BULLETIN 5910

WATER REQUIREMENTS SURVEY FOR TEXAS

Prepared by
Bureau of Business Research
University of Texas
for
Texas Board of Water Engineers

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BUREAU OF BUSINESS RESEARCH
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OFFICE OF THE DIRECTOR

July 7, 1959

Mr. McDonald D. Weinert, Chief Engineer
Texas Board of Water Engineers
1410 Lavaca Street
Austin, Texas

Dear Mr. Weinert

In compliance with the extension provisions of Interagency Contract No. 4413-308-A, I am submitting the final report on population projections and water requirements for river basins and subbasins, and for cities in Texas.

This report attempts to bring together all of the projections of population and water requirements made by the Bureau of Business Research in recent years to furnish one integrated summary of the water requirements of the whole state. Since the basic studies were made at different times, a careful review of these projections was made to determine that they are still satisfactory. This review established rather conclusively that no major revisions of the individual studies were needed. After this conclusion was reached, the projections that had been made by major economic areas of the state were reclassified to give projections for the river basins, subbasins, and individual cities. All of these projections are consistent with the basic studies and permit comparisons between areas.

It is important to recognize that forecasts for small areas are always hazardous, but these projections are presented as the best that it is possible to make at the present time. I believe that they are sufficiently accurate to support overall planning activities for the development of Texas water resources, although it would undoubtedly be wise before proceeding with any large project to make an up-to-date study of that specific project in the light of the most recent data available. But until such a need arises, it is my opinion that the enclosed study will serve adequately for planning purposes.

Sincerely yours

John R. Stockton

John R. Stockton
Director

JRS:mf
Enc.

SUMMARY OF WATER REQUIREMENTS

(Acre feet per year)

Study Area	Base Year	1965	1975	2000
Canadian River Basin				
Industrial	70,624	106,079	148,475	166,309
Nonindustrial	32,398	48,359	66,985	96,872
Total	103,022	154,438	215,460	263,181
1-D				
Industrial	2,599	3,247	6,377	9,308
Nonindustrial	2,965	4,333	6,049	7,777
Total	5,564	7,580	12,426	17,085
Red River Basin				
Industrial	10,766	14,728	17,971	23,661
Nonindustrial	30,333	52,429	69,630	104,879
Total	41,099	67,157	87,601	128,540
Sulphur River Basin				
Industrial	598	954	1,089	1,271
Nonindustrial	2,225	3,744	4,803	7,424
Total	2,823	4,698	5,892	8,695
Cypress Creek Basin				
Industrial	9,688	25,033	27,644	29,980
Nonindustrial	3,192	6,644	8,792	12,472
Total	12,880	31,677	36,436	42,452
Sabine River Basin				
Industrial	47,672	94,064	124,449	214,107
Nonindustrial	27,255	45,113	61,347	106,745
Total	74,927	139,177	185,796	320,852
Neches River Basin				
Industrial	61,494	146,475	203,601	385,620
Nonindustrial	37,689	63,704	87,037	150,940
Total	99,183	210,179	290,638	536,560
Trinity River Basin				
Industrial	36,863	53,509	67,859	128,721
Nonindustrial	183,752	301,192	394,784	832,486
Total	220,615	354,701	462,643	961,207
San Jacinto River Basin				
Industrial	172,928	297,105	432,399	1,063,257
Nonindustrial	118,513	163,556	207,072	440,170
Total	291,441	460,661	639,471	1,503,427
Brazos River Basin				
Industrial	114,098	169,484	210,705	281,954
Nonindustrial	144,617	221,409	303,195	490,422
Total	258,715	390,893	513,900	772,376

SUMMARY OF WATER REQUIREMENTS

(Acre feet per year)

Study Area	Base Year	1965	1975	2000
Colorado River Basin				
Industrial	44,747	67,447	95,573	137,851
Nonindustrial	114,017	163,712	214,936	328,695
Total	158,764	231,159	310,509	466,546
Lavaca River Basin				
Industrial	1,341	2,007	2,422	2,458
Nonindustrial	4,429	6,414	7,828	11,254
Total	5,770	8,421	10,250	13,712
Guadalupe River Basin				
Industrial	20,990	25,149	40,419	97,707
Nonindustrial	20,064	31,324	41,438	71,379
Total	41,054	56,473	81,857	169,086
San Antonio River Basin				
Industrial	20,438	28,948	36,768	63,590
Nonindustrial	97,130	146,072	193,512	394,295
Total	117,568	175,020	230,280	457,885
Nueces River Basin				
Industrial	7,006	13,123	18,130	31,831
Nonindustrial	18,146	23,630	30,056	46,821
Total	25,152	36,753	48,186	78,652
Rio Grande River Basin				
Industrial	23,428	29,561	37,072	41,648
Nonindustrial	64,732	99,642	143,213	199,914
Total	88,160	129,203	180,285	241,562
Coastal Area				
Industrial	202,728	408,276	581,099	1,243,600
Nonindustrial	85,023	164,424	236,671	457,632
Total	287,751	572,700	817,770	1,701,232
Rio Grande Drainage				
Industrial	2,983	38,054	69,811	179,514
Nonindustrial	34,298	60,887	85,717	151,415
Total	37,281	98,941	155,528	330,929
State Industrial Total	850,991	1,523,243	2,121,863	4,102,387
State Nonindustrial	1,020,778	1,606,588	2,163,065	3,911,592
State Grand Total	1,871,769	3,129,831	4,284,928	8,013,979

Note: Summary figures by basins in millions of gallons per year are given at the end of odd numbered tables 1 through 33.

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INTRODUCTION

The projections of water requirements for nonindustrial, or municipal, and for industrial uses for river basins and for the cities of over 5,000 population are based on the following three studies by the Bureau of Business Research of The University of Texas.

1. Water Requirements Survey: Red River Basin, Texas. Prepared for Bureau of Reclamation, Department of Interior, December 31, 1952. (Bound as a single volume.)

2. Water for the Future (Texas Gulf Basin). Prepared for Bureau of Reclamation, Department of Interior, August 31, 1956, and Supplement, August 31, 1957. (5 volumes in 6 bindings.)

3. Water Requirements Survey, West Texas. Prepared for Texas Board of Water Engineers, December 8, 1958. (Bound as a single volume.)

The above contain detailed descriptions of methodology and will be valuable references for any who desire further detail.

The projections made in 1952 for the Red River basin were based on 1950 data for consumption of water, although 1951 and 1952 economic data were used in projections of industrial growth and population. The projections made in 1956 for the Gulf basin used 1954 data for water consumption and the most recent data available for industry and population trends. The 1957 supplement merely allocated the previously projected totals to smaller areas. The West Texas projections, made late in 1958, were based on 1957 data for water use and the most recent economic and population data.

In evaluating data for inclusion in the current report, it became apparent that rates of growth used in Water for the Future had been too conservative. Population and water requirement figures indicated for the year 2010, in Water for the Future, now would appear more likely figures for the year 2000, and are so shown herein. This re-evaluation of when growth would materialize accounts for an excess of approximately 900,000 acre-feet of water shown as required in this study for the year 2000, above that indicated on Plate XIV of the report Texas Water Resources Planning at the End of the Year 1958.

A basic assumption in all of the studies of water requirements has been that water use by basic industry must be forecasted by first determining the expected growth of each industry. Nonbasic industry consumption of water, on the other hand, is best forecasted on the basis of population growth and the trend in per capita consumption of water. For example, the water requirements of a paper mill are determined by the growth of paper production, while the requirements of bottling plants are a function of the growth of population. Nonindustrial water consumption shown in the above studies has included consumption of

nonbasic industries and domestic consumption, and the nonindustrial total has been projected in relation to population.

The forecasting model used in all of the original studies to project water requirements was based on the division of water use into the two categories, industrial and nonindustrial. Industrial water use is defined as consumption by basic industry, that is, by industry that produced on a relatively large scale and sold its product outside the trading area, thus bringing income into the area. Nonbasic industry consists of all economic activity that has as its purpose supplying goods and services to the residents of the trading area. The income spent for the products of nonbasic industry is primarily a respending of the income generated by basic industry.

The forecast of population for each trading area started with an analysis of existing basic industry, followed by a projection of basic industry to the year 2000. A fundamental consideration in analysis of the growth of basic industries was the existence of suitable raw materials to support such basic industrial growth. The projection of basic industries was arrived at by assuming that water adequate for industrial growth would be available at an economical cost. At the same time an analysis was made for each trading area of the employment in nonbasic activity, expressing nonbasic employment as a ratio to basic employment. Using the ratio of nonbasic to basic employment, it was possible to forecast total employment from the projection of basic employment. It was found that total population maintained a reasonably stable relationship to total employment, and a forecast of population was derived from the total employment projections.

The method used to forecast population for small areas differs significantly from the method developed by the Bureau of the Census and widely used in making national forecasts. Since immigration is a small and relatively stable factor, it is logical to assume that changes in the United States population result primarily from variations in the birth rates and death rates. Detailed methods of projecting these rates and then using them to forecast population have been developed by the Bureau of the Census and have been generally accepted as standard procedure for such forecasts. But when the area is a small subdivision of the United States, the migration into and out of the area may be so great that it completely overshadows the natural increase in the population. Changing economic conditions in an area may create more jobs or fewer jobs, with the result that the members of the labor force move into the area or out of it. With the extremely mobile labor force that exists in the United States, the population changes in a small area are almost entirely the result of economic forces. Regardless of the natural increase in a small area, if the jobs are not available, there will be migration out of the region. Conversely, if more jobs are available than can be filled locally, migration into the area will result. The forecasts of population in this study are, therefore, based primarily on the economic factors present in the area, rather than on birth rates and death rates as used in making national forecasts.

The method used to forecast population gave the information needed to forecast water requirements for each trading area. Water consumption for the base year was compiled and classified as consumption by basic industry and that consumed by all other uses.

The projection of the individual basic industries in each trading area gave the forecast of water requirements of these industries. The total consumption of water for all other uses was expressed as per capita consumption and was projected on the basis of the expected population growth. The assumption that the standard of living would continue to rise and bring about a steadily increasing per capita consumption of water entered into all nonindustrial water use projections.

Since the consumption of water varies widely from one basic industry to another, it is possible for the amount of water used in one area by the basic industries to vary greatly from that used in another area with different basic industries, even though the volume of industrial output might be the same on the basis of economic value. For example, an area with a large potential growth in petrochemicals or paper would have much greater water requirements than an area with the same amount of growth in industries that did not require large amounts of cooling or process water. An example of such would be the increase in water use in the Houston area as compared to the Dallas area. The increase in water use during the study period for these two areas seems disproportionate when looking at the population increases for the two areas, but the difference lies in the types of basic industry in the two areas. The water requirements figures for all cities shown in this current study are for fresh water only, and it should be noted that by the year 2000 it is estimated that 80% of all water consumed by basic industry in the Houston area will be brackish water. (Other Gulf Coast cities will also be using high percentages of brackish water to meet industrial requirements.)

Projections of water requirements for basic industries are statements of the amounts of water that would be required to support the utilization of the resources of Texas at the level which will be needed if the population and the standard of living in the United States continue to rise in the manner predicted in the generally accepted forecasts of the secular trend in the economy of the United States. Detailed studies of the state's resources have been made along with studies of the manner in which the forecasted population growth and economic development of the United States were expected to utilize these resources. Forecasts of increases in industrial employment were then made. Information on water use for the base year was secured directly from most concerns classified as basic industry, and from the relationship established between industrial employment increase and industrial water requirement increase, projections of future industrial water requirements were made.

The projections of water requirements for trading areas were made in the original studies, and it is the purpose of the present study to allocate these projections to cities of 5,000 or more population and to basins and sub-basins. Two

major steps were involved in making this allocation. First it was necessary to tabulate the data on water use in the base year by cities and by basins and sub-basins. This was done by going back to the records compiled in the original surveys and locating each city and each large industrial water consumer in the correct river basin and sub-basin. The only problem with respect to the base year data is the fact that different base years were used in the three studies. Some of the river basins extended into two or three of the study areas, with the result that complete information was not available for water consumption in the basin or sub-basin for any single base year. In order to get a total for consumption in the base period to be used as a benchmark in making the projections, it became necessary to add the water use for two or even three different base years in different parts of the basin. This does not affect the comparability of the projected requirements.

The second step consisted of a detailed analysis of each small area in order to project its growth and the resulting increase in water requirements. The projection of requirements for small areas, either cities or river basins, introduced problems not present in making projections for a larger, more economically homogeneous region such as a trading area. Even with an accurate projection of industrial growth in a trading area, it is extremely difficult to determine which parts of the area will enjoy this growth. It is unrealistic to assume that all portions of a trading area will grow at the same rate, so a detailed study was made of the probable location of new industries and expansion of existing industries implied in the original forecasts. Staff members traveled throughout the state checking on forecasts and looking for new information with which to verify the projections. The information collected supported the hypothesis that the forecasts prepared earlier are still reasonable long-run projections.

The allocations of projections to sub-basins presented difficult problems because of the relationship of sub-basin boundaries to boundaries of previous study areas. This will make it impossible to compare this study with earlier studies.

The tabulation of requirements by cities carries a footnote which states that in some cases the data are for the industrial node rather than for the urbanized area of the city. Twelve of these nodes are included in this tabulation. This concept of the industrial node was introduced to reflect the fact that the major industrial areas of the state do not follow the corporate limits of cities. A node is defined as an industrial complex consisting of one or more cities and frequently including unincorporated areas surrounding the cities. The node usually includes all of the urbanized area as defined by the Bureau of the Census. When studying industrial growth, these nodes must be considered as basic geographical units, and it is practically meaningless to try to forecast the individual cities separately. While it is frequently true that the cities retain their individuality, the node must be considered as a unit when projecting population and economic growth. This means that water requirements can be derived for the nodes, but only very arbitrary forecasts of requirements can be made for the individual cities in a node.

