TEXAS STREAM-GAGING PROGRAM: AN ANALYSIS OF DATA USES AND FUNDING

By Bernard C. Massey

U.S. GEOLOGICAL SURVEY
Open-File Report 85-Ø84

Austin, Texas

1985

UNITED STATES DEPARTMENT OF THE INTERIOR

WILLIAM P. CLARK, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information write to:

District Chief
U.S. Geological Survey
649 Federal Building
300 E. Eighth Street
Austin, TX 78701

For sale by:

Open-File Services Section
Western Distribution Branch
U.S. Geological Survey
Box 25425, Federal Center
Denver, CO 80225

CONTENTS

ILLUSTRATIONS

TABLES

CONVERSION FACTORS

Factors for converting inch-pound units to metric equivalents are given in the following table:

From	Multiply by	To obtain
cubic feet per second (ft^3/s)	0.02832	cubic meter per second
inch (in.)	25.40	millimeter
square mile (mi^2)	2.590	square kilometer

TEXAS STREAM-GAGING PROGRAM:

AN ANALYSIS OF DATA USES AND FUNDING

By
Bernard C. Massey

ABSTRACT

This report presents an analysis of data uses and funding for the stream-gaging program operated by the U.S. Geological Survey in Texas. Presently (1984), 391 continuous surface-water stations are operated in Texas. Selected hydrologic data, data uses, and funding sources are presented for each of the 391 stations.

This study is a part of a larger project to determine the cost-effectiveness of the stream-gaging program in Texas. All stations have sufficient uses to justify their continued operation.

INTRODUCTION

The U.S. Geological Survey is the principal Federal agency collecting surface-water data in the Nation. The collection of these data is a major activity of the Water Resources Division of the Geological Survey. The data are collected in cooperation with State and local governments and other Federal agencies. The Geological Survey presently (1984) operates approximately 8,000 continuous-record gaging stations throughout the Nation. Records from some of these stations extend back to the turn of the century. Any activity of long standing, such as the collection of surface-water data, should be re-examined at intervals, if not continuously, because of changes in objectives, technology, or external constraints.

The last systematic nationwide evaluation of the streamflow information program was completed in 1970 and is documented by Benson and Carter (1973). The Geological Survey is presently (1984) undertaking another nationwide analsis of the stream-gaging program that will be completed over a 5-year period with 20 percent of the program being analyzed each year. The objective of the nationwide analysis is to define and document the most cost-effective means of furnishing streamflow information. The analysis of the stream-gaging program in Texas consists of three separate parts. The first part presents a history of the stream-gaging program, along with a description of the current (1984) network. For every continuous-record gaging station, the analysis identifies the principal uses of the data and relates these uses to funding sources. In addition, gaging stations are categorized as to whether the data are available to users in a real-time sense, on a periodic basis, or at the end of the water year.

The second part of the analysis will investigate less costly alternate methods of furnishing streamflow data such as through the use of flow routing models and statistical methods. The activity to provide streamflow data no longer is considered only a network of observation points, but rather an integrated information system in which data are provided by both observation and synthesis.

The final part of the anlysis will involve the use of Kalman-filtering and mathematical-programing techniques to define strategies for the operation of the necessary stations that minimize the uncertainty in the streamflow records for given operating budgets. Kalman-filtering techniques will be used to compute uncertainty functions (relating the standard errors of computation or estimation of streamflow records to the frequencies of visits to the stream gages) for individual stations. A steepest descent optimization program will use these uncertainty functions, information on practical stream-gaging routes, the various costs associated with stream gaging, and the total operating budget to identify the visit frequency for each station so that total uncertainty in the overall network is minimized.

This report is concerned only with part 1 of the analysis of the stream-gaging program in Texas. Parts 2 and 3 (described above) will be presented in later reports. This report is patterned after studies for the states of Maine (Fontaine and others, 1984) and Nebraska (Engel and others, 1984). Much of the material describing the general methodology is taken from these reports.

History of Stream-Gaging in Texas

The stream-gaging program in Texas has evolved through the years in response to changing Federal, State, and local needs for surface-water data. The first gaging station in Texas was established on the Rio Grande near El Paso in 1889. A systematic collection of streamflow records in Texas did not begin, however, until 1897 when four additional stations were established.

Formal cooperation between the Geological Survey and the State of Texas was started in 1915. In that year the program increased from 12 to 31 stations. The rapid expansion of the streamflow data-collection program continued through 1925 when 132 gaging stations were in operation, 36 of which were equipped with recorders. Because of reduced cooperative funds, the Texas program began to decline in 1926. By 1929, only 94 stations were in operation. The program remained near this level through the mid-1930's. A significant feature of the Geological Survey operations during the 1930's was the study of the record-shattering floods of 1932, 1935, 1936, 1938, and 1939. As a result of these floods, the U.S. Army Corps of Engineers provided funds for the operation of an additional 55 stations. With these stations, the Texas program increased to 172 stations in 1939 and remained near that level through 1945.

The end of World War II accompanied another rapid expansion of the stream-gaging program. The 1957 compilation of surface-water records (Texas Board of Water Engineers, 1958) presented stream-discharge and reservoir-content records for 436 gaging stations in Texas, 297 of which were in operation on September 30, 1957. Of these, 247 were continuous-record stream-gaging stations.

As more streamflow data became available, the State Highway Department began using flood stages, discharges, and frequencies in the design of bridges and culverts. Need for additional design data led to the establishment in 1964 of a statewide network of 150 partial-record stations on small drainage areas. Data collected in this project prior to its termination in 1974 aided in the development of techniques for estimating the magnitude and frequency of floods in Texas (Schroeder and Massey, 1977).

The rapid expansion of the Texas surface-water data-collection program continued through the 1960's, peaking in 1972 when 576 streamflow, reservoir-content, and stage-only stations were in operation. The number of continuous-record stations in operation in 1972 was 487. By 1975, that number had dropped to 476. The gradual decline in the number of stations operated by the Texas District, that began in the mid-1970's, has continued to the present. On April 1, 1984, the District's surface-water program consisted of 391 continuous stream-gaging, 109 partial-record, 89 reservoir-content, 14 stage-only, and 33 tide-level stations (fig. 1).

Current Texas Stream-Gaging Program

Texas' supply of good quality water is poorly distributed; in some areas the supply is abundant, and in others it is meager. Normal annual rainfall in the easternmost part of the State exceeds 50 in., and the annual runoff may average as much as 15 in. In the westernmost part of the State, normal annual rainfall is less than 8 in., and annual runoff may average less than 0.1 in.

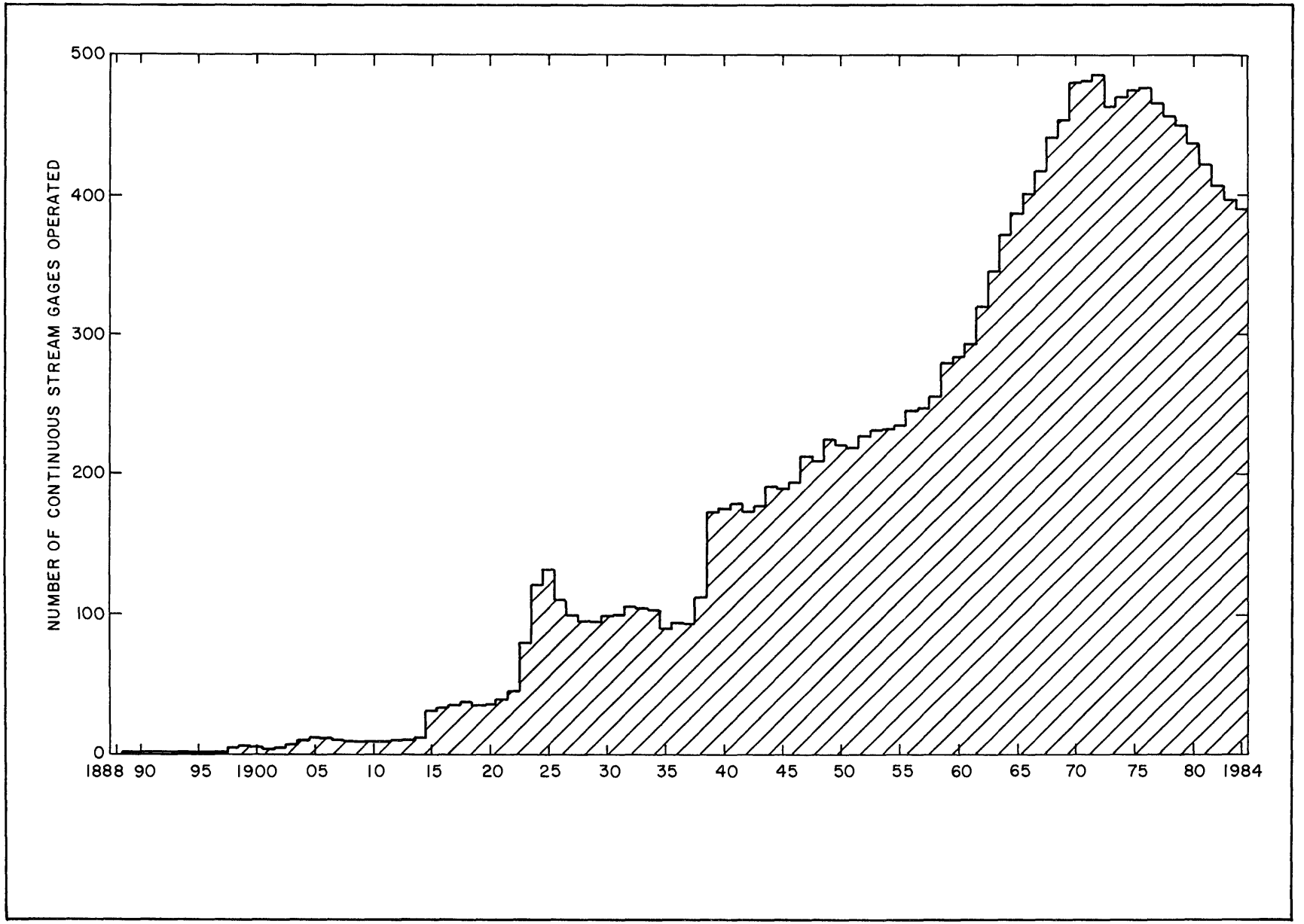

Figure 1--History of continuous stream gaging in Texas

Water-development projects in Texas have been oriented toward agriculture, municipal and industrial demands, hydroelectric generation, flood prevention, and recreation. In January 1984, there were over 180 major reservoirs in Texas with a combined conservation-storage capacity of over 32,000,000 acre-ft.

