Consensus Water Plan Projections, Austin, Texas, 1995.

1.4 Trinity River Authority Tarrant County Water System

Through a contract with TRWD, the TRA obtains raw water from Lake Arlington, which is supplied via the District's pipelines from Cedar Creek and Richland-Chambers Reservoirs. TRA treats the water in a 57 MGD capacity water treatment plant located in northeastern Tarrant County, and supplies treated water wholesale to five cities in northeast Tarrant County, who in turn retail the treated water to their respective customers.[2] The five TRA wholesale water customers are:

Trinity River Authority Wholesale Water Customers

1. Bedford
2. Euless
3. Colleyville
4. Grapevine
5. North Richland Hills

The total population served by this system was approximately 130,000 in 1990. In addition, TRA transfers treated water from Fort Worth to Grand Prairie to serve approximately 18,000 customers.

1.5 City of Arlington Water System

The City of Arlington operates two water treatment plants with a total treatment capacity of 93 MGD, nine elevated treated water storage tanks, three pump stations, and supplies treated water retail to the people, businesses, and industries located within the City. In 1990, the population served by the Arlington system was 261,721. Raw water to supply Arlington's Pierce-Burch Water Treatment Plant is obtained from Lake Arlington, which receives runoff from Village Creek and is partially supplied from the District's Cedar Creek Reservoir and Richland-Chambers Reservoir when needed.[3] In the case of Arlington's John F. Kubala Water Treatment Plant, raw water is supplied directly from the District's pipelines.

1.6 City of Mansfield Water System

The City of Mansfield operates one 10 MGD water treatment plant which is supplied directly from the District's Cedar Creek Reservoir and Richland-Chambers Reservoir pipelines.

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[2] Lake Arlington is located on Village Creek in Tarrant County and has a drainage area of 143 square miles.
[3] Ibid.

The current service area is the corporate limits of the City, having a population of 15,607 in 1990, with the projected service area to include the City and its extra-territorial jurisdiction.

1.7 Individual Customers Water Systems

In addition to its four wholesale customers discussed in Section 1.3 through 1.6, TRWD has individual customers located in the Eastern and Western Divisions. The Eastern Division includes customers that are served from Cedar Creek Reservoir, Lake Benbrook, and Richland-Chambers Reservoir, and are as follows:

Cedar Creek Reservoir
Tecon Water Supply
East Cedar Creek FWSD
City of Kemp
City of Mabank
City of Star Harbor
City of Trinidad
West Cedar Creek MUD
Cedar Creek Country Club
City of Malakoff (pending)
Pinnacle Club
Long Cove Ranch Co.
Warren Petroleum, Eustace Plant
Bill Sisul

Lake Benbrook
Benbrook Water and Sewer Authority
City of Weatherford
Fort Worth Country Day School
Southwest Christian School
Meditrust Golf Group II (pending)
Mira Vista Country Club
Riglea Country Club

Richland-Chambers Reservoir
City of Corsicana
TRA (Freestone County)
Winkler Water Supply
Texas Parks and Wildlife Dept.

The Western Division includes customers that are served from Lake Bridgeport and Eagle Mountain Lake, and are as follows:

Lake Bridgeport
City of Bridgeport
City of Runaway Bay
Walnut Creek WSC
West Wise Rural WSC
Wise County WSD
Bay Golf Club
Gifford Hill
Pioneer Aggregates
Texas Industries (TxI)

Eagle Mountain Lake
Arc Park (Irrigation)
City of Azle
Community Water Supply
The Landing Home Owners Association (Irrigation)
City of River Oaks
City of Springtown
Shady Oaks County Club
Golf Driving Range (pending)

In addition to the Eastern and Western Division customers listed above, the District has significant future customers in Freestone and Ellis Counties. For example, TRA has entered into a contract with 13 entities in Ellis County for a supply of raw water purchased by TRA from TRWD, with the development of facilities to deliver raw or treated water to any of these parties being subject to further planning and negotiations between TRA and the wholesale customers of Ellis County. TRWD's Cedar Creek and Richland-Chambers Reservoir pipelines pass through Ellis County en route to Tarrant County.

Entities of Freestone County, which borders Richland-Chambers Reservoir to the south, are growing and in need of water to meet future needs. Through a TWDB-funded planning study completed in August of 1997, water supply alternatives to meet the needs of entities in Freestone County, including the supply of raw water from Richland-Chambers Reservoir, were evaluated.

In addition to the municipal water customers listed above, TRWD has nine industrial and golf course customers for industrial and irrigation water, respectively. Taken as a whole, TRWD's existing and future service area includes rapidly expanding population centers and an increasing demand for industrial and irrigation water supplies. It is widely believed that existing water need projections for this region will be exceeded. For these reasons, and others, it is critical that TRWD have adequate water conservation and system management plans in place.

Section 2

Population and Water Demand Projections

Section 2
Population and Water Demand Projections

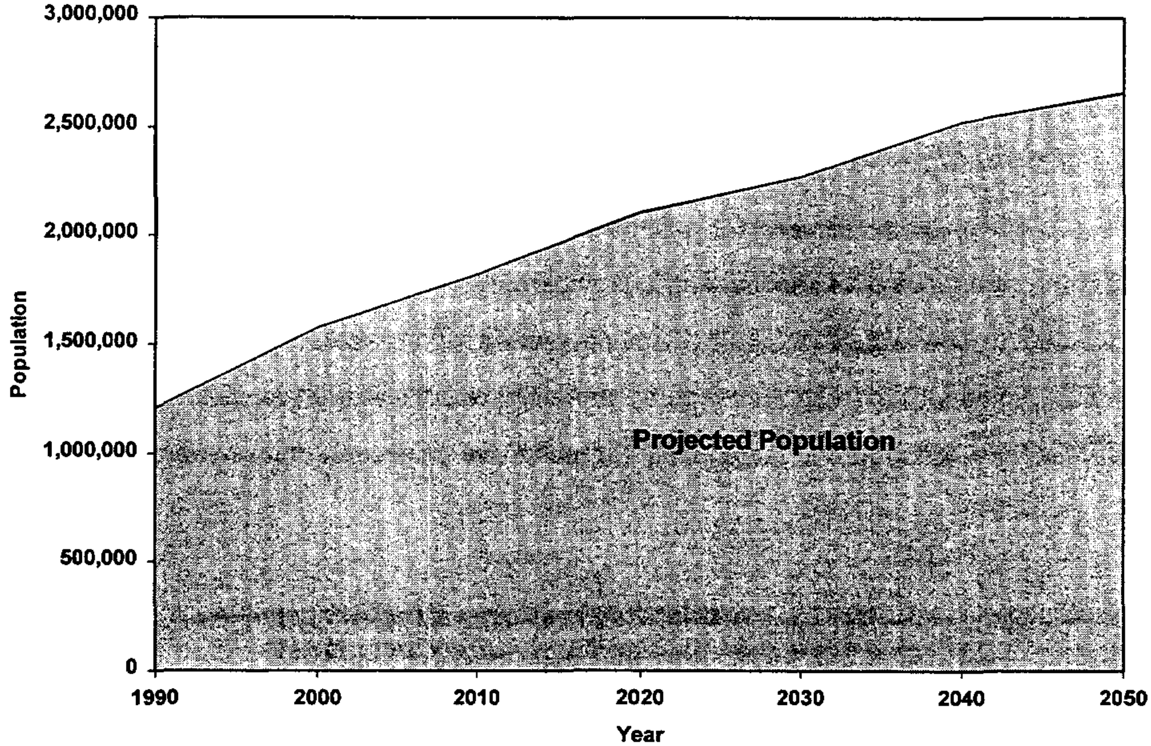
2.1 Population Projections

In 1990, approximately 1.2 million people were supplied water from District lakes and reservoirs. Population of the District's service area is projected to increase to 1.9 million in 2020,[1] and to 2.4 million in 2050, with population of the total areas supplied from TRWD, including potential new customers, being projected at 2.11 million in 2020 and 2.66 million in 2050 (Table 2-1). Figure 2-1 contains a graph of the projected total population of the District service area.

Table 2-1.
Tarrant Regional Water District
Wholesale and Individual Customers
Population Projections Summary

		Projections					
Customer	***1990***	***2000***	***2010***	***2020***	***2030***	***2040***	***2050***
Wholesale Customers							
Fort Worth	700,593	811,738	915,373	1,020,806	1,068,102	1,159,155	1,234,906
Trinity River Authority	129,366	178,010	203,672	222,738	229,227	231,277	231,277
Arlington	261,721	318,653	336,400	366,760	384,917	399,173	413,986
Mansfield	15,607	27,750	40,304	54,214	69,573	85,303	102,169
Subtotal	1,107,287	1,336,151	1,495,749	1,664,518	1,751,819	1,874,908	1,982,338
Individual Customers							
Eastern Division	60,022	91,735	111,654	134,520	154,889	171,470	188,608
Western Division	37,448	52,964	67,250	79,515	88,566	96,831	105,064
Ellis County	0	10,692	36,869	78,260	103,450	116,633	127,227
Subtotal	97,470	155,391	215,773	292,295	346,905	384,934	420,899
TRWD Subtotal	1,204,757	1,491,542	1,711,522	1,956,813	2,098,724	2,259,842	2,403,237
Potential New TRWD Customers		85,751	110,614	148,534	172,085	260,464	252,137
TRWD Total	1,204,757	1,577,293	1,822,136	2,105,347	2,270,809	2,520,306	2,655,374
Source: Texas Water Development Board; 1996 Consensus Water Planning Projections, most likely case, for individual cities, with local area study projections for individual customers located in the Eastern and Western Divisions							

[1] Texas Water Development Board, 1996 Consensus Water Planning Projections.



Source: TWDB, 1996 Consensus Projections, most likely case, with amendments for individual customers located in the Eastern and Western Divisions.

Figure 2-1. Population Projections

2.2 Per Capita Water Use

Projected water demands for the District's customers are shown for two cases of water conservation as follows: (1) plumbing fixtures only water conservation; and (2) average water conservation. In the case of plumbing fixtures only water conservation, the expected reductions in per capita water use are estimated at approximately 17 gallons per person per day (gpcd) in Tarrant County as the low-flow fixtures are installed in new residential and commercial structures, and as older high flow fixtures are replaced. However, the projected effects of plumbing fixtures upon per capita water demands are based upon the degree of water conservation in effect for each city and water utility service area, and the rate of growth projected for each service area. For example, for lower growth areas, the overall effect of new construction with low-flow plumbing fixtures is projected to be at a slower pace than for high growth areas where new construction more quickly becomes a larger percentage of the total. Table 2-2 shows projected per capita water demand for the plumbing fixture only water conservation case for Fort Worth, Arlington, Mansfield, and the cities served by TRA (Hurst, Euless, and Bedford).

Table 2-2.
Per Capita Municipal Water Demand Projections
Plumbing Fixtures Only for Water Conservation

City	Use in 1990 (gpcd)	Projections					
		2000 (gpcd)	2010 (gpcd)	2020 (gpcd)	2030 (gpcd)	2040 (gpcd)	2050 (gpcd)
Arlington*	166	190	183	181	178	174	173
Bedford	159	191	179	176	172	170	169
Mansfield	118	174	170	166	161	158	157
Euless	152	192	186	181	177	174	173
Fort Worth	210	205	201	197	193	187	182
Hurst	160	163	158	154	150	147	146

Source: Texas Water Development Board; 1996 Consensus Water Planning Projections; most likely case, plumbing fixtures only for water conservation.
* Adjusted to be somewhat higher than Texas Water Development Board projections.

2.3 Water Conservation

In the case of per capita water demand projections for the average water conservation case, it is planned that in addition to the use of low-flow plumbing fixtures in new construction and in normal replacement of existing fixtures, organized water conservation programs will be used by TRWD's customer cities and water supply districts to encourage water conservation. Such programs could include incentives to replace existing plumbing fixtures with low-flow fixtures, the use of drought tolerant landscaping plants and shrubs to reduce lawn watering, leak detection and repair, and water conservation pricing. Projected per capita water demands for the average water conservation case for Fort Worth, Arlington, Mansfield, and the cities served by TRA (Hurst, Euless, and Bedford) are shown in Table 2-3. For Tarrant County, these per capita projections are approximately 6 percent lower than for the plumbing fixtures only case. For the individual customers of the Eastern and Western Divisions, the plumbing fixtures and average cases are expected to have the same per capita projections, since it is estimated that growth in these areas will include residences and commercial structures that have more water-using appliances and lawn irrigation than present users of these areas have.

Table 2-3.
Per Capita Municipal Water Demand Projections
Average Water Conservation

City	Use in 1990 (gpcd)	Projections					
		2000 (gpcd)	2010 (gpcd)	2020 (gpcd)	2030 (gpcd)	2040 (gpcd)	2050 (gpcd)
Arlington*	166	186	176	168	165	162	161
Bedford	159	184	173	165	161	159	158
Mansfield	118	171	163	155	151	148	147
Euless	152	189	178	169	166	163	162
Fort Worth	210	202	194	187	184	181	180
Hurst	160	159	150	142	138	135	134

Source: Texas Water Development Board; 1996 Consensus Water Planning Projections; most likely case, plumbing fixtures only for water conservation.
* Adjusted to be somewhat higher than Texas Water Development Board projections.

2.4 Water Demand Projections

Water use reported to the TWDB by the TRWD customers of Tarrant County in 1990 was 294,582 acft/yr (Table 2-4). Of this total, 232,671 acft/yr was surface and ground water used by retail customers of the District's four wholesale customers, 15,733 acft/yr was by individual customers for municipal purposes in the Eastern and Western Divisions near the District's lakes, and 46,178 acft/yr was for industrial, steam-electric power generation, and irrigation (Table 2-4).

Projected water demands for the plumbing fixtures water conservation case is 381,078 acft/yr in 2000, 485,108 acft/yr in 2020, and 591,083 acft/yr in 2050 (Table 2-4). For the average water conservation case, projected water demand for the TRWD system is 375,290 acft/yr in 2000, 461,009 acft/yr in 2020, and 568,001 acft/yr in 2050 (Table 2-4). The average water conservation case projected water demand is 5,788 acft/yr, or 1.5 percent less in year 2000 than the plumbing fixtures only water conservation case. In 2020, projected water

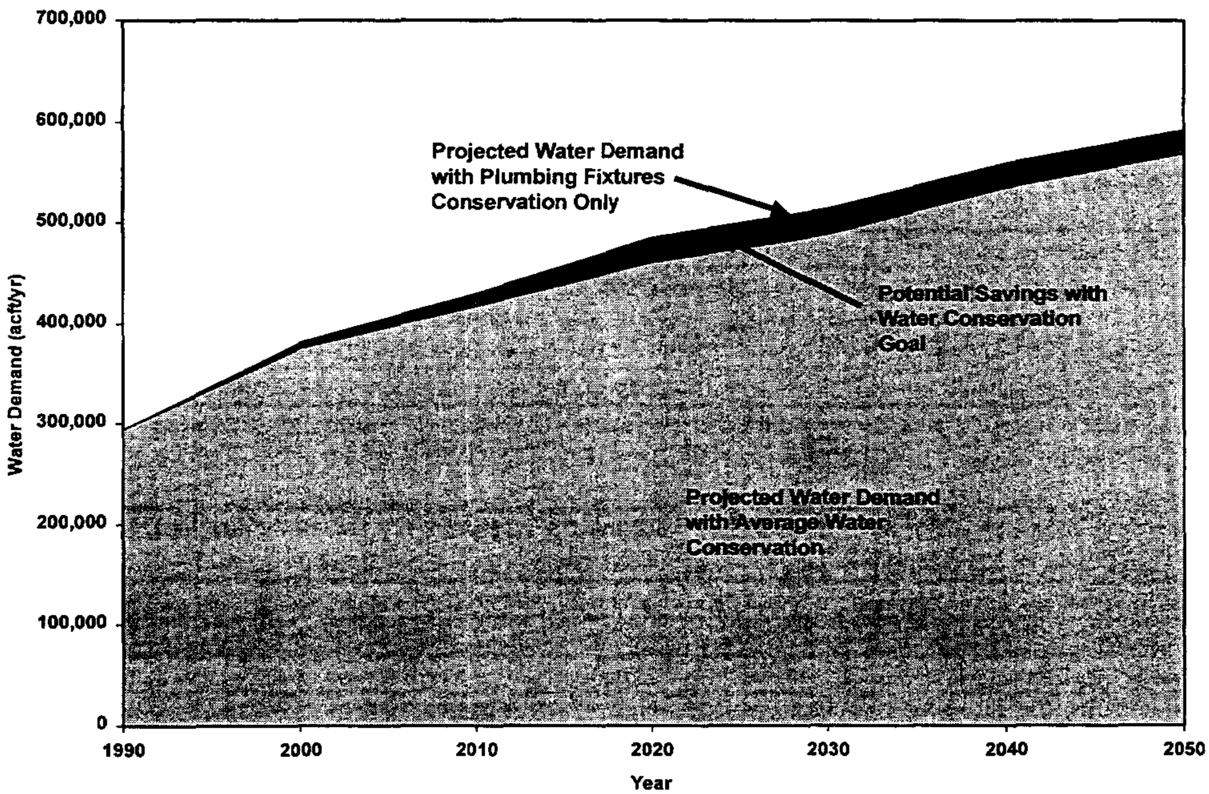
Table 2-4.
Tarrant Regional Water District
Wholesale and Individual Customers
Water Demand Projections Summary

Customer	Use in 1990 (acft)	Projections 2000 (acft)	2010 (acft)	2020 (acft)	2030 (acft)	2040 (acft)	2050 (acft)
Plumbing Fixtures Water Conservation							
Wholesale Customers							
Fort Worth	157,929	190,269	215,108	238,009	248,169	268,409	286,499
Trinity River Authority	24,016	38,717	42,716	46,037	46,405	46,314	46,136
Arlington	48,664	67,818	68,957	74,359	76,747	77,801	80,224
Mansfield	2,063	5,409	7,675	10,081	12,547	15,097	17,968
Subtotal	232,671	302,212	334,456	368,486	383,868	407,621	430,827
Individual Customers							
Eastern Division	10,421	16,240	19,134	23,298	25,779	28,457	31,212
Western Division	5,312	6,928	8,042	9,008	9,733	10,338	11,002
Ellis County	0	1,940	6,417	13,191	17,104	18,988	20,588
Subtotal	15,733	25,108	33,593	45,497	52,616	57,783	62,802
Industrial Demand[1]	40,466	42,990	46,206	48,806	51,414	54,518	59,131
Steam-Electric Power	4,212	5,000	5,000	5,000	5,000	5,000	5,000
Irrigation	1,500	1,500	1,500	1,500	1,500	1,500	1,500
TRWD Subtotal	294,582	376,810	420,755	469,289	494,398	526,422	559,260
Potential New TRWD Customers		4,268	9,259	15,819	19,777	32,946	31,822
TRWD Total	294,582	381,078	430,014	485,108	514,175	559,368	591,083
Average Water Conservation							
Wholesale Customers							
Fort Worth	157,929	187,298	207,636	225,682	235,782	257,237	277,812
Trinity River Authority	24,016	37,822	41,024	43,078	43,475	43,319	43,060
Arlington	48,664	66,390	66,320	69,018	71,142	72,435	74,660
Mansfield	2,063	5,315	7,359	9,413	11,768	14,142	16,823
Subtotal	232,671	296,826	322,338	347,191	362,167	387,133	412,355
Individual Customers							
Eastern Division	10,421	16,240	19,134	23,298	25,779	28,457	31,212
Western Division	5,312	6,928	8,042	9,008	9,733	10,338	11,002
Ellis County	0	1,892	6,086	12,151	15,679	17,348	18,892
Subtotal	15,733	25,060	33,262	44,457	51,191	56,143	61,106
Industrial Demand[1]	40,466	42,990	46,206	48,806	51,414	54,518	59,131
Steam-Electric Power	4,212	5,000	5,000	5,000	5,000	5,000	5,000
Irrigation	1,500	1,500	1,500	1,500	1,500	1,500	1,500
TRWD Subtotal	294,582	371,376	408,306	446,954	471,272	504,294	539,092
Potential New TRWD Customers		3,914	8,349	14,055	17,701	30,024	28,908
TRWD Total	294,582	375,290	416,655	461,009	488,973	534,319	568,001

Source: Texas Water Development Board; 1996 Consensus Water Planning Projections, most likely case, for individual cities, with local area study projections for individual customers located in the Eastern and Water Divisions.

[1] That part of industrial water demand which is not included in wholesale customers totals above.

demand for average water conservation is 24,099 acft/yr, or 5.0 percent less than for plumbing fixtures only, and in 2050 is 23,082 acft/yr or 3.9 percent less than for water conservation using plumbing fixtures only. Figure 2-2 contains a graph of projected water demands for both the plumbing fixture only conservation set and the average water conservation set.



Source: TWDB, 1996 Consensus Projections, most likely case, with amendments for individual customers located in the Eastern and Western divisions.

Figure 2-2. Water Demand Projections

Section 3

Water Supply

Section 3
Water Supply

3.1 Existing Water Supply

The TRWD currently operates, or shares in the operation of, five water supply reservoirs, and the District's system supplies raw water to all or parts of ten counties in North Texas. The five reservoirs are Lake Bridgeport, Eagle Mountain Lake, Lake Benbrook, Richland-Chambers Reservoir, and Cedar Creek Reservoir, as previously shown in Figure 1-1. The District subdivides its system into two major, and until this year independent, reservoir sub-systems: the East Texas System and the West Fork System. The East Texas Reservoir System includes Cedar Creek Reservoir and Richland-Chambers Reservoir and their associated raw water delivery systems. The West Fork System includes Lake Bridgeport and Eagle Mountain Lake on the West Fork of the Trinity River, and Lake Benbrook on the Clear Fork of the Trinity River. Recently, a pipeline has been constructed that allows for East Texas water to be supplied to Lake Benbrook and to customers who were solely dependent on West Fork water.

3.1.1 East Texas Reservoir Supply

The East Texas Reservoir System is comprised of the District's two largest reservoirs, Cedar Creek Reservoir and Richland-Chambers Reservoir (Figure 1-1). The majority of the raw water from these two reservoirs is delivered to the District's balancing reservoirs in southern Tarrant County. Raw water is delivered to the balancing reservoirs from Cedar Creek Reservoir in a 72-inch diameter, 74-mile pipeline, and from Richland-Chambers Reservoir in a 90-inch diameter, 78-mile pipeline.

The combined safe yield from the East Texas System is 357,000 acft/yr, or 81 percent of the District's total supply. Therefore, the East Texas System is the major source of water for the future. As will be explained below, sediment accumulation in the East Texas Reservoirs is expected to decrease existing supplies to 310,000 acft/yr by the year 2050.

3.1.1.1 Reservoir Sedimentation Rate

A critical factor in estimating the yield of a particular reservoir is the storage volume in the reservoir pool. Over time, sediments suspended in the inflow to the reservoir settle out in the lake and decrease the volume available to store water. This in turn decreases the yield of the reservoir. In 1995, the TWDB performed bathymetric surveys on both the East Texas Reservoirs.[1,2] Volumetric surveys like these help in determining the rate at which sediment is being deposited into the reservoir, which in turn determines the rate at which the yield of the reservoir is depleted.

Analyses of these new bathymetric surveys, as compared to previous topography for the lakes, indicated that the accumulation of sediment in Cedar Creek Reservoir and Richland-Chambers Reservoir is 1,453 acft/yr and 4,976 acft/yr, respectively (Appendix A). The estimated sedimentation rate for Cedar Creek Reservoir was found to be reasonable and was used to determine the expected storage volume for analysis of reservoir yield in the years 2015 and 2050. The Richland-Chambers Reservoir computed sedimentation rate of 4,976 acft/yr was much higher than expected. It is hypothesized that the relatively short period between sediment surveys (1987 to 1994), in conjunction with questions regarding the accuracy of the original pre-construction volumetric survey, have combined to adversely inflate the apparent sedimentation rate.

During the 1987 to 1994 period, there were several high rainfall events resulting in high inflows to Richland-Chambers Reservoir. As shown in Appendix A, TRWD staff, in conjunction with the Natural Resources Conservation Service (formerly Soil Conservation Service), applied the Soil and Water Assessment Tool (SWAT Model). The SWAT Model is a continuous-time, basin-scale hydraulic model capable of long-term simulations including hydrology, pesticide and nutrient loading, erosion, and sediment transport. The SWAT Model was calibrated to the sediment loads estimated from the 1995 bathymetric survey. Had the reservoir been in place during the 1950 to 1995 period, the SWAT Model estimated the resulting long-term sedimentation rate would have been 2,918 acft/yr. Until enough time has passed to perform another volumetric survey on Richland-Chambers Reservoir to refine the observed sedimentation rate, a sediment accumulation rate of 3,867 acft/yr was used based on long-term

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[1] Texas Water Development Board (TWDB), "Volumetric Survey of Cedar Creek Reservoir," Tarrant County Water Control and Improvement District Number One, July 31, 1995.

[2] TWDB, "Volumetric Survey of Richland-Chambers Reservoir," Tarrant County Water Control and Improvement District Number One, March 31, 1995.

observed rates in other North Texas reservoirs containing similar watershed soils, as discussed in Appendix A.

3.1.1.2 Richland-Chambers Reservoir

Richland-Chambers Reservoir is located in Navarro and Freestone Counties and impounds approximately 1,136,600 acft. Water rights permits for Richland-Chambers Reservoir provide for the diversion of up to 210,000 acft/yr from the lake, and the majority of the diversions are delivered to the District's balancing reservoirs via a 90-inch diameter, 78-mile pipeline. The accumulation of sediment in the reservoir pool and the District's operation policy for the reservoir (Section 3.2.5) have combined to reduce the existing yield of the lake to approximately 202,100 acft/yr (approximately 46 percent of the District's supply). A summary of the current and future yield estimates for Richland-Chambers Reservoir is presented in Table 3-1.

Table 3-1.
Richland-Chambers Reservoir
Safe Yield Summary

Sediment Accumulation Year	Safe Yield[1] (acft/yr)	Difference from Permitted Withdrawal[2] (acft/yr)
1995	202,100	7,900
2015	195,200	14,800
2050	174,400	35,600

1 Safe yield is defined as the volume of water that can be diverted each year such that the minimum volume remaining in the reservoir during the most severe drought on record approximates a one-year supply if diverted at the safe annual yield. The minimum volume of water remaining in the reservoir during the critical drought for the analysis reported here is 197,000 acft.

2 The District has a permit to divert up to 210,000 acft/yr from Richland-Chambers Reservoir.

The District currently operates the reservoir under a safe yield operation that results in a drought reserve of 197,000 acft remaining in storage during the driest year of the drought of record. As shown in Table 3-1, the combination of sediment accumulation and reservoir operating policy effectively decrease the Richland-Chambers Reservoir supply by 35,600 acft/yr (17 percent) by the year 2050.

3.1.1.3 Cedar Creek Reservoir

Cedar Creek Reservoir, the second lake in the East Texas System, is located in Henderson and Kaufman Counties approximately 74 miles from the District's largest customers in Tarrant County. Cedar Creek Reservoir impounds approximately 637,180 acft from Cedar Creek and its tributaries, and has a permitted withdrawal amount of 175,000 acft/yr. Diversions from Cedar Creek Reservoir are delivered to the District's balancing reservoirs via a 72-inch diameter pipeline. Like its partner in the East Texas System, the accumulation of sediment in the Cedar Creek Reservoir reservoir pool and the current operation policy for the reservoir (Section 3.2.5) have combined to reduce the existing yield of the lake to approximately 154,900 acft/yr (approximately 35 percent of the District's supply). A summary of the current and future yield estimates for Cedar Creek Reservoir is presented in Table 3-2.

Table 3-2.
Cedar Creek Reservoir
Safe Yield Summary

Sediment Accumulation Year	*Safe Yield[1] (acft/yr)*	*Difference from Permitted Withdrawal[2] (acft/yr)*
1995	154,900	20,100
2015	148,000	27,000
2050	135,600	39,400

1 Safe yield is defined as the volume of water that can be diverted each year such that the minimum volume remaining in the reservoir during the most severe drought on record approximates a one-year supply if diverted at the safe annual yield. The minimum volume of water remaining in the reservoir during the critical drought for the analysis reported here is 157,000 acft.

2 The District has a permit to divert up to 175,000 acft/yr from Cedar Creek Reservoir.

The District currently operates the reservoir under a safe yield operation that results in a drought reserve of 157,000 acft remaining in storage during the driest year of the drought of record. As shown in Table 3-2, the combination of sediment accumulation and reservoir operating policy effectively decrease the Cedar Creek Reservoir supply by 39,400 acft/yr (23 percent) by the year 2050.

3.1.2 West Fork System Supply

The West Fork System is comprised of Lake Bridgeport and Eagle Mountain Lake serving as the water supply sources, and Lake Worth, immediately downstream of Eagle Mountain Lake, as the delivery point for the City of Fort Worth (the primary customer for West Fork water). In contrast to the large pipeline and pump station infrastructure of the East Texas System, the West Fork System is a gravity system using the West Fork of the Trinity River to deliver water to its customers. The estimated current safe yield of the West Fork System is 78,000 acft/yr (approximately 18 percent of the District's current supply). A summary of the current and projected future safe yields of the West Fork System is provided in Table 3-3. As with the East Texas reservoirs, accumulation of sediment in Lake Bridgeport and Eagle Mountain Lake decreases the safe yield over time.

Table 3-3.
West Fork System[1]
Safe Yield Summary

Sediment Accumulation Year	***Safe Yield[2] (acft/yr)***
1995	78,000
2015	74,000
2050	67,000

1 West Fork System comprised of Lake Bridgeport, Eagle Mountain Lake, and Lake Worth.
2 Safe yield is defined as the volume of water that can be diverted each year such that the minimum volume remaining in the reservoir during the most severe drought on record approximates a one-year supply if diverted at the safe annual yield. The minimum volume of water remaining in the reservoir system during the critical drought for the analysis reported here is 76,000 acft.

Due to the relatively low cost of delivery of water from the gravity-fed West Fork System, and the fact that the water rights permits for the reservoirs exceed the divertable supply, the West Fork System is overdrafted when system storage is above 250,000 acft (combined storage in Lake Bridgeport and Eagle Mountain Lake) and underdrafted when storage is below this trigger. Overdrafting means that more than the yield of the reservoir is diverted in wet and average years, and subsequently, operations during drought are such that diversions are less than the yield of the reservoir. In the case of the West Fork System, the District supplies the City of Fort Worth 100,000 acft/yr when storage in Lake Bridgeport and Eagle Mountain Lake is greater than 250,000 acft, and decreases supplies to 46,000 acft/yr when storage drops to below 250,000 acft. This operation policy decreases the volume of water that must be pumped from the East Texas System in most years, which in turn decreases power costs associated with delivering water from East Texas.

3.1.3 Total Water System Supply

In addition to the two major supply systems, the West Fork System and the East Texas System, the District also holds 6,800 acft of water rights (approximately 1 percent of the District's current water supply) in Lake Benbrook on the Clear Fork of the Trinity River. While the volume of supply from Lake Benbrook is minimal compared to the other components of the District's System, the lake will soon become a key component in the overall system. The Benbrook Connection, a pipeline connecting the balancing reservoirs and East Texas water to Lake Benbrook, has been constructed that allows the District to deliver water to customers that previously relied solely on the West Fork System for supply (namely the City of Fort Worth's Holly Water Treatment Plant). The 90-inch diameter pipeline, which should be completed this year, will greatly enhance the District's ability to provide water throughout their system. Lake Arlington is a major delivery point for raw water from the East Texas System, and also has a small yield from local runoff. Diversion rights for the small amount of local yield are held by the City of Arlington and TU Electric Company. The water available from these rights is not included in the District's safe yield summary.

At present, the District maintains a total existing supply of 441,800 acft/yr. As shown in Table 3-4, due to sediment accumulation alone, the total system supply diminishes approximately 15 percent to 383,000 acft/yr by the year 2050. A summary of the current and projected total system supplies is presented in Table 3-4.

3.1.4 Water Demand and Supply Comparison

A comparison of projected water demands and supplies is presented in Table 3-5 for the Plumbing Fixtures Only Conservation and the Average Water Conservation. For the Plumbing

Table 3-4.
Tarrant Regional Water District
Safe Yield Summary

System Component	Safe Yield[1] (acft/yr) 1995	2015	2050
West Fork System[2]	78,000	74,000	67,000
Benbrook Reservoir[3]	6,800	6,700	6,000
Cedar Creek Reservoir	154,900	148,000	135,600
Richland-Chambers Reservoir	202,100	195,200	174,400
Total Existing System Supply	441,800	423,900	383,000

1 Safe yield is defined as the volume of water that can be diverted each year such that the minimum volume remaining in the reservoir during the most severe drought on record approximates a one-year supply if diverted at the safe annual yield. The minimum volume of water remaining in the reservoir during the critical drought for the analysis reported here is 430,000 acft.

2 Includes Lake Bridgeport, Eagle Mountain Lake, and Lake Worth. TRWD has diversion rights on the West Fork in excess of the yield of the reservoirs. Such diversion authorizations allow the District to improve operational efficiency.

3 TRWD's portion of yield in Benbrook Reservoir that is generated by natural streamflows in the Benbrook watershed. Does not include pass-through flows from East Texas Reservoirs via the Benbrook connection.

Table 3-5.
Tarrant Regional Water District
Water Demand and Supply Comparison

	Use in 1990 (acft)	Projections 2000 (acft)	2010 (acft)	2020 (acft)	2030 (acft)	2040 (acft)	2050 (acft)
Projected Demand with Plumbing Fixtures Only Conservation[1]	294,582	381,078	430,014	485,108	514,175	559,368	591,083
Total Existing System Supply[2]		437,325	428,375	418,057	406,371	394,686	383,000
Supply minus Demand		56,247	(1,639)	(67,051)	(107,804)	(164,682)	(208,083)
Projected Demand with Average Water Conservation[1]	294,582	375,290	416,655	461,009	488,973	534,319	568,001
Total Existing System Supply[2]		437,325	428,375	418,057	406,371	394,686	383,000
Supply minus Demand		62,035	11,720	(42,952)	(82,602)	(139,633)	(185,001)

1 From Table 2-4.
2 From Table 3-4.

Fixtures Only Conservation demand set, Table 3-5 shows that presently available supplies can meet projected demands through year 2009. By 2020, demands exceed supplies by 67,051 acft/yr, and in year 2050, demand would exceed supply by 208,083 acft/yr. Figure 3-1 presents a graphical comparison of demand and supply.

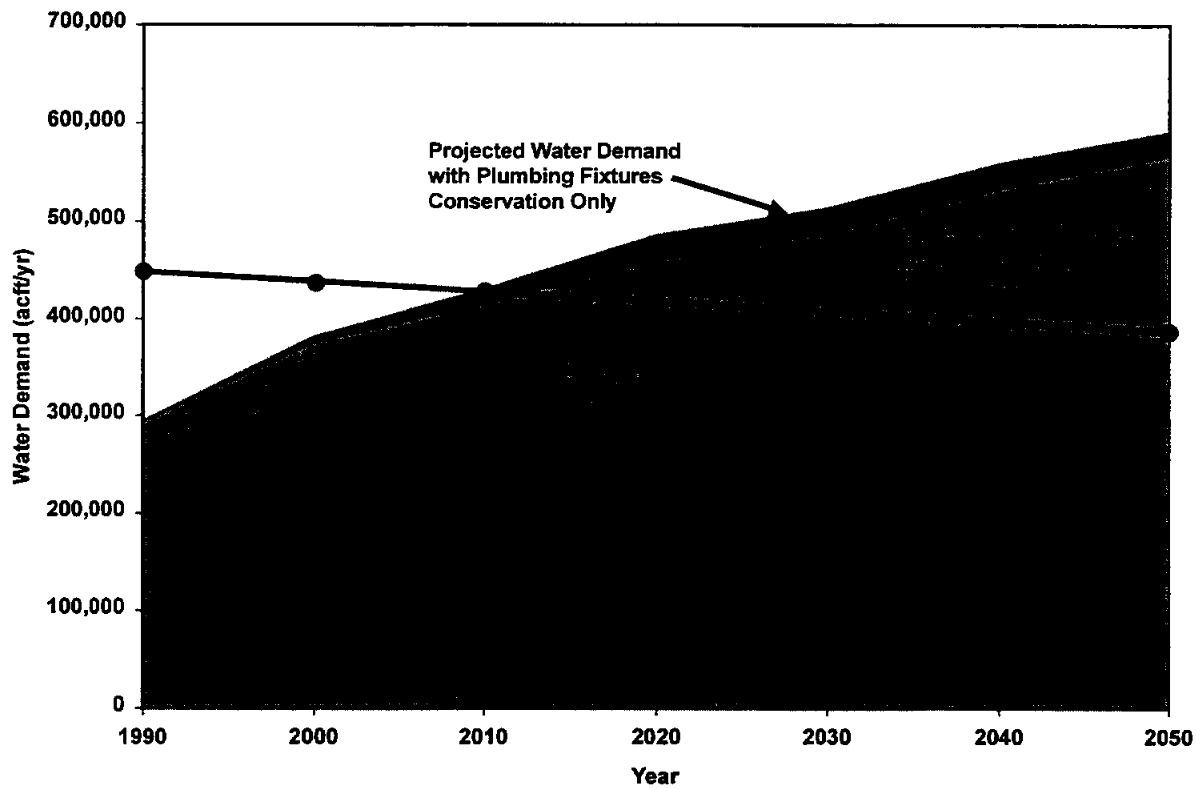

Figure 3-1. Water Demand and Supply

For the Average Water Conservation demand condition, Table 3-5 shows that presently available supplies can meet projected demands through year 2012. By 2020, demands exceed supplies by 42,952 acft/yr, which indicates a reduced shortage of 24,099 acft/yr compared to the Plumbing Fixtures Only Conservation demand set. In year 2050, demand would exceed supply by 185,001 acft/yr. A graphical comparison of the Average Water Conservation demands to supplies is also presented in Figure 3-1.

3.2 Maximizing Existing Water Supply Resources

As demands for the District's water continue to grow, maximizing the beneficial use of the District's current supplies and adding cost-effective new supplies using as much of the current infrastructure as possible will be critical. In order to delay, or at least minimize, the large capital costs associated with major new water supply projects, the current operations of the East Texas System as well as the West Fork System were reviewed to determine the potential benefits of changes in operating policies. In addition, with completion of the Benbrook Connection pipeline, interaction between the East Texas and West Fork Systems can now be used to potentially increase system-wide yield. The analyses reported in the following sections detail potential modifications to the District's operation policies and sources of potentially cost-effective new water supplies in order to maximize the District's supply. The sources investigated include:

- Water Reuse to Enhance East Texas Reservoir Yield;
- West Fork System Enhancement with East Texas Water;
- Potential Water Supplies from Other Sources;
- Systems Operation of the East Texas Reservoirs; and
- Changes in Reservoir Drought Supply Reserves in the East Texas Reservoirs.

The following sections describe in detail the analyses performed and the potential increases in yield to the District under each option alone. Section 5 contains potential integrated plans for long-range water supply planning.

3.2.1 Water Reuse to Enhance Reservoir Yield

The 1990 Regional Water Supply Plan[3] identified diversion of water from the Trinity River to the District's East Texas reservoirs as a key water supply alternative. The project involves capturing water returned to the Trinity River by District customers. Customer return flows are introduced into the Trinity River as treated effluent by the City of Fort Worth and TRA wastewater treatment plants. These return flows are conveyed by the Trinity River to locations near Cedar Creek and Richland-Chambers Reservoirs. The proposed project involves the

[3] Freese & Nichols, Inc. (F&N) and Alan Plummer and Associates, Inc. (APAI), "Regional Water Supply Plan," Tarrant County Water Control and Improvement District Number One, 1990.

diversion of a portion of these flows from the Trinity River into the reservoirs to augment natural inflows and increase existing reservoir yields.

Treatment of the diverted water is deemed necessary in order to maintain water quality in the reservoirs. One of several potential treatment schemes selected for this diversion involves construction of a "natural" system of sedimentation ponds and wetland areas. The District has tested a pilot-scale wetland system for 7 years, and continues testing on a larger scale to better assess operating parameters and management techniques. The preferred development plan for the Trinity River diversion recommended in the 1990 Regional Water Supply Plan consisted of four steps:

Step 1: *Construct facilities to divert supplemental water from the Trinity River into Richland-Chambers Reservoir for a potential gain in yield of 63,000 acft/yr.*

Step 2: *Construct facilities to divert supplemental water from the Trinity River to Cedar Creek Reservoir for a potential gain in yield of 52,500 acft/yr.*

Step 3: *Operate Richland-Chambers Reservoir and Cedar Creek Reservoir as a coordinated system,[4] for a potential gain in yield of 32,800 acft/yr.*

Step 4: *Construct Tehuacana Reservoir and connecting channel between Tehuacana and Richland-Chambers. Increase the diversion capacity from the Trinity River into Richland-Chambers in proportion to the added safe yield made available by Tehuacana Reservoir. The total gain in yield from Tehuacana and the additional Trinity diversion capacity will be 88,700 acft/yr.*

3.2.1.1 Constructed Wetlands

A key component of the reuse project involves treatment of diverted flows in constructed wetlands. Previous studies by the District showed that Trinity River flows to be diverted into Richland-Chambers or Cedar Creek Reservoirs should first be treated to remove nutrients and possibly other potential contaminants, toxicants, and/or pathogens. In 1992, a pilot-scale constructed wetlands research facility was constructed by District personnel. The major goal of this ongoing research is to determine the effectiveness of constructed wetlands in treating water diverted from the Trinity River to a degree of acceptable quality to introduce into the reservoirs for yield augmentation. It must be determined not only that this treatment goal is possible, but

[4] Due to water quality considerations, as discussed in Section 3.2.1.3, potential water supply increases from systems operations are not attainable with implementation of the reuse projects.

that it can be accomplished in a manner that is cost-effective in comparison to construction of other potential supply projects.

Data from the District's pilot-scale constructed wetlands demonstration project indicate that a wetlands treatment system consisting of a settling-pond/constructed wetland arrangement could provide treatment to effectively control toxicant, nutrient, and other contaminants, prior to being input to the reservoirs. There are a number of additional issues that require evaluations that are dependent upon long-term operations of larger scale wetland systems. These issues will be evaluated after the construction of a 241 acre field-scale wetlands demonstration project, the first phase of a 1,500 acre full-scale project for the Richland-Chambers site.

3.2.1.2 Water Rights and Regulatory Permits

The District's proposed reuse plan is a unique component in the development of new raw water sources for a regional water supply. Therefore, a number of water rights and regulatory issues must be resolved. The District is currently working with various state agencies to determine the appropriate approaches for implementation of this plan.

3.2.1.3 Analysis of Trinity River Diversions for East Texas Reservoir Yield Augmentation

Since the 1990 Regional Water Supply Plan[5] was developed, two additional projects have been completed involving analysis of diversion flows for yield augmentation. The first of these studies was conducted in 1991 and is documented in the report entitled "Water Quality Assessments and Recommended Pilot-Scale/Bench-Scale Studies Associated with Water Supply Diversion from the Trinity River."[6] The second study, conducted in 1997, is documented in the report entitled "Wetland Treatment System Conceptual Plan."[7] TRWD has since undertaken additional studies to define specific applications for the Cedar Creek and Richland-Chambers wetland treatment systems. These investigations resulted in sequential refinement of the diversion flow scenarios that were originally conceptualized in the 1990 Plan. The chief refinement in the flow analysis came about in the 1997 study and involved consideration of flow

[5] F&N and APAI, Op. Cit., 1990.
[6] APAI, "Water Quality Assessments and Recommended Pilot-Scale/Bench-Scale Studies Associated with Water Supply Diversion from the Trinity River," prepared for Tarrant County WCID No. 1, 1991.
[7] APAI, "Wetland Treatment System Conceptual Plan," Prepared for the Tarrant Regional Water District, January 1997.

losses through constructed wetlands. The pumping rates from the river to the reservoirs presented in the 1990 and 1991 reports include no assumptions for losses through the wetlands facilities prior to the introduction of these diversions flows into the reservoirs. Values published in these reports have since been referred to as the "treated" diversion flow rates (i.e., the rates of flow leaving the wetlands and entering the reservoirs). The analysis performed for the 1997 report include estimates for evapotranspiration, seepage, and other losses through the proposed wetlands facilities to determine the magnitude of "raw" flow diversions from the river required to produce the desired "treated" flows into the reservoirs. The following paragraphs briefly describe the diversion flow analysis methodology which has been utilized in the previous studies.

In the 1991 study, hydrology for the period from 1941 through 1986 was employed to simulate system operations and evaluate diversion scenarios. This period contains the record drought of the mid-1950s. A computer model was utilized to simulate monthly reservoir operations for Cedar Creek and Richland-Chambers Reservoirs. The computer model included a "trigger" condition for the addition of makeup flow from Trinity River diversion. The "trigger" condition occurs when the water surface level in the reservoir drops to 5 feet below the top of the conservation pool. Monthly diversion rates for treated water into the reservoirs were set at 5,360 acft/mo for Cedar Creek Reservoir and 6,050 acft/mo for Richland-Chambers Reservoir. In the 1990 report, an allowance for 20 percent average downtime was used to calculate the pumping rate; however, consultation with District personnel indicated that the District's diligent preventive maintenance program significantly reduces downtime. Therefore, a 5 percent downtime allowance was used in the 1997 study to determine the required pumping rates for both the raw and the treated water pump stations. The maximum pumping rates associated with the monthly diversion volumes presented above are shown in Table 3-6 for both "raw" and "treated" diversion flows.

The demand condition in the reservoir operation models was set to achieve a 30 percent increase in the safe yield of each reservoir. Reservoir yields from the previous studies are also summarized in Table 3-6. The "treated diversions" represents the actual flow to be added to the reservoirs to supplement yield for the first two steps of the proposed water supply plan. The "raw diversions" were developed based on assumptions for flow losses of the diversion water during treatment through a constructed wetland system. The following is an excerpt from

Table 3-6.
Reservoir Operation Summary with Trinity River Diversion Project

		Raw Diversions (Pumpage from River to Constructed Wetlands)		Treated Diversions (Pumpage into Reservoir)	
Diversion Parameters	Units	Richland-Chambers Reservoir (Step 1)	Cedar Creek Reservoir (Step 2)	Richland-Chambers Reservoir (Step 1)	Cedar Creek Reservoir (Step 2)
Maximum Diversion Pumping Rate @ 20% Downtime[1]	cfs MGD	167 107.9	148 95.9	125 81.0	111 71.8
Maximum Diversion Pumping Rate @ 5 percent Downtime[2]	cfs MGD	140.7 90.9	125.0 80.8	105.6 68.2	93.5 60.4
Maximum Monthly Diversion	acft/mo	8,062	7,164	6,050	5,360
Maximum Yearly Diversion	acft/yr MGD	96,741 86.4	85,965 76.7	72,600 64.8	64,320 57.4
Diversion Trigger[3]	ft.	5	5	5	5

Yield Parameters	Units	Richland-Chambers Reservoir (Step 1)	Cedar Creek Reservoir (Step 2)
2050 Yield, No River Diversion	acft/yr	205,824[4]	175,000[5]
2050 Yield with River Diversion[6]	acft/yr	273,000	227,500
Increase in Yield	acft/yr MGD	67,176 60.0	52,500 46.9
Percent Increase in Yield		33%	30%

Notes:

1 20 percent downtime was the original assumption employed in the 1990 Regional Water Supply Plan. This was superseded by the 1997 Conceptual Plan with 5 percent. Tabulated values included only for reference back to the original study.

2 Source: Alan Plummer Associates, Inc., "Wetland Treatment System Conceptual Plan," prepared for Tarrant Regional Water District, January 1997.

3 Reservoir drawdown below conservation pool elevation (as proposed in original conceptual plan).

4 Drought supply reserves are reduced as needed to maximize annual firm yield.

5 Current permitted annual diversion.

6 Source: Freese and Nichols, Inc., Alan Plummer Associates, Inc., "Regional Water Supply Plan," prepared for Tarrant County WCID No. 1, 1990.

the1997 Wetland Treatment System Conceptual Plan Report[8] that further describes the basis for estimating these losses.

> Potential losses from a constructed wetlands treatment system primarily include evapotranspiration and seepage. In order to deliver the projected yields to the reservoirs, compensation for the losses sustained during treatment must be included in the amount of diverted water from the Trinity River. Evapotranspiration is primarily a function of local weather conditions and wetland operating procedures. The amount of water loss through seepage is dependent on site-specific soil conditions. Evaluation of seepage at the pilot-scale wetland system indicated that seepage losses were negligible. Soil conditions should be investigated at any site selected to evaluate potential seepage losses. Other potential water losses from the constructed wetlands can be associated with operating procedures to control vegetation types, sediment buildup, damage to berms, and wetland manipulations to meet public usage needs and/or wildlife management needs (if these do not conflict with water supply operations).
>
> Gross evaporation data for Richland-Chambers and Cedar Creek Reservoirs are more or less similar during drought conditions and indicate an annual loss of approximately 7.25 feet. Details of the wetlands operations and wetland area required will continue to be refined from operations and analysis of data from the pilot-scale wetland facility and the proposed field-scale wetlands. The current estimate is that approximately 2,000 total acres at Richland-Chambers and 1,800 total acres at Cedar Creek could be required. If it is assumed that twice the gross evaporation rate will be adequate to satisfy all potential water losses at the wetlands, then the total maximum water loss at both wetlands could reach 55,100 acft/yr. Therefore, the quantities of water that must be pumped from the Trinity River are 105,019 and 90,799 acft/yr for Richland-Chambers and Cedar Creek, respectively. Comparisons to the historical evaporative losses calculated for Cedar Creek and Richland-Chambers Reservoirs in the 1991 report (Water Quality Assessments and Recommended Pilot-Scale/Bench-Scale Studies Associated with Water Supply Diversion from the Trinity River) indicate that the projected evaporative losses for the constructed wetlands will be conservative for both Richland-Chambers and Cedar Creek treatment wetlands even for record drought years.

Summarized in Table 3-7 are the yield and diversion values associated with all four steps of the District's proposed water supply plan (Table 3-6 referenced only Steps 1 and 2). With consideration for flow losses through the constructed wetlands, the proposed reuse project

[8] APAI, Op. Cit., January 1997.

requires a maximum annual diversion of approximately 195,805 acft/yr of Trinity River flow during the critical drought year. Lesser diversions are required under other hydrologic conditions. As previously mentioned, the District's proposed reuse plan limits all annual diversions to 70 percent of the magnitude of return flows from water originally supplied by the District and subsequently discharged by the District's customer wastewater treatment plants.

Table 3-7.
Pumping Rates and Annual Diversions for Trinity River Diversion Project

		Raw Diversion Rates (Pumpage from River to Constructed Wetlands)		Treated Diversion Rates (Pumpage into Reservoirs)		Reservoir Yield	
Project Step	Description	Pumping Rate[1] (MGD)	Annual Diversion (acft/yr)	Pumping Rate[1] (MGD)	Annual Diversion (acft/yr)	Yield Increase (acft/yr)	New Yield (acft/yr)
Step 1	River Diversion to Richland-Chambers Reservoir	90.9	96,741	68.2	72,600	67,176	273,000
Step 2	River Diversion to Cedar Creek Reservoir	80.8	85,965	60.4	64,320	52,500	227,500
Step 3	Operate Reservoirs as System[2] Step 1+2+3 ➡	183.2	194,995	137	146,100	32,800	533,300
Step 4	Construct Tehuacana Reservoir and River Diversion to Tehuacana Step 1+2+3+4 ➡	206.6	219,860	155	164,760	88,700	622,000

[1] Pumping rates based on 5 percent annual outage.

[2] For water quality considerations, a dilution rate of reservoir capacity to Trinity River annual diversion of 30 percent will be used (i.e., about 3:1). However, systems operation involves overdrafting Cedar Creek Reservoir to reduce loss due to spills and underdrafting Richland-Chambers Reservoir until needed. Analyses performed for this study have shown that systems operation will drawdown Cedar Creek Reservoir to a low volume and preclude adhering to the maximum concentration of 30 percent Trinity River water in Cedar Creek Reservoir. Therefore, the potential water supply increase from Step 3, systems operation, is probably not attainable.

Regarding reservoir water quality, some additional examination has been made, as a part of this study, of the relative volumes of reservoir storage derived from diversion waters versus natural inflows. A dilution rate of reservoir capacity to Trinity River annual diversion of 30 percent has been suggested in the past as a desirable mix. However, systems operation activities proposed in Step 3 of the water supply plan involve overdrafting Cedar Creek Reservoir to reduce loss due to spills and underdrafting Richland-Chambers Reservoir until its supply is needed. Analyses performed for this study have shown that systems operation will draw down Cedar Creek Reservoir to a low volume and preclude adhering to the 30 percent dilution criteria in that facility. These analyses indicate that the potential water supply increase from systems operation may not be attainable.

3.2.2 Enhancement of Water Supply in West Fork Area

The District is considering methods to increase raw water availability in the West Fork of the Trinity River. Together, Eagle Mountain Lake and Lake Bridgeport constitute the West Fork lakes that are owned by the District. There are three other lakes in the West Fork segments that are owned by others. These are Lake Arlington (owned by Arlington and TU Electric), Lake Worth (owned by Forth Worth), and Lake Benbrook (owned by the U.S. Army Corps of Engineers). Additional water supplies would result in significant benefits to the District and its customers through operational flexibility, system reliability, treatability (raw water blending), recreation, and meeting the needs of a high-growth area. One potential method to increase raw water availability in the District's West Fork resources would be to construct facilities to deliver water from the East Texas reservoirs (through the Benbrook connection and Lake Benbrook) to Eagle Mountain Lake. This would also increase the flexibility of all of the District's supply resources by providing a means of transferring water from the West Fork resources to Lake Benbrook and thereby supplementing the East Texas supply. Additionally, using Eagle Mountain Lake as terminal storage would make it possible to operate the District's existing and future East Texas pipelines at a more uniform pumping rate year-round.

Growth in north and northwest Tarrant County (led by the Intel microprocessor plant, Alliance Airport, and associated municipal and commercial development) is causing increased demand for water. The Eagle Mountain Water Treatment Plant (WTP), located in northwest Fort Worth, serves a portion of the area with treated water. The combined treatment capacity of the Eagle Mountain WTP and the Holly WTP will exceed the safe yield of the West Fork by 2030, assuming current City of Fort Worth WTP expansion plans are implemented. The District provides raw water to the Eagle Mountain WTP from its West Fork reservoirs. Although the sum of the diversion permits for the West Fork totals 159,600 acft/yr,[9] the current safe yield of the West Fork reservoirs is approximately 77,400 acft/yr. In addition to supplying raw water to the Eagle Mountain WTP, the West Fork also supplies water to meet a portion of the needs at the

[9] Eagle Mountain Lake diversion permit (includes contribution from Lake Bridgeport).

Holly WTP, local needs at Lake Bridgeport and Eagle Mountain, and for maintenance of water level at Lake Worth, and recreation interests. Currently, the demands on the West Fork total about 100,000 acft/yr. Subject to availability of raw water, the City of Fort Worth plans to expand Eagle Mountain WTP from 30 MGD to 190 MGD. This major expansion would significantly exceed the yield of the West Fork, and augmentation of Eagle Mountain Lake would be needed in dry years to firm up supplies. Additionally, the availability of West Fork water to the Holly WTP would be reduced and the shortfall would need to be made up from deliveries of East Texas reservoir water through Lake Benbrook.

Growth in northeast Tarrant County (Hurst, Euless, Bedford, and the Southern part of Grapevine) has also created a much larger dependence on Lake Arlington as a critical water supply source for the District's system-wide customers. In addition, in eastern Tarrant County, the continued rapid growth of Arlington is placing greater stress on Lake Arlington, particularly during the peak production months.

Potential benefits resulting from delivery of East Texas water to the West Fork lakes (Bridgeport and Eagle Mountain) include not only the additional water supply sources in the West Fork, but potentially include avoided demand charges in the East Texas pump stations by pumping more uniformly through the year, and maintaining lake levels at Lake Bridgeport and Eagle Mountain Lake to increase recreation benefits by maintaining the lakes at a more consistent water level. It would also provide a looped supply system that will enhance the District's ability to better maintain consistent levels in Lake Benbrook, Lake Arlington, and Lake Worth for drinking water supply and recreational purposes.

In order to decrease the volume of water that must be pumped from the District's East Texas reservoirs and to take advantage of the District's water rights permits on the West Fork, the West Fork facilities are operated in an overdrafting/underdrafting mode. When the combined storage in Lake Bridgeport and Eagle Mountain Lake is greater than 250,000 acft, the District overdrafts the West Fork and provides the City of Fort Worth with 100,000 acft/yr (more than the safe yield of the West Fork). When combined storage drops below 250,000 acft, diversions from the West Fork System are reduced (less than the safe yield is diverted) and the District supplies the City with 46,000 acft. Considering that 2050 demands are 112,500 acft/yr (directly diverted from Lake Bridgeport and Eagle Mountain Lake) this creates a shortfall in supply from the West Fork of approximately 66,500 acft/yr (neglecting any demand for West Fork water at Holly WTP). This shortfall must be delivered from East Texas supplies.

Until recently, decreased supply from the West Fork during dry periods necessitated an increase in the volume of raw water treated and distributed from the City of Fort Worth's Rolling Hills WTP in southeast Fort Worth. This was necessary because Rolling Hills WTP was the only facility operated by the City with the ability to receive East Texas water. However, now that the pipeline connecting the East Texas reservoirs to Lake Benbrook (via Rolling Hills WTP) is complete, East Texas water can be delivered to the City of Fort Worth's Holly WTP by pumping it into Lake Benbrook and releasing it down the Clear Fork of the Trinity River for diversion to Holly WTP through the Clear Fork Intake and Pump Station. While this pipeline and associated storage in Lake Benbrook greatly enhances the flexibility of the District's System, continued growth in north and northwest Tarrant County will increase demands for City of Fort Worth water in the region. Therefore, facilities that augment the raw water supply from the West Fork reservoirs will greatly enhance the District's ability to supply water and meet projected needs at the Eagle Mountain WTP.

Another concept which could provide additional water supply to Lake Benbrook, and indirectly to Lake Arlington, includes potential diversion of flows in the West Fork of the Trinity River to Lake Benbrook. Water potentially available includes spills from Eagle Mountain Reservoir (i.e., high flows occurring in wet weather) with diversions being made from Eagle Mountain Lake as authorized under existing permits. However, to utilize wet weather flows in the West Fork, an intake structure, pump station, and water transmission pipeline would be needed to convey water from some point on the West Fork to Lake Benbrook.

3.2.2.1 Delivery Options to Eagle Mountain Reservoir

3.2.2.1.1 Option 1

Two options were evaluated for the delivery of additional water to Eagle Mountain Reservoir. Option 1 incorporates, to the extent possible, the use of existing facilities to pump water from the East Texas reservoirs to the West Fork. This option offers the possibility of gravity flow from Lake Benbrook (normal wsel 673') to Lake Worth (normal wsel 594'). This could be accomplished by constructing a pipeline from Lake Benbrook to the existing pipelines that supply raw water from Lake Worth to Holly WTP. Once connected with a pipeline from Lake Benbrook, the existing pipelines would have a higher head than current service, and flow would be reversed for discharge into Lake Worth. The existing 60-inch pipeline (constructed 1928) and the 72-inch pipeline (constructed 1952) would probably require rehabilitation. Replacement of the 60-inch pipeline is also an option. This option is shown in schematic form in Figure 3-2 and would require the following facilities:

- New pipeline from Lake Benbrook to Holly WTP and connection to the existing 60-inch and 72-inch dia. pipelines from the Lake Worth intake to the Holly WTP;
- Rehabilitation of the 60-inch dia. pipeline from Lake Worth to Holly WTP;
- Modifications to the Eagle Mountain Pump Station to allow pumpage from Lake Worth into Eagle Mountain Lake; and
- New pump station and pipeline at Holly WTP to convey West Fork water to Lake Benbrook to allow use of West Fork spills.

An alternative to the pipeline from Lake Benbrook to Holly WTP would be to continue making releases from Lake Benbrook to the Clear Fork for pumping at the Clear Fork pump station. The Clear Fork pump station would be expanded and a short pipeline built to connect to the existing 60-inch and 72-inch Lake Worth pipelines. However, as Fort Worth begins to use more East Texas water at the Holly WTP, the new gravity pipeline from Lake Benbrook to the treatment plant offers the advantage of reduced contamination of Benbrook releases from urban runoff in the Clear Fork.

3.2.2.1.2 Option 2

Option 2 involves the construction of a new pipeline between Lake Benbrook and Eagle Mountain Lake capable of conveying water to Eagle Mountain Lake for West Fork supply enhancement and reversing the direction to deliver West Fork water to Lake Benbrook during West Fork spills. This option, which is shown in Figure 3-3, would require:

- New pipeline between Lake Benbrook and Eagle Mountain Lake;
- New pump station at Lake Benbrook to pump water to Eagle Mountain Lake; and
- New pump station (or modifications to existing pump station) to pump water in the new pipeline from Eagle Mountain Lake to Lake Benbrook.

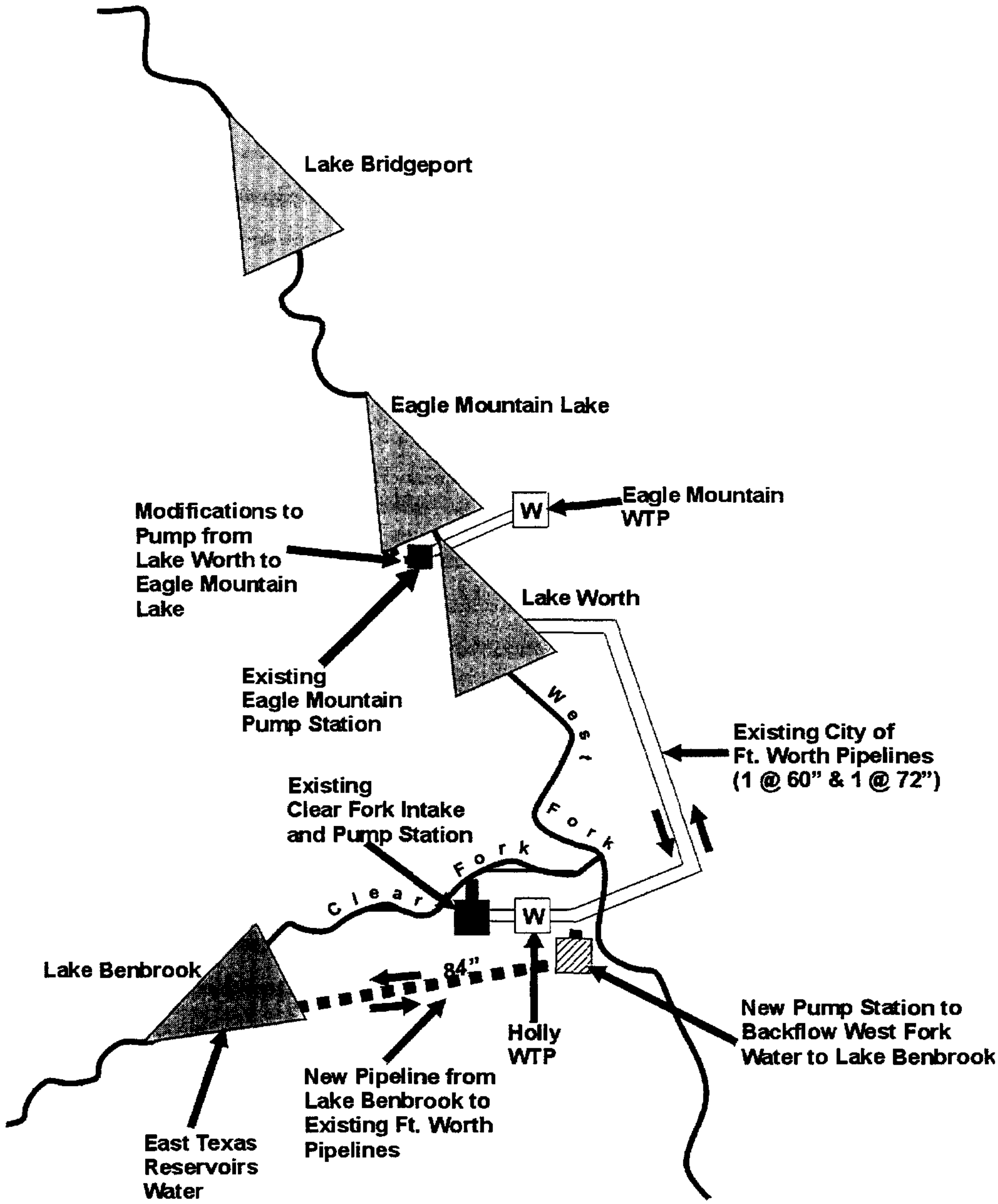

Figure 3-2. Enhancement of West Fork Water Supply (Option 1)

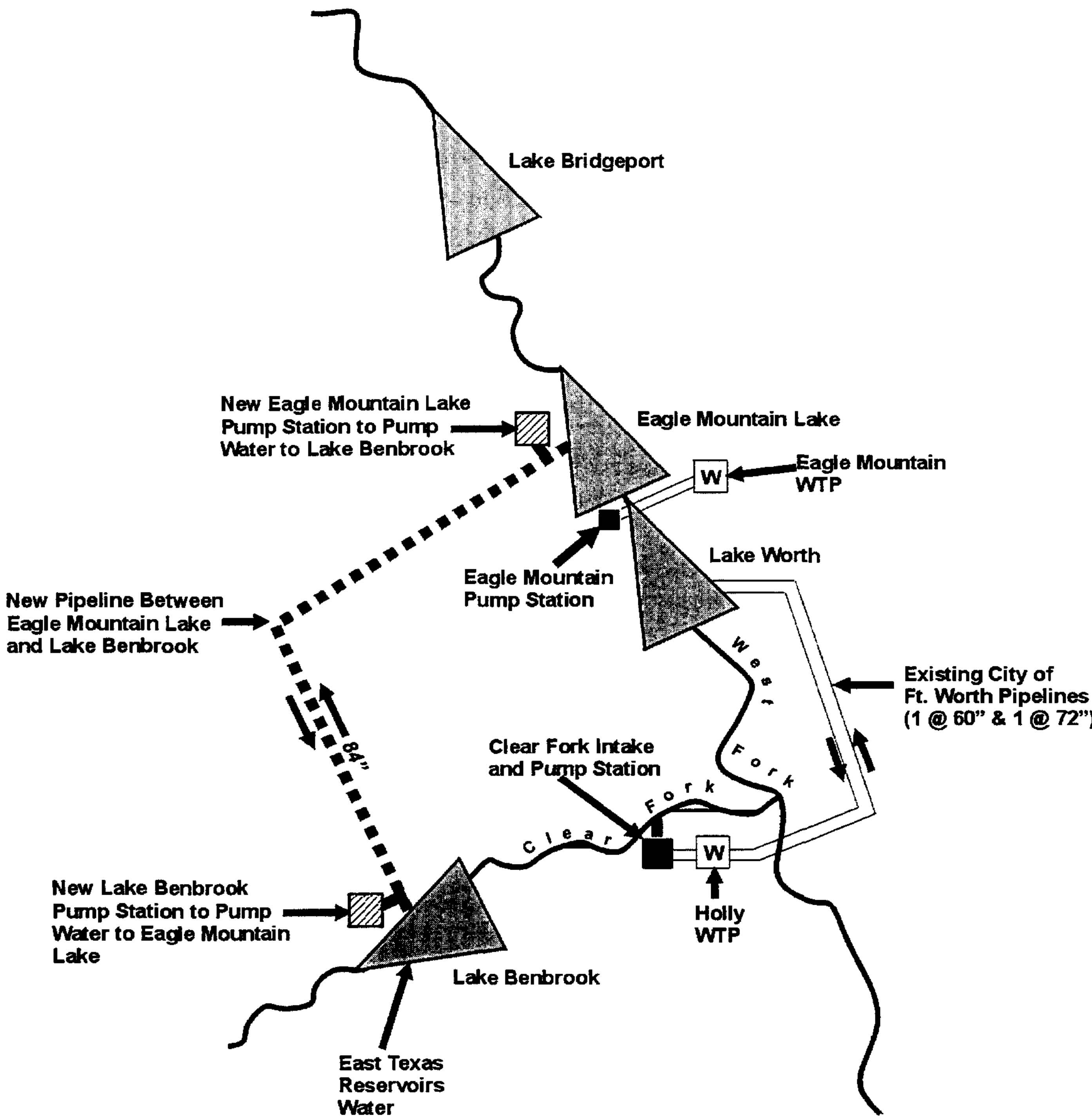

Figure 3-3. Enhancement of West Fork Water Supply (Option 2)

The primary difference in the two options is that one maximizes the use of existing facilities (Option 1) and the other requires new facilities to convey water between Lake Benbrook and Eagle Mountain Lake (Option 2). Option 2 would strengthen the District's overall system capability and does not rely on existing City of Fort Worth facilities.

3.2.2.2 Projected West Fork Shortages

Table 3-8 summarizes the safe yield available from the West Fork, projected demands on the West Fork, and the resulting potential shortages for the 2000 to 2050 period. The demand for West Fork water shown in Table 3-8 neglects any supply to the Holly WTP since it can now be supplied with East Texas water via the Benbrook connection. Therefore, the apparent surplus water shown in 2000, 2010, and 2030 will in actual practice be supplied to Holly WTP. However, if the Eagle Mountain WTP continues to expand as planned, by about 2022 demands for West Fork water will exceed the safe yield supply.

Table 3-8.
West Fork Supply and Projected Demands

	Annual Demand (acft/yr)					
Demand Projection Year	**2000**	**2010**	**2020**	**2030**	**2040**	**2050**
Eagle Mountain WTP Demand	18,500	34,100	58,200	86,000	93,800	101,500
Lake Bridgeport Local Demand	3,300	4,000	4,600	5,200	5,700	6,100
Eagle Mt. Lake Local Demand	3,600	4,000	4,400	4,500	4,700	4,900
Projected Total Demand [1]	25,400	42,100	67,200	95,700	104,200	112,500
West Fork Safe Yield	77,000	75,000	73,000	71,000	69,000	67,000
Projected Shortage	— [2]	— [2]	— [2]	24,700	35,200	45,500

1 Projected demand for West Fork water based on annual Fort Worth demand projections prorated to Eagle Mountain WTP based on projected water treatment plant sizes at Holly, Rolling Hills, and Eagle Mountain WTPs.
2 Apparent surplus West Fork water will in actual practice be supplied to Holly WTP as available to decrease Holly's demand for East Texas water.

