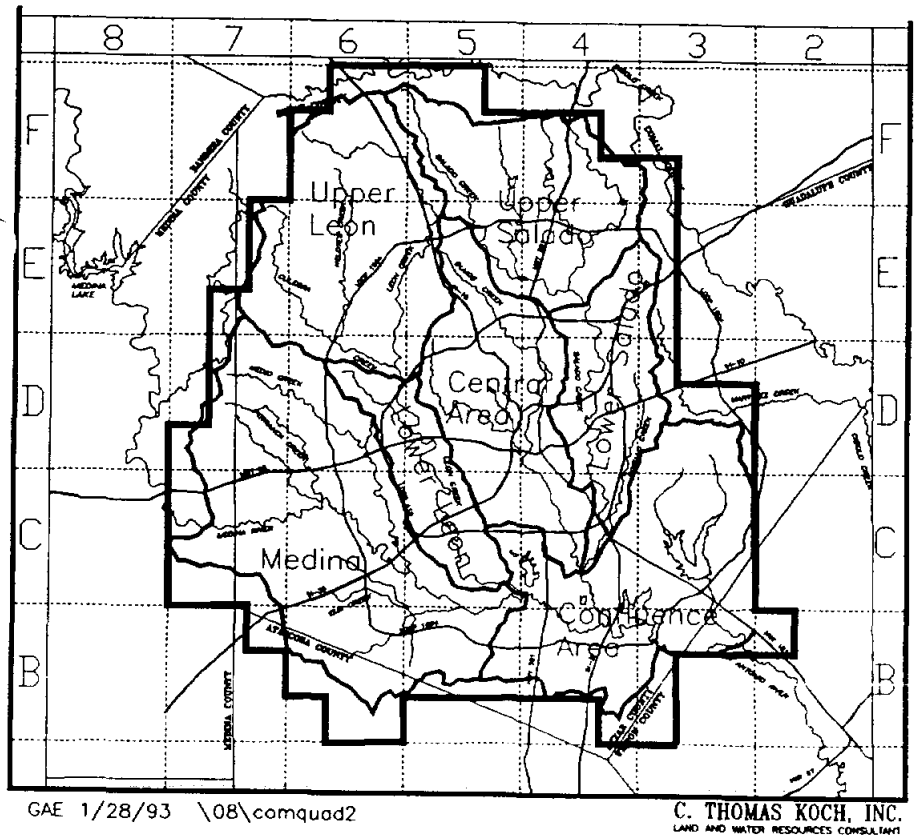
San Antonio Water System

WATER RESOURCES PLANNING PROCESS

FORECAST WATER USES

by Watershed Planning Area

Report No. 6



Prepared for:

Texas Water Development Board

January 1993

twdbjan6.tc

1993
RESEARCH AND PLANNING

Summary

Central

Confluence

Lower Leon

Lower Salado

Medina

Upper Leon

Upper Salado

SAN ANTONIO WATER SYSTEM

P.O. Box 2449, San Antonio, Texas 78298-2449 210/225-7461

February 1, 1993

MR. CURTIS JOHNSON
TEXAS WATER DEVELOPMENT BOARD
P.O. Box 13231, Capitol Station
Austin, Texas 78711-3231

RE: REPORT NO. 6 (TWDB Contract Number 9-483-722)
FORECAST WATER USES BY WATERSHED PLANNING AREA

Dear Curtis:

Today we are providing you with copies of eight documents which give you a status report on the planning process we are implementing for the San Antonio Water System through partial funding provided by your agency.

Report No. 6 addresses forecast water uses by watershed planning area. This report has been developed using a system of disaggregating the adopted Texas Water Development Board forecast for Bexar County into eight unique Watershed Planning Areas (WPA) and then determining what portion of the water use is outdoors (assumed by be consumptive) and what portion is indoors (assumed to be nonconsumptive).

The SAWS planning process model enables our staff to perform several "what if" analyses. The planning model enables the user to set an arbitrary amount of pumpage which will be allowed from the Edwards Aquifer and then make a choice about whether the make up water which cannot be supplied from the Aquifer is made available from:

- reclaimed water from within the watershed,
- reclaimed water imported from another watershed, and/or
- imported drinking water.

The important feature of the SAWS planning process model is that with a simple change in the variables the impact on total water demands, left over water, and downstream water can be quickly evaluated with sufficient data generated to estimate costs and potential economic impacts. (This is demonstrated in Report No. 7.) I am sure you will have questions concerning these data and the approach. Please call either Rebecca Cedillo or Tim Darilek with any questions you may have.

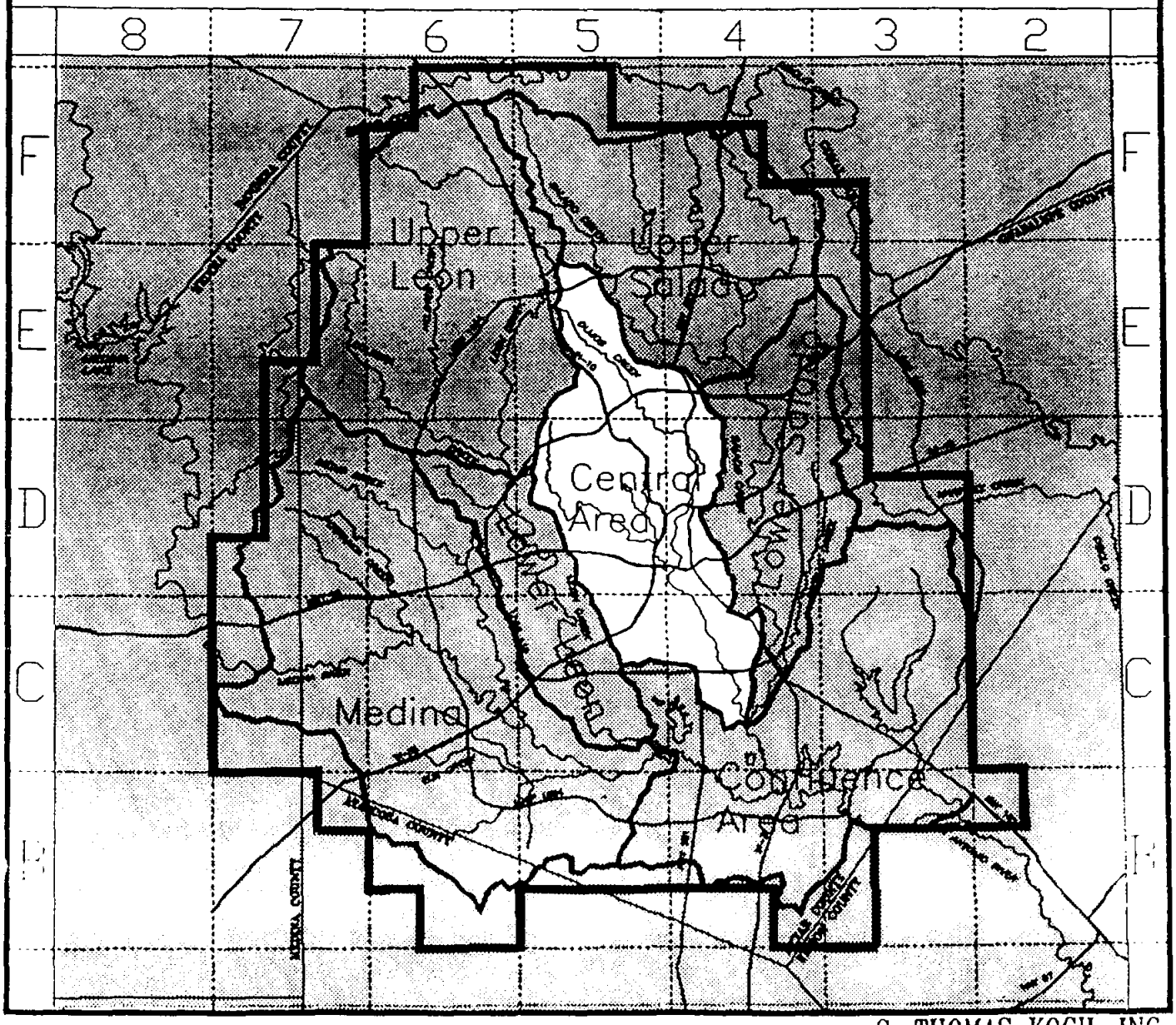
Very truly yours,

Tim Darilek/for
JOE A. ACEVES
JA:lk
twdb6.fl

Central	FORECAST WATER USE	YEAR 2000

Watershed CENTRAL
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	27.0
		1990 Percent Use	95.0	1990 Percent Use	51.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	145,350
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	15,736
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	161,086



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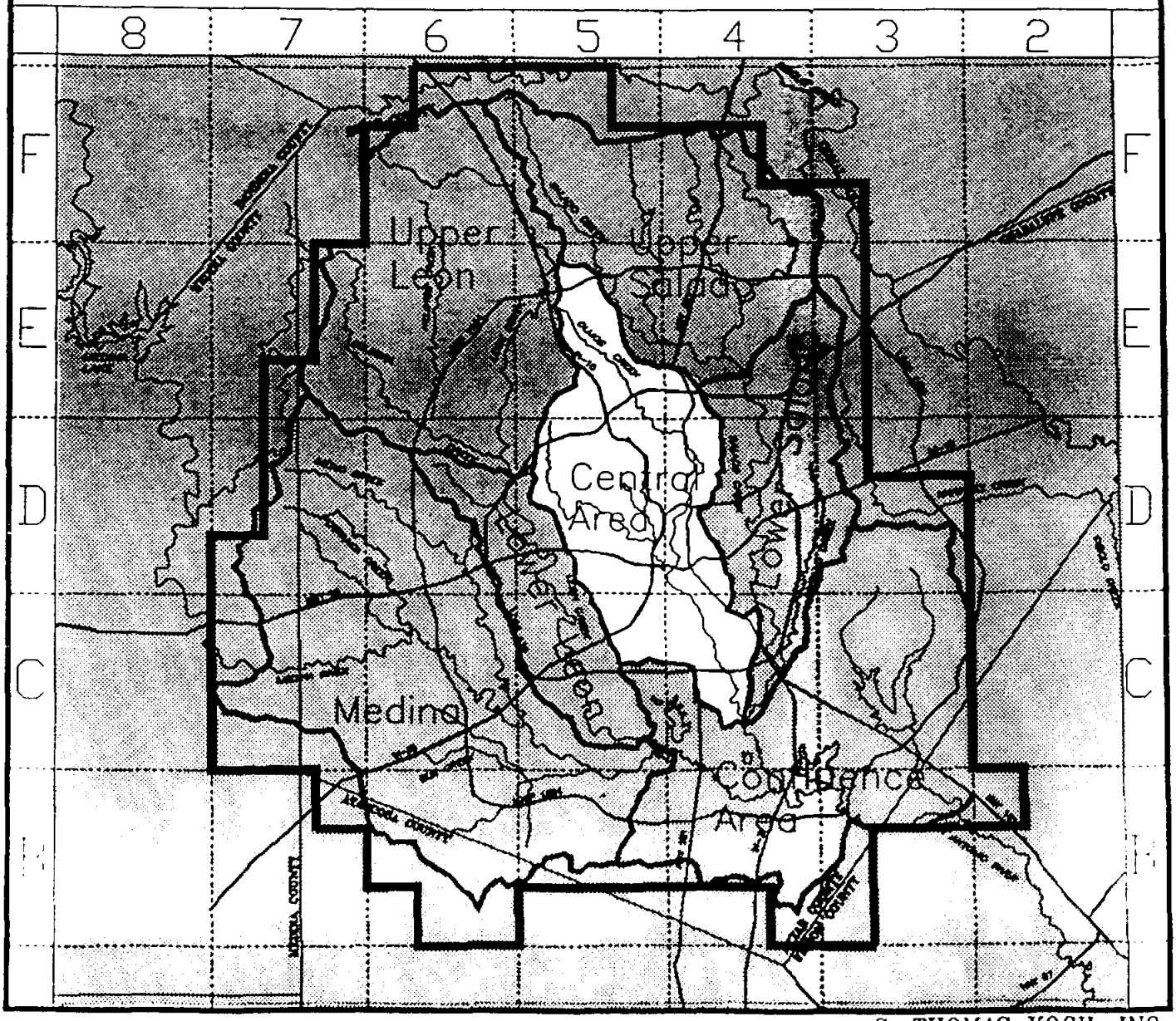
C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Central	***FORECAST WATER USE***	***YEAR 2010***

Watershed CENTRAL
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	27.0
		1990 Percent Use	95.0	1990 Percent Use	51.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	145,350
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	31,471
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	176,821



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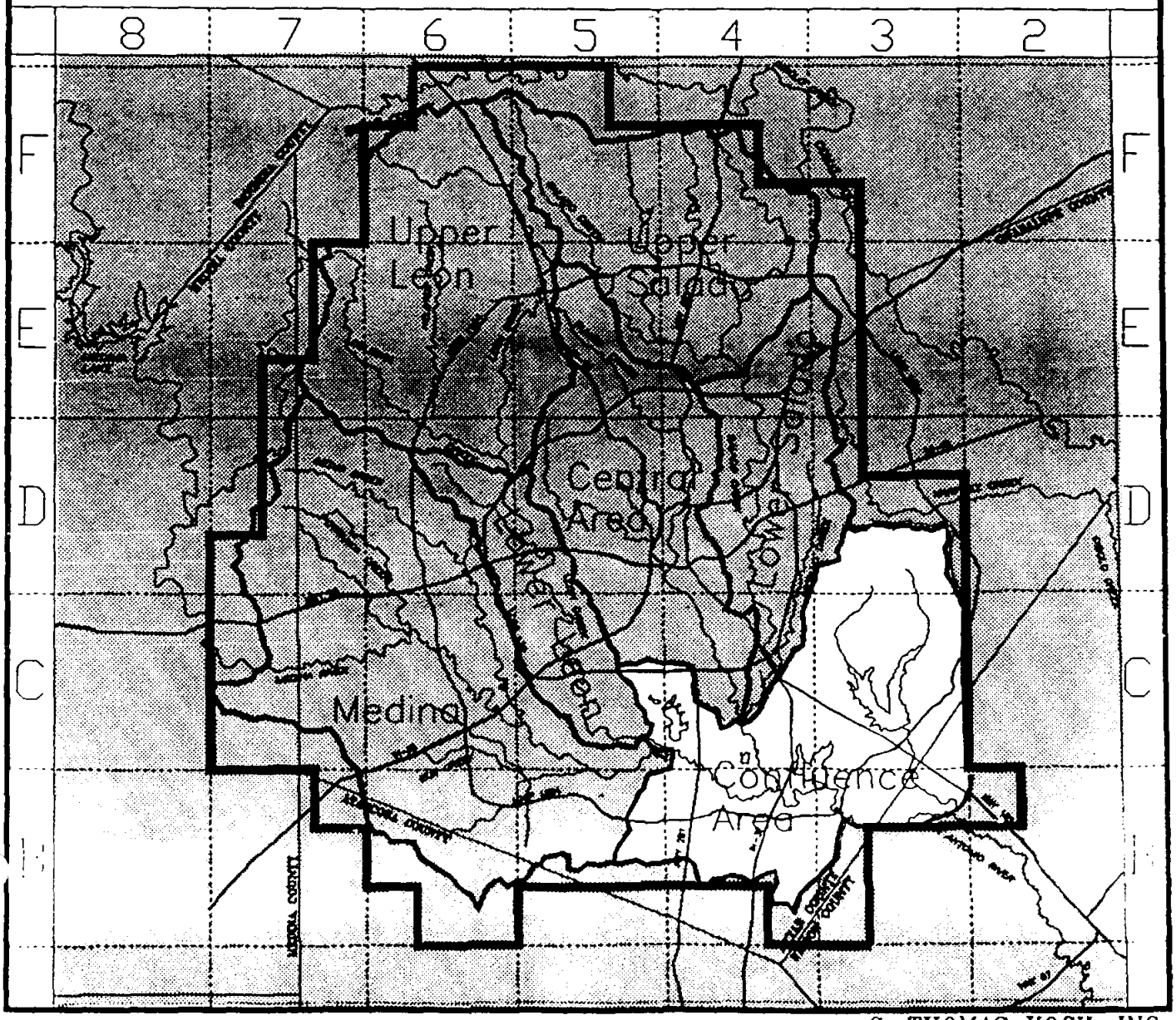
C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Confluence	***FORECAST WATER USE***	***YEAR 2000***

Watershed CONFLUENCE
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	1.0
		1990 Percent Use	95.0	1990 Percent Use	1.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	2,850
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	583
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	3,433



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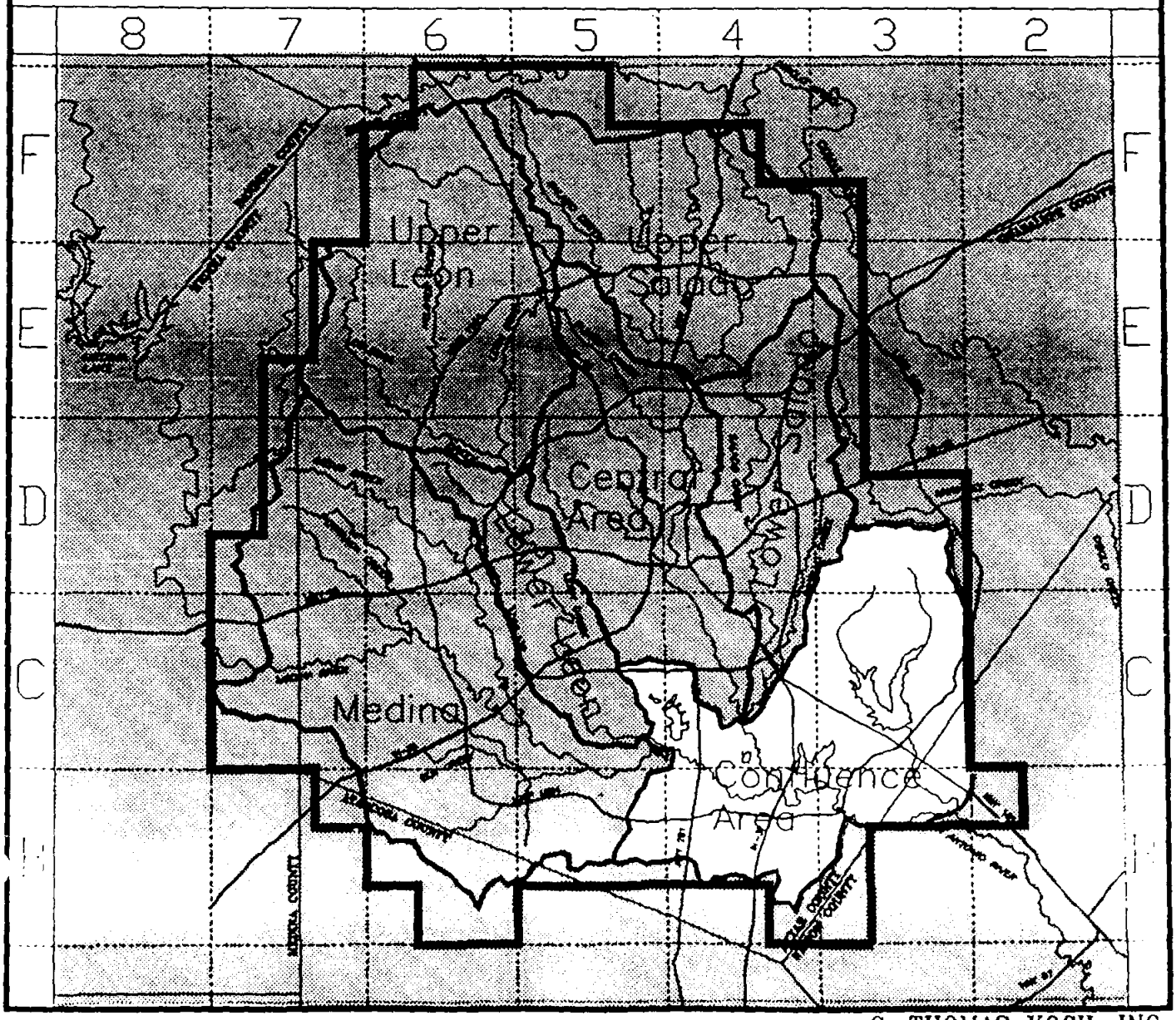
C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Confluence	FORECAST WATER USE	YEAR 2000

Watershed CONFLUENCE
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	1.0
		1990 Percent Use	95.0	1990 Percent Use	1.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	2,850
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	583
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	3,433



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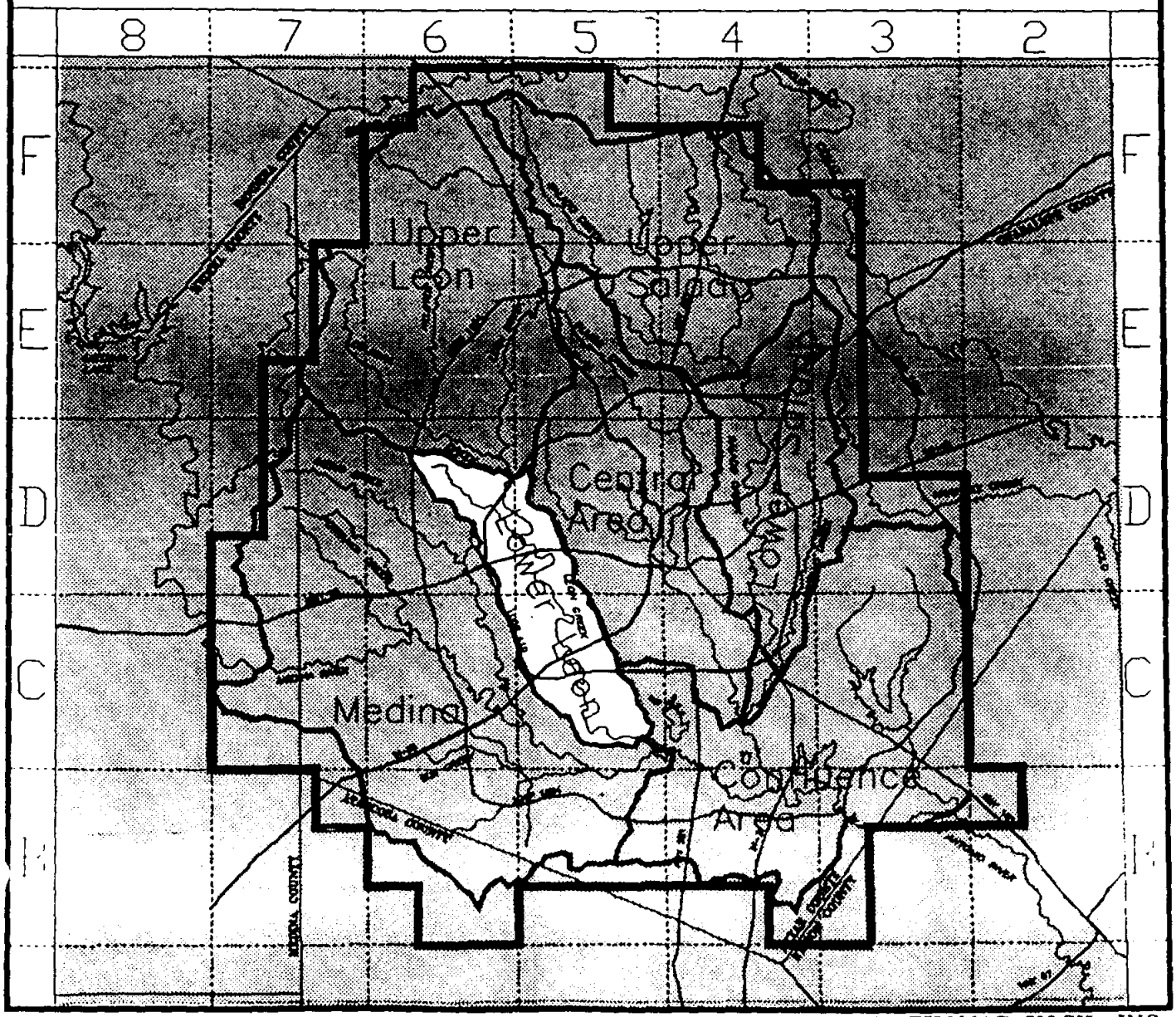
C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Lower Leon	***FORECAST WATER USE***	***YEAR 2000***