Over 8 million acres of land currently are irrigated in Texas. More than 12 million acre-ft of water are used for irrigation annually. About one-fourth of the irrigational demand is supplied by surface water and about three-fourths by ground water. Nearly every major stream in the State is affected to some degree by regulation or diversion. Many gaging stations are operated on these streams for water-management purposes and to help define the altered system.

For convenience, the State may be divided into 13 river basins (U.S. Geological Survey, 1983). Most of the basins are complete drainage units. Some, however, contain small coastal streams in addition to the major stream. The distribution by basin of the 391 continuous streamflow stations operated by the Texas District are as follows: Arkansas River - 4, Red River - 37, Sabine River - 17, Neches River - 16, Trinity River - 58, San Jacinto River - 34, Brazos River 75, San Bernard River - 1, Colorado River - 59, Lavaca River - 9, Guadalupe River - 39, Nueces River - 28, and Rio Grande - 14. The location and distribution of the gaging stations by basin is shown in plate 1.

Selected hydrologic data, including drainage area, period of record, and average discharge for the 391 stations are given in table 1 (supplemental information). Table 1 also provides the official name for each stream gage. Station identification numbers used throughout the report are the Geological Survey eight-digit downstream-order station number. On plate 1, the station number is abbreviated because of space limitation--the two-digit river basin prefix is omitted. The last two digits are shown in decimal form when the digits are non-zero; otherwise, they are omitted.

The International Boundary and Water Commission operates a number of gaging stations on the Rio Grande and near the mouth of its principal tributaries at and below El Paso, Texas. These stations are not included in this study and, therefore, do not appear on plate 1.

USES, FUNDING, AND AVAILABILITY OF CONTINUOUS STREAMFLOW DATA

The relevance of a stream gage is defined by the uses made of the data produced from the gage. The uses of the data from each gage in the Texas program were identified by a survey of known data users. Data uses identified by the survey were categorized in nine classes. Each gage in the network is classified in one or more of the data-use categories. The sources of funding for each gage and the frequency at which data are provided to the users also were compiled and are defined later.

Data-Use Classes

The following definitions were used to categorize each known use of streamflow data for each continuous stream gage.

Regional Hydrology

To be useful in defining regional hydrology, streamflow must be largely unaffected by manmade storage or diversion. This class of uses contains some stations for which flow is significantly affected by man, but these effects are limited to those caused primarily by land-use changes. Large amounts of manmade storage may exist in the basin providing the outflow is uncontrolled. These stations are useful in developing regionally transferable information about the relationship between basin characteristics and streamflow.

In the Texas network 170 stations are classified in the regional-hydrology data-use category. Six of the stations are special cases in that they are designated bench-mark or index stations. Hydrologic bench-mark stations are part of the national network of 57 stations operated on watersheds that are relatively free from manmade alterations; the network is intended to define long-term trends. Index stations are used to prepare a national monthly summary of water conditions. Of the 170 stations in the regional-hydrology category, two are also hydrologic bench-mark stations and four are index stations.

Hydrologic Systems

Stations that define current hydrologic conditions and the sources, sinks, and fluxes of water through hydrologic systems, including regulated systems, are designated as hydrologic-systems stations. They include stations to record diversions and return flows and stations that are useful for defining the interaction of water systems.

The bench-mark and index stations are included in the hydrologic-systems category because they are accounting for current and long-term conditions of the hydrologic systems that they gage. In addition, 366 other stations in Texas are included in this category. Many of these stations are used by the Texas Department of Water Resources for the administration of water rights throughout the State. Many also are used by the various river authorities for allocating among water users.

Legal Obligations

Some stations provide records of flows for the verification or enforcement of existing treaties, compacts, and decrees. This category contains those stations that the Geological Survey is required to operate to satisfy a legal responsibility. There are no stations in the Texas program that exist to fulfill a legal responsibility of the Geological Survey.

Planning and Design

Gaging stations in this category are used for the planning and design of a specific project (for example, a dam, levee, floodwall, navigation system, water-supply diversion, hydropower plant, or waste-treatment facility) or group of structures. The planning and design category is limited to those stations that were instituted for such purposes and where this purpose is still valid.

Seventy-six stations used for planning and design of various water-related projects are in this category. The Texas Department of Water Resources uses 36 stations for this purpose. Others who fund stations for this purpose include the Corps of Engineers, the cities of Austin and Lubbock, and several river authorities.

Project Operation

Gaging stations in this category are used, on an ongoing basis, to assist water managers in making operational decisions such as reservoir releases, hydropower operations, or diversions. The project-operation use generally implies that the data are routinely available to the operators on a rapid-reporting basis. For projects on large streams, data may only be needed every few days.

Over 140 stations are included in this category. Users of data for project-operation purposes include the Texas Department of Water Resources, the various river authorities, municipal water districts, flood control districts, the Corps of Engineers, and the U.S. Bureau of Reclamation.

Hydrologic Forecasts

Gaging stations in this category are used regularly to provide information for hydrologic forecasting. These might be flood forecasts for a specific river reach or periodic (daily, weekly, monthly, or seasonal) flow-volume forecasts for a specific site or region. The hydrologic-forecasts use generally implies that the data are routinely available to the forecasters on a rapid-reporting basis. On large streams, data may only be needed every few days.

Stations in the Texas program included in this category are those that have been designated by the National Weather Service as being needed for flood forecasting. In addition to the National Weather Service, other agencies may use the information from the stations during floods, particularly the Texas Department of Water Resources, river authorities, municipal water districts, and Corps of Engineers. There are 357 stations in this category, many of which are equipped with data-collection platforms or telemetry equipment.

Water-Quality Monitoring

Gaging stations where regular water-quality of sediment-transport monitoring is being conducted and where the availability of streamflow data contributes to the utility or is essential to the interpretation of the water-quality or sediment data are designated as water-quality-monitoring sites. Stations operated as part of the National Stream-Quality Accounting Network (NASQAN) are included in this category. NASQAN stations are operated to define both areal variability and trends in stream quality.

In this category 2 stations are designated bench-mark stations and 37 are NASQAN stations. Water-quality samples from bench-mark stations are used to indicate water-quality characteristics of streams that have been and probably will continue to be relatively free of manmade influences.

Other stations in this category are stations where water-quality monitoring is being conducted through funding by over 20 cooperators. Much of the data are collected downstream from urban areas where major concerns are the effects of discharges from sewage-treatment and industrial plants and runoff from urban areas. Several gaging stations are operated to define eutrophication and turbidity problems in water-supply reservoirs.

Research

Gaging stations in this category are operated for a particular research or water-investigations study. Typically, these are only operated for a few years.

The Texas program includes 20 stations in this category. Fifteen are sites in the Houston and Austin urban projects. Data from these sites will be used to develop predictive models of the quantity and/or quality of urban runoff and to refine existing hydraulic and water-quality models for the Galveston Bay estuarine system.

Three stations in this category are used to investigate the areal and temporal variations in water quality in Lake Houston. Two stations are being used to develop a computerized procedure for predicting the magnitude and movement of flood waves along the lower reach of Cypress Creek near Houston.

Other

Six stations listed in one or more of the eight data-use classes described above are also used to provide streamflow information for recreational planning, primarily for canoeists, rafters, and fishermen.

Funding

The four sources of funding for the streamflow-data program are:

1. Federal program.--Funds that have been directly allocated to the Geological Survey.

2. Other Federal agency (OFA) program.--Funds that have been transferred to the Geological Survey by other Federal agencies.

3. Federal-State cooperative programs.--Funds that come jointly from Geological Survey cooperative-designated funding and from a non-Federal cooperating agency. Cooperating agency funds may be in the form of direct services or cash.

4. Other non-Federal.--Funds that are provided entirely by a non-Federal agency and are not matched by Geological Survey cooperative funds.

In all four categories, the identified sources of funding pertain only to the collection of streamflow data; sources of funding for other activities, particularly collection of water-quality samples that might be carried out at the site, may not be the same as those identified herein.

Frequency of Data Availability

Frequency of data availability refers to the times at which the streamflow data may be furnished to the users. In this category, three distinct possibilities exist. Data can be furnished by direct-access telemetry equipment for immediate use (includes both telephone-accessed equipment and satellite data-collection platforms), by periodic release of provisional data, or in publication format through the annual data report published by the Geological Survey for Texas (U.S. Geological Survey, 1983). These three categories are designated T, P, and A, respectively, in table 2 (supplemental information). In the current Texas program, data for all 391 stations are made available through the annual report, data for 139 stations are available on a real or near real-time basis, and provisional data are released periodically for 54 stations.

Data-Use Presentation

Data-use and ancillary information for each continuous gaging station are presented in table 2, which is replete with footnotes to identify the data users and funding agencies. The entry of an asterisk in the table indicates that no footnote is required.

SUMMARY

Currently there are 391 continuous streamflow stations being operated in Texas. A review of the data-use information presented in table 2 indicates that the data from most stations in the Texas network have multiple uses. Although stations may have been established for one specific purpose, the availability of the data has, in itself, produced other uses for it. As many as six uses have been identified for data from a single gage. Forty-six separate sources of funding contribute to the Texas program. All stations presently (1984) have sufficient uses to justify their continued operation.

Twenty stations are used primarily for research or short-term investigations. Although many of these stations show multiple uses for the data, the need for continued operation of these stations should be evaluated when the research projects end. Stations that are used for planning and design of a specific project are often continued after the project is completed in order to monitor a changed hydrologic condition.

REFERENCES CITED

Benson, M. A., and Carter, R. W., 1973, A national study of the streamflow data-collection program: U.S. Geological Survey Water-Supply Paper 2028, 44 p.

Engel, G. B., Wahl, K. L., and Boohar, J. A., 1984, Cost-effectiveness of the stream-gaging program in Nebraska: U.S. Geological Survey Water-Resources Investigations 84-4098, 76 p.

