UNITED STATES DEPARTMENT OF THE INTERIOR

HAROLD L. ICKES, Secretary

GEOLOGICAL SURVEY

W. E. WRATHER, Director

Water-Supply Paper 958

SURFACE WATER SUPPLY *of the* UNITED STATES

1942

PART 8

WESTERN GULF OF MEXICO BASINS

Prepared under the direction of

GLENN L. PARKER, Chief Hydraulic Engineer

AND OF D. H. BARBER, C. E. ELLSWORTH, ROBERT FOLLANSBEE, BERKELEY JOHNSON, R. E. MARSH, AND E. B. RICE (acting), District Engineers

In cooperation with the States of

COLORADO, LOUISIANA, NEW MEXICO, AND TEXAS

PUBLIC PROPERTY
This copy is removed from the official files and is not PRIVATE POSSESSION
IS UNLAWFUL (R. S. Sup. Vol. 2, pp. 360, Sec. 749)

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1943

For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C.

CONTENTS

	Page
Scope of work	1
Definition of terms	1
Explanation of data	2
Time basis	3
Accuracy of field data and computed results	4
Publications	4
Records of discharge collected by agencies other than the Geological Survey	10
Cooperation	12
Division of work	12
Gaging-station records	14
Mermentau River Basin	14
Bayou Nezpique near Basile, La	14
Bayou Des Cannes near Eunice, La	15
Calcasieu River Basin	16
Calcasieu River near Oberlin, La	16
Calcasieu River near Kinder, La	17
Whiskey Chitto Creek near Oberlin, La	18
Bundick Creek near Dry Creek, La	19
Sabine River Basin	20
Sabine River near Mineola, Tex	20
Sabine River near Gladewater, Tex	21
Sabine River near Tatum, Tex	22
Sabine River at Logansport, La	23
Sabine River near Milam, Tex	24
Sabine River near Bon Wier, Tex	25
Sabine River near Ruliff, Tex	26
Cherokee Bayou near Elderville, Tex	27
Neches River Basin	28
Neches River near Neches, Tex	28
Neches River near Diboll, Tex	29
Neches River near Rockland, Tex	30
Neches River at Evadale, Tex	31
Mud Creek near Jacksonville, Tex	32
Angelina River near Alto, Tex	33
Angelina River near Lufkin, Tex	34
Angelina River at Horger, Tex	35
Striker Creek near Summerfield, Tex	36
Attoyac Bayou near Chireno, Tex	37
Village Creek near Kountze, Tex	38
Trinity River Basin	39
West Fork of Trinity River at Fort Worth, Tex	39
West Fork of Trinity River at Grand Prairie, Tex	40
Trinity River at Dallas, Tex	41
Trinity River near Rosser, Tex	42
Trinity River near Oakwood, Tex	43
Trinity River near Midway, Tex	44
Trinity River at Riverside, Tex	45
Trinity River at Romayor, Tex	46
Trinity River at Liberty, Tex	47
Big Sandy Creek near Bridgeport, Tex	48
Clear Fork of Trinity River at Fort Worth, Tex	49
Elm Fork of Trinity River near Carrollton, Tex	50
Denton Creek near Roanoke, Tex	51
East Fork of Trinity River near Rockwall, Tex	52
Cedar Creek near Mabank, Tex	53
Chambers Creek near Corsicana, Tex	54
Richland Creek near Richland, Tex	55
San Jacinto River Basin	56
West Fork of San Jacinto River near Conroe, Tex	56
West Fork of San Jacinto River near Humble, Tex	57
San Jacinto River near Huffman, Tex	58
Spring Creek near Spring, Tex	59
East Fork of San Jacinto River near Cleveland, Tex	60
Buffalo Bayou at Houston, Tex	61
Whiteoak Bayou at Houston, Tex	62
Brays Bayou at Houston, Tex	63
Brazos River Basin	64
Double Mountain Fork of Brazos River at Lubbock, Tex	64
Double Mountain Fork of Brazos River near Aspermont, Tex	65
Brazos River at Seymour, Tex	66
Brazos River near South Bend, Tex	67
Possum Kingdom Reservoir near Graford, Tex	68
Brazos River near Palo Pinto, Tex	69
Brazos River near Glen Rose, Tex	70
Brazos River near Whitney, Tex	71
Brazos River at Waco, Tex	72
Brazos River near Marlin, Tex	73
Brazos River near Bryan, Tex	74

Gaging-station records--Continued.
Brazos River Basin--Continued. Page
Brazos River near Hempstead, Tex. 75
Brazos River near San Felipe, Tex. 76
Brazos River at Richmond, Tex. 77
Brazos River at East Columbia, Tex. 78
Salt Fork of Brazos River near Aspermont, Tex. 79
White River at Plainview, Tex. 80
Clear Fork of Brazos River at Nugent, Tex. 81
Clear Fork of Brazos River at Fort Griffin, Tex. 82
Clear Fork of Brazos River near Crystal Falls, Tex. 83
Fort Phantom Hill Reservoir near Nugent, Tex. 84
Aquilla Creek near Aquilla, Tex. 85
North Bosque River near Clifton, Tex. 86
Leon River near Hasse, Tex. 87
Leon River near Belton, Tex. 88
Little River at Cameron, Tex. 89
Cowhouse Creek near Killeen, Tex. 90
Lampasas River at Youngsport, Tex. 93
Sulphur Creek seepage investigations 94
San Gabriel River at Georgetown, Tex. 95
Yegua Creek near Somerville, Tex. 96
Navasota River near Easterly, Tex. 97
Brazos Valley Irrigation Co.'s canal near Fulshear, Tex. 98
Richmond Irrigation Co.'s canal near Richmond, Tex. 98
Colorado River Basin. 99
Colorado River at Robert Lee, Tex. 99
Colorado River at Ballinger, Tex. 100
Colorado River at Winchell, Tex. 101
Colorado River near San Saba, Tex. 102
Buchanan Reservoir near Burnet, Tex. 103
Marshall Ford Reservoir near Austin, Tex. 103
Colorado River at Austin, Tex. 104
Colorado River at Smithville, Tex. 105
Colorado River at La Grange, Tex. 106
Colorado River at Columbus, Tex. 107
Colorado River at Wharton, Tex. 108
Elm Creek at Ballinger, Tex. 109
South Concho River at Christoval, Tex. 110
South Concho River at San Angelo, Tex. 111
Concho River near San Angelo, Tex. 112
Concho River near Paint Rock, Tex. 113
South Concho Irrigation Co.'s canal at Christoval, Tex. 114
Middle Concho River near Tankersly, Tex. 115
Spring Creek near Tankersly, Tex. 116
North Concho River at Sterling City, Tex. 117
North Concho River near Carlsbad, Tex. 118
Pecan Bayou at Brownwood, Tex. 119
San Saba River at Menard, Tex. 120
San Saba River at San Saba, Tex. 121
Noyes Canal at Menard, Tex. 122
Brady Creek at Brady, Tex. 123
North Llano River near Junction, Tex. 124
Llano River near Junction, Tex. 125
Llano River at Llano, Tex. 126
Pedernales River near Johnson City, Tex. 127
Barton Springs at Austin, Tex. 128
Dry Creek at Buescher Lake, near Smithville, Tex. 129
Lavaca River Basin. 130
Lavaca River near Edna, Tex. 130
Navidad River near Ganado, Tex. 131
Guadalupe River Basin. 132
Guadalupe River at Hunt, Tex. 132
Guadalupe River at Comfort, Tex. 133
Guadalupe River near Spring Branch, Tex. 134
Guadalupe River above Comal River, at New Braunfels, Tex. 135
Guadalupe River at Victoria, Tex. 136
Comal River at New Braunfels, Tex. 137
San Marcos River at Luling, Tex. 138
San Marcos River at Ottine, Tex. 139
Blanco River at Wimberley, Tex. 140
Plum Creek near Luling, Tex. 141
Coleto Creek near Victoria, Tex. 142
San Antonio River at San Antonio, Tex. 143
San Antonio River near Falls City, Tex. 144
San Antonio River at Goliad, Tex. 145
Cibolo Creek near Falls City, Tex. 146
Mission River Basin. 147
Mission River at Refugio, Tex. 147
Nueces River Basin. 148
Nueces River at Laguna, Tex. 148
Nueces River below Uvalde, Tex. 149
Nueces River near Asherton, Tex. 150
Nueces River at Cotulla, Tex. 151
Nueces River near Three Rivers, Tex. 152
Nueces River near Mathis, Tex. 153
Nueces River at Calallen, Tex. 154
West Nueces River near Brackettsville, Tex. 154

Gaging-station records--Continued.
Nueces River Basin--Continued. Page
Frio River at Concan, Tex. 157
Frio River near Derby, Tex. 158
Frio River at Calliham, Tex. 159
Sabinal River seepage investigation 160
Leona River spring flow near Uvalde, Tex. 161
Atascosa River at Whitsett, Tex. 162
Rio Grande Basin 163
Rio Grande at Thirtymile Bridge, near Creede, Colo. 163
Rio Grande at Wason, below Creede, Colo. 164
Rio Grande near Del Norte, Colo. 165
Rio Grande near Monte Vista, Colo. 166
Rio Grande at Alamosa, Colo. 167
Rio Grande above mouth of Trinchera Creek, near La Sauses, Colo. 168
Rio Grande near Lobatos, Colo. 169
Rio Grande below Taos Junction Bridge, near Taos, N. Mex. 170
Rio Grande at Embudo, N. Mex. 171
Rio Grande at Otowi Bridge, near San Ildefonso, N. Mex. 172
Rio Grande at Cochiti, N. Mex. 173
Rio Grande at San Felipe, N. Mex. 174
Rio Grande near Bernalillo, N. Mex. 175
Rio Grande at Albuquerque, N. Mex. 177
Rio Grande near Belen, N. Mex. 178
Rio Grande near Bernardo, N. Mex. 179
Rio Grande at San Acacia, N. Mex. 180
Rio Grande at San Marcial, N. Mex. 181
Rio Grande below Elephant Butte Dam, N. Mex. 182
Rio Grande below Caballo Dam, N. Mex. 183
Reservoirs in Rio Grande Basin, Colo. 184
Clear Creek below Continental Reservoir, Colo. 187
Goose Creek near Wagon Wheel Gap, Colo. 188
South Fork of Rio Grande at South Fork, Colo. 189
Pinos Creek near Del Norte, Colo. 190
San Francisco Creek near Del Norte, Colo. 191
Rock Creek near Monte Vista, Colo. 192
Closed basin in San Luis Valley, Colo. 193
Kerber Creek at Ashley Ranch, near Villa Grove, Colo. 193
Saguache Creek near Saguache, Colo. 194
North Crestone Creek near Crestone, Colo. 195
Carnero Creek near La Garita, Colo. 196
La Garita Creek near La Garita, Colo. 197
Alamosa Creek above Terrace Reservoir, Colo. 198
Alamosa Creek below Terrace Reservoir, Colo. 199
La Jara Creek at Callegos Ranch, near Capulin, Colo. 200
Trinchera Creek above Turners Ranch, near Fort Garland, Colo. 201
Trinchera Creek above Mountain Home Reservoir, near Fort Garland, Colo. 202
Trinchera Creek below Smith Reservoir, near Blanca, Colo. 203
Sangre de Cristo Creek near Fort Garland, Colo. 204
Ute Creek near Fort Garland, Colo. 205
Conejos River at Platoro, Colo. 206
Conejos River near Mogote, Colo. 207
Conejos River near La Sauses, Colo. 208
San Antonio River at Ortiz, Colo. 209
San Antonio River at mouth, near Manassa, Colo. 210
Los Pinos River near Ortiz, Colo. 211
Culebra Creek at San Luis, Colo. 212
Culebra Creek below San Luis, Colo. 213
Costilla Creek above reservoir, near Costilla, N. Mex. 214
Costilla Creek below reservoir, near Costilla, N. Mex. 215
Costilla Creek near Costilla, N. Mex. 216
Casias Creek near Costilla, N. Mex. 217
Santistevan Creek near Costilla, N. Mex. 218
Latir Creek near Cero, N. Mex. 219
Rio Colorado near Red River, N. Mex. 220
Rio Colorado near Questa, N. Mex. 221
Rio Hondo near Valdez, N. Mex. 222
Rio Hondo at Arroyo Hondo, N. Mex. 223
Rio Taos at Los Cordovas, N. Mex. 224
Embudo Creek at Dixon, N. Mex. 225
Rio Chama at Park View, N. Mex. 226
Rio Chama near Terra Amarilla, N. Mex. 227
Rio Chama near Abiquiu, N. Mex. 228
Rio Chama near Chamita, N. Mex. 229
Willow Creek near Park View, N. Mex. 230
El Rito Creek near El Rito, N. Mex. 231
Rio Ojo Caliente at La Madera, N. Mex. 232
Rio Santa Cruz at Cundiyo, N. Mex. 233
Rio Santa Cruz at Riverside, N. Mex. 234
Santa Fe Creek near Santa Fe, N. Mex. 235
Galisteo Creek at Domingo, New Mex. 236
Rio Puerco at Rio Puerco, N. Mex. 237
Rio Puerco near Bernardo, N. Mex. 238
Bluewater Creek near Bluewater, N. Mex. 239
Socorro main canal north at San Acacia, N. Mex. 240
Alamosa River near Monticello, N. Mex. 241
Pecos River near Pecos, N. Mex. 242
Pecos River near Anton Chico, N. Mex. 243

Gaging-station records--Continued.
Rio Grande Basin--Continued. Page
Pecos River at Santa Rosa, N. Mex. 244
Pecos River near Puerto de Luna, N. Mex. 245
Pecos River near Guadalupe, N. Mex. 246
Pecos River near Acme, N. Mex. 247
Pecos River near Lake Arthur, N. Mex. 248
Pecos River near Artesia, N. Mex. 249
Pecos River at Carlsbad, N. Mex. 250
Pecos River near Malaga, N. Mex. 251
Pecos River at Red Bluff, N. Mex. 252
Pecos River near Orla, Tex. 253
Pecos River at Pecos, Tex. 254
Pecos River below Grandfalls, Tex. 255
Pecos River near Girvin, Tex. 256
Pecos River near Sheffield, Tex. 257
Gallinas River near Montezuma, N. Mex. 258
Gallinas River at Montezuma, N. Mex. 259
Rio Ruidoso at Hondo, N. Mex. 260
Rio Hondo at Diamond A Ranch, near Roswell, N. Mex. 261
Rio Bonito at Hondo, N. Mex. 262
Rio Felix at old highway bridge, near Hagerman, N. Mex. 263
Cottonwood Creek near Lake Arthur, N. Mex. 264
Delaware River near Red Bluff, N. Mex. 265
Principal diversions from Pecos River between Red Bluff Reservoir and Imperial, Tex. 266
Madera Canyon near Toyahvale, Tex. 267
Toyah Creek below Toyah Lake near Pecos, Tex. 268
San Solomon Springs at Toyahvale, Tex. 269
Comanche Springs at Fort Stockton, Tex. 270
Devils River near Juno, Tex. 271
Las Moras Springs at Brackettville, Tex. 271
Mimbres River Basin 272
Mimbres River near Mimbres, N. Mex. 272
Mimbres River near Faywood, N. Mex. 273
Bear Canyon near Mimbres, N. Mex. 274
Tularosa Valley Basin 275
Rio Tularosa near Tularosa, N. Mex. 275
Alamogordo-La Luz ditch at La Luz, N. Mex. 276
Alamogordo water supply near Alamogordo, N. Mex. 276
Miscellaneous discharge measurements 277
Index 281

ILLUSTRATION

Page
Plate 1. Gaging station structures: A, Sabine River near Gladewater, Tex.; B, Pecos River at Red Bluff, N. Mex.; C, Colorado River at San Saba, Tex. 2

SURFACE WATER SUPPLY OF WESTERN GULF OF MEXICO BASINS, 1942

SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of stage and flow made on streams, lakes, and reservoirs in the United States during the water year ending September 30, 1942. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of the flow of streams and of the stage and contents of lakes and reservoirs have been made at about 9,400 gaging stations in the United States and also at many gaging stations in Alaska and Hawaii. In July 1942, 4,970 gaging stations were being maintained by the Geological Survey and cooperating organizations. Miscellaneous discharge measurements were made at many other points.

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. Cooperation of the first kind is acknowledged in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 12.

DEFINITION OF TERMS

The units in which stream-flow data are presented in this report and other terms used herein are defined as follows:

"Second-feet" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of a stream whose channel is 1 square foot in cross-sectional area and whose average velocity is 1 foot per second.

"Second-feet per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the runoff is distributed uniformly both as regards time and area.

"Runoff in inches" is the depth to which an area would be covered if all the water draining from it in a given period were uniformly distributed on its surface. It is used for comparing runoff with rainfall, which is usually expressed in inches.

An "acre-foot" is the quantity of water required to cover an acre to the depth of 1 foot and is equivalent to 43,560 cubic feet. The term is commonly used in connection with storage for irrigation.

"Second-foot-day" is the volume of water represented by a flow of 1 second-foot for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons and represents a runoff of 0.0372 inch from 1 square mile.

"Stage-discharge relation" is an abbreviation for the term "relation between gage height and discharge."

"Control" is a term used to designate a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural section, a reach of the channel, or an artificial structure.

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the records of stage and discharge measurements in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. Typical structures in use at gaging stations are shown on plate 1.

Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily mean gage height to these rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the "shifting-control method," in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. At times the stage-discharge relation for a station may be temporarily changed by the presence of aquatic growth or debris on the control. For such times the daily mean discharge is computed by what is essentially the "shifting-control" method, described above.

At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources, which necessitates the use of the "slope method," in which the slope or fall in a reach of the stream is a factor in the determination of discharge. Information requisite for determining the slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage, and for them the rate of change of stage is used as a factor in the determination of discharge.

At most gaging stations in the northern part of the United States and at some in the mountainous regions of other parts the stage-discharge relation is affected by ice during the winter, which makes it impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and engineers, and comparable records of discharge for stations in the same or nearby basins. The days included in the periods of ice effect and the days during the winter period on which discharge measurements were made are indicated in the table by symbols referring to footnotes or are given in a general note following the table.

For most of the gaging stations on streams in the area covered by this report the data presented comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and runoff. Skeleton rating tables are published for all stations except those at which the daily discharge for the greater part of the year was determined by the shifting-control method, the slope method, or other special methods.

The description of the station gives the type of gage, its latitude and longitude determined from the best available maps, and information in regard to diversions that

A. SABINE RIVER NEAR GLADEWATER, TEX.

B. PECOS RIVER AT RED BLUFF, N. MEX.

C. COLORADO RIVER NEAR SAN SABA, TEX.

GAGING-STATION STRUCTURES.

decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). Unless otherwise qualified, the maximum discharge corresponds to the crest stage, obtained by use of a water-stage recorder or a nonrecording gage read at the time of the crest. Likewise the minimum discharge represents the lowest stage, unless otherwise qualified. Selected peak discharges with the times of their occurrence are given below the table of monthly discharge for some stations. This supplementary information is generally omitted for stations having drainage areas of less than 10 square miles or more than 10,000 square miles or if the peak discharges usually exceed the corresponding mean discharges for the day by less than 10 percent.

For stations equipped with nonrecording gages, the table of daily discharge gives the discharge in second-feet corresponding to once-daily readings of the gage or the mean of twice-daily readings. For flashy floods the daily mean discharge is determined from gage-height graphs based on gage readings made once or twice daily or oftener, as stated in the station description. For stations equipped with water-stage recorders, except those on streams subject to sudden or rapid fluctuation, the table gives the discharge corresponding to the daily mean gage height. For stations subject to such fluctuation the daily mean gage height may not indicate the true daily mean discharge, which must be obtained by averaging the discharge for parts of the day or by using the discharge integrator, an instrument for obtaining the daily mean discharge from a continuous gage-height graph and containing as an essential element a curve representing the stage-discharge relation at the station.

In the table of monthly discharge the column headed "Second-foot-days" gives the sum for each month of the figures given in the table of daily discharge. The column headed "Maximum" gives the maximum daily discharge and not the momentary discharge when the water surface was at crest stage. Likewise, in the column headed "Minimum" the quantity given is the minimum daily discharge. The column headed "Mean" gives the average flow in cubic feet per second during the month.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents is given. A skeleton table of capacity at given stages is usually given in the first report in which data for a station are published but is omitted from succeeding reports.

TIME BASIS

At 2 a.m. on February 9, 1942, as an emergency measure, the Nation shifted from standard time to "war time," and clock time in the several zones of the country was moved ahead 1 hour, or to 3 a.m. This made February 9 a 23-hour day. Time prior to 2 a.m.

February 9 as given herein refers to standard time; time after 2 a.m. February 9 refers to war time. To convert war time to standard time, subtract 1 hour.

Records of daily discharge prior to February 9, 1942, published herein have been computed on the basis of standard time. Records subsequent to that date have been computed on the basis of war time. The discharge given for February 9 is the mean for 23 hours. The mean discharge and runoff for the month of February have been computed from the total second-foot-days for the month without adjustment for the fact that February 9 was a 23-hour day. The small error resulting from this procedure has been disregarded.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily on (1) the permanency of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements and (2) the accuracy of observations of stage, measurements of flow, and interpretation of records.

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that, in general, the daily records are accurate within 5 percent; "good," within 10 percent; "fair," within 15 percent; and "poor," within 20 or a higher percent. The records of monthly and yearly mean discharge and runoff are, in general, more accurate than the daily records.

Yield at some stations as indicated by monthly means may vary widely from natural yield, owing to diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations figures of "second-feet per square mile" and "runoff in inches" are not published unless storage or diversion records are included indicating the extent of the regulation or diversion or unless satisfactory adjustments can be made for changes in contents of reservoirs or for other changes incident to use and control. Figures of second-feet per square mile and runoff in inches are also omitted if the drainage area includes large noncontributing areas or if the average annual rainfall over the drainage area is less than 20 inches.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, and therefore the discharge recorded does not show the water supply available for further development, as prior appropriations below the station must first be satisfied.

The table of monthly discharge presents in summary the distribution of the flow past the station. The table of daily discharge affords opportunity for more detailed studies of the variation in flow. As further observations in each succeeding year may be expected to throw new light on data previously published, it should be borne in mind that such data are subject to revision in succeeding water-supply papers.

PUBLICATIONS

The results of stream-flow measurements are now published annually in 14 parts, each part covering an area whose boundaries coincide with natural drainage features as indicated below:

Part 1. North Atlantic slope basins (St. John River to York River).
2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).

3. Ohio River Basin.
4. St. Lawrence River Basin.
5. Hudson Bay and upper Mississippi River basins.
6. Missouri River Basin.
7. Lower Mississippi River Basin.
8. Western Gulf of Mexico basins.
9. Colorado River Basin.
10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River Basin.
13. Snake River Basin.
14. Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the Geological Survey containing data on the water resources of the United States may be obtained or consulted as explained below.

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will, on application, furnish lists giving prices.

2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.

3. Sets are available for consultation in the local offices of the water-resources branch of the Geological Survey as follows:

East of the Mississippi River:
Albany, N. Y., 528 Federal Building.
Asheville, N. C., 220 Post Office Building.
Atlanta, Ga., 3 North Rhodes Center, N. W.
Augusta, Maine, Statehouse.
Baton Rouge, La., 124 Geology Building, Louisiana State University.
Boston, Mass., 939 Post Office Building.
Charleston, W. Va., 408 Union Building.
Charlottesville, Va., House G, Dawson Row, University of Virginia.
Chattanooga, Tenn., 442 Post Office Building.
College Park, Md., 105 Engineering Building, University of Maryland
Columbia, S. C., 119 United States Courthouse.
Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.
Harrisburg, Pa., 490 Education Building.
Hartford, Conn., 203 Federal Building.
Indianapolis, Ind., 205 Underwriters Building.
Jackson, Miss., 208 Millsaps Building.
Knoxville, Tenn., 337 Post Office Building.
Louisville, Ky., 531 Federal Building.
Madison, Wis., 666 State Office Building.
Montgomery, Ala., 507 Post Office Building.
New Philadelphia, Muskingum Watershed Conservancy District Building
Ocala, Fla., 302 Post Office Building.
Pittsburgh, Pa., 438-M New Federal Building
St. Paul, Minn., 1427 New Post Office Building.
Trenton, N. J., 228 Federal Building.
Urbana, Ill., 14 Post Office Annex, Elm Street.
Williamsburg, Ky., Kentucky Highway Building

West of the Mississippi River:
Austin, Tex., 302 West 15th Street.
Boise, Idaho, 429 Federal Building.
Denver, Colo., 230 Customhouse.
Fort Smith, Ark., 6 Post Office Building.
Helena, Mont., 408 Federal Building.
Honolulu, Hawaii, 225 Federal Building.
Idaho Falls, Idaho, 204 Federal Building.
Iowa City, Iowa, 508 Hydraulic Laboratory, University of Iowa.
Lincoln, Nebr., 1404 Statehouse.
Los Angeles, Calif., 529-H United States Post Office and Courthouse.
Oklahoma City, Okla., 303 Capital Office Building.
Portland, Oreg., 606 Post Office Building.
Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
St. Louis, Mo., 1002 New Federal Building.
Salt Lake City, Utah, 303 Federal Building.
San Francisco, Calif., 625 Market Street Building.
Santa Fe, N. Mex., 204 United States Courthouse.
Tacoma, Wash., 207 Federal Building.
Topeka, Kans., 305 Federal Building.
Tucson, Ariz., 210 Post Office Building.

A list of the Geological Survey publications may be obtained by applying to the Director, Geological Survey, Washington, D. C.

Early records of the flow of streams in the United States are published in the reports listed below:

Stream-flow data for the years 1884-1901, in reports of the Geological Survey

(A = Annual Report; B = Bulletin; W = Water-Supply Paper)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information.....	1884 to Sept. 1890.
12th A, pt. 2	....do.....	1884 to June 30, 1891.
13th A, pt. 3	....do.....	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871-93).....	1888 to Dec. 31, 1893.
B 131.....	Descriptions, measurements, gage heights, and ratings.....	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11.....	Gage heights (also gage heights for earlier years).....	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895-96.
W 15.....	Descriptions, measurements, and gage heights of streams east of the Mississippi River and Missouri River and tributaries above Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights of streams west of the Mississippi River except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measuremsnts, ratings, and gage heights of streams east of the Mississippi River and Missouri River and tributaries.	1898.
W 28.....	Measurements, ratings, and gage heights of streams west of the Mississippi River except Missouri River and tributaries.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years).....	1898.
W 35 to 39...	Descriptions, measurements, gage heights, and ratings.....	1899.
21st A, pt. 4	Monthly discharge.....	1899.
W 47 to 52...	Descriptions, measurements, gage heights, and ratings.....	1900.
22d A, pt. 4	Monthly discharge.....	1900
W 65, 66.....	Descriptions, measurements, gage heights, and ratings.....	1901.
W 75.....	Monthly discharge.....	1901.

Papers on surface water supply containing records from 1899 to date, grouped by years and drainage basins, are listed by number on page 7. The data for any particular station will, in general, be found in the reports covering the years during which the station was maintained. For example, the data for 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, 503, which contain records for the Ohio River Basin for those years.

The records at most of the etations discussed in theee reports extend over a series of years. Miscellaneous measurements at many points other than regular gaging stations have been made each year and are published under "Miscellaneous discharge measurements" at the end of each report, the streams and points of measurement listed appearing in the same relative order as the streams and gaging stations in the body of the report. An index or the records obtained prior to 1904 has been published in Water-Supply Paper 119.

Each of the reports on surface water supply for the year 1939, issued as Water-Supply Papers 871 to 884 (see table on p. 7), contains a summary of yearly discharge at gaging stations in the area covered by that report. Gaging stations at which 10 or more complete years of record have been collected are represented. These summaries are available also as separate reprints.

Numbers of water-supply papers containing results of stream measurements, 1899-1942

(For basins included see p. 4)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b35, 36	36	36	36	c36, 37	37	37	d37, 38	38, e39	38, f39	38	38	38
1900 g...	47, h48	48	48, 149	49	49	49, j50	50	50	50	51	51	51	51	51
1901.....	65, 75	65, 75	65, 75	65, 75	k65, 66, 75	66, 75	k65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902.....	82	b82, 83	83	m82, 83	k83, 85	84	k83, 84	84	85	85	85	85	85	85
1903.....	97	b97, 98	98	97	k98, 99, n100	99	k98, 99	99	100	100	100	100	100	100
1904.....	o124, p125, q126	q126, 127	128	129	k128, 130	130, r131	k128, 131	132	133	133, s134	134	135	135	135
1905.....	o165, p166, q167	q167, 168	169	170	171	172	k169, 173	174	175, t177	176, s177	177	178	178	u177, 178
1906.....	o201, p202, q203	q203, 204	205	206	207	208	k205, 209	210	211, t213	212, s213	213	214	214	214
1907-8...	241	242	243	244	245	246	247	248	249	250, s251	251	252	252	252
1909.....	261	262	263	264	265	266	267	268	269	270, s271	271	272	272	272
1910.....	281	282	283	284	285	286	287	288	289	290	291	292	292	292
1911.....	301	302	303	304	305	306	307	308	309	310	311	312	312	312
1912.....	321	322	323	324	325	326	327	328	329	330	331	332-A	332-B	332-C
1913.....	351	352	353	354	355	356	357	358	359	360	361	362-A	362-B	362-C
1914.....	381	382	383	384	385	386	387	388	389	390	391	392	393	394
1915.....	401	402	403	404	405	406	407	408	409	410	411	412	413	414
1916.....	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917.....	451	452	453	454	455	456	457	458	459	460	461	462	463	464
1918.....	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919-20..	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921.....	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922.....	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923.....	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924.....	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925.....	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926.....	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927.....	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928.....	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929.....	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930.....	696	697	698	699	700	701	702	703	704	705	706	707	708	709
1931.....	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932.....	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933.....	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1934.....	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1935.....	781	782	783	784	785	786	787	788	789	790	791	792	793	794
1936.....	801	802	803	804	805	806	807	808	809	810	811	812	813	814
1937.....	821	822	823	824	825	826	827	828	829	830	831	832	833	834
1938.....	851	852	853	854	855	856	857	858	859	860	861	862	863	864
1939.....	871	872	873	874	875	876	877	878	879	880	881	882	883	884
1940.....	891	892	893	894	895	896	897	898	899	900	901	902	903	904
1941.....	921	922	923	924	925	926	927	928	929	930	931	932	933	934
1942.....	951	952	953	954	955	956	957	958	959	960	961	962	963	964

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.
b James River only.
c Gallatin River.
d Green and Gunnison Rivers and Colorado River above Gunnison River
e Mojave River only.
f Kings and Kern Rivers and south Pacific slope basins.
g Rating tables and index to Water-Supply Papers 47-52 and data on precipitation, wells, and irrigation in California and Utah contained in Water-Supply Paper 52. Monthly discharge for 1900 in 22d Annual Report, part 4.
h Wissahickon and Schuylkill Rivers to James River.
i Scioto River.
j Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.
k Tributaries of Mississippi River from east.
m Lake Ontario and tributaries to St. Lawrence River proper.
n Hudson Bay only.
o New England rivers only.
p Hudson River to Delaware River, inclusive.
q Susquehanna River to Yadkin River, inclusive.
r Platte and Kansas Rivers.
s The Great Basin in California, except Truckee and Carson River Basins.
t Below mouth of Gila River.
u Rogue, Umpqua, and Siletz Rivers only.

From time to time reports have been published that are compilations of records for various areas, usually a single State or drainage basin. These reports contain records previously published (some of which have been revised), as well as some records not contained in the annual series of water-supply papers. The following table gives the numbers and titles of these reports, arranged in alphabetical order by States and drainage basins.

Reports containing compilation of discharge by States and drainage basins

Water-supply Paper	Period	State or drainage basin and title
		STATE
107	1895-1903	Alabama, Water powers of, with an appendix on stream measurements in Mississippi.
298	1887-1912	California, Water resources of, part 1, Stream measurements in Sacramento River Basin.
299	1878-1912	California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.
300	1891-1912	California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific Coast river basins.
477	1890-1918	California, southern, Surface water supply of Pacific slope of.
597-E	1895-1927	California, Surface water supply of Sacramento River Basin.
636-D	1895-1927	California, Surface water supply of San Joaquin River Basin.
636-E	1894-1927	California, southern, Surface water supply of Pacific slope basins in.
637-A	1895-1927	California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.
74	1884-1900	Colorado, Water resources of.
197	1895-1905	Georgia, Water resources of.
415	1845-1915	Massachusetts, Surface waters of.
230	1894-1906	Nebraska, Surface water supply of.
370	1878-1910	Oregon, Surface water supply of.
850	1898-1937	Texas, Summary of records of surface waters of.
424	1875-1916	Vermont, Surface waters of.
492	1878-1919	Washington, Summary of hydrometric data in.
870	1919-35	Washington, Summary of records of surface waters of.
156	1895-1905	Wisconsin, northern, Water powers of.
469	1894-1921	Wyoming, Surface waters of, and their utilization.
		DRAINAGE BASIN
395	1888-1914	Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization.
617	1897-1927	Colorado River, upper (Colo., Utah), and its utilization.
517	1889-1920	Great Salt Lake Basin, Water powers of.
618	1894-1926	Green River (Utah, Wyo.) and its utilization.
198	1890-1906	Kennebec River Basin (Maine), Water resources of.
491	1898-1917	Milk River. See St. Mary and Milk Rivers.
536	1895-1920	New Kanawha River Basin (N. C., Va., W. Va.), Surface water supply of.
279	1904-9	Penobscot River Basin (Maine), Water resources of.
192	1895-1906	Potomac River Basin (D. C., Md., W. Va.)
358	1898-1913	Rio Grande Basin (Colo., N. Mex., Tex.), Water resources of, 1888-1913.
491	1898-1917	St. Mary and Milk Rivers (Mont., Canada), Water supply of.
109	1890-1904	Susquehanna River Basin (Pa., Md.), Hydrography of.

Records of discharge have been published also in State reports. Some of these are not contained in the publications of the Geological Survey or are revisions of records previously published in its water-supply papers. The following table contains a list of these reports.

State reports containing compilation of records of discharge

State	Period	Report	Issued by
Alabama.....	1895-1916	Bull. 17, Water powers of Alabama.....	Geological Survey of Alabama.
Arkansas....	1857-1928	Stream-gaging Rept. 1.....	Arkansas Geological Survey.
Colorado....	1881-1935	Water resources of Colorado, Appendix 2, Data on stream-gaging stations of Colorado.[1]	State Planning Commission, Water Conservation Board, State engineer.
Do.....	1881-1938	Water resources of Colorado, Appendix 3, vols. 1 and 2, Stream-flow data of Colorado.	Do.
Connecticut.	1900-1927	Bull. 44, Water resources of Connecticut.	State Geological and Natural History Survey.
Do.....	1912-33	6th biennial report[2].....	Connecticut State Water Commission.
Georgia.....	1895-1906	Bull. 16, Water powers of Georgia.....	Geological Survey of Georgia.
Do.....	1907-19	Bull. 38, Water powers of Georgia.....	Do.
Illinois....	1908-11	Water resources of Illinois.....	Rivers and Lakes Commission.
Do.....	1900-1934	Stream-flow data of Illinois.....	Division of Waterways.

1 Contains records of yearly discharge only.
2 Contains records of monthly discharge in second-feet per square mile.

State reports containing compilation of records of discharge--Continued

State	Period	Report	Issued by
Indiana.....	1923-27	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	1927-30	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	1873-1932	Stream-flow records of Iowa.....	Iowa State Planning Board.
Do.....	1873-1940	Summaries of flow relating to Iowa streams.	Iowa Geological Survey.
Kansas.....	1895-1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	1919-24	....do.....	Do.
Do.....	1924-28	....do.....	Kansas State Board of Agriculture.
Do.....	1928-35	Stream-flow data of Kansas.....	Do.
Do.....	1935-39	....do.....	Do.
Kentucky....	1910-20	Surface waters of Kentucky.....	Kentucky Geological Survey.
Louisiana...	1903-38	Geol. Bull. 16, Surface water supply of Louisiana.	Department of Conservation.
Maine.....	1887-1920	1st annual report[2].....	Maine Water Power Commission.
Maryland....	1929-37	Flow data and draft storage curves for major streams in Maryland.	State Planning Commission and Water Resources Commission.
Minnesota...	1909-12	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri....	1857-1926	Vol. 20, 2d series, Water resources of Missouri.	Missouri Geological Survey and Water Resources.
Do.....	1927-39	Vol. 26, 2d series, Surface waters of Missouri.	Do.
Montana.....	1889-1911	5th biennial report.....	Office of the State engineer.
Do.....	1881-1938	Special Rept. 10, vols. 1-4, Water resources of Montana.	Montana Agricultural Experiment Station.
Nebraska....	1894-1914	1st hydrographic report.....	Bureau of Water Power, Irrigation, and Drainage.
Do.....	1914-28	2d hydrographic report.....	Do.
New Jersey..	1891-1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	1928-34	Special Rept. 5, Surface water supply of New Jersey.	State Water Policy Commission.
New Mexico..	1888-1925	Surface water supply of New Mexico.....	Office of the State Engineer.
North Carolina.	1889-1923	Bull. 34, Discharge records of North Carolina streams.[3]	Department of Conservation and Development.
Do.....	1889-1936	Bull. 39, Discharge records of North Carolina streams.[4]	Do.
North Dakota	1919-21	Report to Governor of North Dakota on flood control.	State chief engineer.
Do.....	1882-1938	Surface water in North Dakota.....	State Planning Board.
Ohio.....	1898-1921	Bull. 73, Ohio stream flow.....	Engineering Experiment Station, Ohio State University.
Do.....	1902-39	Bull. 200, Compilation of stream-flow records of Ohio.	Department of Agriculture, Division of Conservation and Natural Resources.
Do.....	1898-1939	Bull. 3, Ohio stream-drainage areas and flow-duration tables.	Engineering Experiment Station, Ohio State University.
Oregon.....	1878-1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	1914-24	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	1924-30	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	1930-36	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1890-1911	Report of the Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	1928-32	Stream-flow records of Pennsylvania.....	Department of Forests and Waters.
Rhode Island	1929-41	7th annual report.....	Department of Public Works.
Tennessee...	1874-1924	Bull. 34, Water resources of Tennessee.	Department of Education.
Do.....	1920-30	Bull. 40, Surface Waters of Tennessee.[3]	Do.
Utah.....	1889-1905	5th biennial report, State engineer.....	Office of the State Engineer.
Do.....	1906-10	7th biennial report, State engineer.....	Do.
Do.....	1911-1916	10th biennial report, State engineer....	Do.
Virginia....	1895-1927	Bull. 31, Water resources of Virginia...	Conservation Commission.
Washington..	1878-1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin...	1888-1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	1914-23	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

2 Contains records of monthly discharge in second-feet per square mile.
3 Contains records of weekly discharge.
4 Contains records of maximum and minimum daily, weekly, and monthly discharge and yearly mean discharge.

Note.- In addition to the records contained in the reports listed above, the following States have issued annual or biennial reports in which are contained records of discharge: California, Colorado, Connecticut, Idaho, Indiana, Maine, Missouri, Montana, Nebraska, Nevada, New Mexico, New York (also New York City Board of Water Supply and city of Rochester), North Dakota, Oregon, Pennsylvania, Washington, and Wyoming.

The reports listed in the foregoing tables contain the customary records of discharge collected during the systematic operation of gaging stations. Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. The more recent of these reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier noteworthy floods. The following list gives the numbers and titles of these reports.

Water-Supply Paper	Title
88	The Passaic flood of 1902.
92	The Passaic flood of 1903.
96	Destructive floods in the United States in 1903.
147	Destructive floods in the United States in 1904.
162	Destructive floods in the United States in 1905.
334	The Ohio Valley flood of March-April 1913.
426	Southern California floods of January 1916.
487	The Arkansas River flood of June 3-5, 1921.
488	The floods in central Texas in September 1921.
520-G	Some floods in the Rocky Mountain region.
636-C	The New England flood of November 1927.
771	Floods in the United States, magnitude and frequency.
773-E	The New York State flood of July 1935.
796-B	Flood on Republican and Kansas Rivers, May and June 1935.
796-C	Flood in La Canada Valley, Calif., January 1, 1934.
796-G	Major Texas floods of 1935.
798	The floods of March 1936, part 1, New England Rivers.
799	The floods of March 1936, part 2, Hudson River to Susquehanna River region.
800	The floods of March 1936, part 3, Potomac, James, and upper Ohio Rivers.
816	Major Texas floods of 1936.
836-A	Stages and flood discharges of the Connecticut River at Hartford, Conn.
838	Floods of Ohio and Mississippi Rivers, January-February 1937.
842	Floods in Canadian and Pecos River Basins of New Mexico, May and June 1937.
843	Floods of December 1937 in northern California.
844	Floods of March 1938 in southern California.
847	Maximum discharges at stream-measurement stations through September 1938.
867	Hurricane floods of September 1938.
869	Flood of August 1935 in Muskingum River Basin, Ohio.
914	Texas floods of 1938 and 1939.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The following table contains a list of gaging stations for the area covered by this report at which records of discharge were collected during the water year October 1941 to September 1942 by agencies other than the Geological Survey. The records for these stations are not contained in publications of the Geological Survey.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by	Remarks
Alamito Creek.....	Near Presidio, Tex....	1932-42	International Boundary Commission, U. S. Section.	Published in bulletins of International Boundary Commission.
Arrey Canal.....	Near Arrey, N. Mex....	1918, 1920-42	Bureau of Reclamation.	Unpublished.
Devils River.....	Near Del Rio, Tex.....	†1931-42	International Boundary Commission, U. S. Section.	Published in bulletins of International Boundary Commission.
El Paso sewage outfall.	Near El Paso, Tex.....	1936-42	....do.....	Do.
East Side Canal...	At Mesilla Dam, near Mesilla Park, N. Mex.	1916-18, 1920-42	Bureau of Reclamation.	Unpublished.
Goodenough Springs	Near Comstock, Tex....	†1931-42	International Boundary Commission, U. S. Section.	Published in bulletins of International Boundary Commission.
Las Vacas Arroyo..	Near Villa Acuna, Coahuila, Mexico.	1938-42	International Boundary Commission, Mexican Section.	Do.
Leasburg Canal....	At head, near Selden, N. Mex.	1917-18, 1920-42	Bureau of Reclamation.	Unpublished.

† Records for earlier years published in Geological Survey water-supply papers.

Records of discharge collected by agencies other than the Geological Survey--Continued

Stream	Location	Period	Collected by	Remarks
Pecos River.....	Near Comstock, Tex....	†1931-42	International Boundary Commission, U. S. Section.	Published in bulletins of International Boundary Commission.
Pinto Creek.....	Near Del Rio, Tex.....	†1931-42	....do.....	Do.
Rio Alamo.....	Mier, Tamaulipas, Mexico.	1924-42	International Boundary Commission, Mexican Section.	Do.
Rio Escondido.....	At Villa Puente, Coahuila, Mexico.	1923-42	....do.....	Records for 1923-24 and 1928 published in House Document 359, 71st Cong., 2d Sess., as Rio San Antonio above Puente; records for 1932-42 published in bulletins of International Boundary Commission.
Rio Grande.....	Below American Dam, near El Paso, Tex.	1938-42	International Boundary Commission, U. S. Section.	Published in bulletins of International Boundary Commission.
Do.....	Below Brownsville, Tex.	1934-42	....do.....	Do.
Do.....	County line station near El Paso, Tex.	1938-42	....do.....	Do.
Do.....	Near Del Rio, Tex.....	†1931-42	....do.....	Do.
Do.....	Eagle Pass, Tex.....	†1931-42	International Boundary Commission, Mexican Section.	Do.
Do.....	Near El Paso, Tex.....	†1931-42	International Boundary Commission, U. S. Section.	Do.
Do.....	Below old Fort Quitman, Tex.	†1931-42	....do.....	Do.
Do.....	Hildalgo, Tex.....	†1931-42	....do.....	Do.
Do.....	At Johnson Ranch, Tex.	1936-42	....do.....	Do.
Do.....	At Island station, near El Paso, Tex.	1938-42	....do.....	Do.
Do.....	Jaurez, Mexico.....	1938-42	International Boundary Commission, Mexican Section.	Do.
Do.....	Langtry, Tex.....	†1931-42	International Boundary Commission, U. S. Section.	Do.
Do.....	Laredo, Tex.....	†1926-42	International Boundary Commission, Mexican Section.	Do.
Do.....	Leasburg Dam, at Selden, N. Mex.	1919-42	Bureau of Reclamation.	Unpublished.
Do.....	Matamoras, Tamaulipas, Mexico.	‡1926-42	International Boundary Commission, Mexican Section.	Published in bulletins of International Boundary Commission.
Do.....	Above Presidio, Tex...	†1926-42	International Boundary Commission, U. S. Section.	Do.
Do.....	Below Presidio, Tex...	†1926-42	....do.....	Do.
Do.....	Rio Grande City, Tex..	1932-42	....do.....	Do.
Do.....	Roma, Tex.....	†1925-28, 1931-42	International Boundary Commission, Mexican Section.	Do.
Do.....	Zapata, Tex.....	1932-42	International Boundary Commission, U. S. Section.	Do.
Rio Salado.....	Near Guerrero, Tamaulipas, Mexico.	1924-42	International Boundary Commission, Mexican Section.	Do.
Rio San Diego.....	Jimenez, Coahuila, Mexico.	1924-42	....do.....	Records for 1924-28 published in report of International Water Commission, United States and Mexico, U. S. Section; records for 1932-42 published in bulletins of International Boundary Commission.
Rio San Juan.....	Santa Rosalia, Tamaulipas, Mexico.	1923-42	....do.....	Published in bulletins of International Boundary Commission.
Rio San Rodrigo...	Near El Moral, Coahuila, Mexico.	1922-42	....do.....	Records for 1923-24 and 1927-28 published in House Document 369, 71st Cong., 2d Sess.; records for 1932-42 published in bulletins of International Boundary Commission.

† Records for earlier years published in Geological Survey water-supply papers.
‡ Records for earlier years published in Geological Survey water-supply papers as Rio Grande near Brownsville, Tex.

556253 O - 43 - 2

Records of discharge collected by agencies other than the Geological Survey--Continued

Stream	Location	Period	Collected by	Remarks
San Felipe Creek..	Near Del Rio, Tex.....	1931-42	International Boundary Commission, U. S. Section.	Published in bulletins of International Boundary Commission.
Terlingua Creek...	Near Terlingua, Tex...	1932-42	....do.....	Do.
West Side Canal...	At Mesilla Dam, near Mesilla Park, N. Mex.	1916-18, 1920-42	Bureau of Reclamation.	Unpublished.

Note.- The Soil Conservation Service made studies of runoff from 6 areas of less than 100 acres each near Mesquite, Tex.; 35 areas, of which 23 were less than 50 acres and 12 were between 50 and 6,000 acres, near Waco, Tex.; 3 areas of less than 10 acres each near Tyler, Tex.; 3 areas of less than 800 acres each near Santa Fe, N. Mex.; and 3 areas of less than 190 acres each near Albuquerque, N. Mex. The records are in the files of that organization.

COOPERATION

The work in the several States was done under cooperative agreements with the organizations listed below:

Colorado: Office of the State engineer, M. C. Hinderlider.

Louisiana: State Department of Conservation, J. L. McHugh, Jr., commissioner; State Department of Highways, K. B. Henderlite, chief engineer; State Department of Public Works, D. L. Pyburn, director.

New Mexico: State engineer, T. M. McClure, and the Interstate Stream Commission, T. M. McClure, secretary.

Texas: Board of Water Engineers, consisting of C. S. Clark, chairman, A. H. Dunlap, and J. W. Pritchett; and Red Bluff Water Power Control District.

Financial assistance was furnished by the Corps of Engineers, United States Army, in the operation of 63 gaging stations, of which 4 were in Louisiana, 1 in New Mexico, and 58 in Texas.

Financial assistance was also furnished by the Office of Indian Affairs of the United States Department of Interior in the operation of gaging stations on the Indian Pueblo lands in New Mexico.

Acknowledgments are due the Bureau of Reclamation of the United States Department of the Interior, and the Weather Bureau of the United States Department of Commerce for assistance in collecting the records published herein.

Assistance in collecting records was rendered also by the following organizations:

New Mexico: Agua Pura Co., Alamogordo Community Ditch, town of Alamogordo, and New Mexico Power Co.

Texas: Dallas County, the cities of Abilene, Corpus Christi, and Houston, Coleman Chamber of Commerce, San Antonio Public Service Co., Tarrant County Water Control and Improvement District No. 1, West Texas Utilities Co., Lower Colorado River Authority, Brazos River Conservation and Reclamation District, Pecos County Water Improvement District No. 1, and Reeves County Water Improvement District No. 1.

DIVISION OF WORK

The stream-gaging work was conducted by the water resources branch of the Geological Survey -- Glenn L. Parker, chief hydraulic engineer, Carl G. Paulsen, assistant chief hydraulic engineer, and Rudolph G. Kasel, chief of the division of surface waters. The

data for the stations in the several States were collected and prepared for publication under the supervision of district engineers as follows: In Colorado, Robert Follansbee, the work being done in collaboration with M. C. Hinderlider, State engineer, and L. T. Burgess, State chief hydrographer; in Louisiana, D. H. Barber and R. E. Marsh, and acting district engineer E. B. Rice; in New Mexico, Berkeley Johnson; and in Texas, C. E. Ellsworth.

The records were reviewed and the manuscript prepared for publication under the direction of B. J. Peterson, engineer in charge, and J. W. Gambrell, assistant engineer, section of reports.

MERMENTAU RIVER BASIN

Bayou Nezpique near Basile, La.

Location.- Wire-weight gage, lat. 30°28'50", long. 92°37'55", in NE¼NW¼ sec. 1, T. 7 S., R. 3 W., Louisiana meridian, at bridge on U. S. Highway 190, a quarter of a mile downstream from Missouri Pacific Railroad bridge and 2 miles west of Basile. Datum of gage is 3.60 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Records available.- October 1938 to September 1942.

Extremes.- Maximum discharge during year, 9,480 second-feet Dec. 26 (gage height, 24.74 feet, from graph based on gage readings); minimum observed, 5.0 second-feet Aug. 13 (gage height, 1.90 feet).

1938-42: Maximum discharge, 22,900 second-feet Aug. 11, 1940 (gage height, 31.08 feet); minimum, 0.4 second-foot May 15, 16, 1939; minimum gage height, 1.16 feet June 6, 1940.

Remarks.- Records fair. Gage read twice daily. Diversions above station for irrigation.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to July 24

2.0	6.0	4.5	98	16.6	1,780
2.2	9.0	5.3	147	19.6	2,970
2.4	13	6.4	232	20.6	3,590
2.7	20	8.3	416	21.8	4,870
2.9	25	10.3	637	23.0	6,550
3.3	39	14.0	1,170	24.6	9,230
3.7	56	15.2	1,370		

July 25 to Sept. 30

1.9	5.0	3.6	56
2.2	10	4.6	108
2.4	14	5.6	170
2.9	29	6.4	232

Note.- Same as preceding table above 6.4 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,890	k2,040	138	4,800	42	595	1,400	192	20	k398	130	96
2	2,720	k2,680	104	4,730	261	k1,210	k1,070	107	16	628	102	142
3	2,450	2,750	84	4,770	313	1,410	k528	66	20	445	82	204
4	k1,560	3,120	66	4,380	201	1,720	k235	31	32	329	58	203
5	k992	3,380	53	3,910	116	k2,620	111	20	23	336	48	187
6	k501	3,490	46	3,560	72	k2,990	81	17	35	399	37	146
7	k253	3,540	38	3,240	52	3,120	63	k410	k236	k843	25	131
8	131	3,420	30	2,920	40	3,820	97	599	583	832	18	118
9	94	3,100	23	2,660	34	4,250	k722	627	651	641	12	138
10	87	2,880	20	2,290	30	4,320	1,050	k315	k1,170	501	11	190
11	83	2,530	19	k1,520	31	4,100	1,270	130	k1,610	328	7.4	195
12	69	k1,560	22	k936	31	3,720	1,400	k148	1,960	193	6.2	162
13	57	k987	48	k511	26	3,320	1,370	k414	2,300	126	5.0	133
14	49	k512	106	319	23	3,030	1,340	539	2,490	91	6.2	119
15	46	282	103	172	k452	2,680	1,300	294	2,610	60	6.8	134
16	41	130	91	122	k1,280	k2,010	k955	160	2,560	40	8.8	.396
17	38	91	78	98	1,470	k1,430	k546	145	2,430	30	17	886
18	39	70	62	83	1,790	k802	364	110	2,200	58	27	1,080
19	30	55	50	68	1,900	k413	236	80	k1,580	80	42	1,190
20	30	47	41	57	1,830	235	189	52	k912	164	65	1,160
21	30	64	34	47	1,640	144	246	34	785	99	86	k761
22	23	96	k1,470	41	1,360	k530	312	19	799	k558	110	k463
23	18	177	k3,810	38	1,070	721	249	12	787	1,260	109	312
24	13	k502	k6,680	36	1,100	645	191	47	612	1,310	106	185
25	11	604	8,010	33	1,260	448	k480	k511	438	1,230	149	142
26	9.8	575	9,360	31	1,330	k910	k1,130	k330	269	1,080	160	144
27	7.8	449	9,050	28	1,200	k1,290	1,140	168	158	864	245	132
28	6.8	318	7,740	25	862	1,430	979	72	106	634	255	93
29	6.0	242	6,160	22	-	1,630	k600	46	83	427	191	80
30	k304	185	5,010	21	-	1,610	k344	34	84	282	136	81
31	k1,420	-	4,260	24	-	1,500	-	24	-	189	108	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	14,009.4	2,890	6.0	452	27,790
November	39,876	3,540	47	1,329	79,090
December	62,806	9,360	19	2,026	124,600
Calendar year 1941	405,873.7	9,360	2.8	1,112	805,100
January	41,492	4,800	21	1,338	82,300
February	19,816	1,900	23	708	39,300
March	58,653	4,320	144	1,892	116,300
April	19,998	1,400	63	667	39,670
May	5,753	627	12	186	11,410
June	27,559	2,610	16	919	54,660
July	14,455	1,310	30	466	28,670
August	2,369.4	255	5.0	76.4	4,700
September	9,403	1,190	80	313	18,650
Water year 1941-42	316,189.8	9,360	5.0	866	627,100

k Computed by using rate of change of stage as a factor.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Bayou Des Cannes near Eunice, La.

Location.- Water-stage recorder, lat. 30°29'00", long. 92°29'25", in SW¼SE¼ sec. 32, T. 6 S., R. 1 W., Louisiana meridian, at bridge on U. S. Highway 190, 3 miles downstream from Missouri Pacific Railroad bridge and 4 miles west of Eunice. Datum of gage is 14.84 feet above mean sea level, datum of 1929 (Louisiana Geodetic Survey bench mark; levels by Corps of Engineers, U. S. Army).

Records available.- October 1938 to September 1942.

Extremes.- Maximum discharge during year, 5,590 second-feet June 11 (gage height, 18.63 feet); minimum, 0.9 second-foot Oct. 16, 17; minimum gage height, 1.70 feet June 5. 1938-42: Maximum discharge, 9,520 second-feet Aug. 10, 1940 (gage height, 21.13 feet); no flow May 7, 10-18, and July 10, 1939.

Remarks.- Records fair. Diversions above station for irrigation. Some regulation May to October by small irrigation diversion dams.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 8

1.8	0.8	3.3	33	13.6	1,160
1.9	1.4	4.0	62	14.6	1,440
2.0	2.6	5.0	113	15.2	1,720
2.2	5.5	6.5	212	15.8	2,170
2.4	9.0	8.3	363	16.8	3,200
2.6	13	10.1	565	17.6	4,180
2.9	21	12.1	865		

Mar. 9 to Sept. 30

1.8	3.0	5.0	118	14.2	1,400
2.0	5.5	6.4	211	15.0	1,720
2.3	11	7.8	325	15.8	2,260
2.8	23	9.6	513	16.8	3,210
3.4	42	11.2	749	18.4	5,270
3.9	60	13.2	1,140		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	914	7.9	1,460	4.8	196	24	22	7.6	98	92	156
2	20	886	7.2	1,420	5.5	574	14	12	7.6	82	51	114
3	12	853	6.4	1,680	5.4	683	10	7.6	4.3	86	33	64
4	9.8	960	5.7	1,530	4.3	781	8.4	4.4	2.4	66	30	58
5	7.9	914	5.5	1,250	3.7	1,020	6.7	3.8	2.2	47	26	46
6	6.4	708	4.6	984	3.2	1,090	6.0	238	65	69	25	32
7	5.0	470	3.7	609	2.7	1,180	6.1	516	387	107	18	25
8	4.0	290	3.3	211	2.5	1,430	8.6	638	569	74	12	32
9	3.0	156	3.4	64	2.2	1,460	18	412	1,020	53	9.8	80
10	2.5	71	3.0	35	2.7	1,360	20	91	3,530	41	9.0	74
11	2.0	35	3.3	25	4.6	1,210	56	29	5,380	25	7.4	52
12	1.9	20	4.8	18	4.3	940	57	19	3,980	16	8.0	39
13	1.6	13	4.9	16	5.0	432	32	31	2,550	10	6.2	27
14	1.2	9.8	4.9	13	5.7	103	17	222	1,710	6.0	5.4	21
15	1.0	8.5	4.8	12	236	42	11	349	1,340	7.2	5.5	103
16	.9	6.7	10	10	727	33	8.4	270	1,020	7.2	4.8	639
17	20	5.5	12	8.8	887	26	6.6	84	547	6.2	34	1,270
18	26	4.9	9.0	8.5	1,010	22	13	32	172	11	14	1,930
19	26	4.6	6.9	8.6	962	19	20	16	83	6.6	16	1,690
20	22	4.8	5.5	7.4	676	17	32	9.6	267	4.6	14	1,340
21	20	15	4.6	6.9	224	16	34	12	732	3.8	10	1,030
22	17	106	521	6.0	45	14	18	17	882	97	25	548
23	17	265	1,710	5.2	124	20	13	26	883	638	40	138
24	16	277	4,280	4.6	438	13	11	105	825	940	103	37
25	16	153	3,720	4.2	591	48	24	249	458	1,280	317	22
26	15	64	2,180	4.0	657	528	376	108	120	1,210	361	20
27	15	30	1,480	4.0	492	739	605	34	60	910	222	35
28	16	18	1,240	4.0	133	904	722	15	71	697	158	109
29	16	13	1,050	5.0	-	904	509	7.0	55	648	126	76
30	388	11	810	5.4	-	574	119	3.8	82	371	113	39
31	790	-	574	5.4	-	130	-	3.6	-	140	106	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,540.2	790	0.9	49.7	3,050
November	7,286.8	960	4.6	243	14,450
December	17,686.4	4,280	3.0	571	35,080
Calendar year 1941	98,737.5	5,100	.3	271	195,800
January	9,425.0	1,680	4.0	304	18,690
February	7,258.6	1,010	2.2	259	14,400
March	16,508	1,460	13	533	32,740
April	2,805.8	722	6.0	93.5	5,570
May	3,586.8	638	3.6	116	7,110
June	26,812.1	5,380	2.2	894	53,180
July	7,757.6	1,280	3.8	250	15,390
August	2,002.1	361	4.8	64.6	3,970
September	9,846	1,930	20	328	19,530
Water year 1941-42	112,515.4	5,380	9	308	223,200

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Calcasieu River near Oberlin, La.

Location.- Water-stage recorder, lat. 30°38'25", long. 92°48'50", in NW¼NE¼ sec. 7, T. 5 S., R. 4 W., Louisiana meridian, at bridge on State Highway 52, 3 miles northwest of Oberlin and 15 miles upstream from Whiskey Chitto Creek. Datum of gage is 39.43 feet above mean sea level, datum of 1929 (Louisiana Geodetic Survey bench marks).

Drainage area.- 753 square miles.

Records available.- August 1922 to January 1925, September 1938 to September 1942.

Extremes.- Maximum discharge during year, 14,600 second-feet Nov. 5 (gage height, 18.51 feet); minimum, 76 second-feet Sept. 13, 14 (gage height, 3.75 feet).
1922-25, 1938-42: Maximum discharge, 34,700 second-feet Apr. 7, 1923 (gage height, 18.48 feet, datum then in use), from rating curve extended above 14,000 second-feet; minimum, 42 second-feet Aug. 16, 1924.

Remarks.- Records good. About 5 second-feet, used by paper mill at Elizabeth, is pumped from wells and later discharged into Mill Creek about 20 miles above station. This discharge is continuous and fairly constant.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	351	835	787	1,530	623	2,360	606	478	189	230	116	167
2	353	1,180	782	2,120	615	2,820	575	455	172	348	141	156
3	334	1,350	756	2,140	582	3,030	556	430	162	553	152	127
4	293	3,100	652	2,480	556	3,130	518	395	153	492	134	110
5	258	13,200	520	2,430	550	3,960	451	359	143	378	121	101
6	234	11,600	420	1,950	548	4,830	383	385	143	332	108	94
7	222	7,280	361	1,650	537	4,850	337	582	147	362	105	90
8	216	4,980	328	1,470	510	5,370	701	668	152	352	100	88
9	220	3,730	308	1,400	474	6,620	3,500	550	195	325	113	86
10	235	2,960	294	1,400	417	7,460	5,530	430	391	308	131	84
11	242	2,470	284	1,410	375	9,270	5,900	367	681	295	126	81
12	234	2,080	301	1,350	346	8,310	7,160	383	1,070	293	113	78
13	218	1,680	315	1,170	323	6,540	12,100	330	1,250	289	104	77
14	204	1,240	316	953	315	5,250	9,990	291	1,020	277	97	80
15	217	842	320	775	455	4,340	6,590	265	821	259	121	98
16	222	617	325	659	997	3,630	4,760	247	791	224	125	139
17	208	493	318	573	1,580	3,110	3,680	235	851	183	121	195
18	192	417	315	510	2,070	2,720	3,000	242	888	149	136	167
19	183	365	323	460	2,770	2,370	2,480	271	856	134	128	130
20	175	332	337	424	3,110	2,010	2,040	296	735	129	113	111
21	174	308	348	403	2,620	1,810	1,720	291	543	122	104	101
22	195	303	933	395	2,070	1,420	1,200	271	394	128	98	111
23	220	529	2,500	405	2,130	1,110	821	274	289	271	97	167
24	235	508	2,130	409	4,210	912	734	296	238	184	96	249
25	237	441	1,550	407	4,520	813	855	335	214	127	102	334
26	222	512	1,460	393	3,760	1,780	775	348	198	116	114	396
27	202	612	1,380	369	3,180	2,080	688	291	194	381	108	327
28	184	691	1,240	343	2,710	1,720	619	247	194	265	106	202
29	175	739	1,140	318	-	1,160	560	231	197	143	102	147
30	185	775	1,050	301	-	850	514	217	208	121	116	124
31	412	-	1,030	510	-	686	-	202	-	113	146	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,252	412	174	234	14,380
November	66,169	13,200	303	2,206	131,200
December	23,123	2,500	284	746	45,860
Calendar year 1941	572,605	13,900	155	1,569	1,136,000
January	31,107	2,480	301	1,003	61,700
February	42,953	4,520	315	1,534	85,200
March	106,321	9,270	686	3,430	210,900
April	79,343	12,100	337	2,645	157,400
May	10,662	668	202	344	21,150
June	13,479	1,250	143	449	26,740
July	7,883	553	113	254	15,640
August	3,594	152	96	116	7,130
September	4,417	396	77	147	8,760
Water year 1941-42	396,303	13,200	77	1,086	786,100

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Calcasieu River near Kinder, La.

Location.- Water-stage recorder, lat. 30°30'10", long. 92°54'55", in NW¼SE¼ sec. 30, T. 6 S., R. 5 W., Louisiana meridian, at bridge on State Highway 7, 0.5 mile downstream from Whiskey Chitto Creek and 4 miles west of Kinder. Datum of gage is 12.02 feet above mean sea level, datum of 1929 (Louisiana Geodetic Survey bench mark).

Drainage area.- 1,700 square miles.

Records available.- August 1922 to January 1925, October 1938 to September 1942.

Extremes.- Maximum discharge during year, 20,400 second-feet Apr. 12 (gage height, 18.22 feet); minimum, 458 second-feet Aug. 14, 15 (gage height, 2.90 feet).
1922-25, 1938-42: Maximum discharge, 68,000 second-feet Jan. 23, 1924 (gage height, 21.69 feet, datum then in use), from rating curve extended above 40,000 second-feet; minimum, 200 second-feet Aug. 9, 10, 1924 (gage height, 0.81 foot, datum then in use).

Remarks.- Records good. About 5 second-feet, used by paper mill at Elizabeth, is pumped from wells and later discharged into Mill Creek about 36 miles above station. This discharge is continuous and fairly constant. Diversion from left bank of Calcasieu River 5 miles above station for irrigation.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to July 23						July 24 to Sept. 30	
3.3	521	10.5	3,520	15.0	9,190	3.0	490
4.0	713	11.5	4,240	16.8	14,400	4.5	974
5.0	1,060	13.0	5,800	18.0	19,400	6.0	1,480
9.0	2,750	14.0	7,150				

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,130	k6,380	1,720	k4,230	1,990	4,450	1,720	1,600	760	846	590	593
2	1,040	k12,800	1,660	5,120	2,130	5,000	1,580	1,440	722	868	587	567
3	994	18,600	1,600	5,700	1,940	6,270	1,490	1,340	674	952	584	541
4	938	16,300	1,500	6,160	1,690	6,630	1,430	1,250	651	1,010	532	522
5	874	14,600	1,370	6,290	1,480	7,950	1,360	1,190	632	885	590	525
6	850	18,000	1,220	5,560	1,390	9,990	1,270	1,120	629	987	557	506
7	882	17,500	1,110	k4,370	1,330	11,100	1,220	1,440	648	1,130	487	477
8	871	13,300	1,040	k3,440	1,290	11,200	k2,070	2,110	654	1,090	519	477
9	899	k9,440	983	3,130	1,240	11,800	k7,460	2,350	948	930	525	503
10	948	k6,390	944	2,910	1,180	13,600	k13,500	2,050	1,310	885	496	509
11	930	k4,740	938	2,800	1,120	15,500	18,000	1,680	1,890	829	503	574
12	878	k3,770	998	2,660	1,180	16,700	19,400	1,540	k3,150	783	516	590
13	802	3,260	1,130	2,450	1,360	15,500	16,500	2,200	3,630	710	522	574
14	750	2,780	1,250	2,190	1,340	12,800	17,500	1,620	3,550	651	490	535
15	735	2,250	1,300	1,940	1,560	9,540	k13,600	1,530	3,040	602	484	557
16	843	1,800	1,240	1,730	k3,080	7,270	k9,590	1,560	k2,200	596	557	648
17	796	1,500	1,140	1,570	k4,630	6,030	k7,230	1,550	1,760	580	584	710
18	843	1,330	1,050	1,450	5,600	5,060	k5,710	1,290	1,610	549	561	735
19	944	1,220	1,010	1,360	6,260	4,350	k4,500	1,140	1,600	524	622	793
20	906	1,160	998	1,290	6,870	3,850	3,930	1,120	1,450	528	700	936
21	799	1,120	994	1,380	7,240	3,560	3,700	1,230	1,400	521	641	1,110
22	747	1,200	k3,700	1,570	6,600	3,160	3,420	1,260	1,140	1,080	613	1,060
23	744	1,800	k7,500	1,470	4,990	2,700	k2,670	1,110	874	2,300	541	813
24	750	2,330	8,430	1,330	4,780	2,360	2,520	1,020	885	1,510	557	754
25	747	2,690	7,630	1,250	5,440	2,180	2,710	1,150	983	897	651	777
26	716	2,750	6,730	1,200	6,170	k3,560	3,000	1,540	902	671	735	848
27	677	2,550	k5,610	1,160	6,170	3,820	2,740	1,520	846	1,080	955	936
28	648	2,070	k4,100	1,110	5,360	3,710	2,420	1,300	850	1,300	903	787
29	654	1,840	k3,240	1,070	-	k3,000	2,080	1,000	763	858	790	664
30	1,130	1,760	k2,670	1,070	-	k2,390	1,800	854	760	719	687	600
31	k3,540	-	k2,560	1,270	-	2,010	-	792	-	654	606	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	29,005	3,540	648	936	57,530
November	177,230	18,600	1,120	5,908	351,500
December	77,365	8,430	938	2,496	153,500
Calendar year 1941	1,383,212	24,200	648	3,790	2,744,000
January	80,230	6,290	1,070	2,588	159,100
February	95,410	7,240	1,120	3,408	189,200
March	217,040	16,700	2,010	7,001	430,500
April	176,120	19,400	1,220	5,871	349,300
May	43,896	2,350	792	1,416	87,070
June	40,911	3,630	629	1,364	81,150
July	27,525	2,300	521	888	54,600
August	18,685	955	484	603	37,060
September	20,221	1,110	477	674	40,110
Water year 1941-42	1,003,638	19,400	477	2,750	1,991,000

k Computed by using rate of change of stage as a factor.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Whiskey Chitto Creek near Oberlin, La.

Location.- Wire-weight gage, lat. 30°41'55", long. 92°53'35", in NE¼NE¼ sec. 20, T. 4 S., R. 5 W., Louisiana meridian, at bridge on State Highway 52, 1 mile downstream from Tenmile Creek, 8 miles upstream from Bundick Creek, and 10 miles northwest of Oberlin.

Drainage area.- 510 square miles.

Records available.- January 1939 to September 1942.

Extremes.- Maximum discharge during year, 12,500 second-feet Nov. 1 (gage height, 20.10 feet, from graph based on gage readings); minimum observed, 220 second-feet Sept. 7 (gage height, 4.62 feet).

1939-42: Maximum discharge, 35,000 second-feet Aug. 9, 1940 (gage height, 23.42 feet); minimum observed, 102 second-feet Sept. 19, 1939 (gage height, 3.72 feet).

Maximum stage known, 25.7 feet in June 1886, from floodmarks preserved by local residents.

Remarks.- Records fair. Gage read twice daily.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Apr. 11

5.2	276	11.0	2,040	18.0	7,050
6.5	547	14.0	3,350	19.0	9,030
7.5	815	15.8	4,380	19.6	10,850
9.0	1,300	16.8	5,320		

Apr. 12 to Sept. 30

4.7	234	9.0	1,330
5.7	429	11.0	2,040
7.0	725		

Note.- Same as preceding table above 10.6 feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	352	6,540	504	854	864	779	515	573	384	380	267	258
2	348	11,100	489	1,650	916	1,640	491	541	366	388	260	252
3	348	8,000	461	1,840	706	2,160	467	515	356	336	252	245
4	344	6,270	457	1,980	547	2,140	457	493	344	313	344	245
5	380	5,120	434	1,740	498	2,690	446	480	336	429	364	230
6	430	4,280	370	1,580	470	3,320	436	559	340	497	260	223
7	434	3,560	415	1,230	461	3,320	448	1,110	340	511	271	221
8	394	2,560	392	901	451	3,410	797	1,460	396	458	305	252
9	425	1,180	398	824	430	4,780	3,460	1,120	450	456	258	250
10	404	854	392	761	413	6,940	8,060	818	497	442	243	267
11	376	851	380	693	451	6,110	9,600	647	746	370	230	301
12	352	916	409	635	605	4,660	6,780	564	1,200	330	229	279
13	332	595	506	593	650	3,580	4,810	541	1,240	320	225	292
14	308	559	645	559	571	2,120	3,090	612	979	317	223	271
15	278	529	612	547	542	1,450	1,350	762	652	305	241	248
16	288	491	526	529	1,390	1,280	1,070	812	482	290	305	236
17	495	474	459	506	2,560	1,130	979	671	456	271	260	243
18	552	459	434	502	2,820	1,030	847	550	511	263	294	288
19	419	451	409	476	2,940	964	773	537	433	275	482	317
20	366	425	400	520	3,100	833	728	628	380	290	368	552
21	324	417	394	758	2,820	740	991	720	368	292	305	635
22	316	442	474	698	1,640	701	1,210	607	346	330	271	421
23	300	679	1,670	557	1,090	715	982	497	344	384	275	318
24	276	1,510	2,270	489	1,110	676	868	475	471	286	340	280
25	260	1,700	2,170	476	1,420	620	874	746	433	269	348	252
26	260	1,320	2,110	461	1,610	661	898	880	366	318	573	243
27	268	827	1,680	472	1,410	788	895	835	340	450	524	245
28	284	642	1,370	442	907	922	818	652	352	318	429	238
29	266	585	970	453	-	812	712	495	384	338	358	232
30	384	529	684	484	-	635	623	442	374	344	300	234
31	1,980	-	615	704	-	547	-	410	-	290	275	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	12,543	1,980	260	405	0.794	0.91	24,880
November	63,865	11,100	417	2,129	4.17	4.66	126,700
December	23,499	2,270	370	758	1.49	1.71	46,610
Calendar year 1941	429,199	12,900	260	1,176	2.31	31.30	851,400
January	24,914	1,980	442	804	1.58	1.82	49,420
February	33,392	3,100	413	1,193	2.34	2.43	66,230
March	62,153	6,940	547	2,005	3.93	4.53	123,300
April	54,475	9,600	436	1,816	3.56	3.97	108,000
May	20,752	1,460	410	669	1.31	1.51	41,160
June	14,666	1,240	336	489	.959	1.07	29,090
July	10,860	511	263	350	.686	.79	21,540
August	9,679	573	223	312	.612	.71	19,200
September	8,568	635	221	286	.561	.62	16,990
Water year 1941-42	339,366	11,100	221	930	1.82	24.73	673,100

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Bundick Creek near Dry Creek, La.

Location. - Wire-weight gage, lat. 30°40'55", long. 93°02'15", in sec. 25, T. 4 S., R. 7 W., Louisiana meridian, at bridge on State Highway 251, 1 mile northeast of town of Dry Creek and 8 miles upstream from Whiskey Chitto Creek.

Drainage area.- 238 square miles.

Records available.- January 1939 to September 1942.

Extremes.- Maximum discharge during year, 7,780 second-feet Nov. 2 (gage height, 23.34 feet, from graph based on gage readings); minimum observed, 88 second-feet Aug. 14 (gage height, 10.36 feet).

1939-42: Maximum discharge, 22,000 second-feet Aug. 10, 1940 (gage height, 26.28 feet, from floodmark); minimum, 49 second-feet on many days in September and October 1939; minimum gage height, 9.69 feet Sept. 24, 25, 1939.

Remarks.- Records good. Gage read twice daily.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

10.4	91	17.0	980	20.9	2,460
11.2	158	18.6	1,290	21.4	3,130
12.0	238	19.6	1,620	22.0	4,220
13.5	437	20.4	2,050	22.9	6,470

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	151	5,700	184	497	515	318	181	231	123	123	136	107
2	138	6,720	178	746	322	863	173	210	120	117	134	115
3	137	3,650	175	799	287	884	164	193	117	112	117	129
4	144	2,470	174	775	236	882	161	181	114	114	113	125
5	149	1,750	174	750	191	1,360	159	176	113	125	107	106
6	147	1,120	171	714	181	1,450	160	165	113	133	107	96
7	156	951	167	506	176	1,460	172	222	117	169	113	95
8	160	887	163	371	171	1,900	898	240	140	175	102	97
9	153	504	158	337	165	1,920	3,870	420	245	169	97	126
10	143	323	153	315	162	2,370	6,440	395	447	156	92	145
11	129	271	156	278	195	2,450	3,870	236	600	138	89	159
12	123	243	180	249	280	1,980	2,350	191	988	124	89	128
13	119	225	234	229	296	1,350	1,690	232	1,010	121	89	112
14	115	212	216	219	243	605	830	406	956	115	91	110
15	115	195	216	212	243	478	387	419	617	107	99	105
16	132	185	203	204	823	434	424	424	306	112	102	101
17	192	181	185	200	1,070	403	424	332	228	117	104	105
18	236	176	172	195	1,110	389	306	222	236	117	97	145
19	240	172	163	190	1,210	349	309	185	197	125	104	410
20	193	170	160	193	1,290	306	301	192	167	136	102	368
21	150	170	156	257	1,140	270	485	207	151	133	96	257
22	132	193	391	278	512	252	508	207	133	125	94	189
23	123	508	1,120	227	382	251	416	169	180	112	96	129
24	117	705	1,040	192	482	235	465	174	300	103	109	113
25	113	584	1,030	180	548	227	702	324	195	104	156	104
26	109	448	783	171	574	246	620	270	154	144	191	99
27	109	319	488	171	504	296	545	207	232	218	220	99
28	131	231	332	169	356	314	459	172	197	172	224	93
29	132	205	263	167	-	285	354	150	142	141	162	89
30	442	203	229	183	-	231	275	136	145	125	117	89
31	1,740	-	218	516	-	199	-	128	-	120	110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	6,370	1,740	109	205	0.861	1.00	12,630
November	29,671	6,720	170	989	4.16	4.64	58,850
December	9,632	1,120	153	311	1.31	1.51	19,100
Calendar year 1941	212,775	8,620	105	583	2.45	33.27	422,000
January	10,490	799	167	338	1.42	1.64	20,810
February	13,664	1,290	162	488	2.05	2.14	27,100
March	24,957	2,450	199	805	3.38	3.90	49,500
April	28,100	6,440	159	937	3.94	4.39	55,740
May	7,416	424	128	239	1.00	1.16	14,710
June	8,783	1,010	113	293	1.23	1.37	17,420
July	4,102	218	103	132	.555	.64	8,140
August	3,659	224	89	118	.496	.57	7,260
September	4,145	410	89	138	.580	.65	8,220
Water year 1941-42	150,989	6,720	89	414	1.74	23.61	299,500

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Sabine River near Mineola, Tex.

Location.- Water-stage recorder, lat. 32°36'45", long. 95°29'10", at bridge on U. S. Highway 69, 3.2 miles south of Mineola, Wood County, 4.5 miles upstream from bridge of International-Great Northern Railroad, and 16.5 miles upstream from Lake Fork. Datum of gage is 304.2 feet above mean sea level, datum of 1929.

Drainage area.- 1,445 square miles.

Records available.- May 1939 to September 1942.

Extremes.- Maximum discharge during year, 45,800 second-feet Apr. 11 (gage height, 21.63 feet); no flow Aug. 8.
1939-42: Maximum discharge, that of April 11, 1942; no flow at times.
Maximum stage since about 1919 and prior to 1942, 20.6 feet Jan. 25, 1938, from information by local resident.