Watershed LOWER LEON
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	5.0
		1990 Percent Use	95.0	1990 Percent Use	6.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	17,100
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	2,914
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	20,014



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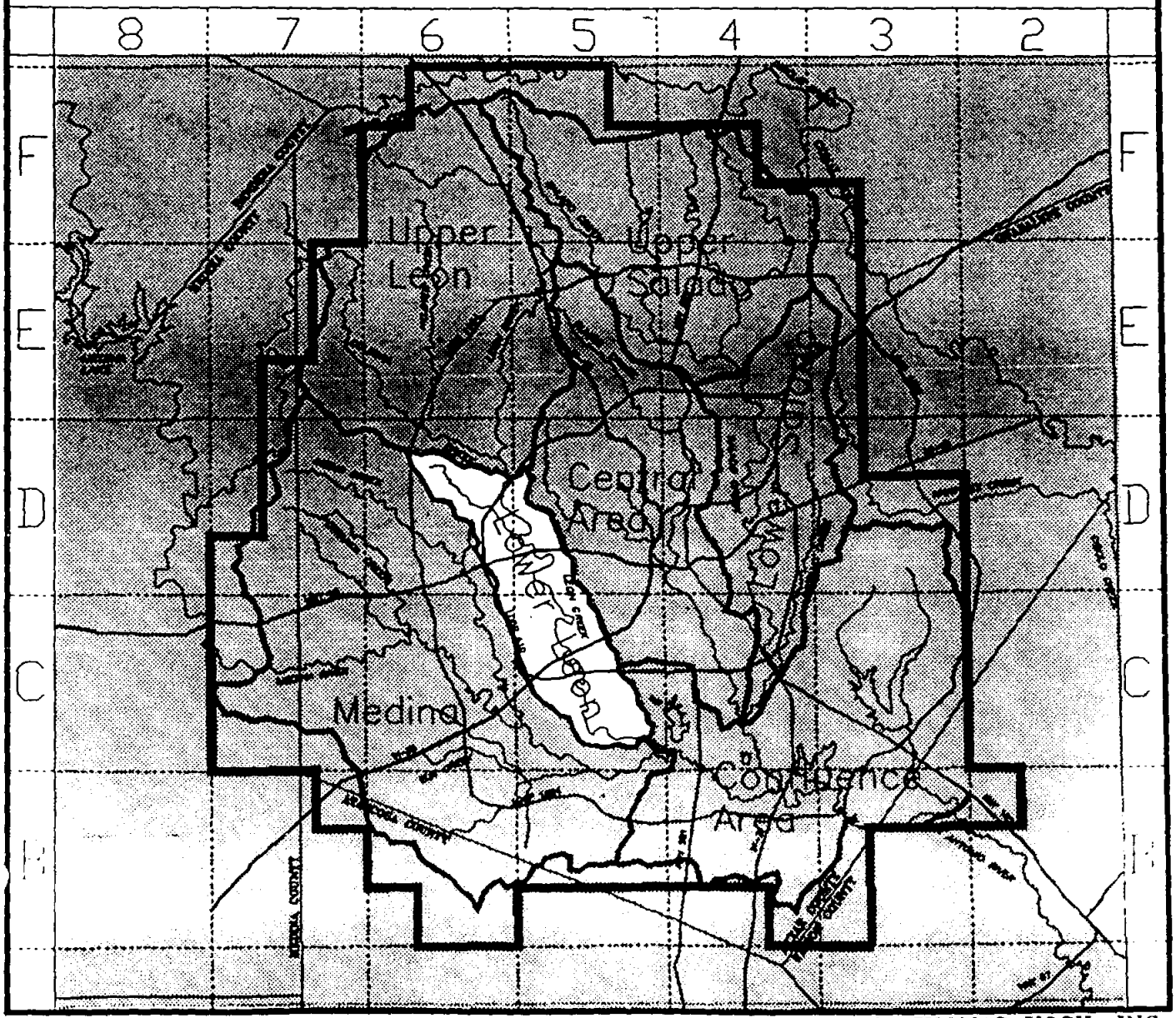
C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Lower Leon	***FORECAST WATER USE***	***YEAR 2010***

Watershed LOWER LEON
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	5.0
		1990 Percent Use	95.0	1990 Percent Use	6.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	17,100
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	5,828
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	22,928



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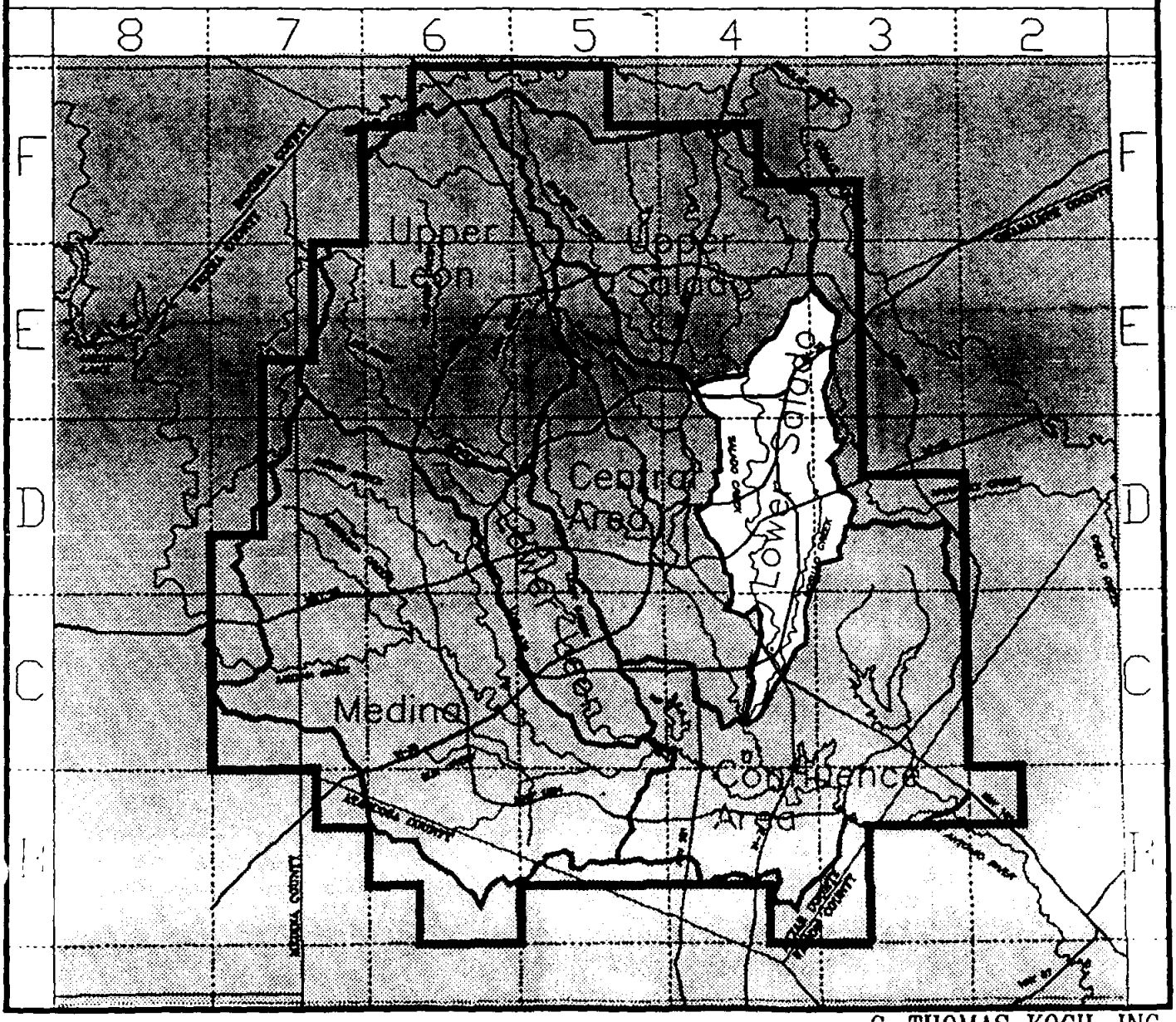
C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Lower Salado	***FORECAST WATER USE***	***YEAR 2000***

Watershed LOWER SALADO
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	17.0
		1990 Percent Use	95.0	1990 Percent Use	16.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	45,600
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	9,908
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	55,508



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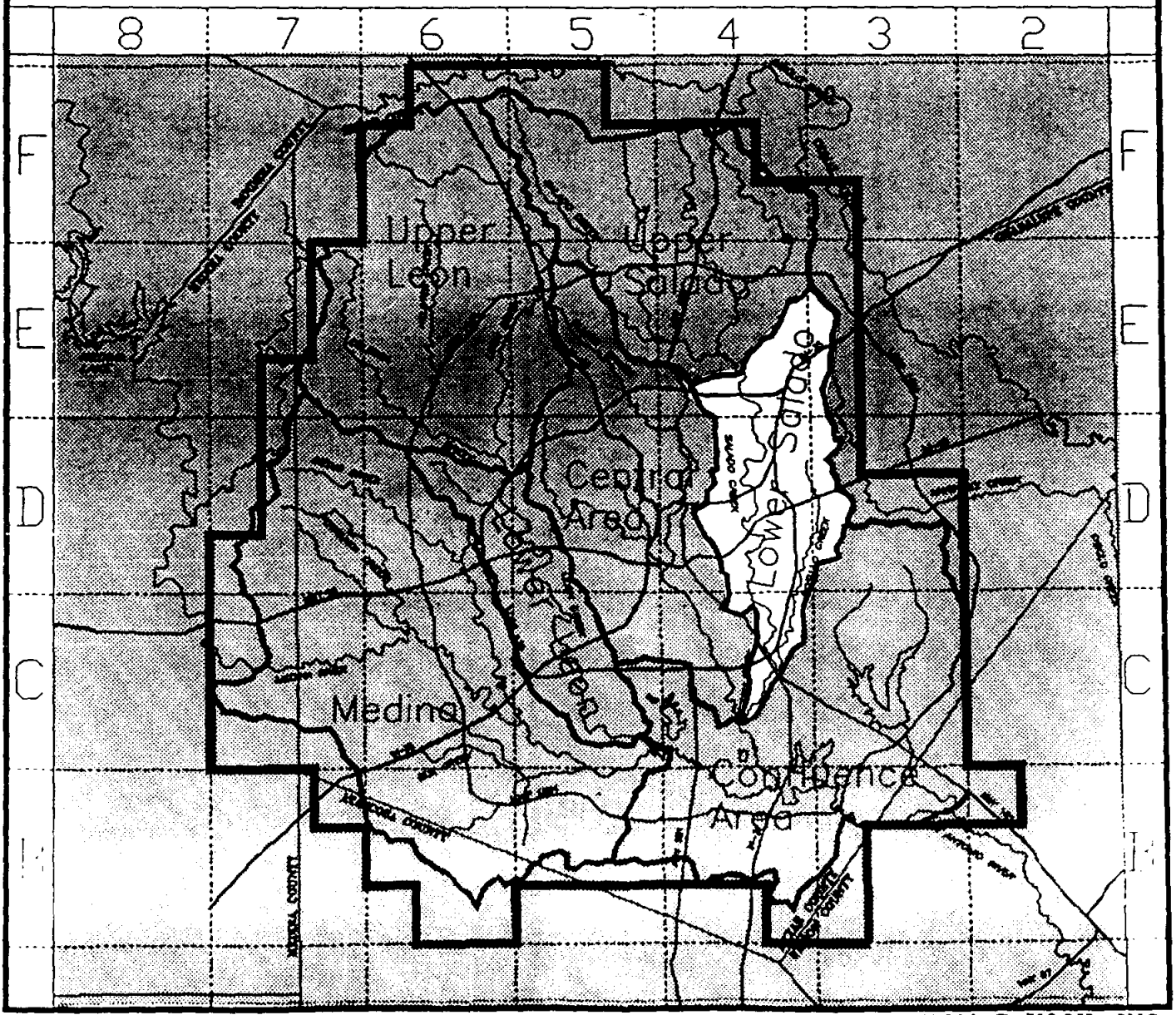
C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Lower Salado	***FORECAST WATER USE***	***YEAR 2010***

Watershed LOWER SALADO
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	17.0
		1990 Percent Use	95.0	1990 Percent Use	16.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	45,600
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	19,815
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	65,415



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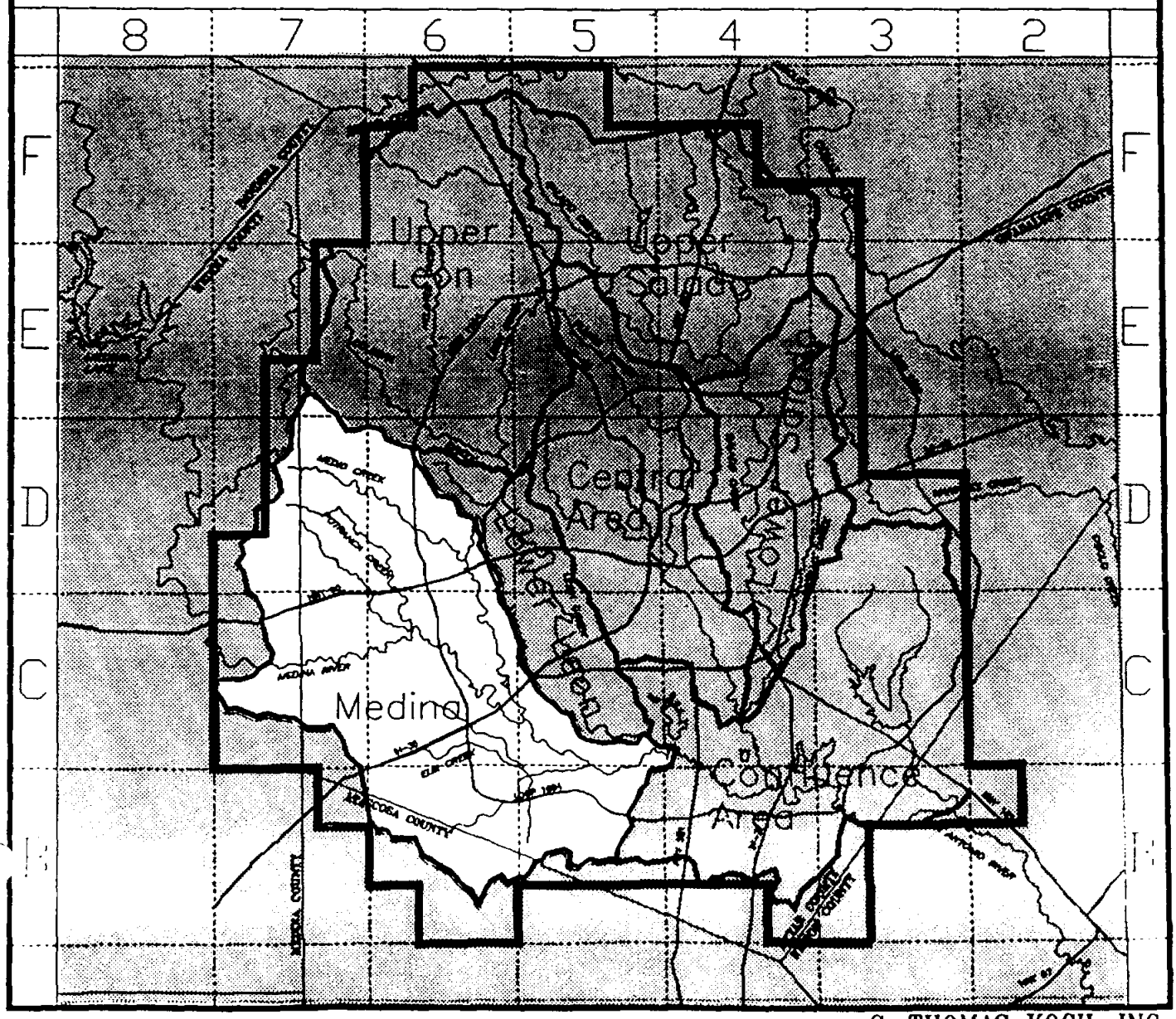
C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Medina	***FORECAST WATER USE***	***YEAR 2000***

Watershed MEDINA
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	6.0
		1990 Percent Use	95.0	1990 Percent Use	4.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	11,400
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	3,497
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	14,897



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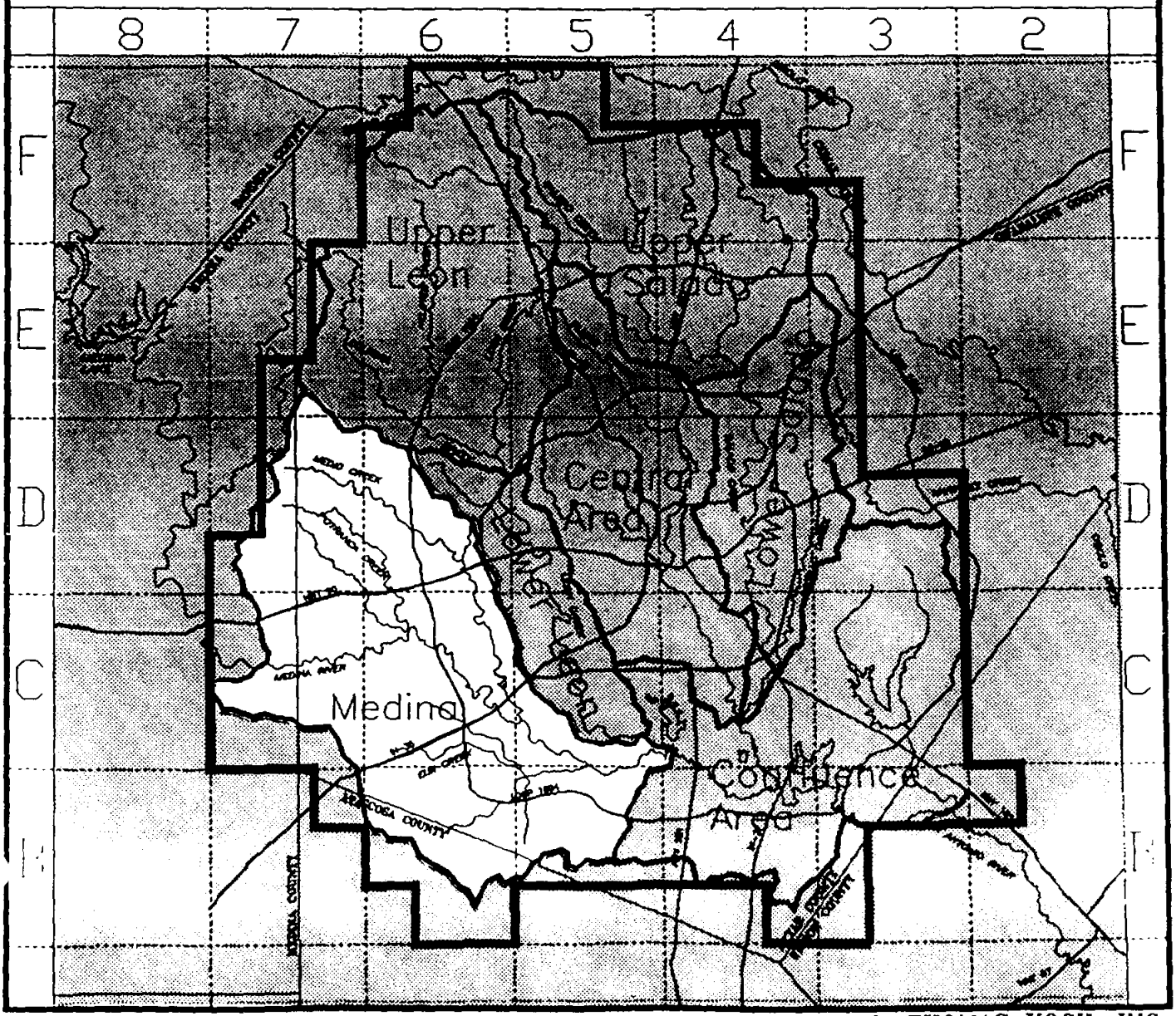
C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Medina	FORECAST WATER USE	YEAR 2010

Watershed MEDINA
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	6.0
		1990 Percent Use	95.0	1990 Percent Use	4.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	11,400
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	6,994
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	18,394



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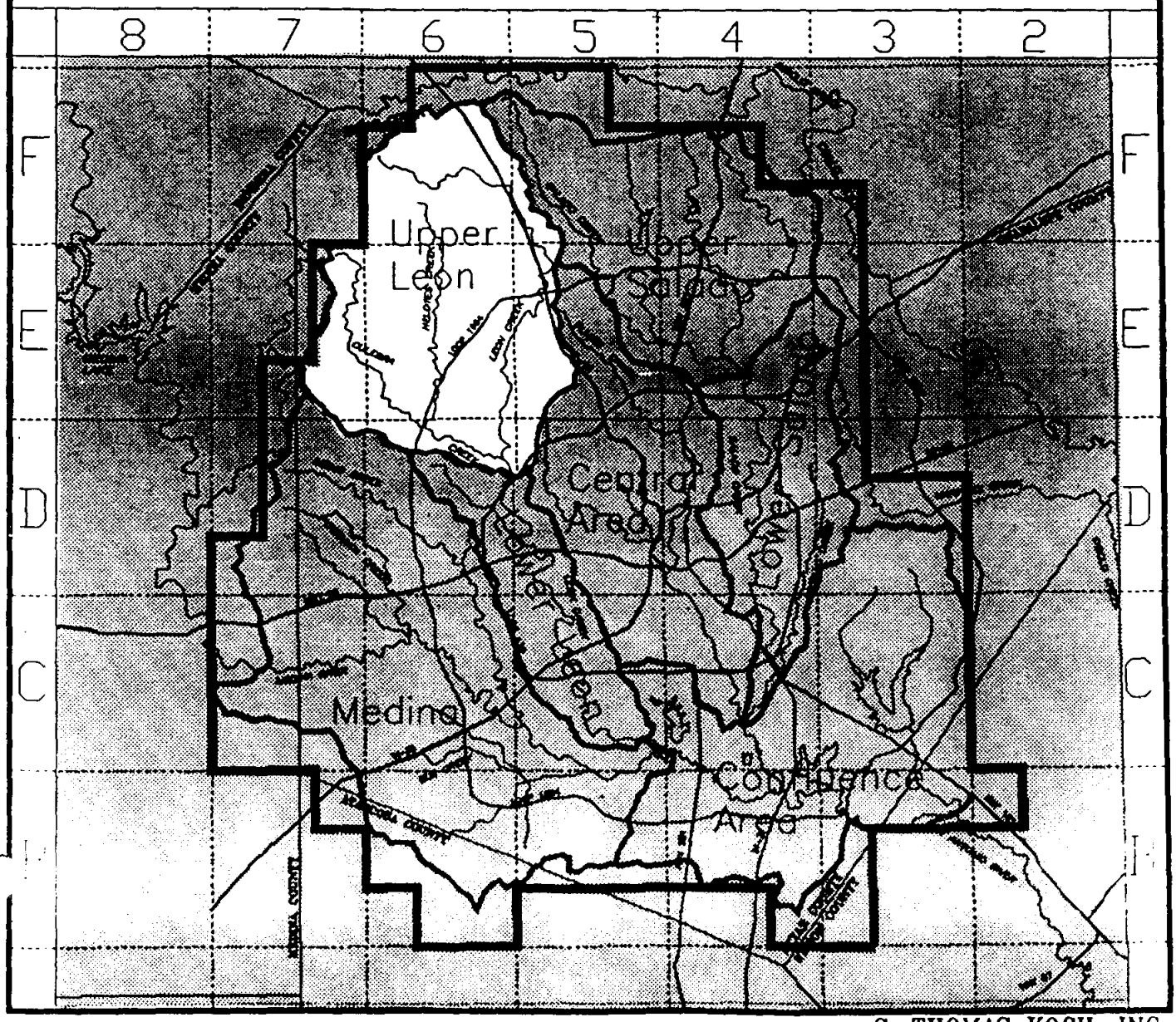
C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Upper Leon	***FORECAST WATER USE***	***YEAR 2000***