The following gives a brief description of the nodes that have been used in this report. The Beaumont-Port Arthur Node consists of Precincts 1, 2, 6, and 7, in Jefferson County and includes Beaumont, Port Arthur, Port Neches, Nederland, Griffing Park, Lakeview, and Pear Ridge. The Bryan-College Station Node consists of the two cities, Bryan and College Station. The Corpus Christi Node consists of Precinct 1 of Nueces County, in which Corpus Christi is located, and Bishop, Robstown, San Pedro, Ingleside, and the portion of Aransas Pass located in San Patricio County. The Dallas Node consists of the Dallas urbanized area as defined by the Bureau of the Census and the city of Garland. The Fort Worth Node consists of the Fort Worth urbanized area, Arlington, Dalworthington Gardens, Pantego, Grapevine, Everman, Kennedale, and Mansfield. The Freeport Node consists of Brazoria County Precincts 6 and 7. The Galveston-Texas City Node consists of Galveston County Precincts 1, 2, and 5. The Houston Node consists of all Harris County except Precincts 5, 6, and 7, plus Chambers County Precinct 5. The Longview Node consists of Longview, Gladewater, Greggton, and Kilgore. The Port Lavaca Node consists of Port Lavaca, Point Comfort, Seadrift, and adjacent industrial development sites. The San Antonio Node consists of the San Antonio urbanized area. The Sherman-Denison Node consists of the two cities, Sherman and Denison.

Tables 35 and 36 list the twelve nodes described above and all of the cities in Texas with a population of 5,000 or more in 1950, except the cities that are included in the nodes. Also included in the tables are six cities that have shown substantial growth since 1950, even though their population was less than 5,000 in 1950. Some cities which now (1959) have a population of 5,000 or more are not included in Tables 35 and 36 due to limitation of time in compiling the data contained in this study.

Table 1

CANADIAN RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
1-B Total	1957	9,889	14,566	20,138	27,463
Industrial	1957	2,420	3,708	5,318	5,652
Nonindustrial	1957	7,469	10,858	14,820	21,811
1-C Total	1957	23,681	35,758	50,070	58,295
Industrial	1957	20,593	30,858	43,063	48,540
Nonindustrial	1957	3,088	4,900	7,007	9,755
Total for Canadian River Basin	1957	33,570	50,324	70,208	85,758
Industrial	1957	23,013	34,566	48,381	54,192
Nonindustrial	1957	10,557	15,758	21,827	31,566
1-D Total	1957	1,813	2,470	4,049	5,567
Industrial	1957	847	1,058	2,078	3,033
Nonindustrial	1957	966	1,412	1,971	2,534

Table 2

CANADIAN RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
1-B Total	1957	30,348	44,701	61,801	84,281
Industrial	1957	7,427	11,379	16,320	17,345
Nonindustrial	1957	22,921	33,322	45,481	66,935
1-C Total	1957	72,674	109,737	153,659	178,900
Industrial	1957	63,197	94,699	132,155	148,963
Nonindustrial	1957	9,477	15,038	21,504	29,937
Total for Canadian River Basin	1957	103,022	154,438	215,460	263,181
Industrial	1957	70,624	106,079	148,475	166,309
Nonindustrial	1957	32,398	48,359	66,985	96,872
1-D Total	1957	5,564	7,580	12,426	17,085
Industrial	1957	2,599	3,247	6,377	9,308
Nonindustrial	1957	2,965	4,333	6,049	7,777

Table 3

RED RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin		Use		Projections		
		Base year	Amount	1965	1975	2000
2-A	Total	1957	1,278	1,897	2,619	3,914
	Industrial	1957	900	1,400	2,000	3,102
	Nonindustrial	1957	378	497	619	812
2-B	Total	1957	263	339	411	521
	Industrial	1957	---	---	---	---
	Nonindustrial	1957	263	339	411	521
2-C	Total	1950	1,400	2,080	2,779	3,877
	Industrial	1950	27	36	42	52
	Nonindustrial	1950	1,373	2,044	2,737	3,825
2-D	Total	1950	671	925	1,109	1,533
	Industrial	1950	50	60	67	80
	Nonindustrial	1950	621	865	1,042	1,453
2-E	Total	1950	3,661	6,016	7,767	12,068
	Industrial	1950	1,552	1,750	1,902	2,162
	Nonindustrial	1950	2,109	4,266	5,865	9,906
2-F	Total	1950	134	176	203	283
	Industrial	1950	---	---	---	---
	Nonindustrial	1950	134	176	203	283
2-G	Total	1950	125	226	307	510
	Industrial	1950	9	14	17	20
	Nonindustrial	1950	116	212	290	490
2-H	Total	1950	89	150	188	292
	Industrial	1950	---	---	---	---
	Nonindustrial	1950	89	150	188	292
2-I	Total	1950	3,410	6,888	9,012	12,871
	Industrial	1950	894	1,419	1,668	2,054
	Nonindustrial	1950	2,516	5,469	7,344	10,817
2-V	Total	1957	32	40	47	73
	Industrial	1957	---	---	---	---
	Nonindustrial	1957	32	40	47	73

(Continued)

Table 4

RED RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin		Use		Projections		
		Base year	Amount	1965	1975	2000
2-A	Total	1957	3,922	5,822	8,038	12,012
	Industrial	1957	2,762	4,296	6,138	9,520
	Nonindustrial	1957	1,160	1,525	1,900	2,492
2-B	Total	1957	807	1,040	1,261	1,599
	Industrial	1957	---	---	---	---
	Nonindustrial	1957	807	1,040	1,261	1,599
2-C	Total	1950	4,297	6,383	8,529	11,898
	Industrial	1950	83	110	129	160
	Nonindustrial	1950	4,214	6,273	8,400	11,738
2-D	Total	1950	2,059	2,839	3,403	4,705
	Industrial	1950	153	184	206	246
	Nonindustrial	1950	1,906	2,655	3,198	4,459
2-E	Total	1950	11,235	18,463	23,836	37,035
	Industrial	1950	4,763	5,371	5,837	6,635
	Nonindustrial	1950	6,472	13,092	17,999	30,400
2-F	Total	1950	411	540	623	868
	Industrial	1950	---	---	---	---
	Nonindustrial	1950	411	540	623	868
2-G	Total	1950	384	694	942	1,565
	Industrial	1950	28	43	52	61
	Nonindustrial	1950	356	651	890	1,504
2-H	Total	1950	273	460	577	896
	Industrial	1950	---	---	---	---
	Nonindustrial	1950	273	460	577	896
2-I	Total	1950	10,465	21,139	27,657	39,499
	Industrial	1950	2,744	4,355	5,119	6,303
	Nonindustrial	1950	7,721	16,784	22,538	33,196
2-V	Total	1957	98	123	144	224
	Industrial	1957	---	---	---	---
	Nonindustrial	1957	98	123	144	224

(Continued)

Table 3 (Continued)

RED RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections
(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
2-W Total	1957	252	409	603	1,010
Industrial	1957	---	---	---	---
Nonindustrial	1957	252	409	603	1,010
2-X Total	1957	234	336	446	656
Industrial	1957	76	120	160	240
Nonindustrial	1957	158	216	286	416
2-Y Total	1957	1,577	2,028	2,544	3,472
Industrial	1957	---	---	---	---
Nonindustrial	1957	1,577	2,028	2,544	3,472
2-Z Total	1957	266	373	510	805
Industrial	1957	---	---	---	---
Nonindustrial	1957	266	373	510	805
Total for Red River Basin	1950 & 1957	13,392	21,883	28,545	41,885
Industrial	1950 & 1957	3,508	4,799	5,856	7,710
Nonindustrial	1950 & 1957	9,884	17,084	22,689	34,175

Table 4 (Continued)

RED RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
2-W Total	1957	773	1,255	1,851	3,100
Industrial	1957	---	---	---	---
Nonindustrial	1957	773	1,255	1,851	3,100
2-X Total	1957	718	1,031	1,369	2,014
Industrial	1957	233	368	491	737
Nonindustrial	1957	485	663	878	1,277
2-Y Total	1957	4,840	6,224	7,807	10,655
Industrial	1957	---	---	---	---
Nonindustrial	1957	4,840	6,224	7,807	10,655
2-Z Total	1957	816	1,145	1,565	2,470
Industrial	1957	---	---	---	---
Nonindustrial	1957	816	1,145	1,565	2,470
Total for Red River Basin	1950 & 1957	41,098	67,157	87,601	128,540
Industrial	1950 & 1957	10,766	14,728	17,971	23,661
Nonindustrial	1950 & 1957	30,333	52,429	69,630	104,879

Table 5

SULPHUR RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
Total for Sulphur River Basin	1950	920	1,531	1,920	2,833
Industrial	1950	195	311	355	414
Nonindustrial	1950	725	1,220	1,565	2,419

Table 6

SULPHUR RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
Total for Sulphur River Basin	1950	2,823	4,698	5,892	8,694
Industrial	1950	598	954	1,089	1,271
Nonindustrial	1950	2,225	3,744	4,803	7,424

Table 7

CYPRESS CREEK BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
Total for Cypress Creek Basin	1954	4,197	10,322	11,873	13,833
Industrial	1954	3,157	8,157	9,008	9,769
Nonindustrial	1950	1,040	2,165	2,865	4,064

Table 8

CYPRESS CREEK BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
Total for Cypress Creek Basin	1954	12,880	31,677	36,437	42,452
Industrial	1954	9,688	25,033	27,644	29,980
Nonindustrial	1950	3,192	6,644	8,792	12,472

Table 9

SABINE RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
5-A Total	1954	2,054	2,816	3,261	4,430
Industrial	1954	389	467	524	699
Nonindustrial	1954	1,665	2,349	2,737	3,731
5-B Total	1954	781	1,021	1,032	738
Industrial	1954	150	170	190	160
Nonindustrial	1954	631	851	842	578
5-C Total	1954	10,864	18,739	24,505	41,768
Industrial	1954	6,280	11,355	14,606	25,500
Nonindustrial	1954	4,584	7,384	9,899	16,268
5-D Total	1954	562	746	943	1,359
Industrial	1954	138	195	249	353
Nonindustrial	1954	424	551	694	1,006
5-E Total	1954	4,002	5,883	7,109	7,880
Industrial	1954	3,519	5,314	6,442	7,086
Nonindustrial	1954	483	569	667	794
5-F Total	1954	6,152	16,146	23,692	48,375
Industrial	1954	5,058	13,150	18,541	35,969
Nonindustrial	1954	1,094	2,996	5,151	12,406
Total for Sabine River Basin	1954	24,415	45,351	60,542	104,550
Industrial	1954	15,534	30,651	40,552	69,767
Nonindustrial	1954	8,881	14,700	19,990	34,783

Table 10

SABINE RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
5-A Total	1954	6,304	8,642	10,008	13,595
Industrial	1954	1,194	1,433	1,608	2,145
Nonindustrial	1954	5,110	7,209	8,400	11,450
5-B Total	1954	2,397	3,134	3,167	2,265
Industrial	1954	461	522	583	491
Nonindustrial	1954	1,936	2,612	2,584	1,774
5-C Total	1954	33,341	57,508	75,203	128,181
Industrial	1954	19,273	34,847	44,824	78,256
Nonindustrial	1954	14,068	22,661	30,379	49,925
5-D Total	1954	1,725	2,289	2,894	4,171
Industrial	1954	424	598	764	1,083
Nonindustrial	1954	1,301	1,691	2,130	3,087
5-E Total	1954	12,281	18,054	21,817	24,183
Industrial	1954	10,799	16,308	19,770	21,746
Nonindustrial	1954	1,482	1,746	2,047	2,437
5-F Total	1954	18,880	49,550	72,708	148,457
Industrial	1954	15,522	40,356	56,900	110,385
Nonindustrial	1954	3,357	9,194	15,808	38,073
Total for Sabine River Basin	1954	74,927	139,177	185,796	320,852
Industrial	1954	47,672	94,064	124,449	214,107
Nonindustrial	1954	27,255	45,113	61,347	106,745

Table 11

NECHES RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin		Use		Projections		
		Base year	Amount	1965	1975	2000
6-A	Total	1954	3,515	6,030	8,637	16,368
	Industrial	1954	648	1,055	1,534	3,078
	Nonindustrial	1954	2,867	4,975	7,103	13,290
6-B	Total	1954	6,219	12,262	16,371	28,565
	Industrial	1954	4,820	9,900	13,068	22,596
	Nonindustrial	1954	1,399	2,362	3,303	5,969
6-C	Total	1954	2,641	4,807	6,973	13,644
	Industrial	1954	738	1,134	1,584	3,006
	Nonindustrial	1954	1,903	3,673	5,389	10,638
6-D	Total	1954	1,355	1,648	1,858	2,231
	Industrial	1954	84	91	96	105
	Nonindustrial	1954	1,271	1,557	1,762	2,126
6-E	Total	1954	408	481	568	721
	Industrial	1954	32	48	57	63
	Nonindustrial	1954	376	433	511	658
6-F	Total	1954	350	461	538	683
	Industrial	1954	55	83	98	108
	Nonindustrial	1954	295	378	440	575
6-G	Total	1954	17,831	42,795	59,760	112,627
	Industrial	1954	13,661	35,415	49,907	96,699
	Nonindustrial	1954	4,170	7,380	9,853	15,928
Total for Neches River Basin		1954	32,319	68,484	94,705	174,839
	Industrial	1954	20,038	47,726	66,344	125,655
	Nonindustrial	1954	12,281	20,758	28,361	49,184