Fontaine, R. A., Moss, M. E., Smath, J. A., and Thomas, W. O., Jr., 1984, Cost-effectiveness of the stream-gaging program in Maine; a prototype for nationwide implementation: U.S. Geological Survey Water-Supply Paper 2244, 39 p.

Schroeder, E. E., and Massey, B. C., 1977, Technique for estimating the magnitude and frequency of floods in Texas: U.S. Geological Survey Water-Resources Investigations 77-110, 22 p.

Texas Board of Water Engineers, 1958, Compilation of surface water records in Texas through September 1957: Texas Board of Water Engineers Bulletin 5807 A, 503 p.

U.S. Geological Survey, 1983, Water resources data for Texas, water year 1982: U.S. Geological Survey Water-Data Reports TX-82-1, 537 p.; TX-82-2, 475 p.; TX-82-3, 491 p.

SUPPLEMENTAL INFORMATION

Table 1.--Selected hydrologic data for continuous-record stations in the Texas surface-water program

[mi^2, square mile; ft^3/s, cubic feet per second]

Station number	Station name	Contributing drainage (area mi^2)	Period of record (water years)	Average discharge (ft^3/s)
07227500	Canadian River near Amarillo	15,360	1924-26, 1938-	336
07227920	Dixon Creek near Borger	134	1974-	2.30
07228000	Canadian River near Canadian	18,178	1938-	89.8
07235000	Wolf Creek at Lipscomb	475	1938-42, 1962-	16.5
07297910	Prairie Dog Town Fork Red River near Wayside	930	1968-	28.2
07298200	Tule Creek near Silverton	190	1964-	2.31
07299540	Prairie Dog Town Fork Red River near Childress	2,956	1965-	105
07299670	Groesbeck Creek at State Highway 6 near Quanah	303	1962-	13.5
07300000	Salt Fork Red River near Wellington	1,013	1952-	46.5
07301300	North Fork Red River near Shamrock	703	1964-	32.2
07301410	Sweetwater Creek near Kelton	267	1962-	13.6
07307800	Pease River near Childress	2,195	1960-62, 1968-	57.7
07308500	Red River near Burkburnett	14,634	1924-25, 1960-	866
07311700	North Wichita River near Truscott	937	1960-	58.6
07311800	South Wichita River near Benjamin	584	1960-	37.7
07312100	Wichita River near Mabelle	[a]/2,086	1960-	139
07312110	South Side Canal near Dundee		1972-	80.4
07312200	Beaver Creek near Electra	652	1960-	56.2
07312500	Wichita River at Wichita Falls	1,054	1900-02[b]/, 1938-	266
07312700	Wichita River near Charlie	1,210	1968-	275
07314500	Little Wichita River near Archer City	206	1932-56, 1966-	43.1
07314900	Little Wichita River above Henrietta	1,037	1953-	40.0
07315200	East Fork Little Wichita River near Henrietta	178	1964-	25.9
07315500	Red River near Terral, Oklahoma	22,787	1938-	2,148
07332600	Bois d'Arc Creek near Randolph	72	1963-	58.3
07335400	Sanders Creek near Chicota	175	1968-	128
07336820	Red River near De Kalb	41,412	1968-	11,630
07342470	South Sulphur River near Commerce	189	1980-	--*
07342500	South Sulphur River near Cooper	527	1942-	408
07343000	North Sulphur River near Cooper	276	1950-	240
07343200	Sulphur River near Talco	1,365	1957-	1,441
07343500	White Oak Creek near Talco	494	1950-	444
07344210	Sulphur River near Texarkana	3,443	1938-79[c]/, 1980-	--*
07344482	Big Cypress Creek near Winnsboro	27.2	1974-	19.9
07344486	Brushy Creek at Scroggins	23.4	1978-	17.4
07344500	Big Cypress Creek near Pittsburg	366	1943-64[d]/, 1968-	266
07346000	Big Cypress Creek near Jefferson	850	1924-59[d]/, 1980-	674
07346045	Black Cypress Bayou at Jefferson	365	1938-55[c]/1957-68[e]/, 1964-68[f]/, 1969-	331
07346050	Little Cypress Creek near Ore City	383	1963-	272
07346070	Little Cypress Creek near Jefferson	675	1946-47[g]/, 1948-	331
07346140	Frazier Creek near Linden	48.0	1958-61[f]/, 1965-	41.3
08017200	Cowleech Fork Sabine River at Greenville	77.7	1959-63[h]/, 1964-	62.8
08017300	South Fork Sabine River near Quinlan	78.7	1959-	76.5
08017410	Sabine River near Wills Point	756	1971-	414
08018500	Sabine River near Mineola	1,357	1939-59, 1968-	903
08018730	Burke Creek near Yantis	33.1	1979-	21.6
08019000	Lake Fork Creek near Quitman	585	1924-26[i]/, 1939-61[j]/, 1962-	432 (1925, 1940-79)
08019500	Big Sandy Creek near Big Sandy	231	1939-	180
08020000	Sabine River near Gladewater	2,791	1933-	1,687
08020450	Sabine River above Longview	2,943	1984-	--*

See footnotes at end of table.

Table 1.--Selected hydrologic data for continuous-record stations in the Texas surface-water program--Continued

Station number	Station name	Contributing drainage (area mi^2)	Period of record (water years)	Average discharge (ft^3/s)
08022040	Sabine River near Beckville	3,589	1939-78[k]/, 1979-	2,236
08022070	Martin Creek near Tatum	148	1974-	80.0
08025360	Sabine River at Toledo Bend Reservoir near Burkeville	7,178	1972-	5,311
08026000	Sabine River near Burkeville	7,482	1956-[l]/	4,890 (1967-82)
08028500	Sabine River near Bon Wier	8,229	1924-	5,839 (1967-82)
08029500	Big Cow Creek near Newton	128	1952-	110
08030500	Sabine River near Ruliff	9,329	1925-	7,221 (1967-82)
08031000	Cow Bayou near Mauriceville	83.3	1952-[m]/	101
08031200	Kickapoo Creek near Brownsboro	232	1962-	131
08032000	Neches River near Neches	1,145	1939-45[g]/, 1946-	632 (1962-82)
08033000	Neches River near Diboll	2,724	1924-25, 1939-[i]/	1,340 (1962-82)
08033300	Piney Creek near Groveton	79.0	1962-	38.4
08033500	Neches River near Rockland	3,636	1903-1975[g]/, 1976-	1,924 (1962-82)
08033900	East Fork Angelina River near Cushing	158	1964-	109
08036500	Angelina River near Alto	1,276	1940-49[n]/, 1959-	765 (1960-82)
08037050	Bayou LaNana at Nacogdoches	31.3	1965-	30.0
08038000	Attoyac Bayou near Chireno	503	1924-25, 1939-54, 1956-	446
08039100	Ayish Bayou near San Augustine	89.0	1959-	79.8
08040500	Neches River at Town Bluff	7,573	1951-	4,541 (1965-82)
08041000	Neches River at Evadale	7,951	1904-07, 1921	5,106 (1965-82)
08041500	Village Creek near Kountze	860	1924-27, 1928-29[o]/, 1939-	828
08041700	Pine Island Bayou near Sour Lake	336	1968-	460
08042000	Taylor Bayou near LaBelle	262	1954-	--[p]/
08042500	Hillebrandt Bayou near Lovell Lake	128	1954-	--[p]/
08042800	West Fork Trinity River near Jacksboro	683	1956-	103
08044000	Big Sandy Creek near Bridgeport	333	1937-	73.8
08044500	West Fork Trinity River near Boyd	1,725	1947-	236
08045850	Clear Fork Trinity River near Weatherford	121	1980-	--*
08047000	Clear Fork Trinity River near Benbrook	431	1947-	70.4 (1953-82)
08047500	Clear Fork Trinity River at Fort Worth	518	1924-70[q]/, 1971-	102 (1953-82)
08048000	West Fork Trinity River at Fort Worth	2,615	1920-	378
08048543	West Fork Trinity River at Beach St., Fort Worth	2,685	1976-	490
08049500	West Fork Trinity River at Grand Prairie	3,065	1925-[q]/	565
08049565	Trigg Branch at DFW Airport near Euless	2.64	1983	--*
08049600	Mountain Creek near Cedar Hill	119	1961-	47.1
08049700	Walnut Creek near Mansfield	62.8	1961-	15.1
08050100	Mountain Creek at Grand Prairie	298	1961-	98.8
08050500	Elm Fork Trinity River near Sanger	381	1949-	162
08051000	Isle du Bois Creek near Pilot Point	266	1949-	124
08051500	Clear Creek near Sanger	295	1949-	74.3 (1950-80)
08052700	Little Elm Creek near Aubrey	75.5	1956-76, 1980-	50.2
08053000	Elm Fork Trinity River near Lewisville	1,673	1949-[g]/, 1950-	672 (1955-82)
08053500	Denton Creek near Justin	400	1950-	77.4 (1950-80)
08055000	Denton Creek near Grapevine	705	1948-	162 (1953-82)
08055500	Elm Fork Trinity River near Carrollton	2,459	1907-23[i]/, 1924-	769 (1955-82)
08056500	Turtle Creek at Dallas	7.98	1948-51[r]/, 1952-80, 1984-	8.17
08057000	Trinity River at Dallas	6,106	1899-[c]/, 1903-[q]/	1,539
08057200	White Rock Creek at Greenville Ave., Dallas	66.4	1961-80, 1984-	53.9 (1961-80)
08057410	Trinity River below Dallas	6,278	1957-61[b]/, 1962-	1,840
08057445	Prairie Creek at U.S. Highway 175, Dallas	9.03	1976-80, 84-	5.34 (1976-80)

See footnotes at end of table.