Watershed UPPER LEON
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	23.0
		1990 Percent Use	95.0	1990 Percent Use	11.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	31,350
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	13,404
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	44,754



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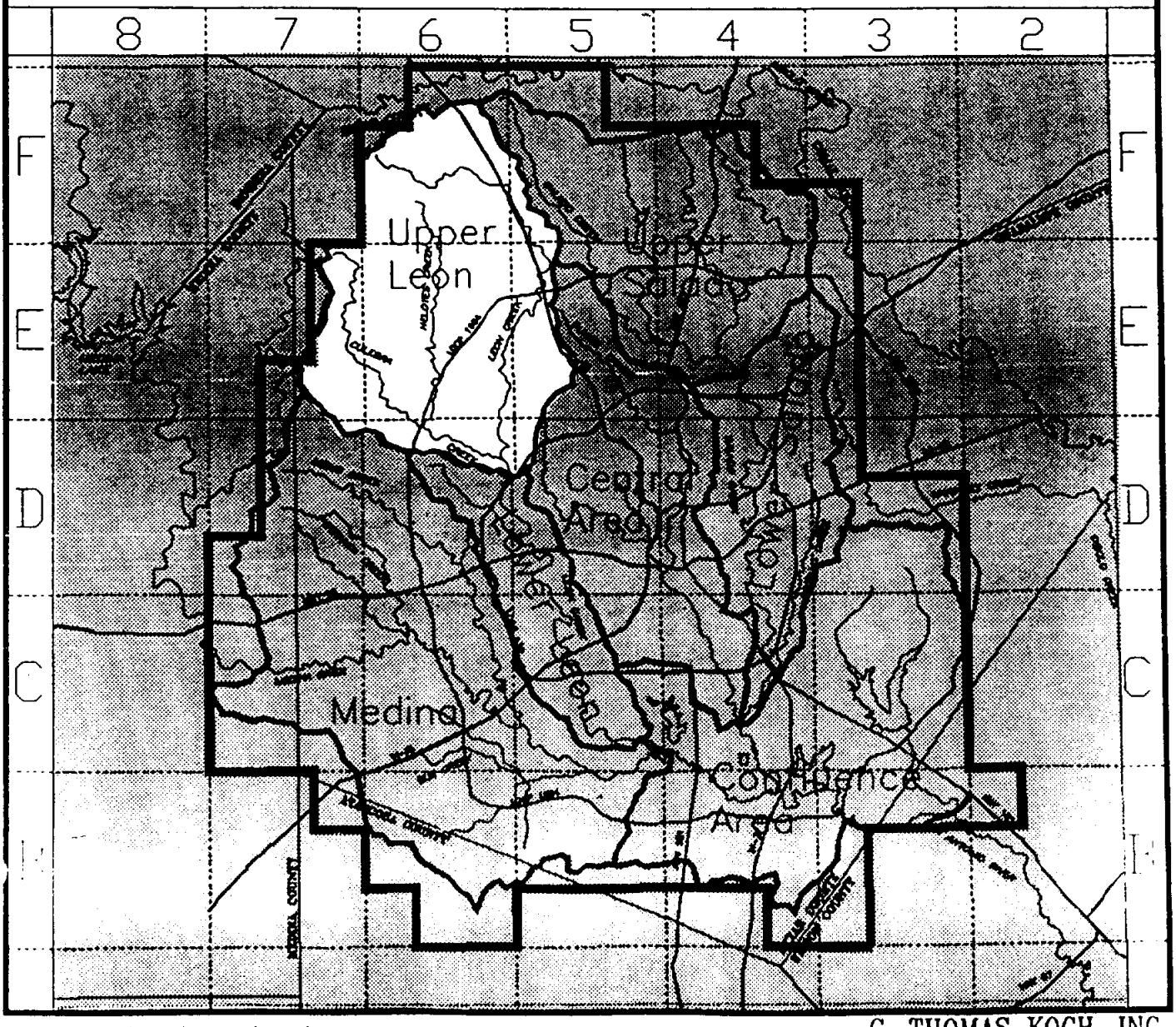
C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Upper Leon	FORECAST WATER USE	YEAR 2010

Watershed UPPER LEON
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	23.0
		1990 Percent Use	95.0	1990 Percent Use	11.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	31,350
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	26,809
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	58,159



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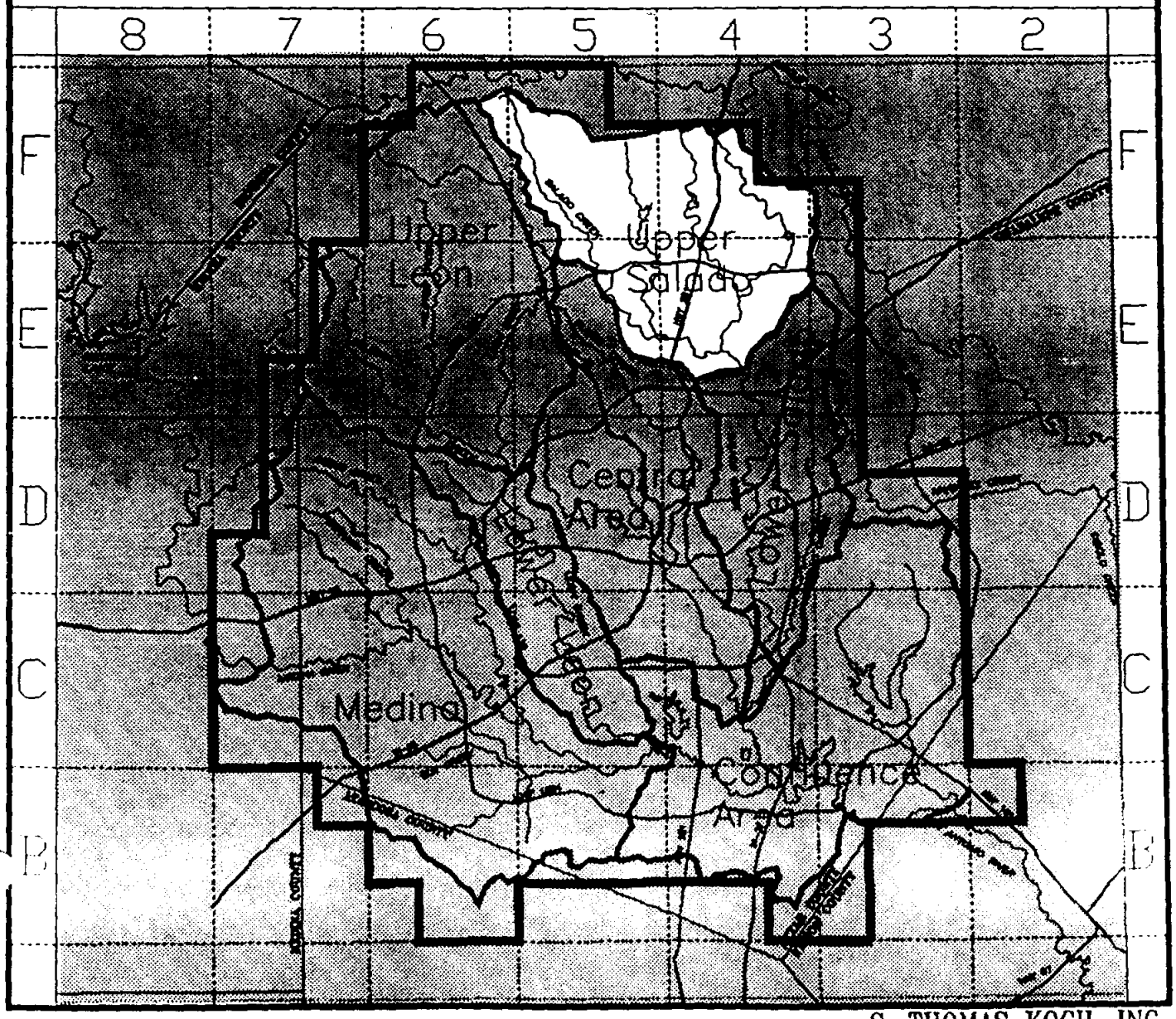
C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Upper Salado	*FORECAST WATER USE*	*YEAR 2000*

Watershed UPPER SALADO
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	21.0
		1990 Percent Use	95.0	1990 Percent Use	10.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	28,500
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	12,239
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	40,739



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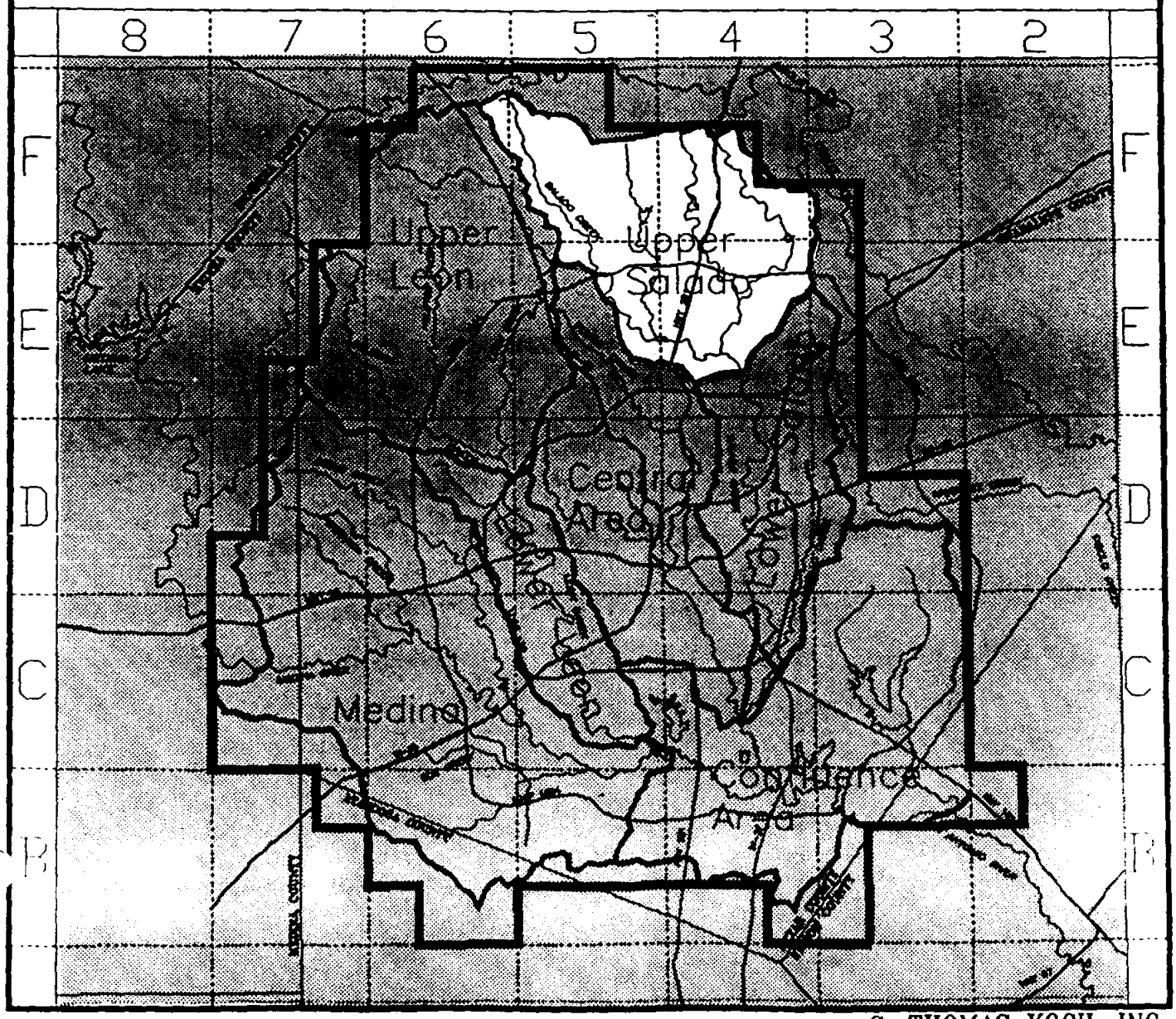
C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Upper Salado	***FORECAST WATER USE***	***YEAR 2010***

Watershed UPPER SALADO
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	21.0
		1990 Percent Use	95.0	1990 Percent Use	10.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	28,500
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	24,478
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	52,978



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C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

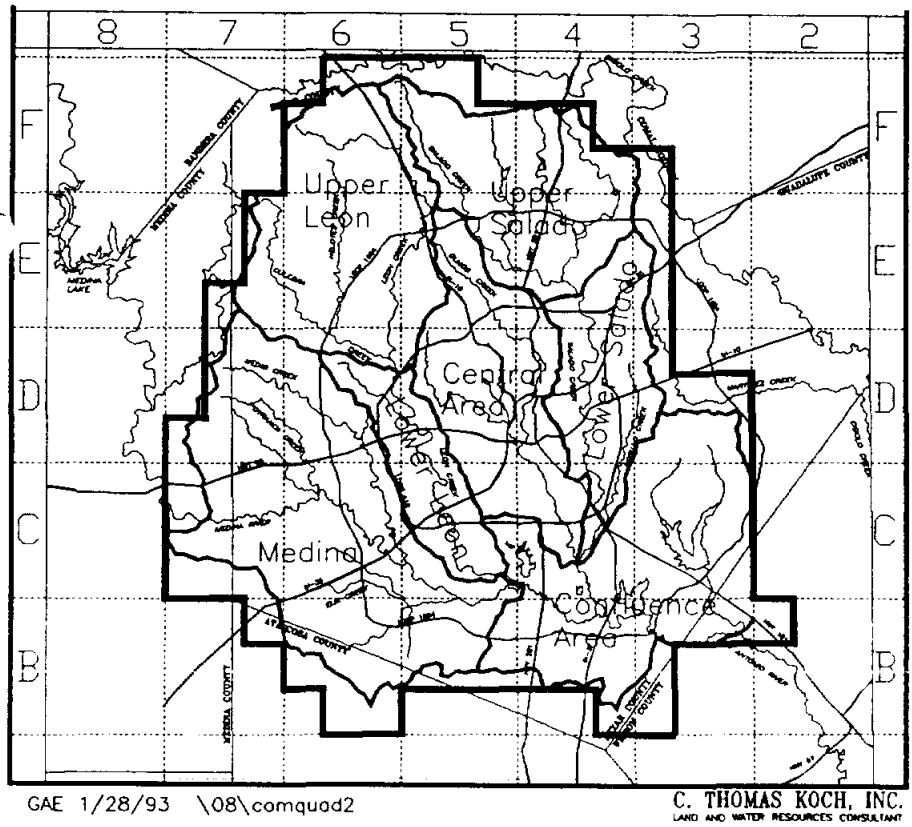
San Antonio Water System

WATER RESOURCES PLANNING PROCESS

Watershed Management Strategies

by Watershed Planning Area

Report No. 7



Prepared for:

Texas Water Development Board

January 1993

twdbjan9.tc

Summary

Central

Confluence

Lower Leon

Lower Salado

Medina

Upper Leon

Upper Salado

SAN ANTONIO WATER SYSTEM

P.O. Box 2449, San Antonio, Texas 78298-2449 210/225-7461

February 1, 1993

MR. CURTIS JOHNSON
TEXAS WATER DEVELOPMENT BOARD
P.O. Box 13231, Capitol Station
Austin, Texas 78711-3231

RE: REPORT NO. 7 (TWDB Contract 9-483-722)
WATERSHED MANAGEMENT STRATEGIES

Dear Curtis:

Today we are providing you with copies of eight documents which give you a status report on the planning process we are implementing for the San Antonio Water System through partial funding provided by your agency.

Report No. 7 provides printouts obtained from the planning models which were partially funded by your agency. These planning models now enable our staff to quickly determine the conceptual costs associated with a complete range of water management policies within small watershed areas. Only two examples are presented:

- A program for each watershed in which Edwards pumpage is kept constant and all additional water is imported from outside the basin.

- A program for each watershed in which 20 percent of the outdoor needs are met from reclaimed water and all additional supplemental water provided by imported water.

You provided funding to assist us in establishing a planning process. We have now accomplished that objective. We would like to sit down with your staff and work out some method of transferring the spread sheet models which were developed and then determine how both of our agencies can work together evaluating alternatives prior to the submission of our final report to you in March.

Very truly yours,

JOE A. ACEVES
JA:lk
twdb7.fl

SUMMARY

This report is divided into eight sections. The last seven sections are stand alone watershed management strategies.

Section 1 provides a summary of potential costs of supplying supplemental non Edwards to regions as well as a brief description of the water resource planning model.

The following pages provide very simplified unit costs (expressed in dollars per acre foot) for the pipeline conveyance. For planning purposes it is assumed that all water (whether it is reclaimed or imported) will first appear in the confluence watershed. Approximate pipeline costs for transporting such waters to all other watershed planning areas is presented. These costs would be applicable to the costs of transporting water by either reclaimed water line or through a drinking water conveyance system.

The calculations supporting the unit costs for each pipeline corridor are contained on individual sheets behind the two figures.

Sections 2 through 8 contain six pages of print out which summarizes how much water would need to be imported and whether the water would be imported as drinking water or as reclaimed water.

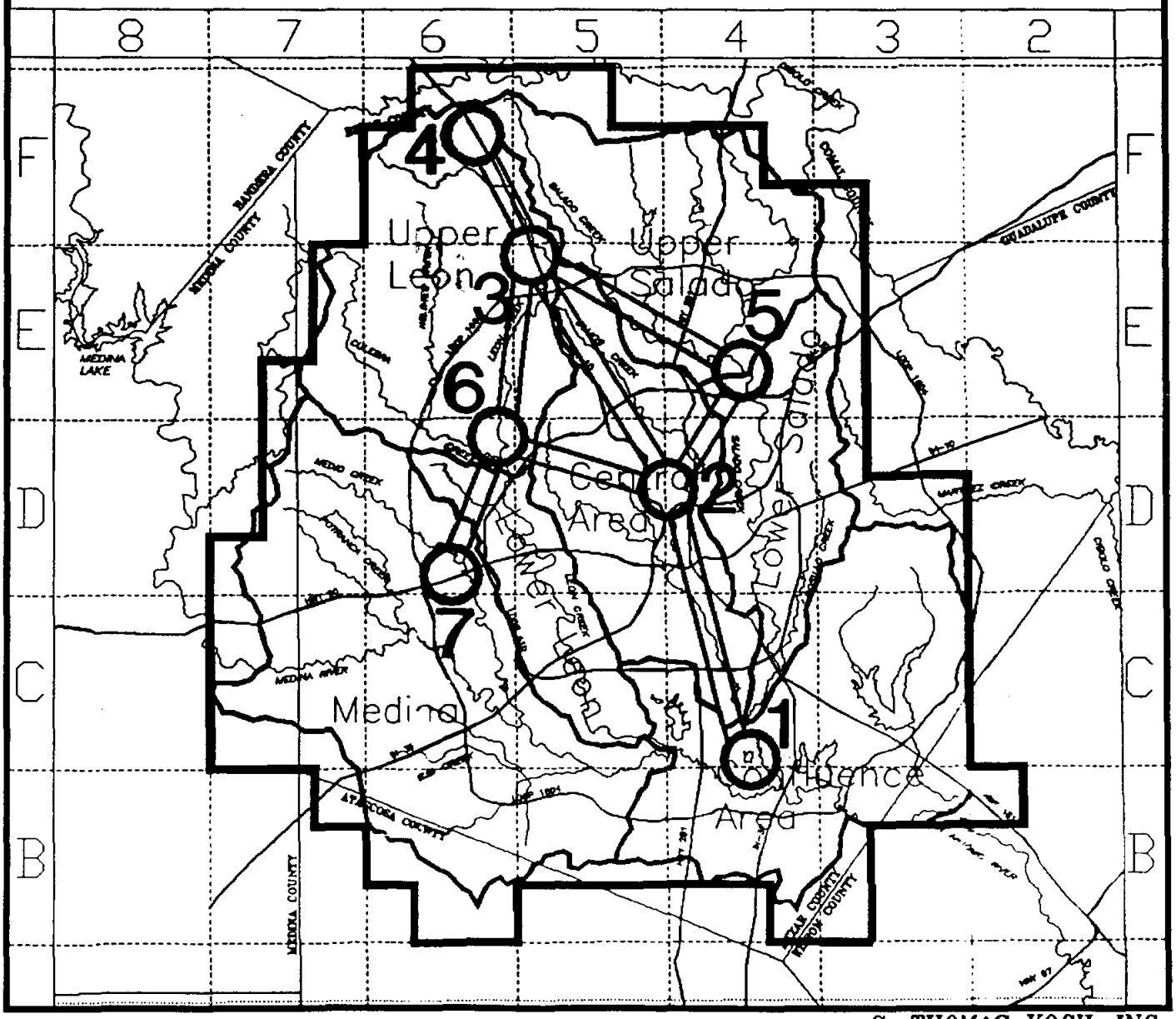
Importation of water from the confluence water will be required in the year 2000 assuming Edwards water is held constant. One model assumes that no water will be reclaimed and all water will be imported from outside the basin into the confluence area.

The second print out assumes that reclaimed water is used to meet up to 20 percent of the outdoor water use. If this importation is insufficient, then the amount of additional water to be imported into the confluence area is also calculated.