Table 12

NECHES RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin		Use		Projections		
		Base year	Amount	1965	1975	2000
6-A	Total	1954	10,787	18,506	26,506	50,231
	Industrial	1954	1,989	3,238	4,708	9,446
	Nonindustrial	1954	8,798	15,268	21,798	40,785
6-B	Total	1954	19,085	37,631	50,241	87,662
	Industrial	1954	14,792	30,382	40,104	69,344
	Nonindustrial	1954	4,293	7,249	10,137	18,318
6-C	Total	1954	8,105	14,752	21,399	41,872
	Industrial	1954	2,265	3,480	4,861	9,225
	Nonindustrial	1954	5,840	11,272	16,538	32,647
6-D	Total	1954	4,159	5,057	5,702	6,846
	Industrial	1954	258	279	295	322
	Nonindustrial	1954	3,901	4,778	5,407	6,524
6-E	Total	1954	1,252	1,476	1,743	2,212
	Industrial	1954	98	147	175	193
	Nonindustrial	1954	1,154	1,329	1,568	2,019
6-F	Total	1954	1,074	1,415	1,651	2,096
	Industrial	1954	169	255	301	331
	Nonindustrial	1954	905	1,160	1,350	1,765
6-G	Total	1954	54,721	131,333	183,396	345,639
	Industrial	1954	41,924	108,684	153,158	296,758
	Nonindustrial	1954	12,797	22,648	30,238	48,881
Total for Neches River Basin		1954	99,183	210,169	290,638	536,560
	Industrial	1954	61,494	146,475	203,601	385,620
	Nonindustrial	1954	37,689	63,704	87,037	150,940

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Table 13

TRINITY RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base Year	Amount	1965	1975	2000
7-A Total	1954	10,435	17,876	24,852	55,215
Industrial	1954	2,093	2,990	3,870	7,810
Nonindustrial	1954	8,342	14,886	20,982	47,405
7-B Total	1954	2,024	3,630	5,052	9,985
Industrial	1950	121	149	173	275
Nonindustrial	1954	1,903	3,481	4,879	9,710
7-C Total	1954	27,817	45,332	59,525	129,166
Industrial	1954	4,752	6,900	8,937	18,471
Nonindustrial	1954	23,065	38,432	50,588	110,695
7-D Total	1954	9,247	15,154	20,397	41,141
Industrial	1954	1,449	1,966	2,409	4,426
Nonindustrial	1954	7,798	13,188	17,988	36,715
7-E Total	1954	2,177	3,527	4,437	6,431
Industrial	1954	83	123	149	255
Nonindustrial	1954	2,094	3,404	4,288	6,176
7-F Total	1954	16,493	24,355	30,208	63,825
Industrial	1954	1,790	2,681	3,450	7,262
Nonindustrial	1954	14,703	21,674	26,758	56,563
7-G Total	1954	1,101	2,048	2,108	3,138
Industrial	1954	282	427	568	1,022
Nonindustrial	1954	819	1,621	1,540	2,116
7-H Total	1954	971	1,193	1,264	1,395
Industrial	1954	135	168	185	178
Nonindustrial	1954	836	1,025	1,079	1,217
7-I Total	1954	1,623	2,465	2,910	2,915
Industrial	1954	1,307	2,032	2,371	2,245
Nonindustrial	1954	316	433	539	670
Total for Trinity River Basin	1954	71,888	115,580	150,753	313,211
Industrial	1950 & 1954	12,012	17,436	22,112	41,944
Nonindustrial	1954	59,876	98,144	128,641	271,267

Table 14

TRINITY RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin		Use		Projections		
		Base year	Amount	1965	1975	2000
7-A	Total	1954	32,024	54,859	76,268	169,448
	Industrial	1954	6,423	9,176	11,877	23,968
	Nonindustrial	1954	25,601	45,683	64,391	145,480
7-B	Total	1954	6,211	11,140	15,504	30,643
	Industrial	1950	371	457	531	844
	Nonindustrial	1954	5,840	10,683	14,973	29,799
7-C	Total	1954	85,367	139,118	182,675	396,395
	Industrial	1954	14,583	21,175	27,427	56,685
	Nonindustrial	1954	70,784	117,943	155,249	339,710
7-D	Total	1954	28,378	46,506	62,596	126,257
	Industrial	1954	4,447	6,033	7,393	13,583
	Nonindustrial	1954	23,931	40,472	55,203	112,674
7-E	Total	1954	6,681	10,824	13,617	19,736
	Industrial	1954	255	377	457	783
	Nonindustrial	1954	6,426	10,446	13,159	18,953
7-F	Total	1954	50,615	74,743	92,705	195,871
	Industrial	1954	5,493	8,228	10,588	22,286
	Nonindustrial	1954	45,122	66,515	82,117	173,585
7-G	Total	1954	3,378	6,285	6,469	9,630
	Industrial	1954	865	1,310	1,743	3,136
	Nonindustrial	1954	2,513	4,975	4,726	6,494
7-H	Total	1954	2,980	3,662	3,879	4,281
	Industrial	1954	414	516	568	546
	Nonindustrial	1954	2,566	3,146	3,311	3,735
7-I	Total	1954	4,981	7,565	8,930	8,946
	Industrial	1954	4,001	6,236	7,276	6,890
	Nonindustrial	1954	970	1,329	1,654	2,056
Total for Trinity River Basin		1954	220,615	354,701	462,643	961,207
	Industrial	1950 & 1954	36,863	53,509	67,859	128,721
	Nonindustrial	1954	183,752	301,192	394,784	832,486

Table 15

SAN JACINTO RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
8-A Total	1954	354	588	741	947
Industrial	1954	104	177	199	125
Nonindustrial	1954	250	411	542	822
8-B Total	1954	1,907	2,653	3,137	4,197
Industrial	1954	366	520	624	657
Nonindustrial	1954	1,541	2,133	2,513	3,540
8-C Total	1954	118	244	341	406
Industrial	1954	---	---	---	---
Nonindustrial	1954	118	244	341	406
8-D Total	1954	69	104	134	175
Industrial	1954	20	40	60	80
Nonindustrial	1954	49	64	74	95
8-E Total	1954	92,519	146,518	204,020	484,169
Industrial	1954	55,859	96,075	140,015	345,602
Nonindustrial	1954	36,660	50,443	64,005	138,567
Total for San Jacinto River Basin	1954	94,967	150,107	208,373	489,894
Industrial	1954	56,349	96,812	140,898	346,464
Nonindustrial	1954	38,618	53,295	67,475	143,430

Table 16

SAN JACINTO RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
8-A Total	1954	1,086	1,804	2,274	2,907
Industrial	1954	319	543	611	384
Nonindustrial	1954	767	1,261	1,663	2,523
8-B Total	1954	5,852	8,142	9,627	12,880
Industrial	1954	1,123	1,596	1,915	2,016
Nonindustrial	1954	4,729	6,546	7,712	10,864
8-C Total	1954	362	749	1,046	1,246
Industrial	1954	---	---	---	---
Nonindustrial	1954	362	749	1,046	1,246
8-D Total	1954	211	319	411	538
Industrial	1954	61	123	184	246
Nonindustrial	1954	150	196	227	292
8-E Total	1954	283,930	449,647	626,113	1,485,856
Industrial	1954	171,425	294,843	429,689	1,060,611
Nonindustrial	1954	112,505	154,804	196,424	425,245
Total for San Jacinto River Basin	1954	291,441	460,661	639,471	1,503,427
Industrial	1954	172,928	297,105	432,399	1,063,257
Nonindustrial	1954	118,513	163,556	207,072	440,170

Table 17

BRAZOS RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin		Use		Projections		
		Base year	Amount	1965	1975	2000
9-A	Total	1957	1,256	1,905	2,734	3,517
	Industrial	1957	550	880	1,294	1,319
	Nonindustrial	1957	706	1,025	1,440	2,198
9-B	Total	1957	4,221	6,756	9,940	14,905
	Industrial	1957	1,300	1,940	2,641	3,302
	Nonindustrial	1957	2,921	4,816	7,299	11,603
9-C	Total	1957	6,355	8,172	10,455	14,244
	Industrial	1957	955	1,394	1,723	2,370
	Nonindustrial	1957	5,400	6,778	8,732	11,874
9-D	Total	1957	2,715	2,947	3,190	3,890
	Industrial	1957	585	673	739	944
	Nonindustrial	1957	2,130	2,274	2,451	2,946
9-E	Total	1957	960	1,052	1,169	1,401
	Industrial	1957	200	270	360	530
	Nonindustrial	1957	760	782	809	871
9-F	Total	1957	2,552	3,062	3,691	5,054
	Industrial	1957	51	71	96	152
	Nonindustrial	1957	2,501	2,991	3,595	4,902
9-G	Total	1954	6,466	13,277	19,899	40,506
	Industrial	1957	859	1,832	2,602	5,322
	Nonindustrial	1954	5,607	11,445	17,297	35,184
9-H	Total	1954	2,665	4,126	5,513	9,067
	Industrial	1954	78	151	214	408
	Nonindustrial	1954	2,587	3,975	5,299	8,659
9-I	Total	1954	2,616	2,861	3,078	3,697
	Industrial	1957	39	49	62	79
	Nonindustrial	1954	2,577	2,812	3,016	3,618
9-J	Total	1954	6,526	9,031	11,294	16,408
	Industrial	1954	1,458	1,491	1,512	1,577
	Nonindustrial	1954	5,068	7,540	9,782	14,831

(Continued)

Table 18

BRAZOS RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin		Use		Projections		
		Base year	Amount	1965	1975	2000
9-A	Total	1957	3,855	5,847	8,390	10,793
	Industrial	1957	1,688	2,701	3,971	4,048
	Nonindustrial	1957	2,167	3,146	4,419	6,745
9-B	Total	1957	12,954	20,734	30,505	45,741
	Industrial	1957	3,990	5,954	8,105	10,133
	Nonindustrial	1957	8,964	14,780	22,400	35,608
9-C	Total	1957	19,503	25,079	32,085	43,713
	Industrial	1957	2,931	4,278	5,288	7,273
	Nonindustrial	1957	16,572	20,801	26,797	36,440
9-D	Total	1957	8,332	9,044	9,790	11,938
	Industrial	1957	1,795	2,065	2,268	2,897
	Nonindustrial	1957	6,537	6,979	7,522	9,041
9-E	Total	1957	2,946	3,229	3,588	4,300
	Industrial	1957	614	829	1,105	1,627
	Nonindustrial	1957	2,332	2,400	2,483	2,673
9-F	Total	1957	7,832	9,397	11,328	15,510
	Industrial	1957	157	218	295	466
	Nonindustrial	1957	7,675	9,179	11,033	15,044
9-G	Total	1954	19,843	40,745	61,067	124,308
	Industrial	1957	2,636	5,622	7,985	16,333
	Nonindustrial	1954	17,207	35,123	53,082	107,975
9-H	Total	1954	8,178	12,662	16,919	27,825
	Industrial	1954	239	463	657	1,252
	Nonindustrial	1954	7,939	12,199	16,262	26,573
9-I	Total	1954	8,029	8,780	9,446	11,345
	Industrial	1957	120	150	190	242
	Nonindustrial	1954	7,909	8,630	9,256	11,103
9-J	Total	1954	20,027	27,715	34,660	50,355
	Industrial	1954	4,474	4,576	4,640	4,840
	Nonindustrial	1954	15,553	23,139	30,020	45,515

(Continued)

Table 17 (Continued)

BRAZOS RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
9-K Total	1954	2,984	5,624	7,725	12,904
Industrial	1954	2,078	3,980	5,482	9,189
Nonindustrial	1954	906	1,644	2,243	3,715
9-L Total	1954	891	1,193	1,424	1,650
Industrial	1954	29	37	42	40
Nonindustrial	1954	862	1,156	1,382	1,610
9-M Total	1954	4,747	7,921	10,774	18,681
Industrial	1954	521	763	954	1,463
Nonindustrial	1954	4,226	7,158	9,820	17,218
9-N Total	1954	29,808	44,230	54,157	73,105
Industrial	1954	27,240	39,918	48,098	61,478
Nonindustrial	1954	2,568	4,312	6,059	11,627
9-X Total	1957	2,593	3,754	5,158	7,159
Industrial	1957	243	372	536	571
Nonindustrial	1957	2,350	3,382	4,622	6,588
9-Y Total	1957	6,948	11,461	17,254	25,492
Industrial	1957	993	1,405	2,303	3,131
Nonindustrial	1957	5,955	10,056	14,951	22,361
Total for Brazos River Basin	1954 & 1957	84,303	127,372	176,056	251,680
Industrial	1954 & 1957	37,179	55,226	68,658	91,875
Nonindustrial	1954 & 1957	47,124	72,146	98,797	159,805

Table 18 (Continued)

BRAZOS RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
9-K Total	1954	9,157	17,259	23,707	39,601
Industrial	1954	6,377	12,214	16,824	28,200
Nonindustrial	1954	2,780	5,045	6,883	11,401
9-L Total	1954	2,734	3,662	4,370	5,064
Industrial	1954	89	114	129	123
Nonindustrial	1954	2,645	3,548	4,241	4,941
9-M Total	1954	14,568	24,309	33,064	57,330
Industrial	1954	1,599	2,342	2,928	4,490
Nonindustrial	1954	12,969	21,967	30,136	52,840
9-N Total	1954	91,477	135,737	166,201	224,351
Industrial	1954	83,596	122,504	147,607	188,669
Nonindustrial	1954	7,881	13,233	18,594	35,682
9-X Total	1957	7,958	11,521	15,829	21,970
Industrial	1957	746	1,142	1,645	1,752
Nonindustrial	1957	7,212	10,379	14,184	20,218
9-Y Total	1957	21,322	35,173	52,951	78,232
Industrial	1957	3,047	4,312	7,068	9,609
Nonindustrial	1957	18,275	30,861	45,883	68,623
Total for Brazos River Basin	1954 & 1957	258,715	390,893	513,900	772,376
Industrial	1954 & 1957	114,098	169,484	210,705	281,954
Nonindustrial	1954 & 1957	144,617	221,409	303,195	490,422