Remarks.- Records good. No large diversions above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	360	84	156	1,140	152	46	9,250	72	28	0.6	23
2	22	421	120	136	1,410	508	44	6,800	58	20	.4	18
3	20	618	245	122	1,580	789	41	4,580	48	17	.4	15
4	18	778	396	136	1,660	1,010	38	3,260	42	15	.3	19
5	110	940	733	139	1,760	1,190	38	2,010	36	16	.2	36
6	410	1,110	980	128	1,360	1,270	62	1,010	46	44	.2	43
7	584	938	1,140	118	690	1,290	419	478	285	34	.1	120
8	666	425	1,290	f108	259	1,210	3,750	614	867	24	1.5	164
9	666	121	1,290	f99	142	906	16,400	1,030	1,240	17	43	402
10	376	a53	866	f93	111	668	37,400	1,400	1,580	14	24	678
11	134	a35	521	90	93	597	42,800	2,070	2,090	12	8.0	904
12	156	a29	792	90	81	666	26,500	2,700	2,550	10	4.8	1,020
13	183	a27	1,070	90	72	566	12,900	2,290	2,780	8.6	3.3	1,070
14	110	26	1,290	90	68	356	8,340	1,240	2,700	7.1	2.9	950
15	60	24	1,410	87	68	221	4,920	463	2,780	6.2	2.6	500
16	39	23	1,5[illegible]0	84	104	164	3,360	160	3,280	5.0	4.8	163
17	30	21	1,[illegible]	81	269	136	2,140	238	3,050	4.4	34	74
18	28	20	2,[illegible]70	81	371	114	1,290	847	2,700	3.8	14	50
19	2[illegible]	20	2,340	78	614	96	718	2,650	2,620	3.5	8.2	42
20	22	74	1,570	75	896	81	768	9,500	3,460	3.1	6.0	34
21	20	203	747	70	1,190	75	2,170	10,600	5,120	2.6	4.8	28
22	18	257	449	68	1,410	70	16,500	11,800	3,760	2.4	8.6	23
23	18	316	392	65	1,130	64	35,500	11,800	2,220	2.2	804	20
24	26	638	370	68	526	58	21,000	9,180	1,060	1.7	1,420	18
25	24	509	451	65	200	56	11,800	6,150	401	1.5	920	16
26	20	473	728	65	125	62	9,250	3,630	225	1.4	652	15
27	18	449	681	64	99	63	13,200	2,080	189	1.5	497	14
28	18	315	433	62	84	60	16,600	1,180	109	1.4	260	13
29	18	180	270	59	-	54	13,600	546	62	1.1	100	12
30	97	111	203	191	-	50	11,800	196	41	.9	47	12
31	320	-	175	789	-	49	-	102	-	.7	30	12

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	4,283	666	18	138	0.095	0.11	8,500
November	9,814	1,110	20	327	.226	.25	19,470
December	26,746	2,340	84	863	.597	.69	53,050
Calendar year 1941	473,991.3	15,800	2.0	1,200	.830	11.27	868,800
January	3,647	789	59	118	.082	.09	7,230
February	17,512	1,760	68	625	.432	.45	34,730
March	12,651	1,290	49	408	.282	.33	25,090
April	313,394	42,800	38	10,450	7.23	8.07	621,600
May	109,854	11,800	102	3,544	2.45	2.83	217,900
June	45,471	5,120	36	1,516	1.05	1.17	90,190
July	310.1	44	.7	10.0	.0069	.008	615
August	4,902.7	1,420	.1	158	.109	.13	9,720
September	6,496	1,070	12	217	.150	.17	12,880
Water year 1941-42	555,080.8	42,800	.1	1,521	1.05	14.30	1,101,000

a No gage-height record; discharge computed on basis of known range in stage and records for station near Gladewater.
f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Sabine River near Gladewater, Tex.

Location.- Water-stage recorder, lat. 32°32', long. 94°57', at bridge on U. S. Highway 271, half a mile downstream from Glade Creek and 1 mile southwest of Gladewater, Gregg County. Datum of gage is 243.85 feet above mean sea level (Texas Reclamation Department bench mark based on Geological Survey datum).

Drainage area.- 2,846 square miles.

Records available.- October 1932 to September 1942.

Average discharge.- 10 years, 1,706 second-feet.

Extremes.- Maximum discharge during year, 46,200 second-feet Apr. 13 (gage height, 39.03 feet); minimum, 45 second-feet Aug. 5-10.

1932-42: Maximum discharge, that of April 13, 1942; minimum, 5.6 second-feet Aug. 16, 1939.

Maximum discharge known, 48,500 second-feet in January 1932 (gage height, 39.4 feet, from floodmarks), from rating curve extended above 43,000 second-feet.

Remarks.- Records good. Small diversion above station for oil field operations and municipal supply.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	464	464	750	1,390	1,690	712	483	20,200	5,770	407	65	578
2	360	626	635	1,190	1,950	1,240	464	20,200	5,200	351	62	388
3	315	750	635	1,130	2,030	1,530	454	19,000	3,250	315	58	306
4	315	750	711	1,130	2,200	1,760	436	17,000	1,500	261	52	279
5	315	810	830	1,080	2,450	1,950	416	14,600	598	252	50	324
6	324	930	890	1,020	2,680	2,120	454	12,000	540	241	50	372
7	342	1,020	972	950	2,820	2,280	890	9,750	616	252	46	502
8	653	1,100	1,100	890	2,790	2,510	3,650	8,320	635	279	46	616
9	1,020	1,130	1,220	830	2,480	2,680	6,310	7,120	975	306	45	770
10	1,220	950	1,360	790	1,790	2,790	7,090	5,830	1,840	288	46	1,020
11	1,130	597	1,710	730	1,080	2,730	10,800	5,020	2,230	236	68	1,130
12	972	369	2,120	711	730	2,540	35,500	4,180	2,480	195	124	1,190
13	683	288	2,370	692	616	2,280	45,500	3,540	2,590	171	116	1,270
14	483	252	2,400	692	559	2,120	42,700	3,330	2,700	151	92	1,360
15	502	243	2,340	673	540	2,060	34,300	3,330	2,960	137	125	1,410
16	616	234	2,260	673	616	1,980	26,500	3,260	3,330	127	113	1,340
17	559	229	2,230	654	890	1,630	20,200	2,740	3,590	119	98	1,060
18	540	221	2,260	635	950	1,170	15,200	2,590	3,760	112	112	635
19	474	243	2,310	635	1,020	870	11,800	3,700	3,860	106	342	373
20	398	483	2,400	616	1,040	730	9,620	4,520	3,930	99	360	288
21	333	540	2,450	578	1,130	673	8,220	5,420	3,930	95	270	243
22	306	868	2,790	559	1,290	616	6,820	5,100	3,930	100	403	205
23	288	1,480	3,460	540	1,510	578	5,790	6,980	3,970	100	1,080	197
24	270	1,630	3,420	521	1,690	540	5,000	8,850	4,150	92	2,910	164
25	261	1,740	3,170	502	1,760	521	7,800	12,500	4,300	83	4,150	175
26	261	1,710	2,820	502	1,610	578	20,000	14,900	4,300	81	4,830	164
27	261	1,530	2,420	502	1,130	578	22,200	14,900	3,720	76	5,080	156
28	261	1,270	2,140	502	770	559	20,200	13,500	2,420	74	4,790	149
29	261	1,080	2,000	483	-	540	17,800	11,800	1,100	71	3,880	142
30	297	930	1,820	753	-	502	19,000	9,500	521	69	2,510	137
31	464	-	1,530	1,290	-	502	-	8,160	-	66	1,240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	14,948	1,220	261	482	0.169	0.20	29,650
November	24,467	1,740	221	816	.287	.32	48,530
December	59,523	3,460	635	1,920	.675	.78	118,100
Calendar year 1941	992,565	20,600	76	2,719	.955	12.99	1,969,000
January	23,843	1,390	483	769	.270	.31	47,290
February	41,811	2,820	540	1,493	.525	.55	82,930
March	43,869	2,790	502	1,415	.497	.57	87,010
April	405,957	45,500	416	13,530	4.75	5.31	805,200
May	282,840	20,200	2,590	9,124	3.21	3.70	561,000
June	85,695	6,770	521	2,856	1.00	1.12	170,000
July	5,312	407	66	171	.060	.07	10,540
August	33,213	5,080	45	1,071	.376	.43	65,880
September	16,948	1,410	137	565	.199	.22	33,620
Water year 1941-42	1,038,420	45,500	45	2,845	1.00	13.58	2,060,000

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Sabine River near Tatum, Tex.

Location.- Wire-weight gage, lat. 32°22', long. 94°28', on bridge on State Highway 43, 5 miles upstream from Potter Creek, 5.2 miles northeast of Tatum, Rusk County, and 7 miles downstream from Cherokee Bayou. Datum of gage is 204.2 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 3,586 square miles.

Records available.- January 1939 to September 1942.

Extremes.- Maximum discharge observed during year, 37,600 second-feet Apr. 17 (gage height, 23.29 feet); minimum observed, 67 second-feet Aug. 13.
1939-42: Maximum discharge, that of Apr. 17, 1942; minimum observed, 9.1 second-feet Oct. 9, 1939.
Maximum stage known, 32 feet in May 1884, from information by local residents.

Remarks.- Records good. Gage read twice daily, oftener during high water. Several small diversions above station for oil field operations and municipal supply.

Rating table, water year 1941-42 (gage height, in feet and discharge, in second-feet)
(Shifting-control method used Dec. 11 to Feb. 14)

3.2	70	10.0	1,920	25.0	13,200
3.6	123	12.0	2,720	26.0	16,800
4.0	190	16.0	4,690	27.0	24,800
5.0	370	20.0	7,060	28.0	34,600
6.0	570	22.0	8,750	28.2	36,600
8.0	1,160	24.0	11,300		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	880	a1,720	d1,680	d2,680	2,560	1,840	735	16,800	10,000	1,800	134	3,480
2	950	a1,920	d1,560	d2,640	2,720	2,120	685	17,800	10,200	1,160	131	2,600
3	d820	a2,040	d1,370	d2,520	2,840	2,480	660	18,200	9,900	985	125	1,060
4	d635	a2,040	1,300	d2,360	2,760	2,680	600	19,300	9,170	820	114	710
5	d530	a2,000	1,300	d2,240	2,680	2,840	600	19,700	7,920	710	108	580
6	460	a1,920	1,300	d2,080	2,640	3,060	590	18,900	6,040	610	105	550
7	450	a1,840	1,300	d1,920	2,720	3,150	d635	17,500	3,280	580	101	590
8	470	a1,760	1,300	1,680	2,840	3,280	d760	16,200	2,080	580	91	1,200
9	560	a1,680	d1,400	1,600	2,880	3,480	1,300	14,200	1,760	622	86	1,800
10	1,060	a1,600	d1,720	1,440	2,920	3,530	2,280	13,700	2,640	610	80	2,640
11	1,230	a1,440	d2,480	1,340	2,720	3,430	7,540	12,800	3,430	580	79	2,840
12	1,260	1,090	d3,150	1,230	2,600	3,330	8,010	11,900	3,630	510	80	2,560
13	d1,060	735	d3,430	1,160	1,600	3,200	7,750	10,700	3,630	450	79	2,360
14	d735	d560	3,530	1,120	1,230	3,020	8,460	9,640	3,790	400	133	2,200
15	1,200	d470	3,580	1,090	1,090	2,720	13,500	8,190	4,370	361	170	2,000
16	2,120	470	d3,480	1,060	1,060	2,560	33,600	6,790	4,960	316	156	1,800
17	2,160	450	3,240	1,020	1,160	2,400	36,600	5,860	5,460	307	173	1,760
18	d2,040	430	3,060	1,020	1,340	2,240	32,600	6,400	5,300	289	262	1,560
19	d1,840	420	2,880	985	1,400	1,840	25,700	8,370	4,850	280	262	1,230
20	1,400	510	2,840	950	1,400	1,480	21,700	9,640	4,470	280	262	915
21	985	850	2,800	915	1,440	1,200	18,600	9,170	4,260	262	400	660
22	710	1,950	2,970	880	1,520	1,060	16,800	7,920	4,150	253	2,730	530
23	570	3,630	d3,630	850	1,760	950	15,700	6,990	4,050	244	d7,760	470
24	480	4,100	d4,050	820	2,080	880	13,700	6,400	4,050	230	10,000	430
25	420	4,260	d4,420	790	2,240	850	12,800	6,100	3,990	228	9,400	390
26	390	3,940	d4,640	760	2,320	950	11,900	6,160	3,940	204	7,750	370
27	370	3,150	d4,580	760	2,320	950	10,400	6,400	3,990	190	6,340	334
28	352	d2,640	d3,840	735	2,080	950	10,700	6,920	4,050	173	5,460	307
29	352	2,200	d3,240	710	-	880	11,900	7,830	3,730	163	5,020	298
30	489	1,920	d3,020	987	-	820	13,700	8,750	2,800	156	4,740	271
31	1,300	-	d2,800	2,000	-	760	-	9,520	-	142	4,420	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	28,278	2,160	352	912	0.254	0.29	56,090
November	53,735	4,260	420	1,791	.500	.56	106,600
December	85,890	4,640	1,300	2,771	.773	.89	170,400
Calendar year 1941	1,252,184	12,200	149	3,431	.957	12.98	2,484,000
January	42,342	2,680	710	1,366	.381	.44	83,980
February	58,520	2,920	1,060	2,090	.583	.61	116,100
March	64,930	3,530	760	2,095	.584	.67	128,800
April	340,505	36,600	590	11,350	3.17	3.53	675,400
May	343,750	19,700	5,860	11,090	3.09	3.56	681,800
June	145,890	10,200	1,760	4,863	1.36	1.51	289,400
July	14,495	1,800	142	468	.131	.15	28,750
August	66,751	10,000	79	2,153	.600	.69	132,400
September	38,495	3,480	271	1,283	.358	.40	76,350
Water year 1941-42	1,283,581	36,600	79	3,517	.981	13.30	2,546,000

a No gage-height record; discharge computed on basis of records for nearby stations and weather records.
d Doubtful gage-height record; discharge computed from graph based on gage readings of adjoining days, records for nearby stations, and weather records.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Sabine River at Logansport, La.

Location.- Wire-weight gage, lat. 31°53', long. 94°00', on bridge on U. S. Highway 84, 200 feet upstream from Texas & New Orleans (Southern Pacific) Railroad bridge in Logansport, De Soto Parish, and 3 miles upstream from Bayou Castor. Datum of gage is 147.72 feet above mean sea level, datum of 1929.

Drainage area.- 4,858 square miles.

Records available.- July 1903 to September 1942 (January 1907 to September 1923, monthly records only, published in Water-Supply Paper 850). U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 36 years (1903-19, 1922-42), 2,946 second-feet.

Extremes.- Maximum discharge observed during year, 27,000 second-feet Apr. 24 (gage height, 31.98 feet); minimum observed, 144 second-feet Aug. 14, 15.

1903-42: Maximum discharge observed, 47,000 second-feet May 5, 1915 (gage height, 36.9 feet); minimum observed during periods of daily records, 16 second-feet Sept. 26-28, Oct. 3, 4, 1939.

Maximum stage known, 39.4 feet, present datum, in May 1884.

Remarks.- Records poor. Gage read twice daily. Small diversions above station.

Cooperation.- Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,410	c7,850	7,640	6,500	c2,320	c2,500	1,420	20,800	8,780	4,250	232	7,880
2	2,100	c9,880	5,800	6,120	c3,530	c4,300	1,320	19,000	8,660	3,440	220	7,160
3	1,600	c11,000	3,680	a5,780	c4,410	c5,180	1,240	17,800	8,720	2,270	220	6,000
4	1,170	c11,600	2,350	5,460	c4,900	c5,950	1,190	16,500	8,850	1,660	208	3,900
5	872	11,000	1,930	4,960	4,850	c6,680	1,140	16,000	9,130	1,400	196	2,120
6	720	9,790	1,780	4,680	4,360	7,460	1,090	16,000	9,440	1,220	184	1,450
7	660	8,390	1,690	4,410	3,850	7,880	1,270	16,700	9,610	1,050	174	1,190
8	a640	6,370	1,600	4,100	3,550	8,180	c2,310	17,600	9,790	960	174	1,350
9	a660	3,940	1,540	3,600	3,400	8,420	c4,040	18,600	9,610	916	164	1,540
10	a762	2,320	1,510	3,210	3,450	8,480	c5,980	19,200	8,600	872	154	2,290
11	1,200	1,720	1,700	2,850	3,650	8,300	c7,880	19,400	7,220	872	154	3,120
12	2,180	1,510	c2,610	2,570	3,700	8,060	c9,520	19,200	5,950	850	154	3,850
13	2,410	1,350	c3,580	2,290	3,450	7,700	c11,000	19,000	5,620	806	154	a4,100
14	2,020	1,140	c4,520	2,100	2,850	7,220	11,800	18,400	5,620	740	144	3,950
15	1,750	938	c5,290	1,960	2,210	6,500	12,200	17,800	5,950	660	144	3,500
16	1,900	806	c5,840	1,840	1,870	5,560	12,000	17,000	6,440	580	164	2,940
17	3,060	680	6,120	1,840	1,990	4,580	11,600	16,000	7,220	540	208	2,490
18	3,900	600	6,060	1,750	2,290	3,850	11,300	15,400	7,880	520	258	2,170
19	4,050	560	5,720	1,780	2,250	3,300	11,200	15,400	8,240	482	376	1,990
20	3,500	c640	5,240	1,780	2,170	2,940	12,200	15,600	8,360	446	500	1,840
21	3,240	c828	4,580	1,690	2,060	2,610	17,500	17,800	8,300	428	520	1,600
22	2,410	c1,240	c4,200	1,630	1,960	2,490	23,700	19,000	8,000	392	c660	1,350
23	1,660	c2,580	c4,520	1,540	1,900	2,290	26,400	19,000	7,340	376	c1,670	1,120
24	1,140	c4,740	c4,960	1,450	1,990	1,960	26,700	18,200	6,500	360	c3,400	960
25	916	c6,560	c5,340	1,400	2,410	1,750	25,600	16,900	5,730	344	4,800	850
26	762	c8,180	c5,780	1,350	2,690	1,720	24,300	15,600	5,180	328	5,840	784
27	c720	c9,520	6,170	1,320	2,850	1,930	23,400	13,900	4,800	314	6,560	700
28	c720	c10,200	6,440	1,350	2,850	2,130	23,100	12,400	4,630	300	7,340	660
29	c720	9,790	6,560	1,290	-	2,020	23,100	11,000	4,520	286	7,820	600
30	c949	8,780	6,620	c1,290	-	1,840	22,100	9,880	4,460	258	8,180	560
31	c3,670	-	6,560	c1,470	-	1,600	-	9,200	-	244	8,240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	54,771	4,050	640	1,767	0.364	0.42	108,600
November	134,502	11,600	560	5,150	1.06	1.18	306,500
December	137,930	7,640	1,510	4,449	.916	1.06	273,600
Calendar year 1941	2,092,521	23,400	244	5,733	1.18	16.02	4,150,000
January	85,360	6,500	1,290	2,754	.567	.65	169,300
February	83,760	4,900	1,870	2,991	.616	.64	166,100
March	145,780	8,480	1,600	4,703	.968	1.12	289,200
April	367,600	26,700	1,090	12,250	2.52	2.81	729,100
May	514,280	20,800	9,200	16,590	3.41	3.94	1,020,000
June	219,150	9,790	4,460	7,305	1.50	1.68	434,700
July	28,164	4,250	244	909	.187	.22	55,860
August	59,212	8,240	144	1,910	.393	.45	117,400
September	74,014	7,880	560	2,467	.508	.57	146,800
Water year 1941-42	1,924,523	26,700	144	5,273	1.09	14.74	3,817,000

a No gage-height record; discharge computed from graph based on gage readings of adjoining days and weather records.

c Backwater effect from Bayou Castor; discharge computed on basis of gage heights and weather records.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Sabine River near Milan, Tex.

Location.- Wire-weight gage, lat. 31°23', long. 93°45', on bridge on State Highway 21, 6.5 miles northeast of Milan, Sabine County, and 7.2 miles upstream from Palo Gaucho Bayou. Datum of gage is 97.96 feet above mean sea level, datum of 1929.

Drainage area.- 6,543 square miles.

Records available.- January 1939 to September 1942. October 1923 to August 1925, at Sabinetown, 7.4 miles downstream, records equivalent except those for periods of extreme low flow and high runoff from Palo Gaucho Bayou.

Extremes.- Maximum discharge observed during year, 25,100 second-feet Nov. 5 (gage height, 33.42 feet); minimum observed, 251 second-feet Aug. 12.
1939-42: Maximum discharge observed, 54,200 second-feet Nov. 29, 1940 (gage height, 44.70 feet); minimum observed, 32 second-feet Oct. 15, 22, 1939.
Maximum stage known, 48 feet about July 28, 1933, from information by observer.

Remarks.- Records good. Gage read twice daily, oftener during high water. No large diversions above station.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 4 to Aug. 22)

6.7	213	11.0	1,780	28.0	14,400
7.0	290	12.0	2,250	32.0	18,000
7.5	436	14.0	3,380	35.0	20,700
8.0	602	16.0	4,710	37.0	23,100
9.0	960	20.0	7,710	38.0	24,500
10.0	1,350	24.0	11,000	39.0	26,100

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,020	20,900	13,200	9,330	5,560	4,500	2,350	20,000	14,600	4,710	406	7,470
2	2,900	22,400	12,800	9,670	6,610	7,190	2,050	20,500	13,800	4,500	406	7,470
3	2,670	23,400	12,100	9,670	7,390	9,330	1,870	20,800	12,400	4,100	376	7,310
4	2,150	24,600	10,200	9,580	7,870	10,100	1,780	20,800	10,800	3,140	361	6,610
5	1,640	25,100	6,240	9,330	8,030	11,000	1,690	20,700	9,760	2,250	346	5,220
6	1,350	24,500	4,100	8,670	7,150	12,700	1,640	20,400	9,240	1,870	318	3,120
7	1,150	23,500	3,260	8,110	6,310	13,400	2,320	20,000	9,080	1,690	318	1,920
8	1,040	22,000	2,900	7,470	5,480	13,800	7,010	19,500	9,240	1,350	304	1,390
9	1,070	20,700	2,720	6,610	4,780	14,300	13,400	19,000	9,760	1,230	290	1,270
10	1,070	19,100	2,620	5,780	4,640	14,300	16,400	18,300	10,700	1,110	277	1,430
11	998	16,400	2,560	5,130	4,710	13,900	17,400	17,900	10,900	1,070	277	1,820
12	1,070	11,900	3,300	4,640	4,850	13,500	17,100	17,600	10,300	1,040	251	2,500
13	1,740	5,200	4,850	4,290	6,310	12,900	16,600	17,400	8,830	1,040	264	3,510
14	2,500	2,960	6,310	3,700	4,710	12,100	16,100	17,700	7,470	998	264	3,960
15	2,840	2,400	7,150	3,380	4,220	11,200	15,500	17,900	7,070	922	277	4,030
16	4,570	2,100	7,710	3,140	3,840	9,840	14,800	18,000	7,150	850	332	3,700
17	3,960	1,820	8,030	2,960	4,430	8,590	14,200	18,000	7,150	814	361	3,140
18	3,770	1,640	8,270	2,780	4,920	6,760	13,800	18,000	7,870	814	376	2,720
19	4,100	1,430	8,110	2,670	4,570	5,480	13,300	18,200	8,590	742	406	2,300
20	4,290	1,470	7,870	3,020	4,500	4,570	12,900	18,100	8,990	706	436	2,100
21	4,220	3,490	7,470	3,140	4,160	4,030	12,600	17,800	9,240	670	602	1,920
22	3,900	7,230	7,550	3,020	3,640	3,640	12,400	17,400	9,330	670	778	1,740
23	3,200	9,500	8,510	2,780	3,640	3,320	12,400	17,100	9,240	670	890	1,560
24	2,400	11,400	8,350	2,560	4,570	3,140	12,900	16,900	8,750	602	2,280	1,310
25	1,740	12,500	8,110	2,400	4,290	2,840	13,800	16,800	7,950	534	3,200	1,110
26	1,350	13,000	8,430	2,250	3,840	2,720	14,800	16,800	6,990	534	4,360	960
27	1,110	13,500	8,830	2,200	3,960	3,020	15,800	16,900	6,080	534	5,480	850
28	960	13,800	a9,080	2,250	4,030	3,260	17,100	16,900	5,200	468	6,080	778
29	998	13,600	9,240	2,350	-	3,320	18,200	16,800	4,990	436	6,760	706
30	1,190	13,500	9,080	2,500	-	3,140	19,200	16,400	4,780	406	7,150	636
31	11,500	-	8,910	3,680	-	2,720	-	15,900	-	406	7,310	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	80,466	11,500	960	2,596	0.397	0.46	159,600
November	385,040	25,100	1,430	12,830	1.96	2.19	763,700
December	227,860	13,200	2,560	7,350	1.12	1.29	452,000
Calendar year 1941	3,318,924	27,800	376	9,093	1.39	16.86	6,583,000
January	149,060	9,670	2,200	4,808	.735	.85	295,700
February	143,010	8,030	3,640	5,108	.781	.81	283,700
March	244,610	14,300	2,720	7,891	1.21	1.39	485,200
April	351,410	19,200	1,640	11,710	1.79	2.00	697,000
May	564,500	20,800	15,900	18,210	2.78	3.21	1,120,000
June	266,250	14,600	4,780	8,875	1.36	1.51	528,100
July	40,876	4,710	406	1,319	.202	.23	81,080
August	51,536	7,310	251	1,662	.254	.29	102,200
September	84,560	7,470	636	2,819	.431	.48	167,700
Water year 1941-42	2,589,178	25,100	251	7,094	1.08	14.71	5,136,000

a No gage-height record; discharge computed from graph based on gage readings of adjoining days.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter.
To convert war time to standard time, subtract 1 hour.

Sabine River near Bon Wier, Tex.

Location.- Wire-weight gage, lat. 30°44', long. 93°37', on bridge on U. S. Highway 190, 1¼ miles east of Bon Wier, Newton County, and 2.4 miles upstream from Caney Creek. Datum of gage is 46.4 feet above mean sea level, datum of 1929. Prior to Jan. 16, 1942, chain gage at same site and datum.

Drainage area.- 8,323 square miles.

Records available.- October 1923 to September 1934, January 1939 to September 1942. U. S. Weather Bureau has collected gage-height records in this vicinity since 1913.

Average discharge.- 13 years (1923-34, 1939-42), 7,608 second-feet.

Extremes.- Maximum discharge observed during year, 27,900 second-feet Apr. 13 (gage height, 19.79 feet); minimum observed, 760 second-feet Aug. 13-15.

1923-34, 1939-42: Maximum discharge observed, 63,000 second-feet Aug. 1, 2, 1933; maximum gage height, 23.04 feet Aug. 2, 1933; minimum observed, 185 second-feet Sept. 11, 22 and 24, 1925.

Maximum stage known, 26 feet, present site and datum, in May 1884, from information by local resident.

Remarks.- Records good. Gage read twice daily, oftener during high water. No large diversions above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,100	18,100	14,400	10,900	5,420	6,520	5,420	18,000	17,600	6,870	1,130	7,790
2	4,320	21,800	14,400	11,600	6,410	9,150	4,540	18,700	17,200	6,760	1,070	8,020
3	4,320	24,000	14,200	12,000	7,330	12,600	4,100	19,200	16,400	6,410	970	8,140
4	4,540	25,800	13,800	12,200	7,900	14,400	3,680	19,800	15,800	6,870	970	8,250
5	4,430	26,900	13,200	12,600	8,490	16,600	3,660	20,800	14,200	6,520	1,000	7,790
6	3,770	26,900	11,500	12,600	8,610	18,500	3,440	21,600	12,900	5,310	1,070	7,220
7	3,220	26,200	8,700	11,600	8,610	19,400	3,990	22,300	11,500	4,870	1,000	5,970
8	2,450	25,800	6,410	10,700	7,790	20,100	10,100	22,300	10,800	4,650	905	4,760
9	2,400	25,500	5,310	10,000	7,440	21,000	21,900	22,300	10,800	4,100	850	3,770
10	2,340	25,500	4,760	9,240	6,870	20,600	25,500	21,800	12,400	3,660	782	d3,000
11	2,340	25,200	4,540	8,490	6,980	19,800	26,900	21,600	13,700	2,890	828	2,780
12	2,180	24,900	4,540	7,790	8,140	18,700	27,900	21,600	16,000	3,000	805	2,780
13	2,030	24,000	4,760	6,980	6,980	17,600	27,600	21,300	15,200	2,720	760	2,890
14	1,900	21,600	5,860	6,520	6,520	16,600	25,800	21,000	13,500	2,560	760	3,550
15	2,500	14,400	6,870	5,970	6,410	16,200	23,700	21,000	11,500	2,400	760	4,320
16	3,770	7,980	7,790	5,640	8,200	14,700	21,800	21,000	10,300	2,280	805	d4,870
17	5,750	5,640	8,370	5,310	12,100	13,800	20,100	20,300	9,630	2,230	850	d5,200
18	7,100	4,650	8,730	4,980	12,600	12,600	18,700	19,800	9,370	2,120	782	d5,090
19	6,520	3,990	9,110	5,090	11,600	10,400	17,600	19,800	9,630	2,120	805	4,870
20	5,860	3,660	9,240	5,310	10,800	9,240	16,600	20,100	9,500	1,940	850	d4,210
21	5,530	3,440	9,240	5,090	9,240	7,790	16,600	19,800	9,760	1,760	1,000	d3,550
22	5,420	3,440	9,110	4,980	7,440	7,440	16,600	19,800	10,400	1,760	1,070	3,220
23	5,310	5,090	10,500	4,870	6,870	6,300	16,600	19,600	10,500	1,760	1,260	2,890
24	4,870	9,530	11,400	4,760	8,250	5,750	15,100	19,400	10,500	1,720	1,480	2,720
25	4,320	12,400	12,200	4,540	9,760	5,420	15,600	18,900	10,500	1,630	2,560	2,400
26	3,440	13,500	12,200	4,320	9,500	5,420	16,000	19,400	10,000	1,560	3,220	2,230
27	2,620	13,800	11,400	4,100	7,900	5,530	16,400	19,200	9,370	1,440	4,320	1,980
28	2,230	14,000	10,700	3,990	6,640	5,420	16,800	18,700	8,490	1,300	5,310	1,720
29	1,940	14,200	10,400	4,100	-	5,310	17,000	18,300	7,790	1,230	6,190	1,630
30	1,900	14,400	10,400	4,100	-	5,310	18,700	18,000	7,220	1,260	7,560	1,520
31	5,850	-	10,500	4,540	-	5,090	-	17,800	-	1,130	7,440	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	119,270	7,100	1,900	3,847	0.462	0.53	236,600
November	486,320	26,900	3,440	16,210	1.95	2.17	964,600
December	294,540	14,400	4,540	9,501	1.14	1.32	584,200
Calendar year 1941	4,578,780	33,900	1,040	12,540	1.51	20.46	9,082,000
January	224,910	12,600	3,990	7,255	.872	1.00	446,100
February	230,800	12,600	5,420	8,243	.990	1.03	457,800
March	373,290	21,000	5,090	12,040	1.45	1.67	740,400
April	478,630	27,900	3,440	15,950	1.92	2.14	949,300
May	623,200	22,300	17,800	20,100	2.42	2.78	1,236,000
June	352,460	17,600	7,220	11,750	1.41	1.57	699,100
July	96,830	6,870	1,130	3,124	.375	.43	192,100
August	59,162	7,560	760	1,908	.229	.26	117,300
September	129,130	8,250	1,520	4,304	.517	.58	256,100
Water year 1941-42	3,468,542	27,900	760	9,503	1.14	15.48	6,880.000

d Doubtful gage-height record; discharge computed from graph based on gage readings of adjoining days.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Sabine River near Ruliff, Tex.

Location.- Wire-weight gage, lat. 30°18'10", long. 93°44'40", on bridge on State Highway 235, 2.4 miles north of Ruliff, Newton County, and 4.5 miles downstream from Cypress Creek. Datum of gage is 4.08 feet above mean sea level, datum of 1929.

Drainage area.- 9,440 square miles.

Records available.- October 1924 to September 1942.

Average discharge.- 18 years, 3,243 second-feet.

Extremes.- Maximum discharge observed during year, 34,000 second-feet Apr. 12 (gage height, 14.98 feet); minimum observed, 1,350 second-feet Aug. 12.
1924-42: Maximum discharge observed, 76,600 second-feet May 24, 25, 1935 (gage height, 17.9 feet, present site and datum); minimum observed, 338 second-feet Sept. 25-27, Oct. 2, 3, 22-24, 1939.
Higher stages are known to have occurred in the past.

Remarks.- Records good. No large diversions above station. Gage read twice daily, oftener during high water.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,390	14,300	12,700	15,800	4,830	11,000	5,930	19,000	18,400	9,830	2,510	7,730
2	4,130	19,700	13,200	17,800	5,410	10,600	5,750	19,000	17,800	8,840	2,210	8,270
3	4,130	21,600	13,500	16,700	6,320	10,200	5,410	19,000	17,800	8,270	2,060	8,550
4	4,210	23,600	13,800	15,400	6,980	11,000	4,830	19,000	17,200	8,000	1,670	8,840
5	4,300	26,200	14,000	15,000	7,730	13,800	4,490	19,700	17,200	8,840	1,670	9,150
6	4,390	27,500	14,000	14,700	8,270	16,200	4,130	20,400	17,200	9,830	1,670	9,150
7	4,210	28,200	14,000	14,400	8,550	18,400	4,210	21,000	16,200	11,000	1,670	9,480
8	3,860	28,200	13,800	14,000	9,150	21,600	6,530	21,000	15,800	11,000	1,710	10,600
9	3,620	28,200	12,900	14,000	9,150	23,600	14,000	21,600	15,400	10,200	1,630	10,200
10	3,330	27,500	11,000	13,500	9,150	24,900	20,400	22,300	14,400	8,550	1,470	9,150
11	3,110	26,800	8,710	12,900	8,550	24,900	24,900	22,300	15,000	6,530	1,390	7,470
12	3,000	26,800	6,770	12,200	8,270	24,900	32,700	23,600	15,400	4,960	1,350	5,750
13	2,890	26,200	5,580	11,000	8,000	23,600	32,700	24,200	16,200	3,980	1,470	4,490
14	2,720	25,600	5,100	10,200	8,000	23,000	30,800	23,600	16,700	3,620	1,550	3,980
15	2,620	25,600	5,250	9,150	8,000	21,600	28,800	22,300	17,800	3,330	1,810	3,860
16	2,720	24,900	5,750	8,270	8,270	20,400	27,500	21,600	17,200	3,160	2,160	4,710
17	3,280	22,300	6,530	7,470	8,840	19,700	26,200	21,600	16,200	3,440	2,110	5,580
18	4,260	17,800	7,220	6,530	9,830	18,400	25,600	21,000	14,700	3,280	2,210	6,530
19	5,650	13,300	8,000	6,320	11,700	17,200	24,900	21,000	13,200	3,060	2,460	6,750
20	6,750	9,720	8,270	5,930	13,500	15,800	23,600	20,400	12,200	2,940	2,260	7,220
21	6,750	7,110	8,840	5,930	14,700	14,700	22,300	20,400	12,400	2,890	2,460	6,980
22	6,320	6,120	10,200	5,750	14,700	13,500	21,600	19,700	12,200	2,940	3,740	6,320
23	5,930	5,580	10,600	5,580	14,000	11,900	21,000	19,700	11,900	3,500	4,960	5,250
24	5,750	5,580	11,400	5,410	13,500	10,200	21,000	19,700	12,200	3,800	5,750	4,210
25	5,410	6,550	12,200	5,250	11,900	8,840	21,000	19,700	12,200	3,980	6,530	3,740
26	4,960	8,000	12,700	4,960	11,000	8,000	20,400	19,700	12,200	3,680	6,980	3,440
27	4,300	9,480	12,900	4,830	11,000	7,220	20,400	19,700	11,900	3,380	6,530	3,110
28	3,800	10,600	12,900	4,600	11,000	6,750	19,700	19,700	11,700	3,110	6,320	2,840
29	3,330	11,700	12,900	4,390	-	6,530	19,700	19,000	11,000	2,940	6,750	2,560
30	3,570	12,400	12,700	4,300	-	6,320	19,700	19,000	10,600	2,890	6,980	2,360
31	7,960	-	12,400	4,390	-	6,120	-	18,400	-	2,840	7,220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	135,650	7,960	2,620	4,380	0.464	0.53	269,100
November	547,140	28,200	5,580	18,240	1.93	2.15	1,085,000
December	329,820	14,000	5,100	10,640	1.13	1.30	654,200
Calendar year 1941	5,474,820	45,700	1,960	15,000	1.59	21.54	10,860,000
January	296,660	17,800	4,300	9,570	1.01	1.17	588,400
February	270,300	14,700	4,830	9,654	1.02	1.06	536,100
March	470,880	24,900	6,120	15,190	1.61	1.85	934,000
April	560,180	32,700	4,130	18,670	1.98	2.21	1,111,000
May	638,300	24,200	18,400	20,590	2.18	2.51	1,266,000
June	440,300	18,400	10,600	14,680	1.55	1.73	873,300
July	168,610	11,000	2,840	5,439	.576	.66	334,400
August	101,260	7,220	1,350	3,266	.346	.40	200,800
September	188,270	10,600	2,360	6,276	.665	.74	373,400
Water year 1941-42	4,147,370	32,700	1,350	11,360	1.20	16.31	8,226,000

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Cherokee Bayou near Elderville, Tex.

Location.- Water-stage recorder, lat. 32°20', long. 94°42', at bridge on county highway 3.8 miles southeast of Elderville, Gregg County, 4.5 miles upstream from bridge on State Highway 149, and 19.3 miles upstream from mouth. Datum of gage is 266.8 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army bench mark).

Drainage area.- 110 square miles.

Records available.- August 1939 to September 1942.

Extremes.- Maximum discharge during year, 5,550 second-feet Aug. 22 (gage height, 10.35 feet), from rating curve extended above 3,500 second-feet by logarithmic plotting; minimum, 2.3 second-feet Aug. 15, 16.

1939-42: Maximum discharge, 10,200 second-feet Nov. 23, 1940 (gage height, 12.81 feet), from rating curve extended above 3,500 second-feet by logarithmic plotting; no flow at times.

Maximum stage known, about 14.0 feet in September 1913, from information by local residents.

Remarks.- Records good except those for period of no gage-height record and those above 4,000 second-feet, which are poor. No diversions above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	1,280	153		778	185	92	125	35	207	7.0	44
2	27	719	165		377	321	88	103	31	70	7.0	39
3	30	336	185		218	488	86	103	29	54	6.7	35
4	46	200	210		170	363	84	168	27	48	6.2	31
5	46	147	242		156	302	83	178	26	43	6.1	39
6	54	127	210		145	293	86	192	32	44	5.4	35
7	49	118	175	a220	136	302	136	153	60	44	4.8	37
8	52	107	158		129	296	867	120	86	50	4.3	72
9	46	94	142		136	290	1,960	103	282	48	3.9	203
10	90	88			151	281	908	83	565	41	3.5	508
11	136	83			162	242	461	73	700	35	3.6	1,030
12	200	70			162	200	269	68	419	29	3.7	576
13	158	70		145	138	180	200	63	168	24	3.4	201
14	81	66		145	123	168	165	61	334	20	3.2	83
15	233	66		142	116	158	142	61	1,590	18	3.1	55
16	1,180	68		138	136	149	129	56	1,150	16	7.8	43
17	1,040	70		136	151	136	116	54	618	14	25	42
18	410	72		134	168	127	107	1,740	298	19	26	46
19	173	75		134	156	120	98	2,930	a146	35	28	41
20	94	123		131	129	112	112	992	a101	39	18	75
21	66	149	a275	127	112	112	140	401	a81	28	14	54
22	55	705		120	109	109	162	205	a79	20	3,020	72
23	48	1,850		114	223	109	151	140	72	16	3,720	43
24	43	1,290		112	376	105	156	107	68	14	1,520	32
25	41	594		109	426	123	232	94	60	12	550	28
26	39	319		112	236	172	511	81	54	11	218	25
27	42	230		109	156	165	635	66	46	10	109	23
28	36	192		109	134	162	406	56	39	10	72	22
29	40	172		107	-	134	221	49	34	9.3	61	20
30	81	158		283	-	112	151	43	108	8.2	97	20
31	461	-		792	-	98	-	39	-	7.3	66	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	5,131	1,180	27	166	1.51	1.73	10,180
November	9,638	1,850	66	321	2.92	3.26	19,120
December	7,690	-	-	248	2.25	2.60	15,250
Calendar year 1941	68,067.4	1,850	2.3	186	1.69	23.01	135,000
January	5,839	792	107	188	1.71	1.97	11,580
February	5,609	778	109	200	1.82	1.90	11,130
March	6,114	488	98	197	1.79	2.07	12,130
April	8,954	1,960	83	298	2.71	3.03	17,760
May	8,707	2,930	39	281	2.55	2.94	17,270
June	7,338	1,590	26	245	2.23	2.48	14,550
July	1,043.8	207	7.3	33.7	.306	.35	2,070
August	9,623.7	3,720	3.1	310	2.82	3.25	19,090
September	3,574	1,030	20	119	1.08	1.21	7,090
Water year 1941-42	79,261.5	3,720	3.1	217	1.97	26.79	157,200

Peak discharge.- Apr. 9 (8 a.m.) 2,290 sec.-ft.; May 19 (4 a.m.) 3,750 sec.-ft.; Aug. 22 (10:30 p.m.) 5,550 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage, engineer's notes, and weather records.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

556253 O - 43 - 3

Neches River near Neches, Tex.

Location.- Wire-weight gage, lat. 31°54', long. 95°26', at bridge on U. S. Highway 79, half a mile downstream from International-Great Northern Railroad bridge, 1 mile downstream from Walnut Creek, and 4.4 miles northeast of Neches, Anderson County. Datum of gage is 263.9 feet above mean sea level, datum of 1929.

Drainage area.- 1,129 square miles.

Records available.- February 1939 to September 1942.

Extremes.- Maximum discharge observed during year, 14,400 second-feet Apr. 12 (gage height, 18.30 feet); minimum observed, 24 second-feet Aug. 14.
1939-42: Maximum discharge, that of Apr. 12, 1942; no flow Oct. 3-5, 1939.
Flood of May 1908 reached a stage of 24.3 feet from information by local resident. Flood of May 1884 was probably higher.

Remarks.- Records good. Gage read twice daily, oftener during high water. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	420	728	762	1,240	554	680	330	3,140	498	284	47	780
2	512	632	744	1,180	728	728	320	2,940	360	268	44	696
3	600	446	744	1,120	890	780	300	2,650	300	236	43	512
4	632	350	a728	1,060	1,180	816	292	2,380	268	220	d40	331
5	568	320	a712	1,000	1,470	852	284	1,980	236	220	38	252
6	409	3[illegible]	a680	930	1,620	890	276	1,560	330	220	34	220
7	268	3[illegible]	a664	870	1,520	930	300	1,330	432	213	31	220
8	236	276	616	834	1,390	1,000	953	1,150	498	206	30	320
9	236	244	584	798	1,240	1,060	2,370	1,010	664	192	27	372
10	236	228	568	744	1,090	1,120	3,000	898	924	180	27	420
11	228	213	600	712	980	1,120	10,400	780	1,330	174	28	484
12	192	199	744	680	852	1,090	13,900	696	1,980	174	27	554
13	180	192	834	664	728	1,030	11,000	648	2,460	168	26	616
14	180	180	890	632	554	980	8,350	600	2,650	156	25	680
15	202	168	930	600	616	930	6,000	554	3,140	141	26	712
16	389	168	930	568	584	870	4,380	512	3,270	129	27	728
17	554	162	930	554	584	798	3,500	470	2,880	114	35	696
18	648	168	930	540	600	728	2,760	784	2,460	100	48	664
19	644	168	955	512	616	648	2,380	1,990	2,130	98	63	600
20	600	234	980	512	648	600	2,210	3,000	1,980	90	66	512
21	470	372	1,000	484	712	540	2,130	3,340	1,900	86	73	444
22	321	512	1,030	470	762	484	2,210	2,880	1,830	80	107	341
23	236	852	1,030	456	816	432	2,380	2,650	1,760	80	168	244
24	192	990	1,090	432	834	396	2,460	2,460	1,560	78	180	186
25	174	870	1,180	432	798	372	2,700	2,130	1,330	73	174	156
26	162	852	1,320	420	744	420	3,140	1,830	1,190	66	186	135
27	150	780	1,350	408	696	408	3,270	1,560	980	63	236	120
28	138	762	1,320	396	664	360	3,140	1,280	664	59	347	114
29	126	762	1,320	384	-	340	2,940	1,040	456	57	484	103
30	142	780	1,320	384	-	340	2,940	848	320	55	648	96
31	514	-	1,280	444	-	340	-	680	-	51	744	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	10,579	664	126	341	0.302	0.35	20,980
November	13,118	890	162	437	.387	.43	26,020
December	28,765	1,350	568	928	.822	.95	57,050
Calendar year 1941	332,153	7,280	24	910	.806	10.95	658,800
January	20,460	1,240	384	660	.585	.67	40,580
February	24,470	1,620	554	874	.774	.81	48,540
March	22,082	1,120	340	712	.631	.73	43,800
April	100,615	13,900	276	3,354	2.97	3.31	199,600
May	49,770	3,340	470	1,605	1.42	1.64	98,720
June	40,780	3,270	236	1,359	1.20	1.34	80,890
July	4,331	284	51	140	.124	.14	8,590
August	4,079	744	25	132	.117	.13	8,090
September	12,308	780	96	410	.363	.41	24,410
Water year 1941-42	331,357	13,900	25	908	.804	10.91	657,300

a No gage-height record; discharge computed from graph based on gage readings of adjoining days and weather records.
d Doubtful gage-height record; discharge interpolated.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Neches River near Diboll, Tex.

Location.- Wire-weight gage, lat. 31°08', long. 94°48', at bridge on State Highway 35, 130 feet downstream from Texas & New Orleans Railroad bridge, 2.8 miles downstream from Alabama Creek, and 3.8 miles south of Diboll, Angelina County. Datum of gage is 154.26 feet above mean sea level, datum of 1929.

Drainage area.- 2,670 square miles.

Records available.- November 1923 to August 1925, March 1939 to September 1942.

Extremes.- Maximum discharge observed during year, 18,000 second-feet Nov. 2 (gage height, 15.89 feet); minimum observed, 93 second-feet Aug. 15.
1923-25, 1939-42: Maximum discharge observed, 22,800 second-feet Nov. 28, 1940 (gage height, 16.53 feet); no flow Aug. 15-22, 1925.
Maximum stage known, 21.5 feet in May 1884, from information by local residents.

Remarks.- Records good. Gage read twice daily, oftener during high stages. No large diversions above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	320	9,880	3,460	2,420	1,310	1,560	1,040	4,860	4,020	2,850	176	360
2	289	17,200	3,320	2,520	1,430	1,670	992	4,680	3,730	2,620	189	352
3	275	15,200	3,200	2,620	1,600	1,860	920	4,340	3,580	2,520	189	376
4	261	11,500	3,080	2,620	1,710	2,060	876	4,020	3,320	2,340	176	416
5	222	8,900	2,960	2,620	1,760	2,850	832	4,020	3,080	2,340	164	496
6	396	7,350	2,740	2,740	1,640	3,080	788	3,880	2,850	2,340	154	550
7	550	6,180	2,520	2,740	1,460	2,850	898	4,020	2,620	2,250	138	608
8	628	5,260	2,420	2,740	1,310	2,850	2,070	4,180	2,520	2,100	130	668
9	648	4,500	2,250	2,740	1,340	2,850	4,670	4,180	2,420	1,700	122	810
10	668	3,730	2,100	2,740	1,700	2,740	5,480	4,180	2,250	1,310	115	1,040
11	688	3,200	2,100	2,740	2,100	2,420	4,500	4,020	2,620	968	112	1,200
12	d708	2,620	2,160	2,620	2,420	2,340	4,340	4,680	3,080	768	103	1,280
13	708	2,020	2,340	2,620	2,520	2,160	4,180	5,370	3,200	648	98	1,250
14	708	1,270	2,520	2,620	2,420	2,020	4,020	5,940	2,960	550	95	1,200
15	810	1,610	2,520	2,520	2,340	1,860	4,020	5,700	2,740	496	93	1,090
16	1,200	1,040	2,340	2,420	2,250	1,800	4,020	5,590	2,620	451	99	944
17	1,170	876	2,250	2,340	2,340	1,710	4,180	4,680	2,520	408	102	854
18	1,250	768	2,160	2,250	2,420	1,670	5,020	4,680	2,420	384	107	832
19	1,250	728	2,100	2,100	2,340	1,640	9,400	4,860	2,420	360	106	788
20	1,250	688	1,900	d1,900	2,340	1,640	13,200	4,680	2,520	360	123	768
21	1,250	d1,070	1,900	1,710	2,250	1,640	12,100	4,680	2,520	368	164	788
22	1,200	2,120	2,160	1,670	2,160	1,600	10,400	5,590	2,520	360	295	810
23	1,070	d3,460	2,250	1,670	2,340	1,600	8,900	6,180	2,520	320	532	832
24	944	4,020	2,420	1,600	2,520	1,560	8,300	5,940	2,620	289	d668	832
25	832	4,340	2,740	1,530	2,340	1,530	7,520	5,820	2,850	261	708	788
26	768	4,340	2,740	1,460	2,100	1,500	6,850	5,590	2,960	241	688	708
27	728	4,020	2,850	1,430	1,860	1,430	6,180	5,480	3,080	234	728	648
28	688	3,730	2,740	1,370	1,670	1,340	5,590	5,260	3,200	222	628	628
29	588	3,730	2,520	1,340	-	1,250	5,060	4,860	3,080	202	532	a550
30	677	3,580	2,520	1,310	-	1,170	5,060	4,500	2,960	196	442	451
31	3,340	-	2,420	1,280	-	1,120	-	4,340	-	182	400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	26,084	3,340	222	841	0.315	0.36	51,740
November	138,930	17,200	688	4,631	1.73	1.94	275,600
December	77,700	3,460	1,900	2,506	.938	1.08	154,100
Calendar year 1941	1,058,576	17,200	82	2,900	1.09	14.75	2,100,000
January	67,000	2,740	1,280	2,161	.809	.93	132,900
February	55,990	2,520	1,310	2,000	.749	.78	111,100
March	59,370	3,080	1,120	1,915	.717	.83	117,800
April	151,406	13,200	788	5,047	1.89	2.11	300,300
May	150,800	6,180	3,880	4,865	1.82	2.10	299,100
June	85,800	4,020	2,250	2,860	1.07	1.20	170,200
July	30,638	2,850	182	988	.370	.43	60,770
August	8,376	728	93	270	.101	.12	16,610
September	22,917	1,280	352	764	.286	.32	45,460
Water year 1941-42	875,011	17,200	93	2,397	.898	12.20	1,736,000

a No gage-height record; discharge computed from graph based on gage readings on adjoining days.
d Doubtful gage-height record; discharge computed from graph based on gage readings of adjoining days.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Neches River near Rockland, Tex.

Location.- Staff gage, lat. 31°01'45", long. 94°23'50", a quarter of a mile upstream from bridge on U. S. Highway 69, half a mile upstream from Texas & New Orleans Railroad bridge, 1 mile north of Rockland, Tyler County, and 3½ miles downstream from Billans Creek. Datum of gage is 91.4 feet above mean sea level, datum of 1929.

Drainage area.- 3,539 square miles.

Records available.- July 1903 to September 1942. (July 1903 to September 1923, monthly records only, in Water-Supply Paper 550.) U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 36 years (1903-10, 1913-42), 2,378 second-feet.

Extremes.- Maximum discharge during year, 25,300 second-feet Nov. 1 (gage height, 25.10 feet, from graph based on gage readings); minimum observed, 149 second-feet Aug. 17.
1903-42: Maximum discharge observed, 48,500 second-feet Apr. 2, 1922 and May 22, 1935 (gage height, 28.90 feet), from rating curve extended above 36,000 second-feet; minimum observed during period of daily records, 3.0 second-feet Oct. 15, 1931.
Maximum stage known, 34.9 feet in May 1884, from information by local resident.

Remarks.- Records good. Gage read twice daily, oftener during high water. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,320	21,500	4,680	3,660	1,910	3,720	1,320	8,030	5,360	2,950	275	974
2	934	23,800	4,680	3,500	1,660	4,220	1,280	7,270	5,080	3,000	261	794
3	717	20,500	4,560	3,660	1,560	3,770	1,190	6,670	4,790	3,000	251	641
4	622	18,700	4,330	3,550	1,560	3,550	1,140	6,020	4,500	2,900	254	586
5	604	17,600	4,000	3,280	1,660	4,790	1,080	5,720	4,220	2,840	256	586
6	568	16,700	3,720	3,060	1,760	5,020	1,040	5,250	4,000	2,740	251	604
7	499	16,200	3,440	3,000	1,810	5,300	1,810	4,900	3,770	2,790	231	679
8	679	13,800	3,220	3,000	1,810	5,780	5,790	4,730	3,600	2,630	213	755
9	974	12,700	3,110	3,000	1,760	5,720	9,290	4,500	3,440	2,480	200	954
10	1,140	11,600	3,000	2,950	2,220	5,420	9,000	4,390	3,440	2,320	190	1,060
11	1,060	10,100	2,950	2,950	2,530	5,080	9,140	4,330	3,720	2,110	180	1,080
12	1,020	8,630	3,000	2,950	2,420	4,680	9,000	4,620	4,330	1,660	175	1,140
13	954	7,200	3,060	2,950	2,420	4,330	8,630	4,790	4,390	1,190	231	1,230
14	914	5,840	3,000	2,900	2,530	3,940	8,110	4,960	4,680	914	182	1,280
15	1,380	4,560	2,900	2,840	2,630	3,440	7,550	5,420	4,560	755	173	1,280
16	4,330	3,330	2,790	2,790	3,280	3,060	6,940	5,600	4,280	679	157	1,230
17	4,050	2,370	2,790	2,790	4,110	2,690	6,280	5,900	4,110	641	149	1,120
18	3,500	1,660	2,790	2,790	4,110	2,420	5,720	6,150	3,770	604	215	1,020
19	3,000	1,230	2,740	3,110	3,830	2,220	5,250	6,470	3,380	568	242	954
20	2,480	1,080	2,630	3,000	3,500	2,060	4,900	6,730	3,060	516	188	874
21	2,010	1,040	2,530	2,900	3,220	2,010	4,850	7,140	2,840	499	277	854
22	1,810	1,500	3,160	2,690	3,110	1,960	5,660	7,200	2,740	499	1,820	834
23	1,660	3,550	4,450	2,530	3,380	1,860	7,200	6,940	2,690	499	4,620	834
24	1,460	3,660	3,940	2,370	4,110	1,860	9,290	6,340	2,690	466	7,000	854
25	1,280	3,550	3,770	2,110	4,160	1,810	10,200	5,960	2,630	418	7,270	854
26	1,190	3,550	3,660	1,960	4,000	1,810	10,500	5,960	2,630	382	5,960	854
27	1,060	3,720	3,550	2,010	3,770	1,760	10,400	6,090	2,630	358	4,220	834
28	1,020	4,000	3,380	1,860	3,550	1,710	9,990	6,150	2,690	330	2,630	794
29	934	4,330	3,220	1,760	-	1,610	9,440	6,090	2,790	312	1,910	755
30	2,030	4,560	3,160	1,760	-	1,560	8,770	5,960	2,900	320	1,510	698
31	10,500	-	3,440	2,220	-	1,460	-	5,720	-	304	1,190	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	55,699	10,500	499	1,797	0.508	0.59	110,500
November	251,560	23,800	1,040	8,385	2.37	2.64	499,000
December	105,650	4,680	2,530	3,408	.963	1.11	209,600
Calendar year 1941	1,627,678	23,800	190	4,459	1.26	17.11	3,229,000
January	85,900	3,660	1,760	2,771	.783	.90	170,400
February	78,370	4,160	1,560	2,799	.791	.82	155,400
March	100,620	5,780	1,460	3,246	.917	1.06	199,600
April	190,760	10,500	1,040	6,359	1.80	2.00	378,400
May	182,000	8,030	4,330	5,871	1.66	1.91	361,000
June	109,710	5,360	2,830	3,657	1.03	1.15	217,600
July	41,674	3,000	304	1,344	.380	.44	82,660
August	42,681	7,270	149	1,377	.389	.45	84,660
September	27,006	1,280	586	900	.254	.28	53,570
Water year 1941-42	1,271,630	23,800	149	3,484	.985	13.35	2,522,000

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Neches River at Evadale, Tex.

Location.- Staff gage, lat. 30°21', long. 94°05', at bridge on U. S. Highway 59, 200 feet upstream from Gulf, Colorado & Santa Fe Railway bridge at Evadale, Jasper County, and 15 miles upstream from Village Creek. Datum of gage is 8.3 feet above mean sea level, datum of 1929, (levels by Corps of Engineers, U. S. Army).

Drainage area.- 7,908 square miles.

Records available.- July 1904 to December 1906, October 1923 to September 1942.

Average discharge.- 21 years (1904-6, 1923-42), 6,295 second-feet.

Extremes.- Maximum discharge during year, 47,100 second-feet Nov. 10 (gage height, 19.50 feet, from graph based on gage readings); minimum observed, 744 second-feet Aug. 12, 13, 19, 20.

1904-6, 1923-42: Maximum discharge, 83,800 second-feet June 1, 1929 (gage height, 22.20 feet); minimum observed, about 148 second-feet Sept. 10, 1925.

Maximum stage known, 26.2 feet in 1884 (discharge about 175,000 second-feet, from rating curve extended above 72,000 second-feet by logarithmic plotting), from records of Gulf, Colorado & Santa Fe Railway Co.

Remarks.- Records good. No diversion above station. Gage read twice daily.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-16, July 16 to Aug. 23, Sept. 2-30)

2.3	744	10.0	4,500	15.0	14,900
3.0	956	11.0	5,700	16.0	19,400
5.0	1,640	12.0	7,340	17.0	25,700
7.0	2,500	13.0	9,300	19.0	42,000
9.0	3,700	14.0	11,800	19.5	47,100

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,600	7,700	10,400	11,800	5,280	9,300	4,260	16,100	10,700	7,160	1,320	10,700
2	4,420	10,400	10,700	11,400	5,860	8,900	4,020	16,100	10,400	7,160	1,260	7,900
3	4,020	13,600	11,200	11,400	6,020	8,500	3,940	16,100	9,950	6,980	1,190	6,020
4	3,630	16,500	11,800	11,800	5,700	9,300	3,630	15,300	9,300	7,160	1,120	4,700
5	3,170	18,900	12,000	11,800	5,280	10,700	3,490	14,900	8,900	7,520	1,050	3,860
6	2,810	23,600	12,000	11,800	5,040	11,200	3,350	13,800	8,500	7,700	988	3,230
7	2,700	32,400	12,000	11,800	5,040	11,800	3,700	13,000	8,100	7,340	956	3,050
8	2,750	41,000	11,800	11,400	5,160	12,600	5,190	12,400	7,700	6,820	924	3,230
9	2,700	46,000	11,400	11,200	5,160	13,600	8,900	11,800	7,520	6,180	860	3,350
10	2,600	47,100	11,000	10,200	5,160	13,800	12,400	10,700	7,340	5,700	830	3,230
11	2,700	45,000	10,400	9,700	5,280	14,200	15,300	9,950	7,700	5,160	800	2,990
12	2,810	42,000	10,200	9,300	5,700	14,200	17,400	10,200	8,100	4,600	744	2,810
13	2,870	38,200	9,950	8,900	6,340	14,200	17,900	9,500	8,500	4,260	772	3,050
14	2,750	34,800	9,700	8,900	6,660	13,800	18,900	9,300	9,100	3,860	956	3,350
15	2,550	31,600	9,700	8,700	6,820	13,200	19,400	9,700	9,500	3,350	1,050	3,560
16	2,550	27,800	9,700	8,500	6,980	12,400	20,000	9,950	9,300	2,870	956	3,560
17	3,580	25,000	9,500	8,500	7,520	11,400	20,000	10,400	8,900	2,500	830	3,630
18	5,850	21,800	9,300	8,500	8,500	10,700	19,400	11,200	8,700	2,250	800	3,860
19	7,700	18,900	9,100	8,300	9,500	9,700	18,400	11,200	8,500	2,060	744	3,940
20	8,700	15,700	8,700	7,900	10,200	8,900	17,400	11,000	8,500	2,020	772	3,860
21	8,500	13,200	8,500	7,900	10,400	8,100	16,900	10,700	9,100	1,900	1,140	3,700
22	7,520	10,700	8,500	7,900	9,700	7,520	15,300	10,400	8,900	1,940	2,600	3,350
23	6,180	8,500	8,700	7,700	9,300	6,980	14,200	10,700	8,500	2,400	4,500	3,110
24	5,160	7,900	8,700	7,340	8,900	6,500	13,800	11,000	8,500	3,050	7,160	2,990
25	4,500	8,300	9,500	6,980	8,300	6,020	13,200	11,200	8,300	2,700	9,300	2,930
26	4,100	9,500	10,700	6,660	8,700	5,700	13,600	11,200	8,100	2,500	10,700	2,930
27	3,780	10,200	11,200	6,340	9,300	5,280	14,200	11,200	7,900	2,060	12,000	2,870
28	3,490	10,400	11,200	6,020	9,500	5,040	14,900	11,200	7,700	2,110	13,000	2,700
29	3,350	10,200	11,000	5,700	-	4,800	15,300	11,200	7,520	1,980	13,600	2,400
30	3,680	10,200	10,400	5,420	-	4,600	16,100	11,200	7,340	1,640	13,800	2,110
31	5,420	-	10,200	a5,280	-	4,340	-	11,000	-	1,430	13,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	131,140	8,700	2,550	4,230	0.535	0.62	260,100
November	657,100	47,100	7,700	21,900	2.77	3.09	1,303,000
December	319,150	12,000	8,500	10,300	1.30	1.50	633,000
Calendar year 1941	4,196,326	47,100	956	11,500	1.45	19.73	8,323,000
January	275,040	11,800	5,280	8,872	1.12	1.29	545,500
February	201,300	10,400	5,040	7,189	.909	.95	399,300
March	297,280	14,200	4,340	9,590	1.21	1.40	589,600
April	384,480	20,000	3,350	12,820	1.62	1.81	762,600
May	363,600	16,100	9,300	11,730	1.48	1.71	721,200
June	257,070	10,700	7,340	8,569	1.08	1.21	509,900
July	126,360	7,700	1,430	4,076	.515	.59	250,600
August	119,922	13,800	744	3,868	.489	.56	237,900
September	112,970	10,700	2,110	3,766	.476	.53	224,100
Water year 1941-42	3,245,412	47,100	744	8,892	1.12	15.26	6,437,000

a No gage-height record; discharge computed from graph based on gage readings of adjoining days.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter.
To convert war time to standard time, subtract 1 hour.

Mud Creek near Jacksonville, Tex.

Location.- Water-stage recorder, lat. 31°53'40", long. 95°09'40", at bridge on U. S. Highway 79, 5 miles downstream from International-Great Northern Railroad bridge, and 6.9 miles east of Jacksonville, Cherokee County. Datum of gage is 271.6 feet above mean sea level, datum of 1929.

Drainage area.- 382 square miles.

Records available.- May 1939 to September 1942.

Extremes.- Maximum discharge during year, 5,000 second-feet Apr. 10 (gage height, 9.80 feet); minimum, 1.6 second-feet Aug. 13.
1939-42: Maximum discharge, 14,200 second-feet Nov. 23, 1940 (gage height, 12.50 feet); no flow at times.
Maximum stage known occurred in May 1884 from information by local residents.

Remarks.- Records good. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	330	675	290	546	364	250	140	625	112	65	12	36
2	127	467	277	478	368	394	134	481	96	65	10	34
3	74	467	455	455	605	346	130	355	93	72	8.6	33
4	116	472	467	516	789	398	130	311	90	64	6.9	30
5	148	447	463	529	789	521	126	354	81	60	6.5	32
6	165	293	489	538	635	635	126	311	87	61	5.7	36
7	179	195	483	538	346	625	155	272	109	65	4.6	48
8	216	158	451	478	267	571	1,560	247	215	71	3.6	143
9	172	140	348	407	247	510	3,100	238	341	71	3.0	216
10	227	123	272	338	247	421	4,700	229	550	68	2.5	494
11	294	109	360	318	234	346	3,050	199	675	57	2.1	269
12	288	103	675	299	224	318	1,720	176	615	49	1.8	172
13	324	96	685	288	224	305	1,110	165	605	43	1.6	121
14	338	90	625	282	216	282	1,020	158	675	38	1.9	77
15	355	90	645	277	211	262	876	158	1,070	34	2.4	58
16	555	90	695	267	220	252	655	165	1,070	31	13	48
17	352	87	726	262	247	238	538	162	843	29	34	44
18	318	90	685	262	247	220	505	223	655	28	18	42
19	324	93	597	257	252	211	447	518	529	28	20	40
20	294	237	489	252	257	199	398	789	457	24	35	127
21	204	273	410	242	252	187	435	1,700	312	23	30	102
22	140	1,960	412	238	229	179	451	1,330	182	30	228	46
23	116	2,030	615	229	220	176	538	898	148	29	364	36
24	103	1,010	645	224	224	172	865	675	130	29	265	32
25	96	800	635	220	242	168	966	485	116	27	220	29
26	90	810	800	216	272	191	1,380	328	106	23	267	27
27	87	747	954	216	277	195	865	238	93	21	134	25
28	81	695	898	211	252	183	789	187	87	21	112	23
29	73	625	789	207	-	176	810	158	76	18	74	22
30	94	457	685	226	-	165	747	137	68	16	48	22
31	987	-	615	416	-	148	-	126	-	14	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	7,267	987	73	234	0.613	0.71	14,410
November	13,929	2,030	87	464	1.21	1.36	27,630
December	17,635	954	272	569	1.49	1.72	34,980
Cslendar year 1941	123,588.9	2,030	5.9	339	.888	12.04	245,100
January	10,232	546	207	330	.864	1.00	20,290
February	8,957	789	211	320	.838	.87	17,770
March	9,244	635	148	298	.780	.90	18,340
April	28,466	4,700	126	949	2.48	2.77	56,460
May	12,398	1,700	126	400	1.05	1.21	24,590
June	10,286	1,070	68	343	.898	1.00	20,400
July	1,274	72	14	41.1	.108	.12	2,530
August	1,975.2	364	1.6	63.7	.167	.19	3,920
September	2,464	494	22	82.1	.215	.24	4,890
Water year 1941-42	124,127.2	4,700	1.6	340	.890	12.09	246,200

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Angelina River near Alto, Tex.

Location.- Chain gage, lat. 31°40', long. 94°58', on bridge on State Highway 21, 3 miles upstream from Bingham Creek and 7 miles east of Alto, Cherokee County. Datum of gage is 204.3 feet above mean sea level, datum of 1929.

Drainage area.- 1,261 square miles.

Records available.- May to August 1940 (discharge measurements only). September 1940 to September 1942 (fragmentary).

Extremes.- Maximum discharge during year not determined; minimum observed, 40 second-feet Aug. 14.
1940-42: Maximum discharge not determined; minimum observed, 15 second-feet Oct. 25-28, 1940.

Remarks.- Records good. Discharge above 2,200 second-feet not computed. Gage read twice daily. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,200	1,930	-	-	792	744	620	-	696	545	99	825
2	1,270	-	-	-	808	944	590	-	545	650	94	474
3	1,240	-	-	-	927	1,030	545	-	474	620	94	329
4	1,110	-	-	2,040	1,050	1,110	516	-	407	516	89	265
5	910	-	1,840	1,840	1,200	1,260	488	1,980	368	446	79	265
6	665	-	1,620	1,720	1,270	1,350	474	1,650	433	433	74	265
7	516	-	1,480	1,700	1,290	1,480	530	1,480	420	433	67	329
8	420	-	1,370	1,620	1,290	1,650	1,130	1,310	446	420	62	516
9	407	-	1,330	1,590	1,270	1,670	1,670	1,200	545	407	56	712
10	502	-	1,270	1,540	1,270	1,700	1,620	1,110	744	381	53	859
11	620	1,720	1,290	1,500	1,200	1,700	-	1,020	1,030	368	48	1,050
12	635	1,350	1,350	1,450	1,110	1,700	-	927	1,220	329	47	1,180
13	635	1,040	1,390	1,390	1,030	1,670	-	808	1,350	290	48	1,260
14	680	792	1,430	1,330	980	1,590	-	712	1,810	241	43	1,480
15	776	635	1,480	1,270	927	1,500	-	696	-	229	42	1,720
16	980	545	1,590	1,200	893	1,370	-	635	-	206	43	1,780
17	1,110	488	1,720	1,120	876	1,240	-	605	-	184	67	1,590
18	1,220	460	2,040	1,070	876	1,090	-	914	-	173	104	1,310
19	1,390	446	-	1,020	893	980	-	1,790	-	151	134	910
20	1,720	516	-	980	910	876	-	1,500	-	151	140	474
21	-	605	2,110	944	910	792	1,930	1,670	-	151	151	342
22	-	-	1,980	910	876	728	1,620	1,980	-	151	253	290
23	2,110	1,980	1,930	893	859	680	1,430	-	-	151	381	277
24	1,750	-	1,750	859	825	680	1,480	-	-	151	488	316
25	1,410	-	1,670	842	792	650	1,480	-	1,670	151	635	290
26	1,050	-	1,700	808	760	635	1,930	-	1,200	140	859	290
27	665	-	1,670	792	728	620	1,780	-	792	119	1,180	265
28	488	-	1,750	760	696	635	1,840	-	545	114	1,370	217
29	460	-	1,880	744	-	696	-	1,780	446	114	1,430	195
30	560	-	2,110	792	-	696	-	1,370	407	119	1,350	173
31	-	-	-	842	-	665	-	1,030	-	109	1,160	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October							
November							
December							
Calendar year	- - - - - -	- - - - -	- - - - -	- - - -	- - - -	- - - -	- - - - - -
January 4-31	33,566	2,040	744	1,199	0.951	0.99	66,580
February	27,308	1,290	696	975	.773	.81	54,160
March	34,131	1,700	620	1,101	.873	1.01	67,700
April	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-
June	-	-	-	-	-	-	-
July	8,643	650	109	279	.221	.25	17,140
August	10,740	1,430	42	346	.274	.32	21,300
September	20,248	1,780	173	675	.535	.60	40,160
Water year	-	-	-	-	-	-	-

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Angelina River near Lufkin, Tex.

Location.- Water-stage recorder, lat. 31°27'40", long. 94°43'35", at bridge on State Highway 35, 400 feet upstream from Procella Creek, half a mile downstream from Little Loco Bayou, 1.5 miles upstream from Texas & New Orleans Railroad bridge, and 8 miles north of Lufkin, Angelina County. Datum of gage is 164.72 feet above mean sea level, datum of 1929.

Drainage area.- 1,575 square miles.

Records available.- October 1923 to September 1934, July 1939 to September 1942.

Average discharge.- 14 years, 1,302 second-feet.

Extremes.- Maximum discharge during year, 11,000 second-feet Oct. 31 (gage height, 13.92 feet); minimum, 80 second-feet Aug. 14.

1923-34, 1939-42: Maximum discharge, 38,200 second-feet Feb. 24, 1932; maximum gage height, 17.97 feet Nov. 28, 1940; minimum discharge, 2.3 second-feet Oct. 12, 1939.

Maximum stage known, about 26.5 feet in May 1884, from information by local residents.

Remarks.- Records good except those for period of no gage-height record, which are fair. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	702	8,770	4,550	2,160	1,690	1,010	825	2,340	2,120	895	154	1,210
2	842	5,880	4,440	a2,340	1,660	1,260	808	2,340	1,660	755	154	1,160
3	970	4,240	4,140	a2,490	1,370	1,490	755	2,440	1,260	702	140	912
4	1,080	3,410	3,800	a2,600	1,210	1,660	720	2,540	842	808	132	555
5	1,140	3,060	3,480	a2,600	1,180	1,720	685	2,600	685	912	128	420
8	1,140	2,990	3,130	a2,390	1,260	1,720	650	2,660	650	738	120	342
7	990	3,270	2,850	a2,300	1,340	1,830	685	2,660	702	615	114	384
8	842	3,720	2,540	a2,300	1,430	2,120	1,420	2,490	755	570	107	825
9	702	3,960	2,200	a2,390	1,600	2,160	2,660	2,200	772	542	98	990
10	632	3,880	1,910	a2,300	1,800	2,250	3,130	1,950	1,140	519	95	912
11	615	3,640	1,830	a2,030	1,760	2,250	3,340	1,720	1,580	486	92	895
12	702	3,270	1,950	a1,800	1,690	2,160	2,850	2,070	1,800	464	87	912
13	755	2,850	1,990	a1,620	1,580	2,120	2,440	1,830	1,800	442	82	f970
14	720	2,440	2,030	a1,520	1,490	2,070	2,440	1,520	1,800	398	82	f1,080
15	840	1,950	1,990	a1,620	1,370	2,070	2,920	1,490	2,070	360	87	1,210
16	1,180	1,430	1,870	a1,660	1,370	2,030	4,620	1,210	2,720	324	92	1,310
17	1,280	990	1,800	a1,580	1,370	1,950	6,110	1,010	2,990	292	98	1,460
18	1,310	825	1,720	a1,550	1,310	1,830	5,880	1,290	2,920	276	101	1,580
19	1,280	738	1,760	1,490	1,260	1,660	5,420	2,870	2,660	256	120	1,620
20	1,280	808	1,830	1,460	1,180	1,490	4,870	5,200	2,600	232	140	1,620
21	1,370	930	2,030	1,370	1,140	1,340	4,440	4,140	2,720	221	168	1,310
22	1,490	1,770	2,440	1,280	1,140	1,210	3,800	3,200	3,060	206	275	755
23	1,620	2,760	2,850	1,210	1,240	1,080	3,270	2,490	3,410	211	333	486
24	1,720	3,560	2,780	1,160	1,260	970	3,200	2,200	3,640	206	351	388
25	1,830	3,480	2,660	1,110	1,180	912	2,920	2,250	3,560	196	453	360
26	1,910	3,060	2,600	1,060	1,110	912	2,540	2,340	3,340	196	464	351
27	1,870	2,720	2,390	1,060	1,010	912	2,340	2,440	2,920	191	530	342
28	1,620	2,600	2,300	1,010	970	878	2,600	2,540	2,340	181	650	316
29	1,140	3,060	2,160	990	-	842	2,850	2,540	1,560	172	825	292
30	1,300	3,960	2,030	990	-	825	2,540	2,540	920	162	970	256
31	9,540	-	1,990	1,260	-	825	-	2,340	-	158	1,160	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	44,412	9,540	615	1,433	0.910	1.05	88,090
November	90,041	8,770	738	3,001	1.91	2.13	178,600
December	78,040	4,550	1,720	2,517	1.60	1.84	154,800
Calendar year 1941	711,896	9,540	98	1,950	1.24	16.81	1,412,000
January	52,700	2,600	990	1,700	1.08	1.24	104,500
February	37,970	1,800	970	1,356	.861	.90	75,310
March	47,556	2,250	825	1,534	.974	1.12	94,330
April	83,728	6,110	650	2,791	1.77	1.98	166,100
May	73,450	5,200	1,010	2,369	1.50	1.73	145,700
June	60,996	3,640	660	2,033	1.29	1.44	121,000
July	12,686	912	158	409	.260	.30	25,160
August	8,402	1,160	82	271	.172	.20	16,670
September	25,223	1,620	256	841	.534	.60	50,030
Water year 1941-42	615,204	9,540	82	1,685	1.07	14.53	1,220,000

a No gage-height record; discharge computed on basis of known range in stage, records for station near Alto, and weather records.

f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Angelina River at Horger, Tex.

Location.- Chain gage, lat. 31°00', long. 94°10', on bridge on State Highway 63, a quarter of a mile east of Horger, Jasper County, 7 miles upstream from Indian Creek, and 20 miles upstream from mouth. Datum of gage is 68.4 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 3,435 square miles.

Records available.- March 1928 to September 1942.

Average discharge.- 14 years, 3,015 second-feet.

Extremes.- Maximum discharge observed during year, 31,900 second-feet Nov. 5 (gage height, 33.41 feet); minimum observed, 220 second-feet Aug. 16.

1928-42: Maximum discharge, 48,800 second-feet Feb. 24, 1932 (gage height, 36.35 feet, from graph based on gage readings); minimum observed, 13 second-feet Sept. 22, 1937.