3.2.2.3 Modeling Tools Developed

In order to evaluate the benefits of new transfer facilities between Lake Benbrook and Eagle Mountain, a tool was needed to simulate possible future operation scenarios for the District's system. A monthly simulation model was developed using the TWDB's river basin simulation model SIMYLD-II[10] (SIMYLD). The simulation period for the model developed is 1941 to 1976 and includes the drought of record in the 1950s. SIMYLD input data includes reservoir area-capacity tables, monthly inflows, monthly net evaporation rates, annual diversions with associated seasonal patterns, and maximum pipeline capacities. SIMYLD uses a prioritization hierarchy to establish which water supply sources will be used first, depending on the hydrologic condition of the system. For the model developed here, the West Fork reservoirs (Lake Bridgeport and Eagle Mountain Lake) were chosen to define the hydrologic condition in the model. When the combined storage in these two reservoirs was greater than 250,000 acft, the priorities were set such that the maximum supply available was supplied from the West Fork reservoirs. Conversely, when the storage in these reservoirs was less than 250,000 acft, priorities for supply from East Texas sources were increased. Input data were developed for sediment conditions in the lakes and system demands equal to 2050 projected conditions. The model also simulates the District's proposed water reuse project to augment reservoir yields at Richland-Chambers Reservoir and Cedar Creek Reservoir, two East Texas reservoirs, as per the analyses performed as part of the District's permitting process for this project.[11]

3.2.2.4 Yield Analyses

Numerous model runs were performed to evaluate the effectiveness of potential connections between the East Texas and West Fork facilities via the utilization of connections between Lake Benbrook and Eagle Mountain Lake. Analyses were performed under 2050 sediment conditions and projected District demands, and the results are discussed below.

In order to simulate the District's complex system with SIMYLD, several assumptions were made regarding operations and facilities. The following is a list of the key modeling assumptions.

1. Fort Worth's 2050 demands were prorated to each of the City's three water treatment plants based on the ratio of a particular water treatment plant's maximum capacity divided by the sum of the maximum capacity at all three plants. The City's WTPs and 2050 capacities include Eagle Mountain WTP (190 MGD), Holly WTP (160 MGD), and Rolling Hills WTP (250 MGD).

[10] TWDB, "Economic Optimization & Simulation Techniques for Management of Regional Water Resource Systems, River Basin Simulation Model, SIMYLD-II Program Description," July 1972.
[11] R. J. Brandes Company, "Yield Analysis of Trinity River Project," Tarrant Regional Water District, June 1998.

2. The District's proposed reuse project near the East Texas reservoirs was assumed to be in operation and able to provide water to meet all demands on the wetlands assuming maximum diversion rates from the wetlands to the reservoirs of 10,000 acft/month into Richland-Chambers Reservoir and 9,000 acft/month Cedar Creek Reservoir. This is consistent with recent analysis of the District's reuse project.[11]
3. Pipeline capacities from the East Texas reservoirs to demand centers in the West were assumed to be equal to the District's current ultimate facilities plans. A maximum month capacity of 22,770 acft/month (244 MGD) was assumed for Richland-Chambers Reservoir and a maximum month capacity of 18,950 acft/month (203 MGD) was assumed for Cedar Creek Reservoir.
4. Operation of the pipeline connecting Lake Benbrook to the East Texas reservoirs was modeled using a maximum monthly rate of 26,130 acft/month (280 MGD) from East Texas into Benbrook and a rate of 18,660 acft/month (200 MGD) from Lake Benbrook to Rolling Hills WTP.
5. The City of Fort Worth's raw water pipeline from Lake Worth to Holly WTP has a maximum monthly capacity of 14,930 acft/month (160 MGD).
6. The capacity of the Lake Worth to Holly WTP pipeline when pressurized and flowing from Holly to Lake Worth is 11,200 acft/month (120 MGD).

Figure 3-4 shows a schematic of the existing District System as included in the SIMYLD model.

3.2.2.5 Facility Sizes and Capacities – Option 1: Use of Existing City of Ft. Worth Facilities

Option 1 would potentially use the existing 60-inch and 72-inch diameter City of Fort Worth pipelines from Lake Worth to Holly WTP. To supply East Texas water to the West Fork, a new pipeline would be constructed from Lake Benbrook and connected to the existing Fort Worth pipelines. It was determined that an 84-inch diameter pipeline would have approximately the same capacity as the two existing parallel pipelines, or about 190 cfs (123 MGD). Water would flow by gravity from Lake Benbrook (normal wsel 673-ft) to Lake Worth (normal wsel 594-ft).

The Eagle Mountain pump station at the upper end of Lake Worth would need to be modified to pump Lake Worth water to Eagle Mountain Lake at an equivalent rate to the maximum monthly inflow of East Texas water, or about 190 cfs (123 MGD). The static lift would be 55-ft (from elev. 594-ft at Lake Worth to elev. 649-ft at Eagle Mountain).

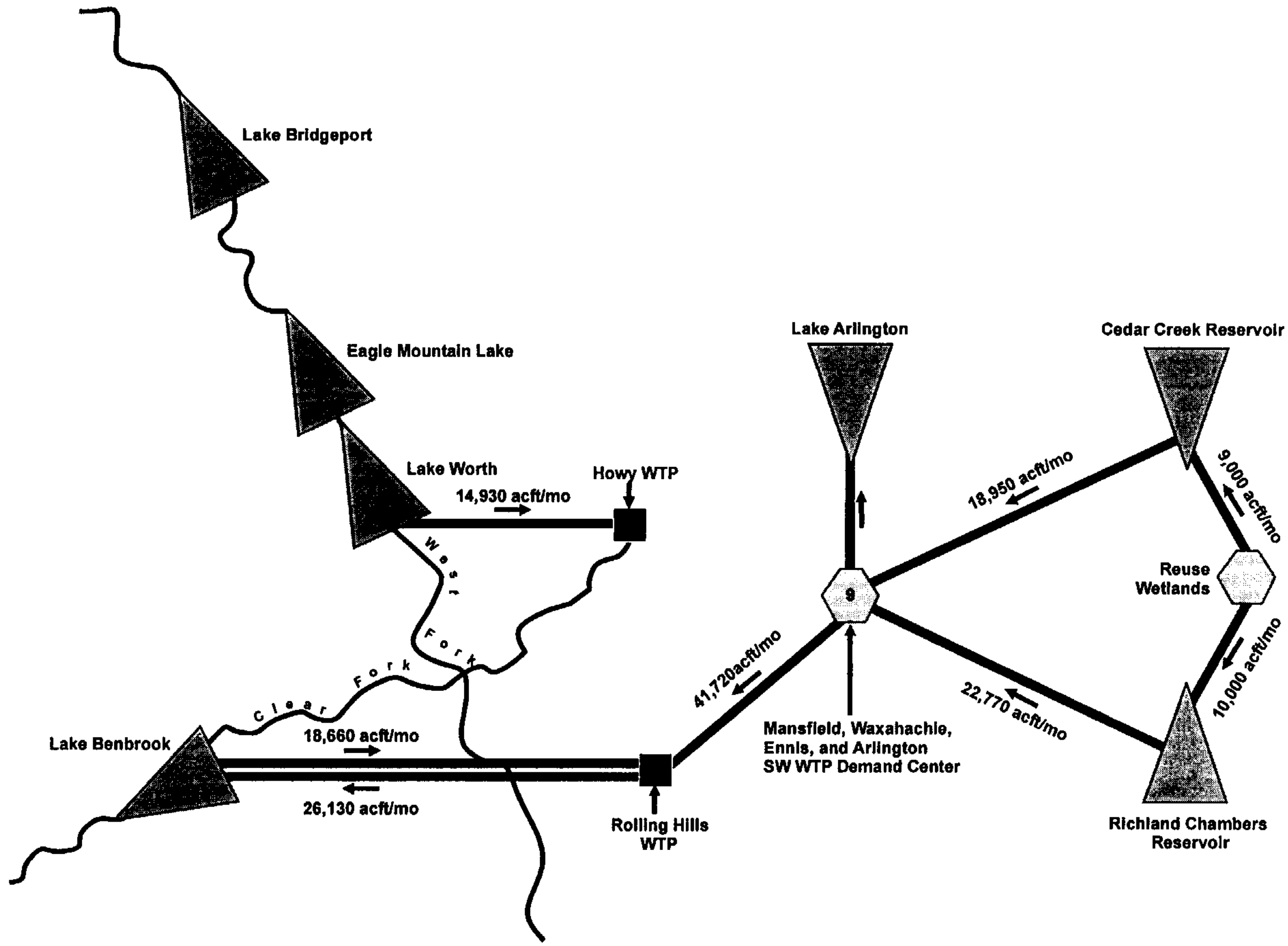

Figure 3-4. Schematic of SIMYLD Model of Tarrant Region Water District System

For use of West Fork excess flows (i.e. spills from Eagle Mountain Lake), a new pump station would be constructed on the West Fork to divert excess flows from the West Fork and pump into the new 84-inch diameter pipeline from Lake Benbrook to Holly WTP. The parallel City of Fort Worth pipelines have an estimated delivery capacity of 245 cfs (160 MGD). Subtracting the lowest monthly demand of the Holly WTP, or about 64 MGD (or 98 cfs), leaves a net availability of approximately 8,950 acft per month (147 cfs, 95 MGD) for pumping to Lake Benbrook. The static lift would be 80-ft (from elev. 594-ft at Lake Worth to elev. 673-ft at Lake Benbrook).

3.2.2.6 Facility Sizes and Pumping Capacities – Option 2: New Pipeline to Eagle Mountain Lake

Option 2 would construct new facilities to enhance the water supply in the West Fork with East Texas water. An intake, pump station, and pipeline would be constructed from Lake Benbrook to Eagle Mountain Lake. Although Eagle Mountain Lake is at a lower elevation than Lake Benbrook, the pipeline route would traverse high ground at about 850 elevation, thereby requiring pumping with a static lift of about 200-ft. The pumping capacity and pipeline would be sized the same as Option 1 facilities (i.e., 84-inch diameter with 190 cfs (123 MGD) capacity).

For use of West Fork excess flows (i.e., spills from Eagle Mountain Lake), a pump station would be constructed at Eagle Mountain Lake to divert excess flows from the West Fork and pump into the new 84-inch diameter pipeline. The static lift would be about 200-ft (from elev. 649-ft at Eagle Mountain Lake to elev. 850-ft at the ridge between the West Fork and the Clear Fork).

3.2.2.7 Summary of System Operation

The annual average volumes pumped under Options 1 and 2 are presented in Tables 3-9 and 3-10, respectively. The drought annual average period, 1948 through 1957, corresponds to the drought of record for Richland-Chambers Reservoir. Richland-Chambers Reservoir has the longest record drought sequence of all the District's reservoirs. As shown in Tables 3-9 and 3-10, the average pumpage from East Texas under either option is approximately equal in both the long-term annual average and during the drought (approximately 0.5 percent difference or less). Likewise, under both options, 2050 demands are met. Under Option 2, the long-term

Table 3-9.
Summary of System Operation[1] Utilizing Existing Connections between Lake Benbrook and Eagle Mountain Lake (Option 1) 2050 Sediment Conditions

	Long-Term Period (1941 to 1976)	*Drought Period (1948 to 1957)*
Average Annual Pumpage from East Texas System[2]	346,024 acft/yr	392,434 acft/yr
Average Annual East Texas Water Pumped to West Fork System[3]	34,704 acft/yr	52,916 acft/yr
Maximum Monthly Pumpage from Lake Benbrook to West Fork System	——	11,200 acft
Maximum Monthly Pumpage from West Fork System to Lake Benbrook[4]	——	8,949 acft

1 Target elevations at Eagle Mountain Lake and Lake Worth set at 0-ft drawdown (i.e., reservoir full target).
2 Based on 2050 projected demands and current East Texas System pipeline expansions to 203 MGD from Cedar Creek Reservoir (147 MGD existing pipeline at high capacity and 56 MGD expansion for reuse) and 244 MGD from Richland-Chambers Reservoir (existing pipeline at high capacity including reuse).
3 Pumpage between Lake Benbrook and the West Fork System via the City of Fort Worth's existing pipelines between Lake Worth and Holly WTP.
4 Pumpage from Holly WTP to Lake Benbrook via proposed new 72-inch pipeline.

Table 3-10.
Summary of System Operation[1] Utilizing a New Pipeline between Lake Benbrook and Eagle Mountain Lake (Option 2) 2050 Sediment Conditions

	Long-Term Period (1941-76)	*Drought Period (1948-57)*
Average Annual Pumpage from East Texas System[2]	343,912 acft/yr	393,234 acft/yr
Average Annual East Texas Water Pumped to West Fork System[3]	38,164 acft/yr	56,227 acft/yr
Maximum Monthly Pumpage from Lake Benbrook to West Fork System[4]	——	11,600 acft
Maximum Monthly Pumpage from West Fork System to Lake Benbrook[4]	——	11,600 acft

1 Target elevations at Eagle Mountain Lake and Lake Worth set at 0-ft drawdown (i.e., reservoir full target).
2 Based on 2050 projected demands and current East Texas System pipeline expansions to 203 MGD from Cedar Creek Reservoir (147 MGD existing pipeline at high capacity and 56 MGD expansion for reuse) and 244 MGD from Richland-Chambers Reservoir (existing pipeline at high capacity including reuse).
3 Pumpage between Lake Benbrook and Eagle Mountain Lake via proposed 108-inch pipeline between the reservoirs.
4 Maximum pipeline capacity based on a 84-inch diameter pipe flowing at 5 feet per second.

annual and drought annual average pumpage of East Texas water into the West Fork System is approximately 10 percent higher than under Option 1, which uses existing facilities. Lake levels in Eagle Mountain Lake were about the same under either option.

In the initial system model, the target water surface elevations in the District's West Fork reservoirs were all set at maximum capacity. In other words, for each month of operation, the SIMYLD computer model attempted to maintain full reservoirs in the West Fork, subject to the physical constraints of the system (e.g., pipeline capacities, hydrology, demands, etc.). A second set of model runs were computed assuming Lake Worth and Eagle Mountain Lake were allowed to draw down a small amount during normal operations. In the model runs described below, Eagle Mountain Lake was allowed to draw down to a target elevation 3 feet below conservation storage. In addition, Lake Worth was drawn down to an operating target elevation 1 foot below conservation storage. These operation practices follow the reservoir operating policies of the District and maintain higher water surface elevations in Lake Bridgeport during normal and wet years. In addition to lowering the target storages in Lake Worth and Eagle Mountain Lake, the water supply priorities in the SIMYLD model were also changed in the modeling runs discussed below to make Eagle Mountain Lake and Lake Worth more dependent on East Texas Water and less dependent on Lake Bridgeport.

In addition to lowering the storage targets at Eagle Mountain Lake and Lake Worth and adjusting the water supply priorities in the West Fork, the alternative set of runs (referred to as the alternative operations analysis) included higher reservoir level targets in Lake Benbrook. In these runs, Lake Benbrook's operating storage range was changed to conservation storage down to 5 feet of drawdown. Previous model runs included drawdowns to 10 feet below conservation storage.

All other modeling assumptions regarding pipelines and alternative connections between Lake Benbrook and the West Fork remained the same. The results of the alternative operations analysis are presented in Tables 3-11 and 3-12 for West Fork Options 1 and 2, respectively. The results under 2050 sediment conditions and demands and alternative operations shown in Tables 3-11 and 3-12 differ significantly from their counterparts in Tables 3-9 and 3-10. During long-term average periods, the East Texas pipelines pump approximately 10,000 acft/yr less under the alternative operations. However, during the drought, under original operations or alternative operations, the pumpage from East Texas is about the same. The long-term smaller volume pumped under alternative operations is believed to be a result of less volume needed to keep the reservoirs (Lake Worth and Eagle Mountain Lake) full and less need to overcome evaporation. Since the lakes are being maintained at a lower elevation and thus a smaller surface area, losses to evaporation are not as high. During the drought, however, the differences between pumpages are smaller because reservoir operations are essentially the same during drought (i.e., few storage targets are met).

Average annual pumpages to the West Fork from Lake Benbrook under alternative operations, however, are about 7,000 acft/yr higher than under original operations. This is due in part to two factors. First, the operation range over which Lake Benbrook is operated in the alternative operations analysis is significantly smaller than in the original analysis. Thus, there is less terminal storage in Lake Benbrook, meaning water pumped into Lake Benbrook from East Texas, must be pumped on through to the West Fork. In addition, the lowering of targets in Lake Worth and Eagle Mountain Lake, and the change in water supply source priorities (i.e., making East Texas Water pumped to Eagle Mountain Lake is preferable to drawing from Lake Bridgeport) causes the simulation model to leave more water in Bridgeport and thus pump more from Lake Benbrook to Eagle Mountain Lake (Option 2) or Lake Worth (Option 1).

3.2.2.8 Effect on Lake Levels

The following section compares and contrasts end-of-month storages in Lake Benbrook, Lake Bridgeport, Eagle Mountain Lake, Lake Worth, and Lake Arlington, with and without the pipeline connections between Lake Benbrook and the West Fork System and under original and alternative operations (as detailed in the previous section).

Figures 3-5 through 3-9 show end-of-month storages for original operations (i.e., storage targets in Lake Worth and Eagle Mountain Lake equal to full conservation storage). As shown in Figure 3-5, Lake Benbrook storage shows wide seasonal variations due to pumping into and out of the reservoir, and with the pipeline connection to the West Fork System, storage is heavily depleted during the 1948-57 drought period. Similarly, on Eagle Mountain Lake the storage during the drought is depleted almost as much as without the pipeline (Figure 3-7, however, in the simulation without the pipeline, there are a series of months during the drought when the

Table 3-11.
Alternative Operations Analysis[1]
Summary of System Operation Utilizing Existing Connections between Lake Benbrook and Eagle Mountain Lake (Option 1)
2050 Sediment Conditions

	Long-Term Period (1941 to 1976)	*Drought Period (1948 to 1957)*
Average Annual Pumpage from East Texas System[2]	337,831 acft/yr	391,927 acft/yr
Average Annual East Texas Water Pumped to West Fork System[3]	40,914 acft/yr	57,791 acft/yr
Maximum Monthly Pumpage from Lake Benbrook to West Fork System	------	11,200 acft
Maximum Monthly Pumpage from West Fork System to Lake Benbrook[4]	------	8,949 acft

1 Target elevations at Eagle Mountain Lake and Lake Worth set 3 ft and 1 ft below conservation storage, respectively.
2 Based on 2050 projected demands and current East Texas System pipeline expansions to 203 MGD from Cedar Creek Reservoir (147 MGD existing pipeline at high capacity and 56 MGD expansion for reuse) and 244 MGD from Richland-Chambers Reservoir (existing pipeline at high capacity including reuse).
3 Pumpage between Lake Benbrook and the West Fork System via the City of Fort Worth's existing pipelines between Lake Worth and Holly WTP.
4 Pumpage from Holly WTP to Lake Benbrook via proposed new 72-inch pipeline.

Table 3-12.
Alternative Operations Analysis[1]
Summary of System Operation Utilizing a New Pipeline between Lake Benbrook and Eagle Mountain Lake (Option 2)
2050 Sediment Conditions

	Long-Term Period (1941-76)	*Drought Period (1948-57)*
Average Annual Pumpage from East Texas System[2]	332,839 acft/yr	388,980 acft/yr
Average Annual East Texas Water Pumped to West Fork System[3]	45,859 acft/yr	60,918 acft/yr
Maximum Monthly Pumpage from Lake Benbrook to West Fork System[4]	------	11,600 acft
Maximum Monthly Pumpage from West Fork System to Lake Benbrook[4]	------	11,600 acft

1 Target elevations at Eagle Mountain Lake and Lake Worth set 3 ft and 1 ft below conservation storage, respectively.
2 Based on 2050 projected demands and current East Texas System pipeline expansions to 203 MGD from Cedar Creek Reservoir (147 MGD existing pipeline at high capacity and 56 MGD expansion for reuse) and 244 MGD from Richland-Chambers Reservoir (existing pipeline at high capacity including reuse).
3 Pumpage between Lake Benbrook and Eagle Mountain Lake via proposed 84-inch pipeline between the reservoirs.
4 Maximum pipeline capacity based on a 84-inch diameter pipe flowing at 5 feet per second.

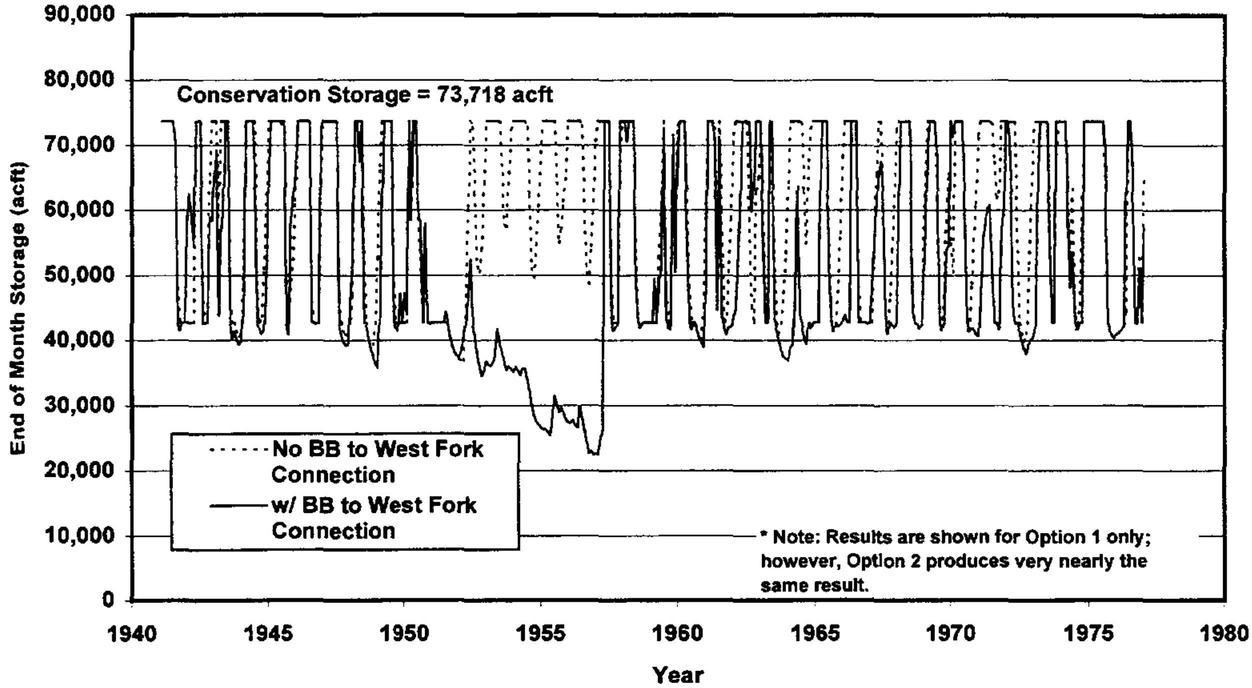

Figure 3-5. Comparison of Simulated Storage in Lake Benbrook with and without a Pipeline Connection between Lake Benbrook and the West Fork under 2050 Demands, 2050 Sediment Conditions, and Original Operations

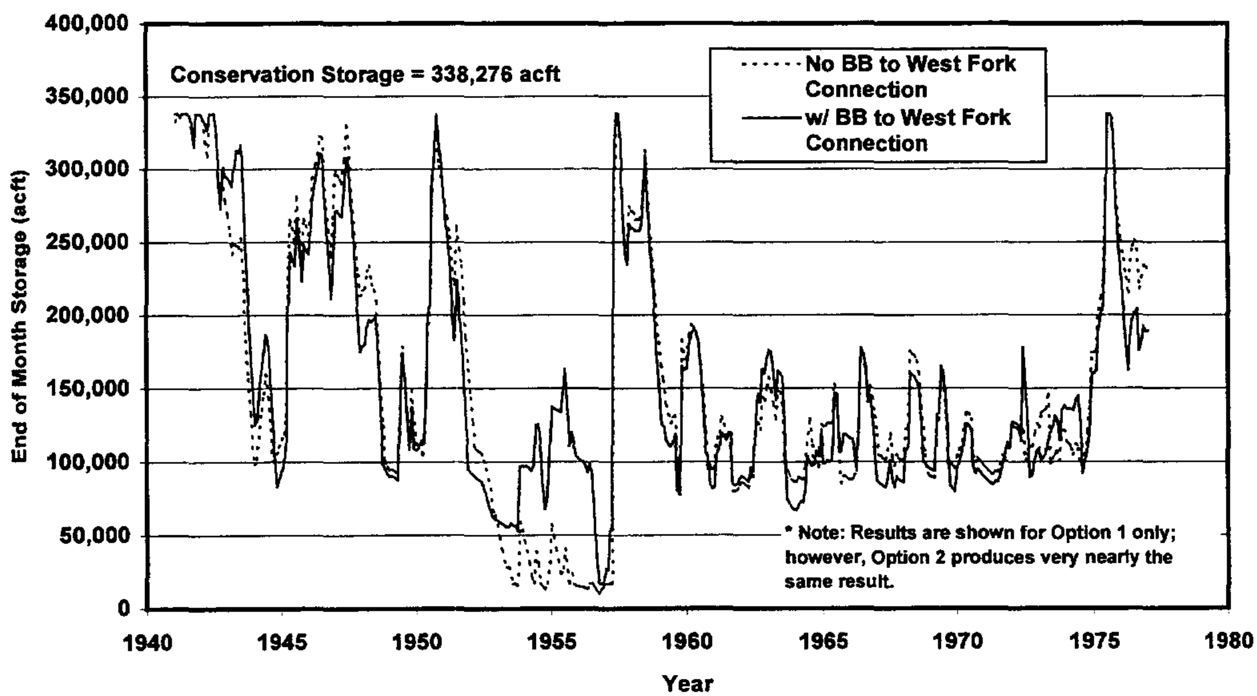

Figure 3-6. Comparison of Simulated Storage in Lake Bridgeport with and without a Pipeline Connection between Lake Benbrook and the West Fork under 2050 Demands, 2050 Sediment Conditions, and Original Operations

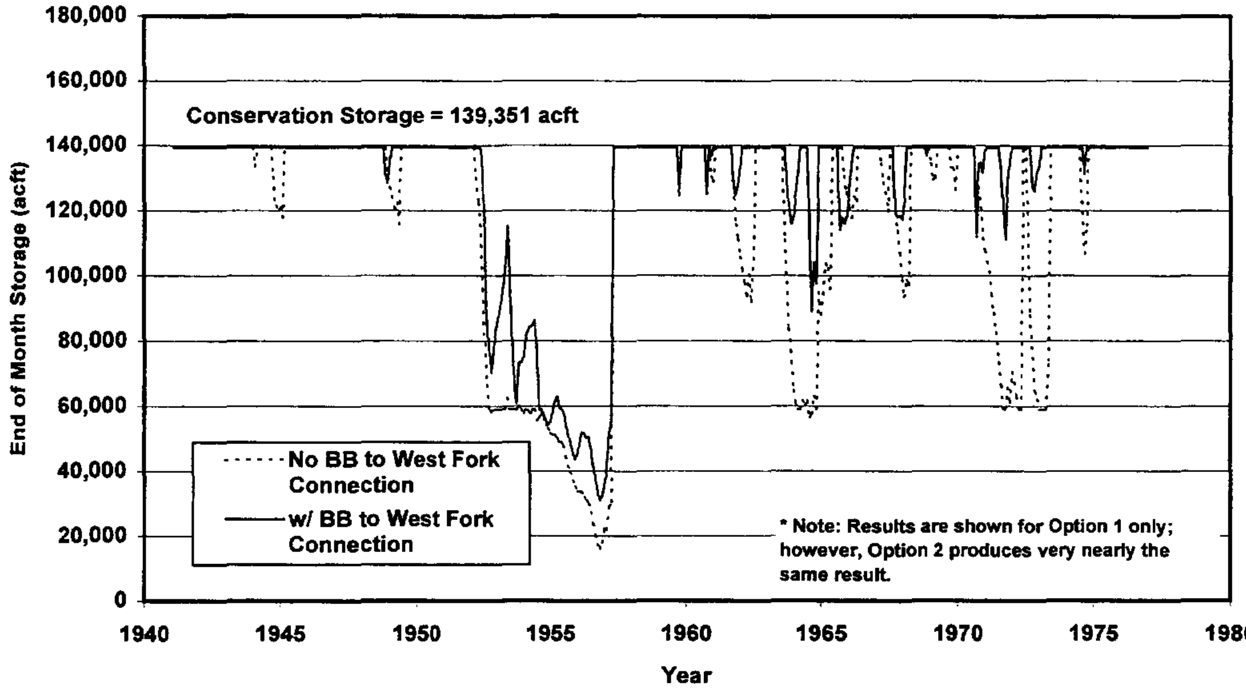

*Figure 3-7. **Comparison of Simulated Storage in Eagle Mountain Lake with and without a Pipeline Connection between Lake Benbrook and the West Fork under 2050 Demands, 2050 Sediment Conditions, and Original Operations***

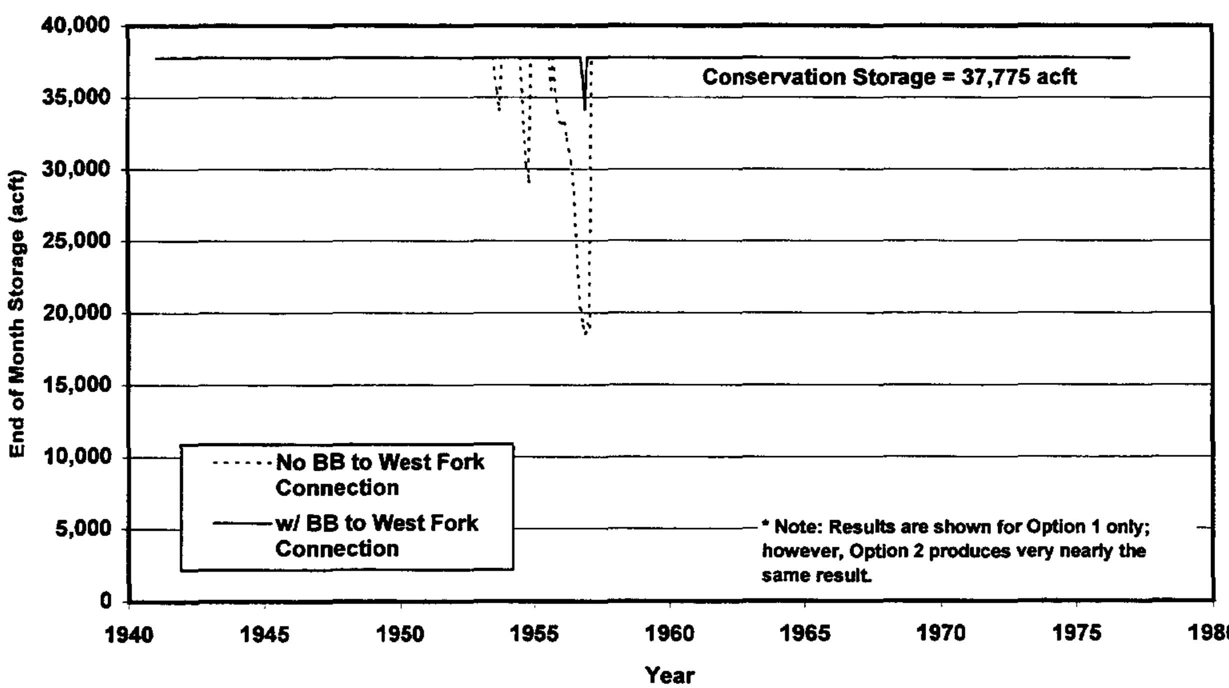

*Figure 3-8. **Comparison of Simulated Storage in Lake Worth with and without a Pipeline Connection between Lake Benbrook and the West Fork under 2050 Demands, 2050 Sediment Conditions, and Original Operations***

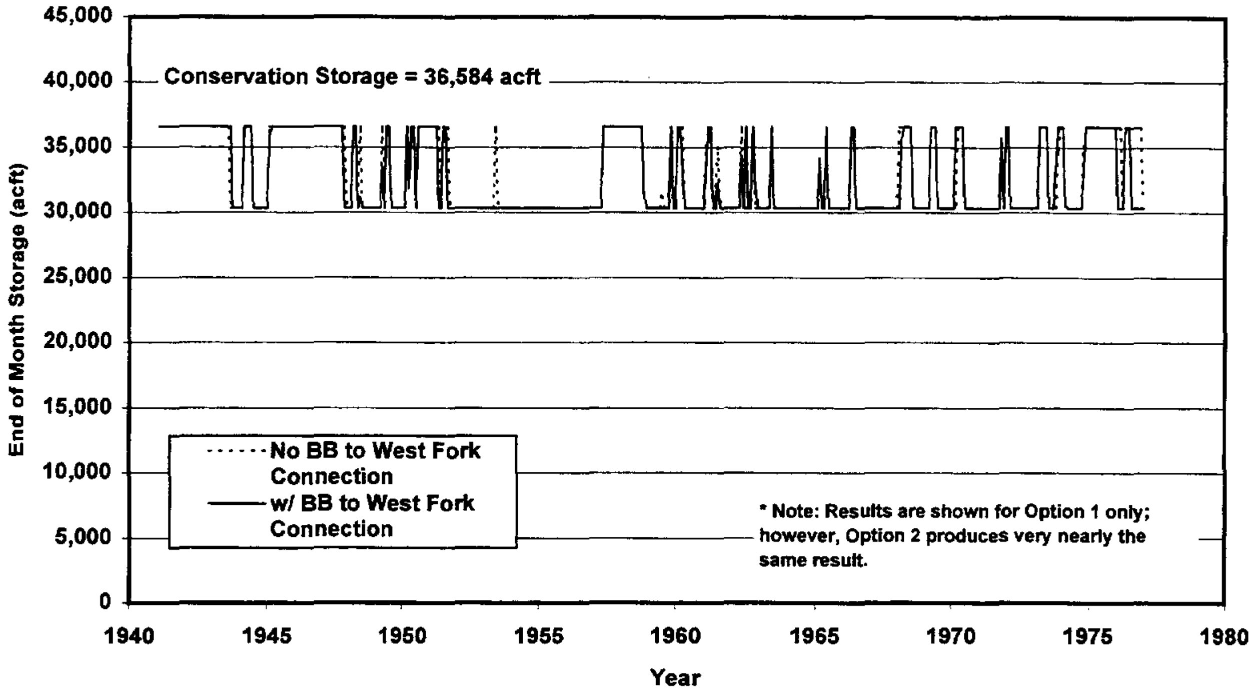

Figure 3-9. Comparison of Simulated Storage in Lake Arlington with and without a Pipeline Connection between Lake Benbrook and the West Fork under 2050 Demands, 2050 Sediment Conditions, and Original Operations

demands from Eagle Mountain Lake are not met and severe shortages are encountered. On Lake Bridgeport, the severity of the drought in the worst year (1956) is not diminished significantly (Figure 3-6). However, in the years leading up to the driest year (1953-55) Lake Bridgeport storage is significantly higher and shortages that occur in the run with no connection between Lake Benbrook and the West Fork are completely mitigated. Demand conditions are the same for the two reservoir end-of-month storage traces in Figures 3-6 and 3-7. However, for the no pipeline condition, a total of 173,631 acft of shortages occur in 1953, 1954, 1955, 1956, and 1957 at Lake Bridgeport and Eagle Mountain Lake. In contrast under either Option 1 or 2, all demands throughout the District's system are met under either option. In addition, during the mid-1960s and early 1970s, the impact of short drought periods are less severe as evidenced in the higher end-of-month storage volumes with the pipeline connection between Lake Benbrook and the West Fork. Figures 3-8 and 3-9 show similar end-of-month storage traces for Lake Worth and Lake Arlington. Table 3-13 shows a summary of median lake levels, with and without the pipelines connecting Lake Benbrook to the West Fork Reservoirs.

Table 3-13.
Effect of West Fork Supply Enhancement on Lake Levels[1]

	Median Lake Level	
	without Project (ft-msl)	*with Project*[2] *(ft-msl)*
Lake Benbrook	691.0	684.0
Lake Bridgeport	813.6	813.8
Eagle Mountain Lake	649.0	649.0
Lake Worth	594.2	594.2
Lake Arlington	546.9	546.9

1 Based on simulations assuming 2050 sediment conditions, 2050 demands, and original operations.
2 Median Levels presented are for Option 1 and are similar to Option 2 results.

Figures 3-10 through 3-14 show end-of-month storages for alternative operations analysis (i.e., lowered storage targets and adjustments to priorities in Lake Worth and Eagle Mountain Lake). As discussed with the previous graphs, Lake Benbrook is highly variable with the season, although the range of storage over which Lake Benbrook oscillates is narrower under alternative operations. As before, in the no project run, there are large shortages throughout the West Fork system in 1953, 1954, 1955, 1956, and 1957. Lake Arlington is essentially the same as with the original operation runs and Lake Work is primarily the same with the obvious difference being the storage target 1 foot below conservation storage.

The two major differences between the original operation runs and the alternative operations runs are at Eagle Mountain Lake and Lake Bridgeport. Because of the lower storage target at Eagle Mountain Lake and change in priority for supply from East Texas instead of Lake Bridgeport, Lake Bridgeport contains considerably more water in 1952-1955 than under original operations. Likewise, Eagle Mountain Lake reacts more like it does without the pipelines between Lake Benbrook and the West Fork and is highly variable over the simulation period. Table 3-14 shows a summary of median lake levels, with and without pipelines between Lake Benbrook and the West Fork for the alternative operations.

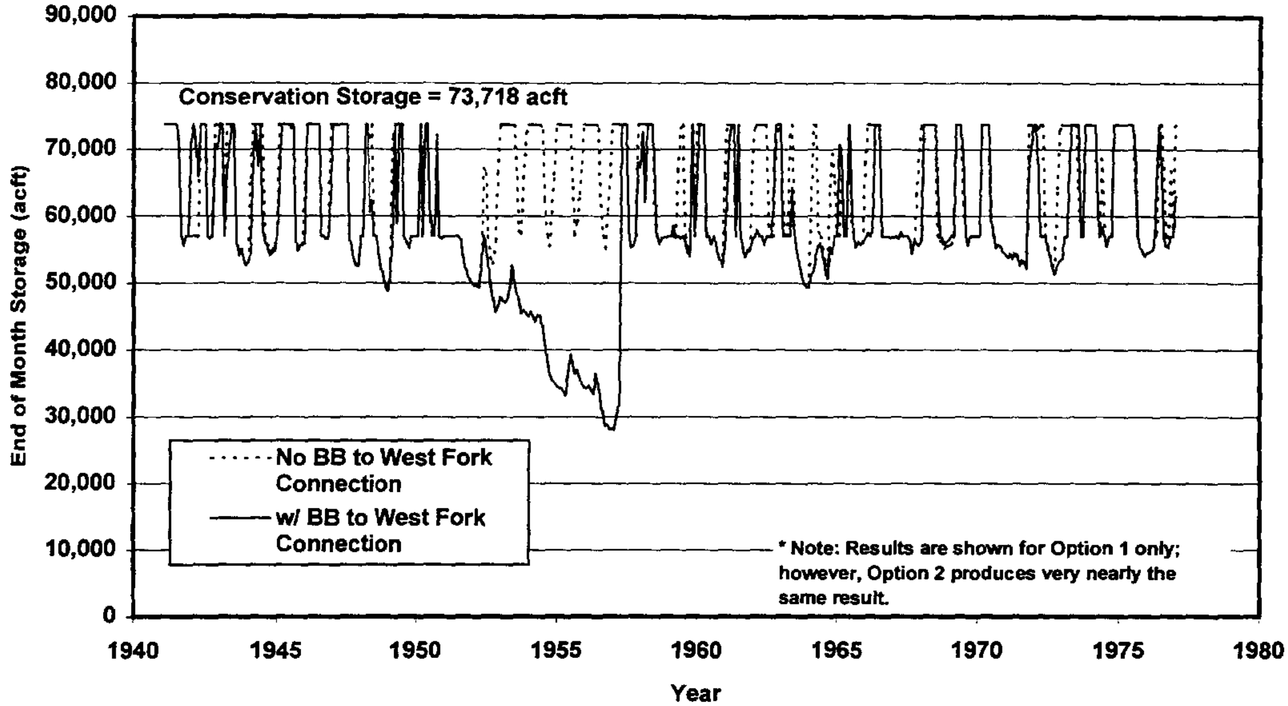

Figure 3-10. Comparison of Simulated Storage in Lake Benbrook with and without a Pipeline Connection between Lake Benbrook and the West Fork under 2050 Demands, 2050 Sediment Conditions, and Alternative Operations

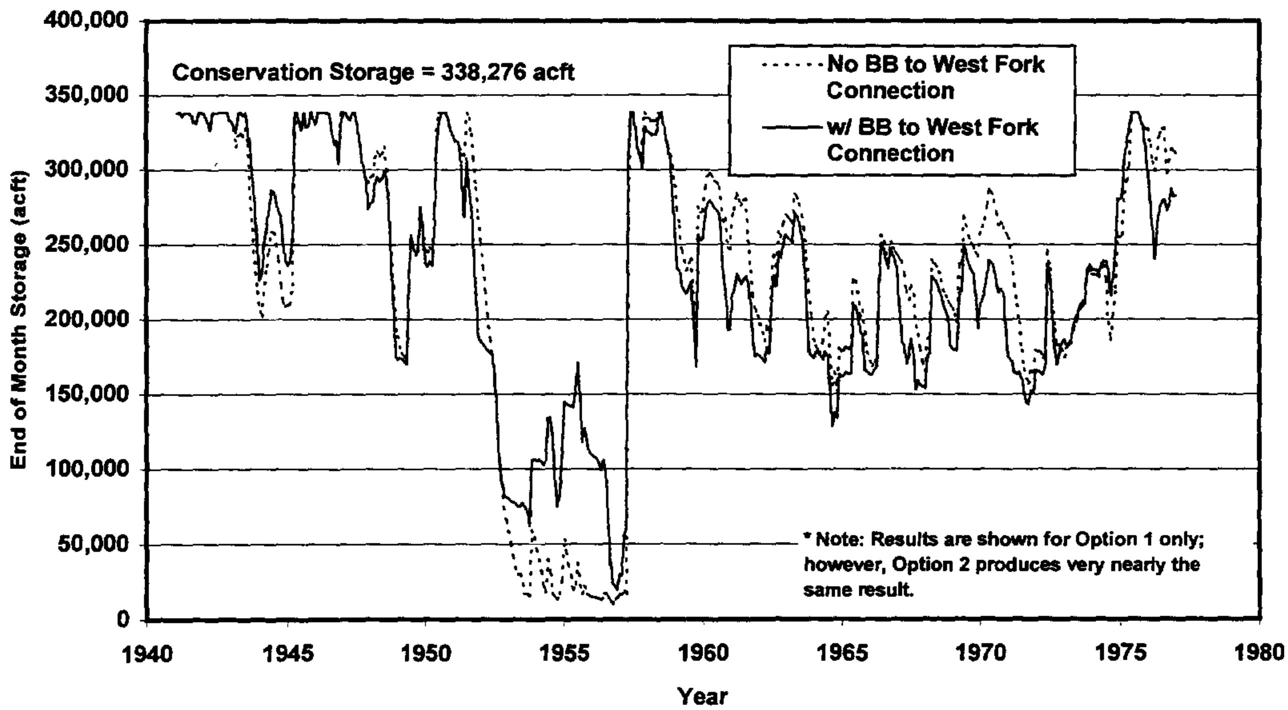

Figure 3-11. Comparison of Simulated Storage in Lake Bridgeport with and without a Pipeline Connection between Lake Benbrook and the West Fork under 2050 Demands, 2050 Sediment Conditions, and Alternative Operations

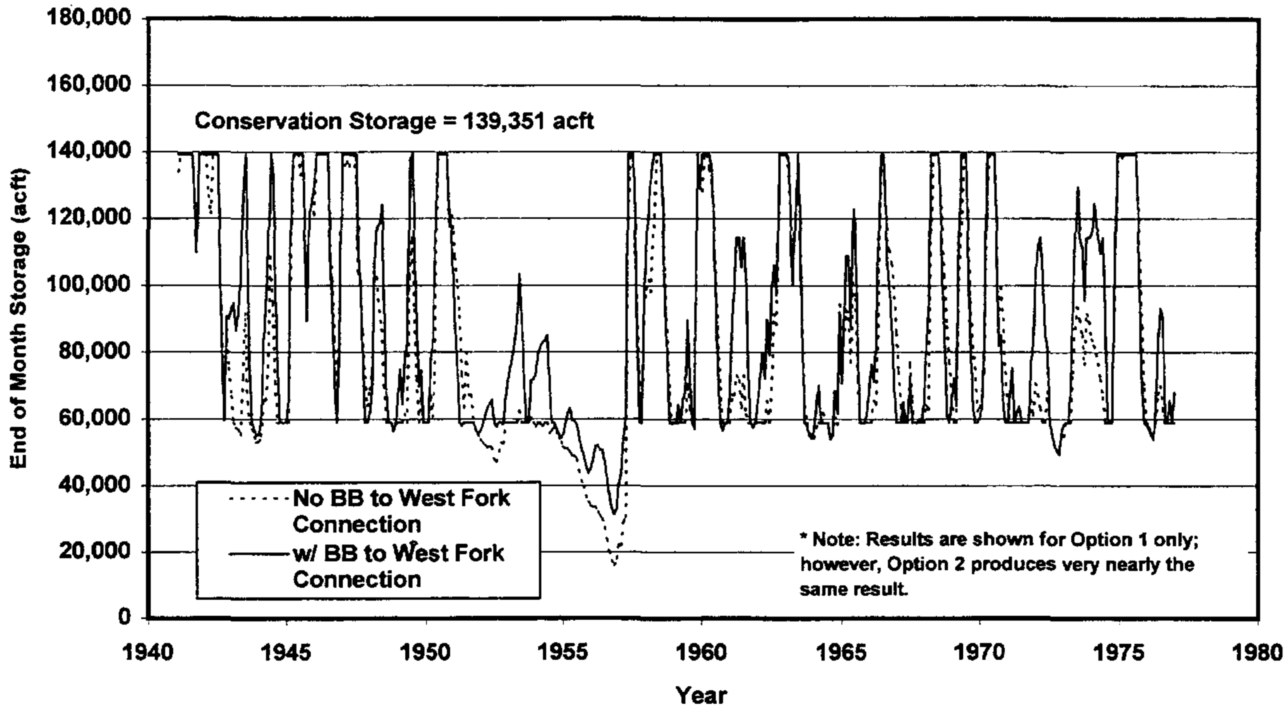

Figure 3-12. Comparison of Simulated Storage in Eagle Mountain Lake with and without a Pipeline Connection between Lake Benbrook and the West Fork under 2050 Demands, 2050 Sediment Conditions, and Alternative Operations

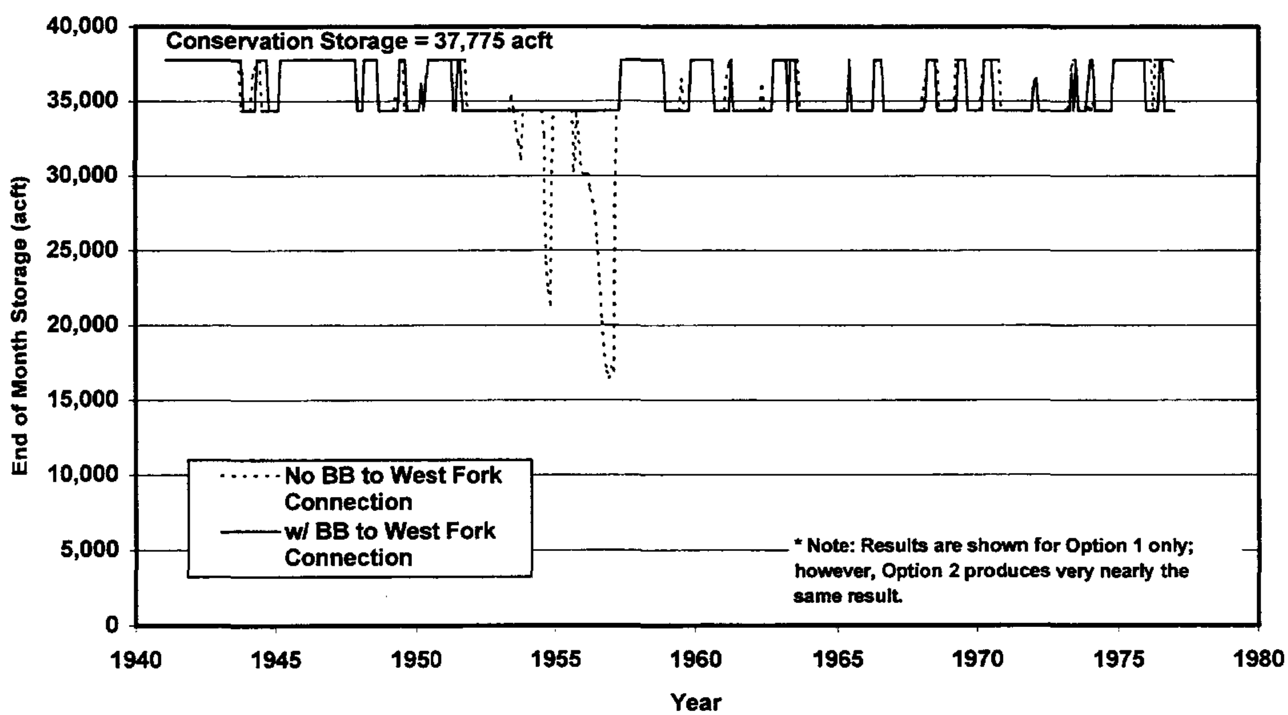

Figure 3-13. Comparison of Simulated Storage in Lake Worth with and without a Pipeline Connection between Lake Benbrook and the West Fork under 2050 Demands, 2050 Sediment Conditions, and Alternative Operations

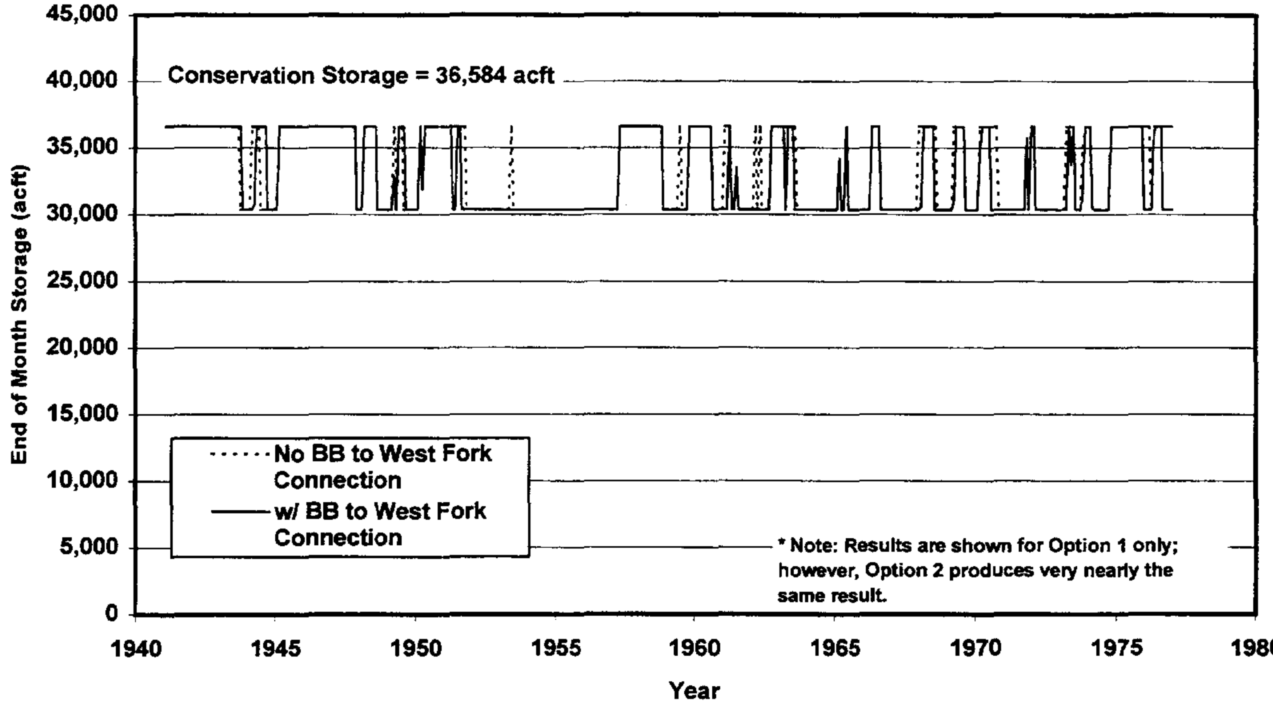

Figure 3-14. Comparison of Simulated Storage in Lake Arlington with and without a Pipeline Connection between Lake Benbrook and the West Fork under 2050 Demands, 2050 Sediment Conditions, and Alternative Operations

Table 3-14. Effect of West Fork Supply Enhancement on Lake Levels[1]

	Median Lake Level	
	without Project (ft-msl)	*with Project[2] (ft-msl)*
Lake Benbrook	688.6	687.7
Lake Bridgeport	827.8	826.4[3]
Eagle Mountain Lake	639.2	641.3
Lake Worth	593.2	593.2
Lake Arlington	546.9	546.9

1 Based on simulations assuming 2050 sediment conditions, 2050 demands, and original operations.
2 Median Levels presented are for Option 1 and are similar to Option 2 results (±0.5 ft).
3 Option 2 median lake storage at Lake Bridgeport is 825.0 ft-msl.

3.2.2.9 *Estimated Costs*

The estimated costs of the facilities needed to enhance the water supply of the West Fork are listed in Table 3-15.

Table 3-15.
Estimated Costs of West Fork Supply Enhancements

Component	***Capacity and Size***	***Estimated Cost[1]***
Option 1 – Use of Existing Facilities		
Pipeline from Lake Benbrook to existing Ft. Worth pipelines, including intake, pipeline, and connection to existing pipelines(1)	84-in dia. 190 cfs 62,300 ft	$38,690,000
Rehabilitate existing 60-inch and 72-inch Ft. Worth pipelines	60-in dia. 72-in dia. 27,000 ft	3,460,000
Pump station expansion at Eagle Mountain Lake, including discharge pipeline	190 cfs 1500 ft 3100 hp	5,390,000
Pump station at Holly WTP to Lake Benbrook to pump excess West Fork flows to Lake Benbrook	147 cfs 3600 hp	5,800,000
Total		$53,340,000
Option 2 – New Pipeline to Eagle Mountain Lake		
Intake and pump station at Lake Benbrook and pipeline to Eagle Mountain Lake	84-in dia. 190 cfs 115,500 ft 7400 hp	$69,840,000
Pump station at Eagle Mountain Lake to pump excess West Fork flows to Lake Benbrook	84-in dia. 147 cfs	6,380,000
Total		$76,220,000

1 Pump station on Clear Fork could be substituted for 84-in gravity line. Pump station cost estimated to be $7,400,000, resulting in cost savings of $37,090,000. Total cost for Option 1 would be $16,250,000 if 84-in gravity pipeline is not built.

3.2.2.10 Implementation Issues

Implementation pros and cons associated with each alternative are enumerated below.

Option 1 Use of primarily existing facilities	
Pros	**Cons**
• Uses existing facilities to minimize new construction. • Less long-term annual and drought annual average pumpage to West Fork System (potentially lower pumping costs). • Allows better utilization of District's East Texas pipelines and reduce power costs.	• District is dependent on old facilities (completed as early as 1928) it does not own (i.e. pipeline from Holly WTP to Lake Worth).

Option 2 Use of primarily new facilities	
Pros	**Cons**
• District owns and operates its own facilities minimizing coordination with the City of Fort Worth. • Allows better utilization of District's East Texas pipelines and reduce power costs. • Less long-term annual and drought annual average pumpage to West Fork System (potentially lower pumping costs).	• Potential new pipeline routes include some developed areas. • New facilities potentially more expensive than under Option 1. • Requires additional pumping costs to lift water over ridge between reservoirs.

3.2.3 Potential Water Supplies from Other Sources

Water supply options for the District exist from sources both in the Trinity River Basin and outside of the basin. Implementation of options outside the Trinity River Basin would require an interbasin transfer. There are currently more than 80 interbasin transfers in place in Texas that supply water for municipal and industrial use. Cities where interbasin transfers occur include Amarillo, Lubbock, Dallas, Houston, Galveston, Corpus Christi, Beaumont, Texarkana, Tyler, much of the Lower Rio Grande Valley, and other smaller communities. Abilene, Longview, Irving, and Victoria, among others, have approved interbasin transfer permits.

Potential water supply sources for the District from other sources include:

- Lake Texoma (Red River Basin);
- Lake Granbury (Brazos River Basin);
- Lake Palestine (Neches River Basin);
- Marvin Nichols Reservoir - Phase I (Sulphur River Basin);
- George Parkhouse Reservoir - Phase I (Sulphur River Basin); and
- Tehuacana Reservoir (Trinity River Basin).

3.2.3.1 Lake Texoma (Red River Basin)

Lake Texoma is located on the Red River in Grayson County, about 90 miles north of Fort Worth (Figure 3-15). Lake Texoma is owned and operated by the U.S. Army Corps of Engineers. The project was completed in 1944 and its permitted purposes include water supply, flood control, hydropower, recreation, and navigation. The top of the conservation pool is elevation 617-ft. Under the terms of the Red River Compact, yield of the lake is to be split equally between Oklahoma and Texas. Permitted annual diversion for municipal and industrial use in Texas is 147,500 acft. The Corps has water sale contracts in place[12] with TU Electric, Red River Authority, and North Texas Municipal Water District for about 115,000 acft/yr. A portion of the storage pool in Lake Texoma is dedicated to hydropower generation and the possibility exists to reallocate this storage to municipal water supply. The 1997 State Water Plan contains a recommended project to reallocate some of the storage in Lake Texoma from hydropower to municipal use. The reallocation project as recommended would increase the supply available for municipal use by 72,500 acft/yr, for a total supply of 220,000 acft/yr. Of this amount, up to 105,000 acft/yr is potentially available for acquisition.

Facilities needed to utilize water from Lake Texoma would include:

- Raw water intake and pump station at Lake Texoma;
- Raw water transmission pipeline to Tarrant County (probable discharge would be into Eagle Mountain Lake);
- Booster pump station(s);
- Discharge outfall; and
- Water treatment plant capacity expansion

Cost estimates for implementation of this supply source have not been performed.

[12] U.S. Army Corps of Engineers, "Water Resources Development in Texas," 1991.

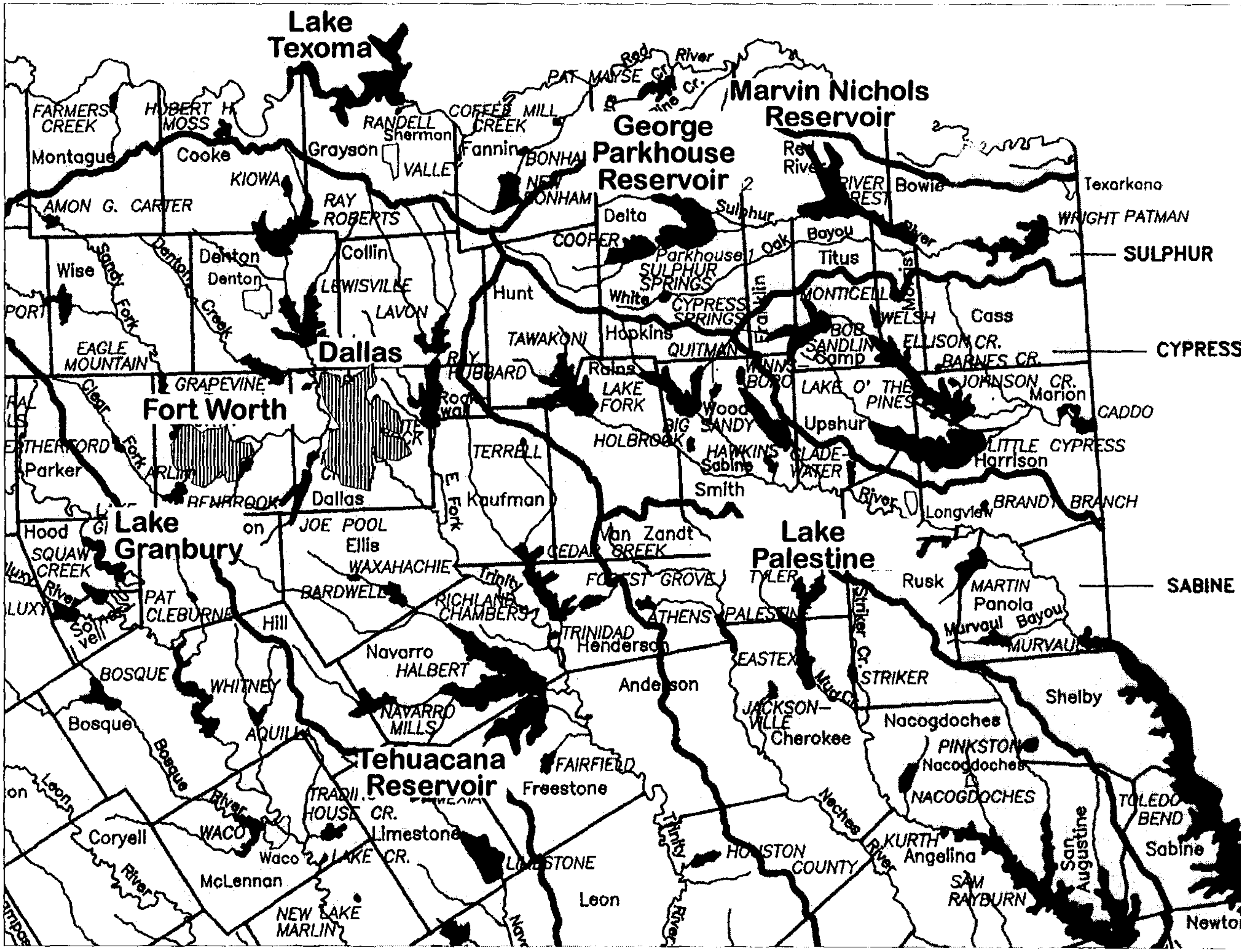

Figure 3-15. Potential Sources for Interbasin Supply

Implementation issues associated with this supply source include:

- Reallocation of storage from hydropower use to municipal use as well as additional diversions would require approval by the Corps of Engineers and TNRCC;
- Interbasin transfer permit from TNRCC would be needed;
- Water sale contract from Corps of Engineers would need to be negotiated; and
- Water quality of Lake Texoma is poor for municipal use, due to high dissolved mineral content; blending with higher quality water would be needed, or expensive treatment plants (e.g., reverse osmosis) needed to be constructed.

3.2.3.2 Lake Granbury (Brazos River Basin)

Lake Granbury is owned and operated by the Brazos River Authority (BRA) and is located on the Brazos River in Hood County (Figure 3-15). Lake Granbury is operated as part of the BRA system and currently there is 21,028 acft/yr available for purchase from BRA for delivery at Lake Granbury. However, BRA has requests from municipalities to purchase more than 36,000 acft/yr. Approval of the water purchase requests is contingent on meeting the terms of the BRA water sale criteria and Board of Directors action. It is likely that all remaining water in this part of the BRA system will be committed in the near future and no further consideration is warranted of Lake Granbury as a supply source for the District.

3.2.3.3 Lake Palestine (Neches River Basin)

Lake Palestine is owned and operated by the Upper Neches River Municipal Water Authority and is located on the Neches River between Smith and Henderson counties (Figure 3-15). The reservoir is about 40 miles southeast of Cedar Creek Reservoir. The top of the conservation pool is elevation 345-ft. The cities of Dallas, Tyler, and Palestine have contracted for the entire permitted yield of the project, which is 238,110 acft/yr.

The potential exists for Dallas Water Utilities (DWU) to cooperate with the District in development of a project to bring water from Lake Palestine to the Dallas/Fort Worth metroplex. The District could make surplus water available to DWU on an interim basis from Cedar Creek Reservoir, delivered through the existing District pipeline, to help meet a portion of DWU's water needs in southwest Dallas County. In the long term, this water will be needed by the District's customers and could be replaced with water obtained from Lake Palestine delivered to Cedar Creek Reservoir via a future 35-mile pipeline. At that point in time, the District may choose to meet its needs by purchasing a portion of the Lake Palestine water. The 35-mile pipeline from Lake Palestine to Cedar Creek Reservoir could potentially eliminate and/or significantly delay construction of an 80-mile pipeline which would be needed by DWU to deliver water from Lake Palestine to Dallas for DWU use only. DWU has purchased[13] 114,337 acft of the yield of Lake Palestine, and some or all of this water could be available for use by the District on an interim or permanent basis. With cooperative effort, a joint use pipeline could ultimately be built to deliver Lake Palestine water to Lake Joe Pool for DWU use and to Fort Worth for District use.

Facilities needed for TRWD to utilize water from Lake Palestine would include:

- Raw water intake and pump station at Lake Palestine;
- Raw water transmission pipeline to Cedar Creek Reservoir;
- Discharge outfall;
- Expansion of the Cedar Creek raw water intake and pump station; and
- A second Cedar Creek pipeline and associated booster pump stations.

Cost estimates for implementation of this supply source for TRWD have not been performed. However, cost estimates have been performed by others[14] for the proposed pipeline from Lake Palestine to Dallas. In 1998 dollars, the estimated cost of the conveyance facilities for DWU alone is $211,450,000.

Implementation issues associated with this supply source include:

- Interbasin transfer permit from TNRCC would be needed;
- Negotiation of water sale on interim or permanent basis with DWU would be needed; and
- Approval of the Upper Neches River Municipal Water Authority would be required.

3.2.3.4 Marvin Nichols I Reservoir (Sulphur River Basin)

The 1997 Texas Water Plan[15] recommends two new water supply projects be built in the Sulphur River Basin, Marvin Nichols I Reservoir, and George Parkhouse II Reservoir. These

[13] F&N and APAI, Op. Cit., 1990.
[14] Turner Collie & Braden, 1989.
[15] TWDB, "Water for Texas," August 1997.

projects could be used to meet local needs as well as the needs of the Fort Worth area and perhaps the Dallas area as well.

The Marvin Nichols I project would be located on the Sulphur River in Red River, Morris, and Titus counties and is about 160 miles northeast of Tarrant County (Figure 3-15). (Note: Marvin Nichols II reservoir would be a project adjacent to Nichols I, but on White Oak Creek.) The Nichols I project is downstream of the Parkhouse II site and the yield of the Nichols I project would be lower if built after Parkhouse II. The Nichols I project yield, without Parkhouse II being constructed would have a yield[16] of 560,151 acft/yr. If Parkhouse II is constructed first, then Nichols I would have a yield of 470,413 acft/yr.

Facilities needed for TRWD to utilize water from Marvin Nichols I reservoir would include:

- Dam and reservoir;
- Raw water intake and pump station;
- Raw water transmission pipeline and booster pump stations; and
- Discharge outfall (probably at Eagle Mountain Lake or Lake Worth).

The estimated cost[17] of Marvin Nichols I Reservoir is $344,150,000 in 1998 dollars. Cost estimates for the conveyance facilities to deliver raw water to the District have not been performed.

Implementation issues associated with this supply source include:

- Permit acquisition for this major new reservoir will require addressing several significant environmental issues, these issues include instream flows and inundation of bottomland hardwoods and associated habitat;
- Interbasin transfer permit from TNRCC would be needed; and
- A project of this magnitude would require a joint effort of several water supply entities to acquire permits and funding.

3.2.3.5 George Parkhouse Reservoir II (Sulphur River Basin)

The George Parkhouse II reservoir project is the other of the two water supply projects in the Sulphur River Basin recommended in the 1997 State Water Plan.[18] The Parkhouse II project

[16] Ibid.
[17] F&N and APAI, Op. Cit., 1990.
[18] TWDB, Op. Cit., August 1997.

would be located on the North Fork of the Sulphur River in Lamar and Delta counties and is about 115 miles northeast of Tarrant County (Figure 3-15). (Note: the George Parkhouse I reservoir project would be on the South Fork of the Sulphur River.) The yield of the Parkhouse II project would be 134,232 acft/yr.[19]

Facilities needed for TRWD to utilize water from George Parkhouse II reservoir would include:

- Dam and reservoir;
- Raw water intake and pump station;
- Raw water transmission pipeline and booster pump stations; and
- Discharge outfall (probably at Eagle Mountain Lake or Lake Worth).

The estimated cost[20] of George Parkhouse II Reservoir is $130,440,000 in 1998 dollars. Cost estimates for conveyance facilities to deliver raw water to the District have not been performed, however, previous studies[21] have estimated the cost of conveyance facilities to Dallas of about $209,000,000.

Implementation issues associated with this supply source include:

- Permit acquisition for this major new reservoir will require addressing several significant environmental issues, these issues include instream flows and inundation of bottomland hardwoods and associated habitat; and
- Interbasin transfer permit from TNRCC would be needed.

3.2.3.6 Tehuacana Reservoir (Trinity River Basin)

The 1997 Texas Water Plan[22] recommends that Tehuacana Reservoir be constructed and this project is the only recommended water supply reservoir in the upper Trinity River Basin. Tehuacana Reservoir would be located on Tehuacana Creek in Freestone County and is immediately south of Richland-Chambers Reservoir (Figure 3-15). The reservoir is planned to be interconnected with Richland-Chambers Reservoir by an open channel to allow water from Tehuacana to flow into Richland-Chambers. This project has been a part of the District's water

[19] Ibid.
[20] F&N and APAI, Op. Cit., 1990.
[21] Turner Collie & Braden, Inc., 1989.
[22] TWDB, Op. Cit., August 1997.

supply planning since it was first proposed[23] in the 1950's. Yield available from the project would be 65,547 acft/yr[24]. This project could also be developed in conjunction with the Trinity River Reuse project (see Section 3.2.1) which would increase the yield available from the reservoir.