Table 19

COLORADO RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
10-A Total	1957	3,436	4,532	5,820	6,711
Industrial	1957	1,960	2,885	3,942	4,520
Nonindustrial	1957	1,476	1,647	1,878	2,191
10-B Total	1957	6,398	8,511	11,062	19,328
Industrial	1957	2,843	4,429	6,347	13,059
Nonindustrial	1957	3,555	4,082	4,715	6,269
10-C Total	1957	2,177	2,994	4,090	6,091
Industrial	1957	175	243	322	494
Nonindustrial	1957	2,002	2,751	3,768	5,597
10-D Total	1957	1,720	2,453	3,381	5,022
Industrial	1957	44	71	81	131
Nonindustrial	1957	1,676	2,382	3,300	4,891
10-E Total	1957	2,716	3,027	3,318	3,940
Industrial	1957	205	278	371	554
Nonindustrial	1957	2,511	2,749	2,947	3,386
10-F Total	1957	1,388	1,544	1,794	2,412
Industrial	1957	---	---	---	---
Nonindustrial	1957	1,388	1,544	1,794	2,412
10-G Total	1957	1,121	1,278	1,421	1,594
Industrial	1957	207	273	356	491
Nonindustrial	1957	914	1,005	1,065	1,103
10-H Total	1957	586	748	853	1,274
Industrial	1957	---	---	---	---
Nonindustrial	1957	586	748	853	1,274
10-I Total	1954	538	630	735	1,096
Industrial	1954	---	---	---	---
Nonindustrial	1954	538	630	735	1,096
10-J Total	1954	8,578	14,453	19,828	34,238
Industrial	1957	194	281	374	683
Nonindustrial	1954	8,384	14,172	19,454	33,555

(Continued)

Table 20

COLORADO RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
10-A Total	1957	10,545	13,908	17,861	20,595
Industrial	1957	6,015	8,854	12,098	13,871
Nonindustrial	1957	4,530	5,054	5,763	6,724
10-B Total	1957	19,635	26,119	33,948	59,316
Industrial	1957	8,725	13,592	19,478	40,077
Nonindustrial	1957	10,910	12,527	14,470	19,239
10-C Total	1957	6,681	9,188	12,552	18,693
Industrial	1957	537	746	988	1,516
Nonindustrial	1957	6,144	8,442	11,564	17,177
10-D Total	1957	5,278	7,528	10,376	15,412
Industrial	1957	135	218	249	402
Nonindustrial	1957	5,143	7,310	10,127	15,010
10-E Total	1957	8,335	9,289	10,183	12,091
Industrial	1957	629	853	1,139	1,700
Nonindustrial	1957	7,706	8,436	9,044	10,391
10-F Total	1957	4,260	4,738	5,506	7,402
Industrial	1957	---	---	---	---
Nonindustrial	1957	4,260	4,738	5,506	7,402
10-G Total	1957	3,440	3,922	4,361	4,892
Industrial	1957	635	838	1,093	1,507
Nonindustrial	1957	2,805	3,084	3,268	3,385
10-H Total	1957	1,798	2,296	2,618	3,910
Industrial	1957	---	---	---	---
Nonindustrial	1957	1,798	2,296	2,618	3,910
10-I Total	1954	1,651	1,933	2,256	3,363
Industrial	1954	---	---	---	---
Nonindustrial	1954	1,651	1,933	2,256	3,363
10-J Total	1954	26,324	44,354	60,850	105,072
Industrial	1957	595	862	1,148	2,096
Nonindustrial	1954	25,729	43,492	59,702	102,976

(Continued)

Table 19 (Continued)

COLORADO RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
10-K Total	1954	4,282	6,340	8,305	13,394
Industrial	1954	213	337	464	795
Nonindustrial	1954	4,069	6,003	7,841	12,599
10-L Total	1954	2,957	4,734	5,977	7,481
Industrial	1954	1,717	2,629	3,150	2,939
Nonindustrial	1954	1,240	2,105	2,827	4,542
10-X Total	1957	2,089	3,304	4,954	5,822
Industrial	1957	1,000	1,700	2,752	2,799
Nonindustrial	1957	1,089	1,604	2,202	3,023
10-Y Total	1957	13,617	20,608	29,414	43,297
Industrial	1957	5,923	8,717	12,803	18,189
Nonindustrial	1957	7,694	11,891	16,611	25,108
10-Z Total	1957	131	169	227	325
Industrial	1957	100	135	180	265
Nonindustrial	1957	31	34	47	60
Total for Colorado River Basin	1954 & 1957	51,734	75,325	101,179	152,025
Industrial	1954 & 1957	14,581	21,978	31,142	44,919
Nonindustrial	1954 & 1957	37,153	53,347	70,037	107,106

Table 20 (Continued)

COLORADO RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
10-K Total	1954	13,141	19,456	25,487	41,105
Industrial	1954	654	1,034	1,424	2,440
Nonindustrial	1954	12,487	18,422	24,063	38,665
10-L Total	1954	9,074	14,528	18,343	22,958
Industrial	1954	5,269	8,068	9,667	9,019
Nonindustrial	1954	3,805	6,460	8,676	13,939
10-X Total	1957	6,411	10,139	15,204	17,867
Industrial	1957	3,069	5,217	8,446	8,590
Nonindustrial	1957	3,342	4,922	6,758	9,277
10-Y Total	1957	41,789	63,243	90,268	132,873
Industrial	1957	18,177	26,751	39,291	55,820
Nonindustrial	1957	23,612	36,492	50,977	77,053
10-Z Total	1957	402	518	696	997
Industrial	1957	307	414	552	813
Nonindustrial	1957	95	104	144	184
Total for Colorado River Basin	1954 & 1957	158,764	231,159	310,509	466,546
Industrial	1954 & 1957	44,747	67,447	95,573	137,851
Nonindustrial	1954 & 1957	114,017	163,712	214,936	328,695

Table 21

LAVACA RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
11-A Total	1954	866	1,349	1,712	2,190
Industrial	1954	186	306	373	361
Nonindustrial	1954	680	1,043	1,339	1,829
11-B Total	1954	1,014	1,395	1,628	2,278
Industrial	1954	251	348	416	440
Nonindustrial	1954	763	1,047	1,212	1,838
Total for Lavaca River Basin	1954	1,880	2,744	3,340	4,468
Industrial	1954	437	654	789	801
Nonindustrial	1954	1,443	2,090	2,551	3,667

Table 22

LAVACA RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
11-A Total	1954	2,658	4,140	5,254	6,721
Industrial	1954	571	939	1,145	1,108
Nonindustrial	1954	2,087	3,201	4,109	5,613
11-B Total	1954	3,112	4,281	4,996	6,991
Industrial	1954	770	1,068	1,277	1,350
Nonindustrial	1954	2,342	3,213	3,719	5,641
Total for Lavaca River Basin	1954	5,770	8,421	10,250	13,712
Industrial	1954	1,341	2,007	2,422	2,458
Nonindustrial	1954	4,429	6,414	7,828	11,254

Table 23

GUADALUPE RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
12-A Total	1954	888	1,114	1,353	2,447
Industrial	1954	---	---	---	---
Nonindustrial	1954	888	1,114	1,353	2,447
12-B Total	1954	1,731	2,933	3,737	6,034
Industrial	1954	155	265	340	600
Nonindustrial	1954	1,576	2,668	3,397	5,434
12-C Total	1954	2,741	3,804	4,793	7,662
Industrial	1954	1,141	1,489	1,951	2,921
Nonindustrial	1954	1,600	2,315	2,842	4,741
12-D Total	1954	697	832	911	1,133
Industrial	1954	93	106	120	132
Nonindustrial	1954	604	726	791	1,001
12-E Total	1954	6,463	8,477	14,256	34,164
Industrial	1954	4,845	5,445	9,564	25,054
Nonindustrial	1954	1,618	3,032	4,692	9,110
12-F Total	1954	857	1,242	1,624	3,657
Industrial	1954	605	890	1,196	3,131
Nonindustrial	1954	252	352	428	526
Total for Guadalupe River Basin	1954	13,377	18,402	26,674	55,097
Industrial	1954	6,839	8,195	13,171	31,838
Nonindustrial	1954	6,538	10,207	13,503	23,259

Table 24

GUADALUPE RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
12-A Total	1954	2,725	3,419	4,152	7,510
Industrial	1954	---	---	---	---
Nonindustrial	1954	2,725	3,419	4,152	7,510
12-B Total	1954	5,314	9,001	11,468	18,517
Industrial	1954	477	813	1,043	1,841
Nonindustrial	1954	4,837	8,188	10,425	16,676
12-C Total	1954	8,412	11,674	14,709	23,514
Industrial	1954	3,502	4,570	5,987	8,964
Nonindustrial	1954	4,910	7,104	8,722	14,550
12-D Total	1954	2,139	2,553	2,795	3,477
Industrial	1954	285	325	368	405
Nonindustrial	1954	1,854	2,228	2,427	3,072
12-E Total	1954	19,834	26,015	43,750	104,845
Industrial	1954	14,869	16,710	29,351	76,888
Nonindustrial	1954	4,965	9,305	14,399	27,957
12-F Total	1954	2,630	3,811	4,983	11,223
Industrial	1954	1,857	2,731	3,670	9,609
Nonindustrial	1954	773	1,080	1,313	1,614
Total for Guadalupe River Basin	1954	41,054	56,473	81,857	169,086
Industrial	1954	20,990	25,149	40,419	97,707
Nonindustrial	1954	20,064	31,324	41,438	71,379

Table 25

SAN ANTONIO RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
13-A Total	1957	217	259	302	363
Industrial	1957	---	---	---	---
Nonindustrial	1957	217	259	302	363
13-B Total	1954	2,977	4,423	6,259	11,040
Industrial	1954	2,300	3,255	4,138	7,190
Nonindustrial	1954	677	1,168	2,121	3,850
13-C Total	1954	33,132	49,548	64,826	132,145
Industrial	1954	4,241	6,046	7,685	13,354
Nonindustrial	1954	28,891	43,502	57,141	118,791
13-D Total	1954	1,166	1,757	2,417	4,172
Industrial	1954	45	50	56	62
Nonindustrial	1954	1,121	1,707	2,361	4,110
13-E Total	1954	818	1,044	1,233	1,483
Industrial	1954	74	82	102	115
Nonindustrial	1954	744	962	1,131	1,368
Total for San Antonio River Basin	1954 & 1957	38,310	57,031	75,037	149,203
Industrial	1954 & 1957	6,660	9,433	11,981	20,721
Nonindustrial	1954 & 1957	31,650	47,598	63,056	128,482

Table 26

SAN ANTONIO RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
13-A Total	1957	666	795	927	1,114
Industrial	1957	---	---	---	---
Nonindustrial	1957	666	795	927	1,114
13-B Total	1954	9,136	13,573	19,208	33,880
Industrial	1954	7,058	9,989	12,699	22,065
Nonindustrial	1954	2,078	3,584	6,509	11,815
13-C Total	1954	101,678	152,056	198,943	405,537
Industrial	1954	13,015	18,554	23,584	40,982
Nonindustrial	1954	88,663	133,502	175,359	364,555
13-D Total	1954	3,578	5,392	7,418	12,803
Industrial	1954	138	153	172	190
Nonindustrial	1954	3,440	5,239	7,246	12,613
13-E Total	1954	2,510	3,204	3,784	4,551
Industrial	1954	227	252	313	353
Nonindustrial	1954	2,283	2,952	3,471	4,198
Total for San Antonio River Basin	1954 & 1957	117,568	175,020	230,280	457,885
Industrial	1954 & 1957	20,438	28,948	36,768	63,590
Nonindustrial	1954 & 1957	97,130	146,072	193,512	394,295

Table 27

NUECES RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
14-A Total	1957	21	24	28	33
Industrial	1957	---	---	---	---
Nonindustrial	1957	21	24	28	33
14-B Total	1957	136	156	179	244
Industrial	1957	---	---	---	---
Nonindustrial	1957	136	156	179	244
14-C Total	1957	13	15	17	20
Industrial	1957	---	---	---	---
Nonindustrial	1957	13	15	17	20
14-D Total	1957	914	1,378	1,982	3,426
Industrial	1957	96	130	173	294
Nonindustrial	1957	818	1,248	1,809	3,132
14-E Total	1957	68	78	90	139
Industrial	1957	---	---	---	---
Nonindustrial	1957	68	78	90	139
14-F Total	1957	2,221	2,641	3,209	5,008
Industrial	1957	---	---	---	---
Nonindustrial	1957	2,221	2,641	3,209	5,008
14-G Total	1954	595	693	798	1,001
Industrial	1957	65	92	124	112
Nonindustrial	1954	530	601	674	889
14-H Total	1954	1,000	1,257	1,556	2,021
Industrial	1957	165	242	324	302
Nonindustrial	1954	835	1,015	1,232	1,719
14-I Total	1954	556	683	802	981
Industrial	1957	108	147	181	184
Nonindustrial	1954	448	536	621	797
14-J Total	1954	727	1,141	1,488	1,962
Industrial	1954	111	139	164	216
Nonindustrial	1954	616	1,002	1,324	1,746

(Continued)