Table 1.--Selected hydrologic data for continuous-record stations in the Texas surface-water program--Continued

Station number	Station name	Contributing drainage (area mi^2)	Period of record (water years)	Average discharge (ft^3/s)
08058900	East Fork Trinity River at McKinney	164	1976-	98.4
08059400	Sister Grove Creek near Blue Ridge	83.1	1975-	46.5
08061000	East Fork Trinity River near Lavon	773	1954-	354
08061540	Rowlett Creek near Sachse	120	1968-	90.9
08061700	Duck Creek near Garland	31.6	1958-	28.6
08061750	East Fork Trinity River near Forney	1,118	1973-	565
08062000	East Fork Trinity River near Crandall	1,256	1949-	595 (1954-82)
08062500	Trinity River near Rosser	8,147	1924-25g/, 1939i/	2,638
08062700	Trinity River at Trinidad	8,538	1964-	3,766
08062800	Cedar Creek near Kemp	189	1963-	111
08062900	Kings Creek near Kaufman	233	1963-	152
08063100	Richland Creek near Dawson	333	1961-	146
08063500	Richland Creek near Richland	734	1939-	336 (1963-82)
08063800	Waxahachie Creek near Bardwell	178	1963-	73.4
08064100	Chambers Creek near Rice	807	1984-	--*
08064700	Tehuacana Creek near Streetman	142	1968-	70.3
08064800	Catfish Creek near Tennessee Colony	207	1962-	99.8
08065000	Trinity River near Oakwood	12,833	1924b/, 1925-	4,527 (1954-82)
08065200	Upper Keechi Creek near Oakwood	150	1962-	75.9
08065350	Trinity River near Crockett	13,911	1964-	5,810
08065800.	Bedias Creek near Madisonville	321	1967-	217
08066100	White Rock Creek near Trinity	222	1967-70, 1971-74r/, 1975-	114
08066170	Kickapoo Creek near Onalaska	57.0	1966-	43.0
08066191	Livingston Reservoir at outflow weir near Goodrich	16,583	1969-s/	211
08066200	Long King Creek at Livingston	141	1963-	90.1
08066250	Trinity River near Goodrich	16,884	1965-	7,149
08066300	Menard Creek near Rye	152	1965-	110
08066400	Big Creek near Shepherd	38.8	1966-	25.8
08066500	Trinity River at Romayor	17,186	1924-i/q/	7,460 (1969-82)
08067000	Trinity River at Liberty	17,468	1939-40h/, 1941-	--t/
08067070	CIWA Canal near Dayton	--	1982-	--*
08067500	Cedar Bayou near Crosby	64.9	1946, 1963-64, 1971-o/	79.2 (1972-82)
08067610	Lake Conroe at outflow weir near Conroe	445	1974-	--s/
08067650	West Fork San Jacinto River below Lake Conroe near Conroe	451	1972-	235
08068000	West Fork San Jacinto River near Conroe	828	1924-27g/, 1939-	569 (1972-82)
08068090	West Fork San Jacinto River above Lake Houston	962	1984-	--*
08068520	Spring Creek at Spring	419	1939-46g/, 1946-u/	218
08068720	Cypress Creek at Katy-Hockley Rd. near Cypress	110	1975-	66.1
08068740	Cypress Creek at House and Hahl Rd. near Cypress	131	1975-	90.1
08068780	Little Cypress Creek near Houston	41	1983-	--*
08068800	Cypress Creek at Grant Rd. near Houston	214	1983-	--*
08069000	Cypress Creek near Westfield	285	1944-	159
08070000	East Fork San Jacinto River near Cleveland	325	1939-	221
08070200	East Fork San Jacinto River near New Caney	388	1971-76g/, 1984-	--*
08070500	Caney Creek near Splendora	105	1943-i/	75.2
08071280	Luce Bayou above Lake Houston near Huffman	218	1984-	--*
08072300	Buffalo Bayou near Katy	63.3	1977-	49.8
08072730	Bear Creek near Barker	19.8	1977-	19.5
08072760	Langham Creek at Little York Rd. near Addicks	25.8	1978-80, 1981-82r/, 1983-	--*
08073500	Buffalo Bayou near Addicks	293	1945-	208

See footnotes at end of table.

Table 1.--Selected hydrologic data for continuous-record stations in the Texas surface-water program--Continued

Station number	Station name	Contributing drainage (area mi^2)	Period of record (water years)	Average discharge (ft^3/s)
08073600	Buffalo Bayou at West Belt Dr., Houston	307	1971-	309
08073700	Buffalo Bayou at Piney Point	317	1964-76, 1977-84[c/]	265 (1964-76)
08074000	Buffalo Bayou at Houston	358	1936-57, 1958-61[p/] 1962-75, 1976-[p/]	274 (1944-57, 1962-65)
08074150	Lake Creek at Deihl Rd., Houston	7.5	1965-	7.61
08074500	Whiteoak Bayou at Houston	86.3	1936-65, 1966-[b/], 1967-	81.0
08075000	Brays Bayou at Houston	94.9	1936-	120
08075400	Sims Bayou at Hiram Clarke St., Houston	20.2	1964-	27.6
08075500	Sims Bayou at Houston	63.0	1952-	81.2
08075730	Vince Bayou at Pasadena	7.32	1972-	16.8
08075770	Hunting Bayou at I.H. 610, Houston	15.8	1964-[v/]	23.2
08075900	Greens Bayou at U.S. Highway 75 near Houston	36.1	1965-	31.3
08076000	Greens Bayou near Houston	69.6	1952-	58.9
08076500	Halls Bayou at Houston	27.6	1952-	27.9
08076700	Greens Bayou at Ley Rd., Houston	182	1946, 1947-59[w/], 1944-1963-65, 1972-[x/]	36.6
08077000	Clear Creek near Pearland	38.8	1948-59, 1964-	36.6
08078000	Chocolate Bayou near Alvin	87.7	1944, 1946-[q/]	110
08079575	North Fork Double Mountain Fork Brazos River near Post	438	1984-	--*
08079600	Double Mountain Fork Brazos River at Justiceburg	1,466	1962-[y/]	28.7
08080500	Double Mountain Fork Brazos River near Aspermont	8,796	1924-34[g/], 1939-	162
08080950	Duck Creek near Girard	431	1964-	6.48
08081000	Salt Fork Brazos River near Peacock	4,619	1950-51[g/], 1965-	37.5
08081200	Croton Creek near Jayton	290	1959-	14.2
08082000	Salt Fork Brazos River near Aspermont	5,130	1924-25[g/], 1939-	110
08082180	North Croton Creek near Knox City	251	1966-	14.4
08082500	Brazos River at Seymour	15,538	1923-	378
08082700	Millers Creek near Munday	104	1963-	8.02
08083100	Clear Fork Brazos River near Roby	228	1961-	10.6
08083240	Clear Fork Brazos River at Hawley	1,416	1968-	57.0
08083245	Mulberry Creek near Hawley	205	1968-	9.48
08083430	Elm Creek at Abilene	422	1980-	--*
08083470	Cedar Creek at Abilene	119	1971-	7.99
08084000	Clear Fork Brazos River at Nugent	2,199	1924-33[g/], 1934-	186
08084800	California Creek near Stamford	478	1963-	34.6
08085500	Clear Fork Brazos River at Fort Griffin	3,988	1923-32[g/], 1933-	229
08086150	North Fork Hubbard Creek near Albany	39.3	1963-	7.05 (1964-82)
08086212	Hubbard Creek below Albany	613	1967-	73.6
08086290	Big Sandy Creek above Breckenridge	280	1962-[z/]	29.6
08086500	Hubbard Creek near Breckenridge	1,089	1955-	49.4 (1963-82)
08088000	Brazos River near South Bend	22,673	1939-	850
08088300	Briar Creek at Graham	24.2	1958-	3.74
08088450	Big Cedar Creek near Ivan	97.0	1965-	14.6
08089000	Brazos River near Palo Pinto	23,811	1924-33[g/], 1934-[i/]	955 (1941-82)
08090800	Brazos River near Dennis	25,237	1968-	1,040
08091000	Brazos River near Glen Rose	25,818	1924-31[g/], 1931-	1,069 (1970-82)
08091500	Paluxy River at Glen Rose	410	1924-25[g/], 1947-[aa/]	66.1
08091750	Squaw Creek near Glen Rose	70.3	1974-	8.81
08092000	Nolan River at Blum	282	1924-25, 1948-[bb/]	92.0
08093100	Brazos River near Aquilla	27,244	1939-48[g/], 1949-[cc/]	1,480 (1952-82)
08093250	Hackberry Creek at Hillsboro	57.9	1980-	--*
08093360	Aquilla Creek above Aquilla	255	1980-	--[dd/]

See footnotes at end of table.

Table 1.--Selected hydrologic data for continuous-record stations in the Texas surface-water program--Continued