These data, when combined with the spread sheet cost programs, enable our staff to address our water resource problems in a comprehensive overview approach.

sum.fl

Pipeline Corridors



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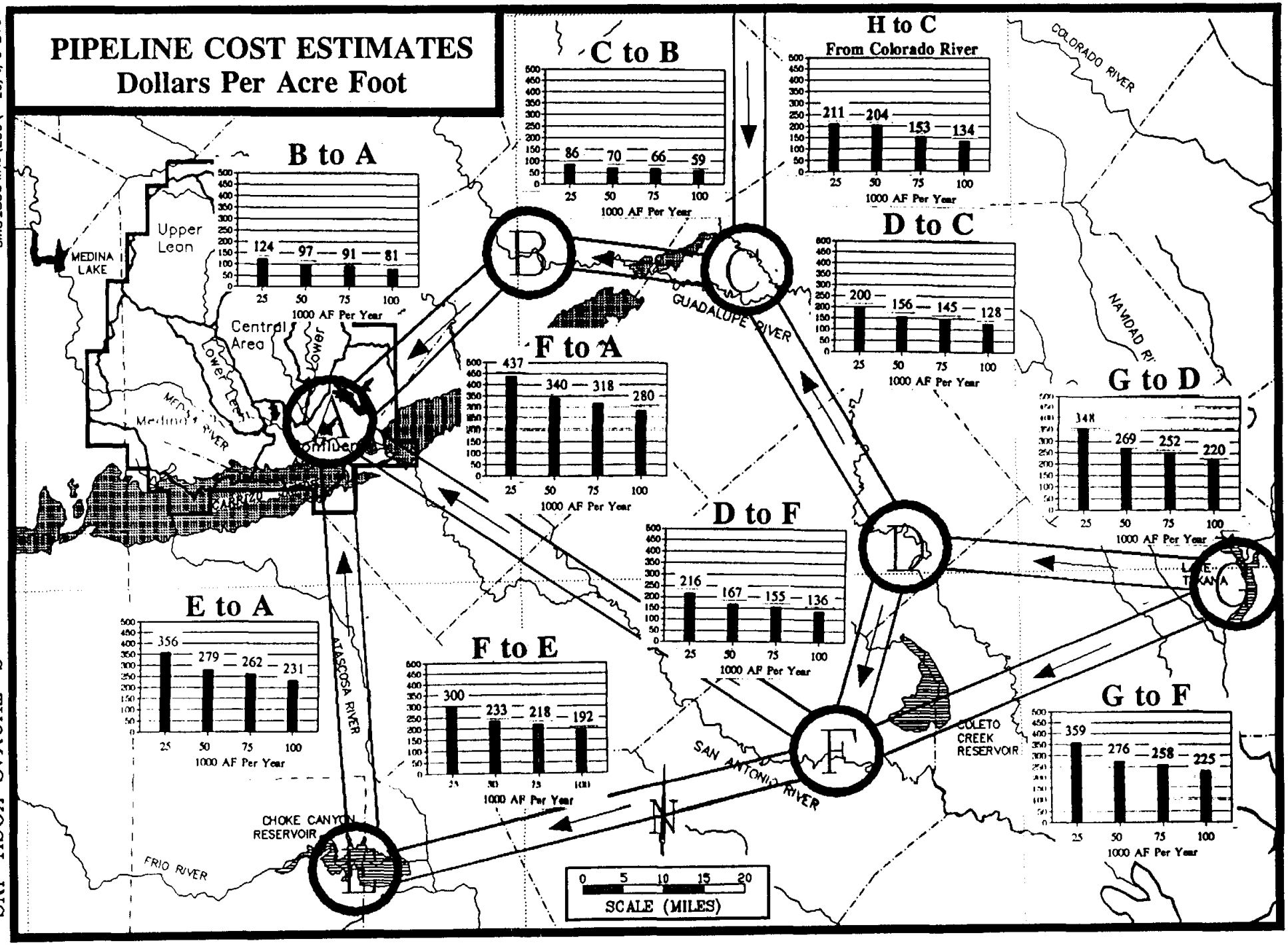
C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT



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C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Data: 204cost4 | Project ID = 1 to 2 | 2/01/93
Report: 204dia2 | | 9:37:03 am
COST ANALYSIS | SEGMENT: From Confluence Watershed Area To Central Watershed Area | Page 1

LENGTH = 105600 FEET (20.0 MILES) | START ELEV = 500 | END ELEV = 800 | STATIC HEAD= 300 | LINE SLOPE = 15 | Cost Index = 3000 | Peaking Factor: 1.50 | Debt Factor: 0.10 | $ per kwhr: $0.06

AVE FLOW (AF/YR)	PIPE SIZE	TDH	TOTAL CAPITAL COSTS	COST PIPE	COST PUMP	DEBT PAYMENTS $$ PER YEAR	DEBT PAYMENTS $$ / AF	ANNUAL OPERATING COSTS PUMP	ANNUAL OPERATING COSTS ENERGY	ANNUAL OPERATING COSTS TOTAL	ANNUAL OPERATING COSTS $$ / AF	TOTAL $$ / AF
5,000	21	535	$9,863,487	$8,072,064	$1,791,423	$986,349	$197	$44,989	$233,709	$278,698	$56	$253
5,000	30	341	$14,581,578	$13,242,240	$1,339,338	$1,458,158	$292	$33,635	$149,029	$182,664	$37	$328
5,000	36	317	$18,541,765	$17,259,264	$1,282,501	$1,854,177	$371	$32,208	$138,383	$170,591	$34	$405
5,000	42	308	$22,993,998	$21,732,480	$1,261,518	$2,299,400	$460	$31,681	$134,453	$166,134	$33	$493
10,000	21	1150	$13,094,918	$8,072,064	$5,022,854	$1,309,492	$131	$124,405	$1,003,799	$1,128,204	$113	$244
10,000	30	450	$15,722,117	$13,242,240	$2,479,877	$1,572,212	$157	$61,421	$392,474	$453,894	$45	$203
10,000	36	362	$19,419,434	$17,259,264	$2,160,170	$1,941,943	$194	$53,502	$315,617	$369,119	$37	$231
10,000	42	329	$23,774,622	$21,732,480	$2,042,142	$2,377,462	$238	$50,579	$287,243	$337,822	$34	$272
20,000	21	3368	$28,449,965	$8,072,064	$20,377,901	$2,844,996	$142	$497,765	$5,879,878	$6,377,644	$319	$461
20,000	30	840	$19,315,910	$13,242,240	$6,073,670	$1,931,591	$97	$148,360	$1,466,558	$1,614,918	$81	$177
20,000	36	522	$21,534,583	$17,259,264	$4,275,319	$2,153,458	$108	$104,432	$911,709	$1,016,141	$51	$158
20,000	42	405	$25,343,889	$21,732,480	$3,611,409	$2,534,389	$127	$88,215	$706,871	$795,086	$40	$166
30,000	21	6800	$59,664,842	$8,072,064	$51,592,778	$5,966,484	$199	$1,250,065	$17,808,656	$19,058,721	$635	$834
30,000	30	1444	$25,547,207	$13,242,240	$12,304,967	$2,554,721	$85	$298,143	$3,782,082	$4,080,225	$136	$221
30,000	36	771	$24,624,905	$17,259,264	$7,365,641	$2,462,490	$82	$178,465	$2,018,639	$2,197,105	$73	$155
30,000	42	522	$27,274,633	$21,732,480	$5,542,153	$2,727,463	$91	$134,283	$1,367,616	$1,501,899	$50	$141

LENGTH = 84480 FEET START ELEV = 800 STATIC HEAD= 300 Cost Index = 3000 Debt Factor: 0.10
16.0 MILES END ELEV = 1100 LINE SLOPE = 19 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW	PIPE		TOTAL	COST	COST	DEBT PAYMENTS		ANNUAL OPERATING COSTS				TOTAL
(AF/YR)	SIZE	TDH	CAPITAL COSTS	PIPE	PUMP	$$ PER YEAR	$$ / AF	PUMP	ENERGY	TOTAL	$$ / AF	$$ / AF
5,000	21	488	$8,139,342	$6,457,651	$1,681,691	$813,934	$163	$42,233	$213,155	$255,388	$51	$214
5,000	30	333	$11,913,815	$10,593,792	$1,320,023	$1,191,381	$238	$33,150	$145,411	$178,561	$36	$274
5,000	36	314	$15,081,964	$13,807,411	$1,274,553	$1,508,196	$302	$32,008	$136,894	$168,903	$34	$335
5,000	42	306	$18,643,751	$17,385,984	$1,257,767	$1,864,375	$373	$31,587	$133,750	$165,337	$33	$406
10,000	21	980	$10,863,260	$6,457,651	$4,405,609	$1,086,326	$109	$109,117	$855,415	$964,532	$96	$205
10,000	30	420	$12,965,020	$10,593,792	$2,371,228	$1,296,502	$130	$58,730	$366,354	$425,084	$43	$172
10,000	36	349	$15,922,873	$13,807,411	$2,115,462	$1,592,287	$159	$52,395	$304,869	$357,264	$36	$195
10,000	42	323	$19,407,023	$17,385,984	$2,021,039	$1,940,702	$194	$50,057	$282,170	$332,226	$33	$227
20,000	21	2754	$23,363,553	$6,457,651	$16,905,902	$2,336,355	$117	$412,956	$4,808,654	$5,221,610	$261	$378
20,000	30	732	$16,056,309	$10,593,792	$5,462,517	$1,605,631	$80	$133,431	$1,277,998	$1,411,430	$71	$151
20,000	36	478	$17,831,248	$13,807,411	$4,023,837	$1,783,125	$89	$98,289	$834,118	$932,408	$47	$136
20,000	42	384	$20,878,693	$17,385,984	$3,492,709	$2,087,869	$104	$85,315	$670,248	$755,563	$38	$142
30,000	21	5500	$48,514,283	$6,457,651	$42,056,632	$4,851,428	$162	$1,019,009	$14,404,052	$15,423,061	$514	$676
30,000	30	1215	$21,220,175	$10,593,792	$10,626,383	$2,122,018	$71	$257,471	$3,182,793	$3,440,264	$115	$185
30,000	36	677	$20,482,334	$13,807,411	$6,674,922	$2,048,233	$68	$161,730	$1,772,038	$1,933,768	$64	$133
30,000	42	478	$22,602,116	$17,385,984	$5,216,132	$2,260,212	$75	$126,384	$1,251,220	$1,377,604	$46	$121

LENGTH = 42240 FEET START ELEV = 800 STATIC HEAD= 100 Cost Index = 3000 Debt Factor: 0.10
8.0 MILES END ELEV = 900 LINE SLOPE = 13 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW	PIPE		TOTAL	COST	COST	DEBT PAYMENTS		ANNUAL OPERATING COSTS				TOTAL
(AF/YR)	SIZE	TDH	CAPITAL COSTS	PIPE	PUMP	$$ PER YEAR	$$ / AF	PUMP	ENERGY	TOTAL	$$ / AF	$$ / AF
5,000	21	194	$4,225,016	$3,228,826	$996,190	$422,502	$85	$25,018	$84,754	$109,772	$22	$106
5,000	30	117	$6,112,252	$5,296,896	$815,356	$611,225	$122	$20,476	$50,882	$71,359	$14	$137
5,000	36	107	$7,696,327	$6,903,706	$792,622	$769,633	$154	$19,905	$46,624	$66,529	$13	$167
5,000	42	103	$9,477,220	$8,692,992	$784,228	$947,722	$190	$19,695	$45,052	$64,746	$13	$202
10,000	21	440	$5,673,709	$3,228,826	$2,444,883	$567,371	$57	$60,554	$384,061	$444,615	$44	$101
10,000	30	160	$6,724,589	$5,296,896	$1,427,693	$672,459	$67	$35,361	$139,531	$174,892	$17	$85
10,000	36	125	$8,203,515	$6,903,706	$1,299,810	$820,352	$82	$32,193	$108,788	$140,981	$14	$96
10,000	42	112	$9,945,590	$8,692,992	$1,252,598	$994,559	$99	$31,024	$97,439	$128,463	$13	$112
20,000	21	1327	$12,059,015	$3,228,826	$8,830,189	$1,205,901	$60	$215,693	$2,317,034	$2,532,727	$127	$187
20,000	30	316	$8,405,393	$5,296,896	$3,108,497	$840,539	$42	$75,930	$551,706	$627,637	$31	$73
20,000	36	189	$9,292,862	$6,903,706	$2,389,157	$929,286	$46	$58,359	$329,766	$388,126	$19	$66
20,000	42	142	$10,816,585	$8,692,992	$2,123,593	$1,081,658	$54	$51,872	$247,831	$299,704	$15	$69
30,000	21	2700	$24,746,148	$3,228,826	$21,517,322	$2,474,615	$82	$521,353	$7,071,087	$7,592,440	$253	$336
30,000	30	558	$11,099,094	$5,296,896	$5,802,198	$1,109,909	$37	$140,584	$1,460,457	$1,601,041	$53	$90
30,000	36	288	$10,730,173	$6,903,706	$3,826,467	$1,073,017	$36	$92,713	$755,080	$847,793	$28	$64
30,000	42	189	$11,790,064	$8,692,992	$3,097,072	$1,179,006	$39	$75,040	$494,671	$569,711	$19	$58

LENGTH = 63360 FEET START ELEV = 800 STATIC HEAD= 100 Cost Index = 3000 Debt Factor: 0.10
12.0 MILES END ELEV = 900 LINE SLOPE = 8 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW	PIPE		TOTAL	COST	COST	DEBT PAYMENTS		ANNUAL OPERATING COSTS				TOTAL
(AF/YR)	SIZE	TDH	CAPITAL COSTS	PIPE	PUMP	$$ PER YEAR	$$ / AF	PUMP	ENERGY	TOTAL	$$ / AF	$$ / AF
5,000	21	241	$5,949,161	$4,843,238	$1,105,923	$594,916	$119	$27,774	$105,308	$133,082	$27	$146
5,000	30	125	$8,780,016	$7,945,344	$834,672	$878,002	$176	$20,961	$54,500	$75,462	$15	$191
5,000	36	110	$11,156,128	$10,355,558	$800,570	$1,115,613	$223	$20,105	$48,113	$68,218	$14	$237
5,000	42	105	$13,827,468	$13,039,488	$787,980	$1,382,747	$277	$19,789	$45,754	$65,543	$13	$290
10,000	21	610	$7,905,366	$4,843,238	$3,062,128	$790,537	$79	$75,842	$532,445	$608,287	$61	$140
10,000	30	190	$9,481,686	$7,945,344	$1,536,342	$948,169	$95	$38,052	$165,650	$203,702	$20	$115
10,000	36	137	$11,700,076	$10,355,558	$1,344,518	$1,170,008	$117	$33,301	$119,536	$152,836	$15	$132
10,000	42	117	$14,313,189	$13,039,488	$1,273,701	$1,431,319	$143	$31,547	$102,512	$134,058	$13	$157
20,000	21	1941	$17,145,426	$4,843,238	$12,302,188	$1,714,543	$86	$300,502	$3,388,259	$3,688,761	$184	$270
20,000	30	424	$11,664,994	$7,945,344	$3,719,650	$1,166,499	$58	$90,859	$740,267	$831,126	$42	$100
20,000	36	233	$12,996,198	$10,355,558	$2,640,639	$1,299,620	$65	$64,502	$407,357	$471,859	$24	$89
20,000	42	163	$15,281,781	$13,039,488	$2,242,293	$1,528,178	$76	$54,772	$284,454	$339,226	$17	$93
30,000	21	4000	$35,896,706	$4,843,238	$31,053,468	$3,589,671	$120	$752,408	$10,475,691	$11,228,100	$374	$494
30,000	30	787	$15,426,125	$7,945,344	$7,480,781	$1,542,613	$51	$181,255	$2,059,747	$2,241,002	$75	$126
30,000	36	382	$14,872,744	$10,355,558	$4,517,186	$1,487,274	$50	$109,449	$1,001,681	$1,111,130	$37	$87
30,000	42	233	$16,462,581	$13,039,488	$3,423,093	$1,646,258	$55	$82,940	$611,067	$694,007	$23	$78

LENGTH = 52800 FEET START ELEV = 1100 STATIC HEAD= 200 Cost Index = 3000 Debt Factor: 0.10
10.0 MILES END ELEV = 1300 LINE SLOPE = 20 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW	PIPE		TOTAL	COST	COST	DEBT PAYMENTS		ANNUAL OPERATING COSTS				TOTAL
(AF/YR)	SIZE	TDH	CAPITAL COSTS	PIPE	PUMP	$$ PER YEAR	$$ / AF	PUMP	ENERGY	TOTAL	$$ / AF	$$ / AF
5,000	21	318	$5,320,106	$4,036,032	$1,284,074	$532,011	$106	$32,248	$138,678	$170,925	$34	$141
5,000	30	221	$7,679,152	$6,621,120	$1,058,032	$767,915	$154	$26,571	$96,338	$122,908	$25	$178
5,000	36	209	$9,659,245	$8,629,632	$1,029,613	$965,925	$193	$25,857	$91,015	$116,872	$23	$217
5,000	42	204	$11,885,362	$10,866,240	$1,019,122	$1,188,536	$238	$25,594	$89,049	$114,643	$23	$261
10,000	21	625	$7,152,656	$4,036,032	$3,116,624	$715,266	$72	$77,192	$545,546	$622,737	$62	$134
10,000	30	275	$8,466,256	$6,621,120	$1,845,136	$846,626	$85	$45,700	$239,883	$285,583	$29	$113
10,000	36	231	$10,314,914	$8,629,632	$1,685,282	$1,031,491	$103	$41,741	$201,455	$243,195	$24	$127
10,000	42	215	$12,492,508	$10,866,240	$1,626,268	$1,249,251	$125	$40,279	$187,268	$227,547	$23	$148
20,000	21	1734	$15,168,078	$4,036,032	$11,132,046	$1,516,808	$76	$271,920	$3,027,232	$3,299,151	$165	$241
20,000	30	470	$10,601,051	-$6,621,120	$3,979,931	$1,060,105	$53	$97,217	$820,572	$917,789	$46	$99
20,000	36	311	$11,710,388	$8,629,632	$3,080,756	$1,171,039	$59	$75,253	$543,147	$618,400	$31	$89
20,000	42	252	$13,615,040	$10,866,240	$2,748,800	$1,361,504	$68	$67,144	$440,728	$507,872	$25	$93
30,000	21	3450	$31,054,936	$4,036,032	$27,018,904	$3,105,494	$104	$654,653	$9,035,267	$9,689,920	$323	$427
30,000	30	772	$13,996,119	$6,621,120	$7,374,999	$1,399,612	$47	$178,692	$2,021,980	$2,200,672	$73	$120
30,000	36	435	$13,534,968	$8,629,632	$4,905,336	$1,353,497	$45	$118,854	$1,140,259	$1,259,112	$42	$87
30,000	42	311	$14,859,832	$10,866,240	$3,993,592	$1,485,983	$50	$96,763	$814,747	$911,510	$30	$80

LENGTH = 73920 FEET START ELEV = 800 STATIC HEAD= 300 Cost Index = 3000 Debt Factor: 0.10
14.0 MILES END ELEV = 1100 LINE SLOPE = 21 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW	PIPE		TOTAL	COST	COST	DEBT PAYMENTS		ANNUAL OPERATING COSTS				TOTAL
(AF/YR)	SIZE	TDH	CAPITAL COSTS	PIPE	PUMP	$$ PER YEAR	$$ / AF	PUMP	ENERGY	TOTAL	$$ / AF	$$ / AF
5,000	21	465	$7,277,269	$5,650,445	$1,626,824	$727,727	$146	$40,855	$202,878	$243,733	$49	$194
5,000	30	329	$10,579,933	$9,269,568	$1,310,365	$1,057,993	$212	$32,908	$143,602	$176,510	$35	$247
5,000	36	312	$13,352,064	$12,081,485	$1,270,579	$1,335,206	$267	$31,909	$136,150	$168,058	$34	$301
5,000	42	306	$16,468,627	$15,212,736	$1,255,891	$1,646,863	$329	$31,540	$133,399	$164,938	$33	$362
10,000	21	895	$9,747,432	$5,650,445	$4,096,987	$974,743	$97	$101,473	$781,223	$882,696	$88	$186
10,000	30	405	$11,586,471	$9,269,568	$2,316,903	$1,158,647	$116	$57,384	$353,295	$410,679	$41	$157
10,000	36	343	$14,174,593	$12,081,485	$2,093,108	$1,417,459	$142	$51,842	$299,495	$351,337	$35	$177
10,000	42	320	$17,223,224	$15,212,736	$2,010,488	$1,722,322	$172	$49,795	$279,633	$329,429	$33	$205
20,000	21	2448	$20,820,347	$5,650,445	$15,169,903	$2,082,035	$104	$370,551	$4,273,042	$4,643,593	$232	$336
20,000	30	678	$14,426,509	$9,269,568	$5,156,941	$1,442,651	$72	$125,967	$1,183,718	$1,309,685	$65	$138
20,000	36	456	$15,979,581	$12,081,485	$3,898,096	$1,597,958	$80	$95,218	$795,323	$890,541	$45	$124
20,000	42	373	$18,646,094	$15,212,736	$3,433,358	$1,864,609	$93	$83,866	$651,937	$735,802	$37	$130
30,000	21	4850	$42,939,004	$5,650,445	$37,288,559	$4,293,900	$143	$903,481	$12,701,750	$13,605,231	$454	$597
30,000	30	1101	$19,056,660	$9,269,568	$9,787,092	$1,905,666	$64	$237,136	$2,883,148	$3,120,284	$104	$168
30,000	36	630	$18,411,048	$12,081,485	$6,329,563	$1,841,105	$61	$153,362	$1,648,738	$1,802,100	$60	$121
30,000	42	456	$20,265,858	$15,212,736	$5,053,122	$2,026,586	$68	$122,434	$1,193,022	$1,315,456	$44	$111

LENGTH = 52800 FEET START ELEV = 800 STATIC HEAD= 300 Cost Index = 3000 Debt Factor: 0.10
10.0 MILES END ELEV = 1100 LINE SLOPE = 30 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW	PIPE		TOTAL	COST	COST	DEBT PAYMENTS		ANNUAL OPERATING COSTS				TOTAL
(AF/YR)	SIZE	TDH	CAPITAL COSTS	PIPE	PUMP	$$ PER YEAR	$$ / AF	PUMP	ENERGY	TOTAL	$$ / AF	$$ / AF
5,000	21	418	$5,553,124	$4,036,032	$1,517,092	$555,312	$111	$38,099	$182,324	$220,423	$44	$155
5,000	30	321	$7,912,169	$6,621,120	$1,291,049	$791,217	$158	$32,423	$139,984	$172,407	$34	$193
5,000	36	309	$9,892,263	$8,629,632	$1,262,631	$989,226	$198	$31,709	$134,661	$166,370	$33	$231
5,000	42	304	$12,118,379	$10,866,240	$1,252,139	$1,211,838	$242	$31,446	$132,696	$164,141	$33	$275
10,000	21	725	$7,515,774	$4,036,032	$3,479,742	$751,577	$75	$86,185	$632,839	$719,024	$72	$147
10,000	30	375	$8,829,374	$6,621,120	$2,208,254	$882,937	$88	$54,693	$327,176	$381,869	$38	$126
10,000	36	331	$10,678,032	$8,629,632	$2,048,400	$1,067,803	$107	$50,734	$288,747	$339,482	$34	$141
10,000	42	315	$12,855,626	$10,866,240	$1,989,386	$1,285,563	$129	$49,273	$274,561	$323,833	$32	$161
20,000	21	1834	$15,733,936	$4,036,032	$11,697,904	$1,573,394	$79	$285,742	$3,201,817	$3,487,559	$174	$253
20,000	30	570	$11,166,909	$6,621,120	$4,545,789	$1,116,691	$56	$111,039	$995,157	$1,106,196	$55	$111
20,000	36	411	$12,276,245	$8,629,632	$3,646,613	$1,227,625	$61	$89,075	$717,733	$806,807	$40	$102
20,000	42	352	$14,180,898	$10,866,240	$3,314,658	$1,418,090	$71	$80,966	$615,314	$696,280	$35	$106
30,000	21	3550	$31,788,446	$4,036,032	$27,752,414	$3,178,845	$106	$672,426	$9,297,145	$9,969,571	$332	$438
30,000	30	872	$14,729,628	$6,621,120	$8,108,508	$1,472,963	$49	$196,465	$2,283,859	$2,480,323	$83	$132
30,000	36	535	$14,268,477	$8,629,632	$5,638,845	$1,426,848	$48	$136,626	$1,402,137	$1,538,763	$51	$99
30,000	42	411	$15,593,341	$10,866,240	$4,727,101	$1,559,334	$52	$114,535	$1,076,625	$1,191,160	$40	$92

LENGTH = 26400 FEET START ELEV = 700 STATIC HEAD= 100 Cost Index = 3000 Debt Factor: 0.10
5.0 MILES END ELEV = 800 LINE SLOPE = 20 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW	PIPE		TOTAL	COST	COST	DEBT PAYMENTS		ANNUAL OPERATING COSTS				TOTAL
(AF/YR)	SIZE	TDH	CAPITAL COSTS	PIPE	PUMP	$$ PER YEAR	$$ / AF	PUMP	ENERGY	TOTAL	$$ / AF	$$ / AF
5,000	21	159	$2,931,907	$2,018,016	$913,891	$293,191	$59	$22,951	$69,339	$92,290	$18	$77
5,000	30	110	$4,111,430	$3,310,560	$800,870	$411,143	$82	$20,113	$48,169	$68,281	$14	$96
5,000	36	104	$5,101,477	$4,314,816	$786,661	$510,148	$102	$19,756	$45,507	$65,263	$13	$115
5,000	42	102	$6,214,535	$5,433,120	$781,415	$621,453	$124	$19,624	$44,525	$64,149	$13	$137
10,000	21	312	$3,999,966	$2,018,016	$1,981,950	$399,997	$40	$49,088	$272,773	$321,861	$32	$72
10,000	30	137	$4,656,766	$3,310,560	$1,346,206	$465,677	$47	$33,342	$119,942	$153,284	$15	$62
10,000	36	115	$5,581,095	$4,314,816	$1,266,279	$558,109	$56	$31,363	$100,727	$132,090	$13	$69
10,000	42	107	$6,669,892	$5,433,120	$1,236,772	$666,989	$67	$30,632	$93,634	$124,266	$12	$79
20,000	21	867	$8,244,206	$2,018,016	$6,226,190	$824,421	$41	$152,085	$1,513,616	$1,665,701	$83	$125
20,000	30	235	$5,960,693	$3,310,560	$2,650,133	$596,069	$30	$64,734	$410,286	$475,020	$24	$54
20,000	36	156	$6,515,361	$4,314,816	$2,200,545	$651,536	$33	$53,752	$271,574	$325,326	$16	$49
20,000	42	126	$7,467,687	$5,433,120	$2,034,567	$746,769	$37	$49,698	$220,364	$270,062	$14	$51
30,000	21	1725	$16,383,229	$2,018,016	$14,365,213	$1,638,323	$55	$348,061	$4,517,634	$4,865,695	$162	$217
30,000	30	386	$7,853,820	$3,310,560	$4,543,260	$785,382	$26	$110,081	$1,010,990	$1,121,071	$37	$64
30,000	36	218	$7,623,245	$4,314,816	$3,308,429	$762,324	$25	$80,161	$570,129	$650,291	$22	$47
30,000	42	156	$8,285,677	$5,433,120	$2,852,557	$828,568	$28	$69,116	$407,374	$476,489	$16	$44