Facilities needed for TRWD to utilize water from Tehuacana Reservoir would include:

- Dam and reservoir;
- Open channel to connect Tehuacana to Richland-Chambers Reservoir;
- Expansion of the raw water pump station at Richland-Chambers Reservoir; and
- Construction of a second raw water transmission pipeline from Richland-Chambers Reservoir to Tarrant County and associated booster pump stations.

The estimated cost[25] of Tehuacana Reservoir is $161,217,000 in 1998 dollars and the cost estimates for the conveyance facilities to deliver raw water to the District is $196,000,000, also in 1998 dollars.

Implementation issues associated with this supply source include:

- Permit acquisition for this new reservoir would require addressing several significant environmental issues, these issues include instream flows and inundation of bottomland hardwoods and associated habitat.

3.2.3.7 Summary Table

Table 3-16 summarizes information for potential water supplies from other sources.

3.2.4 Systems Operation of East Texas Reservoirs

As demands for the District's water continue to grow, the demand for East Texas water will likely continue to grow as well and operations which maximize the water supply potential of the two-reservoir, East Texas Reservoir System must be investigated. Previous studies have shown that a potential increase in system yield is available if the East Texas Reservoirs are overdrafted and underdrafted with respect to one another.[26] Overdrafting means that more than the yield of the reservoir is diverted in wet and average years, and subsequently, operations during drought are such that diversions are less than the yield of the reservoir. Of the two

[23] F&N and APAI, Op. Cit., 1990.
[24] TWDB, Op. Cit., August 1997.
[25] F&N and APAI, Op. Cit., 1990.
[26] Ibid.

Table 3-16.
Potential Water Supplies from Other Sources

Water Source and River Basin	Project Status	Project Yield (acft/yr)	Water Potentially Available (acft/yr)	Distance from Tarrant County
Lake Texoma Storage Reallocation (Red River Basin, Grayson County)	Reallocation not yet approved but recommended in '97 Water Plan	220,000	105,000	90 mi.
Lake Granbury (Brazos River Basin)	Existing reservoir, probably fully committed.	64,712	Arrangements needed with current contract holders to acquire supply.	20 mi.
Lake Palestine (Neches River Basin)	Existing reservoir, fully committed but not currently used.	238,110	Arrangements needed with current contract holders to acquire supply.	35 mi. pipeline to Cedar Creek, future 90 mi. pipeline needed to Tarrant Co.
Marvin Nichols I Reservoir (Sulphur River Basin)	Project not yet approved but recommended in '97 Water Plan	470,413 to 560,151	up to 560,151	160 mi.
George Parkhouse II Reservoir (Sulphur River Basin)	Project not yet approved but recommended in '97 Water Plan	134,232	up to 134,232	115 mi.
Tehuacana Reservoir (Trinity River Basin, Freestone County)	Project not yet approved but recommended in '97 Water Plan	65,547 (higher w/ reuse project)	up to 65,547	90 mi.

reservoirs in the East Texas Reservoir System, Cedar Creek Reservoir has a shorter critical drought period. This means that during the critical drought for Richland-Chambers Reservoir, Cedar Creek Reservoir is unable to store all inflows and spills. Therefore, if the reservoirs are operated as a system in which Cedar Creek Reservoir is overdrafted such that it does not spill during the longer Richland-Chambers Reservoir drought period, the yield of the East Texas System will be more than the simple addition of the stand alone yield of each reservoir.

3.2.4.1 Yield Analyses

In order to isolate the East Texas Reservoir System and analyze the potential benefits of operating its two reservoirs as a system, a monthly reservoir contents simulation model was developed for the East Texas Reservoir System. The system was modeled using the TWDB's river basin simulation model SIMYLD-II (SIMYLD). SIMYLD-input data includes area-capacity tables, monthly inflows, monthly net evaporation rates, and annual diversions with associated seasonal diversion patterns. SIMYLD uses a prioritization hierarchy to establish which water supply sources will be used first, depending upon the hydrologic condition of the system. In the analyses reported here, the operations rules were established so that Cedar Creek Reservoir was overdrafted and Richland-Chambers Reservoir underdrafted in wet and average conditions. In contrast, when depleted system storage indicated dry conditions, Cedar Creek Reservoir was underdrafted and Richland-Chambers Reservoir overdrafted.

A series of model runs were performed varying the overdraft/underdraft trigger in order to assess potential effects on the yield of the system. The trigger used was based on percentage of total storage capacity in the East Texas Reservoir System. When total storage was above the trigger, Cedar Creek Reservoir was overdrafted; likewise, when the total storage fell below the trigger, overdrafting was switched to Richland-Chambers Reservoir. Minimum annual diversions were generally included at each reservoir in order to maximize the yield of the system and maintain operable facilities at both reservoirs.

The potential system yield gains were bounded by the yield gains computed using current safe yield operations (i.e., maintaining current drought reserve volumes of 157,000 acft and 197,000 acft in Cedar Creek Reservoir and Richland-Chambers Reservoir, respectively, during the critical drought)[27] and firm yield operations (i.e., maintaining no drought reserve during the critical drought). Tables 3-17 and 3-18 and Figures 3-16 and 3-17 summarize the estimated yield gains of the East Texas Reservoir System under safe yield and firm yield operations, respectively. Simulations summarized in these tables were performed assuming 2015 sediment accumulation conditions. Current conditions (i.e., 1995 sediment accumulation) were not simulated because considerable increases in East Texas delivery capacity would be necessary to realize the full yield gain potential under system operation. Tables 3-19 and 3-20 and Figures 3-18 and 3-19 summarize the estimated yield gains of the East Texas Reservoir System, assuming 2050 sediment accumulation conditions, under safe yield and firm yield operations, respectively.

[27] F&N and APAI, Op. Cit., 1990.

Table 3-17.
System Safe Yield at Various Overdraft/Underdraft Trigger Levels[1]
2015 Sediment Accumulation

Overdraft/ Underdraft Trigger[2] (% of system capacity)	System Yield (acft/yr)	Potential Increase in System Diversion Beyond Safe Yield[3] (acft/yr)	Potential Increase in System Diversion Beyond Permits[4] (acft/yr)	Maximum Monthly Diversion at Cedar Creek Reservoir (acft/mo)	Maximum Monthly Diversion at Richland-Chambers Reservoir (acft/mo)
90%	349,200	6,000 (2%)	0	20,047	22,209
80%	350,800	7,600 (2%)	0	20,233	23,191
70%	354,700	11,500 (3%)	0	20,660	24,640
60%	362,200	19,000 (6%)	0	21,166	27,757
50%	362,600	19,400 (6%)	0	20,926	30,074
40%	358,000	14,800 (4%)	0	19,441	33,538
30%	351,400	8,200 (2%)	0	18,098	34,058
20%	347,100	3,900 (1%)	0	17,194	34,036

1 Based on drought reserves of 157,000 acft and 197,000 acft in Cedar Creek Reservoir and Richland-Chambers Reservoir, respectively.

2 Percent of system storage above which Cedar Creek Reservoir is overdrafted and below which Richland-Chambers Reservoir is overdrafted.

3 Yield increase based on projected safe yield of 148,000 acft/yr and 195,200 acft/yr at Cedar Creek Reservoir and Richland-Chambers Reservoir, respectively, under 2015 sediment conditions (see Section 3.2.2, Changes in Reservoir Drought Supply Reserves).

4 Yield increase based on permitted diversion of 175,000 acft/yr and 210,000 acft/yr at Cedar Creek Reservoir and Richland-Chambers Reservoir, respectively.

Review of Figure 3-2 indicates that a system operation with an overdraft/underdraft trigger of 50 to 60 percent of system capacity provides the largest increase in yield, an increase of approximately 19,000 acft/yr over the projected safe yield of the two reservoirs in 2015. This observation is based strictly on hydrologic considerations and does not include associated costs of the delivery facilities needed to obtain this yield increase. While the associated firm yield operations curve for 2015 (Figure 3-3) does not have the same apparent optimum, operating at the 50 percent trigger (the hydrologic optimum under safe yield operations) provides approximately 90 percent of the maximum potential yield increase. Therefore, a system overdraft/underdraft trigger of 50 percent in 2015 is approximately hydrologically optimal under either safe or firm operations.

Table 3-18.
System Firm Yield at Various Overdraft/Underdraft Trigger Levels[1]
2015 Sediment Accumulation

Overdraft/ Underdraft Trigger[2] (% of system capacity)	System Yield (acft/yr)	Potential Increase in System Diversion Beyond Firm Yield[3] (acft/yr)	Potential Increase in System Diversion Beyond Permits[4] (acft/yr)	Maximum Monthly Diversion at Cedar Creek Reservoir (acft/mo)	Maximum Monthly Diversion at Richland-Chambers Reservoir (acft/mo)
90%	439,900	6,400 (1%)	54,900 (14%)	28,577	25,753
80%	445,100	11,600 (3%)	60,100 (16%)	29,155	26,784
70%	448,500	15,000 (3%)	63,500 (16%)	29,536	28,633
60%	449,500	16,000 (4%)	64,500 (17%)	29,652	30,668
50%	452,000	18,500 (4%)	67,000 (17%)	29,919	34,321
40%	452,400	18,900 (4%)	67,400 (18%)	29,966	41,140
30%	453,700	20,200 (5%)	68,700 (18%)	29,435	44,107
20%	454,500	21,000 (5%)	69,500 (18%)	31,215	50,400

1 Based on drought reserves of 0 acft in both Cedar Creek Reservoir and Richland-Chambers Reservoir.
2 Percent of system storage above which Cedar Creek Reservoir is overdrafted and below which Richland-Chambers Reservoir is overdrafted.
3 Yield increase based on projected firm yield of 205,200 acft/yr and 228,300 acft/yr at Cedar Creek Reservoir and Richland-Chambers Reservoir, respectively, under 2015 sediment conditions (see Section 3.2.2, Changes in Reservoir Drought Supply Reserves).
4 Yield increase based on permitted diversion of 175,000 acft/yr and 210,000 acft/yr at Cedar Creek Reservoir and Richland-Chambers Reservoir, respectively.

Similarly, the results under 2050 sediment conditions (Figure 3-4) indicate the optimum safe yield increase is about 3,000 acft/yr (based solely on hydrologic considerations) at a system trigger of 50 percent. A 50 percent trigger on the 2050 firm yield curve (Figure 3-5) increases the system yield by 17,900 acft/yr (approximately 85 percent of the 2050 maximum potential yield increase). It should be noted that under 2050 sediment conditions, the combined reservoir storage has decreased to the point where there is little to be gained under a systems operation and safe yield assumptions (including drought reserves). However, if the District switches to a firm yield operation and a systems reservoir drafting approach, the system can still produce yields in 2050 that are in excess of the sum of the presently permitted diversions at each reservoir.

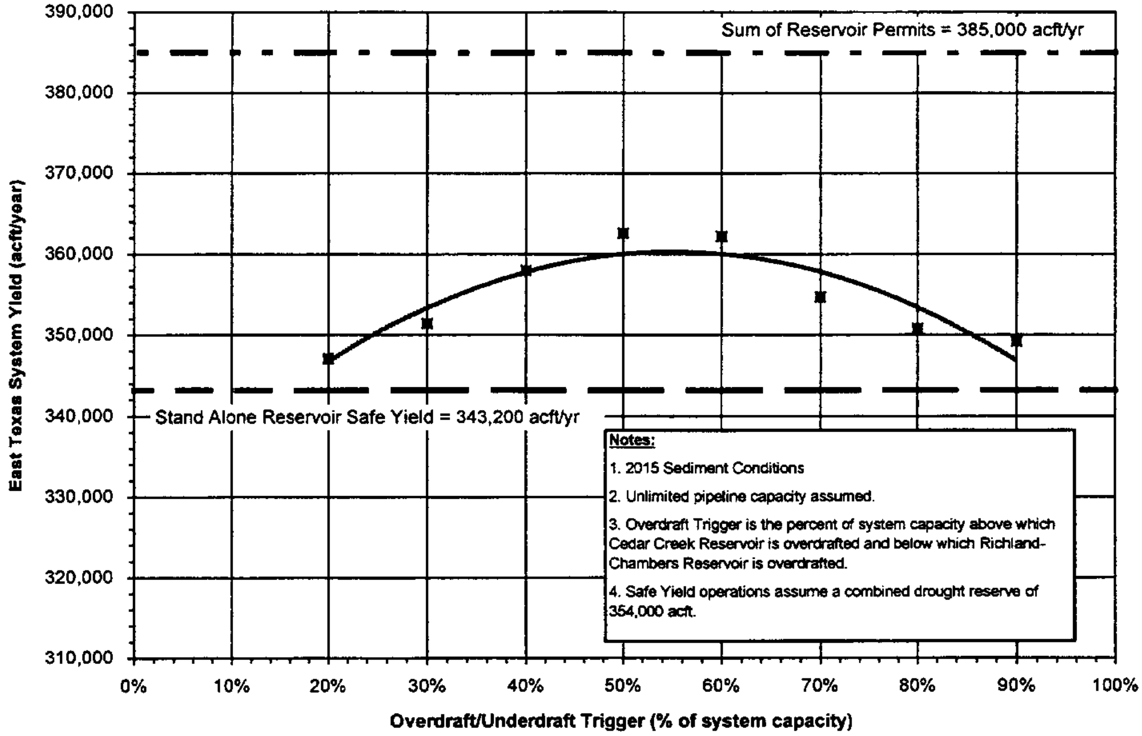

Figure 3-16. East Texas Reservoir System
System Safe Yield vs. Overdraft/Underdraft Trigger
2015 Sediment Accumulation

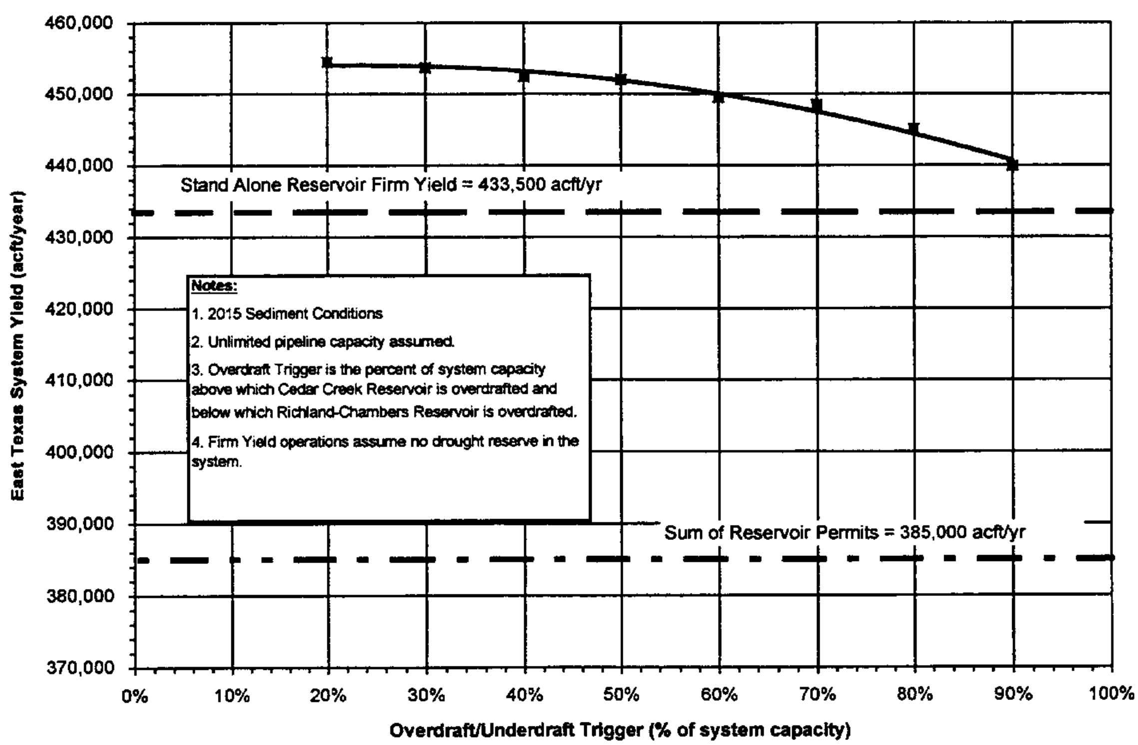

Figure 3-17. East Texas Reservoir System
System Firm Yield vs. Overdraft/Underdraft Trigger
2015 Sediment Accumulation

Table 3-19.
System Safe Yield at Various Overdraft/Underdraft Trigger Levels[1]
2050 Sediment Accumulation

Overdraft/ Underdraft Trigger[2] (% of system capacity)	*System Yield (acft/yr)*	*Potential Increase in System Diversion Beyond Safe Yield[3] (acft/yr)*	*Potential Increase in System Diversion Beyond Permits[4] (acft/yr)*	*Maximum Monthly Diversion at Cedar Creek Reservoir (acft/mo)*	*Maximum Monthly Diversion at Richland-Chambers Reservoir (acft/mo)*
90%	312,500	2,500 (1%)	0	16,559	19,709
80%	312,700	2,700 (1%)	0	16,574	20,062
70%	312,700	2,700 (1%)	0	16,580	20,181
60%	312,800	2,800 (1%)	0	16,589	20,977
50%	313,000	3,000 (1%)	0	16,604	21,893
40%	312,900	2,900 (1%)	0	15,928	23,580
30%	312,900	2,900 (1%)	0	15,694	24,695
20%	312,600	2,600 (1%)	0	15,272	25,680

1 Based on drought reserves of 157,000 acft and 197,000 acft in Cedar Creek Reservoir and Richland-Chambers Reservoir, respectively.

2 Percent of system storage above which Cedar Creek Reservoir is overdrafted and below which Richland-Chambers Reservoir is overdrafted.

3 Yield increase based on projected safe yield of 135,600 acft/yr and 174,400 acft/yr at Cedar Creek Reservoir and Richland-Chambers Reservoir, respectively, under 2015 sediment conditions (see Section 3.2.2, Changes in Reservoir Drought Supply Reserves).

4 Yield increase based on permitted diversion of 175,000 acft/yr and 210,000 acft/yr at Cedar Creek Reservoir and Richland-Chambers Reservoir, respectively.

Costs of the pump station and/or pipeline facilities necessary to deliver additional yield or permitted diversions are also key elements to be considered in determining the optimum overdraft/underdraft trigger. These costs will need to be addressed, should this option eventually be considered, as a part of the District's long-range plan.

3.2.4.2 Implementation Issues

While the option of overdrafting/underdrafting the East Texas Reservoirs appears to be a potentially favorable option, providing approximately 43,600 acft/yr additional yield over the sum of the current East Texas permits, there are two major implementation issues that must be discussed. First, in order to produce the additional water, the capacity of the raw water pipelines from each reservoir must be increased considerably. As shown in the fifth and sixth columns of

Table 3-20.
System Firm Yield at Various Overdraft/Underdraft Trigger Levels[1]
2050 Sediment Accumulation

Overdraft/ Underdraft Trigger[2] (% of system capacity)	System Yield (acft/yr)	Potential Increase in System Diversion Beyond Firm Yield[3] (acft/yr)	Potential Increase in System Diversion Beyond Permits[4] (acft/yr)	Maximum Monthly Diversion at Cedar Creek Reservoir (acft/mo)	Maximum Monthly Diversion at Richland-Chambers Reservoir (acft/mo)
90%	409,700	0	24,700 (6%)	24,873	24,534
80%	414,700	4,000 (1%)	29,700 (8%)	25,435	25,096
70%	422,600	11,900 (3%)	37,600 (10%)	26,313	26,539
60%	427,000	16,300 (4%)	42,000 (11%)	26,795	28,152
50%	428,600	17,900 (4%)	43,600 (11%)	26,978	30,596
40%	431,000	20,300 (5%)	46,000 (12%)	27,243	35,382
30%	431,400	20,700 (5%)	46,400 (12%)	27,287	38,817
20%	431,500	20,800 (5%)	46,500 (12%)	27,302	47,875

1 Based on drought reserves of 0 acft in both Cedar Creek Reservoir and Richland-Chambers Reservoir.
2 Percent of system storage above which Cedar Creek Reservoir is overdrafted and below which Richland-Chambers Reservoir is overdrafted.
3 Yield increase based on projected firm yield of 193,800 acft/yr and 216,900 acft/yr at Cedar Creek Reservoir and Richland-Chambers Reservoir, respectively, under 2015 sediment conditions (see Section 3.2.2, Changes in Reservoir Drought Supply Reserves).
4 Yield increase based on permitted diversion of 175,000 acft/yr and 210,000 acft/yr at Cedar Creek Reservoir and Richland-Chambers Reservoir, respectively.

Table 3-19, the maximum monthly diversions needed when the associated reservoir is in overdrafting mode are very large. In fact, current capacity from East Texas would have to be increased by approximately 400 MGD to accommodate the peak pumping months. In addition to potentially expensive increases in pumping capacity, this option by its nature hinders the ability of the District to develop reuse water from the Trinity River by continually drawing down one of the two reservoirs. In order for the reuse project to meet it's operational criteria (Section 3.2.1), the reuse water is to be mixed with water in the reservoirs. In order to maintain the blending ratios (of reservoir water to reuse water) established by the operational criteria, the reservoirs should not be drawn down below the drought storage reserves. Under the overdrafting/ underdrafting operations, the ability of one or both of the reservoirs to accept reuse water would be limited most of the time. Other important implementation issues involve potential effect on recreation and fish habitat at the reservoir being overdrafted.

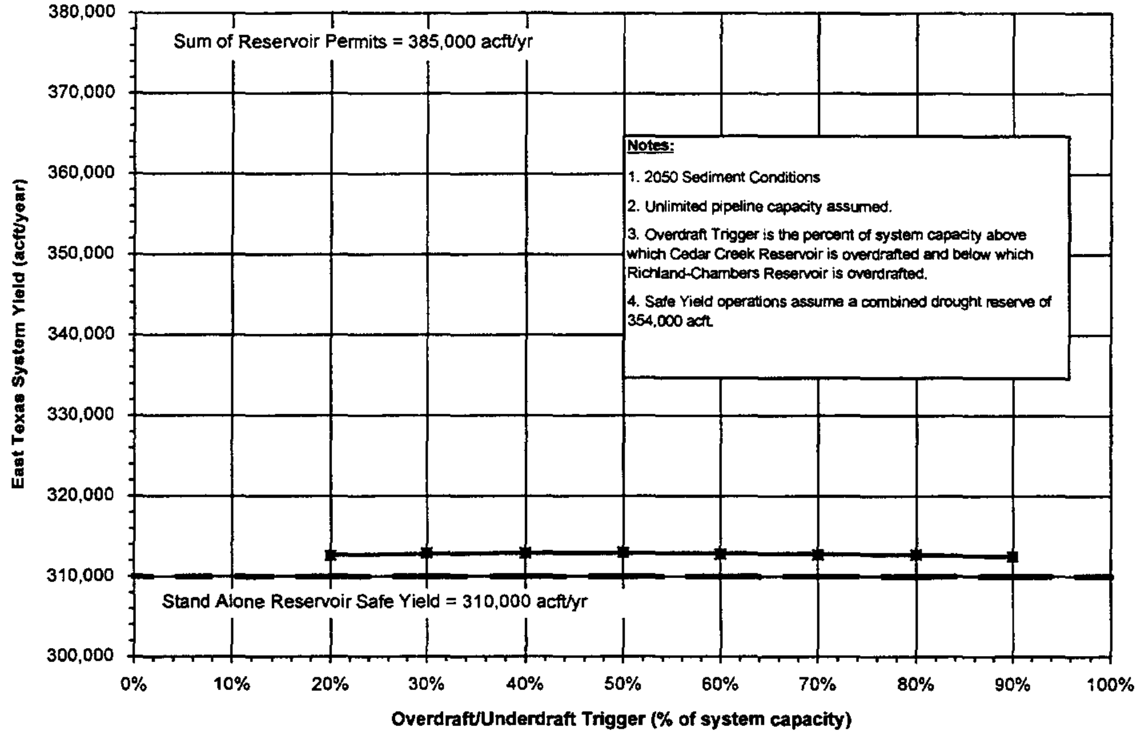

Figure 3-18. East Texas Reservoir System
System Safe Yield vs. Overdraft/Underdraft Trigger
2050 Sediment Accumulation

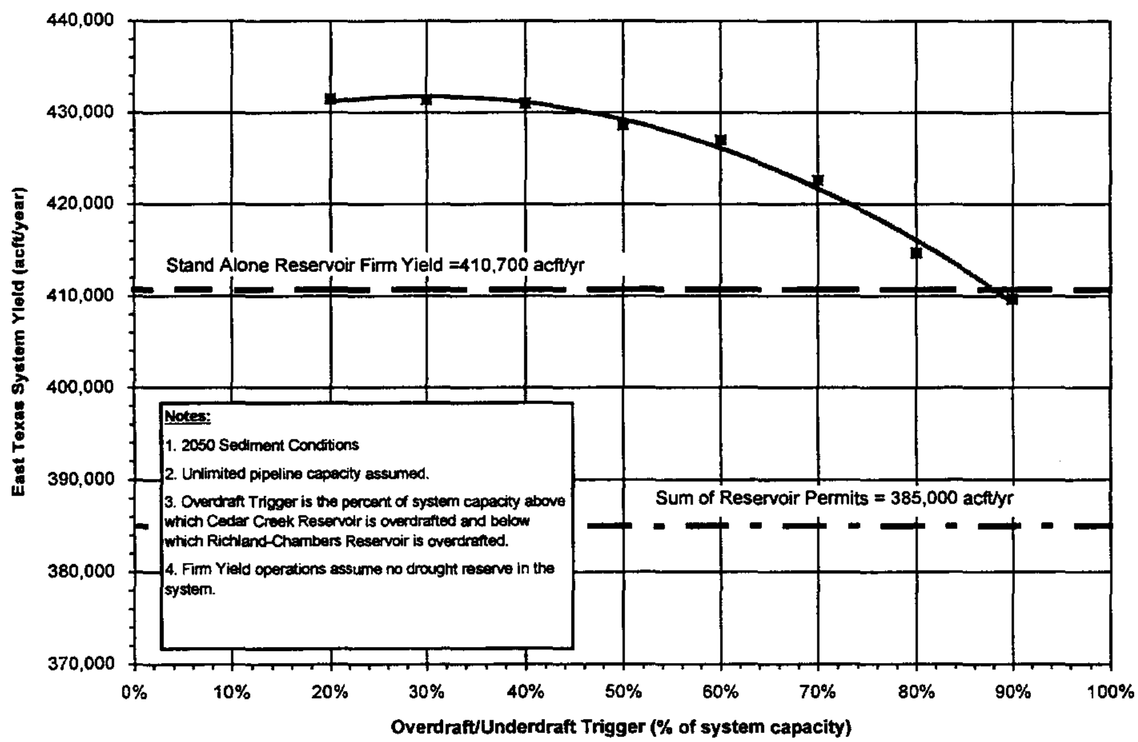

Figure 3-19. East Texas Reservoir System
System Firm Yield vs. Overdraft/Underdraft Trigger
2050 Sediment Accumulation

3.2.5 Changes in Reservoir Drought Supply Reserves

It has been the policy of the District to operate Cedar Creek Reservoir and Richland-Chambers Reservoir under a safe yield plan. Safe yield is defined as the volume of water that can be diverted each year such that the minimum volume remaining in the reservoir during the most severe drought on record approximates a one-year supply if diverted at the safe annual yield. The minimum volume of water remaining in the reservoir during the critical drought is referred to herein as the drought reserve. Under a firm yield operation plan, there is no drought reserve and the reservoir would be drawn down to approximately zero storage at the end of the critical month during the drought of record. It is generally understood that the District's West Fork System (Lake Bridgeport and Eagle Mountain Lake) is permitted for diversions in excess of its firm annual yield; however, permitted diversions from the East Texas Reservoirs (Cedar Creek Reservoir and Richland-Chambers Reservoir) provided for a drought reserve. Therefore, if the District chooses to reduce the drought reserves in the East Texas Reservoirs, there may be additional water available. If the gain in yield were sufficiently large, changes in drought reserves could delay the need for additional water supply sources. The purpose of this section is to quantify the potential yield increases available to the District should they reduce the drought reserves in the East Texas Reservoirs.

3.2.5.1 Modeling Methodologies and Data Refinement

In order to evaluate the yields potentially available if the drought reserves of Cedar Creek and/or Richland-Chambers Reservoirs are reduced, one must consider the fact that diversions in excess of the currently permitted amounts will require amendments to the existing water rights permits. Such amendments would necessitate evaluation of potential environmental impacts and of potential impacts to water rights junior to the original permit, but senior to the amendments. While evaluation of the latter is beyond the scope of this study, consideration of the former may be approximated using the Environmental Water Needs Criteria from the Consensus Planning Process conducted by the TWDB, TNRCC, and Texas Parks & Wildlife Department. A copy of the Environmental Water Needs Criteria and a memo to the TWDB explaining the method by which the criteria have been applied in this study can be found in Appendix F.

Review of the Environmental Water Needs Criteria indicates that pertinent streamflow statistics should be derived and reservoir operations should be simulated using a daily computational time interval. Since the District's existing model (TOM)[28] simulates system operations on a monthly timestep, it was necessary to use the TWDB's daily reservoir simulation model (SIMDLY) to complete the required yield analyses. SIMDLY input data includes an area-capacity table, daily inflows, monthly net evaporation rates, annual diversions, and a monthly diversion pattern. Current area-capacity tables for Cedar Creek Reservoir and Richland-Chambers Reservoir were obtained from reports[29,30] summarizing 1995 bathymetric surveys of the reservoirs. In addition, sediment accumulation rates reported in Appendix A and standard sediment distribution techniques[31] were used to develop estimated elevation-area-capacity tables for the years 2015 and 2050 for both reservoirs.

Total monthly inflows to the reservoirs adjusted for senior upstream water rights and monthly estimates of priority releases for downstream senior rights were obtained from detailed water rights analyses performed by R.J. Brandes Company[32] in conjunction with water rights permit applications being prepared for the District (see Appendix B). Priority releases are the waters that must be passed through upstream reservoirs during times of drought in order to allow senior water rights downstream to obtain as much of their full permitted diversion as possible. Hence, the total monthly inflows were adjusted to account for priority releases and prorated to daily inflows using available gaged streamflow records as summarized in Table 3-21.

Monthly net evaporation rates and diversion patterns used in SIMDLY for Cedar Creek Reservoir and Richland-Chambers Reservoir were obtained from the master datafiles for the TOM model. HDR confirmed that the net evaporation rates from the TOM model approximate those derived from the database maintained by the TWDB.

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[28] F&N, "Operation Model User's Manual," Tarrant County Water Control and Improvement District Number One, December, 1994.

[29] TWDB, "Volumetric Survey of Cedar Creek Reservoir," Tarrant County Water Control and Improvement District Number One, July 31, 1995.

[30] TWDB, "Volumetric Survey of Richland-Chambers Reservoir," Tarrant County Water Control and Improvement District Number One, March 31, 1995.

[31] Borland, W.M. and Miller, C.R., "Distribution of Sediment in Large Reservoirs," Journal of the Hydraulics Division, Proceedings of the American Society of Civil Engineers, Vol. 84, No. HY2, April, 1958.

[32] RJ Brandes Company

Table 3-21.
Daily Proration of Monthly Inflows to
Cedar Creek Reservoir and Richland-Chambers Reservoir

Cedar Creek Reservoir	
Period of Record	**USGS Gages Used to Prorate Monthly Data**
Jan, 1941 to Jan, 1966	Gage No. 08063000, Cedar Creek @ Mabank
Feb, 1966 to Dec, 1981	Gage No. 08062800, Cedar Creek @ Kemp[1] Gage No. 08062900, Kings Creek @ Kaufman[1]
Richland-Chambers Reservoir	
Period of Record	**USGS Gages Used to Prorate Monthly Data**
Jan, 1941 to Feb, 1972	Gage No. 08063500, Richland Creek @ Richland[1] Gage No. 08064500, Chambers Creek @ Corsicana[1]
Mar, 1972 to Dec, 1981	Gage No. 08064600, Richland Creek @ Fairfield
1 For periods with two gages, the daily streamflow percent = $(Q1_{DAY} + Q2_{DAY}) * 100 / (Q1_{MONTH} + Q2_{MONTH})$	

3.2.5.2 Yield Analyses

Daily reservoir contents simulation models have been developed for both of the East Texas Reservoirs, Cedar Creek Reservoir and Richland-Chambers Reservoir. Current operation of the reservoirs is based on maintenance of drought reserve volumes of 157,000 acft and 197,000 acft in Cedar Creek Reservoir and Richland-Chambers Reservoir, respectively, during the critical drought.[33,34] In order to set a baseline, contents simulations subject to full permitted diversions were performed and the resulting spills tabulated. These baseline spill files and the previously described daily priority releases were combined to represent daily flows below each reservoir. In accordance with the Environmental Water Needs Criteria discussed in Appendix F, daily flow statistics were computed for each month. Summaries of these statistics are presented in Tables 3-22 and 3-23 for Cedar Creek Reservoir and Richland-Chambers Reservoir, respectively. In addition, the minimum water quality standard flows estimated as the two-year seven-day low flows (7Q2's) were computed for the stream reaches immediately downstream of both reservoirs. These flow rates were computed to be 0 cfs and 5 cfs for Cedar Creek Reservoir and Richland-Chambers Reservoir, respectively.

[33] F&N and APAI, Op. Cit., 1990.
[34] Letter to Mr. Tony Bagwell, TWDB, March 14, 1996, from James Oliver, Tarrant County WCID No. 1.

Table 3-22.
Daily Baseline Flow Statistics below Cedar Creek Reservoir[1]

Month	Minimum Flow (cfs)	25th percentile (cfs)	Median Flow (cfs)	75th Percentile (cfs)	Maximum Flow (cfs)
January	0	0	0	0	16,376
February	0	0	0	0	32,425
March	0	0	0	0	53,961
April	0	0	0	0	42,486
May	0	0	0	0	73,216
June	0	0	0	0	28,700
July	0	0	0	0	21,090
August	0	0	0	1.0[2]	54
September	0	0	0	0	6
October	0	0	0	0	8,427
November	0	0	0	0	20,732
December	0	0	0	0	36,992

1 Cedar Creek Reservoir operated for period of record 1941 to 1981 under current permitted diversion of 175,000 acft/yr. Flows include spills and priority releases.
2 Priority releases occur most frequently in August.

Using the data in Tables 3-22 and 3-23, the 7Q2's, and the environmental criteria (Appendix F) the release requirements for any additional yield above the permitted diversions from the East Texas Reservoirs were established. Review of the data presented in Table 3-22 shows that Cedar Creek flows downstream of the reservoir are zero at least 75 percent of the time. Therefore, no additional environmental flow passage would be required (under the assumed criteria) for Cedar Creek Reservoir yield greater than the currently permitted diversion. Likewise, at Richland-Chambers Reservoir, the environmental flows under the assumed criteria are equal to the minimum release currently required from the dam (5 cfs, as dictated in the U.S. Army Corps of Engineers' 404 Permit) at least 75 percent of the time. Therefore, only the existing minimum release requirement of 5 cfs for Richland-Chambers Reservoir was used in all simulations (even if the yield was greater than the permitted diversion).

Table 3-23.
Daily Baseline Flow Statistics below Richland-Chambers Reservoir[1]

Month	Minimum Flow (cfs)	25th percentile (cfs)	Median Flow (cfs)	75th Percentile (cfs)	Maximum Flow (cfs)
January	5	5	5	5	46,529
February	5	5	5	5	26,420
March	5	5	5	12.0	80,035
April	5	5	5	36.0	62,266
May	5	5	5	688.0[2]	78,531
June	5	5	5	5	33,722
July	5	5	5	5	18,321
August	5	5	5	5	28
September	5	5	5	5	21,208
October	5	5	5	5	12,361
November	5	5	5	5	26,209
December	5	5	5	5	19,775

1 Richland-Chambers Reservoir operated for period of record 1941 to 1981 under current permitted diversion of 210,000 acft/yr. Flows include spills and priority releases.
2 Spills occur most frequently in May.

A series of reservoir contents simulations were run to evaluate the potential yields of Cedar Creek Reservoir and Richland-Chambers Reservoir at reduced volumes of drought reserve. The series of runs was bounded by the yield computed with the current drought reserves (157,000 acft for Cedar Creek Reservoir and 197,000 acft for Richland-Chambers Reservoir) and the yield with a drought reserve volume of 0 acft (firm yield). Tables 3-24 through 3-26 and Figures 3-20 through 3-22 summarize the estimated yields of Cedar Creek Reservoir for 1995, 2015, and 2050 sediment accumulation conditions, respectively. Similarly, the results of the yield calculations for Richland-Chambers Reservoir are summarized in Tables 3-27 through 3-29 and Figures 3-23 though 3-25 for 1995, 2015, and 2050 sediment accumulation conditions, respectively.

Table 3-24.
Reservoir Yields at Various Drought Reserve Storages
Cedar Creek Reservoir
1995 Sediment Accumulation

Drought Reserve Volume (acft)	Reservoir Yield (acft/yr)	Potential Increase in Permitted Diversion (acft/yr) [1]
157,000	154,900	0
125,600	166,100	0
94,200	177,400	0
62,800	188,700	2,400 (1%)
31,400	200,000	13,700 (8%)
0	211,700	36,700 (21%)

[1] Based on comparison with permitted diversion of 175,000 acft/yr.

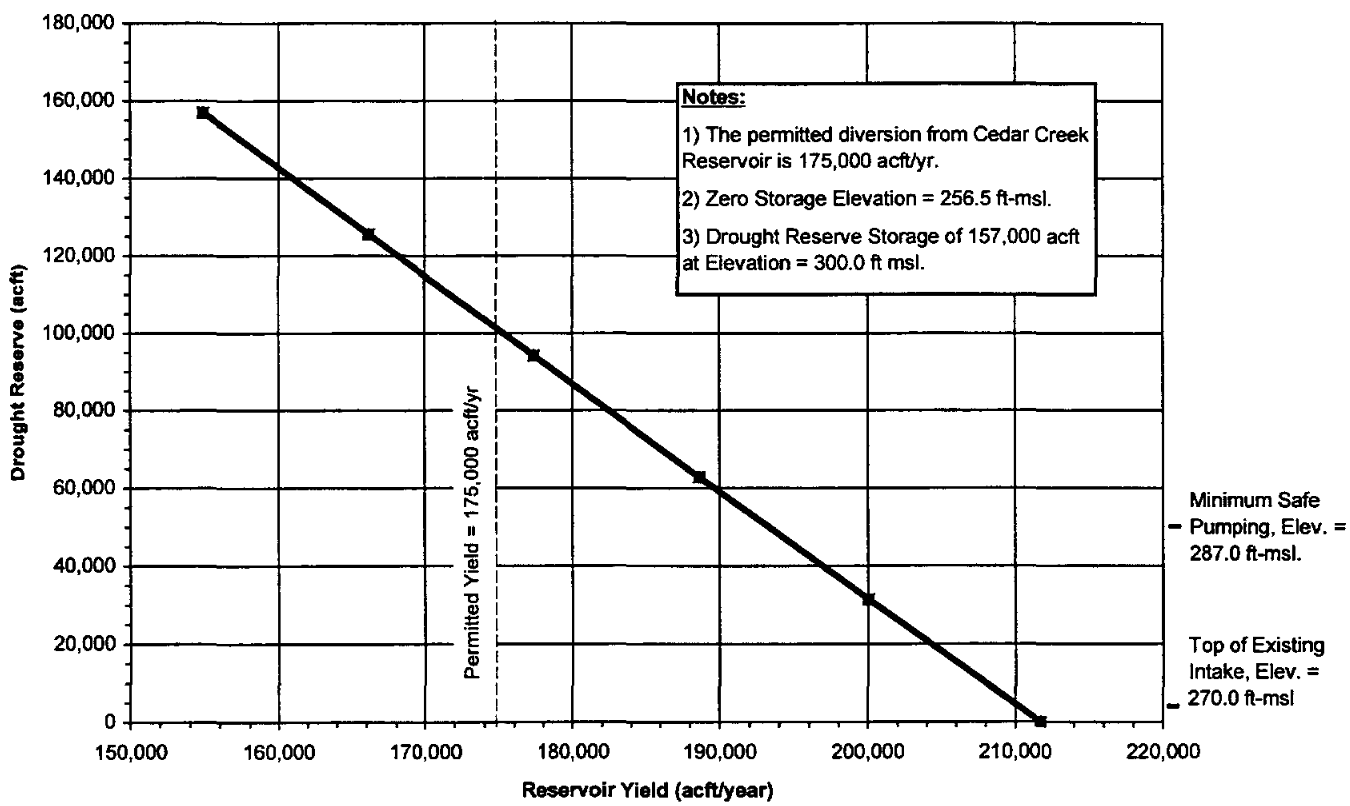


Figure 3-20. Reservoir Yield vs. Drought Reserve
Cedar Creek Reservoir – 1995 Sediment Accumulation

Table 3-25.
Reservoir Yields at Various Drought Reserve Storages
Cedar Creek Reservoir
2015 Sediment Accumulation

Drought Reserve Volume (acft)	Reservoir Yield (acft/yr)	Potential Increase in Permitted Diversion (acft/yr) [1]
157,000	148,000	0
125,600	159,300	0
94,200	170,600	0
62,800	182,000	7,000 (4%)
31,400	193,500	18,500 (11%)
0	205,200	30,200 (17%)

[1] Based on comparison with permitted diversion of 175,000 acft/yr.

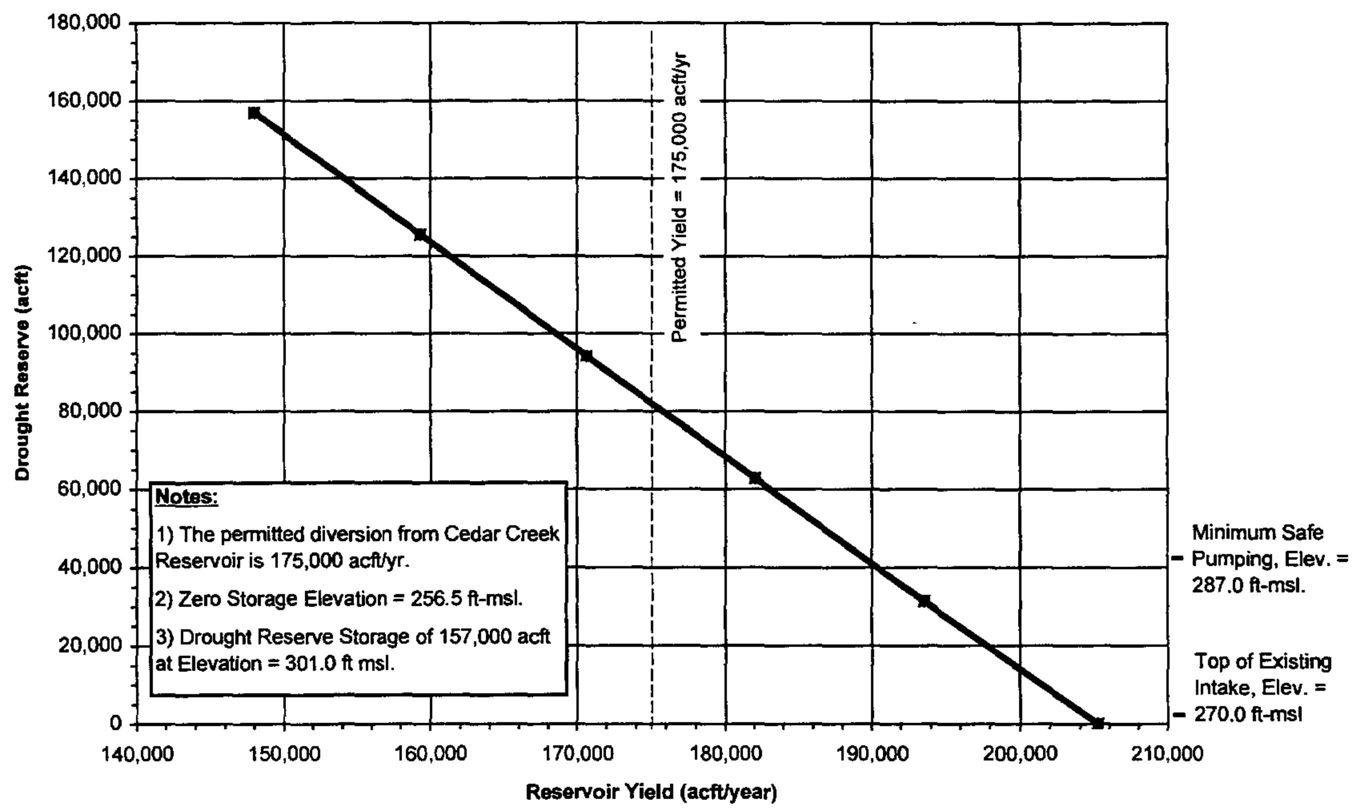


Figure 3-21. Reservoir Yield vs. Drought Reserve
Cedar Creek Reservoir – 2015 Sediment Accumulation

Table 3-26.
Reservoir Yields at Various Drought Reserve Storages
Cedar Creek Reservoir
2050 Sediment Accumulation

Drought Reserve Volume (acft)	Reservoir Yield (acft/yr)	Potential Increase in Permitted Diversion (acft/yr) [1]
157,000	135,600	0
125,600	147,100	0
94,200	158,700	0
62,800	170,300	0
31,400	181,900	6,900 (4%)
0	193,800	18,800 (11%)

[1]Based on comparison with permitted diversion of 175,000 acft/yr.

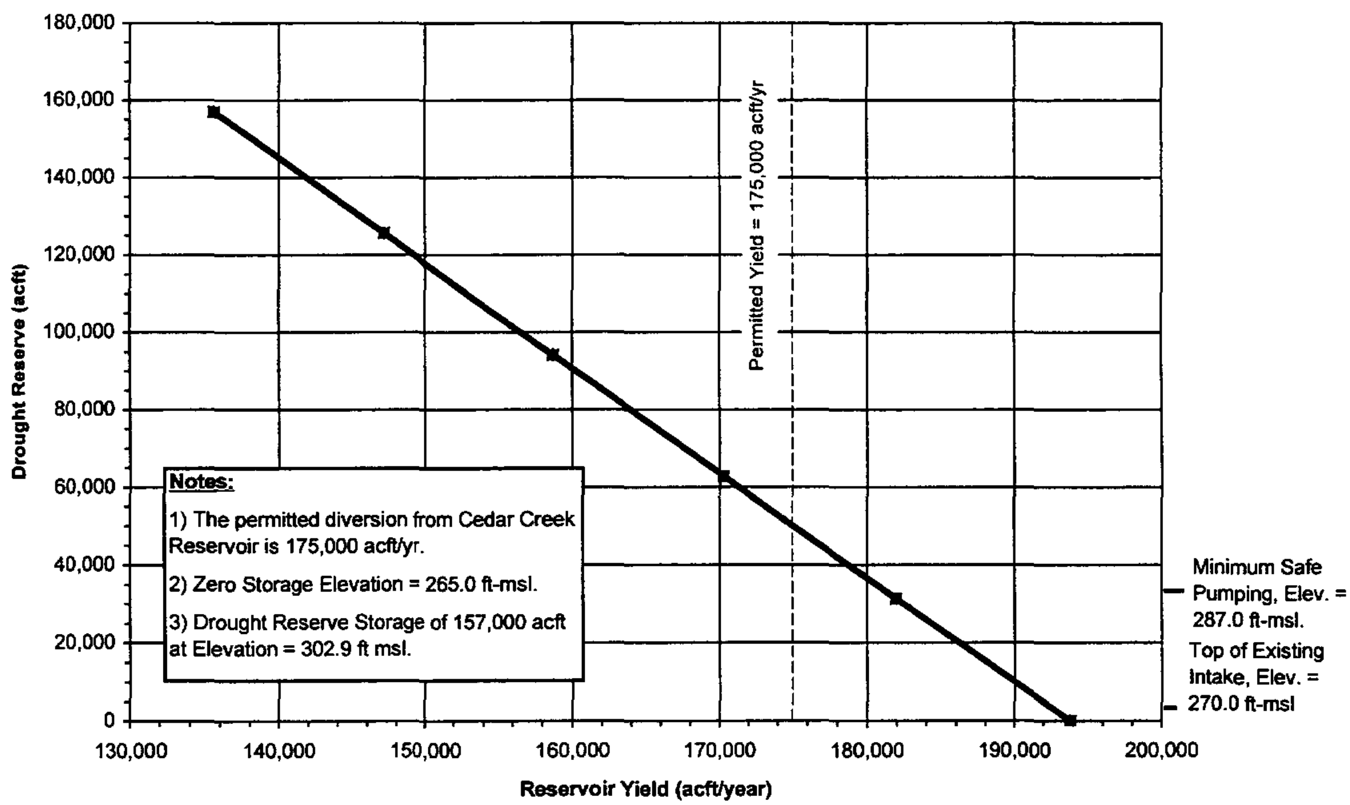


Figure 3-22. Reservoir Yield vs. Drought Reserve
Cedar Creek Reservoir – 2050 Sediment Accumulation

Table 3-27.
Reservoir Yields at Various Drought Reserve Storages
Richland-Chambers Reservoir
1995 Sediment Accumulation

Drought Reserve Volume (acft)	Reservoir Yield (acft/yr)	Potential Increase in Permitted Diversion (acft/yr) [1]
197,000	202,100	0
157,600	208,400	0
118,200	214,800	4,800 (2%)
78,800	221,300	11,300 (5%)
39,400	227,900	17,900 (9%)
0	234,700	24,700 (12%)

1 Based on comparison with permitted diversion of 210,000 acft/yr.

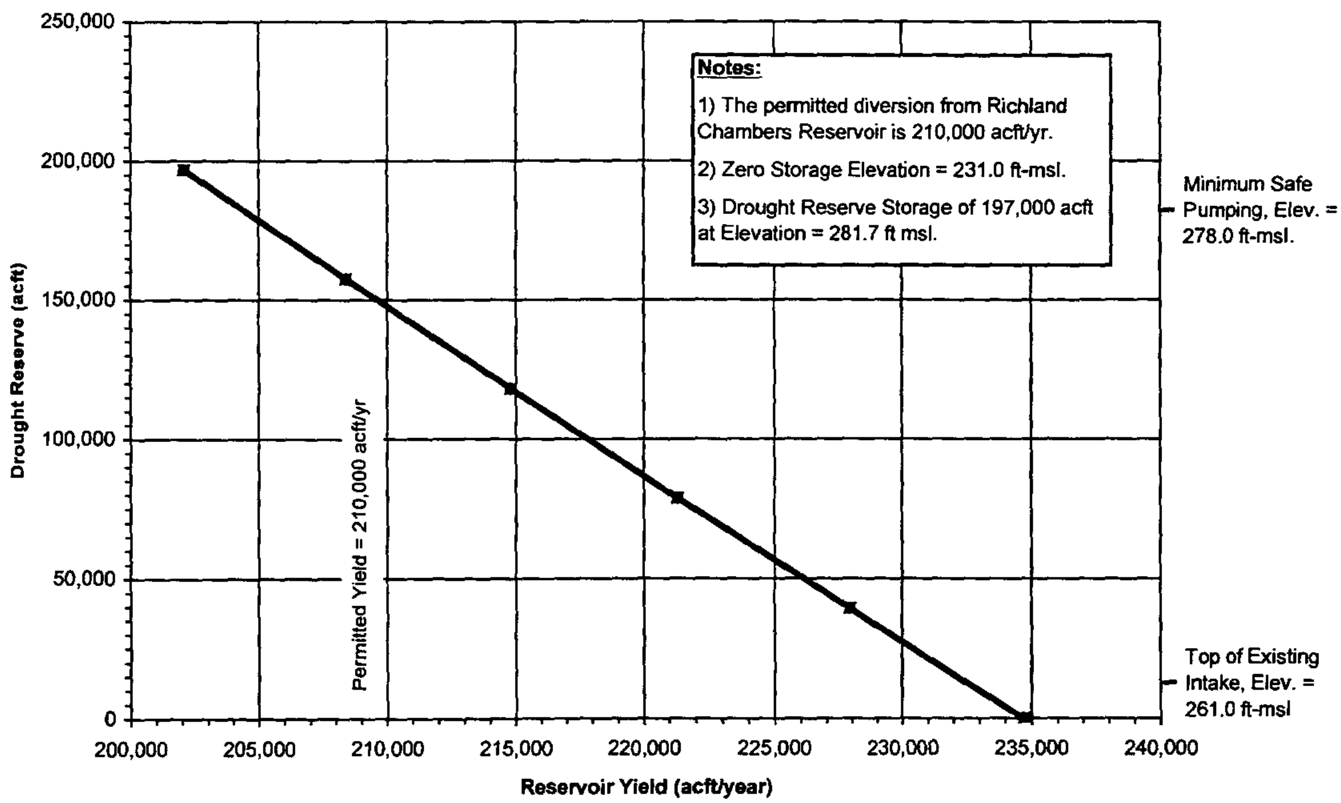


Figure 3-23. Reservoir Yield vs. Drought Reserve
Richland-Chambers Reservoir – 1995 Sediment Accumulation

Table 3-28.
Reservoir Yields at Various Drought Reserve Storages
Richland-Chambers Reservoir
2015 Sediment Accumulation

Drought Reserve Volume (acft)	Reservoir Yield (acft/yr)	Potential Increase in Permitted Diversion (acft/yr) [1]
197,000	195,200	0
157,600	201,600	0
118,200	208,100	0
78,800	214,700	4,700 (2%)
39,400	221,400	11,400 (5%)
0	228,300	18,300 (9%)

[1] Based on comparison with permitted diversion of 210,000 acft/yr.

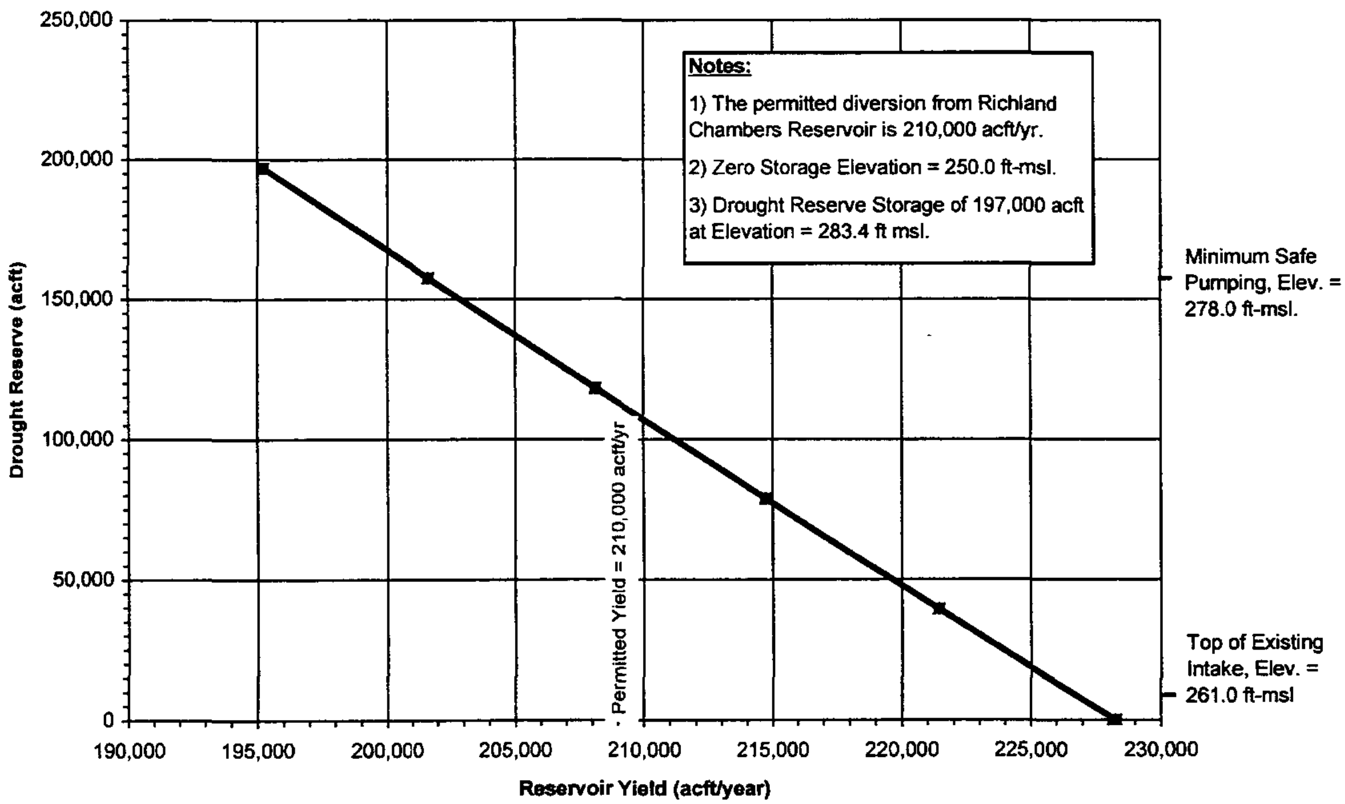


Figure 3-24. Reservoir Yield vs. Drought Reserve Richland-Chambers Reservoir – 2015 Sediment Accumulation

Table 3-29.
Reservoir Yields at Various Drought Reserve Storages
Richland-Chambers Reservoir
2050 Sediment Accumulation

Drought Reserve Volume (acft)	Reservoir Yield (acft/yr)	Potential Increase in Permitted Diversion (acft/yr) [1]
197,000	174,400	0
157,600	187,700	0
118,200	196,000	0
78,800	202,900	0
39,400	209,900	0
0	216,900	6,900 (3%)

1 Based on comparison with permitted diversion of 210,000 acft/yr.

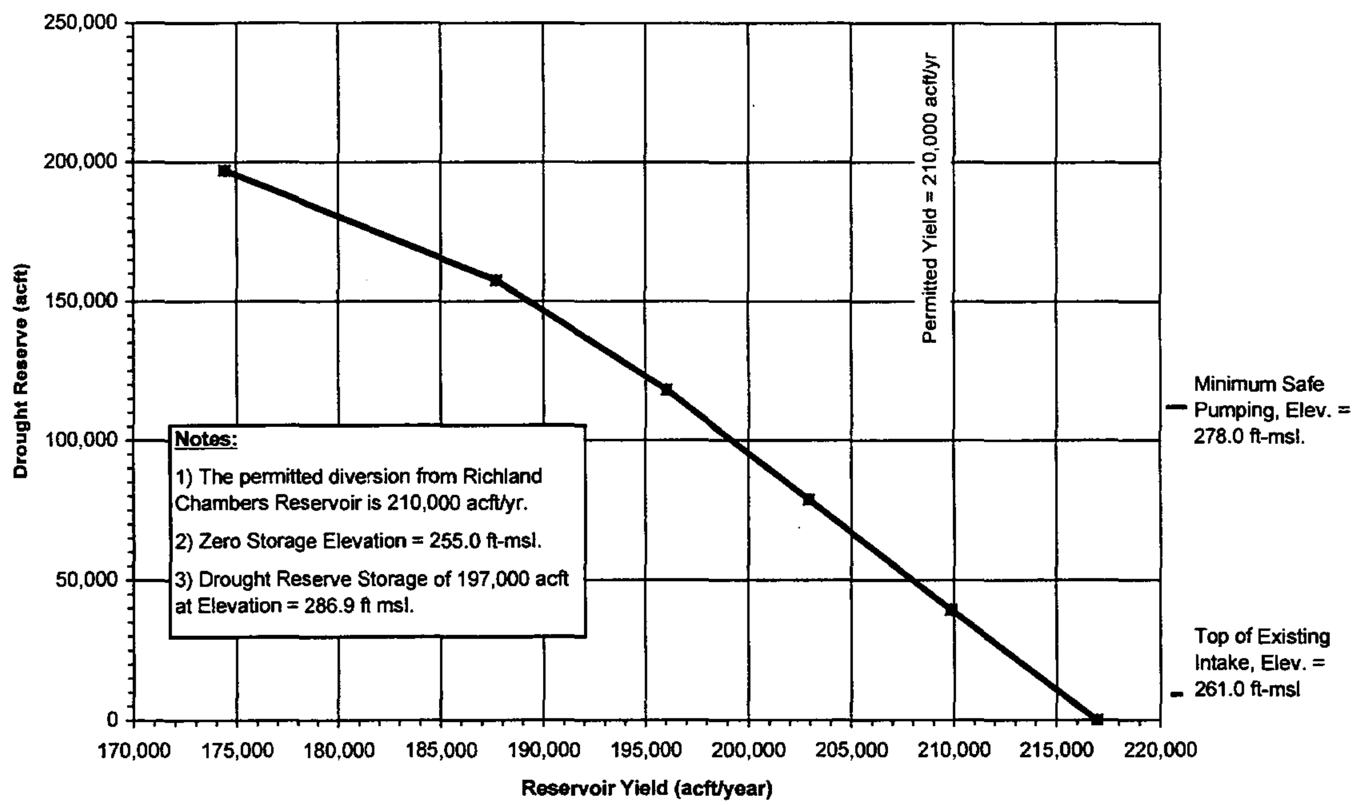


Figure 3-25. Reservoir Yield vs. Drought Reserve Richland-Chambers Reservoir – 2050 Sediment Accumulation

As discussed in Appendix A, there is some uncertainty regarding the sediment accumulation rate in Richland-Chambers Reservoir due to the relatively short time Richland-Chambers Reservoir has been in operation, relatively wet conditions during that time period, and some questions about the original elevation-area-capacity relationship. The yields for Richland-Chambers Reservoir presented in Tables 3-27 through 3-29 were based on an "average" sediment accumulation rate of 2.65 acft per square-mile per year. This rate is comparable to those for other primarily Blackland Prairie watersheds controlled by reservoirs for which the interval between sediment surveys exceeds the period Richland-Chambers Reservoir has been in operation. Based on the TWDB 1995 bathymetric survey and the original elevation-area-capacity relationship, a higher sediment accumulation rate of 3.41 acft per square mile per year was computed. In order to evaluate the potential impact of this higher rate on the yield of Richland-Chambers Reservoir, a second series of yield computations were completed for Richland-Chambers Reservoir. The results of these computations are summarized in Tables 3-30 and 3-31 and in Figures 3-26 and 3-27.

As shown in Figure 3-26, the impact of the higher sediment accumulation rate on yield at various drought reserve volumes is relatively small over the next 15 to 20 years. However, by 2050, the difference ranges from approximately 14,200 acft/yr at a drought reserve volume of 197,000 acft to approximately 5,300 acft/yr with zero drought reserve (firm yield). An additional bathymetric survey should be performed at Richland-Chambers Reservoir within the next 15 to 20 years in order to refine the sediment accumulation rate, especially if the current policy of maintaining a drought reserve is continued.

The yield analyses summarized in this section indicate that the District may be unable to obtain the currently authorized diversion of 210,000 acft/yr from Richland-Chambers Reservoir by the year 2050, while still maintaining drought reserves. This conclusion is primarily the result of full consideration of upstream water rights and potential sediment accumulation rates (average or high) which are well in excess of those expected during project development. Intake facilities at Richland-Chambers Reservoir will likely need to be modified so that more of the reservoir pool is accessible during severe drought in order to ensure that diversions approximating the permitted amounts can be obtained in the future.

Table 3-30.
Reservoir Yields at Various Drought Reserve Storages
Richland-Chambers Reservoir
2015 Sediment Accumulation

Drought Reserve Volume (acft)	Reservoir Yield Assuming Average Sediment Accumulation[1] (acft/yr)	Reservoir Yield Assuming High Sediment Accumulation[2] (acft/yr)	Difference in Reservoir Yield Due to Sediment Accumulation Rate (acft/yr)
197,000	195,200	193,200	2,000
157,600	201,600	199,700	1,900
118,200	208,100	206,200	1,900
78,800	214,700	212,900	1,800
39,400	221,400	219,600	1,800
0	228,300	226,500	1,800

1 Average Sediment Accumulation Rate = 2.65 acft per square-mile per year.
2 High Sediment Accumulation Rate = 3.41 acft per square-mile per year.

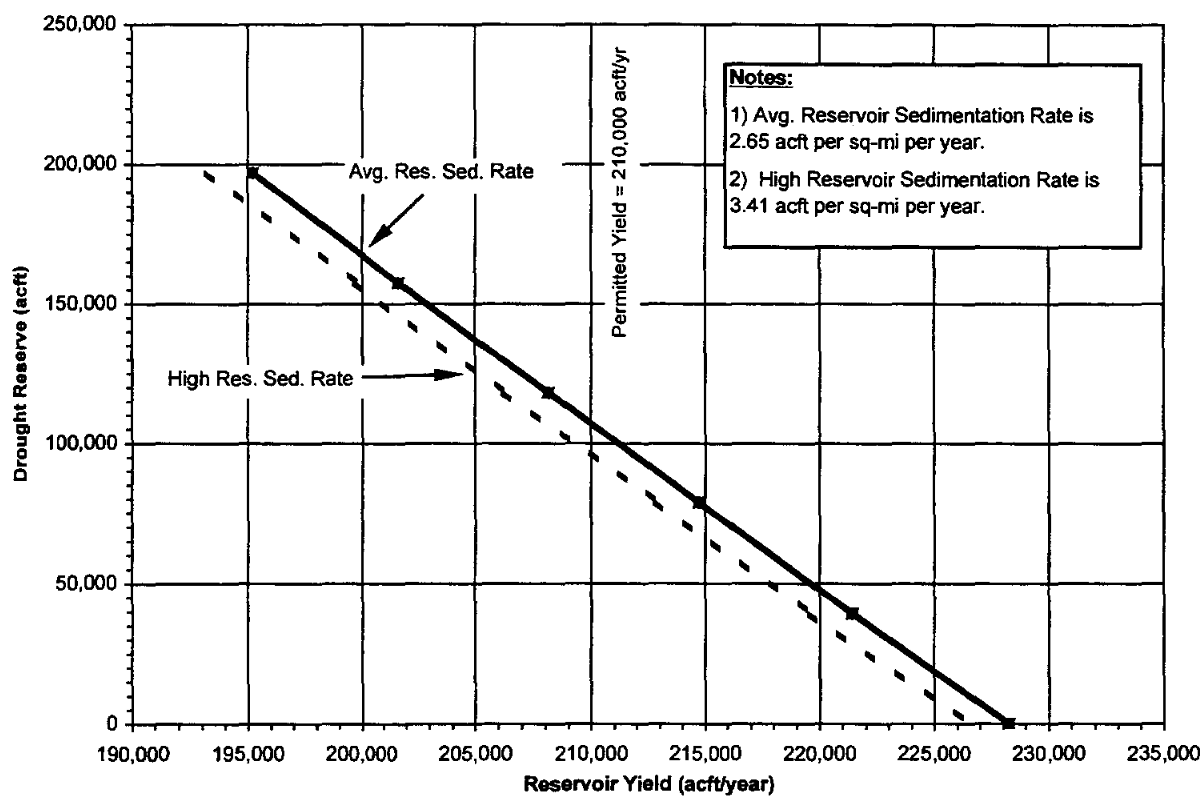


Figure 3-26. Reservoir Yield vs. Drought Reserve – Richland-Chambers Reservoir Sensitivity of Yield to Sedimentation Rate – 2015 Sediment Accumulation

Table 3-31.
Reservoir Yields at Various Drought Reserve Storages
Richland-Chambers Reservoir
2050 Sediment Accumulation

Drought Reserve Volume (acft)	Reservoir Yield Assuming Average Sediment Accumulation [1] (acft/yr)	Reservoir Yield Assuming High Sediment Accumulation [2] (acft/yr)	Difference in Reservoir Yield Due to Sediment Accumulation Rate (acft/yr)
197,000	174,400	159,800	14,600
157,600	187,700	173,300	11,400
118,200	196,000	186,700	9,300
78,800	202,900	197,100	5,800
39,400	209,900	204,300	5,600
0	216,900	211,600	5,300

1 Average Sediment Accumulation Rate = 2.65 acft per square-mile per year.
2 High Sediment Accumulation Rate = 3.41 acft per square-mile per year.