Station number	Station name	Contributing drainage (area mi^2)	Period of record (water years)	Average discharge (ft^3/s)
08093500	Aquilla Creek near Aquilla	308	1938-	119
08094800	North Bosque River at Hico	359	1962-	40.8
08095000	North Bosque River near Clifton	968	1923-i/q/	177 (1968-82)
08095200	North Bosque River at Valley Mills	1,146	1959-g/, 1960-	220 (1968-82)
08095300	Middle Bosque River near McGregor	182	1959-g/, 1960-	83.9
08095400	Hog Creek near Crawford	78.2	1959-g/, 1960-	35.3
08096500	Brazos River at Waco	29,573	1898-i/q/	2,273 (1940-82)
08098290	Brazos River near Highbank	30,436	1965-	2,664
08099100	Leon River near De Leon	479	1961-	42.5
08099300	Sabana River near De Leon	264	1961-	28.5
08099500	Leon River near Hasse	1,261	1939-	88.7 (1964-82)
08100000	Leon River near Hamilton	1,891	1925-31g/, 1961-	139 (1961-82)
08100500	Leon River at Gatesville	2,342	1951-	239
08101000	Cowhouse Creek at Pidcoke	455	1951-	86.0
08102500	Leon River near Belton	3,542	1923-31g/, 1931-	515 (1954-82)
08103800	Lampasas River near Kempner	818	1963-	127
08103900	South Fork Rocky Creek near Briggs	33.3	1963-	11.5
08104100	Lampasas River near Belton	1,321	1963-	229
08104500	Little River near Little River	5,228	1924-29g/, 1962-	878 (1963-82)
08104700	North Fork San Gabriel River near Georgetown	248	1968-	88.1
08104900	South Fork San Gabriel River near Georgetown	133	1948, 1962-67ee/, 1968-	49.9 (1969-82)
08105100	Berry Creek near Georgetown	83.1	1967-	27.6
08105300	San Gabriel River near Weir	563	1977-	185
08105700	San Gabriel River at Laneport	738	1965-	289
08106310	San Gabriel River near Rockdale	1,357	1975-80c/, 1981-	--*
08106350	Little River near Rockdale	6,959	1982-	--ff/
08106500	Little River at Cameron	7,065	1917-q/	1,617 (1954-82)
08109000	Brazos River near Bryan	39,515	1899-1902, 1918-26, 1926-q/	4,980 (1941-82)
08109700	Middle Yegua Creek near Dime Box	236	1962-	52.9
08109800	East Yegua Creek near Dime Box	244	1962-	57.3
08110000	Yegua Creek near Somerville	1,009	1924-34g/, 1934-	292
08110100	Davidson Creek near Lyons	195	1963-	66.9
08110325	Navasota River above Groesbeck	239	1975-78gg/, 1978-	90.2
08110430	Big Creek near Freestone	57.1	1975-78gg/, 1978	36.2
08110500	Navasota River near Easterly	968	1924-32g/, 1932-	445 (1961-82)
08111000	Navasota River near Bryan	1,454	1951-	593 (1961-82)
08111010	Navasota River near College Station	1,809	1977-	572
08111500	Brazos River near Hempstead	43,880	1939-63g/ 1964-	6,627
08111700	Mill Creek near Bellville	376	1963-	245
08114000	Brazos River at Richmond	45,007	1903-06, 1923-31g/, 1932-	7,329 (1941-82)
08115000	Big Creek near Needville	42.8	1947-50, 1952q/	34.3
08117500	San Bernard River near Boling	727	1954-	494
08119500	Colorado River near Ira	3,483	1948-52i/, 1959-	10.4 (1959-82)
08120500	Deep Creek near Dunn	198	1953-55g/, 1955-	12.5
08120700	Colorado River near Cuthbert	3,912	1965-	38.9
08121000	Colorado River at Colorado City	3,966	1924-25g/, 1946-	40.1 (1953-82)
08123720	Beals Creek near Coahoma	1,569	1984-	--*
08123800	Beals Creek near Westbrook	9,802	1959-	25.0
08123850	Colorado River above Silver	14,910	1967-	81.6
08124000	Colorado River at Robert Lee	15,307	1924-27hh/, 1939-56q/, 1969-	3.66 (1969-82)

See footnotes at end of table.

Table 1.--Selected hydrologic data for continuous-record stations in the Texas surface-water program--Continued

Station number	Station name	Contributing drainage (area mi^2)	Period of record (water years)	Average discharge (ft^3/s)
08126380	Colorado River near Ballinger	16,358	1907-i/q/ii/	52.5(1969-82)
08127000	Elm Creek at Ballinger	450	1932-	47.6
08128000	South Concho River at Christoval	413	1930-	33.2
08128400	Middle Concho River above Tankersley	2,084	1961-	15.8
08129300	Spring Creek above Tankersley	426	1961-	14.3
08130500	Dove Creek at Knickerbocker	226	1961-	18.0
08131400	Pecan Creek near San Angelo	81.1	1961-	2.38
08133500	North Concho River near Sterling City	588	1940-	8.32
08134000	North Concho River near Carlsbad	1,266	1924-q/	34.5
08135000	North Concho river at San Angelo	1,525	1916-28q/, 1929-31, 1947	8.16 (1952-82)
08136000	Concho River at San Angelo	5,542	1916-17g/, 1917-jj/	23.6
08136500	Concho River at Paint Rock	6,574	1915-kk/	60.7 (1963-82)
08136700	Colorado River near Stacy	24,193	1968-	230
08138000	Colorado River at Winchell	25,179	1924-34, 1939-q/ll/	279 (1969-82)
08141500	Hords Creek near Valera	54.2	1947-	1.60
08143600	Pecan Bayou near Mullin	2,073	1968-	119
08144500	San Saba River at Menard	1,335	1916-q/	64.6
08144600	San Saba River near Brady	1,633	1980-	--*
08144800	Brady Creek near Eden	101	1962-	1.07
08145000	Brady Creek at Brady	588	1939-40q/, 1940-	10.0 (1963-82)
08146000	San Saba River at San Saba	3,046	1904-05c/, 1916-mm/	235
08147000	Colorado River near San Saba	31,217	1916-30nn/, 1931-i/	677 (1969-82)
08150000	Llano River near Junction	1,854	1915-	195
08150700	Llano River near Mason	215	1968-	355
08150800	Beaver Creek near Mason	215	1963-	18.1
08151500	Llano River at Llano	4,197	1939-	363
08152000	Sandy Creek near Kingsland	346	1967-	63.3
08152900	Pedernales River near Fredericksburg	369	1980-	--*
08153500	Pedernales River near Johnson City	901	1939-	179
08154700	Bull Creek at Loop 360, Austin	22.3	1976-78r/, 1979-	9.58
08155260	Barton Creek near Camp Craft Rd., Austin	109	1983-	--*
08155300	Barton Creek at Loop 360, Austin	116	1977-	39.6
08155500	Barton Springs at Austin	--	1895-1917, 1919-78o/, 1978-	54.0
08156700	Shoal Creek at Northwest Park, Austin	6.52	1975-	3.23
08158000	Colorado River at Austin	39,009	1898-	2,010 (1937-82)
08158050	Boggy Creek at U.S. Highway 183 near Austin	13.1	1975-76o/, 1977	6.66
08158600	Walnut Creek at Webberville Rd., Austin	51.3	1966-	24.8
08158700	Onion Creek near Driftwood	124	1962-79oo/, 1980-	--*
08158810	Bear Creek below F.M. 1826 near Driftwood	12.2	1978-79oo/, 1980-	--*
08158840	Slaughter Creek at F.M. 1826 near Austin	8.24	1978-	5.80
08158920	Williamson Creek at Oak Hill	6.30	1974-77oo/, 1978-	4.71
08158970	Williamson Creek at Jimmy Clay Rd., Austin	27.6	1975-oo/, 1976-	9.54
08159000	Onion Creek at U.S. Highway 183 near Austin	321	1924-30pp/, 1976-	85.1
08159165	Big Sandy Creek near McDade	38.7	1980-	--*
08159170	Big Sandy Creek near Elgin	63.8	1980-	--*
08159200	Colorado River at Bastrop	39,979	1960-	2,174
08160700	Colorado River above Columbus	41,313	1984-	--*
08160800	Redgate Creek near Columbus	17.3	1962-	5.99
08161000	Colorado River at Columbus	41,640	1916-30, 1931-39qq/, 1940-	2,935 (1937-82)
08162000	Colorado River at Wharton	42,003	1916-25o/, 1939-	2,172 (1939-82)

See footnotes at end of table.

Table 1.--Selected hydrologic data for continuous-record stations in the Texas surface-water program--Continued

Station number	Station name	Contributing drainage (area mi^2)	Period of record (water years)	Average discharge (ft^3/s)
08162500	Colorado River near Bay City	42,240	1948-	2,415
08162600	Tres Palacios River near Midfield	145	1970-	154
08163500	Lavaca River at Hallettsville	108	1939-	52.8
08164000	Lavaca River near Edna	817	1938-	332
08164300	Navidad River near Hallettsville	332	1961-	161
08164350	Navidad River near Speaks	437	1982-	--*
08164450	Sandy Creek near Louise	289	1978-	190
08164503	West Mustang Creek near Ganado	178	1978-	169
08164600	Garcitas Creek near Inez	91.7	1970-	58.5
08164800	Placedo Creek near Placedo	68.3	1970-	71.1
08165300	North Fork Guadalupe River near Hunt	168	1967-	39.8
08165500	Guadalupe River at Hunt	288	1941-49rr/, 1965-	75.1
08166000	Johnson Creek near Ingram	114	1941-59, 1961-	19.8
08166140	Guadalupe River above Bear Creek at Kerrville	494	1978-	--ss/
08167000	Guadalupe River at Comfort	839	1939-	188
08167500	Guadalupe River near Spring Branch	1,315	1922-	313
08167800	Guadalupe River at Sattler	1,436	1960-	405 (1962-82)
08168500	Guadalupe River above Comal River at New Braunfels	1,518	1927-	497 (1963-82)
08169000	Comal River at New Braunfels	130	1882-tt/	299 (1933-82)
08170000	San Marcos River spring flow at San Marcos	93.0	1956-	167
08171000	Blanco River at Wimberley	355	1924-26, 1928-	124
08171300	Blanco River near Kyle	412	1956-	151
08172000	San Marcos River at Luling	838	1939-	372
08172400	Plum Creek at Lockhart	112	1959-	48.3
08173000	Plum Creek near Luling	309	1930-	104
08175000	Sandies Creek near Westhoff	549	1930-34, 1959-	135
08175800	Guadalupe River at Cuero	4,934	1903-07uu/, 1916-35vv/, 1965-	2,128 (1965-82)
08176500	Guadalupe River at Victoria	5,198	1935-	2,074 (1963-82)
08176900	Coleto Creek at Arnold Crossing near Schroeder	357	1979-	104
08177300	Perdido Creek at F.M. 622 near Fannin	28.0	1978-	7.74
08177500	Coleto Creek near Victoria	514	1939-54, 1978-	92.7 (1940-54)
08178000	San Antonio River at San Antonio	41.8	1896-1906oo/, 1915-30, 1939-	55.7
08178700	Salado Creek (upper station) at San Antonio	137	1961-	9.68
08178800	Salado Creek (lower station) at San Antonio	189	1961-	42.3
08178880	Medina River at Bandera	427	1983-	--*
08180000	Medina Canal near Rio Medina	--	1922-34, 1957-	41.7
08180700	Medina River near Macdona	885	1981-	--*
08180800	Medina River near Somerset	967	1971-	266
08181400	Helotes Creek at Helotes	15.0	1968-	4.38
08181500	Medina River at San Antonio	1,317	1930-31, 1939-ww/	174
08181800	San Antonio River near Elmendorf	1,743	1963-	529
08183500	San Antonio River near Falls City	2,113	1925-	400
08183900	Cibolo Creek near Boerne	68.4	1962-	29.3
08185000	Cibolo Creek at Selma	274	1946-	15.2
08186000	Cibolo Creek near Falls City	827	1931-i/	124

See footnotes at end of table.