Table 28

NUECES RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
14-A Total	1957	64	74	86	101
Industrial	1957	---	---	---	---
Nonindustrial	1957	64	74	86	101
14-B Total	1957	417	479	549	749
Industrial	1957	---	---	---	---
Nonindustrial	1957	417	479	549	749
14-C Total	1957	40	46	52	61
Industrial	1957	---	---	---	---
Nonindustrial	1957	40	46	52	61
14-D Total	1957	2,805	4,229	6,083	10,514
Industrial	1957	295	399	531	902
Nonindustrial	1957	2,510	3,830	5,552	9,612
14-E Total	1957	209	239	276	427
Industrial	1957	---	---	---	---
Nonindustrial	1957	209	239	276	427
14-F Total	1957	6,816	8,105	9,848	15,369
Industrial	1957	---	---	---	---
Nonindustrial	1957	6,816	8,105	9,848	15,369
14-G Total	1954	1,826	2,126	2,449	3,072
Industrial	1957	199	282	381	344
Nonindustrial	1954	1,627	1,844	2,068	2,728
14-H Total	1954	3,069	3,858	4,775	6,202
Industrial	1957	506	743	994	927
Nonindustrial	1954	2,563	3,115	3,781	5,275
14-I Total	1954	1,706	2,096	2,461	3,011
Industrial	1957	331	451	555	565
Nonindustrial	1954	1,375	1,645	1,906	2,446
14-J Total	1954	2,231	3,502	4,566	6,021
Industrial	1954	341	427	503	663
Nonindustrial	1954	1,890	3,075	4,063	5,358

(Continued)

Table 27 (Continued)

NUECES RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
14-K Total	1954	1,945	3,910	5,553	10,794
Industrial	1954	1,738	3,526	4,942	9,264
Nonindustrial	1954	207	384	611	1,530
Total for Nueces River Basin	1954 & 1957	8,196	11,976	15,702	25,629
Industrial	1954 & 1957	2,283	4,276	5,908	10,372
Nonindustrial	1954 & 1957	5,913	7,700	9,794	15,257

Table 28 (Continued)

NUECES RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
14-K Total	1954	5,969	11,999	17,041	33,125
Industrial	1954	5,334	10,821	15,166	28,430
Nonindustrial	1954	635	1,178	1,875	4,695
Total for Nueces River Basin	1954 & 1957	25,152	36,753	48,186	78,652
Industrial	1954 & 1957	7,006	13,123	18,130	31,831
Nonindustrial	1954 & 1957	18,146	23,630	30,056	46,821

Table 29

RIO GRANDE RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
15-B Total	1957	14,255	23,086	34,256	47,127
Industrial	1957	4,408	5,408	6,656	7,601
Nonindustrial	1957	9,847	17,678	27,600	39,526
15-D Total	1957	1,720	2,548	3,360	4,857
Industrial	1957	350	516	701	1,008
Nonindustrial	1957	1,370	2,032	2,659	3,849
15-E Total	1957	769	936	1,140	1,124
Industrial	1957	324	408	513	504
Nonindustrial	1957	445	528	627	620
15-F Total	1957	338	380	438	620
Industrial	1957	---	---	---	---
Nonindustrial	1957	338	380	438	620
15-G Total	1957	780	1,031	1,355	1,881
Industrial	1957	350	491	661	918
Nonindustrial	1957	430	540	694	963
15-H Total	1957	2,030	2,547	3,217	4,732
Industrial	1957	---	---	---	---
Nonindustrial	1957	2,030	2,547	3,217	4,732
15-I Total	1957	3,440	4,327	5,432	7,470
Industrial	1957	131	149	171	215
Nonindustrial	1957	3,309	4,178	5,261	7,255
15-J Total	1954	962	1,427	1,938	2,890
Industrial	1957	80	129	188	140
Nonindustrial	1954	882	1,298	1,750	2,750
15-X Total	1957	4,170	5,486	7,212	7,493
Industrial	1957	1,991	2,506	3,150	3,095
Nonindustrial,	1957	2,179	2,980	4,062	4,398
15-Y Total	1957	263	333	398	519
Industrial	1957	0	25	40	90
Nonindustrial	1957	263	308	358	429
Total for Rio Grande River Basin	1954 & 1957	28,727	42,101	58,746	78,713
Industrial	1957	7,634	9,632	12,080	13,571
Nonindustrial	1954 & 1957	21,093	32,469	46,666	65,142

Table 30

RIO GRANDE RIVER BASIN--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
15-B Total	1957	43,747	70,849	105,127	144,628
Industrial	1957	13,528	16,597	20,426	23,327
Nonindustrial	1957	30,219	54,252	84,701	121,301
15-D Total	1957	5,278	7,820	10,311	14,905
Industrial	1957	1,074	1,584	2,151	3,093
Nonindustrial	1957	4,204	6,236	8,160	11,812
15-E Total	1957	2,360	2,872	3,498	3,450
Industrial	1957	994	1,252	1,574	1,547
Nonindustrial	1957	1,366	1,620	1,924	1,903
15-F Total	1957	1,037	1,166	1,344	1,903
Industrial	1957	---	---	---	---
Nonindustrial	1957	1,037	1,166	1,344	1,903
15-G Total	1957	2,394	3,164	4,159	5,772
Industrial	1957	1,074	1,507	2,029	2,817
Nonindustrial	1957	1,320	1,657	2,130	2,955
15-H Total	1957	6,230	7,816	9,873	14,522
Industrial	1957	---	---	---	---
Nonindustrial	1957	6,230	7,816	9,873	14,522
15-I Total	1957	10,557	13,279	16,670	22,925
Industrial	1957	402	457	525	660
Nonindustrial	1957	10,155	12,822	16,145	22,265
15-J Total	1954	2,953	4,379	5,948	8,869
Industrial	1957	246	396	577	430
Nonindustrial	1954	2,707	3,983	5,371	8,439
15-X Total	1957	12,797	16,836	22,133	22,995
Industrial	1957	6,110	7,691	9,667	9,498
Nonindustrial	1957	6,687	9,145	12,466	13,497
15-Y Total	1957	807	1,022	1,222	1,593
Industrial	1957	0	77	123	276
Nonindustrial	1957	807	945	1,099	1,317
Total for Rio Grande River Basin	1954 & 1957	88,160	129,203	180,285	241,562
Industrial	1957	23,428	29,561	37,072	41,648
Nonindustrial	1954 & 1957	64,732	99,642	143,213	199,914

Table 31

COASTAL AREA--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
16-A Total	1954	17,674	42,348	60,183	114,271
Industrial	1954	14,276	36,333	51,003	99,166
Nonindustrial	1954	3,398	6,015	9,180	15,105
16-B Total	1954	1,338	2,269	2,722	3,664
Industrial	1954	1,258	2,204	2,656	3,582
Nonindustrial	1954	80	65	66	82
16-C Total	1954	9,242	15,962	23,195	57,226
Industrial	1954	7,814	13,670	19,936	49,809
Nonindustrial	1954	1,428	2,292	3,259	7,417
16-D Total	1954	24,838	42,575	59,481	139,717
Industrial	1954	18,390	32,697	46,341	113,017
Nonindustrial	1954	6,448	9,878	13,140	26,700
16-E Total	1954	7,263	10,877	13,512	19,306
Industrial	1954	6,750	9,960	12,207	16,484
Nonindustrial	1954	513	917	1,305	2,822
16-F Total	1954	7,203	13,493	21,031	52,935
Industrial	1954	6,470	12,475	19,466	49,861
Nonindustrial	1954	733	1,018	1,565	3,074
16-G Total	1954	1,414	3,980	7,078	19,511
Industrial	1954	1,002	2,241	3,870	11,243
Nonindustrial	1954	412	1,739	3,208	8,268
16-H Total	1954	891	1,255	1,882	2,494
Industrial	1954	447	579	1,022	1,240
Nonindustrial	1954	444	676	860	1,254
16-I Total	1954	3,478	9,325	13,914	35,169
Industrial	1954	1,567	3,896	5,450	10,026
Nonindustrial	1954	1,911	5,429	8,464	25,143
16-J Total	1954	19,286	40,050	56,057	96,215
Industrial	1954	7,359	15,279	21,048	38,517
Nonindustrial	1954	11,927	24,771	35,009	57,698

(Continued)

Table 32

COASTAL AREA--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
16-A Total	1954	54,239	129,960	184,694	350,684
Industrial	1954	43,811	111,501	156,522	304,329
Nonindustrial	1954	10,428	18,459	28,172	46,355
16-B Total	1954	4,107	6,963	8,354	11,245
Industrial	1954	3,861	6,764	8,151	10,993
Nonindustrial	1954	246	199	203	252
16-C Total	1954	28,362	48,986	71,182	175,620
Industrial	1954	23,980	41,952	61,181	152,858
Nonindustrial	1954	4,382	7,034	10,001	22,762
16-D Total	1954	76,225	130,657	182,540	428,775
Industrial	1954	56,437	100,343	142,215	346,836
Nonindustrial	1954	19,788	30,314	40,325	81,939
16-E Total	1954	22,289	33,380	41,467	59,247
Industrial	1954	20,715	30,566	37,462	50,587
Nonindustrial	1954	1,574	2,814	4,005	8,660
16-F Total	1954	22,105	41,408	64,542	162,451
Industrial	1954	19,856	38,284	59,739	153,017
Nonindustrial	1954	2,249	3,124	4,803	9,434
16-G Total	1954	4,339	12,214	21,722	59,876
Industrial	1954	3,075	6,877	11,877	34,503
Nonindustrial	1954	1,264	5,337	9,845	25,373
16-H Total	1954	2,735	3,852	5,775	7,653
Industrial	1954	1,372	1,777	3,136	3,805
Nonindustrial	1954	1,363	2,075	2,639	3,848
16-I Total	1954	10,674	28,617	42,700	107,930
Industrial	1954	4,809	11,956	16,725	30,769
Nonindustrial	1954	5,865	16,661	25,975	77,161
16-J Total	1954	59,187	122,908	172,032	295,272
Industrial	1954	22,584	46,889	64,594	118,204
Nonindustrial	1954	36,603	76,019	107,438	177,068

(Continued)

Table 31 (Continued)

COASTAL AREA--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
16-K Total	1954	1,137	4,482	7,417	13,841
Industrial	1954	726	3,704	6,353	12,284
Nonindustrial	1954	411	778	1,064	1,557
Total for Coastal Area	1954	93,764	186,616	266,472	554,349
Industrial	1954	66,059	133,038	189,352	405,229
Nonindustrial	1954	27,705	53,578	77,120	149,120

Table 32 (Continued)

COASTAL AREA--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
16-K Total	1954	3,489	13,755	22,762	42,476
Industrial	1954	2,228	11,367	19,497	37,698
Nonindustrial	1954	1,261	2,388	3,265	4,778
Total for Coastal Area	1954	287,751	572,700	817,770	1,701,232
Industrial	1954	202,728	408,276	581,099	1,243,600
Nonindustrial	1954	85,023	164,424	236,671	457,632

Table 33

RIO GRANDE RIVER DRAINAGE--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Millions of gallons per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
Total for Rio Grande River Drainage	1954	12,148	32,240	50,679	107,834
Industrial	1957	972	12,400	22,748	58,495
Nonindustrial	1954	11,176	19,840	27,931	49,339

Table 34

RIO GRANDE RIVER DRAINAGE--WATER REQUIREMENTS

Base Year and 1965, 1975, and 2000 Projections

(Acre feet per year)

Sub-basin	Use		Projections		
	Base year	Amount	1965	1975	2000
Total for Rio Grande River Drainage	1954	37,281	98,941	155,528	330,929
Industrial	1957	2,983	38,054	69,811	179,514
Nonindustrial	1954	34,298	60,887	85,717	151,415

Table 35

CITIES OF 5,000+ PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in millions of gallons per year)

City	Base year	Amount	Projections 1965	Projections 1975	Projections 2000
Abilene					
Water requirements	1957	3,568	4,842	6,357	9,457
Population	1957	65,000	80,600	100,000	130,000
Alice					
Water requirements	1954	733	1,409	1,859	2,660
Population	1954	19,900	25,800	29,700	37,000
Alpine					
Water requirements	1957	200	423	702	1,008
Population	1957	5,500	8,166	11,500	14,000
Amarillo					
1-B Water requirements	1957	7,834	11,575	16,214	22,738
Population	1957	115,000	152,800	200,000	265,000
Andrews					
Water requirements	1957	359	791	1,330	1,584
Population	1957	10,500	14,278	19,000	22,000
Athens					
Water requirements	1954	311	432	513	896
Population	1954	5,400	7,900	9,600	15,600
Austin					
Water requirements	1954	9,999	16,898	23,582	41,997
Population	1954	168,000	249,000	325,000	537,000
Ballinger					
Water requirements	1957	327	440	574	742
Population	1957	6,500	7,200	8,000	9,000
Bay City					
Water requirements	1954	411	704	900	1,970
Population	1954	11,600	16,600	20,000	35,000
*Beaumont[1]					
16-A Water requirements	1954	33,480	74,574	100,456	173,495
Population	1954	187,000	303,000	402,000	569,000

(Continued)

Table 36

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in acre feet per year)

City	Base year	Amount	Projections 1965	1975	2000
Abilene					
Water requirements	1957	10,950	14,860	19,509	29,022
Population	1957	65,000	80,600	100,000	130,000
Alice					
Water requirements	1954	2,249	4,324	5,705	8,163
Population	1954	19,900	25,800	29,700	37,000
Alpine					
Water requirements	1957	614	1,298	2,154	3,093
Population	1957	5,500	8,166	11,500	14,000
Amarillo					
Water requirements	1957	24,042	35,522	49,759	69,780
Population	1957	115,000	152,800	200,000	265,000
Andrews					
Water requirements	1957	1,102	2,427	4,082	4,861
Population	1957	10,500	14,278	19,000	22,000
Athens					
Water requirements	1954	954	1,326	1,574	2,750
Population	1954	5,400	7,900	9,600	15,600
Austin					
Water requirements	1954	30,686	51,858	72,370	128,884
Population	1954	168,000	249,000	325,000	537,000
Ballinger					
Water requirements	1957	1,004	1,350	1,762	2,277
Population	1957	6,500	7,200	8,000	9,000
Bay City					
Water requirements	1954	1,261	2,160	2,762	6,046
Population	1954	11,600	16,600	20,000	35,000
*Beaumont[1]					
Water requirements	1954	102,746	228,859	308,288	532,436
Population	1954	187,000	303,000	402,000	569,000