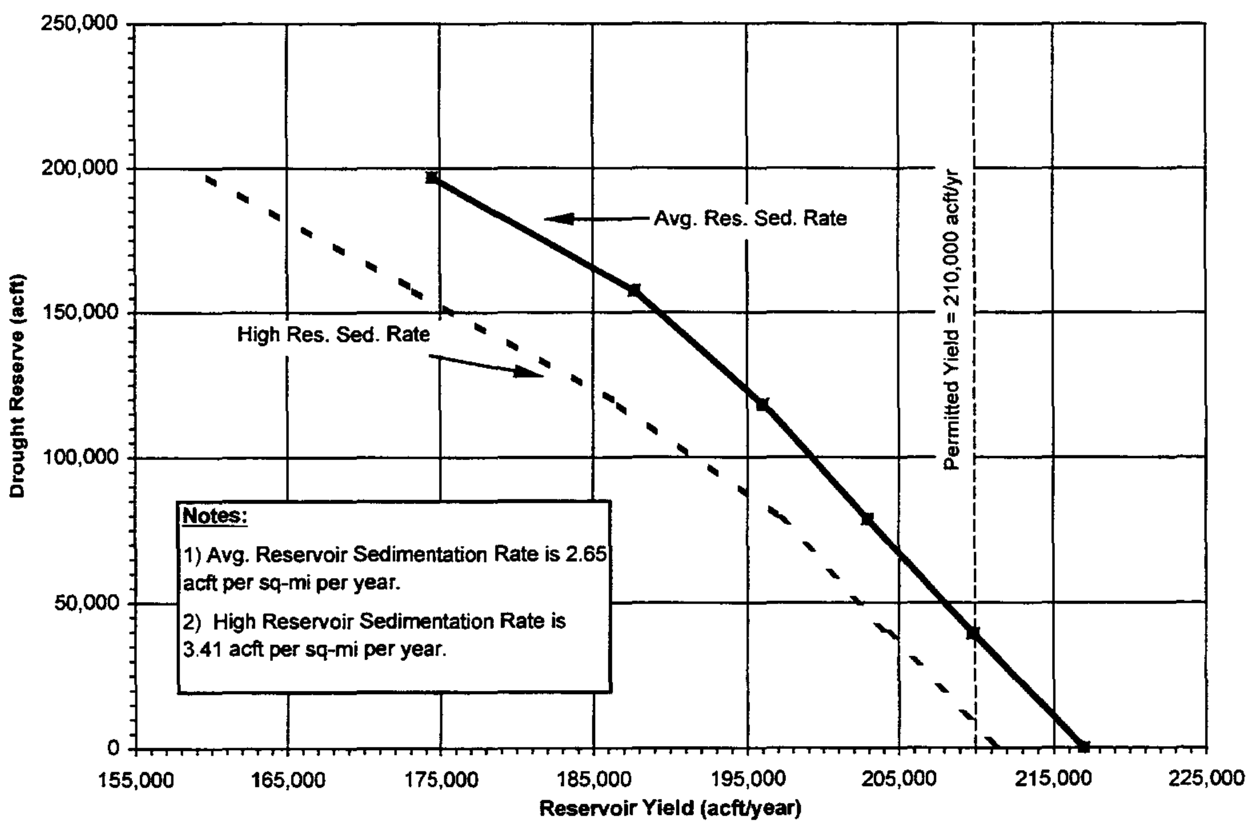


Figure 3-27. Reservoir Yield vs. Drought Reserve – Richland-Chambers Reservoir Sensitivity of Yield to Sedimentation Rate – 2050 Sediment Accumulation

By contrast, additional yield may be available from Cedar Creek Reservoir with the reduction of its drought reserve. Even with full consideration of upstream water rights senior to Cedar Creek Reservoir and higher than expected sediment accumulation rates, up to 18,800 acft/yr of additional yield might be available through 2050 with greater amounts potentially available in the interim. In order to access this additional supply, however, amendment of the Cedar Creek Reservoir permit and modification of the existing intake facilities would be required.

3.2.5.3 Implementation Issues

In order to develop the option of reducing drought reserves in the East Texas Reservoirs, the District will potentially need to modify the existing intakes at both Cedar Creek Reservoir and Richland-Chambers Reservoir. Currently, the crowns of the intake conduits are at elevations 270.0 ft-msl at Cedar Creek Reservoir and 261.0 ft-msl at Richland-Chambers Reservoir. In addition, the pumps at each facility need approximately 17 feet of submergence to safely operate. At these minimum elevations, the gains in yield from the reservoirs are less than the firm yield, but still greater than the permitted yield at Cedar Creek Reservoir. In this option, if it is decided that the intake facilities at Cedar Creek Reservoir would be modified to develop yields in excess of the permitted yield, the current East Texas pipeline capacities would need to be evaluated to ensure that they can deliver the increase. As with the overdraft/underdraft analysis, the costs associated with this option will need to be addressed if this option is ever pursued as part of the District's integrated plan development.

Section 4

Water Quality and Environmental Considerations

Section 4
Water Quality and Environmental Considerations

4.1 Water Quality Considerations

4.1.1 Safe Drinking Water Act Regulations

The Safe Drinking Water Act (SDWA) Amendments of 1996 establish the basis for many changes and new programs that will have a significant effect on the water treatment industry. The major parts addressed in these amendments are the following:

- Source Water Protection;
- Consumer Information;
- Regulatory Program; and
- Drinking Water State Revolving Fund.

The regulations required by these amendments are currently in proposed form, and the following discussion is based on these proposals and includes possible schedules for final implementation. Much of the guidance formulated by the Environmental Protection Agency (EPA) will then be directed to the states for legislation and implementation. Several of the Source Water Protection rules will directly affect the TRWD. Consumer Information, State Revolving Fund, and Regulatory Program regulations will more directly affect the District's customers. These amendments will be covered briefly in the following paragraphs with the majority of the discussion focused on the Regulatory Program and particularly the expected effects of what is currently being called the Microbial/ Disinfection Byproduct (M/DBP) rule.

4.1.1.1 Source Water Protection

This part of the amendments is preventive in emphasis. The main focus is on source water assessments. These assessments incorporate the delineation of the source water area for both surface and ground waters used for public consumption, and the effect on source water quality and the corresponding effect on water treatment. The EPA issued the final guidance document to the states in August 1997. The states will be required to submit a plan to the EPA by February 1999. The District, through its existing water quality sampling and watershed management activities, has a program in place that directly addresses the proposed requirements covered under the source water protection program.

Two other provisions of this part of the amendments, which will affect District customers, are requirements for capacity development of water treatment plants and for water treatment plant operators certification. Capacity development includes determining that new water treatment plants have the technical, financial, and managerial capacity to meet the National Primary Drinking Water Regulations (NPDWR) and that existing plants, particularly those with a past record of noncompliance, be aided by the state in these areas. Texas already has a water treatment plant operators' certification program.

4.1.1.2 Consumer Information

This part of the amendments establishes the publication of consumer confidence reports and clarifies the requirements for public notification for violations of treated water quality standards. The consumer confidence report will be established to inform water customers of raw water quality, treated water quality, and water treatment issues and the intent is that these reports will be sent in the water bill at a minimum of once a year. The first consumer confidence reports will be required to be published by the end of 1999. This part of the amendments also requires the Food and Drug Administration (FDA) to publish a consumer study on the contents of bottled water by February 1998.

4.1.1.3 Drinking Water State Revolving Fund

This fund is established to make grants available to the state to further the health protection objectives of these amendments. There are very specific rules to the states for the use of these funds and portions of this funding can be withheld from states whose programs do not comply with the other amendments. A major use of these funds is to provide low interest loans for water projects.

4.1.1.4 Regulatory Program

This part of the regulations is primarily directed at the quality of treated water. The major areas addressed in this part of the amendments are as follows:

- Contaminant Selection;

- Standards and Regulation Development;
- Arsenic, Sulfate, Radon, and Disinfection Byproducts;
- Drinking Water Studies and Research;
- Small System Exemptions;
- Monitoring; and
- Enforcement.

4.1.1.4.1 Contaminant Selection, and Standards and Regulation Development

These areas pertain to the criteria for the selection of substances not already regulated by the NPDWR and the determination to regulate these substances, including concentration or maximum contaminant levels (MCLs) for the regulated substances, in drinking water. These criteria include occurrence, risk analysis, and cost benefit analysis. The EPA must publish a list of contaminants by February 1998 and then every 5 years thereafter. The requirement to regulate 25 contaminants every 3 years has been eliminated. EPA is now required to determine whether or not to regulate at least five contaminants ever 5 years beginning in August 2001. Also included in this portion of the amendments are future regulations for ground water disinfection, recycling of filter backwash, and standards for bottled water.

4.1.1.4.2 Arsenic, Sulfate, Radon, and Disinfection Byproducts

EPA has separated these four substances for first priority consideration to be regulated as contaminants. The following is the schedule for these regulations.

- Disinfection Byproducts: Promulgation of the Enhanced Surface Water Treatment Rule (ESWTR) and Stage 1 Disinfectants/Disinfection Byproducts (D/DBP) rule is due by November 1998.
- Radon: A health risk reduction and cost analysis associated with possible MCL levels will be published by February 1999. A proposed rule by August 1999 and a final rule by August 2000.
- Sulfate: A dose response study will be completed by February, 1999, and sulfate will be on the list of the first contaminants to be considered for regulation in 2001.
- Arsenic: A proposed NPDWR will be issued by January 1, 2000 and a final rule issued by January 1, 2001.

The ESWTR and the Stage I D/DBP rule have been combined and are currently being called the Microbial/Disinfection Byproduct (M/DBP) rule. They have been combined so that the regulations developed will consider and balance all of the water treatment goals: Disinfection Byproduct Control, Disinfection Requirements, and Turbidity Standards. These three goals are discussed below.

Disinfection Byproduct Control.

The proposed rule contains the following MCLs for four disinfection byproducts (DBPs):

- Total Trihalomethanes (TTHMs) 80 ug/l,
- Five Haloacetic Acids (HAA5) 60 ug/l,
- Bromate 10 ug/l,
- Chlorite 1.0 mg/l.

In addition to these required limits, there are proposed rules for treatment techniques to reduce the production of DBPs. This focuses on the removal of precursor organics prior to disinfection. These precursor organics are quantified by the measurement of total organic carbons (TOC). Enhanced coagulation is the term used for the coagulation treatment process with emphasis on TOC removal. This term also includes the idea that the level of turbidity removal must also be maintained. There are two ways for a plant to determine the required TOC removal. First is the "3x3" matrix which is included in the rule and requires a 15 to 50 percent TOC removal based on raw water TOC concentration and alkalinity. This matrix is the same for plants that also practice softening. If a plant can obtain the percent removal required in this matrix, then this will be their requirement. If a plant cannot meet the percent removal requirement, then they can do a series of jar tests increasing the alum dose by 10 mg/l (or other coagulant by the same weight ratio) until the increased amount of TOC removed each time is below 0.3 mg/l. The TOC removal determined by the jar tests will be their requirement.

Exemptions from enhanced coagulation requirements are based on running annual average and include:

- If a plant can show that their raw water TOC level, as measured by specific UV absorbency, is below 2.0 liter/mg-m.
- If settled water TOC is less than 2.0 mg/l.
- Complete lime softening plants.
- TTHM less than 40 ug/l and HAA5 less than 30 ug/l using only free chlorine for disinfection.
- TTHM less than 40 ug/l and HAA5 less than 30 ug/l and raw water TOC less than 4.0 mg/l and alkalinity greater than 60 mg/l as CaCO3.

Disinfection Requirements.

These requirements include a Maximum Disinfection Residual Level (MDRL) based on a running annual average as follows:

- Chlorine 4.0 mg/l,
- Chloramine 4.0 mg/l, and
- Chlorine dioxide 0.8 mg/l.

Ozone and UV are also used for disinfection in water treatment. These disinfection processes do not carry a residual, but they may still play a part in the generation of DBP.

The currently proposed M/DBP rule is allowing disinfection credit prior to filtration to be retained. If a plant is not meeting the MCLs for disinfection byproducts, they may need to consider other options. This may include not starting disinfection until after precursor TOC has been removed. They may need to consider enlarging or baffling their clearwell to increase the disinfection contact time. If a plant exceeds 80 percent of the DBP levels (64 mg/l TTHM and 48 ug/l HAA5), then they will have to do disinfection benchmarking. This will lock the plant into a specific disinfectant and dose, and may force them to have to consider other treatment processes for removal of DBP.

Turbidity Standards.

These standards are an important measure of water treatment effectiveness. This has taken on even more importance because of the link between turbidities below 0.1 NTU and the removal of cryptosporidium. The proposed turbidity standards for water from combined filters is required to be below 0.3 NTU in 95 percent of samples. This is more stringent than the previous requirement of 0.5 NTU. Levels must always be below 1 NTU, down from the 5 NTU previously required.

Continuous turbidity monitoring is required for individual filters and the requirements are proposed:

- State notification if greater than 1.0 NTU.
- Filter profile if turbidity is greater than 1.0 NTU for 3 months.
- Third-party evaluation if turbidity is greater than 2 NTU for 2 months.

The District should continue to monitor the progress of these regulations in order to be aware of the requirements being applied to their customers.

4.1.2 Water Quality Conditions

The District has developed a long-term approach for determining water quality conditions of their water supplies. Elements of this program include monitoring, modeling, and management activities. These activities are discussed below.

4.1.2.1 Monitoring Program

The District's water quality monitoring program has been in place since 1989. The program involves a combination of routine quarterly sampling of all reservoirs and intensive monthly sampling of one reservoir approximately each year on a rotating basis. The program includes multiple sampling stations located within the main lake and cove areas of each reservoir. In recent years, the District has also begun sampling at additional stations located on the tributaries just upstream of the reservoirs. Data for approximately 25 different water quality parameters have historically been collected at these stations. These parameters are listed in Table 4-1.

4.1.2.2 Modeling Program

The District has developed eutrophication models for four of their water supply reservoirs (Eagle Mountain, Cedar Creek, Richland-Chambers, and Benbrook) using the U.S. Environmental Protection Agency's Water Quality Analysis Simulation Program (WASP). The parameters marked with an asterisk in Table 4-1 are modeled with the WASP models. Additional parameters considered in the modeling include organic nitrogen and organic phosphorus. The WASP models are useful tools for managing the water quality of these reservoirs as they provide a means for investigating the effects from various hydrologic and watershed development scenarios. Specifically, these tools provide support for making decisions regarding the alternatives for managing various point and non-point source loading conditions based on the simulated impacts to the water bodies. The models allow finite management resources to be targeted toward the areas and issues estimated to be of most significance with regard to water quality. The data collected through the District's sampling program are critical to the development of reliable models. Data from different time periods are required to calibrate and verify the models. A long-term sampling program also provides information required to

Table 4-1.
Tarrant Regional Water District
Water Quality Sampling Data

Parameter	Units	Parameter	Units
Algae	cells/ML	OPO4-P	mg/L
Alkalinity	mg/L	ORP	mv
BOD20	mg/L	pH	std. units
*BOD5	mg/L	Potassium	mg/L
Calcium	mg/L	SECCHI Depth	m
Chloride	mg/L	Silica	mg/L
*CHL_{-a}	ug/L	Sodium	mg/L
Color	Units	SPC	umhos/cm
*Dissolved Oxygen	mg/L	STKN	mg/L
OEC	mg/L	Sulfate	mg/L
Fecal Coliform	Col/100ml	TDS	mg/L
Iron	mg/L	Temperature	degree C
Ke	1/m	TKN	mg/L
Lead	mg/L	TOC	mg/L
Magnesium	mg/L	TOX	mg/L
Manganese	mg/L	TPO4-P	mg/L
*NH3-N	mg/L	TSS	mg/L
NO2+NO3-N	mg/L	TTHMF	
NO2-N	mg/L	VSS	mg/L
*NO3-N	mg/L		

*State variable in WASP model.

begin to understand the seasonal phenomena at work, and to identify any trends that may be developing.

The District has conducted some evaluations of water quality conditions in two of their reservoirs under drought conditions. The analysis was primarily on data collected during the recent drought period from October 1995 through September 1996. Input files were developed for the existing WASP models for Eagle Mountain Lake and Richland-Chambers Reservoir, which reflected, flows, loads, temperature, and light conditions for this time period. The observed chlorophyll-a levels in the reservoirs where only slightly lower during the drought period as compared to data collected in recent years under more normal hydrologic conditions. The initial WASP drought models tended to under-predict chlorophyll-a concentrations due to the drastic reduction in nutrient loading from non-point sources. Appropriate adjustments were made to the tributary inflow loads in the models to achieve satisfactory calibrations of the models to the observed data. The District is currently utilizing these drought models to evaluate the water quality impacts from various future development and loading scenarios.

During the past several years, the District has also undertaken a program to develop watershed runoff models to investigate the quality of runoff, the potential impacts upon reservoir water quality, and the possible use of structural and non-structural controls. One important element of this program has been the application of the basin simulation model SWAT as part of a cooperative program with the Natural Resources Conservation Service (NRCS). SWAT is being used as a tool to assess the non-point source pollution in the watersheds contributing to the District reservoirs. By identifying the source and non-point source loadings from subwatersheds and basins, the District can prioritize the best management practices for improving or protecting water quality. This program has been linked to the District's reservoir water quality models. Refinements to these models are presently being made as part of an ongoing project.

4.1.2.3 Water Quality Management

The District has approached the management of water quality on several fronts including water quality monitoring and wetland management pilot programs. As discussed previously, the water quality monitoring program has assessed the concentrations of conventional organic and inorganic constituents, nutrients, metals, disinfection byproducts, and bacteria. The District has sampled for cryptosporidium and giardia at water intakes for their customers even before this practice was required by the information collection rule. The basin-wide and reservoir modeling programs have utilized the data collected by the District to determine the trends in water quality and the impacts of various management practices.

The District is also carrying out a multi-year program to investigate the effectiveness of wetlands for removing pollutants from potential water supply sources such as the Trinity River in the vicinity of Richland-Chambers and Cedar Creek reservoirs. The District has been operating a pilot-scale wetland for several years. The next step in the program is to construct a field-scale wetland for additional testing. If the results of these tests are favorable, full-scale wetlands could be developed at Richland-Chambers and Cedar Creek reservoirs to improve the water quality of Trinity River diversions before the water enters the reservoirs. Thus far, the pilot-scale wetland has been studied for the ability to remove suspended sediments, nutrients, metals, pesticides, arsenic, total organic carbon, and several other constituents. Future plans include investigating the ability of the wetlands to remove cryptosporidium, giardia, and disinfection byproducts.

The combination of monitoring, modeling, and pilot studies being carried out by the District is a reasonable and thorough approach to the protection and management of the water quality of their water supplies.

4.2 Customer Water Treatment Facility Considerations

The water quality of Richland-Chambers Reservoir and Cedar Creek Reservoir differ, and the cost to treat the water differs accordingly. Managers of the water treatment plants on the Richland-Chambers and Cedar Creek supply system were interviewed regarding the cost difference of treating water from the two reservoirs and about the effect on water treatment operations. An initial interview was followed by a survey that solicited additional information regarding treatment processes used to treat Richland-Chambers and Cedar Creek water, and the resulting costs. This chapter summarizes the information provided by the treatment plant managers. A copy of the survey responses is provided in Appendix E.

4.2.1 System Description

Water from Richland-Chambers and Cedar Creek reservoirs is a major source of water supply for five treatment plants in Tarrant County: Mansfield Water Treatment Plant (WTP), Trinity River Authority Tarrant County WTP, Arlington J.F. Kubala WTP, Arlington Pierce-Burch WTP, and Fort Worth Rolling Hills WTP. The process flow diagrams for each of these plants are presented in Figures 4-1 through 4-5.

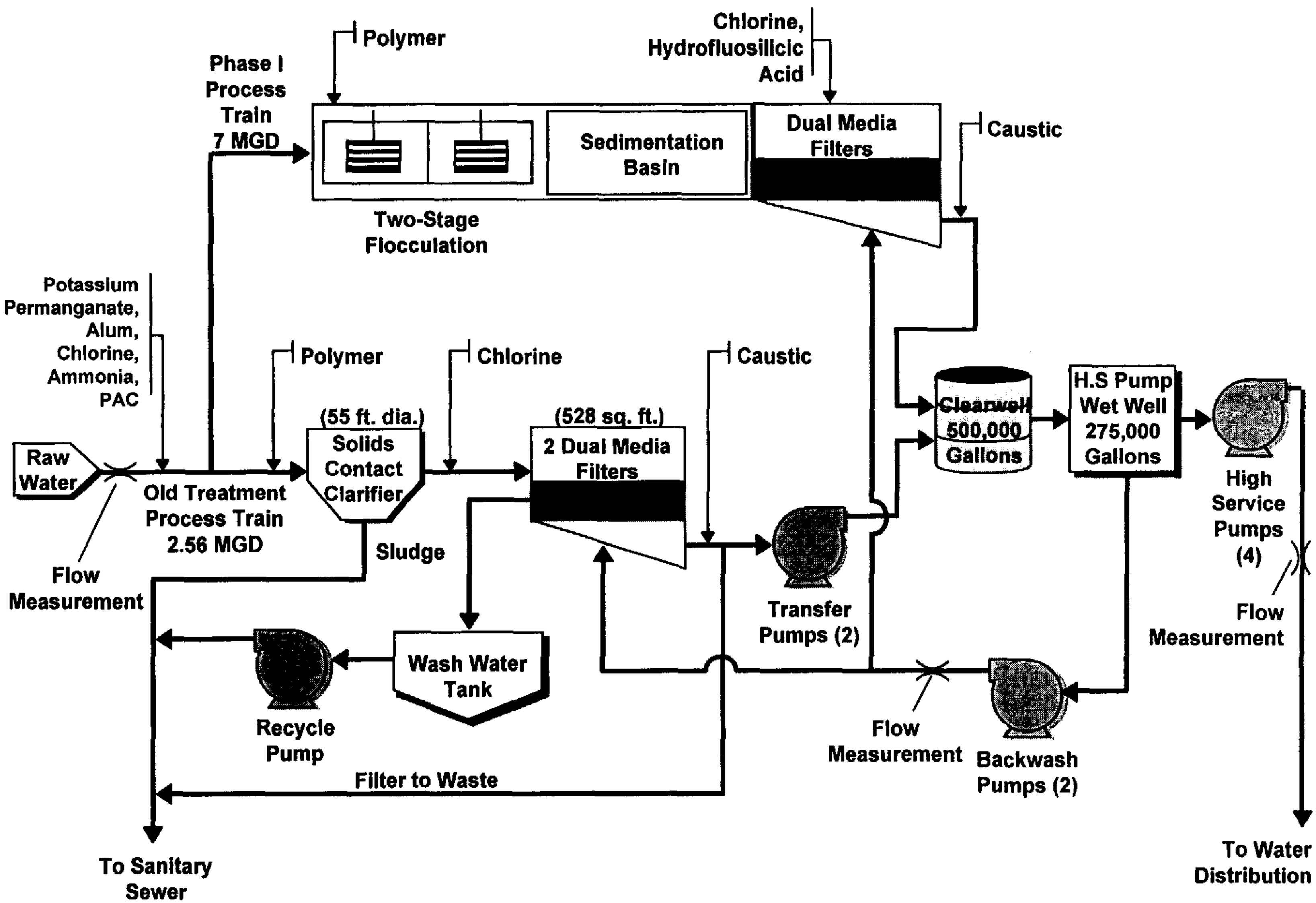
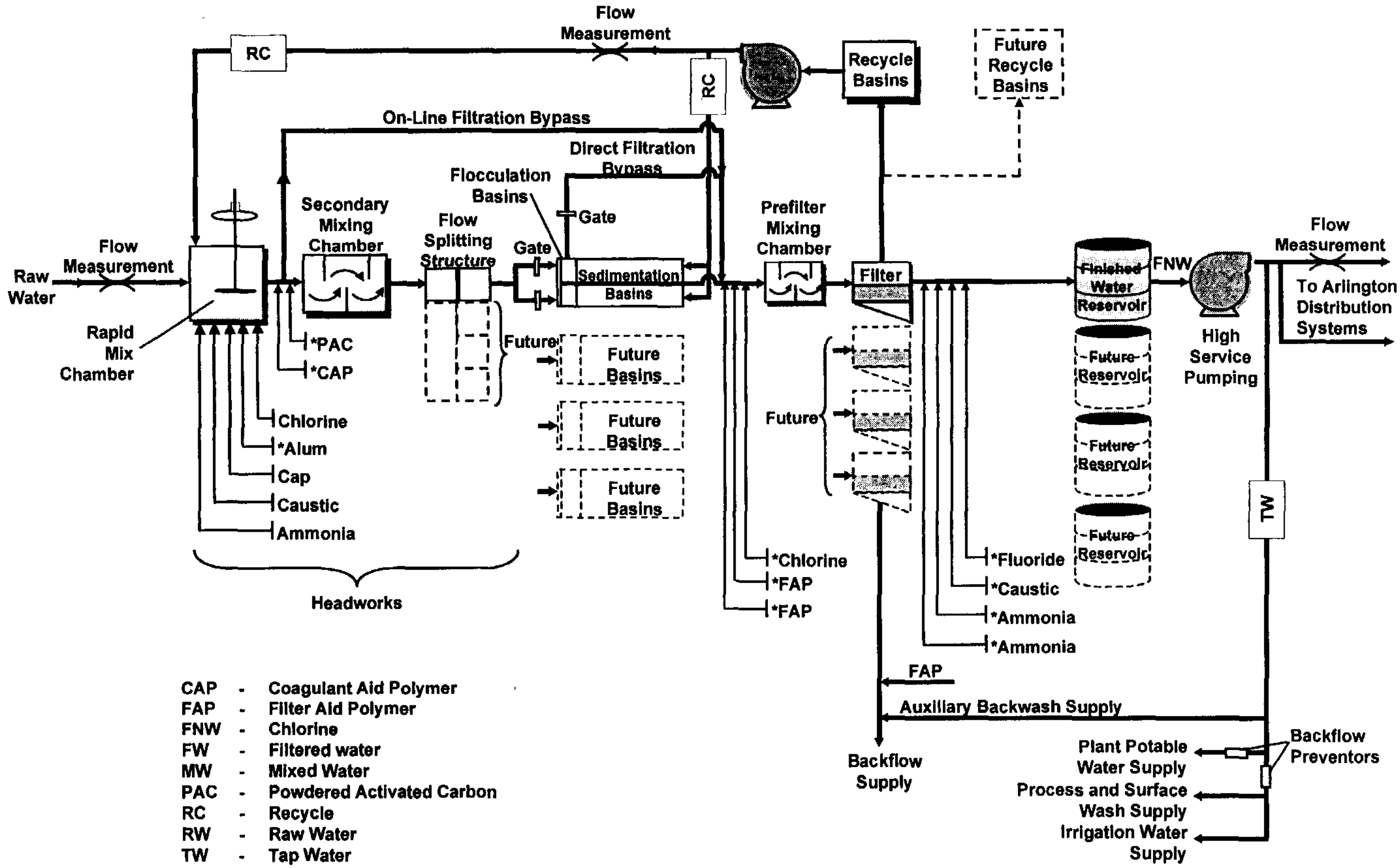


Figure 4-1. Treatment Schematic — City of Mansfield WTP



CAP	-	Coagulant Aid Polymer
FAP	-	Filter Aid Polymer
FNW	-	Chlorine
FW	-	Filtered water
MW	-	Mixed Water
PAC	-	Powdered Activated Carbon
RC	-	Recycle
RW	-	Raw Water
TW	-	Tap Water
*	-	Chemical Typically Fed at Each Location

Figure 4-2. Treatment Schematic — City of Arlington — J.F. Kubala WTP

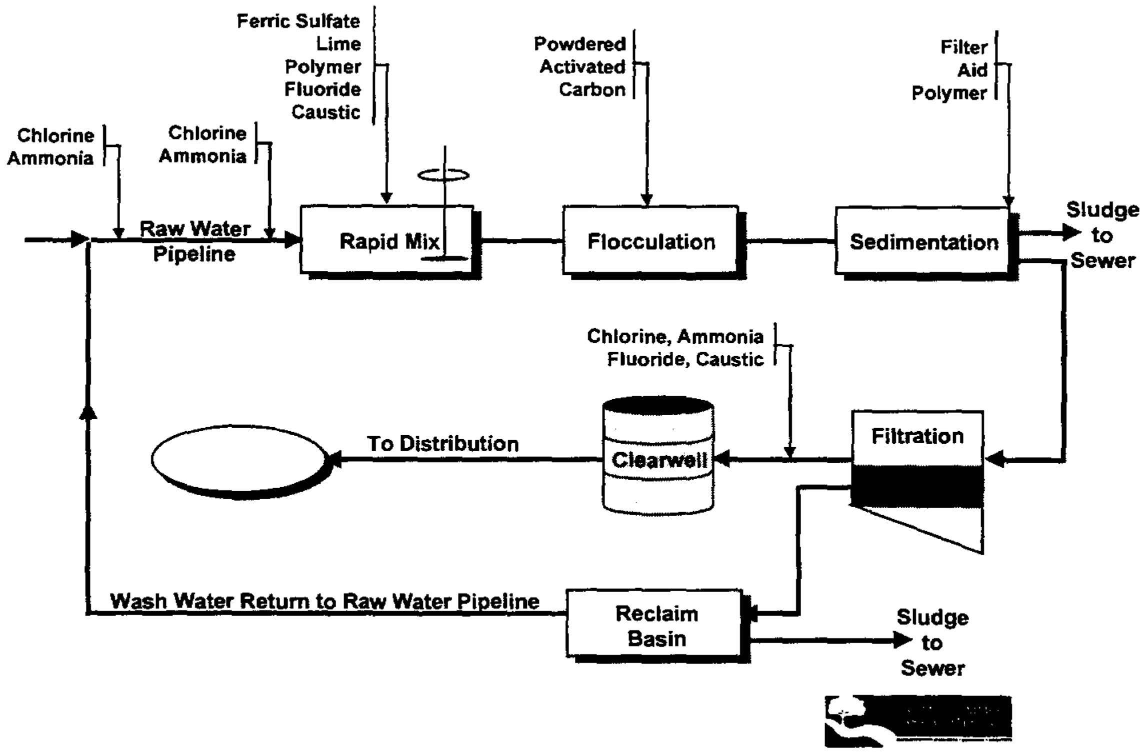


Figure 4-3. Treatment Schematic — City of Fort Worth — Rolling Hills WTP

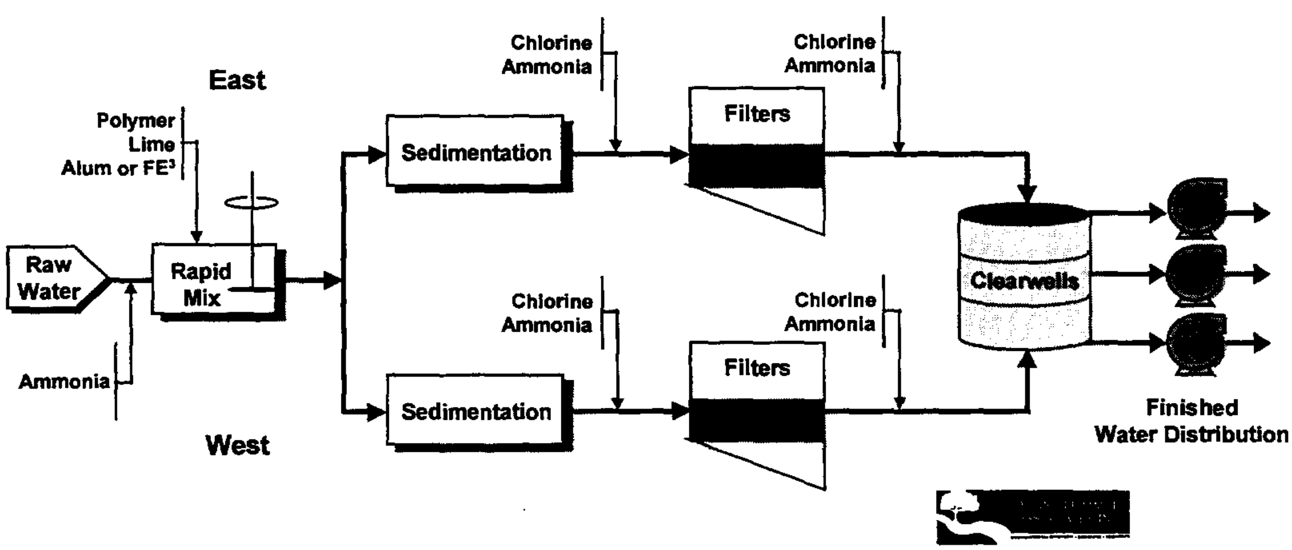


Figure 4-4. Treatment Schematic — Trinity River Authority — Tarrant County WTP

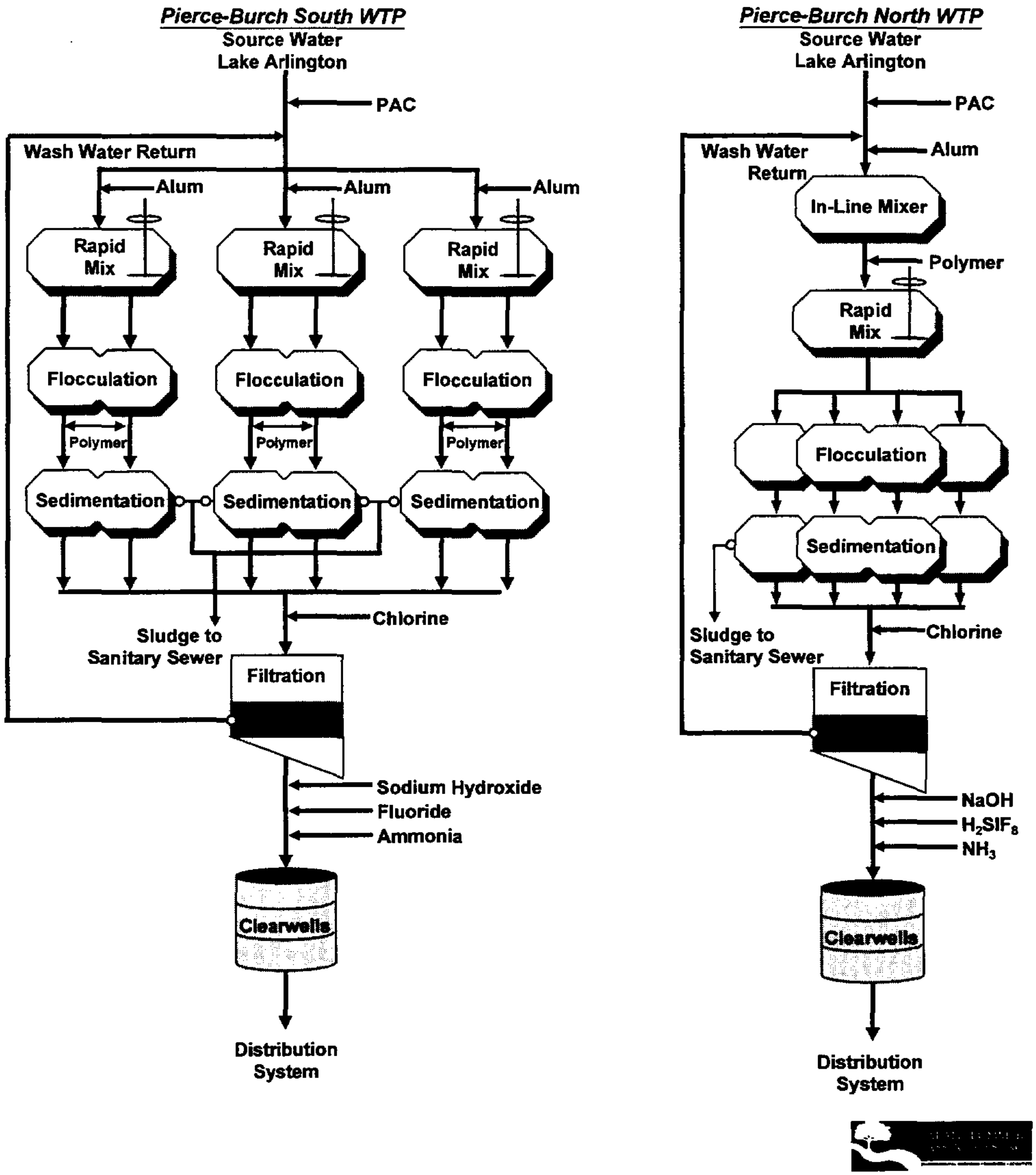


Figure 4-5. Treatment Schematics — Arlington Water Utilities

A review of the processes shows that each of the plants use some type of chemical addition followed by settling, filtration, and disinfection. The chemicals used at each plant are shown in Table 4-2. Variations in source water quality affect the amount and type of water treatment chemicals used to produce finished water of a high quality.

Table 4-2.
Tarrant Regional Water District
Richland-Chambers/Cedar Creek Reservoir Supply System
Customer Water Treatment Plant Chemicals

Arlington — J.F. Kubala Water Treatment Plant	
Aluminum Sulfate	Coagulant
Sodium Hydroxide	pH Adjustment
Powdered Activated Carbon	Taste and Odor
Potassium Permanganate	Taste and Odor
Coagulant Aid Polymer	Coagulation
Chlorine	Taste and Odor/Disinfection
Filter Aid Polymer	Filtration
Ammonia	Disinfection
Fluoride	Fluoridation
Arlington — Pierce Burch Water Treatment Plant	
Aluminum Sulfate	Coagulant
Sodium Hydroxide	pH Adjustment
Powdered Activated Carbon	Taste and Odor
Coagulant Aid Polymer	Coagulation
Chlorine	Taste and Odor/Disinfection
Ammonia	Disinfection
Fluoride	Fluoridation
Fort Worth Rolling Hills Water Treatment Plant	
Ferric Sulfate	Coagulant
Chlorine	Disinfection
Ammonia	Disinfection
Lime	Flocculation
Polymer	Coagulation
Fluoride	Fluoridation
Caustic	pH Adjustment
Powdered Activated Carbon	Taste and Odor
Filter Aid Polymer	Filtration

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Table 4-2.
Tarrant Regional Water District
Richland-Chambers/Cedar Creek Reservoir Supply System
Customer Water Treatment Plant Chemicals (Concluded)

Trinity River Authority — Tarrant County Water Treatment Plant	
Aluminum Sulfate	Coagulant
Lime	Coagulant Aid
Ferric Chloride	Coagulant
Polymer	Coagulant Aid
Ammonia	Disinfection
Chlorine	Disinfection
Mansfield Water Treatment Plant	
Potassium Permanganate	Taste and Odor
Aluminum Sulfate	Coagulant
Chlorine	Disinfection
Ammonia	Disinfection
Powdered Activated Carbon	Taste and Odor
Polymer	Coagulant Aid
Hydrofluorosilicic Acid	Fluoridation
Caustic	pH Control

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4.2.2 Impact of Water Quality Variations

Of the five plants surveyed, only three were directly affected by changing the source of water from the Richland-Chambers to the Cedar Creek Reservoirs. The plants affected include Arlington J.F. Kubala, Fort Worth Rolling Hills, and Mansfield. Each of these plants draws water directly from the transfer line or from the balancing reservoirs. The other two plants surveyed, Arlington Pierce-Burch and Trinity River Authority Tarrant Country, draw water from Lake Arlington. Lake Arlington, which receives considerable runoff from tributaries, serves as a buffer to raw water quality coming from the District's East Texas reservoirs. The following discussion will focus primarily on responses from the operators of the three plants that receive water directly from the system.

Each of the respondents from treatment plants which receive water directly from the transmission line or balancing reservoirs indicated that there was a difference in treatment requirements for water from Richland-Chambers and Cedar Creek Reservoirs. They indicated that water from Cedar Creek was the more costly water to treat. They also indicated that the higher costs were not occasional, but consistent occurrences when Cedar Creek raw water was the predominant water source.

The City of Fort Worth has developed costs for treating the different source waters and source water blends. These costs are presented in Table 4-3.

With regard to the impact of the raw water quality on chemical dosages, the increases in chemical dosages were required for treatment of Cedar Creek water compared to the dosage required for Richland-Chambers water (Table 4-4).

The cost of treated water is directly related to the cost of the chemicals used in treatment and the cost of disposing of sludges.

Table 4-3.
City of Fort Worth Water Treatment Plant
Costs of Treating Different Source Waters

Water Source	Chemical Costs/MG	Operations Costs/MG	Sludge Management Costs/MG
RC — 100%	$26.54	$11.43	$29.49
RC — 70% CC — 30%	$21.91	$10.55	$16.25
RC — 35% CC — 65%	$34.47	$16.57	$40.34
CC — 100%	$36.00	$14.49	$39.85
Note: RC = Richland-Chambers Reservoir, CC = Cedar Creek Reservoir			

Table 4-4.
Approximate Increase in Chemical Dosage Required to Treat Cedar Creek Water Compared to Richland-Chambers

Aluminum Sulfate, 15 mg/L	**Ferric, 63 mg/L**
Caustic, 2.5 mg/L	**Polymer, 0.45 mg/L**
Carbon, 5 m/L	**Lime, 4.9 mg/L**

4.2.3 Raw Water Characteristics Affecting Treatment

With regard to the raw water characteristics that most affect treatment, unexpected changes in the source of raw water, and taste and odor were the top two problems. Particle sizes in the 5 to 20 *um* range were noted as a problem in Cedar Creek water. Rapid changes in alkalinity and pH, and turbidity also cause problems. Turbidity problems have occurred year round; taste and odor problems tend to be seasonal. For the City of Fort Worth, the low alkalinity encountered in the Cedar Creek water resulted in complaints from some of their commercial customers.

4.2.4 Management Issues Affecting Water Treatment

All of the customers taking water directly from the transmission line commented on management issues that affect their ability to effectively and efficiently produce high-quality finished water. A significant operational problem occurs for the water treatment plants when unexpected changes occur in the source water quality. It is beneficial for the treatment plants to receive notice of changes in raw water source or quality before it occurs in order to prepare for the different treatment requirements. Early notices provide the opportunity to get samples of the water quality as a switch in source occurs in order to perform jar testing and obtain an indication of chemical dosages needed.

Treatment plant operators suggested that a gradual switch involving blending from one raw water source to the other would provide the water customers some acclimation time for the new water characteristics, and would cut down on complaints.

4.2.5 Summary

The water treatment plants being supplied by Richland-Chambers and Cedar Creek Reservoirs have the capability of treating the variable water qualities associated with the two water sources. Water from Cedar Creek Reservoir is more costly to treat. Unexpected changes in the source of the water causes complications in treatment. Treatment plant operators have indicated that to efficiently and cost-effectively treat the water, the District should implement a more effective system of communication regarding changes in water supply and should consider adding flexibility to their raw water delivery system.

Section 5

Integrated Supply Plans and Long-Range Supply Planning

Section 5
Integrated Water Supply Planning

Integrated water supply planning provides the District a framework and methodology in which to incorporate the diverse elements that must be considered in today's water supply business environment. Previous planning programs of the District have successfully met the growing water demands of the Tarrant County area and provide a strong foundation as the District looks forward into the next century. The planning horizon is 50 years, from year 2000 to 2050, although the District must always take into consideration its water needs on an even larger horizon. Prudent planning, both for near-term and long-term actions, provides ample time for the District to make wise decisions regarding permitting, operational methods for existing facilities, and investment in new facilities.

The supply elements to be integrated into water supply planning for the District include:

- Customer involvement (i.e., review and input to the integrated planning);
- Water conservation and demand management;
- Maximization of supply from existing sources;
- Delivery system capabilities; and
- Supply side alternatives.

The need for new water supplies to meet the District's growing demands was discussed in Section 3.1.4. In Section 3.2, the water management options and supply elements available to the District to meet projected demands were discussed. Presented in this section are the current capacity of District facilities to deliver water, the management options and supply elements to be included in the integrated plans, and two integrated water supply plans. For each of the integrated plans the water supply available from each element is summarized, the new delivery facilities needed to implement the plans are identified, and cost estimates for plan elements needed in the near- to mid-term (i.e., next 25 years) are presented. Costs for new supply reservoirs and associated delivery facilities need further study before estimates can be made.

5.1 Existing Facilities and Capacities

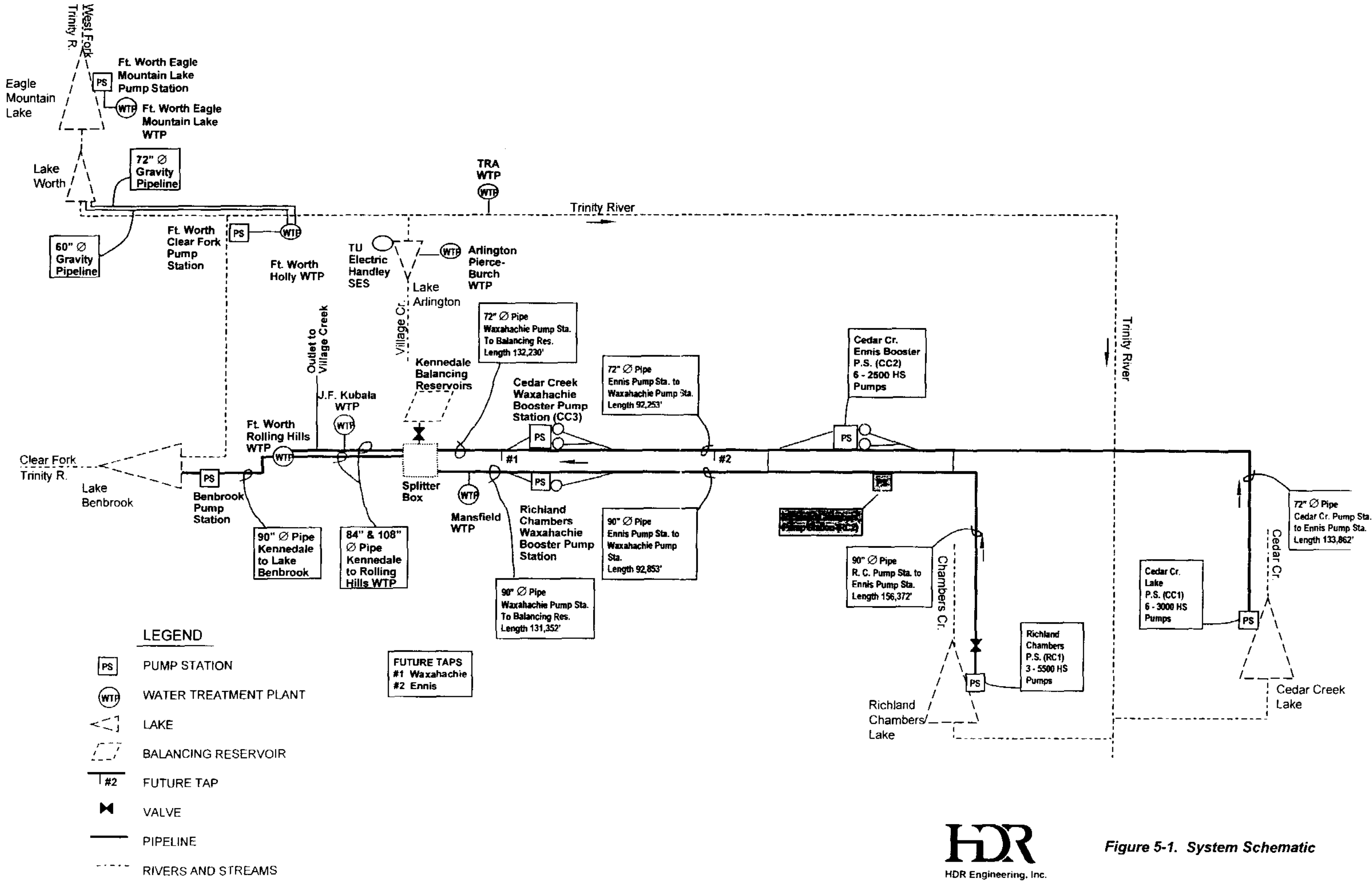
5.1.1 West Fork Facilities

The District's water supply system is divided geographically into the West Fork facilities (Eagle Mountain Lake, Lake Bridgeport, Lake Benbrook, and Lake Worth) and the East Texas facilities (Cedar Creek Reservoir and Richland-Chambers Reservoir). The District's water supply facilities are shown on an area map in Figure 1-1. A system schematic of the District facilities is provided in Figure 5-1.

The West Fork System supplies water to the Eagle Mountain WTP and the Holly WTP. The Eagle Mountain WTP is supplied water from a pump station located just downstream of Eagle Mountain Lake, and can receive water from Eagle Mountain Lake and from Lake Bridgeport. The Holly WTP receives water from the West Fork through an intake on Lake Worth. Water flows by gravity through two pipelines (60-inch and 72-inch diameter) from Lake Worth to Holly WTP. Holly WTP can also receive water from Lake Benbrook on the Clear Fork. Water is released from Lake Benbrook and flows down the Clear Fork channel to an intake structure and pump station just upstream of the confluence with the West Fork. These facilities are shown in schematic form in Figure 5-1. Delivery capacities of the West Fork delivery facilities are listed in Table 5-1.

5.1.2 East Texas Facilities

Water from the East Texas reservoirs must be pumped about 75 miles against a 400-foot static lift to reach Tarrant County. Currently, pumping capacity from each of the East Texas reservoirs is less than the safe yield of the reservoirs. Water from Cedar Creek Reservoir is pumped through a 72-inch diameter pipeline and discharges into the splitter box at the balancing reservoirs at Kennedale. The Cedar Creek pipeline has a pump station at the lake and two booster pump stations, one at Ennis and one at Waxahachie, as shown in Figure 5-1. The pipeline has two operational modes: low capacity operation and high capacity operation. Under low capacity operation, the Ennis booster station is not operated. The capacities of the Cedar Creek delivery facilities are provided in Table 5-2. The Cedar Creek pipeline supplies the Arlington J.F. Kubala WTP directly from a tap on the pipeline. Interconnects to the Richland-



HDR Engineering, Inc.

Figure 5-1. System Schematic

Table 5-1
West Fork Supply and Water Delivery Facility Capacities

West Fork Supply Current Year 2015 Year 2050	 78,000 acft/yr 74,000 67,000
Eagle Mountain Lake	
Raw Water Pump Station to Eagle Mountain WTP (capacity after planned expansion will be 190 MGD)	30 MGD (33,600 acft/yr)
Lake Worth	
to Holly WTP Intake and Gravity Pipelines 60-in dia. pipeline 72-in dia. pipeline	 160 MGD (179,000 acft/yr)
Lake Benbrook	
to Holly WTP Clear Fork Pump Station	 60 MGD (67,000 acft/yr)

Table 5-2
East Texas Yield and Water Delivery Facility Capacities

Cedar Creek Reservoir	
Reservoir Safe Yield Current year 2015 year 2050	 154,900 acft/yr 148,000 acft/yr 135,600 acft/yr
72-in pipeline pumping capacity Low Capacity Operation High Capacity Operation	 78 MGD 147 MGD (165,000 acft/yr)
Richland-Chambers Reservoir	
Reservoir Safe Yield Current year 2015 year 2050	 202,100 acft/yr 195,200 acft/yr 174,400 acft/yr
90-in pipeline pumping capacity Low Capacity Operation Future High Capacity Operation[1]	 146 MGD (163,500 acft/yr 244 MGD (273,000 acft/yr)
1 Additional pumps must be installed at existing pump stations to operate in high capacity mode.	

Chambers pipeline allow Cedar Creek water to be pumped through the Richland-Chambers pipeline or Richland-Chambers water to be pumped through the Cedar Creek pipeline as shown in Figure 5-1.

Water from Richland-Chambers Reservoir is pumped through a 90-inch diameter pipeline and discharges into the splitter box at the balancing reservoirs at Kennedale. The Richland-Chambers pipeline has a pump station at the lake and two booster pump stations, one at Ennis and one at Waxahachie, as shown in Figure 5-1. The pipeline has two planned operational modes: low capacity operation and high capacity operation. Under low capacity operation, the Ennis booster station would not be operated. Currently, the booster pumps at the Ennis booster pump station that are necessary to operate the pipeline in high capacity mode are not installed. Therefore, the Richland-Chambers pipeline currently can only be operated in low capacity mode. The capacities of the Richland-Chambers delivery facilities are provided in Table 5-2. The Richland-Chambers pipeline supplies the Mansfield WTP directly from a tap on the pipeline. Interconnects to the Cedar Creek pipeline allow Cedar Creek water to be pumped through the Richland-Chambers pipeline or Richland-Chambers water to be pumped through the Cedar Creek pipeline, as shown in Figure 5-1.

From the splitter box at the Kennedale balancing reservoirs, 84-inch and 108-inch pipelines supply water to the Arlington outlet and to the Rolling Hills WTP. The Arlington outlet discharges water to Village Creek at the upper end of Lake Arlington. Three customers draw water from Lake Arlington: the Arlington Pierce-Burch WTP, the Trinity River Authority WTP, and the TU Electric Handley generating station. Connected to the splitter box at the Rolling Hills WTP reservoirs is a 90-inch pipeline that discharges to Lake Benbrook, allowing water from the East Texas reservoirs to be delivered to Holly WTP. An intake and pump station at Lake Benbrook allows water stored in Lake Benbrook (typically, East Texas reservoir water) to be pumped in the 90-inch pipeline back to the Rolling Hills WTP.

5.2 Need for New Water Supplies and Facilities

A comparison of projected water demands and supplies was presented in Section 3.1, which indicates that presently available supplies (about 430,000 acft/yr) can meet projected demands through year 2009 (Table 3-5). By 2020, demands are projected to exceed current supplies by 67,051 acft/yr, and in year 2050, demand would exceed supply by 208,083 acft/yr (Table 3-5 and Figure 3-2).

5.3 Integrated Water Supply Plan

An integrated water supply plan for the District will consist of an integrated approach to demand side and supply side issues. On the demand side, achievement of conservation goals by each of the customers will be an important element to defer investment in new supply side projects. On the supply side, the integrated plan elements involve not only water supply at the source, but also delivery system items (i.e., pipeline and pump station expansions).

5.3.1 Maximizing Existing Water Supply Resources

Several options are available to the District to maximize existing water supply resources and potentially delay construction of additional water supply projects. Options available involve operational changes of the East Texas reservoirs or augmentation with reuse water. Water supply options include:

- Water conservation (Section 2);
- Overdraft/underdraft of East Texas reservoirs (Section 3.2.4);
- Changes in reservoir drought reserves (Section 3.2.5); and
- Water reuse (Section 3.2.1).

5.3.1.1 Water Conservation

Water conservation is a demand-side component that should be a part of the integrated water management plan. As described in Section 2, it is planned that organized water conservation programs will be used in the District's customer cities and water supply districts to reduce water demand. These organized programs will be in addition to water conservation achieved through the use of low-flow plumbing fixtures. Such programs could include incentives to replace existing fixtures with low-flow fixtures, use of drought tolerant landscaping to reduce lawn water, leak detection and repair, and water conservation pricing. The District has worked with the major wholesale municipal customers to establish conservation goals, as shown in Table 5-3.

Table 5-3
Water Conservation Goals for Tarrant Regional Water District
(acft/yr)

	2000	2010	2020	2030	2040	2050
Water Conservation Goal for Wholesale Customers	5,788	13,359	24,099	25,202	25,049	23,082
From Table 2-4.						

5.3.1.2 Water Reuse

The District is proposing to increase its available raw water supply by developing reuse projects at Richland-Chambers and Cedar Creek Reservoirs. These projects involve diverting wastewater return flows from the Trinity River into Cedar Creek Reservoir and Richland-Chambers Reservoir, thereby increasing the yield of the reservoirs. The wastewater return flows to be diverted originate from the District's raw water customers as treatment plant discharges into primarily the West Fork of the Trinity River. The source of the diverted wastewater return flows will be raw water initially supplied by the District to its customers from either Richland-Chambers and Cedar Creek reservoirs, or from other District reservoirs in the upper Trinity River Basin. Yields available from the reuse project are reported in Table 5-4.

Table 5-4
Trinity River Project Available Yield

	Yield Increase Due to Reuse Project[1] (acft/yr)	Total Yield (acft/yr)	Minimum Drought Storage Reserve (acft)
Richland-Chambers Reservoir	63,000	273,000	147,896
Cedar Creek Reservoir	52,500	227,500	106,739
Combined Project	115,500	500,500	254,635
1 Yield increase is predicated on adjusting minimum drought supply reserves from 197,000 acft to 147,896 acft in Richland-Chambers and from 157,000 acft to 106,739 acft in Cedar Creek Reservoir.			

Source: R.J. Brandes Co., "Yield Analysis of Trinity River Project", prepared for Tarrant Regional Water District, June 1998.

5.3.1.3 Systems Operation of East Texas Reservoirs

As described in Section 3.2.4, a potential increase in system yield is available if the East Texas Reservoirs are operated as a system[1].

While the option of systems operation of the East Texas reservoirs appears to be a potentially favorable option, providing approximately 43,600 acft/yr (Table 3-31) additional yield over the sum of the current East Texas permits, there are two major implementation issues resulting in this option not being included in the integrated plan. First, in order to produce the additional yield, the capacity of the raw water pipelines from each reservoir must be considerably increased. The maximum monthly diversions needed when the associated reservoir is in overdrafting mode are large. Current capacity from East Texas would have to be increased by approximately 400 MGD (equivalent of a 120-inch pipeline) to accommodate the peak pumping months. In addition to potentially expensive increases in pumping capacity, this option, by its nature, hinders the ability of the District to develop reuse water from the Trinity River by continually drawing down one of the two reservoirs. Under systems operation, the ability of one or both of the reservoirs to accept reuse water would be limited much of the time if the operational blending criteria are to be met. Other important implementation issues include the potential effects on recreation and fish habitat at the reservoir being overdrafted.

5.3.1.4 Reservoir Drought Reserves

As described in Section 3.2.5, there is a potential increase above permitted diversions in 2050 of 18,800 acft/yr at Cedar Creek Reservoir (Table 3-10) if drought reserves are reduced to zero. At Richland-Chambers Reservoir, reducing the drought reserve to zero results in a potential increase above permitted diversions of 6,900 acft/yr in 2050 (Table 3-13). For the two reservoirs combined, the potential increase above permitted diversion is 25,700 acft/yr.

Safe yield is defined as the volume of water that can be diverted each year such that the minimum volume remaining in the reservoir during the most severe drought on record approximates a one-year supply if diverted at the safe annual yield. Under a firm yield operation

[1] System operation would involve overdrafting Cedar Creek Reservoir in wet and average years, and subsequently underdrafting during a drought when Richland-Chambers reservoir would be overdrafted.

plan, there is no drought reserve and the reservoir would be drawn down to approximately zero storage at the end of the critical month during the drought of record.

Maintaining a drought reserve in the reservoir assures that water would be available in the occurrence of a drought more severe than the drought of record. A drought reserve also provides a "shock absorber" in the event water demand increases faster than projected, or unforeseen delays are experienced bringing a supply project on-line.

If chosen to be implemented, reduction of drought reserves should be instituted as a reservoir operations change toward the end of the program and just prior to construction of a new water supply source. Reduction of the drought supply reserve can be implemented gradually as needed to maintain sufficient system yield. The wetlands reuse project yield is predicated on adjusting minimum drought storage amounts from 197,000 acft to 147,896 acft in Richland-Chambers Reservoir and from 157,000 acft to 106,739 acft in Cedar Creek Reservoir. Reducing drought supply reserves below these amounts would increase the ratio of reuse water to natural inflow and potentially affect water quality in the reservoirs. Following construction of a new water supply project, operation of the District reservoirs can be returned to a higher drought supply reserve (i.e., back to safe yield operation).

5.3.2 New Supply Reservoirs

There are a number of existing or new water supply reservoirs that could potentially provide a new water supply to the District. These projects are described in Section 3.2.3. One of these projects, Tehuacana Reservoir, has been in the long-range plan of the District, since Richland-Chambers Reservoir was conceptualized. Tehuacana Reservoir would be adjacent to Richland-Chambers Reservoir and interconnected with it by a canal.

A second reservoir that could potentially be included in the long-range planning of the District is Marvin Nichols I Reservoir in the Sulphur River Basin.

5.3.2.1 Tehuacana Reservoir (Trinity River Basin)

The 1997 Texas Water Plan[2] recommends that Tehuacana Reservoir be constructed and this project is the only recommended water supply reservoir in the upper Trinity River Basin.

[2] Texas Water Development Board (TWDB), "Water for Texas", August 1997.

Tehuacana Reservoir would be located on Tehuacana Creek in Freestone County and is immediately south of Richland-Chambers Reservoir. The reservoir is planned to be interconnected with Richland-Chambers Reservoir by an open channel to allow water from Tehuacana to flow into Richland-Chambers and the Richland-Chambers spillway is sized to handle flow from Tehuacana Creek. This project has been a part of the District's water supply planning since it was first proposed[3] in the 1950s. Yield available from the project would be 65,547 acft/yr[4]. This project could also be developed in conjunction with the Trinity River Reuse Project (Section 3.2.1), which would increase the yield available from the reservoir.

5.3.2.2 Sulphur River Basin Reservoirs

The 1997 Texas Water Plan[5] recommends two new water supply projects be built in the Sulphur River Basin, Marvin Nichols I Reservoir, and George Parkhouse II Reservoir. These projects could be used to meet local needs as well as the needs of the Fort Worth area and perhaps the Dallas area as well.

The Marvin Nichols I project would be located on the Sulphur River in Red River, Morris, and Titus counties and is about 160 miles northeast of Tarrant County (Figure 3-16). (Note: Marvin Nichols II reservoir would be a project adjacent to Nichols I, but on White Oak Creek.) The Nichols I project is downstream of the Parkhouse II site and the yield of the Nichols I project would be lower if built after Parkhouse II. The Nichols I project yield, without Parkhouse II being constructed would have a yield[6] of 560,151 acft/yr. If Parkhouse II is constructed first, then Nichols I would have a yield of 470,413 acft/yr. The district has indicated an interest in contracting for approximately one-third of the yield of Marvin Nichols I Reservoir, or about 187,000 acft/yr.

5.3.3 West Fork Improvements

The District is considering methods to increase raw water availability in the West Fork of the Trinity River. Additional water supplies would result in significant benefits to the District

[3] Freese & Nichols, Inc. and Alan Plummer Associates, Inc. "Regional Water Supply Plan for Tarrant County Water Control and Improvement District Number One", 1990.
[4] TWDB, Op. Cit., August 1997.
[5] Ibid.
[6] Ibid.

and its customers through operational flexibility, system reliability, treatability (raw water blending), recreation, and meeting the needs of a high-growth area. One potential method to increase raw water availability in the District's West Fork resources would be to construct facilities to deliver water from the East Texas reservoirs (through the Benbrook connection and Lake Benbrook) to Eagle Mountain Lake. This would also increase the flexibility of all of the District's supply resources by providing a means of transferring water from the West Fork resources to Lake Benbrook and thereby supplementing the East Texas supply. These potential improvements were described in more detail in Section 3.2.2.

5.4 Integrated Supply Plans

The integrated water supply plans of the District include these components:

- Water conservation;
- Augmentation of the East Texas reservoirs with the Trinity River Project;
- Reservoir operation changes (only as needed to meet conditions worse than drought of record or to meet short-term needs prior to implementation of a follow-on project); and
- New supply source – Tehuacana Reservoir or Marvin Nichols I.

Two alternative integrated plans have been developed.[7] Plan 1 includes water conservation, the Trinity River Project, Tehuacana Reservoir, and interim reservoir operation changes (i.e., reduced drought reserves). Plan 2 includes water conservation, the Trinity River Project, and Marvin Nichols I Reservoir in the Sulphur River Basin.

The components of each plan are specified in more detail in Table 5-5, along with the water supply to be obtained from each component.

Figure 5-2 is a plot of projected water demand in the District and existing system supply. Superimposed onto Figure 5-2 is a step-diagram of increased supply with implementation of integrated water supply Plan 1.

As shown in Figure 5-2, achieving water conservation goals would be accomplished gradually throughout the 50-year planning period. The Richland-Chambers portion of the Trinity

[7] The order presented for Plan 1 and Plan 2 is not indicative of a recommended alternative, as elements of each plan will require additional study before plan adoption by the District.

Table 5-5
Integrated Water Supply Plan Components

Plan 1		Plan 2	
Component	**2050 Yield (acft/yr)**	**Component**	**2050 Yield (acft/yr)**
Safe yield operation of existing system	383,000	Safe yield operation of existing system	383,000
Achieve water conservation goals	23,082	Achieve water conservation goals	23,082
Trinity River Project Reuse		Trinity River Project Reuse	
Richland-Chambers Reuse	63,000	Richland-Chambers Reuse	63,000
Cedar Creek Reuse	52,500	Cedar Creek Reuse	52,500
Tehuacana Reservoir	65,547	Marvin Nichols I Reservoir**	187,000
Total 2050 Supply	587,129	Total 2050 Supply	708,582
Projected 2050 Demand	591,083	Projected 2050 Demand	591,083
Potential Shortage*	(3,954)	Potential Shortage	0
* Shortage can be supplied by temporarily reducing drought reserves or by implementing reuse at Tehuacana Reservoir.		** Full project yield is 560,151 acft/yr. TRWD has indicated an interest in contracting for up to 187,000 acft/yr from the project.	

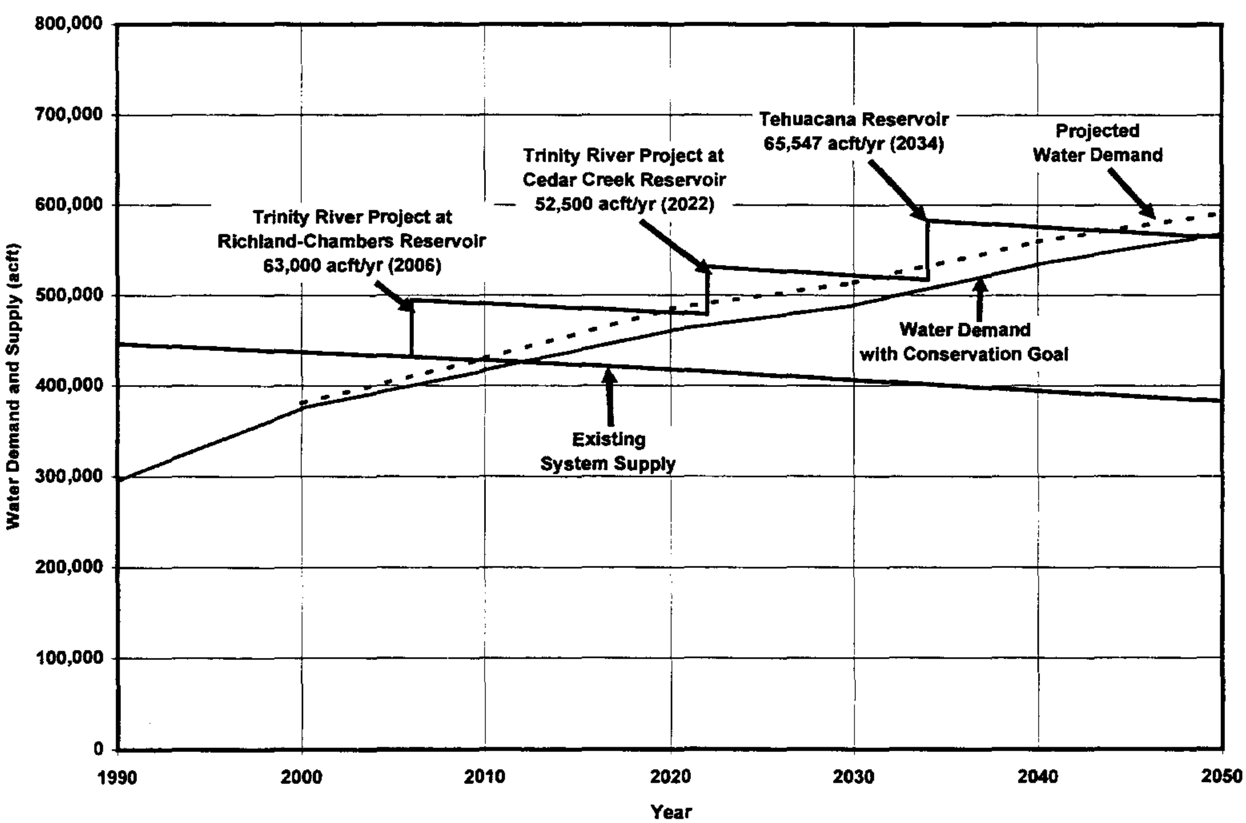


Figure 5-2. Water Demand and Supply with Integrated Water Supply Plan 1

River Project would need to be completed[8] by the end of 2006, and the Cedar Creek portion would be needed by 2022. Supply from the Tehuacana Reservoir Project would be needed by 2034.

Figure 5-3 is a similar graph to Figure 5-2, showing a step-diagram from implementation of integrated water supply Plan 2.

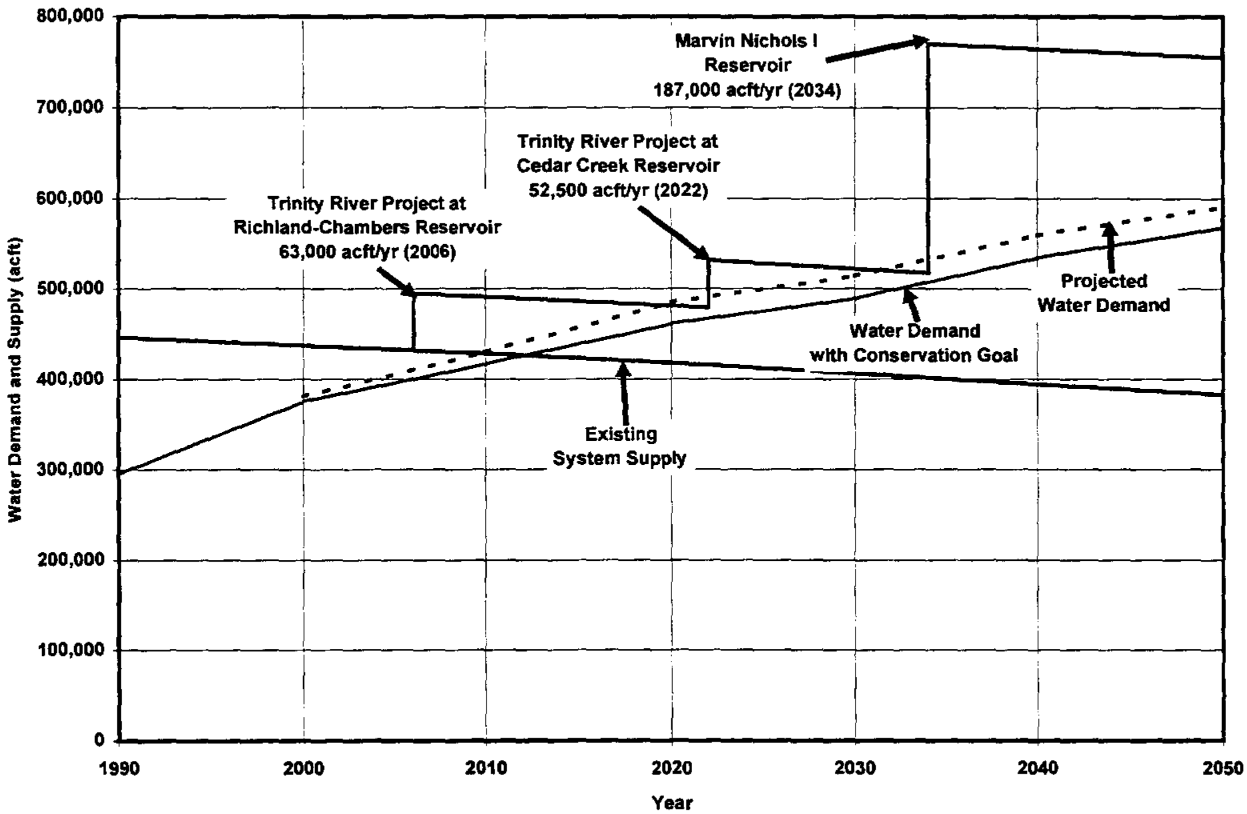


Figure 5-3. Water Demand and Supply with Integrated Water Supply Plan 2

As shown in Figure 5-3, achieving water conservation goals would be accomplished gradually throughout the 50-year planning period.