Table 1.--Selected hydrologic data for continuous-record stations in the Texas surface-water program--Continued

Station number	Station name	Contributing drainage (area mi^2)	Period of record (water years)	Average discharge (ft^3/s)
08186500	Ecleto Creek near Runge	239	1962-	40.6
08188500	San Antonio River at Goliad	3,921	1924-29, 1939-	674
08188600	Guadalupe-Blanco River Authority Calhoun Canal-Flume No. 1 near Long Mott	--	1968-70[b/], 1970-	99.7
08188750	Guadalupe-Blanco River Authority Calhoun Canal-Flume No. 2 near Long Mott	--	1972-[b/], 1972-	79.7
08189200	Copano Creek near Refugio	87.8	1970-	54.4
08189500	Mission River at Refugio	690	1939-	122
08189700	Aransas River near Skidmore	247	1964-	43.8
08189800	Chiltipin Creek at Sinton	128	1970-	50.9
08190000	Nueces River at Laguna	764	1924-	150
08190500	West Nueces River near Brackettville	700	1939-50, 1956-	37.4
08192000	Nueces River below Uvalde	1,947	1939-	123
08193000	Nueces River near Asherton	4,082	1940-	185
08194000	Nueces River at Cotulla	5,260	1924-[i/]	276
08194200	San Casimiro Creek near Freer	469	1962-	69.6
08194500	Nueces River near Tilden	8,192	1943-	447
08195000	Frio River at Concan	405	1924-29, 1931-	114
08196000	Dry Frio River near Reagan Wells	117	1952-	35.2
08197500	Frio River below Dry Frio River near Uvalde	661	1952-	30.3
08198000	Sabinal River near Sabinal	206	1943-	57.0
08198500	Sabinal River at Sabinal	247	1952-	33.0
08200000	Hondo Creek near Tarpley	86.2	1952-	39.5
08200700	Hondo Creek at King Waterhole near Hondo	142	1961-	14.5
08201500	Seco Creek at Miller Ranch near Utopiaa	43.1	1961-	19.0
08202700	Seco Creek at Rowe Ranch near D'Hanis	168	1961-	8.84
08205500	Frio River near Derby	3,493	1915-	140
08206600	Frio River at Tilden	4,493	1978-	181
08206700	San Miguel Creek near Tilden	793	1964-	69.5
08208000	Atascosa River at Whitsett	1,171	1924-26, 1932-	133
08210000	Nueces River near Three Rivers	15,600	1915-[i/]	857
08210400	Lagarto Creek near George West	155	1972-	1.98
08211000	Nueces River near Mathis	16,660	1939-	850
08211500	Nueces River at Calallen	16,920	1984-	--*
08211520	Oso Creek at Corpus Christi	90.3	1972-	37.3
08211800	San Diego Creek at Alice	319	1963-	9.43
08211900	San Fernando Creek at Alice	507	1965-	26.0
08412500	Pecos River near Orla	21,210	1937-	164
08414500	Reeves Co. Water Improvement District No. 2 canal near Mentone	--	1922-25[xx/], 1939-57, 1964-	8.18
08415000	Ward Co. Water Improvement District No. 3 canal near Barstow	--	1939-57 1964-	8.86
08418000	Ward Co. Irrigation District No. 1 canal near Barstow	--	1922-25[yy/], 1939-57, 1965-	27.2
08431700	Limpia Creek above Fort Davis	52.4	1966-	2.67
08436500	Pecos Co. Water Improvement District No. 2 (upper division) canal near Grandfalls		1922-25[zz/], 1939-57, 1964-	30.3
08437500	Pecos Co. Water Improvement District No. 2 canal near Imperial		1940-57, 1964-	11.8
08437600	Pecos Co. Water Improvement District No. 3 canal near Imperial		1939-57, 1964-	8.85
08437700	Ward Co. Water Improvement District No. 2 canal near Grandfalls		1939-57, 1964-	18.8
08446500	Pecos River near Girvin	29,560	1939-	85.7
08447020	Independence Creek near Sheffield	763	1974-	30.2

See footnotes at end of table.

* Average discharge not published, less than 5 years of streamflow record.
a/ All above Lake Kemp Dam.
b/ Monthly discharge only.
c/ Gage heights only.
d/ Published as "Cypress Creek near Pittsburg."
e/ Daily gage-height and discharge measurements only.
f/ Low-flow partial-record station.
g/ Non-recording gage.
h/ Published as "Sabine River at Greenville."
i/ Monthly discharge only for some periods.
j/ Published as "Lake Fork Sabine River near Quitman."
k/ Published as "near Tatum."
l/ Published as "below Toledo Bend near Burkeville" prior to 1976.
m/ Monthly discharge only for 1967 water year.
n/ Fragmentary record.
o/ Discharge measurements only.
p/ High water records and discharge measurements only.
q/ Non-recording gage during some periods.
r/ Peak discharge and discharge measurements only.
s/ Records do not constitute total outflow from lake.
t/ Records below 10,000 ft^3/s not published.
u/ Prior to 1975, published as "near Spring."
v/ Prior to 1973, published as "U.S. Highway 90-A, Houston."
w/ Non-recording gage prior to 1948.
x/ Only storm periods producing discharges over 1,000 ft^3/s are computed.
y/ Prior to 1964, published as "Sand Creek" or "South Fork."
z/ Prior to 1976, published as "near Breckenridge."
aa/ Prior to 1965, published as "Paluxy Creek."
bb/ Prior to 1949, non-recording gage.
cc/ Prior to 1975, published as "near Whitney."
dd/ Discharge above 135 ft^3/s not determined.
ee/ Occasional low-flow measurements only.
ff/ Daily discharges above 1,000 ft^3/s not published.
gg/ Periodic gage-height and low-flow measurements only.
hh/ Published as "near Robert Lee."
ii/ Prior to 1980, published as "at Ballinger."
jj/ Prior to 1970, published as "near San Angelo."
kk/ Prior to 1971, published as "near Paint Rock."
ll/ Prior to 1931, published as "near Milburn."
mm/ Prior to 1930, published as "near San Saba."
nn/ Prior to 1923 and 1923-30, published as "near Chadwich" and "near Tow," respectively.
oo/ Periodic discharge measurements only.
pp/ Published as "near Del Valle."
qq/ Published as "near Eagle Lake."
rr/ Discharge not computed above 600 ft^3/s.
ss/ Discharge not computed above 400 ft^3/s.
tt/ Discharge measurements only prior to 1928.
uu/ Published as "near Cuero."
vv/ Published as "below Cuero."
ww/ Prior to 1971, published as "near San Antonio."
xx/ Published as "Farmers Independent Canal near Porterfield."
yy/ Published as "Barstow Canal near Barstow."
zz/ Published as "Imperial Highline Canal near Grandfalls."

Table 2.--Data use, funding, and data availability for stations in the surface-water program

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
07227500	*	2		2	2	2	2					2		A
07227920	*	2		2								2		A
07228000		2		2	2	2	1,2			*		2		A T
07235000	*	2				2						2		A
07297910	*	2				2	1			*		2		A
07298200		2		2		2						2		A
07299540						2	1			*		2		A
07299670	*	2				2						2		A
07300000		2		2	2	2	2					2		A
07301300		2				2	2					2		A T
07301410	*	2		2		2	2					2		A
07307800	*	2				2						2		A
07308500	*						1			*				A
07311700	*	91		91	91		91				91			A
07311800	*	91			70		91				91	70		A
07312100		91		91		91	91				91			A
07312110					70							70		A
07312200	*	2		2		2						2		A
07312500		2,91		2	91	2,91	2				91			A
07312700		2				2						2		A

1 - NASQAN.
2 - Texas Department of Water Resources.
70 - Wichita County WID No. 2.
91 - U.S. Army Corps of Engineers - Tulsa.

* Yes.
A Annual data report.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
07314500	*	2,39			2,39	2,39						39		A
07314900		39			39	39	2					39		A
07315200	*	2		2			2					2		A
07315500		2,91		2,91		2,91	2				91	2		A
07332600	*					2						2		A
07335400		91									91			A
07336820		2,91				2,91	2,91				91	2		A T
07342470	*	90			90	90					90			A
07342500	*	2,90		2,90	2,90	2,90	2,90				90	2		A T
07343000		2,90		2,90		2,90	2				90	2		A T
07343200		2,90		2,90		2,90	2				90	2		A T
07343500	*	2,90		2,90		2,90	2,90				90	2		A T
07344210		90			90		90				90			A
07344482		44			44							44		A
07344486		63			63							63		A
07344500		2,90		2,90	2,90		2,90				90	2		A T
07346000		90		90	90		90				90			A T
07346045	*	2		2		2						2		A T
07346050	*	2		2		2						2		A
07346070	*	2		2	2	2	2					2		A T

2 - Texas Department of Water Resources.
39 - City of Wichita Falls.
44 - Franklin Water District.
63 - Titus County Fresh Water Supply District No. 1.
90 - U.S. Army Corps of Engineers - Fort Worth.
91 - U.S. Army Corps of Engineers - Tulsa.