(Continued)

Table 35 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in millions of gallons per year)

City	Base year	Amount	Projections 1965	1975	2000
Beeville					
Water requirements	1954	383	770	1,028	1,385
Population	1954	10,100	16,000	17,000	18,900
Belton					
Water requirements	1954	591	963	1,209	2,228
Population	1954	8,700	11,900	14,100	22,000
Big Spring					
Water requirements	1957	3,686	5,199	7,044	13,922
Population	1957	26,500	30,700	36,000	41,000
Bonham					
Water requirements	1950	232	440	594	894
Population	1950	7,049	9,700	11,500	14,700
Borger					
Water requirements	1957	8,857	13,822	20,060	23,317
Population	1957	23,400	29,400	37,000	43,000
Brady					
Water requirements	1957	639	756	903	1,330
Population	1957	6,800	8,000	9,500	14,000
Breckenridge					
Water requirements	1957	367	506	679	933
Population	1957	7,750	8,300	9,000	11,000
Brenham					
Water requirements	1954	249	352	421	690
Population	1954	7,000	8,300	9,100	12,000
Brownfield					
Water requirements	1957	462	720	1,037	1,512
Population	1957	10,500	13,400	17,000	21,000
Brownsville					
Water requirements	1954	2,060	3,265	4,068	7,180
Population	1954	39,200	55,900	67,000	95,000

(Continued)

Table 36 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in acre feet per year)

City	Base year	Amount	Projections 1965	1975	2000
Beeville					
Water requirements	1954	1,175	2,363	3,155	3,314
Population	1954	10,100	16,000	17,000	18,900
Belton					
Water requirements	1954	1,814	2,955	3,710	6,837
Population	1954	8,700	11,900	14,100	22,000
Big Spring					
Water requirements	1957	11,312	15,955	21,617	42,725
Population	1957	26,500	30,700	36,000	41,000
Bonham					
Water requirements	1950	712	1,350	1,823	2,744
Population	1950	7,049	9,700	11,500	14,700
Borger					
Water requirements	1957	27,181	42,418	61,562	71,557
Population	1957	23,400	29,400	37,000	43,000
Brady					
Water requirements	1957	1,961	2,320	2,771	4,082
Population	1957	6,800	8,000	9,500	14,000
Breckenridge					
Water requirements	1957	1,126	1,553	2,084	2,863
Population	1957	7,750	8,300	9,000	11,000
Brenham					
Water requirements	1954	764	1,080	1,292	2,118
Population	1954	7,000	8,300	9,100	12,000
Brownfield					
Water requirements	1957	1,418	2,210	3,182	4,640
Population	1957	10,500	13,400	17,000	21,000
Brownsville					
Water requirements	1954	6,322	10,020	12,484	22,035
Population	1954	39,200	55,900	67,000	95,000

(Continued)

Table 35 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in millions of gallons per year)

City	Base year	Amount	Projections 1965	Projections 1975	Projections 2000
Brownwood					
Water requirements	1957	1,831	2,000	2,132	2,460
Population	1957	22,100	23,800	26,000	30,000
*Bryan[2]					
Water requirements	1954	1,446	3,223	4,831	9,572
Population	1954	38,000	67,000	91,000	146,000
Cameron					
Water requirements	1954	236	326	386	564
Population	1954	6,000	7,500	8,000	9,000
Childress					
Water requirements	1957	70	280	549	720
Population	1957	8,200	8,600	9,000	10,000
Cisco					
Water requirements	1957	657	699	762	879
Population	1957	6,000	6,400	7,000	8,000
Cleburne					
Water requirements	1954	836	1,040	1,176	1,950
Population	1954	14,100	18,400	21,200	30,000
Cleveland					
Water requirements	1954	145	297	399	644
Population	1954	6,600	8,000	8,500	11,000
Coleman					
Water requirements	1957	342	428	526	713
Population	1957	6,900	7,400	8,000	9,000
Colorado City					
Water requirements	1957	647	820	1,022	1,414
Population	1957	8,842	10,250	12,000	15,000
Commerce					
Water requirements	1954	167	320	422	794
Population	1954	6,300	7,900	10,500	15,000

(Continued)

Table 36 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in acre feet per year)

City	Base year	Amount	Projections 1965	1975	2000
Brownwood					
Water requirements	1957	5,619	6,138	6,543	7,549
Population	1957	22,100	23,800	26,000	30,000
*Bryan[2]					
Water requirements	1954	4,438	9,891	14,826	29,375
Population	1954	38,000	67,000	91,000	146,000
Cameron					
Water requirements	1954	724	1,000	1,185	1,731
Population	1954	6,000	7,500	8,000	9,000
Childress					
Water requirements	1957	215	859	1,685	2,210
Population	1957	8,200	8,600	9,000	10,000
Cisco					
Water requirements	1957	2,016	2,145	2,338	2,698
Population	1957	6,000	6,400	7,000	8,000
Cleburne					
Water requirements	1954	2,566	3,192	3,609	5,984
Population	1954	14,100	18,400	21,200	30,000
Cleveland					
Water requirements	1954	445	911	1,224	1,976
Population	1954	6,600	8,000	8,500	11,000
Coleman					
Water requirements	1957	1,050	1,313	1,614	2,188
Population	1957	6,900	7,400	8,000	9,000
Colorado City					
Water requirements	1957	1,986	2,516	3,136	4,339
Population	1957	8,842	10,250	12,000	15,000
Commerce					
Water requirements	1954	513	982	1,295	2,437
Population	1954	6,300	7,900	10,500	15,000

(Continued)

Table 35 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in millions of gallons per year)

City	Base year	Amount	Projections 1965	1975	2000
Conroe					
Water requirements	1954	596	927	1,148	1,594
Population	1954	8,500	11,000	12,700	17,000
*Corpus Christi[3]					
Water requirements	1954	20,230	45,923	66,758	131,144
Population	1954	225,000	404,000	560,000	986,000
→ 1960		210,000			
Corsicana					
Water requirements	1954	796	1,397	1,798	3,035
Population	1954	21,200	27,100	31,000	43,000
Crockett					
Water requirements	1954	185	248	290	373
Population	1954	6,700	7,200	7,500	8,000
Crystal City					
Water requirements	1957	309	547	845	1,624
Population	1957	9,500	10,611	12,000	19,000
Cuero					
Water requirements	1954	353	517	626	859
Population	1954	8,000	9,500	10,500	12,000
Dalhart					
1-B Water requirements	1957	375	420	469	576
Population	1957	6,500	6,700	7,000	8,000
*Dallas[4]					
Water requirements	1954	35,549	56,401	74,193	162,473
Population	1954	678,000	910,000	1,084,000	2,053,000
Del Rio					
Water requirements	1957	1,326	1,592	1,925	2,520
Population	1957	19,500	23,056	27,500	35,000
Denton					
Water requirements	1954	1,014	2,158	2,921	5,424
Population	1954	23,500	40,000	51,000	78,000

(Continued)

Table 36 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in acre feet per year)

City	Base year	Amount	Projections 1965	1975	2000
Conroe					
Water requirements	1954	1,829	2,845	3,523	4,892
Population	1954	8,500	11,000	12,700	17,000
*Corpus Christi[3]					
Water requirements	1954	62,084	140,932	204,873	402,466
Population	1954	225,000	404,000	560,000	986,000
Corsicana					
Water requirements	1954	2,443	4,287	5,518	9,314
Population	1954	21,200	27,100	31,000	43,000
Crockett					
Water requirements	1954	568	761	890	1,145
Population	1954	6,700	7,200	7,500	8,000
Crystal City					
Water requirements	1957	948	1,679	2,593	4,984
Population	1957	9,500	10,611	12,000	19,000
Cuero					
Water requirements	1954	1,083	1,587	1,921	2,636
Population	1954	8,000	9,500	10,500	12,000
Dalhart					
Water requirements	1957	1,151	1,289	1,439	1,768
Population	1957	6,500	6,700	7,000	8,000
*Dallas[4]					
Water requirements	1954	109,096	173,088	227,690	498,611
Population	1954	678,000	910,000	1,084,000	2,053,000
Del Rio					
Water requirements	1957	4,069	4,886	5,908	7,734
Population	1957	19,500	23,056	27,500	35,000
Denton					
Water requirements	1954	3,112	6,623	8,964	16,646
Population	1954	23,500	40,000	51,000	78,000

(Continued)

Table 35 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in millions of gallons per year)

City	Base year	Amount	Projections 1965	Projections 1975	Projections 2000
Donna					
Water requirements	1954	404	953	1,319	2,425
Population	1954	9,400	12,800	15,000	20,000
Dumas					
Water requirements	1957	2,234	3,433	4,924	6,704
Population	1957	11,500	15,300	20,000	27,000
Eagle Pass					
Water requirements	1957	479	673	915	1,584
Population	1957	11,000	12,778	15,000	22,000
Edinburg					
Water requirements	1954	465	922	1,226	2,013
Population	1954	16,100	19,900	22,500	29,000
El Campo					
Water requirements	1954	211	335	418	928
Population	1954	7,300	9,000	10,200	17,500
El Paso					
Water requirements	1957	13,718	22,361	33,164	45,510
Population	1957	263,000	339,247	434,558	526,507
Electra					
Water requirements	1950	395	536	641	917
Population	1950	5,923	6,900	7,700	9,700
Ennis					
Water requirements	1954	308	556	721	1,225
Population	1954	8,100	10,600	12,200	17,000
Falfurrias					
Water requirements	1954	629	1,063	1,351	1,634
Population	1954	7,700	9,700	11,000	13,800
Fort Stockton					
Water requirements	1957	377	521	700	1,080
Population	1957	7,000	8,333	10,000	15,000

(Continued)

Table 36 (Continued)

CITIES OF 5,000 PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in acre feet per year)

City	Base year	Amount	Projections 1965	1975	2000
Donna					
Water requirements	1954	1,240	2,925	4,048	7,442
Population	1954	9,400	12,800	15,000	20,000
Dumas					
Water requirements	1957	6,856	10,535	15,111	20,574
Population	1957	11,500	15,300	20,000	27,000
Eagle Pass					
Water requirements	1957	1,470	2,065	2,808	4,861
Population	1957	11,000	12,778	15,000	22,000
Edinburg					
Water requirements	1954	1,427	2,830	3,762	6,178
Population	1954	16,100	19,900	22,500	29,000
El Campo					
Water requirements	1954	648	1,028	1,283	2,848
Population	1954	7,300	9,000	10,200	17,500
El Paso					
Water requirements	1957	42,099	68,623	101,776	139,665
Population	1957	263,000	339,247	434,558	526,507
Electra					
Water requirements	1950	1,212	1,645	1,967	2,814
Population	1950	5,923	6,900	7,700	9,700
Ennis					
Water requirements	1954	945	1,706	2,213	3,759
Population	1954	8,100	10,600	12,200	17,000
Falfurrias					
Water requirements	1954	1,930	3,262	4,146	5,015
Population	1954	7,700	9,700	11,000	13,800
Fort Stockton					
Water requirements	1957	1,157	1,599	2,148	3,314
Population	1957	7,000	8,333	10,000	15,000

(Continued)

Table 35 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in millions of gallons per year)

City	Base year	Amount	Projections 1965	Projections 1975	Projections 2000
*Fort Worth[5]					
Water requirements	1954	20,923	36,082	50,148	114,945
Population	1954	475,000	613,000	747,000	1,503,000
*Freeport					
Water requirements	1954	33,330	49,386	60,681	87,214
Population	1954	31,000	70,000	103,000	191,000
Gainesville					
Water requirements	1950	422	1,011	1,280	1,859
Population	1950	11,246	19,497	22,347	28,849
*Galveston[6]					
Water requirements	1954	21,397	38,631	55,618	139,039
Population	1954	113,000	178,000	234,000	440,000
Gonzales					
Water requirements	1954	275	432	536	859
Population	1954	6,500	8,000	9,000	12,000
Graham					
Water requirements	1957	398	501	630	972
Population	1957	8,500	9,167	10,000	13,500
Greenville					
Water requirements	1954	840	1,300	1,606	2,701
Population	1954	16,400	20,700	23,500	33,000
Harlingen					
Water requirements	1954	1,595	2,599	3,268	7,085
Population	1954	29,600	43,000	52,000	90,700
Henderson					
6-C Water requirements	1954	386	650	827	1,184
Population	1954	7,000	12,900	16,800	22,000
Hereford					
2-Y Water requirements	1957	639	800	1,020	1,360
Population	1957	7,500	9,500	12,000	16,000

(Continued)

Table 36 (Continued)

CITIES OF 5,000+ PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in acre feet per year)

City	Base year	Amount	Projections 1965	1975	2000
*Fort Worth[5]					
Water requirements	1954	64,210	110,731	153,898	352,753
Population	1954	475,000	613,000	747,000	1,503,000
*Freeport					
Water requirements	1954	102,286	151,560	186,223	267,650
Population	1954	31,000	70,000	103,000	191,000
Gainesville					
Water requirements	1950	1,295	3,103	3,928	5,705
Population	1950	11,246	19,497	22,347	28,849
*Galveston[6]					
Water requirements	1954	65,665	118,554	170,685	426,694
Population	1954	113,000	178,000	234,000	440,000
Gonzales					
Water requirements	1954	844	1,326	1,645	2,636
Population	1954	6,500	8,000	9,000	12,000
Graham					
Water requirements	1957	1,221	1,538	1,933	2,983
Population	1957	8,500	9,167	10,000	13,500
Greenville					
Water requirements	1954	2,578	3,990	4,929	8,289
Population	1954	16,400	20,700	23,500	33,000
Harlingen					
Water requirements	1954	4,895	7,976	10,029	21,743
Population	1954	29,600	43,000	52,000	90,700
Henderson					
Water requirements	1954	1,185	1,995	2,538	3,634
Population	1954	7,000	12,900	16,800	22,000
Hereford					
Water requirements	1957	1,961	2,455	3,130	4,174
Population	1957	7,500	9,500	12,000	16,000