Also as shown in Figure 5-3, the key dates for implementing the reuse projects are the same as for Plan 1. Supply from the Marvin Nichols I Reservoir project would be needed by 2034. The key implementation dates for each plan are listed in Table 5-6.

[8] Project implementation year is set 3 years prior to date of projected shortage to allow for potential delays or needs greater than projected.

Table 5-6
Implementation Dates for Integrated Water Supply Plan Components

Plan 1		Plan 2	
Component	**Date Needed**	**Component**	**Date Needed**
Achieve water conservation goals	implement by 2005 with gradual increase thereafter	Achieve water conservation goals	implement by 2005 with gradual increase thereafter
Trinity River Project Reuse		Trinity River Project Reuse	
Richland-Chambers Reuse	2006	Richland-Chambers Reuse	2006
Cedar Creek Reuse	2022	Cedar Creek Reuse	2022
Tehuacana Reservoir	2034	Marvin Nichols I Reservoir	2034
Modify Reservoir Operations (reduce drought supply reserves)	2045		

5.4.1 Delivery Facilities Needed

5.4.1.1 Richland-Chambers Facilities

Current delivery facilities have a delivery capacity less than the safe yield of the reservoir. Increased capacity is needed to deliver the safe yield and augmented yield from the reuse project. The increased delivery capacity needed can be estimated as shown in Table 5-7.

Table 5-7
Richland-Chambers Reservoir Delivery System

	Required Pumping Capacity	
Estimated safe yield[1]	195,200 acft/yr 23,400 acft/month[2]	251 MGD
Reuse project yield	63,000 acft/yr 7,600 acft/month[2]	81 MGD
Tehuacana Reservoir Yield	65,547 acft/yr 7,900 acft/month	84 MGD
Total required pumping capacity	38,900 acft/month	416 MGD
Current pumping capacity with 90" pipeline at high capacity		244 MGD
Increased pumping capacity needed		172 MGD
Pipeline diameter from Richland-Chambers Reservoir to Ennis Booster Pump Station (at 9 fps and 5 percent downtime)		84-inch

1 Estimated safe yield in year 2015.
2 Monthly pumping volume is estimated using a maximum summer month delivery factor of 12 percent of annual volume.

The estimated safe yield of Richland-Chambers Reservoir in year 2015 is 195,200 acft/yr. Using a peak month demand factor of 12 percent of annual deliveries, results in a peak month delivery of 23,400 acft/month, or about 251 MGD. With implementation of the reuse project, an additional 63,000 acft/yr is available, and with construction of Tehuacana Reservoir, an additional 65,547 acft/yr is available, for a total yield at Richland-Chambers of 323,747 acft/yr. The peak monthly pumping demand (i.e., 12 percent of annual demand) would be 38,900 acft/yr, or about 416 MGD (Table 5-7). The current pumping capacity of the 90-inch diameter Richland-Chambers pipeline at high capacity operation is 244 MGD, which results in a required pumping and pipeline capacity expansion of 172 MGD (Table 5-7). For a pipeline design velocity of 9 fps and 5 percent downtime, the required pipeline diameter would be 84 inches. If the pipeline were to be built without capacity for Tehuacana Reservoir yield, the increased pumping capacity would need to be 88 MGD, requiring a 54-inch pipeline (at 9 fps and 5 percent downtime).

5.4.1.2 Cedar Creek Facilities

Current delivery facilities at Cedar Creek Reservoir have a delivery capacity about equal to the safe yield of the reservoir (Table 5-2). With implementation of the reuse project, delivery capacity from Cedar Creek Reservoir will need to be increased by about 108 MGD, as shown in Table 5-8. The estimated safe yield of Cedar Creek Reservoir in year 2015 is 145,500 acft/yr. Using a peak month demand factor of 12 percent of annual deliveries, results in a peak month delivery of 17,500 acft/month, or about 187 MGD. With implementation of the reuse project, an additional 52,500 acft/yr is available, for a total yield at Cedar Creek of 198,000 acft/yr. The peak monthly pumping demand (i.e., 12 percent of annual demand) is 23,800 acft/yr, or about 255 MGD (Table 5-8). The current pumping capacity of the 72-inch diameter Cedar Creek pipeline at high capacity operation is 147 MGD, which results in a required pumping and pipeline capacity expansion of 108 MGD (Table 5-8). For a pipeline design velocity of 9 fps and 5 percent downtime, the required pipeline diameter would be 60 inches.

Table 5-8
Cedar Creek Reservoir Delivery System

	Required Pumping Capacity	
Estimated safe yield[1]	145,500 acft/yr 17,500 acft/month[2]	187 MGD
Reuse project yield	52,500 acft/yr 6,300 acft/month[2]	67.5 MGD
Total required pumping capacity	23,800 acft/month	255 MGD
Current pumping capacity with 90" pipeline at high capacity		147 MGD
Increased pumping capacity needed		108 MGD
Pipeline diameter from Cedar Creek Reservoir to Ennis Booster Pump Station (at 9 fps and 5 percent downtime)		60-inch

1 Estimated safe yield in year 2015.
2 Monthly pumping volume is estimated using a maximum summer month delivery factor of 12 percent of annual volume.

5.4.1.3 Facilities Needed and Cost Estimates for Plan 1

The facilities needed to implement integrated water supply Plan 1, their respective sizes or capacities, and estimated costs are listed in Table 5-9. The location of the major supply facilities and size of the pipelines is shown in Figure 5-4. The first capacity improvement needed (by 2006) would be implementation of high capacity operation of the Richland-Chambers pipeline. To do this, three pumps would be installed at the Richland-Chambers intake pump station and six booster pumps at the Ennis booster pump station. This would increase capacity by 98 MGD for a total pumping capacity of 244 MGD. The estimated cost of the pumping improvements is $16,350,000.

In parallel with the pumping system improvements, the Trinity River Reuse Project at Richland-Chambers Reservoir should also be implemented by 2006. This project would consist of a 112.5 MGD river intake, pump station, and pipeline, the treatment system ponds, treated water pump station and pipeline. The cost for the Richland-Chambers portion of the reuse project is estimated to be $24,087,000.

Table 5-9
Integrated Water Supply Plan 1 Component Sizes and Estimated Costs

Component (date needed)	*Capacity[1] and Size*	*Estimated Cost[2]*
Richland-Chambers Pipeline High Capacity Operation (2006)		
Add pumping units at lake pump station	98 MGD	$4,350,000
Booster pump station at Ennis	98 MGD	$12,000,000
Trinity River Reuse Project – Richland-Chambers Reservoir		
Wetland Treatment System (2006)		$24,087,000
a. river intake and pump station[2]	107 MGD	
b. raw water pipeline[3,4]	107 MGD	
c. wetlands and sedimentation ponds[4]		
d. treated water pump station[3]	122 MGD	
e. treated water pipeline[3,4]	122 MGD	
R/C Raw Water Pipeline No. 2 from R/C to Ennis Booster Pump Station (2014)		
a. lake pump station expansion	172 MGD	$15,732,000
b. raw water pipeline (includes 84 MGD capacity for future Tehuacana Resv. yield)	84" dia., 29.8 miles	$111,714,000
Additional Delivery Capacity – Ennis Booster to Lake Benbrook		
Raw Water Pipeline, Ennis to Kennedale (2014)	280 MGD	
a. raw water pipeline (includes 84 MGD capacity for future Tehuacana Resv and 108 MGD capacity for reuse project at Cedar Creek)	96"	$180,695,000
b. booster pump stations	2	$36,720,000
Kennedale Balancing Reservoir Improvements (2022)		$6,600,000
a. additional balancing reservoir	1 or 2	$9,771,000
b. pump station to increase delivery capacity to Lake Benbrook	280 MGD	
Trinity River Reuse Project – Cedar Creek Reservoir		
Wetland Treatment System (2022)		$28,600,000
a. river intake and pump station[3]	96 MGD	
b. raw water pipeline[3,4]	96 MGD	
c. wetlands and sedimentation ponds[4]		
d. treated water pump station[3]	99 MGD	
e. treated water pipeline[3,4]	99 MGD	
Cedar Creek Raw Water Pipeline No. 2 from Cedar Creek to Ennis Booster Pump Station (2022)		
a. lake pump station expansion	108 MGD	$14,445,000
b. raw water pipeline	60"dia., 25.6 miles	$45,281,000
Tehuacana Reservoir (2034)		
a. dam, reservoir, and open channel to connect Tehuacana to Richland-Chambers	65,547 acft/yr	Costs dependent on further study
b. R/C lake pump station expansion	84 MGD	
c. booster pump station expansions	2	

1 Pumping capacities include a max summer month delivery factor of 12 percent of annual volume.
2 Estimated costs are in 1998 dollars.
3 Pumping capacities obtained from "Yield Analysis of Trinity River Project," R. J. Brandes Company, June 1998, Table 3-1.
4 Facility sizes and estimated costs obtained from "Wetland Treatment System Conceptual Plan," Alan Plummer Associates, Inc., January 1997, Appendix B, Table III-9, and Section IV.

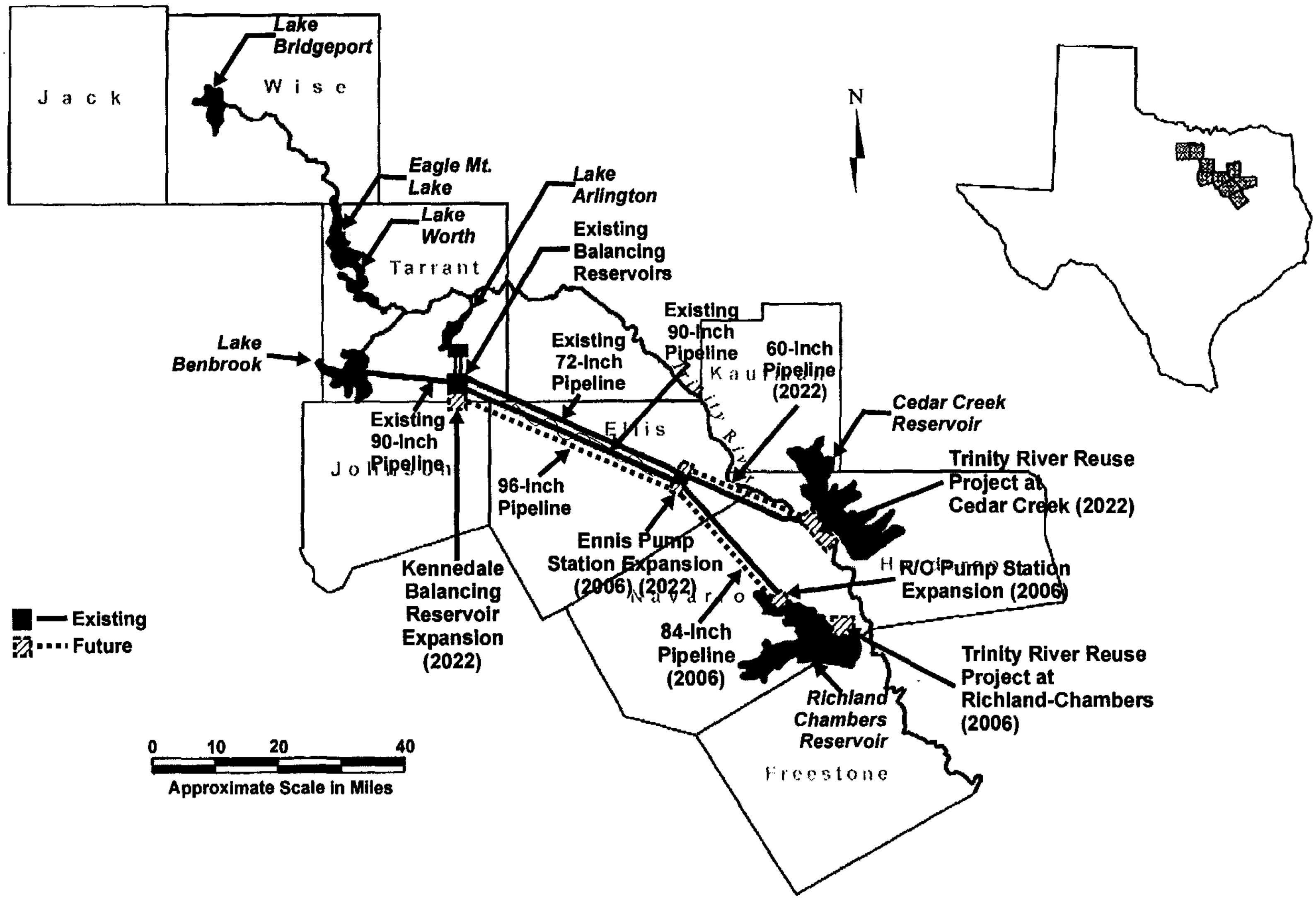


Figure 5-4. Integrated Water Supply Plan 1 — Delivery System Improvements

In order to deliver the increased water supply resulting from the reuse project to the Ennis booster pump station, a new 84-inch diameter pipeline would be needed as described earlier in Section 5.4.1.1 and Table 5-7. This pipeline size also has sufficient capacity to convey the yield from the planned Tehuacana Reservoir. If Tehuacana Reservoir is not constructed (i.e., Plan 2 would be implemented, not Plan 1), then the required pipeline size from Richland-Chambers to Ennis would be 54-inch diameter. The cost for the 84-inch diameter pipeline and pump station at Richland-Chambers is estimated to be $127,446,000.

Once the new 84-inch diameter pipeline is constructed from Richland-Chambers Reservoir to the Ennis booster pump station, additional pipeline and pumping capacity will be needed to deliver the water to the Kennedale balancing reservoirs. The pipeline from Ennis to Kennedale would be sized to convey 172 MGD supply from Richland-Chambers (Table 5-7) combined with the 108 MGD from the Cedar Creek portion of the Trinity Reuse Project that is in excess of the existing 72-inch pipeline capacity (Table 5-8). The total additional delivery capacity needed is 280 MGD. This would require a 96-inch diameter pipeline (for 9 fps and 5 percent downtime). The cost for the 96-inch diameter pipeline, booster pump stations and storage at Ennis and Waxahachie, and terminus structure at Kennedale is estimated to be $217,415,000.

At Kennedale, an additional balancing reservoir would be needed as well as a booster pump station to increase the delivery capacity through the existing 90-inch diameter pipeline from 120 MGD to 280 MGD to Lake Benbrook. The estimated cost of the improvements at Kennedale and the pipeline to Lake Benbrook is $16,371,000.

The Trinity River Reuse Project at Cedar Creek Reservoir should be implemented by 2022. This project would consist of a 96 MGD river intake, pump station, and pipeline, the treatment system ponds, treated water pump station and pipeline. The cost for the Cedar Creek portion of the reuse project is estimated to be $28,600,000. In order to deliver the increased water supply resulting from the reuse project to the Ennis booster pump station, a new 60-inch diameter pipeline would be needed as described earlier in Section 5.4.1.2 and Table 5-8. The estimated cost for the 60-inch diameter pipeline and pump station at Cedar Creek Reservoir is $59,726,000.

The final component of integrated water supply Plan 1 would be construction of Tehuacana Reservoir and the open channel to connect it to Richland-Chambers Reservoir. Also required at this point would be pumping improvements at the Richland-Chambers intake pump station and each of the booster pump stations to convey the supply originating from Tehuacana Reservoir. The estimated costs for the Tehuacana Project are dependent on further study of project components and possible purchase of mining rights to lignite deposits.

5.4.1.4 Facilities Needed and Cost Estimates for Plan 2

The facilities needed to implement integrated water supply Plan 2, their respective sizes or capacities, and estimated costs are listed in Table 5-10. The location of the major supply facilities and size of the pipelines is shown in Figure 5-5. The first capacity improvement needed (by the end of 2006) would be implementation of high capacity operation of the Richland-Chambers pipeline. To do this, three pumps would be installed at the Richland-Chambers intake pump station and six booster pumps at the Ennis booster pump station. This would increase capacity by 98 MGD for a total pumping capacity of 244 MGD. The estimated cost of the pumping improvements is $16,350,000.

In parallel with the pumping system improvements, the Trinity River Reuse Project at Richland-Chambers Reservoir should also be implemented by 2006. This project would consist of a 107 MGD river intake, pump station, and pipeline, the treatment system ponds, treated water water pump station and pipeline. The cost for the Richland-Chambers portion of the reuse project is estimated to cost $24,087,000.

In order to deliver the increased water supply resulting from the reuse project to the Ennis booster pump station, a new 54-inch diameter pipeline would be needed. The cost for the 54-inch diameter pipeline and pump station at Richland-Chambers is $60,077,000.

Once the new 54-inch diameter pipeline is constructed from Richland-Chambers Reservoir to the Ennis booster pump station, additional pipeline and pumping capacity will be needed to deliver the water to the Kennedale balancing reservoirs. The pipeline from Ennis to Kennedale would be sized to convey 88 MGD supply from Richland-Chambers combined with 108 MGD from the Cedar Creek portion of the Trinity Reuse Project that is in excess of the existing 72-inch pipeline capacity (Table 5-8). The total additional delivery capacity needed is

Table 5-10
Integrated Water Supply Plan 2 Component Sizes and Estimated Costs

Component (date needed)	Capacity[1] and Size	Estimated Cost[2]
Richland-Chambers Pipeline High Capacity Operation (2006)		
Add pumping units at lake pump station	98 MGD	$4,350,000
Booster pump station at Ennis	98 MGD	$12,000,000
Trinity River Reuse Project – Richland-Chambers Reservoir		
Wetland Treatment System (2006)		$24,087,000
a. river intake and pump station[3]	107 MGD	
b. raw water pipeline[3,4]	107 MGD	
c. wetlands and sedimentation ponds[4]		
d. treated water pump station[3]	122 MGD	
e. treated water pipeline[3,4]	122 MGD	
R/C Raw Water Pipeline No. 2 from R/C to Ennis Booster Pump Station (2014)		
a. lake pump station expansion	88 MGD	$13,346,000
b. raw water pipeline	54" dia., 29.8 miles	$70,175,000
Additional Delivery Capacity – Ennis Booster to Lake Benbrook		
Raw Water Pipeline, Ennis to Kennedale (2014)	196 MGD	
a. raw water pipeline (includes 108 MGD capacity for reuse project at Cedar Creek)	84"	$168,731,000
b. booster pump stations	2	$33,710,000
Kennedale Balancing Reservoir Improvements (2022)		
c. additional balancing reservoir	1 or 2	$6,600,000
d. pump station to increase delivery capacity to Lake Benbrook	90 dia., 17.7 miles	$9,771,000
Trinity River Reuse Project – Cedar Creek Reservoir		
Wetland Treatment System (2022)		$28,600,000
a. river intake and pump station[2]	96 MGD	
b. raw water pipeline[2,3]	96 MGD	
c. wetlands and sedimentation ponds[3]		
d. treated water pump station[2]	99 MGD	
e. treated water pipeline[2,3]	99 MGD	
Cedar Creek Raw Water Pipeline No. 2 from Cedar Creek to Ennis Booster Pump Station (2022)		
a. lake pump station expansion	108 MGD	$14,445,000
b. raw water pipeline	60" dia., 25.6 miles	$45,281,000
Marvin Nichols I Reservoir (2034)		
a. dam and reservoir	560,151 acft/yr	Costs dependent on terminus and cost share arrangements
b. water intake and pump station	Note (5)	
c. raw water pipeline	160 miles	
d. booster pump stations	Note (5)	
e. terminus at ____________	4 pump stations	

1 Pumping capacities include a max summer month delivery factor of 12 percent of annual volume.
2 Estimated costs are in 1998 dollars.
3 Pumping capacities obtained from "Yield Analysis of Trinity River Project," R. J. Brandes Company, June 1998, Table 3-1.
4 Facility sizes and estimated costs obtained from "Wetland Treatment System Conceptual Plan," Alan Plummer Associates, Inc., January 1997, Appendix B, Table III-9, and Section IV.
5 Pipeline capacity and diameter is dependent on several factors, including potential shared facilities with other water supply entities, and potential phasing of the project.

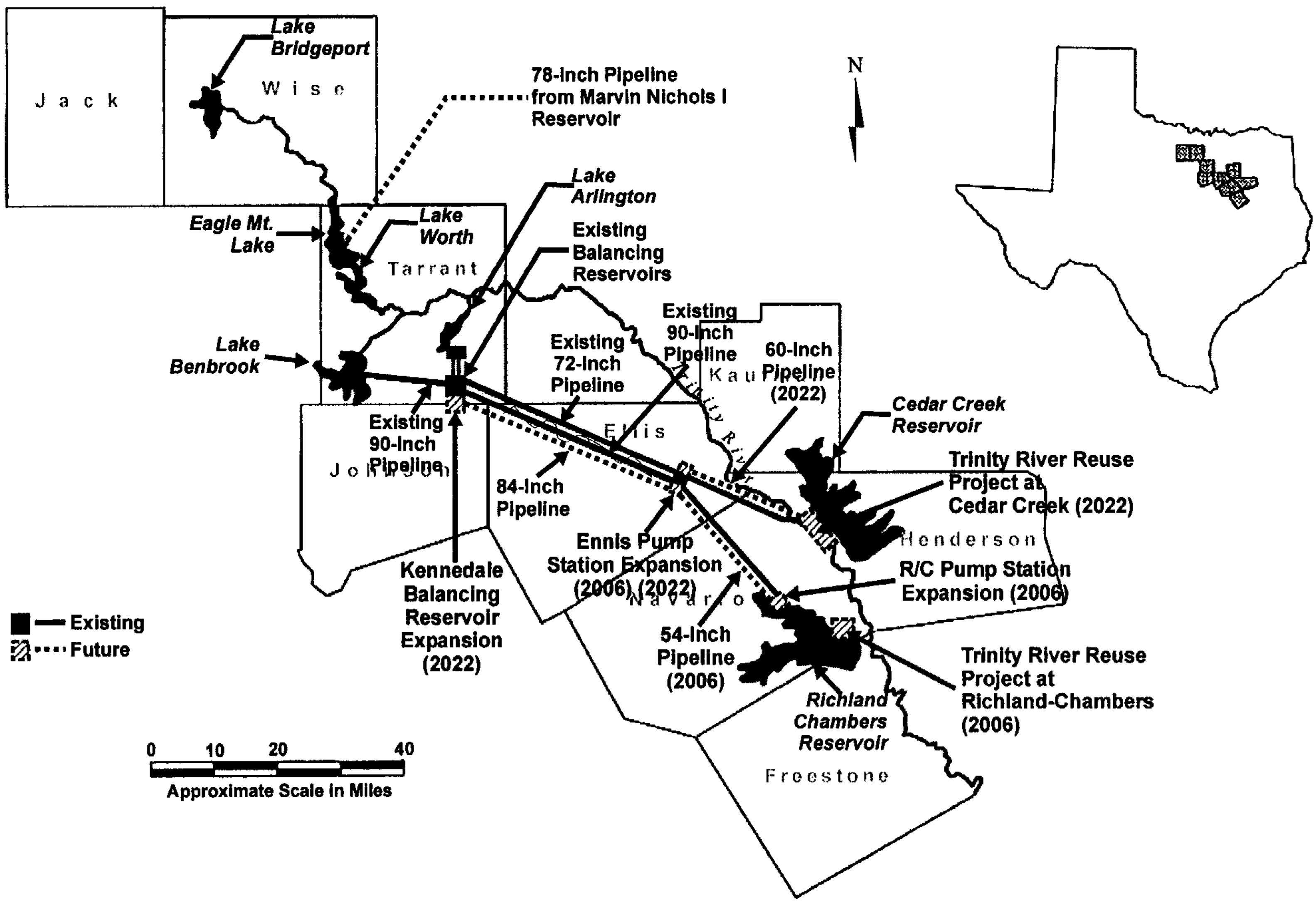


Figure 5-5. Integrated Water Supply Plan 2 — Delivery System Improvements

196 MGD. This would require a 84-inch diameter pipeline (for 9 fps and 5 percent downtime). The cost for the 84-inch diameter pipeline, booster pump station and storage at Ennis and Waxahachie, and terminus structure at Kennedale is estimated to be $202,441,000.

At Kennedale, an additional balancing reservoir would be needed as well as a booster pump station to increase delivery capacity through the existing 90-inch diameter pipelines (from 120 MGD to 280 MGD) to Lake Benbrook. The estimated cost of the improvements at Kennedale and pipeline to Lake Benbrook is $16,371,000.

The Trinity River Reuse Project at Cedar Creek Reservoir should be implemented by 2022. This project would consist of a 96 MGD river intake, pump station, and pipeline, the treatment system ponds, treated water pump station and pipeline. The cost for the Cedar Creek portion of the reuse project is estimated to be $28,600,000. In order to deliver the increased water supply resulting from the reuse project to the Ennis booster pump station, a new 60-inch diameter pipeline would be needed as described earlier in Section 5.4.1.2 and Table 5-8. The estimated cost for the 60-inch diameter pipeline and pump station at Cedar Creek Reservoir is $59,726,000.

The final component of integrated water supply Plan 2 would be construction of Marvin Nichols I Reservoir by 2034. Pipeline capacities, delivery points, and project costs are dependent on several factors, including the quantity of the District's share of the project, phasing of the project elements, and potential shared facilities with other project sponsors.

Appendix A

Reservoir Sedimentation Rate

Prepared by

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Appendix A

A.1 Introduction

Of particular importance to this project is the accumulation of sediment in the reservoirs utilized by the Tarrant Regional Water District (TRWD or District). Sediment affects the storage volume of a reservoir and affects its future water yields. For this project, two approaches are utilized to predict loss of reservoir capacity due to sediment deposition. The first approach is based upon the evaluation of available sedimentation survey results for reservoirs in the upper Trinity River Basin. The second approach is based upon the application of the Soil and Water Analysis Tool (SWAT) watershed model by the District to evaluate in more detail the sediment loading patterns for the reservoirs. The SWAT model, which was developed by the Natural Resources Conservation Service (previously the Soil Conservation Service), utilizes meteorological and hydrological information to calculate the amount of sediment delivered to a reservoir. The purpose of this section is to summarize the results of available sediment surveys and to review the additional perspectives gained through the applications of the SWAT model.

A.2 Capacity Loss Rates Due To Sediment Accumulation

Sedimentation survey information for nine reservoirs in the upper Trinity River Basin was reviewed for this study. Sedimentation surveys for District reservoirs included Bridgeport, Cedar Creek, Eagle Mountain, and Richland-Chambers. Sedimentation surveys undertaken by the United States Army Corps of Engineers (USACE) for other nearby reservoirs included Bardwell, Grapevine, Lavon, Lewisville, and Navarro Mills. The most convenient method for making comparisons of capacity losses due to sediment accumulation is to express the results in terms of capacity loss per square mile of drainage area per year. The drainage area utilized for this calculation generally only includes the "sediment contributing area," which is the drainage area downstream of any major upstream reservoirs.

For the nine reservoirs listed above, the capacity loss rate ranged from 0.53 to 4.15 acre-feet per square mile per year. The capacity loss values, as well as supplemental information, are shown in Table A-1.

Capacity loss rates are strongly affected by the types of soils and land use in the drainage area. The reservoirs with drainage areas primarily in the Blackland Prairie Land Resource Area

Table A-1
Reservoir Capacity Losses

Reservoir Name	*Drainage Area (sq. mi.)*	*Sediment Contributing Area (sq. mi.)*	*Survey Period (years)*	*Capacity Loss*		*Land Resource Area*
				(acft/yr)	*(acft/sq. mi./yr)*	
Bridgeport	**1,111**	**1,111**	**1968 – 1988**	**590**	**0.53**	**Primarily Cross Timbers and Prairies**
Eagle Mountain	**1,970**	**859**	**1968 – 1988**	**617**	**0.72**	**Primarily Cross Timbers and Prairies**
Cedar Creek	**1,007**	**1,007**	**1966 – 1995**	**1,453**	**1.44**	**Blackland Prairie and Post Oak Savannah**
Richland-Chambers	**1,957**	**1,459**	**1987 – 1994**	**4,976**	**3.41** **2.65**(1)	**Primarily Blackland Prairie**
Grapevine	**695**	**675**	**1952 – 1961** **1961 – 1966** **1952 – 1966**	**556** **511** **541**	**0.82** **0.76** **0.80**	**Primarily Cross Timbers and Prairies**
Lewisville	**1,660**	**1,599**	**1954 – 1960** **1960 – 1965** **1954 – 1965**	**2,328** **1,580** **1,983**	**1.46** **0.99** **1.24**	**Primarily Cross Timbers and Prairies with Some Blackland Prairie**
Lavon	**770**	**738**	**1953 – 1959** **1959 – 1965** **1953 – 1965**	**1,415** **1,578** **1,496**	**1.92** **2.14** **2.03**	**Primarily Blackland Prairie**
Navarro Mills	**320**	**302**	**1963 – 1972**	**634**	**2.10**	**Primarily Blackland Prairie**
Bardwell	**178**	**169**	**1965 – 1972** **1972 – 1981** **1965 – 1981**	**336** **699** **537**	**1.99** **4.15** **3.19**	**Primarily Blackland Prairie**

(1) The volumetric measurement of Richland-Chambers Reservoir sedimentation rate may be influenced by the accuracy of the pre-construction reservoir volume survey. Consequently, the long-term Blackland Prairie sedimentation rate exhibited at Cedar Creek Reservoir, Richland-Chambers Reservoir, Lake Lavon, Navarro Mills Reservoir, and Bardwell Reservoir of 2.65 acft per square mile per year will be used for estimating Richland-Chambers Reservoir future yield (2.65 acft/mi^2/yr x 1,459 mi^2 = 3,867 acft/yr).

exhibit high capacity loss rates in the range of 2 to 4 acre-feet per square mile per year, with an average value of approximately 2.65 acre-feet per square mile per year. These reservoirs include Lavon, Navarro Mills, Bardwell, and Richland-Chambers. Blackland Prairie soils are very susceptible to erosion where they are not protected adequately. Thus, the capacity loss rates for reservoirs in these areas are sometimes higher than may have been anticipated in the original reservoir design. Reservoirs with drainage areas primarily in the Cross Timbers and Prairies Land Resource Area exhibit lower capacity loss rates in the range of 0.5 to 1.5 acre-feet per square mile per year. These reservoirs include Lewisville, Grapevine, Bridgeport, and Eagle Mountain.

A.3 Sediment Deposition

When evaluating the amount of sediment which is washed off the land surface and is deposited in a reservoir, the sediment in the reservoir is commonly expressed on a weight basis (e.g., tons per square mile per year) rather than a volume basis (e.g., acre-feet per square mile per year). The soils deposited in reservoirs are less compacted than the soils in their watersheds. In-situ, dry Texas soils generally range in weight from 70 pounds per cubic foot for clays up to 110 pounds per cubic foot for sands. In contrast, reservoir sediments tend to be less dense because they are less compact. The sediments in the reservoirs studied for this report have dry weights which range from approximately 20 pounds per cubic foot to 80 pounds per cubic foot. The dry weight of the reservoir sediments depends upon the soil types, the gradation, and the degree of compaction. Samples taken from main channels in the downstream reaches of the reservoirs tend to be of finer gradation and have less compaction than samples taken in the upstream reaches and the overbank areas.

Table A-2 provides a summary of sediment deposition rates for the USACE reservoirs and District reservoirs in the Upper Trinity basin. As shown on the table, the USACE sediment surveys applied average sediment dry weights between approximately 35 pounds per cubic foot and 53 pounds per cubic foot for Grapevine, Lewisville, Lavon, Navarro Mills, and Bardwell. The Natural Resources Conservation Service (NRCS) generally applies a value of 50 pounds per cubic foot when evaluating reservoir deposits. The densities of the soils deposited in the TRWD reservoirs were not measured during recent sedimentation surveys. Thus, for the purposes of this project, dry weights of 36 and 50 pounds per cubic foot were applied in calculations for the

Table A-2
Sediment Deposition Summary

Reservoir Name	Drainage Area (sq. mi.)	Sediment Contributing Area (sq. mi.)	Survey Period (years)	Capacity Loss (acft/yr)	Capacity Loss (acft/sq. mi./yr)	Dry Weight (lbs./cu. ft)	Sediment Deposition (tons per yr)	Sediment Deposition (tons/sq. mi./yr)
Bridgeport	1,111	1,111	1968 – 1988	590	0.53	(50.0)	(643,000)	(578)
						(36.0)	(462,000)	(416)
Eagle Mountain	1,970	859	1968 – 1988	617	0.72	(50.0)	(672,000)	(782)
						(36.0)	(484,000)	(563)
Cedar Creek	1,007	1,007	1966 – 1995	1,453	1.44	(50.0)	(1,582,000)	(1,571)
						(36.0)	(1,140,000)	(1,131)
Richland-Chambers	1,957	1,459	1987 – 1994	4,976	3.41	(50.0)	(5,419,000)	(3,714)
					2.65(1)	(36.0)	(3,902,000)	(2,674)
Grapevine	695	675	1952 – 1961	556	0.82	35.8	434,000	639
			1961 – 1966	511	0.76	35.3	381,000	565
			1952 – 1966	541	0.80	35.3	415,000	615
Lewisville	1,660	1,599	1954 – 1960	2,328	1.46	50.6	2,573,000	1,609
			1960 – 1965	1,580	0.99	50.6	1,741,000	1,089
			1954 – 1965	1,983	1.24	50.6	2,186,000	1,367
Lavon	770	738	1953 – 1959	1,415	1.92	53.1	1,639,000	2,221
			1959 – 1965	1,578	2.14	53.1	1,825,000	2,472
			1953 – 1965	1,496	2.03	53.1	1,733,000	2,348
Navarro Mills	320	302	1963 – 1972	634	2.10	36.1	499,000	1,651
Bardwell	178	169	1965 – 1972	336	1.99	37.7	275,000	1,633
			1972 – 1981	699	4.15	37.7	574,000	3,406
			1965 – 1981	537	3.19	37.7	441,000	2,618

Note: Data shown in parentheses are estimates.

(1) The volumetric measurement of Richland-Chambers Reservoir sedimentation rate may be influenced by the accuracy of the pre-construction reservoir volume survey. Consequently, the long-term Blackland Prairie sedimentation rate exhibited at Cedar Creek Reservoir, Richland-Chambers Reservoir, Lake Lavon, Navarro Mills Reservoir, and Bardwell Reservoir of 2.65 acft per square mile per year will be used for estimating Richland-Chambers Reservoir future yield (2.65 acft/mi^2/yr x 1,459 mi^2 = 3,867 acft/yr).

District reservoirs to demonstrate the potential range of the weights of sediment deposits. For the nine reservoirs shown in Table A-2, the average sediment deposition rates ranged from approximately 400 to 3,700 tons per square mile per year.

A.4 Application Of The SWAT Model

The SWAT model is a product of a long-term program of nonpoint source pollution modeling conducted by the United States Department of Agriculture's Agricultural Research Service (USDA-ARS). The SWAT model was formed by combining two previous models called ROTO (Routing Output to Outlet) and SWRRB (Simulation for Water Resources in Rural Basins). The objective in model development was to predict the impact of management on water, sediment, and agricultural chemical yields in large basins. When applying the SWAT model, these basins are divided into many subwatersheds. Point and nonpoint information is input into the model and SWAT routes the runoff, sediment and chemicals through the watershed. The SWAT model can simulate many years of activity and utilizes a daily time step. Subwatershed components of SWAT are included in eight major divisions--hydrology, weather, sediment, soil temperature, crop growth, nutrients, pesticides, and agricultural management. A geographic information system (GIS) interface has been developed for the model to allow for the input of soil, land use, weather, management and topographic data from available databases for the region being studied.

The great advantage provided by SWAT is that it can estimate sediment loadings to a reservoir in a more detailed time frame than is provided by the sediment surveys discussed in the previous sections of this report. For the purpose of this study, the SWAT model was run for each of the four District reservoirs by NRCS and TRWD and sediment loadings were estimated on a monthly basis for the periods covered by the sediment surveys. The results of these simulations are discussed for these four reservoirs in the following sections of this report.

A.5 SWAT Sediment Analysis For Cedar Creek Reservoir

The Cedar Creek Reservoir watershed was divided into 71 subwatersheds and the SWAT model was applied to estimate sediment loadings and inflows to the reservoir for the 29-year period covered by the 1995 sediment survey. Rain gage records for the watershed and for nearby watersheds were utilized by the model for precipitation estimates. The model results are summarized by year in Table A-3. The total sediment estimate shows excellent agreement with the results of the sediment survey. The estimated annual average rainfall for the period was approximately 39.97 inches, which is 3 percent higher than the long-term annual average of 38.9 inches for Kaufman County. Annual rainfall depths utilized by the model ranged from approximately 26.94 inches to 53.83 inches. Sediment loading rates were estimated by the model to range from approximately 414,000 tons per year in 1978 to 3,958,000 tons per year in 1990. As would be expected, the wetter years tended to produce more sediment than the dryer years. This relationship is further illustrated in Table A-4, where the annual results for sediment are ranked from the highest rate to the lowest.

Further insight was gained by reviewing the model sediment results for each month. It is important to note that the model indicates that much of the sediment enters the reservoir during a few months. For example, the model indicated that approximately 25 percent of the sediment entered the reservoir in 2.3 percent of the months; 50 percent of the sediment entered the reservoir in 7 percent of the months; and 75 percent of the sediment entered the reservoir in 18 percent of the months. These results support the concept that much of the sediment is carried to the reservoir during relatively few, high runoff events.

A.6 SWAT Sediment Analysis for Richland-Chambers Reservoir

The Richland-Chambers Reservoir watershed was divided into 20 subwatersheds and the SWAT model was applied to estimate sediment loadings and inflows to the reservoirs for the seven year period covered by the 1994 sediment survey. The model results are summarized by year on Table A-5. The total sediment estimate shows very good agreement with the results of the sediment survey. The estimated annual average precipitation for the period was approximately 42.58 inches, which is 12 percent higher than the long-term annual average of 37.9 inches for Navarro County. Annual rainfall depths utilized by the model ranged from approximately 33.57 inches in 1988 to 48.25 inches in 1991.

Sediment loading rates were estimated by the model to range from approximately 1,883,000 tons per year in 1988 to 8,602,000 tons per year in 1992. The annual results for sediment are ranked from highest rate to lowest in Table A-6. A more detailed review of the monthly results for the model indicate that approximately 25 percent of the sediment entered the

Table A-3
Cedar Creek Sediment and Flow Data

Year	Sediment (tons/year)	Inflow (cubic ft/sec)	Annual Precipitation (inches)
1966	2,236,073	591.44	46.43
1967	1,184,224	370.76	44.41
1968	1,716,045	633.81	39.75
1969	2,409,507	707.26	48.18
1970	1,417,700	529.65	39.53
1971	1,493,816	437.14	44.17
1972	569,990	296.25	26.94
1973	3,117,697	904.99	53.67
1974	1,132,703	413.83	40.54
1975	768,485	324.50	29.67
1976	1,317,756	396.53	40.34
1977	775,833	298.37	29.28
1978	413,908	162.43	34.23
1979	1,430,958	438.90	42.98
1980	521,050	193.85	28.13
1981	2,317,226	577.32	47.37
1982	743,956	305.78	36.28
1983	1,200,437	415.25	28.97
1984	469,495	190.32	36.46
1985	2,680,443	692.78	41.14
1986	2,427,213	836.85	50.70
1987	1,043,077	369.34	30.26
1988	444,968	189.26	29.43
1989	2,900,075	693.14	37.20
1990	3,957,751	1018.34	53.83
1991	1,877,011	676.89	50.61
1992	1,851,861	667.71	41.13
1993	1,824,924	596.39	40.16
1994	1,843,650	727.74	47.47
Total	46,087,833		
Average	1,589,236	523.46	39.97

Table A-4
Cedar Creek Sediment and Flow Data
(Ranked by Annual Sediment Load)

Year	Rank	Sediment (tons/year)	Cumulative (tons/year)	Percent Total	Inflow (cubic ft/sec)	Annual Precipitation (inches)
1990	1	3,957,751	3,957,751	9%	1018.34	53.83
1973	2	3,117,697	7,075,448	15%	904.99	53.67
1989	3	2,900,075	9,975,523	22%	693.14	37.20
1985	4	2,680,443	12,655,966	27%	692.78	41.14
1986	5	2,427,213	15,083,179	33%	836.85	50.70
1969	6	2,409,507	17,492,686	38%	707.26	48.18
1981	7	2,317,226	19,809,912	43%	577.32	47.37
1966	8	2,236,073	22,045,985	48%	591.44	46.43
1991	9	1,877,011	23,922,996	52%	676.89	50.61
1992	10	1,851,861	25,774,857	56%	667.71	41.13
1994	11	1,843,650	27,618,507	60%	727.74	47.47
1993	12	1,824,924	29,443,431	64%	596.39	40.16
1968	13	1,716,045	31,159,476	68%	633.81	39.75
1971	14	1,493,816	32,653,291	71%	437.14	44.17
1979	15	1,430,958	34,084,250	74%	438.90	42.98
1970	16	1,417,700	35,501,950	77%	529.65	39.53
1976	17	1,317,756	36,819,706	80%	396.53	40.34
1983	18	1,200,437	38,020,142	82%	415.25	28.97
1967	19	1,184,224	39,204,367	85%	370.76	44.41
1974	20	1,132,703	40,337,070	88%	413.83	40.54
1987	21	1,043,077	41,380,147	90%	369.34	30.26
1977	22	775,833	42,155,980	91%	298.37	29.28
1975	23	768,485	42,924,465	93%	324.50	29.67
1982	24	743,956	43,668,422	95%	305.78	36.28
1972	25	569,990	44,238,412	96%	296.25	26.94
1980	26	521,050	44,759,462	97%	193.85	28.13
1984	27	469,495	45,228,957	98%	190.32	36.46
1988	28	444,968	45,673,925	99%	189.26	29.43
1978	29	413,908	46,087,833	100%	162.43	34.23
Total		46,087,833				
Average		1,589,236			523.46	39.97

Table A-5
Richland-Chambers Sediment and Flow Data

Year	Sediment (tons/year)	Inflow (cubic ft/sec)	Annual Precipitation (inches)
1988	1,882,761	451.61	33.57
1989	8,100,317	1542.34	39.30
1990	5,429,928	1302.94	45.87
1991	5,177,200	1207.25	48.25
1992	8,602,064	1962.88	45.96
1993	4,433,132	1076.60	40.30
1994	5,110,530	1277.52	44.80
Total	38,735,932		
Average	5,533,705	1260.16	42.58

Table A-6
Richland-Chambers Sediment and Flow Data
(Ranked by Annual Sediment Load)

Year	Rank	Sediment (tons/year)	Cumulative (tons/year)	Percent Total	Inflow (cubic ft/sec)	Annual Precipitation (inches)
1992	1	8,602,064	8,602,064	22%	1962.88	45.96
1989	2	8,100,317	16,702,381	43%	1542.34	39.30
1990	3	5,429,928	22,132,309	57%	1302.94	45.87
1991	4	5,177,200	27,309,509	71%	1207.25	48.25
1994	5	5,110,530	32,420,039	84%	1277.51	44.80
1993	6	4,433,132	36,853,171	95%	1076.60	40.30
1988	7	1,882,761	38,735,932	100%	451.61	33.57
Total		38,735,932				
Average		5,533,705			1260.16	42.48

reservoir in 5 percent of the months; 50 percent of the sediment entered the reservoir in 13 percent of the months; and 75 percent of the sediment entered the reservoir in 26 percent of the months. As with the previous discussion of Cedar Creek Reservoir, these results support the concept that much of the sediment is carried to the reservoir during relatively few, high runoff events.

Some care should be taken in applying the Richland-Chambers sedimentation results. The seven years covered by the sedimentation survey is a relatively short time for determining average sedimentation rates and the rainfall for the period was somewhat above the average value for the region. Additional insight into long-term sediment deposition rates for Richland-Chambers could be gained through the application of the SWAT model to a longer hydrologic record for the watershed.

A.7 SWAT Sediment Analysis For Lake Bridgeport and Eagle Mountain Lake

The combined watershed for Lake Bridgeport and Eagle Mountain Lake was divided into 142 subwatersheds and the SWAT model was applied to estimate sediment loadings and inflows to the reservoirs for the 20-year period covered by the 1988 sediment survey. The model results are summarized by year for Lake Bridgeport on Table A-7 and for Eagle Mountain Lake on Table A-8. The sediment loadings estimated by the model were higher than the values measured by the sediment surveys. The model inputs are currently being revised by the NRCS.

For the Lake Bridgeport analysis, the estimated annual average rainfall for the period was approximately 32.37 inches, which is 5 percent higher than the long-term annual average of 30.7 inches for Jack County. For the Eagle Mountain Lake analysis, the estimated annual average rainfall for the period was approximately 34.78 inches, which is 7 percent higher than the long-term annual average of 32.6 inches for Wise County.

A.8 Summary of Sediment Losses Due to Sediment Deposition

Losses in reservoir capacity caused by sediment disposition vary extensively among the District reservoirs. Available sediment surveys indicate that the rates of capacity loss range from approximately 590 acre-feet per year for Lake Bridgeport to 4,976 acre-feet per year for Richland-Chambers Reservoir. The rate of capacity loss depends upon the size of the drainage area, the types of soils, the land uses, the rainfall patterns and other watershed characteristics. Reservoirs located in the Blackland Prairie Land Resource area exhibit higher capacity loss rates due to sediment deposition than reservoirs located outside this area. For this reason, reservoirs located in the Blackland Prairie area sometimes exhibit more rapid capacity losses than were originally anticipated when the reservoirs were designed.

Table A-7
Bridgeport Sediment and Flow Data

Year	*Sediment (tons/year)*	*Inflow (cubic ft/sec)*	*Annual Precipitation (inches)*
1969	525,637	137.36	35.86
1970	269,841	88.28	29.53
1971	119,753	42.73	29.22
1972	2,293,325	252.11	22.98
1973	331,709	101.34	34.97
1974	527,518	158.19	34.68
1975	589,952	190.67	41.92
1976	381,749	91.45	31.70
1977	621,950	98.87	19.77
1978	204,688	61.09	23.38
1979	227,449	104.52	34.14
1980	648,860	148.30	24.95
1981	4,256,133	693.49	60.14
1982	1,627,245	325.91	36.61
1983	69,333	28.25	21.34
1984	552,513	126.06	28.02
1985	813,839	217.16	32.73
1986	561,902	198.09	41.83
1987	551,300	173.73	38.35
1988	333,955	70.97	25.21
Total	15,508,650		
Average	775,433	174.14	32.37

The drainage area for Richland-Chambers Reservoir is located primarily in the Blackland Prairie Land Resource Area and the drainage area for Cedar Creek Reservoir is partially located in this area. Watershed models, such as SWAT, can provide valuable insight into changes in deposition rates on a short-term or long-term basis as the result of factors such as rainfall patterns, soil types and management practices. For estimates of long-term reservoir yields, models such as SWAT are valuable for determining the sensitivity of the yield calculations to sediment deposition rates. Field surveys of reservoir volumes should be performed on a periodic

Table A-8
Eagle Mountain Sediment and Flow Data

Year	Sediment (tons/year)	Inflow (cubic ft/sec)	Annual Precipitation (inches)
1969	235,104	88.63	35.15
1970	191,603	86.86	35.53
1971	76,509	51.91	37.30
1972	1,063,626	143.36	37.77
1973	158,298	88.98	40.80
1974	935,872	207.62	45.66
1975	724,752	204.80	36.43
1976	51,490	33.19	38.82
1977	795,741	137.00	31.63
1978	32,969	22.95	23.99
1979	401,600	111.93	38.07
1980	155,000	54.73	21.88
1981	9,769,824	1061.77	46.57
1982	2,476,852	413.83	37.71
1983	27,183	21.89	27.56
1984	39,857	33.90	30.70
1985	891,271	243.64	33.52
1986	1,068,548	249.29	40.90
1987	1,151,986	265.53	29.66
1988	146,438	55.79	25.88
Total	20,394,522		
Average	1,019,726	178.87	34.78

basis, perhaps every 5 years, until the sedimentation rate for each water supply reservoir is established within reasonable confidence limits.

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2. Soil Conservation Service, U.S. Department of Agriculture, Erosion & Sediment Control Guidelines for Developing Areas in Texas, 1976.

3. Texas State Soil and Water Conservation Board, A Comprehensive Study of Texas Watersheds and Their Impacts on Water Quality and Water Quantity, January 1991.

4. Texas Water Development Board, Volumetric Survey of Richland-Chambers Reservoir, prepared for the Tarrant County Water Control and Improvement District Number One, March 31, 1995.

5. Texas Water Development Board, Volumetric Survey of Cedar Creek Reservoir, prepared for the Tarrant County Water Control and Improvement District Number One, July 31, 1995.

6. Army Corps of Engineers, Report on Sedimentation, Grapevine Lake: Denton Creek, Trinity River Basin, Texas, Resurveys of November 1961 and November 1966, November 1971.

7. Army Corps of Engineers, Report on Sedimentation, Lake Lavon: East Fork of Trinity River, Trinity River Basin, Texas, Resurvey of October 1965, June 1975.

8. Army Corps of Engineers, Report on Sedimentation, Lewisville Lake: Elm Fork of Trinity River, Trinity River Basin, Texas, Resurvey of September 1965, July 1975.

9. Army Corps of Engineers, Report on Sedimentation, Navarro Mills Lake: Richland Creek, Trinity River Basin, Texas, Resurvey of September 1972, April 1976.

10. Army Corps of Engineers, Report on Sedimentation, Bardwell Lake: Waxahachie Creek, Texas, Trinity River Basin, Texas, Resurvey of August 1981, September 1987.

Appendix B

Hydrologic Analyses

Appendix B

Detailed analyses of the inflows to both Richland-Chambers and Cedar Creek Reservoirs were performed by R.J. Brandes Company as part of another study.[1] The computed reservoir inflows derived as part of this study were used in the simulation of the reservoir yields for the East Texas Reservoirs modeled for the District's Water Management Plan. Excerpts from the aforementioned study, detailing the computation of inflows to the East Texas Reservoirs, are included in this Appendix.

[1] R.J. Brandes Company, "Yield Analysis of Trinity River Project," prepared for Tarrant Regional Water District, June 1998.

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1.3 SIMYLD-II Model Structure

Two separate SIMYLD-II models have been developed for evaluating Project yields. One for the Richland-Chambers Reservoir system and one for the Cedar Creek Reservoir system. Because of the necessity to determine "available" inflows for each of the reservoirs, i. e., inflows remaining after all upstream senior water rights have been satisfied, each of the SIMYLD-II models includes demand and storage nodes that reflect all currently existing upstream senior water rights. This includes all upstream reservoirs and direct diversions for senior water rights, as well as, any junior water rights for which either the Richland-Chambers Reservoir or Cedar Creek Reservoir water rights have been subordinated by special agreement. In accordance with effective Certificates of Adjudication, the recognized priority dates for Richland-Chambers Reservoir and Cedar Creek Reservoir have been established as October 18, 1954 and May 28, 1956, respectively.

The SIMYLD-II model structure for the Richland-Chambers Reservoir system is illustrated by the network diagram in Figure 1-1. Triangles are used to distinguish storage reservoirs and demand points, and circles identify nodes where demands (open arrows) and/or inflows (solid arrows) are defined. Richland-Chambers Reservoir is designated as Node 3, and the total demand specified for Richland-Chambers Reservoir, which includes the proposed Project incremental yield, is identified with the open arrow labeled "TRWD Project Demand". The name and authorized annual diversion amount of individual senior water rights (demands), or junior water rights with subordination agreements with respect to Richland-Chambers Reservoir, also are indicated. Solid lines with arrows, which are referred to as links, connect the reservoirs and nodes, and indicate the direction of flow. As shown on the diagram, Navarro Mills Reservoir (Node 5) on Richland Creek, Halbert Reservoir (Node 2) on Elm Creek, Clark Reservoir (Node 1) on Little Mustang Creek, Bardwell Reservoir on Waxahachie Creek, and Alvarado Reservoir (Node 7) on Turkey Creek are included in the SIMYLD-II model upstream of Richland-Chambers Reservoir (Node 3). A separate reservoir node also is included in the model to represent the wetlands water quality treatment system associated with the Project (Node 6). Diversions from the Trinity River are made into the wetlands node to maintain a constant prescribed storage volume of 3,000 acre-feet, i. e., 1.5 feet of average depth over 2,000 acres. Evaporation losses from the wetlands then are

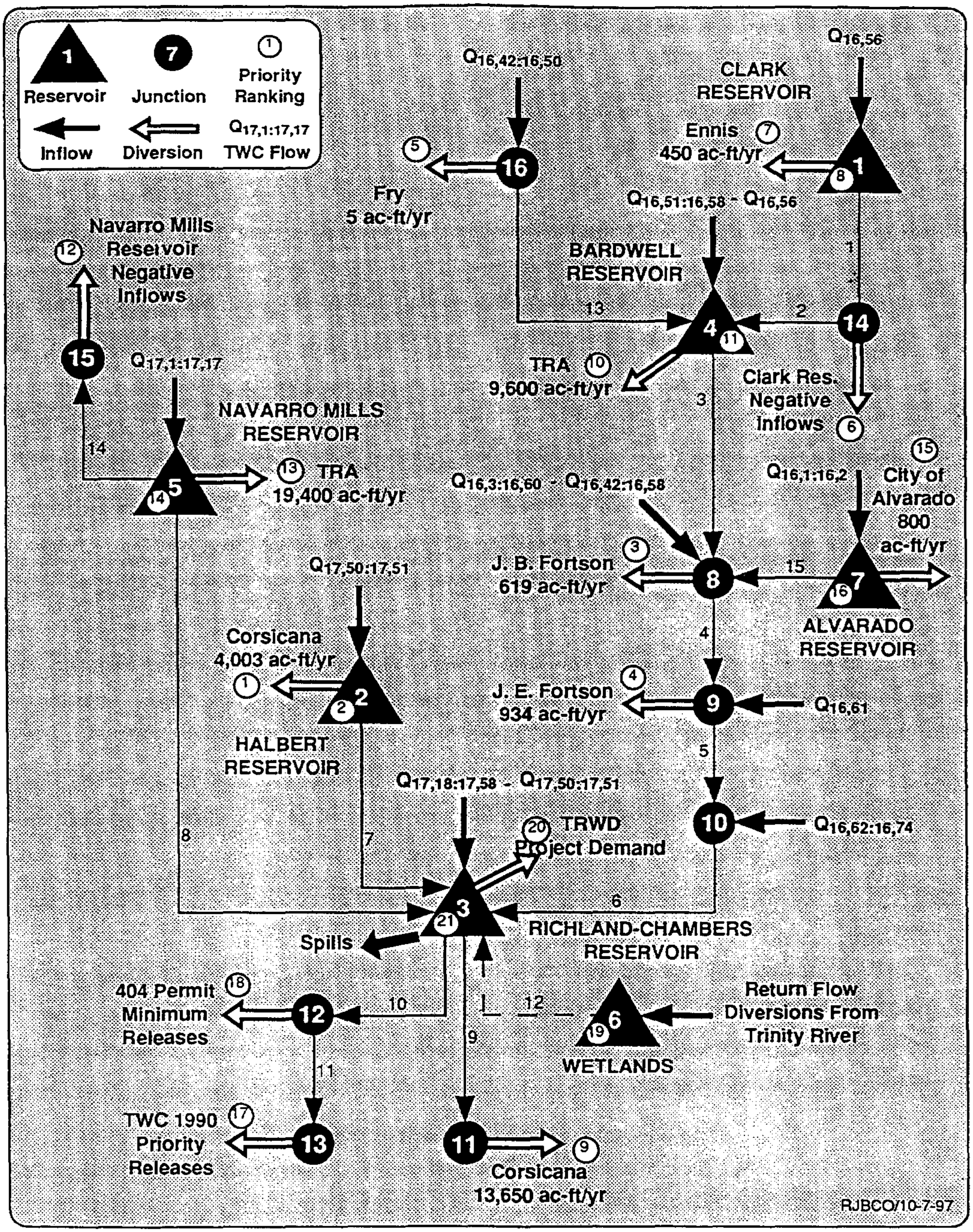

FIGURE 1-1
SIMYLD MODEL NETWORK FOR RICHLAND-CHAMBERS RESERVOIR WITH UPSTREAM SENIOR WATER RIGHTS AND TRINITY RIVER DIVERSION

simulated, and diversions into Richland-Chambers Reservoir are made in accordance with the specified reservoir stage-related operating rules to produce the additional Project yield. Additional demands on Richland-Chambers Reservoir for its required 404 Permit minimum release of 5.0 cfs (Node 12) and for satisfying downstream senior water rights (Node 13) are specified at downstream nodes. The quantities of inflow passed through the reservoir to satisfy downstream senior water rights are specified in the SIMYLD model based on results from the Texas Water Commission's (TWC) Water Availability Model of the Trinity River Basin (October, 1990) as provided by the Texas Natural Resource Conservation Commission (TNRCC).

Priorities assigned in the SIMYLD-II model to individual demands and storage reservoirs are indicated by the numbers in small open circles. These priorities are used in the SIMYLD-II model to rank demand and storage operations each time step (month) during a simulation in accordance with water rights priority dates and/or subordination agreements and other operating criteria. The lowest assigned priority value (in this case, a value of "one" for the Corsicana diversion at Node 2) corresponds to the highest priority ranking in the model for performing a particular operation.

Finally, it should be noted that each of the inflows to nodes identified on the diagram by solid arrows has the source of the inflows specified as subscripted Q's. These subscripted Q's refer to the individual subwatersheds in the 1990 TWC Water Availability Model of the Trinity River Basin from which the naturalized flows for the indicated inflow points were obtained. The development of these inflows is discussed in more detail in Section 2.0.

For the Cedar Creek Reservoir system, the SIMYLD-II model network diagram as applied in this study is illustrated in Figure 1-2. The same symbols and terminology described above for the Richland-Chambers Reservoir system also have been used in developing this model structure. Node 5 represents Cedar Creek Reservoir. Additional reservoir storage nodes are included for upstream senior water rights reservoirs at Terrell City Lake (Node 2) on Muddy Cedar Creek, Hunt Oil Reservoir (Node 3) on Williams Creek tributary, and McHenry Wallace Reservoir (Node 1) on North Twin Creek. Forest Grove Reservoir (Node 6) on Caney Creek also is included in the model with its permitted operating rules and TRWD contract stipulations incorporated into the SIMYLD-II code. The diversion of an average of approximately 3,000 acre-feet per year of water

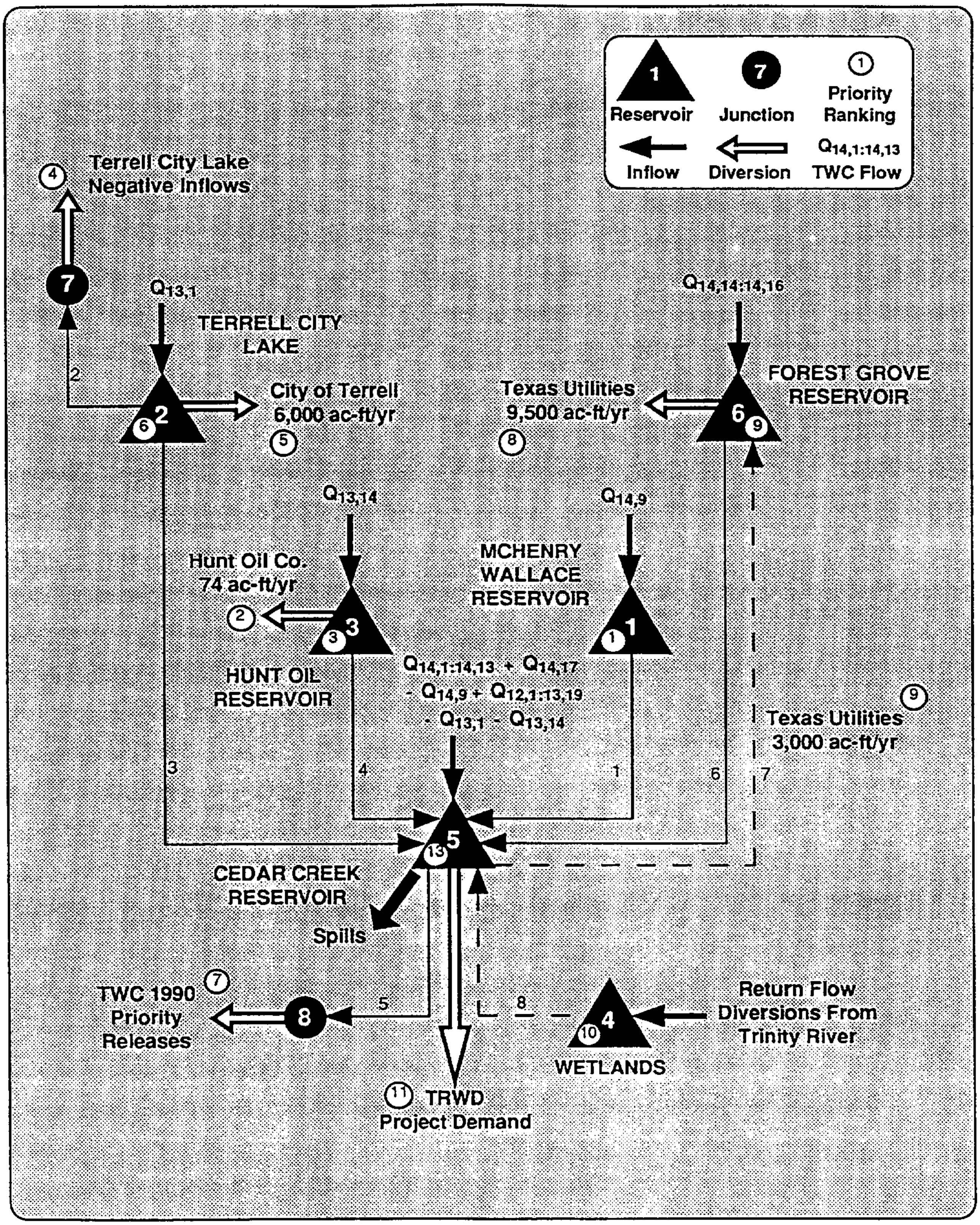

FIGURE 1-2
SIMYLD MODEL NETWORK FOR CEDAR CREEK RESERVOIR WITH UPSTREAM SENIOR WATER RIGHTS AND TRINITY RIVER DIVERSION

from Cedar Creek Reservoir back to Forest Grove Reservoir is included in the model in accordance with the contract agreement between the TRWD and Texas Utilities, Inc.

Again, a separate reservoir node also is included in the model to represent the wetlands water quality treatment system associated with the Project (Node 4). Diversions from the Trinity River are made into the wetlands node to maintain a constant prescribed storage volume (18 inches of average depth over 1,800 acres), from which evaporation losses then are simulated and diversions into Cedar Creek Reservoir are made in accordance with specified reservoir stage-related operating rules to produce the additional Project yield. Additional demands on Cedar Creek Reservoir for satisfying downstream senior water rights also are specified at a downstream node (Node 8). The monthly amounts of inflows passed through the reservoir to satisfy downstream senior water rights are specified based on results from the TWC Water Availability Model of the Trinity River Basin (1990) as provided by the TNRCC. Again, priorities are assigned in the SIMYLD-II model to individual demands and storage reservoirs, as indicated by the numbers in small open circles, to rank these operations in accordance with water rights priority dates and/or subordination agreements and other operating criteria.

2.0 BASIC INPUT DATA

2.1 Streamflows

Inflows to each of the nodes in the SIMYLD-II models for Richland-Chambers Reservoir and Cedar Creek Reservoir have been developed from monthly naturalized flow data obtained from the Texas Water Commission (TWC) Water Availability Model for the Trinity River Basin (October, 1990). These naturalized flow data are referred to as "Total Runoff" in the TWC model, and they were requested from the Texas Natural Resource Conservation Commission for specific subwatersheds included in the TWC Trinity River Basin model. The period of record for which these naturalized flows are available from the 1990 TWC model is 1940-1981.

In developing the inflows required for the SIMYLD-II models, the 1990 TWC naturalized flows for specific subwatersheds were aggregated at points where upstream water rights senior to Richland-Chambers and Cedar Creek Reservoirs are located. In the Richland-Chambers watershed, Navarro Mills and Bardwell Reservoirs have been considered to be senior to Richland-Chambers Reservoir because of subordination agreements with the TRWD. Lake Alvarado, although junior, has been included as a senior water right following discussions with TRWD staff. In the Cedar Creek watershed, the Forest Grove Reservoir has been included in the SIMYLD-II model as per the contractual agreement between TRWD and Texas Utilities, Inc.

One point to note is that the 1990 TWC naturalized flows in the Chambers Creek watershed have been adjusted to account for an apparent minor error in the TWC flow development methodology. This error resulted in a disproportionate percentage of the total flow being allocated to the drainage area upstream of Bardwell Reservoir. Also, some of the inflows from the 1990 TWC model for certain subwatersheds are negative because of the manner in which they were derived during the naturalization process. For example, when the TWC was adjusting the gaged flows for the effects of historical reservoir storage and evaporation losses and for the effects of historical diversions and return flows, the resulting naturalized flows sometimes were determined to be negative, and these negative values were used by TWC in its modeling to reflect natural channel losses. For operating the SIMYLD-II models developed in this study, these negative naturalized flows have been preserved. In some cases, separate demand nodes have been established in the model networks to account for the inherent water losses. These demand nodes are identified on the network diagrams in Figures 1-1 and 1-2.

Summaries of the monthly inflows to Richland-Chambers Reservoir and to Cedar Creek Reservoir as simulated with the SIMYLD-II models are presented in Tables 2-1 and 2-2, respectively, for the entire simulation period, 1940-1981. These flows are expressed in acre-feet, and they reflect operation of the SIMYLD-II models taking into account all upstream senior water rights diversions and reservoirs.

2.2 Reservoir Area-Capacity Data

Area-capacity data for Richland-Chambers and Cedar Creek Reservoirs have been obtained from current TRWD water supply planning studies being conducted by HDR Engineering, Inc.[1], and these data have been incorporated into the SIMYLD-II models. For current reservoir sedimentation and storage conditions, the area-capacity data used in the models correspond to the most recent volumetric survey information developed by the Texas Water Development Board (TWDB) in 1995 for Richland-Chambers[2] and Cedar Creek[3] Reservoirs. For future reservoir sedimentation and storage conditions, the same projected year-2050 area-capacity relationships used by HDR have been applied in the models. The use of year-2050 reservoir sedimentation conditions for evaluating future Project yield in this investigation is appropriate since the TRWD presently is examining its water supply options for meeting the anticipated demands of its customers through the year 2050.

The projected year-2050 area-capacity relationships for Richland-Chambers and Cedar Creek Reservoirs are based on extrapolations of current relationships using observed historical sediment accumulation rates for various reservoirs in the region, including Richland-Chambers Reservoir,

[1] HDR Engineering, Inc.; "Water Conservation and Emergency Demand Management Plan, Tarrant Regional Water District"; September, 1997; Austin, Texas.
[2] Texas Water Development Board; "Volumetric Survey of Richland-Chambers Reservoir"; 1995; Austin, Texas.
[3] Texas Water Development Board; "Volumetric Survey of Cedar Creek Reservoir"; 1995; Austin, Texas.