Data: 204cost4 Project ID = B to A 1/31/93
Report: 204dia2 7:50:00 pm
COST ANALYSIS SEGMENT: From Guadalupe River near Seguin to Confluence Watershed Planning Area Page 1

LENGTH = 95040 FEET START ELEV = 500 STATIC HEAD= 150 Cost Index = 3000 Debt Factor: 0.10
18.0 MILES END ELEV = 650 LINE SLOPE = 8 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW	PIPE		TOTAL	COST	COST	DEBT PAYMENTS		ANNUAL OPERATING COSTS				TOTAL
(AF/YR)	SIZE	TDH	CAPITAL COSTS	PIPE	PUMP	$$ PER YEAR	$$ / AF	PUMP	ENERGY	TOTAL	$$ / AF	$$ / AF
25,000	36	452	$20,008,803	$15,533,338	$4,475,465	$2,000,880	$80	$108,834	$987,120	$1,095,954	$44	$124
25,000	54	192	$31,618,738	$28,842,739	$2,775,998	$3,161,874	$126	$67,507	$418,920	$486,427	$19	$146
25,000	72	160	$48,416,870	$45,847,296	$2,569,574	$4,841,687	$194	$62,487	$349,904	$412,391	$16	$210
25,000	90	153	$69,071,872	$66,547,008	$2,524,864	$6,907,187	$276	$61,400	$334,956	$396,355	$16	$292
50,000	36	1241	$30,532,567	$15,533,338	$14,999,229	$3,053,257	$61	$359,729	$5,417,766	$5,777,495	$116	$177
50,000	54	301	$34,282,477	$28,842,739	$5,439,738	$3,428,248	$69	$130,462	$1,315,781	$1,446,243	$29	$97
50,000	72	187	$50,125,895	$45,847,296	$4,278,599	$5,012,589	$100	$102,614	$817,535	$920,149	$18	$119
50,000	90	163	$70,574,118	$66,547,008	$4,027,110	$7,057,412	$141	$96,583	$709,621	$806,204	$16	$157
75,000	36	2462	$51,075,115	$15,533,338	$35,541,777	$5,107,511	$68	$845,520	$16,120,207	$16,965,727	$226	$294
75,000	54	471	$38,128,542	$28,842,739	$9,285,803	$3,812,854	$51	$220,904	$3,083,128	$3,304,032	$44	$95
75,000	72	229	$51,943,930	$45,847,296	$6,096,634	$5,194,393	$69	$145,036	$1,499,585	$1,644,621	$22	$91
75,000	90	177	$71,952,905	$66,547,008	$5,405,897	$7,195,291	$96	$128,603	$1,156,609	$1,285,212	$17	$113
100,000	36	4089	$84,047,558	$15,533,338	$68,514,220	$8,404,756	$84	$1,620,566	$35,695,257	$37,315,823	$373	$457
100,000	54	697	$43,584,864	$28,842,739	$14,742,125	$4,358,486	$44	$348,695	$6,081,939	$6,430,634	$64	$108
100,000	72	285	$54,058,019	$45,847,296	$8,210,723	$5,405,802	$54	$194,208	$2,484,972	$2,679,180	$27	$81
100,000	90	195	$73,343,106	$66,547,008	$6,796,098	$7,334,311	$73	$160,748	$1,705,911	$1,866,659	$19	$92

LENGTH = 52800 FEET START ELEV = 300 STATIC HEAD= 200 Cost Index = 3000 Debt Factor: 0.10
10.0 MILES END ELEV = 500 LINE SLOPE = 20 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW	PIPE		TOTAL	COST	COST	DEBT PAYMENTS		ANNUAL OPERATING COSTS				TOTAL
(AF/YR)	SIZE	TDH	CAPITAL COSTS	PIPE	PUMP	$$ PER YEAR	$$ / AF	PUMP	ENERGY	TOTAL	$$ / AF	$$ / AF
25,000	36	368	$12,554,412	$8,629,632	$3,924,780	$1,255,441	$50	$95,443	$803,004	$898,446	$36	$86
25,000	54	223	$19,004,376	$16,023,744	$2,980,632	$1,900,438	$76	$72,483	$487,337	$559,820	$22	$98
25,000	72	206	$28,336,671	$25,470,720	$2,865,951	$2,833,667	$113	$69,694	$448,995	$518,689	$21	$134
25,000	90	202	$39,811,673	$36,970,560	$2,841,113	$3,981,167	$159	$69,090	$440,690	$509,780	$20	$180
50,000	36	806	$19,204,054	$8,629,632	$10,574,422	$1,920,405	$38	$253,608	$3,519,078	$3,772,686	$75	$114
50,000	54	284	$21,287,337	$16,023,744	$5,263,593	$2,128,734	$43	$126,238	$1,240,197	$1,366,434	$27	$70
50,000	72	221	$30,089,236	$25,470,720	$4,618,516	$3,008,924	$60	$110,767	$963,394	$1,074,160	$21	$82
50,000	90	207	$41,449,360	$36,970,560	$4,478,800	$4,144,936	$83	$107,416	$903,441	$1,010,857	$20	$103
75,000	36	1485	$31,280,694	$8,629,632	$22,651,062	$3,128,069	$42	$538,857	$9,719,482	$10,258,339	$137	$178
75,000	54	378	$24,088,154	$16,023,744	$8,064,410	$2,408,815	$32	$191,848	$2,476,660	$2,668,508	$36	$68
75,000	72	244	$31,763,369	$25,470,720	$6,292,649	$3,176,337	$42	$149,699	$1,596,914	$1,746,613	$23	$66
75,000	90	215	$42,879,467	$36,970,560	$5,908,907	$4,287,947	$57	$140,570	$1,406,372	$1,546,941	$21	$78
100,000	36	2388	$50,186,108	$8,629,632	$41,556,476	$5,018,611	$50	$982,935	$20,849,113	$21,832,048	$218	$269
100,000	54	504	$27,706,834	$16,023,744	$11,683,090	$2,770,683	$28	$276,340	$4,397,270	$4,673,610	$47	$74
100,000	72	275	$33,525,254	$25,470,720	$8,054,534	$3,352,525	$34	$190,514	$2,398,955	$2,589,469	$26	$59
100,000	90	225	$44,239,191	$36,970,560	$7,268,631	$4,423,919	$44	$171,925	$1,966,143	$2,138,068	$21	$66

LENGTH = 168960 FEET START ELEV = 200 STATIC HEAD= 150 Cost Index = 3000 Debt Factor: 0.10
32.0 MILES END ELEV = 350 LINE SLOPE = 5 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW	PIPE		TOTAL	COST	COST	DEBT PAYMENTS		ANNUAL OPERATING COSTS				TOTAL
(AF/YR)	SIZE	TDH	CAPITAL COSTS	PIPE	PUMP	$$ PER YEAR	$$ / AF	PUMP	ENERGY	TOTAL	$$ / AF	$$ / AF
25,000	36	687	$33,625,120	$27,614,822	$6,010,298	$3,362,512	$135	$146,158	$1,500,276	$1,646,434	$66	$200
25,000	54	225	$54,265,005	$51,275,981	$2,989,024	$5,426,500	$217	$72,687	$490,143	$562,830	$23	$240
25,000	72	168	$84,128,350	$81,506,304	$2,622,046	$8,412,835	$337	$63,763	$367,448	$431,211	$17	$354
25,000	90	156	$120,848,355	$118,305,792	$2,542,563	$12,084,836	$483	$61,830	$340,873	$402,703	$16	$500
50,000	36	2090	$51,247,479	$27,614,822	$23,632,657	$5,124,748	$102	$566,786	$9,122,376	$9,689,162	$194	$296
50,000	54	419	$57,913,985	$51,275,981	$6,638,005	$5,791,399	$116	$159,200	$1,829,958	$1,989,158	$40	$156
50,000	72	216	$86,080,061	$81,506,304	$4,573,757	$8,608,006	$172	$109,693	$944,188	$1,053,881	$21	$193
50,000	90	172	$122,432,458	$118,305,792	$4,126,666	$12,243,246	$245	$98,971	$752,340	$851,311	$17	$262
75,000	36	4261	$86,869,057	$27,614,822	$59,254,234	$8,686,906	$116	$1,409,627	$27,894,334	$29,303,961	$391	$507
75,000	54	721	$63,852,928	$51,275,981	$12,576,947	$6,385,293	$85	$299,199	$4,717,305	$5,016,504	$67	$152
75,000	72	291	$88,413,617	$81,506,304	$6,907,313	$8,841,362	$118	$164,321	$1,902,118	$2,066,439	$28	$145
75,000	90	197	$123,985,129	$118,305,792	$5,679,337	$12,398,513	$165	$135,108	$1,292,382	$1,427,490	$19	$184
100,000	36	7153	$144,692,029	$27,614,822	$117,077,206	$14,469,203	$145	$2,769,225	$62,439,819	$65,209,045	$652	$797
100,000	54	1122	$72,758,352	$51,275,981	$21,482,371	$7,275,835	$73	$508,122	$9,793,921	$10,302,043	$103	$176
100,000	72	389	$91,377,294	$81,506,304	$9,870,990	$9,137,729	$91	$233,478	$3,399,312	$3,632,790	$36	$128
100,000	90	231	$125,661,893	$118,305,792	$7,356,101	$12,566,189	$126	$173,994	$2,014,315	$2,188,309	$22	$148

LENGTH = 190080 FEET START ELEV = 200 STATIC HEAD= 100 Cost Index = 3000 Debt Factor: 0.10
36.0 MILES END ELEV = 300 LINE SLOPE = 3 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW (AF/YR)	PIPE SIZE	TDH	TOTAL CAPITAL COSTS	COST PIPE	COST PUMP	DEBT PAYMENTS $$ PER YEAR	DEBT PAYMENTS $$ / AF	ANNUAL OPERATING COSTS PUMP	ANNUAL OPERATING COSTS ENERGY	ANNUAL OPERATING COSTS TOTAL	ANNUAL OPERATING COSTS $$ / AF	TOTAL $$ / AF
25,000	36	705	$37,189,135	$31,066,675	$6,122,460	$3,718,913	$149	$148,886	$1,537,776	$1,686,662	$67	$216
25,000	54	184	$60,409,005	$57,685,478	$2,723,526	$6,040,900	$242	$66,231	$401,377	$467,607	$19	$260
25,000	72	121	$94,005,268	$91,694,592	$2,310,676	$9,400,527	$376	$56,191	$263,344	$319,535	$13	$389
25,000	90	107	$135,315,274	$133,094,016	$2,221,258	$13,531,527	$541	$54,016	$233,448	$287,465	$11	$553
50,000	36	2283	$56,657,446	$31,066,675	$25,590,771	$5,665,745	$113	$613,748	$9,962,605	$10,576,353	$212	$325
50,000	54	403	$64,157,266	$57,685,478	$6,471,787	$6,415,727	$128	$155,214	$1,758,634	$1,913,848	$38	$167
50,000	72	175	$95,844,101	$91,694,592	$4,149,509	$9,584,410	$192	$99,518	$762,142	$861,661	$17	$209
50,000	90	125	$136,740,547	$133,094,016	$3,646,531	$13,674,055	$273	$87,455	$546,314	$633,769	$13	$286
75,000	36	4724	$96,436,637	$31,066,675	$65,369,962	$9,643,664	$129	$1,555,117	$30,931,023	$32,486,140	$433	$562
75,000	54	742	$70,543,492	$57,685,478	$12,858,013	$7,054,349	$94	$305,885	$4,856,865	$5,162,750	$69	$163
75,000	72	258	$98,174,267	$91,694,592	$6,479,675	$9,817,427	$131	$154,148	$1,689,780	$1,843,928	$25	$155
75,000	90	153	$138,192,217	$133,094,016	$5,098,201	$13,819,222	$184	$121,283	$1,003,826	$1,125,110	$15	$199
100,000	36	7978	$161,226,486	$31,066,675	$130,159,811	$16,122,649	$161	$3,078,668	$69,644,659	$72,723,327	$727	$888
100,000	54	1193	$80,301,100	$57,685,478	$22,615,621	$8,030,110	$80	$534,927	$10,418,024	$10,952,950	$110	$190
100,000	72	369	$101,247,410	$91,694,592	$9,552,818	$10,124,741	$101	$225,953	$3,224,088	$3,450,041	$35	$136
100,000	90	191	$139,817,584	$133,094,016	$6,723,568	$13,981,758	$140	$159,032	$1,665,967	$1,824,999	$18	$158

LENGTH = 290400 FEET START ELEV = 200 STATIC HEAD= 400 Cost Index = 3000 Debt Factor: 0.10
55.0 MILES END ELEV = 600 LINE SLOPE = 7 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW (AF/YR)	PIPE SIZE	TDH	TOTAL CAPITAL COSTS	COST PIPE	COST PUMP	DEBT PAYMENTS $$ PER YEAR	DEBT PAYMENTS $$ / AF	ANNUAL OPERATING COSTS PUMP	ANNUAL OPERATING COSTS ENERGY	ANNUAL OPERATING COSTS TOTAL	ANNUAL OPERATING COSTS $$ / AF	TOTAL $$ / AF
25,000	36	1324	$57,626,595	$47,462,976	$10,163,619	$5,762,659	$231	$247,158	$2,888,898	$3,136,057	$125	$356
25,000	54	528	$93,101,396	$88,130,592	$4,970,804	$9,310,140	$372	$120,880	$1,152,732	$1,273,612	$51	$423
25,000	72	432	$144,429,021	$140,088,960	$4,340,061	$14,442,902	$578	$105,541	$941,849	$1,047,391	$42	$620
25,000	90	411	$207,541,530	$203,338,080	$4,203,450	$20,754,153	$830	$102,219	$896,174	$998,394	$40	$870
50,000	36	3734	$87,822,017	$47,462,976	$40,359,041	$8,782,202	$176	$967,938	$16,299,681	$17,267,619	$345	$521
50,000	54	863	$99,280,075	$88,130,592	$11,149,483	$9,928,008	$199	$267,400	$3,765,837	$4,033,237	$81	$279
50,000	72	514	$147,690,518	$140,088,960	$7,601,558	$14,769,052	$295	$182,309	$2,243,419	$2,425,729	$49	$344
50,000	90	438	$210,171,199	$203,338,080	$6,833,119	$21,017,120	$420	$163,880	$1,913,682	$2,077,561	$42	$462
75,000	36	7465	$148,969,694	$47,462,976	$101,506,718	$14,896,969	$199	$2,414,791	$48,874,282	$51,289,073	$684	$882
75,000	54	1381	$109,410,722	$88,130,592	$21,280,130	$10,941,072	$146	$506,243	$9,038,763	$9,545,006	$127	$273
75,000	72	642	$151,624,406	$140,088,960	$11,535,446	$15,162,441	$202	$274,422	$4,200,160	$4,474,582	$60	$262
75,000	90	481	$212,762,942	$203,338,080	$9,424,862	$21,276,294	$284	$224,212	$3,152,176	$3,376,388	$45	$329
100,000	36	12436	$248,284,902	$47,462,976	$200,821,926	$24,828,490	$248	$4,750,038	$108,559,633	$113,309,671	$1,133	$1,381
100,000	54	2071	$124,648,895	$88,130,592	$36,518,303	$12,464,889	$125	$863,767	$18,074,495	$18,938,262	$189	$314
100,000	72	811	$156,650,201	$140,088,960	$16,561,241	$15,665,020	$157	$391,723	$7,083,761	$7,475,484	$75	$231
100,000	90	539	$215,576,856	$203,338,080	$12,238,776	$21,557,686	$216	$289,484	$4,703,297	$4,992,781	$50	$266

LENGTH = 374880 FEET START ELEV = 200 STATIC HEAD= 350 Cost Index = 3000 Debt Factor: 0.10
71.0 MILES END ELEV = 550 LINE SLOPE = 5 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW	PIPE		TOTAL	COST	COST	DEBT PAYMENTS		ANNUAL OPERATING COSTS				TOTAL
(AF/YR)	SIZE	TDH	CAPITAL COSTS	PIPE	PUMP	$$ PER YEAR	$$ / AF	PUMP	ENERGY	TOTAL	$$ / AF	$$ / AF
25,000	36	1543	$72,861,739	$61,270,387	$11,591,352	$7,286,174	$291	$281,878	$3,366,246	$3,648,125	$146	$437
25,000	54	516	$118,656,482	$113,768,582	$4,887,900	$11,865,648	$475	$118,864	$1,125,013	$1,243,877	$50	$524
25,000	72	391	$184,915,780	$180,842,112	$4,073,668	$18,491,578	$740	$99,063	$852,783	$951,846	$38	$778
25,000	90	364	$266,388,291	$262,490,976	$3,897,315	$26,638,829	$1,066	$94,775	$793,821	$888,596	$36	$1,101
50,000	36	4655	$110,987,623	$61,270,387	$49,717,236	$11,098,762	$222	$1,192,377	$20,315,290	$21,507,667	$430	$652
50,000	54	947	$125,778,934	$113,768,582	$12,010,352	$12,577,893	$252	$288,046	$4,135,236	$4,423,282	$88	$340
50,000	72	497	$188,272,415	$180,842,112	$7,430,303	$18,827,241	$377	$178,202	$2,169,934	$2,348,136	$47	$424
50,000	90	400	$268,929,294	$262,490,976	$6,438,318	$26,892,929	$538	$154,411	$1,744,272	$1,898,684	$38	$576
75,000	36	9471	$189,217,795	$61,270,387	$127,947,408	$18,921,780	$252	$3,043,801	$62,003,080	$65,046,881	$867	$1,120
75,000	54	1616	$138,150,760	$113,768,582	$24,382,177	$13,815,076	$184	$580,039	$10,579,046	$11,159,085	$149	$333
75,000	72	662	$192,644,788	$180,842,112	$11,802,676	$19,264,479	$257	$280,779	$4,332,850	$4,613,629	$62	$318
75,000	90	455	$271,569,080	$262,490,976	$9,078,104	$27,156,908	$362	$215,963	$2,979,997	$3,195,961	$43	$405
100,000	36	15888	$316,800,335	$61,270,387	$255,529,947	$31,680,033	$317	$6,044,046	$138,688,384	$144,732,429	$1,447	$1,764
100,000	54	2507	$157,197,489	$113,768,582	$43,428,906	$15,719,749	$157	$1,027,223	$21,880,296	$22,907,520	$229	$386
100,000	72	881	$198,508,266	$180,842,112	$17,666,154	$19,850,827	$199	$417,857	$7,692,258	$8,110,115	$81	$280
100,000	90	529	$274,577,221	$262,490,976	$12,086,245	$27,457,722	$275	$285,876	$4,619,295	$4,905,171	$49	$324

LENGTH = 253440 FEET START ELEV = 200 STATIC HEAD= 250 Cost Index = 3000 Debt Factor: 0.10
48.0 MILES END ELEV = 450 LINE SLOPE = 5 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW	PIPE		TOTAL	COST	COST	DEBT PAYMENTS		ANNUAL OPERATING COSTS				TOTAL
(AF/YR)	SIZE	TDH	CAPITAL COSTS	PIPE	PUMP	$$ PER YEAR	$$ / AF	PUMP	ENERGY	TOTAL	$$ / AF	$$ / AF
25,000	36	1056	$49,839,350	$41,422,234	$8,417,117	$4,983,935	$199	$204,687	$2,304,972	$2,509,659	$100	$300
25,000	54	362	$80,799,177	$76,913,971	$3,885,205	$8,079,918	$323	$94,480	$789,773	$884,253	$35	$359
25,000	72	278	$125,594,195	$122,259,456	$3,334,739	$12,559,420	$502	$81,094	$605,730	$686,824	$27	$530
25,000	90	259	$180,674,202	$177,458,688	$3,215,514	$18,067,420	$723	$78,195	$565,868	$644,063	$26	$748
50,000	36	3160	$75,938,823	$41,422,234	$34,516,590	$7,593,882	$152	$827,817	$13,792,681	$14,620,498	$292	$444
50,000	54	654	$85,938,583	$76,913,971	$9,024,611	$8,593,858	$172	$216,439	$2,854,053	$3,070,491	$61	$233
50,000	72	349	$128,187,696	$122,259,456	$5,928,240	$12,818,770	$256	$142,178	$1,525,397	$1,667,575	$33	$290
50,000	90	284	$182,716,291	$177,458,688	$5,257,603	$18,271,629	$365	$126,094	$1,237,626	$1,363,720	$27	$393
75,000	36	6416	$129,094,941	$41,422,234	$87,672,707	$12,909,494	$172	$2,085,687	$42,005,175	$44,090,862	$588	$760
75,000	54	1106	$94,570,747	$76,913,971	$17,656,776	$9,457,075	$126	$420,045	$7,239,631	$7,659,676	$102	$228
75,000	72	461	$131,411,781	$122,259,456	$9,152,325	$13,141,178	$175	$217,729	$3,016,851	$3,234,580	$43	$218
75,000	90	321	$184,769,048	$177,458,688	$7,310,360	$18,476,905	$246	$173,910	$2,102,246	$2,276,156	$30	$277
100,000	36	10754	$215,585,064	$41,422,234	$174,162,830	$21,558,506	$216	$4,119,471	$93,877,961	$97,997,432	$980	$1,196
100,000	54	1708	$107,684,548	$76,913,971	$30,770,577	$10,768,455	$108	$727,816	$14,909,113	$15,636,929	$156	$264
100,000	72	609	$135,612,962	$122,259,456	$13,353,506	$13,561,296	$136	$315,850	$5,317,200	$5,633,050	$56	$192
100,000	90	371	$187,039,861	$177,458,688	$9,581,173	$18,703,986	$187	$226,623	$3,239,704	$3,466,327	$35	$222