* Yes.
A Annual data report.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
07346140	*	2		2	2	2						2		A
08017200	*	4		4	4	4						4		A
08017300	*	4		4	4	4,94						4		A
08017410		4		4	4	4						4		A
08018500	*	2				2	2					2		A
08018730	*	4		4		4						4		A
08019000	*	2,4		2,4		2,4,94	2					2,4		A
08019500	*	4		4		4,94	4					4		A
08020000		2,4				2,4,94						2		A T
08020450		4		4		4						4		A
08022040		2,4		2		2,4,94	2,4					2,4		A
08022070	*	2										2		A
08025360		2,3		2,3	2	2,3	3					3,4		A
08026000		2,3,4		2,3	2,3	2,3,94	2,4					2,3,4		A P
08028500		3,4		3	3,4	4,94	3,4					3,4		A P T
08029500	*	4		4	4		4					4		A
08030500		3,4		4	4	4,94	1,4,*			*		3,4		A P T
08031000	*	4		4	4	4						4		A
08031200	*	2				2						2		A
08032000	*	2,90		2	2,90	2,90,94	2,67,90				90	2,67		A T

1 - NASQAN.
2 - Texas Department of Water Resources.
3 - Sabine River Compact Administration
4 - Sabine River Authority.
67 - Upper Neches River Authority.
90 - U.S. Army Corps of Engineers - Fort Worth.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08033000		2,90		2,90		2,90,94					90	2		A T
08033300		2				2						2		A
08033500	*	2,52		2,52		2,52,94	2					2,52		A T P
08033900	*	2				2,94	2					2		A
08036500		90			90	90,94					90			A T
08037050	*	2				2	2					2		A
08038000	*	90		90		90,94					90			A T
08039100	*	90		90		90					90			A T
08040500		2,90		2,90		2,90	2				90	2		A T
08041000		2,52				2,52,94	1,52			*		2,52		A P T
08041500	*	2,92				92,94	2				92	2		A T
08041700	*	2				2,94	2					2		A T
08042000		92				92					92			A
08042500		92				92,94					92			A
08042800	*	62			62	62,94						62		A
08044000	*	62			62	62,94						62		A T
08044500		62			62	62,94						62		A T
08045850		90			90	90,94					90			A T
08047000		90			90	90,94					90			A T
08047500	*	62			62	62,94						62		A T

1 - NASQAN.
2 - Texas Department of Water Resources.
52 - Lower Neches Valley Authority.
62 - Tarrant County WC&ID No. 1.
90 - U.S. Army Corps of Engineers - Fort Worth.
92 - U.S. Army Corps of Engineers - Galveston.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08048000		62			62	62,94						62		A T
08048543		2,68				68	2,68					2,68		A T
08049500		2,68				2,94	2,68					2,68		A T
08049565		75		75									75	A T
08049600	*	2				2,90	90				90	2		A T
08049700	*	2			2							2		A T
08050100		2			2							2		A T
08050500	*	90				90,94	90				90			A T
08051000	*	90				90,94	90				90			A T
08051500	*	90				90					90			A T
08052700	*	2,7			7	7						7		A
08053000		2				90,94					90	2		A T
08053500	*	90				90,94					90			A T
08055000		90				90,94					90			A
08055500	*	90				90,94					90			A T
08056500		72										72		A
08057000		*				94				*				A T
08057200		72			72	72						72		A T
08057410		2			10	2	2,68					2,10,68		A
08057445		7			7	7						7		A

2 - Texas Department of Water Resources.
7 - City of Dallas-Water Utility District.
10 - County of Dallas.
62 - Tarrant County WC&ID No. 1.
68 - Upper Trinity Basin Water Quality Compact.
72 - City of Dallas-Public Works Department
75 - Dallas/Fort Worth Airport.
90 - U.S. Army Corps of Engineers - Fort Worth.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08058900		2,90				2,90					90	2		A T
08059400		90			90	90					90			A T
08061000		90			90	90					90			A
08061540		7			7	7						7		A T
08061700	*	2			17	2						17		A
08061750		2,7				2,7	2,7					2,7		A T
08062000		2				2,94						2		A T
08062500		2,68				2,94	2,68				90	2,68		A T
08062700		62			62		1			*		62		A T
08062800	*	62			62	94						62		A
08062900	*	62			62							62		A T
08063100		90				90,94					90			A T
08063500	*	90				90,94	62				90	62		A T
08063800		90				90,94					90			A T
08064100		90			62	90,94	62				90	62		A T
08064700	*	2		2		2	2					2		A
08064800		2				2						2		A
08065000		2		2		2,94						2		A P T
08065200	*	2				2						2		A
08065350		2,65				65,94	2,65					65		A P T

1 - NASQAN.
2 - Texas Department of Water Resources.
7 - City of Dallas-Water Utility District.
17 - City of Garland.
62 - Tarrant County WC&ID No. 1.
65 - Trinity River Authority.
68 - Upper Trinity Basin Water Quality Compact.
90 - U.S. Army Corps of Engineers - Fort Worth.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08065800	*	2				2,94						2		A
08066100		65			65	65						65		A
08066170		65			65	65						65		A
08066191		65			65	65						65		A
08066200	*	65			65	65						65		A
08066250		65				65,94						65		A P
08066300	*	65				65	65					65		A
08066400	*	65				65	65					65		A
08066500		2,9				2,9,94	1,2,9			*		2,9		A P
08067000	*	92				92,94					92			A P
08067070					40							40		A
08067500		2				2						2		A P
08067610		61			61	61						61		A
08067650		61			61	61	61					61		A
08068000	2	2,9				2,9,94	1,2,9			*		2,9		A P T
08068090		9				9	9	9				9		A
08068520	*	9,61				9,61,94	9					9,61		A
08068720		49,92				49,92					92	49		A T
08068740		9,92				9,92	9				92	9		A
08068780		49				49		49				49		A T

1 - NASQAN.
2 - Texas Department of Water Resources.
9 - City of Houston.
40 - Coastal Industrial Water Authority.
61 - San Jacinto River Authority.
65 - Trinity River Authority.
92 - U.S. Army Corps of Engineers - Galveston.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08068800								49				49		A
08069000	*	9,49				9,49,94	9					9,49		A T
08070000	*	2,9				2,9,94	2,9					2,9		A T
08070200		9				9	9	9				9		A
08070500	*	9,61				9,61,94	9					9,61		A
08071280		9				9	9	9				9		A
08072300		92			92	92					92			A T
08072730		92			92	92					92			A T
08072760		92			92	92					92			A T
08073500		92			92	92					92			A
08073600		92			92	92,94	1			*	92			A T
08073700		92			92	92					92			A T
08074000		49				49						49		A T
08074150		9				9		9				9		A
08074500		9,49				9,49	9					9,49		A
08075000		9,49				9,49	9					9,49		A
08075400		9,49				9,49,94	9					9,49		A T
08075500		9,49				9,49	9					9,49		A T
08075730		92				92				*	92			A
08075770		9				9	9	9				9		A

1 - NASQAN.
2 - Texas Department of Water Resources.
9 - City of Houston.
49 - Harris County Flood Control District.
61 - San Jacinto River Authority.
92 - U.S. Army Corps of Engineers - Galveston.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08075900		9				9						9		A
08076000		9,49				9,49	9					9,49		A
08076500		9,49				9,49	9	9				9,49		A
08076700		49,92				49,92				*				A
08077000	*	92				92,94					92			A
08078000	*	92				92	1				92			A
08079575		33		33		2,33	33					33		A
08079600		2,33		2,33		2,33,94	33					2,33		A
08080500	2	2,22			22	2,22	1			*		2,22		A
08080950		2				2						2		A P
08081000		2			22	2,22,94	2					2,22		A P
08081200	*	2,22			22	2,22,94	2					2,22		A P
08082000	*	2			22	2,22,94	1			*		2		A P
08082180	*	2,22			22	2,22,94	2					2,22		A P
08082500		22			22	2,94	22					22		A T P
08082700	*	2			2	2						2		A
08083100	*	2				2,94						2		A
08083240		2,69			2	2,69,94	69					2,69		A P
08083245	*	2				2	2					2		A
08083430		2,23			23	23,94						23		A

1 - NASQAN.
2 - Texas Department of Water Resources.
9 - City of Houston.
22 - Brazos River Authority.
23 - City of Abilene.
33 - City of Lubbock.
49 - Harris County Flood Control District.
69 - West Central Texas Municipal Water District.
92 - U.S. Army Corps of Engineers - Galveston.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	UFA program	Coop program	Other non-federal	
08083470		23			23	23						23		A
08084000	*	23			23	23,94						23		A
08084800	*	2				2,94						2		A
08085500	*	22,69			22,69	22,94	69					22,69		A T
08086150	*	69			69	22,94	69					69		A
08086212	*	69			69	69,94	69					69		A
08086290		69			69	69,94	69					69		A
08086500		69			69	69,94						69		A
08088000		22			22	22,94	1			*		22		A P T
08088300	*	2				2						2		A
08088450	*	2				2						2		A
08089000		22			22	22,94						22		A P
08090800		22			22	22,94	22					22		A T
08091000		22,90			22	22,94	90				90	22		A
08091500	*	90				90,94					90			A T
08091750	*	2				2						2		A
08092000		90				90,94					90			A T
08093100		90				90					90			A T
08093250	*	90				90	90				90			A
08093360							90				90			A

1 - NASQAN.
2 - Texas Department of Water Resources.
22 - Brazos River Authority.
23 - City of Abilene.
69 - West Central Texas Municipal Water District.
90 - U.S. Army Corps of Engineers - Fort Worth.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08093500	*	22			22	2,94	22,90				90	2,22		A
08094800		2				2						2		A
08095000	*	2				2						2		A P T
08095200		90			90	90					90			A
08095300	*	90			90	90					90			A T
08095400	*	90			90	90					90			A T
08096500		2,90			90	2,94					90	2		A T
08098290		22,90			22	22,90,94	1,22			*	90	22		A T
08099100		90				90,94					90			A T
08099300	*	90				90,94					90			A T
08099500		90				90,94					90			A T
08100000		90				90,94					90			A T
08100500		90				90,94					90			A T
08101000	*	90		90		94					90			A T
08102500	*	2			2	2,94						2		A T
08103800		2,90				90,94					90			A T
08103900	*	2				2	1			*				A
08104100						2						2		A T
08104500		90				90,94					90			A T
08104700		90			90	90	90				90			A T

1 - NASQAN.
2 - Texas Department of Water Resources.
22 - Brazos River Authority.
90 - U.S. Army Corps of Engineers - Fort Worth.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08104900	*	2		2		2,94						2		A T
08105100	*	2		2		90					90			A T
08105300		90				90	90				90			A
08105700		90			90	90	90				90			A T
08106310		90				90					90			A T
08106350		22			22							22		
08106500	2	2,22			22	22,94	1,2,22			*		2,22		A T
08109000	2	2				2,94						2		A
08109700	*	90				90					90			A T
08109800	*	90				90	90				90			A T
08110000		90		90		90,94	90				90			A T
08110100	*	90		90		90					90			A T
08110325		2,22			22	2,94	22					2,22		A T
08110430	*	2,22			22	22						22		A T
08110500		2		2		2,94	2					2		A T
08111000				2		2,94				*		2		A
08111010		90		90		90,94					90			A
08111500		2,22			22	22,94						22		A P T
08111700	*	2				2	2					2		A
08114000	2	2,92				2,92,94	1,2			*	92	2		A P T