TABLE 2-1 MONTHLY INFLOWS TO RICHLAND-CHAMBERS RESERVOIR AS SIMULATED WITH SIMYLD-II MODEL

(Acre-Feet)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1940	14	5,317	702	121,084	38,949	65,299	122,173	818	1	5	337,248	195,498	887,108
1941	65,108	277,213	160,771	91,913	170,471	225,906	168,935	11,631	727	20,708	5,037	13,338	1,211,758
1942	4,578	10,098	12,954	678,250	130,248	82,891	3,615	17,740	159,405	72,739	50,054	72,351	1,294,923
1943	18,590	5,565	55,192	61,067	255,991	66,526	1,882	45	59,224	50,070	450	6,510	581,112
1944	81,748	198,582	71,497	32,040	608,492	56,437	4,736	53	50	452	8,607	72,647	1,135,341
1945	144,413	239,328	557,842	301,001	14,323	192,092	133,170	8,336	3,275	76,022	18,048	33,833	1,721,683
1946	67,676	175,628	69,734	30,083	329,100	69,986	2,094	9,658	1,432	774	60,482	31,821	848,468
1947	198,358	18,831	124,678	120,102	24,656	69,532	467	3,558	8,370	401	2,761	31,082	602,796
1948	23,688	34,535	61,159	20,572	295,418	6,881	15,146	9	0	0	85	145	457,638
1949	13,856	51,588	37,180	31,331	44,316	16,112	4,878	762	0	6,413	130	71	206,637
1950	6,189	157,261	8,355	89,045	75,052	5,488	4,731	49	726	0	0	0	346,896
1951	715	6,257	356	554	6,854	57,413	70	0	8,729	2	0	0	80,950
1952	0	4,590	7,475	121,488	94,097	2,069	239	0	0	0	13,480	51,102	294,540
1953	14,285	2,609	96,021	25,516	342,468	733	1,396	7	2,965	6,521	1,542	19,021	513,084
1954	11,328	405	74	1,048	31,067	39	0	11	0	1,606	3,361	29	48,968
1955	911	12,660	14,929	8,986	13,125	13,962	515	5,710	8,105	520	0	0	79,423
1956	2,136	19,289	25	397	68,294	7,093	17	98	19	127	20,493	1,486	119,474
1957	1,638	20,723	21,690	711,429	404,787	77,308	513	112	359	58,850	202,938	12,049	1,512,396
1958	33,908	13,768	46,098	128,160	487,673	2,570	8,980	14,106	104,125	10,626	2,597	5,421	858,032
1959	2,184	48,118	7,540	81,685	196,661	284,171	12,920	1,189	1,004	146,746	10,624	133,512	926,354
1960	221,336	40,586	19,675	8,977	18,185	18,402	984	7,285	161	10,897	4,957	291,600	643,045
1961	381,898	248,242	131,802	18,415	7,721	148,594	60,946	2,031	3,970	5,704	89,480	64,340	1,163,143
1962	10,465	23,695	9,634	52,044	14,677	56,749	5,843	786	10,670	54,629	7,075	7,510	253,777
1963	3,585	1,707	3,347	24,524	22,039	2,051	861	1,075	717	1,017	458	205	61,586
1964	558	882	3,484	5,062	2,350	1,034	1,792	1,337	221	1,219	9,035	786	27,760
1965	6,511	54,186	26,822	12,601	381,924	12,640	1,790	1,884	1,485	629	4,445	877	505,794
1966	1,332	20,173	5,517	543,105	251,711	3,222	1,856	6,005	5,572	2,900	1,033	916	843,342
1967	667	650	1,460	9,311	4,719	38,785	7,466	1,306	63,712	222,747	166,309	122,499	639,631
1968	176,989	99,219	181,848	199,484	556,420	134,310	9,652	2,170	1,265	2,922	5,494	19,947	1,389,720
1969	2,663	56,432	171,414	98,204	509,877	20,308	2,480	1,717	144	4,443	4,649	40,412	912,743
1970	10,327	92,878	266,751	76,513	15,216	15,141	2,451	1,448	8,597	74,350	8,821	1,918	574,411
1971	1,926	5,109	3,511	11,914	5,029	1,430	3,056	3,153	1,126	70,436	25,066	271,424	403,180
1972	132,125	12,833	4,276	2,173	4,344	2,377	3,010	1,493	1,753	22,268	12,510	8,234	207,396
1973	53,942	57,960	164,221	362,391	92,616	297,347	23,588	5,808	27,068	146,986	33,396	25,209	1,290,532
1974	50,272	19,092	11,254	4,555	34,231	3,643	2,024	4,512	73,570	85,909	399,810	70,832	759,704
1975	50,587	203,517	50,805	176,757	393,283	102,413	15,015	3,272	2,864	1,839	1,982	1,453	1,003,787
1976	2,658	3,594	21,015	145,037	173,571	89,576	84,896	3,331	54,748	47,580	11,257	73,792	711,055
1977	17,062	163,555	155,209	273,596	33,914	5,277	2,565	2,386	2,197	1,069	1,134	1,774	659,738
1978	1,075	15,193	51,518	2,223	8,567	2,333	2,294	3,033	3,218	1,823	2,583	778	94,638
1979	20,815	17,781	87,358	69,735	262,007	140,844	9,366	10,808	6,366	2,310	2,130	32,245	661,765
1980	107,828	55,081	11,837	127,973	210,833	5,759	2,651	2,424	1,565	1,635	863	2,809	531,258
1981	1,026	955	8,715	6,182	28,997	292,548	28,006	2,074	1,656	81,506	8,792	4,255	464,712

TABLE 2-2 MONTHLY INFLOWS TO CEDAR CREEK RESERVOIR AS SIMULATED WITH SIMYLD-II MODEL

(Acre-Feet)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1940	102	4,043	1,725	64,312	76,972	15,169	27,559	1,721	165	1	137,567	108,460	437,796
1941	12,226	56,335	66,679	18,996	89,884	268,642	23,901	15,265	305	14,767	9,916	17,765	594,681
1942	6,213	16,763	11,262	415,918	121,010	107,116	408	5,384	24,091	9,299	21,844	57,300	796,608
1943	17,159	9,039	51,030	35,292	65,856	165,383	780	17	1,869	16,316	82	11,296	374,119
1944	45,262	69,336	46,181	14,823	267,804	19,338	870	9	209	67	23,194	87,354	574,447
1945	58,090	122,832	339,434	127,368	3,503	127,565	126,443	1,161	1,759	20,924	13,069	12,354	954,502
1946	75,059	130,175	24,710	7,818	131,195	119,015	137	7,688	3,219	1,549	193,083	28,653	722,301
1947	52,222	3,236	28,283	205,016	6,974	46,081	269	9,964	7,613	159	21,777	141,392	522,986
1948	45,707	58,316	74,628	6,628	106,443	753	1,950	573	146	0	2,058	2,116	299,318
1949	45,355	87,634	22,706	21,829	25,943	8,032	1,492	5	0	8,838	621	434	222,889
1950	40,333	209,808	3,678	45,101	111,402	2,727	16,376	2,939	1,092	0	2,007	49	435,512
1951	12,270	43,571	1,052	1,189	12,400	64,207	2,866	0	529	2,508	403	0	140,995
1952	1,468	1,187	8,372	138,652	102,371	7,500	273	0	0	0	12,419	60,890	333,132
1953	14,085	985	26,210	44,460	258,255	155	320	1,208	6,209	111	153	17,538	369,689
1954	42,694	5,565	200	10,351	40,624	1,400	-81	-81	-66	30,687	21,964	1,199	154,456
1955	3,395	22,468	26,996	45,411	4,552	3,424	177	410	896	92	-16	-19	107,786
1956	135	23,916	174	298	31,866	377	279	260	226	89	19,414	1,109	78,143
1957	11,228	23,381	43,815	524,195	211,907	37,399	184	573	8,186	103,440	145,438	16,363	1,126,109
1958	42,478	2,251	34,734	230,569	234,365	1,989	23,552	8	8,803	3,448	2,275	1,221	585,693
1959.	886	51,982	16,148	81,151	60,756	21,011	2,243	171	70	36,459	7,703	96,196	374,776
1960	153,845	47,413	19,037	1,356	2,919	4,505	2,663	2,839	1,333	760	6,782	192,933	436,385
1961	113,120	69,876	67,592	10,300	3,366	96,408	12,486	732	1,591	300	17,365	37,554	430,690
1962	7,325	19,069	9,878	54,408	28,752	11,019	55,487	4,816	20,917	12,051	29,471	11,823	265,016
1963	5,052	735	1,208	71,671	31,277	250	113	145	68	176	2	-11	110,686
1964	27	574	4,441	34,640	6,296	318	188	74	5,544	310	5,823	264	58,499
1965	4,690	92,537	6,360	1,845	152,577	3,076	261	155	8,533	84	7,910	107	278,135
1966	7,194	43,151	4,484	399,023	147,354	2,553	1,098	2,967	5,902	5,737	133	343	619,939
1967	431	262	2,164	13,592	20,452	26,490	11,257	177	13,820	255,267	56,863	96,088	496,863
1968	96,869	49,867	142,386	61,096	134,164	20,952	2,887	272	439	279	5,648	17,909	532,768
1969	5,467	60,132	122,218	26,126	344,198	3,186	513	515	281	13,693	4,159	59,233	639,721
1970	14,949	102,774	193,743	68,902	14,454	15,958	620	620	31,107	66,683	2,898	867	513,575
1971	723	6,875	3,070	1,302	3,284	681	71,279	10,930	1,393	182,210	10,119	271,548	563,414
1972	75,509	2,872	1,689	1,267	1,423	6,238	1,007	862	561	8,845	15,625	15,098	130,996
1973	61,777	50,323	89,281	194,789	14,583	211,342	5,796	1,291	15,150	98,692	73,521	69,047	885,592
1974	154,301	9,198	4,687	19,661	83,900	92,206	559	-2,278	14,946	37,226	272,200	67,111	753,717
1975	19,201	183,102	43,916	99,776	31,859	13,820	2,091	398	406	586	172	127	395,454
1976	389	586	2,502	359,754	89,017	26,263	19,241	979	11,553	25,834	2,129	35,134	573,381
1977	20,178	157,478	140,558	81,270	1,917	30,928	1,702	1,810	1,237	1,015	16,542	2,042	456,677
1978	1,995	51,330	50,575	4,372	6,411	1,225	3,440	2,830	6,155	1,278	4,660	5,132	139,403
1979	78,501	45,878	77,287	26,223	223,103	13,717	112	10,273	4,703	1,280	1,347	42,601	525,025
1980	109,953	26,514	9,940	35,109	88,420	4,613	1,927	1,846	5,991	4;538	1,406	11,960	302,217
1981	685	565	4,239	1,263	26,628	265,861	47,450	1,954	4,967	40,204	11,214	4,497	409,527

Appendix C

Recreation Analysis

Appendix C

C.1 Introduction

Water-oriented recreation, which includes boating, fishing, water skiing, swimming, picnicking, and open space activities, are quite popular in the District's service area. In its 1990 Outdoor Recreation Plan, the Texas Parks and Wildlife Department projected that 30 to 32 percent of the 4.2 million people of the North Central Texas area in which the District's water supply lakes are located would participate in boating, fishing, and swimming.1 An objective of this study is to estimate the recreation value of the District's water supply lakes for normal pools and for lower pool levels that might occur as the lakes are operated for water supply purposes. However, since recreation use data are not available for the District's lakes, studies of similar lakes were obtained and reviewed, in an effort to obtain information that might be useful in evaluating potential effects of lake levels upon recreation use of the District's lakes. In addition, annual park usage data were obtained from the Texas Parks and Wildlife Department and daily park usage data (two parks) were obtained from the Trinity River Authority for neighboring Lake Joe Pool. Information on marinas and boat slips at District lakes was also obtained. Summary information obtained from these studies and lake use data are presented below.

C.2 Lake Texoma Recreation Study

In 1988, the United States Army Corps of Engineers (USACE) Tulsa District performed a recreation study of Lake Texoma.[2] This USACE study is probably the most useful of the information collected to assess recreation impacts of varying elevations of lakes as it includes a visitor survey on the effects of pool level fluctuations on visitation at Lake Texoma, and the magnitude of such effects. The visitor survey was conducted during June and July of 1988, in a two-week time span that included weekdays, weekends, and the Fourth of July weekend. Given the large size of the lake and the number of recreation sites (50, including 26 marinas), two representative sites were selected for the survey. During the two-week survey period, 350

[1] 1990 TORP—Assessment and Policy Plan, Texas Parks and Wildlife Department, Austin, Texas, 1992, pages 4–5.
[2] Lake Texoma Recreation Study, U.S. Army Corps of Engineers, Tulsa District, Tulsa, Oklahoma, 1988.

visitors were interviewed, from which 316 usable questionnaires were obtained. The interview addressed the following issues:

- Visitors' recreation profile;
- Recreation-related costs and spending;
- Willingness to pay for recreation; and
- Visitors' lake level preference.

The above issues included information such as distance traveled, number of annual visits, type of recreation participation (e.g., camping, fishing, water skiing,), visitor income, travel cost of visit to lake, reported recreation spending ($/person/day), willingness to pay for recreation ($/respondent/day), willingness to pay for stable lake level ($/person/day), and visitors' lake level preference. Respondents' reports on high lake level limits at which visitation would be terminated and respondents' reports on low lake level limits at which visitation would be terminated are shown in Tables C-1 and C-2, respectively. As can be seen, high lake levels of 12 feet above the top of the conservation pool elevation could affect visitation decisions by about 59 percent of the respondents, while low lake levels of 18 feet below the top of the conservation pool could affect visitation decisions by about 61 percent of the respondents. The following were the most bothersome adverse factors associated with changing lake levels in the order ranked by respondent replies.

- Effect on appearance of shore and beaches;
- Inability to launch boat;
- Possibility of boat damage;
- Effect of size of swimming beach;
- Effect on fishing conditions; and
- Other (e.g., odors emanating from the lake at low level conditions, and deteriorating safety at high levels).

This study also presents equations for estimating economic loss associated with low pool and high pool levels and includes an example of applying economic models to estimate recreation benefits loss as a function of lake elevation for high lake elevation events. However, the report cautions that "the estimated recreation demand equations and the derived visitation loss coefficients and recreation day values were based on the assumption that the cost of recreation, as defined, and lake level conditions are the prime factors affecting recreation

Table C-1.
Respondents' Reported High Lake Level Limits at Lake Texoma at which Visitation would be Terminated by Respondents' Origin Zone
(number responding)

Origin Zone (Miles)	Lake Level*					No Limit
	620'msl	622'msl	624'msl	627'msl	629'msl	
Less than 10	4	7	13	15	21	50
11–20	0	2	6	10	17	14
21–50	2	0	5	0	2	11
51–75	0	0	3	4	0	7
76–100	2	2	9	1	4	10
100–125	1	1	8	0	3	7
126–150	3	1	5	0	5	8
151–200	4	2	6	1	7	17
Over 200	0	0	4	2	3	7
Total Responding	16	15	59	33	62	131
Percent	5.06%	4.75%	18.67%	10.44%	19.62%	41.46%
Cumulative	5.06%	9.81%	28.48%	38.92%	58.54%	100.00%
* Top of conservation pool is at elevation 617 ft-msl, and spillway crest is at elevation 640 ft-msl.						

Source: Recreation Survey and estimates.

Table C-2.
Respondents' Reported Low Lake Level Limits at Lake Texoma at which Visitation would be Terminated by Respondents' Origin Zone
(number responding)

Origin Zone (Miles)	Lake Level*					No Limit
	613'msl	610'msl	605'msl	600'msl	599'msl	
Less than 10	2	4	17	19	20	48
11–20	3	5	7	10	10	14
21–50	2	4	2	1	0	11
51–75	3	2	0	1	1	5
76–100	3	3	2	0	10	10
100–125	2	5	4	1	1	7
126–150	3	5	5	0	4	5
151–200	2	6	2	2	10	17
Over 200	0	1	1	1	7	6
Total Responding	20	35	40	35	63	123
Percent	6.33%	11.08%	12.66%	11.08%	19.94%	38.92%
Cumulative	6.33%	17.41%	30.07%	41.15%	61.09%	100.00%
* Top of conservation pool is at elevation 617 ft-msl, and spillway crest is at elevation 640 ft-msl.						

Source: Recreation Survey and estimates.

demand. These are reasonable and well tested assumptions. It is obvious, however, that there are other factors affecting the demand for recreation, one of which is especially significant. For example, hydrologic events are in many instances accompanied by weather conditions, or conversely, weather conditions prompt hydrologic events. In either case, it is entirely possible that, during such events, prevailing weather conditions, rather than lake levels, are the prime cause for declining visitations."

The draft USACE study also considered the effects of lake level fluctuations on public and private facilities. Though no estimates were made concerning economic impact of lake level on these facilities, two of six marina owner respondents indicated that a low lake elevation of 610 feet, which in this case is 7 feet below the top of the conservation pool, causes a reduction in income of 50 percent or more.

C.3 The Economic Significance of Boating Visitation to the Highland Lakes

In July 1994, the USACE published a study for the Lower Colorado River Authority with particular emphasis on the economic significance of water-related recreation as a function of lake levels in Lakes Buchanan and Travis, located in Llano, Burnet, and Travis Counties. These are the only lakes of the five Highland Lakes group with variable lake levels.[3] This study was based on generalized data from the Texas Parks and Wildlife Department and more detailed studies by the USACE under the Section 22 (Planning Assistance to States) program.

A first phase of the study involved collection of available data on recreation visitation and expenditures at the Highland Lakes and the effects of periodic drawdowns of Lakes Buchanan and Travis on recreation availability at those lakes. A second phase included a visitor survey, economic impact assessment based on the findings of the survey, and a user-ready database system for mailing list maintenance.

Significant conclusions of this study include the following:

- The five Highland Lakes receive about 608,000 boating-party trips per year under baseline conditions. This is equivalent to about 2 million persons per year. These visitors spend about $103 million per year under baseline conditions.

[3] The Economic Significance of Boating Visitation to the Highland Lakes, U.S. Army Corps of Engineers, Fort Worth District, Fort Worth, Texas, July 1994.

- Low-water conditions at Lake Travis or Buchanan would lead to a one-third reduction in the number of annual boating-party trips at either lake, with visitor recreation dropping by about $22 million at Lake Travis and about $5 million at Lake Buchanan.
- The $103 million in annual recreation visitor spending supports over 1,900 jobs in the local regional economy. The total economic effects, including multiplier effects, result in $133 million per year in output and sales in the local regional economy, $77 million per year in regional income, and almost 3,200 jobs. Low-water conditions at Lake Buchanan would result in an annual regional loss of $7 million in output and sales, $4 million in income, and 165 jobs. Low-water conditions at Lake Travis would result in an annual regional loss of $30 million in output and sales, $18 million in income, and 726 jobs.
- The above findings consider only a part of the total economic effects of water-related recreation at the Highland Lakes -- the part resulting from boating visitors originating within the 16 counties responsible for 80 percent of the boating activity at the lakes. These findings could be increased by 97 percent to account for visitors from all Texas counties and non-boating visitors.

C.4 Social and Economic Study of the Lake Fork Reservoir Recreational Fishery

This study was published by the Texas A&M University Department of Wildlife and Fisheries Sciences on July 15, 1996 for the Texas Parks and Wildlife Department and the Sabine River Authority for Lake Fork Reservoir, located in Wood and Rains Counties, approximately 70 miles east of Dallas.[4] This study involved surveys of anglers to determine market segments using the reservoir, angler profiles from each segment, fishing trip profiles, money sent by each segment on fishing trips to the lake, economic impacts of expenditures to the local region, present economic value of the reservoir, and angler attitudes toward fishery management regulations. The survey showed annual number of fishing trips to Lake Fork Reservoir for the June 1994 through May 1995 period at 204,740, with total number of days fishing of 348,000. Expenditures ranged from $35 per day by local anglers to $128 per day by out-of-state anglers. The estimated total economic value of the Lake Fork recreational fishery is $38 million per year.[5] Some of the information in this study could be useful to the District in planning similar surveys for its lakes or in extrapolating the results of limited surveys of fisherman-days at District lakes. At the present time, surveys of fishing activity are not available for the District's lakes.

[4] A Social and Economic Study of the Lake Fork Reservoir Recreational Fishery, Hunt, Kenan, and Robert Ditton, Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, Texas, 1996.

C.5 Information Obtained from the Trinity River Authority on Recreation at Lake Joe Pool

A representative of the Trinity River Authority provided the following observations about recreation usage at Lake Joe Pool:

- The core group of lake users consists primarily of fishermen. This group seems to be sensitive to lake levels. If the lake drops significantly, visitation by this group will drop.
- The second major group of users includes boaters who are not necessarily fishermen. This group is also sensitive to lake levels.
- People who are visiting the lake to camp also engage in fishing, boating, swimming, etc.
- Other factors such as rain, temperature, and wind probably have as much impact on lake usage as lake level. For example, even though people like to be at the lake during warm weather, they seem to stop coming as the temperature gets over 90 degrees. Also, higher-than-normal wind seems to deter lake usage.

Trinity River Authority provided information on usage of its two parks at Joe Pool Lake during the December 1993 through October 1996 time period.[6] This information is summarized in Figures C-1 and C-2. The information on park visitation is compared with information on lake elevation in Table C-3; however, no clear relation between lake elevation and recreation usage was apparent during this time period.

C.6 Recreational Uses of the District's Lakes

C.6.1 Lake Bridgeport

Recreational use of Lake Bridgeport is primarily fishing and water skiing (see Table C-4 for number of boat slips). However, in recent years, there has been a significant increase in residential development around Lake Bridgeport as the populations of Tarrant and Denton Counties have increased. An example of economic loss associated with extremely low lake levels at Lake Bridgeport was developed from the information in the aforementioned Lake Texoma Study, and an estimated peak boating use of 500 boats per day at Lake Bridgeport. The Lake Texoma Study visitor survey indicated an average spending for recreation of $16.15 per

[5] Ibid.

[6] Meeting of October 16, 1996; Arlington, Texas.

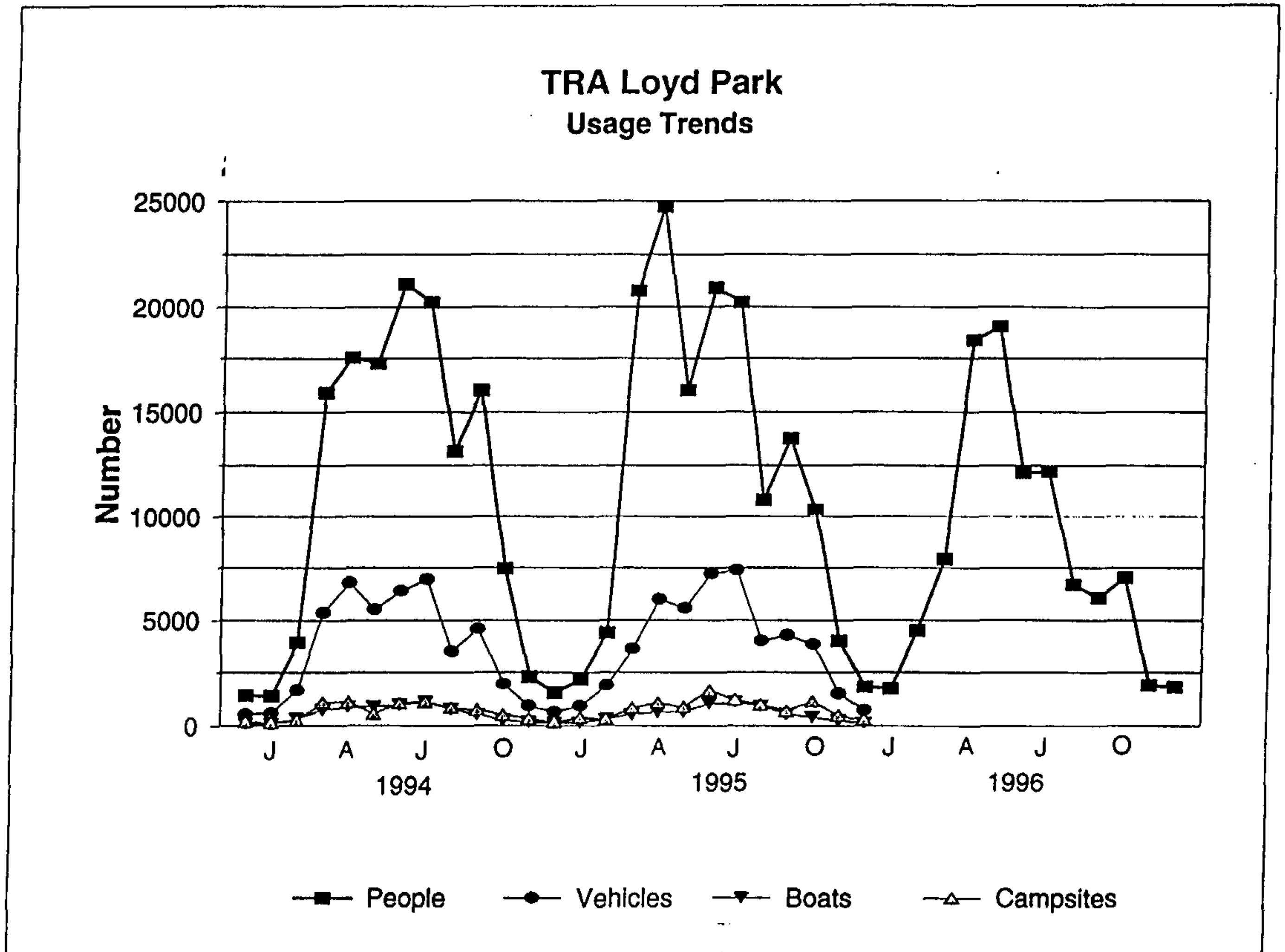

Figure C-1. TRA Loyd Park Usage Trends

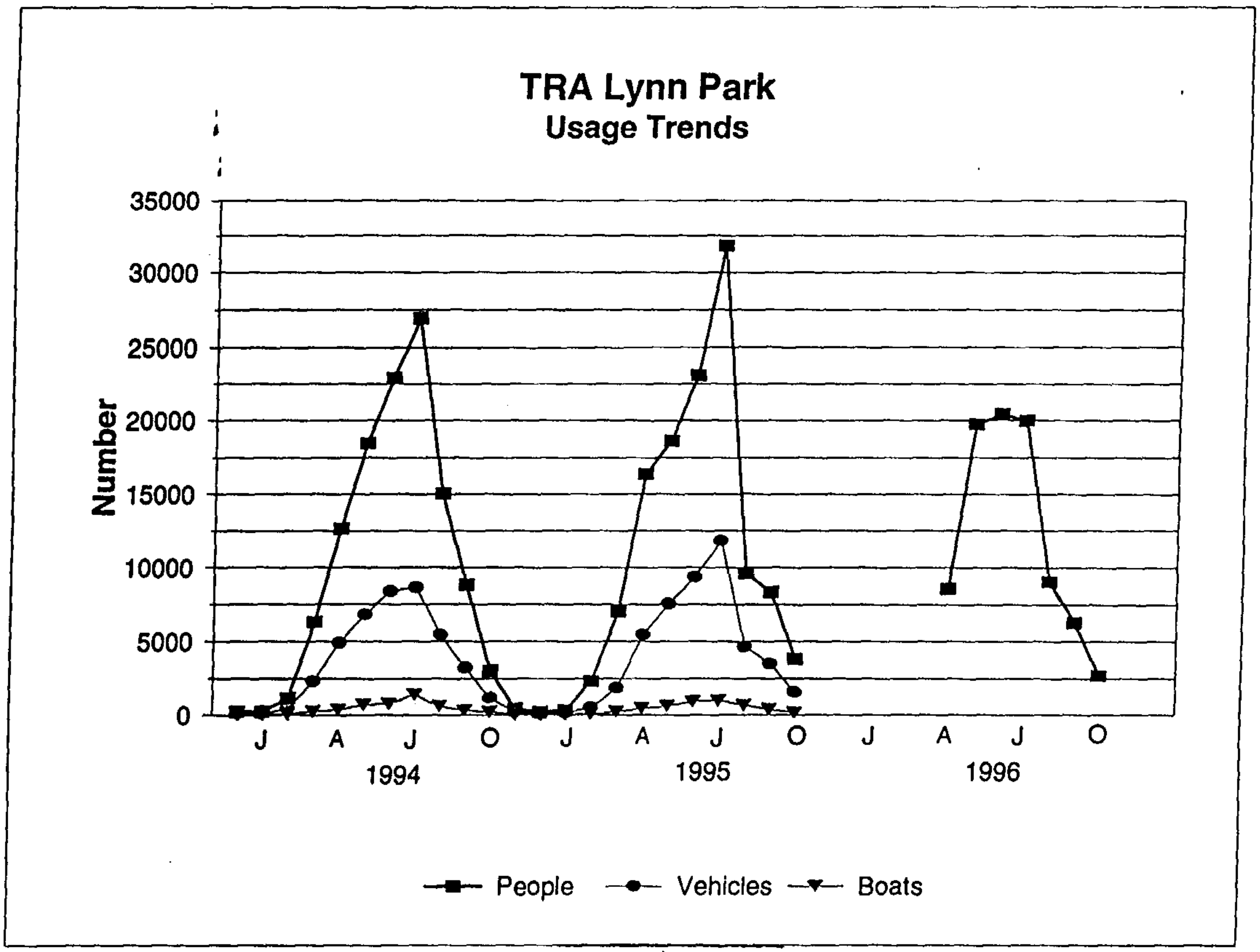

Figure C-2. TRA Lynn Park Usage Trends

Table C-3.
Lake Levels, 1994 – 1996
Joe Pool Lake Near Duncan, USGS Station 08049800

Year	Month	Average of Daily Mean Value
1994	1	521.15
1994	2	521.66
1994	3	522.16
1994	4	522.02
1994	5	522.02
1994	6	519.89
1994	7	519.38
1994	8	518.68
1994	9	518.31
1994	10	533.46
1994	11	519.81
1994	12	521.01
1995	1	521.55
1995	2	521.94
1995	3	526.68
1995	4	522.74
1995	5	523.40
1995	6	522.44
1995	7	521.73
1995	8	521.48
1995	9	521.11
1995	10	520.80
1995	11	520.38
1995	12	520.00
1996	1	519.68
1996	2	519.39
1996	3	519.04
1996	4	518.97
1996	5	518.61
1996	6	518.13
1996	7	517.67
1996	8	517.11
1996	9	517.37
1996	10	517.17
1996	11	518.78
1996	12	520.72

Table C-4.
Number of Boat Slips at Tarrant Regional Water District Lakes

Lake	Number of Slips
Lake Bridgeport	
D&D Marina	14
Runaway Bay Marina	106
Wood Marina	14
Scout Camp Marina (Private)	6
Twin Hills Marina	40
Wizard Bay (Private)	18
Private Docks (±)	325
Subtotal	523
Eagle Mountain Lake	
Fort Worth Boat Club	218
Harbor One Marina	350
Lake Country Marina	400
Lakeview Marina	100
Bal Harbor (Private)	24
The Landing (Private)	38
Pelican Bay Marina	24
Twin Points Marina	42
West Bay Marina	186
Tarrant County Marina (Proposed)	337
Private Docks (±)	2,000
Subtotal	3,719
Cedar Creek Lake	
Causeway Marina	20
Cedar Creek Landing	20
Clear Creek Landing	14
Don's Port Marina	110
Fisherman's Wharf Marina	28
Harbor Light Marina	96
Lakeland Marina (Private)	12
Royal 121 (Private)	16
Sandy Shores Marina	80
Star Harbor Marina	64
Destiny Marina	30
Treasure Isle Marina	30
Twin Creeks Marina	2
Private Docks (±)	5,000
Subtotal	5,522
Richland-Chambers*	
Oak Grove Marina (to be in place in 1997)	10
Private Docks (±)	200
Subtotal	210
Total	9,974

* Four other marinas exist on Richland-Chambers, but provide only gas, bait, tackle, and boat launching.

person per day (travel cost not included). Assuming three people per boat and three 3-day holiday weekends per boating season, results in $218,025 in recreation spending. If extremely low lake levels reduced usage by 61 percent, as inferred by the Lake Texoma Study, a loss in recreation spending of $133,000 per year would result.

C.6.2 Eagle Mountain Lake

Eagle Mountain Lake is heavily used for boating, water skiing, and sailing, with fishing being a secondary recreation activity at this lake. A large marina development is planned on the west side of the lake by the developer that is constructing a similar project at Lake Joe Pool (see Table C-4 for number of boat slips). Using the Lake Bridgeport example of economic loss associated with extremely low lake levels, and an estimated peak boating use of 3,700 boats per day, results in an estimated loss of $984,000 annually in recreation spending associated with Eagle Mountain Lake for the time period considered.

C.6.3 Cedar Creek Lake

Cedar Creek Lake is popular for both boating and fishing. Crappie fishing is particularly popular with a "Crappiethon" event being held at the lake last year (see Table C-4 for number of boat slips). Based upon the Lake Texoma study, for an estimated boating use of 5,500 boats per day, annual recreation business losses from low lake levels would be $1.47 million.

C.6.4 Richland-Chambers

Richland-Chambers is a new lake with recreation development not yet well-organized. For example, there is not yet a marina on the lake, and recreation is mostly fishing. In 1996 there was a bass tour/boat show at Richland-Chambers (see Table C-4 for number of boat slips). However, there are no data available with which to make estimates of boating and associated economics responses to changes in lake levels.

C.6.5 Visitation to Weekend Homes

At several District lakes, particularly at Cedar Creek and Eagle Mountain, weekend homes provide the basis for much of the lake visitation. Low lake levels discourage the use of these weekend homes and consequently result in reduced spending in the stores and recreation facilities surrounding the lakes. However, there are no data available with which to estimate the business losses resulting from low lake levels.

C.7 Conclusions and Recommendations

Based on information available to the District, significant changes in lake levels have a significant effect on Eagle Mountain Lake and Cedar Creek Lake recreation values and; for the near future, a lesser effect on Lake Bridgeport and Richland-Chambers Reservoir recreation values. Estimates presented in this study of recreational spending loss of about $2.59 million annually that is associated with low lake levels at District lakes can only be considered as "order of magnitude" estimates. As previously indicated, additional data are needed to develop reliable estimates of the recreation value of the four District lakes and changes in recreation value associated with changing lake levels. In order to gain a better understanding of the recreation value of the District's lakes, it will be necessary to collect data from a sample of lake users, including (a) dollars spent per person per outing; (b) number of outings per year; (c) number of people per outing; and (d) number of outings per year at normal, medium, and low lake levels.

Appendix D

Risk and Reliability Assessment

Appendix D

D.1 Risk Assessment Summary

The District has taken an aggressive role in assessing the reliability of its water delivery system facilities. To assess the system facilities, the District performed an inventory of its major components to record maintenance logs and past failures. Expected equipment life, estimated reliability, and cost of failures are estimated and included in the inventory. The gathered data were used to develop a relational database model in Microsoft Access that assigned each component a Risk Index. An electronic copy of the database model is included with this appendix. After calculating the Risk Indices, the District's As-Is condition was determined. The inventory was also used to analyze the number of failures reported and amount of downtimes associated with each failure.

The Risk Index is a relative comparison tool that relates the probability of a component failing with the consequences of its failure. The risk assessment focused on the District's East Texas raw water delivery components including both the Cedar Creek and Richland-Chambers reservoir facilities. Seventy-one components were inventoried and ranked from highest Risk Index (worst) to lowest Risk Index (best). The highest Risk Index (5.20) was shared by the electrical components at four of the five pumping facilities in the inventory. Their high ranking is the result of momentary power failures that occur on an annual basis and the consequence of electrical outages on the delivery system. The only electrical component not included in the group is the Medium Voltage Electrical System at the Cedar Creek Ennis Booster Station (CC2). Because CC2 is currently off-line and used only as needed, its probability of failure is lower than the other electrical systems which are on-line. The ranking also identified the pumping units at the Richland-Chambers Lake Intake Station (RC1) as critical components. Although not indicated directly by the component rankings, the two large diameter pipelines are also considered vital to the East Texas system.

Because complete elimination of all component failures is impractical if not impossible, the key to maintaining reliability is to decrease the system's vulnerability. A number of measures can be taken to minimize vulnerability. The most critical is having an adequate back-up network with a defined emergency operations manual. Even though the characteristics of each failure scenario are different, a well-defined and coordinated response plan will provide the District staff with the necessary information to react in a timely and appropriate manner. The District is currently updating and creating a comprehensive emergency response plan.

The next step to reduce vulnerability is routine maintenance and preventive measures that reduce the frequency of component failure. The District routinely inspects its key components, and a preventive maintenance program is in place for all its active pumping units. The District should continue its preventive maintenance program, and make sure that the emergency response plan accounts for operations with any single unit or entire facility out of service. In addition, focus should be made to ensure the reliability of all units not used under primary operations such as the Cedar Creek Ennis Booster Station (CC2).

Preventive measures play a significant role in maintaining the reliability of the two East Texas pipelines. The pipelines have experienced a number of failures due to weakening caused by corrosion. Failures of the weakened pipeline have been triggered by waterhammer induced by power outages and thrust restraint movement. The District has an aggressive program to stop the progression of corrosion damage, and has installed cathodic protection on 4 of the 10 pipeline segments. The District has plans to complete 4 more segments by the year 2000. The cathodic protection program has rescued the Cedar Creek line from obsolescence and increased the expected useful life of both pipelines dramatically. The District also performs visual and internal inspections of the two pipelines periodically. The District should continue its preventive measures and increase its efforts to inspect the entire pipeline system. Identifying and replacing damaged pipe will increase system reliability and reduce potential hazards created by a ruptured pipe.

Although preventive maintenance is key, redundancy is still the primary means of ensuring system reliability. This is especially true for the District's electrical systems. Ideally, the pumping stations should have two separate power sources, either two primary transmission lines from separate sources or a single transmission line with an on-site generation unit. Since all the District's pumping facilities are tied to external power sources, they are vulnerable to a power failure on the electric utility's grid. Power failures could be caused by lightning, damage to the transmission line (e.g., tornado), or problems within the distribution grid. Single transmission lines serve both CC1 and RC1. The step-down electric transformers at the transmission line are key components and failure of these cause significant, if not total, loss of pumping capability. CC1 has two transformers feeding the station while RC1 has only one with the ability to tie to another transformer if needed. Two transmission lines serve both Waxahachie stations (CC3 and RC3) and the Ennis station (CC2) with two transformers dedicated to each station. Dual feeds to the motor control switchgear from separate transformers also increase reliability. The most vulnerable configuration is at RC1 where only one feed serves a single breaker. This makes the station vulnerable to the condition of the primary feed cable, the breaker, and the transformer. Having a spare breaker at this site and the other pump stations is a measure that the District should pursue. Supplying a second transmission line to the two intake plants would also decrease the District's vulnerability to electrical failures.

Another critical item in maintaining reliability is proper training for operators and maintenance staff. Staff should be well versed in emergency response and have the proper safety training for equipment operation. The staff should be cross-trained at multiple duties in order to reduce the system's dependence on any single individual's skills and decision-making ability.

Overall, the assessment revealed that the District operates a fairly reliable system. On a scale from 1 to 10, the average Risk Index is 1.48. This low score is primarily due to the interconnected configuration of the East Texas facilities. The two East Texas pipelines are interconnected to the intermediate booster stations and delivery points allowing each pipeline to serve as a backup for the other (albeit at a reduced pumping capacity) in the event of a pipeline failure. In addition, the new Lake Benbrook Connection facilities will provide backup water supply to respond to facility downtimes in the East Texas facilities. However, the additional facilities and the build-out of existing facilities are also associated with increasing water demands from District customers. Increasing system demands will minimize the ability of the Cedar Creek pipelines to serve as the Richland-Chambers pipeline back-up and vice versa. One noticeable result of the reliability analysis is the increasing trend of failure frequency reported with downtimes for both Cedar Creek and Richland-Chambers components. Tracking this trend and monitoring the impact of preventive measures over time will be an essential task for the District.

This assessment represents only a "snapshot" of the system. The real value of the assessment and the model will be to continually maintain the failure data and use this study as a benchmark of comparison. The model's database structure should facilitate data management and provide the features necessary to tailor the model as needed over time.

D.2 Introduction

D.2.1 General Background

Ensuring that customer demands are met with reliable water supplies under the most cost-effective operations is the prime goal to any water supply utility. Achieving this reliability is a dynamic process. It requires the ability to operate efficiently under normal conditions as well as the flexibility to react to such emergencies as component failures, operator errors, natural disasters, or other catastrophic events. Establishing the system's reliability under normal operations is essentially a straightforward procedure dependent on mostly known factors including system capacity, power charges, permitted diversions, and customer demands. Determining the system's reliability under unforeseen events is a more abstract process, and often a study of system vulnerability. By identifying and addressing the utility's most vulnerable components, the District will be able to implement a strategy to sustain its reliability to its customers.

Currently, there is no standard approach to assess a water utility's vulnerability and corresponding reliability. The American Water Works Association (AWWA) provides an outline for assessing system vulnerability in their M19 manual.[1] The AWWA recommends analyzing a number of hypothetical failure scenarios, and evaluating their impact on each component in the system. After a number of failure scenarios are analyzed, the system's critical components are identified and the appropriate measures are prescribed to strengthen the system's reliability. The work herein follows some of the general methods outlined in M19, but takes a more systematic approach to evaluating each component. The approach taken here is similar to the risk management methods applied in the petroleum industry.[2]

In basic terms, the objective is to inventory each of the water delivery system's major components, and calculate the amount of vulnerability or risk associated with each component.

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[1] American Water Works Association. "Emergency Planning for Water Utility Management: AWWA M19-Second Edition.," 1984.

[2] Muhlbauer, Kent W., *Pipeline Risk Management Manual, Second Edition.* Gulf Publishing Company, Houston, 1992.

The system inventory reduces the ambiguity and subjectiveness of forecasting future events by incorporating maintenance records, operating experience, expected equipment lifetime, expected failure incidences, and failure logs to assess system reliability. Using the inventory, the likelihood of possible failure mechanisms and their consequences are considered and weighted based on their importance. From the possible failures and their consequences, a risk index is calculated for each component. This provides the platform to rank and assess the system's components on the same scale. After ranking the components, the most critical system components can be identified and addressed. As the system inventory is updated and additional operating experience is obtained, this assessment tool will serve as a benchmark of comparison for future assessments.

D.2.2 Method

A standardized data gathering format was developed in order to bring together the information needed to assess system reliability. Much of the information was developed by District staff through a survey form on each of its major facilities. Past failures and maintenance records were gathered as well as information on design life and the likelihood of future failures. The District's staff also rated the consequences of each component failing. Once the information was collected, a Microsoft Access Version 2.0 database was created to manage and analyze the data. The database was programmed to calculate an index for each component based on the collected survey data. The analysis established the As-Is condition of the District's facilities, and serves as the reference point for recommended future actions and the preparation of an emergency response plan.

D.3 Model Description

D.3.1 Risk Index

To evaluate the reliability of the District's system and its components, a Risk Index was formulated to relate the probability of a component failing with the consequences of its failure. The Risk Index method assigns a single risk measurement value to each system component regardless of the failure mechanism. The Risk Index is a relative measurement tool in that a Risk Index of a single component by itself is of little value until put in relation to another component's index. The strength of this method is that it provides the structure to compare components with dissimilar functions (i.e., Pumping Units at RC1 versus the Electrical Systems at CC3) as well as components with similar functions (i.e., Pumping Units at RC1 versus Pumping Units at CC1) on the same scale.

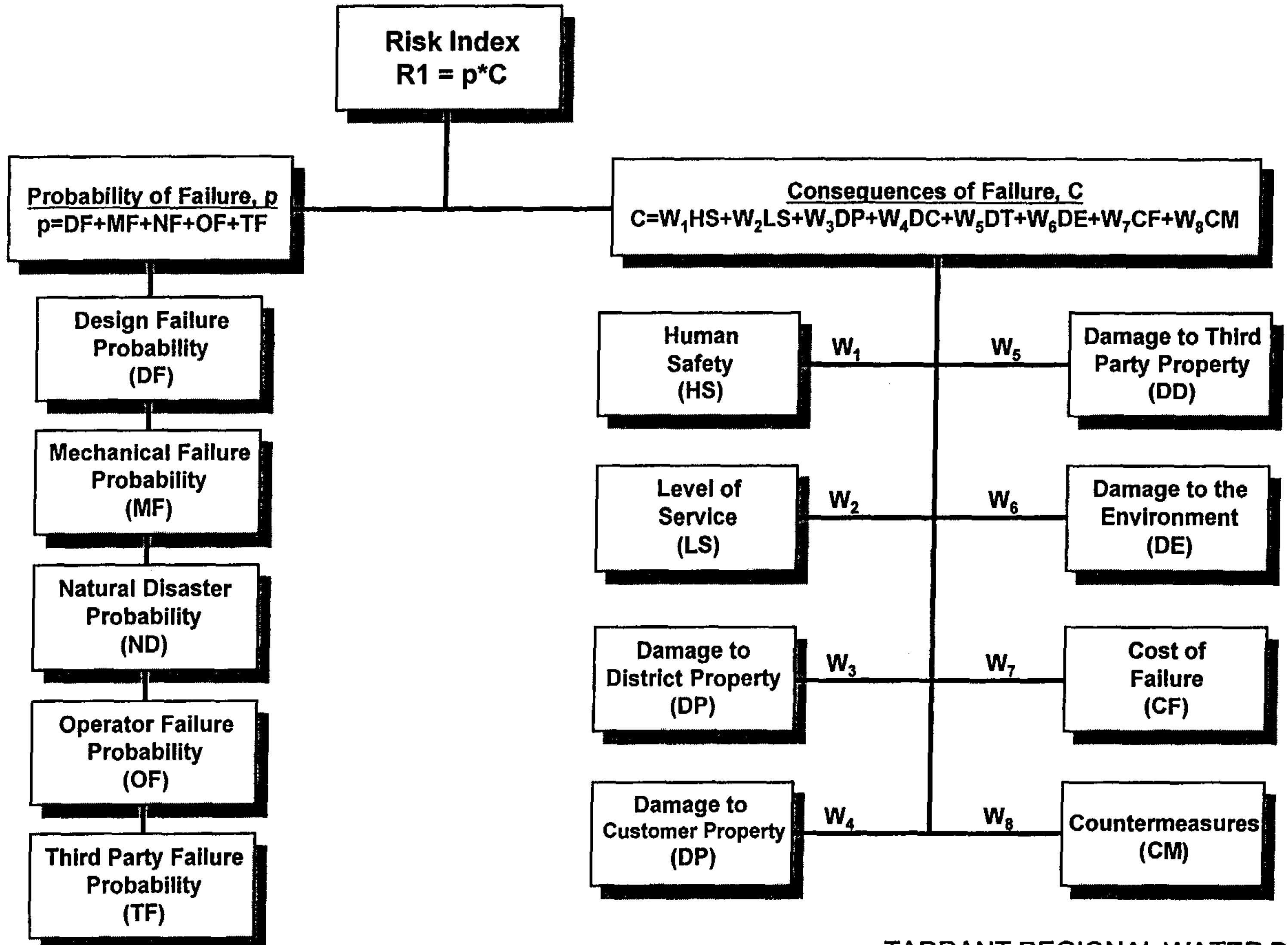
The Risk Index is the product of two components: the Probability of Failure (p) and the Consequences of Failure (C). The Probability of Failure is the aggregate probability of all the defined failure mechanisms. Estimation of the probability of each failure mechanism is based on the results of the system inventory conducted by the District and engineering experience. The Consequences of Failure term quantifies the implications of a component failure by scoring and weighting each possible consequence. The following paragraphs describe the variables and criteria associated with the Risk Index. Figure D-1 displays the relationships involved in calculating the Risk Index.

D.3.2 Probability of Failure

The probability of failure is the likelihood that a component will fail. It is the summation of the probabilities associated with each failure mode detailed below:

- **Design Failure**: Component failure due to the inadequacy (if any) of the component design. A pipeline break due to lack of reinforcing wire to resist operating pressures is an example of design failure.
- **Mechanical Failure**: Accounts for the system component failing due to a mechanical failure such as a valve malfunction. Equipment fatigue and lack of maintenance leads to mechanical failures.
- **Natural Disasters**: The probability that the system component will fail due to extreme meteorologic, hydrologic, or geologic conditions. This factor should use the probability of the most likely natural event that would cause the component to fail.
- **Operator Failure**: Encompasses failures caused by plant personnel such as improper system operation, defective repair, or improper maintenance. This factor accounts for the human side of operations.
- **Third Party Failure**: Accounts for failures caused by people outside the control of the District. Acts of vandalism and accidents caused by the public are considered third party failures.

The probability of failure can be thought of as a return period or frequency of a component failing. For example, a probability of 0.5 would correspond with a 2-year return frequency of



Possible consequences (i.e., HS, LS, DD, ...) are given a score of 1 to 10, see text for methods.

W_1, W_2, W_3 are weighting factors dependent on the importance of the consequence.

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RISK INDEX
MODEL RELATIONSHIPS

FIGURE D-1

failure (i.e., on average, a failure can be expected about every 2 years). The model provides a number of ways to arrive at the probability of each failure mode. It can be based on historic failure data, the estimated life of the component, the estimated shortest return period for the failure mode, or the longest estimated return period for the failure mode. Information on failure modes and probabilities was gathered for each major system component during development of the system inventory.

The general procedure followed to calculate failure mode probabilities was to use historic data if available, and use the District's estimate of the shortest return period between failures for components lacking sufficient failure mode data. When historic data are available, failure probabilities are equal to the number of failures for the period of consideration divided by the number of years in the period. The period of consideration either starts from the time the facility went on-line, or the year of the latest component replacements or major repair. This accounts for any decrease in expected failures that should follow maintenance or replacement. When estimated failure return periods are used, the probability of failure equals the inverse of the return period.

D.3.3 Consequence of Failure

The Consequence of Failure, C, measures the impact and importance a component failure has on the system. In order to determine the value of C, District staff assigned each component a score for each of the possible consequences defined below.

Each consequence is scored on a scale from 1 to 10 based on the criteria outlined in Table D-1. Once scored, each consequence is weighted and tallied to determine C. The weighting factors emphasize the consequences that have greater importance to the overall consequences of failure. For example, human safety is assigned the greatest weight while property damage is given the least weighting. To keep C on a scale from 1 to 10, the sum of all the weighting factors is equal to one. Table D-2 shows the weights given to each consequence.

- **Human Safety**: The consequence of a failure endangering human life ranges from no potential hazard (1) to potentially life-threatening (10).
- **Level of Service**: A measure of the percentage of system capacity lost due to a component failure ranges from 0 (1) to 100 (10 percent.

Table D-1
Consequences of Failure Scoring Criteria

Consequences	0	1	2	3	4	5	6	7	8	9	10
Human Safety	No potential for hazard		Slight potential for hazard			Hazard to human safety			Substantial hazard to human safety		Life-threatening hazard
Level of Service	0% lost		20% lost			50% lost			80% lost		100% lost
Damage to District Property	No potential damage		Slight potential for damage			Damage to property			Substantial damage to property		Total destruction of property
Damage to Customer Property	No potential damage		Slight potential for damage			Damage to property			Substantial damage to property		Total destruction of property
Damage to Third Party Property	No potential damage		Slight potential for damage			Damage to property			Substantial damage to property		Total destruction of property
Damage to the Environment	No potential damage		Slight potential for damage			Damage to property			Substantial damage to property		Total destruction of property
Cost of Failure	$0		$20,000			$50,000			$80,000		$100,000 and up
Countermeasures	All possible measures taken		80% of possible measures taken			50% of possible measures taken			20% of possible measures taken		No measures taken

Table D-2
Consequence of Failure Weighting Factors

Consequence	Weighting Factor	Value
Human Safety	W_1	0.35
Level of Service	W_2	0.20
Damage to District Property	W_3	0.05
Damage to Customer Property	W_4	0.05
Damage to Third Party Property	W_5	0.05
Damage to the Environment	W_6	0.10
Cost of Failure	W_7	0.10
Countermeasures	W_8	0.10
		Total = 1.00

- **Damage to District Property**: The consequence of a failure damaging any of the District's property ranges from no damage (1) to total loss of property (10).
- **Damage to Customer Property**: The consequence of a failure causing damage to any **customer's** property ranges from no damage (1) to total loss of property (10).
- **Damage to Third Party Property: The consequence of a failure damaging any property owned** by a third party, either public or private, ranges from no damage (1) to total loss of property (10).
- **Damage to the Environment**: An estimate of the potential harm a failure could have on the terrestrial or aquatic environment ranges from no damage (1) to total loss of habitat (10).
- **Cost of Failure**: The amount of money required to repair the failure ranges from minor cost (1) to major cost (10) (i.e., in excess of $100,000).
- **Countermeasures**: Accounts for the degree to which available measures have been taken to mitigate the potential impacts of a component failure. An example would be if a back-up transformer is available to quickly replace the in-service transformer in the event of a failure. Ranges from all possible measures taken (0) to no measures taken (10).

D.4 Risk Assessment

D.4.1 District's System Inventory

The District identified and inventoried 71 of its major components. The inventory focused on the East Texas water delivery facilities. In the assessment, the East Texas facilities are broken down into four major sub-systems: Cedar Creek facilities (CC), Richland-Chambers facilities (RC), the Arlington Outlet Works, and East Texas Common Components.

Cedar Creek Facilities

The Cedar Creek facilities are composed of an intake pumping station at Cedar Creek Reservoir (CC1), and two booster stations at Ennis (CC2) and Waxahachie (CC3). The pumping facilities are connected by 68 miles of 72-inch diameter prestressed concrete cylinder pipe (PCCP), and 6 miles of 84-inch diameter PCCP terminating at the Rolling Hills Water Treatment Plant.

Richland-Chambers Facilities

The Richland-Chambers facilities consist of 72 miles of 90-inch diameter PCCP stretching between an intake pumping station at Richland-Chambers Reservoir (RC1) and a booster station at Waxahachie (RC3), and terminates at Rolling Hills Water Treatment Plant.

Arlington Outlet Works

The Arlington Outlet Works is the facility used to supply water to Lake Arlington.

East Texas Common Components

The East Texas Component category accounts for any components that function in more than one of the other three major systems such as communications equipment, pipeline junctions, and the Balancing Reservoirs. The components are further categorized by facility type. Table D-3 shows all the facility categories and the number of components inventoried in each sub-system.

Table D-3
Inventoried Facilities and Components Matrix

Facility Type	Cedar Creek Facilities	Richland-Chambers Facilities	Arlington Outlet Works	East Texas Common Components
Building/Structure	2	2	1	—
Chemical Systems	3	2	—	—
Communications Equipment	—	—	—	1
Control System	3	2	1	—
Dam Structure	—	—	—	1
Discharge/Suction Piping or Structure	2	1	1	—
Electrical Transmission	4	2	—	—
Mechanical Systems	2	2	—	—
Pipeline	5	5	—	1
Pipeline Valves	2	2	—	—
Pumping Equipment	17	5	—	—
Storage Tanks	2	—	—	—

The District reported 157 component failures dating back to 1981. Table D-4 shows the total number of failures reported for each system and the average component downtime due to failure. Also shown are the first year of a reported failure and the year in which the system went on-line. As expected, more failures have occurred in older facilities, in this case, the Cedar Creek facilities. The Cedar Creek facilities have been in operation since 1972 and were the only source of water from East Texas until Richland-Chambers facilities came on-line in 1988. An important value in Table D-4 is the average number of hours a component is in the failed state before returning to normal operation. Both Richland-Chambers and Cedar Creek average around 1,000 hours of component downtime per failure. This can be attributed to the long lead times needed to replace or retrofit components in the pumping facilities. Average downtime for pipeline facilities is much shorter. The pumping equipment failures by themselves average around 2,000 hours of downtime, whereas the average downtimes for the pipeline are around 60 hours. One reason for the pipeline facilities' relatively short downtimes is the fact that pipe joints are readily accessible from Gifford-Hill American, a PCCP manufacturer in the Dallas-Ft. Worth area.

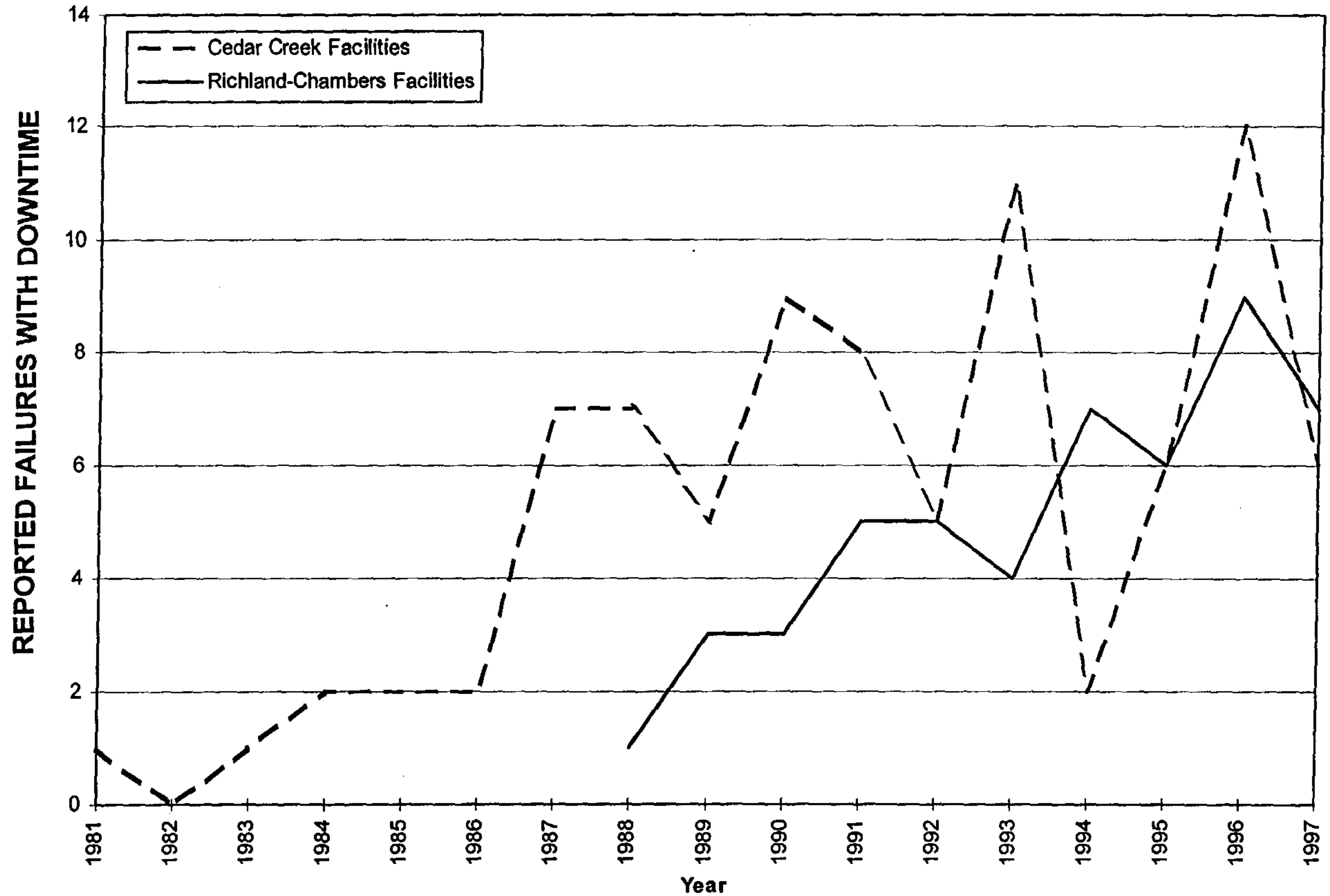
Table D-4
Reported Failures for the East Texas Systems

System	Total No. of Failures	Average Downtime (hours)	Year of First Reported Failure	Year On-Line
Cedar Creek Facilities	135	921	1981	1972
Richland-Chamber Facilities	81	1,051	1988	1988
Arlington Outlet Works	6	365	1992	1972
East Texas Common Components	17	10	1980	1972

Figure D-2 plots the number of failures reported with downtimes per year for the Cedar Creek and Richland-Chambers facilities. From the first reported failures, Richland-Chambers and Cedar Creek have averaged approximately five failures with downtime per year. The plots show an increasing trend for both East Texas systems.

D.4.2 Risk Index Assessment

Rankings based on the calculated Risk Index have been made for each component. The 10 components with the highest risk indices are shown in Table D-5. A complete ranking of all inventoried components is provided at the end of this appendix. The average and median Risk Indices for the inventory are 1.48 and 0.95, respectively. The highest Risk Index is shared by the medium voltage electrical system components at four of the District's five pumping facilities in the inventory. Since momentary power outages occur on an annual basis, and the importance of these electrical systems to the delivery system are considered equal, all four components share the same probability of failure and consequence scores. The only electrical component not included in the top 10 is the medium voltage electrical system at CC2. Because CC2 is currently off-line and used only as needed, its probability of failure is lower than the other electrical systems which are on-line. The next group of components in the ranking are the pumping units at RC1. This reflects the importance of RC1's pumping facilities to the District's system and the past problems encountered with the motors in each of the three pumping units at RC1. Since the District has performed substantial maintenance on the three units over the past 3 years, the probability of failure for each unit was calculated based on the estimated return frequency of



Failure incidences are for intakes, pumping equipment, electrical, controls, and piplines.

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FAILURE HISTORY FOR THE EAST TEXAS FACILITIES

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FIGURE D-2

failure instead of historic data. This is reflected by the equal probabilities of failure for the three units. The similarity of the units resulted in equal consequence scores. The last component listed is the RC1 Chlorine Feed System. Its high ranking is primarily the result of its high consequence score. A catastrophic failure of the chlorine feed could result in possible life and significant damage to the environment and property. Three other chemical feed components are ranked 11th, 12th, and 13th for these same reasons. This magnifies the importance of having proper containment systems as well as prepared staff to deal with any chemical system failures. The importance of the Richland-Chambers facilities is evident in that 7 of the top 10 components are from the Richland-Chambers portion of the water delivery system. The assessment clearly indicates that the District's on-line electrical systems and Richland-Chambers pumping equipment are the most critical facilities in maintaining the District's reliability.

Table D-5
Components with the Highest Risk Indices

Rank	Component	System	p	C	Risk Index
1	Waxahachie (RC3) Medium Voltage Electrical System	Richland-Chambers	1.00	5.20	5.20
2	Intake (RC1) Medium Voltage Electrical System	Richland-Chambers	1.00	5.20	5.20
3	Waxahachie (CC3) Medium Voltage Electrical System	Cedar Creek	1.00	5.20	5.20
4	Intake (CC1) Medium Voltage Electrical System	Cedar Creek	1.00	5.20	5.20
5	Intake (RC1) Pumping Unit No. 1	Richland-Chambers	0.70	5.40	3.78
6	Intake (RC1) Pumping Unit No. 2	Richland-Chambers	0.70	5.40	3.78
7	Intake (RC1) Pumping Unit No. 3	Richland-Chambers	0.70	5.40	3.78
8	Intake (CC1) Low Voltage Electrical System	Cedar Creek	1.00	3.70	3.70
9	Intake (RC3) Pumping Unit No. 11	Richland-Chambers	0.60	5.40	3.60
10	Intake (RC1) Chlorine Feed	Richland-Chambers	0.51	7.00	3.58

The Risk Index of the pipeline components are summarized in Table D-6 and range from 0.17 to 2.72. Although the pipeline segments are key components and are perhaps more vulnerable to failure than other components (i.e., pumps or electrical equipment), there are three

Table D-6
East Texas Pipeline Risk Indices

Pipeline Segment	Probability of Failure	Consequence of Failure	Risk Index
Cedar Creek			
I	0.55	4.95	2.72
II	0.25	3.80	0.95
III	0.29	3.50	1.02
IV	0.09	3.20	0.29
V	0.09	4.15	0.37
Richland-Chambers			
I	0.22	5.45	1.21
II	0.05	3.45	0.17
III	0.05	3.45	0.17
IV	0.56	3.90	2.17
V	0.22	5.95	0.60

mitigating factors that cause the Consequence of Failure factor (C) to be lower than other items. Consequently, the Risk Index for the pipeline components is lower than for the other facilities listed in Table D-5. The mitigating items that cause the consequence factor (C) to be lower for the pipeline segments are:

- The outage times for pipeline failures are relatively short compared to pumping equipment or electrical components;
- With two sources of supply and parallel pipelines, each pipeline serves as a backup for the other, thereby lessening the possibility of complete cessation of water deliveries; and
- Terminal storage at the balancing reservoirs, Lake Arlington and Lake Benbrook ensures that water deliveries can continue during outages of expected duration.

Section I of Cedar Creek (CC-I) and Section IV of Richland-Chambers (RC-IV) have the two highest risk scores. Two notable reasons for CC-I's ranking is its possibility of impacting public safety and its likelihood of failure. Portions of CC-I's right-of-way (ROW) run through parking lots near Mansfield, Texas. As population growth increases in the Dallas-Ft. Worth metroplex, more ROW will be exposed to public development, and the potential for a hazardous situation will only increase in this area. The increased probability of failure for CC-I is due to its potential for hydrogen embrittlement failures (i.e., corrosion-induced failure). Impressed current cathodic protection on concrete cylinder pipe and stray currents in low resistivity soils can cause embrittlement of the pipe's prestressing wires. One hydrogen embrittlement failure occurred in October of 1996, and the foreseeable return period to another failure is estimated at 2 years for CC-I. RC-IV's high index score is the result of failures that have occurred due to the impaired thrust restraint at changes in pipeline alignment. The District has replaced 5 joints on each side of 6 alignment changes, and has identified 339 damaged sections and recorded movement at 37 joints in the segment.

Other pipeline segments have also experienced failures. Two joints in CC-III will be replaced in the winter of 1997, and seven segments have been found with damage. Segment RC-I runs through a rapidly expanding commercial area and has been plagued by two recent failures. Several damaged segments have been found in the CC-II segment, and the District foresees that a number of other joints have sustained damage. The pipe segment with the highest consequence of failure, RC-V has not experienced any substantial problems to date.

D.4.3 As-Is Condition

Based on the results of the risk assessment, the District has a very reliable response system in place to react to problems. On a scale from 1 to 10, the system average Risk Index is 1.48. The predominance of Richland-Chambers' components in the top 10 risk indices, reflects the District's current operations of using the Richland-Chambers water as the primary source from East Texas. As previously mentioned, the most critical facilities identified by the Risk Index ranking are the electrical systems at the primary pumping facilities and the pumping equipment at RC1. However, both the Richland-Chambers and Cedar Creek pipelines traverse over 70 miles of right-of-way making them vital components to the District's water delivery system. Due to the proximity of the two East Texas sources, the Cedar Creek and Richland-Chambers pipelines run in parallel and are linked at major points along the alignment. In the event of a failure on one system, the probability is that the other system can be relied on to continue delivery at its normal rate. As future demands increase and the capacity of the system is used more fully, the redundancy of the delivery system will remain important, but water delivery through only one pipeline will meet a lower percentage of the demand. The addition of the Benbrook pipeline will provide the District with terminal storage to sustain water deliveries under emergency situations.

The East Texas facilities are essential components to the District's operations. Maximizing their reliability must continue to be a paramount goal of the District. A notable result of the assessment is the upward trend of component failures with downtime in both the Cedar Creek and Richland-Chambers facilities. With increasing system demands and age, this trend will only increase unless the District continues to takes an aggressive role in addressing its vulnerabilities. Since this assessment is only a "snapshot" of the system, the District should continue to monitor this failure trend and monitor the impacts of its preventive measures.

Eliminating failures and creating a fail-safe water delivery system is inordinately expensive, if not impossible. The primary way to ensure reliability is redundancy. Having an available back-up ready at all times reduces the system's vulnerability and eases the stress an individual failure can place on the equipment and staff. Since a completely redundant system is not feasible, the realization that component failures are a part of operations and that increasing system demands increases the system's exposure to failure, are essential starting points of maintaining a reliable system. Identifying the most vital components is the next step, and taking a proactive role in planning and implementing countermeasures that strengthen the system's ability to respond under stress is the final element of maintaining system reliability. The District has taken strides in each of these areas; however, as with all utilities, there are opportunities to improve. The more preventive measures taken to avoid or prepare for emergencies, the more likely the staff and equipment will be able to manage an emergency situation. The District's focus should be directed to the three most critical components: the electrical systems, the pumping equipment, and the two large diameter pipelines.

For the electrical systems, the primary measure to decrease vulnerability and thereby increase reliability is redundancy. Dual transmission lines from separate sources provide a strong safety net for dealing with power outage or damage to transmission lines. Ideally, pumping stations with a single transmission line power supply should have an on-site generation unit. Since all the District's pumping facilities are tied to external power sources without on-site generation, they are vulnerable to a power failure on the electric utility's grid. If the entire grid failed, the pumping units would be inoperable. Momentary power outages have occurred often enough at the pumping stations that their probability of occurring is set at 100 percent. Single transmission lines serve both CC1 and RC1. CC1 has two transformers feeding the station while RC1 has only one with a back-up available if needed. Two transmission lines serve CC3, CC2, and RC3 with two transformers dedicated to each station. Supplying a second transmission line from a different location in the grid to the two intake plants would decrease the District's vulnerability to electrical failures. Providing alternate paths to power at the motor control switchgear is another means of combating the impact of electrical component failures. The District completed a major overhaul of the switchgear at CC1. The most vulnerable configuration is at RC1 where only one feed serves a single main breaker. This makes the station vulnerable to the condition of the feeder cable and the breaker. CC1 recently experienced a transformer failure on the low voltage system that disabled the entire station for 24 hours. A similar failure at RC1 would create a larger problem due to the single feed and lack of an on-line backup. The District should have a spare breaker at this site, and spare breakers at each of the other pump stations. The District does have staff to respond to electrical problems. One master electrician and three other electricians can be reached at any time and are within an hour of the pumping sites.

The pumping units at RC1 were identified as the most critical pumping components. Under high capacity operations, the Cedar Creek and Richland-Chambers pumping units each supply approximately 50 percent of the needed capacity. Making each RC1 units provide 16.66 percent of the entire capacity. Under low capacity operations, the split is roughly 33 percent to 66 percent between Cedar Creek and Richland-Chambers, respectively. The most substantial problem reported at the RC1 station is the wearing of the motor thrust bearings. They are wearing out as often as once a year without any indications of cause. The motor bearings are routinely inspected and replaced as needed by the District. Equipment at RC1 as well as at the District's other pumping units are routinely maintained and replaced. Beside the catastrophic cone valve failure at CC1 in 1996, most pumping equipment downtimes have been the result of preventive maintenance. The cone valve failure resulted in all six CC1 units being fitted with new ball valves. The three primary units at the CC2 have also been fitted with new ball valves due to inadequate material properties of the old cone valves. Variable frequency drives have been added to RC3 to provide more flexibility and better system balance. The only preventive measure lacking is a comprehensive emergency response plan. The plan should account for appropriate safety measures to be taken in the event of a failure as well as optimize system operations when a unit goes down.

The District has done a superior job in addressing the vulnerability of the East Texas pipelines. Corrosion is the most recognized problem with the pipeline facilities. Corrosion can originate from physical damage to the pipe including impaired thrust restraint, waterhammer, and improper installation. These mechanisms can damage the mortar coating protecting the pipe reinforcing wire. Once exposed to moisture, the reinforcing wire is susceptible to attack by chlorides, groundwater, and stray currents. In order to prevent failures caused by corrosion, the District has installed zinc anode beds for cathodic protection. This has reduced corrosion of the Cedar Creek pipeline, and the on-going cathodic protection installations will extend the life of East Texas pipelines significantly. Of the 10 segments, 4 already have cathodic protection and 4 more segments will be protected by the year 2000. The visual inspection and pipe-to-soil potential measurements need to be continued. These routine measures will allow the District to identify damaged pipe and make scheduled replacements before a catastrophic failure can occur. Although the cathodic protection will reduce corrosion failures, it will not totally eliminate the problem. Waterhammer and lack of thrust restraint will continue to damage the pipe's mortar coating, which will create the pathway for corrosion. Therefore, cathodic protection should not reduce the amount of effort allotted for inspecting and maintaining the pipelines. Increased development around the pipeline right-of-way will necessitate a proper emergency response plan to be in place and coordinated with all the District's staff. The plan should also be communicated with the Department of Public Safety and any local emergency response agencies.