Maximum discharge known, 82,000 second-feet August 1915 (gage height, 39.5 feet, information by local residents), from rating curve extended above 47,000 second-feet by logarithmic plotting.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Gage read twice daily. Occasional backwater from Neches River. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,680	12,100	6,970	6,160	a2,720	3,060	1,730	6,380	3,540	3,720	387	2,670
2	1,500	18,300	7,040	6,160	2,720	4,640	1,640	5,810	3,300	3,540	371	2,280
3	1,380	23,800	6,830	6,760	2,670	5,320	1,600	5,200	3,240	3,240	355	1,870
4	1,380	30,900	6,550	7,130	2,620	4,870	1,550	4,740	3,060	2,780	344	1,640
5	1,420	31,400	6,060	6,680	2,750	6,340	1,500	6,020	2,940	1,920	336	1,600
6	1,500	27,600	5,710	5,880	2,890	7,800	1,460	5,060	2,780	1,680	317	1,500
7	1,420	23,900	5,640	5,260	2,940	7,880	2,340	4,480	2,180	1,600	304	1,370
8	1,420	20,700	5,640	4,940	2,840	7,500	6,120	4,220	1,680	1,780	288	1,120
9	1,500	18,500	5,640	4,870	2,780	7,800	10,400	3,900	1,460	1,500	275	960
10	1,500	16,200	5,500	4,870	3,240	7,730	12,000	3,720	1,970	1,320	267	960
11	1,420	13,900	5,440	4,800	3,900	7,060	12,400	3,660	2,730	1,180	257	1,160
12	1,260	11,800	5,370	4,740	3,660	6,600	11,900	3,900	3,960	1,040	244	1,550
13	1,190	10,200	5,370	4,680	3,300	6,160	11,000	4,740	4,160	960	237	1,640
14	1,080	8,650	5,300	4,540	3,120	5,740	10,100	5,200	3,840	900	234	1,680
15	1,310	7,460	5,180	4,350	3,120	5,390	9,230	6,090	3,540	840	225	1,730
16	3,130	6,480	4,920	4,090	3,780	5,130	8,480	5,600	3,540	774	234	1,730
17	4,520	5,710	4,660	3,840	5,130	4,800	8,030	4,680	3,720	758	278	1,820
18	3,900	5,040	4,520	3,600	5,600	4,480	7,500	3,900	3,780	726	418	1,920
19	3,240	4,460	4,400	3,960	4,740	4,160	6,680	3,900	3,780	680	432	1,680
20	2,720	4,020	4,280	3,780	3,900	3,780	6,230	4,540	3,960	680	590	1,500
21	2,250	3,480	4,160	3,360	3,360	3,600	6,160	4,800	4,540	650	1,270	1,500
22	1,950	4,020	4,510	3,180	3,060	3,180	6,090	4,800	5,000	605	4,350	1,550
23	1,860	5,370	6,230	3,000	3,240	2,940	6,090	4,800	5,000	695	6,230	1,600
24	1,680	5,850	6,680	2,940	4,900	2,720	7,360	4,940	4,870	840	7,130	1,640
25	1,540	5,300	5,950	2,780	5,060	2,500	8,260	5,200	4,740	575	8,180	1,550
26	1,500	5,370	5,600	2,670	4,280	2,400	8,480	5,320	4,480	502	8,860	1,280
27	1,540	5,780	5,390	2,560	3,600	2,230	8,260	5,390	4,350	488	8,860	860
28	1,590	5,990	5,460	2,400	3,000	2,120	8,000	5,260	4,090	460	7,500	695
29	1,640	6,270	5,460	2,280	-	2,020	7,500	5,000	3,960	432	4,300	620
30	1,680	6,690	5,530	a2,400	-	1,920	6,980	4,610	3,840	432	3,000	575
31	7,880	-	5,670	a2,560	-	1,820	-	3,960	-	404	2,840	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	63,580	7,880	1,080	2,051	0.597	0.69	126,100
November	355,240	31,400	3,480	11,840	3.45	3.85	704,600
December	171,660	7,040	4,160	5,537	1.61	1.86	340,500
Calendar year 1941	1,944,290	31,400	344	5,327	1.55	21.06	3,856,000
January	131,220	7,130	2,280	4,233	1.23	1.42	260,300
February	98,950	5,600	2,620	3,534	1.03	1.07	196,300
March	143,690	7,880	1,820	4,635	1.35	1.56	285,000
April	205,070	12,400	1,460	6,836	1.99	2.22	406,800
May	149,820	6,380	3,660	4,833	1.41	1.62	297,200
June	108,030	5,000	1,460	3,601	1.05	1.17	214,300
July	37,681	3,720	404	1,216	.354	.41	74,740
August	68,913	8,860	225	2,223	.647	.75	136,700
September	44,250	2,670	575	1,475	.429	.48	87,770
Water year 1941-42	1,578,104	31,400	225	4,324	1.26	17.10	3,130,000

a No gage-height record; discharge computed from graph based on gage readings of adjoining days.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Striker Creek near Summerfield, Tex.

Location.- Chain gage, lat. 32°00'10", long. 94°59'35", on bridge on U. S. Highway 79, 3½ miles downstream from Johnson Creek and 6½ miles northeast of Summerfield, Cherokee County. Datum of gage is 287.0 feet above mean sea level, datum of 1929.

Drainage area.- 135 square miles.

Records available.- May to August 1940 (discharge measurements only). September 1940 to September 1942.

Extremes.- Maximum discharge during year, 3,390 second-feet Oct. 16 (gage height, 11.50 feet, from graph based on gage readings); minimum observed, 7.4 second-feet Aug. 11, 12.

1940-42: Maximum discharge, 10,800 second-feet Nov. 24, 1940 (gage height, 17.23 feet, from floodmark), from rating curve extended above 5,000 second-feet by velocity-area studies; minimum observed, 4.7 second-feet Oct. 25, 28, 1940.

Remarks.- Records good. Gage read twice daily, oftener during floods. No large diversion above station.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

2.5	6.6	5.0	101	8.0	890
2.8	13.4	5.5	163	8.5	1,170
3.0	18.2	6.0	248	9.0	1,490
3.5	31.0	6.5	358	9.5	1,830
4.0	46.2	7.0	494	10.0	2,190
4.5	66.1	7.5	660	11.0	2,970

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	2,490	118	148	940	116	59	122	30	47	13	44
2	51	1,380	111	151	604	148	56	97	30	69	12	40
3	40	555	161	174	308	362	54	82	33	134	11	37
4	44	282	287	182	137	397	52	74	30	246	11	34
5	49	171	334	214	138	284	51	72	28	78	9.9	31
6	60	134	239	226	119	225	52	115	29	51	9.5	30
7	64	114	179	192	110	234	59	115	107	49	8.8	32
8	79	101	142	163	103	237	586	89	452	49	8.4	45
9	85	88	113	176	98	212	2,720	72	410	50	8.0	101
10	139	77	100	168	107	216	1,850	64	650	52	7.6	820
11	380	67	125	145	120	210	758	55	768	46	7.6	1,760
12	466	63	241	129	127	169	367	51	482	37	7.6	862
13	330	60	472	121	120	138	223	49	274	30	8.2	357
14	179	58	634	114	99	119	168	48	327	26	9.7	174
15	138	56	424	111	90	107	150	46	1,560	23	9.7	92
16	1,760	56	288	107	95	101	140	46	1,490	22	8.8	59
17	2,400	55	214	105	111	92	122	44	814	20	9.2	45
18	1,100	55	174	99	140	91	102	61	413	19	9.2	39
19	407	56	148	100	145	76	89	236	210	18	9.9	36
20	197	89	135	101	121	70	97	815	122	17	32	36
21	126	182	134	98	99	66	116	496	84	18	43	69
22	90	644	148	93	87	67	189	241	64	29	138	138
23	73	2,290	223	88	85	64	198	136	56	24	1,360	106
24	62	2,120	413	84	85	63	205	91	50	22	1,780	65
25	56	953	509	82	122	63	296	73	48	19	744	44
26	49	440	452	82	198	78	553	64	44	18	358	35
27	49	258	410	80	168	94	722	55	39	16	225	29
28	53	187	346	78	124	99	475	48	35	15	166	25
29	54	142	248	77	-	96	267	42	32	14	102	25
30	75	129	182	84	-	78	176	38	36	13	71	24
31	1,520	-	158	236	-	66	-	34	-	12	57	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	10,257	2,400	40	331	2.45	2.83	20,340
November	13,352	2,490	55	445	3.30	3.68	26,480
December	7,862	634	100	254	1.88	2.17	15,590
Calendar year 1941	79,065.8	2,490	9.9	217	1.61	21.79	156,800
January	4,008	236	77	129	.956	1.10	7,950
February	4,850	940	85	173	1.28	1.34	9,620
March	4,438	397	63	143	1.06	1.22	8,800
April	10,952	2,720	51	365	2.70	3.02	21,720
May	3,671	815	34	118	.874	1.01	7,280
June	8,747	1,560	28	292	2.16	2.41	17,350
July	1,283	246	12	41.4	.307	.35	2,540
August	5,255.1	1,780	7.6	170	1.26	1.45	10,420
September	5,234	1,760	24	174	1.29	1.44	10,380
Water year 1941-42	79,909.1	2,720	7.6	219	1.62	22.02	158,500

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Attoyac Bayou near Chireno, Tex.

Location.- Water-stage recorder, lat. 31°30'15", long. 94°18'15", at bridge on State Highway 21, 3 miles northeast of Chireno, Nacogdoches County, and 7 miles downstream from Arenoso Creek. Datum of gage is 169.9 feet above mean sea level, datum of 1929.

Drainage area.- 502 square miles.

Records available.- January 1924 to August 1925, July 1939 to September 1942.

Extremes.- Maximum discharge during year, 26,600 second-feet Nov. 1 (gage height, 24.62 feet); minimum, 54 second-feet Aug. 14.
1924-25, 1939-42: Maximum discharge, 31,900 second-feet Nov. 24, 1940 (gage height, 25.97 feet); minimum observed, 7.0 second-feet Aug. 27, 1925.
Maximum stage known, 29.9 feet in June 1912 (result of local storm), from information by local residents.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	854	23,200	1,200	939	763	480	294	801	182	267	80	240
2	806	10,400	950	854	814	758	285	868	170	208	71	204
3	416	4,410	708	827	882	868	276	818	289	182	66	190
4	226	2,930	552	882	939	910	276	538	286	178	66	178
5	200	2,280	492	939	954	1,110	267	372	200	231	62	160
6	200	1,880	472	969	868	1,340	267	332	182	204	62	150
7	222	1,680	442	985	639	1,520	403	362	213	200	60	143
8	195	1,420	412	985	482	1,740	1,090	422	240	213	58	164
9	186	1,240	392	910	452	1,860	1,880	372	387	186	56	452
10	195	1,020	372	788	562	1,680	2,310	332	730	164	58	638
11	190	728	477	682	605	1,460	3,240	322	950	146	62	827
12	200	502	751	594	594	1,380	2,600	342	1,020	133	58	1,090
13	186	422	882	522	552	1,270	2,070	392	969	123	56	1,270
14	170	392	924	482	492	1,100	1,740	362	1,070	113	56	1,080
15	215	372	924	462	452	893	1,420	352	1,240	107	60	504
16	422	352	954	442	537	660	1,170	332	2,370	104	88	222
17	552	342	985	432	649	532	828	276	3,290	110	232	182
18	583	332	1,000	422	671	462	532	392	2,280	133	392	170
19	594	322	1,000	452	638	422	432	728	1,800	136	332	164
20	532	422	954	522	572	392	402	801	1,520	110	276	153
21	342	627	788	572	512	382	542	727	1,270	102	182	190
22	231	1,100	752	512	452	372	492	704	1,040	94	1,340	182
23	190	1,540	939	432	523	382	392	775	759	91	1,950	182
24	174	2,760	1,040	402	616	412	442	854	594	91	2,200	156
25	164	4,860	1,170	382	552	392	552	924	412	86	2,150	133
26	153	3,240	1,950	372	492	432	583	836	303	83	1,800	120
27	150	2,380	1,990	402	432	472	660	503	258	78	1,470	113
28	143	1,950	1,680	452	392	422	660	332	231	76	1,170	107
29	139	1,680	1,420	432	-	392	660	267	204	73	680	99
30	398	1,420	1,240	442	-	352	727	226	195	71	299	96
31	11,800	-	1,070	631	-	312	-	204	-	76	276	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	21,028	11,800	139	678	1.35	1.56	41,710
November	76,203	23,200	322	2,540	5.06	5.65	151,100
December	28,882	1,990	372	932	1.86	2.14	57,290
Calendar year 1941	350,564	23,200	76	960	1.91	25.97	695,300
January	19,121	985	372	617	1.23	1.42	37,930
February	17,088	954	392	610	1.22	1.27	33,890
March	25,179	1,880	312	812	1.62	1.87	49,940
April	27,492	3,240	267	916	1.82	2.04	54,530
May	15,866	924	204	512	1.02	1.18	31,470
June	24,654	3,290	170	822	1.64	1.83	48,900
July	4,169	267	71	134	.267	.31	8,270
August	15,768	2,200	56	509	1.01	1.17	31,280
September	9,559	1,270	96	319	.635	.71	18,960
Water year 1941-42	285,011	23,200	56	781	1.56	21.15	565,300

Peak discharge.- Nov. 1 (4 a.m.) 26,600 sec.-ft.; Nov. 25 (4 a.m.) 5,360 sec.-ft.; June 16 (10 p.m.) 4,000 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Village Creek near Kountze, Tex.

Location.- Water-stage recorder, lat. 30°24', long. 94°16', on bridge on Kountze-Silsbee county highway, 1.2 miles upstream from Gulf, Colorado & Santa Fe Railway bridge, 3.2 miles northeast of Kountze, Hardin County, and 4¾ miles downstream from Beech Creek. Datum of gage is 25.1 feet above mean sea level, datum of 1929.

Drainage area.- 837 square miles.

Records available.- May 1924 to November 1929, April 1939 to September 1942. October 1927 to November 1929 (discharge measurements only).

Extremes.- Maximum discharge during year, 22,000 second-feet Nov. 2 (gage height, 21.60 feet); minimum, 141 second-feet Aug. 13.

1924-27, 1939-42: Maximum discharge, 67,200 second-feet Nov. 26, 1940 (gage height, 27.6 feet, from floodmark), from rating curve extended above 35,000 second-feet by logarithmic plotting; minimum, 32 second-feet Sept. 28, 1939.

Maximum stage known, 34 feet, present site and datum, August 1915. Flood of May 27, 1929, reached a stage of about 32 feet, present site and datum. Above stages were determined on basis of information by engineers of Gulf, Colorado & Santa Fe Railway for site 1.2 miles downstream.

Remarks.- Records good. No diversion above station.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

2.9	141	11.0	1,780	17.0	8,050
4.0	255	12.0	2,200	18.0	10,200
5.0	386	13.0	2,600	19.0	12,800
6.0	550	14.0	3,550	20.0	16,000
8.0	970	15.0	4,650	21.0	19,500
10.0	1,450	16.0	6,150		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	690	4,230	666	1,340	816	816	372	1,550	291	291	255	1,080
2	466	16,700	606	1,850	723	1,010	356	1,100	273	279	255	1,010
3	386	17,800	586	2,050	666	1,300	344	904	255	261	233	970
4	351	9,460	568	2,200	626	1,400	344	794	244	298	228	816
5	337	6,010	568	1,930	550	1,890	351	706	238	422	216	626
6	386	4,300	550	1,600	498	2,440	622	686	233	941	206	498
7	386	3,280	514	1,400	482	2,680	1,760	706	238	1,420	190	724
8	666	2,500	498	1,220	466	3,010	5,050	666	250	1,740	180	1,640
9	586	1,910	466	1,150	450	3,080	10,200	686	298	1,670	170	2,620
10	482	1,570	450	1,100	434	2,870	14,000	728	330	1,400	160	2,620
11	402	1,290	450	1,040	482	2,440	10,200	666	647	977	150	1,970
12	358	1,010	482	948	586	1,800	5,970	1,450	1,490	568	146	1,480
13	324	882	550	838	666	1,300	4,090	2,200	1,970	434	141	1,250
14	291	794	666	772	626	1,040	3,020	2,260	2,500	351	160	860
15	273	728	706	723	568	926	2,080	2,010	2,620	304	250	586
16	471	686	666	686	826	860	1,420	1,670	2,150	310	255	482
17	1,050	646	606	646	1,610	794	1,200	1,320	1,740	235	228	466
18	1,580	606	532	626	2,150	728	1,150	1,100	1,270	279	200	882
19	2,100	586	498	750	2,320	626	1,010	882	838	291	195	926
20	2,500	568	482	686	2,100	586	992	860	606	273	216	816
21	2,040	606	466	646	1,640	568	1,320	838	482	267	328	706
22	1,250	666	482	606	1,220	586	1,570	750	686	310	1,930	514
23	838	838	626	568	1,130	532	1,740	606	686	1,480	2,940	418
24	606	992	838	532	1,540	514	2,100	498	646	2,010	4,940	358
25	498	1,180	1,010	514	1,570	514	2,680	450	550	1,780	8,850	324
26	450	1,350	1,200	482	1,350	550	3,310	466	402	1,270	6,250	298
27	418	1,420	1,300	514	1,200	550	3,650	450	317	583	4,300	279
28	394	1,320	1,270	550	992	498	3,650	402	279	394	3,070	310
29	402	1,080	1,130	568	-	450	3,150	372	261	351	2,100	337
30	577	794	926	550	-	418	2,380	337	250	317	1,320	324
31	1,760	-	794	666	-	386	-	310	-	273	1,130	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	23,318	2,500	273	752	0.899	1.04	46,250
November	85,802	17,800	568	2,860	3.42	3.81	170,200
December	21,152	1,300	450	682	.815	.94	41,950
Calendar year 1941	484,776	17,800	132	1,328	1.59	21.52	961,600
January	29,756	2,200	482	960	1.15	1.32	59,020
February	28,292	2,320	434	1,010	1.21	1.26	56,120
March	37,162	3,080	386	1,199	1.43	1.65	73,710
April	90,033	14,000	344	3,003	3.59	4.00	178,700
May	28,443	2,260	310	918	1.10	1.26	56,420
June	23,040	2,620	233	768	.918	1.02	45,700
July	21,829	2,010	261	704	.841	.97	43,300
August	41,192	8,850	141	1,329	1.59	1.83	81,700
September	26,190	2,620	279	873	1.04	1.16	51,950
Water year 1941-42	456,259	17,800	141	1,250	1.49	20.26	905,000

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

West Fork of Trinity River at Fort Worth, Tex.

Location.- Water-stage recorder above spillway of Fort Worth Power & Light Co. concrete dam, lat. 32°46', long. 97°20', in old pump house of Fort Worth Power & Light Co.'s plant in Fort Worth, Tarrant County, 150 feet upstream from Paddock viaduct and a quarter of a mile downstream from Clear Fork. Datum of gage is 519.2 feet above mean sea level (Texas Reclamation Department bench mark based on Coast & Geodetic Survey datum).

Drainage area.- 2,431 square miles.

Records available.- October 1920 to September 1942. U. S. Weather Bureau has collected gage-height records in this vicinity since 1910.

Average discharge.- 22 years, 473 second-feet.

Extremes.- Maximum discharge during year, 23,700 second-feet Apr. 24 (gage height, 17.57 feet); minimum, 16 second-feet Feb. 5, Apr. 3, Aug. 15, 16.

1920-42: Maximum discharge, 85,000 second-feet, Apr. 25, 1922 (gage height, 23.95 feet), by slope-area method, data furnished by City engineer of Fort Worth; no flow at times.

Remarks.- Records good. Considerable diversion above station for municipal supply. Flow partly regulated by Bridgeport, Eagle Mountain, and Lake Worth Reservoirs (combined capacity, 527,000 acre-feet).

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 13 to Mar. 16)

1.1	18	2.0	364	6.0	5,170
1.2	37	2.4	620	8.0	7,800
1.3	61	2.8	910	10.0	10,100
1.4	92	3.2	1,240	12.0	12,400
1.6	168	4.0	2,160	14.0	14,800
1.8	258	5.0	3,570	16.0	18,400

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	736	1,740	540	130	35	634	20	8,030	3,120	2,360	27	1,680
2	985	1,740	620	577	31	684	23	6,840	2,900	2,360	27	1,620
3	770	1,740	566	955	29	566	18	6,180	2,760	2,360	27	1,680
4	955	1,740	560	1,040	27	586	20	5,480	2,620	2,290	25	1,620
5	1,530	1,740	586	1,070	25	600	20	5,170	2,690	2,290	23	1,300
6	1,800	1,980	560	1,070	35	488	81	5,480	2,760	2,290	23	821
7	2,220	2,220	546	1,100	29	566	712	4,850	3,040	2,220	23	1,300
8	2,420	2,220	566	1,080	29	677	6,630	4,530	2,690	1,330	22	1,270
9	2,360	2,220	553	1,090	29	482	2,980	4,370	2,690	1,360	22	1,520
10	2,360	1,980	560	1,090	56	488	1,980	4,370	2,690	2,040	22	1,560
11	2,360	1,460	781	1,090	246	540	2,480	4,210	2,550	2,160	55	1,620
12	2,360	1,190	825	925	401	560	2,760	3,890	1,860	1,560	29	1,150
13	2,360	1,120	698	705	475	553	5,190	3,650	1,450	1,230	22	463
14	2,360	1,130	641	778	527	534	4,630	3,420	1,310	1,130	23	208
15	2,420	1,130	866	992	586	527	3,120	3,200	5,420	1,090	18	109
16	2,080	1,120	1,060	1,060	641	593	2,970	2,900	3,130	858	18	69
17	1,740	1,100	1,090	1,320	580	356	3,040	2,760	2,220	648	128	46
18	1,680	1,100	1,110	1,620	573	174	2,830	2,900	2,620	553	101	192
19	1,440	910	748	1,620	482	75	3,270	16,500	2,690	382	39	727
20	1,230	734	331	1,320	508	67	16,000	7,690	2,690	194	33	910
21	925	458	172	698	514	69	8,760	4,210	2,620	117	114	955
22	691	284	136	294	520	44	3,890	5,480	2,550	a82	324	858
23	394	190	216	156	627	35	5,670	5,480	1,770	a61	506	641
24	198	109	64	99	573	35	17,700	4,850	1,230	46	712	566
25	140	69	67	64	456	37	16,300	4,370	1,210	39	1,240	394
26	355	56	53	64	553	39	9,930	4,210	1,230	95	1,160	234
27	477	48	39	64	494	31	11,400	4,050	1,860	44	1,090	91
28	1,180	97	35	41	482	27	14,700	4,050	2,290	44	1,060	46
29	1,500	322	33	33	-	27	11,200	3,890	2,360	37	1,060	33
30	1,850	475	31	92	-	25	9,520	3,650	2,360	33	1,180	27
31	1,920	-	33	51	-	22	-	3,340	-	29	1,540	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	45,796	2,420	140	1,477	90,840
November	32,422	2,220	48	1,081	64,310
December	14,706	1,110	31	474	29,170
Calendar year 1941	560,352	9,140	25	1,535	1,111,000
January	22,288	1,620	33	719	44,210
February	9,565	641	25	342	18,970
March	10,141	684	22	327	20,110
April	167,844	17,700	18	5,595	332,900
May	154,000	16,500	2,760	4,968	305,500
June	73,380	5,420	1,210	2,446	145,500
July	31,332	2,360	29	1,011	62,150
August	10,695	1,540	18	345	21,210
September	23,710	1,680	27	790	47,030
Water year 1941-42	595,879	17,700	18	1,633	1,182,000

Peak discharge.- Apr. 13 (4:30 p.m.) 7,920 sec.-ft.; Apr. 20 (12:30 p.m.) 20,000 sec.-ft.; Apr. 24 (11 p.m.) 23,700 sec.-ft.; Apr. 28 (8 a.m.) 16,400 sec.-ft.; May 19 (11:30 a.m.) 22,900 sec.-ft.; June 15 (11 a.m.) 9,180 sec.-ft.

a No gage-height record; discharge computed on basis of discharge for adjoining days.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

West Fork of Trinity River at Grand Prairie, Tex.

Location.- Water-stage recorder, lat. 32°46', long. 96°59', 440 feet downstream from bridge on Grand Prairie-Sowers-Irving highway, 1 mile northeast of Grand Prairie, Dallas County, and 6 miles upstream from Mountain Creek. Datum of gage is 412.98 feet above mean sea level, datum of 1929.

Drainage area.- 2,886 square miles.

Records available.- March 1925 to September 1942.

Average discharge.- 17 years, 606 second-feet.

Extremes.- Maximum discharge during year, 27,200 second-feet Apr. 25 (gage height, 25.98 feet), from rating curve extended above 14,000 second-feet on basis of velocity-area study; minimum, 53 second-feet Apr. 5.

1925-42: Maximum discharge, that of April 25, 1942; minimum observed, 3.2 second-feet June 6, 1925.

Maximum stage known, 29 feet in April 1922.

Remarks.- Records good except those for periods of no gage-height record and those above 14,000 second-feet, which are fair. Many small diversions above gage; largest of which is for municipal supply of Fort Worth. Flow partly regulated by Bridgeport, Eagle Mountain, and Lake Worth Reservoirs (combined capacity, 527,000 acre-feet).

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 17 to July 2)

2.1	54	5.0	633	12.0	2,760	22.0	7,980
2.5	107	6.0	885	14.0	3,560	23.0	9,970
3.0	167	7.0	1,150	16.0	4,390	24.0	14,200
3.5	254	8.0	1,420	18.0	5,320	25.0	20,200
4.0	396	10.0	2,010	20.0	6,410	26.0	27,200

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	702	1,980	513	112	150	561	60	10,600	3,440	2,520	90	1,620
2	2,880	1,820	597	185	103	608	61	9,340	3,160	2,480	87	1,670
3	1,230	1,760	658	683	97	758	64	8,190	2,960	2,440	80	1,640
4	937	1,820	597	1,070	96	633	64	7,000	2,800	2,400	76	1,640
5	1,260	1,760	585	1,150	94	683	59	5,990	2,680	2,360	75	1,590
6	1,820	1,820	609	1,150	90	633	66	5,720	3,120	2,360	71	1,200
7	2,080	2,080	573	1,180	93	537	260	5,870	3,480	2,360	71	2,150
8	2,720	2,320	573	1,200	94	683	4,790	5,320	3,280	2,150	71	2,300
9	2,600	2,320	597	1,150	83	733	8,840	4,840	3,160	1,280	70	1,450
10	2,520	2,290	573	1,200	82	549	4,830	4,660	3,000	1,630	65	1,620
11	2,440	1,920	727	1,180	94	549	2,440	4,570	2,760	2,150	71	1,620
12	2,440	1,460	963	1,180	278	597	2,840	4,340	2,440	2,120	121	1,590
13	2,440	1,260	963	911	442	609	3,860	4,040	1,760	1,500	97	1,000
14	2,400	1,200	758	733	513	597	7,900	3,720	1,500	1,260	75	454
15	2,440	1,200	708	911	585	573	7,290	3,520	4,260	1,200	69	276
16	2,440	1,200	989	1,100	688	573	4,130	3,240	7,870	1,120	69	192
17	2,040	1,200	1,180	1,200	708	633	3,400	2,960	3,860	833	66	150
18	1,790	1,200	1,200	1,500	658	364	3,240	3,000	2,760	658	127	122
19	1,670	1,180	1,180	1,730	609	234	3,040	8,030	3,000	573	178	273
20	1,450	937	697	1,670	537	153	12,800	17,100	3,040	408	104	783
21	1,260	733	384	1,280	561	114	21,200	11,500	2,960	276	83	911
22	937	477	261	658	561	136	13,000	6,640	2,880	a214	138	963
23	708	373	239	350	573	97	7,310	6,110	2,720	a200	370	783
24	442	271	305	243	708	80	11,700	5,930	1,750	a194	513	609
25	294	205	177	191	597	76	24,900	5,470	1,450	a191	875	537
26	257	167	139	151	513	75	17,900	4,880	1,450	a187	1,280	396
27	373	143	151	134	609	80	12,800	4,660	1,530	192	1,180	274
28	639	130	120	147	537	74	11,900	4,440	2,150	134	1,120	170
29	1,340	162	107	126	-	70	14,200	4,340	2,480	112	1,100	112
30	1,680	390	106	108	-	64	12,400	4,040	2,520	106	1,100	92
31	2,290	-	107	139	-	59	-	3,720	-	97	1,310	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	50,519	2,880	257	1,630	100,200
November	35,778	2,320	130	1,193	70,960
December	17,336	1,200	106	559	34,390
Calendar year 1941	681,376	11,400	62	1,867	1,352,000
January	24,722	1,730	108	797	49,040
February	10,723	708	82	383	21,270
March	12,405	808	59	400	24,600
April	217,344	24,900	59	7,245	431,100
May	183,780	17,100	2,960	5,928	364,500
June	86,220	7,870	1,450	2,874	171,000
July	35,705	2,520	97	1,152	70,820
August	10,802	1,310	65	348	21,430
September	28,187	2,300	92	940	55,910
Water year 1941-42	713,521	24,900	59	1,955	1,415,000

Peak discharge.- Apr. 9 (9 a.m.) 9,040 sec.-ft.; Apr. 14 (3 p.m.) 8,500 sec.-ft.; Apr. 21 (1 a.m.) 24,900 sec.-ft.; Apr. 25 (6:30 a.m.) 27,200 sec.-ft.; May 20 (8:30 a.m.) 19,600 sec.-ft.; June 16 (9:30 a.m.) 8,350 sec.-ft.

a No gage-height record; discharge computed on basis of engineer's notes and weather records.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Trinity River at Dallas, Tex.

Location.- Water-stage recorder, lat. 32°47', long. 96°48', at Commerce Street viaduct in Dallas, Dallas County, 5¼ miles downstream from confluence of West and Elm Forks. Datum of gage is 368.14 feet above mean sea level, datum of 1929.

Drainage area.- 6,001 square miles.

Records available.- July 1903 to July 1930, October 1932 to September 1942 (January 1907 to September 1920, monthly records only, in Water-Supply Paper 850). October 1898 to December 1899 (gage heights only), at site 2 miles upstream. July 1930 to September 1932, at site 6 miles downstream. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 39 years (1903-42), 1,516 second-feet.

Extremes.- Maximum discharge during year, 111,000 second-feet Apr. 26 (gage height, 45.56 feet); minimum, 208 second-feet Apr. 1, 5.
1903-42: Maximum discharge, 184,000 second-feet May 25, 1908 (gage height, 52.6 feet), from rating curve extended above 76,000 second-feet by logarithmic plotting; minimum discharge observed for periods 1903-6, 1920-42, 6.8 second-feet Sept. 11, 1924.

Remarks.- Records fair. Discharge for periods of backwater occurring at times of falling stages after floods of more than about 15,000 second-feet computed from backwater curve based on discharge measurements. Only known diversions are for municipal supply. Flow partly regulated by Bridgeport, Eagle Mountain, Lake Worth, Mountain Creek, and Lake Dallas Reservoirs (combined capacity, 757,000 acre-feet, revised).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	729	5,110	844	400	404	778	215	19,200	4,600	3,000	400	1,800
2	3,580	4,980	925	408	292	900	228	15,000	3,940	3,000	400	1,900
3	3,640	4,550	975	816	282	925	225	12,000	3,560	2,950	386	1,850
4	2,170	4,180	950	1,220	288	950	235	9,200	3,280	2,900	366	1,900
5	3,720	3,910	1,000	1,330	290	950	225	8,010	3,280	2,840	355	1,850
6	3,880	3,630	975	1,360	278	950	272	g8,190	5,340	2,840	352	g1,580
7	5,980	3,880	925	1,360	272	800	1,490	g8,910	12,000	2,840	352	g2,150
8	8,440	4,190	875	1,410	278	925	13,200	g9,000	14,500	2,730	349	g5,650
9	5,760	4,220	875	1,360	268	1,020	27,400	g8,460	10,600	1,960	366	2,370
10	4,100	4,160	825	1,380	255	875	35,800	g8,190	6,900	1,850	369	2,240
11	3,610	3,930	846	1,380	252	850	31,100	g7,920	4,910	2,460	394	2,070
12	3,280	4,470	1,410	1,380	372	875	18,900	g7,740	4,100	2,620	408	2,020
13	3,280	2,060	1,830	1,220	600	875	14,200	g7,320	3,610	2,070	428	1,520
14	3,280	1,680	1,580	1,020	688	875	16,100	g7,000	3,390	1,740	376	g875
15	3,280	1,580	1,200	1,080	778	850	15,100	g6,100	8,720	1,630	362	642
16	3,720	1,580	1,370	1,280	900	850	13,900	g4,160	18,600	1,520	404	532
17	3,500	1,580	1,630	1,360	925	875	12,100	g3,280	16,100	1,300	492	464
18	2,510	1,520	1,630	1,630	875	688	8,140	g7,450	11,500	1,120	439	442
19	2,070	1,580	1,580	1,960	850	50e	7,080	g20,400	7,680	1,050	560	460
20	1,740	1,330	1,180	1,960	755	390	42,500	g31,000	5,580	900	456	950
21	1,520	1,150	800	1,630	778	307	85,800	g31,000	4,490	688	414	1,150
22	1,140	952	642	875	800	325	47,600	g20,900	4,320	600	425	1,200
23	912	800	580	688	778	290	30,400	14,700	5,620	532	688	g1,120
24	671	755	642	540	778	268	36,600	10,000	5,720	464	900	g900
25	496	665	560	468	825	268	66,000	8,010	4,930	450	1,100	g778
26	630	580	468	436	732	255	103,000	8,010	4,600	472	1,580	g665
27	862	560	468	390	800	250	77,800	8,010	2,680	504	1,580	g560
28	1,000	520	425	394	778	242	46,700	7,650	2,680	472	1,520	g450
29	1,680	492	400	383	-	248	31,500	7,400	2,950	432	1,410	g349
30	2,270	69e	390	390	-	22e	25,900	7,080	3,000	41e	1,380	g316
31	4,250	-	394	376	-	218	-	6,010	-	408	1,520	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	87,700	8,440	496	2,829	174,000
November	71,492	5,110	492	2,383	141,800
December	29,196	1,830	390	942	57,910
Calendar year 1941	1,411,374	60,300	154	3,867	2,800,000
January	31,884	1,960	376	1,029	63,240
February	16,171	925	252	578	32,070
March	19,606	1,020	218	633	38,890
April	811,510	103,000	215	27,050	1,610,000
May	337,300	31,000	3,280	10,880	669,000
June	193,180	18,600	2,680	6,439	383,200
July	48,760	3,000	408	1,573	96,710
August	20,531	1,580	349	662	40,720
September	40,953	5,850	316	1,365	81,230
Water year 1941-42	1,708,285	103,000	215	4,680	3,389,000

g Computed from graph based on gage readings furnished by U. S. Weather Bureau.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Trinity River near Rosser, Tex.

Location.- Water-stage recorder, lat. 32°25'40", long. 96°27'50", at bridge on State Highway 34, 1.4 miles downstream from Texas & New Orleans Railroad bridge, 1.9 miles downstream from East Fork, and 2.5 miles south of Rosser, Kaufman County. Datum of gage is 302.6 feet above mean sea level, datum of 1929.

Drainage area.- 8,057 square miles.

Records available.- November 1938 to September 1942. July 1924 to September 1925 (gage heights only), at site 1.7 miles upstream.

Extremes.- Maximum gage height, 41.55 feet Apr. 22, just prior to levee breaks; maximum discharge not determined but occurred Apr. 23 or 24 following numerous breaks in levee system on both banks; minimum, 366 second-feet Aug. 9.

1924, 1938-42: Maximum gage height, that of Apr. 22, 1942; maximum discharge not determined but occurred Apr. 23 or 24, 1942 following numerous breaks in levee system on both banks; minimum, 34 second-feet Sept. 8-11, 1924.

Flood of May 1908 reached a stage of about 33.0 feet, present site and datum, from information by Corps of Engineers, U. S. Army. (Discharge believed to have been approximately same as that of April 23 or 24, 1942.) Levee system constructed in 1916.

Remarks.- Records good except those for periods of no gage-height record or indefinite stage-discharge relation, which are poor. No diversions above station except for municipal supply. Flow partly regulated by reservoirs above Dallas.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	751	4,980	752	640	2,080	1,350	397	31,000	7,700	3,250	442	1,520
2	3,240	5,650	1,500	680	1,920	2,300	382	a25,000	5,790	3,250	433	1,800
3	4,750	5,760	1,700	700	1,130	2,080	374	a21,000	4,600	3,250	424	1,920
4	5,810	5,520	1,540	1,040	680	1,920	382	a18,000	4,150	3,250	414	2,010
5	4,570	5,130	1,720	1,460	602	1,720	382	a16,500	3,850	3,210	395	1,890
6	5,030	4,700	1,820	1,600	566	1,630	1,290	a14,600	5,040	3,090	386	1,860
7	4,660	4,120	1,540	1,600	534	1,550	4,370	a12,900	6,300	3,060	376	1,800
8	5,480	3,880	1,220	1,600	518	1,300	9,920	12,000	7,700	3,020	376	4,600
9	6,620	3,960	1,100	1,660	467	1,350	15,100	12,600	10,000	2,910	376	7,530
10	6,380	4,000	1,070	1,600	472	1,440	19,700	12,300	15,000	2,200	376	4,420
11	4,760	3,960	1,400	1,630	472	1,280	32,700	11,500	16,000	2,020	404	3,130
12	3,800	3,720	2,080	1,630	457	1,220	41,800	10,900	14,600	2,540	452	2,870
13	3,440	3,240	2,900	1,630	502	1,200	41,800	10,000	12,100	2,650	414	2,760
14	3,360	2,280	3,120	1,490	720	1,170	39,100	9,120	9,260	2,180	433	2,060
15	3,320	1,780	2,930	1,300	868	1,150	33,000	8,830	10,300	1,770	395	1,120
16	3,400	1,660	2,720	1,330	1,160	1,120	27,900	8,590	15,000	1,660	376	768
17	3,840	1,600	2,860	1,520	1,850	1,100	24,100	7,320	14,600	1,570	667	628
18	3,540	1,600	3,040	1,600	1,950	1,100	20,400	11,100	16,600	1,360	674	536
19	2,760	1,630	2,790	1,850	1,920	944	14,000	22,800	18,200	1,180	480	502
20	2,340	2,150	2,240	2,140	1,630	733	18,500	22,200	17,600	1,060	570	520
21	2,040	1,840	1,670	2,140	1,150	602	29,600	24,200	16,000	912	524	1,030
22	1,720	1,560	1,280	1,870	1,020	534	e76,000	28,500	11,300	744	502	1,250
23	1,290	1,380	1,170	1,170	1,020	518	e133,000	27,500	7,790	651	720	1,300
24	1,020	1,140	1,120	890	1,000	487	e132,000	24,200	6,610	582	1,000	1,200
25	761	1,020	1,070	720	1,020	472	e84,000	20,000	6,240	524	1,100	1,010
26	603	890	934	640	1,050	472	e71,000	17,100	5,490	502	1,180	912
27	811	802	802	620	912	472	e90,000	14,600	4,780	559	1,630	792
28	1,220	720	760	584	956	457	e90,000	11,500	3,230	559	1,630	628
29	1,300	640	700	566	-	442	e65,000	9,770	2,980	524	1,540	524
30	1,850	620	660	1,710	-	427	e42,000	8,750	3,210	471	1,430	452
31	3,070	-	640	3,340	-	412	-	8,280	-	462	1,410	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	97,536	6,620	603	3,146	193,500
November	81,932	5,760	620	2,731	162,500
December	50,848	3,120	640	1,640	100,900
Calendar year 1941	2,051,578	54,800	344	5,621	4,070,000
January	42,950	3,340	566	1,385	85,190
February	28,646	2,080	457	1,023	56,820
March	32,952	2,300	412	1,063	65,360
April	1,158,197	133,000	374	38,610	2,297,000
May	492,660	31,000	7,320	15,890	977,200
June	282,020	18,200	2,980	9,401	559,400
July	54,970	3,250	462	1,773	109,000
August	21,529	1,630	376	694	42,700
September	53,342	7,530	452	1,778	105,800
Water year 1941-42	2,397,582	133,000	374	6,569	4,755,000

a No gage-height record; discharge computed on basis of known range in stage and weather records.
e Stage-discharge relation indefinite owing to breaking of levees; discharge computed on basis of discharge measurements, rainfall-runoff studies, and records for stations at Dallas, near Oakwood, and East Fork of Trinity River near Rockwall.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Trinity River near Oakwood, Tex.

Location.- Water-stage recorder, lat. 31°39', long. 95°47', at bridge on U. S. Highways 79 and 84, 1½ miles upstream from International-Great Northern Railroad bridge and 6 miles northeast of Oakwood, Leon County. Datum of gage is 175.03 feet above mean sea level, datum of 1929.

Drainage area.- 12,840 square miles.

Records available.- July 1932 to September 1942. October 1923 to July 1932 at site 1½ miles downstream. (Records for January 1905 to September 1923 published in Water-Supply Papers 850 and 878. Figures below 500 second-feet in these publications and minimum yearly discharge for water year 1923-24 published in Water-Supply Paper 878, have been found to be in error.) U. S. Weather Bureau has collected gage-height records in this vicinity since 1904.

Average discharge.- 19 years (1923-42), 4,954 second-feet.

Extremes.- Maximum discharge during year, 153,000 second-feet Apr. 29 (gage height, 51.64 feet); minimum, 423 second-feet Aug. 10, 11.

1923-42: Maximum discharge, that of Apr. 29, 1942; minimum discharge observed for period 1924-42, 22 second-feet Aug. 18, 1934.

Flood of June 4, 1908, reached a stage of about 52.2 feet, present site and datum, from information by U. S. Weather Bureau.

Remarks.- Records good. No diversions above station except for municipal supply. Flow partly regulated by reservoirs above Dallas.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 2 to Aug. 18)

6.3	423	14.0	2,410	34.0	13,500	43.0	43,000
7.0	545	18.0	3,940	38.0	18,000	45.0	63,500
8.0	750	22.0	5,800	40.0	21,700	47.0	86,000
10.0	1,230	26.0	8,020	41.0	26,000	50.0	±26,000
12.0	1,790	30.0	10,700	42.0	34,000	51.6	153,000

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	g687	2,060	1,130	g1,200	2,140	1,450	687	129,000	26,000	8,050	687	1,670
2	g816	2,740	1,280	g1,130	4,440	1,610	645	115,000	23,400	4,580	625	1,580
3	g816	4,200	1,360	g1,050	5,500	3,090	585	103,000	21,500	4,460	545	1,560
4	g1,310	5,600	1,880	g1,000	5,350	4,900	545	89,600	20,000	4,030	509	1,790
5	g2,960	6,320	3,120	g1,030	4,400	5,350	565	74,500	18,200	3,600	509	2,310
6	g6,040	6,320	3,160	g1,150	2,740	4,780	565	59,100	15,500	3,400	509	3,440
7	g7,310	5,800	2,970	g1,450	1,620	3,940	637	49,000	11,900	3,360	509	3,560
8	g7,720	5,250	2,610	g1,700	1,260	2,930	7,430	40,300	9,380	3,280	473	3,040
9	g7,310	g4,640	2,250	g1,940	1,130	2,410	13,600	34,000	9,010	3,200	455	4,880
10	g6,700	g4,200	1,910	g2,120	1,030	2,120	14,800	30,000	9,830	3,160	423	7,800
11	g6,700	g4,030	1,820	g2,060	956	1,940	16,700	26,800	10,800	3,080	439	10,100
12	g6,650	g3,980	2,060	g1,970	884	1,910	33,700	24,700	11,600	2,680	439	11,700
13	g6,700	g3,980	2,800	g1,940	838	1,850	58,000	22,600	12,400	2,280	439	13,100
14	g6,850	g3,940	4,600	g1,970	816	1,760	57,000	21,300	13,200	2,440	491	14,200
15	g4,460	g3,690	5,750	g1,970	816	1,700	50,000	19,800	14,400	2,650	509	14,900
16	g3,730	g2,930	6,850	g1,940	908	1,670	46,000	18,400	15,200	2,480	491	13,500
17	g3,520	g2,220	6,400	g1,790	1,370	1,580	48,000	17,100	15,600	2,090	509	7,830
18	g3,440	1,910	g4,420	g1,700	2,350	1,530	52,000	17,300	16,300	1,880	683	2,970
19	g3,600	1,790	g3,690	1,670	3,160	1,500	53,000	19,800	17,400	1,760	1,910	1,450
20	g3,730	1,850	g3,440	1,790	3,400	1,420	49,000	18,900	18,400	1,580	2,380	1,130
21	3,280	1,850	g3,320	1,970	3,200	1,390	43,000	18,200	19,800	1,390	1,820	956
22	2,790	2,950	g3,160	2,190	2,680	1,260	38,500	17,600	21,000	1,280	1,180	884
23	2,410	3,280	g2,820	2,350	2,090	1,080	35,800	18,200	21,300	1,180	884	956
24	2,150	2,890	g2,510	2,280	1,700	1,000	38,500	20,400	20,600	1,030	750	1,340
25	1,790	2,750	g2,410	1,940	1,560	838	50,000	28,000	19,800	908	687	1,560
26	1,450	2,380	g2,280	1,500	1,500	794	64,000	35,600	18,900	838	1,500	1,560
27	1,180	2,000	g2,150	1,200	1,450	772	96,000	37,600	18,300	750	3,200	1,390
28	956	1,640	g1,910	1,050	1,450	750	134,000	39,400	17,600	729	3,650	1,200
29	816	1,390	g1,640	956	-	750	153,000	38,000	16,200	772	2,820	1,100
30	1,230	1,230	g1,390	908	-	750	142,000	34,000	13,200	708	2,090	980
31	1,760	-	g1,280	1,090	-	729	-	30,000	-	687	1,820	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	109,861	7,720	687	3,544	217,900
November	99,810	5,320	1,230	3,327	198,000
December	86,370	5,850	1,130	2,786	171,300
Calendar year 1941	3,418,989	69,300	430	9,367	6,781,000
January	50,004	2,350	908	1,613	99,180
February	60,738	5,500	816	2,169	120,500
March	59,553	5,350	729	1,921	118,100
April	1,298,259	153,000	545	43,280	2,575,000
May	1,247,200	129,000	17,100	40,230	2,474,000
June	496,720	26,000	9,010	16,560	985,200
July	74,612	8,050	687	2,407	148,000
August	33,935	3,650	423	1,095	67,310
September	134,436	14,900	884	4,481	266,600
Water year 1941-42	3,751,498	153,000	423	10,280	7,441,000

g Computed from graph based on gage readings furnished by U. S. Weather Bureau.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

556253 O - 43 - 4

Trinity River near Midway, Tex.

Location.- Wire-weight gage, lat. 31°04'40", long. 95°42'00", on bridge on State Highway 21, 5 miles northeast of Midway, Madison County, and 8 miles downstream from Boggy Creek. Datum of gage is 117.6 feet above mean sea level, datum of 1929.

Drainage area.- 14,390 square miles.

Records available.- April 1939 to September 1942.

Extremes.- Maximum discharge observed during year, 146,000 second-feet May 1 (gage height, 48.58 feet); minimum observed, 440 second-feet Aug. 13.

1939-42: Maximum discharge observed, that of May 1, 1942; minimum observed, 100 second-feet Oct. 4, 1939.

Maximum discharge known occurred in May 1890 (gage height, about 45.0 feet, discharge not determined), from information by local residents. Flood of May 27, 1930, reached a stage of 46.7 feet. from floodmark (flow confined within levee system constructed in 1916). Flood of June 9, 1908, reached a stage of 44.3 feet, from floodmarks and information by local residents.

Remarks.- Records good. Gage read twice daily, oftener during high stages. Flow partly regulated by reservoirs above Dallas.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	665	23,100	1,760	1,960	2,220	1,910	945	144,000	31,200	17,200	785	2,220
2	625	17,300	1,560	1,960	2,600	2,280	905	144,000	32,600	14,000	745	2,010
3	805	9,270	1,760	1,810	3,650	2,440	885	139,000	33,000	8,790	705	1,910
4	905	5,320	2,220	1,960	5,320	3,040	825	136,000	32,400	6,230	625	1,610
5	1,140	5,880	2,110	1,960	5,710	4,710	785	126,000	31,200	5,320	588	1,910
6	3,190	6,300	3,160	1,810	5,260	5,640	745	106,000	29,300	4,710	553	2,280
7	5,190	6,620	3,600	1,710	3,990	5,260	965	90,200	27,000	4,350	536	3,430
8	6,680	6,420	3,430	1,910	2,600	4,530	7,590	75,000	24,800	4,110	518	4,590
9	7,530	5,900	3,160	2,330	2,110	3,870	21,400	58,700	21,800	3,870	502	4,410
10	7,740	5,320	2,770	2,500	2,010	3,160	24,500	50,800	19,700	3,700	502	5,010
11	7,270	4,830	2,440	2,500	2,220	2,660	23,800	47,000	18,700	3,540	486	6,750
12	6,680	4,470	2,660	2,500	1,860	2,380	22,000	47,000	20,000	3,480	470	8,510
13	6,620	4,350	3,210	2,550	1,340	2,440	21,000	42,400	17,800	3,160	454	9,770
14	6,750	4,350	3,540	2,440	1,340	2,280	21,600	37,400	16,200	2,770	470	10,900
15	6,750	4,290	4,770	2,440	1,250	2,160	24,800	34,100	16,400	2,770	470	11,800
16	6,230	4,110	5,900	2,440	1,300	1,910	28,300	31,000	16,800	2,880	502	12,700
17	4,770	3,650	6,360	2,440	1,520	2,010	29,600	30,000	17,100	2,820	536	13,300
18	4,110	2,990	6,160	2,330	1,760	1,910	30,800	28,700	17,400	2,280	518	11,600
19	3,870	2,500	5,580	2,160	2,380	1,810	34,600	27,800	17,600	2,280	570	6,700
20	3,870	2,720	4,590	2,110	3,320	1,810	38,200	30,000	17,600	2,060	1,170	3,260
21	3,990	2,820	4,170	2,220	3,650	1,710	40,200	30,800	17,800	1,860	2,330	2,110
22	3,820	6,130	4,230	2,330	3,260	1,660	41,200	30,800	18,300	1,710	2,330	1,710
23	3,320	10,400	4,350	2,500	3,430	1,560	42,000	29,400	18,900	1,520	1,760	1,430
24	2,880	9,630	4,110	2,720	2,990	1,380	41,600	27,600	19,500	1,430	1,340	1,300
25	2,550	6,580	3.700	2,770	2,440	1,250	41,600	26,000	20,000	1,300	1,160	1,380
26	2,220	4,470	3,850	2,550	2,010	1,250	40,900	24,900	20,200	1,120	985	1,660
27	1,860	3,600	3,540	2,110	1,860	1,160	40,900	24,500	20,200	985	1,090	1,710
28	1,520	3,100	3,160	1,760	1,860	1,090	42,400	24,700	19,800	945	2,670	1,660
29	1,200	2,600	2,820	1,520	-	1,000	63,800	25,800	19,200	865	3,820	1,480
30	2,410	2,060	2,440	1,480	-	965	121,000	27,300	18,700	845	3,480	1,340
31	21,100	-	2,160	1,910	-	965	-	29,300	-	825	2,770	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	138,260	21,100	625	4,460	274,200
November	180,780	23,100	2,060	6,026	358,600
December	109,070	6,360	1,560	3,518	216,300
Calendar year 1941	3,944,115	65,200	625	10,810	7,822,000
January	67,690	2,770	1,480	2,184	134,300
February	75,260	5,710	1,250	2,688	149,300
March	72,200	5,640	965	2,329	143,200
April	849,845	121,000	745	28,330	1,686,000
May	1,726,200	144,000	24,500	55,680	3,424,000
June	651,200	33,000	16,200	21,710	1,292,000
July	113,725	17,200	825	3,669	225,600
August	35,440	3,820	454	1,143	70,290
Septembsr	140,650	13,300	1,300	4,688	279,000
Watsr year 1941-42	4,160,320	144,000	454	11,400	8,253,000

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Trinity River at Riverside, Tex.

Location.- Wire-weight gage, lat. 30°52', long. 95°24', on bridge on State Highway 45, 1,200 feet upstream from International-Great Northern Railroad bridge, 0.5 mile north of Riverside, Walker County, and three-quarters of a mile downstream from Harmon Creek. Datum of gage is 89.86 feet above mean sea level, datum of 1929.

Drainage area.- 15,510 square miles.

Records available.- January 1903 to December 1906, October 1923 to September 1942. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 22 years (1903-6, 1923-42), 6,835 second-feet.

Extremes.- Maximum discharge during year, 121,000 second-feet May 5 (gage height, 52.75 feet, from floodmark); minimum observed, 755 second-feet Aug. 12-16.
1903-6, 1923-42: Maximum discharge, that of May 5, 1942; minimum observed, 70 second-feet Aug. 20-26, Sept. 8-13, 1925, Sept. 29 to Oct. 4, 1931.
Flood of June 11, 1908 reached a stage of 50.1 feet, present site and datum (discharge, 100,000 second-feet, revised).

Remarks.- Records good. No diversions except for municipal uses. Flow partly regulated by reservoirs above Dallas. Gage read twice daily.

Cooperation.- Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,030	39,400	2,350	2,350	2,160	2,090	1,280	51,800	29,500	19,900	1,060	2,740
2	958	38,100	2,090	2,220	2,350	2,350	1,280	82,400	30,700	18,200	1,030	2,350
3	958	27,600	1,910	2,220	2,570	2,880	1,260	106,000	31,700	14,100	980	2,090
4	1,180	15,000	2,220	2,280	4,440	2,810	1,200	116,000	32,000	8,770	935	2,030
5	1,180	7,340	2,480	2,350	5,780	5,650	1,160	120,000	32,000	6,160	912	1,970
6	1,680	6,760	2,540	2,220	5,960	6,970	1,100	116,000	32,400	5,420	845	2,090
7	3,700	7,280	3,380	2,220	5,420	7,180	2,520	112,000	31,500	4,880	800	2,720
8	5,960	7,500	3,750	2,030	3,820	6,360	15,600	104,000	30,600	4,540	800	6,570
9	7,600	7,080	3,600	2,220	2,680	5,330	27,300	92,600	29,200	4,220	800	7,600
10	e,770	6,360	3,230	2,610	2,220	4,300	34,600	79,600	27,600	4,140	778	6,160
11	8,230	5,690	3,020	2,680	2,350	3,450	33,800	66,300	30,100	4,060	778	6,460
12	7,600	5,150	2,880	2,680	2,480	3,090	29,300	62,600	32,100	3,900	755	8,230
13	7,180	4,790	3,300	2,610	2,090	2,740	25,400	57,100	28,400	3,680	755	9,780
14	7,180	4,700	3,750	2,610	1,730	2,680	23,300	53,200	24,600	3,300	755	11,300
15	7,920	4,620	4,300	2,610	1,610	2,610	23,000	48,700	21,600	2,880	755	12,300
16	8,990	4,540	5,600	2,610	1,610	2,480	24,600	46,300	20,200	2,950	755	13,500
17	7,810	4,220	6,600	2,610	1,790	2,420	26,500	43,400	19,400	3,090	822	14,400
18	7,080	3,680	6,970	2,610	1,910	2,350	28,000	38,300	19,400	3,020	868	14,000
19	5,870	3,020	6,560	2,610	2,160	2,220	29,500	32,000	19,100	2,740	1,100	11,500
20	4,300	3,020	5,780	2,420	2,880	2,160	31,700	31,100	19,100	2,480	890	6,730
21	4,140	3,740	4,790	2,350	3,600	2,090	33,600	30,300	19,200	2,220	1,680	3,950
22	4,140	9,860	4,540	2,420	3,980	2,030	35,300	29,900	19,500	2,090	2,540	2,220
23	3,820	15,100	4,700	2,480	4,220	1,970	36,900	29,600	19,900	1,850	2,420	1,730
24	3,300	16,500	4,790	2,680	4,060	1,910	40,300	29,100	20,400	1,730	1,850	1,500
25	2,880	14,300	4,540	2,880	3,380	1,730	41,500	28,600	20,900	1,610	1,500	1,380
26	2,610	9,780	4,380	2,880	2,810	1,610	41,900	27,800	21,200	1,500	1,500	1,500
27	2,350	6,120	4,380	2,610	2,350	1,610	42,300	27,200	21,400	1,360	1,380	1,730
28	1,910	4,060	4,060	2,220	2,160	1,500	42,100	26,500	21,400	1,230	1,610	1,790
29	1,610	3,300	3,450	1,910	-	1,440	41,700	26,500	21,100	1,130	2,880	1,730
30	5,130	2,740	2,950	1,670	-	1,380	42,800	27,300	20,600	1,080	3,820	1,550
31	30,000	-	2,540	1,850	-	1,330	-	28,400	-	1,080	3,600	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	167,066	30,000	958	5,389	331,400
November	291,350	39,400	2,740	9,712	577,900
December	121,430	6,970	1,910	3,917	240,900
Calendar year 1941	4,417,094	47,500	948	12,100	8,761,000
January	74,720	2,880	1,670	2,410	148,200
February	84,570	5,960	1,610	3,020	167,700
March	90,720	7,180	1,330	2,926	179,900
April	760,800	42,800	1,100	25,360	1,509,000
May	1,770,600	120,000	26,500	57,120	3,512,000
June	746,800	32,400	19,100	24,890	1,481,000
July	139,310	19,900	1,080	4,494	276,300
August	41,913	3,820	755	1,353	83,210
September	163,600	14,400	1,380	5,453	324,500
Water year 1941-42	4,452,919	120,000	755	12,200	8,832,000

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Trinity River at Romayor, Tex.

Location.- Chain gage, lat. 30°27', long. 94°51', on Gulf, Colorado & Santa Fe Railway bridge, a quarter of a mile west of Romayor, Liberty County, and 2½ miles downstream from Big Creek. Gage readings indicate distance from base of rail to water surface. Datum of gage (base of rail) is 89.62 feet above mean sea level, datum of 1929.

Drainage area.- 17,190 square miles.

Records available.- May 1924 to September 1942.

Average discharge.- 18 years, 7,652 second-feet.

Extremes.- Maximum discharge during year, 111,000 second-feet May 9 (gage height, -15.7 feet, from floodmark); minimum observed, 892 second-feet Aug. 12.
1924-42: Maximum discharge, that of May 9, 1942; minimum observed, 132 second-feet Aug. 21, 22, 1925 (gage height, -53.46 feet).

Remarks.- Records good. Gage read twice daily. No diversions of consequence except for municipal uses. Flow partly regulated by reservoirs above Dallas.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,790	50,000	3,790	3,950	2,150	2,790	1,390	44,800	28,400	20,000	1,340	4,210
2	1,460	52,400	3,230	3,470	2,150	3,150	1,340	45,200	28,800	19,500	1,340	3,870
3	1,320	51,200	2,790	3,230	2,330	3,310	1,320	48,200	29,500	18,400	1,340	3,670
4	1,190	45,700	2,580	3,390	2,390	3,870	1,290	54,200	30,200	17,600	1,290	2,790
5	1,670	35,800	2,450	3,390	3,070	7,080	1,290	61,900	30,600	10,800	1,240	2,510
6	1,790	20,900	2,650	3,230	4,750	10,200	1,260	72,000	31,600	8,900	1,190	2,450
7	1,730	12,100	2,860	3,070	5,700	8,900	1,730	85,000	31,800	7,580	1,100	2,510
8	2,390	9,480	3,070	2,790	5,500	8,570	10,800	101,000	31,800	6,810	1,050	2,790
9	4,890	8,900	3,790	2,580	4,750	8,460	28,800	110,000	32,600	6,000	1,000	5,520
10	6,920	8,240	3,870	2,450	3,390	7,360	33,400	107,000	33,600	5,400	960	8,680
11	8,130	7,580	3,710	2,790	3,000	5,800	36,100	98,600	33,800	5,020	938	8,020
12	8,240	6,700	3,630	2,930	2,720	4,570	36,400	94,400	36,700	4,750	915	7,140
13	7,800	6,100	3,790	2,930	2,930	3,790	34,600	87,400	38,500	4,660	1,070	7,140
14	7,140	5,700	3,950	2,860	2,720	3,310	30,800	82,000	35,800	4,390	1,030	8,240
15	7,400	5,300	4,120	2,790	2,390	3,000	26,900	77,400	32,100	4,210	960	9,720
16	12,700	5,200	4,300	2,790	2,270	2,930	24,400	72,000	27,500	3,790	915	10,700
17	12,500	4,930	5,020	2,790	3,310	2,790	24,000	66,700	23,000	3,550	915	11,600
18	10,300	4,750	6,000	2,790	3,390	2,650	24,800	62,700	20,800	3,550	982	12,500
19	8,570	4,480	6,500	2,930	2,930	2,510	26,200	57,400	19,600	3,710	982	12,800
20	7,470	3,870	6,920	3,070	2,720	2,390	28,800	53,000	19,100	3,630	1,340	10,900
21	5,500	3,470	6,100	2,930	2,720	2,270	31,100	49,400	18,800	3,230	2,060	8,020
22	4,570	6,700	5,500	2,650	2,860	2,150	32,800	45,700	18,800	2,930	16,500	5,200
23	4,390	14,800	6,100	2,510	3,950	2,090	34,100	41,800	19,100	2,650	20,000	3,390
24	4,210	18,800	6,000	2,510	5,020	2,090	37,000	39,100	19,100	2,510	12,600	2,510
25	3,790	19,100	5,900	2,580	5,600	2,030	40,400	37,000	19,500	2,270	8,350	2,030
26	3,390	16,400	5,600	2,790	4,930	1,970	42,200	35,500	19,800	2,150	6,400	1,910
27	3,000	11,600	5,110	2,860	3,870	1,790	43,500	33,400	20,100	1,970	4,750	1,730
28	2,720	8,460	4,930	2,930	3,150	1,670	44,400	31,600	20,500	1,790	3,550	1,790
29	2,450	5,700	4,750	2,650	-	1,610	44,400	30,200	20,500	1,670	2,930	1,910
30	5,570	4,390	4,210	2,510	-	1,550	44,800	28,600	20,300	1,520	2,720	2,030
31	32,000	-	3,630	2,210	-	1,490	-	28,200	-	1,440	4,030	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	186,990	32,000	1,190	6,032	370,900
November	458,750	52,400	3,470	15,290	909,900
December	136,850	6,920	2,450	4,415	271,400
Calendar year 1941	5,210,760	52,400	1,100	14,280	10,340,000
January	89,350	3,950	2,210	2,882	177,200
February	96,660	5,700	2,150	3,452	191,700
March	118,140	10,200	1,490	3,811	234,300
April	770,320	44,800	1,260	25,680	1,528,000
May	1,881,400	110,000	28,200	60,690	3,732,000
June	792,300	38,500	18,800	26,410	1,572,000
July	186,380	20,000	1,440	6,012	369,700
August	105,787	20,000	915	3,412	209,800
September	168,480	12,800	1,730	5,616	334,200
Water year 1941-42	4,991,407	110,000	915	13,680	9,901,000

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Trinity River at Liberty, Tex.

Location.- Wire-weight gage, lat. 30°03'25", long. 94°49'05", on bridge on U. S. Highway 90 in Liberty, Liberty County, 450 feet downstream from Texas & New Orleans Railroad bridge. Datum of gage is 2.22 feet below mean sea level, datum of 1929. Prior to June 24, staff gage at same site and datum.

Drainage area.- 17,500 square miles.

Records available.- October 1938 to September 1940 (gage heights, discharge measurements and some records of daily discharge), October 1940 to September 1942. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Extremes.- Maximum discharge observed during year, 114,000 second-feet May 12 (gage height, 29.38 feet, observed at site of wire-weight gage; 29.00 feet observed at staff gage, stage affected by draw-down at pier to which gage is attached); minimum discharge not determined (affected by tides); minimum gage height observed, 5.0 feet Aug. 12.

1938-42: Maximum discharge observed, that of May 12, 1942; minimum discharge not determined (affected by tides); minimum gage height observed, 2.5 feet Nov. 4, 1939.

A stage of 28.6 feet was reached May 8-11, 1922 from observation by U. S. Weather Bureau at their chain gage on railroad bridge upstream and probably away from pier disturbances.

Remarks.- Records good. Discharge not computed below about 4,000 second-feet due to tides affecting stage-discharge relation. Gage read once daily.

Cooperation.- Gage readings furnished by U. S. Weather Bureau.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	21,000	5,120	5,940	-	-	-	52,600	31,000	19,700	-	5,030
2	-	26,400	4,780	6,130	-	-	-	52,600	29,800	19,600	-	5,390
3	-	36,900	-	5,210	-	-	-	55,300	28,800	19,400	-	4,780
4	-	47,400	-	4,530	-	4,200	-	55,300	28,800	18,800	-	-
5	-	50,000	-	4,450	-	6,400	-	55,300	28,800	17,800	-	-
6	-	47,400	-	4,200	-	9,690	-	58,000	29,800	16,100	-	-
7	-	42,100	-	4,370	4,940	11,900	-	60,600	29,800	14,300	-	-
8	-	24,900	-	-	5,940	11,100	6,140	65,900	31,000	12,400	-	6,610
9	-	18,600	-	-	5,840	10,200	17,700	73,800	32,400	10,200	-	6,420
10	5,240	16,300	-	-	5,120	9,580	21,400	87,100	34,300	8,600	-	9,090
11	6,610	13,800	4,200	-	-	8,920	25,000	100,000	36,900	7,320	-	10,900
12	6,610	11,500	4,120	-	-	7,220	29,800	111,000	39,500	6,220	-	10,200
13	8,700	9,690	4,120	-	-	5,660	34,300	108,000	44,700	5,750	-	10,600
14	8,060	8,160	4,200	-	-	4,690	36,900	103,000	44,700	5,390	-	10,700
15	7,950	7,110	4,280	-	-	-	36,900	97,700	44,700	5,030	-	10,500
16	9,580	6,510	4,530	-	-	-	32,400	87,100	44,700	4,690	-	11,500
17	13,800	6,130	4,860	-	-	-	28,800	76,500	36,900	4,200	-	12,600
18	13,600	5,840	5,570	-	-	-	27,200	71,200	29,800	-	-	14,400
19	11,900	5,660	6,700	-	-	-	26,400	68,600	26,400	-	-	15,200
20	10,200	5,300	7,220	-	-	-	26,400	65,900	22,600	-	-	15,100
21	8,600	4,690	7,220	-	-	-	28,000	63,200	20,800	-	-	13,400
22	6,900	4,120	6,800	-	-	-	28,800	60,600	20,400	-	7,840	9,910
23	5,570	7,500	6,610	-	4,120	-	32,400	58,000	19,900	-	17,600	7,600
24	5,120	14,500	6,900	-	5,570	-	34,300	55,300	19,600	-	18,700	5,930
25	4,780	16,900	7,010	-	6,420	-	42,100	55,300	19,400	-	16,300	-
26	4,370	17,200	6,800	-	6,610	-	47,400	52,600	19,400	-	13,300	-
27	-	16,200	6,510	-	5,570	-	50,000	52,600	19,400	-	9,800	-
28	-	13,800	5,940	-	4,610	-	50,000	44,700	19,600	-	7,100	-
29	-	10,400	5,660	-	-	-	52,600	39,500	19,600	-	5,750	-
30	-	7,630	5,390	-	-	-	52,600	36,900	19,600	-	4,780	-
31	10,700	-	5,030	-	-	-	-	32,400	-	-	4,530	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	-	-	-	-	-
November	523,640	50,000	4,120	17,450	1,039,000
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January 1-7	34,830	6,130	4,200	4,976	69,080
February	-	-	-	-	-
March 4-14	89,560	11,900	4,200	8,142	177,600
April 8-30	767,540	52,600	6,140	33,370	1,522,000
May	2,056,600	111,000	32,400	66,340	4,079,000
June	873,100	44,700	19,400	29,100	1,732,000
July 1-17	195,500	19,700	4,200	11,500	387,800
August 22-31	105,700	18,700	4,530	10,570	209,700
September	-	-	-	-	-
Water year	-	-	-	-	-

Note.- Stage-discharge relation affected by tides on days for which no figures are given.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Big Sandy Creek near Bridgeport, Tex.

Location.- Water-stage recorder, lat. 33°13', long. 97°41', at bridge on State Highway 24, 1.9 miles upstream from Turkey Creek, 4.4 miles upstream from mouth, and 5 miles east of Bridgeport, Wise County. Datum of gage is 727.44 feet above mean sea level, datum of 1929.

Drainage area.- 276 square miles.

Records available.- October 1936 to September 1942.

Extremes.- Maximum discharge during year, 23,000 second-feet Oct. 4, Apr. 24; maximum gage height, 13.14 feet Oct. 4; no flow at times.
1936-42: Maximum discharge, 53,000 second-feet June 10, 1941 (gage height, 15.69 feet, from floodmark), from rating curve extended above 22,000 second-feet by logarithmic plotting; no flow at times.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. No diversion above station. Staff gage at same site and datum read twice daily May 26 to Sept. 30 when bridge repairs necessitated removal of recorder structure.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a195	1,660	35	32	26	20	14	148	32	a21	0.8	0
2	978	455	142	28	21	35	14	130	30	19	.5	0
3	1,840	151	106	27	20	105	14	118	29	21	.5	0
4	16,700	107	71	29	20	144	14	100	28	19	.5	2.1
5	7,130	84	46	40	21	118	14	91	a43	17	.5	3.4
6	2,890	69	36	f37	19	69	93	82	a2,210	16	.3	5.2
7	986	59	32	f34	18	42	1,760	75	3,850	16	0	35
8	267	50	31	f32	17	35	9,570	68	601	16	0	66
9	134	45	31	f31	17	32	4,500	63	99	15	0	31
10	102	42	30	f28	17	29	1.620	58	245	12	0	9.9
11	78	39	121	27	16	27	407	54	141	12	0	5.8
12	64	36	148	29	16	26	225	52	70	12	0	3.0
13	55	35	218	29	16	25	207	48	47	11	0	1.7
14	49	35	205	28	16	24	738	59	35	a10	0	1.4
15	65	34	100	27	21	23	719	78	2,660	a9.4	0	.8
16	58	34	68	26	28	23	216	47	3,440	a8.6	1.3	.4
17	43	33	57	26	26	21	136	893	394	a7.8	1.4	.1
18	38	33	52	26	23	19	118	3,240	123	a7.0	.7	0
19	35	35	48	24	20	18	257	6,920	82	a6.2	1.3	0
20	33	75	43	22	19	18	3,210	2,940	67	a5.4	.7	0
21	30	69	42	22	18	18	2,800	635	55	a4.6	.1	0
22	28	54	48	21	18	16	848	197	51	3.9	0	0
23	26	136	56	21	19	16	470	140	70	2.5	5.8	0
24	25	103	42	21	19	16	8,610	118	56	2.4	.5	0
25	206	60	38	21	17	17	7,010	100	38	2.0	9.6	0
26	778	45	36	21	16	18	2,160	75	31	2.2	12	0
27	258	40	32	21	16	17	434	67	28	2.4	2.8	0
28	94	38	30	19	16	16	373	57	27	2.2	1.3	0
29	56	36	30	19	-	15	312	48	a25	1.7	.9	0
30	322	36	30	21	-	15	197	41	a23	1.3	.2	0
31	1,800	-	32	25	-	14	-	37	-	1.2	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	35,363	16,700	25	1,141	70,140
November	3,928	1,860	33	131	7,790
December	2,036	218	30	65.7	4,040
Calendar year 1941	133,981.6	19,000	0	367	265,800
January	814	40	19	26.3	1,610
February	536	28	16	19.1	1,060
March	1,031	144	14	33.3	2,040
April	47,060	9,570	14	1,569	93,340
May	16,779	6,920	37	541	33,280
June	14,630	3,850	23	488	29,020
July	287.8	21	1.2	9.28	571
August	41.7	12	0	1.35	83
September	165.8	66	0	5.53	329
Water year 1941-42	122,672.3	16,700	0	336	243,300

Peak discharge.- Oct. 4 (7 a.m.) 23,000 sec.-ft.; Apr. 8 (4:30 p.m.) 17,300 sec.-ft.; Apr. 24 (8:30 p.m.) 23,000 sec.-ft.; May 19 (4 a.m.) 13,100 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for nearby stations.

f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Clear Fork of Trinity River at Fort Worth, Tex.

Location.- Water-stage recorder and concrete control, lat. 32°44', long. 97°21', at bridge on Stove Foundry road, 388 feet downstream from Texas & Pacific Railway bridge at Fort Worth, Tarrant County, and 3 miles upstream from mouth. Datum of gage is 532.91 feet above mean sea level, datum of 1929.

Drainage area.- 522 square miles.

Records available.- March 1924 to September 1942.

Average discharge.- 18 years, 96.7 second-feet.

Extremes.- Maximum discharge during year, 18,200 second-feet May 19 (gage height, 20.36 feet); minimum, 1.3 second-feet Oct. 1.
1924-42: Maximum discharge, that of May 19, 1942; no flow at times.
Maximum discharge known, 74,300 second-feet Apr. 25, 1922, (gage height, 27.5 feet, present datum), by slope-area method, data furnished by City engineer of Fort Worth.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Texas & Pacific Railway Co. diverts small amount of water from pool in which gage is located.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	76	21	30	25	46	14	610	177	67	11	15
2	91	30	21	30	21	35	14	502	162	55	11	8.4
3	82	19	21	30	19	32	14	438	154	55	8.4	8.4
4	38	16	21	25	19	30	14	362	143	52	8.4	8.4
5	228	14	21	23	19	28	14	320	247	52	8.4	8.4
6	216	14	21	21	19	25	28	663	222	49	8.4	29
7	159	13	21	25	17	23	718	384	636	49	7.1	352
8	159	13	21	23	17	23	6,040	314	242	43	7.1	302
9	35	14	21	21	17	23	1,610	278	206	38	7.1	196
10	32	13	21	25	17	23	354	247	185	35	7.1	60
11	28	13	21	23	17	21	210	232	147	35	14	32
12	25	13	130	28	17	21	158	218	125	30	8.4	23
13	23	13	61	30	17	23	1,860	197	111	30	8.4	21
14	19	14	49	28	19	23	2,470	193	114	28	11	17
15	16	17	43	28	21	23	786	214	3,710	25	8.4	19
16	48	17	35	28	25	21	347	181	1,320	23	7.1	16
17	35	16	32	25	30	21	262	154	290	21	120	16
18	23	17	32	28	25	21	218	281	210	19	64	14
19	21	21	30	25	25	19	922	13,100	166	17	21	14
20	16	23	30	25	25	17	10,400	2,730	143	17	23	14
21	16	32	30	25	25	16	3,190	859	125	16	19	13
22	14	32	43	25	23	16	795	670	118	14	11	13
23	13	32	43	25	23	14	2,470	594	111	13	19	13
24	13	43	35	25	21	16	12,900	543	107	16	27	13
25	39	32	32	23	21	17	8,040	446	97	14	195	13
26	234	25	30	19	21	17	1,650	369	86	28	70	11
27	58	23	28	19	21	17	1,200	308	76	19	23	8.4
28	19	21	25	19	21	17	3,910	272	67	23	14	7.1
29	13	21	23	19	-	16	1,030	252	64	14	13	7.1
30	35	21	25	21	-	14	804	218	64	14	11	7.1
31	77	-	28	21	-	14	-	202	-	13	9.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,871	234	13	60.4	3,710
November	668	76	13	22.3	1,320
December	1,015	130	21	32.7	2,010
Calendar year 1941	81,800.2	5,640	1.3	224	162,200
January	762	30	19	24.6	1,510
February	587	30	17	21.0	1,160
March	672	46	14	21.7	1,330
April	62,442	12,900	14	2,081	123,900
May	26,351	13,100	154	850	52,270
June	9,625	3,710	64	321	19,090
July	924	67	13	29.8	1,830
August	781.0	195	7.1	25.2	1,550
September	1,279.3	352	7.1	42.6	2,540
Water year 1941-42	106,977.3	13,100	7.1	293	212,200

Peak discharge.- Apr. 20 (9 a.m.) 14,400 sec.-ft.; Apr. 24 (8:30 p.m.) 17,200 sec.-ft.; Apr. 28 (4 a.m.) 7,450 sec.-ft.; May 19 (8:30 a.m.) 18,200 sec.-ft.; June 15 (9:30 a.m.) 8,460 sec.-ft.
Note.- Discharge for periods of no gage-height record, Oct. 10-17, Nov. 24 to Dec. 15, Feb. 18 to Mar. 12, computed on basis of known change in stage, engineer's notes, and weather records.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Elm Fork of Trinity River near Carrollton, Tex.

Location.- Water-stage recorder above spillway of California concrete dam, lat. 32°52'25", long. 96°55'50", at bridge on State Highway 114, 100 feet downstream from Hackberry Creek and 5.5 miles southwest of Carrollton, Dallas County. Datum of gage is 410.46 feet above mean sea level, datum of 1929.

Drainage area.- 2,612 square miles.

Records available.- July 1938 to September 1942. January 1907 to December 1928, at site near Dallas, 7 miles downstream (January 1907 to September 1920, monthly records only, published in Water-Supply Paper 850). November 1923 to July 1938, at site 8.5 miles upstream, at Carrollton Dam. Records equivalent except during periods of intense local rains and during low flows at station near Dallas caused by municipal pumping between sites.

Average discharge.- 34 years (1907-22, 1923-42) 827 second-feet.

Extremes.- Maximum discharge during year, 90,700 second-feet Apr. 26 (gage height, 21.05 feet); minimum observed, 53 second-feet (regulated) Oct. 1.

1907-42: Maximum gage height, about 27.5 feet, present site and datum, May 25, 1908, from floodmarks, furnished by State Reclamation Department (discharge not determined but probably maximum for period of record; affected by backwater from West Fork); no flow at times.

Remarks.- Records good except those above 3,000 second-feet, which are fair. Flow regulated by Lake Dallas Reservoir (capacity, 194,000 acre-feet, revised). No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	2,740	313	292	230	h132	161	c3,110	498	424	324	330
2	1,500	2,850	318	297	206	h89	165	1,670	458	418	324	324
3	859	2,220	318	292	201	h127	174	1,430	418	402	318	324
4	1,980	2,190	379	277	206	h192	170	1,340	390	396	318	318
5	2,020	1,820	407	277	206	h225	154	1,070	385	390	313	318
6	2,760	1,770	396	271	201	h225	183	1,460	3,540	385	313	324
7	4,830	1,670	346	266	201	h230	1,330	3,600	8,740	379	313	2,480
8	4,220	1,620	318	266	206	h292	7,440	3,600	c8,000	379	313	2,310
9	1,690	1,620	308	271	201	h308	23,300	3,510	c3,200	374	313	707
10	1,320	1,580	191	266	201	h297	31,000	3,410	2,240	368	308	576
11	1,000	1,580	216	266	201	h282	22,000	3,410	1,920	362	313	504
12	866	1,440	604	271	201	256	12,400	3,410	2,240	352	313	441
13	834	552	874	282	206	256	c7,960	3,300	1,920	352	313	362
14	810	374	709	287	210	251	8,140	3,180	1,820	346	308	324
15	826	303	557	287	215	246	8,800	1,010	4,080	340	308	313
16	1,460	303	522	282	225	241	8,800	780	8,350	340	330	313
17	1,070	303	487	277	266	236	c5,070	551	9,870	340	368	308
18	560	297	430	277	h271	230	3,600	2,180	c5,980	335	335	303
19	252	297	368	271	h266	220	4,090	7,610	c2,150	335	340	303
20	271	297	346	313	h251	220	45,700	13,000	1,340	330	335	297
21	183	313	330	220	h261	210	45,700	14,200	1,050	330	324	303
22	154	335	330	181	h266	210	22,300	c9,020	1,260	330	318	303
23	135	340	335	318	h261	210	14,900	4,080	2,960	324	313	303
24	127	418	346	297	h251	210	17,300	2,460	3,070	324	318	308
25	140	368	330	297	h241	183	44,100	2,140	3,070	324	330	308
26	475	357	318	297	h230	157	77,800	3,680	2,440	330	362	308
27	504	357	313	292	h220	157	42,300	3,510	588	330	452	308
28	600	335	297	292	h220	161	22,300	3,510	516	335	413	308
29	545	318	287	292	-	161	13,000	3,410	481	330	352	308
30	851	313	287	292	-	157	c8,550	3,010	452	330	335	297
31	2,140	-	287	292	-	157	-	691	-	330	330	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	35,057	4,830	75	1,131	69,530
November	29,280	2,850	297	976	58,080
December	11,867	874	191	383	23,540
Calendar year 1941	620,364	65,700	59	1,700	1,230,000
January	8,658	318	181	279	17,170
February	6,321	271	201	226	12,540
March	6,528	308	89	211	12,950
April	498,887	77,800	154	16,630	989,500
May	112,342	14,200	551	3,624	222,800
June	83,426	9,870	385	2,781	165,500
July	10,964	424	324	354	21,750
August	10,267	452	308	331	20,360
September	14,533	2,480	297	484	28,830
Water year 1941-42	828,130	77,800	75	2,269	1,643,000

Peak discharge.- Apr. 10 (1 p.m.) 32,800 sec.-ft.; Apr. 20 (9 p.m.) 70,400 sec.-ft.; Apr. 26 (7 a.m.) 90,700 sec.-ft.; May 20 (4 p.m.) 16,700 sec.-ft.; June 8 (1 a.m.) 10,600 sec.-ft.; June 17 (4 a.m.) 11,200 sec.-ft.

c Backwater effect from return of overbank flow below station; discharge computed from backwater curve based on several discharge measurements.

h Computed from graph based on gage readings from reference gage.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Denton Creek near Roanoke, Tex.