(Continued)

Table 35 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in millions of gallons per year)

City	Base year	Amount	Projections 1965	1975	2000
Hillsboro					
Water requirements	1954	286	489	624	1,117
Population	1954	9,100	11,300	12,700	17,500
Hondo					
Water requirements	1957	292	392	518	864
Population	1957	6,200	7,222	8,500	12,000
*Houston[7]					
Water requirements	1954	100,031	115,923	222,455	529,541
Population	1954	967,000	1,240,000	1,468,000	2,507,000
Huntsville					
Water requirements	1954	468	663	792	1,357
Population	1954	11,100	13,400	16,500	23,000
Jacksonville					
Water requirements	1954	466	660	789	1,391
Population	1954	9,400	12,800	15,000	25,000
Kermit					
Water requirements	1957	700	1,011	1,400	1,584
Population	1957	10,681	14,823	20,000	22,000
Kerrville					
Water requirements	1957	554	700	882	1,800
Population	1957	9,500	11,500	14,000	25,000
Killeen					
Water requirements	1954	323	678	915	1,245
Population	1954	14,000	18,800	22,000	22,000
Kingsville					
Water requirements	1954	1,396	2,094	2,560	3,394
Population	1954	20,200	26,300	30,300	37,900
Lamesa					
Water requirements	1957	497	790	1,159	1,728
Population	1957	13,943	16,200	19,000	24,000

(Continued)

Table 36 (Continued)

CITIES OF 5,000/ PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in acre feet per year)

City	Base year	Amount	Projections 1965	1975	2000
Hillsboro					
Water requirements	1954	878	1,501	1,915	3,428
Population	1954	9,100	11,300	12,700	17,500
Hondo					
Water requirements	1957	896	1,203	1,590	2,652
Population	1957	6,200	7,222	8,500	12,000
*Houston7					
Water requirements	1954	306,983	355,754	682,688	1,625,100
Population	1954	967,000	1,240,000	1,468,000	2,507,000
Huntsville					
Water requirements	1954	1,436	2,035	2,431	4,164
Population	1954	11,100	13,400	16,500	23,000
Jacksonville					
Water requirements	1954	1,430	2,025	2,421	4,269
Population	1954	9,400	12,800	15,000	25,000
Kermit					
Water requirements	1957	2,148	3,103	4,296	4,861
Population	1957	10,681	14,823	20,000	22,000
Kerrville					
Water requirements	1957	1,700	2,148	2,707	5,524
Population	1957	9,500	11,500	14,000	25,000
Killeen					
Water requirements	1954	991	2,081	2,808	3,821
Population	1954	14,000	18,800	22,000	22,000
Kingsville					
Water requirements	1954	4,284	6,426	7,856	10,416
Population	1954	20,200	26,300	30,300	37,900
Lamesa					
Water requirements	1957	1,525	2,424	3,557	5,303
Population	1957	13,943	16,200	19,000	24,000

(Continued)

Table 35 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in millions of gallons per year)

City	Base year	Amount	Projections 1965	Projections 1975	Projections 2000
Laredo					
Water requirements	1957	2,891	3,741	4,803	6,802
Population	1957	63,000	68,333	75,000	90,500
Levelland					
Water requirements	1957	300	630	1,037	1,512
Population	1957	11,800	14,100	17,000	21,000
Littlefield					
Water requirements	1957	376	530	732	1,080
Population	1957	8,800	10,200	12,000	15,000
Lockhart					
Water requirements	1954	153	317	426	744
Population	1954	6,400	7,800	8,700	12,400
*Longview[8]					
Water requirements	1954	6,855	10,915	14,072	23,657
Population	1954	49,000	73,000	95,000	154,000
Lubbock					
Water requirements	1957	5,699	9,840	15,098	23,978
Population	1957	139,000	181,700	235,000	311,000
Lufkin					
Water requirements	1954	5,403	10,860	15,372	27,686
Population	1954	24,000	42,000	59,000	112,000
McAllen					
Water requirements	1954	988	2,071	2,793	5,798
Population	1954	25,000	36,300	43,800	76,400
McKinney					
Water requirements	1954	546	934	1,194	2,122
Population	1954	11,500	16,600	20,000	30,000
Marlin					
Water requirements	1954	287	445	551	904
Population	1954	7,400	8,800	9,700	13,000

(Continued)

Table 36 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in acre feet per year)

City	Base year	Amount	Projections 1965	1975	2000
Laredo					
Water requirements	1957	8,872	11,481	14,740	20,875
Population	1957	63,000	68,333	75,000	90,500
Levelland					
Water requirements	1957	921	1,933	3,182	4,640
Population	1957	11,800	14,100	17,000	21,000
Littlefield					
Water requirements	1957	1,154	1,627	2,246	3,314
Population	1957	8,800	10,200	12,000	15,000
Lockhart					
Water requirements	1954	470	973	1,307	2,283
Population	1954	6,400	7,800	8,700	12,400
*Longview[8]					
Water requirements	1954	21,037	33,497	43,185	72,601
Population	1954	49,000	73,000	95,000	154,000
Lubbock					
Water requirements	1957	17,490	30,198	46,334	76,586
Population	1957	139,000	181,700	235,000	311,000
Lufkin					
Water requirements	1954	16,581	33,328	47,175	84,965
Population	1954	24,000	42,000	59,000	112,000
McAllen					
Water requirements	1954	3,032	6,356	8,571	17,793
Population	1954	25,000	36,300	43,800	76,400
McKinney					
Water requirements	1954	1,676	2,866	3,664	6,512
Population	1954	11,500	16,600	20,000	30,000
Marlin					
Water requirements	1954	881	1,366	1,691	2,774
Population	1954	7,400	8,800	9,700	13,000

(Continued)

Table 35 (Continued)

CITIES OF 5,000/ PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in millions of gallons per year)

City	Base year	Amount	Projections 1965	1975	2000
Marshall					
Water requirements	1954	1,199	3,677	5,828	12,286
Population	1954	26,000	40,000	52,000	87,000
Mercedes					
Water requirements	1954	297	679	933	1,489
Population	1954	11,500	14,700	16,900	21,100
Mexia					
Water requirements	1954	204	369	479	827
Population	1954	7,100	9,200	10,500	14,000
Midland					
Water requirements	1957	3,030	3,973	5,220	8,313
Population	1957	50,600	63,700	80,000	110,000
Mineral Wells					
Water requirements	1957	996	1,150	1,343	1,966
Population	1957	12,500	14,278	16,500	24,000
Mission					
Water requirements	1954	536	1,095	1,468	2,653
Population	1954	14,800	20,900	25,000	35,000
Monahans					
Water requirements	1957	1,091	1,573	2,175	2,359
Population	1957	11,000	15,000	20,000	22,000
Mount Pleasant					
Water requirements	1950	310	558	711	984
Population	1950	6,786	10,550	12,750	16,200
Nacogdoches					
Water requirements	1954	646	822	940	1,414
Population	1954	13,900	17,600	20,000	28,000
Navasota					
Water requirements	1954	147	240	302	488
Population	1954	5,400	6,100	6,500	8,100

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(Continued)

Table 36 (Continued)

CITIES OF 5,000/ PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in acre feet per year)

City	Base year	Amount	Projections 1965	1975	2000
Marshall					
Water requirements	1954	3,680	11,284	17,885	37,704
Population	1954	26,000	40,000	52,000	87,000
Mercedes					
Water requirements	1954	911	2,084	2,863	4,570
Population	1954	11,500	14,700	16,900	21,100
Mexia					
Water requirements	1954	626	1,132	1,470	2,538
Population	1954	7,100	9,200	10,500	14,000
Midland					
Water requirements	1957	9,299	12,193	16,020	25,512
Population	1957	50,600	63,700	80,000	110,000
Mineral Wells					
Water requirements	1957	3,057	3,529	4,122	6,033
Population	1957	12,500	14,278	16,500	24,000
Mission					
Water requirements	1954	1,645	3,360	4,505	8,142
Population	1954	14,800	20,900	25,000	35,000
Monahans					
Water requirements	1957	3,348	4,827	6,675	7,239
Population	1957	11,000	15,000	20,000	22,000
Mount Pleasant					
Water requirements	1950	951	1,712	2,182	3,020
Population	1950	6,786	10,550	12,750	16,200
Nacogdoches					
Water requirements	1954	1,982	2,523	2,885	4,339
Population	1954	13,900	17,600	20,000	28,000
Navasota					
Water requirements	1954	451	737	927	1,498
Population	1954	5,400	6,100	6,500	8,100

(Continued)

Table 35 (Continued)

CITIES OF 5,000 PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in millions of gallons per year)

City	Base year	Amount	Projections 1965	Projections 1975	Projections 2000
New Braunfels					
Water requirements	1954	1,771	2,567	3,325	5,535
Population	1954	14,900	19,800	23,100	36,700
Odessa					
Water requirements	1957	4,271	6,585	9,441	16,744
Population	1957	73,600	89,800	110,000	150,000
Orange					
Water requirements	1954	6,101	24,144	40,369	98,221
Population	1954	35,000	76,000	120,000	242,000
Palestine					
Water requirements	1954	711	1,195	1,776	3,172
Population	1954	13,000	18,000	26,000	41,000
Pampa					
Water requirements	1957	4,060	6,315	9,025	10,446
Population	1957	22,500	27,600	34,000	40,000
Paris					
Water requirements	1950	706	2,047	2,609	3,596
Population	1950	23,100	43,350	49,400	59,900
Pecos					
Water requirements	1957	743	1,036	1,403	2,016
Population	1957	14,200	18,111	23,000	28,000
Pharr					
Water requirements	1954	339	679	905	1,423
Population	1954	10,800	14,100	16,300	20,000
Plainview					
Water requirements	1957	1,060	1,552	2,138	3,115
Population	1957	21,100	26,800	34,000	42,000
*Port Lavaca					
Water requirements	1954	4,922	12,366	21,350	63,680
Population	1954	14,000	41,000	70,000	161,000

(Continued)

Table 36 (Continued)

CITIES OF 5,000/ PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in acre feet per year)

City	Base year	Amount	Projections 1965	1975	2000
New Braunfels					
Water requirements	1954	5,435	7,878	10,204	16,986
Population	1954	14,900	19,800	23,100	36,700
Odessa					
Water requirements	1957	13,107	20,209	28,973	51,385
Population	1957	73,600	89,800	110,000	150,000
Orange					
Water requirements	1954	18,723	74,095	123,888	301,429
Population	1954	35,000	76,000	120,000	242,000
Palestine					
Water requirements	1954	2,182	3,667	5,450	9,734
Population	1954	13,000	18,000	26,000	41,000
Pampa					
Water requirements	1957	12,460	19,380	27,697	32,058
Population	1957	22,500	27,600	34,000	40,000
Paris					
Water requirements	1950	2,167	6,282	8,007	11,036
Population	1950	23,100	43,350	49,400	59,900
Pecos					
Water requirements	1957	2,280	3,179	4,306	6,187
Population	1957	14,200	18,111	23,000	28,000
Pharr					
Water requirements	1954	1,040	2,084	2,777	4,367
Population	1954	10,800	14,100	16,300	20,000
Plainview					
Water requirements	1957	3,253	4,763	6,561	9,560
Population	1957	21,100	26,800	34,000	42,000
*Port Lavaca					
Water requirements	1954	15,105	37,950	65,521	195,426
Population	1954	14,000	41,000	70,000	161,000

(Continued)

Table 35 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in millions of gallons per year)

City	Base year	Amount	Projections 1965	1975	2000
Raymondville					
Water requirements	1954	357	705	937	1,781
Population	1954	11,300	14,300	16,300	24,200
Rio Grande City					
Water requirements	1957	215	363	547	1,050
Population	1957	5,500	7,322	9,600	15,000
Rosenberg					
Water requirements	1954	282	661	914	2,264
Population	1954	7,300	14,900	20,000	40,000
Rusk					
Water requirements	1954	297	393	458	654
Population	1954	7,200	8,600	9,500	12,600
San Angelo					
Water requirements	1957	2,974	4,384	6,213	9,555
Population	1957	68,100	82,300	100,000	130,000
*San Antonio[9]					
Water requirements	1954	36,442	54,104	70,976	144,232
Population	1954	663,000	816,000	952,000	1,690,000
San Benito					
Water requirements	1954	328	903	1,286	2,069
Population	1954	15,000	20,000	23,400	29,500
San Marcos					
Water requirements	1954	556	940	1,196	2,290
Population	1954	12,000	16,200	19,000	30,900
Seguin					
Water requirements	1954	705	969	1,145	1,976
Population	1954	10,700	13,300	15,000	20,000
*Sherman[10]					
Water requirements	1950	1,737	2,908	3,748	5,271
Population	1950	38,600	52,350	61,650	76,800

(Continued)

Table 36 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in acre feet per year)

City	Base year	Amount	Projections 1965	1975	2000
Raymondville					
Water requirements	1954	1,096	2,164	2,876	5,466
Population	1954	11,300	14,300	16,300	24,200
Rio Grande City					
Water requirements	1957	660	1,114	1,679	3,222
Population	1957	5,500	7,322	9,600	15,000
Rosenberg					
Water requirements	1954	865	2,029	2,805	6,948
Population	1954	7,300	14,900	20,000	40,000
Rusk					
Water requirements	1954	911	1,206	1,406	2,007
Population	1954	7,200	8,600	9,500	12,600
San Angelo					
Water requirements	1957	9,127	13,454	19,067	29,323
Population	1957	68,100	82,300	100,000	130,000
*San Antonio[9]					
Water requirements	1954	111,836	166,039	217,817	442,631
Population	1954	663,000	816,000	952,000	1,690,000
San Benito					
Water requirements	1954	1,007	2,771	3,947	6,350
Population	1954	15,000	20,000	23,400	29,500
San Marcos					
Water requirements	1954	1,706	2,885	3,670	7,028
Population	1954	12,000	16,200	19,000	30,900
Seguin					
Water requirements	1954	2,164	2,974	3,514	6,064
Population	1954	10,700	13,300	15,000	20,000
*Sherman[10]					
Water requirements	1950	5,331	8,924	11,502	16,176
Population	1950	38,600	52,350	61,650	76,800