One portion of the District's system that has not been addressed in this assessment but will remain an essential part of the operations is the District's staff. Currently, the District has trained staff to respond to failures for almost all of the inventoried components. The building and structural components at each pumping station were the only components without repair staff. As the District's system expands, the appropriate human resources must be available to respond to the additional operation demands. Staff should be well versed in emergency response, and have the proper safety training for equipment operation. Cross-training is essential as it reduces the system's dependence on an individual's skills and availability during emergencies. The proper staffing needs are a part in larger issues that will need attention from the District. With the current addition of the Benbrook facilities and the future Richland-Chambers' booster station at Ennis, the additional number of pumping units in use and the increasing hours of operation will create the need for more well-trained staff and a well-coordinated maintenance schedule. Strategic planning and budgeting will require a greater effort as the District grows.

Assessing the system's vulnerabilities and reliability is a dynamic process. In performing this reliability assessment, it is noted that the delivery facilities are never at 100 percent operational level, as some component at any given time is either out of service for maintenance or repair. Consequently, this assessment shows that the District is consistently in a reactionary state to current conditions. The District recognizes this fact and is taking the necessary steps to alleviate the stresses created by untimely events before the burden of a larger system becomes a reality.

D.5 Model Formulation

This section is an overview of the Risk Index Model's formulation in Microsoft Access Version 2.0 (Access) and a guide for its operation. Access is a powerful relational database for the Microsoft Windows operating system. It was chosen as the model's platform due to the District's familiarity with the program and the program's ability to store and manipulate data efficiently in a Windows-type screen setting. The model was created on an IBM compatible 486-33 MHz personal computer with 8 MB of RAM running Windows 95. The model's size is approximately 1.4 MB. It is assumed that the operator has a basic understanding of Microsoft Access Version 2.0. For a complete guide to Access functions and workings, Access program documentation should be consulted.

D.5.1 Database Structure

The main objective of using the database platform was to efficiently enter and manage the information gathered during the system inventory. The advantage of using a relational database is that each piece of information need only be identified and entered once. From these identification tags and data sets, any number of relationships can be created for running the model or analyzing the data. Access uses four basic objects to work with data: tables, forms, queries, and reports. Access stores data in tables with individual field identifiers much like a spreadsheet. These tables are the backbone of the database; however, they are not very user friendly for entering data. In order to make data entry easier, forms can be created from tables in Access that prompt the user to enter data in the correct field. Forms also serve a number of other purposes in Access. They can be programmed to perform calculations or graph data. Forms can also display the results of a query, or be defined to act as a tool bar with buttons that execute predefined macros. Access allows forms to be embedded in other forms as subforms. This feature makes viewing related data easier. A query is a searching tool that examines and displays data from any number of tables based on a set of criteria. Reports provide a customized layout for printing database information. The Risk Index Model uses each one the objects defined above. Table D-7 shows the names and descriptions of the key objects in the model.

D.5.2 Opening the Model

Once Access is open, the Risk Index Model can be opened under the **File** menu and the ***Open Database*** function. A dialogue box will request the file name and its directory path. The model's filename is R&R.mdb. After entering the filename and location, the model will open to the model's directory screen shown in Figure D-3. Each of the buttons on the directory form will open the specified form or report. The first four buttons going down the screen are for entering data and running the model, and the last two buttons are for viewing the model's results. Access' database directory has been minimized and is hidden behind the directory form. It is not necessary to maximize this window for operating the model, but it provides a complete guide to all the tables, forms, queries, reports, and macros defined in the database.

Table D-7
Key Objects in the Risk Index Model

Tables	Forms	Queries	Reports
Consequences	Consequences (s[1])	Downtimes by Component Type	Downtime by Facility
Countermeasures	Countermeasures (s)	Downtimes by System	Downtime by System
Facility Types	Facility Types	Facility Search	Downtime by Year
Failures Information	Failures Info (s)	Failures	Failures
Foreseeable Failures	Foreseeable (s)	Risk Inventory	
Major Replacement & Maintenance	Repair (s)	System Search	
System Inventory	Risk Index		
Weighting Factors	System Failure Inventory		
	Weighting Factors		

[1](s) indicates that the form is embedded in another form as a subform.

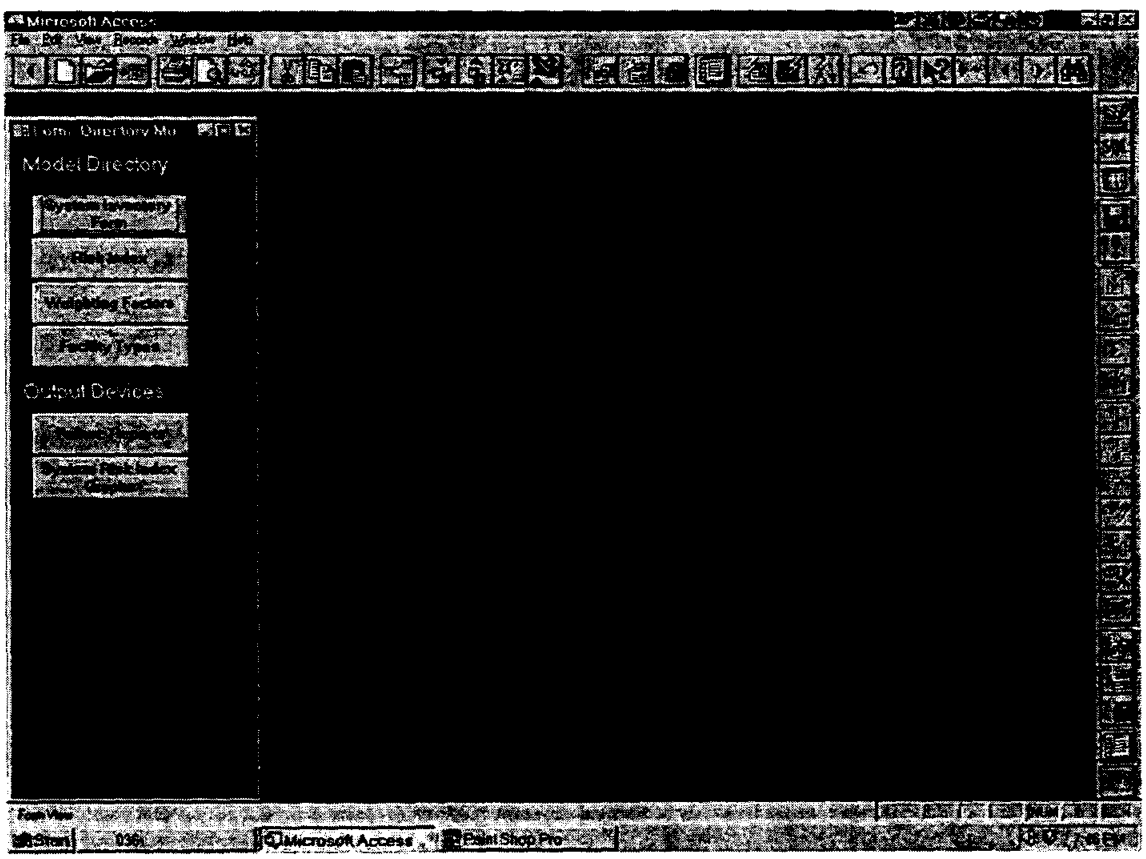


Figure D-3. Risk Index Model Directory

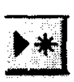
D.5.3 System Inventory Information

Clicking the **System Inventory** button with the mouse will bring up the ***System Inventory Form*** as shown in Figure D-4. All the information gathered in the District's inventory can be found using this form. It is mostly made of subforms that can be viewed or edited. The subform and data field entries are defined in Table D-8. The entire contents of the form can be viewed by using the scroll bars on the right-hand side of the form. Figure D-5 displays the bottom portion of the ***System Inventory Form***.

The following toolbar buttons are useful for moving around in the multiple form records. If these buttons are not available, the toolbars can be customized through the **View** menu under the ***Toolbars*** function.

These buttons will take the user to either the previous or next form in the database.

This button will open a dialogue box to find specified information. It allows the user to search the fields for the specified text or numeric information.



This button will create a new record in the database. It clears the form's fields for data entry.

D.5.4 Risk Index

Clicking the **Risk Inventory** button in the model directory brings up the ***Risk Inventory Form*** as shown in Figure D-6. This is where the Risk Index is calculated. As shown in Figure D-6, all the variables related to the Risk Index are displayed. Three buttons are available for editing each variable: **Update Consequences, Update Probabilities,** and **View System Inventory**. The two updating buttons bring up windows for editing the consequence scores and the probability calculations. The **System Inventory** button displays the system inventory information entered for the component under consideration.

Table D-8
System Inventory Data Fields and Subforms

Form/Field	Description
System Inventory	*Main Form*[1]
Name	Component Name.
ID	Identification tag for component.
Component Type	Pull down menu of available components (Pipeline, Electrical Systems, etc.).
System	Pull down menu of available systems (Cedar Creek, Richland Chambers, etc.).
Estimated Annual Operation Time (hrs.)	Number of hours that component operates per year.
Estimated Design Life (yrs.)	Estimated design life of component.
Starting Year in Historic Probability Calculation	Starting year of range for calculating probabilities of failure from historic data.
Notes	Items of interest for component.
Failure Information	*Subform*
ID	Identification tag for failure. Id is not global for all records.
Description	Description of failure
Mode	Mode of Failure. Should be entered as DF, MF, NF, OF, or TF as described in Section 3.
Year	Year that failure occurred.
Time	Date and time of failure.
Downtime (hrs.)	Number of hours that component is in failed state.
Cost of Repair	Number of dollars required to repair component.
Notes	Items of interest for failure.
Foreseeable Failures	*Subform*
No.	Number tag for failure.
Description	Description of foreseeable failure.
Mode	Mode of failure. Should be entered as DF, MF, NF, OF, or TF as described in Section 3.
Return Period (yrs.)	Estimated return period for foreseeable failure.
Impact of Failures	*Subform*
Consequences List	List of possible consequences with fields for scores (1-10).
Countermeasures	Subform
Countermeasures	Possible countermeasures and radio buttons to record if measure is In-Place and if it is Possible.
Others	Fields for other possible countermeasures for a particular facility.
Replacement/Major Repair	*Subform*
Description	Description of component replacement or repair.
Date	Date of replacement or repair.

[1] In order to create a new record, one of the fields in the System Inventory Form must be the active cell. To make a cell active, highlight it by left-clicking it with the mouse.

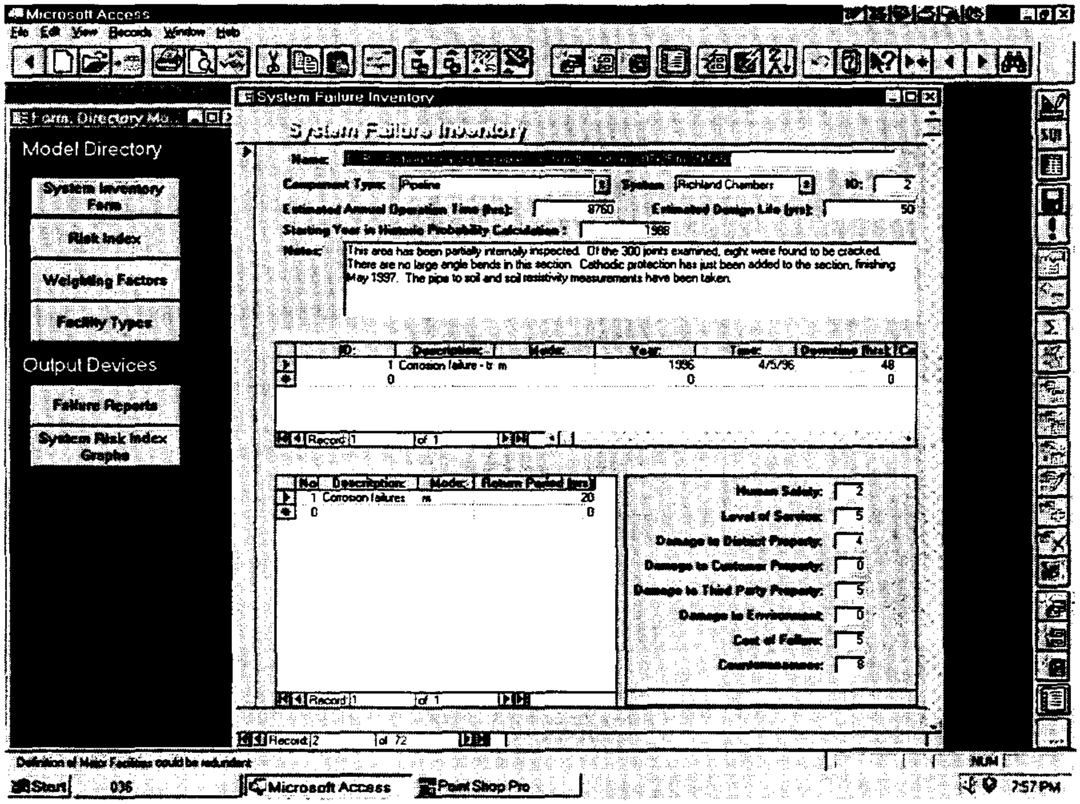


Figure D-4. System Inventory Form — Upper Portion

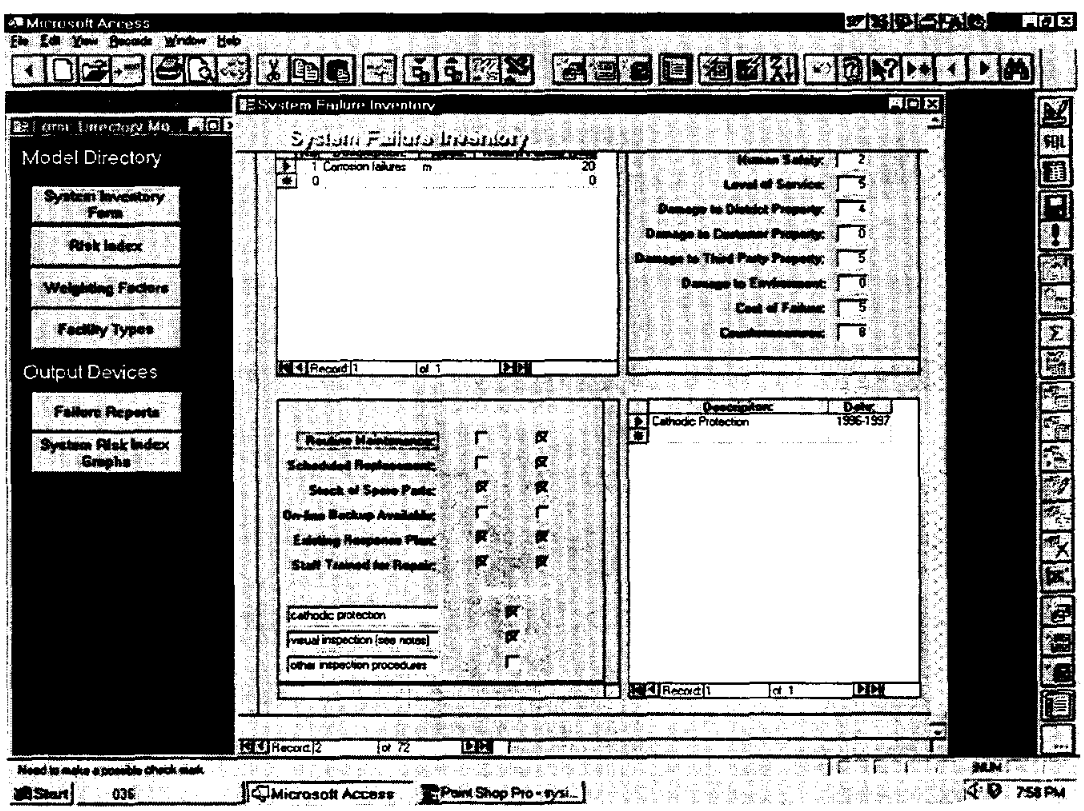


Figure D-5. System Inventory Form — Lower Portion

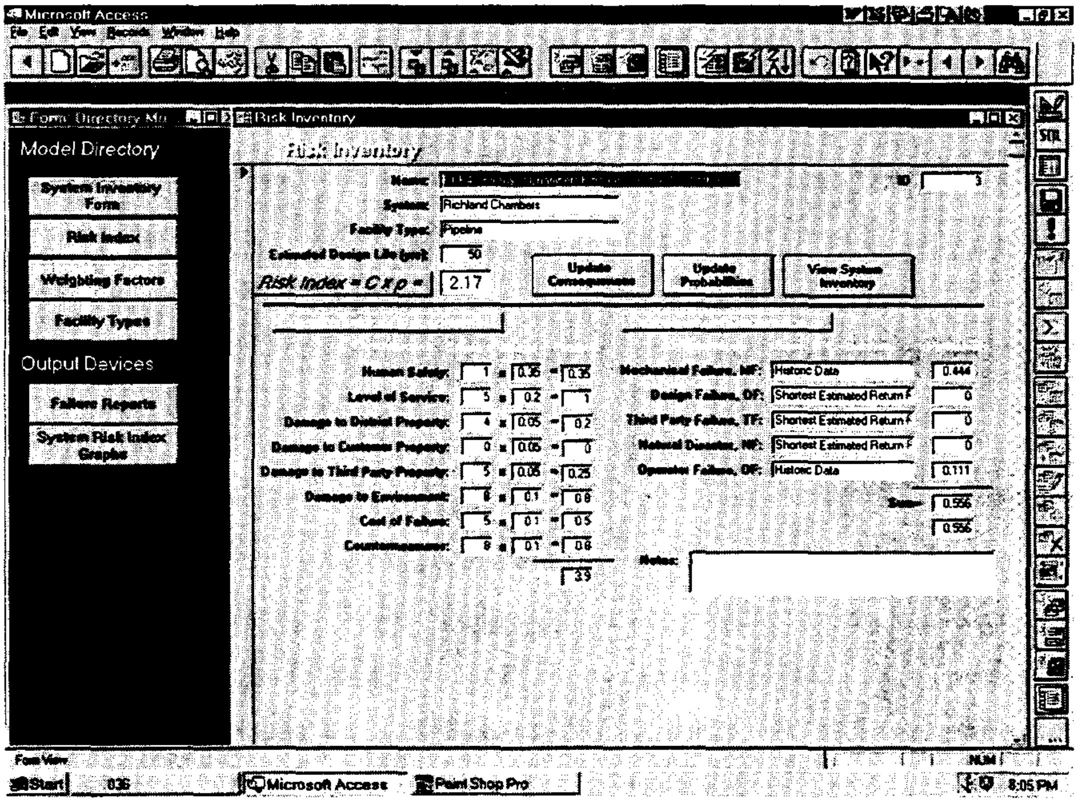


Figure D-6. Risk Inventory Form

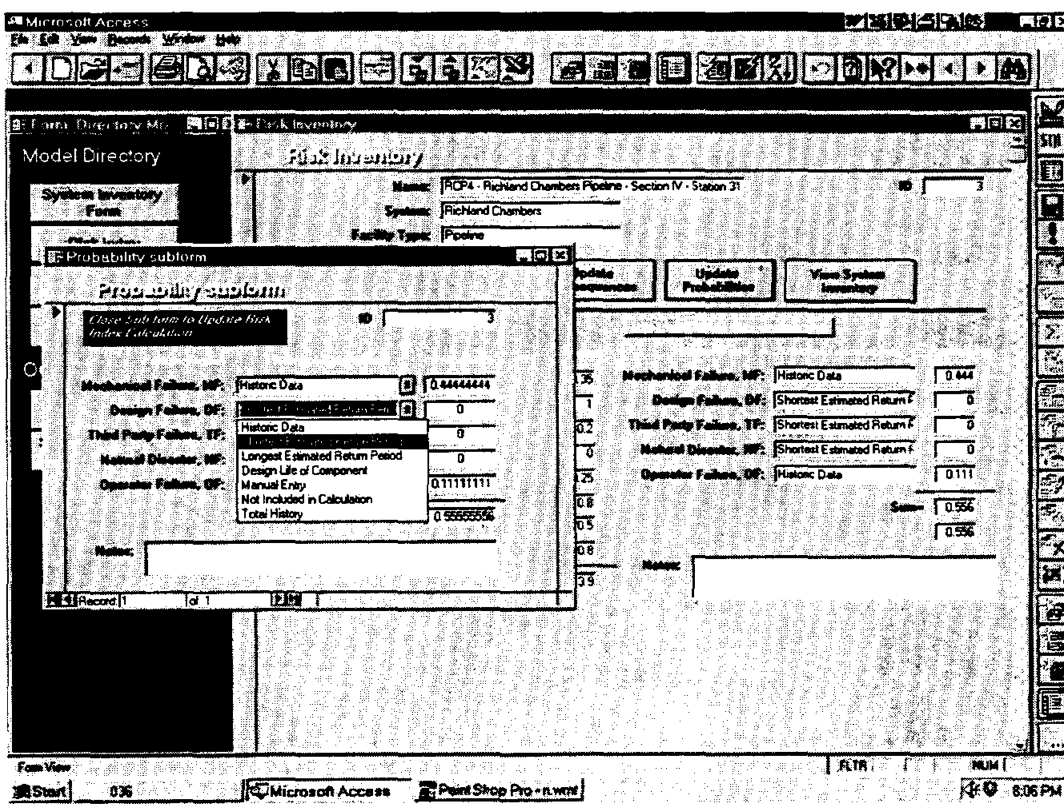


Figure D-7. Risk Inventory Form with Probability Subform Open

The consequence scores displayed are those entered during the system inventory. They can be edited from the updating window or the ***System Inventory Form***. Figure D-7 displays the window for calculating the probabilities of failure. For each failure mode, a pull down menu displays all the options defined in Section 3. Highlighting the option and right-clicking the mouse will initiate the calculation. If any values are changed, the editing window must be closed for the updates to take affect on the Risk Index calculation and any other related forms, tables, or reports.

D.5.5 Output Devices

The bottom portion of the Model Directory is dedicated to viewing results of the model. Clicking the output device buttons will bring up subdirectories as shown on Figure D-8. The model can display bar graphs of risk indices or print predefined reports. Clicking the buttons in the subdirectory will open the corresponding output screen. The graphs and reports available are shown in Figure D-8. Figure D-9 displays a bar graph generated in Access to display the Risk Indices for similar facilities in the database. The reports available are generated from the inventory information and the model's calculations. The user can output Risk Indices for each component by facility, system, or rank by clicking the appropriate button. Component downtimes from the system inventory data can be reported by year, facility, or system, and failure records can also be viewed using the **Failure Records** button. Figure D-10 shows an example of the Risk Index Rankings report displayed on the computer screen. All the output devices have been programmed into the model. The user can edit the format of these forms, or create output devices tailored for the intended use. The Access user's manual should be consulted before editing or creating graphics and reports.

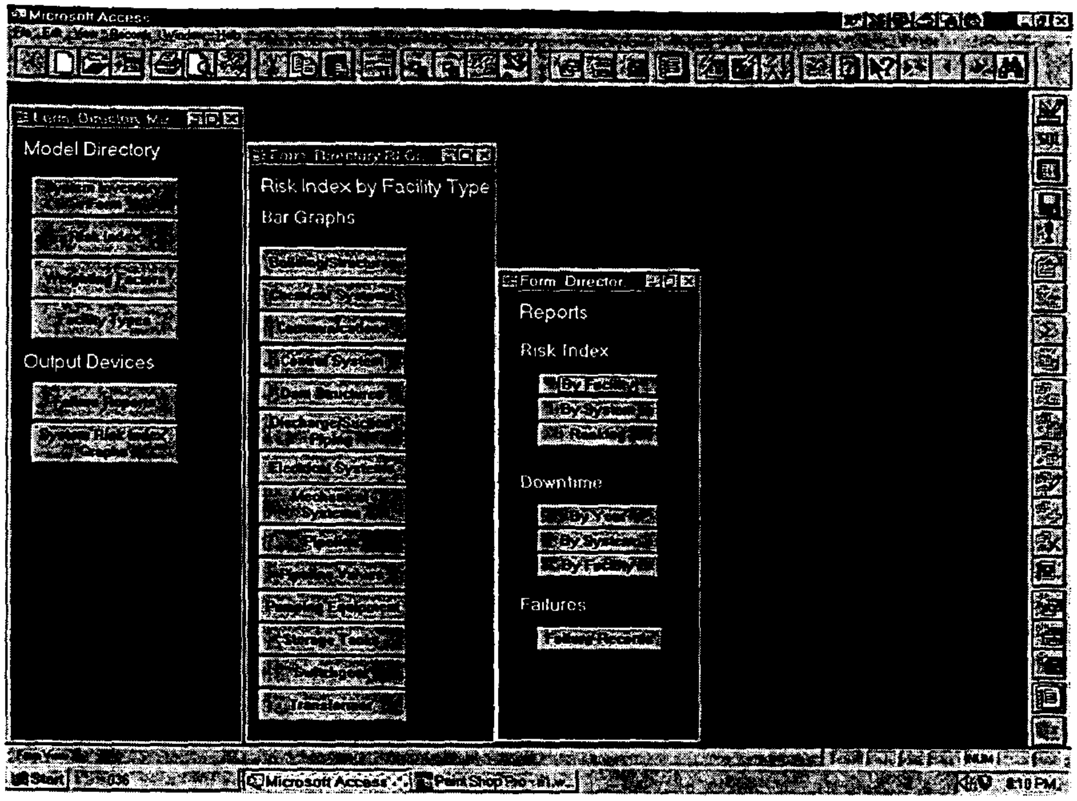


Figure D-8. Output Devices

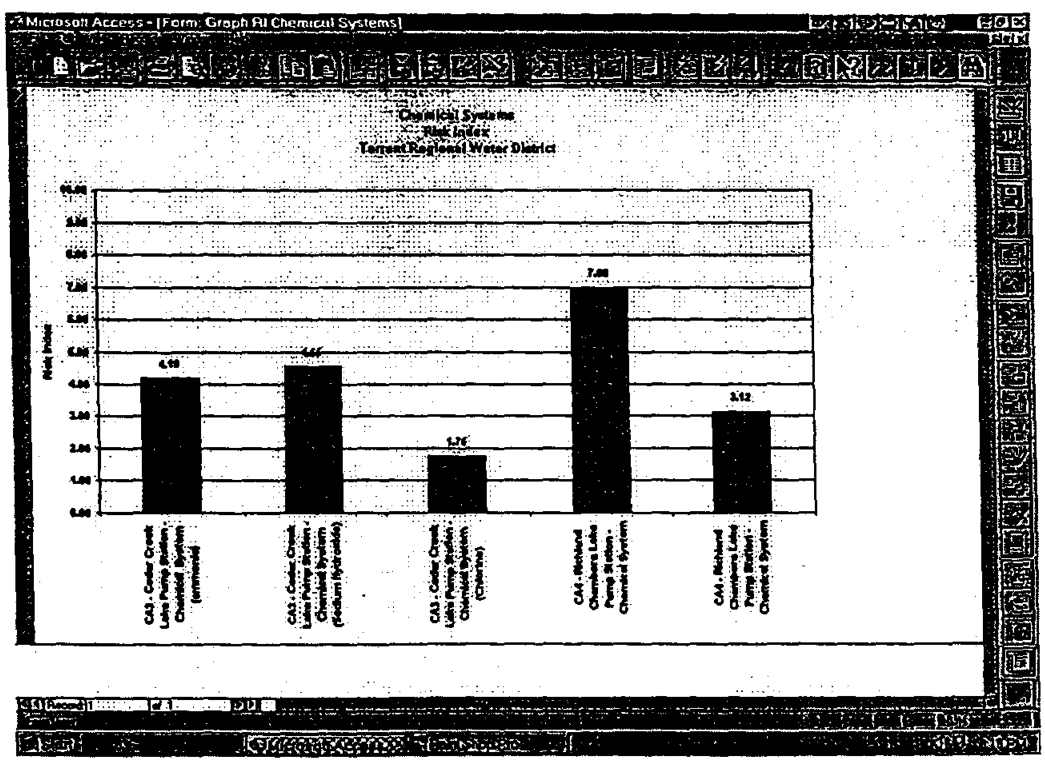
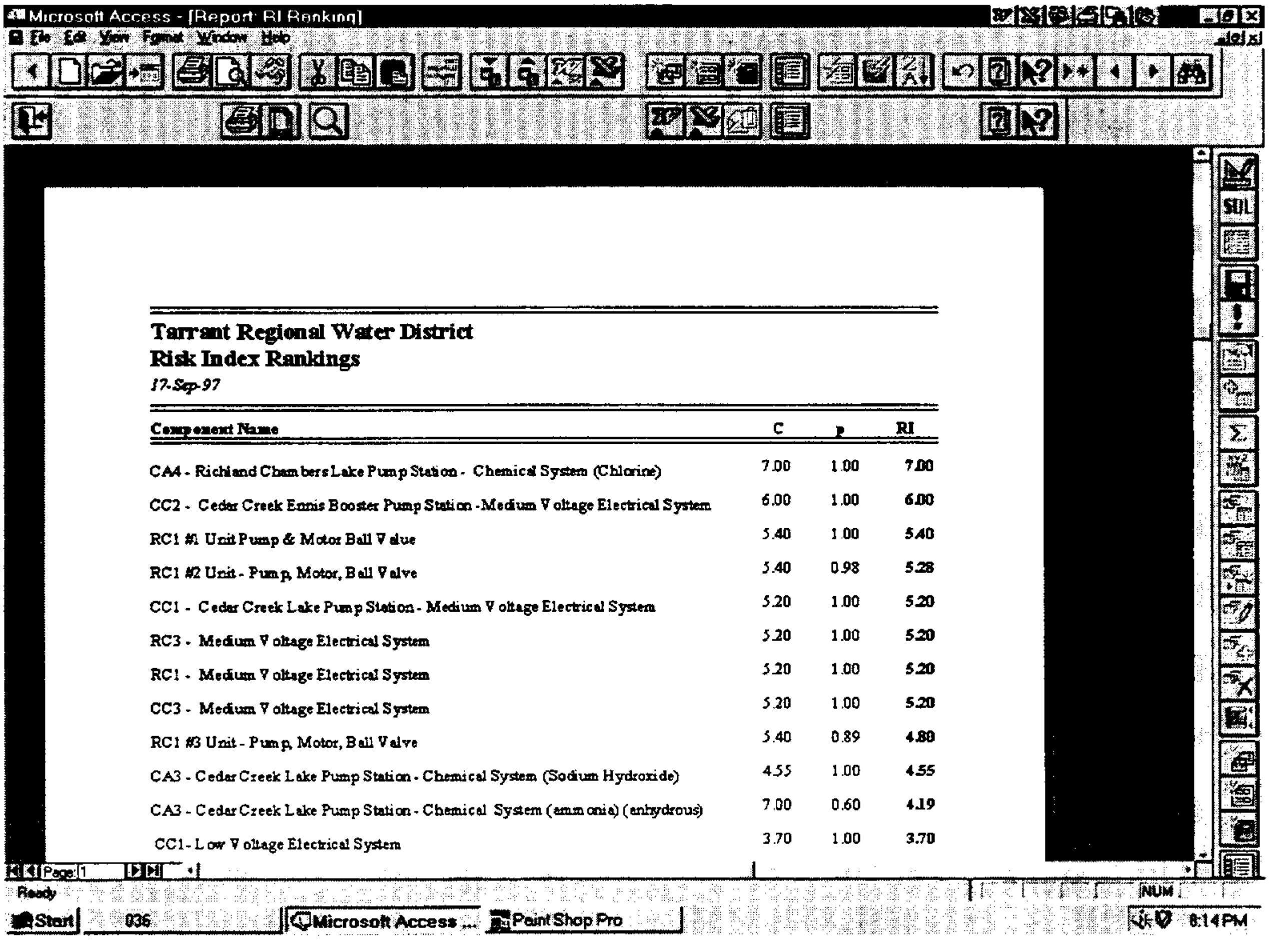


Figure D-9. Risk Indices Bar Graph



Tarrant Regional Water District
Risk Index Rankings
17-Sep-97

Component Name	C	P	RI
CA4 - Richland Chambers Lake Pump Station - Chemical System (Chlorine)	7.00	1.00	7.00
CC2 - Cedar Creek Ennis Booster Pump Station - Medium Voltage Electrical System	6.00	1.00	6.00
RC1 #1 Unit Pump & Motor Ball Value	5.40	1.00	5.40
RC1 #2 Unit - Pump, Motor, Ball Valve	5.40	0.98	5.28
CC1 - Cedar Creek Lake Pump Station - Medium Voltage Electrical System	5.20	1.00	5.20
RC3 - Medium Voltage Electrical System	5.20	1.00	5.20
RC1 - Medium Voltage Electrical System	5.20	1.00	5.20
CC3 - Medium Voltage Electrical System	5.20	1.00	5.20
RC1 #3 Unit - Pump, Motor, Ball Valve	5.40	0.89	4.80
CA3 - Cedar Creek Lake Pump Station - Chemical System (Sodium Hydroxide)	4.55	1.00	4.55
CA3 - Cedar Creek Lake Pump Station - Chemical System (ammonia) (anhydrous)	7.00	0.60	4.19
CC1 - Low Voltage Electrical System	3.70	1.00	3.70

Figure D-10. Risk Index Ranking Report

Risk and Reliability Assessment

Attachment No. 1
Inventoried Components

Tarrant Regional Water District
Inventoried Components

System

Facility Type **Name**

Arlington Outlet Works

Building/Structure

AO1 - Outlet Structure - Arlington

Control System

AO1 - Instrumentation & Control

Discharge/Suction Piping or Structures

AO1 - Discharge/Suction Piping

Cedar Creek

Building/Structure

CC1 - Cedar Creek Lake Pump Station - Pump Station Structure

CC3 - Waxahachie Booster Pump Station - Pump Station Structure

Chemical Systems

CA3 - Cedar Creek Lake Pump Station - Chemical System (anhydrous ammonia)

CA3 - Cedar Creek Lake Pump Station - Chemical System (Sodium Hydroxide)

CA3 - Cedar Creek Lake Pump Station -Chemical System (Chlorine)

Control System

CC1 - Cedar Creek Lake Pump Station - Instrumentation & Control

CC3 - Waxahachie Booster Pump Station - Instrumentation & Control

CC2 - Ennis Booster Pump Station - Instrumentation & Control

Discharge/Suction Piping or Structures

CC1 - Cedar Creek Lake Pump Station - Suction/Discharge Piping

CC3 - Suction/Discharge Piping

System	
Facility Type	Name

Electrical Transmission

CC1 - Cedar Creek Lake Pump Station - Medium Voltage Electrical System

CC3 - Medium Voltage Electrical System

CC1- Low Voltage Electrical System

CC2 - Cedar Creek Ennis Booster Pump Station -Medium Voltage Electrical System

Mechanical Systems

CC1 - HVAC - Exhaust Fans & Air Handling Units

CC3 - HVAC- Exhaust Fans & Air Handling Units

Pipeline

CCP1 - Cedar Creek - Section I, Station 310+00 to 1200+00

CCP3 - Cedar Creek Pipeline - Section III, Station 2100+00 to 3002+00

CCP2 - Cedar Creek Pipeline - Section II, Station 1200+00 to 2100+00

CCP5 - Cedar Creek Pipeline - Section V, Station -0+50 to 310+00

CCP4 - Cedar Creek Pipeline - Section IV, Station 3002+00 to 3896+00

Pipeline Valve

CCPV - Cedar Creek Pipeline - blow-off and air valves (numerous)

CCPMV - Cedar Creek Pipeline - mainline valves (11)

Pumping Equipment

CC3 - Hydraulic Accumulator System

CC3 #2 Unit - Pump, Motor, Cone/Ball Valve (Waxahachie Booster Station #2)

CC3 #3 Unit - Pump, Motor, Ball/Cone Valve (Waxahachie Booster Station #2)

CC1 #4 Unit - Pump, Motor, Ball/Cone Valve

CC1 - Hydraulic Accumulator System

System

Facility Type **Name**

CC1 #3 Unit - Pump, Motor, Ball/Cone Valve

CC1 #2 Unit - Pump, Motor, Ball/Cone Valve

CC1 #6 Unit - Pump, Motor, Ball/Cone Valve

CC3 #1 Unit - Pump, Motor, Ball/Cone Valve (Waxahachie Booster Station #2)

CC1 #5 Unit - Pump, Motor, Ball/Cone Valve

CC3 #4 Unit - Pump Motor Cone Value

CC1 #1 Unit - Pump, Motor, Ball/Cone Valve

CC3 #5 Unit - Pump Motor, Cone Valve

CC3 #7 Unit Pump, Motor, Cone Valve

CC3 #6 Unit Pump, Motor, Cone Valve

CC3 #8 Unit - Pump, Motor, Cone Valve

CC3 #9 Unit Pump, Motor, Cone Valve

Storage Tanks

CC2 - Ground Storage Tanks

CC3 - Ground Storage Tanks

East Texas

Communications Equipment

SCADA

Dam Structure

BR1 - Balancing Reservoir Embankment & Structures

Pipeline

Cedar Creek/Richland Chambers PL Xovers @ Ennis, Waxahachie, Rolling Hills, Balancing Reser

Richland Chambers

System	
Facility Type	Name

Building/Structure

RC1 - Richland Chambers Pump Station - Building

RC3 - Waxahachie Booster Pump Station - Building

Chemical Systems

CA4 - Richland Chambers Lake Pump Station - Chemical System (Chlorine)

CA4 - Richland Chambers Lake Pump Station - Chemical System (aqua Ammonia)

Control System

RC1 - Richland Chambers Lake Pump Station - Instrumentation & Control

RC3 - Waxahachie Booster Pump Station- Instrumentation & Control

Discharge/Suction Piping or Structures

RC1- Suction/Discharge Piping

Electrical Transmission

RC1 - Medium Voltage Electrical System

RC3 - Medium Voltage Electrical System

Mechanical Systems

RC1 - HVAC- Exhaust Fans & Air Handling Units

RC3 - HVAC - Echaust Fans & Air Handling Units

Pipeline

RCP4 - Richland Chambers Pipeline - Section IV - Station 3165+50 to 4124+00

RCP1 - Richland Chambers Pipeline, Section I - Station 301+00 to 1249+00

RCP5 - Richland Chambers Pipeline - Section V - Station 301+00 to 1249+10

RCP2 - Richland Chambers Pipeline - Section II Station 1249+00 to 2207+25

RCP3 - Richland Chambers Pipeline - Section III - Station 2207+25 to 3165+50

Pipeline Valve

System	
Facility Type	Name

RCPMV - Richland Chambers Pipeline - Mainline Valves

RCPV - Richland Chambers Pipeline - blow-off and air valves (numerous)

Pumping Equipment

RC1 #2 Unit - Pump, Motor, Ball Valve

RC1 #3 Unit - Pump, Motor, Ball Valve

RC1 #1 Unit Pump & Motor Ball Value

RC3 #11 Unit - Pump, Motor, Ball Valve

RC3 #12 Unit - Pump, Motor, Ball Valve

RC3 #13 Unit - Pump, Motor, Ball Valve

Risk and Reliability Assessment

Attachment No. 2
Risk Index Rankings

Tarrant Regional Water District
Risk Index Rankings

09-Nov-97

Component Name	C	p	RI
CC1 - Cedar Creek Lake Pump Station - Medium Voltage Electrical System	5.20	1.00	**5.20**
RC3 - Medium Voltage Electrical System	5.20	1.00	**5.20**
CC3 - Medium Voltage Electrical System	5.20	1.00	**5.20**
RC1 - Medium Voltage Electrical System	5.20	1.00	**5.20**
RC1 #2 Unit - Pump, Motor, Ball Valve	5.40	0.70	**3.78**
RC1 #1 Unit Pump & Motor Ball Value	5.40	0.70	**3.78**
RC1 #3 Unit - Pump, Motor, Ball Valve	5.40	0.70	**3.78**
CC1- Low Voltage Electrical System	3.70	1.00	**3.70**
RC3 #11 Unit - Pump, Motor, Ball Valve	5.40	0.67	**3.60**
CA4 - Richland Chambers Lake Pump Station - Chemical System (Chlorine)	7.00	0.51	**3.58**
CA3 - Cedar Creek Lake Pump Station - Chemical System (anhydrous ammonia)	7.00	0.49	**3.40**
CA3 - Cedar Creek Lake Pump Station - Chemical System (Sodium Hydroxide)	4.55	0.72	**3.28**
CA4 - Richland Chambers Lake Pump Station - Chemical System (aqua Ammonia)	3.60	0.87	**3.12**
RC1- Suction/Discharge Piping	6.80	0.43	**2.95**
RC1 - HVAC- Exhaust Fans & Air Handling Units	2.85	1.00	**2.85**
CCP1 - Cedar Creek - Section I, Station 310+00 to 1200+00	4.95	0.55	**2.72**
RC3 #12 Unit - Pump, Motor, Ball Valve	5.40	0.44	**2.40**
RC3 #13 Unit - Pump, Motor, Ball Valve	5.40	0.44	**2.40**
RCP4 - Richland Chambers Pipeline - Section IV - Station 3165+50 to 4124+00	3.90	0.56	**2.17**
CC1 - Cedar Creek Lake Pump Station - Suction/Discharge Piping	6.80	0.30	**2.04**
CC1 - Cedar Creek Lake Pump Station - Pump Station Structure	4.25	0.44	**1.87**
RC1 - Richland Chambers Pump Station - Building	4.25	0.43	**1.84**
RC3 - Waxahachie Booster Pump Station - Building	5.25	0.30	**1.58**
CC3 - Hydraulic Accumulator System	5.30	0.28	**1.48**
BR1 - Balancing Reservoir Embankment & Structures	7.40	0.20	**1.48**

Component Name	C	p	RI
CC3 - Suction/Discharge Piping	6.80	0.20	**1.36**
SCADA	1.30	1.00	**1.30**
CC3 #2 Unit - Pump, Motor, Cone/Ball Valve (Waxahachie Booster Station #2)	5.20	0.24	**1.25**
RCP1 - Richland Chambers Pipeline, Section I - Station 301+00 to 1249+00	5.45	0.22	**1.21**
CC1 - HVAC - Exhaust Fans & Air Handling Units	2.85	0.40	**1.14**
CA3 - Cedar Creek Lake Pump Station -Chemical System (Chlorine)	7.00	0.16	**1.12**
CC3 #3 Unit - Pump, Motor, Ball/Cone Valve (Waxahachie Booster Station #2)	5.20	0.20	**1.04**
CC1 #4 Unit - Pump, Motor, Ball/Cone Valve	5.20	0.20	**1.04**
AO1 - Outlet Structure - Arlington	4.25	0.24	**1.02**
CC3 - Waxahachie Booster Pump Station - Pump Station Structure	4.25	0.24	**1.02**
CCP3 - Cedar Creek Pipeline - Section III, Station 2100+00 to 3002+00	3.50	0.29	**1.02**
CCP2 - Cedar Creek Pipeline - Section II, Station 1200+00 to 2100+00	3.80	0.25	**0.95**
CC1 - Hydraulic Accumulator System	5.30	0.17	**0.90**
RC3 - HVAC - Echaust Fans & Air Handling Units	2.85	0.31	**0.89**
CC1 #2 Unit - Pump, Motor, Ball/Cone Valve	5.20	0.16	**0.83**
CC1 #6 Unit - Pump, Motor, Ball/Cone Valve	5.20	0.16	**0.83**
CC3 #1 Unit - Pump, Motor, Ball/Cone Valve (Waxahachie Booster Station #2)	5.20	0.16	**0.83**
CC1 #3 Unit - Pump, Motor, Ball/Cone Valve	5.20	0.16	**0.83**
CC3 - HVAC- Exhaust Fans & Air Handling Units	2.85	0.28	**0.80**
AO1 - Discharge/Suction Piping	2.95	0.24	**0.71**
CC1 #1 Unit - Pump, Motor, Ball/Cone Valve	5.20	0.12	**0.62**
CC1 #5 Unit - Pump, Motor, Ball/Cone Valve	5.20	0.12	**0.62**
CC3 #4 Unit - Pump Motor Cone Value	5.20	0.12	**0.62**
CC1 - Cedar Creek Lake Pump Station - Instrumentation & Control	1.60	0.37	**0.60**
RCP5 - Richland Chambers Pipeline - Section V - Station 301+00 to 1249+10	5.95	0.10	**0.60**
CC3 - Waxahachie Booster Pump Station - Instrumentation & Control	1.60	0.33	**0.53**
CC2 - Ground Storage Tanks	3.85	0.12	**0.46**
RC3 - Waxahachie Booster Pump Station- Instrumentation & Control	1.60	0.27	**0.43**

Component Name	C	p	RI
RC1 - Richland Chambers Lake Pump Station - Instrumentation & Control	1.60	0.27	**0.43**
CC3 #5 Unit - Pump Motor, Cone Valve	5.20	0.08	**0.42**
CC2 - Ennis Booster Pump Station - Instrumentation & Control	1.60	0.25	**0.41**
CCP5 - Cedar Creek Pipeline - Section V, Station -0+50 to 310+00	4.15	0.09	**0.37**
CC3 - Ground Storage Tanks	3.85	0.08	**0.31**
AO1 - Instrumentation & Control	1.90	0.16	**0.30**
CCP4 - Cedar Creek Pipeline - Section IV, Station 3002+00 to 3896+00	3.20	0.09	**0.29**
Cedar Creek/Richland Chambers PL Xovers @ Ennis, Waxahachie, Rolling Hills, Bala	4.25	0.06	**0.26**
CC2 - Cedar Creek Ennis Booster Pump Station -Medium Voltage Electrical System	6.00	0.04	**0.24**
CC3 #6 Unit Pump, Motor, Cone Valve	5.20	0.04	**0.21**
CC3 #8 Unit - Pump, Motor, Cone Valve	5.20	0.04	**0.21**
CC3 #7 Unit Pump, Motor, Cone Valve	5.20	0.04	**0.21**
CC3 #9 Unit Pump, Motor, Cone Valve	5.20	0.04	**0.21**
RCP3 - Richland Chambers Pipeline - Section III - Station 2207+25 to 3165+50	3.45	0.05	**0.17**
RCP2 - Richland Chambers Pipeline - Section II Station 1249+00 to 2207+25	3.45	0.05	**0.17**
RCPMV - Richland Chambers Pipeline - Mainline Valves	1.45	0.11	**0.16**
CCPV - Cedar Creek Pipeline - blow-off and air valves (numerous)	1.20	0.10	**0.12**
CCPMV - Cedar Creek Pipeline - mainline valves (11)	1.45	0.04	**0.06**
RCPV - Richland Chambers Pipeline - blow-off and air valves (numerous)	0.20	0.10	**0.02**

Risk and Reliability Assessment

Attachment No. 3
Risk Index by System

Tarrant Regional Water District
Risk Index by System

09-Nov-97

System / Facility Type / Name	C	p	RI
Arlington Outlet Works			
Building/Structure			
AO1 - Outlet Structure - Arlington	4.25	0.24	1.02
Control System			
AO1 - Instrumentation & Control	1.9	0.16	0.30
Discharge/Suction Piping or Structures			
AO1 - Discharge/Suction Piping	2.95	0.24	0.71
Cedar Creek			
Building/Structure			
CC1 - Cedar Creek Lake Pump Station - Pump Station Structure	4.25	0.44	1.87
CC3 - Waxahachie Booster Pump Station - Pump Station Structure	4.25	0.24	1.02
Chemical Systems			
CA3 - Cedar Creek Lake Pump Station - Chemical System (anhydrous ammonia)	7	0.486	3.40
CA3 - Cedar Creek Lake Pump Station - Chemical System (Sodium Hydroxide)	4.55	0.72	3.28
CA3 - Cedar Creek Lake Pump Station -Chemical System (Chlorine)	7	0.16	1.12
Control System			
CC1 - Cedar Creek Lake Pump Station - Instrumentation & Control	1.6	0.373	0.60

System Facility Type Name	C	p	RI
CC3 - Waxahachie Booster Pump Station - Instrumentation & Control	1.6	0.333	0.53
CC2 - Ennis Booster Pump Station - Instrumentation & Control	1.6	0.253	0.41
Discharge/Suction Piping or Structures			
CC1 - Cedar Creek Lake Pump Station - Suction/Discharge Piping	6.8	0.3	2.04
CC3 - Suction/Discharge Piping	6.8	0.2	1.36
Electrical Transmission			
CC1 - Cedar Creek Lake Pump Station - Medium Voltage Electrical System	5.2	1	5.20
CC3 - Medium Voltage Electrical System	5.2	1	5.20
CC1- Low Voltage Electrical System	3.7	1	3.70
CC2 - Cedar Creek Ennis Booster Pump Station -Medium Voltage Electrical System	6	0.04	0.24
Mechanical Systems			
CC1 - HVAC - Exhaust Fans & Air Handling Units	2.85	0.4	1.14
CC3 - HVAC- Exhaust Fans & Air Handling Units	2.85	0.28	0.80
Pipeline			
CCP1 - Cedar Creek - Section I, Station 310+00 to 1200+00	4.95	0.55	2.72
CCP3 - Cedar Creek Pipeline - Section III, Station 2100+00 to 3002+00	3.5	0.29	1.02
CCP2 - Cedar Creek Pipeline - Section II, Station 1200+00 to 2100+00	3.8	0.25	0.95
CCP5 - Cedar Creek Pipeline - Section V, Station -0+50 to 310+00	4.15	0.09	0.37

System Facility Type Name	C	p	RI
CCP4 - Cedar Creek Pipeline - Section IV, Station 3002+00 to 3896+00	3.2	0.09	0.29
Pipeline Valve			
CCPV - Cedar Creek Pipeline - blow-off and air valves (numerous)	1.2	0.1	0.12
CCPMV - Cedar Creek Pipeline - mainline valves (11)	1.45	0.04	0.06
Pumping Equipment			
CC3 - Hydraulic Accumulator System	5.3	0.28	1.48
CC3 #2 Unit - Pump, Motor, Cone/Ball Valve (Waxahachie Booster Station #2)	5.2	0.24	1.25
CC3 #3 Unit - Pump, Motor, Ball/Cone Valve (Waxahachie Booster Station #2)	5.2	0.2	1.04
CC1 #4 Unit - Pump, Motor, Ball/Cone Valve	5.2	0.2	1.04
CC1 - Hydraulic Accumulator System	5.3	0.17	0.90
CC1 #3 Unit - Pump, Motor, Ball/Cone Valve	5.2	0.16	0.83
CC1 #2 Unit - Pump, Motor, Ball/Cone Valve	5.2	0.16	0.83
CC1 #6 Unit - Pump, Motor, Ball/Cone Valve	5.2	0.16	0.83
CC3 #1 Unit - Pump, Motor, Ball/Cone Valve (Waxahachie Booster Station #2)	5.2	0.16	0.83
CC1 #5 Unit - Pump, Motor, Ball/Cone Valve	5.2	0.12	0.62
CC3 #4 Unit - Pump Motor Cone Value	5.2	0.12	0.62
CC1 #1 Unit - Pump, Motor, Ball/Cone Valve	5.2	0.12	0.62

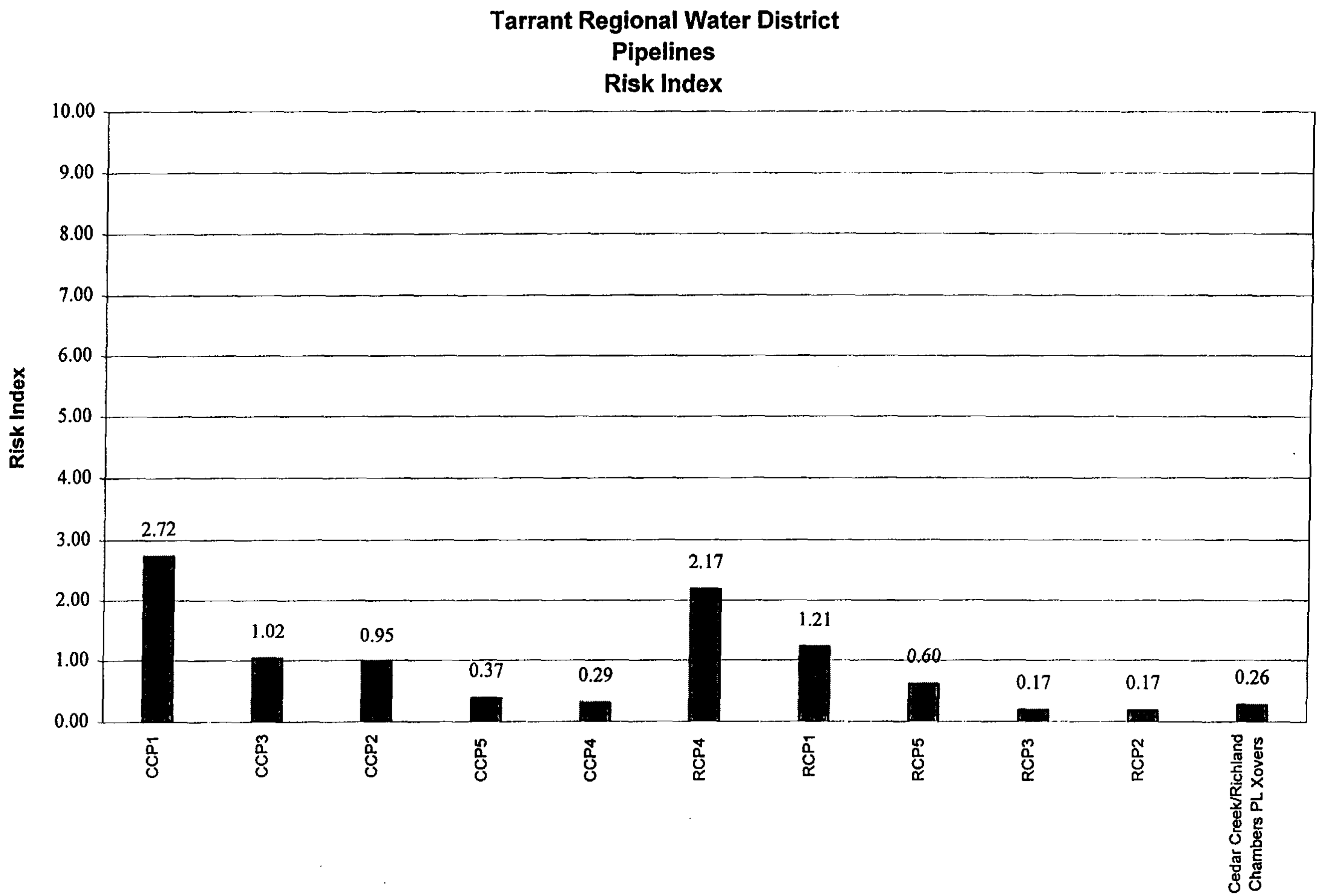
System Facility Type Name	C	p	RI
CC3 #5 Unit - Pump Motor, Cone Valve	5.2	0.08	0.42
CC3 #7 Unit Pump, Motor, Cone Valve	5.2	0.04	0.21
CC3 #6 Unit Pump, Motor, Cone Valve	5.2	0.04	0.21
CC3 #8 Unit - Pump, Motor, Cone Valve	5.2	0.04	0.21
CC3 #9 Unit Pump, Motor, Cone Valve	5.2	0.04	0.21
Storage Tanks			
CC2 - Ground Storage Tanks	3.85	0.12	0.46
CC3 - Ground Storage Tanks	3.85	0.08	0.31
East Texas			
Communications Equipment			
SCADA	1.3	1	1.30
Dam Structure			
BR1 - Balancing Reservoir Embankment & Structures	7.4	0.2	1.48
Pipeline			
Cedar Creek/Richland Chambers PL Xovers @ Ennis, Waxahachie, Rolling Hills, Balancing Reserv	4.25	0.06	0.26
Richland Chambers			
Building/Structure			
RC1 - Richland Chambers Pump Station - Building	4.25	0.433	1.84
RC3 - Waxahachie Booster Pump Station - Building	5.25	0.3	1.58

System / Facility Type / Name	C	p	RI
Chemical Systems			
CA4 - Richland Chambers Lake Pump Station - Chemical System (Chlorine)	7	0.511	3.58
CA4 - Richland Chambers Lake Pump Station - Chemical System (aqua Ammonia)	3.6	0.867	3.12
Control System			
RC1 - Richland Chambers Lake Pump Station - Instrumentation & Control	1.6	0.267	0.43
RC3 - Waxahachie Booster Pump Station- Instrumentation & Control	1.6	0.267	0.43
Discharge/Suction Piping or Structures			
RC1- Suction/Discharge Piping	6.8	0.433	2.95
Electrical Transmission			
RC1 - Medium Voltage Electrical System	5.2	1	5.20
RC3 - Medium Voltage Electrical System	5.2	1	5.20
Mechanical Systems			
RC1 - HVAC- Exhaust Fans & Air Handling Units	2.85	1	2.85
RC3 - HVAC - Echaust Fans & Air Handling Units	2.85	0.311	0.89
Pipeline			
RCP4 - Richland Chambers Pipeline - Section IV - Station 3165+50 to 4124+00	3.9	0.556	2.17
RCP1 - Richland Chambers Pipeline, Section I - Station 301+00 to 1249+00	5.45	0.222	1.21
RCP5 - Richland Chambers Pipeline - Section V - Station 301+00 to 1249+10	5.95	0.1	0.60
RCP2 - Richland Chambers Pipeline - Section II Station 1249+00 to 2207+25	3.45	0.05	0.17

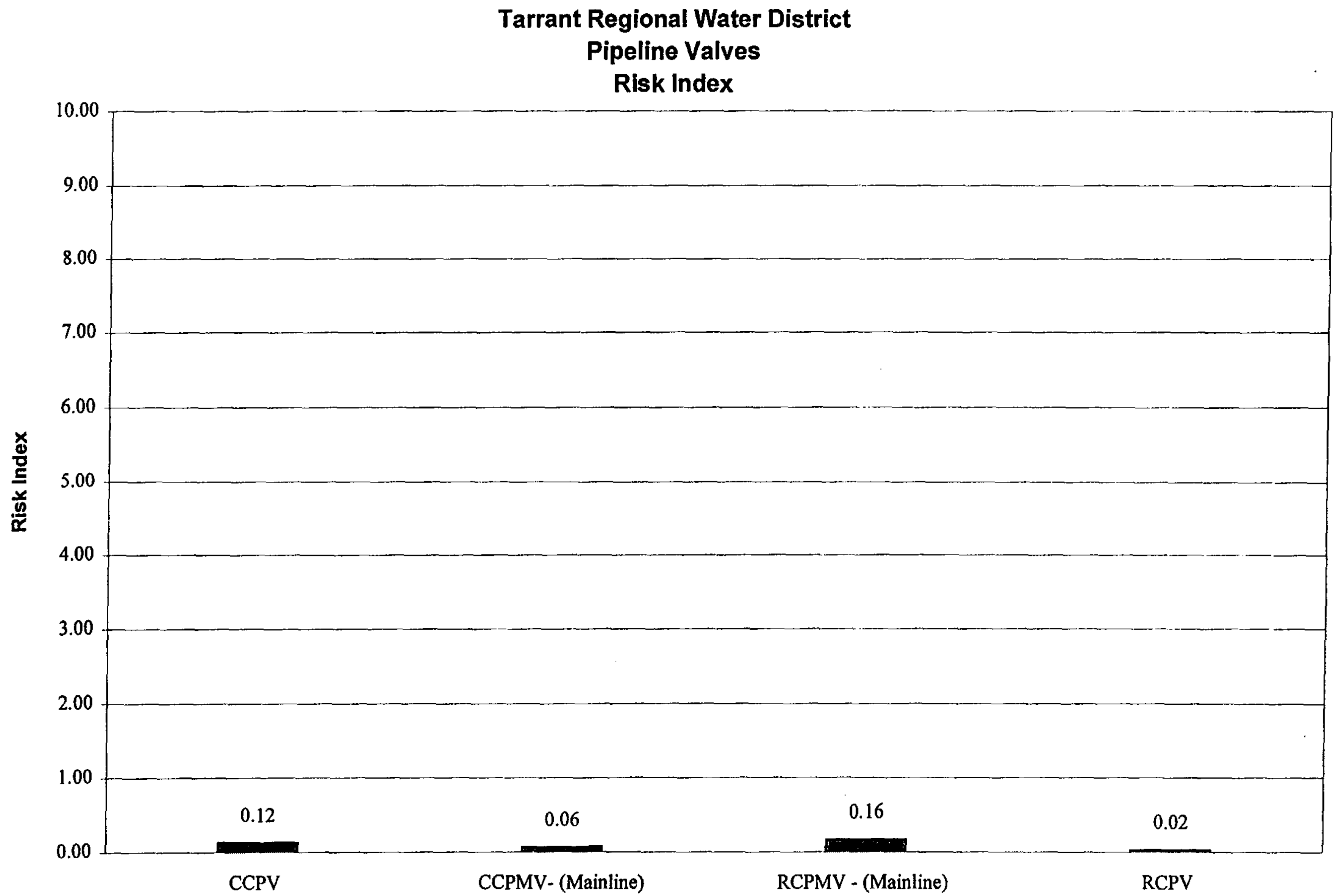
System Facility Type Name	C	p	RI
RCP3 - Richland Chambers Pipeline - Section III - Station 2207+25 to 3165+50	3.45	0.05	0.17
Pipeline Valve			
RCPMV - Richland Chambers Pipeline - Mainline Valves	1.45	0.111	0.16
RCPV - Richland Chambers Pipeline - blow-off and air valves (numerous)	0.2	0.1	0.02
Pumping Equipment			
RC1 #2 Unit - Pump, Motor, Ball Valve	5.4	0.7	3.78
RC1 #3 Unit - Pump, Motor, Ball Valve	5.4	0.7	3.78
RC1 #1 Unit Pump & Motor Ball Value	5.4	0.7	3.78
RC3 #11 Unit - Pump, Motor, Ball Valve	5.4	0.667	3.60
RC3 #13 Unit - Pump, Motor, Ball Valve	5.4	0.444	2.40
RC3 #12 Unit - Pump, Motor, Ball Valve	5.4	0.444	2.40

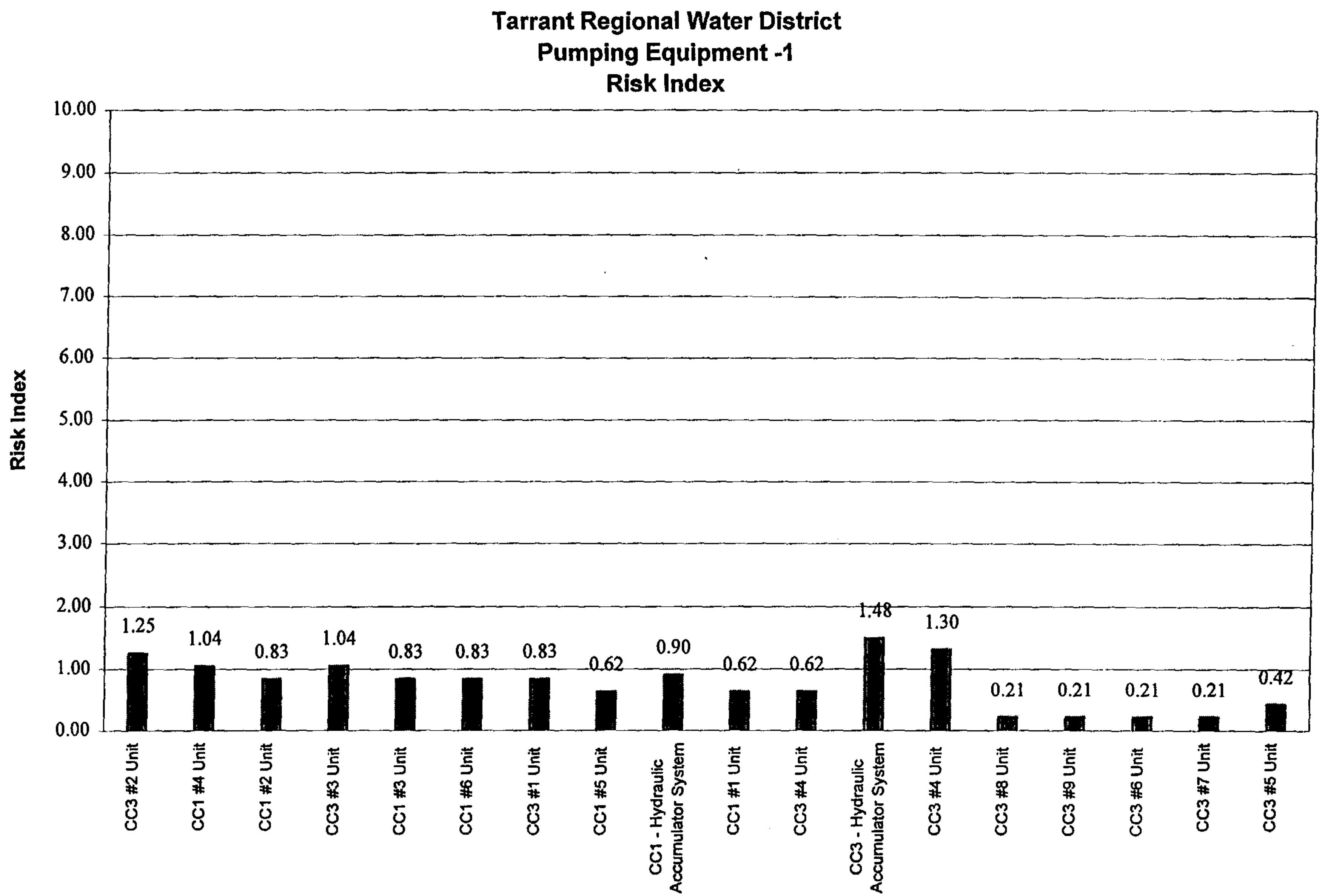
Risk and Reliability Assessment

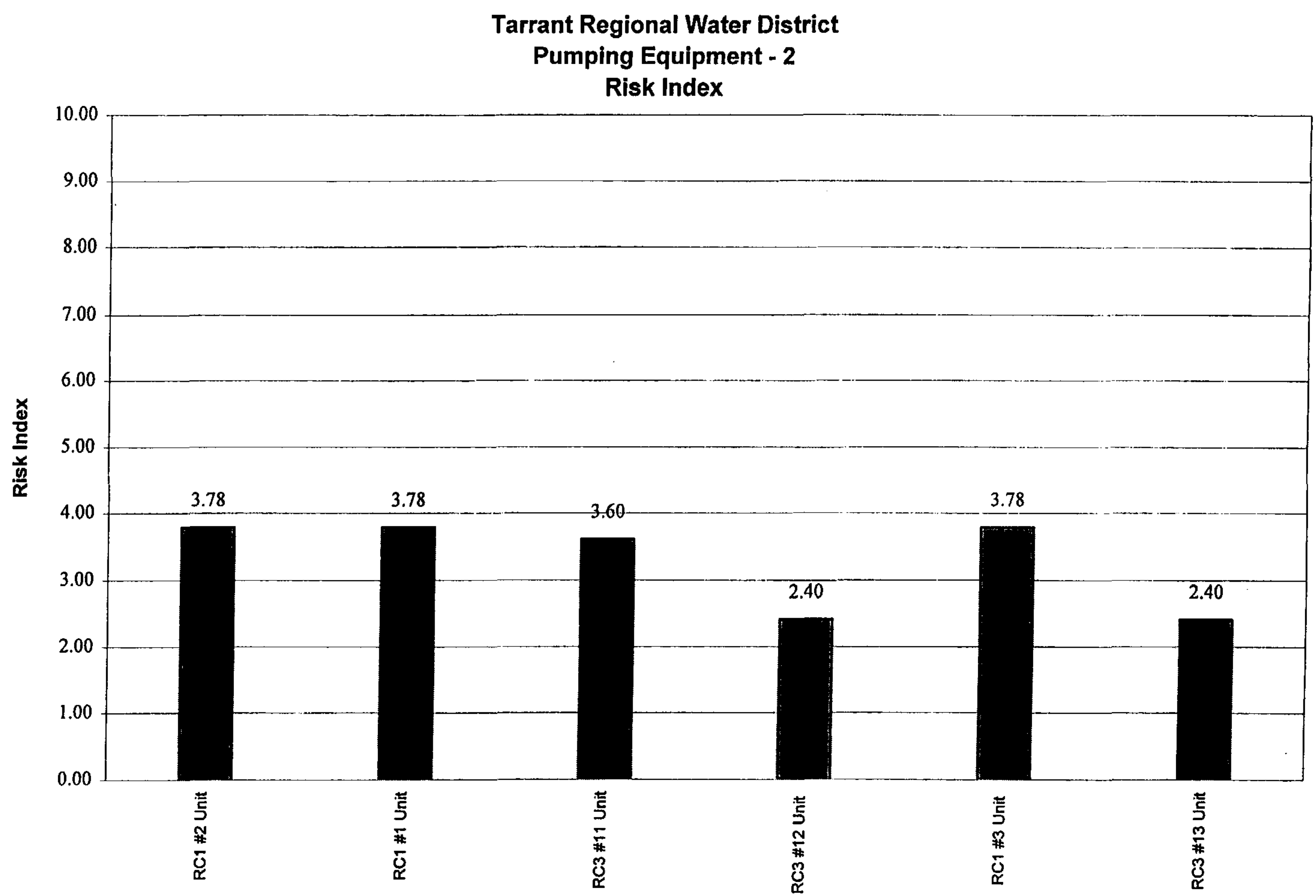
Attachment No. 4
Key System Components
Risk Index Bar Graphs by Facility Type