Location.- Water-stage recorder, lat. 33°02', long. 97°12', 340 feet upstream from bridge on U. S. Highway 377, a quarter of a mile downstream from Texas & Pacific Railway bridge, and 2.2 miles northeast of Roanoke, Denton County. Datum of gage is 523.6 feet above mean sea level, datum of 1929.

Drainage area.- 704 square miles.

Records available.- October 1923 to December 1927, March 1939 to September 1942.

Extremes.- Maximum discharge during year, 49,700 second-feet Apr. 20 (gage height, 30.20 feet); minimum, 5.3 second-feet Aug. 14.
1923-27, 1939-42: Maximum discharge, that of Apr. 20, 1942; no flow at times.
Maximum stage known, 31 feet in May 1908, from information by local residents.

Remarks.- Records good except those below 50 second-feet, which are fair. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	466	981	73	88	50	60	48	563	136	66	12	8.0
2	776	829	73	84	50	101	48	476	122	62	9.8	8.0
3	550	411	155	72	50	253	48	434	108	60	9.5	7.7
4	1,300	259	176	75	51	194	47	390	97	58	9.5	9.1
5	1,950	200	159	66	51	176	46	349	383	55	8.8	9.5
6	4,640	161	101	63	51	142	63	340	4,310	51	8.0	263
7	1,890	132	76	72	50	108	3,460	310	2,560	49	7.4	1,260
8	468	124	69	66	48	90	12,500	272	999	47	6.6	188
9	274	112	65	66	48	88	9,750	253	688	44	6.3	179
10	159	106	61	66	46	78	3,110	228	493	40	6.0	62
11	101	99	314	68	48	72	888	209	346	38	6.0	30
12	81	91	435	76	48	70	546	200	a281	37	6.0	22
13	70	90	390	84	49	70	2,200	182	a250	35	6.3	16
14	62	88	291	83	50	68	2,070	238	a234	32	7.6	14
15	272	88	234	81	58	66	3,160	528	4,990	28	15	13
16	304	86	179	72	84	66	1,320	281	3,320	26	17	12
17	136	83	153	70	81	65	688	161	2,540	25	23	11
18	88	81	139	70	72	61	476	3,990	670	23	32	11
19	98	81	122	63	61	60	2,400	10,700	400	21	18	10
20	76	95	112	60	57	57	19,400	6,190	a313	21	13	9.5
21	63	110	106	57	57	56	4,670	1,580	a262	19	9.8	8.8
22	56	111	114	55	56	55	1,700	742	a228	19	8.4	8.8
23	51	197	124	55	58	54	3,080	528	a197	18	7.7	8.8
24	48	124	108	54	61	54	12,600	421	147	16	36	8.8
25	602	142	108	54	60	55	20,700	370	132	16	62	8.8
26	376	129	99	51	55	57	8,100	326	110	17	218	8.4
27	454	101	91	51	54	57	1,800	288	90	17	50	7.4
28	486	90	84	50	52	52	1,430	250	79	16	23	7.0
29	262	81	81	49	-	51	888	216	72	16	15	6.6
30	223	78	81	50	-	50	688	188	69	15	11	6.3
31	904	-	84	51	-	49	-	161	-	13	9.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	17,288	4,640	48	558	34,290
November	5,360	981	78	179	10,630
December	4,457	435	61	144	8,840
Calendar year 1941	142,935.1	24,900	2.6	392	283,500
January	2,022	88	49	65.2	4,010
February	1,558	84	48	55.6	3,090
March	2,535	253	49	81.8	5,030
April	117,924	20,700	46	3,931	233,900
May	31,394	10,700	161	1,013	62,270
June	24,626	4,990	69	821	48,840
July	1,000	66	13	32.3	1,980
August	677.8	218	6.0	21.9	1,340
September	2,222.5	1,260	6.3	74.1	4,410
Water year 1941-42	211,064.3	20,700	6.0	578	418,600

Peak discharge.- Apr. 8 (7 a.m.) 19,200 sec.-ft.; Apr. 20 (5:30 a.m.) 49,700 sec.-ft.; Apr. 25 (12:30 a.m.) 31,300 sec.-ft.; May 19 (9 a.m.) 18,800 sec.-ft.
a No gage-height record; discharge computed on basis of known range in stage and weather records.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter.
To convert war time to standard time, subtract 1 hour.

East Fork of Trinity River near Rockwall, Tex.

Location.- Chain gage, lat. 32°55'25", long. 96°30'20", on bridge on U. S. Highway 67, 3 miles southwest of Rockwall, Rockwall County, and 8 miles upstream from Muddy Creek. Datum of gage is 404.3 feet above mean sea level, datum of 1929.

Drainage area.- 831 square miles.

Records available.- November 1923 to September 1942.

Average discharge.- 19 years, 452 second-feet.

Extremes.- Maximum gage height observed, 24.82 feet Apr. 20, while levees were breaking (discharge not determined); no flow Aug. 13-16.
1923-42: Maximum gage height observed, that of Apr. 20, 1942: no flow at times. Maximum stage known, 25 feet in spring of 1922.

Remarks.- Records good except those above 20,000 second-feet, which are fair. Gage read twice daily. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.2	1,040	49	95	85	86	46	662	154	109	6.8	1.5
2	194	1,100	1,080	98	66	318	44	578	140	372	5.8	1.1
3	303	575	1,020	103	60	230	44	476	127	184	4.2	.8
4	87	126	144	94	55	341	42	400	115	90	3.0	.7
5	87	86	115	75	52	280	46	350	107	78	2.0	.5
6	83	69	75	69	50	180	797	792	616	72	1.3	.4
7	129	60	59	76	45	154	980	1,600	1,860	70	.8	28
8	127	53	51	49	42	123	9,410	1,730	1,290	67	.4	542
9	58	50	46	78	41	180	28,500	1,050	1,120	66	.3	920
10	35	46	44	78	40	213	12,800	441	2,520	58	.2	795
11	24	44	359	86	36	185	6,000	310	3,490	53	.1	451
12	21	41	1,020	86	34	136	2,750	270	4,890	46	.1	74
13	17	40	1,150	90	34	115	1,250	280	2,760	43	0	34
14	13	38	1,120	95	34	107	1,120	517	664	38	0	20
15	38	38	756	92	46	103	1,150	645	2,980	33	0	14
16	31	38	299	87	695	99	1,240	436	4,740	30	0	10
17	78	36	199	81	501	93	680	251	4,410	29	.7	7.8
18	53	34	185	77	150	87	492	400	2,940	26	23	8.1
19	34	33	167	72	91	81	444	4,350	913	24	50	8.7
20	30	44	149	67	66	72	e46,000	7,860	357	22	48	5.2
21	40	50	132	63	54	67	34,900	5,600	260	19	24	3.4
22	29	71	154	57	50	65	8,680	3,170	320	16	11	2.7
23	26	95	172	57	48	62	4,080	1,400	400	14	5.5	2.2
24	24	123	162	56	48	58	5,980	726	260	14	16	1.6
25	22	103	140	55	44	58	11,700	400	194	13	92	1.1
26	18	77	119	55	43	68	7,480	320	162	12	34	.9
27	15	58	111	55	41	61	4,220	280	140	10	12	.6
28	14	50	99	53	38	57	2,730	251	119	9.0	6.8	.4
29	12	48	90	51	-	56	1,440	213	107	7.5	5.5	.4
30	9.3	48	85	276	-	53	748	190	100	6.2	3.6	.4
31	470	-	90	286	-	48	-	172	-	8.4	2.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,123.5	470	2.2	68.5	4,210
November	4,314	1,100	33	144	8,560
December	9,441	1,150	44	305	18,730
Calendar year 1941	282,617.8	24,200	2.2	774	560,600
January	2,712	286	49	87.5	5,380
February	2,589	695	34	92.5	5,140
March	3,886	341	48	125	7,710
April	195,793	46,000	42	6,526	388,300
May	36,120	7,860	172	1,165	71,640
June	38,255	4,890	100	1,275	75,880
July	1,639.1	372	6.2	52.9	3,250
August	359.2	92	0	11.6	712
September	2,936.5	920	.4	97.9	5,820
Water year 1941-42	300,168.3	46,000	0	822	595,300

e Stage-discharge relation indefinite owing to levee breaks; discharge computed on basis of rainfall-runoff studies and records for stations on Trinity River at Dallas, near Rosser, and near Oakwood.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Cedar Creek near Mabank, Tex.

Location.- Water-stage recorder, lat. 32°19'45", long. 96°10'05", at bridge on county highway 2 miles downstream from Lacys Fork and 5½ miles southwest of Mabank, Kaufman County. Datum of gage is 285.39 feet above mean sea level, unadjusted.

Drainage area.- 741 square miles.

Records available.- December 1938 to September 1942.

Extremes.- Maximum discharge during year, 29,400 second-feet Apr. 9 (gage height, 22.06 feet), from rating curve extended above 3,000 second-feet on basis of slope-area determination at gage height 23.5 feet, at location 12 miles downstream; no flow at times.

1938-42: Maximum discharge, that of Apr. 9, 1942; no flow at times.

Maximum stage known, about 23.5 feet, Sept. 29, 1936, from information by local residents; peak discharge of this flood at site about 12 miles below station, (drainage area, 910 square miles), 35,400 second-feet, by slope-area method.

Remarks.- Records fair except those for periods of no gage-height record and those above 3,000 second-feet, which are poor. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	504	11		2,160	97	7.0	2,720	43	15	0	2.9
2	4.0	934	63		1,840	823	6.7	440	40	13	0	2.2
3	242	887	607		356	1,370	6.4	152	36	12	0	2.5
4	564	113	909		92	1,190	6.4	105	31	11	0	424
5	892	42	418	a14	61	286	6.4	78	27	11	0	336
6	1,190	26	112		42	108	152	76	f442	12	0	60
7	1,130	17	60		34	76	1,880	a346	f1,150	12	0	520
8	140	12	38		28	56	7,840	a862	1,540	12	0	1,610
9	96	10	24	9.7	23	40	26,100	a1,160	3,220	12	0	2,610
10	f498	8.8		8.5	19	36	19,600	262	5,250	11	0	2,420
11	f323	7.9		8.5	15	51	8,440	94	5,250	11	0	1,090
12	46	7.0	a610	8.2	13	50	3,220	163	4,200	8.5	0	222
13	20	6.7		7.9	11	38	870	82	2,010	6.4	0	76
14	12	6.4		7.6	11	28	1,840	54	338	4.9	0	34
15	8.8	6.1		7.3	11	23	1,860	42	1,280	3.6	0	19
16	7.3	5.8		7.6	53	19	838	55	a3,560	2.7	0	12
17	6.1	5.5		9.7	369	16	200	79	a4,860	1.8	.1	8.8
18	15	5.2		9.7	710	14	120	522	a4,050	1.1	.1	7.0
19	18	6.5	a40	a9.1	451	12	89	6,840	1,060	.7	.1	5.2
20	10	23		a8.5	105	11	1,310	13,800	128	.4	.1	4.3
21	7.6	92		7.6	55	9.4	10,200	8,740	74	.4	0	3.3
22	6.1	229		7.3	34	8.8	13,200	4,690	55	.3	0	2.9
23	5.5	190		7.3	26	8.5	5,820	759	603	.3	81	2.5
24	5.5	323		7.0	19	8.2	5,400	667	390	.1	746	2.0
25	6.1	237	a168	6.7	16	8.2	11,900	1,300	85	.1	960	1.8
26	5.2	90		6.7	14	7.9	13,600	460	42	.1	278	1.6
27	4.9	48		6.4	13	7.3	9,800	128	28	.1	51	1.4
28	4.3	28		6.1	12	7.0	5,750	83	22	0	17	1.1
29	273	19	a26	6.1	-	7.0	2,040	63	18	0	9.4	.9
30	158	14		460	-	7.0	2,480	51	15	0	6.1	.9
31	123	-		1,710	-	7.0	-	45	-	0	4.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,824.0	1,190	2.6	188	11,550
November	3,903.9	934	5.2	130	7,740
December	6,984	-	11	225	13,850
Calendar year 1941	223,034.2	15,800	0	611	442,400
January	2,445.5	1,710	6.1	78.9	4,850
February	6,593	2,160	11	235	13,080
March	4,430.3	1,370	7.0	143	8,790
April	154,581.9	26,100	6.4	5,153	306,600
May	44,918	13,800	42	1,449	89,090
June	39,847	5,250	15	1,328	73,040
July	163.5	15	0	5.27	324
August	2,152.9	960	0	69.4	4,270
September	9,484.3	2,610	.9	316	18,810
Water year 1941-42	281,328.3	26,100	0	771	558,000

Peak discharge.- Apr. 9 (4 p.m.) 29,400 sec.-ft.; Apr. 21 (11 p.m.) 18,000 sec.-ft.; Apr. 25 (11:30 p.m.) 15,400 sec.-ft.; May 20 (5:30 a.m.) 15,400 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage, available gage heights, engineer's notes, and weather records.

f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Chambers Creek near Corsicana, Tex.

Location.- Water-stage recorder, lat. 32°06'30", long. 96°22'15", at bridge on State Highway 31, 500 feet upstream from St. Louis Southwestern Railway bridge, 6 miles east of Corsicana, Navarro County, and 17 miles upstream from Richland Creek. Datum of gage is 294.26 feet above mean sea level, datum of 1929.

Drainage area.- 958 square miles.

Records available.- March 1939 to September 1942.

Extremes.- Maximum discharge during year, 37,400 second-feet Apr. 25 (gage height, 25.36 feet); minimum, 4.1 second-feet Aug. 9, 10.
1939-42: Maximum discharge, that of Apr. 25, 1942; no flow at times.
Maximum stage known, about 27⅞ feet in December 1913, from information by local residents.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. No large diversions above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	58	42		1,610	250	42	838	186	768	12	60
2	180	127	165		863	1,810	41	726	166	401	10	75
3	545	59	765		166	1,150	40	572	144		9.3	97
4	2,220	35	152		123	450	40	463	130		7.9	1,130
5	3,730	26	84	a53	109	233	39	385	120		7.1	696
6	1,110	23	64		99	198	829	585	555		6.2	f137
7	155	21	50		90	162	3,550	1,300	1,000		5.6	280
8	86	21	42		78	144	9,580	910	726		5.0	3,510
9	a61	19	39		a70	130	18,400	424	910		4.5	10,500
10	a46	18	38		68	123	9,810	296	824		39	12,600
11	148	17	202	52	66	112	3,940	252	556	a26	41	6,550
12	104	17	1,150	50	62	106	994	228	489		16	1,090
13	78	16	1,280	50	60	106	1,100	220	242		9.6	320
14	52	16	531	50	60	99	2,560	194	182		9.4	224
15	39	16	232	50	66	93	6,100	197	2,160		9.6	182
16	32	17	154	48	159	90	3,100	510	7,490		59	148
17	28	17	130	45	424	84	866	381	7,920		1,710	126
18	26	17	120	45	185	78	516	468	4,520		1,650	120
19	28	17	109	43	120	70	453	8,090	760		767	112
20	33	183	96	40	87	67	2,840	16,200	326		150	123
21	33	690	90	37	72	64	13,000	10,000	252	21	47	140
22	42	175	106	35	68	61	10,200	4,050	220	31	29	90
23	29	423	178	34	68	56	4,110	1,180	206	65	27	78
24	25	219	123	34	66	54	15,300	810		27	382	71
25	23	91	99	33	64	56	28,600	1,280		20	2,260	66
26	22	69	87	33	58	58	28,900	754	a130	17	2,480	60
27	22	58	78	33	54	60	10,400	437		16	604	54
28	19	52	a60	32	52	58	5,500	348		16	106	50
29	18	47		31	-	50	2,460	284		15	72	48
30	19	44		40	-	46	1,180	242		15	61	46
31	50	-		757	-	44	-	210	-	13	68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,007.6	3,730	4.6	291	17,870
November	2,608	690	16	86.9	5,170
December	6,446	1,280	38	208	12,790
Calendar year 1941	292,656.5	12,700	46	67.8	580,400
January	2,102	757	31	67.8	4,170
February	5,067	1,610	52	181	10,050
March	6,162	1,810	44	199	12,220
April	184,490	28,900	39	6,150	365,900
May	52,832	16,200	194	1,704	104,800
June	30,994	7,920	-	1,033	61,480
July	1,893	768	13	61.1	3,750
August	10,664.2	2,480	4.5	344	21,150
September	38,783	12,600	46	1,293	76,920
Water year 1941-42	351,048.8	28,900	4.5	962	696,300

Peak discharge.- Apr. 9 (4 a.m.) 19,900 sec.-ft.; Apr. 25 (2 a.m.) 37,400 sec.-ft.; May 20 (2 p.m.) 17,000 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage, weather records, and engineer's notes.

f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Richland Creek near Richland, Tex.

Location.- Water-stage recorder, lat. 31°57', long. 96°25', at bridge on U. S. Highway 75, 750 feet downstream from Texas & New Orleans Railroad bridge, 1 mile north of Richland, Navarro County, and 3½ miles downstream from Pinoak Creek. Datum of gage is 299.0 feet above mean sea level, datum of 1929.

Drainage area.- 760 square miles.

Records available.- December 1924 to February 1925 (discharge measurements only), March 1939 to September 1942.

Extremes.- Maximum discharge during year, 39,600 second-feet Apr. 26 (gage height, 22.43 feet); no flow Aug. 16, 17.
1939-42: Maximum discharge, 43,000 second-feet Nov. 24, 1940; maximum gage height, 22.54 feet June 20, 1939; no flow at times.
Maximum stage known, 25.5 feet in December 1913, from information by engineers of Texas & New Orleans Railroad.

Remarks.- Records good. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.2	27	18	29	18	39	19	353	66	28	4.4	3.2
2	4.2	28	19	29	27	211	19	281	60	53	3.2	3.5
3	10	21	20	30	19	230	18	220	56	41	2.2	29
4	293	19	20	27	16	81	18	198	52	27	1.7	206
5	1,210	18	21	26	15	57	18	165	49	30	1.5	266
6	254	15	18	27	15	50	296	194	1,010	25	.9	34
7	58	15	17	23	15	44	3,210	799	536	24	.8	138
8	38	15	17	26	15	40	8,780	2,120	98	24	.7	2,910
9	31	15	16	25	14	37	21,000	881	120	22	.6	10,100
10	107	14	16	24	13	36	8,380	204	84	20	.5	11,000
11	590	13	22	24	13	35	2,310	153	150	17	.5	8,450
12	433	13	72	26	13	33	320	134	2,170	14	.5	2,110
13	80	12	276	27	13	33	975	124	524	13	.4	143
14	64	12	257	25	13	33	2,860	110	95	12	.2	90
15	57	12	79	24	13	32	2,890	104	827	11	.1	75
16	49	12	55	23	26	30	450	98	2,390	8.9	0	64
17	44	12	48	23	324	29	165	90	934	8.2	121	58
18	40	11	44	22	196	28	128	267	131	7.4	92	52
19	37	9.4	42	21	51	26	110	1,020	84	7.0	64	47
20	36	11	39	21	29	24	266	1,570	66	6.5	117	44
21	60	37	37	20	22	24	1,510	475	56	5.8	29	42
22	40	45	38	18	20	24	2,270	194	50	6.0	10	41
23	29	20	66	18	19	24	477	157	159	22	7.2	36
24	28	22	79	18	18	23	5,810	220	56	27	4.4	34
25	27	28	45	18	18	22	20,300	202	44	12	96	31
26	26	20	37	18	18	23	26,900	128	38	71	202	29
27	22	18	35	17	15	23	6,640	104	34	20	29	24
28	21	19	32	17	15	25	2,850	92	30	6.7	13	24
29	20	19	29	17	-	23	2,010	82	27	9.6	7.9	23
30	20	18	29	49	-	20	618	75	26	10	5.6	23
31	20	-	29	21	-	19	-	70	-	6.2	4.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,753.4	1,210	4.2	121	7,440
November	550.4	45	9.4	18.3	1,090
December	1,572	276	16	50.7	3,120
Calendar year 1941	255,606.5	11,400	4.2	700	506,900
January	733	49	17	23.6	1,450
February	1,003	324	13	35.8	1,990
March	1,378	230	19	44.5	2,730
April	121,617	26,900	18	4,054	241,200
May	10,884	2,120	70	351	21,590
June	10,022	2,390	26	334	19,880
July	595.3	71	5.8	19.2	1,180
August	820.3	202	0	26.5	1,630
September	36,129.7	11,000	3.2	1,204	71,660
Water year 1941-42	189,058.1	26,900	0	518	375,000

Peak discharge.- Apr. 9 (7:30 a.m.) 28,000 sec.-ft.; Apr. 25 (2:30 a.m.) 23,800 sec.-ft.; Apr. 26 (5 a.m.) 39,600 sec.-ft.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

West Fork of San Jacinto River near Conroe, Tex.

Location.- Water-stage recorder, lat. 30°15', long. 95°28', at bridge on U. S. Highway 75, 285 feet upstream from bridge of International-Great Northern Railroad, 3½ miles downstream from Lake Creek, and 4¼ miles south of Conroe, Montgomery County. Datum of gage is 100.3 feet above mean sea level, datum of 1929.

Drainage area.- 832 square miles.

Records available.- May 1924 to September 1927, July 1939 to September 1942.

Extremes.- Maximum discharge during year, 15,600 second-feet Apr. 10 (gage height, 16.46 feet); minimum, 35 second-feet July 4.

1924-27, 1939-42: Maximum discharge, 110,000 second-feet Nov. 25, 1940 (gage height, 25.85 feet), from rating curve extended above 43,000 second-feet on basis of velocity-area studies; minimum, 9.3 second-feet Oct. 1, 2, 1939.

Maximum stage prior to 1940, 25.2 feet, present site and datum, in December 1913, from information by engineers of International-Great Northern Railroad, at railroad bridge 285 feet downstream (discharge, 101,000 second-feet, from rating curve extended above 43,000 second-feet on basis of velocity-area studies).

Remarks.- Records good. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	108	7,050	223	181	111	205	60	360	62	65	80	101
2	90	14,200	201	207	110	348	57	303	55	67	72	100
3	84	8,680	183	223	105	219	56	263	50	37	66	67
4	85	3,840	174	223	101	215	55	240	45	50	62	108
5	80	1,940	164	183	102	742	55	229	56	199	57	86
6	91	758	153	165	104	a612	55	205	177	836	52	90
7	110	488	142	188	101	a410	1,420	192	462	932	48	142
8	149	384	134	213	100	a348	5,570	198	252	836	45	105
9	246	314	126	194	101	a279	12,900	379	211	772	42	139
10	186	260	123	186	104	a233	15,200	449	303	488	40	286
11	126	227	134	177	107	196	9,280	314	1,290	250	38	397
12	98	198	165	174	120	169	3,860	768	3,770	137	38	514
13	72	179	177	162	126	152	1,910	1,750	4,220	98	52	570
14	61	162	201	150	120	141	812	6,200	3,820	80	42	397
15	456	149	213	144	129	134	528	6,720	2,350	67	43	205
16	1,870	137	213	141	205	129	423	3,340	1,220	62	68	131
17	1,630	129	198	136	410	120	372	1,520	584	57	101	107
18	2,220	120	169	134	325	108	336	612	372	58	111	93
19	2,130	114	153	160	267	100	303	372	252	89	77	80
20	1,170	240	145	157	221	94	724	265	188	74	64	85
21	424	177	142	158	190	90	1,420	217	141	73	59	111
22	201	368	144	155	160	85	1,030	186	117	469	67	97
23	144	837	160	150	221	81	542	167	201	742	85	84
24	112	1,200	233	136	528	80	2,050	250	200	372	93	74
25	93	2,150	275	128	410	80	2,360	242	123	410	81	62
26	81	2,760	235	122	397	84	1,750	201	114	372	81	55
27	77	1,570	225	118	384	84	1,460	336	73	215	105	52
28	71	560	192	116	248	77	1,120	290	56	128	85	48
29	66	325	172	111	-	73	612	144	46	98	65	46
30	1,620	263	158	110	-	69	449	97	42	86	82	45
31	7,190	-	150	108	-	65	-	76	-	77	114	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	21,141	7,190	61	682	0.820	0.94	41,930
November	49,779	14,200	114	1,659	1.99	2.23	98,740
December	5,479	275	123	177	.213	.24	10,870
Calendar year 1941	354,268	19,700	26	971	1.17	15.82	702,700
January	4,910	223	108	158	.190	.22	9,740
February	5,607	528	100	200	.240	.25	11,120
March	5,222	742	65	188	.226	.26	11,550
April	66,769	15,200	55	2,226	2.68	2.98	132,400
May	26,885	6,720	76	867	1.04	1.20	53,330
June	21,452	4,220	42	715	.859	.96	42,550
July	8,296	932	37	268	.322	.37	16,450
August	2,115	114	38	68.2	.082	.09	4,200
September	4,477	570	45	149	.179	.20	8,880
Water year 1941-42	222,732	15,200	37	610	.733	9.94	441,800

a No gage-height record; discharge computed on basis of known range in stage and weather records.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

West Fork of San Jacinto River near Humble, Tex.

Location.- Water-stage recorder, lat. 30°01'35", long. 95°15'30", at bridge on U. S. Highway 59, 1,160 feet upstream from Texas & New Orleans Railroad bridge, about half a mile downstream from Spring Creek, and 2½ miles north of Humble, Harris County. Datum of gage is 30.53 feet above mean sea level, datum of 1929.

Drainage area.- 1,811 square miles.

Records available.- October 1928 to September 1942.

Average discharge.- 14 years (1928-42), 1,132 second-feet.

Extremes.- Maximum discharge during year, 22,300 second-feet Apr. 10 (gage height, 16.16 feet); minimum, 76 second-feet Aug. 12.
1928-42: Maximum discharge, 187,000 second-feet May 31, 1929, Nov. 25, 26, 1940; maximum gage height, 32.7 feet, present recorder site and datum, May 31, 1929, Nov. 26, 1940 (flood of Nov. 26, 1940 affected by backwater from East Fork and it is believed flood of May 31, 1929 occurred under similar conditions); minimum discharge observed, 14 second-feet Sept. 8-10, 1931.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	965	19,300	381	533	230	491	109	928	167	365	174	612
2	777	16,100	345	398	225	749	107	657	149	230	167	722
3	599	18,200	305	370	216	826	109	461	136	195	149	587
4	605	12,800	280	425	212	805	109	360	128	264	136	657
5	551	7,960	260	381	207	1,850	107	310	131	3,240	122	942
6	467	4,670	235	305	203	2,050	100	270	265	5,800	120	756
7	515	2,560	212	315	199	1,480	1,580	225	775	5,320	109	664
8	965	1,700	186	355	191	1,220	6,870	207	690	4,120	100	563
9	950	1,380	182	360	195	972	15,000	216	581	3,100	93	618
10	1,000	1,100	174	335	195	728	21,400	381	491	2,200	85	826
11	950	875	174	310	212	509	20,000	408	1,950	1,430	83	847
12	631	664	195	295	212	398	13,100	378	5,460	1,050	80	812
13	443	551	240	290	216	360	6,460	1,550	5,800	840	85	833
14	335	443	260	275	245	310	3,150	2,580	5,320	728	136	791
15	625	398	290	265	350	275	1,850	6,430	4,120	581	98	587
16	5,770	365	315	275	587	255	1,300	6,150	2,250	392	112	381
17	5,640	340	325	250	1,140	235	980	3,100	1,180	360	156	365
18	4,400	315	320	250	1,060	212	702	1,240	702	255	182	942
19	4,120	295	295	295	f784	191	539	657	515	255	167	497
20	3,100	290	275	420	f631	174	624	473	437	455	164	521
21	1,500	414	260	545	515	167	2,300	381	392	392	167	300
22	861	461	1,230	593	437	160	1,900	320	386	355	599	285
23	575	1,040	763	557	f638	149	1,180	280	461	1,250	545	230
24	414	1,560	420	491	1,380	146	4,110	320	521	1,110	414	178
25	335	2,050	557	431	1,430	149	7,160	437	420	702	398	156
26	295	2,920	593	370	920	149	5,640	403	310	644	295	136
27	280	3,040	443	330	709	146	4,400	350	255	539	245	128
28	250	1,590	381	300	605	139	3,040	509	203	365	250	114
29	220	735	320	275	-	131	2,000	392	167	250	178	107
30	322	467	270	265	-	122	1,300	255	165	195	225	102
31	12,700	-	295	245	-	112	-	195	-	178	345	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	51,160	12,700	220	1,650	0.911	1.05	101,500
November	104,583	19,300	290	3,486	1.92	2.15	207,400
December	10,781	1,230	174	348	.192	.22	21,380
Calendar year 1941	849,484	48,700	61	2,327	1.28	17.44	1,685,000
January	11,104	593	245	358	.198	.23	22,020
February	14,144	1,430	191	505	.279	.29	28,050
March	15,660	2,050	112	505	.279	.32	31,060
April	127,226	21,400	100	4,241	2.34	2.61	252,300
May	30,823	6,430	195	994	.549	.63	61,140
June	34,329	5,800	128	1,144	.632	.70	68,090
July	37,160	5,800	178	1,199	.662	.76	73,710
August	6,179	599	80	199	.110	.13	12,260
September	15,259	942	102	509	.281	.31	30,270
Water year 1941-42	458,408	21,400	80	1,256	.694	9.40	909,200

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

San Jacinto River near Huffman, Tex.

Location.- Water-stage recorder, lat. 29°59'40", long. 95°08'00", at Beaumont, Sour Lake & Western Railway bridge 0.4 mile downstream from confluence of East and West Forks and 3.4 miles southwest of Huffman, Harris County. Datum of gage is 1.93 feet above mean sea level, datum of 1929.

Drainage area.- 2,791 square miles.

Records available.- October 1936 to September 1942.

Extremes.- Maximum discharge during year, 47,600 second-feet Nov. 2 (gage height, 33.08 feet); minimum, 194 second-feet Aug. 12.

1936-42: Maximum discharge observed, 253,000 second-feet Nov. 26, 1940 (gage height, 51.2 feet); minimum observed, 49 second-feet Sept. 1, 1939, and Sept. 13, 14, 1940.

Flood of May 31, 1929, reached a stage of 50.3 feet, from information by Beaumont, Sour Lake & Western Railway Co. (discharge, 237,000 second-feet). Flood of April 1876 reached a stage about 1½ feet lower, from information by local resident.

Remarks.- Records good except those for periods of doubtful or no gage-height record, which are fair. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,500	37,700	925	1,490	441	1,100	280	1,860	321	583	367	1,780
2	1,040	44,200	835	1,460	436	1,620	273	1,420	290	518	363	2,300
3	895	34,000	778	1,290	504	1,930	263	1,140	270	459	387	1,860
4	925	24,600	734	1,260	490	2,000	260	985	241	464	318	1,860
5	1,040	a17,700	701	1,290	d468	4,250	257	865	238	2,470	283	1,790
6	985	a11,000	630	1,080	d450	4,680	257	778	280	9,160	270	1,460
7	925	a8,000	593	955	d436	3,760	2,410	706	679	11,400	257	1,650
8	1,360	a5,400	563	895	d432	3,600	9,780	640	895	8,260	238	2,000
9	1,290	a3,800	538	865	d428	3,040	23,100	701	985	5,040	224	1,760
10	1,490	a2,700	5[illegible]	806	d428	2,220	33,900	1,080	1,080	3,520	212	2,600
11	1,420	a2,000	513	745	446	1,580	35,500	1,420	2,900	2,370	199	2,300
12	985	a1,700	523	696	477	1,230	26,200	1,100	9,000	1,820	202	2,000
13	723	a1,400	613	640	468	985	13,800	2,380	10,800	1,230	212	1,930
14	558	a1,200	690	603	495	835	5,910	4,710	9,010	1,080	232	1,760
15	3,380	a1,050	684	563	668	723	3,040	10,900	7,910	895	254	1,260
16	12,800	a920	657	543	985	662	2,000	11,800	5,560	728	260	925
17	11,400	a810	624	513	1,760	598	1,520	6,340	3,280	965	257	865
18	7,970	a730	583	504	2,070	538	1,140	2,750	2,220	750	318	2,950
19	6,060	a650	533	523	1,860	477	925	1,520	1,760	690	276	3,280
20	4,380	a600	504	652	1,520	446	1,130	1,080	1,320	776	270	2,070
21	2,670	a620	495	778	1,160	411	4,470	865	1,080	674	779	1,360
22	1,620	a900	1,290	835	925	387	5,300	745	1,140	766	2,630	1,160
23	1,080	1,420	1,790	762	985	367	3,550	662	1,080	2,070	5,110	835
24	835	2,520	1,420	696	3,040	347	7,000	778	1,200	1,930	3,840	573
25	696	3,040	1,140	624	3,040	336	15,700	1,100	1,020	1,260	2,440	468
26	598	3,840	1,260	598	2,370	363	13,500	955	745	985	2,370	411
27	538	4,420	1,080	548	1,860	343	9,870	734	624	835	2,370	363
28	486	2,760	865	518	1,420	332	6,600	762	513	624	1,680	329
29	441	1,460	706	495	-	325	4,050	679	446	477	1,140	311
30	1,220	1,100	630	482	-	307	2,670	477	403	436	955	283
31	13,100	-	718	454	-	293	-	379	-	395	955	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	84,410	13,100	441	2,723	0.976	1.12	167,400
November	222,240	44,200	600	7,408	2.65	2.96	440,800
December	24,133	1,790	495	778	.279	.32	47,870
Calendar year 1941	1,514,898	74,200	182	4,150	1.49	20.17	3,005,000
January	24,163	1,490	454	779	.279	.32	47,930
February	30,062	3,040	428	1,074	.385	.40	59,630
March	40,085	4,680	293	1,293	.463	.53	79,510
April	234,655	35,500	257	7,822	2.80	3.13	465,400
May	62,311	11,800	379	2,010	.720	.83	123,600
June	67,290	10,800	238	2,243	.804	.90	133,500
July	63,452	11,400	395	2,047	.734	.85	125,900
August	29,668	5,110	199	957	.343	.40	58,850
September	44,493	3,280	283	1,483	.531	.59	88,250
Water year 1941-42	926,962	44,200	199	2,540	.910	12.35	1,839,000

a No gage-height record; discharge computed on basis of records for nearby stations and weather records.

d Doubtful gage-height record; discharge computed on basis of records for nearby stations and weather records.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Spring Creek near Spring, Tex.

Location.- Wire-weight gage, lat. 30°06'35", long. 95°26'10", at bridge on U. S. Highway 75, 4,500 feet upstream from International-Great Northern Railroad bridge, 2.4 miles northwest of Spring, Harris County, and 4 miles downstream from Willow Creek. Datum of gage is 78.12 feet above mean sea level, unadjusted.

Drainage area.- 400 square miles.

Records available.- April 1939 to September 1942.

Extremes.- Maximum discharge during year, 14,200 second-feet Apr. 9 (gage height, 22.78 feet, from floodmark); minimum observed, 24 second-feet Sept. 29, 30.

1939-42: Maximum discharge, 42,700 second-feet Nov. 25, 1940 (gage height, 28.6 feet, from graph based on gage readings); minimum observed, 7.7 second-feet Sept. 13, 1940.

Maximum stage known, 29.3 feet May 30, 1929, from floodmarks identified by local resident (discharge, 48,300 second-feet).

Remarks.- Records good, except those for periods of no gage-height record, which are fair. Gage read twice daily, oftener during high water. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79	5,100	73	64	46	77	42	142	38	41	35	44
2	66	2,480	72	74	45	190	40	122	36	46	34	199
3	63	1,460	69	71	45	214	40	108	35	51	35	199
4	72	1,100	68	a75	46	158	40	94	36	78	36	408
5	66	1,540	66	75	46	388	40	90	35	288	36	318
6	63	1,030	65	66	48	422	40	84	91	829	35	138
7	75	440	62	65	46	263	267	81	60	1,260	34	74
8	104	251	60	68	46	158	2,710	79	98	1,180	32	70
9	199	189	59	66	47	118	10,900	81	142	654	34	146
10	122	a154	58	63	46	98	9,120	76	130	220	34	138
11	93	a130	60	62	48	83	2,890	70	346	130	32	146
12	61	a115	64	59	48	72	1,030	71	1,180	94	30	91
13	52	a101	71	57	48	69	524	69	821	69	27	65
14	48	a85	70	56	50	65	244	65	305	63	29	54
15	423	77	69	56	68	63	169	62	115	54	31	48
16	1,660	72	67	54	122	60	150	57	101	48	34	42
17	1,160	70	63	54	199	57	130	54	142	48	40	42
18	542	68	61	55	158	54	118	54	78	44	42	60
19	a306	67	60	56	146	52	104	52	66	48	40	44
20	194	73	59	66	94	50	112	51	75	50	36	48
21	134	130	59	62	79	50	142	48	63	47	a39	60
22	98	150	66	60	71	48	142	47	138	49	a48	46
23	78	405	72	58	162	46	134	52	138	52	46	36
24	67	394	a90	54	544	46	1,000	57	115	57	40	32
25	58	246	94	54	373	46	1,780	48	78	66	44	31
26	55	130	85	52	150	47	1,640	47	52	66	49	30
27	56	104	76	50	94	49	1,030	46	44	50	49	30
28	55	90	71	49	72	47	434	a44	36	42	46	29
29	51	82	65	48	-	44	256	42	32	38	42	27
30	194	76	60	48	-	44	176	40	36	41	36	26
31	3,690	-	59	47	-	42	-	40	-	38	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	9,984	3,690	48	322	0.805	0.93	19,800
November	16,409	5,100	67	547	1.37	1.53	32,550
December	2,093	94	58	67.5	.169	.19	4,150
Calendar year 1941	190,305	26,900	27	521	1.30	17.69	377,400
January	1,844	75	47	59.5	.149	.17	3,660
February	2,987	544	45	107	.268	.28	5,920
March	3,220	422	42	104	.260	.30	6,390
April	35,464	10,900	40	1,182	2.96	3.30	70,340
May	2,073	142	40	66.9	.167	.19	4,110
June	4,662	1,180	32	155	.388	.43	9,250
July	5,841	1,260	38	188	.470	.54	11,590
August	1,160	49	27	37.4	.094	.11	2,300
September	2,721	408	26	90.7	.227	.25	5,400
Water year 1941-42	88,458	10,900	26	242	.605	8.22	175,500

a No gage-height record; discharge computed from graph based on rate of change in stage and weather records.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

556253 O - 43 - 5

East Fork of San Jacinto River near Cleveland, Tex.

Location.- Water-stage recorder, lat. 30°20', long. 95°07', at bridge on State Highway 105, 83 feet downstream from Gulf, Colorado & Santa Fe Railway bridge, 1¼ miles west of Cleveland, Liberty County, and 4 miles downstream from Nebblets Creek. Datum of gage is 113.0 feet above mean sea level, datum of 1929.

Drainage area.- 330 square miles.

Records available.- April 1939 to September 1942.

Extremes.- Maximum discharge during year, 18,900 second-feet Nov. 1 (gage height, 15.42 feet); minimum, 27 second-feet Aug. 9-12.

1939-42: Maximum discharge, 77,500 second-feet Nov. 24, 1940 (gage height, 20.3 feet), from rating curve extended above 14,000 second-feet by logarithmic plotting; minimum, 7.2 second-feet Sept. 6, 1939.

Maximum stage known prior to 1940, 19.9 feet May 5, 1935, from information by local resident (discharge, 69,500 second-feet, from rating curve extended above 14,000 second-feet by logarithmic plotting).

Remarks.- Records good. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	13,600	114	270	118	128	68	143	59	66	37	227
2	63	5,170	110	281	128	321	63	126	53	66	37	164
3	59	2,520	108	206	97	332	61	110	49	59	35	396
4	74	1,140	103	286	89	212	61	99	49	59	32	133
5	105	497	103	210	86	541	61	93	55	99	31	89
6	143	409	99	152	86	898	61	91	66	273	31	76
7	105	277	95	139	80	848	291	86	97	244	30	93
8	170	204	91	145	76	519	1,310	193	321	139	29	127
9	170	173	91	145	76	365	4,800	786	398	108	27	442
10	223	154	89	143	89	212	6,280	710	398	86	27	166
11	164	137	93	133	91	166	2,700	177	999	72	27	143
12	97	126	131	124	86	147	1,240	523	1,360	70	28	128
13	74	118	150	118	84	135	343	4,360	1,780	66	39	97
14	59	116	145	114	82	128	221	5,940	2,120	57	53	74
15	137	112	124	112	95	120	175	2,370	1,230	53	49	61
16	904	105	112	108	181	118	154	963	618	53	47	68
17	1,290	103	105	103	398	114	137	284	641	91	41	210
18	846	103	99	108	420	103	124	200	574	114	43	654
19	261	103	97	126	225	97	114	175	251	108	34	244
20	147	116	93	164	147	93	412	147	156	76	39	112
21	120	152	93	137	120	91	923	135	128	59	108	82
22	108	180	262	114	105	89	923	126	120	55	616	70
23	97	628	321	105	187	82	814	116	152	141	486	61
24	91	779	183	99	431	80	893	124	154	154	275	53
25	84	948	156	97	475	80	1,140	126	108	95	266	53
26	78	717	160	93	288	62	1,260	101	93	63	181	51
27	78	208	120	91	154	84	924	101	82	51	135	49
28	93	152	108	89	118	78	321	86	74	45	101	45
29	84	135	101	84	-	74	204	78	70	41	82	43
30	103	120	97	84	-	72	160	70	72	37	118	41
31	10,700	-	126	86	-	70	-	63	-	37	251	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff Inches	Runoff Acre-feet
October	16,795	10,700	59	542	1.64	1.89	33,310
November	29,302	13,600	103	977	2.96	3.30	58,120
December	3,879	321	89	125	.379	.44	7,690
Calendar year 1941	174,161	13,600	25	477	1.45	19.63	345,400
January	4,266	286	84	138	.418	.48	8,460
February	4,612	475	76	165	.500	.52	9,150
March	6,479	898	70	209	.633	.73	12,850
April	26,238	6,280	61	875	2.65	2.96	52,040
May	18,702	5,940	63	603	1.83	2.11	37,090
June	12,327	2,120	49	411	1.25	1.39	24,450
July	2,737	273	37	88.3	.268	.31	5,430
August	3,535	816	27	114	.345	.40	7,010
September	4,252	654	41	142	.430	.48	8,430
Water year 1941-42	133,124	13,600	27	365	1.11	15.01	264,000

Peak discharge.- Nov. 1 (2 a.m.) 18,900 sec.-ft.; Apr. 10 (2 a.m.) 7,950 sec.-ft.; May 13 (5 p.m.) 7,700 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Buffalo Bayou at Houston, Tex.

Location.- Water-stage recorder, lat. 29°45'42", long. 95°23'52", at Waugh Drive Bridge in Houston, Harris County, half a mile upstream from Texas & New Orleans Railroad bridge, and 3¼ miles upstream from Whiteoak Bayou. Datum of gage is 4.08 feet below mean sea level, datum of 1929.

Drainage area.- 368 square miles (revised).

Records available.- May 1936 to September 1942.

Extremes.- Maximum discharge during year, 6,220 second-feet July 7 (gage height, 27.75 feet); minimum, 8.0 second-feet Mar. 31, Apr. 1.

1936-42: Maximum discharge, 9,500 second-feet May 27, 1936 (gage height, 32.5 feet, from graph based on gage readings); minimum not determined.

Maximum stage known, 54.4 feet, present site and datum, Dec. 9, 1935 (discharge, 40,000 second-feet, furnished by M. J. McCall, engineer for Harris County). Flood of May 31, 1929, reached a stage of 48.9 feet, present site and datum (discharge, 19,000 second-feet at bridge on Capitol Avenue, 2 miles downstream; from rating curve extended above 15,300 second-feet, stage-discharge relation materially affected by interference of bridge; furnished by W. E. White, assistant engineer, city of Houston).

Remarks.- Records fair except those for periods of no gage-height record, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		2,740	47	159	a12	58	8.8	96	22	15	45	186
2		2,070	40	234	13	58	12	81	18	16	38	186
3		2,700	35	172	12	78	15	58	16	82	44	254
4		2,750	31	108	12	185	16	47	26	1,520	44	697
5		2,500		72	13	398	17	40	20	3,190	39	718
6		2,000		54	12	467	15	35	19	5,240	37	825
7		1,510		84	12	378	f50	31	55	6,090	34	1,060
8	a790	1,100		102	15	229	f405	29	132	5,500	36	918
9		828		108	18	136	895	26	92	4,400	36	918
10		592		90	22	96	1,040	23	101	3,400	38	1,040
11		328		66	20	70	1,240	20	68	2,570	37	918
12		209		52	19	50	1,470	20	46	1,790	33	760
13		f158	a20	41	18	41	1,500	20	36	1,180	28	571
14		f125		a27	49	33	1,240	20	58	816	45	407
15		98		a22	224	29	826	20	375	510	26	266
16	849	f78		a27	284	24	498	20	228	270	25	209
17	990	f66		a28	284	21	250	19	163	499	28	163
18	1,340	57		a29	244	19	139	16	128	826	84	139
19	1,500	52		34	176	18	96	14	127	872	81	176
20	1,470	64		33	118	16	121	14	66	674	63	138
21	1,500	81		a21	75	14	92	13	168	410	66	111
22	1,470	105	251	a18	56	13	68	13	150	415	134	122
23	1,160	150	395	a16	48	12	92	26	51	150	169	102
24	849	214	228	a15	39	13	602	34	34	147	634	78
25	613	224	163	a15	32	14	350	41	29	105	702	64
26	f325	186	125	a14	29	14	487	136	27	78	467	56
27	f195	125	96	a14	24	13	417	122	21	63	427	44
28	f132	86	84	a12	20	12	310	78	16	53	296	52
29	122	67	68	a10	-	10	224	48	14	46	172	78
30	f383	56	50	a14	-	10	147	34	21	60	279	66
31	2,440	-	100	a12	-	9.2	-	28	-	41	163	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	27,188	-	122	877	2.38	2.75	53,930
November	21,319	2,750	52	711	1.93	2.15	42,290
December	2,053	395	-	66.2	.180	.21	4,070
Calendar year 1941	241,396	5,760	-	661	1.80	24.38	478,800
January	1,703	234	10	54.9	.149	.17	3,380
February	1,900	284	12	67.9	.185	.19	3,770
March	2,538.2	467	9.2	81.9	.223	.26	5,030
April	12,642.8	1,500	8.8	421	1.14	1.28	25,080
May	1,222	136	13	39.4	.107	.12	2,420
June	2,327	375	14	77.6	.211	.24	4,620
July	41,028	6,090	15	1,323	3.59	4.14	81,380
August	4,350	702	25	140	.380	.44	8,630
September	11,322	1,060	44	377	1.02	1.14	22,460
Water year 1941-42	129,593.0	6,090	8.8	355	.965	13.09	257,100

a No gage-height record; discharge computed on basis of known range in stage, available gage heights, discharge measurement, records for nearby stations, and weather records.
f Fragmentary gage-height record; discharge computed from partly estimated gage heights.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Whiteoak Bayou at Houston, Tex.

Location.- Water-stage recorder, lat. 29°46'31", long. 95°23'54", at Yale Street bridge in Houston, Harris County, just downstream from Texas & New Orleans Railroad bridge and 2 miles upstream from Little Whiteoak Bayou. Datum of gage is 4.08 feet below mean sea level, datum of 1929.

Drainage area.- 87.0 square miles.

Records available.- May 1936 to September 1942.

Extremes.- Maximum discharge during year, 4,400 second-feet July 6 (gage height, 36.98 feet); minimum, 1.9 second-feet June 2-4.

1936-42: Maximum discharge, 5,100 second-feet Sept. 24, 1941 (gage height, 40.27 feet); minimum, 0.2 second-foot Aug. 7, 8, 1940.

Maximum stage known, 51.5 feet, present datum, Dec. 9, 1935 (discharge, 14,750 second-feet, furnished by M. J. McCall, engineer for Harris County). Discharge for flood of May 31, 1929, 9,360 second-feet (gage height, 47.0 ±0.5 feet, present site and datum), computed on basis of current-meter measurement at stage 1 foot below crest, made at bridge 1 block downstream; furnished by W. E. White, assistant engineer, city of Houston.

Remarks.- Records good except those for periods of no gage-height record, which are fair.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	2,130	8.0	a299	5.8	24	4.1	12	2.1	10	35	17
2	72	1,140	7.7	a275	5.6	92	4.1	9.5	2.0	11	15	18
3	54	654	7.2	a152	5.4	58	4.3	8.1	1.9	47	21	13
4	93	636	7.0	a86	5.4	83	4.4	6.8	6.4	850	14	202
5	119	534	6.8	a49	5.4	383	4.4	6.0	5.7	2,280	8.8	216
6	72	366	6.3	a32	5.4	291	4.4	5.3	4.1	4,040	7.2	139
7	81	196	5.6	58	5.4	119	55	5.1	5.9	2,740	6.6	175
8	130	108	5.6	123	5.4	63	414	4.9	12	1,500	5.8	147
9	227	67	5.4	a58	5.8	42	690	4.7	6.2	756	4.9	143
10	212	49	5.2	a27	6.8	29	551	4.6	8.3	387	4.6	216
11	92	38	5.8	a21	7.7	21	304	3.9	12	146	4.4	254
12	55	30	5.6	a19	6.8	17	98	3.8	7.7	77	4.1	160
13	40	23	5.6	a18	6.3	15	61	3.8	4.9	50	3.9	91
14	29	19	5.6	17	8.3	13	38	3.6	3.6	31	3.8	60
15	164	16	5.4	15	117	11	26	3.5	33	20	4.1	40
16	602	14	5.4	13	189	10	18	3.2	38	18	4.3	25
17	650	12	5.2	a11	204	8.9	14	3.0	9.2	94	4.3	18
18	590	11	5.0	a32	108	7.5	11	3.2	6.0	116	5.7	17
19	372	10	5.0	a39	49	6.8	9.5	3.0	7.0	d66	14	59
20	251	20	5.0	a30	29	6.3	35	2.9	7.0	90	8.1	39
21	138	32	5.0	a25	24	5.8	20	2.8	22	37	9.2	12
22	84	43		a19	20	5.4	12	2.6	39	101	132	8.8
23	56	49	a249	a15	22	4.8	12	3.6	9.5	30	195	7.0
24	39	40		a13	37	4.8	283	4.7	4.9	22	124	5.8
25	30	26	97	a10	34	4.8	210	3.5	3.8	18	81	4.7
26	24	19	164	a9.6	20	5.0	120	3.5	4.1	13	50	4.6
27	22	15	78	7.2	14	5.0	74	2.8	3.2	9.5	24	3.9
28	19	13	41	7.0	9.6	4.8	44	2.4	2.9	8.6	15	3.3
29	18	10	29	6.5	-	4.4	26	2.4	5.5	8.6	12	2.9
30	167	8.9	22	9.6	-	4.2	17	2.3	20	13	14	2.8
31	1,720	-	45	6.5	-	4.2	-	2.1	-	11	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	6,327	1,720	18	204	2.34	2.70	12,550
November	6,328.9	2,130	8.9	211	2.42	2.70	12,550
December	1,346.4	-	5.0	43.4	.499	.58	2,670
Calendar year 1941	68,308.2	3,980	1.7	187	2.15	29.18	135,500
January	1,502.4	299	6.5	48.5	.557	.64	2,980
February	962.1	204	5.4	34.4	.395	.41	1,910
March	1,353.7	383	4.2	43.7	.502	.58	2,690
April	3,168.2	690	4.1	106	1.22	1.36	6,280
May	133.6	12	2.1	4.31	.050	.06	265
June	297.9	39	1.9	9.93	.114	.13	591
July	13,600.7	4,040	8.6	439	5.04	5.81	26,980
August	855.8	195	3.8	27.6	.317	.37	1,700
September	2,104.8	254	2.8	70.2	.807	.90	4,170
Water year 1941-42	37,981.5	4,040	1.9	104	1.19	16.23	75,340

Peak discharge.- Nov. 1 (1:00 a.m.) 2,680 sec.-ft.; Apr. 9 (1:00 p.m.) 722 sec.-ft.; July 6 (7:30 a.m.) 4,400 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage, available gage heights, and weather records.

d Doubtful gage-height record; discharge computed on basis of available gage heights and engineer's notes.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Brays Bayou at Houston, Tex.

Location.- Water-stage recorder, lat. 29°42'06", long. 95°24'06", at Old Main Street Bridge in southwest section of Houston, Harris County, three-quarters of a mile upstream from Harris Gully and about 15 miles upstream from Buffalo Bayou. Datum of gage is 3.90 feet below mean sea level, datum of 1929.

Drainage area.- 98.2 square miles.

Records available.- May 1936 to September 1942.

Extremes.- Maximum discharge during year, 4,590 second-feet Oct. 31 (gage height, 44.58 feet); minimum, 2.2 second-feet May 20, 21.
1936-42: Maximum discharge, 6,800 second-feet July 12, 1939 (gage height, 48.02 feet); minimum, 0.1 second-foot Oct. 10-13, 1937.
Maximum stage known, 50.4 feet, present site and datum, May 31, 1929 (discharge, 11,095 second-feet, from current-meter measurement at Lawndale Avenue bridge about 12 miles below gage; furnished by W E. White, assistant engineer, city of Houston).

Remarks.- Records good except those for periods of no gage-height record, which are fair. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	2,380	9.0	219	4.9		4.1	9.0	3.0	4.2	20	66
2	52	1,360	8.5	104	4.6	a58	4.1	6.8	2.9	3.7	71	56
3	51	572	9.4	55	4.4		3.8	5.7	2.9	8.8	89	141
4	66	667	7.5	36	4.9		3.8	5.6	3.4	1,510	26	91
5	48	336	7.4	24	4.9	420	3.8	5.0	28	3,100	14	122
6	44	163	6.2	17	4.7		4.0	4.6	16	3,530	8.8	377
7	462	95	5.9	99	4.7		8.1	4.6	32	2,850	6.4	331
8	1,250	56	5.6	95	5.6	a64	56	4.4	246	1,800	5.7	369
9	639	38	5.2	55	11		121	4.9	42	914	4.6	437
10	241	115	5.2	43	20		33	4.1	38	354	4.5	428
11	103	163	9.0	31	39	a17	13	4.0	45	136	4.2	138
12	54	76	9.4	24	26	14	7.9	4.0	17	80	4.4	66
13	38	38	8.3	19	16	12	6.6	4.0	9.4	44	4.1	202
14	25	25	7.4	16	25	10	6.1	4.0	9.6	27	5.8	427
15	632	17	6.4	13	632	9.4	5.2	3.4	249	18	4.8	85
16	1,380	14	6.1	11	524	8.5	4.9	3.1	335	377	5.2	44
17	500	12	5.9	10	325	7.0	4.6	3.5	79	556	30	27
18	190	10	5.6	9.6	148	6.2	4.2	3.6	30	263	47	23
19	93	9.4	5.4	10	76	5.9	4.1	3.8	15	102	32	141
20	64	11	5.4	11	a44	5.7	25	3.4	14	55	44	199
21	277	81	5.6	8.7	a30	5.6	36	3.5	13	30	46	55
22	148	153	485	7.4	a22	5.0	13	3.2	22	89	376	23
23	68	109	414	6.8	a17	5.2	15	18	11	106	288	13
24	42	54	135	6.2	a15	4.9	775	23	7.1	48	121	10
25	30	35	111	6.2	a13	5.6	334	8.1	5.4	24	191	8.8
26	20	25	91	6.1	a10	5.4	124	5.2	4.6	15	83	12
27	22	19	52	5.7	a7.7	4.7	54	3.8	4.1	12	33	16
28	38	14	36	5.2	a6.1	4.6	29	3.5	3.8	10	17	15
29	23	11	24	5.0	-	4.1	17	3.4	4.2	13	11	9.7
30	448	10	17	11	-	4.2	12	3.1	3.7	11	142	7.6
31	3,700	-	63	6.2	-	4.9	-	3.4	-	11	188	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Runoff	
						Inches	Acre-feet
October	10,834	3,700	20	349	3.55	4.10	21,490
November	6,668.4	2,380	9.4	222	2.26	2.52	13,230
December	1,572.4	485	5.2	50.7	.516	.60	3,120
Calendar year 1941	77,274.6	6,060	2.3	212	2.16	29.26	153,300
January	976.1	219	5.0	31.5	.321	.37	1,940
February	2,045.5	632	4.4	73.1	.744	.77	4,060
March	1,121.9	420	4.1	36.2	.369	.42	2,230
April	1,732.3	775	3.8	57.7	.587	.66	3,440
May	169.7	23	3.1	5.47	.056	.06	337
June	1,296.1	335	2.9	43.2	.440	.49	2,570
July	16,101.7	3,530	3.7	519	5.28	6.10	31,940
August	1,927.5	376	4.1	62.2	.633	.73	3,820
September	3,940.1	437	7.6	131	1.33	1.49	7,820
Water year 1941-42	48,385.7	3,700	2.9	133	1.35	18.31	96,000

Peak discharge.- Oct. 31 (8:00 a.m.) 4,590 sec.-ft.; July 5 (7:30 a.m.) 3,390 sec.-ft.; July 6 (3:30 p.m.) 4,120 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage, available gage heights, and weather records.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Double Mountain Fork of Brazos River at Lubbock, Tex.

Location.- Water-stage recorder and masonry control, lat. 33°35'05", long. 101°49'40", in MacKenzie State Park in Lubbock, Lubbock County, 1.9 miles downstream from Yellowhouse Creek. Datum of gage is 3,132.7 feet above mean sea level, datum of 1929.

Records available.- September 1939 to September 1942.

Extremes.- Maximum discharge during year, 427 second-feet Sept. 7 (gage height, 6.30 feet), from rating curve extended above 120 second-feet on basis of slope-area determination at gage height 6.72 feet; no flow at times.

1939-42: Maximum discharge, 892 second-feet June 6, 1941 (gage height, 6.73 feet), from rating curve extended above 120 second-feet on basis of slope-area determination at gage height 6.72 feet; no flow at times.

Remarks.- Records good except those above 120 second-feet, which are poor. Several pools formed by small dams above station affect low flow.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

4.17	0	4.6	9	5.4	91
4.2	.15	4.7	14	5.8	174
4.3	.9	4.8	20	6.2	355
4.4	3.0	5.0	38	6.6	720
4.5	5.9	5.2	62		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	5.6	0				0		0	1.2		0
2	0	2.8	0				0		0	1.1		0
3	0	1.4	0				0		0	.6		0
4	0	1.8	0				0		0	0		0
5	0	3.5	0				0		0	0		0
6	0	2.8	0				0		0	0		12
7	0	1.2	0				0		0	0		185
8	0	.5	0				0		0	0		12
9	0	.1	0				4.6		0	0		1.8
10	0	0	0				1.3		0	0		.4
11	0	0	0				0		0	.2		0
12	0	0	.1				0		0	0		0
13	0	0	0				1.0		0	0		0
14	0	0	0				0		0	0		0
15	0	0	0				0		0	0		0
16	0	0	0				0		0	0		0
17	0	0	0				0		0	0		0
18	0	0	0				0		0	0		36
19	0	0	0				0		0	0		116
20	0	0	0				0		0	0		36
21	0	0	0				0		0	0		26
22	0	0	0				0		0	0		52
23	102	0	0				0		0	0		28
24	48	0	0				0		0	0		10
25	18	0	0				0		73	0		4.6
26	9.1	0	0				0		230	.1		1.8
27	9.9	0	0				0		67	0		.9
28	15	0	0				0		24	0		.4
29	15	0	0				0		8.2	0		0
30	14	0	0				0		2.8	0		0
31	9.5	-	0				-		-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	240.5	102	0	7.76	477
November	19.7	5.6	0	.66	39
December	.1	.1	0	.003	.2
Calendar year 1941	3,389.0	655	0	9.28	6,730
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	6.9	4.6	0	.23	14
May	0	0	0	0	0
June	405.0	230	0	13.5	803
July	3.2	1.2	0	.10	6.3
August	0	0	0	0	0
September	522.9	185	0	17.4	1,040
Water year 1941-42	1,198.3	230	0	3.28	2,380

Peak discharge.- Oct. 23 (1 p.m.) 265 sec.-ft.; June 25 (11 p.m.) 337 sec.-ft.; Sept. 7 (6 a.m.) 427 sec.-ft.; Sept. 19 (4 a.m.) 206 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Double Mountain Fork of Brazos River near Aspermont, Tex.

Location.- Water-stage recorder, lat. 33°00', long. 100°11', at bridge on U. S. Highway 83, 8 miles downstream from Mountain Creek and 10 miles south of Aspermont, Stonewall County.

Drainage area.- 7,979 square miles, of which 6,470 square miles is probably noncontributing.

Records available.- December 1923 to September 1934, June 1939 to September 1942.

Average discharge.- 13 years (1924-34, 1939-42), 207 second-feet.

Extremes.- Maximum discharge during year, 26,000 second-feet Oct. 15 (gage height, 11.22 feet); no flow at times.
1924-34, 1939-42: Maximum discharge, 52,000 second-feet Oct. 15, 1926 (gage height, 18.14 feet, from floodmark), by slope-area method; no flow at times.

Remarks.- Records poor. Daily discharge published only to show distribution of runoff. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,200	583	29	9.5	4.6	0.4	0	12	a5.0	0.4	0	a19
2	2,270	348	29	9.0	4.2	.6	0	11	a2.0	2.2	.5	600
3	8,680	237	27	8.5	3.4	.6	0	9.5	.5	6.0	.1	275
4	3,650	192	26	8.5	3.4	.9	0	8.0	26	42	0	155
5	940	175	24	11	3.0	.9	0	7.0	183	127	0	a88
6	461	146	23	11	2.2	.9	0	6.0	44	a30	0	a48
7	287	133	22	11	1.8	.8	3.1	4.2	410	a14	0	1,360
8	195	95	21	11	1.8	.8	f47	3.4	308	a8.5	0	550
9	161	83	20	11	1.8	.7	f43	2.6	f21	a6.5	0	184
10	142	71	20	11	1.8	.6	f92	1.8	*f6.5	a5.5	0	a102
11	127	65	29	11	1.4	.5	511	1.4	2.2	f45	0	a51
12	124	60	198	11	1.4	.4	251	.9	.7	a14	0	a35
13	113	49	95	10	1.0	.3	835	.8	.3	f132	0	a32
14	1,500	44	67	9.5	.9	.2	1,250	.6	.2	a102	0	a31
15	21,600	44	54	9.5	.9	.1	316	.5	2,690	a78	1.0	a29
16	4,160	42	46	10	.9	0	195	.4	379	a71	1,290	a25
17	674	35	36	10	.9	0	119	.3	80	a63	621	a22
18	f328	35	36	11	.9	0	102	.1	26	a54	152	a21
19	f266	35	35	11	.8	0	74	.2	13	a48	78	505
20	249	34	31	10	.9	0	51	65	6.5	a39	86	5,770
21	214	34	27	9.5	.8	0	35	102	4.2	a29	183	938
22	295	54	26	9.5	.7	0	29	78	2.2	a20	262	378
23	1,250	51	24	9.0	.7	0	30	84	.9	a12	460	a283
24	2,690	44	22	8.5	.6	0	35	130	.5	7.0	379	a214
25	2,220	36	21	8.0	.5	0	26	123	.1	2.6	3,230	a161
26	2,820	34	19	8.0	.4	0	21	94	.1	.7	1,380	a108
27	1,210	31	17	7.5	.4	0	20	53	.1	.2	540	a67
28	468	31	15	6.5	.4	0	18	30	.1	.1	214	44
29	309	30	14	6.5	-	0	17	a22	.1	0	95	41
30	314	30	13	5.5	-	0	15	a15	.5	0	a48	38
31	270	-	12	4.6	-	0	-	a10	-	0	a31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	64,187	21,600	113	2,071	127,300
November	2,881	583	30	96.0	5,710
December	1,078	198	12	34.8	2,140
Calendar year 1941	256,043.4	21,600	.1	701	507,800
January	287.6	11	4.6	9.28	570
February	42.5	4.6	.4	1.52	84
March	8.9	.9	0	.29	18
April	4,135.1	1,250	0	138	8,200
May	876.7	130	.1	28.3	1,740
June	4,212.9	2,690	.1	140	8,360
July	959.7	132	0	31.0	1,900
August	9,050.6	3,230	0	292	17,950
September	12,174	5,770	19	406	24,150
Water year 1941-42	99,894.0	21,600	0	274	198,100

Peak discharge.- Oct. 1 (8:30 a.m.) 13,000 sec.-ft.; Oct. 3 (7 p.m.) 21,500 sec.-ft.; Oct. 15 (4 p.m.) 26,000 sec.-ft.; Sept. 20 (3:30 a.m.) 14,400 sec.-ft.
a No gage-height record; discharge computed on basis of engineer's notes and weather records.
f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Brazos River at Seymour, Tex.

Location.- Water-stage recorder, lat. 33°34', long. 99°16', at bridge on U. S. Highways 277 and 283, three-quarters of a mile upstream from Wichita Valley Railway bridge, and 1 mile southwest of courthouse in Seymour, Baylor County. Datum of gage is 1,258.7 feet above mean sea level (Texas State Highway bench mark).

Drainage area.- 14,490 square miles, of which 9,240 square miles is probably noncontributing.

Records available.- November 1923 to September 1942.

Average discharge.- 18 years (1924-42), 522 second-feet.

Extremes.- Maximum discharge during year, 43,300 second-feet Oct. 16 (gage height, 10.30 feet); no flow Aug. 1-15.
1923-42: Maximum discharge, 95,400 second-feet Oct. 16, 1926 (gage height, 15.16 feet, from floodmarks), by slope-area method; no flow at times.
Maximum stage known, about 21.0 feet, sometime prior to 1916.

Remarks.- Records fair. Daily discharge published only to show distribution of runoff. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,550	1,450	157	93	59	42	8.6	119	22	24	0	326
2	9,660	1,650	157	84	54	53	8.2	95	15	42	0	203
3	14,100	1,250	153	86	54	50	8.2	67	10	73	0	180
4	25,600	846	147	g93	53	42	7.8	58	9.4	57	0	930
5	7,050	694	144	g90	50	40	9.0	48	9.0	95	.8	520
6	g3,540	559	134	g90	43	37	20	52	223	53	0	313
7	g1,880	522	130	g90	42	31	83	114	475	36	0	862
8	g1,240	467	127	g90	41	34	101	114	269	23	0	1,270
9	g870	417	119	g90	40	32	194	48	225	18	0	846
10	705	385	119	g90	40	28	122	41	574	543	0	893
11	589	334	169	g90	39	27	52	32	262	1,210	0	409
12	503	306	337	g90	39	25	195	24	130	762	.8	256
13	450	269	370	g88	39	21	512	19	93	220	0	169
14	417	245	522	88	41	21	467	14	101	117	.4	127
15	18,000	235	589	86	50	21	1,620	12	60	69	4.3	111
16	27,000	230	434	90	48	18	907	11	1,140	40	8.6	88
17	6,030	219	341	90	46	16	694	9.4	1,830	27	198	80
18	g2,520	203	294	84	42	16	682	8.6	1,370	29	1,000	67
19	g1,490	190	256	80	39	14	946	16	728	19	705	362
20	g809	173	224	78	40	11	3,880	16	425	13	377	6,940
21	g484	157	203	84	37	11	1,250	19	224	9.8	224	7,300
22	g356	186	186	86	36	11	974	23	147	7.8	159	3,430
23	4,070	194	164	84	37	11	1,300	24	93	6.1	596	g1,070
24	6,680	182	147	80	33	9.8	2,300	33	59	4.6	491	g728
25	10,600	177	134	76	32	9.0	1,220	136	41	1.0	1,680	g442
26	6,710	164	119	73	32	8.6	784	144	29	2.2	3,350	g275
27	6,470	169	109	67	29	8.6	760	109	76	2.0	f1,830	g199
28	g4,120	160	101	66	31	8.6	871	84	76	7.2	1,990	g144
29	g2,310	160	99	62	-	8.6	269	66	48	7.0	988	g90
30	g1,730	157	99	62	-	7.8	160	43	33	3.4	494	g58
31	g1,350	-	95	59	-	8.6	-	34	-	1.2	377	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	171,883	27,000	356	5,545	340,900
November	12,350	1,650	157	412	24,500
December	6,379	589	95	206	12,650
Calendar year 1941	651,849.8	40,000	1.0	1,786	1,293,000
January	2,559	93	59	82.5	5,080
February	1,166	59	29	41.6	2,310
March	681.6	53	7.8	22.0	1,350
April	20,404.8	3,880	7.8	680	40,470
May	1,633.0	144	8.6	52.7	3,240
June	8,796.4	1,830	9.0	293	17,450
July	3,522.3	1,210	1.0	114	6,990
August	14,473.9	3,350	0	467	28,710
September	28,688	7,300	58	956	56,900
Water year 1941-42	272,537.0	27,000	0	747	540,600

Peak discharge.- Oct. 4 (11 a.m.) 36,200 sec.-ft.; Oct. 16 (4 a.m.) 43,300 sec.-ft.
f Fragmentary gage-height record; discharge computed from partly estimated gage heights.
g Computed from graph based on gage readings.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Brazos River near South Bend, Tex.

Location.- Water-stage recorder, lat. 33°01'30", long. 98°38'50", at bridge on State Highway 67, 0.3 mile upstream from Wichita Falls & Southern Railroad bridge, 1.6 miles downstream from Clear Fork of Brazos River, and 2.0 miles northeast of South Bend, Young County. Datum of gage is 1,003.0 feet above mean sea level, datum of 1929.

Drainage area.- 21,600 square miles, of which 9,240 square miles is probably noncontributing.

Records available.- September 1938 to September 1942.

Extremes.- Maximum discharge during year, 50,700 second-feet Oct. 17 (gage height, 16.87 feet); minimum, 7.0 second-feet Aug. 14, 15.

1938-42: Maximum discharge, 87,400 second-feet May 4, 1941 (gage height, 27.35 feet); no flow at times.

Maximum stage known, 36.2 feet in 1876, from information by Texas Highway Department and Corps of Engineers, U. S. Army.

Remarks.- Records fair. No large diversion above station. Flow partly regulated by reservoirs in Elm Creek Basin (see p. 84) and Lakes Sweetwater and Trammel in Sweetwater Creek Basin, which have a combined capacity of about 106,000 acre-feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	625	14,900	522	290	178	133	54	745	182	117	15	790
2	7,410	6,560	515	275	167	135	54	529	122	111	13	550
3	22,000	4,800	494	270	167	133	53	402	101	99	12	722
4	38,400	3,500	487	255	164	133	52	320	87	88	12	2,730
5	27,400	2,720	438	240	155	133	51	275	74	92	11	870
6	8,000	2,350	426	235	143	126	64	318	1,810	83	9.5	1,290
7	3,880	2,070	408	210	143	119	2,910	3,460	2,410	97	9.5	7,320
8	2,580	1,930	396	194	140	117	28,600	990	960	94	8.5	15,300
9	1,800	1,510	384	186	133	113	25,900	736	940	92	8.5	10,500
10	1,440	1,280	372	206	131	107	11,800	745	1,060	87	8.5	4,220
11	1,090	1,110	462	230	131	103	2,420	468	763	94	11	3,960
12	900	1,040	592	250	128	101	1,500	265	592	403	15	2,960
13	980	970	1,210	240	124	97	2,080	206	300	1,130	12	2,350
14	1,000	860	2,580	245	133	94	1,860	143	155	727	9.0	1,350
15	4,420	810	2,280	260	149	90	2,140	155	4,010	432	8.0	709
16	39,200	718	1,860	250	138	87	2,400	215	5,860	275	12	480
17	31,800	668	1,670	245	135	83	2,210	119	3,610	178	17	378
18	16,000	644	1,260	225	135	80	1,510	168	4,090	115	15	330
19	15,700	585	870	225	131	80	1,690	6,670	4,090	87	12	280
20	14,200	543	718	220	263	76	14,600	7,770	1,860	64	282	260
21	5,640	501	636	215	850	71	9,420	1,810	1,030	49	432	8,220
22	2,960	508	578	206	628	70	2,320	2,070	810	44	295	5,400
23	2,500	522	501	206	310	70	1,930	1,740	599	40	366	3,720
24	8,060	578	468	206	190	71	12,000	1,610	432	35	775	2,500
25	19,000	564	426	215	155	68	8,790	1,260	330	31	1,380	1,930
26	12,200	550	390	210	143	60	4,150	840	240	30	543	1,470
27	11,200	487	360	202	138	59	2,820	474	170	28	3,700	1,350
28	9,910	468	340	198	131	59	2,880	763	133	25	1,900	1,110
29	6,240	515	335	194	-	58	1,740	840	107	22	1,930	930
30	18,300	522	310	198	-	54	1,270	620	94	20	1,270	727
31	25,400	-	300	194	-	54	-	295	-	18	960	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	360,235	39,200	625	11,620	714,500
November	54,783	14,900	468	1,826	108,700
December	22,588	2,580	300	729	44,800
Calendar year 1941	1,611,721.5	84,300	.7	4,416	3,197,000
January	6,995	290	186	226	13,870
February	5,533	850	124	198	10,970
March	2,834	135	54	91.4	5,620
April	149,268	28,600	51	4,976	296,100
May	37,021	7,770	119	1,194	73,430
June	37,021	5,860	74	1,234	73,430
July	4,807	1,130	18	155	9,530
August	14,051.5	3,700	8.0	453	27,870
September	84,706	15,300	260	2,824	168,000
Water year 1941-42	779,842.5	39,200	8.0	2,137	1,547,000

Peak discharge.- Oct. 5 (2 a.m.) 44,200 sec.-ft.; Oct. 17 (2:30 a.m.) 50,700 sec.-ft.; Oct. 30 (9:30 p.m.) 31,100 sec.-ft.; Apr. 8 (8:30 a.m.) 32,700 sec.-ft.

Note.- Fragmentary or no gage-height record May 8-18, May 25 to June 6, June 8, 9, 12-14, June 21 to July 8, July 13-31, Aug. 29 to Sept. 2, Sept. 5, 6, 14-21, 27-30; discharge computed from graph based on available recorder record and twice-daily wire-weight gage readings.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Possum Kingdom Reservoir near Graford, Tex.

Location.- Mercury U-tube gage, lat. 32°52', long. 98°28', in powerhouse at dam on Brazos River, 2.6 miles upstream from Loving Creek and 11.3 miles southwest of Graford, Palo Pinto County. Datum of gage is at mean sea level (levels by Brazos River Conservation & Reclamation District); add 0.10 foot to elevations to reduce to elevations above mean sea level, datum of 1929.

Drainage area.- 22,550 square miles, of which 9,240 square miles is probably non-contributing.

Records available.- March 1941 to September 1942.

Extremes.- Maximum contents observed during year, 750,000 acre-feet Oct. 5 (elevation, 1,001.0 feet); minimum observed, 630,900 acre-feet Nov. 7-10, (elevation, 994.4 feet).

1941-42: Maximum contents observed, that of Oct. 5, 1941; minimum observed, 528,700 acre-feet June 3, 1941 (elevation, 988.4 feet).

Remarks.- Records good. Reservoir is formed by reinforced concrete dam of flat slab deck, massive buttress type, with 9 roof-weir (modified bear-trap) type gates, two bulkhead sections, and earthen dike section. Dam completed and storage began Mar. 21, 1941. Total capacity, 730,000 acre-feet (elevation, 1,000.0 feet, top of closed roof-weir gates). Usable capacity, 705,500 acre-feet (revised) between elevation 911.5 feet (sill of powerhouse penstock) and 1,000.0 feet (top of closed roof-weir gates). Water below elevation 911.5 feet can be withdrawn through high pressure outlet down to elevation 874.8 feet (revised). Figures given herein represent total contents. Water used for power development.

Cooperation.- Records of daily elevation and capacity table furnished by Brazos River Conservation & Reclamation District.

Monthly elevation and contents, water year October 1941 to September 1942

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	1,000.0	730,000	-
Oct. 31	997.5	685,800	-44,200
Nov. 30	995.6	652,100	-33,700
Dec. 31	996.0	659,200	+7,100
Calendar year 1941	-	-	-
Jan. 31	995.2	645,000	-14,200
Feb. 28	995.2	645,000	0
Mar. 31	995.2	645,000	0
Apr. 30	999.2	715,800	+70,800
May 31	999.0	712,300	-3,500
June 30	999.0	712,300	0
July 31	998.0	694,600	-17,700
Aug. 31	997.7	689,300	-5,300
Sept.30	999.4	719,400	+30,100
Water year 1941-42	-	-	-10,600

† Average of twice-daily elevations at 1 a.m. and 1 p.m.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Brazos River near Palo Pinto, Tex.

Location.- Water-stage recorder, lat. 32°51'45", long. 98°18'10", at bridge on Palo Pinto-Graford highway, 300 feet downstream from Dark Valley Creek and 6½ miles north of Palo Pinto, Palo Pinto County. Datum of gage is 831.23 feet above mean sea level, datum of 1929.

Drainage area.- 22,760 square miles, of which about 9,240 square miles is probably non-contributing.

Records available.- November 1933 to September 1942. January 1924 to November 1933, at site near Mineral Wells.

Extremes.- Maximum discharge during year, 51,200 second-feet (regulated) Oct. 5 (gage height, 17.3 feet); minimum, 89 second-feet (regulated) Mar. 17.