LENGTH = 306240 FEET START ELEV = 50 STATIC HEAD= 200 Cost Index = 3000 Debt Factor: 0.10
58.0 MILES END ELEV = 250 LINE SLOPE = 3 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW	PIPE		TOTAL	COST	COST	DEBT PAYMENTS		ANNUAL OPERATING COSTS				TOTAL
(AF/YR)	SIZE	TDH	CAPITAL COSTS	PIPE	PUMP	$$ PER YEAR	$$ / AF	PUMP	ENERGY	TOTAL	$$ / AF	$$ / AF
25,000	36	1174	$59,238,929	$50,051,866	$9,187,064	$5,923,893	$237	$223,411	$2,562,397	$2,785,807	$111	$348
25,000	54	335	$96,648,720	$92,937,715	$3,711,004	$9,664,872	$387	$90,244	$731,530	$821,774	$33	$419
25,000	72	233	$150,776,034	$147,730,176	$3,045,858	$15,077,603	$603	$74,069	$509,145	$583,214	$23	$626
25,000	90	211	$217,331,043	$214,429,248	$2,901,795	$21,733,104	$869	$70,566	$460,979	$531,545	$21	$891
50,000	36	3716	$90,226,609	$50,051,866	$40,174,744	$9,022,661	$180	$963,518	$16,220,599	$17,184,117	$344	$524
50,000	54	688	$102,309,652	$92,937,715	$9,371,937	$10,230,965	$205	$224,769	$3,003,090	$3,227,859	$65	$269
50,000	72	320	$153,360,665	$147,730,176	$5,630,489	$15,336,066	$307	$135,037	$1,397,632	$1,532,669	$31	$337
50,000	90	241	$219,249,383	$214,429,248	$4,820,135	$21,924,938	$438	$115,602	$1,049,909	$1,165,511	$23	$462
75,000	36	7651	$154,002,781	$50,051,866	$103,950,916	$15,400,278	$205	$2,472,937	$50,087,919	$52,560,856	$701	$906
75,000	54	1234	$112,286,048	$92,937,715	$19,348,333	$11,228,605	$150	$460,287	$8,079,553	$8,539,839	$114	$264
75,000	72	455	$156,802,296	$147,730,176	$9,072,120	$15,680,230	$209	$215,821	$2,977,026	$3,192,847	$43	$252
75,000	90	286	$221,275,662	$214,429,248	$6,846,414	$22,127,566	$295	$162,873	$1,871,879	$2,034,752	$27	$322
100,000	36	12893	$258,110,009	$50,051,866	$208,058,144	$25,811,001	$258	$4,921,196	$112,544,756	$117,465,952	$1,175	$1,433
100,000	54	1962	$127,730,220	$92,937,715	$34,792,504	$12,773,022	$128	$822,947	$17,124,065	$17,947,012	$179	$307
100,000	72	634	$161,477,052	$147,730,176	$13,746,876	$16,147,705	$161	$325,155	$5,533,836	$5,858,991	$59	$220
100,000	90	346	$223,617,888	$214,429,248	$9,188,640	$22,361,789	$224	$217,339	$3,023,529	$3,240,868	$32	$256

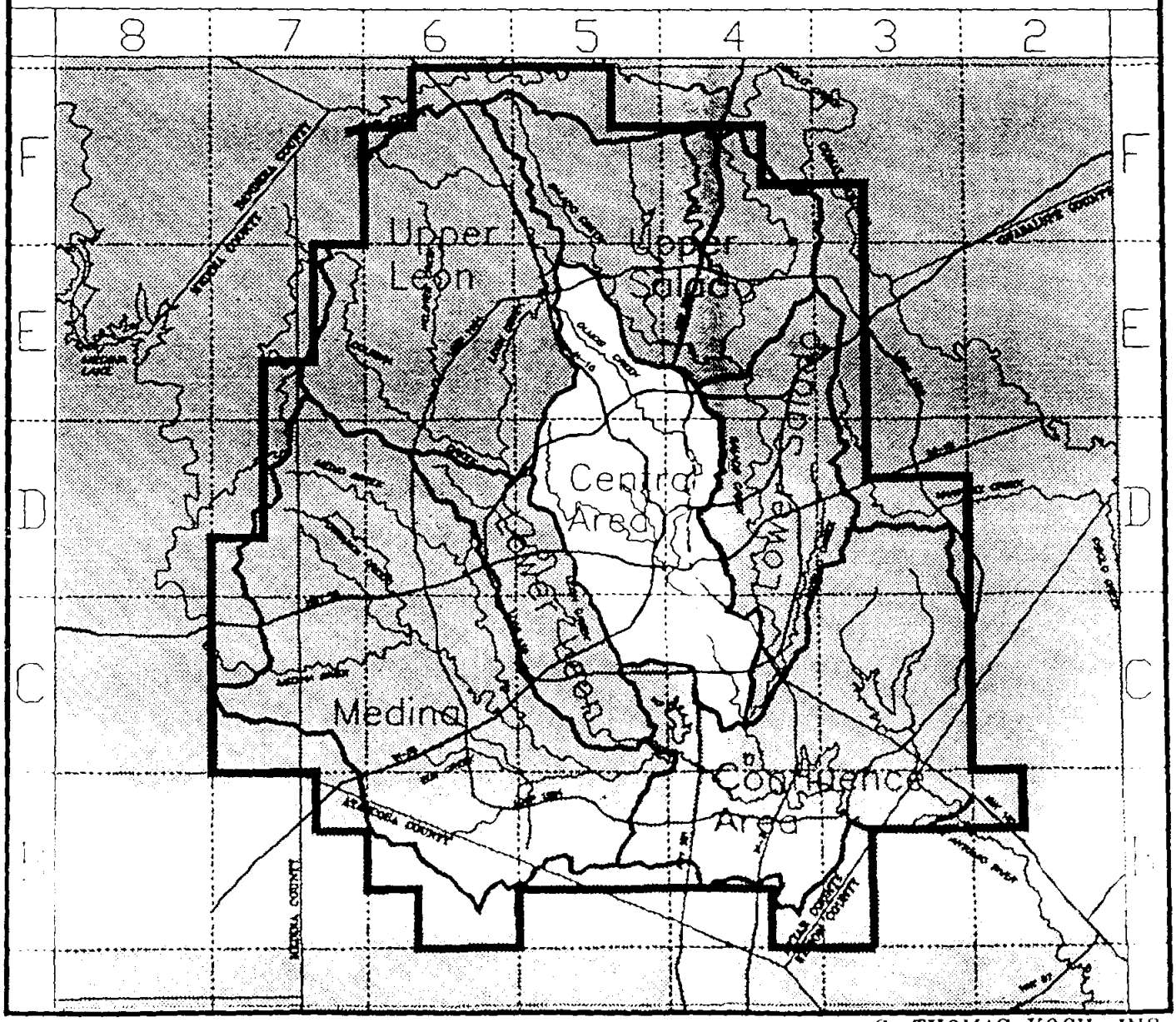
LENGTH = 322080 FEET START ELEV = 50 STATIC HEAD= 150 Cost Index = 3000 Debt Factor: 0.10
61.0 MILES END ELEV = 200 LINE SLOPE = 2 Peaking Factor: 1.50 $$ per kwhr: $0.06

AVE FLOW (AF/YR)	PIPE SIZE	TDH	TOTAL CAPITAL COSTS	COST PIPE	COST PUMP	DEBT PAYMENTS $$ PER YEAR	DEBT PAYMENTS $$ / AF	ANNUAL OPERATING COSTS PUMP	ANNUAL OPERATING COSTS ENERGY	ANNUAL OPERATING COSTS TOTAL	ANNUAL OPERATING COSTS $$ / AF	TOTAL $$ / AF
25,000	36	1175	$61,830,350	$52,640,755	$9,189,594	$6,183,035	$247	$223,472	$2,563,243	$2,786,715	$111	$359
25,000	54	292	$101,175,129	$97,744,838	$3,430,291	$10,117,513	$405	$83,418	$637,676	$721,094	$29	$434
25,000	72	185	$158,102,132	$155,371,392	$2,730,740	$15,810,213	$632	$66,406	$403,788	$470,194	$19	$651
25,000	90	162	$228,099,641	$225,520,416	$2,579,225	$22,809,964	$912	$62,721	$353,131	$415,852	$17	$929
50,000	36	3848	$94,156,940	$52,640,755	$41,516,185	$9,415,694	$188	$995,690	$16,796,212	$17,791,902	$356	$544
50,000	54	663	$106,864,967	$97,744,838	$9,120,129	$10,686,497	$214	$218,730	$2,895,039	$3,113,769	$62	$276
50,000	72	276	$160,556,550	$155,371,392	$5,185,158	$16,055,655	$321	$124,357	$1,206,540	$1,330,897	$27	$348
50,000	90	193	$229,853,305	$225,520,416	$4,332,889	$22,985,331	$460	$103,916	$840,831	$944,747	$19	$479
75,000	36	7986	$161,013,651	$52,640,755	$108,372,896	$16,101,365	$215	$2,578,134	$52,283,598	$54,861,732	$731	$946
75,000	54	1238	$117,139,156	$97,744,838	$19,394,317	$11,713,916	$156	$461,380	$8,102,386	$8,563,766	$114	$270
75,000	72	418	$163,957,969	$155,371,392	$8,586,577	$16,395,797	$219	$204,270	$2,735,936	$2,940,206	$39	$258
75,000	90	240	$231,766,163	$225,520,416	$6,245,747	$23,176,616	$309	$148,583	$1,573,626	$1,722,209	$23	$332
100,000	36	13499	$270,312,719	$52,640,755	$217,671,964	$27,031,272	$270	$5,148,592	$117,839,270	$122,987,862	$1,230	$1,500
100,000	54	2003	$133,189,147	$97,744,838	$35,444,309	$13,318,915	$133	$838,364	$17,483,026	$18,321,390	$183	$316
100,000	72	606	$168,681,505	$155,371,392	$13,310,113	$16,868,151	$169	$314,824	$5,293,303	$5,608,127	$56	$225
100,000	90	304	$234,036,523	$225,520,416	$8,516,107	$23,403,652	$234	$201,431	$2,653,152	$2,854,583	$29	$263

LENGTH = 179520 FEET START ELEV = 500 STATIC HEAD= 150 Cost Index = 3000 Debt Factor: 0.10
34.0 MILES END ELEV = 650 LINE SLOPE = 4 Peaking Factor: 1.50 $ per kwhr: $0.06

AVE FLOW	PIPE		TOTAL	COST	COST	DEBT PAYMENTS		ANNUAL OPERATING COSTS				TOTAL
(AF/YR)	SIZE	TDH	CAPITAL COSTS	PIPE	PUMP	$ PER YEAR	$ / AF	PUMP	ENERGY	TOTAL	$ / AF	$ / AF
25,000	36	721	$35,570,309	$29,340,749	$6,229,560	$3,557,031	$142	$151,490	$1,573,584	$1,725,074	$69	$211
25,000	54	229	$57,500,186	$54,480,730	$3,019,456	$5,750,019	$230	$73,427	$500,318	$573,745	$23	$253
25,000	72	170	$89,229,990	$86,600,448	$2,629,542	$8,922,999	$357	$63,945	$369,954	$433,899	$17	$374
25,000	90	157	$128,244,996	$125,699,904	$2,545,092	$12,824,500	$513	$61,891	$341,719	$403,610	$16	$529
50,000	36	2211	$54,206,752	$29,340,749	$24,866,003	$5,420,675	$108	$596,366	$9,651,607	$10,247,972	$205	$313
50,000	54	436	$61,289,915	$54,480,730	$6,809,186	$6,128,992	$123	$163,306	$1,903,412	$2,066,718	$41	$164
50,000	72	220	$91,216,371	$86,600,448	$4,615,923	$9,121,637	$182	$110,704	$962,281	$1,072,985	$21	$204
50,000	90	174	$129,840,792	$125,699,904	$4,140,888	$12,984,079	$260	$99,312	$758,443	$857,755	$17	$277
75,000	36	4518	$91,982,477	$29,340,749	$62,641,728	$9,198,248	$123	$1,490,213	$29,576,353	$31,066,566	$414	$537
75,000	54	756	$67,527,840	$54,480,730	$13,047,111	$6,752,784	$90	$310,384	$4,950,759	$5,261,142	$70	$160
75,000	72	299	$93,623,572	$86,600,448	$7,023,124	$9,362,357	$125	$167,076	$1,959,623	$2,126,699	$28	$153
75,000	90	200	$131,418,303	$125,699,904	$5,718,399	$13,141,830	$175	$136,038	$1,311,778	$1,447,815	$19	$195
100,000	36	7591	$153,355,525	$29,340,749	$124,014,776	$15,335,552	$153	$2,933,320	$66,260,471	$69,193,791	$692	$845
100,000	54	1183	$76,925,993	$54,480,730	$22,445,263	$7,692,599	$77	$530,897	$10,324,204	$10,855,102	$109	$185
100,000	72	404	$96,708,619	$86,600,448	$10,108,171	$9,670,862	$97	$239,088	$3,529,932	$3,769,020	$38	$134
100,000	90	236	$133,136,006	$125,699,904	$7,436,102	$13,313,601	$133	$175,886	$2,058,373	$2,234,259	$22	$155

Central



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C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

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Watershed CENTRAL
Year 1990

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	27.0
		1990 Percent Use	95.0	1990 Percent Use	51.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	145,350
Gain (1990-1990)	0	Gain (1990-1990)	0	Gain (1990-1990)	0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	145,350

Strategic Plan CE-01
Reclaimed Water Target = 0 %

Watershed CENTRAL
(all flows in acre feet per year)

Year 1990

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	87,210	DESTINATION OF LEFTOVER WATER	
Total Water Use	145,350	Edwards Aquifer	87,210	Total Leftover Water	87,210
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	87,210
				Transported Into Watershed	0
Make Up Requirements	145,350	OUTDOOR WATER USE (40.0 %)	58,140		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	145,350	Edwards Aquifer	58,140	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	0	Imported Reclaimed Water	0		
		Imported Drinking Water	0	Total Released To River	0

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Watershed CENTRAL
Year 1990

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	27.0
		1990 Percent Use	95.0	1990 Percent Use	51.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	145,350
Gain (1990-1990)	0	Gain (1990-1990)	0	Gain (1990-1990)	0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	145,350

Strategic Plan CE-01
Reclaimed Water Target = 20 %

Watershed CENTRAL
(all flows in acre feet per year)

Year 1990

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	87,210	DESTINATION OF LEFTOVER WATER	
Total Water Use	145,350	Edwards Aquifer	87,210	Total Leftover Water	87,210
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	87,210
Make Up Requirements	145,350	OUTDOOR WATER USE (40.0 %)	58,140	Transported Into Watershed	0
Edwards Aquifer	145,350	Edwards Aquifer	58,140	WATER RECLAMATION FACILITY	
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed Within Watershed	0
Imported Drinking Water	0	Imported Reclaimed Water	0	Reclaimed in Other Watersheds	0
		Imported Drinking Water	0	Total Released To River	0

Watershed CENTRAL
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	27.0
		1990 Percent Use	95.0	1990 Percent Use	51.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	145,350
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	15,736
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	161,086

Strategic Plan CE-01 — Watershed CENTRAL — Year 2000
Reclaimed Water Target = 0 % (all flows in acre feet per year)

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	96,651	DESTINATION OF LEFTOVER WATER	
Total Water Use	161,086	Edwards Aquifer	96,651	Total Leftover Water	96,651
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	96,651
				Transported Into Watershed	0
Make Up Requirements	161,086	OUTDOOR WATER USE (40.0 %)	64,434		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	145,350	Edwards Aquifer	48,699	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	15,736	Imported Reclaimed Water	0		
		Imported Drinking Water	15,736	Total Released To River	0

Watershed CENTRAL
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	27.0
		1990 Percent Use	95.0	1990 Percent Use	51.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	145,350
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	15,736
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	161,086

Strategic Plan CE-01
Reclaimed Water Target = 20 %

Watershed CENTRAL
(all flows in acre feet per year)

Year 2000

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	96,651	DESTINATION OF LEFTOVER WATER	
Total Water Use	161,086	Edwards Aquifer	96,651	Total Leftover Water	96,651
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	96,651
				Transported Into Watershed	0
Make Up Requirements	161,086	OUTDOOR WATER USE (40.0 %)	64,434		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	145,350	Edwards Aquifer	48,699	Reclaimed Within Watershed	0
Imported Reclaimed Water	12,887	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	2,849	Imported Reclaimed Water	12,887		
		Imported Drinking Water	2,849	Total Released To River	0

Watershed CENTRAL
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	27.0
		1990 Percent Use	95.0	1990 Percent Use	51.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	145,350
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	31,471
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	176,821

Strategic Plan CE-01 — Watershed CENTRAL — Year 2010
Reclaimed Water Target = 0 %
(all flows in acre feet per year)

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	106,093	DESTINATION OF LEFTOVER WATER	
Total Water Use	176,821	Edwards Aquifer	106,093	Total Leftover Water	106,093
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	106,093
Make Up Requirements	176,821	OUTDOOR WATER USE (40.0 %)	70,728	Transported Into Watershed	0
				WATER RECLAMATION FACILITY	
Edwards Aquifer	145,350	Edwards Aquifer	39,257	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	31,471	Imported Reclaimed Water	0		
		Imported Drinking Water	31,471	Total Released To River	0

Watershed CENTRAL
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	27.0
		1990 Percent Use	95.0	1990 Percent Use	51.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	145,350
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	31,471
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	176,821

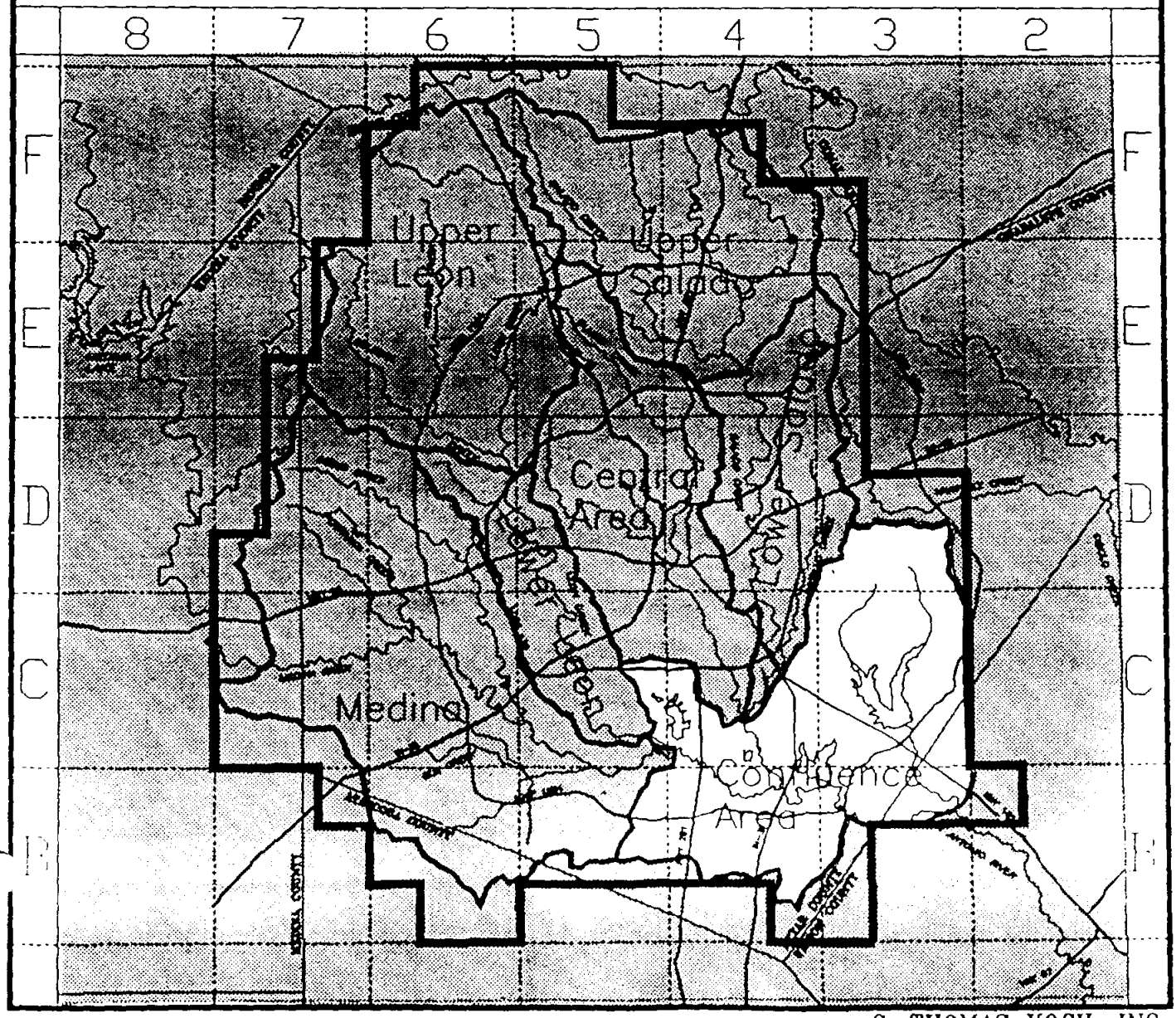
Strategic Plan CE-01
Reclaimed Water Target = 20 %

Watershed CENTRAL
(all flows in acre feet per year)

Year 2010

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	106,093	DESTINATION OF LEFTOVER WATER	
Total Water Use	176,821	Edwards Aquifer	106,093	Total Leftover Water	106,093
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	106,093
				Transported Into Watershed	0
Make Up Requirements	176,821	OUTDOOR WATER USE (40.0 %)	70,728		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	145,350	Edwards Aquifer	39,257	Reclaimed Within Watershed	0
Imported Reclaimed Water	14,146	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	17,326	Imported Reclaimed Water	14,146		
		Imported Drinking Water	17,326	Total Released To River	0

Confluence



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C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

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Watershed CONFLUENCE
Year 1990

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	1.0
		1990 Percent Use	95.0	1990 Percent Use	1.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	2,850
Gain (1990-1990)	0	Gain (1990-1990)	0	Gain (1990-1990)	0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	2,850

Strategic Plan CO-01
Reclaimed Water Target = 0 %

Watershed CONFLUENCE
(all flows in acre feet per year)

Year 1990

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	1,710	DESTINATION OF LEFTOVER WATER	
Total Water Use	2,850	Edwards Aquifer	1,710	Total Leftover Water	1,710
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	0
				Transported Into Watershed	167,580
Make Up Requirements	2,850	OUTDOOR WATER USE (40.0 %)	1,140		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	2,850	Edwards Aquifer	1,140	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	0	Imported Reclaimed Water	0		
		Imported Drinking Water	0	Total Released To River	169,290

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Watershed CONFLUENCE
Year 1990

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	1.0
		1990 Percent Use	95.0	1990 Percent Use	1.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	2,850
Gain (1990-1990)	0	Gain (1990-1990)	0	Gain (1990-1990)	0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	2,850

Strategic Plan CO-01
Reclaimed Water Target = 20 %

Watershed CONFLUENCE
(all flows in acre feet per year)

Year 1990

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	1,710	DESTINATION OF LEFTOVER WATER	
Total Water Use	2,850	Edwards Aquifer	1,710	Total Leftover Water	1,710
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	0
				Transported Into Watershed	167,580
Make Up Requirements	2,850	OUTDOOR WATER USE (40.0 %)	1,140		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	2,850	Edwards Aquifer	1,140	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	0	Imported Reclaimed Water	0		
		Imported Drinking Water	0	Total Released To River	169,290

Watershed CONFLUENCE
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	1.0
		1990 Percent Use	95.0	1990 Percent Use	1.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	2,850
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	583
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	3,433

Strategic Plan CO-01
Reclaimed Water Target = 0 %

Watershed CONFLUENCE
(all flows in acre feet per year)

Year 2000

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	2,060	DESTINATION OF LEFTOVER WATER	
Total Water Use	3,433	Edwards Aquifer	2,060	Total Leftover Water	2,060
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	0
Make Up Requirements	3,433	OUTDOOR WATER USE (40.0 %)	1,373	Transported Into Watershed	202,198
Edwards Aquifer	2,850	Edwards Aquifer	790	WATER RECLAMATION FACILITY	
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed Within Watershed	0
Imported Drinking Water	583	Imported Reclaimed Water	0	Reclaimed in Other Watersheds	27,234
		Imported Drinking Water	583	Total Released To River	177,024

Watershed CONFLUENCE
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	1.0
		1990 Percent Use	95.0	1990 Percent Use	1.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	2,850
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	583
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	3,433

Strategic Plan CO-01
Reclaimed Water Target = 20 %

Watershed CONFLUENCE
(all flows in acre feet per year)