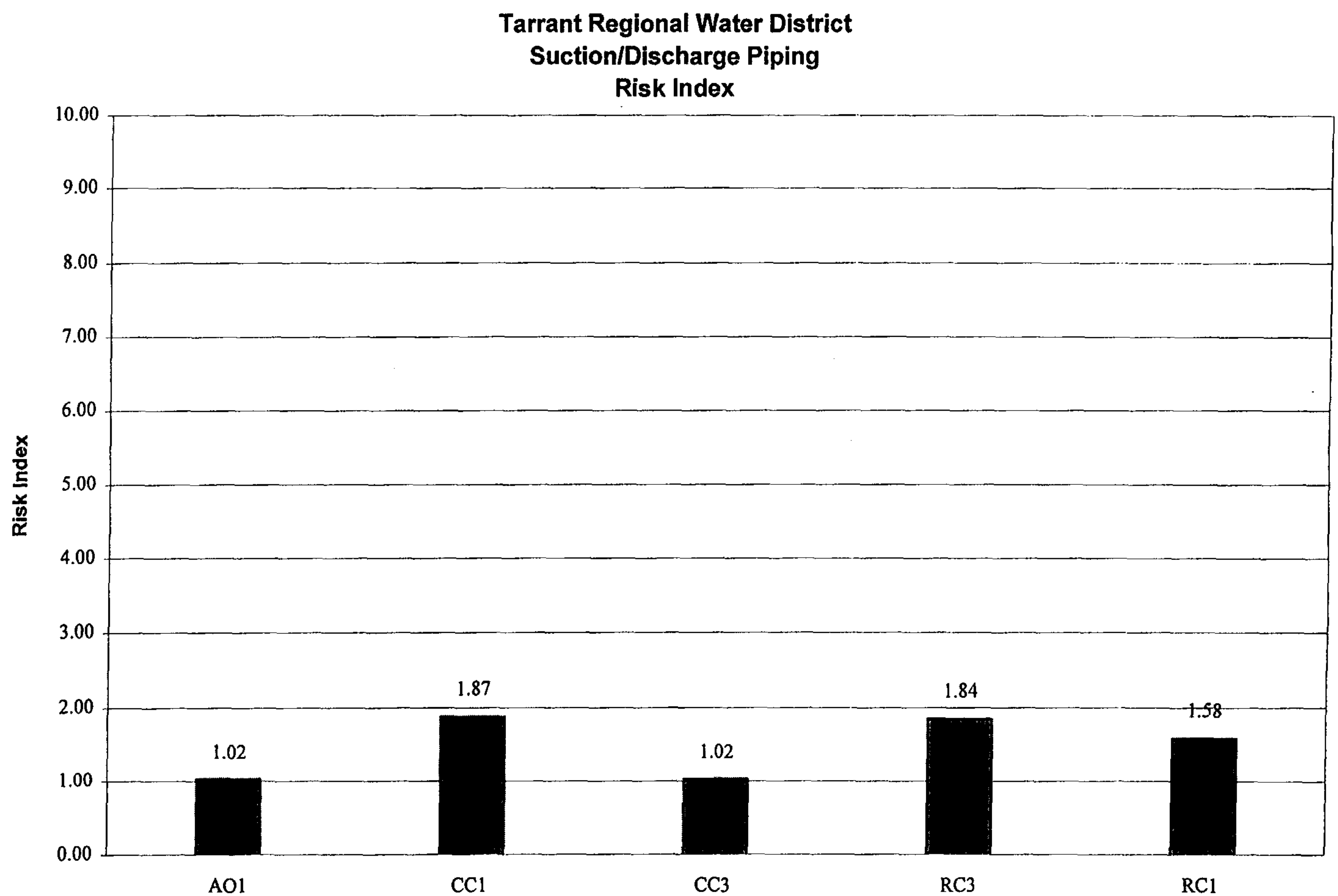
Tarrant Regional Water District
Pipelines
Risk Index
Risk Index
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
2.72
1.02
0.95
0.37
0.29
2.17
1.21
0.60
0.17
0.17
0.26
CCP1
CCP3
CCP2
CCP5
CCP4
RCP4
RCP1
RCP5
RCP3
RCP2
Cedar Creek/Richland Chambers PL Xovers

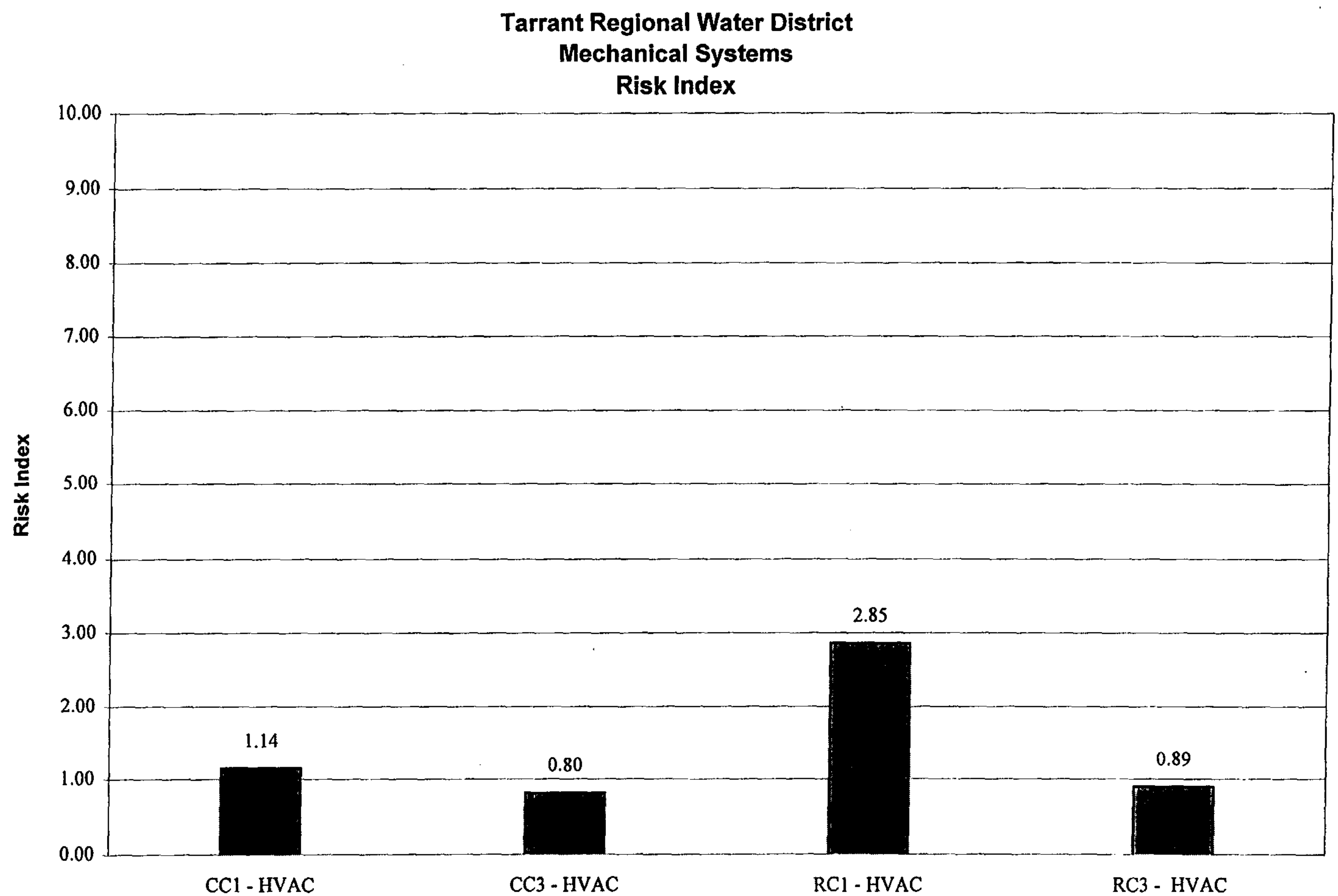

Tarrant Regional Water District
Pipeline Valves
Risk Index
Risk Index
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
0.12
0.06
0.16
0.02
CCPV
CCPMV- (Mainline)
RCPMV - (Mainline)
RCPV


Tarrant Regional Water District
Pumping Equipment -1
Risk Index
Risk Index
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
1.25
1.04
0.83
1.04
0.83
0.83
0.83
0.62
0.90
0.62
0.62
1.48
1.30
0.21
0.21
0.21
0.21
0.42
CC3 #2 Unit
CC1 #4 Unit
CC1 #2 Unit
CC3 #3 Unit
CC1 #3 Unit
CC1 #6 Unit
CC3 #1 Unit
CC1 #5 Unit
CC1 - Hydraulic Accumulator System
CC1 #1 Unit
CC3 #4 Unit
CC3 - Hydraulic Accumulator System
CC3 #4 Unit
CC3 #8 Unit
CC3 #9 Unit
CC3 #6 Unit
CC3 #7 Unit
CC3 #5 Unit

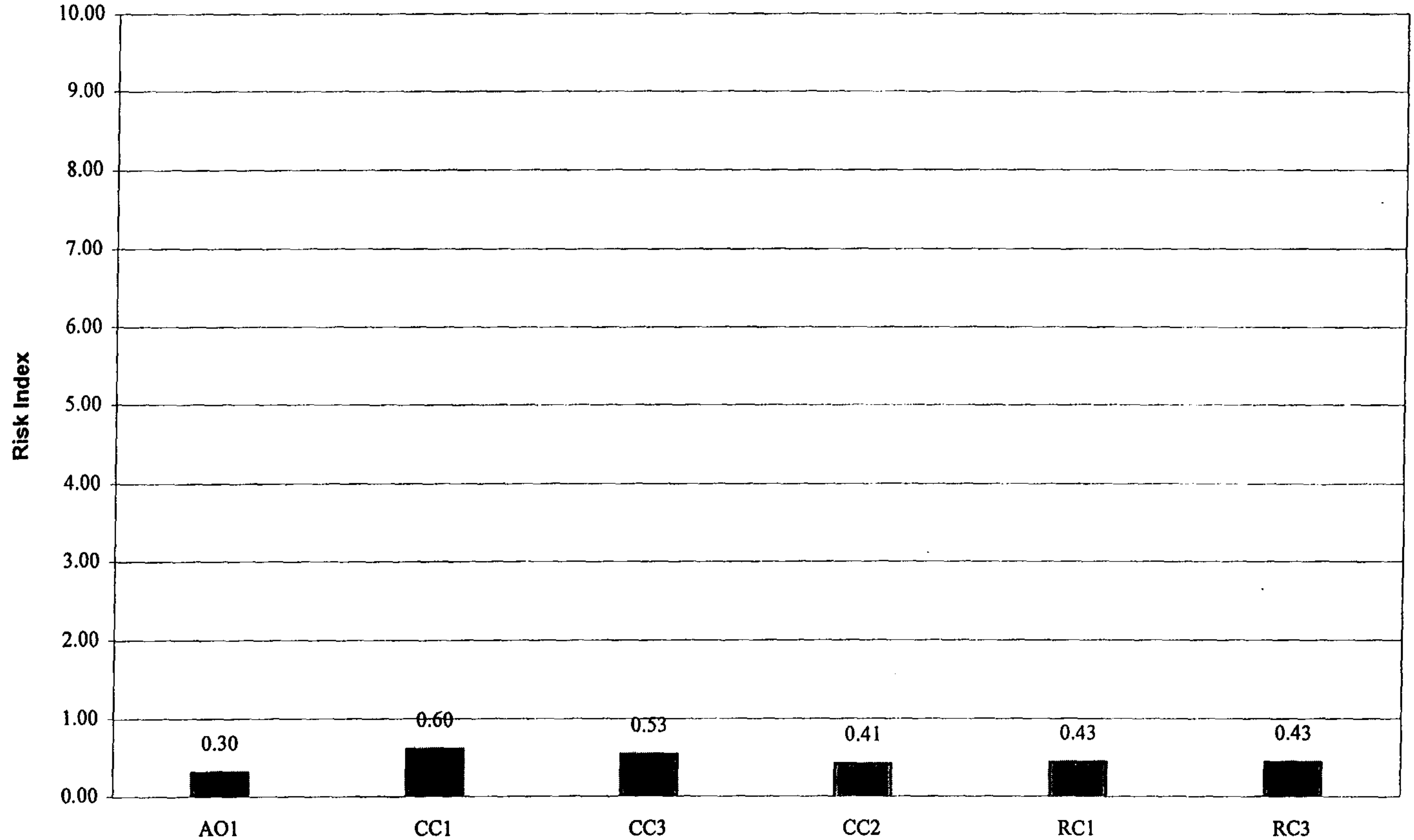


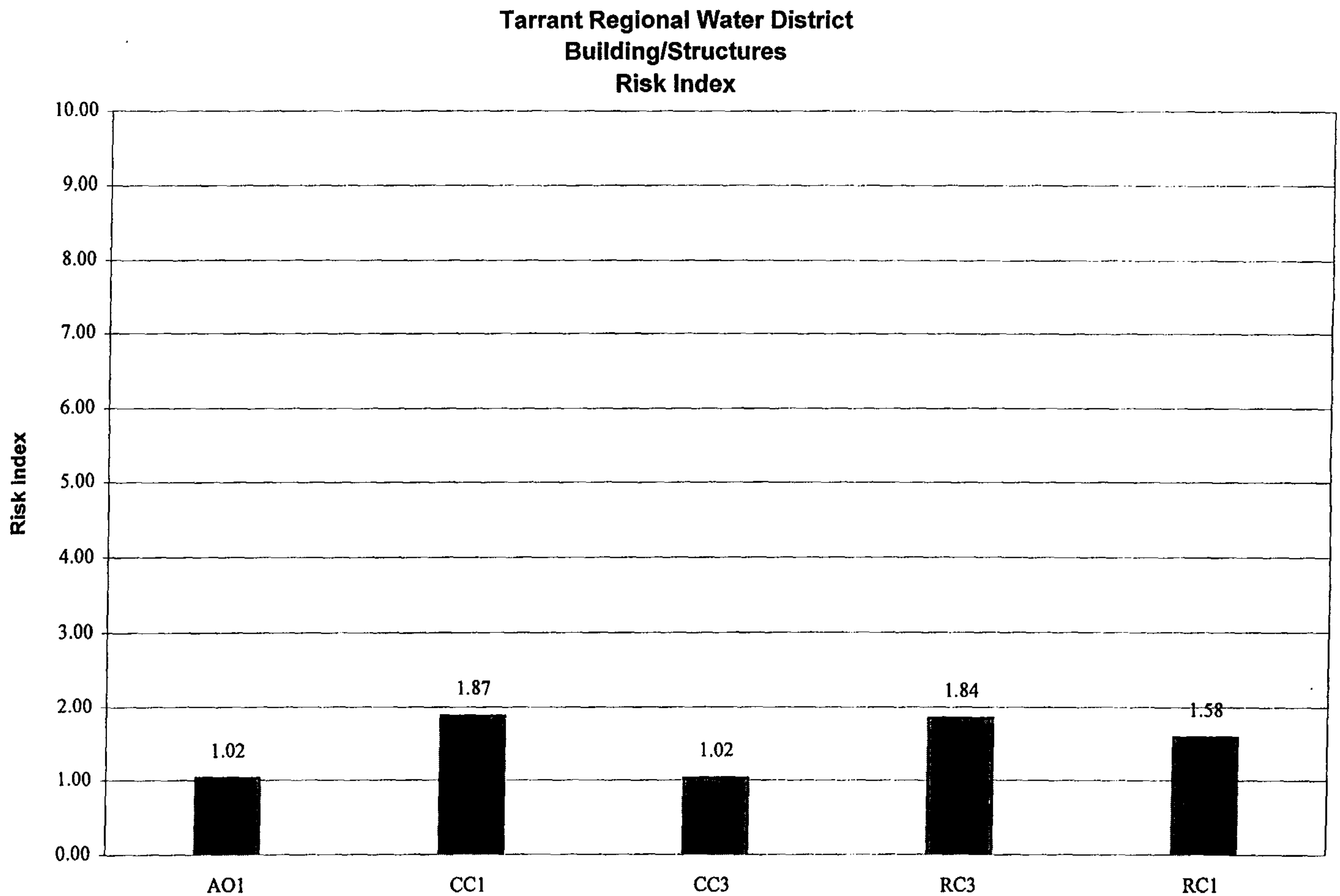
Tarrant Regional Water District
Pumping Equipment - 2
Risk Index
Risk Index
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
3.78
3.78
3.60
2.40
3.78
2.40
RC1 #2 Unit
RC1 #1 Unit
RC3 #11 Unit
RC3 #12 Unit
RC1 #3 Unit
RC3 #13 Unit

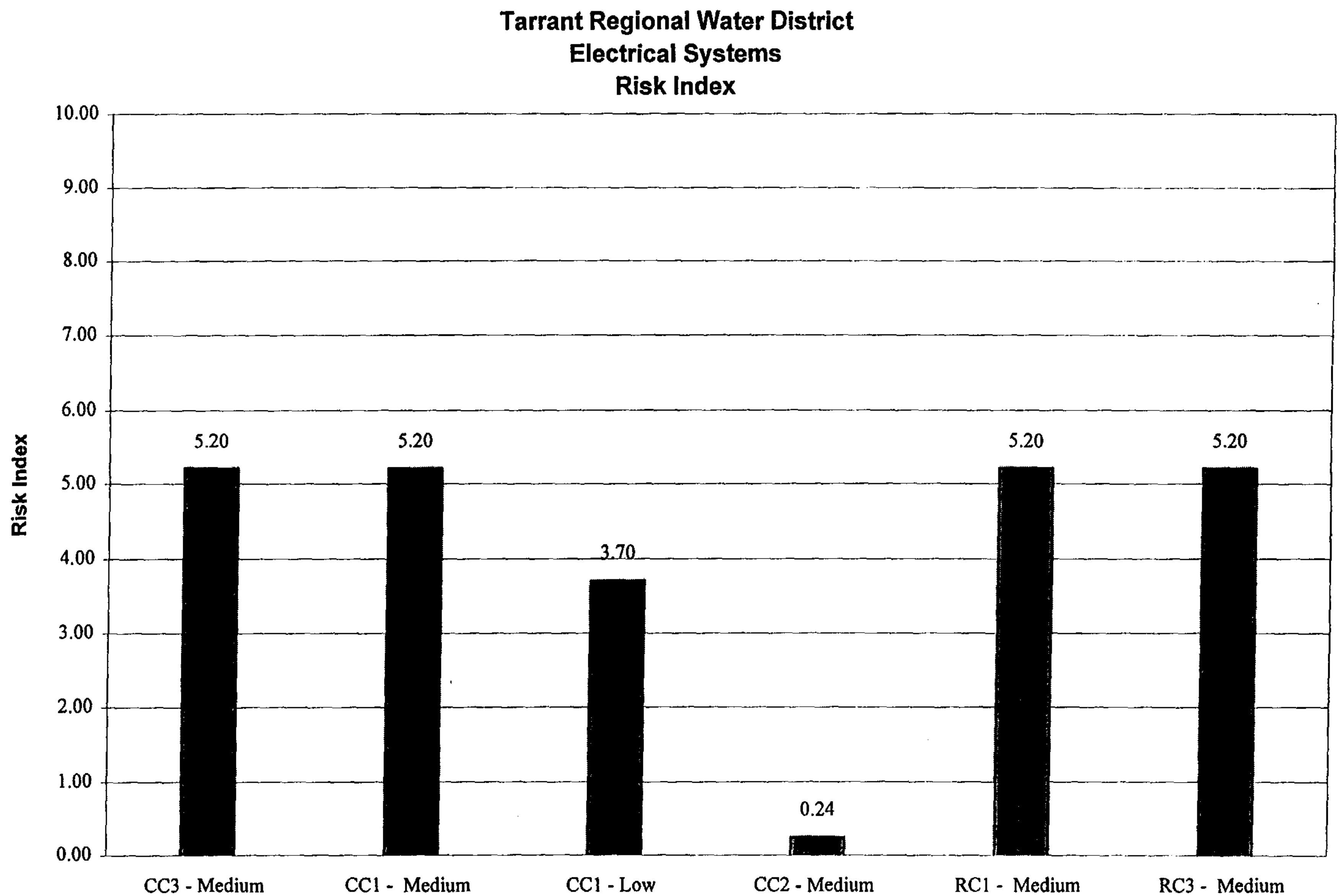

Tarrant Regional Water District
Suction/Discharge Piping
Risk Index
Risk Index
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
1.02
1.87
1.02
1.84
1.58
AO1
CC1
CC3
RC3
RC1


Tarrant Regional Water District
Mechanical Systems
Risk Index
Risk Index
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
1.14
0.80
2.85
0.89
CC1 - HVAC
CC3 - HVAC
RC1 - HVAC
RC3 - HVAC

Tarrant Regional Water District
Control Systems
Risk Index

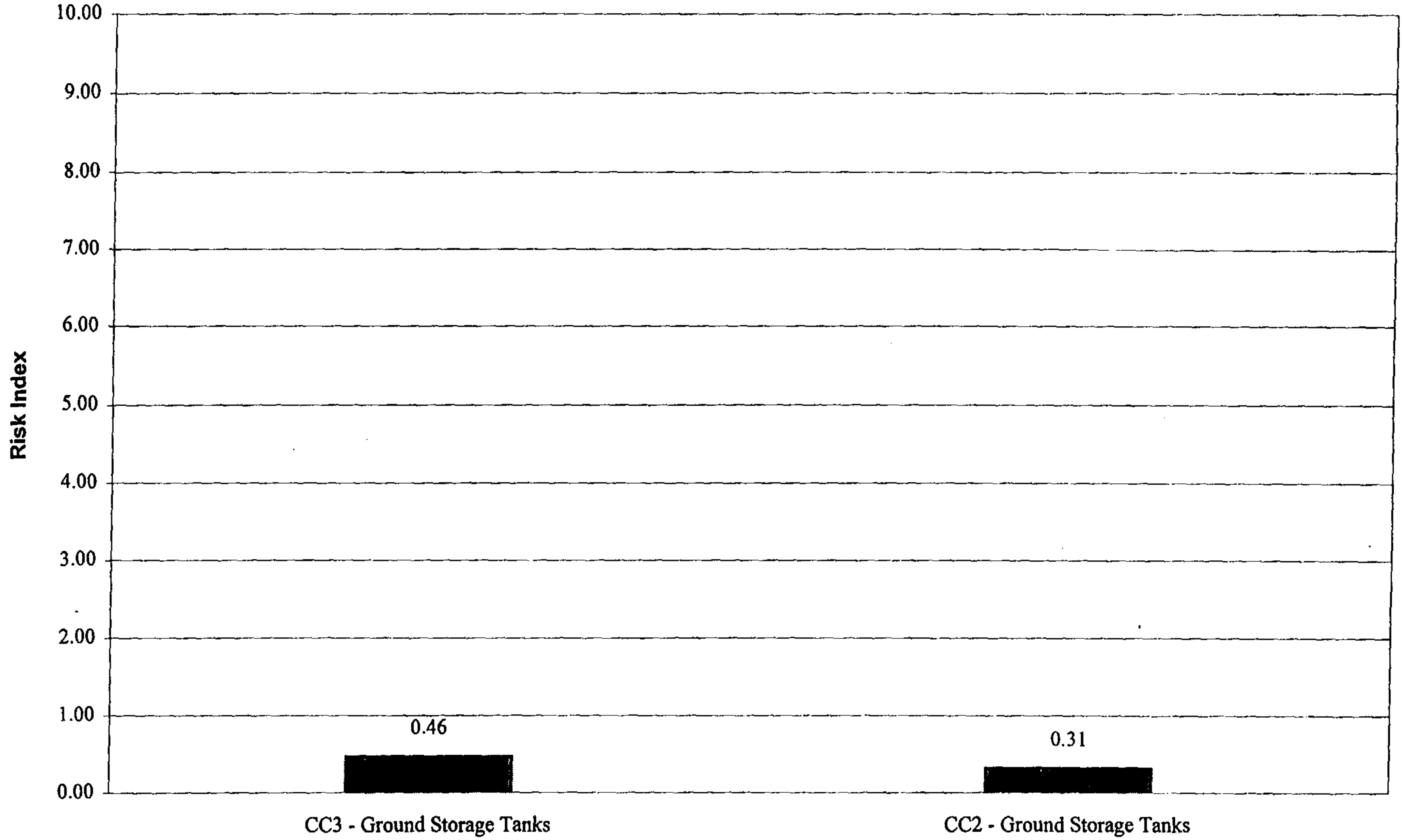


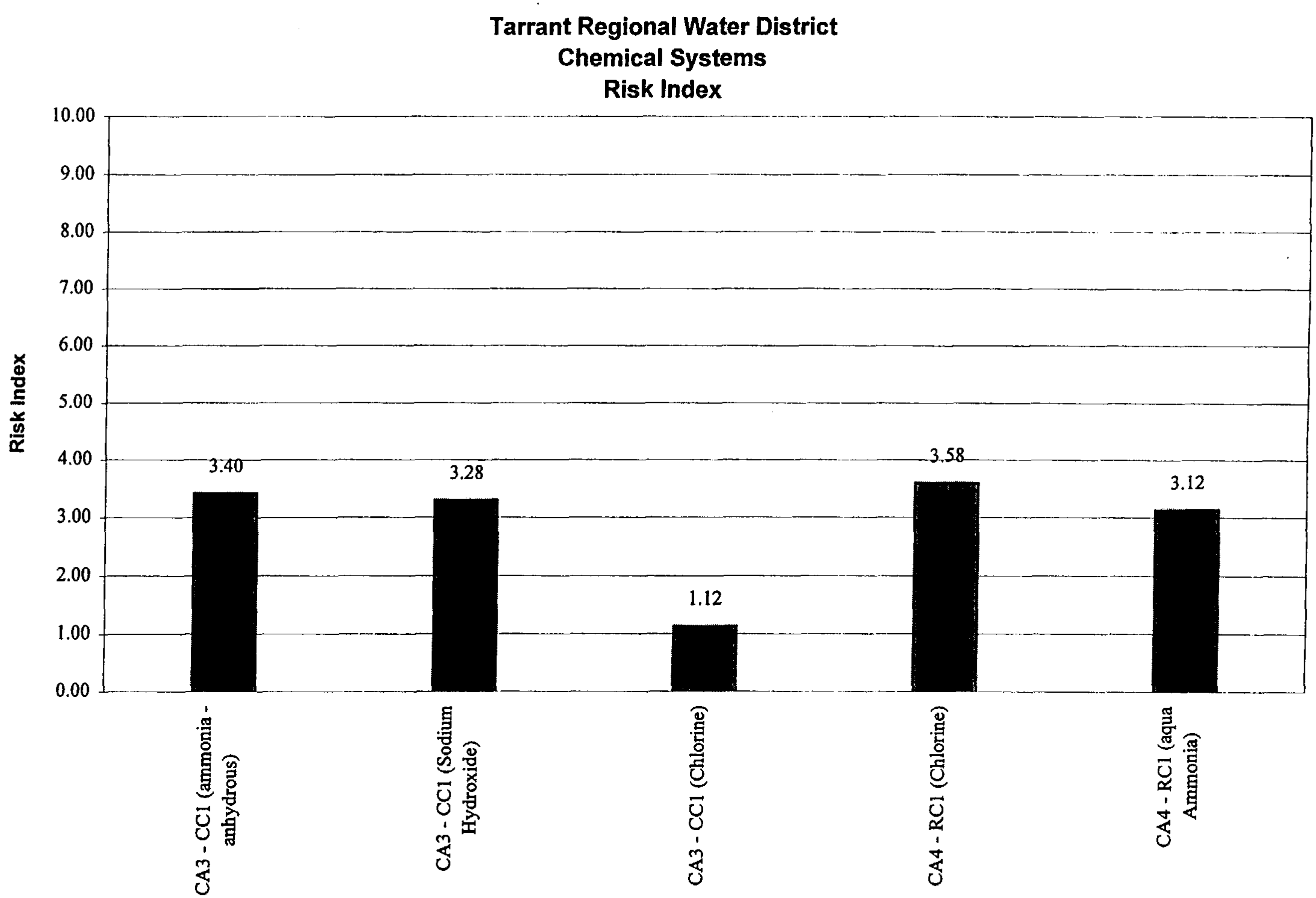

Tarrant Regional Water District
Building/Structures
Risk Index
Risk Index
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
1.02
1.87
1.02
1.84
1.58
AO1
CC1
CC3
RC3
RC1

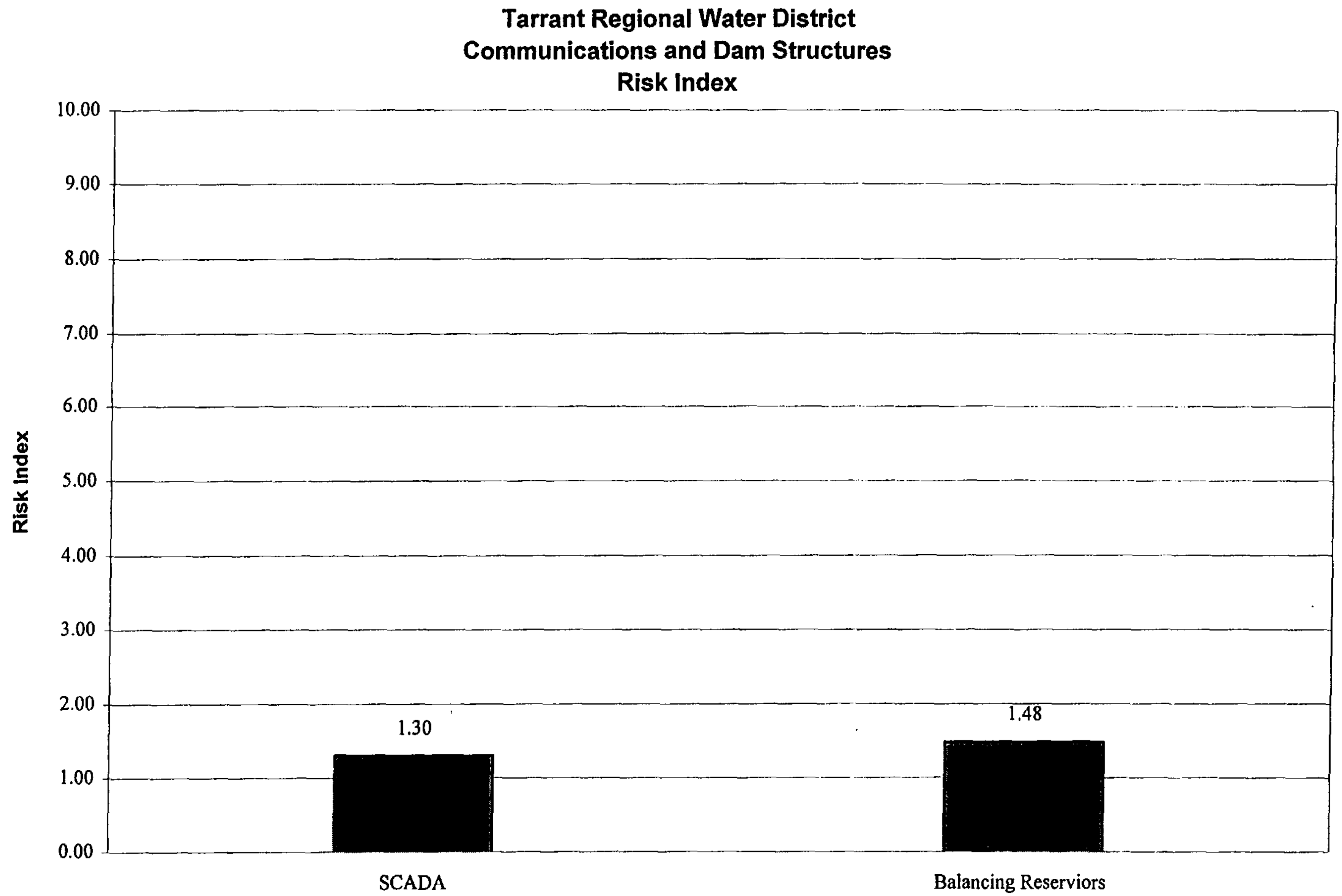


Tarrant Regional Water District
Electrical Systems
Risk Index
Risk Index
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
5.20
5.20
3.70
0.24
5.20
5.20
CC3 - Medium
CC1 - Medium
CC1 - Low
CC2 - Medium
RC1 - Medium
RC3 - Medium

Tarrant Regional Water District
Storage Tanks
Risk Index




Tarrant Regional Water District
Chemical Systems
Risk Index
Risk Index
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
3.40
3.28
1.12
3.58
3.12
CA3 - CC1 (ammonia - anhydrous)
CA3 - CC1 (Sodium Hydroxide)
CA3 - CC1 (Chlorine)
CA4 - RC1 (Chlorine)
CA4 - RC1 (aqua Ammonia)


Tarrant Regional Water District
Communications and Dam Structures
Risk Index
Risk Index
10.00
9.00
8.00
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
1.30
1.48
SCADA
Balancing Reserviors

Appendix E

Survey Questionnaires
Water Quality and Treatment Issues

TARRANT REGIONAL WATER DISTRICT
CEDAR CREEK/RICHLAND CHAMBERS RESERVOIRS
SURVEY TO IDENTIFY WATER QUALITY/TREATMENT ISSUES

The goal of this project is to provide information that will assist the District in providing the best raw water characteristics possible for the users from the available sources and managing the raw water sources in a way that minimizes negative impacts on the plants treating the water for distribution. The greater detail you can provide in responding to the questions, the more valuable the information and beneficial the results.

Please call Betty Jordan, Alan Plummer Associates, Inc. (817/284-2724) if you have any questions regarding the questionnaire and what information is being requested.

1. **Plant Name:** Southwest Water Plant

2. **Plant Contact:**

   Name: Chuck Vokes
   Title: Plant Manager
   Address: 7001 US Hwy 287
   City/State/Zip Arlington, Texas 76001
   Phone: 817-478-5702
   Fax: Metro 572-0781

3. **Cost of Water Treatment**

   Have you experienced differences in the costs of water treatment for raw water from Richland Chambers or Cedar Creek Reservoirs? ☑ Yes ☐ No
   Do these differences always occur? ☑ Yes ☐ No
   If no, are they: ☐ seasonal or ☐ associated with some climatic condition?
   If climatic condition, please describe?

   If there are differences, which raw water source is more costly to treat?
   ☐ Richland Chambers ☑ Cedar Creek

   In which area of treatment costs do you see differences? (Check all that apply)
   ☑ Chemical costs
   ☐ Operations costs
   ☑ Sludge management and disposal costs
   ☑ Pumping costs
   ☐ Other ____________________
   ☐ Other ____________________

If available, please provide the following information:

Richland Chambers Raw Water Treatment Costs:
Chemical costs: $ Varies MG finished water
Operations costs: $____________ MG finished water
Sludge management and disposal costs: $____________ MG finished water
Pumping costs: $____________ MG finished water
Other ____________ costs: $____________ MG finished water

Cedar Creek Raw Water Treatment Costs:
Chemical costs: $ Varies MG finished water
Operations costs: $____________ MG finished water
Sludge management and disposal costs: $____________ MG finished water
Pumping costs: $____________ MG finished water
Other ____________ costs: $____________ MG finished water

Blend ____ % Richland Chambers/ _____ % Cedar Creek
Raw Water Treatment Costs:
Chemical costs: $____________ MG finished water
Operations costs: $____________ MG finished water
Sludge management and disposal costs: $____________ MG finished water
Pumping costs: $____________ MG finished water
Other ____________ costs: $____________ MG finished water

Blend ____ % Richland Chambers/ _____ % Cedar Creek
Raw Water Treatment Costs:
Chemical costs: $____________ MG finished water
Operations costs: $____________ MG finished water
Sludge management and disposal costs: $____________ MG finished water
Pumping costs: $____________ MG finished water
Other ____________ costs: $____________ MG finished water

Balancing Reservoir
Raw Water Treatment Costs:
Chemical costs: $ No info MG finished water
Operations costs: $____________ MG finished water
Sludge management and disposal costs: $____________ MG finished water
Pumping costs: $____________ MG finished water
Other ____________ costs: $____________ MG finished water

How do you know what water source(s) you are receiving?

Reports from district.
Water quality.

4. Raw Water Characteristics Affecting Treatment

Please rank the following raw water characteristics from the most (#1) to least significant with regard to water treatment costs and operations. Check which reservoir or blend that the characteristic can apply to.

Rank	Characteristic	RC	Blend	CC	Bal Res
___	Rapid changes in turbidity.	☐ RC	☐ Blend	☐ CC	☐ Bal Res
4	Rapid changes in alkalinity. ☒ Drop ☒ Rise	☐ RC	☐ Blend	☐ CC	☐ Bal Res
3	Rapid changes in changes pH. ☒ Drop ☒ Rise	☐ RC	☐ Blend	☐ CC	☐ Bal Res
___	Rapid drop in dissolved oxygen.	☐ RC	☐ Blend	☐ CC	☐ Bal Res
5	Unexpected changes in raw water source.	☐ RC	☐ Blend	☐ CC	☐ Bal Res
1	Taste and Odor	☒ RC	☒ Blend	☒ CC	☒ Bal Res
2	Particles in the size range 5 to 20 µm	☐ RC	☐ Blend	☒ CC	☐ Bal Res
___	Iron and/or Manganese	☐ RC	☐ Blend	☐ CC	☐ Bal Res
___	Other ______________	☐ RC	☐ Blend	☐ CC	☐ Bal Res
___	Other ______________	☐ RC	☐ Blend	☐ CC	☐ Bal Res

5. Addressing Water Quality Problems

Please complete Table 1 with regard to the seasonality of, public respose to, and treatment for the water quality problems experienced at the plant.

6. Determining Chemical Dosages

Please check all that apply with regard to determining chemical dosages for treatment. Note the process or processes to which the response applies in the blank to the right of the response. (For example, if "Charts Developed for Plant" are used to determine chemical dosages for both sedimentation and filtration, write "sedimentation and filtration" in the blank.

Diagnostic	Process to Which it Applies
☒ Raw Water Source Identity	______________
☒ Experience	______________
☐ Jar Tests	______________
☐ Charts Developed for Plant	______________
☐ Raw Water Characteristics	______________
☐ pH	
☒ turbidity	
☒ alkalinity	
☐ TOC	
☒ taste and odor	
☐ other ______________	
☐ other ______________	
☐ Other ______________	______________
☐ Other ______________	______________

Table 1
Water Quality Problems and Strategy

Potential Problem	Check if Applies to Your Plant	Problem Time of Year	Customer Complaints? (Yes/No?	Treatment Strategy to Combat Problem
Turbidity				
Algae				
Taste and Odor	✓	Summer	Yes	PAC, $KMnO_4$
Iron				
Lead				
Manganese				
Copper				
Arsenic				
THMs				
Other:				
Other:				
Other:				
Other:				

7. Operations Impacts

When additional treatment costs are incurred in one raw water source over another, which of the following areas contribute to the increased costs: (Check all that apply.)

☒ Increased chemical dosages. List chemicals and increased dosage requirements.

Alum	Increase dosage by	15	mg/l
NaOH	Increase dosage by	2.5	mg/l
Carbon (PAC)	Increase dosage by	5	mg/l
	Increase dosage by		mg/l
	Increase dosage by		mg/l
	Increase dosage by		mg/l
	Increase dosage by		mg/l

☒ Reduced sedimentation performance --> higher filter loads/shorter filter run times.
☒ Larger backwash volume requirements.
☒ Greater sludge volumes.
☒ Other Higher pumping costs from relying more on the other plant for production.
☐ Other ______________

8. Data

If you have developed data that illustrates your responses to the questions above, please provide representative periods of two to four weeks that demonstrate increased chemical additions, sludge production, or treatment costs. As stated above, the goal of this project is to provide information that will assist the District in providing the best raw water characteristics possible for the users from the available sources and managing the raw water sources in a way that minimizes negative impacts on the plants treating the water for distribution. The greater detail and documentation you can provide, the better the decisions that will be made. Attach all supporting data to this questionnaire.

9. Additional Information

If there is additional information or areas which you think should be addressed, please provide this information below or on a separate sheet of paper.

Thank you for your time and effort in providing this information.

Tarrant Regional Water District
Cedar Creek/Richland-Chambers Reservoirs
Survey to Identify Water Quality Treatment Issues

Rolling Hills

TARRANT REGIONAL WATER DISTRICT
CEDAR CREEK/RICHLAND CHAMBERS RESERVOIRS
SURVEY TO IDENTIFY WATER QUALITY/TREATMENT ISSUES

The goal of this project is to provide information that will assist the District in providing the best raw water characteristics possible for the users from the available sources and managing the raw water sources in a way that minimizes negative impacts on the plants treating the water for distribution. The greater detail you can provide in responding to the questions, the more valuable the information and beneficial the results.

Please call Betty Jordan, Alan Plummer Associates, Inc. (817/284-2724) if you have any questions regarding the questionnaire and what information is being requested.

1. **Plant Name:** Rolling Hills

2. **Plant Contact:**

Name:	Charles Byrd
Title:	Supervisor
Address:	2500 S.E. Loop 820
City/State/Zip	Fort Worth, TX 76140
Phone:	(817) 293-5036
Fax:	(817) 293-0774

3. **Cost of Water Treatment**

Have you experienced differences in the costs of water treatment for raw water from Richland Chambers or Cedar Creek Reservoirs? ☒ Yes ☐ No
Do these differences always occur? ☒ Yes ☐ No
If no, are they: ☐ seasonal or ☐ associated with some climatic condition?
If climatic condition, please describe?

If there are differences, which raw water source is more costly to treat?
☐ Richland Chambers ☒ Cedar Creek

In which area of treatment costs do you see differences? (Check all that apply)
☒ Chemical costs
Operations costs
☒ Sludge management and disposal costs
☐ Pumping costs
☐ Other ______
☐ Other ______

If available, please provide the following information:

Richland Chambers Raw Water Treatment Costs:
Chemical costs: \$ 26.54 MG finished water
Operations costs: \$ 11.43 MG finished water
Sludge management and disposal costs: \$ 29.49 MG finished water
Pumping costs: \$____________ MG finished water
Other ____________ costs: \$____________ MG finished water

Cedar Creek Raw Water Treatment Costs:
Chemical costs: \$ 36.00 MG finished water
Operations costs: \$ 14.49 MG finished water
Sludge management and disposal costs: \$ 39.85 MG finished water
Pumping costs: \$____________ MG finished water
Other ____________ costs: \$____________ MG finished water

Blend 70 % Richland Chambers/ 30 % Cedar Creek
Raw Water Treatment Costs:
Chemical costs: \$ 21.91 MG finished water
Operations costs: \$ 10.55 MG finished water
Sludge management and disposal costs: \$ 16.25 MG finished water
Pumping costs: \$____________ MG finished water
Other ____________ costs: \$____________ MG finished water

Blend 65 % Richland Chambers/ 35 % Cedar Creek
Raw Water Treatment Costs:
Chemical costs: \$ 34.47 MG finished water
Operations costs: \$ 13.57 MG finished water
Sludge management and disposal costs: \$ 40.34 MG finished water
Pumping costs: \$____________ MG finished water
Other ____________ costs: \$____________ MG finished water

Balancing Reservoir
Raw Water Treatment Costs:
Chemical costs: \$____________ MG finished water
Operations costs: \$____________ MG finished water
Sludge management and disposal costs: \$____________ MG finished water
Pumping costs: \$____________ MG finished water
Other ____________ costs: \$____________ MG finished water

How do you know what water source(s) you are receiving?

4. **Raw Water Characteristics Affecting Treatment**

Please rank the following raw water characteristics from the most (#1) to least significant with regard to water treatment costs and operations. Check which reservoir or blend that the characteristic can apply to.

Rank	Characteristic	RC	Blend	CC	Bal Res
3	Rapid changes in turbidity.	☐ RC	☐ Blend	☒ CC	☒ Bal Res
4	Rapid changes in alkalinity. ☒ Drop ☐ Rise	☐ RC	☐ Blend	☒ CC	☐ Bal Res
5	Rapid changes in changes pH. ☒ Drop ☐ Rise	☐ RC	☐ Blend	☒ CC	☐ Bal Res
7	Rapid drop in dissolved oxygen.	☐ RC	☒ Blend	☐ CC	☐ Bal Res
1	Unexpected changes in raw water source.	☐ RC	☐ Blend	☐ CC	☐ Bal Res
2	Taste and Odor	☐ RC	☒ Blend	☒ CC	☒ Bal Res
6	Particles in the size range ____ to ____ μm	☐ RC	☐ Blend	☐ CC	☐ Bal Res
N/A	Iron and/or Manganese	☐ RC	☐ Blend	☐ CC	☐ Bal Res
____	Other ____________	☐ RC	☐ Blend	☐ CC	☐ Bal Res
____	Other ____________	☐ RC	☐ Blend	☐ CC	☐ Bal Res

5. **Addressing Water Quality Problems**

Please complete Table 1 with regard to the seasonality of, public respose to, and treatment for the water quality problems experienced at the plant.

6. **Determining Chemical Dosages**

Please check all that apply with regard to determining chemical dosages for treatment. Note the process or processes to which the response applies in the blank to the right of the response. (For example, if "Charts Developed for Plant" are used to determine chemical dosages for both sedimentation and filtration, write "sedimentation and filtration" in the blank.

Diagnostic	Process to Which it Applies
☒ Raw Water Source Identity	Coagulation, Sedimentation Filter,
☒ Experience	Disinfection, Coagulation, Sedi. & Filter
☒ Jar Tests	Coagulation, Sedimentation & Filter.
N/A ☐ Charts Developed for Plant	
☒ Raw Water Characteristics	Disinfection, Coagulation, Sed. & Filter.
☒ pH	
☒ turbidity	
☒ alkalinity	
☒ TOC	
☒ taste and odor	
☒ other End of Day reports	
☒ other Lab Analyses	
☐ Other ____________	____________
☐ Other ____________	____________

Table 1
Water Quality Problems and Strategy

Potential Problem	Check if Applies to Your Plant	Problem Time of Year	Customer Complaints? (Yes/No?	Treatment Strategy to Combat Problem
Turbidity	X	All the time		Raise Coagulant & (Filt. Aid)
Algae	X	Summer		Raise Coagulant &(Filt. Aid)
Taste and Odor	X	Spring & Summer	Yes	PAC
Iron	N/A			
Lead	N/A			
Manganese	N/A			
Copper	N/A			
Arsenic	N/A			
THMs	X	Summer		Chloramines
Other: Low Alk.	X	100% C.C.	Yes Commercial Cust.'s	Higher pH
Other:				
Other:				
Other:				

7. **Operations Impacts**

When additional treatment costs are incurred in one raw water source over another, which of the following areas contribute to the increased costs: (Check all that apply.)

☒ Increased chemical dosages. List chemicals and increased dosage requirements.

Fe_3	Increase dosage by	63	mg/l
Polymer	Increase dosage by	.45	mg/l
Lime	Increase dosage by	4.9	mg/l
	Increase dosage by		mg/l
	Increase dosage by		mg/l
	Increase dosage by		mg/l
	Increase dosage by		mg/l

☒ Reduced sedimentation performance --> higher filter loads/shorter filter run times.
☒ Larger backwash volume requirements.
☒ Greater sludge volumes.
☐ Other ______________
☐ Other ______________

8. **Data**

If you have developed data that illustrates your responses to the questions above, please provide representative periods of two to four weeks that demonstrate increased chemical additions, sludge production, or treatment costs. As stated above, the goal of this project is to provide information that will assist the District in providing the best raw water characteristics possible for the users from the available sources and managing the raw water sources in a way that minimizes negative impacts on the plants treating the water for distribution. The greater detail and documentation you can provide, the better the decisions that will be made. Attach all supporting data to this questionnaire.

9. **Additional Information**

If there is additional information or areas which you think should be addressed, please provide this information below or on a separate sheet of paper.

Thank you for your time and effort in providing this information.

Tarrant Regional Water District
Cedar Creek/Richland-Chambers Reservoirs
Survey to Identify Water Quality Treatment Issues

Tarrant County Water Supply Project

TARRANT REGIONAL WATER DISTRICT
CEDAR CREEK/RICHLAND CHAMBERS RESERVOIRS
SURVEY TO IDENTIFY WATER QUALITY/TREATMENT ISSUES

The goal of this project is to provide information that will assist the District in providing the best raw water characteristics possible for the users from the available sources and managing the raw water sources in a way that minimizes negative impacts on the plants treating the water for distribution. The greater detail you can provide in responding to the questions, the more valuable the information and beneficial the results.

Please call Betty Jordan, Alan Plummer Associates, Inc. (817/284-2724) if you have any questions regarding the questionnaire and what information is being requested.

1. **Plant Name:** Tarrant County Water Supply Project

2. **Plant Contact:**

Name:	Sid McCain
Title:	O & M Supervisor
Address:	11201 Mosier Valley Rd.
City/State/Zip	Eulcss, Texas 76040
Phone:	817/267-4226
Fax:	817/267-8773

3. **Cost of Water Treatment**

Have you experienced differences in the costs of water treatment for raw water from Richland Chambers or Cedar Creek Reservoirs? ☒ Yes ☐ No
Do these differences always occur? ☐ Yes ☒ No
If no, are they: ☒ seasonal or ☐ associated with some climatic condition?
If climatic condition, please describe?

If there are differences, which raw water source is more costly to treat?
☒ Richland Chambers ☐ Cedar Creek

In which area of treatment costs do you see differences? (Check all that apply)
☒ Chemical costs
☐ Operations costs
☐ Sludge management and disposal costs
☐ Pumping costs
☐ Other ______________________
☐ Other ______________________

If available, please provide the following information:

Richland Chambers Raw Water Treatment Costs:
Chemical costs: $____________ MG finished water
Operations costs: $____________ MG finished water
Sludge management and disposal costs: $____________ MG finished water
Pumping costs: $____________ MG finished water
Other ____________ costs: $____________ MG finished water

Cedar Creek Raw Water Treatment Costs:
Chemical costs: $____________ MG finished water
Operations costs: $____________ MG finished water
Sludge management and disposal costs: $____________ MG finished water
Pumping costs: $____________ MG finished water
Other ____________ costs: $____________ MG finished water

Blend ____ % Richland Chambers/ _____ % Cedar Creek
Raw Water Treatment Costs:
Chemical costs: $____________ MG finished water
Operations costs: $____________ MG finished water
Sludge management and disposal costs: $____________ MG finished water
Pumping costs: $____________ MG finished water
Other ____________ costs: $____________ MG finished water

Blend ____ % Richland Chambers/ _____ % Cedar Creek
Raw Water Treatment Costs:
Chemical costs: $____________ MG finished water
Operations costs: $____________ MG finished water
Sludge management and disposal costs: $ ____________ MG finished water
Pumping costs: $____________ MG finished water
Other ____________ costs: $____________ MG finished water

Balancing Reservoir
Raw Water Treatment Costs:
Chemical costs: $____________ MG finished water
Operations costs: $____________ MG finished water
Sludge management and disposal costs: $____________ MG finished water
Pumping costs: $____________ MG finished water
Other ____________ costs: $____________ MG finished water

How do you know what water source(s) you are receiving?

4. Raw Water Characteristics Affecting Treatment

Please rank the following raw water characteristics from the most (#1) to least significant with regard to water treatment costs and operations. Check which reservoir or blend that the characteristic can apply to.

Rank	Characteristic	RC	Blend	CC	Bal Res
4	Rapid changes in turbidity.	☐ RC	☐ Blend	☐ CC	☐ Bal Res
3	Rapid changes in alkalinity. ☒ Drop ☒ Rise	☐ RC	☐ Blend	☐ CC	☐ Bal Res
2	Rapid changes in changes pH. ☒ Drop ☒ Rise	☐ RC	☐ Blend	☐ CC	☐ Bal Res
____	Rapid drop in dissolved oxygen.	☐ RC	☐ Blend	☐ CC	☐ Bal Res
5	Unexpected changes in raw water source.	☐ RC	☐ Blend	☐ CC	☐ Bal Res
1	Taste and Odor	☐ RC	☐ Blend	☐ CC	☐ Bal Res
	Particles in the size range ____ to ____ μm	☐ RC	☐ Blend	☐ CC	☐ Bal Res
__	Iron and/or Manganese	☐ RC	☐ Blend	☐ CC	☐ Bal Res
____	Other ____________________	☐ RC	☐ Blend	☐ CC	☐ Bal Res
____	Other ____________________	☐ RC	☐ Blend	☐ CC	☐ Bal Res

5. Addressing Water Quality Problems

Please complete Table 1 with regard to the seasonality of, public respose to, and treatment for the water quality problems experienced at the plant.

6. Determining Chemical Dosages

Please check all that apply with regard to determining chemical dosages for treatment. Note the process or processes to which the response applies in the blank to the right of the response. (For example, if "Charts Developed for Plant" are used to determine chemical dosages for both sedimentation and filtration, write "sedimentation and filtration" in the blank.

Diagnostic	Process to Which it Applies
☐ Raw Water Source Identity	____________
☒ Experience	Coag & SED
☒ Jar Tests	Coag & SED
☐ Charts Developed for Plant	____________
☒ Raw Water Characteristics	Coag & SED
☒ pH	
☒ turbidity	
☒ alkalinity	
☐ TOC	
☒ taste and odor	
☐ other ____________	
☐ other ____________	
☐ Other ____________	____________
☐ Other ____________	____________

Table 1
Water Quality Problems and Strategy

Potential Problem	Check if Applies to Your Plant	Problem Time of Year	Customer Complaints? (Yes/No?	Treatment Strategy to Combat Problem
Turbidity				
Algae	X	Spring & Summer		
Taste and Odor	X	Early to Mid-Fall & Spring	Yes	CL02, PAC, KMN04
Iron				
Lead				
Manganese				
Copper				
Arsenic				
THMs				
Other:				
Other:				
Other:				
Other:				

7. **Operations Impacts**

When additional treatment costs are incurred in one raw water source over another, which of the following areas contribute to the increased costs. (Check all that apply.)

☒ Increased chemical dosages. List chemicals and increased dosage requirements.

Alum	Increase dosage by	10-20	mg/l
Caustic	Increase dosage by	5-15	mg/l
CLO2	Increase dosage by	1-1.5	mg/l
Polymer	Increase dosage by	1-2	mg/l
P.A.C.	Increase dosage by	10-20	mg/l
	Increase dosage by		mg/l
	Increase dosage by		mg/l

☒ Reduced sedimentation performance --> higher filter loads/shorter filter run times.
☒ Larger backwash volume requirements.
☒ Greater sludge volumes.
☐ Other ______________
☐ Other ______________

8. **Data**

If you have developed data that illustrates your responses to the questions above, please provide representative periods of two to four weeks that demonstrate increased chemical additions, sludge production, or treatment costs. As stated above, the goal of this project is to provide information that will assist the District in providing the best raw water characteristics possible for the users from the available sources and managing the raw water sources in a way that minimizes negative impacts on the plants treating the water for distribution. The greater detail and documentation you can provide, the better the decisions that will be made. Attach all supporting data to this questionnaire.

9. **Additional Information**

If there is additional information or areas which you think should be addressed, please provide this information below or on a separate sheet of paper.

Need consistent PH of 7.0 to 7.5

Need consistently low T.O.N.

Thank you for your time and effort in providing this information.

Tarrant Regional Water District
Cedar Creek/Richland-Chambers Reservoirs
Survey to Identify Water Quality Treatment Issues

Pierce-Burch

TARRANT REGIONAL WATER DISTRICT
CEDAR CREEK/RICHLAND CHAMBERS RESERVOIRS
SURVEY TO IDENTIFY WATER QUALITY/TREATMENT ISSUES

The goal of this project is to provide information that will assist the District in providing the best raw water characteristics possible for the users from the available sources and managing the raw water sources in a way that minimizes negative impacts on the plants treating the water for distribution. The greater detail you can provide in responding to the questions, the more valuable the information and beneficial the results.

Please call Betty Jordan, Alan Plummer Associates, Inc. (817/284-2724) if you have any questions regarding the questionnaire and what information is being requested.

1. **Plant Name:** Pierce - Burch

2. **Plant Contact:** Travis Andrews

   Name: Travis Andrews
   Title: Water Treatment Manager
   Address: 1901 Lakewood Dr.
   City/State/Zip Arlington, TX 76013
   Phone: 817-459-7550
   Fax: 817-496-4133

None of the following questions applies to Pierce Burch because the mixing of Lake Arlington watershed water with TRWD-supplied RC or CC water makes attributing treatment costs to either source problematic.

3. **Cost of Water Treatment**

N/A

Have you experienced differences in the costs of water treatment for raw water from Richland Chambers or Cedar Creek Reservoirs? ☐ Yes ☐ No
Do these differences always occur? ☐ Yes ☐ No
If no, are they: ☐ seasonal or ☐ associated with some climatic condition?
If climatic condition, please describe?

If there are differences, which raw water source is more costly to treat?
☐ Richland Chambers ☐ Cedar Creek

In which area of treatment costs do you see differences? (Check all that apply)
☐ Chemical costs
☐ Operations costs
☐ Sludge management and disposal costs
☐ Pumping costs
☐ Other ______
☐ Other ______

If available, please provide the following information:

Richland Chambers Raw Water Treatment Costs:
Chemical costs: $___________ MG finished water
Operations costs: $___________ MG finished water
Sludge management and disposal costs: $___________ MG finished water
Pumping costs: $___________ MG finished water
Other ___________ costs: $___________ MG finished water

Cedar Creek Raw Water Treatment Costs:
Chemical costs: $___________ MG finished water
Operations costs: $___________ MG finished water
Sludge management and disposal costs: $___________ MG finished water
Pumping costs: $___________ MG finished water
Other ___________ costs: $___________ MG finished water

Blend ____ % Richland Chambers/ ____ % Cedar Creek
Raw Water Treatment Costs:
Chemical costs: $___________ MG finished water
Operations costs: $___________ MG finished water
Sludge management and disposal costs: $___________ MG finished water
Pumping costs: $___________ MG finished water
Other ___________ costs: $___________ MG finished water

Blend ____ % Richland Chambers/ ____ % Cedar Creek
Raw Water Treatment Costs:
Chemical costs: $___________ MG finished water
Operations costs: $___________ MG finished water
Sludge management and disposal costs: $___________ MG finished water
Pumping costs: $___________ MG finished water
Other ___________ costs: $___________ MG finished water

Balancing Reservoir
Raw Water Treatment Costs:
Chemical costs: $___________ MG finished water
Operations costs: $___________ MG finished water
Sludge management and disposal costs: $___________ MG finished water
Pumping costs: $___________ MG finished water
Other ___________ costs: $___________ MG finished water

How do you know what water source(s) you are receiving?

4. Raw Water Characteristics Affecting Treatment

N/A

Please rank the following raw water characteristics from the most (#1) to least significant with regard to water treatment costs and operations. Check which reservoir or blend that the characteristic can apply to.

_____	Rapid changes in turbidity.	☐ RC ☐ Blend ☐ CC ☐ Bal Res
_____	Rapid changes in alkalinity. ☐ Drop ☐ Rise	☐ RC ☐ Blend ☐ CC ☐ Bal Res
_____	Rapid changes in changes pH. ☐ Drop ☐ Rise	☐ RC ☐ Blend ☐ CC ☐ Bal Res
_____	Rapid drop in dissolved oxygen.	☐ RC ☐ Blend ☐ CC ☐ Bal Res
_____	Unexpected changes in raw water source.	☐ RC ☐ Blend ☐ CC ☐ Bal Res
_____	Taste and Odor	☐ RC ☐ Blend ☐ CC ☐ Bal Res
_____	Particles in the size range ____ to ____ μm	☐ RC ☐ Blend ☐ CC ☐ Bal Res
_____	Iron and/or Manganese	☐ RC ☐ Blend ☐ CC ☐ Bal Res
_____	Other ____________	☐ RC ☐ Blend ☐ CC ☐ Bal Res
_____	Other ____________	☐ RC ☐ Blend ☐ CC ☐ Bal Res

5. Addressing Water Quality Problems

√

Please complete Table 1 with regard to the seasonality of, public respose to, and treatment for the water quality problems experienced at the plant.

6. Determining Chemical Dosages

Please check all that apply with regard to determining chemical dosages for treatment. Note the process or processes to which the response applies in the blank to the right of the response. (For example, if "Charts Developed for Plant" are used to determine chemical dosages for both sedimentation and filtration, write "sedimentation and filtration" in the blank.

Diagnostic	Process to Which it Applies
N/A ☐ Raw Water Source Identity	
☑ Experience	All
☑ Jar Tests	Turbidity reduction (Coag./sed./filtration)
☑ Charts Developed for Plant	Turbidity " " " "
☑ Raw Water Characteristics	Turbidity reduction, PAC addition
☑ pH	
☑ turbidity	
☑ alkalinity	
☐ TOC	
☑ taste and odor	
☐ other ____________	
☐ other ____________	
☐ Other ____________	____________
☐ Other ____________	____________

7. **Operations Impacts**

N/A

When additional treatment costs are incurred in one raw water source over another, which of the following areas contribute to the increased costs: (Check all that apply.)

☐ Increased chemical dosages. List chemicals and increased dosage requirements.

_______________ Increase dosage by __________ mg/l
_______________ Increase dosage by __________ mg/l
_______________ Increase dosage by __________ mg/l
_______________ Increase dosage by __________ mg/l
_______________ Increase dosage by __________ mg/l
_______________ Increase dosage by __________ mg/l
_______________ Increase dosage by __________ mg/l

☐ Reduced sedimentation performance --> higher filter loads/shorter filter run times.
☐ Larger backwash volume requirements.
☐ Greater sludge volumes.
☐ Other _______________
☐ Other _______________

8. **Data**

N/A

If you have developed data that illustrates your responses to the questions above, please provide representative periods of two to four weeks that demonstrate increased chemical additions, sludge production, or treatment costs. As stated above, the goal of this project is to provide information that will assist the District in providing the best raw water characteristics possible for the users from the available sources and managing the raw water sources in a way that minimizes negative impacts on the plants treating the water for distribution. The greater detail and documentation you can provide, the better the decisions that will be made. Attach all supporting data to this questionnaire.

9. **Additional Information**

If there is additional information or areas which you think should be addressed, please provide this information below or on a separate sheet of paper.

Thank you for your time and effort in providing this information.

Table 1
Water Quality Problems and Strategy

Potential Problem	Check if Applies to Your Plant	Problem Time of Year	Customer Complaints? (Yes/No?	Treatment Strategy to Combat Problem
Turbidity	✓	Rainfall events	No	Adjust coagulation chems, and process parameters.
Algae	✓	Year-round	Yes	PAC used.
Taste and Odor	✓	"	"	"
Iron	X			
Lead	X			
Manganese	X			
Copper	X			
Arsenic	X			
THMs	✓	Late spring-early fall	No	Adjust free-chlorine contact time + alum dose.
Other:				
Other:				
Other:				
Other:				

Appendix F

Environmental Water Needs Criteria and Implementation Method

To	Wayne Owen, David Marshall	
From	Sam Vaugh, David Wheelock, Kelly Payne	
Date	July 12, 1996	
Subject	Methodology for Application of Environmental Water Needs Criteria to Modified Operations of Existing Reservoir Projects	

HDR

Memorandum

It is our understanding that the Environmental Water Needs Criteria of the Consensus Planning Process (Consensus Criteria) may be applied to some of the various technical analyses outlined in the Scope of Work dated August 22, 1995 for the Tarrant County WCID#1 Water Management Plan. It is expected that any modified operations for Lake Bridgeport and/or Eagle Mountain Lake considered in this study will fall within the "four corners" of their existing permits and, therefore, need not address Consensus Criteria or daily reservoir operation simulation. The scope does, however, indicate that the effects of modified operations such as overdrafting/underdrafting and changing the drought supply reserves of the existing Cedar Creek and/or Richland-Chambers Reservoirs are to be evaluated. As some of these modified operations would likely require permit amendments to authorize increased annual and/or instantaneous diversion rates, the Consensus Criteria indicate that the "three-zoned planning criteria" for New Project On-Channel Reservoirs would need to be applied, but only to "that portion of the existing water right subject to change." This memorandum is provided to describe the methodology by which the Consensus Criteria could be applied in this study as neither the Consensus Criteria nor the TNRCC Regulatory Guidance Document provide specific direction.

The basis for the methodology described herein is found in the following statement from the Consensus Criteria:

> "An environmental assessment and any corresponding permit conditions relating to an application for an amendment are limited to addressing any new or additional environmental impacts which may result from granting the amendment, and where such impacts would be beyond that which are possible under the full, legal operation of the existing water right prior to its amendment."

The methodology for incorporation of Consensus Criteria as applied to modified operations of existing reservoirs managed by TCWCID#1 is summarized in the following two steps:

1) Simulate daily operations of each reservoir (or system of reservoirs) subject to authorized diversions and existing permit conditions. Tabulate daily spills and/or releases from each reservoir and compute pertinent statistics (mean, median, maximum, minimum, lower quartile, 7Q2, etc.) for each month.
2) Simulate daily operations of each reservoir (or system of reservoirs) subject to proposed diversions, existing permit conditions, and the Consensus Criteria for New Project On-Channel Reservoirs using the monthly median, lower quartile, and 7Q2 values from Step 1 as minima for inflow passage in each of the three specified storage zones (greater than 80%, 50% to 80%, or less than 50% of capacity). Flushing flow provisions in the Consensus Criteria will not be simulated in this study. Tabulate daily spills and/or releases from each reservoir and compute pertinent statistics for comparison with those from Step 1.

Appendix G

Comments and Responses on Final Report

TEXAS WATER DEVELOPMENT BOARD

June 16, 1999

Mr. James M. Oliver
General Manager
Tarrant Regional Water District
P.O. Box 4508
Ft. Worth, Texas 76164-0508

Re: Regional Water Supply Planning Contract Between the Tarrant Regional Water District (District) and the Texas Water Development Board (Board), Review Comments on "Water Management Plan, Tarrant Regional Water District", TWDB Contract No. 96-483-169

Dear Mr. Oliver:

Staff members of the Board have completed a review of the draft final report under TWDB Contract No. 96-483-169 and offer comments shown in Attachment I.

In addition, the scope of work for this study includes a review of flood management strategies for reservoir operations. However, this part of the scope was not included or addressed. Please submit this section for Board review prior to submitting the Final Report.

After review comments have been transmitted to the District regarding flood management strategies for reservoir operations, the District will consider incorporating all comments from the EXECUTIVE ADMINISTRATOR and other commentors on the draft final report into a final report.

Please contact Mr. Gilbert Ward, the Board's designated Contract Manager, at (512) 463-6418, if you have any questions about the Board's comments.

Sincerely,

Tommy Knowles

Tommy Knowles, Ph.D., P.E.
Deputy Executive Administrator
Office of Planning

cc: Gilbert Ward, TWDB

ATTACHMENT 1
TEXAS WATER DEVELOPMENT BOARD

DRAFT REPORT REVIEW COMMENTS
TWDB Contract No. 96-483-169
"Water Management Plan, Tarrant Regional Water District"

In general, the report appears to satisfy the scope of work, however, Board staff offers the following comments:

- The scope of work calls for a review of flood management strategies for reservoir operations and block water rate increases as a demand management option. These two parts of the scope have not been addressed. Please submit these portions of the report for review.

- Please include a description of the three workshop meetings or the results thereof.

- The bibliography for Sections 1-5 of the report are missing. Please include.

- The report is unclear of what the Demand Management and Drought Contingency Plans are. Please clarify.

ATTACHMENT 1
TEXAS WATER DEVELOPMENT BOARD

DRAFT REPORT REVIEW COMMENTS
TWDB Contract No. 96-483-169
"Water Management Plan, Tarrant Regional Water District"

In general, the report appears to satisfy the scope of work, however, Board staff offers the following comments:

- The scope of work calls for a review of flood management strategies for reservoir operations and block water rate increases as a demand management option. These two parts of the scope have not been addressed. Please submit these portions of the report for review.

- Please include a description of the three workshop meetings or the results thereof.

- The bibliography for Sections 1-5 of the report are missing. Please include.

- The report is unclear of what the Demand Management and Drought Contingency Plans are. Please clarify.

August 27, 1999

HDR

Mr. Wayne Owen
Planning and Development Manager
Tarrant Regional Water District
P.O. Box 4508
Fort Worth, Texas 76164-0508

Re: Final Revisions - Water Management Plan

Dear Mr. Owen:

We have received comments on the draft Water Management Plan from the Texas Water Development Board. This letter transmits the report in final form with revisions made as noted below. Here is the action taken on each comment:

Texas Water Development Board Comments (Attachment 1 to letter from Dr. Tommy Knowles, 6/16/99).

a. Flood Management (Scope of Work Task 7.0). The scope required that HDR provide data sets and reservoir storage traces (i.e. computer model output) for water supply management options to the District in support of on-going or future flood management analysis. The data sets and storage traces have been transmitted to the District as a stand-alone deliverable under separate cover. A portion of the data developed for this scope item is summarized in lake storage traces in Figures 3-5 through 3-13 in Section 3.
b. Demand Management Strategies and Workshops (Scope of Work Task 1). A list of potential demand management strategies was presented to the District's customers beginning with Workshop No. 1. The comment asks about increasing block water rates, which is one of the management methods listed in Task 1. Increasing block rates, as well as other water conservation techniques, was kept on the list of alternatives through the three customer workshops. The Water Conservation and Emergency Demand Management Plan briefly documents that the District customers have increasing block rates in place.
c. Water Conservation and Emergency Demand Management Workshops

    Workshop No. 1 (4/10/96). Presentation by Bill Hoffman and Kariann Sokulsky extensive participation from the District's customers.

    Workshop No. 2 (7/24/96) with the District's Primary Wholesale Customers. Presentation by HDR Engineering, and extensive participation of the District's wholesale customers in discussion of population and water usage projections and water conservation practices and techniques.

    Stella Drought Management Workshop (May 31, 1996) An object oriented drought model developed by the U.S. Army Corps of Engineers was utilized to simulate operational decisions generally encountered during an extended drought situation. Participation by wholesale customers, TWDB staff, and HDR Engineering.

There was one additional workshop like meeting involving the District's customers on October 3, 1996 where additional water conservation plan issues were finalized.

d. Report References. The report style used for the Water Management Plan cites references by footnote rather than a concluding bibliography.
e. Water Conservation and Drought Contingency Plan. This plan was finalized and approved by the Texas Water Development Board on August 22, 1997. The plan was subsequently adopted by the TRWD Board in June, 1998, and then implemented by TRWD's wholesale water customers.

It has been a pleasure to complete this important work for the District and the Texas Water Development Board and we trust that the Water Management Plan will be a valuable planning document for the Tarrant County region for quite some time.

Very truly yours,

HDR Engineering, Inc.

David C. Wheelock

David C. Wheelock, P.E.
Vice President

cc: Mr. Jonathan Young, Ph.D., P.E.