1933-42: Maximum discharge, 64,900 second-feet May 20, 1935, from rating curve extended above 32,000 second-feet; maximum gage height, that of Oct. 5, 1941; no flow at times.

Maximum stage known was reached by flood of 1876, according to data of Corps of Engineers, U. S. Army, and was several feet higher than any subsequent flood. A stage of about 24.0 feet was reached in June 1930, from information by local residents.

Remarks.- Records fair. Flow regulated by Possum Kingdom Reservoir on Brazos River (see p. 68), and several smaller reservoirs above Nugent in Clear Fork Basin, having a combined capacity of 836,000 acre-feet. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	818	17,700	142	142	181	155	116	a953	389	221	264	261
2	1,950	16,500	142	134	564	147	112	a338	389	206	278	267
3	17,400	13,900	127	134	159	130	109	a278	389	211	267	2,090
4	36,200	12,100	127	134	151	127	112	a255	389	201	278	378
5	49,200	10,100	123	142	142	123	120	a267	475	201	278	2,440
6	18,300	5,180	123	147	138	123	742	a1,310	4,050	176	278	272
7	11,000	5,510	123	151	138	120	3,060	a1,480	13,200	278	261	5,880
8	8,670	277	127	151	138	123	20,600	a5,420	985	302	261	11,400
9	5,220	172	127	130	138	123	20,000	a493	8,760	314	272	11,000
10	346	155	130	130	138	120	17,600	a357	884	314	261	8,260
11	272	151	211	130	138	120	2,160	a357	546	314	284	4,990
12	272	163	196	130	138	120	238	a357	478	296	201	515
13	255	142	172	130	142	123	11,600	a357	436	284	168	206
14	211	138	159	130	134	112	3,500	a1,560	483	302	163	168
15	211	138	159	130	134	112	320	a493	7,450	302	163	151
16	16,400	138	155	130	134	109	308	a350	10,700	302	293	147
17	37,700	138	159	4,980	130	109	308	a344	4,050	302	308	201
18	19,900	130	159	5,160	123	112	308	a1,460	1,050	314	320	221
19	13,200	138	159	f3,970	130	120	1,420	a19,500	5,740	314	314	221
20	12,700	130	159	290	130	120	15,000	a10,400	5,500	302	296	191
21	13,900	130	159	142	130	120	17,500	a5,450	3,250	308	314	1,720
22	11,400	142	163	142	130	116	10,400	a1,410	326	314	308	10,400
23	6,140	142	155	134	130	120	7,260	a1,760	302	308	320	4,230
24	8,660	142	155	130	127	116	23,400	a6,500	308	308	464	206
25	14,800	142	159	130	127	127	17,200	a4,860	296	320	363	172
26	25,300	147	155	130	130	120	f1,630	a554	278	314	261	163
27	17,700	147	1,720	123	130	120	f796	471	267	290	255	147
28	15,800	147	5,740	123	127	120	7,310	436	261	308	272	138
29	14,300	138	4,730	123	-	112	11,400	415	243	308	261	147
30	13,200	134	272	134	-	112	9,360	389	243	284	249	134
31	15,800	-	159	134	-	120	-	389	-	284	278	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	407,225	49,200	211	13,140	807,700
November	84,411	17,700	130	2,814	167,400
December	16,546	5,740	123	534	32,820
Calendar year 1941	1,438,802	49,200	13	3,942	2,854,000
January	18,020	5,160	123	581	35,740
February	4,251	564	123	152	8,430
March	3,751	155	109	121	7,440
April	203,989	23,400	109	6,800	404,600
May	68,963	19,500	255	2,225	136,800
June	72,117	13,200	243	2,404	143,000
July	8,802	320	176	284	17,460
August	8,573	464	163	277	17,000
September	66,716	11,400	134	2,224	132,300
Water year 1941-42	963,364	49,200	109	2,639	1,911,000

Peak discharge.- Oct. 5 (8 a.m.) 51,200 sec.-ft.; Oct. 17 (5 p.m.) 39,700 sec.-ft.; Apr. 24 (9:30 p.m.) 38,500 sec.-ft.

a No gage-height record; discharge computed on basis of available gage heights and records for nearby stations.

f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Brazos River near Glen Rose, Tex.

Location.- Water-stage recorder, lat. 32°15'40", long. 97°41'50", a quarter of a mile upstream from bridge on U. S. Highway 67, 2 miles upstream from Paluxy Creek, and 4 miles northeast of Glen Rose, Somervell County. Datum of gage is 566.66 feet above mean sea level, datum of 1929.

Drainage area.- 24,840 square miles, of which 9,240 square miles is probably noncontributing.

Records available.- October 1923 to September 1942.

Average discharge.- 19 years, 1,811 second-feet.

Extremes.- Maximum discharge during year, 66,400 second-feet Apr. 26 (gage height, 19.23 feet); minimum, 131 second-feet Apr. 4, 5.
1923-42: Maximum discharge, 97,600 second-feet May 18, 1935 (gage height, 23.68 feet); from rating curve extended above 68,000 second-feet; no flow at times.
Maximum stage known, about 30.0 feet, May 8 or 9, 1922, from information by local residents.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Flow regulated by Possum Kingdon Reservoir (see p. 68) and several smaller reservoirs. Many small diversions above station for municipal and oil field uses.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	493	h15,600	310	a1,120	242	193	141	h11,600	1,010	520	328	351
2	467	h16,200	310	h610	235	205	136	h9,060	907	520	328	351
3	1,940	h16,200	302	h709	235	211	136	h4,540	834	480	328	582
4	13,800	h13,600	295	h562	229	229	131	h2,710	779	474	323	2,750
5	41,100	h12,100	348	h318	229	235	131	h1,900	719	461	323	6,300
6	48,900	g10,400	348	h258	410	223	155	h1,700	689	448	317	2,220
7	18,400	g6,940	295	h211	403	211	229	h3,660	3,260	442	312	4,350
8	10,500	g6,080	280	229	372	199	26,300	h3,200	14,300	436	312	5,690
9	9,360	g5,000	272	288	250	187	40,100	h2,800	7,560	423	317	11,000
10	6,940	2,000	265	265	235	181	21,400	h5,130	6,370	405	317	10,000
11	5,720	1,150	302	242	223	175	17,000	h2,960	8,110	398	317	10,000
12	3,410	784	333	235	217	175	6,720	948	3,300	405	323	6,440
13	2,160	638	467	242	211	175	3,840	1,060	1,700	405	340	5,080
14	1,670	562	699	235	217	170	8,210	948	1,260	405	317	2,800
15	1,340	519	544	229	223	170	8,160	842	13,300	405	312	1,180
16	1,110	484	476	223	280	160	3,960	989	24,300	392	312	726
17	6,640	459	419	217	250	160	2,200	2,280	11,300	386	374	574
18	33,600	427	379	211	223	155	1,420	1,280	8,760	380	323	494
19	18,000	411	348	1,310	223	155	1,310	31,800	5,080	374	306	454
20	11,200	395	325	4,170	211	150	18,200	42,300	2,560	374	340	417
21	12,700	379	310	3,620	205	146	25,500	11,900	4,060	374	357	429
22	12,100	379	302	1,810	199	146	16,700	11,000	6,580	374	345	448
23	11,800	364	a288	946	187	141	11,600	7,280	5,210	369	345	442
24	10,700	372	a280	582	181	141	35,600	7,000	2,450	374	369	7,020
25	7,200	379	a272	443	181	146	59,200	4,820	1,200	392	436	3,990
26	11,500	372	a272	364	175	150	49,900	8,460	866	369	674	1,400
27	25,500	348	a265	310	175	155	10,700	7,560	741	369	638	711
28	16,500	341	a258	288	175	150	h11,000	3,620	652	369	533	513
29	15,600	325	a391	258	-	150	h11,900	1,830	602	363	468	436
30	14,300	318	a4,640	258	-	146	h11,300	1,370	547	357	380	392
31	h13,000	-	a3,950	258	-	146	-	1,160	-	345	357	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	387,650	48,900	467	12,500	768,900
November	113,526	16,200	318	3,784	225,200
December	18,545	4,640	258	598	36,780
Calendar year 1941	1,706,631	48,900	165	4,676	3,385,000
January	21,021	4,170	211	678	41,690
February	6,596	410	175	236	13,080
March	5,336	235	141	172	10,580
April	403,279	59,200	131	13,440	799,900
May	197,727	42,300	842	6,378	392,200
June	139,006	24,300	547	4,634	275,700
July	12,588	520	345	406	24,970
August	11,371	674	306	367	22,550
September	87,540	11,000	351	2,918	173,600
Water year 1941-42	1,404,185	59,200	131	3,847	2,785,000

Peak discharge.- Oct. 6 (7:30 a.m.) 51,200 sec.-ft.; Oct. 18 (4 p.m.) 35,700 sec.-ft.; Apr. 9 (2 a.m.) 43,800 sec.-ft.; Apr. 24 (3:30 a.m.) 32,600 sec.-ft.; Apr. 26 (7:30 a.m.) 66,400 sec.-ft.; May 20 (6 a.m.) 51,300 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage and records for station near Palo Pinto.

g Computed from graph based on gage readings.

h Computed from graph based on gage readings furnished by U. S. Weather Bureau.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Brazos River near Whitney, Tex.

Location.- Wire-weight gage, lat. 31°54'10", long. 97°23'05", on bridge on State Highway 22, 1.8 miles upstream from Towash Creek and 5 miles southwest of Whitney, Hill County. Datum of gage is 432.06 feet above mean sea level, datum of 1929 (Brazos River Conservation and Reclamation District bench mark).

Drainage area.- 26,090 square miles, of which 9,240 square miles is probably noncontributing.

Records available.- October 1938 to September 1942.

Extremes.- Maximum discharge observed during year, 60,100 second-feet Apr. 25 (gage height, 27.9 feet); minimum observed, 154 second-feet Apr. 4.
1938-42: Maximum discharge observed, that of Apr. 25, 1942; minimum observed, 2.0 second-feet Oct. 31, Nov. 1, 1939.
Maximum stage known, 46 feet May 9, 1922, from information by local residents.

Remarks.- Records fair. Gage read twice daily, more often during high water. Flow regulated by Possum Kingdom Reservoir (see p. 38) and several smaller reservoirs. Many small diversions above station for municipal and oil field uses.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	868	14,800	404	2,350	398	272	143	11,800	1,800	859	385	770
2	766	17,100	411	1,640	363	330	137	9,000	1,640	1,000	358	605
3	893	16,600	463	1,170	358	346	140	4,670	1,490	1,010	352	476
4	4,600	14,600	411	800	336	314	137	3,080	1,390	920	346	3,080
5	28,400	12,900	385	575	330	309	137	2,470	1,340	920	336	3,170
6	40,200	10,800	374	470	325	304	173	2,350	2,410	672	330	3,240
7	31,700	8,750	456	404	314	319	450	3,210	2,590	658	325	5,150
8	10,500	6,620	368	380	515	314	16,600	3,920	10,600	658	314	5,580
9	10,000	7,060	352	346	380	282	34,100	2,890	8,500	612	304	7,810
10	8,250	3,140	374	358	336	272	28,000	2,770	6,620	612	330	10,000
11	6,620	2,180	411	363	304	243	20,100	4,670	9,940	522	325	9,000
12	3,430	1,540	496	346	298	233	10,000	2,950	5,740	470	330	6,620
13	1,860	1,200	568	325	272	224	5,210	2,350	3,680	508	325	4,980
14	1,490	1,100	560	325	252	206	4,920	1,960	6,440	508	336	4,080
15	1,290	910	884	336	314	215	9,380	2,650	21,400	476	325	2,650
16	1,240	884	808	314	314	206	5,380	1,620	25,500	522	325	1,390
17	1,540	816	635	314	346	198	3,210	1,590	17,100	380	380	825
18	24,300	725	575	304	314	189	2,470	4,290	12,300	430	418	560
19	26,000	710	502	288	314	181	4,490	26,700	8,600	476	404	450
20	11,400	740	430	1.720	293	181	25,000	42,500	5,120	476	325	368
21	13,400	612	430	3,340	243	169	27,700	20,100	3,140	470	330	346
22	12,100	598	463	2,410	272	150	20,400	13,200	6,280	508	380	330
23	12,600	560	463	1,640	257	143	14,600	11,000	6,400	470	582	374
24	10,500	545	398	1,150	252	150	35,400	7,750	4,320	444	1,640	1,400
25	7,920	538	385	782	181	143	53,800	5,520	2,770	444	1,090	5,620
26	13,300	508	368	628	215	146	53,900	5,730	1,860	496	672	3,210
27	27,400	522	352	470	215	143	21,000	7,500	1,440	482	976	1,960
28	17,100	496	363	424	206	150	10,500	5,030	1,290	456	976	1,100
29	16,300	476	363	392	-	150	12,600	3,020	1,170	430	718	740
30	14,800	444	346	469	-	143	10,000	2,240	1,340	418	620	605
31	13,700	-	4,370	568	-	150	-	1,690	-	418	522	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	374,267	40,200	766	12,070	742,300
November	128,474	17,100	444	4,282	254,800
December	18,168	4,370	346	586	36,040
Calendar year 1941	1,881,994	40,200	158	5,156	3,732,000
January	25,421	3,340	288	820	50,420
February	8,517	515	181	304	16,890
March	6,775	346	143	219	13,440
April	430,077	53,900	137	14,340	853,000
May	220,220	42,500	1,590	7,104	436,800
June	184,210	25,500	1,170	6,140	365,400
July	17,725	1,010	380	572	35,160
August	15,379	1,640	304	496	30,500
September	86,089	10,000	330	2,870	170,800
Water year 1941-42	1,515,322	53,900	137	4,152	3,006,000

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Brazos River at Waco, Tex.

Location.- Water-stage recorder, lat. 31°33'40", long. 97°07'45", at Washington Avenue Bridge in Waco, McLennan County, 2½ miles downstream from Bosque River. Datum of gage is 357.1 feet above mean sea level, datum of 1929.

Drainage area.- 23,500 square miles, of which 9,240 square miles is probably noncontributing.

Records available.- September 1898 to September 1942. January 1912 to September 1914, (monthly records only) published in Water-Supply Paper 850. U. S. Weather Bureau has collected gage-height records in this vicinity since 1900.

Average discharge.- 44 years, 2,764 second-feet.

Extremes.- Maximum discharge during year, 126,000 second-feet Apr. 25 (gage height, 35.70 feet); minimum not determined.

1898-1942: Maximum discharge, 246,000 second-feet Sept. 27, 1936 (gage height, 40.90 feet, levee on left bank was overtopped and broken by flood); minimum discharge for periods of daily record, 1898-1911, 1914-42, no flow Aug. 20, 21, 1918, and probably for several days in August 1923.

A stage of 39.7 feet was reached Dec. 3, 1913, when levee on left bank was broken by flood, from information by U. S. Weather Bureau.

Remarks.- Records good. Many small diversions above station do not appreciably affect flow, except during low stages. Flow partly regulated by Possum Kingdom Reservoir on Brazos River (see p. 68) and Lake Waco, on the Bosque River near Waco (capacity, 39,000 acre-feet).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	884	13,200	530	4,400	1,000	951	238	20,400	2,310	f1,660	488	810
2	844	16,200	519	2,670	514	397	238	15,100	2,950	1,420	488	865
3	841	15,400	495	1,840	397	462	238	8,690	1,820	f1,310	457	1,860
4	4,390	14,000	564	1,260	372	416	238	6,660	1,820	1,350	457	3,410
5	22,000	12,500	532	908	1,220	393	238	5,060	2,380	f1,270	457	3,790
6	37,000	10,900	1,830	710	420	389	2,630	3,460	10,500	1,200	442	3,740
7	37,700	11,000	462	601	397	389	6,690	13,400	19,000	1,110	427	11,300
8	13,900	6,760	505	1,570	382	850	25,400	7,410	8,710	1,110	427	39,200
9	11,800	6,720	445	530	525	389	41,700	4,650	14,800	1,040	427	20,000
10	11,900	5,610	420	495	485	338	32,000	4,940	10,400	922	427	16,300
11	10,400	3,120	500	481	416	338	22,800	6,310	17,400	758	427	10,200
12	6,670	2,180	505	450	378	332	16,600	8,070	16,200	687	427	9,940
13	3,740	1,510	1,830	450	368	325	11,300	3,110	4,810	664	427	5,170
14	3,570	1,090	773	450	368	322	9,820	4,990	15,000	867	427	5,280
15	1,420	860	661	450	375	322	14,000	4,320	28,600	831	427	3,620
16	1,310	766	900	1,230	428	316	9,610	2,560	41,000	642	427	2,520
17	1,190	738	868	490	1,340	307	6,420	3,300	26,000	619	498	1,790
18	10,700	731	1,790	441	378	307	4,470	2,740	14,000	786	784	1,450
19	26,000	1,880	689	408	348	307	3,710	29,200	10,600	756	758	1,710
20	12,300	717	608	408	328	301	25,600	54,900	6,200	578	710	1,110
21	11,200	780	558	3,540	328	278	40,400	34,000	3,750	559	498	1,010
22	11,200	703	1,500	4,470	348	278	24,800	15,800	3,290	540	442	952
23	12,200	647	547	2,880	354	272	19,000	21,200	6,310	751	1,410	922
24	11,900	1,480	553	1,900	348	264	64,600	12,400	4,850	578	3,150	952
25	9,100	614	500	1,250	325	270	104,000	10,800	3,460	540	2,770	4,380
26	8,080	594	471	868	322	286	82,000	5,170	3,480	522	1,590	4,030
27	23,500	588	458	675	322	267	48,800	9,350	3,460	698	922	2,560
28	19,900	575	437	547	322	264	20,700	6,490	1,490	559	1,010	1,790
29	16,200	536	428	471	-	259	21,600	5,560	1,310	522	952	1,270
30	14,700	530	424	1,200	-	238	14,300	3,200	1,310	505	810	1,040
31	14,400	-	2,070	1,380	-	238	-	2,660	-	505	894	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	370,939	37,700	841	11,970	735,700
November	132,929	16,200	530	4,431	263,700
December	23,372	2,070	420	754	46,360
Calendar year 1941	2,503,459	49,500	370	6,859	4,966,000
January	39,423	4,470	408	1,272	78,190
February	13,108	1,340	322	468	26,000
March	11,065	951	238	357	21,950
April	674,140	104,000	238	22,470	1,337,000
May	335,900	54,900	2,560	10,840	666,200
June	287,210	41,000	1,310	9,574	569,700
July	25,859	1,660	505	834	51,290
August	24,257	3,150	427	782	48,110
September	162,971	39,200	810	5,432	323,200
Water year 1941-42	2,101,173	104,000	238	5,757	4,167,000

Peak discharge.- Apr. 9 (10 a.m.) 43,900 sec.-ft.; Apr. 20 (7:30 p.m.) 46,200 sec.-ft.; Apr. 25 (1 p.m.) 126,000 sec.-ft.; May 20 (7 a.m.) 59,500 sec.-ft.; June 16 (4 a.m.) 47,600 sec.-ft.; Sept. 8 (11 a.m.) 51,900 sec.-ft.

f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.

Note.- Discharge for Nov. 12-18, 23, Nov. 25 to Dec. 3, Dec. 7-12, 20, 21, 24, Jan. 9-15, 17-20, 26, 29, Feb. 2-4, 18-28, Mar. 2-4, Mar. 9 to Apr. 5, Apr. 18-20, June 27-30, July 2, 6-22 computed from graph based on gage readings furnished by U. S. Weather Bureau.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Brazos River near Marlin, Tex.

Location.- Wire-weight gage, lat. 31°17'20", long. 96°58'10", on bridge on State Highway 139, 1 mile upstream from Deer Creek and 4.5 miles southwest of Marlin, Falls County. Datum of gage is 312.15 feet above mean sea level, datum of 1929.

Drainage area.- 29,150 square miles, of which 9,240 square miles is probably noncontributing.

Records available.- October 1938 to September 1942.

Extremes.- Maximum discharge during year, 110,000 second-feet Apr. 26 (gage height, 31.1 feet, from graph based on gage readings); minimum observed, 266 second-feet (regulated) Apr. 2, 3.

1938-42: Maximum discharge, that of Apr. 26, 1942; minimum not determined. Maximum stage known, 35.8 feet Dec. 3 or 4, 1913, from information by local residents. Flood of Sept. 28, 1936, reached a stage of 35.2 feet.

Remarks.- Records fair. Flow partly regulated by Possum Kingdom Reservoir on Brazos River (see p. 68) and Lake Waco, on the Bosque River near Waco (capacity, 39,000 acre-feet). Gage read twice daily, more often during high water. Many small diversions above gage which do not appreciably affect flow except during low stages.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	980	13,600	525	3,100	1,300	454	270	16,400	3,210	1,570	554	1,230
2	903	15,700	454	3,930	849	1,140	266	14,400	3,450	2,250	554	1,070
3	894	17,500	405	2,720	443	495	274	10,100	2,930	1,570	550	1,250
4	1,230	16,400	448	3,360	385	546	270	6,700	2,200	1,520	534	2,680
5	11,500	14,300	513	1,230	383	567	274	5,500	3,030	1,520	498	5,780
6	31,600	13,000	634	714	1,030	495	280	3,840	3,920	1,520	498	3,690
7	37,400	13,000	1,150	777	360	438	6,650	9,320	15,800	1,520	490	8,380
8	22,700	11,100	471	1,010	336	507	14,400	13,100	11,700	1,390	478	60,700
9	12,000	6,160	532	1,380	292	1,250	38,400	6,140	12,900	1,310	478	39,500
10	12,100	7,280	507	686	443	581	37,400	5,260	14,700	1,230	470	20,900
11	11,100	4,250	546	539	426	460	36,300	4,910	14,600	1,040	470	13,100
12	7,290	3,040	560	513	380	416	21,400	16,700	22,200	892	482	10,600
13	5,020	2,120	823	495	332	410	14,000	4,620	9,500	844	436	7,820
14	3,520	1,520	1,640	483	322	405	11,300	3,000	8,660	724	415	6,500
15	2,440	1,110	822	454	318	390	11,600	5,590	25,100	917	454	5,220
16	1,090	849	742	507	448	370	11,300	3,210	42,000	1,040	478	3,360
17	1,140	632	921	1,230	714	360	6,760	3,420	32,800	754	494	2,320
18	2,800	618	1,220	539	1,430	355	4,560	4,460	17,500	706	577	1,710
19	26,600	618	1,500	513	537	351	3,120	16,600	13,000	747	955	1,520
20	19,800	885	777	416	465	322	19,800	48,900	31,100	828	934	1,520
21	12,400	655	648	464	438	313	44,200	43,700	6,710	670	802	1,130
22	12,400	768	1,180	3.370	405	300	34,600	17,900	4,580	330	608	969
23	11,600	655	1,6[illegible]0	3,440	438	313	21,400	16,400	5,650	610	526	906
24	13,000	546	862	2,330	410	309	48,300	9,010	7,580	837	2,030	850
25	9,750	742	581	1,640	410	300	86,100	11,900	5,700	676	4,900	1,030
26	7,760	630	560	1,160	390	309	106,000	7,220	5,030	615	2,820	5,510
27	17,500	513	539	822	365	300	75,600	8,090	3,460	595	1,820	4,430
28	23,200	539	553	588	370	283	37,100	8,910	2,140	817	1,350	2,890
29	17,100	519	460	465	-	279	19,800	7,820	1,960	645	1,390	1,710
30	15,700	525	400	426	-	279	15,700	5,190	1,760	585	1,310	1,440
31	15,700	-	421	1,160	-	270	-	3,760	-	575	1,270	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	368,217	37,400	894	11,880	730,300
November	149,774	17,500	513	4,992	297,100
December	22,814	1,640	400	736	45,250
Calendar year 1941	2,724,772	68,200	400	7,465	5,404,000
January	40,461	3,930	416	1,305	80,250
February	14,419	1,430	292	515	28,600
March	13,567	1,250	270	438	26,910
April	727,424	106,000	266	24,250	1,443,000
May	342,070	48,900	3,000	11,030	678,500
June	334,870	42,000	1,760	11,160	664,200
July	31,147	2,250	575	1,005	61,780
August	29,625	4,900	415	956	58,760
September	219,715	60,700	850	7,324	435,800
Water year 1941-42	2,294,103	106,000	266	6,285	4,550,000

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Brazos River near Bryan, Tex.

Location.- Water-stage recorder, lat. 30°37', long. 96°29', 2.4 miles downstream from Little Brazos River and 9 miles southwest of Bryan, Brazos County. Datum of gage is 192.3 feet above mean sea level, datum of 1929.

Drainage area.- 38,430 square miles, of which 9,240 square miles is probably noncontributing.

Records available.- September 1925 to September 1942. February 1918 to September 1925 at site near College Station, 7½ miles downstream.

Average discharge.- 23 years (1918-25, 1926-42), 6,180 second-feet.

Extremes.- Maximum discharge during year, 103,000 second-feet Apr. 28 (gage height, 38.48 feet); minimum 597 second-feet Apr. 5.
1925-42: Maximum gage height observed, 46.1 feet, present site and datum, May 20, 1930 (discharge not determined); minimum discharge, 87 second-feet Aug. 24, 1934.
Maximum stage known, about 54.0 feet, present datum, Dec. 5, 1913.

Remarks.- Records fair. Many small diversions above gage which do not appreciably affect the flow except during low stages.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,660	16,700	1,300	886	1,120	849	627	f39,500	8,400	3,050	1,230	1,780
2	1,610	15,300	1,260	1,850	1,250	849	615	32,400	7,200	2,780	1,190	1,610
3	1,610	17,000	1,220	3,470	1,500	982	609	24,600	6,800	2,980	1,090	1,560
4	1,610	17,900	1,190	2,920	1,160	1,350	609	20,100	6,620	3,050	1,020	1,610
5	1,660	16,200	1,160	2,460	856	1,060	603	16,700	5,720	3,050	974	2,330
6	18,800	14,500	1,160	2,020	754	1,070	621	f13,700	6,800	3,120	926	5,760
7	40,800	12,700	1,200	1,660	998	1,010	863	f12,700	12,500	2,780	878	4,980
8	37,600	12,200	1,900	1,350	1,240	942	22,500	f21,600	24,000	2,660	842	18,200
9	22,400	8,600	1,560	1,180	950	910	52,400	f20,400	21,600	2,660	800	65,600
10	16,600	7,000	1,190	1,660	910	958	61,800	16,700	25,300	2,520	774	67,400
11	15,600	7,400	1,250	1,300	886	1,260	48,400	14,000	26,500	2,200	761	53,000
12	14,200	5,060	1,560	958	1,020	974	f30,200	32,300	36,200	2,020	761	33,000
13	9,920	3,680	1,840	863	1,010	878	f18,700	41,200	41,800	1,610	814	24,000
14	7,200	3,190	1,560	814	942	842	f12,200	f20,100	33,000	1,400	761	19,300
15	5,720	2,720	2,080	794	918	828	11,800	14,000	26,800	1,280	742	17,900
16	4,740	2,200	1,900	780	926	800	14,000	15,600	32,400	1,180	748	14,800
17	3,330	1,900	1,500	774	950	761	12,500	10,600	42,800	f1,720	754	11,300
18	2,780	1,720	1,400	1,040	1,060	742	10,100	8,820	32,100	1,500	780	8,000
19	8,050	1,610	1,560	1,160	1,660	723	8,000	21,600	19,000	1,220	821	5,550
20	24,300	1,610	2,200	794	1,780	742	7,400	46,400	16,500	1,140	1,260	4,420
21	16,400	2,140	1,960	723	1,230	711	31,500	68,200	12,500	1,250	2,080	3,820
22	12,000	2,590	1,560	699	1,130	699	46,600	f59,400	9,260	1,450	1,780	3,050
23	12,500	2,020	1,450	2,780	1,060	687	34,000	33,000	8,000	1,350	1,450	2,720
24	12,500	1,780	1,960	3,540	958	663	25,900	29,800	9,700	1,260	1,140	2,460
25	15,600	1,960	2,020	2,850	942	711	f51,000	23,100	9,920	1,240	1,440	2,330
26	14,500	2,020	1,400	2,330	926	717	f77,800	21,600	7,800	1,350	5,760	2,400
27	12,100	1,840	1,190	1,840	870	669	f95,800	17,000	6,800	1,140	4,900	5,550
28	23,800	1,400	1,080	1,400	849	663	102,000	17,600	5,550	1,050	4,740	4,900
29	23,200	1,300	998	1,160	-	669	70,000	16,500	4,120	1,030	3,680	4,120
30	19,000	1,300	950	990	-	657	f46,400	14,800	3,680	1,400	2,920	3,470
31	17,600	-	918	856	-	639	-	10,600	-	1,350	2,590	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	418,390	40,800	1,610	13,500	829,900
November	187,540	17,900	1,300	6,251	372,000
December	45,476	2,200	918	1,467	90,200
Calendar year 1941	4,820,286	84,200	918	13,210	9,561,000
January	47,901	3,540	699	1,545	95,010
February	29,855	1,780	754	1,066	59,220
March	26,015	1,350	639	839	51,600
April	895,547	102,000	603	29,850	1,776,000
May	754,420	68,200	8,820	24,340	1,496,000
June	509,370	42,800	3,680	16,980	1,010,000
July	57,790	3,120	1,030	1,864	114,600
August	50,406	5,760	742	1,626	99,980
September	396,920	67,400	1,560	13,230	787,300
Water year 1941-42	3,419,630	102,000	603	9,369	6,782,000

Peak discharge.- Apr. 10 (1 p.m.) 63,400 sec.-ft.; Apr. 28 (8 a.m.) 103,000 sec.-ft.; May 13 (1 a.m.) 52,600 sec.-ft.; May 21 (8 p.m.) 70,600 sec.-ft.; Sept. 9 (10:30 p.m.) 74,600 sec.-ft.
f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.
Note.- Discharge for Oct. 27 to Nov. 13, Apr. 15-24, May 15-20, May 24 to July 1 computed from graph based on gage readings.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Brazos River near Hempstead, Tex.

Location.- Wire-weight gage, lat. 30°07'25", long. 96°11'00", on bridge on U. S. Highway 290, 4,500 feet upstream from Texas & New Orleans Railroad bridge, 6.5 miles northwest of Hempstead, Waller County, and 8 miles upstream from Caney Creek. Datum of gage is 118.07 feet above mean sea level, datum of 1929.

Drainage area.- 42,670 square miles, of which 9,240 square miles is probably noncontributing.

Records available.- October 1938 to September 1942. U. S. Weather Bureau has collected gage-height records in this vicinity at intermittent periods since 1903.

Extremes.- Maximum discharge during year, 90,500 second-feet Apr. 29 (gage height, 37.52 feet, from floodmark); minimum observed, 810 second-feet Apr. 6.
1938-42: Maximum discharge observed, 116,000 second-feet Nov. 30, 1940 (gage height, 44.04 feet); minimum, 254 second-feet Nov. 8, 1939.
Maximum stage known, 56.1 feet Dec. 8, 1913 (revised), from data furnished by engineers of Texas & New Orleans Railroad, secured at its bridge 4,500 feet downstream.

Remarks.- Records fair. Gage read twice-daily, more often during high water. Many small diversions above gage which do not appreciably affect flow except during low stages.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,960	23,900	2,700	1,780	1,660	1,360	890	56,200	17,200	5,320	1,760	2,440
2	1,900	20,000	2,380	1,720	1,540	1,340	910	42,300	14,000	4,840	1,720	2,140
3	1,840	19,300	2,140	1,720	1,720	1,310	870	33,300	12,200	4,500	1,600	2,020
4	1,840	20,600	1,960	2,840	1,840	1,310	850	25,200	10,400	a5,080	1,510	1,960
5	1,840	20,200	1,900	3,390	1,960	1,510	850	21,500	9,060	5,880	1,450	2,020
6	1,780	18,100	1,780	3,070	1,720	1,720	830	18,700	7,100	6,940	1,420	2,060
7	15,900	16,200	1,780	2,700	1,510	1,600	3,510	17,000	7,580	7,260	1,360	3,570
8	30,600	14,800	1,720	2,440	1,420	1,660	21,200	16,800	15,900	6,160	1,310	5,320
9	31,500	12,600	1,840	2,200	1,600	1,600	57,000	24,300	23,400	5,320	1,280	28,200
10	16,600	9,600	2,200	2,020	1,600	1,510	66,800	22,800	23,200	4,400	1,260	56,200
11	14,600	8,060	2,080	1,960	1,420	1,390	73,700	19,500	26,100	3,750	1,230	59,400
12	14,600	8,060	2,140	2,200	1,360	1,390	63,500	19,300	29,200	3,390	1,180	47,500
13	13,200	5,740	2,140	1,900	1,360	1,480	45,700	41,000	39,100	3,070	1,150	32,700
14	9,420	4,500	2,320	1,720	1,450	1,310	31,500	38,100	39,100	2,840	1,200	25,400
15	8,220	3,840	2,320	1,600	1,480	1,260	25,700	24,800	32,700	2,640	1,260	21,700
16	8,060	3,390	2,260	1,600	1,510	a1,200	24,300	22,100	31,200	2,570	1,200	19,500
17	5,200	2,990	2,500	1,540	1,540	1,150	23,900	21,700	38,400	2,380	1,180	17,200
18	4,300	2,700	2,320	1,540	1,480	1,120	21,700	17,600	42,300	2,380	1,150	13,600
19	3,840	2,440	2,140	1,540	1,450	1,100	19,100	17,200	30,900	2,500	1,180	10,600
20	8,790	2,380	2,140	1,840	1,540	1,080	16,600	32,800	24,300	2,320	1,200	8,060
21	19,100	2,440	2,200	1,780	1,960	1,050	19,500	52,700	21,000	2,200	1,310	6,780
22	13,800	3,150	2,440	1,540	1,960	1,020	38,400	65,200	18,100	2,080	1,600	6,300
23	12,200	4,400	2,440	1,450	1,660	1,020	43,700	53,800	15,000	2,080	1,900	5,600
24	12,200	4,400	2,080	1,720	1,720	975	36,500	38,100	13,400	2,260	1,840	4,960
25	13,400	3,750	a2,140	3,230	1,600	975	41,000	34,900	15,200	2,200	1,600	4,400
26	15,000	3,570	2,440	3,390	1,450	1,000	59,400	30,900	14,200	2,080	1,510	3,840
27	13,000	3,570	2,320	2,840	1,420	1,000	78,100	28,600	a12,200	1,960	3,000	3,660
28	12,200	3,660	2,140	2,440	1,420	975	87,300	25,400	10,200	1,900	4,400	5,450
29	19,100	3,480	2,020	2,200	-	930	89,100	25,000	8,220	1,720	4,020	6,780
30	18,900	3,070	1,960	1,960	-	930	76,800	23,900	6,300	1,720	3,480	5,320
31	25,700	-	1,900	1,780	-	910	-	21,000	-	1,720	2,770	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	370,590	31,500	1,780	11,950	735,100
November	254,890	23,900	2,380	8,496	505,600
December	66,840	2,700	1,720	2,156	132,600
Calendar year 1941	5,637,410	63,100	1,720	15,440	11,180,000
January	65,650	3,390	1,450	2,118	130,200
February	44,350	1,960	1,360	1,584	87,970
March	38,185	1,720	910	1,232	75,740
April	1,069,210	69,100	830	35,640	2,121,000
May	931,700	65,200	16,800	30,050	1,848,000
June	607,160	42,300	6,300	20,240	1,204,000
July	105,460	7,260	1,720	3,402	209,200
August	54,050	4,400	1,150	1,744	107,200
September	414,900	59,400	1,960	13,830	822,900
Water year 1941-42	4,022,985	89,100	830	11,020	7,980,000

a No gage-height record; discharge computed from graph based on gage readings of adjoining days.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

556253 O - 43 - 6

Brazos River near San Felipe, Tex.

Location.- Water-stage recorder, lat. 29°46'20", long. 96°02'10", on bridge on State Highway 73, 200 feet downstream from Missouri-Kansas-Texas Railroad bridge, 1.3 miles downstream from Irons Creek, and 5.0 miles southeast of San Felipe post office, Austin County. Datum of gage is 79.32 feet above mean sea level, datum of 1929.

Drainage area.- 43,690 square miles, of which 9,240 square miles is probably noncontributing.

Records available.- December 1938 to September 1942.

Extremes.- Maximum discharge during year, 80,500 second-feet Apr. 9 by current-meter measurement; maximum gage height, 33.70 feet Apr. 30; minimum, 916 second-feet Apr. 7.
1938-42: Maximum discharge, 152,000 second-feet Nov. 25, 1940 (gage height, 41.10 feet); minimum, 278 second-feet Oct. 9, 13, 1939.
Maximum stage known, 49.0 feet Dec. 9, 1913 (revised), from information by local resident.

Remarks.- Records fair. Many small diversions above station which do not appreciably affect flow except during low stages.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,260	33,200	3,450	2,200	1,860	1,520	956	69,500	17,000	5,680	1,920	3,320
2	2,140	24,600	3,190	2.080	1,710	1,630	948	53,700	13,500	5,040	1,920	3,060
3	2,080	20,200	2,800	1,970	1,660	1,520	948	38,400	11,500	4,720	1,860	2,860
4	2,020	20,900	2,560	1,970	1,760	1,470	940	27,900	9,890	5,520	1,710	2,620
5	1,970	21,300	2,380	3,060	1,860	1,420	932	22,300	8,800	7,200	1,660	2,680
6	1,920	19,300	2,260	3,450	1,970	1,630	932	18,600	8,000	11,300	1,630	2,620
7	4,140	16,700	2,140	3,260	1,810	1,760	1,520	16,400	7,020	14,000	1,560	2,680
8	26,200	14,300	2,080	2,930	1,630	1,660	15,100	14,900	8,900	8,800	1,470	4,230
9	34,400	13,000	2,020	2,680	1,560	1,660	69,500	20,000	20,700	6,320	1,420	11,800
10	24,600	10,600	2,140	2,440	1,660	1,660	75,800	24,400	24,400	5,200	1,420	47,500
11	14,600	8,000	2,560	2,380	1,660	1,560	72,200	19,900	25,100	4,560	1,340	61,200
12	14,300	7,600	2,960	2,200	1,520	1,470	68,200	16,700	28,300	4,140	1,340	56,200
13	14.300	6,840	2,740	2,320	1,470	1,420	53,200	30,800	34,200	3,720	1,340	41,300
14	11,500	5,520	2,560	2,140	1,470	1,520	38,100	40,500	41,700	3,450	1,290	28,600
15	9,430	4,720	2,620	1,970	1,520	1,420	26,500	28,600	38,400	3,190	1,340	22,700
16	9,430	4,140	2,620	1,860	1,560	1,340	23,400	21,300	33,000	2,930	1,420	19,600
17	8,200	3,860	2,560	1,810	1,760	1,240	23,400	21,300	38,000	2,860	1,380	17,900
18	6,480	3,450	2,740	1,810	1,660	1,200	22,700	17,900	44,700	2,660	1,340	14,600
19	5,520	3,260	2,620	2,260	1,560	1,200	18,900	16,100	38,600	2,660	1,380	11,500
20	5,650	3,120	2,440	2,200	1,520	1,160	16,400		27,900	2,660	1,380	8,800
21	18,100	2,960	2,380	2,140	1,630	1,120	14,300	a47,000	22,300	2,680	1,660	7,020
22	17,400	3,260	2,500	2,020	1,920	1,100	32,800		17,900	2,560	1,660	6,160
23	12,300	4,420	2,740	1,810	1,970	1,090	44,300		14,900	2,440	1,920	5,680
24	12,500	5,040	2,620	1,710	1,920	1,080	45,800		12,300	2,380	2,260	5,360
25	12,300	4,720	2,380	1,970	1,760	1,060	45,000	34,800	11,800	2,440	2,140	4,880
26	14,600	4,280	2,380	3,120	1,660	1,060	53,600	30,400	13,000	2,380	2,140	4,420
27	14,000	4,140	2,680	3,260	1,520	1,050	63,900	27,900	11,800	2,260	2,080	4,000
28	11,000	4,140	2,620	2,860	1,470	1,050	70,600	24,400	9,430	2,140	3,860	3,720
29	17,200	4,140	2,380	2,500	-	1,020	75,800	23,000	8,400	2,020	4,420	4,950
30	20,200	3,860	2,320	2,260	-	996	78,200	22,700	7,020	2,020	4,420	5,360
31	29,300	-	2,260	2,020	-	972	-	20,600	-	1,920	4,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	380,040	34,400	1,920	12,260	753,800
November	285,570	33,200	2,960	9,519	566,400
December	78,700	3,450	2,020	2,539	156,100
Calendar year 1941	6,214,570	72,200	1,920	17,030	12,330,000
January	72,660	3,450	1,710	2,344	144,100
February	47,030	1,970	1,470	1,680	93,280
March	41,058	1,760	972	1,324	81,440
April	1,054,876	78,200	932	35,160	2,092,000
May	938,000	69,500	14,900	30,260	1,860,000
June	608,460	44,700	7,020	20,280	1,207,000
July	132,450	14,000	1,920	4,273	262,700
August	60,680	4,420	1,290	1,957	120,400
September	417,320	61,200	2,620	13,910	827,700
Water year 1941-42	4,116,844	78,200	932	11,280	8,165,000

a No gage-height record; discharge computed on basis of engineer's notes and records for nearby stations.

Note.- Discharge for period May 21 to Sept. 30 computed from graph based on gage readings; wire-weight gage read twice daily, more often during high water.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Brazos River at Richmond, Tex.

Location.- Water-stage recorder, lat. 29°35', long. 95°45', on bridge on U. S. Highway 90 in Richmond, Fort Bend County, about 1,500 feet downstream from bridge of Texas & New Orleans Railroad (formerly Galveston, Harrisburg & San Antonio Railway). Datum of gage is 40.8 feet above mean sea level, datum of 1929.

Drainage area.- 44,050 square miles, of which 9,240 square miles is probably noncontributing.

Records available.- January 1903 to June 1906, June 1931 to September 1942. October 1922 to September 1931, at site at Rosenberg, 7.6 miles upstream; records equivalent except for diversion by Richmond Irrigation Co.'s canal. U. S. Weather Bureau has collected gage-height records in this vicinity since 1914.

Average discharge.- 22 years (1903-5, 1922-42) 8,099 second-feet.

Extremes.- Maximum discharge during year, 79,400 second-feet May 1 (gage height, 32.42 feet); minimum observed, 910 second-feet Aug. 13-16, 19.

1903-6; 1931-42: Maximum discharge, 117,000 second-feet Nov. 28, 1940 (gage height, 38.40 feet); minimum, 33 second-feet Aug. 23, 24, 1934.

Flood of June 6, 1929, reached a stage of 40.6 feet, present datum, from floodmarks, (discharge, 120,000 second-feet). Flood of Dec. 10, 1913 reached a stage of 45.4 feet, present datum, from floodmarks.

Remarks.- Records fair. Considerable water diverted above station for irrigation and municipal supply. See records of Brazos Valley Irrigation Co.'s canal near Fulshear and Richmond Irrigation Co.'s canal near Richmond.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,760	37,200	3,760	2,260	2,180	1,560	1,030	74,700	20,800	7,300	1,600	3,360
2	2,580	32,000	3,460	2,220	1,920	1,760	1,000	65,600	17,400	6,080	1,600	2,760
3	2,400	25,600	3,160	2,130	1,760	1,720	1,000	49,200	14,900	5,320	1,600	2,580
4	2,220	23,700	2,860	2,000	1,720	1,720	1,000	35,900	13,000	4,900	1,640	2,580
5	2,220	24,300	2,400	2,080	1,680	1,800	1,060	26,900	11,800	6,080	1,520	2,220
6	2,130	23,200	2,130	3,060	2,040	1,680	1,120	21,600	11,200	16,200	1,360	2,220
7	2,180	21,000	2,040	3,560	2,080	1,640	1,260	19,000	9,000	22,300	1,300	2,220
8	11,700	19,000	1,960	3,460	2,040	1,640	4,720	16,900	8,400	18,000	1,220	2,500
9	29,400	16,600	1,920	3,060	2,130	1,840	43,800	18,200	18,100	12,100	1,160	5,130
10	28,600	14,500	1,760	2,670	1,720	1,760	67,600	29,800	26,000	8,420	1,160	33,600
11	19,600	10,600	1,800	2,400	1,800	1,760	68,500	20,800	27,100	6,580	1,090	54,800
12	15,600	8,020	1,920	2,220	1,800	1,680	68,900	18,200	29,600	5,320	1,030	59,400
13	15,400	6,940	3,160	2,180	1,640	1,640	61,700	22,300	34,700	4,420	970	46,400
14	14,200	7,120	2,860	2,310	1,640	1,560	46,300	41,100	40,100	3,870	910	32,200
15	12,300	5,600	2,670	2,180	1,880	1,640	32,200	32,300	38,000	3,460	910	24,700
16	12,700	4,780	2,760	2,080	2,000	1,520	25,400	23,200	33,500	3,160	940	20,500
17	12,700	4,200	2,760	1,840	1,760	1,400	23,700	21,000	36,500	2,860	1,000	19,000
18	9,850	3,870	2,670	1,800	1,840	1,360	23,700	20,300	43,000	2,670	970	16,400
19	7,300	3,560	2,860	1,800	1,840	1,330	21,600	16,900	40,700	2,670	940	13,900
20	6,080	3,360	2,760	2,130	1,760	1,360	19,000	20,800	30,000	2,760	940	11,400
21	11,200	3,360	2,580	2,260	1,680	1,330	15,900	35,500	22,900	2,670	1,060	8,800
22	20,800	3,260	2,490	2,180	1,680	1,220	23,700	51,600	19,200	2,490	2,130	7,120
23	16,200	3,360	2,670	2,040	2,040	1,220	43,600	57,300	16,400	2,310	1,680	6,400
24	13,500	3,980	2,760	1,840	1,960	1,120	50,700	49,300	13,900	2,220	1,680	5,920
25	13,500	5,180	2,490	1,760	2,040	1,160	51,000	37,200	12,700	2,130	1,960	5,320
26	14,400	4,660	2,490	1,880	1,880	1,120	55,000	32,300	14,200	2,180	1,920	4,780
27	16,100	4,200	2,490	2,860	1,800	1,090	65,000	29,300	14,200	2,180	1,760	4,310
28	14,200	4,090	2,760	3,660	1,600	1,090	72,600	28,200	12,300	2,040	1,560	3,870
29	14,700	3,980	2,670	3,260	-	1,120	78,100	24,300	10,500	2,000	2,860	3,760
30	21,600	3,980	2,400	2,580	-	1,090	79,100	23,700	9,000	1,840	4,310	5,180
31	28,200	-	2,310	2,400	-	1,090	-	22,300	-	1,720	3,980	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	396,320	29,400	2,130	12,780	786,100
November	335,200	37,200	3,260	11,170	664,900
December	79,830	3,760	1,760	2,575	158,300
Calendar year 1941	6,559,410	69,900	1,760	17,970	13,010,000
January	74,160	3,660	1,760	2,392	147,100
February	51,910	2,180	1,600	1,854	103,000
March	45,020	1,840	1,090	1,452	89,300
April	1,049,290	79,100	1,000	34,980	2,081,000
May	986,300	74,700	16,900	31,820	1,956,000
June	649,100	43,000	8,400	21,640	1,287,000
July	168,250	22,300	1,720	5,427	333,700
August	48,760	4,310	910	1,573	96,710
September	413,330	59,400	2,220	13,780	819,800
Water year 1941-42	4,297,470	79,100	910	11,770	8,523,000

Note.- Discharge for Oct. 1-7, 19, 20, Nov. 12 to Apr. 8, May 8-15, June 6-8, June 30 to July 5, July 10 to Sept. 9, Sept. 22-30 computed from graph based on gage readings furnished by U. S. Weather Bureau.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Brazos River at East Columbia, Tex.

Location.- Wire-weight gage, lat. 29°09', long. 95°37', on bridge on State Highway 35 at East Columbia, Brazoria County, and 1 mile downstream from Yarners Creek. Datum of gage is 2.95 feet below mean sea level, datum of 1929.

Drainage area.- 44,540 square miles (9,240 square miles is probably noncontributing).

Records available.- October 1938 to September 1939 (gage heights only), October 1939 to September 1940 and February 1942 to September 1942 (gage heights, discharge measurements, and daily discharge above 8,000 second-feet), October 1940 to September 1941 (discharge measurements only).

Extremes.- Maximum discharge observed during year, 71,000 second-feet May 1 (gage height, 32.55 feet); minimum not determined (affected by tides).

1938-42: Maximum gage height observed, 34.12 feet, Dec. 5, 1940 (discharge not determined); minimum gage height, 1.54 feet Aug. 22, 1939 (affected by tides).

Maximum stage known, 35.3 feet on Dec. 11 or 12, 1913 (corrected); flood of 1899 reached a stage 0.3 foot lower. Stages from information by local residents.

Remarks.- Records fair. Discharge for periods below 8,000 second-feet not published owing to effect from tides. Gage read twice daily, more often during high water. Considerable water diverted above station for irrigation and municipal supply.

Gage height, in feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	4.62	3.79	32.52	14.97	6.94	3.54	5.70
2					-	2.28	3.99	32.40	13.40	6.48	3.29	5.00
3					-	3.20	4.04	31.02	11.24	5.93	3.24	4.78
4					-	3.88	3.84	27.19	9.67	5.32	3.30	4.73
5					-	2.78	4.09	22.28	8.54	6.92	3.61	4.86
6					-	3.92	4.19	18.45	8.08	9.04	3.56	4.95
7					-	4.48	4.42	15.77	7.74	15.16	3.59	5.71
8					-	2.26	4.48	13.96	6.62	16.00	3.58	5.41
9					-	2.42	10.51	12.63	6.69	13.25	3.50	6.24
10					-	3.12	26.10	14.40	13.15	10.20	3.96	9.82
11					-	3.38	29.76	16.57	15.26	8.65	4.10	22.36
12					-	3.66	30.84	15.18	16.75	7.44	3.35	27.02
13					-	3.66	30.74	13.47	17.94	6.53	4.18	27.00
14					-	5.76	29.07	20.12	20.69	5.41	4.26	23.42
15					-	3.92	24.88	22.49	22.12	5.02	3.30	19.30
16					-	4.26	19.67	19.10	21.11	4.55	3.58	16.61
17					-	3.76	17.53	15.91	19.58	4.52	2.80	15.40
18					-	3.42	16.76	15.35	21.19	4.18	2.74	14.56
19					-	3.96	16.63	14.00	23.23	4.02	3.02	13.08
20					-	4.10	16.02	12.52	21.72	3.74	3.81	11.20
21					-	3.30	14.18	16.81	18.00	3.15	4.26	9.72
22					-	3.36	14.96	23.37	15.70	3.42	5.18	8.30
23					-	3.21	19.94	26.95	13.74	3.78	5.20	7.40
24					2.38	3.46	24.51	27.91	12.15	3.86	4.98	7.01
25					3.45	4.86	25.66	24.25	10.45	4.08	5.08	6.50
26					3.40	3.80	25.60	21.29	9.70	4.16	4.98	6.35
27					2.88	3.05	27.72	19.43	10.31	4.31	5.08	6.10
28					3.80	3.60	29.90	18.43	9.96	4.48	5.08	5.60
29					-	3.85	31.24	17.02	8.90	4.52	5.75	5.06
30					-	3.80	32.09	16.26	7.94	4.28	10.78	5.14
31					-	3.49	-	15.94	-	3.53	6.08	-

Discharge measurements, in second-feet, water year October 1941 to September 1942

Date	Width (feet)	Area (square feet)	Mean velocity (feet per second)	Gage height (feet)	Discharge (second-feet)
Oct. 14.....	295	4,530	3.00	12.84	13,600
Apr. 11.....	524	12,400	5.02	29.94	62,300
14.....	455	11,400	4.74	28.46	54,000
28.....	448	12,600	5.20	30.08	65,500
May 4.....	408	11,000	4.27	26.40	47,000
17.....	361	6,370	3.44	15.88	21,900
25.....	422	10,100	4.15	23.35	41,500
June 24.....	333	5,600	2.64	11.68	14,800
Sept. 12.....	444	12,000	4.66	27.45	55,900
15.....	369	7,790	3.66	18.62	28,500

Discharge, in second-feet, water year October 1941 to September 1942

Day	Apr.	May	June	July	Sept.	Day	Apr.	May	June	July	Sept.
1	-	71,000	20,500	-	-	16	30,900	30,600	38,300	-	23,700
2	-	69,300	17,100	-	-	17	25,500	21,900	34,200	-	21,000
3	-	62,800	13,000	-	-	18	23,900	20,500	38,600	-	19,200
4	-	49,300	10,400	-	-	19	23,500	17,700	44,400	-	16,100
5	-	36,300	8,740	-	-	20	22,100	14,700	39,900	-	12,600
6	-	27,000	8,210	9,860	-	21	18,100	25,100	29,900	-	10,200
7	-	21,000	-	22,300	-	22	21,400	42,600	23,900	-	8,210
8	-	17,100	-	24,200	-	23	34,400	52,500	19,000	-	-
9	12,400	14,400	-	17,100	-	24	48,000	55,200	15,900	-	-
10	50,600	18,500	17,100	11,300	10,400	25	52,500	43,900	12,600	-	-
11	62,000	24,400	22,100	8,600	39,600	26	53,400	36,300	11,400	-	-
12	64,700	21,200	26,000	-	54,700	27	59,000	31,400	12,400	-	-
13	62,300	17,500	29,200	-	54,700	28	65,000	28,900	11,900	-	-
14	55,800	34,200	37,000	-	42,300	29	67,900	25,300	10,200	-	-
15	44,400	40,400	41,500	-	30,200	30	69,900	23,700	8,740	-	-
						31	-	22,800	-	-	-

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Salt Fork of Brazos River near Aspermont, Tex.

Location.- Water-stage recorder, lat. 33°20', long. 100°14', at bridge on U. S. Highway 83, 5½ miles downstream from Dove Creek and 13.2 miles northwest of Aspermont, Stonewall County. Datum of gage is 1,588.7 feet above mean sea level, datum of 1929.

Drainage area.- 4,834 square miles, of which 2,770 square miles is probably noncontributing.

Records available.- December 1923 to August 1925, June 1939 to September 1942.

Extremes.- Maximum discharge during year, 23,600 second-feet Oct. 3 (gage height, 10.44 feet); minimum, 0.1 second-foot Aug. 3-12.

1923-25, 1939-42: Maximum discharge, 26,600 second-feet Aug. 16, 1940 (gage height, 11.05 feet), from rating curve extended above 20,000 second-feet; no flow at times.

Maximum stage known, 14.4 feet, in December 1913; flood of November 1934 reached a stage of 13.7 feet from information by local residents.

Remarks.- Records poor. Daily discharge published only to show distribution of runoff. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,810	845	61	26	14	8.0	0.5	9.5	0.5	2.4	0.3	16
2	3,200	435	63	24	13	12	.5	6.6	.4	18	.2	14
3	19,000	350	63	20	12	15	.5	5.0	.5	41	.1	9.0
4	3,960	275	63	18	12	14	.4	4.2	4.5	14	.1	9.0
5	1,010	236	63	16	12	7.5	.6	3.8	62	8.5	.1	18
6	530	205	60	17	11	9.5	.6	2.8	14	5.0	.1	18
7	350	190	56	21	10	7.0	4.8	2.6	9.0	3.0	.1	27
8	223	180	52	24	9.5	6.6	61	2.6	9.5	2.4	.1	115
9	148	156	51	25	8.5	7.0	105	2.4	10	2.2	.1	47
10	99	144	49	24	8.0	5.8	f649	2.4	86	567	.1	21
11	75	132	54	30	8.0	4.6	f473	2.0	51	104	.1	21
12	60	124	85	35	7.5	3.6	f268	2.0		51	.2	17
13	51	117	117	36	8.0	2.8	f365	2.0		34	.3	13
14	1,910	111	117	31	8.5	2.8	313	2.0		12	.3	10
15	8,560	105	114	30	10	2.8	230	2.0		5.4	f1.0	7.5
16	2,090	99	111	28	12	2.0	124	2.0		2.8	f186	5.4
17	692	93	108	38	12	1.8	80	1.8		1.6	f82	4.6
18	376	85	96	41	9.5	1.4	58	3.8		1.2	63	4.2
19	282	78	85	38	8.0	1.4	42	26	134	1.0	27	
20	210	68	75	35	8.0	1.0	30	14		1.0	8.5	
21	170	61	68	31	8.0	.8	26	74		.9	17	
22	3,790	61	61	28	8.0	.9	19	108		.9	12	
23	3,910	70	56	26	9.0	.8	20	89		.8	243	1,100
24	1,790	75	51	24	8.5	.7	41	25		.8	260	
25	4,250	72	46	21	7.5	.7	30	13		.8	1,040	
26	3,280	63	40	20	7.5	.6	27	8.5	31	.8	191	
27	1,290	61	36	18	6.6	.5	44	5.4	19	1.6	52	
28	520	61	32	18	6.6	.5	42	2.6	10	.9	28	
29	473	61	31	16	-	.6	25	2.0	5.8	.6	18	54
30	464	61	30	16	-	.5	14	.9	3.8	.4	12	41
31	927	-	28	14	-	.5	-	.7	-	.3	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	68,500	19,000	51	2,210	135,900
November	4,674	845	61	156	9,270
December	2,022	117	28	65.2	4,010
Calendar year 1941	238,367.3	19,000	0	653	472,800
January	789	41	14	25.5	1,560
February	263.2	14	6.6	9.40	522
March	123.9	15	.5	4.00	246
April	3,093.9	649	.4	103	6,140
May	428.6	108	.7	13.8	850
June	2,193.0	-	.4	73.1	4,350
July	886.3	567	.3	28.6	1,760
August	2,254.7	1,040	.1	72.7	4,470
September	11,471.7	-	4.2	382	22,750
Water year 1941-42	96,700.3	19,000	.1	265	191,800

Peak discharge.- Oct. 3 (3:30 a.m.) 23,600 sec.-ft.; Oct. 15 (12:30 a.m.) 19,800 sec.-ft.; Oct. 22 (7 p.m.) 15,600 sec.-ft.

f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.

Note.- No gage-height record Oct. 5-7, 17, 18, 28, 29, Nov. 4, Jan. 1-4, June 8, 9, 12-25, Sept. 19-28; discharge computed on basis of engineer's notes, records for nearby stations, and weather records.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

White River at Plainview, Tex.

Location.- Water-stage recorder, lat. 34°11', long. 101°41'. at bridge on Broadway Street at Plainview, Hale County, 0.7 mile upstream from Atchison, Topeka, & Santa Fe Railway bridge. Datum of gage is 3,341.1 feet above mean sea level, datum of 1929.

Records available.- June 1939 to September 1942.

Extremes.- Maximum discharge during year, 782 second-feet Oct. 5 (gage height, 5.90 feet); no flow at times.

1939-42: Maximum discharge, 12,000 second-feet June 6, 1941 (gage height, 8.75 feet), by slope-area method; no flow at times.

Maximum stage known prior to 1941, about 6.50 feet in May 1927 (discharge, about 1,100 second-feet), from information by local resident. Flood of May 24, 1937, reached about the same stage as that of May 1927.

Remarks.- Records fair. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	31	0			0	0		0	0	0	0.7
2	0	15	0			.2	0		0	0	0	.1
3	0	10	0			0	0		0	0	0	0
4	1.5	7.2	0			0	0		0	0	0	0
5	500	10	0			0	0		0	0	0	0
6	156	6.7	0			0	0		0	0	0	0
7	139	4.3	0			0	0		0	0	0	0
8	44	2.8	0			0	2.1		0	0	.1	0
9	12	2.1	0			0	1.4		0	0	0	0
10	5.8	1.6	0			0	0		0	0	0	0
11	3.2	1.2	0			0	0		0	0	0	0
12	1.8	.7	.8			0	0		0	0	0	0
13	.7	.4	0			0	0		0	0	0	0
14	.1	0	0			0	0		0	0	0	0
15	1.5	0	0			0	0		0	0	0	0
16	5.4	0	0			0	22		0	0	0	0
17	1.8	0	0			0	23		0	0	0	0
18	.2	0	0			0	16		0	0	0	0
19	0	0	0			0	1.6		0	0	0	3.4
20	.4	0	0			0	0		0	0	0	.1
21	.7	0	0			0	0		0	0	0	0
22	1.8	0	0			0	0		0	0	.1	0
23	163	0	0			0	.3		0	0	.2	0
24	301	0	0			0	0		0	0	0	0
25	377	0	0			0	17		0	0	.4	0
26	707	0	0			0	4.6		62	.1	0	0
27	164	0	0			0	.4		19	0	0	0
28	52	0	0			0	0		3.6	0	0	0
29	26	0	0			0	0		.3	0	0	0
30	24	0	0			0	0		.2	0	0	0
31	57	-	0			0	-		-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-fest
October	2,747.0	707	0	88.6	5,450
November	93.0	31	0	3.10	184
December	.8	.8	0	.03	1.6
Calendar year 1941	15,807.0	3,710	0	43.3	31,360
January	0	0	0	0	0
February	0	0	0	0	0
March	.2	.2	0	.01	.4
April	88.4	23	0	2.95	175
May	0	0	0	0	0
June	85.1	62	0	2.84	169
July	.1	.1	0	.003	.2
August	.8	.4	0	.03	1.6
September	4.3	3.4	0	.14	8.5
Water year 1941-42	3,019.7	707	0	8.27	5,990

Peak discharge.- Oct. 5 (3 p.m.) 782 sec.-ft.; Oct. 24 (10 p.m.) 510 sec.-ft.; Oct. 26 (3 p.m.) 763 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb.9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Clear Fork of Brazos River at Nugent, Tex.

Location.- Water-stage recorder, lat. 32°41', long. 99°40", at county highway bridge in Nugent, Jones County, 4 miles upstream from Deadman Creek.

Drainage area.- 2,220 square miles.

Records available.- February 1924 to September 1942.

Average discharge.- 18 years, 175 second-feet.

Extremes.- Maximum discharge during year, 5,630 second-feet Oct. 16 (gage height, 12.38 feet); minimum, 1.8 second-feet Aug. 14, 15.

1924-42: Maximum discharge observed, 47,000 second-feet Sept. 8, 1932 (gage height, 27.05 feet, site then in use), from rating curve extended above 25,000 second-feet; no flow at times.

Maximum stage known, about 30.0 feet in 1876, from information by local residents.

Remarks.- Records good except those for period of no gage-height record, which are poor. Flow regulated by Fort Phantom Hill Reservoir (see p. 84) and five smaller reservoirs having a combined capacity of 106,000 acre-feet. Small diversions above station for municipal supply and for use in mining.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	950	38	26	25	20	16	15	12	8.8	4.5	6.2
2	84	810	38	26	25	21	14		11	16	4.1	5.2
3	566	750	36	26	25	21	16		10	15	4.1	10
4	1,010	690	36	25	25	21	16		9.4	57	4.1	12
5	670	630	34	25	25	21	16		9.4	20	3.3	44
6	470	303	34	25	25	20	17		10	13	2.6	114
7	323	56	33	25	25	20	124		35	11	2.2	96
8	245	48	33	25	25	20	99		222	9.4	2.2	797
9	197	48	33	25	25	20	51		57	8.8	2.2	1,160
10	278	46	33	25	25	19	25	a16	18	8.2	2.2	1,140
11	590	45	40	25	25	18	19		14	7.5	2.2	916
12	530	44	55	25	25	18	18		167	8.2	2.2	66
13	306	44	168	25	25	18	291		44	8.2	2.2	39
14	23	44	333	25	25	18	630		19	10	1.8	31
15	1,140	44	311	25	25	17	484		873	8.8	1.8	26
16	4,190	42	71	25	25	16	97		1,140	8.2	9.0	23
17	4,360	40	50	25	316	18	17		1,010	6.9	118	20
18	2,700	40	44	25	610	18	16		192	6.2	377	19
19	1,520	39	39	25	527	17	17	a646	32	6.2	33	18
20	810	39	38	25	25	16	16	1,230	21	5.6	15	38
21	710	39	36	25	21	16	78	690	16	5.6	10	40
22	670	40	34	25	21	16	171	566	14	5.6	20	92
23	650	40	32	25	21	16	156	90	12	5.2	76	63
24	823	44	32	25	20	17	398	156	11	5.2	71	25
25	1,630	42	32	25	20	16	563	369	10	4.8	138	18
26	2,350	40	31	25	20	16	31	790	10	5.2	48	16
27	1,190	39	29	25	20	17	20	650	10	7.5	20	15
28	990	39	27	25	20	16	17	94	9.4	6.2	23	14
29	910	39	27	25	-	16	16	22	8.8	5.2	15	13
30	998	38	27	25	-	16	15	16	8.8	4.8	10	13
31	973	-	26	25	-	17	-	14	-	4.8	7.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	31,939	4,360	23	1,030	63,350
November	5,152	950	38	172	10,220
December	1,830	333	26	59.0	3,630
Calendar year 1941	108,288.0	5,660	3.7	297	214,800
January	778	26	25	25.1	1,540
February	2,441	610	20	87.2	4,840
March	556	21	16	17.9	1,100
April	3,494	630	14	116	6,930
May	5,620	1,230	-	181	11,150
June	4,015.8	1,140	8.8	134	7,970
July	303.1	57	4.8	9.78	601
August	1,032.2	377	1.8	33.3	2,050
September	4,891.4	1,160	5.2	163	9,700
Water year 1941-42	62,052.5	4,360	1.8	170	123,100

Peak discharge.- Oct. 16 (11 p.m.) 5,630 sec.-ft.; Oct. 26 (9 a.m.) 3,020 sec.-ft.

a No gage-height record; discharge computed on basis of available gage heights, engineer's notes, and records for nearby stations.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Clear Fork of Brazos River at Fort Griffin, Tex.

Location.- Water-stage recorder, lat. 32°56', long. 99°13', at bridge on Fort Griffin-Throckmorton highway, half a mile east of Fort Griffin, Shackelford County, and 1.3 miles upstream from Mill Creek. Datum of gage is 1,174.53 feet above mean sea level, datum of 1929.

Drainage area.- 3,974 square miles.

Records available.- December 1923 to September 1942.

Average discharge.- 18 years (1924-42), 321 second-feet.

Extremes.- Maximum discharge during year, 15,100 second-feet Oct. 17 (gage height, 29.36 feet); minimum, 0.4 second-foot Aug. 18.

1923-42: Maximum discharge, 33,600 second-feet Sept. 10, 1932 (gage height, 35.09 feet); no flow at times.

Maximum stage known, about 38.0 feet in 1900, from information by local residents.

Remarks.- Records good. Flow regulated by Fort Phantom Hill Reservoir (see p. 84), and several smaller reservoirs having a combined capacity of 106,000 acre-feet. Small diversions upstream for irrigation, municipal supply, and oil field uses materially affect low flow.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	2,530	a105	a85	42	31	21	49	43	13	0.5	21
2	162	1,880	a100	a85	43	30	18	49	30	11	.5	22
3	735	1,370	a95	a80	41	a30	26	43	25	13	.5	18
4	3,040	1,070	a90	a75	40	a30	23	34	21	56	.5	11
5	1,870	950	a85	a75	44	a30	21	28	18	36	.5	8.5
6	884	835	a80	a70	42	a30	22	44	884	24	.5	11
7	615	676	a80	67	47	a30	277	249	400	19	.5	292
8	428	291	a75	67	48	a30	601	243	248	35	.5	165
9	320	228	a75	66	47	30	956	475	316	27	.5	1,380
10	258	208	70	64	39	29	380	180	242	31	.5	2,040
11	208	186	99	64	47	30	184	94	112	25	.5	1,220
12	561	176	378	64	47	28	119	64	66	16	.5	950
13	580	162	1,430	61	44	28	382	48	42	12	.5	325
14	529	159	1,190	62	49	28	460	38	73	11	.5	95
15	5,500	151	760	62	55	29	527	30	820	9.5	.7	50
16	11,800	142	585	60	60	33	535	26	2,070	11	.7	32
17	14,700	136	360	58	61	31	220	23	2,360	8.5	.5	56
18	11,600	128	222	62	60	28	123	210	2,210	6.3	.4	28
19	4,970	125	180	56	394	29	118	253	726	4.9	.8	21
20	2,170	116	157	55	545	35	212	533	205	3.6	114	20
21	1,100	107	143	49	284	31	123	1,310	155	3.4	82	17
22	950	116	136	49	104	26	138	665	92	2.6	46	22
23	890	130	127	48	57	28	353	535	62	2.2	31	28
24	886	a150	118	47	33	32	607	268	48	1.7	24	25
25	1,910	a150	109	46	28	28	750	289	37	1.6	108	72
26	3,420	a140	100	44	30	27	760	247	29	1.4	74	41
27	3,580	a130	100	42	31	29	366	760	24	1.3	126	25
28	1,770	a120	a90	42	28	27	143	610	22	1.3	102	17
29	1,370	a115	a85	42	-	28	88	340	18	.9	50	12
30	7,280	a110	a85	42	-	31	62	111	16	.8	33	9.5
31	4,750	-	a85	42	-	27	-	61	-	.7	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	88,857	14,700	21	2,866	176,200
November	12,787	2,530	107	426	25,360
December	7,394	1,430	70	239	14,670
Calendar year 1941	349,542	16,900	.4	958	693,200
January	1,831	85	42	59.1	3,630
February	2,390	545	28	85.4	4,740
March	913	35	26	29.5	1,810
April	8,615	956	18	287	17,090
May	7,909	1,310	23	255	15,690
June	11,414	2,360	16	380	22,640
July	390.7	56	.7	12.6	775
August	836.1	126	.4	27.0	1,660
September	7,034.0	2,040	8.5	234	13,950
Water year 1941-42	150,370.8	14,700	.4	412	298,200

Peak discharge.- Oct. 4 (2:30 p.m.) 4,210 sec.-ft.; Oct. 17 (8 a.m.) 15,100 sec.-ft.; Oct. 30 (3 p.m.) 9,720 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage and records for nearby stations.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Clear Fork of Brazos River near Crystal Falls, Tex.

Location.- Water-stage recorder above spillway of concrete dam, lat. 32°54', long. 98°50' at Texas Co.'s pumping plant 2½ miles downstream from Hubbard Creek and 3¼ miles northeast of Crystal Falls, Stephens County. Datum of gage is 1,055.25 feet above mean sea level, datum of 1929.
Drainage area.- 5,658 square miles.
Records available.- July 1928 to September 1942.
Average discharge.- 14 years, 560 second-feet.
Extremes.- Maximum discharge during year, 18,800 second-feet Apr. 9 (gage height, 25.80 feet); minimum, 0.9 second-foot Aug. 10, 11.
1928-42: Maximum discharge, 35,800 second-feet June 11, 1941 (gage height, 33.45 feet), from rating curve extended above 23,000 second-feet; no flow at times.
Maximum stage known, about 34.0 feet, present datum, in 1900, from information by local residents.
Remarks.- Records good. A large part of low flow diverted above station for municipal supply and oil field uses. Flow regulated by several reservoirs above Nugent which have a combined capacity of 106,000 acre-feet.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 23 to July 10, Aug. 21-27)

2.2	0	2.8	142	16.0	9,440
2.25	1.5	3.0	224	18.0	10,600
2.3	5.5	3.5	470	20.0	11,900
2.35	12	4.0	800	22.0	13,700
2.4	22	5.0	1,560	24.0	16,100
2.5	44	7.0	3,250	25.0	17,500
2.6	72	10.0	5,620		
2.7	106	13.0	7,630		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	211	7,540	135	106	64	42	31	165	128	35	3.1	89
2	229	2,820	131	103	61	40	31	131	99	35	3.1	47
3	7,990	1,980	128	103	64	42	29	113	82	33	2.3	1,100
4	10,700	1,480	120	99	61	42	29	103	66	29	2.3	1,210
5	4,250	1,290	113	96	58	40	26	89	61	40	1.5	165
6	1,850	1,100	110	96	58	37	304	1,070	549	58	1.2	73
7	928	995	103	92	55	37	2,010	912	1,080	44	1.2	6,480
8	614	705	103	86	55	37	13,900	501	443	35	1.2	10,800
9	432	391	96	86	55	37	16,900	751	888	33	1.2	3,020
10	337	328	96	86	55	35	3,480	589	494	42	.9	1,710
11	280	289	138	86	52	35	882	270	596	35	1.2	1,760
12	246	265	184	86	47	37	518	220	289	35	1.2	1,210
13	588	247	677	82	50	35	746	169	161	31	1.2	947
14	550	233	1,560	82	55	35	1,060	120	142	22	1.2	294
15	1,550	220	1,140	82	55	35	640	330	3,650	18	1.2	142
16	6,400	206	730	82	55	37	793	157	4,200	18	3.1	89
17	8,320	193	556	82	52	35	654	103	4,290	16	2.3	61
18	10,900	184	352	79	50	33	328	1,050	2,480	16	2.3	66
19	11,800	172	252	79	50	33	1,080	5,090	1,930	16	2.3	64
20	8,130	165	211	75	472	31	1,520	4,790	536	16	2.3	47
21	1,950	153	189	72	518	31	587	1,250	252	14	1.5	42
22	1,180	153	172	69	246	35	323	1,520	206	11	100	37
23	1,020	153	161	66	117	35	697	950	138	8.3	169	35
24	2,650	165	150	66	72	31	2,810	1,320	103	5.5	359	42
25	3,260	184	138	66	55	31	2,390	921	79	5.5	443	42
26	2,910	180	131	66	42	31	1,210	681	64	5.5	120	79
27	3,500	165	120	64	37	31	965	512	52	5.5	86	72
28	3,420	157	117	64	35	29	1,040	942	44	4.7	110	50
29	1,760	146	110	61	-	29	411	723	40	3.9	117	40
30	2,840	138	103	66	-	31	242	366	37	3.1	72	35
31	8,600	-	103	66	-	31	-	189	-	3.1	249	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	109,395	11,800	211	3,529	217,000
November	22,397	7,540	138	747	44,420
December	8,429	1,560	96	272	16,720
Calendar year 1941	602,027.6	32,400	.5	1,649	1,194,000
January	2,494	106	61	80.5	4,950
February	2,646	518	35	94.5	5,250
March	1,080	42	29	34.8	2,140
April	55,636	16,900	26	1,855	110,400
May	26,097	5,090	89	842	51,760
June	23,179	4,290	37	773	45,970
July	677.1	58	3.1	21.8	1,340
August	1,862.8	443	.9	60.1	3,690
September	29,848	10,800	35	995	59,200
Water year 1941-42	283,740.9	16,900	.9	777	562,800

Peak discharge.- Oct. 4 (8:30 a.m.) 11,400 sec.-ft.; Oct. 19 (9:30 a.m.) 12,100 sec.-ft.; Apr. 9 (1:00 a.m.) 18,800 sec.-ft.; Sept. 8 (6:30 p.m.) 11,100 sec.-ft.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Fort Phantom Hill Reservoir near Nugent, Tex.

Location.- Staff gage, lat. 32°37', long. 99°40', on outlet tower at dam in Elm Creek, 4 miles upstream from Clear Fork of Brazos River and 5 miles south of Nugent, Jones County. Datum of gage is 1,580.0 feet above mean sea level.

Drainage area.- 478 square miles.

Records available.- July 1940 to September 1942.

Extremes.- Maximum contents observed during year, 80,900 acre-feet Oct. 17 (gage height, 56.8 feet); minimum observed, 62,350 acre-feet Aug. 20-23 (gage height, 51.9 feet).
1940-42: Maximum contents observed, that of Oct. 17, 1941; minimum observed, 20,290 acre-feet Aug. 12-13, 1940 (gage height, 34.7 feet).

Remarks.- Reservoir is formed by earthfill dam with rock riprap face; dam completed and storage began in October 1938. Capacity, 69,550 acre-feet between gage heights 1.6 feet (sill of lowest outlet gate) and 54.0 feet (crest of spillway). Dead storage, 450 acre-feet. Records given herein represent total contents. Water is used for municipal supply and flood control. Gage read once daily at 8 a.m. Lake Abilene on Elm Creek, Lake Kirby on Cedar Creek, and Lytle Lake on Lytle Creek (combined capacity, 19,300 acre-feet) are smaller reservoirs upstream in Elm Creek Basin.

Cooperation.- Gage-height record and capacity table furnished by city of Abilene.

Monthly gage height and contents, water year October 1941 to September 1942

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	54.1	70,380	-
Oct. 31	54.9	73,420	+3,040
Nov. 30	53.5	68,150	-5,270
Dec. 31	53.8	69,260	+1,110
Calendar year 1941	-	-	+46,460
Jan. 31	53.9	69,630	+370
Feb. 28	53.2	67,040	-2,590
Mar. 31	52.8	65,580	-1,460
Apr. 30	53.2	67,040	+1,460
May 31	53.3	67,410	+370
June 30	53.0	66,300	-1,110
July 31	52.4	64,140	-2,160
Aug. 31	52.1	63,060	-1,080
Sept.30	52.0	62,700	-360
Water year 1941-42	-	-	-7,680

† Gage height at 6 a.m.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Aquilla Creek near Aquilla, Tex.

Location.- Water-stage recorder, lat. 31°51', long. 97°12', at bridge on Abbott-Aquilla county road, three-quarters of a mile upstream from Palls Branch and 1 mile southeast of Aquilla, Hill County.

Drainage area.- 309 square miles.

Records available.- December 1924 to August 1925, December 1938 to September 1942.

Extremes.- Maximum discharge during year, 16,000 second-feet Apr. 25 (gage height, 28.94 feet), from rating curve extended above 6,500 second-feet on basis of velocity-area studies and data from flood of Sept. 27, 1936; minimum, 0.3 second-foot Oct. 1.
1924-25, 1938-42: Maximum discharge, that of Apr. 25, 1942; no flow at times.
Maximum stage known, 34 feet Aug. 31, 1887, from information by local resident.
Flood of Sept. 27, 1936, reached a stage of about 33 feet, from floodmark. Peak discharge of this flood as determined about 9 miles below station, 84,500 second-feet, by slope-area method (drainage area, 370 square miles).