Year 2000

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	2,060	DESTINATION OF LEFTOVER WATER	
Total Water Use	3,433	Edwards Aquifer	2,060	Total Leftover Water	2,060
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	0
				Transported Into Watershed	202,198
Make Up Requirements	3,433	OUTDOOR WATER USE (40.0 %)	1,373		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	2,850	Edwards Aquifer	790	Reclaimed Within Watershed	0
Imported Reclaimed Water	275	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	27,234
Imported Drinking Water	308	Imported Reclaimed Water	275		
		Imported Drinking Water	308	Total Released To River	177,024

Watershed CONFLUENCE
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	1.0
		1990 Percent Use	95.0	1990 Percent Use	1.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	2,850
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	1,166
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	4,016

Strategic Plan CO-01 — Watershed CONFLUENCE — Year 2010
Reclaimed Water Target = 0 %
(all flows in acre feet per year)

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	2,409	DESTINATION OF LEFTOVER WATER	
Total Water Use	4,016	Edwards Aquifer	2,409	Total Leftover Water	2,409
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	0
				Transported Into Watershed	236,817
Make Up Requirements	4,016	OUTDOOR WATER USE (40.0 %)	1,606		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	2,850	Edwards Aquifer	441	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	31,897
Imported Drinking Water	1,166	Imported Reclaimed Water	0		
		Imported Drinking Water	1,166	Total Released To River	207,329

Watershed CONFLUENCE
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	1.0
		1990 Percent Use	95.0	1990 Percent Use	1.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	2,850
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	1,166
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	4,016

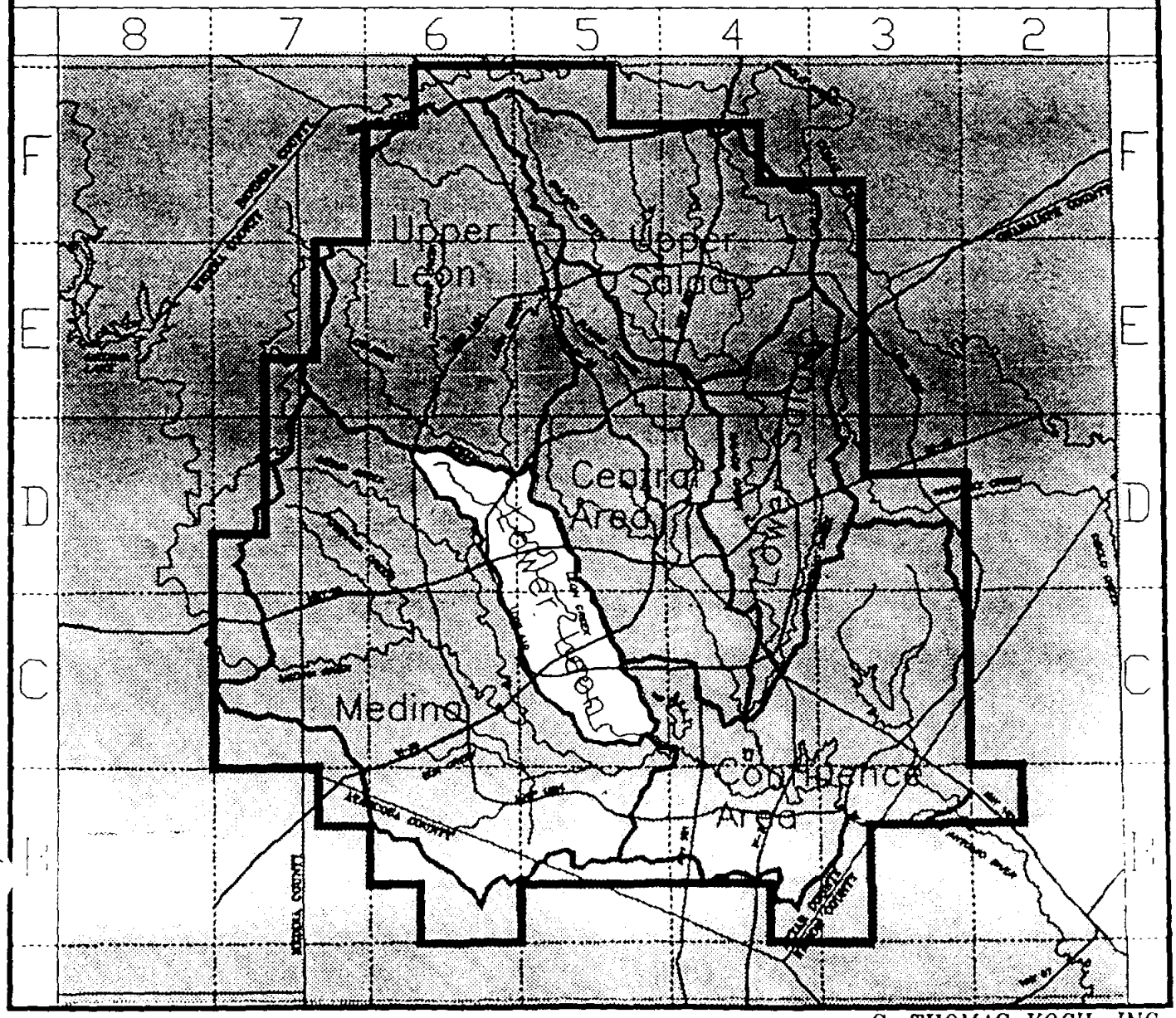
Strategic Plan CO-01
Reclaimed Water Target = 20 %

Watershed CONFLUENCE
(all flows in acre feet per year)

Year 2010

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	2,409	DESTINATION OF LEFTOVER WATER	
Total Water Use	4,016	Edwards Aquifer	2,409	Total Leftover Water	2,409
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	0
				Transported Into Watershed	236,817
Make Up Requirements	4,016	OUTDOOR WATER USE (40.0 %)	1,606		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	2,850	Edwards Aquifer	441	Reclaimed Within Watershed	0
Imported Reclaimed Water	321	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	31,897
Imported Drinking Water	844	Imported Reclaimed Water	321		
		Imported Drinking Water	844	Total Released To River	207,329

Lower Leon



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C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Watershed LOWER LEON
Year 1990

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	5.0
		1990 Percent Use	95.0	1990 Percent Use	6.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	17,100
Gain (1990-1990)	0	Gain (1990-1990)	0	Gain (1990-1990)	0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	17,100

Strategic Plan LL-01
Reclaimed Water Target = 0 %

Watershed LOWER LEON
(all flows in acre feet per year)

Year 1990

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	10,260	DESTINATION OF LEFTOVER WATER	
Total Water Use	17,100	Edwards Aquifer	10,260	Total Leftover Water	10,260
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	10,260
Make Up Requirements	17,100	OUTDOOR WATER USE (40.0 %)	6,840	Transported Into Watershed	0
				WATER RECLAMATION FACILITY	
Edwards Aquifer	17,100	Edwards Aquifer	6,840	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	0	Imported Reclaimed Water	0		
		Imported Drinking Water	0	Total Released To River	0

Watershed LOWER LEON
Year 1990

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	5.0
		1990 Percent Use	95.0	1990 Percent Use	6.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	17,100
Gain (1990-1990)	0	Gain (1990-1990)	0	Gain (1990-1990)	0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	17,100

Strategic Plan LL-01
Reclaimed Water Target = 20 %

Watershed LOWER LEON
(all flows in acre feet per year)

Year 1990

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	10,260	DESTINATION OF LEFTOVER WATER	
Total Water Use	17,100	Edwards Aquifer	10,260	Total Leftover Water	10,260
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	10,260
				Transported Into Watershed	0
Make Up Requirements	17,100	OUTDOOR WATER USE (40.0 %)	6,840		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	17,100	Edwards Aquifer	6,840	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	0	Imported Reclaimed Water	0		
		Imported Drinking Water	0	Total Released To River	0

Watershed LOWER LEON
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	5.0
		1990 Percent Use	95.0	1990 Percent Use	6.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	17,100
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	2,914
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	20,014

Strategic Plan LL-01
Reclaimed Water Target = 0 %

Watershed LOWER LEON
(all flows in acre feet per year)

Year 2000

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	12,008	DESTINATION OF LEFTOVER WATER	
Total Water Use	20,014	Edwards Aquifer	12,008	Total Leftover Water	12,008
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	12,008
				Transported Into Watershed	0
Make Up Requirements	20,014	OUTDOOR WATER USE (40.0 %)	8,006		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	17,100	Edwards Aquifer	5,092	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	2,914	Imported Reclaimed Water	0		
		Imported Drinking Water	2,914	Total Released To River	0

Watershed LOWER LEON
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	5.0
		1990 Percent Use	95.0	1990 Percent Use	6.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	17,100
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	2,914
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	20,014

Strategic Plan LL-01
Reclaimed Water Target = 20 %

Watershed LOWER LEON
(all flows in acre feet per year)

Year 2000

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	12,008	DESTINATION OF LEFTOVER WATER	
Total Water Use	20,014	Edwards Aquifer	12,008	Total Leftover Water	12,008
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	12,008
				Transported Into Watershed	0
Make Up Requirements	20,014	OUTDOOR WATER USE (40.0 %)	8,006		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	17,100	Edwards Aquifer	5,092	Reclaimed Within Watershed	0
Imported Reclaimed Water	1,601	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	1,313	Imported Reclaimed Water	1,601		
		Imported Drinking Water	1,313	Total Released To River	0

Watershed LOWER LEON
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	5.0
		1990 Percent Use	95.0	1990 Percent Use	6.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	17,100
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	5,828
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	22,928

Strategic Plan LL-01
Reclaimed Water Target = 0 %

Watershed LOWER LEON
(all flows in acre feet per year)

Year 2010

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	13,757	DESTINATION OF LEFTOVER WATER	
Total Water Use	22,928	Edwards Aquifer	13,757	Total Leftover Water	13,757
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	13,757
Make Up Requirements	22,928			Transported Into Watershed	0
		OUTDOOR WATER USE (40.0 %)	9,171		
Edwards Aquifer	17,100			WATER RECLAMATION FACILITY	
Imported Reclaimed Water	0	Edwards Aquifer	3,343	Reclaimed Within Watershed	0
Imported Drinking Water	5,828	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
		Imported Reclaimed Water	0		
		Imported Drinking Water	5,828	Total Released To River	0

Watershed LOWER LEON
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	5.0
		1990 Percent Use	95.0	1990 Percent Use	6.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	17,100
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	5,828
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	22,928

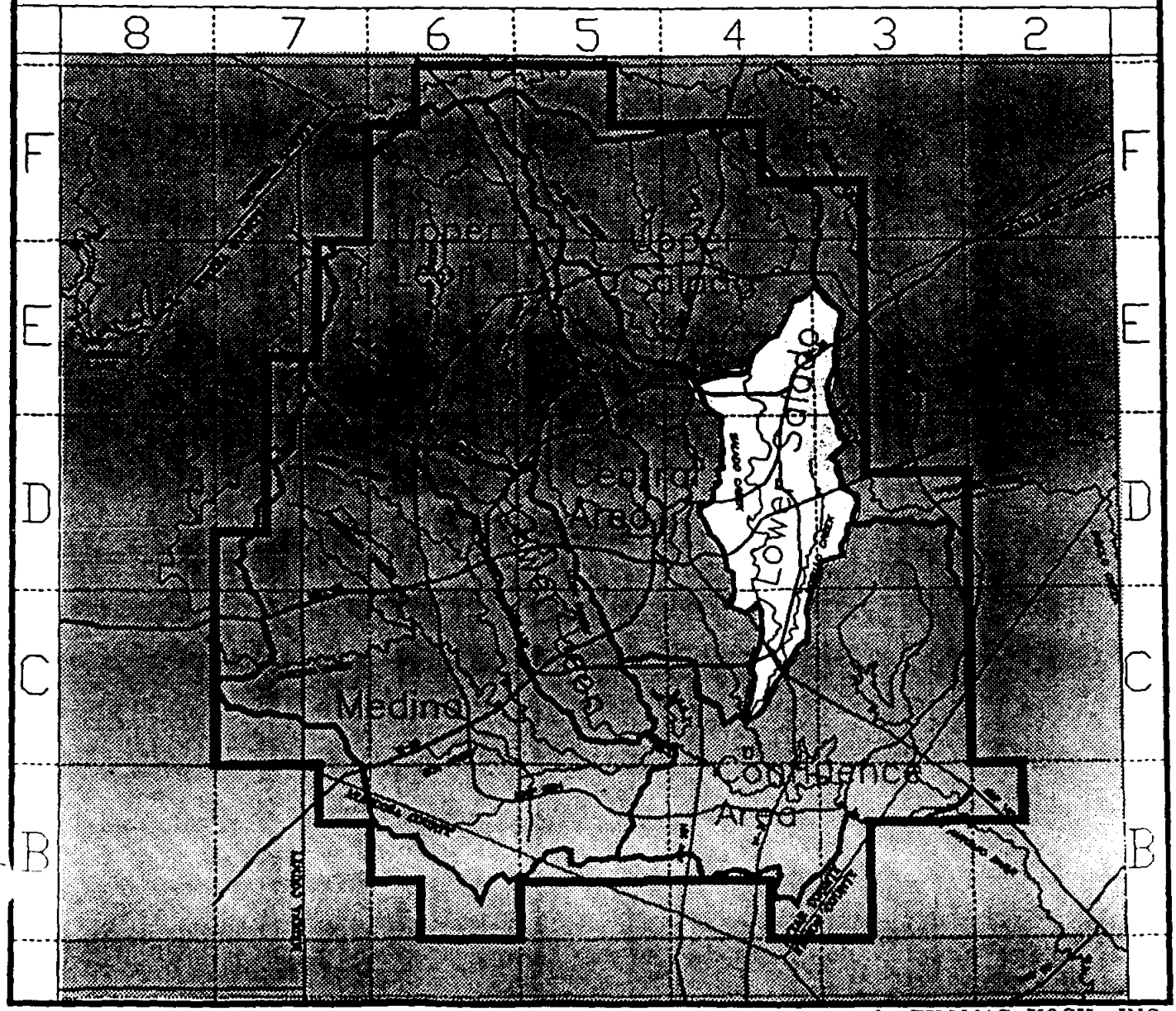
Strategic Plan LL-01
Reclaimed Water Target = 20 %

Watershed LOWER LEON
(all flows in acre feet per year)

Year 2010

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	13,757	DESTINATION OF LEFTOVER WATER	
Total Water Use	22,928	Edwards Aquifer	13,757	Total Leftover Water	13,757
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	13,757
Make Up Requirements	22,928	OUTDOOR WATER USE (40.0 %)	9,171	Transported Into Watershed	0
				WATER RECLAMATION FACILITY	
Edwards Aquifer	17,100	Edwards Aquifer	3,343	Reclaimed Within Watershed	0
Imported Reclaimed Water	1,834	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	3,994	Imported Reclaimed Water	1,834		
		Imported Drinking Water	3,994	Total Released To River	0

Lower Salado



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C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Watershed LOWER SALADO
Year 1990

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	17.0
		1990 Percent Use	95.0	1990 Percent Use	16.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	45,600
Gain (1990-1990)	0	Gain (1990-1990)	0	Gain (1990-1990)	0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	45,600

Strategic Plan LS-01
Reclaimed Water Target = 0 %

Watershed LOWER SALADO
(all flows in acre feet per year)

Year 1990

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	27,360	DESTINATION OF LEFTOVER WATER	
Total Water Use	45,600	Edwards Aquifer	27,360	Total Leftover Water	27,360
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	27,360
				Transported Into Watershed	0
Make Up Requirements	45,600	OUTDOOR WATER USE (40.0 %)	18,240		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	45,600	Edwards Aquifer	18,240	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	0	Imported Reclaimed Water	0		
		Imported Drinking Water	0	Total Released To River	0

Watershed LOWER SALADO
Year 1990

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	17.0
		1990 Percent Use	95.0	1990 Percent Use	16.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	45,600
Gain (1990-1990)	0	Gain (1990-1990)	0	Gain (1990-1990)	0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	45,600

Strategic Plan LS-01
Reclaimed Water Target = 20 %

Watershed LOWER SALADO
(all flows in acre feet per year)

Year 1990

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	27,360	DESTINATION OF LEFTOVER WATER	
Total Water Use	45,600	Edwards Aquifer	27,360	Total Leftover Water	27,360
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	27,360
				Transported Into Watershed	0
Make Up Requirements	45,600	OUTDOOR WATER USE (40.0 %)	18,240		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	45,600	Edwards Aquifer	18,240	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	0	Imported Reclaimed Water	0		
		Imported Drinking Water	0	Total Released To River	0

Watershed LOWER SALADO
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	17.0
		1990 Percent Use	95.0	1990 Percent Use	16.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	45,600
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	9,908
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	55,508

Strategic Plan LS-01
Reclaimed Water Target = 0 %

Watershed LOWER SALADO
(all flows in acre feet per year)

Year 2000

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	33,305	DESTINATION OF LEFTOVER WATER	
Total Water Use	55,508	Edwards Aquifer	33,305	Total Leftover Water	33,305
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	33,305
Make Up Requirements	55,508			Transported Into Watershed	0
		OUTDOOR WATER USE (40.0 %)	22,203		
Edwards Aquifer	45,600			WATER RECLAMATION FACILITY	
Imported Reclaimed Water	0	Edwards Aquifer	12,295	Reclaimed Within Watershed	0
Imported Drinking Water	9,908	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
		Imported Reclaimed Water	0		
		Imported Drinking Water	9,908	Total Released To River	0

Watershed LOWER SALADO
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	17.0
		1990 Percent Use	95.0	1990 Percent Use	16.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	45,600
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	9,908
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	55,508

Strategic Plan LS-01
Reclaimed Water Target = 20 %

Watershed LOWER SALADO
(all flows in acre feet per year)

Year 2000

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	33,305	DESTINATION OF LEFTOVER WATER	
Total Water Use	55,508	Edwards Aquifer	33,305	Total Leftover Water	33,305
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	33,305
Make Up Requirements	55,508			Transported Into Watershed	0
		OUTDOOR WATER USE (40.0 %)	22,203		
Edwards Aquifer	45,600			WATER RECLAMATION FACILITY	
Imported Reclaimed Water	4,441	Edwards Aquifer	12,295	Reclaimed Within Watershed	0
Imported Drinking Water	5,467	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
		Imported Reclaimed Water	4,441		
		Imported Drinking Water	5,467	Total Released To River	0

Watershed LOWER SALADO
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	17.0
		1990 Percent Use	95.0	1990 Percent Use	16.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	45,600
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	19,815
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	65,415

Strategic Plan LS-01 — Watershed LOWER SALADO — Year 2010
Reclaimed Water Target = 0 %
(all flows in acre feet per year)

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	39,249	DESTINATION OF LEFTOVER WATER	
Total Water Use	65,415	Edwards Aquifer	39,249	Total Leftover Water	39,249
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	39,249
Make Up Requirements	65,415	OUTDOOR WATER USE (40.0 %)	26,166	Transported Into Watershed	0
				WATER RECLAMATION FACILITY	
Edwards Aquifer	45,600	Edwards Aquifer	6,351	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	19,815	Imported Reclaimed Water	0		
		Imported Drinking Water	19,815	Total Released To River	0

Watershed LOWER SALADO
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	17.0
		1990 Percent Use	95.0	1990 Percent Use	16.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	45,600
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	19,815
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	65,415

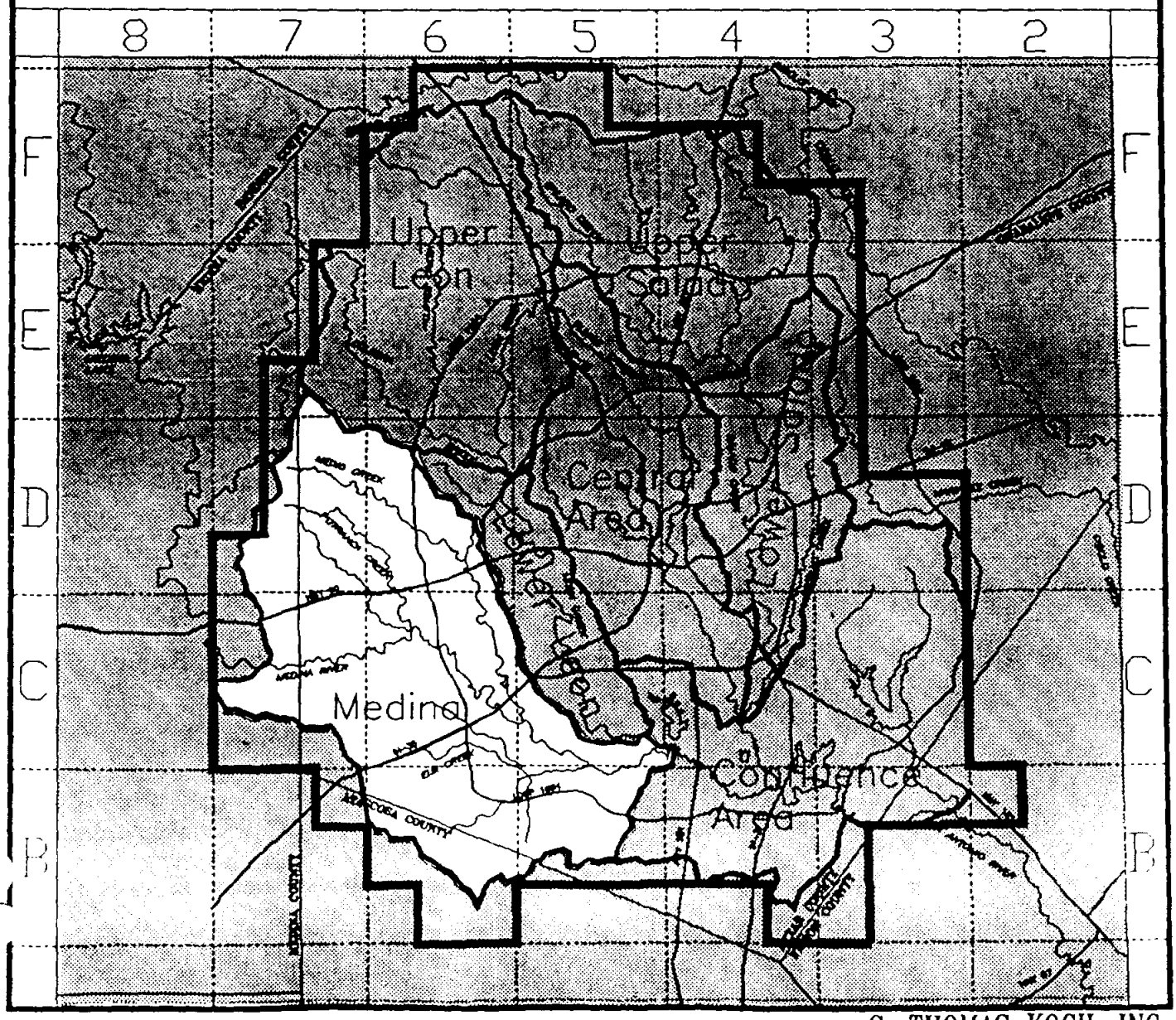
Strategic Plan LS-01
Reclaimed Water Target = 20 %

Watershed LOWER SALADO
(all flows in acre feet per year)

Year 2010

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	39,249	DESTINATION OF LEFTOVER WATER	
Total Water Use	65,415	Edwards Aquifer	39,249	Total Leftover Water	39,249
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	39,249
				Transported Into Watershed	0
Make Up Requirements	65,415	OUTDOOR WATER USE (40.0 %)	26,166		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	45,600	Edwards Aquifer	6,351	Reclaimed Within Watershed	0
Imported Reclaimed Water	5,233	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	14,582	Imported Reclaimed Water	5,233		
		Imported Drinking Water	14,582	Total Released To River	0

Medina



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C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Watershed MEDINA
Year 1990

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	6.0
		1990 Percent Use	95.0	1990 Percent Use	4.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	11,400
Gain (1990-1990)	0	Gain (1990-1990)	0	Gain (1990-1990)	0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	11,400

Strategic Plan ME-01
Reclaimed Water Target = 0 %

Watershed MEDINA
(all flows in acre feet per year)