1 - NASQAN.
2 - Texas Department of Water Resources.
22 - Brazos River Authority.
90 - U.S. Army Corps of Engineers - Fort Worth.
92 - U.S. Army Corps of Engineers - Galveston.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08115000	*	92				92					92			A
08117500	*	92				92	1			*	92			A
08119500		2,41			41	2,94						2		A
08120500		2				2,94						2		A
08120700		2,41				2,41	41					41		A
08121000		2,41				2,41,94	41					2,41		A
08123720		41				41	41					41		A
08123800	*	41				41,94	41					41		A
08123850		2,41				2,41,94	1,41			*		41		A
08124000		2,41				41,94						41		A
08126380		2,51				2,51,94	2					2,51		A
08127000	*	2,51				51,94	2					2		A
08128000	*	35				35,94						35		A
08128400	*	2,35				35,94						35		A
08129300	*	2,35				35,94						35		A
08130500	*	2,35				35,94						35		A
08131400	*	2,35				35,94						35		A P
08133500	*	2,90			90	2,90,94					90			A
08134000	*	2				2,90,94						2		A
08135000		2			2,90	90,94					90	2		A

1 - NASQAN.
2 - Texas Department of Water Resources.
35 - City of San Angelo.
41 - Colorado River Municipal Water District.
51 - Lower Colorado River Authority.
90 - U.S. Army Corps of Engineers - Fort Worth.
92 - U.S. Army Corps of Engineers - Galveston.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08136000		2,51				51,94						51		A
08136500		2,51				51,94	2					2,51		A
08136700		2		2		2,94	2					2		A
08138000		2		2	51	2,94	2					2,51		A
08141500		90			90	90					90			A
08143600		2				2	2					2		A P
08144500	*	51				51,94						51		A
08144600	*	51				51						51		A
08144800	*	2				2						2		A
08145000		51				51,94						51		A
08146000		51				51,94						51		A
08147000	2	51				51,94	1,2,51		94	*		2,51		A P
08150000		51				51,94						51		A
08150700	*	51				51,94						51		A
08150800	*	2				2,94						2		A
08151500	*	2,51				51,94	1		94	*		51		A T
08152000	*	51				51,94						51		A T
08152900	*	51				51						51		A
08153500	*	2,51			51	2,51,94	2					2,51		A T
08154700		14		14		14	14					14		A

1 - NASQAN.
2 - Texas Department of Water Resources.
14 - City of Austin.
51 - Lower Colorado River Authority.
90 - U.S. Army Corps of Engineers - Fort Worth.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08155260		14		14		14	14	14				14		A
08155300		14		14		14	14	14				14		A
08155500		14		14		14	14	14				14		A
08156700		14		14		14		14				14		A
08158000		2,51				51,94	1,2		94	*		2,51		A T
08158050		14		14		14	14	14				14		A
08158600		14		14		14	14	14				14		A
08158700		14		14		14	14	14				14		A
08158810		14		14		14	14	14				14		A
08158840		14		14		14	14	14				14		A
08158920		14		14		14	14	14				14		A
08158970		14		14		14,94	14	14				14		A
08159000		14		14		14,94	14	14				14		A
08159165	*	51		51		51						51		A
08159170	*	51		51		51						51		A
08159200		2,51				2,51,94	2					2,51		A T
08160700		2,51		51		2,51	51					51		A
08160800	*	2				2						2		A
08161000		2,51				51,94						51		A P T
08162000		2,51				2,51,94	1,2,51			*	92	2,51		A P T

1 - NASQAN.
2 - Texas Department of Water Resources.
14 - City of Austin.
51 - Lower Colorado River Authority.
92 - U.S. Army Corps of Engineers - Galveston.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08162500		2,51				2,51,94						51		A P T
08162600	*	2				2						2		A
08163500	*	2,92			50	2,50,94					92			A
08164000	*	2,92			50	2,92	1,2			*	92	2		A
08164300	*	50			50	50						50		A
08164350	*	50			50	50,94						50		A
08164450	*	2			50	2	2					2,50		A
08164503	*	2			50	2	2					2,50		A
08164600	*	2				2	2					2		A
08164800	*	2				2						2		A
08165300	*	2,66				66						66		A P
08165500	*	2,66				2,66,94						2		A P T
08166000	*	2				2						2		A P
08166140	*	2,66				66						66		A P
08167000	*	2,47			47	47,94						47		A P T
08167500	*	2,47			90,47	90,94			94			47		A P T
08167800		2,90				90					90			A P T
08168500		2,47			47	2,47,94						2,47		A P T
08169000		2,43,47			47	2,47						2,47		A P
08170000		2,43,47			43	2,47,94						2		A

1 - NASQAN.
2 - Texas Department of Water Resources.
43 - Edwards Underground Water District.
47 - Guadalupe-Blanco River Authority.
50 - Lavaca-Navidad River Authority.
51 - Lower Colorado River Authority.
66 - Upper Guadalupe River Authority.
90 - U.S. Army Corps of Engineers - Fort Worth.
92 - U.S. Army Corps of Engineers - Galveston.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	UFA program	Coop program	Other non-federal	
08171000	*	2,47			47	2,47,94						2		A T
08171300	*	2,47			47	2,47,94						47		A
08172000		2,47			47	2,47,94	2					2,47		A T
08172400		2,47			47	2,47						2		A
08173000		2,47			47	2,47,94	2					2,47		A
08175000	*	2				2	2					2		A
08175800		2,47			47	2,47,94	2		94			2		A T
08176500		2,47			47	2,47,94	1			*		47		A P T
08176900	*	47			47							47		A P
08177300	*	2,47			47	47						47		A P
08177500		2,47			47	2,47						47		A P
08178000		2,36,60			36,60	60,94	36					36,60		A P T
08178700		2,36,60			36	36,94	36					36,60		A P
08178800		36,60				36,60	36					36,60		A P
08178880	*	2,43				2,43,94						43		A
08180000					21							21		A P
08180700		38		38		38						38		A
08180800		38		38		38						38		A P
08181400		36				36,94	36					36		A P
08181500		2,60				60,94	2					2,60		A P T

1 - NASQAN.
2 - Texas Department of Water Resources.
21 - Bexar-Medina-Atascosa Counties WID No. 1.
36 - City of San Antonio Department of Public Works.
38 - City of San Antonio Water Board.
43 - Edwards Underground Water District.
47 - Guadalupe-Blanco River Authority.
60 - San Antonio River Authority.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08181800		2,37				37,94	2					2,37		A P
08183500		36,38			38	2,38,94						2		A
08183900	*	43,60				43,60						60		A P
08185000	*	43,60				43,60,94						43,60		A
08186000	*	2,60				60,94	2					2		A
08186500	*	2				2,94						2		A
08188500		2,92				2,94	1,2			*	92	2		A P
08188600					47	47						47		A
08188750					47								47	A
08189200	*	2				2	2					2		A
08189500	*	2				2,94	1			*		2		A
08189700	*	2				2,94						2		A
08189800	*	2				2,94						2		A
08190000	*	2,43				2,94	43					2,43		A
08190500	*	2,43				43,94						43		A
08192000	*	2,43				43,94						43		A
08193000		2,43				43,94						2		A
08194000		2,29				29,94						29		A T
08194200	*	2,29				2						2		A
08194500		2,29				29,94						29		A T

1 - NASQAN.
2 - Texas Department of Water Resources.
29 - City of Corpus Christi.
36 - City of San Antonio Department of Public Works.
37 - City of San Antonio City Public Service Board.
38 - City of San Antonio Water Board.
43 - Edwards Underground Water District.
47 - Guadalupe-Blanco River Authority.
60 - San Antonio River Authority.
92 - U.S. Army Corps of Engineers - Galveston.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08195000	*	2,43				43,94	43					43		A
08196000	*	2,43				2,43	43					2,43		A
08197500		2,43				43,94						2		A T
08198000	*	2,43				2,43	43					43		A
08198500	*	2,43				43,94						2		A T
08200000	*	2,43				43	43					2,43		A
08200700	*	2,43				43,94						2		A T
08201500	*	2,43				43	43					2,43		A
08202700	*	2,43				43,94						2		A
08205500		2,43				43,94						29		A T
08206600		2,93			93	93,94					93			A T
08206700		2				2,94						2		A T
08208000		2,29				2,94						2		A T
08210000	2	2,29				2,94	1,2			*		2		A P T
08210400		2,29				2						2		A
08211000		2,29,92				2,92	2				92	2		A T
08211500		2,29,93				2,29					93			A T
08211520		2				2	2					2		A
08211800		2				2,94						2		A
08211900		2,24			24	24						24		A

1 - NASQAN.
2 - Texas Department of Water Resources.
24 - City of Alice.
29 - City of Corpus Christi.
43 - Edwards Underground Water District.
92 - U.S. Army Corps of Engineers - Galveston.
93 - U.S. Bureau of Reclamation - Amarillo.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.
P Periodic provisional discharge data.
T Telemetry.

Table 2.--Data use, funding, and data availability for stations in the surface-water program--Continued

Station number	Uses									Funding				Data availability
	Regional hydrology	Hydrologic systems	Legal obligations	Planning and design	Project operation	Hydrologic forecasts	Water-quality monitoring	Research	Other	Federal Program	OFA program	Coop program	Other non-federal	
08412500		6			58	6,58	58					6,58		A
08414500					6,58							6		A
08415000					6,58							6		A
08418000					6,58							6		A
08431700	*	2				2	*			*				A
08436500					6,58							6		A
08437500					6,58							6		A
08437600					6,58							6		A
08437700					6							6		A
08446500		2			2,6							6		A
08447020	*	2				94						2		A

2 - Texas Department of Water Resources.
6 - Pecos River Commission.
58 - Red Bluff Water Power Control District.
94 - Flood Forecasting-U.S. National Weather Service.

* Yes.
A Annual data report.