Remarks.- Records good except those above 8,000 second-feet, which are poor. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	16	9.7	20	30	28	10	166	39	628	1.7	2.5
2	18	16	10	17	19	130	10	127	35	35	1.6	7.3
3	11	11	13	16	17	46	10	107	32	40	1.5	1,120
4	148	8.9	11	16	15	30	11	89	30	24	1.4	479
5	90	8.1	11	14	15	26	11	77	28	16	1.1	28
6	21	8.1	9.4	14	14	24	2,650	519	74	15	1.0	13
7	10	7.3	7.8	15	13	20	335	853	104	14	.9	478
8	6.4	6.8	7.3	14	11	18	4,060	202	84	13	.7	5,450
9	146	6.2	7.3	15	10	18	1,470	114	83	10	.6	2,580
10	1,580	6.0	7.6	14	10	17	170	65	48	8.9	.6	305
11	209	5.5	46	14	10	17	105	75	434	7.3	.6	76
12	59	5.1	131	15	9.7	17	82	72	47	6.0	1.1	51
13	42	5.1	130	17	9.7	18	658	66	32	5.3	2.0	40
14	32	5.3	50	17	10	18	244	78	1,860	4.5	1.2	32
15	26	5.3	35	18	18	18	191	62	2,700	4.4	.8	27
16	22	5.3	30	15	42	18	91	53	1,080	4.0	5.0	22
17	19	5.1	28	15	38	17	69	47	116	4.0	106	19
18	17	4.9	27	15	22	15	59	99	70	3.5	21	19
19	18	5.1	25	14	15	14	359	3,740	53	3.3	6.5	26
20	34	73	23	13	13	14	5,910	2,290	42	3.2	3.2	16
21	20	34	22	12	12	13	2,900	201	36	2.9	2.2	13
22	15	25	32	11	12	12	244	134	32	7.9	1.6	13
23	13	52	33	11	14	12	1,400	159	28	13	402	12
24	12	22	25	11	14	13	8,440	297	26	4.4	247	10
25	10	14	22	11	12	13	11,000	129	23	3.0	811	9.7
26	9.4	13	20	12	11	15	2,400	86	20	2.8	35	9.1
27	8.1	12	18	12	10	15	491	70	17	2.8	12	7.8
28	6.8	11	16	11	10	12	847	59	15	2.4	6.4	7.3
29	6.4	10	16	10	-	10	256	51	13	2.2	4.2	7.3
30	11	9.7	16	17	-	10	170	46	56	1.9	4.2	7.1
31	20	-	18	148	-	10	-	42	-	1.8	3.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,640.5	1,580	0.4	85.2	5,240
November	416.6	73	4.9	13.9	826
December	857.1	131	7.3	27.6	1,700
Calendar year 1941	86,064.3	6,570	.4	236	170,700
January	572	148	10	18.5	1,130
February	436.4	42	9.7	15.6	866
March	658	130	10	21.2	1,310
April	44,873	11,000	10	1,496	89,000
May	10,195	3,740	42	329	20,220
June	7,257	2,700	13	242	14,390
July	894.5	628	1.8	28.9	1,770
August	1,687.1	811	.6	54.4	3,350
September	10,867.1	5,450	2.5	363	21,590
Water year 1941-42	81,374.3	11,000	.4	223	161,400

Peak discharge: April 20 (11 p.m.) 7,200 sec.-ft.; April 25 (10:30 a.m.) 16,000 sec.-ft.; Sept. 8 (11:30 a.m.) 7,300 sec.-ft.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

North Bosque River near Clifton, Tex.

Location.- Staff gage above spillway of masonry dam, lat. 31°48', long. 97°35', a quarter of a mile upstream from Gulf, Colorado & Santa Fe Railway bridge and 1.4 miles northwest of Clifton, Bosque County. Datum of gage is 622.7 feet above mean sea level, datum of 1929.

Drainage area.- 974 square miles.

Records available.- November 1923 to September 1942.

Average discharge.- 19 years, 227 second-feet.

Extremes.- Maximum discharge observed during year, 27,900 second-feet Sept. 7 (gage height, 17.70 feet); minimum observed, 15 second-feet Apr. 5.

1923-42: Maximum discharge, 38,500 second-feet Jan. 23, 1938; maximum gage height, observed, 22.10 feet May 5, 1941; no flow at times.

Flow of May 9, 1922, reached a stage of 25 feet, from information by local resident.

Remarks.- Records good. Railway company pumps about 100,000 gallons a day (0.15 second-foot) from pool formed by control dam a third of a mile below gage. Gage read twice daily, more often during high stages.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	172	53	53	56	37	18	590	296	180	59	301
2	53	117	81	53	56	56	18	492	261	189	53	126
3	334	99	93	53	51	56	17	452	243	207	53	164
4	227	84	75	53	46	53	17	404	225	207	48	3,100
5	1,160	81	69	53	46	51	15	348	213	198	43	251
6	487	72	64	51	43	46	25	412	7,220	184	39	155
7	219	66	59	51	41	41	25	1,370	7,610	166	39	16,300
8	142	64	59	51	39	41	5,370	880	830	155	37	7,370
9	105	64	56	51	37	37	1,120	680	1,810	146	37	1,390
10	385	61	56	51	37	33	308	452	680	136	35	635
11	802	59	69	41	37	33	180	364	6,270	126	35	436
12	293	59	177	51	37	31	146	348	880	123	31	333
13	129	56	199	51	35	31	1,260	311	599	117	31	289
14	117	56	123	51	37	31	607	1,100	1,750	114	29	255
15	108	53	102	51	43	29	793	936	8,150	111	27	231
16	102	53	87	51	53	29	261	436	2,980	108	25	207
17	99	59	81	51	51	29	202	364	1,050	96	a25	194
18	93	64	75	48	48	29	152	412	730	84	143	176
19	87	61	75	48	46	29	3,250	12,400	545	75	81	159
20	81	99	72	48	43	29	5,000	3,840	484	75	53	155
21	81	75	69	48	39	27	1,870	990	a444	a72	43	149
22	78	59	64	48	37	25	527	1,090	412	69	39	146
23	75	59	64	48	35	25	2,000	1,420	372	69	660	142
24	72	59	61	48	35	25	10,300	1,490	340	69	142	136
25	69	56	a60	46	35	25	6,930	780	311	69	287	129
26	66	53	59	46	35	25	1,540	617	274	69	171	123
27	66	53	56	43	35	25	2,240	527	255	69	111	120
28	64	53	53	41	35	25	4,440	452	231	69	64	117
29	64	53	53	53	-	25	1,490	404	207	66	48	117
30	255	53	53	61	-	21	730	356	194	64	51	114
31	422	-	53	61	-	18	-	325	-	61	532	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,378	1,160	43	206	12,650
November	2,072	172	53	69.1	4,110
December	2,370	199	53	76.5	4,700
Calendar year 1941	253,620	23,600	43	695	503,100
January	1,564	61	41	50.5	3,100
February	1,168	56	35	41.7	2,320
March	1,017	56	18	32.8	2,020
April	50,851	10,300	15	1,695	100,900
May	36,042	12,400	311	1,130	69,500
June	45,866	8,150	194	1,529	90,970
July	3,543	207	61	114	7,030
August	3,071	660	25	99.1	6,090
September	33,520	16,300	114	1,117	66,490
Water year 1941-42	186,462	16,300	15	511	369,900

Peak discharge: Apr. 24 (5 a.m.) 19,400 sec.-ft.; May 19 (3 p.m.) 17,000 sec.-ft.; June 7 (2 a.m.) 21,600 sec.-ft.; June 11 (12:30 p.m.) 15,500 sec.-ft.; June 15 (6 p.m.) 16,400 sec.-ft.; Sept. 7 (1:45 p.m.) 27,900 sec.-ft.

a No gage-height record; discharge computed from graph based on gage heights of adjoining days.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Leon River near Hasse, Tex.

Location.- Water-stage recorder and concrete control, lat. 31°57', long. 98°28', at bridge on U. S. Highway 67, 1,000 feet upstream from Gulf, Colorado & Santa Fe Railway bridge, 0.4 mile upstream from Walnut Creek, and 2.1 miles northeast of Hasse, Comanche County. Datum of gage is 1,115.1 feet above mean sea level, datum of 1929.

Drainage area.- 1,276 square miles.

Records available.- January 1939 to September 1942.

Extremes.- Maximum discharge during year, 13,000 second-feet Apr. 9 (gage height, 16.31 feet); minimum, 2.5 second-feet Aug. 15, 16.

1939-42: Maximum discharge, 15,900 second-feet June 20, 1939 (gage height, 17.04 feet); no flow at times.

Maximum stage known, about 25.0 feet in May 1908, from information by Texas State Highway Department.

Remarks.- Records good. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	125	52	49	a37	29	19	1,520	177	112	10	17
2	406	209	52	47	a37	34	19	685	161	186	9.2	
3	608	100	60	47	a36	35	19	399	151	154	8.7	430
4	498	76	52	47	a36	34	19	300	141	82	7.7	534
5	838	68	50	44	a36	30	18	266	408	62	6.3	410
6	840	62	44	44	a36	30	23	250	605	50	5.4	344
7	566	58	43	46	a36	28	218	340	843	44	4.4	6,040
8	297	54	42	38	a36	26	6,950	509	453	42	4.4	6,300
9	164	52	43	37	a36	24	11,600	458	480	42	4.0	2,640
10	174	50	49	42	a36	23	7,730	286	519	37	3.3	1,940
11	254	49	76	43	a36	22	3,340	232	1,090	35	3.0	1,970
12	100	47	158	43	a36	23	1,210	216	593	33	3.3	1,080
13	73	47	174	46	a36	23	845	222	373	29	3.5	478
14	62	49	109	46	a36	25	725	214	300	26	2.8	264
15	62	49	82	46	a36	25	592	234	1,020	24	2.7	151
16	68	49	70	44	a36	25	414	320	1,820	23	2.7	108
17	93	49	64	44	a35	23	310	250	1,980	22	7.6	85
18	248	47	64	44	a35	22	266	260	1,410	20	24	73
19	102	49	60	42	a35	22	542	2,560	845	19	18	62
20	70	49	56	40	a35	23	682	7,560	395	18	73	54
21	64	47	56	39	a35	22	1,060	5,590	242	17	24	54
22	58	50	60	37	a35	21	1,080	2,680	183	309	11	47
23	60	54	58	37	a35	22	594	1,360	130	76	9.2	44
24	109	60	56	37	35	22	924	1,240	100	30	8.7	42
25	210	52	52	37	33	23	3,470	930	82	23	127	39
26	216	50	50	37	32	23	6,630	708	68	20	82	36
27	181	50	47	37	29	23	3,120	479	62	19	30	34
28	134	50	46	a37	28	22	1,420	320	54	17	15	33
29	94	50	46	a37	-	20	2,410	270	50	15	7.7	33
30	76	52	46	a37	-	20	2,620	243	46	12	6.8	32
31	82	-	47	a37	-	20	-	208	-	12	8.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,845	840	36	221	13,580
November	1,853	209	47	61.8	3,680
December	1,966	174	42	63.4	3,900
Calendar year 1941	201,437	13,100	10	552	399,600
January	1,288	49	37	41.5	2,550
February	980	37	28	35.0	1,940
March	764	35	20	24.6	1,520
April	58,869	11,600	18	1,962	116,800
May	31,109	7,560	208	1,004	61,700
June	14,781	1,980	46	493	29,320
July	1,610	309	12	51.9	3,190
August	533.6	127	2.7	17.2	1,060
September	23,388	6,300	14	780	46,390
Water year 1941-42	143,986.6	11,600	2.7	394	285,600

Peak discharge.- Apr. 9 (4 a.m.) 13,000 sec.-ft.; Apr. 26 (6 a.m.) 7,200 sec.-ft.; May 20 (5 p.m.) 8,500 sec.-ft.; Sept. 7 (10:30 p.m.) 12,100 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage and weather records.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Leon River near Belton, Tex.

Location.- Water-stage recorder above spillway of concrete dam, lat. 31°04'15", long. 97°25'30", 1,400 feet upstream from bridge on U. S. Highway 81 and 2 miles east of Belton, Bell County. Datum of gage is 476.9 feet above mean sea level, datum of 1929.

Drainage area.- 3,547 square miles.

Records available.- October 1923 to September 1942.

Average discharge.- 19 years, 716 second-feet.

Extremes.- Maximum discharge during year, 35,300 second-feet Apr. 25 (gage height, 16.58 feet); minimum, 101 second-feet Aug. 9-16.

1923-42: Maximum discharge, 51,000 second-feet Sept. 28, 1936 (gage height, 20.0 feet), by slope-area method; no flow at times.

Maximum stage known, 25 feet sometime in December 1913. Flood in September 1921 reached a stage of 21.0 feet. Stages from information by local residents.

Remarks.- Records fair. Several small pumping plants divert water above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	166	538	247	194	160	149	110	6,0[illegible]	1,620	580	160	546
2	166	447	240	194	160	154	110	6,7[illegible]	1,330	538	149	408
3	166	414	240	194	166	160	110	4,940	1,250	521	138	414
4	718	398	234	189	172	160	110	3,780	1,120	496	134	756
5	2,260	359	227	189	177	154	110	4,040	1,060	496	124	471
6	1,790	335	227	183	177	154	1,330	2,960	3,340	597	120	756
7	774	382	227	183	172	149	1,310	5,010	5,270	822	115	3,200
8	2,050	367	227	183	172	138	3,350	4,040	4,490	665	110	8,640
9	2,830	320	227	183	166	138	2,900	3,060	9,650	521	105	4,870
10	2,870	282	227	183	166	143	2,060	2,200	14,000	463	110	84,000
11	1,760	261	234	177	166	143	910	2,140	9,320	422	101	11,700
12	1,240	247	261	177	166	143	1,790	3,370	4,660	382	110	11,700
13	746	227	267	177	166	143	2,900	2,340	2,900	359	105	10,300
14	640	220	282	177	166	138	4,130	3,190	2,980	328	105	9,030
15	529	227	282	177	166	138	6,060	1,880	2,900	313	101	7,040
16	512	240	275	172	230	134	6,700	1,880	2,540	290	105	3,860
17	422	240	297	172	240	129	3,640	1,820	2,340	275	213	2,140
18	367	240	328	177	220	124	1,700	2,370	2,900	254	800	1,340
19	335	240	313	183	189	124	1,240	6,800	3,210	247	244	1,070
20	390	240	275	183	172	124	982	8,740	2,760	234	166	890
21	335	267	261	177	166	120	910	5,850	2,830	220	246	783
22	320	610	261	172	166	120	1,270	6,480	2,900	207	247	710
23	398	455	254	172	172	115	1,630	6,270	2,470	200	271	648
24	1,970	328	240	172	172	115	6,650	6,700	1,700	189	2,590	605
25	2,570	267	227	172	166	120	18,900	5,850	1,180	189	1,800	580
26	1,420	261	220	166	154	120	25,200	6,060	993	200	2,180	546
27	605	254	207	166	149	115	13,700	6,700	860	288	1,230	504
28	414	254	200	166	149	115	19,300	5,740	764	343	880	479
29	351	247	200	166	-	110	10,400	3,210	683	240	463	455
30	390	247	200	172	-	110	6,480	2,470	622	194	328	430
31	414	-	200	160	-	110	-	2,010	-	189	463	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	29,918	2,870	166	965	59,340
November	9,414	610	220	314	18,670
December	7,607	328	200	245	15,090
Calendar year 1941	771,730	13,400	166	2,114	1,531,000
January	5,508	194	160	178	10,920
February	4,863	240	149	174	9,650
March	4,109	160	110	133	8,150
April	146,012	25,200	110	4,867	289,600
May	134,660	8,740	1,820	4,344	267,100
June	94,692	14,000	622	3,156	187,800
July	11,262	822	189	363	22,340
August	14,013	2,590	101	452	27,790
September	93,269	11,700	406	3,109	185,000
Water year 1941-42	555,327	25,200	101	1,521	1,101,000

Peak discharge.- Apr. 25 (8 p.m.) 35,300 sec.-ft.; Apr. 26 (5 a.m.) 32,800 sec.-ft.; May 20 (5 a.m.) 13,400 sec.-ft.; June 6 (10 p.m.) 10,100 sec.-ft.; June 10 (6 p.m.) 16,300 sec.-ft.; Sept. 8 (4 a.m.) 12,000 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Little River at Cameron, Tex.

Location.- Water-stage recorder, lat. 30°50', long. 96°57', at site of old McCowan bridge, 2,100 feet upstream from bridge on U. S. Highway 77, and 2 miles southeast of Cameron, Milam County. Datum of gage is 281.9 feet above mean sea level, datum of 1929.

Drainage area.- 7,034 square miles.

Records available.- November 1916 to September 1942.

Average discharge.- 25 years (1917-42), 1,998 second-feet.

Extremes.- Maximum discharge during year, 67,900 second-feet Sept. 9 (gage height, 36.32 feet); minimum, 249 second-feet Apr. 4-7, Aug. 13.

1916-42: Maximum discharge, 647,000 second-feet Sept. 10, 1921 (gage height, 53.2 feet, present datum, from floodmark), by slope-area method; minimum, 2.6 second-feet, Sept. 3, 5, 7, 1918.

Correction.- The flood of 1852 reached about the same stage as that of Sept. 10, 1921, from information by local resident, superseding the stage published for the flood of 1852 in previous water-supply papers.

Remarks.- Records good. Many small diversions for irrigation and municipal supply affect very low flows. Slight regulation caused by pumping above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	384	678	480	421	368	325	255	13,300	a3,200	a1,540	434	480
2	388	694	480	417	361	338	252	8,610	a2,780	a1,300	421	612
3	388	711	480	414	361	391	252	7,200	a2,420	1,110	368	579
4	398	662	480	411	358	401	249	6,800	a1,990	1,230	341	496
5	651	620	480	411	361	394	249	5,380	a1,740	1,470	332	722
6	2,560	579	480	404	368	381	249	4,830	a2,660	1,170	318	1,300
7	3,530	546	464	398	368	368	1,160	5,140	7,080	1,110	302	711
8	1,710	530	464	394	364	355	12,700	6,040	9,680	1,240	293	6,260
9	1,720	562	464	394	364	341	21,900	8,390	9,740	1,240	283	49,600
10	2,760	513	464	391	378	328	11,100	7,120	10,500	1,040	271	36,400
11	3,250	496	596	388	391	322	4,580	4,600	23,600	942	264	15,500
12	2,660	464	942	384	374	322	a1,890	3,800	33,400	843	261	9,640
13	2,040	447	612	384	368	325	a1,640	5,410	24,600	777	255	9,860
14	1,340	444	546	384	368	322	a2,620	4,600	11,100	728	268	10,500
15	1,010	440	513	384	371	315	3,640	5,660	5,560	694	271	10,100
16	843	440	513	384	407	305	4,640	5,710	4,870	662	261	8,450
17	777	440	513	381	437	309	5,840	f3,780	4,410	620	274	5,890
18	711	440	496	384	530	302	5,610	f3,560	4,000	612	338	3,250
19	645	440	530	384	496	293	2,960	7,680	3,910	579	752	1,990
20	596	440	546	381	430	286	3,320	12,400	4,230	579	843	1,570
21	612	447	546	378	394	280	11,200	11,000	4,000	546	579	1,340
22	579	480	546	374	368	274	6,980	11,100	3,680	530	414	1,170
23	530	579	645	371	361	271	2,520	8,420	3,730	645	447	1,040
24	1,600	975	562	371	368	268	3,930	7,500	3,550	546	513	975
25	5,340	744	530	371	368	268	9,650	8,050	a3,250	496	1,790	909
26	3,100	596	496	371	355	268	11,600	9,320	a2,910	447	1,510	876
27	2,680	530	464	371	341	268	18,400	7,950	a2,620	444	2,180	826
28	1,150	496	444	368	325	264	25,100	7,400	a2,340	440	1,780	777
29	794	480	427	364	-	261	17,800	7,250	a2,030	562	1,140	744
30	620	480	424	364	-	261	22,500	5,420	a1,810	546	760	546
31	620	-	421	364	-	258	-	3,640	-	480	546	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	45,986	5,340	384	1,483	91,210
November	16,393	975	440	546	32,520
December	16,048	942	421	518	31,830
Calendar year 1941	1,654,049	29,900	384	4,532	3,281,000
January	11,960	421	364	386	23,720
February	10,703	530	325	382	21,230
March	9,664	401	258	312	19,170
April	214,786	25,100	249	7,160	426,000
May	217,060	13,300	3,560	7,002	430,500
June	201,390	33,400	1,740	6,713	399,500
July	25,168	1,540	440	812	49,920
August	18,809	2,180	255	607	37,310
September	183,113	49,600	480	6,104	363,200
Water year 1941-42	971,080	49,600	249	2,660	1,926,000

Peak discharge.- Apr. 9 (3:30 a.m.) 27,200 sec.-ft.; Apr. 28 (12:30 a.m.) 29,400 sec.-ft.; June 12 (5 a.m.) 35,000 sec.-ft.; Sept. 9 (12:30 p.m.) 67,900 sec.-ft.

a Nc gage-height record; discharge computed on basis of known range in stage and records for tributary stations upstream.

f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Cowhouse Creek near Killeen, Tex.

Location.- Water-stage recorder and concrete control, lat. 31°12', long. 97°43', at Potters bridge in Coryell County, 3.8 miles downstream from House Creek and 6.0 miles north of Killeen, Bell County. Gage used 1939-42 is at same site and datum as that used prior to Aug. 31, 1925.

Drainage area.- 650 square miles.

Records available.- September 1924 to August 1925, February 1939 to August 1942 (discontinued).

Extremes.- 1939: Maximum discharge during period February to September, 9,220 second-feet May 17 (gage height, 13.24 feet); no flow Sept. 27-30.

1939-40: Maximum discharge during water year, 11,700 second-feet June 18 (gage height, 15.30 feet); no flow Oct. 1-9.

1940-41: Maximum discharge during water year, 26,200 second-feet Nov. 23 (gage height, 23.94 feet, from floodmark), from rating curve extended above 8,000 second-feet on basis of velocity-area studies; minimum, 0.5 second-foot Oct. 16-18.

1941-42: Maximum gage height for period, 30.5 feet Apr. 30, from floodmark (discharge not determined); minimum, 6.9 second-feet Oct. 1.

1924-25, 1939-42: Maximum gage height, 30.5 feet Apr. 30, 1942, from floodmark (discharge not determined); no flow at times.

Maximum stage known, 34.0 feet in 1900, from information by local resident.

Remarks.- Records fair except those for periods of no gage-height record and those above 12,000 second-feet, which are poor. No large diversion above station.

Rating table, February 1939 to August 1942 (gage height, in feet, and discharge, in second-feet)

2.43	0	3.2	44	5.6	1,530
2.5	.1	3.4	89	6.0	1,900
2.6	.7	3.6	154	7.0	2,900
2.7	1.7	3.8	240	8.0	3,900
2.8	3.9	4.0	350	10.0	5,900
2.9	9.5	4.4	590	12.0	7,900
3.0	18	4.8	860	14.0	10,100
3.1	28	5.2	1,180		

Discharge, in second-feet, 1939-42

1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					-	58	38	20	30	28	1.5	2.3
2					-	56	33	20	26	81	1.3	2.0
3					-	52	32	18	20	20	1.0	1.7
4					-	52	30	16	20	11	1.1	1.5
5					-	48	28	17	143	8.8	650	1.2
6					-	44	33	16	154	6.2	76	1.0
7					-	41	28	144	44	4.4	32	.9
8					20	41	25	237	28	3.3	20	.9
9					20	39	25	41	20	2.8	109	.7
10					18	41	22	22	17	2.2	30	.5
11					17	39	20	20	15	2.0	12	.5
12					16	36	20	18	12	2.0	7.5	.5
13					16	34	20	1,200	11	2.2	5.3	.7
14					16	33	20	254	9.5	2.2	6.2	.9
15					16	33	20	82	8.8	1.9	3.1	.9
16					16	32	231	2,510	7.5	1.6	15	.9
17					17	32	130	4,830	6.9	1.5	4.4	.6
18					20	32	58	558	6.2	1.3	2.5	.4
19					116	30	39	199	30	1.2	2.0	.3
20					74	30	32	122	101	1.0	2.0	.3
21					58	32	26	89	44	.9	220	.2
22					43	30	22	72	26	.8	58	.2
23					36	30	20	58	18	.7	22	.2
24					33	30	20	46	12	.6	66	.2
25					311	69	18	39	12	.6	39	.1
26					145	83	24	33	7.5	.5	18	.1
27					89	52	147	32	6.2	.5	20	.1
28					66	58	67	28	4.8	.5	11	0
29					-	165	36	25	3.9	7.1	6.9	0
30					-	56	25	24	3.9	10	5.3	0
31					-	43	-	38	-	2.2	3.3	-

Peak discharge.- May 13 (5 p.m.) 5,400 sec.-ft.; May 16 (12:30 p.m.) 7,300 sec.-ft.; May 17 (3 a.m.) 9,220 sec.-ft.

Discharge, in second-feet, of Cowhouse Creek near Killeen, Tex., 1939-42--Continued

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.5	1.6	1.5	1.2	2.3	1.1	32	1.7	1,950	8.8	8.8
2	0	.6	1.9	1.3	1.5	2.0	1.1	18	1.5	368	8.2	6.2
3	0	.5	1.6	1.3	3.9	2.0	1.1	13	1.2	250	6.9	4.4
4	0	.5	1.3	1.5	5.7	1.7	1.0	9.5	.9	212	5.7	3.1
5	0	.5	1.3	1.3	3.9	1.7	.9	6.9	.6	182	4.8	2.5
6	0	.6	1.6	1.6	2.8	1.7	894	5.3	.6	154	4.4	2.2
7	0	.6	1.5	1.7	2.5	1.6	514	4.4	.6	126	3.6	1.9
8	0	.6	1.3	1.7	2.3	1.5	107	4.8	.4	104	3.3	1.6
9	252	.6	1.3	1.6	2.5	1.5	54	5.7	.4	89	3.1	.9
10	693	.9	1.2	1.6	2.8	1.3	34	10	.5	76	2.8	.8
11	43	1.3	1.1	1.7	2.5	1.3	27	6.9	.2	66	3.1	1.0
12	13	1.6	1.0	1.5	2.2	1.3	22	5.3	.2	160	3.9	.9
13	5.7	1.6	.9	1.6	1.9	1.3	18	4.1	659	84	4.4	.9
14	3.1	1.2	.9	1.6	1.6	1.3	16	2.8	836	69	4.4	.9
15	2.0	1.0	.9	1.3	1.5	1.2	13	2.2	2,040	58	2.8	.9
16	1.6	1.5	.9	1.3	2.0	1.1	12	1.9	702	56	2.2	.9
17	1.3	1.9	.9	1.3	13	1.1	17	1.5	404	48	1.9	.9
18	1.1	1.7	.9	1.2	17	1.1	18	1.2	2,220	41	182	.9
19	1.0	1.6	.9	1.0	8.8	1.1	11	1.1	1,110	38	60	.9
20	.9	1.0	.9	.9	8.2	1.1	9.5	1.1	334	34	32	.9
21	.7	.9	.8	.9	6.2	1.2	8.2	.9	136	32	20	.9
22	.7	.9	1.1	1.1	5.3	1.1	6.9	36	74	30	12	1.1
23	.6	.9	1.9	1.2	4.4	1.1	5.7	48	48	27	8.2	41
24	.6	.8	2.0	1.1	3.9	1.1	5.3	28	1,690	25	5.7	25
25	.6	.8	1.9	1.0	3.3	1.1	5.3	11	361	20	4.8	11
26	.8	.7	1.7	1.0	3.1	1.1	5.7	4.8	133	18	3.3	7.5
27	.7	.6	1.6	1.1	3.1	1.2	150	3.1	92	16	6.0	4.8
28	.5	.7	1.5	1.1	2.8	1.2	398	81	69	14	139	3.1
29	.5	.9	1.5	1.1	2.5	1.2	310	16	3,990	12	144	2.0
30	.5	1.2	1.5	1.1	-	1.5	69	4.8	1,340	11	52	1.7
31	.5	-	1.5	1.1	-	1.3	-	2.5	-	11	16	-

Peak discharge: June 18 (7:30 p.m.) 11,700 sec.-ft.; June 29 (6 a.m.) 10,600 sec.-ft.; June 30 (11 p.m.) 9,330 sec.-ft.

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	36		482	9,110	440	428	524	235	136	44	17
2	1.3	11		410	2,530	422	410	695	251	130	41	17
3	1.2	6.2		368	868	404	380	5,870	914	130	39	15
4	1.0	3.9		350	692	374	350	860	416	879	41	14
5	1.0	3.9		350	620	344	332	7,920	296	208	43	12
6	.9	3.1		332	692	5,190	491	1,180	255	144	36	12
7	.7	2.5		320	626	984	515	706	328	126	34	11
8	.6	3.3		308	530	626	338	590	255	113	34	10
9	.8	15	1,130	290	470	548	302	524	217	104	39	12
10	.9	18		275	440	488	285	542	1,060	104	38	13
11	.9	11		270	422	440	280	1,470	695	844	33	13
12	1.0	13		265	398	422	275	1,140	280	323	30	13
13	.9	8.8		1,720	374	392	280	542	226	234	28	12
14	.9	6.9		551	338	380	275	470	203	166	160	12
15	.6	5.3		392	320	380	296	422	1,410	562	80	11
16	.5	4.4		350	320	368	467	392	3,170	349	48	12
17	.5	3.6		296	308	498	382	368	484	144	38	12
18	.6	3.1	494	270	296	1,140	280	344	332	122	32	12
19	.7	2.8	434	265	296	678	328	326	275	110	27	10
20	.8	3.3	386	260	700	584	314	314	245	104	25	9.5
21	.8	4.8	350	250	386	518	250	590	222	95	22	8.8
22	.8	1,510	320	240	461	464	285	2,650	248	89	22	8.2
23	.8	9,770	302	240	2,450	512	841	630	203	82	22	8.8
24	.9		275	231	2,450	458	833	428	227	76	22	8.8
25	1.1		270	226	671	404	428	374	284	72	20	8.2
26	1.1	1,030	1,060	222	590	3,380	1,490	338	258	64	18	7.5
27	.9		1,180	217	530	1,100	1,970	308	235	60	20	9.5
28	.9		392	212	470	808	1,500	285	222	58	20	9.5
29	5.8		320	208	-	530	706	302	170	54	20	8.8
30	13		290	212	-	494	608	275	150	50	18	8.8
31	1,080	-	395	255	-	464	-	255	-	46	18	-

Peak discharge.- Nov. 23 (10 a.m.) 26,200 sec.-ft.; Feb. 1 (3 p.m.) 17,600 sec.-ft.; Mar. 6 (9 a.m.) 22,800 sec.-ft.

Note.- No gage-height record Nov. 24 to Dec. 17; discharge computed on basis of floodmarks, engineer's notes, and records for Leon River at Belton, and Lampasas River at Youngsport.

556253 O - 43 - 7

Discharge, in second-feet, of Cowhouse Creek near Killeen, Tex., 1939-42--Continued

1941-42

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.5	122	44	34	22	33	15	-	170	76	18	
2	8.8	79	41	34	22	36	14	-	162	74	16	
3	8.8	62	39	34	22	30	14	-	154	74	15	
4	721	54	39	34	24	36	14	-	144	74	14	
5	1,950	46	38	33	24	33	14	-	147	79	13	
6	258	41	36	32	22	28	1,690	-	4,190	76	12	
7	98	39	34	33	22	26	147	2,900	796	76	11	
8	60	38	36	32	20	24	1,680	545	471	72	11	
9	50	36	34	28	22	22	226	362	416	64	10	
10	918	36	34	28	22	22	136	302	2,140	58	10	
11	108	34	64	28	20	22	-	302	484	52	10	
12	88	33	58	28	20	20	-	418	302	48	9.5	
13	54	30	82	28	20	20	-	314	260	43	11	
14	41	28	82	28	20	20	-	1,270	235	39	10	
15	33	28	62	28	25	20	-	434	255	36	8.8	
16	52	28	28	28	81	22	-	280	270	34	8.8	
17	50	28	50	28	44	20	-	245	226	33	-	
18	38	27	48	27	34	18	-	240	199	30	-	
19	47	30	46	26	33	18	-	7,590	178	28	-	
20	32	43	44	26	32	18	-	1,840	162	27	-	
21	28	33	48	26	28	18	-	446	154	26	-	
22	25	438	56	25	26	16	-	362	144	25	-	
23	664	82	48	25	30	15	-	603	136	24	-	
24	607	60	43	25	25	16	-	600	130	22	-	
25	122	58	44	24	22	18	-	398	119	20	-	
26	69	56	41	24	25	18	-	308	110	20	-	
27	52	52	38	22	24	16	-	260	101	41	-	
28	41	48	34	22	22	15	-	235	92	48	-	
29	38	46	34	22	-	15	-	212	86	28	-	
30	41	44	34	22	-	16	-	194	79	22	-	
31	129	-	34	22	-	15	-	182	-	20	-	

Peak discharge.- May 7 (9 a.m.) 7,500 sec.-ft.; May 14 (3:30 p.m.) 7,000 sec.-ft.; May 19 (8 p.m.) 11,500 sec.-ft.; June 6 (3 p.m.) 14,000 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Monthly discharge, in second-feet, 1939-42

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
January	-	-	-	-	-
February 8-28, 1939	1,163	311	16	55.4	2,310
March	1,451	165	30	46.8	2,880
April	1,289	231	18	43.0	2,560
May	10,830	4,830	16	349	21,480
June	848.2	154	3.9	28.3	1,680
July	209.0	81	.5	6.74	415
August	1,451.4	650	1.0	46.8	2,880
September	19.8	2.3	0	.66	39
The period	-	-	-	-	34,240
October 1939	1,024.4	693	0	33.0	2,030
November	28.7	1.9	.5	.96	57
December	40.9	2.0	.8	1.32	81
Calendar year	-	-	-	-	-
January 1940	40.3	1.7	.9	1.30	80
February	122.4	17	1.2	4.22	243
March	42.3	2.3	1.1	1.36	84
April	2,735.8	894	.9	91.2	5,430
May	373.8	81	.9	12.1	741
June	16,246.8	3,990	.2	542	32,230
July	4,381	1,950	11	141	8,690
August	759.3	182	1.9	24.5	1,510
September	139.6	41	.8	4.65	277
Water year 1939-40	25,935.3	3,990	0	70.9	51,450
October 1940	1,123.4	1,080	.5	36.2	2,230
November	18,659.9	9,770	2.5	622	37,010
December	25,678	-	-	828	50,930
Calendar year 1940	70,302.6	9,770	.2	192	139,500
January 1941	10,637	1,720	208	343	21,100
February	28,358	9,110	296	1,013	56,250
March	24,034	5,190	344	775	47,670
April	15,919	1,970	250	531	31,570
May	31,634	7,920	255	1,020	62,750
June	13,766	3,170	150	459	27,300
July	5,778	879	46	186	11,460
August	1,112	160	18	35.9	2,210
September	336.4	17	7.5	11.2	667
Water year 1940-41	177,035.7	9,770	.5	485	351,100

Monthly discharge, in second-feet, of Cowhouse Creek near Killeen, Tex., 1939-42--Continued

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1941	6,439.1	1,950	7.5	208	12,770
November	1,779	438	27	59.3	3,530
December	1,421	82	34	45.8	2,820
Calendar year 1941	141,213.5	9,110	7.5	387	280,100
January 1942	856	34	22	27.6	1,700
February	753	81	20	26.9	1,490
March	666	36	15	21.5	1,320
April 1-10	3,950	1,690	14	395	7,830
May 7-31	20,842	7,590	182	834	41,340
June	12,512	4,190	79	417	24,820
July	1,389	79	20	44.8	2,760
August 1-16	188.1	18	8.8	11.8	373
September	-	-	-	-	-
Water year	-	-	-	-	-

Lampasas River at Youngsport, Tex.

Location.- Water-stage recorder, lat. 30°57', long. 97°43', 300 feet upstream from bridge on county highway and half a mile southeast of Youngsport, Bell County.
Drainage area.- 1,242 square miles.
Records available.- February 1924 to September 1942.
Average discharge.- 18 years, 308 second-feet.
Extremes.- Maximum discharge during year not determined; minimum, 26 second-feet Apr. 4-6.
1924-42: Maximum discharge, 53,200 second-feet Sept. 28, 1936 (gage height, 33.5 feet, from floodmarks), from rating curve extended above 40,000 second-feet; no flow July 17 to Aug. 18, 1925, July 22, 23, Aug. 9 to Sept. 8, 1934.
Flood of September 1873 reached a stage of about 44.2 feet and that of Dec. 2, 1913, reached a stage of 33.6 feet, present datum, from information by local residents.
Remarks.- Records good except those for periods of no gage-height record, which are poor. Small diversions above station for municipal supply.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40		48	54	40	40	28	748	549	248	63	51
2	40		48	54	37	48	28	638	515	243	60	48
3	40		48	54	37	48	28	583	475	274	57	51
4	870		45	54	37	45	28	542	449	302	54	947
5	922		45	54	37	48	26	488	835	269	51	199
6	486	a50	45	54	37	45	311	475	f7,180	248	48	112
7	163		45	54	37	42	439	2,880	2,660	243	48	326
8	104		45	51	37	40	984	2,050	1,030	233	45	2,770
9	83		45	48	37	37	407	1,290	1,850	209	45	1,070
10	86		45	48	37	35	176	995	f8,430	189	42	550
11	238		57	45	37	35	112	910	6,680	168	42	223
12	185	51	60	40	37	35	79	1,020	1,970	155	45	163
13	108	48	60	37	37	35	60	894	1,410	142	54	127
14	83	45	72	35	37	35	57	f3,150	1,170	135	63	127
15	69	48	79	37	37	35	57	1,340	1,120	123	51	131
16		48	72	37	57	35	57	978	1,100	116	48	116
17		48	66	40	63	35	54	902	936	108	88	108
18		48	63	42	51	32	48	1,020	822	101	430	97
19		54	60	42	45	32	f382	f5,520	748	94	185	86
20	a50	66	60	40	45	32	4,200	f2,970	688	86	104	79
21		66	60	40	45	32	726	1,220	624	86	79	72
22		236	63	40	42	30	269	978	576	86	66	69
23		150	60	40	40	30	495	1,010	549	83	60	69
24		79	57	40	40	30	5,700	2,030	462	83	60	69
25		63	54	40	37	32	f11,000	1,410	442	79	325	69
26		57	57	40	35	32	1,840	995	398	76	163	66
27	a150	54	57	40	35	30	2,330	830	354	72	83	63
28		54	57	40	35	30	f6,740	732	319	101	63	60
29		51	57	40	-	30	1,180	673	290	83	54	60
30		48	57	40	-	28	878	617	264	72	51	57
31		-	54	40	-	28	-	583	-	66	51	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,117	922	-	165	10,150
November	1,864	236	-	62.1	3,700
December	1,741	79	45	56.2	3,450
Calendar year 1941	283,119	8,580	-	776	561,500
January	1,360	54	35	43.9	2,700
February	1,128	63	35	40.3	2,240
March	1,101	48	28	35.5	2,180
April	38,719	11,000	26	1,291	76,800
May	40,471	5,520	475	1,306	80,270
June	44,915	8,430	264	1,497	89,090
July	4,573	302	66	148	9,070
August	2,678	430	42	86.4	5,310
September	8,035	2,770	48	268	15,940
Water year 1941-42	151,702	11,000	26	416	300,900

a No gage-height record; discharge computed on basis of floodmarks, local information, and weather records.
f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Sulphur Creek seepage investigations

A series of discharge measurements was made on June 30, and another one on Aug. 10 on Sulphur Creek (tributary of Lampasas River) and tributaries, Tex., between a point just south of Hancock Park in Lampasas, Lampasas County, and a point 3.67 miles downstream, 1.5 miles downstream from Burleson Creek. The investigations were made during a constant stage and determinations represent natural conditions. Distances along creek measured on topographic map of State Reclamation Department.

Discharge measurements on Sulphur Creek and tributaries between Lampasas and a point 1½ miles east of city limits of Lampasas, Tex., in 1942

Date	Stream or diversion	Location	Distance below initial point (miles)	Discharge, in second-feet			
				Main stream	Tributary	Gain or loss in section	Total gain or loss
June 30	Sulphur Creek..	Just south of Hancock Park at former Lampasas-Llano road crossing, 0.9 mile upstream from U. S. Highway 281.	0	15.6	-	-	-
30	....do.....	Northwest corner of Hancock Park 100 feet upstream from city pumping plant at Lampasas.	.53	18.3	-	+2.7	-
30	Lampasas water-supply pumping station.	On left bank, 0.4 mile upstream from U. S. Highway 281.	.55	-	+1.1	-	-
30	Sulphur Creek	250 feet upstream from main Hancock Spring, 600 feet upstream from U. S. Highway 281.	.77	17.9	-	+.7	+3.4
30	....do.....	Just downstream from main Hancock Spring, 200 feet upstream from U. S. Highway 281.	.87	21.0	-	a+3.1	+6.5
30	Hancock Spring. (swimming pool spring)	30 feet downstream from park swimming pool spillway, just upstream from U. S. Highway 281.	.90	-	1.2	-	-
30	Sulphur Creek..	250 feet downstream from U. S. Highway 281 and Hancock Park.	.95	25.5	-	+3.3	+9.8
30	Hannah Springs.	100 feet upstream from Hackberry Street in Lampasas, 1,200 feet upstream from Burleson Creek.	2.17	1.3	-	-	-
30	Sulphur Creek..	In Lampasas State Park, at lower crossing of 2 crossings of Gulf, Colorado & Santa Fe Railroad, 1.5 miles downstream from Burleson Creek.	3.67	32.2	-	+5.4	+15.2
Aug. 10	....do.....	Just south of Hancock Park at former Lampasas-Llano road crossing, 0.9 mile upstream from U. S. Highway 281.	0	5.0	-	-	-
10	....do.....	Northwest corner of Hancock Park, 100 feet upstream from city pumping plant at Lampasas.	.53	6.8	-	+1.8	+1.8
10	Lampasas water-supply pumping station.	On left bank, 0.4 mile upstream from U. S. Highway 281.	.55	-	†1.1	-	-
10	Sulphur Creek..	250 feet upstream from main Hancock Spring, 600 feet upstream from U. S. Highway 281.	.77	9.2	-	+3.5	+5.3
10	....do.....	Just downstream from main Hancock Spring, 200 feet upstream from U. S. Highway 281.	.87	12.4	-	a+3.2	+8.5
10	Hancock Spring. (swimming pool spring)	30 feet downstream from park swimming pool spillway, just upstream from U. S. Highway 281.	.90	-	1.0	-	-
10	Sulphur Creek..	250 feet downstream from U. S. Highway 281 and Hancock Park.	.95	15.3	-	+1.9	+10.4
10	Hannah Springs.	100 feet upstream from Hackberry Street in Lampasas, 1,200 feet upstream from Burleson Creek.	2.17	-	1.5	-	-
10	Sulphur Creek..	In Lampasas State Park, at lower crossing of 2 crossings of Gulf, Colorado & Santa Fe Railroad, 1.5 mile downstream from Burleson Creek.	3.67	18.1	-	+1.3	+11.7

† Diversion from Sulphur Creek; discharge computed on basis of rated capacity of pump.
a Gain in section represents flow of main Hancock Spring and other small springs between sections of flow determinations.

San Gabriel River at Georgetown, Tex.

Location.- Water-stage recorder and concrete control, lat. 30°39'10", long. 97°39'20", 100 feet downstream from Missouri-Kansas-Texas Railroad bridge, 1¼ miles downstream from confluence of North and South Forks, and 1¾ miles northeast of Georgetown, Williamson County. Datum of gage is 643.34 feet above mean sea level, datum of 1929.

Drainage area.- 415 square miles.

Records available.- July 1934 to September 1942. February 1924 to August 1925 at site 1 mile upstream; records equivalent except those for extremely low flow.

Extremes.- Maximum discharge during year, 18,600 second-feet June 10 (gage height, 12.93 feet); minimum, 0.2 second-foot (regulated) July 31, Aug. 1, 29, 30.

1924-25, 1934-42: Maximum discharge, 34,500 second-feet June 30, 1940 (gage height, 18.46 feet), from rating curve extended above 24,000 second-feet; minimum, that of July 31, Aug. 1, 29, 30, 1942.

Maximum stage known, 39.36 feet, present datum, September 1921 (discharge, 160,000 second-feet, by slope-area method), from information by Missouri-Kansas-Texas Railroad Co.

Remarks.- Records good. Several small diversions have some effect on low flow which is also regulated at times by gates in recreation dam 3,000 feet upstream.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	30	30	28	22	25	14	95	65	41	3.5	e.6
2	26	30	30	27	21	26	28	89	61	40	9.5	7.6
3	28	30	29	27	22	24	14	85	58	49	9.5	7.6
4	562	30	29	27	22	23	14	79	55	78	9.0	8.1
5	277	29	29	27	23	24	14	74	54	66	8.6	8.6
6	73	27	30	27	22	22	16	71	2,060	52	8.6	e.1
7	49	27	30	27	21	21	29	170	164	50	6.1	40
8	39	26	30	26	21	20	769	191	157	50	7.6	1,360
9	19	26	29	26	24	19	100	112	363	44	7.6	1,760
10	40	25	30	26	25	19	54	91	5,920	39	7.6	127
11	92	25	37	26	25	18	41	85	619	35	7.2	76
12	67	25	32	26	24	9.6	36	88	251	32	9.5	60
13	42	25	31	26	23	7.5	33	199	191	29	8.1	52
14	36	25	32	26	27	17	32	266	153	27	17	59
15	34	25	31	26	32	18	30	122	140	26	16	54
16	32	25	30	26	32	18	29	92	116	25	12	41
17	32	25	29	26	30	17	28	88	116	23	29	38
18	32	25	29	26	26	16	26	90	101	22	21	36
19	36	26	28	26	24	16	27	119	91	21	7.1	34
20	36	26	28	26	24	16	3,320	90	84	20	19	32
21	31	26	35	25	23	16	187	78	78	19	36	30
22	30	30	37	25	23	15	86	73	73	25	35	29
23	238	31	32	24	24	15	75	54	70	20	25	29
24	320	41	30	24	22	15	1,070	118	67	18	133	27
25	69	35	30	24	21	16	2,100	1,110	63	16	21	27
26	44	32	29	24	21	16	304	139	58	16	14	27
27	35	31	28	24	21	14	167	105	53	15	10	26
28	30	30	27	24	20	14	139	91	50	14	7.1	25
29	30	30	27	24	-	14	119	65	47	14	.2	24
30	31	30	27	25	-	14	102	74	44	14	4.0	24
31	31	-	27	24	-	14	-	69	-	8.0	9.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,466	562	19	79.5	4,890
November	848	41	25	28.3	1,680
December	932	37	27	30.1	1,850
Calendar year 1941	125,983	6,010	19	345	249,900
January	795	28	24	25.6	1,580
February	665	32	20	23.8	1,320
March	539.3	26	7.5	17.4	1,070
April	9,003	3,320	14	300	17,860
May	4,272	1,110	54	138	8,470
June	11,452	5,920	44	382	22,710
July	948.0	78	8.0	30.6	1,880
August	519.8	133	.2	16.8	1,030
September	4,085.6	1,760	7.6	136	8,100
Water year 1941-42	36,525.7	5,920	.2	100	72,440

Peak discharge.- Apr. 20 (6:30 a.m.) 11,000 sec.-ft.; Apr. 25 (9 a.m.) 11,400 sec.-ft.; June 6 (2 a.m.) 9,000 sec.-ft.; June 10 (12 m.) 18,600 sec.-ft.; Sept. 9 (2 a.m.) 9,420 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Yegua Creek near Somerville, Tex.

Location.- Water-stage recorder, lat. 30°19', long. 96°30', at bridge on State Highway 36, 760 feet downstream from Gulf, Colorado & Santa Fe Railway bridge, 2 miles south of Somerville, Burleson County, and 5 miles upstream from Davidson Creek. Datum of gage is 199.29 feet above mean sea level, datum of 1929.

Drainage area.- 990 square miles.

Records available.- May 1924 to September 1942.

Average discharge.- 18 years, 335 second-feet.

Extremes.- Maximum discharge during year, 7,900 second-feet Apr. 9 (gage height, 10.66 feet); no flow July 1-4, Aug. 9-14.
1924-42: Maximum discharge, 56,800 second-feet July 1, 1940 (gage height, 19.27 feet); no flow at times.
Maximum stage known, about 22.0 feet, present site and datum, Dec. 5, 1913, from information by chief engineer, Gulf, Colorado & Santa Fe Railway Co.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	573	25	16	12	14	7.4	92	5.0	0.1	0.3	5.3
2	.5	860	21	15	12	16	7.2	70	4.3	0	.8	3.2
3	.4	1,260	19	16	12	15	7.2	56	3.6	0	.4	1.8
4	.5	591	16	18	12	15	7.2	47	3.0	15	.2	12
5	.4	155	14	17	13	19	7.0	40	3.0	94	.2	18
6	.3	76	13	15	13	19	6.8	36	73	353	.1	9.8
7	.3	44	12	15	13	20	73	55	43	555	.1	9.9
8	.3	30	10	17	13	19	f4,030	72	17	322	.1	12
9	1.9	22	9.4	16	14	19	6,240	78	9.6	97	0	61
10	6.7	18	9.0	14	14	18	4,910	74	16	40	0	195
11	3.9	14	23	14	15	16	2,280	64	95	22	0	421
12	2.4	11	41	14	15	15	1,360	54	61	13	0	331
13	2.0	8.6	32	13	15	14	970	40	30	8.4	0	144
14	1.9	7.0	42	13	16	13	558	32	42	5.3	0	54
15	1.7	6.2	40	13	18	13	265	29	97	3.7	.3	31
16	1.3	5.3	38	12	19	13	138	25	250	2.6	.9	22
17	.9	4.8	32	12	20	12	95	21	123	2.4	1.1	16
18	.6	4.3	27	12	20	12	73	38	43	37	1.4	12
19	.4	4.0	24	15	19	11	60	67	21	47	.6	10
20	.4	4.1	21	18	21	11	54	50	12	17	.3	11
21	.3	4.5	20	14	21	10	61	34	8.4	7.0	.2	21
22	.2	30	20	14	20	9.6	54	26	5.2	5.3	.2	31
23	.2	78	19	14	19	8.6	58	21	3.2	3.1	.1	69
24	.2	109	17	14	17	8.0	646	18	3.1	2.1	.1	44
25	.1	115	17	12	14	6.6	1,260	15	4.5	1.5	.1	20
26	.1	116	27	13	14	9.0	1,360	13	2.5	1.1	.1	12
27	.1	95	27	13	14	9.0	1,160	11	1.4	.6	3.1	6.8
28	.2	58	30	12	13	8.0	565	9.6	.6	.4	14	4.0
29	.2	40	26	12	-	7.4	236	6.2	.3	.3	7.6	2.7
30	16	31	20	12	-	7.0	133	7.0	.2	.3	3.8	2.2
31	523	-	17	12	-	7.4	-	6.0	-	.2	4.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	570.1	523	0.1	184	1,130
November	4,374.6	1,260	4.0	146	8,680
December	706.4	42	9.0	22.9	1,410
Calendar year 1941	234,663.7	14,500	.1	643	465,500
January	437	18	12	14.1	867
February	438	21	12	15.6	869
March	396.6	20	7.0	12.8	787
April	26,681.8	6,240	6.8	889	52,920
May	1,208.8	92	6.0	39.0	2,400
June	980.9	250	.2	32.7	1,950
July	1,656.4	555	0	53.4	3,290
August	40.9	14	0	1.32	81
September	1,592.7	421	1.8	53.1	3,160
Water year 1941-42	39,086.4	6,240	0	107	77,540

Peak discharge.- Nov. 3 (1 p.m.) 1,440 sec.-ft.; Apr. 9 (7 p.m.) 7,900 sec.-ft.
f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Navasota River near Easterly, Tex.

Location.- Water-stage recorder, lat. 31°10'10", long. 96°17'55", at bridge on U. S. Highway 79, 1 mile upstream from Missouri Pacific Railroad bridge and 6 miles northeast of Easterly, Robertson County. Datum of gage is 276.42 feet above mean sea level, datum of 1929.

Drainage area.- 949 square miles.

Records available.- March 1924 to September 1942.

Average discharge.- 18 years, 433 second-feet.

Extremes.- Maximum discharge during year, 18,800 second-feet May 19 (gage height, 17.53 feet); minimum, 0.5 second-foot Oct. 29, 30.

1924-42: Maximum discharge, 53,200 second-feet Sept. 5, 1932 (gage height, 21.9 feet, from floodmark), from rating curve extended above 35,000 second-feet; no flow at times.

Maximum stage known, about 24.0 feet in 1900, from information by local residents (discharge, about 71,000 second-feet, from rating curve extended above 35,000 second-feet).

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	11	11	23	11	25	7.4	1,020	49	20	f1.8	26
2	7.0	13	9.0	20	12	25	7.6	396	41	18	1.8	18
3	6.6	7.6	8.1	18	12	24	7.8	147	34	18	1.6	14
4	5.8	5.6	7.2	16	13	22	7.8	101	29	16	2.1	20
5	4.8	3.5	6.8	15	19	20	7.8	76	27	15	2.2	25
6	4.2	2.3	6.0	15	16	27	8.1	63	48	15	1.9	42
7	4.2	1.5	5.6	16	14	29	13	62	90	15	1.7	197
8	4.2	.8	5.4	14	12	24	1,790	164	77	16	1.6	142
9	6.0	.8	5.3	14	16	22	3,440	598	83	16	1.5	162
10	5.6	1.5	5.4	13	18	23	3,300	750	100	14	1.5	428
11	5.6	1.9	15	13	16	20	3,820	617	619	12	1.5	703
12	21	1.5	37	12	14	23	3,660	3,560	1,020	9.8	1.5	2,080
13	18	1.2	39	11	14	25	2,310	1,160	890	8.6	1.5	3,160
14	11	.8	92	11	14	19	717	266	1,300	7.6	1.5	2,120
15	7.4	.8	78	11	17	16	169	192	1,600	6.4	1.5	743
16	7.4	.8	48	10	22	14	112	167	1,500	5.6	1.5	88
17	7.8	.8	31	10	22	13	88	137	1,400	4.9	1.6	50
18	5.8	.8	23	11	18	12	72	846	1,470	4.4	1.5	40
19	4.6	2.4	18	11	18	11	62	14,200	1,380	4.1	1.5	29
20	3.5	7.6	15	11	86	11	58	7,720	972	3.8	1.6	24
21	2.3	5.6	17	11	83	10	191	4,760	190	3.5	1.8	20
22	1.5	64	18	10	61	10	340	2,500	105	3.2	1.9	16
23	.9	52	20	9.5	50	10	266	1,790	78	3.5	1.8	14
24	.8	32	20	9.5	39	10	614	1,320	64	4.6	1.6	13
25	.8	79	53	9.3	33	10	710	830	50	3.1	1.5	11
26	.8	75	60	9.5	28	11	790	476	48	2.8	1.6	8.8
27	.7	41	43	10	30	10	974	272	42	2.2	1.6	7.0
28	.6	26	36	9.8	26	9.5	2,130	162	35	a1.9	49	5.8
29	.6	18	35	9.3	-	8.8	2,690	110	28	a1.9	60	5.6
30	11	14	32	11	-	8.6	1,980	79	24	2.1	52	5.1
31	27	-	26	11	-	8.1	-	60	-	f1.9	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	196.5	27	0.6	6.34	390
November	473.0	79	.8	15.8	938
December	825.8	92	5.3	26.6	1,640
Calendar year 1941	162,006.7	12,800	.6	444	321,300
January	384.9	23	9.3	12.4	763
February	734	86	11	26.2	1,460
March	511.0	29	8.1	16.5	1,010
April	30,342.5	3,820	7.4	1,011	60,160
May	44,601	14,200	60	1,439	88,460
June	13,393	1,600	24	446	26,560
July	260.7	20	1.9	8.41	517
August	265.7	80	1.5	8.57	527
September	10,217.3	3,160	5.1	341	20,270
Water year 1941-42	102,205.4	14,200	.6	280	202,700

Peak discharge.- Apr. 11 (10 p.m.) 4,100 sec.-ft.; May 12 (6 a.m.) 4,900 sec.-ft.; May 19 (9:30 a.m.) 18,800 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage and weather records.
f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Brazos Valley Irrigation Co.'s canal near Fulshear, Tex.

Location.- Water-stage recorder, lat. 29°39', long. 95°54', 1 mile downstream from point of diversion and 3 miles south of Fulshear, Fort Bend County.
Records available.- October 1931 to September 1942.
Average discharge.- 11 years, 56.1 second-feet.
Extremes.- Maximum daily discharge during year, 363 second-feet May 17; no flow at times.
1931-42: Maximum daily discharge, that of May 17, 1942; no flow several months each year.
Remarks.- Records good. Station above all diversions from canal. Flow controlled by pumping plant. Canal diverts water from left bank of Brazos River 18 miles above Richmond for irrigation near Sugarland. Figures of discharge represent water actually pumped from Brazos River into canal.

Monthly discharge, in second-feet, water year October 1941 to September 1942

Month	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar year 1941	329	0	66.1	47,870
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	173	0	19.0	1,130
May	363	0	164	10,060
June	321	96	272	16,170
July	313	0	215	13,240
August	289	78	249	15,290
September	262	106	170	10,120
Water year 1941-42	363	0	91.2	66,010

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Richmond Irrigation Co.'s canal near Richmond, Tex.

Location.- Water-stage recorder, lat. 29°34', long. 95°47', 600 feet downstream from crossing of U. S. Highway 90, 1½ miles downstream from point of diversion, and 1½ miles west of Richmond, Fort Bend County.
Records available.- October 1931 to September 1942.
Average discharge.- 11 years, 31.0 second-feet.
Extremes.- Maximum daily discharge during year, 140 second-feet May 14; no flow at times.
1931-42: Maximum daily discharge, 234 second-feet June 5, 6, 1938; no flow at times.
Remarks.- Records good. All diversions from canal are below station. Flow controlled by pumping plant. Canal diverts water from right bank of Brazos River 6 miles upstream from Richmond for irrigation.

Monthly discharge, in second-feet, water year October 1941 to September 1942

Month	Maximum	Minimum	Mean	Runoff in acre-feet
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
Calendar year 1941	130	0	20.5	14,820
January	0	0	0	0
February	0	0	0	0
March	0	0	0	0
April	0	0	0	0
May	140	0	93.0	5,720
June	130	103	117	6,970
July	130	94	106	6,530
August	120	79	105	6,470
September	-	-	75.1	4,470
Water year 1941-42	140	0	41.6	30,160

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Colorado River at Robert Lee, Tex.

Location.- Water-stage recorder, lat. 31°53'05", long. 100°28'45", at bridge on State Highway 208 in Robert Lee, Coke County, half a mile upstream from Mountain Creek. Datum of gage is 1,771.7 feet above mean sea level, datum of 1929, (levels by U. S. Bureau of Reclamation).

Drainage area.- 15,770 square miles, of which 11,500 square miles is probably noncontributing.

Records available.- April 1939 to September 1942. September 1915 to September 1920 (October 1918 to October 1920, gage heights only), at site near Bronte, 16 miles downstream; October 1923 to December 1927, at site near Robert Lee, 9 miles downstream. Records equivalent except during periods of local runoff between sites.

Extremes.- Maximum discharge during year, 17,500 second-feet Aug. 27 (gage height, 16.32 feet); no flow July 6-22, July 27 to Aug. 16.
1939-42: Maximum discharge, 31,700 second-feet June 22, 1939 (gage height, 21.70 feet, from graph based on gage readings), by slope-area method; no flow at times.

Remarks.- Records good. About 2,200 acres irrigated above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	279	225	34	27	14	15	4.2	9.3	28	0.1	0	46
2	2,800	178	33	26	14	15	4.0	8.0	22	.1	0	824
3	1,760	149	32	26	14	13	3.8	6.3	17	.1	0	1,230
4	925	149	31	26	14	13	3.8	5.8	14	.1	0	1,310
5	1,060	125	31	26	14	12	3.8	5.0	13	.1	0	774
6	734	108	30	25	14	11	14	5.0	21	.1	0	322
7	362	97	28	25	13	11	31	5.2	18	0	0	512
8	231	88	28	31	13	11	45	5.8	14	0	0	1,470
9	155	79	28	23	13	9.3	20	5.2	14	0	0	2,830
10	356	70	28	22	13	8.6	147	4.7	21	0	0	1,170
11	210	66	36	22	13	8.6	115	4.7	72	0	.5	470
12	135	60	39	22	13	8.0	70	4.5	53	0	.1	254
13	97	57	426	22	13	7.4	60	4.0	45	0	0	175
14	70	53	369	23	14	7.4	36	3.8	31	0	0	a144
15	3,710	51	222	23	14	6.9	30	3.4	24	0	0	a125
16	f6,700	49	137	23	17	5.8	34	3.0	17	0	0	a108
17	f6,490	48	94	22	14	5.8	30	2.8	13	0	493	a94
18	f1,400	46	75	21	14	5.2	24	2.8	10	0	578	a81
19	f766	43	60	20	13	5.0	20	12	6.9	0	256	a68
20	392	42	51	19	13	5.2	16	265	5.0	0	150	a66
21	268	41	46	19	13	5.0	14	204	4.5	0	97	a66
22	198	41	43	18	13	5.0	14	94	3.6	0	375	a64
23	158	41	39	18	13	5.0	18	70	3.2	7.4	788	a64
24	718	43	35	18	12	4.7	48	387	2.6	3.2	1,130	a62
25	700	42	33	18	11	4.2	34	1,530	1.6	1.5	863	a62
26	2,210	41	31	18	12	4.2	24	553	1.3	.4	11,900	a60
27	2,420	38	30	17	11	4.2	20	285	.9	.1	9,020	a58
28	973	35	28	16	12	4.2	16	183	.7	0	1,120	a57
29	604	36	27	16	-	4.2	13	101	.4	0	570	a55
30	411	35	27	16	-	4.2	11	60	.2	0	310	a53
31	296	-	27	15	-	4.2	-	39	-	0	204	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	37,593	6,700	70	1,213	74,560
November	2,176	225	35	72.5	4,320
December	2,178	426	27	70.3	4,320
Calendar year 1941	220,707.3	16,700	2.0	605	437,800
January	663	31	15	21.4	1,320
February	371	17	11	13.2	736
March	233.3	15	4.2	7.53	463
April	923.6	147	3.8	30.8	1,830
May	3,872.3	1,530	2.8	12.5	7,680
June	477.9	72	.2	15.9	948
July	13.2	7.4	0	.43	26
August	27,854.6	11,900	0	899	55,250
September	12,674	2,830	46	422	25,140
Water year 1941-42	89,029.9	11,900	0	244	176,600

Peak discharge.- Oct. 15 (11 a.m.) 6,820 sec.-ft.; Oct. 17 (1 a.m.) 11,200 sec.-ft.; Aug. 27 (3:30 a.m.) 17,500 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage, engineer's notes, and weather records.

f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Colorado River at Ballinger, Tex.

Location.- Water-stage recorder, lat. 31°43'50", long. 99°56'25", at bridge on U. S. Highway 83 in Ballinger, Runnels County, 2,000 feet upstream from Elm Creek. Datum of gage is 1,593.7 feet above mean sea level, datum of 1929.

Drainage area.- 16,840 square miles, of which 11,500 square miles is probably non-contributing.

Records available.- June 1907 to September 1942. (June 1907 to November 1915, monthly records only, in Water-Supply Paper 850.) U. S. Weather Bureau collected gage-height records in this vicinity from 1903 to 1929.

Average discharge.- 35 years, 429 second-feet.

Extremes.- Maximum discharge during year, 14,000 second-feet Oct. 16, Aug. 27 (gage height, 13.50 feet); minimum, 0.6 second-foot July 15-21.

1907-42: Maximum discharge, 75,400 second-feet Sept. 18, 1936 (gage height, 28.6 feet); no flow at times.

Maximum stage known, about 36.0 feet sometime in 1884, present site and datum, from information by local residents. A stage of about 32.0 feet occurred Aug. 6, 1906, present site and datum, from floodmarks (affected by backwater from Elm Creek).

Remarks.- Records good. Small diversions above station for irrigation affect low flow.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	487	93	61	39	33	22	31	S7	2.4	1.0	a568
2	1,560	375	90	58	39	37	22	26	66	2.4	1.0	a568
3	6,160	316	S5	56	39	35	24	22	53	2.2	1.3	g1,710
4	1,940	280	S2	56	39	35	24	19	46	1.8	1.4	1,200
5	1,110	262	79	56	39	35	50	18	54	1.8	1.3	1,250
6	1,120	239	79	56	39	31	79	16	100	1.6	1.3	621
7	678	219	76	56	37	30	527	30	58	1.5	1.3	505
8	431	200	76	51	37	30	c742	35	56	1.4	1.3	2,690
9	298	185	74	51	37	28	169	24	53	1.3	1.3	2,860
10	211	174	S5	51	37	28	90	20	41	1.4	1.2	1,510
11	468	164		51	35	28	90	19	37	1.1	1.0	817
12	302	154		51	33	28	143	18	39	.8	1.1	499
13	207	146		53	33	28	112	17	S5	.8	1.2	345
14	164	140		53	35	26	90	14	71	.7	1.0	257
15	2,710	136		53	37	26	79	13	58	.7	1.1	200
16	9,840	129		53	39	24	61	12	94	.6	375	168
17	9,170	126		56	39	22	49	10	53	.6	199	140
18	3,540	122		61	35	22	65	24	37	.6	387	119
19	a1,320	116		58	33	24	223	3,930	26	.6	440	103
20	a368	109	a159	56	30	24	188	1,940	19	.6	245	103
21	554	103		51	30	22	56	346	16	16	206	198
22	448	103		51	31	24	41	284	14	11	106	735
23	360	103		51	31	24	126	400	12	2.4	1,490	453
24	416	100		44	30	26	322	569	9.2	12	2,610	280
25	2,230	100		49	30	24	180	1,410	7.6	7.6	2,080	192
26	1,600	100		46	28	22	90	982	6.0	3.0	4,340	140
27	3,290	96		44	28	22	61	529	4.8	2.8	12,600	106
28	1,830	96		44	30	20	58	345	4.2	1.9	3,100	90
29	1,070	93	61	44	-	20	41	230	3.0	1.5	g1,070	79
30	722	93	61	41	-	20	35	164	2.6	1.3	a685	71
31	554	-	61	39	-	20	-	119	-	1.1	a587	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	54,708	9,840	37	1,765	108,500
November	5,066	487	93	169	10,050
December	3,864	-	-	125	7,660
Calendar year 1941	320,678.6	17,500	3.6	879	636,000
January	1,601	61	39	51.6	3,180
February	969	39	28	34.6	1,920
March	818	37	20	26.4	1,620
April	3,859	742	22	129	7,650
May	11,616	3,930	10	375	23,040
June	1,212.4	100	2.6	40.4	2,400
July	85.5	16	.6	2.76	170
August	30,537.6	12,600	1.0	985	60,570
September	18,627	2,860	71	621	36,950
Water year 1941-42	132,963.7	12,600	.6	364	263,700

Peak discharge.- Oct. 16 (6:30 a.m.) 14,000 sec.-ft.; Oct. 17 (3 p.m.) 10,500 sec.-ft.; Aug. 27 (7 p.m.) 14,000 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage, engineer's notes, and weather records.

c Stage-discharge relation affected by backwater from Elm Creek.

g Computed from graph based on gage readings.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Colorado River at Winchell, Tex.

Location.- Water-stage recorder, lat. 31°28'05", long. 99°09'45", on bridge on State Highway 23, 0.3 mile south of Winchell, Brown County, and 6.2 miles downstream from Home Creek. Datum of gage is 1,264.86 feet above mean sea level, datum of 1929.

Drainage area.- 24,580 square miles, of which 11,800 square miles is probably noncontributing.

Records available.- January 1939 to September 1942. November 1923 to September 1934, at site near Milburn, 4.2 miles downstream.

Average discharge.- 13 years (1924-34, 1939-42), 868 second-feet.

Extremes.- Maximum discharge during year, 25,800 second-feet Aug. 25 (gage height, 29.90 feet); minimum, 5.9 second-feet Aug. 15, 16.

1923-34, 1929-42: Maximum discharge, 76,100 second-feet Oct. 15, 1930, at site then in use (gage height, 51.8 feet, present site and datum); no flow Aug. 8-10, Sept. 1-5, 1929, Aug. 15-25, 1934.

Maximum stage known, 62.2 feet Sept. 19, 1936, present site and datum, from information obtained by engineers of Gulf, Colorado & Santa Fe Railway at railway bridge 1,000 feet above present gage.

Remarks.- Records good. Diversions above station for irrigation and municipal supply. Flow partly regulated by reservoirs on Concho River.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	1,120	412	229	96	86	54	272	314	22	22	680
2	445	1,120	404	169	98	164	49	180	a229	26	20	478
3	3,550	942	397	140	199	320	46	125	a173	1,390	18	456
4	7,440	830	385	125	322	325	45	98	a134	202	16	1,740
5	2,900	752	374	117	322	317	45	80	a106	93	14	2,090
6	1,720	704	361	116	320	314	54	71	a90	54	13	1,650
7	1,760	656	275	114	314	304	426	886	a86	52	12	1,960
8	1,210	614	203	112	311	234	5,500	882	a225	48	11	1,840
9	830	584	171	112	304	155	4,800	336	f320	37	9.0	4,890
10	579	562	155	152	301	114	1,880	397	f340	36	8.2	3,760
11	408	535	163	334	298	93	752	358	f224	39	9.0	2,060
12	a328	509	165	342	293	83	425	336	a140	34	8.2	1,300
13	a291	491	171	345	234	76	762	317	a125	30	7.5	971
14	a262	478	190	345	163	69	320	3,630	a112	27	6.7	776
15	a231	469	237	342	123	67	249	3,330	99	25	5.9	606
16	g4,080	456	803	342	104	66	239	656	123	23	75	412
17	g12,400	389	656	339	91	64	192	296	117	22	161	309
18	g10,500	296	544	339	86	62	161	726	102	21	427	257
19	g4,040	249	474	334	83	60	134	10,200	103	19	535	212
20	a2,230	224	430	334	82	59	8,760	7,350	119	17	557	180
21	1,400	203	408	322	82	62	1,350	2,780	90	16	513	286
22	1,060	199	397	241	80	64	462	830	73	15	355	447
23	913	375	374	175	77	202	469	2,490	59	14	12,900	668
24	1,130	416	355	140	77	278	1,160	4,240	50	14	10.100	913
25	1,160	416	342	123	76	280	1,380	4,290	43	15	17,100	680
26	3,660	416	336	112	73	278	1,030	3,810	37	86	4,480	491
27	2,000	416	334	106	77	214	628	1,810	31	60	4,940	322
28	3,710	421	331	101	82	140	478	1,180	28	45	11,000	236
29	2,090	416	328	99	-	94	570	844	26	36	3,290	182
30	1,540	412	325	96	-	76	416	604	24	30	1,440	151
31	1,240	-	306	96	-	62	-	421	-	25	971	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	75,197	12,400	90	2,426	149,200
November	15,670	1,120	199	522	31,080
December	10,806	803	155	349	21,430
Calendar year 1941	637,478	27,600	38	1,747	1,264,000
January	6,393	345	96	206	12,680
February	4,768	322	73	170	9,460
March	4,782	325	59	154	9,480
April	32,836	8,760	45	1,095	65,130
May	53,825	10,200	71	1,736	106,800
June	3,752	350	24	125	7,440
July	2,573	1,390	14	83.0	5,100
August	69,024.5	17,100	5.9	2,227	136,900
September	31,003	4,890	151	1,033	61,490
Water year 1941-42	310,629.5	17,100	5.9	851	616,200

Peak discharge.- Apr. 20 (11 a.m.) 15,200 sec.-ft.; May 19 (4:30 p.m.) 15,000 sec.-ft.; Aug. 23 (11 a.m.) 24,400 sec.-ft.; Aug. 25 (7 a.m.) 25,800 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage, available gage heights, and weather records.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

g Computed from graph based on gage readings.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Colorado River near San Saba, Tex.

Location.- Water-stage recorder, lat. 31°13'05", long. 98°33'50", at bridge on State Highway 190, 5.2 miles downstream from San Saba River and 9.2 miles east of San Saba, San Saba County. Datum of gage is 1,096.22 feet above mean sea level, datum of 1929.

Drainage area.- 30,600 square miles, of which 11,800 square miles is probably noncontributing.

Records available.- August 1930 to September 1942. October 1915 to October 1922 at site near Chadwick, 1.2 miles upstream. October 1923 to December 1934 at site near Tow, 44 miles downstream.

Average discharge.- 17 years (1916-19, 1920-22, 1930-42), 2,007 second-feet.

Extremes.- Maximum discharge during year, 25,000 second-feet Oct. 6 (gage height, 19.54 feet); minimum, 132 second-feet Aug. 11.

1915-22, 1930-42: Maximum discharge, 224,000 second-feet July 23, 1938 (gage height, 63.2 feet, present site, based on floodmarks at site then in use); minimum observed, 1.5 second-feet Aug. 22, 23, 1918.

Maximum stage known prior to 1938, 58.4 feet, present site, based on floodmarks at former site, Sept. 25, 1900 (discharge, 184,000 second-feet).

Remarks.- Records good. Diversions above station for irrigation and municipal use. Flow partly regulated by reservoirs on Pecan Bayou and Concho River having a combined capacity of 151,000 acre-feet.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	714	1,810	741	697	320	295	272	1,810	1,300	535	186	1,220
2	575	1,540	768	665	316	303	260	1,380	1,060	535	174	930
3	1,410	1,630	752	590	312	312	287	1,090	930	545	170	840
4	5,040	1,380	719	545	320	332	299	900	840	1,800	167	902
5	g8,840	1,230	708	510	355	495	260	785	785	1,020	161	3,800
6	g12,500	1,120	686	500	485	505	260	680	1,520	708	152	2,830
7	14,300	1,090	670	456	480	500	279	1,550	2,290	625	146	2,490
8	3,970	990	645	377	475	485	1,890	2,220	1,720	580	146	6,080
9	2,590	960	575	359	475	470	7,950	1,960	1,950	550	143	6,640
10	2,390	900	520	359	475	414	9,070	1,120	5,440	535	140	8,520
11	2,090	870	480	359	461	359	6,110	960	5,150	515	135	5,940
12	1,460	870	433	372	461	329	3,060	960	2,190	421	257	3,590
13	1,300	870	456	540	466	308	2,160	900	1,720	283	263	2,390
14	1,380	840	535	560	466	291	2,860	730	1,300	242	174	1,900
15	1,460	840	540	565	423	287	1,720	7,410	1,120	224	165	1,540
16	1,500	840	545	565	381	279	1,300	4,790	2,000	213	158	1,230
17	3,740	812	826	560	350	272	1,090	1,260	2,960	206	357	1,020
18	11,500	785	1,060	565	308	260	930	1,240	2,960	196	1,530	900
19	10,800	724	960	550	291	260	900	9,020	2,040	189	2,140	812
20	5,060	640	900	545	283	260	2,360	21,300	1,460	189	1,530	752
21	2,650	600	840	540	287	252	11,000	19,900	1,200	183	800	714
22	1,990	595	812	535	287	249	3,740	11,200	960	180	950	686
23	1,630	590	785	520	287	245	2,380	7,710	812	177	1,170	886
24	1,460	585	774	452	287	249	5,660	7,660	692	174	16,200	978
25	1,720	752	752	400	283	303	8,410	6,850	620	174	15,700	1,380
26	1,820	774	730	368	276	433	4,960	7,350	605	170	16,900	1,160
27	3,960	768	714	346	272	428	3,510	6,710	580	167	7,000	1,020
28	2,910	768	697	341	272	423	2,590	4,040	560	167	5,420	870
29	4,060	774	697	332	-	381	2,590	2,800	540	167	10,700	768
30	3,350	763	697	329	-	332	2,290	2,090	530	206	4,370	702
31	2,090	-	697	324	-	291	-	1,630	-	200	1,810	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	120,269	14,300	575	3,880	238,600
November	27,710	1,810	585	924	54,960
December	21,714	1,060	433	700	43,070
Calendar year 1941	1,143,415	40,300	249	3,133	2,268,000
January	14,716	697	324	475	29,190
February	10,154	485	272	363	20,140
March	10,602	505	245	342	21,030
April	90,447	11,000	260	3,015	179,400
May	140,005	21,300	680	4,516	277,700
June	47,834	5,440	530	1,594	94,880
July	12,076	1,800	167	390	23,950
August	89,313	16,900	135	2,881	177,100
September	63,490	8,520	686	2,116	125,900
Water year 1941-42	648,330	21,300	135	1,776	1,286,000

Peak discharge.- Oct. 6 (12 p.m.) 25,000 sec.-ft.; Oct. 18 (5 p.m.) 12,400 sec.-ft.; Apr. 21 (2:30 p.m.) 12,900 sec.-ft.; May 20 (9:30 p.m.) 22,800 sec.-ft.; Aug. 24 (10 p.m.) 20,300 sec.-ft.; Aug. 26 (2 p.m.) 18,100 sec.-ft.

g Computed from graph based on gage readings furnished by U. S. Department of Agriculture.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Buchanan Reservoir near Burnet, Tex.

Location.- Selsyn indicator, lat. 30°45'05", long. 98°25'00", at Buchanan Dam on Colorado River, 1 mile upstream from bridge on State Highway 29, and 10 miles west of Burnet, Burnet County. Datum of gage is at mean sea level (levels by Lower Colorado River Authority); add 0.48 foot to reduce to mean sea level, datum of 1929. Elevations herein are to mean sea level (unadjusted).
Drainage area.- 31,250 square miles (11,800 square miles is probably noncontributing).
Records available.- May 1937 to September 1942.
Extremes.- Maximum contents observed during year, 999,000 acre-feet Oct. 30 (elevation, 1,020.3 feet); minimum contents observed, 833,000 acre-feet Apr. 3-5, 7.
1937-42: Maximum contents, 1,004,000 acre-feet July 27, 1938 (elevation, 1,020.5 feet; several Tainter gates were open); minimum after filling of reservoir in July 1938, 596,000 acre-feet Apr. 5, 1940 (elevation, 1,000.5 feet).
Remarks.- Reservoir is formed by two reinforced concrete multiple arch sections, three banks of Tainter gates, and a 1,088-foot reinforced concrete spillway section. Dam completed and storage began May 20, 1937. Total capacity, 992,000 acre-feet (elevation, 1,020.0 feet, top of spillway section). Usable capacity, 955,000 acre-feet between elevation 937.0 feet (sill of powerhouse penstock) and elevation 1,020.0 feet (top of spillway section). Water below elevation 937.0 feet can be withdrawn through two 5-foot Bunger gates (emergency) down to elevation of 890.0 feet. Figures given herein represent total contents. Records of elevation as furnished are from once-daily readings at 8 a.m.; gage read hourly by power plant operator. Water used for power development and irrigation of rice in several districts below Columbus.
Cooperation.- Records of daily elevation and capacity table furnished by Lower Colorado River Authority.