Year 1990

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	6,840	DESTINATION OF LEFTOVER WATER	
Total Water Use	11,400	Edwards Aquifer	6,840	Total Leftover Water	6,840
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	6,840
				Transported Into Watershed	0
Make Up Requirements	11,400	OUTDOOR WATER USE (40.0 %)	4,560		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	11,400	Edwards Aquifer	4,560	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	0	Imported Reclaimed Water	0		
		Imported Drinking Water	0	Total Released To River	0

Watershed MEDINA
Year 1990

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	6.0
		1990 Percent Use	95.0	1990 Percent Use	4.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	11,400
Gain (1990-1990)	0	Gain (1990-1990)	0	Gain (1990-1990)	0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	11,400

Strategic Plan ME-01
Reclaimed Water Target = 20 %

Watershed MEDINA
(all flows in acre feet per year)

Year 1990

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	6,840	DESTINATION OF LEFTOVER WATER	
Total Water Use	11,400	Edwards Aquifer	6,840	Total Leftover Water	6,840
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	6,840
				Transported Into Watershed	0
Make Up Requirements	11,400	OUTDOOR WATER USE (40.0 %)	4,560		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	11,400	Edwards Aquifer	4,560	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	0	Imported Reclaimed Water	0		
		Imported Drinking Water	0	Total Released To River	0

Watershed MEDINA
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	6.0
		1990 Percent Use	95.0	1990 Percent Use	4.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	11,400
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	3,497
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	14,897

Strategic Plan ME-01 — Watershed MEDINA — Year 2000
Reclaimed Water Target = 0 %
(all flows in acre feet per year)

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	8,938	DESTINATION OF LEFTOVER WATER	
Total Water Use	14,897	Edwards Aquifer	8,938	Total Leftover Water	8,938
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	8,938
Make Up Requirements	14,897			Transported Into Watershed	0
		OUTDOOR WATER USE (40.0 %)	5,959		
Edwards Aquifer	11,400			WATER RECLAMATION FACILITY	
Imported Reclaimed Water	0	Edwards Aquifer	2,462	Reclaimed Within Watershed	0
Imported Drinking Water	3,497	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
		Imported Reclaimed Water	0		
		Imported Drinking Water	3,497	Total Released To River	0

Watershed MEDINA
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	6.0
		1990 Percent Use	95.0	1990 Percent Use	4.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	11,400
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	3,497
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	14,897

Strategic Plan ME-01
Reclaimed Water Target = 20 %

Watershed MEDINA
(all flows in acre feet per year)

Year 2000

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	8,938	DESTINATION OF LEFTOVER WATER	
Total Water Use	14,897	Edwards Aquifer	8,938	Total Leftover Water	8,938
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	8,938
Make Up Requirements	14,897	OUTDOOR WATER USE (40.0 %)	5,959	Transported Into Watershed	0
Edwards Aquifer	11,400	Edwards Aquifer	2,462	WATER RECLAMATION FACILITY	
Imported Reclaimed Water	1,192	Reclaimed Water in WPA	0	Reclaimed Within Watershed	0
Imported Drinking Water	2,305	Imported Reclaimed Water	1,192	Reclaimed in Other Watersheds	0
		Imported Drinking Water	2,305	Total Released To River	0

Watershed MEDINA
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	6.0
		1990 Percent Use	95.0	1990 Percent Use	4.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	11,400
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	6,994
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	18,394

Strategic Plan ME-01 — Watershed MEDINA — Year 2010
Reclaimed Water Target = 0 % (all flows in acre feet per year)

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	11,036	DESTINATION OF LEFTOVER WATER	
Total Water Use	18,394	Edwards Aquifer	11,036	Total Leftover Water	11,036
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	11,036
Make Up Requirements	18,394	OUTDOOR WATER USE (40.0 %)	7,357	Transported Into Watershed	0
				WATER RECLAMATION FACILITY	
Edwards Aquifer	11,400	Edwards Aquifer	364	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	6,994	Imported Reclaimed Water	0		
		Imported Drinking Water	6,994	Total Released To River	0

Watershed MEDINA
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	6.0
		1990 Percent Use	95.0	1990 Percent Use	4.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	11,400
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	6,994
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	18,394

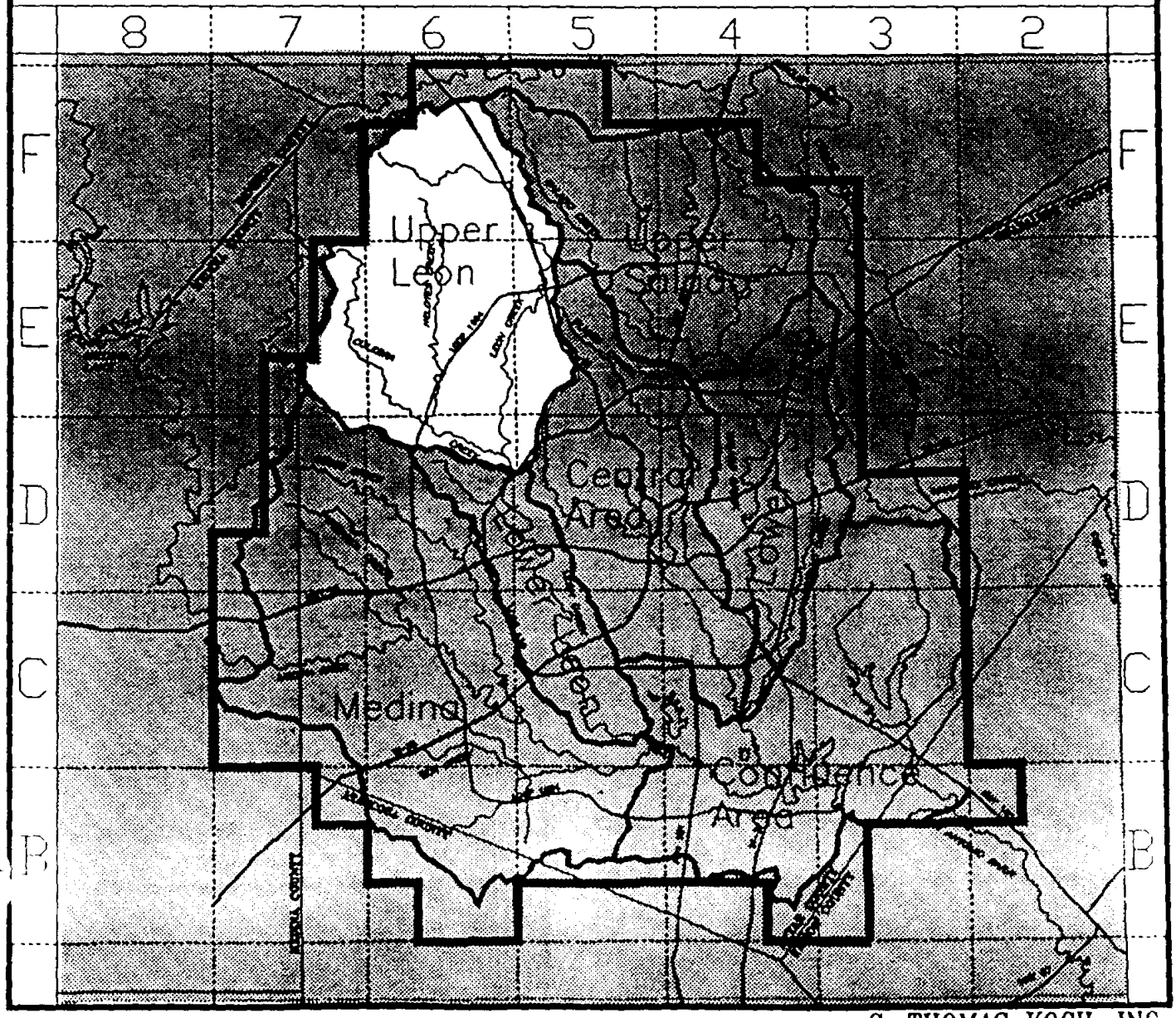
Strategic Plan ME-01
Reclaimed Water Target = 20 %

Watershed MEDINA
(all flows in acre feet per year)

Year 2010

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	11,036	DESTINATION OF LEFTOVER WATER	
Total Water Use	18,394	Edwards Aquifer	11,036	Total Leftover Water	11,036
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	11,036
				Transported Into Watershed	0
Make Up Requirements	18,394	OUTDOOR WATER USE (40.0 %)	7,357		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	11,400	Edwards Aquifer	364	Reclaimed Within Watershed	0
Imported Reclaimed Water	1,471	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	5,522	Imported Reclaimed Water	1,471		
		Imported Drinking Water	5,522	Total Released To River	0

Upper Leon



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C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Watershed UPPER LEON
Year 1990

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	23.0
		1990 Percent Use	95.0	1990 Percent Use	11.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	31,350
Gain (1990-1990)	0	Gain (1990-1990)	0	Gain (1990-1990)	0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	31,350

Strategic Plan UL-01
Reclaimed Water Target = 0 %

Watershed UPPER LEON
(all flows in acre feet per year)

Year 1990

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	18,810	DESTINATION OF LEFTOVER WATER	
Total Water Use	31,350	Edwards Aquifer	18,810	Total Leftover Water	18,810
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	18,810
				Transported Into Watershed	0
Make Up Requirements	31,350	OUTDOOR WATER USE (40.0 %)	12,540		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	31,350	Edwards Aquifer	12,540	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	0	Imported Reclaimed Water	0		
		Imported Drinking Water	0	Total Released To River	0

Watershed UPPER LEON
Year 1990

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	23.0
		1990 Percent Use	95.0	1990 Percent Use	11.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	31,350
Gain (1990-1990)	0	Gain (1990-1990)	0	Gain (1990-1990)	0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	31,350

Strategic Plan UL-01
Reclaimed Water Target = 20 %

Watershed UPPER LEON
(all flows in acre feet per year)

Year 1990

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	18,810	DESTINATION OF LEFTOVER WATER	
Total Water Use	31,350	Edwards Aquifer	18,810	Total Leftover Water	18,810
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	18,810
				Transported Into Watershed	0
Make Up Requirements	31,350	OUTDOOR WATER USE (40.0 %)	12,540		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	31,350	Edwards Aquifer	12,540	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	0	Imported Reclaimed Water	0		
		Imported Drinking Water	0	Total Released To River	0

Watershed UPPER LEON
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	23.0
		1990 Percent Use	95.0	1990 Percent Use	11.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	31,350
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	13,404
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	44,754

Strategic Plan UL-01
Reclaimed Water Target = 0 %

Watershed UPPER LEON
(all flows in acre feet per year)

Year 2000

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	26,853	DESTINATION OF LEFTOVER WATER	
Total Water Use	44,754	Edwards Aquifer	26,853	Total Leftover Water	26,853
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	26,853
				Transported Into Watershed	0
Make Up Requirements	44,754	OUTDOOR WATER USE (40.0 %)	17,902		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	31,350	Edwards Aquifer	4,497	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	13,404	Imported Reclaimed Water	0		
		Imported Drinking Water	13,404	Total Released To River	0

Watershed UPPER LEON
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	23.0
		1990 Percent Use	95.0	1990 Percent Use	11.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	31,350
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	13,404
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	44,754

Strategic Plan UL-01
Reclaimed Water Target = 20 %

Watershed UPPER LEON
(all flows in acre feet per year)

Year 2000

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	26,853	DESTINATION OF LEFTOVER WATER	
Total Water Use	44,754	Edwards Aquifer	26,853	Total Leftover Water	26,853
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	26,853
				Transported Into Watershed	0
Make Up Requirements	44,754	OUTDOOR WATER USE (40.0 %)	17,902		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	31,350	Edwards Aquifer	4,497	Reclaimed Within Watershed	0
Imported Reclaimed Water	3,580	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	9,824	Imported Reclaimed Water	3,580		
		Imported Drinking Water	9,824	Total Released To River	0

Watershed UPPER LEON
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	23.0
		1990 Percent Use	95.0	1990 Percent Use	11.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	31,350
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	26,809
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	58,159

Strategic Plan UL-01
Reclaimed Water Target = 20 %

Watershed UPPER LEON
(all flows in acre feet per year)

Year 2010

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	34,895	DESTINATION OF LEFTOVER WATER	
Total Water Use	58,159	Edwards Aquifer	31,350	Total Leftover Water	34,895
Reclaimed Water	0	Imported Drinking Water	3,545	Transported Out of Watershed	34,895
Make Up Requirements	58,159	OUTDOOR WATER USE (40.0 %)	23,264	Transported Into Watershed	0
Edwards Aquifer	31,350	Edwards Aquifer	0	WATER RECLAMATION FACILITY	
Imported Reclaimed Water	4,653	Reclaimed Water in WPA	0	Reclaimed Within Watershed	0
Imported Drinking Water	22,156	Imported Reclaimed Water	4,653	Reclaimed in Other Watersheds	0
		Imported Drinking Water	18,611	Total Released To River	0

Watershed UPPER LEON
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	23.0
		1990 Percent Use	95.0	1990 Percent Use	11.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	31,350
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	26,809
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	58,159

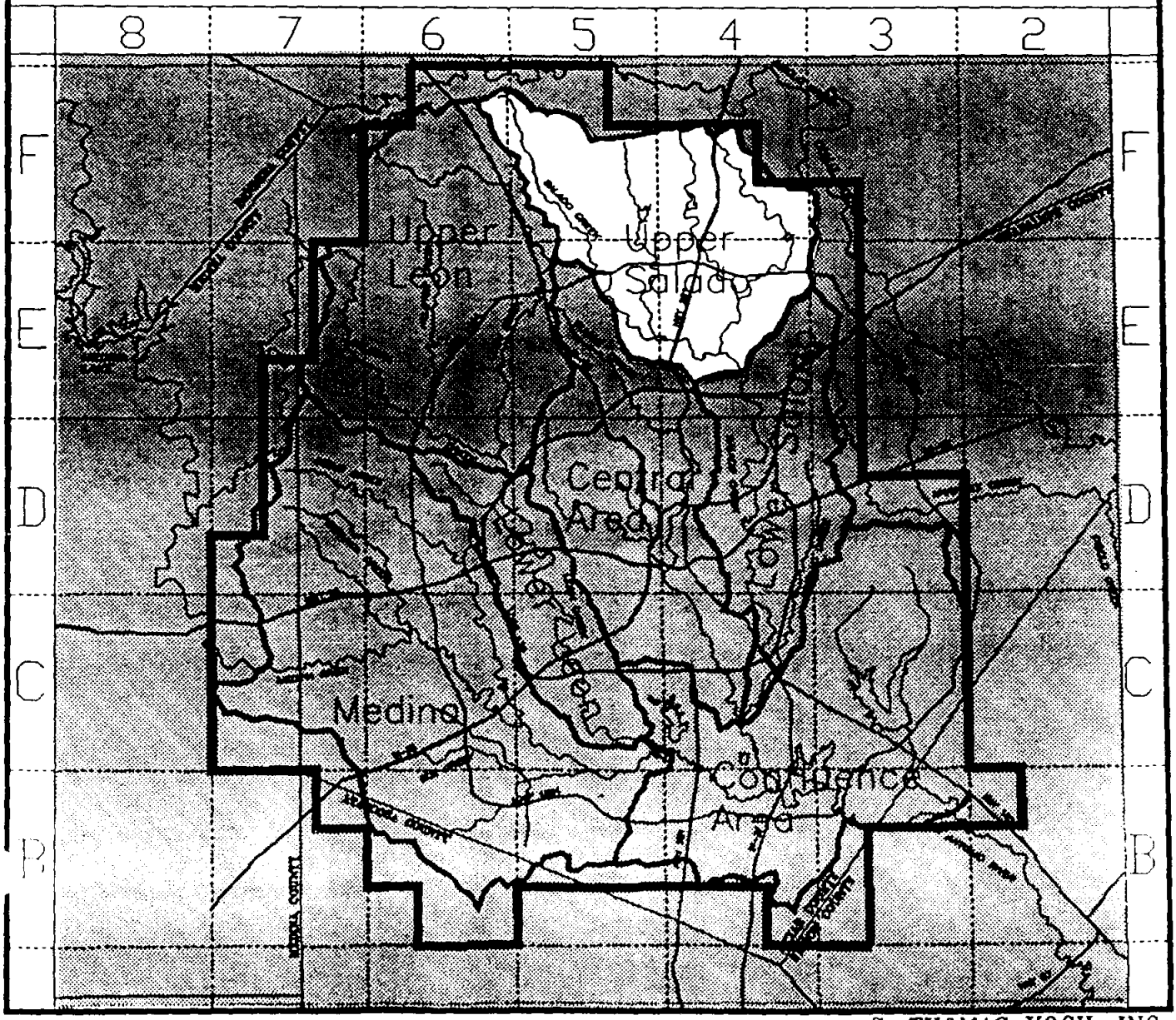
Strategic Plan UL-01
Reclaimed Water Target = 0 %

Watershed UPPER LEON
(all flows in acre feet per year)

Year 2010

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	34,895	DESTINATION OF LEFTOVER WATER	
Total Water Use	58,159	Edwards Aquifer	31,350	Total Leftover Water	34,895
Reclaimed Water	0	Imported Drinking Water	3,545	Transported Out of Watershed	34,895
Make Up Requirements	58,159	OUTDOOR WATER USE (40.0 %)	23,264	Transported Into Watershed	0
				WATER RECLAMATION FACILITY	
Edwards Aquifer	31,350	Edwards Aquifer	0	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	26,809	Imported Reclaimed Water	0		
		Imported Drinking Water	23,264	Total Released To River	0

Upper Salado



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C. THOMAS KOCH, INC.
LAND AND WATER RESOURCES CONSULTANT

Watershed UPPER SALADO
Year 1990

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	21.0
		1990 Percent Use	95.0	1990 Percent Use	10.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	28,500
Gain (1990-1990)	0	Gain (1990-1990)	0	Gain (1990-1990)	0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	28,500

Strategic Plan US-01
Reclaimed Water Target = 0 %

Watershed UPPER SALADO
(all flows in acre feet per year)

Year 1990

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	17,100	DESTINATION OF LEFTOVER WATER	
Total Water Use	28,500	Edwards Aquifer	17,100	Total Leftover Water	17,100
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	17,100
				Transported Into Watershed	0
Make Up Requirements	28,500	OUTDOOR WATER USE (40.0 %)	11,400		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	28,500	Edwards Aquifer	11,400	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	0	Imported Reclaimed Water	0		
		Imported Drinking Water	0	Total Released To River	0

Watershed UPPER SALADO
Year 1990

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	21.0
		1990 Percent Use	95.0	1990 Percent Use	10.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	28,500
Gain (1990-1990)	0	Gain (1990-1990)	0	Gain (1990-1990)	0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	28,500

Strategic Plan US-01
Reclaimed Water Target = 20 %

Watershed UPPER SALADO
(all flows in acre feet per year)

Year 1990

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	17,100	DESTINATION OF LEFTOVER WATER	
Total Water Use	28,500	Edwards Aquifer	17,100	Total Leftover Water	17,100
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	17,100
				Transported Into Watershed	0
Make Up Requirements	28,500	OUTDOOR WATER USE (40.0 %)	11,400		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	28,500	Edwards Aquifer	11,400	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	0	Imported Reclaimed Water	0		
		Imported Drinking Water	0	Total Released To River	0

Watershed UPPER SALADO
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	21.0
		1990 Percent Use	95.0	1990 Percent Use	10.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	28,500
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	12,239
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	40,739

Strategic Plan US-01
Reclaimed Water Target = 0 %

Watershed UPPER SALADO
(all flows in acre feet per year)

Year 2000

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	24,443	DESTINATION OF LEFTOVER WATER	
Total Water Use	40,739	Edwards Aquifer	24,443	Total Leftover Water	24,443
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	24,443
Make Up Requirements	40,739			Transported Into Watershed	0
		OUTDOOR WATER USE (40.0 %)	16,296		
Edwards Aquifer	28,500			WATER RECLAMATION FACILITY	
Imported Reclaimed Water	0	Edwards Aquifer	4,057	Reclaimed Within Watershed	0
Imported Drinking Water	12,239	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
		Imported Reclaimed Water	0		
		Imported Drinking Water	12,239	Total Released To River	0

Watershed UPPER SALADO
Year 2000

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	21.0
		1990 Percent Use	95.0	1990 Percent Use	10.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	28,500
Gain (1990-2000)	62,000	Gain (1990-2000)	58,280	Gain (1990-2000)	12,239
2000 Total Use	362,000	2000 Total Use	343,280	2000 Total Use	40,739

Strategic Plan US-01
Reclaimed Water Target = 20 %

Watershed UPPER SALADO
(all flows in acre feet per year)

Year 2000

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	24,443	DESTINATION OF LEFTOVER WATER	
Total Water Use	40,739	Edwards Aquifer	24,443	Total Leftover Water	24,443
Reclaimed Water	0	Imported Drinking Water	0	Transported Out of Watershed	24,443
Make Up Requirements	40,739	OUTDOOR WATER USE (40.0 %)	16,296	Transported Into Watershed	0
				WATER RECLAMATION FACILITY	
Edwards Aquifer	28,500	Edwards Aquifer	4,057	Reclaimed Within Watershed	0
Imported Reclaimed Water	3,259	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	8,980	Imported Reclaimed Water	3,259		
		Imported Drinking Water	8,980	Total Released To River	0

Watershed UPPER SALADO
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	21.0
		1990 Percent Use	95.0	1990 Percent Use	10.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	28,500
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	24,478
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	52,978

Strategic Plan US-01 Watershed UPPER SALADO Year 2010
Reclaimed Water Target = 0 % (all flows in acre feet per year)

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	31,787	DESTINATION OF LEFTOVER WATER	
Total Water Use	52,978	Edwards Aquifer	28,500	Total Leftover Water	31,787
Reclaimed Water	0	Imported Drinking Water	3,287	Transported Out of Watershed	31,787
Make Up Requirements	52,978			Transported Into Watershed	0
		OUTDOOR WATER USE (40.0 %)	21,191		
				WATER RECLAMATION FACILITY	
Edwards Aquifer	28,500	Edwards Aquifer	0	Reclaimed Within Watershed	0
Imported Reclaimed Water	0	Reclaimed Water in WPA	0	Reclaimed in Other Watersheds	0
Imported Drinking Water	24,478	Imported Reclaimed Water	0		
		Imported Drinking Water	21,191	Total Released To River	0

Watershed UPPER SALADO
Year 2010

BEXAR COUNTY (acre feet per year)		SAWS PLANNING REGION (acre feet per year)		WATERSHED PLANNING AREA (WPA) (acre feet per year)	
Annual Increase	6,200	Percent Capture	94.0	Percent Capture	21.0
		1990 Percent Use	95.0	1990 Percent Use	10.0
1990 Total Use	300,000	1990 Total Use	285,000	1990 Total Use	28,500
Gain (1990-2010)	124,000	Gain (1990-2010)	116,560	Gain (1990-2010)	24,478
2010 Total Use	424,000	2010 Total Use	401,560	2010 Total Use	52,978

Strategic Plan US-01
Reclaimed Water Target = 20 %

Watershed UPPER SALADO
(all flows in acre feet per year)

Year 2010

SUMMARY OF WATER SOURCES		INDOOR WATER USE (60.0 %)	31,787	DESTINATION OF LEFTOVER WATER	
Total Water Use	52,978	Edwards Aquifer	28,500	Total Leftover Water	31,787
Reclaimed Water	0	Imported Drinking Water	3,287	Transported Out of Watershed	31,787
Make Up Requirements	52,978	OUTDOOR WATER USE (40.0 %)	21,191	Transported Into Watershed	0
Edwards Aquifer	28,500	Edwards Aquifer	0	WATER RECLAMATION FACILITY	
Imported Reclaimed Water	4,238	Reclaimed Water in WPA	0	Reclaimed Within Watershed	0
Imported Drinking Water	20,239	Imported Reclaimed Water	4,238	Reclaimed in Other Watersheds	0
		Imported Drinking Water	16,953	Total Released To River	0