(Continued)

Table 35 (Continued)

CITIES OF 5,000/ PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in millions of gallons per year)

City	Base year	Amount	Projections 1965	1975	2000
Slaton					
Water requirements	1957	226	420	671	1,080
Population	1957	7,000	8,800	11,000	15,000
Snyder					
Water requirements	1957	1,301	1,505	1,758	2,201
Population	1957	14,500	16,000	18,000	21,000
Stamford					
Water requirements	1957	414	430	455	576
Population	1957	6,400	6,700	7,000	8,000
Stephenville					
Water requirements	1957	640	742	869	1,225
Population	1957	8,100	9,389	11,000	15,500
Sulphur Springs					
Water requirements	1950	284	595	761	1,066
Population	1950	8,991	12,950	14,800	18,000
Sweetwater					
Water requirements	1957	845	1,309	1,897	2,739
Population	1957	16,000	17,800	20,000	23,000
Taylor					
Water requirements	1954	359	564	701	1,217
Population	1954	9,700	12,000	13,500	19,000
Temple					
Water requirements	1954	1,441	2,409	3,055	6,239
Population	1954	29,200	41,700	49,300	80,000
Terrell					
Water requirements	1954	383	671	862	1,296
Population	1954	11,700	13,900	15,400	19,000
Texarkana					
Water requirements	1950	737	1,496	2,062	3,110
Population	1950	24,941	37,950	45,050	55,700

(Continued)

Table 36 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in acre feet per year)

City	Base year	Amount	Projections 1965	Projections 1975	Projections 2000
Slaton					
Water requirements	1957	694	1,289	2,059	3,314
Population	1957	7,000	8,800	11,000	15,000
Snyder					
Water requirements	1957	3,993	4,619	5,395	6,755
Population	1957	14,500	16,000	18,000	21,000
Stamford					
Water requirements	1957	1,271	1,320	1,396	1,768
Population	1957	6,400	6,700	7,000	8,000
Stephenville					
Water requirements	1957	1,964	2,277	2,667	3,759
Population	1957	8,100	9,389	11,000	15,500
Sulphur Springs					
Water requirements	1950	872	1,826	2,335	3,271
Population	1950	8,991	12,950	14,800	18,000
Sweetwater					
Water requirements	1957	2,593	4,017	5,822	8,406
Population	1957	16,000	17,800	20,000	23,000
Taylor					
Water requirements	1954	1,102	1,731	2,151	3,735
Population	1954	9,700	12,000	13,500	19,000
Temple					
Water requirements	1954	4,422	7,393	9,375	19,147
Population	1954	29,200	41,700	49,300	80,000
Terrell					
Water requirements	1954	1,175	2,059	2,645	3,977
Population	1954	11,700	13,900	15,400	19,000
Texarkana					
Water requirements	1950	2,262	4,591	6,328	9,544
Population	1950	24,941	37,950	45,050	55,700

(Continued)

Table 35 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in millions of gallons per year)

City	Base year	Amount	Projections 1965	1975	2000
Tyler					
Water requirements	1954	2,759	6,451	10,555	24,576
Population	1954	49,000	110,000	171,000	369,000
Uvalde					
Water requirements	1957	1,022	1,146	1,302	1,860
Population	1957	11,000	12,333	14,000	20,000
Vernon					
Water requirements	1950	510	712	850	1,203
Population	1950	12,714	13,800	14,750	17,100
Victoria					
Water requirements	1954	7,103	11,274	15,676	39,266
Population	1954	36,000	56,000	74,000	128,000
Waco					
Water requirements	1954	5,534	13,369	21,583	46,765
Population	1954	108,000	226,000	338,000	610,000
Waxahachie					
Water requirements	1954	380	788	1,060	1,817
Population	1954	12,100	15,800	18,200	25,500
Weatherford					
Water requirements	1957	480	757	1,103	1,872
Population	1957	12,500	14,722	17,500	26,000
Weslaco					
Water requirements	1954	393	738	968	1,674
Population	1954	13,000	15,000	16,300	21,600
Wichita Falls					
Water requirements	1950	2,894	4,952	6,459	10,160
Population	1950	69,400	87,200	99,350	124,400
→ 1960		101,000			
Yoakum					
Water requirements	1954	277	466	591	1,102
Population	1954	6,200	7,800	8,900	14,000

(Footnotes on following page)

Table 36 (Continued)

CITIES OF 5,000[1] PERSONS AND OVER--WATER REQUIREMENTS AND POPULATION

Base Year and 1965, 1975, and 2000 Projections

(Water requirements in acre feet per year)

City	Base year	Amount	Projections 1965	Projections 1975	Projections 2000
Tyler					
Water requirements	1954	8,467	19,797	32,392	75,421
Population	1954	49,000	110,000	171,000	369,000
Uvalde					
Water requirements	1957	3,136	3,517	3,996	5,708
Population	1957	11,000	12,333	14,000	20,000
Vernon					
Water requirements	1950	1,565	2,185	2,609	3,692
Population	1950	12,714	13,800	14,750	17,100
Victoria					
Water requirements	1954	21,798	34,599	48,108	120,503
Population	1954	36,000	56,000	74,000	128,000
Waco					
Water requirements	1954	16,983	41,028	66,236	143,516
Population	1954	108,000	226,000	338,000	610,000
Waxahachie					
Water requirements	1954	1,166	2,418	3,253	5,576
Population	1954	12,100	15,800	18,200	25,500
Weatherford					
Water requirements	1957	1,473	2,323	3,385	5,745
Population	1957	12,500	14,722	17,500	26,000
Weslaco					
Water requirements	1954	1,206	2,265	2,971	5,137
Population	1954	13,000	15,000	16,300	21,600
Wichita Falls					
Water requirements	1950	8,881	15,197	19,822	31,180
Population	1950	69,400	87,200	99,350	124,400
Yoakum					
Water requirements	1954	850	1,430	1,814	3,382
Population	1954	6,200	7,800	8,900	14,000

(Footnotes on following page)

FOOTNOTES FOR TABLES 35 AND 36

[1]Beaumont node includes Port Arthur and Port Neches.

[2]Bryan node includes College Station.

[3]Corpus Christi node includes Aransas Pass, Robstown, and San Pedro.

[4]Dallas node includes Garland, Grand Prairie, Highland Park, and University Park.

[5]Fort Worth node includes Arlington, Haltom City, and White Settlement.

[6]Galveston node includes Lamarque and Texas City.

[7]Houston node includes Baytown, Bellaire, Galena Park, Jacinto City, Pasadena, River Oaks, and West University Place.

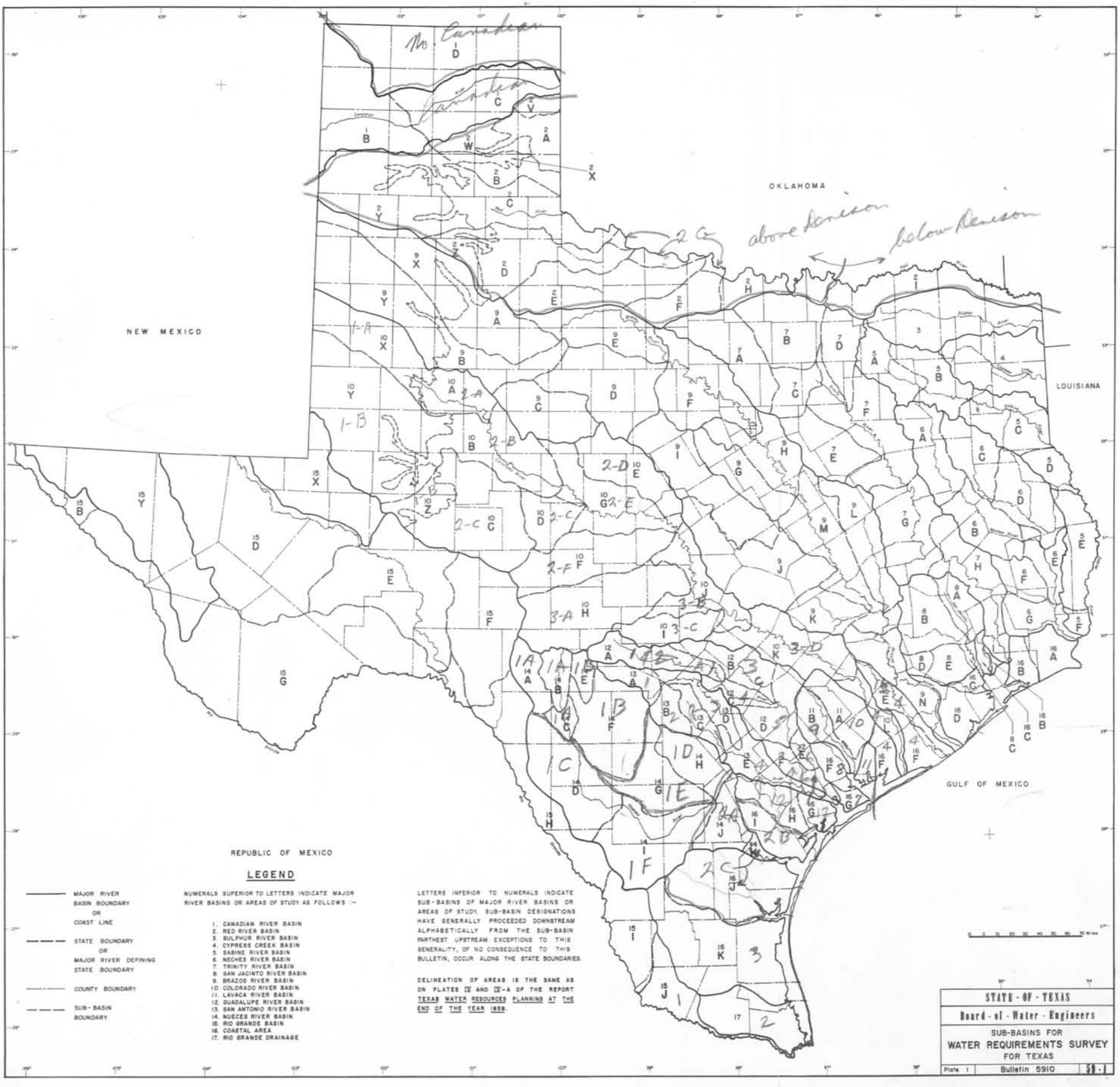
[8]Longview node includes Gladewater and Kilgore.

[9]San Antonio node includes Alamo Heights.

[10]Sherman node includes Denison.

[/]Projections have been made for the following six cities with less than 5,000 population in 1950: Andrews, Electra, Fort Stockton, Hondo, Rio Grande City, and Rockdale.

*Industrial nodes extending beyond the urbanized area of the city.



LEGEND

- MAJOR RIVER BASIN BOUNDARY OR COAST LINE
- STATE BOUNDARY OR MAJOR RIVER DEFINING STATE BOUNDARY
- COUNTY BOUNDARY
- SUB-BASIN BOUNDARY

NUMERALS SUPERIOR TO LETTERS INDICATE MAJOR RIVER BASINS OR AREAS OF STUDY AS FOLLOWS :-

1. CANADIAN RIVER BASIN
2. RED RIVER BASIN
3. SULPHUR RIVER BASIN
4. CYPRESS CREEK BASIN
5. SABINE RIVER BASIN
6. NECHES RIVER BASIN
7. TRINITY RIVER BASIN
8. SAN JACINTO RIVER BASIN
9. BRAZOS RIVER BASIN
10. COLORADO RIVER BASIN
11. LAVACA RIVER BASIN
12. GUADALUPE RIVER BASIN
13. SAN ANTONIO RIVER BASIN
14. NUECES RIVER BASIN
15. RIO GRANDE BASIN
16. COASTAL AREA
17. RIO GRANDE DRAINAGE

LETTERS INFERIOR TO NUMERALS INDICATE SUB-BASINS OF MAJOR RIVER BASINS OR AREAS OF STUDY. SUB-BASIN DESIGNATIONS HAVE GENERALLY PROCEEDED DOWNSTREAM ALPHABETICALLY FROM THE SUB-BASIN FARTHEST UPSTREAM. EXCEPTIONS TO THIS GENERALITY, OF NO CONSEQUENCE TO THIS BULLETIN, OCCUR ALONG THE STATE BOUNDARIES.

DELINEATION OF AREAS IS THE SAME AS ON PLATES IX AND IX-A OF THE REPORT TEXAS WATER RESOURCES PLANNING AT THE END OF THE YEAR 1958.

STATE · OF · TEXAS
Board · of · Water · Engineers
SUB-BASINS FOR
WATER REQUIREMENTS SURVEY
FOR TEXAS
Plate 1 | Bulletin 5910 | 59-1

DEFINITION OF TERMS USED IN BULLETIN 5910

The term "Basic Industry" is applied to those industries in each trading area which supply goods and services sold outside the area, and, therefore, bring income into the area.

Nonindustrial water includes both domestic consumption and nonbasic industrial consumption. Nonbasic industry includes manufacturing that supplies the needs of the local population (e.g., bakeries and bottling plants) and wholesale, retail, financial, and service establishments.

Industrial water includes only basic industrial consumption.