Monthly elevation and contents, water year October 1941 to September 1942

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	1,017.4	933,000	-
Oct. 31	1,020.0	992,000	+59,000
Nov. 30	1,017.3	931,000	-61,000
Dec. 31	1,016.8	920,000	-11,000
Calendar year 1941	-		-40,000
Jan. 31	1,015.7	895,000	-25,000
Feb. 28	1,013.5	848,000	-47,000
Mar. 31	1,012.9	835,000	-13,000
Apr. 30	1,019.7	985,000	+150,000
May 31	1,020.0	992,000	+7,000
June 30	1,018.9	967,000	-25,000
July 31	1,017.4	933,000	-34,000
Aug. 31	1,019.2	974,000	+41,000
Sept.30	1,018.1	948,000	-26,000
Water year 1941-42	-	-	+15,000

† Elevation at 8 a.m.

Marshall Ford Reservoir near Austin, Tex.

Location.- Bailey indicator gage, lat. 30°23'20", long. 97°54'35", in powerhouse at dam on Colorado River, 7.3 miles downstream from Sandy Creek and 12 miles northwest of Austin, Travis County. Prior to Feb. 28, 1942, mercury pressure gage at same site and datum. Datum of gage is at mean sea level (levels by U. S. Bureau of Reclamation); add 0.12 foot to reduce to mean sea level, datum of 1929. Elevations herein are to mean sea level (unadjusted).
Drainage area.- 37,900 square miles (11,800 square miles is probably noncontributing).
Records available.- September 1940 to September 1942.
Extremes.- Maximum contents observed, 1,222,000 acre-feet Sept. 24-26, 1942 (elevation, 683.5 feet).
Remarks.- Records good. Reservoir is formed by concrete gravity type dam. Storage began Sept. 9, 1940, and dam completed early in 1942. Total capacity, 1,950,000 acre-feet (elevation, 714.0 feet, top of spillway). Usable capacity, 1,922,000 acre-feet between elevation 535.8 feet (bottom of 24 8½-foot diameter Paradox gates) and elevation 714.0 feet (top of spillway). Elevation of bottom of penstocks, 552.0 feet. Figures of contents shown herein represent total contents of reservoir. Water used for power development, and for irrigation of rice in several districts below Columbus, Tex.
Cooperation.- Records of daily elevation and capacity curve furnished by Lower Colorado River Authority.

Monthly elevation and contents, water year October 1941 to September 1942

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	614.7	337,000	-
Oct. 31	631.4	484,000	+147,000
Nov. 30	640.9	583,000	+99,000
Dec. 31	641.2	587,000	+4,000
Calendar year 1941	-	-	+248,000
Jan. 31	640.8	582,000	-5,000
Feb. 28	641.9	595,000	+13,000
Mar. 31	639.8	571,000	-24,000
Apr. 30	650.2	693,000	+122,000
May 31	669.7	972,000	+279,000
June 30	673.2	1,030,000	+58,000
July 31	670.6	987,000	-43,000
Aug. 31	674.6	1,055,000	+68,000
Sept.30	663.3	1,218,000	+163,000
Water year 1941-42	-	-	+881,000

† Elevation at 8 a.m. for October and November, and mean of 1 a.m. and 1 p.m. elevations for December to September.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Colorado River at Austin, Tex.

Location.- Water-stage recorder, lat. 30°14'40", long. 97°41'20", at southeast edge of Austin, Travis County, at Montopolis bridge on U. S. Highway 290, 2.8 miles upstream from Walnut Creek, 3.8 miles downstream from Waller Creek, and 5 miles downstream from Barton Creek. Datum of gage is 407.3 feet above mean sea level, datum of 1929.

Drainage area.- 38,160 square miles, of which 11,800 square miles is probably noncontributing.

Records available.- February 1898 to September 1942. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 44 years, 2,748 second-feet.

Extremes.- Maximum discharge during year, 5,800 second-feet (regulated) Sept. 8 (gage height, 5.48 feet); minimum, 616 second-feet Feb. 23 (regulated); minimum daily, 686 second-feet Nov. 11.

1896-1942: Maximum discharge, 481,000 second-feet June 15, 1935 (gage height, 45.0 feet, present site and datum, from floodmark); minimum, 13 second-feet Aug. 18, 1918.

Maximum stage known, 46.0 feet, present site and datum, July 7, 1869 (adjusted to present site on basis of records for flood of June 15, 1935), determined from information concerning stage at former site by Prof. T. U. Taylor.

Remarks.- Records good. Flow partly regulated by Marshall Fork and Buchanan Reservoirs (see preceding page), and other smaller reservoirs, having a combined capacity of 3,130,000 acre-feet. About 36,000 acres irrigated above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,900	853	935	1,040	1,110	1,080	766	1,000	1,750	1,990	1,730	979
2	2,380	726	1,370	710	1,540	1,740	758	1,010	1,610	1,810	1,520	1,140
3	2,160	742	1,210	860	1,640	1,600	782	853	2,130	1,680	1,480	1,920
4	2,750	766	1,300	1,470	1,460	1,700	758	710	2,380	1,290	1,540	1,360
5	2,450	742	1,390	1,460	1,540	1,280	766	835	2,900	1,280	1,810	1,040
6	2,680	718	1,590	1,300	1,550	2,020	774	1,160	2,520	990	1,890	1,240
7	3,800	742	1,240	1,430	1,520	1,810	1,150	1,370	1,610	1,020	1,960	979
8	4,100	742	1,120	1,230	1,220	1,140	2,980	853	1,890	1,140	1,610	3,650
9	4,100	742	1,540	1,230	1,290	1,670	1,460	871	2,090	1,220	1,550	1,560
10	3,280	742	1,740	1,260	2,020	1,700	1,160	782	1,960	1,200	1,470	1,440
11	1,730	686	1,220	1,380	1,570	1,800	853	1,010	1,640	1,100	2,100	1,600
12	1,550	718	1,040	1,370	1,950	1,770	826	826	1,390	1,090	1,700	1,480
13	g1,150	742	726	1,640	1,950	1,640	808	1,260	1,550	1,040	1,460	871
14	g2,050	726	702	2,450	1,570	948	799	1,470	1,420	2,020	1,540	886
16	g1,900	726	710	2,020	1,270	880	790	1,170	1,560	1,430	1,560	1,420
16	2,310	702	924	1,140	1,090	871	1,080	957	1,630	1,520	1,840	1,710
17	2,450	742	1,330	891	1,100	871	1,010	835	1,660	1,510	1,540	1,910
18	2,600	702	1,740	902	1,220	853	1,240	1,210	1,870	1,350	1,680	1,940
19	1,270	702	1,560	1,280	1,100	957	1,330	1,590	2,010	1,260	1,180	1,850
20	1,940	734	1,090	1,080	1,210	1,020	1,040	1,300	1,750	1,260	817	1,380
21	2,520	718	957	1,370	946	957	1,120	1,210	1,630	1,270	1,800	1,290
22	3,280	726	862	1,730	808	790	979	1,280	1,320	1,420	1,510	1,030
23	3,050	710	1,370	2,160	750	808	880	979	1,820	1,320	1,520	1,230
24	1,890	702	1,740	1,570	782	835	1,110	790	1,850	1,320	1,430	1,110
25	1,100	834	1,950	1,080	935	871	617	968	2,020	1,300	1,210	968
26	766	1,640	1,090	1,010	946	913	862	1,180	2,090	1,300	891	1,490
27	849	1,300	1,340	1,100	935	1,290	790	1,140	1,840	1,380	902	1,270
28	966	1,510	1,070	1,160	1,150	1,030	702	1,240	1,710	1,640	1,070	1,820
29	1,120	1,880	766	1,380	-	902	718	1,610	1,460	1,630	990	1,280
30	1,110	935	766	1,510	-	1,430	702	1,630	1,980	1,730	968	1,220
31	995	-	1,090	1,600	-	835	-	1,630	-	1,570	935	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	67,196	4,100	766	2,168	133,300
November	25,650	1,880	686	855	50,880
December	37,478	1,950	702	1,209	74,340
Calendar year 1941	1,869,345	45,200	686	5,121	3,708,000
January	41,853	2,450	710	1,350	83,010
February	36,172	2,020	750	1,292	71,750
March	38,009	2,020	790	1,226	75,390
April	29,810	2,980	702	994	59,130
May	34,729	1,630	710	1,120	68,880
June	55,040	2,900	1,320	1,835	109,200
July	43,080	2,020	990	1,390	85,450
August	45,223	2,100	817	1,459	89,700
September	43,063	3,650	871	1,435	85,410
Water year 1941-42	497,303	4,100	686	1,362	986,400

g Computed from graph based on gage readings.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Colorado River at Smithville, Tex.

Location.- Water-stage recorder, lat. 30°01', long. 97°10', 1,200 feet upstream from bridge on State Highway 71 at Smithville, Bastrop County, and 3.7 miles downstream from Alum Creek. Datum of gage is 270.14 feet above mean sea level, datum of 1929.

Drainage area.- 39,650 square miles, of which 11,800 square miles is probably noncontributing.

Records available.- July 1930 to September 1942. U. S. Weather Bureau has collected gage-height records in this vicinity since 1920.

Average discharge.- 12 years, 3,695 second-feet.

Extremes.- Maximum discharge during year, 21,100 second-feet Sept. 9 (gage height, 12.43 feet); minimum, 638 second-feet (regulated) Sept. 3.
1930-42: Maximum discharge, 305,000 second-feet June 16, 1935 (gage height, 42.5 feet, from floodmarks), by slope-area method; minimum, 76 second-feet Nov. 2, 1934.
Maximum stage known, about 47.4 feet Dec. 4, 1913, from information by local residents.

Remarks.- Records good. Many diversions above station for irrigation and municipal supply. Regulation same as that for Colorado River at Austin.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,330	1,230	1,500	920	1,540	1,090	1,110	844	1,490	1,490	1,510	736
2	2,810	1,050	1,070	1,290	1,310	1,180	792	912	1,490	1,940	1,560	673
3	2,670	869	1,250	940	1,110	1,190	708	1,120	1,560	1,810	1,480	645
4	2,400	844	1,520	869	1,740	1,620	694	1,140	1,560	1,810	1,420	1,180
5	2,610	869	1,300	1,040	1,490	1,560	694	894	2,140	4,370	1,420	2,070
6	3,300	826	1,440	1,480	1,490	1,460	694	894	2,530	7,250	1,480	1,130
7	2,330	784	1,740	1,560	1,540	1,400	784	960	2,600	2,010	1,680	950
8	3,520	776	1,560	1,410	1,560	1,880	2,650	1,410	1,940	1,280	1,680	2,350
9	4,000	801	1,300	1,500	1,440	1,310	10,100	1,320	1,620	1,250	1,740	18,000
10	4,080	767	1,480	1,230	1,240	1,110	2,880	912	2,000	1,250	1,490	8,560
11	3,520	784	1,740	1,340	1,620	1,680	1,740	920	2,000	1,200	1,410	2,750
12	2,500	750	1,810	1,440	1,940	1,620	1,370	860	1,880	1,160	1,500	2,000
13	1,940	722	1,410	1,280	1,680	1,620	1,120	1,070	1,440	1,190	1,880	1,880
14	1,360	736	1,040	1,520	2,140	1,560	1,040	990	1,440	1,020	1,300	1,880
15	1,880	776	852	2,000	1,680	1,300	980	1,320	1,480	1,350	1,260	1,280
16	2,200	776	818	2,330	1,680	903	930	1,290	1,400	1,740	1,300	1,250
17	2,260	736	801	1,560	1,400	826	990	1,050	1,430	1,560	1,350	1,620
18	2,400	729	1,110	1,170	1,340	792	1,130	980	1,500	1,560	1,340	1,740
19	2,530	750	1,430	970	1,300	784	1,210	878	1,510	1,520	1,260	1,880
20	2,280	736	1,620	1,030	1,410	776	1,350	1,330	1,740	1,350	1,230	2,140
21	1,370	736	1,520	1,200	1,320	930	1,300	1,410	1,680	1,330	835	3,600
22	2,330	818	1,190	1,090	1,300	912	1,140	1,250	1,560	1,310	826	2,310
23	3,020	894	1,260	1,480	1,110	844	1,210	1,130	1,250	1,310	1,280	1,450
24	4,850	784	1,140	1,740	1,010	743	2,610	1,240	1,420	1,410	1,070	1,230
25	5,590	736	1,560	1,810	894	758	2,800	878	1,620	1,310	1,100	1,280
26	1,880	729	2,070	1,420	980	784	1,350	767	1,620	1,320	1,030	1,170
27	1,260	1,300	1,490	1,030	1,070	826	1,220	970	1,810	1,310	826	920
28	990	1,740	1,260	1,090	1,060	886	1,120	1,120	1,680	1,310	687	1,490
29	1,100	1,380	1,440	1,050	-	1,070	960	1,110	1,560	1,400	722	1,230
30	1,320	2,200	1,020	1,190	-	930	860	1,300	1,400	1,560	758	1,680
31	1,660	-	903	1,320	-	980	-	1,450	-	1,740	826	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	78,290	5,590	990	2,525	155,300
November	27,628	2,200	722	921	54,800
December	41,644	2,070	801	1,343	82,600
Calendar year 1941	2,242,222	59,600	722	6,143	4,447,000
January	41,299	2,330	869	1,332	81,920
February	39,394	2,140	894	1,407	78,140
March	35,324	1,880	743	1,139	70,060
April	47,536	10,100	694	1,585	94,290
May	33,719	1,450	767	1,088	66,880
June	50,350	2,600	1,250	1,678	99,870
July	53,420	7,250	1,020	1,723	106,000
August	39,250	1,880	687	1,266	77,850
September	71,074	18,000	645	2,369	141,000
Water year 1941-42	558,928	18,000	645	1,531	1,109,000

Peak discharge.- Oct. 25 (12:30 a.m.) 10,400 sec.-ft.; Apr. 9 (5:30 a.m.) 13,400 sec.-ft.; July 6 (8 a.m.) 9,380 sec.-ft.; Sept. 9 (10 a.m.) 21,100 sec.-ft.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Colorado River at La Grange, Tex.

Location.- Wire-weight gage, lat. 29°53'45", long. 96°52'15", on bridge on U. S. Highway 77 in La Grange, Fayette County, 1.2 miles downstream from Buckner Creek. Datum of gage is 211.23 feet above mean sea level, datum of 1929.

Drainage area.- 40,200 square miles, of which 11,800 square miles is probably noncontributing.

Records available.- July and August 1938 (flood, discharge measurements only), November 1938 to September 1942.

Extremes.- Maximum discharge during year, 59,200 second-feet July 5 (gage height, 18.7 feet, from graph based on gage readings); minimum observed, 774 second-feet (regulated) Apr. 6.

1938-42: Maximum discharge observed, 182,000 second-feet June 30, 1940 (gage height, 40.18 feet); minimum observed, 430 second-feet (regulated) Mar. 7, 1940.

Maximum stage known, about 56.7 feet probably July 9, 1869 (from marble high-water marker in La Grange). Data on other floods are as follows: Dec. 5, 1913, stage 56.4 feet, from floodmarks; June 17, 1935, stage 50.84 feet, from floodmarks (discharge, 255,000 second-feet, from rating curve extended as a straight line above 200,000 second-feet); July 27, 1938, stage 42.95 feet, observed (discharge, 200,000 second-feet).

Remarks.- Records good. Gage read twice daily, more often during periods of rapidly changing stage. Diversions above station for irrigation and municipal supply. Regulation same as that for Colorado River at Austin.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,140	1,580	1,960	1,080	1,580	1,240	1,080	1,040	1,440	1,360	1,800	1,040
2	2,390	1,320	1,400	1,120	1,740	1,240	1,040	1,000	1,440	1,640	1,690	970
3	2,460	1,120	1,160	1,320	1,490	1,280	872	1,160	1,490	1,860	1,740	935
4	2,390	1,000	1,360	1,080	1,690	1,440	826	1,240	1,540	1,860	1,640	970
5	2,260	1,000	1,400	1,120	1,800	1,580	794	1,200	1,910	25,600	1,580	1,720
6	3,580	1,000	1,320	1,320	1,690	1,580	806	1,040	2,020	30,700	1,580	1,950
7	2,780	970	1,360	1,580	1,690	1,360	1,040	1,080	2,460	10,800	1,690	1,440
8	2,020	935	1,490	1,540	1,740	1,540	8,650	1,120	2,400	2,990	1,860	1,400
9	2,400	935	1,360	1,540	1,690	1,580	12,200	1,400	1,690	1,860	1,860	12,600
10	4,060	970	1,360	1,440	1,540	1,240	6,420	1,240	1,860	1,640	1,860	14,200
11	4,060	935	1,640	1,400	1,490	1,320	2,400	1,080	2,140	1,580	1,580	6,040
12	3,340	935	1,910	1,440	1,910	1,540	1,740	1,040	1,910	1,490	1,580	2,670
13	2,080	872	1,580	1,540	1,910	1,540	1,400	1,040	1,800	1,360	1,910	2,080
14	1,740	914	1,360	1,490	1,960	1,540	1,240	1,160	1,440	1,360	1,800	1,960
15	1,490	921	1,120	1,640	2,140	1,490	1,160	1,120	1,580	1,240	1,490	1,690
16	1,910	970	1,000	1,740	1,910	1,240	1,120	1,360	1,440	1,700	1,490	1,320
17	1,960	935	1,000	1,910	1,690	1,040	1,080	1,320	1,440	1,800	1,440	1,360
18	2,080	928	1,000	1,580	1,490	970	1,160	1,160	1,490	1,740	1,740	1,690
19	2,320	935	1,120	1,320	1,440	935	1,200	1,080	1,490	1,640	1,540	1,690
20	2,520	914	1,490	1,200	1,440	970	1,320	1,040	1,540	1,580	1,490	1,800
21	1,870	928	1,580	1,240	1,360	900	1,360	1,400	1,690	1,440	1,320	2,820
22	1,860	928	1,490	1,320	1,440	893	1,320	1,360	1,640	1,400	1,080	3,420
23	2,390	907	1,320	1,360	1,360	970	1,280	1,240	1,580	1,400	1,080	1,800
24	3,100	970	1,280	1,690	1,280	970	7,170	1,200	1,320	1,440	1,320	1,490
25	7,710	928	1,360	1,960	1,160	886	3,900	1,200	1,540	1,440	1,240	1,280
26	3,040	921	1,580	1,800	1,120	921	2,520	1,000	1,640	1,440	1,320	1,280
27	1,640	921	1,860	1,540	1,160	900	1,440	970	1,690	1,400	1,240	1,160
28	1,280	1,140	1,400	1,320	1,240	907	1,360	1,120	1,800	1,400	1,040	1,040
29	1,240	1,540	1,400	1,360	-	1,000	1,240	1,160	1,640	1,440	914	1,280
30	1,430	1,570	1,440	1,400	-	1,080	1,080	1,160	1,540	1,690	970	1,540
31	2,080	-	1,160	1,490	-	914	-	1,360	-	1,740	1,000	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	77,620	7,710	1,240	2,504	154,000
November	30,842	1,580	872	1,028	61,170
December	43,260	1,960	1,000	1,395	85,800
Calendar year 1941	2,583,102	94,200	872	7,077	5,123,000
January	44,880	1,960	1,080	1,448	89,020
February	44,150	2,140	1,120	1,577	87,570
March	37,006	1,580	886	1,194	73,400
April	70,218	12,200	794	2,341	139,300
May	36,090	1,400	970	1,164	71,580
June	50,300	2,460	1,320	1,687	100,400
July	112,030	30,700	1,240	3,614	222,200
August	45,884	1,910	914	1,480	91,010
September	76,635	14,200	935	2,554	152,000
Water year 1941-42	669,215	30,700	794	1,833	1,327,000

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Colorado River at Columbus, Tex.

Location.- Water-stage recorder, lat. 29°42'20", long. 96°32'05", on bridge on U. S. Highway 90 at eastern edge of Columbus, Colorado County, 340 feet downstream from Texas & New Orleans Railroad bridge and 2.6 miles downstream from Cummins Creek. Datum of gage is 155.57 feet above mean sea level (preliminary figure).

Drainage area.- 40,840 square miles, of which 11,800 square miles is probably noncontributing.

Records available.- January 1903 to December 1911, May 1916 to November 1930, May 1939 to September 1942. September 1930 to June 1939 at site near Eagle Lake, 23 miles downstream. U. S. Weather Bureau has collected gage-height records in this vicinity since 1903.

Average discharge.- 24 years (1904-11, 1916-30, 1939-42), 3,373 second-feet.

Extremes.- Maximum discharge during year, 59,400 second-feet Apr. 8 (gage height, 21.28 feet); minimum, 845 second-feet (regulated) Apr. 5, 6.

1903-11, 1916-30, 1939-42: Maximum discharge, 152,000 second-feet July 1, 1940 (gage height, 36.2 feet); minimum observed, about 80 second-feet Sept. 9, 10, 1910.

Maximum stage known, 41.6 feet, present datum, in July 1869 and on Dec. 6, 1913, from information by local resident. River divided each time and left Columbus on an island. Data on other floods as follows: June 18, 1935, stage, 38.5 feet, present datum, furnished by U. S. Weather Bureau (discharge, 190,000 second-feet, computed on basis of records for station near Eagle Lake, 23 miles downstream); July 29, 1938, stage, 38.4 feet, present datum, furnished by U. S. Weather Bureau (discharge, 175,000 second-feet, computed on basis of records for station near Eagle Lake).

Remarks.- Records fair. Diversions above station for irrigation and municipal supply. Regulation same as that for Colorado River at Austin.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,980	3,970	1,840	1,160	1,340	1,230	980	1,460	1,380	1,380	1,800	945
2	2,110	2,200	1,980	1,080	1,420	1,230	1,160	1,380	1,460	1,270	1,800	980
3	2,450	1,750	1,460	1,200	1,500	1,230	1,080	1,310	1,460	1,580	1,750	897
4	2,920	1,540	1,310	1,340	1,310	1,230	904	1,380	1,500	2,300	1,800	1,050
5	2,450	1,310	1,500	1,080	1,500	1,500	852	1,460	1,540	14,000	1,700	1,230
6	2,500	1,310	1,500	1,080	1,620	1,540	852	1,420	1,840	37,100	1,620	2,650
7	3,250	1,270	1,460	1,380	1,500	1,580	2,490	1,270	2,160	17,200	1,660	2,200
8	2,920	1,230	1,620	1,580	1,580	1,380	34,900	1,270	2,500	6,090	1,800	1,980
9	3,360	1,160	1,700	1,540	1,580	1,660	20,800	1,380	2,160	2,500	1,930	3,140
10	4,050	1,120	1,540	1,540	1,540	1,620	10,300	1,620	1,700	1,700	1,930	17,000
11	4,050	1,120	1,800	1,500	1,420	1,270	4,380	1,420	1,800	1,500	1,800	9,440
12	3,810	1,080	1,980	1,420	1,420	1,460	2,500	1,230	1,880	1,340	1,620	4,320
13	3,140	1,080	2,060	1,500	1,880	1,580	1,980	1,200	1,840	1,270	1,540	2,550
14	2,110	1,050	1,700	1,500	1,750	1,660	1,660	1,200	1,540	1,120	1,930	2,110
15	1,840	1,020	1,460	1,460	2,110	1,620	1,460	1,230	1,540	1,120	1,750	1,980
16	1,880	1,050	1,230	1,700	1,930	1,540	1,340	1,270	1,930	1,050	1,460	1,750
17	2,160	1,050	1,120	2,200	1,800	1,230	1,270	1,460	1,460	1,620	1,500	1,380
18	2,110	1,080	1,080	1,980	1,580	1,020	1,200	1,380	1,380	1,980	1,540	1,500
19	2,160	1,020	1,080	1,540	1,420	945	1,270	1,230	1,420	1,700	1,980	1,660
20	2,550	1,340	1,380	1,310	1,380	945	1,310	1,200	1,420	1,540	1,580	1,750
21	2,400	1,120	1,660	1,160	1,420	945	1,380	1,200	1,500	1,460	1,500	1,930
22	1,880	1,420	1,700	1,270	1,420	910	1,380	1,500	1,660	1,340	3,720	3,030
23	1,930	1,270	1,500	1,270	1,420	1,020	1,330	1,420	1,540	1,310	1,270	2,810
24	2,600	1,200	1,340	1,310	1,310	1,020	21,000	1,340	1,420	1,310	1,580	1,660
25	3,660	1,200	1,340	1,620	1,160	980	7,150	1,310	1,230	1,380	1,500	1,340
26	5,780	1,080	1,460	1,840	1,080	945	4,330	1,270	1,420	1,380	1,340	1,310
27	2,920	1,050	1,800	1,580	1,050	910	2,780	1,020	1,460	1,380	1,420	1,230
28	2,020	1,080	1,840	1,340	1,080	904	2,020	980	1,580	1,380	1,200	1,120
29	1,620	1,750	1,420	1,200	-	945	1,840	1,160	1,620	1,380	980	1,120
30	2,310	1,660	1,460	1,230	-	1,080	1,620	1,200	1,460	1,460	910	1,340
31	8,860	-	1,420	1,200	-	1,120	-	1,200	-	1,660	945	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	89,780	8,860	1,620	2,896	178,100
November	40,580	3,970	1,020	1,353	80,490
December	47,740	2,060	1,080	1,540	94,690
Calendar year 1941	2,796,360	86,100	1,020	7,661	5,546,000
January	44,110	2,200	1,080	1,423	87,490
February	41,520	2,110	1,050	1,483	82,350
March	38,249	1,660	904	1,234	75,870
April	137,518	34,900	852	4,584	272,800
May	40,370	1,620	980	1,302	80,070
June	48,800	2,500	1,230	1,627	96,790
July	114,800	37,100	1,050	3,703	227,700
August	50,855	3,720	910	1,640	100,900
September	77,402	17,000	897	2,580	153,500
Water year 1941-42	771,724	37,100	852	2,114	1,531,000

Peak discharge.- Apr. 8 (5 p.m.) 59,400 sec.-ft.; Apr. 24 (8:30 a.m.) 31,000 sec.-ft.; July 6 (3 a.m.) 47,700 sec.-ft.;

Note.- Discharge for Oct. 6 to Nov. 12 computed from graph based on floodmarks and once-daily readings furnished by U. S. Weather Bureau.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

556253 O - 43 - 8

Colorado River at Wharton, Tex.

Location.- Wire-weight gage, lat. 29°18'30", long. 96°06'15", on bridge on U. S. Highway 96 in Wharton, Wharton County, 1,000 feet downstream from Texas & New Orleans Railroad bridge and 12 miles upstream from Jones Creek. Datum of gage is 65.42 feet above mean sea level, datum of 1929.

Drainage area.- 41,150 square miles, of which 11,800 square miles is probably noncontributing.

Records available.- July 1916 to September 1925, July and August 1938 (flood, discharge measurements only), October 1938 to September 1942. U. S. Weather Bureau has collected gage-height records in this vicinity since 1935.

Extremes.- Maximum discharge observed during year, 38,900 second-feet Apr. 9 (gage height, 22.35 feet); minimum observed, 372 second-feet May 29 (affected by pumping).

1919-25, 1938-42: Maximum discharge observed, 100,000 second-feet July 3, 1940 (gage height, 35.99 feet); no flow Aug. 6, 1925 (affected by pumping).

Maximum stage known, 38.9 feet, present datum, Dec. 8, 1913, from information by local residents; below Wharton floodwater combined with floodwater of Brazos River. Flood of about July 12, 1869, reached above same height. Flood of June 20, 1935, reached a stage of 38.2 feet, present datum (discharge, 159,000 second-feet, from rating curve extended above 145,000 second-feet), furnished by U. S. Weather Bureau. Flood of July 30, 1938, reached a stage of 37.4 feet, present datum, observed by Geological Survey engineers (discharge, 145,000 second-feet).

Remarks.- Records fair. Gage read twice daily, more often during high water. Diversions above station for irrigation and municipal supply. Regulation same as that for Colorado River at Austin.

Cooperation.- Gage-height record collected in cooperation with the U. S. Weather Bureau.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,860	8,220	2,030	1,640	1,340	1,370	1,300	1,870	518	1,020	1,120	1,050
2	2,440	4,870	1,990	1,410	1,450	1,600	1,190	1,670	605	1,020	1,370	1,120
3	2,190	3,030	2,270	1,220	1,560	1,480	1,190	1,520	730	915	1,560	1,190
4	2,600	2,440	1,870	1,260	1,710	1,480	1,340	1,450	664	2,520	1,370	1,340
5	2,940	2,110	1,560	1,450	1,600	1,560	1,160	1,450	652	4,630	1,260	1,410
6	2,780	1,910	1,710	1,260	1,520	1,640	1,050	1,480	1,340	27,600	1,160	1,560
7	2,690	1,750	1,790	1,190	1,870	1,830	1,080	1,480	2,030	30,100	1,050	2,780
8	3,200	1,670	1,710	1,340	1,750	1,830	4,830	1,370	2,350	13,900	1,050	2,860
9	3,370	1,600	1,790	1,600	1,790	1,710	33,100	1,340	2,600	6,680	1,080	3,030
10	3,460	1,520	1,950	1,640	1,790	1,750	18,500	1,260	2,270	4,070	1,260	6,660
11	3,800	1,450	2,190	1,600	1,830	1,990	9,340	1,670	1,710	3,030	1,220	12,400
12	3,890	1,450	2,690	1,600	1,710	1,640	5,470	1,520	1,520	2,600	1,260	7,260
13	3,710	1,370	2,600	1,480	1,560	1,560	3,710	1,340	1,710	2,350	1,050	4,250
14	3,280	1,370	2,440	1,560	1,910	1,870	2,940	1,260	1,670	1,910	980	3,030
15	3,030	1,370	2,190	1,600	2,190	1,870	2,940	1,080	1,480	1,600	1,120	2,440
16	4,750	1,340	1,870	1,520	2,190	1,910	2,110	948	1,520	1,220	1,410	2,110
17	3,370	1,340	1,600	1,710	2,350	1,830	1,830	724	1,600	948	1,120	1,950
18	2,860	1,340	1,410	2,110	2,030	1,600	1,640	831	1,340	980	1,120	1,600
19	2,860	1,340	1,340	2,190	1,910	1,340	1,560	948	1,190	1,560	1,160	1,600
20	2,780	1,370	1,410	1,750	1,710	1,190	1,600	741	1,160	1,450	1,260	1,560
21	2,860	1,600	1,480	1,520	1,640	1,160	1,670	702	1,160	1,220	1,340	1,520
22	2,860	1,790	1,830	1,300	1,670	1,120	1,640	636	1,190	1,120	1,220	1,640
23	2,350	1,950	1,950	1,340	1,710	1,120	1,670	777	1,340	980	2,980	2,350
24	2,190	1,910	1,790	1,410	1,710	1,190	6,410	795	1,190	885	1,480	2,690
25	2,780	1,600	1,560	1,410	1,600	1,220	16,400	702	1,020	855	1,300	1,710
26	3,780	1,520	1,560	1,670	1,450	1,190	6,700	674	813	849	1,300	1,480
27	5,250	1,410	1,520	1,910	1,340	1,120	4,850	610	831	885	1,450	1,370
28	3,370	1,340	1,790	1,870	1,220	1,080	3,460	486	948	747	1,480	1,300
29	2,520	1,300	2,030	1,600	-	1,050	2,520	396	980	718	1,340	1,120
30	2,110	1,670	1,710	1,370	-	1,080	2,190	410	1,020	915	1,190	1,050
31	4,240	-	1,640	1,370	-	1,220	-	506	-	1,020	1,120	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	97,170	5,250	2,110	3,135	192,700
November	58,950	8,220	1,300	1,965	116,900
December	57,270	2,690	1,340	1,847	113,600
Calendar year 1941	2,922,488	59,800	948	8,007	5,796,000
January	47,900	2,190	1,190	1,545	95,010
February	48,110	2,350	1,220	1,718	95,420
March	45,600	1,990	1,050	1,471	90,450
April	145,390	33,100	1,050	4,846	288,400
May	32,646	1,870	396	1,053	64,750
June	39,151	2,600	518	1,305	77,650
July	120,297	30,100	718	3,881	238,600
August	40,180	2,980	980	1,296	79,700
September	77,430	12,400	1,050	2,581	153,600
Water year 1941-42	819,094	33,100	396	2,219	1,607,000

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Elm Creek at Ballinger, Tex.

Location.- Water-stage recorder upstream from spillway of masonry dam, lat. 31°45'00", long. 99°56'50", in Ballinger, Runnels County, 1¼ miles upstream from mouth. Datum of gage is 1,617.72 feet above mean sea level, datum of 1929.

Drainage area.- 458 square miles.

Records available.- April 1932 to September 1942.

Average discharge.- 10 years, 68.8 second-feet.

Extremes.- Maximum discharge during year, 4,390 second-feet Apr. 8 (gage height, 6.18 feet); no flow at times.

1932-42: Maximum discharge, about 26,100 second-feet Sept. 3, 1935 (gage height, 10.30 feet, from floodmarks, probably slightly affected by backwater from Colorado River), from rating curve extended in a straight line above 15,000 second-feet; no flow at times.

Remarks.- Records good except those below 50 second-feet, which are fair. Stage-discharge relation affected below about 50 second-feet by wind action and occasional accumulation of drift on dam. Low flow affected by diversions to Ballinger city pumping plant.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	186	16	4.5	4.5	4.1	1.5	11	11	0	0	0
2	241	99	16	11	7.0	2.8	1.0	11	11	0	0	0
3	2,600	82	16	7.0	7.0	7.0	1.5	4.5	7.0	0	0	0
4	878	59	16	7.0	7.0	3.8	1.5	4.5	7.0	0	0	52
5	108	27	16	7.0	3.6	.6	1.5	4.5	45	0	0	11
6	82	21	16	7.0	1.6	2.5	263	1.0	74	0	0	2.5
7	59	21	16	4.5	11	1.8	948	4.5	11	0	0	16
8	27	16	16	4.5	11	0	2,570	7.0	66	0	0	339
9	11	16	16	7.0	2.8	0	317	4.5	33	0	0	59
10	7.0	16	16	7.0	7.0	0	99	2.5	16	0	0	7.0
11	72	16	16	11	11	.5	45	4.5	11	0	0	2.5
12	27	16	21	11	11	1.5	21	4.5	4.5	0	0	1.5
13	21	16	21	11	7.0	0	21	4.5	2.5	0	0	1.0
14	16	16	21	11	7.0	.2	39	1.5	2.5	0	0	.4
15	742	16	16	11	4.5	1.5	21	1.5	1.5	0	0	.4
16	1,260	16	16	11	2.3	0	16	2.5	48	0	16	.2
17	180	16	16	11	1.5	0	11	4.5	33	0	7.0	0
18	99	16	16	7.0	1.2	0	7.0	11	16	0	1.5	0
19	52	11	16	11	7.0	0	575	1,100	4.5	0	.8	0
20	39	16	16	11	7.0	0	215	642	2.5	0	0	0
21	33	16	16	11	7.0	0	59	90	1.5	0	16	0
22	21	11	8.4	11	7.0	0	33	45	1.5	365	1.5	0
23	21	11	.5	11	1.9	.2	91	858	1.0	27	18	0
24	289	16	2.5	11	0	1.0	701	1,610	.4	7.0	4.5	0
26	1,420	16	1.1	11	.2	1.2	134	1,760	.1	2.5	133	0
26	250	16	3.5	7.0	.3	0	39	164	0	1.5	64	0
27	82	16	7.0	7.0	.2	0	210	74	0	.4	11	0
28	39	16	7.0	2.5	4.5	0	104	39	0	0	4.5	0
29	27	16	7.0	7.0	-	.4	39	27	0	0	1.5	0
30	21	16	7.0	1.7	-	1.0	4.5	21	0	0	.6	0
31	197	-	7.0	.8	-	1.0	-	16	-	0	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	8,921.0	2,600	0	288	17,690
November	348	186	11	28.3	1,680
December	402.0	21	.5	13.0	797
Calendar year 1941	51,770.4	6,250	0	142	102,700
January	253.5	11	.8	8.18	503
February	143.1	11	0	5.11	284
March	31.1	7.0	0	1.00	62
April	6,589.5	2,570	1.0	220	13,070
May	6,535.5	1,760	1.0	211	12,960
June	411.5	74	0	13.7	816
July	403.4	365	0	13.0	800
August	279.8	133	0	9.03	555
September	492.5	339	0	16.4	977
Water year 1941-42	25,310.9	2,600	0	69.3	50,190

Peak discharge.- Oct. 3 (11 p.m.) 3,680 sec.-ft.; Apr. 8 (4 p.m.) 4,390 sec.-ft.; May 25 (7 a.m.) 3,160 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

South Concho River at Christoval, Tex.

Location.- Water-stage recorder and concrete control, lat. 31°13', long. 100°30', at Panhandle & Santa Fe Railway bridge at Christoval, Tom Green County. Datum of gage is 2,010.22 feet above mean sea level, datum of 1929.

Drainage area.- 434 square miles.

Records available.- February 1930 to September 1942.

Average discharge.- 12 years, 58.4 second-feet.

Extremes.- Maximum discharge during year, 9,450 second-feet Aug. 23 (gage height, 9.78 feet); minimum not determined; minimum daily, 8.5 second-feet July 13-16, 18-21, Aug. 6-16.

1930-42: Maximum discharge, 100,000 second-feet July 23, 1938 (gage height, 21.95 feet, from floodmarks), from rating curve extended above 9,000 second-feet on basis of slope-area determination at gage height 20.5 feet; minimum, 2.1 second-feet July 17-19, 26-29, Aug. 28 to Sept. 5, 1934.

Flood of Aug. 6, 1906, reached a stage about 1.1 feet higher than flood of July 23, 1938, at a point 0.5 mile downstream from gage, from information by local residents.

Remarks.- Records good except those above 60 second-feet, which are fair. Low flow materially affected by diversion to South Concho Irrigation Co.'s canal 600 feet upstream.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	41	38	34	30	20	20	28	18	13	9.7	20
2	30	40	38	34	30	20	20	27	14	12	9.7	20
3	28	36	38	34	31	20	20	27	14	12	9.1	37
4	28	34	38	34	31	20	21	27	14	12	9.7	36
5	27	34	40	34	31	20	21	28	14	12	9.7	31
6	27	34	40	34	31	20	24	27	14	12	9.1	31
7	27	36	40	34	31	20	22	27	16	12	8.5	424
8	28	34	40	31	31	20	22	27	14	12	8.5	517
9	28	34	40	31	31	20	22	27	14	10	8.5	52
10	28	36	40	31	30	20	22	27	14	10	8.5	47
11	28	36	41	31	31	20	21	27	14	10	8.5	41
12	28	36	40	28	31	20	21	27	14	10	8.5	41
13	28	38	40	28	30	20	22	21	14	9.1	8.5	41
14	28	40	38	28	30	20	22	21	17	8.5	8.5	43
15	241	40	36	28	28	20	24	21	16	8.5	8.5	45
16	655	40	34	30	25	20	24	21	16	9.1	13	47
17	52	40	34	30	21	20	24	21	16	9.1	9.7	47
18	41	41	34	31	20	20	24	21	16	9.1	9.7	41
19	41	41	34	33	20	20	25	21	16	8.5	9.7	41
20	41	41	34	31	20	20	25	21	16	8.5	11	49
21	41	41	34	30	20	20	27	21	16	9.1	11	41
22	41	41	34	28	20	20	31	21	16	9.7	17	41
23	41	41	34	31	20	20	33	22	16	9.7	1,940	43
24	41	40	34	33	20	20	33	22	16	9.1	62	43
25	43	40	34	33	20	20	31	22	16	9.1	30	43
26	45	40	34	33	20	20	31	21	14	9.1	25	43
27	45	34	34	33	20	18	31	21	14	9.7	27	43
28	43	34	34	31	20	18	31	21	14	9.7	17	41
29	41	36	34	30	-	18	33	21	13	9.7	17	41
30	41	38	34	30	-	18	30	20	13	9.7	20	41
31	41	-	36	30	-	20	-	18	-	9.7	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,924	655	27	62.1	3,820
November	1,137	41	34	37.9	2,260
December	1,133	41	34	36.5	2,250
Calendar year 1941	12,498	664	13	34.2	24,800
January	971	34	28	31.3	1,930
February	723	31	20	25.8	1,430
March	612	20	18	19.7	1,210
April	757	33	20	25.2	1,500
May	724	28	18	23.4	1,440
June	449	18	13	15.0	891
July	311.7	13	8.5	10.1	618
August	2,372.6	1,940	8.5	76.5	4,710
September	2,071	517	20	69.0	4,110
Water year 1941-42	13,185.3	1,940	8.5	36.1	26,170

Peak discharge.- Oct. 15 (11:30 p.m.) 3,180 sec.-ft.; Aug. 23 (12 m.) 9,450 sec.-ft.; Sept. 7 (11 p.m.) 2,120 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942: central war time thereafter. To convert war time to standard time, subtract 1 hour.

South Concho River at San Angelo, Tex.

Location.- Water-stage recorder above spillway of San Angelo waterworks concrete dam, lat. 31°26'45", long. 100°25'30", at bridge on U. S. Highways 87 and 277, half a mile south of San Angelo, Tom Green County, and 1 mile upstream from confluence with North Concho River. Datum of gage is 1,802.94 feet above mean sea level, datum of 1929.

Drainage area.- 2,687 square miles, of which 152 square miles is probably noncontributing.

Records available.- October 1931 to September 1942.

Average discharge.- 11 years, 178 second-feet.

Extremes.- Maximum discharge during year, 51,800 second-feet Aug. 23 (gage height, 13.30 feet); no flow at times.

1931-42: Maximum discharge, 111,000 second-feet Sept. 17, 1936 (gage height, 23.4 feet, of which about 2.4 feet was caused by backwater from North Concho River), by slope-area method; no flow at times.

Maximum stage known, 29.7 feet, Aug. 6, 1906 (not affected by backwater), from information by local residents.

Remarks.- Records good. Diversions above station for irrigation, municipal supply and power. Flow partly regulated by reservoirs (combined capacity, about 11,000 acre-feet), the largest of which is Lake Nasworthy (capacity, 10,500 acre-feet), 6.5 miles upstream.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	253	264	253	4.8	253	253	8.6	9.7	4.0	1.8	0	243
2	1,960	253	243	3.3	253	243	9.7	12	3.3	12	0	243
3	232	243	212	7.6	253	243	9.7	15	3.3	16	0	253
4	212	243	20	12	253	224	12	16	3.5	13	0	243
5	203	243	6.6	15	243	20	18	16	11	11	0	243
6	128	253	4.8	23	232	5.7	25	16	13	8.6	0	253
7	6.6	253	4.8	253	222	4.0	270	145	12	7.6	0	275
8	3.3	253	6.6	253	232	4.0	1,620	274	11	5.7	0	2,190
9	5.7	253	13	253	211	6.6	23	253	8.6	4.0	.5	243
10	11	243	16	243	19	4.8	7.6	243	7.6	2.6	.4	243
11	16	253	27	232	5.7	6.6	5.7	234	6.6	1.8	0	243
12	21	243	126	232	3.3	9.7	4.8	26	4.0	3.3	0	194
13	140	253	243	243	3.3	8.6	5.7	7.6	6.6	1.2	.1	16
14	253	136	253	243	4.8	11	6.6	33	16	.4	0	12
15	1,240	9.7	253	222	4.8	18	5.7	16	16	.2	0	13
16	2,630	8.6	253	222	4.0	18	8.6	15	13	0	.5	16
17	232	12	253	212	3.3	18	12	15	9.7	0	2.2	32
18	222	16	253	178	2.6	21	16	16	6.6	0	7.6	253
19	222	110	264	11	2.6	22	18	21	4.8	0	8.6	253
20	232	243	253	4.0	4.8	243	19	18	4.8	0	9.7	243
21	232	243	253	3.3	12	232	18	16	8.6	0	15	253
22	232	243	243	2.2	15	222	21	18	4.8	.7	12	253
23	232	243	232	2.2	12	212	243	122	4.8	0	21,900	156
24	158	253	232	4.0	13	246	253	232	6.6	0	3,270	11
25	19	253	232	11	18	4.8	243	222	4.0	0	338	9.7
26	18	243	232	11	97	2.6	243	199	2.6	1.0	243	12
27	126	253	232	15	243	3.3	224	13	2.2	.8	243	13
28	243	253	165	15	243	4.8	21	5.7	3.3	0	103	15
29	253	253	11	18	-	7.6	12	4.8	3.3	0	12	18
30	264	253	6.6	121	-	7.6	12	3.3	1.0	0	18	19
31	264.	-	5.7	253	-	6.6	-	5.7	-	0	141	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	10,263.6	2,630	3.3	331	20,360
November	6,275.3	264	8.6	209	12,450
December	4,802.1	264	4.8	155	9,520
Calendar year 1941	95,674.1	9,730	3.3	262	189,800
January	3,322.4	253	2.2	107	6,590
February	2,863.2	253	2.6	102	5,680
March	2,333.3	253	2.6	75.3	4,630
April	3,395.7	1,620	4.8	113	6,740
May	2,242.8	274	3.3	72.3	4,450
June	206.6	16	1.0	6.89	410
July	91.7	16	0	2.96	182
August	26,324.6	21,900	0	849	52,210
September	6,463.7	2,190	9.7	215	12,820
Water year 1941-42	68,585.0	21,900	0	188	136,000

Peak discharge.- Oct. 2 (6:30 a.m.) 4,500 sec.-ft.; Oct. 16 (8 a.m.) 9,810 sec.-ft.; Apr. 8 (10:30 a.m.) 4,570 sec.-ft.; Aug. 23 (4:45 p.m.) 51,800 sec.-ft.; Sept. 8 (4:45 a.m.) 9,310 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Concho River near San Angelo, Tex.

Location.- Water-stage recorder, lat. 31°27'10", long. 100°24'40", half a mile downstream from confluence of North Concho and South Concho Rivers and 1¾ miles southeast of San Angelo, Tom Green County. Datum of gage is 1,776.8 feet above mean sea level, datum of 1929.

Drainage area.- 4,432 square miles, of which 275 square miles is probably noncontributing.

Records available.- September 1915 to September 1942.

Average discharge.- 27 years, 200 second-feet.

Extremes.- Maximum discharge during year, 51,500 second-feet Aug. 23 (gage height, 30.88 feet); minimum, 1.2 second-feet July 16-18.

1915-42: Maximum discharge, 230,000 second-feet Sept. 17, 1936 (gage height, 46.6 feet, from floodmarks), by slope-area method; no flow, Nov. 29, 1921.

Maximum stage known, 47.5 feet Aug. 6, 1906 (discharge, about 246,000 second-feet), from information by local residents.

Remarks.- Records good. Many diversions above station for irrigation and municipal supply. Flow partly regulated by reservoirs above station (combined capacity, about 11,000 acre-feet), the largest of which is Lake Nasworthy (capacity, 10,500 acre-feet).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	361	276	260	19	272	280	22	24	15	4.5	1.5	260
2	2,270	276	257	19	264	264	22	26	13	33	1.5	260
3	326	272	247	22	260	260	22	29	13	28	1.5	276
4	264	272	51	27	257	254	24	30	12	16	1.7	257
5	257	272	23	31	257	62	30	29	20	14	1.7	257
6	193	272	22	35	250	25	45	30	24	13	1.7	257
7	27	272	22	240	250	22	375	311	24	9.8	1.8	294
8	22	268	24	268	250	20	1,630	276	22	9.2	1.8	a2,500
9	31	268	34	268	241	24	58	268	21	6.5	1.8	330
10	29	268	43	264	56	23	24	260	19	5.3	2.0	276
11	30	272	70	264	19	23	23	252	19	6.5	2.1	264
12	32	272	154	260	18	30	20	60	16	3.7	2.9	230
13	131	272	301	257	17	29	21	22	13	3.7	1.7	32
14	280	197	297	254	18	27	23	72	29	1.8	1.7	22
15	1,580	30	293	250	19	34	23	30	24	1.5	1.9	18
16	3,260	24	289	250	19	34	22	26	22	1.4	319	21
17	185	27	280	250	17	34	24	25	19	1.4	46	27
18	305	32	276	230	17	34	30	27	15	1.4	26	256
19	284	138	280	36	17	235	30	40	13	1.4	32	272
20	268	305	280	20	17	268	36	31	11	1.4	21	264
21	260	297	272	19	24	257	35	33	13	1.5	43	260
22	260	297	268	1e	30	257	37	30	11	2.3	28	257
23	257	293	254	a18	29	250	286	148	7.6	2.3	22,000	182
24	195	289	254	a20	30	66	280	272	9.8	2.3	3,790	19
25	50	280	257	g24	34	22	272	257	8.7	2.1	699	17
26	43	276	250	g27	94	17	268	237	6.5	2.4	280	18
27	190	276	250	30	272	17	252	43	5.7	3.7	260	19
28	305	272	204	32	272	18	55	20	6.5	2.0	154	22
29	289	272	29	36	-	19	28	17	7.0	1.7	26	24
30	280	268	20	118	-	20	29	16	4.1	1.5	27	28
31	289	-	19	272	-	20	-	16	-	1.5	117	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	12,553	3,260	22	405	24,900
November	7,105	305	24	237	14,090
December	5,580	301	19	180	11,070
Calendar year 1941	122,350	10,500	11	335	242,700
January	3,878	272	18	125	7,690
February	3,320	272	17	119	6,590
March	2,945	280	17	95.0	5,840
April	4,046	1,630	20	135	8,030
May	2,957	311	16	95.4	5,870
June	443.9	29	4.1	14.8	880
July	186.8	33	1.4	6.03	371
August	27,895.3	22,000	1.5	900	55,330
September	7,219	2,500	17	241	14,320
Water year 1941-42	78,129.0	22,000	1.4	214	155,000

Peak discharge.- Oct. 2 (7:30 a.m.) 4,730 sec.-ft.; Oct. 15 (5 p.m.) 4,530 sec.-ft.; Oct. 16 (9:30 a.m.) 10,000 sec.-ft.; Aug. 23 (5:30 p.m.) 51,500 sec.-ft.; Aug. 24 (11:30 p.m.) 8,120 sec.-ft.; Sept. 8 (6 a.m.) 8,860 sec.-ft.

a No gage-height record; discharge computed on basis of records for nearby stations and weather records.

g Computed from graph based on gage readings.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Concho River near Paint Rock, Tex.

Location.- Water-stage recorder upstream from spillway of masonry dam, lat. 31°31', long. 99°55', at bridge on U. S. Highway 83, a quarter of a mile north of Paint Rock, Concho County. Datum of gage is 1,574.43 feet above mean sea level, datum of 1929.

Drainage area.- 5,538 square miles, of which 275 square miles is probably noncontributing.

Records available.- September 1915 to September 1942.

Average discharge.- 27 years, 262 second-feet.

Extremes.- Maximum discharge during year, 37,400 second-feet Aug. 24 (gage height, 26.94 feet); minimum, 0.2 second-foot Aug. 7-11, 14, 15 (leakage through dam).
1915-42: Maximum discharge, 301,000 second-feet Sept. 17, 1936 (gage height, 43.4 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records good except those for periods of rapidly changing stage, which are fair. Many diversions above station for irrigation and municipal supply. Low flow materially affected by diversions and storage above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	241	306	276	49	262	295	24	32	32	4.5	0.3	68
2	1,730	301	273	41	278	289	23	29	29	4.5	.3	242
3	1,220	301	267	39	278	284	23	24	24	5.0	.3	541
4	195	295	257	39	278	276	23	23	26	17	.3	816
5	595	289	147	37	278	267	26	24	24	39	.3	318
6	412	289	72	41	278	157	39	26	24	29	.3	278
7	258	284	49	46	273	70	355	97	38	21	.2	295
8	117	278	41	155	273	44	1,310	284	34	17	.2	2,180
9	62	278	39	284	273	39	1,100	273	37	17	.2	679
10	44	278	41	284	262	34	162	257	34	14	.2	341
11	44	278	58	278	148	32	66	257	32	11	.2	295
12	46	273	77	278	73	37	41	262	29	7.1	.4	278
13	41	273	109	278	46	34	34	122	26	7.1	.3	257
14	55	273	284	273	41	34	32	756	26	5.0	.2	136
15	361	237	295	273	39	39	29	140	24	4.7	.2	66
16	3,760	109	295	273	37	34	26	88	24	4.4	357	46
17	939	66	295	273	34	37	26	49	32	3.8	488	37
18	371	49	289	273	34	41	24	238	27	2.3	176	32
19	324	46	289	257	32	41	24	1,480	24	1.7	76	130
20	306	56	289	134	32	154	46	241	20	1.7	32	312
21	295	265	289	70	32	273	49	84	20	2.0	34	262
22	289	284	284	46	32	273	34	51	16	2.1	27	252
23	284	284	278	41	34	273	39	760	14	2.1	7,190	252
24	284	278	273	37	41	262	240	368	10	1.8	18,300	230
25	248	278	273	34	44	155	273	324	8.5	1.5	2,290	108
26	120	278	273	34	44	66	262	295	8.5	1.2	413	55
27	34	278	267	34	53	39	262	278	6.4	1.1	318	34
28	141	278	267	39	267	29	246	151	4.5	.9	289	29
29	312	278	245	41	-	26	123	73	4.2	.7	227	29
30	312	278	122	41	-	26	49	46	5.0	.3	100	29
31	312	-	66	54	-	24	-	39	-	.3	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	13,822	3,760	41	446	27,420
November	7,338	306	46	245	14,550
December	6,381	295	39	206	12,660
Calendar year 1941	136,024	14,700	20	373	269,800
January	4,076	284	34	131	8,080
February	3,796	278	32	136	7,530
March	3,686	295	24	119	7,310
April	5,010	1,310	23	167	9,940
May	7,171	1,480	23	231	14,220
June	663.1	38	4.2	22.1	1,320
July	230.8	39	.3	7.45	458
August	30,382.9	18,300	.2	980	60,260
September	8,627	2,180	29	288	17,110
Water year 1941-42	91,183.8	18,300	.2	250	180,900

Peak discharge.- Oct. 2 (8 p.m.) 4,660 sec.-ft.; Oct. 16 (7:30 p.m.) 8,880 sec.-ft.; Aug. 23 (11 a.m.) 7,580 sec.-ft.; Aug. 24 (7:30 a.m.) 37,400 sec.-ft.; Aug. 25 (7:15 a.m.) 7,580 sec.-ft.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

South Concho Irrigation Co.'s canal at Christoval, Tex.

Location.- Water-stage recorder, lat. 31°13', long. 100°30', at Christoval, Tom Green County, 85 feet downstream from point of diversion and 100 feet downstream from bridge on U. S. Highway 277. Datum of gage is 2,017.0 feet above mean sea level, datum of 1929.

Records available.- November 1939 to September 1942. (November 1921, February 1930 to September 1939, miscellaneous discharge measurements only.)

Extremes.- Maximum discharge during year, 92 second-feet Aug. 23 (gage height, 5.88 feet), from rating curve extended above 25 second-feet by logarithmic plotting; minimum, 2.3 second-feet Dec. 13.
1939-42: Maximum discharge, that of Aug. 23, 1942; minimum, that of Dec. 13, 1941.

Remarks.- Records fair. No diversion above station. Canal diverts water for irrigation from right bank of South Concho River 600 feet above gaging station on that stream.

Monthly discharge, in second-feet, water year October 1941 to September 1942

Month	Maximum	Minimum	Mean	Runoff in acre-feet
October	20	-	7.05	434
November	-	-	6.00	357
December	5.7	2.7	4.46	275
Calendar year 1941	29	-	11.0	7,950
January	12	3.8	8.29	510
February	18	8.5	12.8	710
March	18	17	17.1	1,050
April	18	7.2	14.2	847
May	16	9.1	13.4	827
June	18	14	15.9	944
July	18	17	17.6	1,080
August	35	7.2	17.3	1,060
September	21	6.4	16.1	957
Water year 1941-42	35	-	12.5	9,050

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Middle Concho River near Tankersly, Tex.

Location.- Water-stage recorder and masonry control, lat. 31°22'35", long. 100°36'50", at Twelvemile Bridge, 3 miles northeast of Tankersly, Tom Green County, and 9½ miles upstream from Spring Creek. Datum of gage is 1,919.5 feet above mean sea level, datum of 1929.

Drainage area.- 1,280 square miles, of which 152 square miles is probably noncontributing.

Records available.- February 1930 to September 1942.

Average discharge.- 12 years, 51.3 second-feet.

Extremes.- Maximum discharge during year, 3,880 second-feet Aug. 23 (gage height, 11.77 feet); no flow at times.

1930-42: Maximum discharge, about 35,000 second-feet Sept. 26, 1936 (gage height, 24.2 feet), computed on basis of records of flow over Nasworthy Dam, 12 miles downstream, adjusted for inflow and storage; no flow at times.

Maximum stage known, about 27.2 feet in April 1922, from information by State Highway Department.

Remarks.- Records good. Small diversions above station for irrigation affect low flow.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	321	a89	47	40	32	32	23	20	9.2	0	0	138
2	706	83	47	38	32	32	22	20	8.4	11	0	36
3	122	76	47	38	33	30	22	19	8.0	14	0	42
4	83	70	47	38	34	30	23	19	8.7	2.9	0	16
5	68	72	47	37	34	30	23	19	11	2.2	0	16
6	62	66	45	38	33	29	28	18	11	1.5	0	12
7	55	66	44	39	31	28	58	83	11	1.2	0	16
8	52	63	44	39	31	29	34	33	11	1.4	0	109
9	50	63	44	39	30	28	30	28	10	.9	0	24
10	48	62	44	39	30	28	26	24	9.2	.4	0	16
11	46	60	54	39	29	27	25	23	7.8	0	0	12
12	47	58	51	39	30	28	24	22	6.5	0	0	9.5
13	46	60	45	39	30	28	25	20	5.8	0	0	8.4
14	44	57	42	39	30	28	25	19	5.4	0	0	8.0
15	334	57	42	38	32	28	23	17	6.0	0	0	7.4
16	321	57	42	38	32	27	23	16	5.8	0	106	6.7
17	122	55	40	38	32	26	23	15	5.1	0	5.1	5.3
18	92	54	40	37	30	25	23	15	4.3	0	9.0	6.0
19	81	52	39	37	29	25	23	16	3.8	0	2.4	6.0
20	74	50	38	36	29	26	22	16	3.2	0	.8	8.7
21	70	47	40	36	30	25	23	16	2.7	0	.5	9.5
22	72	52	41	36	30	24	26	15	2.4	0	0	9.2
23	66	52	40	36	30	24	26	16	1.9	0	620	8.0
24	65	a51	38	36	29	24	29	18	1.7	0	1,530	7.6
25	115	a51	39	35	29	25	30	17	1.3	0	363	7.8
26	163	a50	38	35	29	24	25	15	1.0	0	73	7.6
27	92	a49	37	34	29	23	24	14	.7	0	36	7.1
28	76	a49	37	33	29	23	23	13	.5	0	24	6.9
29	78	a48	37	32	-	23	22	12	.2	0	17	6.7
30	83	a48	38	34	-	23	21	11	0	0	13	6.5
31	a96	-	39	33	-	22	-	10	-	0	43	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,800	706	44	123	7,540
November	1,767	89	47	58.9	3,500
December	1,313	54	37	42.4	2,600
Calendar year 1941	52,348.8	7,980	0	143	103,800
January	1,145	40	32	36.9	2,270
February	858	34	29	30.6	1,700
March	824	32	22	26.6	1,630
April	774	58	21	25.8	1,540
May	619	83	10	20.0	1,230
June	163.6	11	0	5.45	324
July	35.5	14	0	1.15	70
August	2,842.8	1,530	0	91.7	5,640
September	580.9	138	6.0	19.4	1,150
Water year 1941-42	14,722.8	1,530	0	40.3	29,190

Peak discharge.- Oct. 2 (2 a.m.) 2,220 sec.-ft.; Aug. 23 (8 p.m.) 3,880 sec.-ft.; Aug. 24 (3 p.m.) 3,400 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage and weather records.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Spring Creek near Tankersly, Tex.

Location.- Water-stage recorder and concrete control, lat. 31°21'30", long. 100°32'05", 2¾ miles upstream from mouth and 6½ miles east of Tankersly, Tom Green County. Datum of gage is 1,874.6 feet above mean sea level, datum of 1929.

Drainage area.- 734 square miles.

Records available.- February 1930 to September 1942.

Average discharge.- 12 years, 44.9 second-feet.

Extremes.- Maximum discharge during year, 26,900 second-feet Aug. 23 (gage height, 21.37 feet), from rating curve extended above 13,000 second-feet; minimum, 0.5 second-foot Aug. 5.
1930-42: Maximum discharge, that of Aug. 23, 1942; no flow at times.
Maximum stage known, about 26.0 feet in 1882, from information by local residents.

Remarks.- Records good except those for Aug. 23 to Sept. 30, which are poor. Several small diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	195	83	64	60	43	43	22	44	25	3.1	1.0	201
2	341	80	64	55	43	42	24	44	23	2.8	1.0	129
3	96	80	63	55	42	41	24	46	15	2.8	.8	102
4	69	78	61	58	41	37	23	44	14	2.6	.7	90
5	64	76	60	60	43	34	23	42	23	2.7	.7	83
6	61	72	58	63	41	34	32	35	23	3.0	.7	80
7	60	71	55	64	39	29	131	30	26	3.4	.7	375
8	58	71	55	64	39	34	114	32	27	3.7	.8	684
9	61	71	55	64	42	37	48	30	24	3.7	1.0	134
10	69	71	54	64	39	35	42	32	24	3.7	1.0	100
11	60	71	67	64	39	30	42	32	27	3.4	.8	93
12	58	69	67	63	41	29	44	26	24	3.4	.9	90
13	57	67	61	63	42	30	44	20	19	2.1	.8	88
14	54	67	61	63	42	30	42	20	23	2.0	.7	85
15	430	67	61	63	42	35	42	18	23	1.7	.7	81
16	1,150	66	61	63	42	35	42	17	20	1.6	294	80
17	189	66	61	61	41	38	42	18	18	1.5	76	78
18	107	64	61	61	38	37	43	16	17	1.3	50	76
19	88	66	61	60	37	37	43	15	18	1.0	43	76
20	85	64	61	57	37	37	42	16	13	1.0	28	76
21	81	61	61	54	36	37	48	18	9.6	1.0	29	76
22	88	64	61	50	38	39	44	19	10	1.0	138	76
23	81	64	60	41	38	38	48	20	11	.9	12,500	76
24	80	64	60	41	35	36	55	24	11	.8	1,420	76
25	93	66	60	42	34	30	48	28	7.6	.8	259	76
26	105	66	58	43	34	24	47	25	4.6	.9	152	74
27	80	66	60	41	32	22	42	16	4.3	1.0	132	72
28	78	66	61	39	36	21	42	17	4.6	1.0	118	72
29	78	66	61	38	-	19	39	15	4.4	.9	107	72
30	83	66	61	39	-	23	46	15	3.5	.8	102	71
31	97	-	61	39	-	21	-	19	-	.8	118	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,296	1,150	54	139	8,520
November	2,069	83	61	69.0	4,100
December	1,875	67	54	60.5	3,720
Calendar year 1941	28,455.3	1,670	3.8	78.0	56,420
January	1,692	64	38	54.6	3,360
February	1,096	43	32	39.1	2,170
March	1,014	43	19	32.7	2,010
April	1,368	131	22	45.6	2,710
May	793	46	15	25.6	1,570
June	496.6	27	3.5	16.6	985
July	60.4	3.7	.8	1.95	120
August	15,578.3	12,500	.7	503	30,900
September	3,542	684	71	118	7,030
Water year 1941-42	33,880.3	12,500	.7	92.8	67,200

Peak discharge.- Oct. 16 (10 p.m.) 3,040 sec.-ft.; Aug. 23 (3 p.m.) 26,900 sec.-ft.; Sept. 7 (11 p.m.) 1,840 sec.-ft.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

North Concho River at Sterling City, Tex.

Location.- Water-stage recorder and concrete control, lat. 31°50', long. 100°59', at county highway bridge 0.3 mile south of Sterling City, Sterling County, and 4 miles upstream from Sterling Creek. Datum of gage is 2,242.4 feet above mean sea level, datum of 1929.

Drainage area.- 690 square miles, of which 75 square miles is probably noncontributing.

Records available.- September 1939 to September 1942.

Extremes.- Maximum discharge during year, 1,780 second-feet Oct. 15 (gage height, 13.82 feet), from rating curve extended above 1,000 second-feet by logarithmic plotting; no flow at times.

1939-42: Maximum discharge, 2,950 second-feet Mar. 26, 1941 (gage height, 16.47 feet), from rating curve extended above 1,000 second-feet by logarithmic plotting; no flow at times.

Maximum stage known, 23.3 feet May 6, 1891, from information by local residents.

Remarks.- Records good except those below 1 second-foot, which are fair. Small diversions above station for irrigation.

Rating table, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

1.85	0	2.3	2.0	3.2	35	5.0	153
2.0	.2	2.4	3.8	3.6	53	6.0	233
2.15	.7	2.5	6.7	4.0	77	7.0	315
2.2	1.0	2.8	18	4.5	113	8.0	409

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	3.1	3.6	3.3	3.3	3.1	2.0	2.4	0.3		0	0
2	3.1	3.1	3.6	3.3	3.1	3.3	1.9	2.2	.2		0	1.2
3	2.9	3.1	3.3	3.3	3.3	3.1	1.7	2.2	.2		0	1.7
4	3.1	3.3	3.3	3.3	3.1	2.8	2.6	1.5	.2		0	.5
5	1.6	2.9	3.1	3.3	3.6	2.8	4.2	2.0	1.2		0	.2
6	1.7	3.1	3.1	b3.3	3.3	2.8	5.1	3.1	1.4		0	0
7	1.6	2.9	2.3	3.3	3.3	2.9	6.4	2.9	2.4		0	5.5
8	1.5	2.8	2.4	3.3	3.3	2.9	6.0	2.8	2.4		0	3.4
9	1.5	2.9	2.6	3.3	2.9	2.9	4.3	2.4	2.6		0	1.2
10	1.5	2.9	3.9	3.3	1.0	3.1	3.3	.8	1.3		0	.5
11	1.8	2.9	4.8	3.3	1.4	2.9	.9	1.0	.3		0	.3
12	2.0	2.9	4.6	3.3	2.8	3.1	4.6	3.1	.7		0	.2
13	1.9	2.9	4.6	3.3	3.3	3.1	11.0	1.7	1.5		0	.1
14	1.8	2.9	4.0	3.3	3.3	3.1	11.0	.8	.3		0	.1
15	392	2.8	3.6	3.6	2.6	3.1	10.0	.6	.2		0	.2
16	48	2.8	3.3	3.6	4.0	3.1	9.2	1.8	.2		0	.2
17	8.8	2.8	3.3	3.6	5.1	2.9	8.8	.8	.2		0	.1
18	7.0	3.1	3.3	3.3	3.8	2.9	10.0	1.1	.6		0	0
19	4.8	3.3	3.3	3.3	1.0	2.9	5.7	2.7	.2		0	0
20	3.8	3.1	3.1	3.3	2.2	2.9	5.4	2.8	.1		0	0
21	3.3	3.1	3.3	3.3	4.5	2.9	15.0	2.6	.3		0	0
22	3.3	2.8	3.3	3.1	.9	2.9	15.0	2.4	.4		0	0
23	3.1	2.3	3.3	3.3	3.3	2.4	9.3	1.3	.3		.2	.4
24	3.1	4.6	3.1	2.8	5.1	2.4	10.0	1.7	.1		0	.1
25	34	2.3	3.3	2.6	4.8	2.4	13.0	1.7	.1		0	.5
26	84	2.6	3.1	2.6	3.1	2.3	1.1	1.7	.1		0	0
27	9.7	2.6	3.1	2.6	3.1	2.0	3.7	1.5	.0		0	0
28	4.8	2.8	3.1	2.4	3.1	1.9	4.3	1.3	.0		0	.1
29	4.6	3.1	3.1	2.6	-	1.8	1.6	.6	.0		0	1.0
30	5.4	3.0	3.1	3.3	-	1.9	1.4	.4	.0		0	.2
31	4.3	-	3.3	3.3	-	2.0	-	.3	-		0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	651.4	392	1.2	21.0	1,290
November	89.7	4.6	2.3	2.99	178
December	104.2	4.8	2.3	3.36	207
Calendar year 1941	4,725 9	920	.2	12.9	9,380
January	90.8	3.6	2.4	3.19	196
February	87.6	5.1	.9	3.13	174
March	84.6	3.3	1.8	2.73	168
April	188.5	15	.9	6.28	374
May	54.2	3.1	.3	1.75	108
June	17.8	2.6	0	.59	35
July	0	0	0	0	0
August	.2	.2	0	.01	.4
September	17.7	5.5	0	.59	35
Water year 1941-42	1,394.7	392	0	3.82	2,770

Peak discharge.- Oct. 15 (3 p.m.) 1,780 sec.-ft.; Oct. 26 (1 a.m.) 297 sec.-ft.

b Stage-discharge relation affected by ice.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

North Concho River near Carlsbad, Tex.

Location.- Water-stage recorder above spillway of State Sanatorium Dam, lat. 31°36', long. 100°40', 2 miles upstream from Carlsbad, Tom Green County. Datum of gage is 2,000.8 feet above mean sea level, datum of 1929.

Drainage area.- 1,529 square miles, of which 123 square miles is probably noncontributing.

Records available.- March 1924 to September 1942.

Average discharge.- 18 years, 57.1 second-feet.

Extremes.- Maximum discharge during year, 2,890 second-feet Aug. 23 (gage height, 8.02 feet); minimum, 0.2 second-foot July 16 to Aug. 19 (leakage through control).
1924-42: Maximum discharge, 94,600 second-feet Sept. 26, 1936 (gage height, 16.0 feet, from highest floodmarks known), by slope-area method; no flow at times.

Remarks.- Records good. Diversions by pumping above station affect low flow (combined capacity of pumps, 40 second-feet); low flow also partly regulated by small reservoir above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	174	14	12	12	12	13	11	10	6.9	0.6	0.2	3.5
2	46	13	12	11	13	13	11	11	6.9	.9	.2	3.5
3	14	12	12	11	12	13	11	10	6.3	1.3	.2	8.2
4	11	12	12	11	12	13	11	10	6.3	1.0	.2	7.4
5	11	11	12	12	12	13	11	10	6.3	.9	.2	7.4
6	9.9	9.7	12	12	12	12	12	10	6.3	1.0	.2	7.4
7	9.9	9.7	12	13	12	12	17	11	6.3	.7	.2	7.4
8	8.8	9.7	12	13	12	12	16	11	6.3	.5	.2	191
9	8.8	9.7	12	13	12	12	16	10	6.3	.5	.2	30
10	8.8	9.7	12	13	12	12	16	10	6.3	.5	.2	15
11	8.8	9.7	16	13	12	12	14	10	5.6	.4	.2	9.0
12	8.8	10	14	13	12	12	14	10	5.0	.4	.2	6.6
13	8.8	11	14	13	12	12	14	10	3.9	.4	.2	6.6
14	8.8	11	14	13	12	12	13	9.2	4.4	.3	.2	5.9
15	123	10	14	13	14	12	13	8.4	5.0	.3	.2	5.9
16	300	11	14	13	14	10	13	7.6	5.0	.2	.2	5.2
17	53	11	14	13	12	10	13	8.4	3.9	.2	.2	4.6
18	29	11	14	12	12	10	13	8.4	2.7	.2	.2	4.0
19	21	11	14	12	12	10	13	14	2.7	.2	.3	4.6
20	18	11	14	12	12	11	13	10	2.2	.2	.5	5.2
21	17	12	14	12	12	11	13	10	2.4	.2	.6	5.2
22	16	12	13	12	12	12	13	9.2	2.2	.2	.7	5.9
23	14	13	13	12	12	12	12	11	2.1	.2	528	5.9
24	14	13	12	12	12	12	17	10	1.7	.2	70	5.9
25	21	12	12	12	12	12	14	10	1.3	.2	34	5.9
26	65	12	12	12	12	11	13	10	1.0	.2	10	4.6
27	64	12	12	12	12	11	12	10	.8	.2	7.4	4.0
28	31	12	12	12	12	11	13	9.2	.6	.2	5.2	4.6
29	21	12	12	13	-	11	12	8.5	.5	.2	4.6	5.2
30	18	12	12	12	-	11	10	8.5	.5	.2	3.1	5.2
31	14	-	12	12	-	11	-	7.7	-	.2	4.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,176.4	300	8.8	37.9	2,330
November	339.2	14	9.7	11.3	673
December	398	16	12	12.8	789
Calendar year 1941	22,869.4	4,180	1.7	62.7	45,350
January	381	13	11	12.3	756
February	340	14	12	12.1	674
March	361	13	10	11.6	716
April	394	17	10	13.1	781
May	303.1	14	7.6	9.78	601
June	117.7	6.9	.5	3.92	233
July	12.9	1.3	.2	.42	26
August	672	528	.2	21.7	1,330
September	390.8	191	3.5	13.0	775
Water year 1941-42	4,886.1	528	.2	13.4	9,660

Peak discharge.- Oct. 16 (1:30 a.m.) 920 sec.-ft.; Aug. 23 (2:30 a.m.) 2,890 sec.-ft.; Sept. 8 (1:30 a.m.) 690 sec.-ft.
Note.- Discharge July 17 to Aug. 18 represents leakage through control.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecan Bayou at Brownwood, Tex.

Location.- Water-stage recorder above spillway of city dam, lat. 31°44'10", long. 98°58'30", at Gulf, Colorado & Santa Fe (Fort Worth & Rio Grande) Railway bridge, 1 mile north of Brownwood, Brown County, 6 miles downstream from Salt Creek, and 10 miles downstream from Brownwood Reservoir. Datum of gage is 1,318.58 feet above mean sea level, datum of 1929.

Drainage area.- 1,614 square miles.

Records available.- May 1917 to June 1918, October 1923 to September 1942.

Average discharge.- 17 years (1924-28, 1929-42), 236 second-feet.

Extremes.- Maximum discharge during year, 9,050 second-feet May 20 (gage height, 10.74 feet); minimum, 2.8 second-feet (regulated) Aug. 29-31, Sept. 1-3, 6.
1917-18, 1923-42: Maximum discharge, 52,700 second-feet Oct. 14, 1930 (gage height, 16.92 feet), from rating curve extended above 38,000 second-feet; no flow at times.
Maximum stage known, 21.7 feet in September 1900, from information by Gulf, Colorado & Santa Fe Railway Co. Flood of July 3, 1932, probably the greatest known, reached a discharge of about 235,000 second-feet as it entered Brownwood Reservoir (computed from rate of change of contents in reservoir; data furnished by engineers of Brown County Water Improvement District No. 1).

Remarks.- Records good except those below 10 second-feet, which are poor. Stage-discharge relation for low flows affected by occasional accumulation of drift on dam. Flow regulated by Brownwood Reservoir (capacity, 140,000 acre-feet).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	207	143	190	7.4	11	121	701	410	324	7.4	2.8
2	144	243	134	190	8.9	11	16	540	350	324	7.4	2.8
3	286	231	134	190	8.9	8.9	11	466	317	324	7.4	7.4
4	258	202	134	190	11	8.9	11	389	317	324	7.4	6.0
5	596	190	129	134	8.9	7.4	11	363	368	324	6.0	3.7
6	473	138	134	16	8.9	7.4	16	363	650	317	7.4	2.8
7	396	134	147	12	7.4	8.9	354	356	466	317	7.4	1,790
8	343	120	147	11	8.9	7.4	1,410	350	378	317	7.4	3,570
9	311	115	103	12	8.9	7.4	4,860	343	370	317	7.4	2,500
10	317	129	12	12	7.4	8.9	2,960	337	703	247	7.4	1,580
11	311	138	44	11	7.4	8.9	1,880	330	1,240	16	7.4	1,020
12	311	138	152	11	7.4	11	1,280	212	965	11	6.0	683
13	311	138	147	11	8.9	11	1,220	18	720	8.9	6.0	503
14	280	138	147	11	8.9	11	1,020	48	525	8.9	6.0	396
15	273	138	152	8.9	8.9	12	750	34	1,440	8.9	6.0	330
16	273	138	152	8.9	8.9	8.9	580	77	2,840	8.9	8.9	305
17	273	138	158	11	8.9	7.4	466	311	2,360	8.9	68	305
18	273	138	158	11	7.4	8.9	294	434	1,530	8.9	21	305
19	249	134	158	8.9	7.4	8.9	283	6,180	1,040	7.4	11	305
20	237	138	143	8.9	8.9	11	1,040	7,860	708	7.4	7.4	305
21	231	138	158	7.4	8.9	8.9	1,040	3,790	526	7.4	6.0	305
22	231	143	158	8.9	8.9	8.9	775	2,260	424	7.4	7.4	305
23	231	143	163	8.9	8.9	8.9	612	1,710	356	7.4	18	298
24	231	143	163	8.9	7.4	8.9	887	1,770	330	7.4	14	298
25	300	143	174	8.9	8.9	8.9	2,340	3,000	330	7.4	8.9	298
26	588	147	180	8.9	8.9	8.9	1,720	2,500	330	7.4	7.4	298
27	525	152	180	8.9	7.4	7.4	1,330	1,720	330	8.9	7.4	298
28	410	163	185	8.9	8.9	7.4	1,710	1,180	330	7.4	6.0	298
29	199	147	185	8.9	-	7.4	1,320	860	330	6.0	4.7	298
30	148	143	185	8.9	-	7.4	973	638	330	6.0	2.8	298
31	202	-	190	7.4	-	7.4	-	496	-	7.4	3.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,224	596	14	298	18,300
November	4,547	243	115	152	9,020
December	4,549	190	12	147	9,020
Calendar year 1941	192,912.0	21,900	2.8	529	382,600
January	1,153.5	190	7.4	37.2	2,290
February	237.8	11	7.4	8.49	472
March	276.6	12	7.4	8.92	549
April	31,290	4,860	11	1,043	62,060
May	39,636	7,860	18	1,279	78,620
June	21,333	2,840	317	711	42,310
July	3,310.3	324	6.0	107	6,570
August	306.6	68	2.8	9.89	608
September	16,916.5	3,570	2.8	564	33,550
Water year 1941-42	132,780.3	7,860	2.8	364	263,400

Peak discharge.- Apr. 9 (7:30 a.m.) 5,650 sec.-ft.; May 20 (5 a.m.) 9,050 sec.-ft.; May 25 (2 p.m.) 3,410 sec.-ft.; June 16 (4 p.m.) 3,270 sec.-ft.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

San Saba River at Menard, Tex.

Location.- Water-stage recorder, lat. 30°55', long. 99°47', on bridge on U. S. Highway 83 in Menard, Menard County, 0.7 mile downstream from Las Moras Creek. Datum of gage is 1,863.05 feet above mean sea level, datum of 1929.

Drainage area.- 1,151 square miles.

Records available.- September 1915 to September 1942.

Average discharge.- 27 years, 77.4 second-feet.

Extremes.- Maximum discharge during year, 49,200 second-feet Oct. 5 (gage height, 17.60 feet); minimum, 12 second-feet (regulated) June 29, July 12-14, 21, 22, Aug. 4-16.

1915-42: Maximum discharge, 117,000 second-feet July 23, 1938 (gage height, 22.2 feet, present site and datum, from floodmark), from rating curve extended above 60,000 second-feet on basis of slope-area determinations at gage heights 21.0 and 22.2 feet; no flow at times caused by diversions to Noyes Canal.

Maximum stage known, 23.3 feet, present site and datum, June 5 or 6, 1899, from information by local residents.

Remarks.- Records good. Low flow during irrigation season regulated by diversions to Noyes Canal 4 miles above Menard. About 4,300 acres above and 7,700 acres below gage have been declared irrigated (see records of Noyes Canal at Menard).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	98	78	47	40	38	36	44	24	16	13	55
2	438	93	69	46	40	38	36	32	21	30	13	51
3	77	90	61	44	41	38	36	33	20	29	13	3,160
4	62	87	62	44	42	38	35	35	20	20	13	611
5	22,600	85	61	44	42	38	36	37	82	15	13	114
6	1,780	85	61	44	41	37	62	30	55	14	13	80
7	331	85	60	45	40	37	60	30	50	13	13	202
8	191	85	61	44	40	37	82	30	40	14	13	1,670
9	152	84	61	44	40	37	56	29	33	17	13	225
10	137	84	61	43	41	38	45	28	28	16	13	128
11	149	82	62	43	41	37	42	28	34	14	13	106
12	131	82	62	44	41	37	42	28	53	13	14	90
13	122	82	61	44	40	37	42	27	51	12	15	74
14	122	81	60	45	41	37	42	26	48	13	14	52
15	124	81	61	45	42	38	42	25	48	13	15	48
16	124	81	61	45	40	38	39	25	41	13	16	42
17	149	81	60	44	40	37	39	24	20	13	42	37
18	142	81	58	44	40	37	42	28	19	13	173	36
19	129	81	58	42	40	37	59	26	19	13	56	39
20	120	82	58	42	40	37	44	26	18	13	53	39
21	118	82	58	42	40	37	42	25	17	13	49	41
22	115	84	56	42	40	37	56	25	16	13	53	43
23	111	82	48	42	40	36	62	28	16	13	58	42
24	115	82	48	42	40	36	67	30	16	13	94	40
25	115	84	47	42	37	36	62	29	16	14	155	40
26	111	81	47	42	37	35	59	27	16	13	75	38
27	108	77	47	42	37	34	56	25	17	14	53	36
28	102	78	47	41	36	34	56	24	17	14	48	36
29	101	80	47	41	-	35	55	28	14	14	47	37
30	102	78	47	41	-	35	55	34	13	14	48	38
31	101	-	47	42	-	36	-	37	-	13	58	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	28,327	22,600	48	914	56,190
November	2,498	98	77	83.3	4,950
December	1,775	78	47	57.3	3,520
Calendar year 1941	53,577	22,600	17	147	106,300
January	1,342	47	41	43.3	2,660
February	1,121	42	37	40.0	2,220
March	1,139	38	34	36.7	2,260
April	1,487	82	35	49.6	2,950
May	903	44	24	29.1	1,790
June	882	82	13	29.4	1,750
July	462	30	12	14.9	916
August	1,279	173	13	41.3	2,540
September	7,250	3,160	36	242	14,380
Water year 1941-42	48,465	22,600	12	133	96,130

Peak discharge.- Oct. 5 (12 m.) 49,200 sec.-ft.; Sept. 3 (11 p.m.) 8,900 sec.-ft.; Sept. 8 (2:30 a.m.) 3,670 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

San Saba River at San Saba, Tex.

Location.- Water-stage recorder, lat. 31°12'10", long. 98°42'15", at bridge on San Saba-Chadwick Mill highway, three-quarters of a mile northeast of San Saba, San Saba County, and 15 miles upstream from mouth. Datum of gage is 1,153.3 feet above mean sea level, datum of 1929.

Drainage area.- 3,046 square miles.

Records available.- August 1930 to September 1942. December 1904 to December 1906 and September 1915 to August 1930 at site 4½ miles upstream.

Average discharge.- 27 years (1915-42), 295 second-feet.

Extremes.- Maximum discharge during year, 25,200 second-feet Oct. 6 (gage height, 32.84 feet); minimum, 42 second-feet Aug. 6, 8.

1904-6, 1915-42: Maximum discharge, 203,000 second-feet July 23, 1938 (gage height, 45.18 feet, from floodmarks at highest stage known), by slope-area method; no flow Aug. 9, 10, 1918.

Maximum stage known prior to 1938, 42.6 feet June 6, 1899, from information by local resident.

Remarks.- Records good. Diversions above station for irrigation and municipal supply affect low flow.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	233	278	212	181	151	151	109	219	134	73	55	171
2	476	278	219	178	150	159	113	205	129	71	54	167
3	1,330	270	212	177	152	156	120	161	125	177	52	157
4	1,390	262	212	177	155	152	120	188	124	156	49	1,080
5	2,380	255	205	176	156	148	122	180	129	114	46	2,360
6	16,700	248	198	174	151	147	131	169	133	99	44	507
7	5,870	240	195	174	140	144	138	304	386	104	45	319
8	1,240	240	192	173	142	139	185	399	322	108	43	459
9	725	233	191	174	148	a138	395	292	233	99	45	1,510
10	625	233	190	171	147	a138	292	219	335	91	46	870
11	565	233	197	170	143	a138	226	194	226	86	46	443
12	473	233	212	171	147	a138	185	184	169	80	278	343
13	473	226	226	171	150	a136	171	176	151	80	106	281
14	439	226	226	171	152	a136	187	178	140	78	73	248
15	447	226	212	171	155	a136	173	181	134	80	66	226
16	703	226	212	170	160	134	146	170	134	76	64	212
17	423	226	205	170	160	130	136	157	133	73	324	191
18	375	219	205	170	150	129	130	226	125	71	862	184
19	345	219	205	169	147	134	177	408	120	71	1,350	177
20	352	226	205	164	148	134	487	253	116	69	527	170
21	330	226	205	166	151	126	376	191	108	65	262	164
22	315	233	205	163	152	124	315	167	102	66	308	162
23	308	240	198	162	155	122	406	159	97	60	245	162
24	300	233	198	162	152	124	1,600	247	96	58	401	160
25	292	226	185	162	150	122	953	290	92	57	308	157
26	292	226	181	157	147	124	616	174	87	57	300	155
27	278	219	177	157	144	124	345	157	87	58	300	150
28	270	219	177	159	142	116	278	151	81	61	262	147
29	262	219	180	156	-	118	315	143	78	59	212	146
30	270	212	178	156	-	121	262	139	74	56	184	144
31	285	-	180	152	-	112	-	136	-	56	177	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	38,766	16,700	233	1,251	76,890
November	7,050	278	212	235	13,980
December	6,195	226	177	200	12,290
Calendar year 1941	195,990	16,700	144	537	388,700
January	5,204	181	152	168	10,320
February	4,197	160	140	160	8,320
March	4,150	159	112	134	8,230
April	9,209	1,600	109	307	18,270
May	6,437	408	136	208	12,770
June	4,400	386	74	147	8,730
July	2,509	177	56	80.9	4,980
August	7,134	1,350	43	230	14,150
September	11,622	2,360	144	387	23,050
Water year 1941-42	106,873	16,700	43	293	212,000

a No gage-height record; discharge computed on basis of known range in stage and weather records.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Noyes Canal at Menard, Tex.

Location.- Water-stage recorder, lat. 30°55', long. 99°47', at intersection of Canal and Gay Streets in Menard, Menard County, 4½ miles downstream from head gates. Datum of gage is 1,878.1 feet above mean sea level, datum of 1929.

Records available.- March 1924 to September 1942.

Average discharge.- 17 years (1924-37, 1938-42), 15.2 second-feet.

Extremes.- Maximum daily discharge during year, 29 second-feet in January, March, and June; no flow at times.

1924-42: Maximum daily discharge (exclusive of times canal was submerged by waters of San Saba River), 50 second-feet Apr. 15, 1925 (probably affected by local runoff between point of diversion and station); no flow at times.

Remarks.- Records good. Discharge represents flow diverted from San Saba River not including local runoff between point of diversion and station. Canal diverts water from right bank of San Saba River 4 miles above Menard for irrigation near Menard; 10 acres irrigated above station.

Monthly discharge, in second-feet, water year October 1941 to September 1942

Month	Maximum	Minimum	Mean	Runoff in acre-feet
October	26	0	4.34	267
November	0	0	0	0
December	27	0	17.9	1,100
Calendar year 1941	29	0	11.7	8,450
January	29	27	27.8	1,710
February	28	23	26.5	1,470
March	29	24	26.4	1,620
April	24	0	14.4	859
May	27	12	23.8	1,470
June	29	0	20.2	1,200
July	27	22	24.3	1,490
August	23	0	12.9	793
September	24	0	13.2	786
Water year 1941-42	29	0	17.6	12,760

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Brady Creek at Brady, Tex.

Location.- Water-stage recorder, lat. 31°08'15", long. 99°19'55", just upstream from bridge on North Bridge Street in Brady, McCulloch County, and 0.4 mile downstream from Live Oak Creek. Datum of gage is 1,646.50 feet above mean sea level, datum of 1929.

Drainage area.- 575 square miles.

Records available.- May 1939 to September 1942.

Extremes.- Maximum discharge during year, 4,960 second-feet Oct. 1 (gage height, 12.14 feet); no flow June 26 to Aug. 18.

1939-42: Maximum discharge, 13,900 second-feet Apr. 27, 1941 (gage height, 16.81 feet), from rating curve extended above 8,000 second-feet; no flow at times.

Maximum stage known, 29.1 feet, July 23, 1938, present site and datum (discharge at site 5 miles downstream, 86,000 second-feet, by slope-area method).

Remarks.- Records fair. No diversions above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	348	6.8	5.6	5.6	4.6	4.8	2.9	4.4	0.4		0	1.3
2	937	6.4	5.6	5.6	4.6	4.5	2.5	4.2	.3		0	.7
3	166	6.3	5.6	5.7	4.7	4.6	2.7	4.2	.2		0	.5
4	296	6.7	5.7	6.0	4.9	4.8	2.7	3.8	.1		0	.4
5	1,090	7.3	5.8	6.4	4.7	4.5	2.6	3.6	.5		0	.7
6	f211	6.3	5.1	5.7	4.7	4.4	36	3.5	.6		0	6.4
7	f91	5.7	5.1	5.7	4.7	4.2	46	3.7	1.0		0	11
8	43	5.2	6.4	5.9	4.8	3.8	259	3.8	7.4		0	42
9	27	5.0	6.2	5.8	4.7	3.8	37	3.8	1.9		0	47
10	19	4.9	6.3	5.8	4.2	3.8	16	3.8	1.0		0	31
11	16	4.8	6.0	5.8	4.3	3.8	10	3.7	.5		0	21
12	14	4.6	9.1	5.7	4.2	3.7	8.3	3.5	.3		0	15
13	12	4.5	8.1	5.4	4.3	3.8	10	3.1	.2		0	11
14	10	4.6	7.6	5.6	4.6	3.8	6.2	2.7	.1		0	8.0
15	13	4.4	7.2	5.4	4.3	4.2	5.6	2.2	.1		0	5.7
16	14	4.9	7.8	5.6	4.4	4.4	4.8	2.4	.1		0	3.8
17	11	4.8	8.0	5.5	4.1	4.0	4.3	2.4	.1		0	2.4
18	9.9	5.0	7.4	5.6	3.5	3.8	4.7	2.5	.1		1.9	1.5
19	10	5.2	7.3	5.4	3.4	3.8	6.7	2.3	.1		.8	.8
20	11	4.9	6.8	5.2	3.5	3.7	136	2.3	.1		.4	.6
21	8.8	5.1	6.8	5.1	3.3	3.8	40	2.2	.1		.5	.4
22	7.7	6.6	6.9	5.0	3.5	3.6	12	2.2	.1		.8	.4
23	7.2	6.9	6.5	4.9	3.7	3.7	33	4.3	.1		1.4	.3
24	6.9	6.4	6.4	4.9	3.7	3.7	127	3.4	.1		305	.2
25	6.7	6.2	6.3	4.8	3.8	4.0	51	2.7	.1		50	.2
26	6.0	5.3	5.9	4.8	3.9	3.6	12	2.3	0		20	.2
27	5.2	5.6	5.9	4.6	3.6	3.3	8.4	2.0	0		10	.2
28	5.0	5.9	5.9	4.5	3.7	3.1	6.7	1.4	0		5.7	.1
29	4.9	6.0	5.9	4.5	-	3.0	5.7	1.1	0		3.4	.1
30	5.7	5.7	5.9	4.9	-	3.1	5.0	.9	0		2.5	.1
31	6.7	-	5.9	4.6	-	3.1	-	.7	-		2.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,419.7	1,090	4.9	110	6,780
November	166.0	7.3	4.4	5.60	333
December	203.0	9.1	5.1	6.55	403
Calendar year 1941	16,766.5	4,670	.1	45.9	33,250
January	166.0	6.4	4.5	5.35	329
February	116.4	4.9	3.5	4.16	231
March	120.2	4.8	3.0	3.88	238
April	904.8	259	2.5	30.2	1,790
May	89.3	4.4	.7	2.88	177
June	15.4	7.4	0	.51	31
July	0	0	0	0	0
August	404.4	305	0	13.0	802
September	213.0	47	.1	7.10	422
Water year 1941-42	5,820.2	1,090	0	15.9	11,540

Peak discharge.- Oct. 1 (11:30 p.m.) 4,960 sec.-ft.; Oct. 5 (5:30 p.m.) 2,240 sec.-ft.
f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

556253 O - 43 - 9

North Llano River near Junction, Tex.

Location.- Water-stage recorder, lat. 30°30', long. 99°47', about 1,000 feet above remains of old Wilson Dam, 3 miles northwest of Junction, Kimble County, and 4 miles upstream from confluence with South Llano River. Datum of gage is 1,699.9 feet above mean sea level, datum of 1929.

Drainage area.- 914 square miles.

Records available.- September 1915 to September 1942.

Average discharge.- 27 years, 79.2 second-feet.

Extremes.- Maximum discharge during year, 37,200 second-feet Aug. 22 (gage height, 16.52 feet); minimum, 1.7 second-feet Aug. 9-11, 14-16.
1915-42: Maximum discharge, 94,800 second-feet Sept. 16, 1936 (gage height, 29.2 feet, present site, based on gage-height relation curve), by slope-area method; no flow at times.

Remarks.- Records good except those above 1,000 second-feet, which are poor. Diversions for irrigation reduce low flow materially.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	38	28	24	19	18	11	19	9.9	3.6	2.2	199
2	27	36	27	24	19	17	11	17	9.0	3.9	2.0	102
3	29	35	27	24	19	17	11	17	8.6	5.2	2.0	1,590
4	29	34	26	24	19	17	11	15	8.0	4.2	2.0	809
5	28	34	26	24	19	17	10	15	11	3.9	1.8	208
6	28	30	26	24	19	17	10	14	9.4	3.9	1.8	129
7	27	29	25	24	19	16	f10	23	8.6	3.9	1.8	374
8	26	29	25	25	19	15	f24	24	9.0	3.9	1.8	1,920
9	25	29	25	24	19	15	23	20	8.6	3.6	1.8	280
10	35	29	26	24	17	15	21	18	8.3	3.6	1.8	184
11	32	29	28	24	17	15	19	17	7.6	3.3	2.0	156
12	32	28	29	24	18	15	18	17	6.9	3.1	2.6	139
13	32	27	29	24	19	14	17	15	6.9	3.1	2.0	132
14	32	27	28	24	19	14	16	15	6.6	3.1	1.8	122
15	35	27	27	24	19	14	15	13	6.2	3.1	1.7	114
16	44	26	27	24	19	14	15	13	5.2	3.1	1.7	106
17	42	26	27	24	19	13	15	12	5.0	3.1	1.8	99
18	40	26	27	23	18	13	15	12	4.7	2.8	2.4	92
19	a40	26	26	22	18	13	15	11	4.7	2.8	2.6	86
20	a40	26	26	22	18	13	20	11	4.4	2.6	2.2	97
21	a41	26	26	22	18	13	23	11	4.4	2.6	2.4	118
22	a41	32	26	22	18	12	19	10	4.2	2.8	6,470	89
23	a41	28	25	21	17	12	44	14	4.2	2.8	1,390	80
24	41	28	24	21	17	12	38	15	3.9	2.6	195	75
25	44	28	24	21	17	12	35	15	3.6	2.6	142	71
26	41	28	24	21	17	12	28	14	3.6	2.6	106	66
27	38	28	24	21	17	12	25	13	3.3	2.6	86	64
28	35	27	24	21	17	12	24	12	3.3	2.6	77	60
29	35	27	24	20	-	12	22	11	3.3	2.6	69	58
30	38	27	24	20	-	12	20	11	3.3	2.6	66	58
31	41	-	24	20	-	11	-	10	-	2.4	219	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,086	44	25	35.0	2,150
November	870	38	26	29.0	1,730
December	804	29	24	25.9	1,590
Calendar year 1941	17,642	1,410	12	48.3	34,990
January	706	25	20	22.8	1,400
February	510	19	17	18.2	1,010
March	433	18	11	14.0	859
April	585	44	10	19.5	1,160
May	454	24	10	14.6	900
June	185.7	11	3.3	6.19	368
July	98.6	5.2	2.4	3.18	196
August	8,862.2	6,470	1.7	286	17,580
September	7,677	1,920	58	256	15,230
Water year 1941-42	22,271.5	6,470	1.7	61.0	44,170

Peak discharge.- Aug. 22 (3:30 p.m.) 37,200 sec.-ft.; Sept. 3 (1 p.m.) 6,560 sec.-ft.; Sept. 7 (11:30 p.m.) 6,560 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage and weather records.
f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Llano River near Junction, Tex.

Location.- Water-stage recorder, lat. 30°30', long. 99°44', 960 feet upstream from bridge on Junction-Mason county road, 2 miles downstream from confluence of North Llano and South Llano Rivers, and 2½ miles east of Junction, Kimble County. Datum of gage is 1,636.32 feet above mean sea level, datum of 1929.

Drainage area.- 1,762 square miles.

Records available.- September 1915 to September 1942.

Average discharge.- 27 years, 232 second-feet.

Extremes.- Maximum discharge during year, 43,000 second-feet Aug. 22 (gage height, 20.05 feet); minimum, 36 second-feet June 30.
1915-42: Maximum discharge, 319,000 second-feet June 14, 1935 (gage height, 41.4 feet, present site and datum, from floodmarks), by slope-area method; minimum, 13 second-feet Aug. 23-28, 1918.

Remarks.- Records good. About 2,500 acres above and 1,300 acres below station have been declared irrigated. Diversions slightly reduce low flow. Slight regulation by power plant on South Llano River.

Dischsrge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	97	126	97	89	78	76	60	109	71	44	45	1,960
2	97	122	95	89	78	74	60	105	69	52	44	439
3	102	118	95	87	78	73	60	104	70	65	44	1,430
4	109	114	94	89	78	73	58	98	68	62	44	1,090
5	113	113	94	89	78	73	58	95	78	61	44	393
6	113	111	92	89	77	73	61	92	76	61	43	264
7	a113	109	92	89	76	70	67	116	77	61	43	246
8	a113	109	94	89	76	70	73	490	67	60	43	2,540
9	a113	107	95	89	76	69	73	223	69	57	43	1,060
10	a122	107	95	89	76	69	69	168	67	54	43	454
11	a139	105	100	89	77	67	67	158	66	52	45	336
12	a126	104	95	89	78	67	65	147	64	50	57	288
13	118	104	95	89	77	66	64	137	61	49	62	270
14	113	104	92	89	78	65	64	122	60	49	56	261
15	111	104	92	89	78	65	61	113	61	49	52	249
16	118	102	92	89	80	65	61	105	60	48	53	243
17	118	100	90	89	76	64	61	102	58	47	58	232
18	114	100	89	87	74	64	61	100	57	47	76	215
19	113	100	89	84	73	62	66	98	56	47	89	201
20	109	100	89	84	74	62	108	95	54	47	80	g201
21	109	100	89	84	74	62	116	90	54	47	76	g212
22	107	109	89	83	74	61	90	92	53	48	8,290	196
23	109	107	87	83	74	62	129	92	54	49	2,090	182
24	141	98	86	83	73	62	230	90	53	49	442	175
25	229	97	86	81	73	62	214	89	52	48	304	170
26	168	97	86	81	73	62	158	84	50	48	240	168
27	141	97	87	80	73	61	143	81	50	49	209	160
28	128	97	87	80	74	61	133	78	49	52	188	156
29	124	97	87	80	-	60	122	77	49	50	168	154
30	131	95	89	80	-	61	114	76	47	48	162	152
31	135	-	89	78	-	61	-	73	-	47	318	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,793	229	97	122	7,520
November	3,153	126	95	105	6,250
December	2,828	100	86	91.2	5,610
Calendar year 1941	46,551	2,070	66	128	92,320
January	2,659	89	78	85.8	5,270
February	2,124	80	73	75.9	4,210
March	2,042	76	60	65.9	4,050
April	2,766	230	58	92.2	5,490
May	3,699	490	73	119	7,340
June	1,820	78	47	60.7	3,610
July	1,597	65	44	51.5	3,170
August	13,551	8,290	43	437	26,880
September	14,097	2,540	152	470	27,960
Water year 1941-42	54,129	8,290	43	148	107,400

Peak discharge.- Aug. 22 (6 p.m.) 43,000 sec.-ft.; Sept. 3 (2 p.m.) 4,530 sec.-ft.; Sept. 8 (3 p.m.) 4,360 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage and weather records.

g Computed from graph based on gage readings.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Llano River at Llano, Tex.

Location.- Water-stage recorder, lat. 30°45', long. 98°40', in Llano, Llano County, 0.4 mile downstream from bridge on State Highway 81 and 7 miles upstream from Little Llano River. Datum of gage is 970.0 feet above mean sea level, datum of 1929.

Drainage area.- 4,000 square miles.

Records available.- September 1939 to September 1942.

Extremes.- Maximum discharge during year, 23,400 second-feet Aug. 23 (gage height, 11.22 feet), from rating curve extended above 13,000 second-feet; minimum, 3.6 second-feet (regulated) Aug. 5-7; minimum daily, 12 second-feet Aug. 7.

1939-42: Maximum discharge, 28,200 second-feet June 20, 1940 (gage height, 12.90 feet), from rating curve extended above 13,000 second-feet; minimum, that of Aug. 5-7, 1942.

Maximum stage known, 41.5 feet June 14, 1935, from information by local resident.

Remarks.- Records fair except those below 100 second-feet, which are poor. Low flow regulated by power plant half a mile upstream. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	174	336	182	163	124	132	85	352	131	73	30	205
2	198	300	189	159	119	143	93	300	124	70	28	1,120
3	414	275	188	155	117	150	99	280	104	101	19	1,010
4	4,630	257	173	155	150	134	85	262	99	136	25	748
5	1,950	239	187	155	128	123	94	244	275	82	27	1,470
6	679	230	183	151	122	119	97	230	1,600	110	32	791
7	441	226	171	155	122	117	112	1,590	723	104	12	488
8	364	221	158	155	124	98	293	1,580	456	94	32	608
9	310	217	175	155	130	122	244	1,500	386	84	20	2,440
10	3,770	217	179	155	135	102	187	872	244	83	16	1,700
11	2,160	217	204	155	131	111	144	562	193	74	40	897
12	858	213	204	155	133	109	131	413	202	62	36	587
13	581	200	208	155	108	96	105	374	151	60	32	467
14	453	197	200	155	156	111	129	425	105	53	18	404
15	396	204	191	159	143	107	97	315	121	61	25	362
16	508	189	187	159	157	86	97	207	89	52	20	330
17	396	200	183	159	153	122	91	244	110	54	43	305
18	347	192	179	155	139	89	99	226	93	36	63	274
19	320	192	179	151	141	83	295	217	85	39	644	262
20	305	217	179	147	125	110	750	208	70	44	317	250
21	290	201	179	143	120	96	465	200	94	35	189	232
22	275	221	183	138	131	83	270	187	71	39	218	227
23	285	234	175	147	136	98	1,980	204	67	51	8,970	238
24	674	230	167	136	130	88	5,000	352	69	38	2,570	250
25	1,010	217	159	128	116	99	3,930	301	68	31	988	227
26	566	213	151	127	124	93	1,720	213	60	43	604	216
27	408	208	151	114	113	93	1,270	182	62	37	411	193
28	342	200	147	139	123	99	1,300	167	73	35	305	200
29	295	201	151	125	-	83	697	154	52	51	244	179
30	295	199	151	106	-	93	471	140	40	33	216	179
31	336	-	155	137	-	96	-	133	-	37	216	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	24,030	4,630	174	775	47,660
November	6,663	336	189	222	13,220
December	5,468	208	147	176	10,850
Calendar year 1941	180,774	10,300	54	495	358,600
January	4,548	163	106	147	9,020
February	3,650	157	108	130	7,240
March	3,285	150	83	106	6,520
April	20,430	5,000	85	681	40,520
May	12,634	1,590	133	408	25,060
June	6,017	1,600	40	201	11,930
July	1,902	136	31	61.4	3,770
August	16,410	8,970	12	529	32,550
September	16,859	2,440	179	562	33,440
Water year 1941-42	121,896	8,970	12	334	241,800

Peak discharge.- Oct. 4 (7 p.m.) 9,750 sec.-ft.; Oct. 10 (11 a.m.) 9,100 sec.-ft.; Apr. 23 (9:30 p.m.) 8,220 sec.-ft.; Aug. 23 (10 a.m.) 23,400 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Pedernales River near Johnson City, Tex.

Location.- Water-stage recorder, lat. 30°18', long. 98°24', on bridge on U. S. Highway 281, 1.5 miles north of Johnson City, Blanco County, and 1.9 miles downstream from Buffalo Creek. Datum of gage is 1,096.6 feet above mean sea level, unadjusted.

Drainage area.- 947 square miles.

Records available.- May 1939 to September 1942.

Extremes.- Maximum discharge during year, 26,600 second-feet Aug. 22 (gage height, 14.10 feet), from rating curve extended above 12,000 second-feet on basis of slope-area determination at gage height 17.53 feet; minimum, 5.0 second-feet Aug. 9-11, 15, 16. 1939-42: Maximum discharge, 42,900 second-feet Oct. 25, 1939 (gage height, 17.53 feet, from floodmark), by slope-area method; minimum, 1.2 second-feet Oct. 1-3, 1939. Maximum stage known, 33 feet in July 1869, from information by local residents.

Remarks.- Records good. No diversion for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	70	56	46	42	46	35	70	31	9.4	7.4	52
2	34	70	56	46	42	46	37	66	28	9.8	7.1	32
3	45	66	54	46	42	46	34	64	26	11	6.8	25
4	1,310	62	54	45	43	45	34	60	24	14	6.5	23
5	2,340	58	54	45	43	43	35	56	191	31	6.5	357
6	290	56	52	45	42	42	37	52	459	598	5.9	110
7	168	54	52	46	42	38	54	80	142	357	5.9	221
8	126	54	52	46	43	37	148	220	78	95	5.6	783
9	123	54	54	46	43	37	126	168	64	50	5.3	340
10	563	54	56	46	43	37	90	117	48	32	5.0	129
11	777	54	66	46	46	37	66	92	42	24	5.0	82
12	218	50	66	46	46	37	54	87	38	20	26	60
13	139	50	62	46	43	37	48	82	40	18	8.0	50
14	112	50	60	48	46	35	45	78	29	16	6.2	52
15	98	50	60	48	48	37	43	66	25	15	5.3	43
16	92	50	56	48	56	37	42	60	23	13	5.6	37
17	87	50	56	50	54	35	42	56	21	12	5.9	34
18	82	52	54	48	48	34	42	54	19	11	25	31
19	78	54	54	48	45	34	43	60	18	11	134	26
20	73	54	54	46	43	34	116	64	17	9.8	30	41
21	70	54	56	45	43	32	103	66	15	9.4	16	60
22	68	66	56	43	43	34	70	52	15	13	6,720	43
23	75	73	52	43	42	34	66	46	14	14	962	42
24	80	68	52	43	38	34	2,080	116	14	9.8	183	34
25	73	62	50	45	40	37	501	263	13	8.9	98	28
26	68	58	50	45	38	35	238	64	12	8.9	64	25
27	62	58	50	43	38	35	130	50	12	8.9	46	22
28	60	58	50	43	40	35	100	42	11	8.4	37	21
29	60	58	50	42	-	35	87	40	10	8.4	29	20
30	66	58	46	42	-	34	78	37	9.8	8.0	38	20
31	68	-	46	42	-	35	-	34	-	7.4	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,540	2,340	34	243	14,960
November	1,725	73	50	57.5	3,420
December	1,686	66	46	54.4	3,340
Calendar year 1941	122,712	8,680	21	336	243,400
January	1,407	50	42	45.4	2,790
February	1,222	56	38	43.6	2,420
March	1,154	46	32	37.2	2,290
April	4,624	2,080	34	154	9,170
May	2,462	263	34	79.4	4,880
June	1,488.8	459	9.8	49.6	2,950
July	1,462.1	598	7.4	47.2	2,900
August	8,566	6,720	5.0	276	16,990
September	2,843	783	20	94.8	5,640
Water year 1941-42	36,179.9	6,720	5.0	99.1	71,750

Peak discharge.- Oct. 5 (2 a.m.) 8,380 sec.-ft.; Apr. 24 (1:30 a.m.) 5,700 sec.-ft.; Aug. 22 (1 p.m.) 26,600 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Barton Springs at Austin, Tex.

Location.- Lat. 30°16', long. 97°46'. Springs issue from channel and along banks of Barton Creek for a distance of 1,000 feet in Zilker Park at Austin, Travis County. The main spring is near right bank of creek 500 feet upstream from concrete dam forming swimming pool, 1,800 feet upstream from bridge on Austin-Bee Cave highway, and 0.6 mile upstream from mouth of Barton Creek.

Records available.- October 1918 to September 1926 and October 1940 to September 1942. November 1894 to September 1918, October 1926 to September 1940, discharge published as miscellaneous measurements. Daily discharge record of Barton Creek at Austin published for period April 1917 to September 1918 closely represents the flow of Barton Springs. Summary of all discharge measurements prior to October 1937 is contained in Water-Supply Paper 850.

Extremes.- Maximum discharge measured during year, 56.2 second-feet Oct. 29; minimum measured, 25.4 second-feet Mar. 21.
1894-1942: Maximum discharge measured, 166 second-feet May 10, 1941; minimum measured, 12.1 second-feet Feb. 26, 1918.

Remarks.- Discharge measurements represent total flow of springs including Old Mill Spring which is on right bank and about 1,000 feet downstream from main spring. Flow of springs emerges from Edwards limestone outcrop in Balcones fault zone and responds to local rainfall on Edwards Plateau. Water used for recreational purposes.

Discharge measurements, in second-feet, of Barton Creek and determination of discharge of Barton Springs, water year October 1941 to September 1942

Date	Barton Creek below springs	Barton Creek above springs	Barton Springs
Oct. 29	56.2	0	56.2
Nov. 29	45.2	0	45.2
Jan. 2	38.5	0	38.5
26	35.6	0	35.6
Feb. 25	a34.0	0	a34.0
Mar. 21	25.4	0	25.4
Apr. 10	96.6	48.0	48.6
May 4	52.4	b.4	52.0
20	c45.6	0	c45.6
June 19	27.8	0	27.8
July 15	31.0	0	31.0
Aug. 13	25.6	0	25.6
Sept. 22	50.6	0	50.6

a Old Mill Spring not flowing.
b Estimated.
c Includes estimated 3.6 second-feet from Old Mill Spring.

Dry Creek at Buescher Lake near Smithville, Tex.

Location.- Water-stage recorder above concrete spillway of dam, lat. 30°03', long. 97°09', in Bastrop-Buescher State Park, 1.9 miles upstream from mouth and 2.2 miles north of Smithville, Bastrop County. Datum of gage is 327.9 feet above mean sea level, datum of 1929.

Drainage area.- 1.48 square miles (area above dam).

Records available.- October 1939 to September 1942.

Extremes.- Maximum discharge during year, 670 second-feet Oct. 30 (no flow passed over spillway); maximum gage height, 21.34 feet Oct. 31; no flow at times.
1939-42: Maximum discharge, 1,870 second-feet June 30, 1940 (gage height, 24.82 feet); maximum gage height, 24.96 feet June 30, 1940; no flow at times.

Remarks.- Records fair. They represent flow into Buescher Lake. No flow from area except during and immediately following precipitation. Discharge below gage height 22.27 feet (spillway crest) determined from change in contents in lake; that above gage height 22.27 feet determined by algebraic summation of flow over spillway (computed from spillway curve) and change in contents in lake (computed from capacity curve and reduced to equivalent second-feet). There was no flow over spillway during year. No adjustments made for evaporation or seepage losses. Capacity of lake, 255 acre-feet. No diversions above station or from lake.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0		0			0.6	0	0	0	0		0
2	0		0			0	0	0	0	0		0
3	0		0			0	0	0	0	0		0
4	0		0			0	0	0	0	0		.8
5	0		0			0	0	0	0	9.6		0
6	0		0			0	0	0	0	2.8		0
7	0		0			0	.8	0	0	0		0
8	0		0			0	6.8	0	0	0		.8
9	0		0			0	0	0	0	0		0
10	0		.4			0	0	0	0	0		0
11	0		.4			0	0	0	0	0		0
12	0		0			0	0	0	0	0		0
13	0		0			0	0	0	0	0		0
14	0		0			0	0	0	0	0		0
15	0		0			0	0	0	.8	0		0
16	0		0			0	0	0	0	0		0
17	0		0			0	0	0	0	0		0
18	0		0			0	0	.2	0	0		0
19	0		0			0	0	.4	0	0		0
20	0		0			0	0	0	0	0		0
21	0		0			0	0	0	0	0		0
22	0		0			0	0	0	0	0		0
23	0		0			0	7.1	0	0	0		0
24	0		0			0	7.5	0	0	0		0
25	0		0			0	0	0	0	0		0
26	0		0			0	0	0	0	0		0
27	0		0			0	0	0	0	0		0
28	0		0			0	0	0	0	0		0
29	0		0			0	0	0	0	0		0
30	40		0			0	0	0	0	0		0
31	1.8		0			0	-	0	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	41.8	40	0	1.35	83
November	0	0	0	0	0
December	.8	.4	0	.03	1.6
Calendar year 1941	415.6	60	0	1.14	825
January	0	0	0	0	0
February	0	0	0	0	0
March	.6	.6	0	.02	1.2
April	22.2	7.5	0	.74	44
May	.6	.4	0	.02	1.2
June	.8	.8	0	.03	1.6
July	12.4	9.6	0	.40	25
August	0	0	0	0	0
September	1.6	.8	0	.05	3.2
Water year 1941-42	80.8	40	0	.22	161

Note.- No gage-height record Oct. 1-9, July 8-21, Aug. 8-24, Sept. 2-14, 27-30; discharge computed on basis of known change in stage and two local rainfall gage records.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Lavaca River near Edna, Tex.

Location.- Wire-weight gage, lat. 28°58', long. 96°42', on bridge on U. S. Highway 96, 550 feet upstream from Texas & New Orleans Railroad bridge, and 2.8 miles southwest of Edna, Jackson County. Datum of gage is 13.88 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 887 square miles.

Records available.- August 1938 to September 1942.

Extremes.- Maximum discharge observed during year, 12,800 second-feet Apr. 10; maximum gage height observed, 23.77 feet July 8; minimum discharge observed, 26 second-feet Aug. 16.

1938-42: Maximum discharge, 73,000 second-feet July 1, 1940 (gage height, 32.51 feet), minimum observed, 5.2 second-feet July 10, 1939.

Maximum stage known, 33.8 feet May 25, 1936, from information by local resident (discharge, 83,400 second-feet).

Remarks.- Records good. Gage read twice daily, more often during high stages. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	63	2,510	86	78	60	235	46	145	a50	29	60	78
2	104	975	84	78	60	235	46	134	a49	36	53	293
3	79	315	82	78	59	172	46	126	47	144	55	129
4	94	242	81	74	60	120	46	120	47	474	49	86
5	114	270	79	72	60	101	46	114	45	1,720	46	73
6	96	175	75	62	61	86	47	113	54	3,980	72	192
7	78	150	73	91	64	78	48	108	58	8,770	58	459
8	70	133	72	83	68	70	3,070	104	57	11,200	43	385
9	138	122	70	82	120	64	6,230	103	101	c2,900	39	1,460
10	151	114	73	81	81	63	c10,200	105	61	564	36	1,960
11	114	109	255	78	99	60	c989	98	64	369	32	1,060
12	81	101	179	77	79	60	c361	92	55	285	30	345
13	68	98	189	74	75	61	235	91	52	249	30	221
14	65	91	127	75	78	60	228	91	49	207	27	164
15	922	88	107	73	278	60	207	86	59	169	27	133
16	494	88	94	73	143	59	189	81	51	148	26	114
17	168	87	88	73	98	58	176	77	47	136	29	104
18	112	86	86	73	82	55	169	75	47	130	33	96
19	84	84	84	73	72	54	158	75	42	116	32	88
20	72	90	84	73	64	53	152	79	40	124	174	81
21	64	104	83	70	58	53	150	77	38	120	160	209
22	59	235	88	66	57	51	137	78	160	114	78	198
23	57	285	94	65	60	52	127	68	87	469	39	91
24	58	200	94	65	57	51	302	64	40	305	37	72
25	87	127	92	65	59	51	2,780	64	40	110	64	64
26	87	107	82	65	57	54	500	61	36	81	190	61
27	65	100	81	65	51	53	285	61	33	70	72	54
28	108	96	75	64	49	53	221	57	31	91	48	51
29	72	94	73	63	-	51	183	55	29	68	39	47
30	165	88	73	64	-	48	162	a53	29	75	58	45
31	937	-	75	60	-	47	-	a52	-	63	83	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,926	937	57	159	9,770
November	7,364	2,510	84	245	14,610
December	2,978	255	70	96.1	5,910
Calendar year 1941	295,274	17,400	57	809	585,700
January	2,243	91	60	72.4	4,450
February	2,209	278	49	78.9	4,380
March	2,368	235	47	76.4	4,700
April	27,586	10,200	46	920	54,720
May	2,707	145	52	87.3	5,370
June	1,598	160	29	53.3	3,170
July	33,316	11,200	29	1,075	666,080
August	1,819	190	26	58.7	3,610
September	8,413	1,960	45	280	16,690
Water year 1941-42	97,527	11,200	26	267	193,500

a No gage-height record; discharge interpolated.

c Stage-discharge relation affected by backwater from return flow downstream; discharge computed from backwater curve based on discharge measurements made following floods exceeding about 12,000 second-feet.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Navidad River near Ganado, Tex.

Location.- Wire-weight gage, lat. 29°02', long. 96°33', on bridge on U. S. Highway 96, 100 feet upstream from Texas & New Orleans Railroad bridge, a quarter of a mile downstream from Sandy Creek, and 2¾ miles southwest of Ganado, Jackson County. Datum of gage is 13.62 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 1,116 square miles.

Records available.- May 1939 to September 1942.

Extremes.- Maximum discharge observed during year, 12,900 second-feet Apr. 11; maximum gage height observed, 28.05 feet July 8; minimum observed, 37 second-feet Apr. 7.

1939-42: Maximum discharge, 64,500 second-feet July 2, Nov. 26, 1940; maximum gage height, 36.54 feet July 2, 1940, from floodmark; minimum observed, 4.0 second-feet Nov. 1, 1939.

Maximum stage known, 39.8 feet May 27, 1936, from information by engineers of Texas & New Orleans Railroad (discharge, 94,000 second-feet, from rating curve extended above 60,000 second-feet).

Remarks.- Records good. Gage read twice daily, more often during high stages. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	7,090	80	71	57	527	45	164	49	109	111	159
2	66	5,240	75	73	57	790	46	148	53	134	109	193
3	297	1,720	71	72	55	452	46	138	49	189	105	204
4	904	710	67	70	55	226	47	130	49	800	116	333
5	286	452	64	68	57	183	47	124	46	3,290	111	301
6	162	286	61	83	55	159	43	120	65	6,340	109	366
7	120	197	60	151	59	122	38	112	234	9,830	113	721
8	101	143	59	109	62	92	1,570	94	301	11,100	100	730
9	120	117	58	92	95	72	5,090	117	140	c9,350	95	1,070
10	204	102	126	82	134	64	8,170	120	89	c4,600	87	1,480
11	159	87	619	77	144	61	11,800	107	70	c1,330	75	1,140
12	94	78	1,410	68	91	58	c6,000	98	62	650	70	775
13	74	73	934	68	79	56	c670	92	52	408	64	470
14	66	69	542	66	171	58	374	92	52	294	59	256
15	620	65	333	66	810	55	294	88	161	241	59	159
16	4,450	63	248	65	452	54	301	82	1,000	226	68	143
17	3,900	61	191	64	256	52	226	82	470	190	104	136
18	1,400	60	157	62	121	50	211	76	241	186	256	135
19	511	60	136	73	86	50	194	75	134	157	317	105
20	241	67	118	65	70	49	189	88	101	152	241	86
21	146	127	106	68	63	48	183	76	90	184	264	84
22	130	241	106	60	61	48	164	74	116	271	197	134
23	101	309	120	60	59	48	159	70	98	278	384	90
24	82	241	124	60	52	47	260	69	86	197	444	80
25	72	135	a108	59	53	48	2,580	63	84	111	184	63
26	68	101	91	62	51	49	2,240	60	74	95	234	55
27	65	86	86	60	48	48	498	57	72	89	226	60
28	107	76	77	61	48	49	294	58	80	85	218	65
29	146	70	74	61	-	50	226	58	67	91	164	67
30	783	78	71	60	-	50	189	55	52	90	116	56
31	4,630	-	70	57	-	46	-	50	-	109	124	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	20,230	4,630	65	653	40,130
November	18,204	7,090	60	607	36,110
December	6,442	1,410	58	208	12,780
Calendar year 1941	426,615	16,500	58	1,169	846,200
January	2,233	151	57	72.0	4,430
February	3,401	810	48	121	6,750
March	3,761	790	46	121	7,460
April	42,194	11,800	38	1,406	83,690
May	2,837	164	50	91.5	5,630
June	4,237	1,000	46	141	8,400
July	51,176	11,100	85	1,651	101,500
August	4,924	444	59	159	9,770
September	9,718	1,480	55	324	19,280
Water year 1941-42	169,357	11,800	38	464	335,900

a No gage-height record; discharge interpolated.

c Stage-discharge relation affected by backwater from return flow downstream; discharge computed from backwater curve based on discharge measurements made following floods exceeding about 10,000 second-feet.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Guadalupe River at Hunt, Tex.

Location.- Water-stage recorder and concrete control, lat. 30°03', long. 99°19', at bridge on State Highway 39, half a mile downstream from confluence of North and South Forks, 0.6 mile east of Hunt, Kerr County. Datum of gage is 1,722.7 feet above mean sea level, datum of 1929.

Drainage area.- About 370 square miles.

Records available.- October 1941 to September 1942.

Extremes.- Maximum gage height, 9.00 feet from floodmark, May 7 (discharge not determined); minimum discharge, 28 second-feet Aug. 5, 15.
Maximum stage known, 36.6 feet July 2, 1932, from information by local resident.

Remarks.- Records excellent. Discharge not computed above 600 second-feet. About 60 acres above station are irrigated.

Rating table, Oct. 17, 1941 to Sept. 30, 1942
(gage height, in feet, and discharge, in second-feet)

0.9	25	1.6	105	2.4	234
1.0	34	1.8	135	2.6	271
1.2	54	2.0	166		
1.4	78	2.2	199		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	60	51	46	42	46	38	78	65	42	30	48
2	-	59	51	45	42	44	38	76	62	51	30	42
3	-	58	51	46	43	41	38	73	62	51	30	39
4	-	56	50	45	44	41	38	68	61	50	29	38
5	-	55	50	45	44	41	38	65	62	48	30	38
6	-	54	48	45	43	40	39	62	65	51	31	38
7	-	54	48	45	42	40	43	(e)	65	53	32	40
8	-	54	50	44	42	39	51	(e)	62	47	31	93
9	-	54	48	44	45	39	44	229	59	44	31	84
10	-	54	50	44	45	42	39	184	58	41	31	65
11	-	53	53	44	45	39	38	163	55	39	30	54
12	-	52	52	44	44	40	37	150	53	38	30	48
13	-	52	50	44	43	40	37	136	52	38	30	46
14	-	52	48	46	46	39	38	123	51	38	29	45
15	-	52	48	50	48	40	37	112	51	37	29	44
16	-	52	48	46	47	40	37	110	51	36	31	43
17	66	53	48	45	44	39	37	104	48	36	52	43
18	66	53	48	45	42	38	37	101	47	36	65	43
19	66	53	48	44	41	38	(e)	144	45	35	66	41
20	65	52	51	43	42	39	238	122	46	34	50	42
21	65	53	51	43	42	38	138	106	46	34	46	43
22	64	59	51	43	42	38	106	95	45	33	55	41
23	62	54	47	43	43	38	99	90	45	34	55	40
24	62	51	46	43	41	38	168	86	45	33	44	39
25	62	50	46	43	41	41	271	82	44	32	41	39
26	61	52	46	43	41	40	148	81	43	32	39	38
27	60	52	46	43	40	38	117	67	43	33	37	38
28	58	52	46	43	40	37	101	77	41	32	36	38
29	59	51	45	43	-	37	91	72	41	30	36	38
30	66	51	46	43	-	37	84	66	41	30	38	38
31	66	-	46	42	-	38	-	68	-	30	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 17-31	948	66	58	63.2	1,880
November	1,607	60	50	53.6	3,190
December	1,507	53	45	48.6	2,990
Calendar year	-	-	-	-	-
January	1,372	50	42	44.3	2,720
February	1,204	48	40	43.0	2,390
March	1,225	46	37	39.5	2,430
April	-	-	37	-	-
May	-	-	62	-	-
June	1,554	65	41	51.8	3,080
July	1,198	53	30	38.6	2,380
August	1,203	66	29	38.8	2,390
September	1,366	93	38	45.5	2,710
Water year	-	-	-	-	-

e Discharge not computed above 600 second-feet.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Guadalupe River at Comfort, Tex.

Location.- Water-stage recorder, lat. 29°58', long. 98°54', at bridge on U. S. Highway 87, a quarter of a mile downstream from Cypress Creek and half a mile east of Comfort, Kendall County. Datum of gage is 1,372.0 feet above mean sea level, datum of 1929.

Drainage area.- About 990 square miles.

Records available.- May 1939 to September 1942. December 1917 to August 1924, at site 5 miles upstream and August 1924 to September 1932, at site 4 miles upstream. Records published as Guadalupe River near Comfort (records equivalent during flood runoff originating above upper site and during extremely low flow, at which times Cypress Creek contributes no appreciable flow).

Extremes.- Maximum discharge during year not determined; minimum, 53 second-feet Aug. 15.
1917-32, 1939-42: Maximum discharge, 182,000 second-feet July 1, 1932 (gage height, 38.4 feet, present site and datum, from floodmarks, from data furnished by Texas Highway Department), by slope-area method (flood originated above Cypress Creek drainage); minimum observed, 0.4 second-foot Aug. 2, 1918 at site then in use.
Flood of July 16, 1900, reached about the same stage as that of July 1, 1932.

Remarks.- Records good except those for periods of no gage-height record which are fair. Several small diversions above station for irrigation. Slight regulation at low flow by power plants above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	126	188	132	130	113	108	86	336	267	a104		84
2	178	178	132	126	111	115	84	322	251	106		86
3	195	170	130	132	111	108	84	696	242	109	a59	76
4	1,390	165	130	130	113	104	83	436	236	130		73
5	1,290	163	130	130	115	102	83	319	229	161		140
6	526	156	130	128	115	100	86	286	283	152	58	83
7	389	154	130	128	109	98	92	2,780	248	173	58	84
8	336	152	132	128	109	95	143	2,340	236	128	57	226
9	368	152	132	124	113	94	120	1,010	223	117	56	178
10	364	154	139	122	117	95	106	766	204	109	57	150
11	312	156	143	122	118	95	95	674	188	102	56	118
12	286	154	137	124	117	96	90	637		100	56	102
13	261	150	135	124	111	96	86	582		95	54	94
14	242	150	135	126	118	94	88	508		92	54	90
15	229	150	135	128	135	94	88	447		94	54	86
16	239	145	143	130	135	92	83	422		90	58	83
17	232	141	137	128	120	89	88	411		89	61	80
18	214	143	135	124	113	89	84	404		83	66	78
19	232	152	130	120	106	89	1,800	1,780		82	76	77
20	206	145	130	117	106	90	1,200	618		82	83	89
21	201	143	135	118	104	89	876	490	a135	77	212	90
22	198	147	141	117	106	86	350	454			92	82
23	195	147	137	117	106	89	f1,100	414			84	78
24	198	141	132	117	104	86	1,540	389			92	78
25	195	137	132	117	101	89	f2,890	368			83	76
26	188	137	132	117	101	92	748	350		a69	73	76
27	180	141	132	115	100	89	544	336			71	73
28	172	139	132	113	98	83	476	315			68	70
29	170	135	132	113	-	84	407	315			66	70
30	190	135	130	113	-	82	375	299			66	71
31	206	-	132	113	-	84	-	277			77	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,708	1,390	126	313	19,260
November	4,520	188	135	151	8,970
December	4,144	143	130	134	8,220
Calendar year 1941	122,888	6,200	71	337	243,800
January	3,791	130	113	122	7,520
February	3,125	135	98	112	6,200
March	2,896	115	82	93.4	5,740
April	13,975	2,890	83	466	27,720
May	19,781	2,780	277	638	39,240
June	5,172	267	-	172	10,260
July	2,965	173	-	95.6	5,880
August	2,183	212	54	70.4	4,330
September	2,841	226	70	94.7	5,640
Water year 1941-42	75,101	2,890	54	206	149,000

Peak discharge.- Apr. 19 (3:30 p.m.) 6,190 sec.-ft.; May 7 (11 a.m.) 4,390 sec.-ft.; May 19 (4 a.m.) 6,670 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage, engineer's notes, and weather records.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Guadalupe River near Spring Branch, Tex.

Location.- Water-stage recorder, lat. 29°51'40", long. 98°23'00", at bridge on State Highway 46, 4 miles southeast of Spring Branch, Comal County, and 6 miles downstream from Curry Creek. Datum of gage is 948.13 feet above mean sea level, datum of 1929.

Drainage area.- 1,432 square miles.

Records available.- June 1922 to September 1942.

Average discharge.- 20 years, 287 second-feet.

Extremes.- Maximum discharge during year, 13,500 second-feet Sept. 8 (gage height, 16.80 feet); minimum, 63 second-feet Aug. 15, 16.

1922-42: Maximum discharge, 121,000 second-feet July 3,1932 (gage height, 42.10 feet), from rating curve extended above 70,000 second-feet; minimum, 2.2 second-feet July 11, 1939, from rating curve extended below 15 second-feet.

Maximum stage known, between 45 and 50 feet in 1900, from information by local residents.

Remarks.- Records excellent. Small diversions above station for irrigation. Slight regulation at low flow by power plants above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	187	279	196	171	139	136	111	495	368	149	88	104
2	180	272	196	169	136	139	113	450	351	257	86	111
3	219	261	193	169	136	142	115	459	339	193	82	188
4	685	250	187	163	142	142	113	1,370	323	180	80	132
5	1,800	240	160	160	142	142	113	580	315	190	76	117
6	1,090	233	177	157	144	134	111	470	315	290	76	322
7	617	229	171	157	144	132	152	440	347	257	76	355
8	490	223	177	157	142	129	1,680	3,930	327	236	76	3,080
9	440	223	177	155	142	122	265	1,980	315	180	76	2,430
10	436	223	187	155	142	122	216	1,260	297	163	72	555
11	470	219	193	155	142	122	180	985	279	149	71	396
12	396	216	199	155	142	124	166	885	265	139	71	308
13	360	219	196	155	139	126	152	825	247	132	69	261
14	335	216	193	155	144	126	144	753	229	126	67	236
15	315	216	187	157	149	124	136	661	226	124	65	212
16	315	212	187	157	163	124	134	600	219	122	71	203
17	315	209	190	157	166	120	132	570	212	117	106	190
18	315	209	190	160	160	117	132	550	206	115	292	174
19	308	209	187	157	146	115	132	1,250	196	106	129	169
20	308	209	183	152	142	117	1,950	1,510	190	106	106	a180
21	286	212	183	149	139	117	1,250	807	177	104	113	236
22	286	209	183	146	139	113	708	666	171	104	229	196
23	323	209	183	144	139	115	445	612	169	102	196	174
24	347	209	180	144	139	115	2,130	565	166	102	136	163
25	301	206	177	144	136	122	3,940	525	163	100	124	157
26	290	199	171	144	134	120	2,090	500	155	96	132	155
27	279	199	171	144	132	120	918	480	152	96	115	146
28	261	199	169	144	129	117	705	455	146	96	104	144
29	254	203	169	142	-	115	606	432	142	94	98	144
30	257	199	169	142	-	113	535	422	136	92	100	142
31	265	-	171	142	-	115	-	400	-	90	111	142

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	12,730	1,800	180	411	25,250
November	6,611	279	199	220	13,110
December	5,672	199	169	183	11,250
Calendar year 1941	244,612	9,620	104	670	485,100
January	4,758	171	142	153	9,440
February	3,989	166	129	142	7,910
March	3,837	142	113	124	7,610
April	19,574	3,940	111	652	38,820
May	25,887	3,930	400	835	51,350
June	7,143	368	136	238	14,170
July	4,409	290	90	142	8,750
August	3,293	292	65	106	6,530
September	11,380	3,080	104	379	22,570
Water year 1941-42	109,283	3,940	65	299	216,800

Peak discharge.- Apr. 8 (3 a.m.) 6,480 sec.-ft.; Apr. 25 (11:30 p.m.) 5,850 sec.-ft.; May 8 (9 a.m.) 4,590 sec.-ft.; Sept. 8 (11:30 p.m.) 13,500 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage and weather records.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Guadalupe River above Comal River, at New Braunfels, Tex.

Location.- Water-stage recorder and concrete control, lat. 29°42'55", long. 98°06'40", at New Braunfels, Comal County, 1.1 miles upstream from Comal River. Datum of gage is 586.6 feet above mean sea level, datum of 1929.

Drainage area.- 1,666 square miles.

Records available.- December 1927 to September 1942. March 1898 to December 1899 and January 1915 to December 1927, at site 1 mile downstream from Comal River.

Average discharge.- 14 years (1928-42), 410 second-feet.

Extremes.- Maximum discharge during year, 13,800 second-feet Sept. 8 (gage height, 11.85 feet); minimum, 77 second-feet Aug. 15.

1927-42: Maximum discharge, 101,000 second-feet June 15, 1935 (gage height, 32.95 feet); minimum, 9.6 second-feet July 9-11, 1939.

Maximum stage known, 38 feet sometime in 1869 and in December 1913, from information by local residents.

Remarks.- Records excellent. Small diversions above station for irrigation. Some regulation at low flow by small power plants above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	254	357	249	215	176	186	138	626	415	208	112	183
2	249	372	249	211	176	183	136	580	393	224	112	170
3	238	372	249	211	176	183	136	546	372	254	107	202
4	662	357	238	211	183	183	138	775	357	249	108	499
5	1,120	337	233	203	183	186	140	1,150	343	543	100	330
6	2,020	330	233	207	179	179	143	589	423	495	96	270
7	1,000	318	228	207	176	176	183	512	357	455	94	426
8	733	305	233	203	176	170	1,810	1,700	379	379	91	c6,320
9	626	299	233	203	176	166	959	3,210	365	350	90	4,540
10	580	299	244	199	173	163	504	1,540	343	28[illegible]	90	f1,680
11	554	299	254	199	170	163	408	1,120	330	249	88	f1,110
12	599	286	249	199	179	163	365	960	305	224	86	848
13	512	280	249	199	179	166	330	880	286	207	83	723
14	471	286	244	199	207	163	312	816	270	194	82	645
15	439	280	238	203	224	163	286	723	254	183	81	572
16	431	280	233	203	228	160	270	636	249	176	95	529
17	415	275	233	203	224	153	259	599	244	170	102	487
18	401	275	233	207	211	148	249	580	233	166	101	455
19	401	270	233	203	203	146	244	589	224	163	245	423
20	415	264	228	194	190	150	518	1,830	215	153	293	415
21	401	270	228	186	183	148	1,800	1,030	207	148	176	439
22	379	293	228	183	186	146	1,160	763	203	148	160	463
23	379	270	220	179	186	148	693	645	194	143	293	415
24	439	259	220	183	179	146	693	599	190	136	280	386
25	439	259	220	183	176	153	2,920	773	183	130	199	372
26	393	259	215	186	173	160	4,060	546	176	128	170	350
27	393	254	207	183	170	150	1,430	520	176	126	163	337
28	365	254	a205	183	166	143	984	487	170	124	150	324
29	343	254	203	183	-	143	805	463	163	123	136	312
30	350	254	207	179	-	143	693	431	156	121	140	305
31	337	-	211	173	-	136	-	423	-	115	166	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	16,338	2,020	238	527	32,410
November	8,767	372	254	292	17,390
December	7,147	254	203	231	14,180
Calendar year 1941	312,882	9,680	183	857	620,600
January	6,080	215	173	196	12,060
February	5,208	228	166	186	10,330
March	4,966	186	136	160	9,850
April	22,766	4,060	136	759	45,160
May	26,641	3,210	423	859	52,840
June	8,175	423	156	272	16,210
July	6,764	543	115	218	13,420
August	4,289	293	81	138	8,510
September	24,530	6,320	170	818	48,650
Water year 1941-42	141,671	6,320	81	388	281,000

Peak discharge.- Apr. 8 (4:30 p.m.) 5,020 sec.-ft.; Apr. 26 (10:30 a.m.) 5,750 sec.-ft.; May 9 (4 a.m.) 4,300 sec.-ft.; Sept. 8 (11:30 a.m.) 13,800 sec.-ft.; Sept. 9 (11:30 a.m.) 11,400 sec.-ft.

a No gage-height record; discharge interpolated.

c Stage-discharge relation affected by backwater from Comal River.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Guadalupe River at Victoria, Tex.

Location.- Water-stage recorder, lat. 28°47', long. 97°01', at bridge on U. S. Highway 96 in Victoria, Victoria County, 1,300 feet upstream from Texas & New Orleans (Galveston, Harrisburg & San Antonio) Railroad bridge and 10 miles upstream from Coleto Creek. Datum of gage is 29.23 feet above mean sea level, datum of 1929.

Drainage area.- 5,676 square miles.

Records available.- November 1934 to September 1942. Gage-height records collected in this vicinity since 1904 are contained in reports of U. S. Weather Bureau.

Extremes.- Maximum discharge during year, 53,200 second-feet July 9, 10 (gage height, 29.77 feet); minimum daily, 618 second-feet June 28.

1934-42: Maximum discharge, 179,000 second-feet July 3, 1936 (gage height, 31.22 feet); minimum, 277 second-feet (regulated) Sept. 5, 1939; minimum daily, 308 second-feet Sept. 5, 1939.

Remarks.- Records good except those computed from graph based on gage readings, which are fair. Numerous small diversions above station do not materially affect flow. Low flow partly regulated by power plants above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,000	2,190	972	972	768	824	685	2,040	1,150	g796	972	882
2	972	1,960	g882	852	796	882	740	1,810	1,030	g796	1,120	824
3	1,030	2,230	g912	852	740	824	768	1,670	1,060	g712	1,090	882
4	1,280	2,040	g942	912	796	824	712	1,470	1,120	g1,120	1,000	1,060
5	1,500	1,280	g912	882	768	796	740	1,400	1,000	g2,900	1,030	1,090
6	1,340	1,180	882	912	768	824	740	1,470	1,000	g5,740	942	1,150
7	1,470	1,060	912	852	796	796	719	1,370	912	15,500	972	1,240
8	2,110	1,000	912	882	824	796	2,170	1,560	1,150	17,400	942	1,780
9	2,320	1,030	912	972	1,190	768	8,710	1,530	1,090	38,400	882	1,920
10	2,000	1,000	882	824	912	796	10,200	1,470	1,180	45,600	852	4,280
11	1,810	1,000	1,000	912	882	912	10,200	1,790	1,150	c29,100	912	9,040
12	1,670	972	1,120	796	740	740	7,030	2,950	1,210	c8,240	796	11,900
13	1,430	1,000	1,000	942	740	796	2,420	2,230	1,060	c2,800	796	18,500
14	1,340	942	1,000	824	796	824	1,560	1,920	912	2,150	740	25,500
15	1,430	942	912	912	768	796	1,340	1,670	972	1,960	796	c18,000
16	1,400	972	1,030	882	796	852	1,280	1,600	942	1,810	768	c4,240
17	1,280	942	942	882	852	852	1,210	1,560	852	1,810	882	c3,150
18	1,240	942	942	912	852	796	1,180	1,530	882	1,640	852	c2,810
19	1,210	972	972	942	824	796	1,120	1,530	852	1,670	1,060	2,580
20	1,150	1,000	942	882	796	796	1,060	1,430	768	1,530	942	2,070
21	1,120	972	912	899	740	740	1,120	1,340	796	1,400	882	2,070
22	1,120	1,250	913	825	796	824	1,120	1,340	g740	1,400	796	2,000
23	1,210	1,530	933	852	768	672	1,210	1,400	g740	1,340	912	2,110
24	1,210	1,310	1,000	852	768	796	1,590	1,640	g644	1,240	912	2,070
25	1,150	1,180	972	768	796	740	3,600	1,560	g740	1,150	972	1,960
26	1,090	1,090	972	852	740	712	2,900	1,500	g824	1,120	1,210	1,850
27	1,150	1,000	868	796	712	824	2,450	1,370	g796	1,210	1,240	1,700
28	1,310	942	882	824	796	740	3,510	1,400	g618	1,180	1,030	1,670
29	1,210	972	740	796	-	712	4,030	1,430	g631	1,120	852	1,560
30	1,150	912	882	768	-	740	2,460	1,340	g672	1,090	912	1,530
31	1,430	-	912	768	-	796	-	1,210	-	1,060	824	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	42,132	2,320	972	1,359	83,570
November	35,842	2,230	912	1,195	71,090
December	28,966	1,120	740	934	57,450
Calendar year 1941	1,278,420	49,700	740	3,530	2,536,000
January	26,798	972	768	864	53,150
February	22,520	1,190	712	804	44,670
March	24,586	912	672	793	48,770
April	78,574	10,200	685	2,619	155,800
May	49,530	2,950	1,210	1,598	98,240
June	27,493	1,210	618	916	54,530
July	194,984	45,600	712	6,290	386,700
August	28,888	1,240	740	932	57,300
September	131,418	25,500	824	4,381	260,700
Water year 1941-42	691,731	45,600	618	1,895	1,372,000

c Stage-discharge relation affected by return flow downstream; discharge computed from backwater curve based on discharge measurements following floods exceeding about 25,000 second-feet.
g Computed from graph based on gage readings furnished by U. S. Weather Bureau.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Comal River at New Braunfels, Tex.

Location.- Water-stage recorder, lat. 29°42'05", long. 98°07'10", 200 feet upstream from San Antonio Street viaduct in New Braunfels, Comal County, and 1.1 miles upstream from mouth. Datum of gage is 582.80 feet above mean sea level, datum of 1929.

Drainage area.- 94 square miles. Ordinary flow of river comes from springs; drainage area of stream not applicable.

Records available.- December 1927 to September 1942. 1882 to November 1927 (discharge measurements only).

Average discharge.- 10 years (1932-42), 332 second-feet.

Extremes.- Maximum gage height during year, 13.14 feet, Sept. 8 (affected by backwater from Guadalupe River; discharge not determined); minimum, 221 second-feet (regulated) May 18; minimum daily, 304 second-feet May 23.

1927-42: Maximum gage height, 30.71 feet June 15, 1935, from floodmarks (affected by backwater from Guadalupe River; discharge not determined); minimum discharge, about 142 second-feet (regulated) Dec. 11, 1928 (gage height, 2.12 feet); minimum daily, 245 second-feet July 17, 20, 1939.

Maximum stage known, 35.4 feet December 1913, from floodmarks (probably some backwater from Guadalupe River).

Remarks.- Records good except those for periods of no gage-height record or backwater effect, which are poor. Flow partly regulated by steam power plant half a mile above station. Entire flow of river from Comal Springs, about 1 mile upstream, except during periods of local rain. Springs emerge from the Edwards limestone in the Balcones fault zone.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	346	354	331	342	342	338	331	315	316	362	320	316
2	346	354	334	342	334	338	331	315	316	324	328	320
3	346	354	334	342	338	331	331	315	313	324	324	324
4	947	354	327	342	334	338	331	315	316	328	324	644
5	385	354	331	342	327	338	331	319	313	1,240	324	328
6	385	350	a331	342	327	338	334	312	324	547	320	324
7	358	350	a331	342	327	338	338	319	320	359	324	324
8	354	346	a331	342	327	338	c404	c319	320	332	320	c2,230
9	354	346	331	346	327	334	342	c319	324	332	320	c791
10	358	346	334	342	327	334	342	319	320	328	324	402
11	354	346	334	342	327	334	331	319	320	324	320	375
12	354	338	a334	338	327	338	338	315	320	328	316	371
13	350	342	a334	338	331	334	338	312	316	324	316	371
14	354	338	a334	338	338	338	338	315	320	328	316	371
15	354	342	a334	338	334	334	334	315	316	328	316	367
16	354	338	a334	338	436	334	338	308	320	324	332	367
17	350	342	a334	338	362	331	346	308	313	324	324	371
18	350	342	a334	334	338	338	338	308	316	320	324	371
19	354	342	a334	331	334	338	338	312	313	324	320	363
20	350	338	a334	331	331	334	350	c308	316	328	316	371
21	354	338	a334	331	334	338	369	308	320	324	313	367
22	354	338	a334	331	334	338	342	308	320	394	305	371
23	358	338	a334	331	331	334	346	304	320	336	309	367
24	365	334	a334	334	334	338	350	343	316	324	316	367
25	358	334	334	334	331	334	c369	376	316	324	320	367
26	358	334	334	334	334	331	c369	315	320	320	320	363
27	354	331	338	338	331	334	350	315	316	320	324	367
28	354	334	a340	334	338	334	342	312	320	324	316	367
29	354	331	342	338	-	331	342	315	313	324	313	363
30	354	331	346	342	-	331	342	308	316	324	316	367
31	358	-	346	342	-	331	-	312	-	328	320	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	11,624	947	346	375	23,060
November	10,259	354	331	342	20,350
December	10,371	346	327	335	20,570
Calendar year 1941	131,440	1,630	289	360	260,700
January	10,479	346	331	338	20,780
February	9,435	436	327	337	18,710
March	10,392	338	331	335	20,610
April	10,325	404	331	344	20,480
May	9,803	376	304	316	19,440
June	9,529	324	313	318	18,900
July	11,370	1,240	320	367	22,550
August	9,900	332	305	319	19,640
September	13,367	2,230	316	446	26,510
Water year 1941-42	126,854	2,230	304	348	251,600

a No gage-height record; discharge computed on basis of known range in stage and weather records.
c Stage-discharge relation affected by backwater from Guadalupe River.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

San Marcos River at Luling, Tex.

Location.- Water-stage recorder, lat. 29°39'55", long. 97°39'05", 390 feet downstream from bridge on State Highway 80, 1 mile south of Luling, Caldwell County, and 8 miles upstream from Plum Creek. Datum of gage is 322.0 feet above mean sea level, datum of 1929.

Drainage area.- 833 square miles.

Records available.- April 1939 to September 1942.

Extremes.- Maximum discharge during year, 29,500 second-feet July 5 (gage height, 32.93 feet); minimum, 23 second-feet (regulated) Apr. 1; minimum daily, 114 second-feet Aug. 11.

1939-42: Maximum discharge, that of July 5, 1942; minimum, 10 second-feet (regulated) Aug. 6, 1940; minimum daily, 55 second-feet Oct. 15, 1939.

Maximum stage known, 40.4 feet in 1869 and 1870, from information by engineers of State Highway Department.

Remarks.- Records good except those for periods of rapidly changing stage, which are poor. Flow regulated by power plant 800 feet above station. Discharge is mostly from large springs near San Marcos. No large diversion above station.

Revisions.- Revised figures of discharge, in second-feet, for the high-water period in the water year 1940, superseding those published in Water-Supply Papers 898 and 928 are given herein:

June 30..... 14,100

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
June.....	18,726	14,100	83	624	37,140
Water year 1939-40	58,662	14,100	55	161	116,800
Calendar year 1940	101,341	14,100	63	277	201,000

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	195	210	184	182	156	152	146	232	178	147	145	181
2	1,030	202	182	175	159	145	159	225	175	137	143	191
3	360	202	184	177	164	142	149	217	174	225	139	173
4	312	195	188	175	166	143	146	217	174	784	138	186
5	962	210	180	173	166	143	147	210	217	12,800	121	496
6	674	202	184	173	166	136	153	210	180	9,370	124	264
7	416	195	181	175	154	153	217	210	195	1,940	129	202
8	336	195	181	173	159	144	933	210	202	467	130	3,850
9	360	194	180	171	156	149	2,470	210	285	346	125	17,200
10	304	192	178	173	154	146	564	273	210	280	129	4,260
11	280	194	217	173	150	138	400	232	184	240	114	1,250
12	280	191	202	171	149	161	328	192	175	217	120	976
13	264	188	195	202	150	160	296	202	168	210	122	864
14	248	191	188	217	157	157	272	210	167		115	816
15	232	184	185	181	153	160	256	210	154		120	784
16	232	195	184	184	164	157	240	202	159		129	720
17	232	189	184	166	217	153	232	202	157	a195	142	672
18	225	189	184	134	166	146	232	202	150		131	624
19	225	191	182	167	161	154	225	210	150		136	608
20	225	185	181	170	143	150	225	210	150		167	656
21	225	195	192	170	139	150	217	210	143		142	707
22	225	210	210	167	134	150	210	202	146	189	149	805
23	240	202	195	180	140	159	217	195	153	163	637	640
24	248	187	188	171	135	154	280	188	152	156	544	576
25	264	195	185	180	140	157	280	217	138	159	321	544
26	225	195	181	174	136	157	889	240	146	154	225	528
27	225	187	180	167	130	156	517	264	142	140	188	512
28	217	187	177	163	126	159	344	217	124	149	159	496
29	210	188	175	167	-	161	280	194	139	139	150	480
30	217	185	177	166	-	154	256	192	136	152	124	480
31	210	-	167	156	-	149	-	184	-	152	152	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October.....	9,898	1,030	195	319	19,630
November.....	5,825	210	184	194	11,550
December.....	5,751	217	167	186	11,410
Calendar year 1941	236,706	10,200	167	649	469,500
January.....	5,373	217	134	173	10,660
February.....	4,290	217	126	153	8,510
March.....	4,695	161	136	151	9,310
April.....	11,280	2,470	146	376	22,370
May.....	6,589	273	154	213	13,070
June.....	5,023	285	124	167	9,960
July.....	30,276	12,800	137	977	60,050
August.....	5,410	637	114	175	10,730
September.....	40,741	17,200	173	1,358	80,810
Water year 1941-42	135,151	17,200	114	370	268,100

Peak discharge.- Apr. 9 (5:30 a.m.) 4,920 sec.-ft.; July 5 (6 p.m.) 29,500 sec.-ft.; Sept. 9 (4 a.m.) 23,600 sec.-ft.

a No gage-height record; discharge computed on basis of records for nearby stations and weather records.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

San Marcos River at Ottine, Tex.

Location.- Water-stage recorder, lat. 29°36', long. 97°35', at highway bridge a quarter of a mile southwest of Ottine, Gonzales County and 4 miles downstream from Plum Creek. Datum of gage is 285.2 feet above mean sea level, datum of 1929.

Drainage area.- 1,249 square miles.

Records available.- June 1915 to September 1942.

Average discharge.- 27 years, 456 second-feet.

Extremes.- Maximum discharge during year, 72,200 second-feet July 6 (gage height, 38.72 feet), from rating curve extended above 12,000 second-feet on basis of slope-area determination at gage height 40.6 feet; minimum, 59 second-feet (regulated) July 2; minimum daily discharge, 122 second-feet June 28

1915-42: Maximum discharge, about 202,000 second-feet May 29, 1929 (gage height, 43.32 feet), from rating curve extended above 12,000 second-feet on basis of slope-area determination at gage height 40.6 feet; no flow (result of regulation) July 29, 1923, Mar. 31, 1925, June 24, 1926; minimum daily discharge, 40 second-feet Sept. 16, 1917.

Maximum stage known, about 44.0 feet in December 1913, from information by local residents.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Low flow regulated by several small power plants above station. Most of basic flow comes from large springs near San Marcos.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	256	249	207	194	174	188	162	292	188	147	194	194
2		242	207	200	174	200	168	277	188	127	194	207
3		242	207	194	181	188	160	270	188	227	181	188
4		242	214	194	188	188	151	270	181	626	181	207
5		249	207	188	188	194	150	263	221	8,610	174	448
6	a600	249	221	188	194	194	151	256	188	36,200	165	307
7		242	207	181	194	188	270	256	214	8,570	174	277
8		242	221	181	194	162	1,350	263	207	1,200	168	2,180
9		249	207	181	188	194	3,050	256	292	511	168	16,300
10		235	200	181	188	181	858	284	228	391	168	13,400
11		242	242	181	188	160	463	270	200	337	154	4,960
12		235	228	174	188	188	367	228	181	307	163	1,180
13		228	228	194	181	188	322	194	181	277	160	934
14		228	214	214	181	188	300	228	174	263	155	844
15		221	207	194	181	181	277	228	164	256	158	916
16		228	207	188	194	188	263	214	162	242	164	790
17	a270	221	200	174	242	181	256	214	164	235	181	705
18		214	200	128	235	168	256	214	155	228	176	655
19		214	200	174	194	181	249	228	153	228	174	623
20		214	194	188	188	163	242	228	153	221	194	615
21		221	207	181	174	181	235	221	148	221	174	1,010
22		214	228	181	154	159	235	214	145	214	188	826
23		235	249	188	188	174	228	207	154	214	417	655
24		221	235	194	181	162	314	200	156	207	651	591
25		221	228	181	181	159	314	235	135	200	352	559
26	a420	221	214	188	181	162	713	249	149	207	249	527
27		214	207	181	181	165	f638	300	142	194	207	511
28	256	214	207	181	168	168	f415	249	122	194	194	495
29	249	207	200	181	-	168	344	214	138	194	174	495
30	256	207	200	174	-	164	314	207	143	188	150	479
31	249	-	188	181	-	162	-	194	-	200	158	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	11,856	-	-	382	23,520
November	6,861	249	207	229	13,610
December	6,581	249	188	212	13,050
Calendar year 1941	319,352	15,600	188	875	633,400
January	5,702	214	128	184	11,310
February	5,243	242	154	187	10,400
March	5,487	200	159	177	10,880
April	13,215	3,050	150	440	26,210
May	7,423	300	194	239	14,720
June	5,214	292	122	174	10,340
July	61,436	36,200	127	1,982	121,900
August	6,360	651	150	205	12,610
September	52,078	16,300	188	1,736	103,300
Water year 1941-42	187,456	36,200	122	514	371,800

Peak discharge.- Apr. 9 (1:00 p.m.) 3,980 sec.-ft.; July 6 (1:30 a.m.) 72,200 sec.-ft.; Sept. 9 (3 p.m.) 21,800 sec.-ft.

a No gage-height record; discharge computed on basis of records for nearby stations and weather records.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

556253 O - 43 - 10

Blanco River at Wimberley, Tex.

Location.- Water-stage recorder, lat. 29°59', long. 98°04', 800 feet downstream from Cypress Creek and a quarter of a mile south of Wimberley, Hays County. Datum of gage is 802.2 feet above mean sea level, datum of 1929.

Drainage area.- 378 square miles.

Records available.- August 1924 to September 1926, June 1928 to September 1942.

Average discharge.- 16 years, 109 second-feet.

Extremes.- Maximum discharge during year, 12,000 second-feet Sept. 8 (gage height, 10.66 feet); minimum, 16 second-feet Aug. 10-16.
1924-26, 1928-42: Maximum discharge, 113,000 second-feet May 28, 1929 (gage height, 31.10 feet, from floodmarks), by slope-area method; minimum, 2.9 second-feet Oct. 5, 6, 1940.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	51	39	31	33	30	27	84	51	37	21	31
2	51	51	38	33	33	30	27	82	51	37	20	29
3	44	49	38	33	31	30	27	79	51	36	20	97
4	929	49	37	33	31	30	27	82	51	36	19	49
5	395	47	37	31	31	30	27	79	50	35	19	43
6	133	47	37	31	35	30	29	74	50	35	18	53
7	95	44	35	31	33	30	85	76	49	34	18	182
8	79	43	35	29	31	30	2,790	89	49	34	18	4,980
9	74	43	33	29	31	29	251	103	48	33	18	1,370
10	76	44	35	29	31	29	149	87	48	33	18	531
11	71	43	39	27	31	29	120	82	47	31	18	360
12	64	43	35	26	29	29	103	84	47	29	16	290
13	62	43	33	26	29	29	92	82	46	29	16	250
14	60	43	33	26	37	29	82	79	46	29	16	278
15	57	43	33	26	35	29	76	74	45	27	16	220
16	57	43	33	26	35	29	71	69	45	27	19	196
17	55	41	33	26	31	29	69	71	44	27	21	178
18	55	41	33	29	31	29	66	71	44	27	21	165
19	55	41	31	31	31	29	64	79	43	27	30	159
20	57	43	31	31	31	31	64	74	43	26	31	336
21	57	43	33	31	31	31	62	69	42	26	22	319
22	55	43	33	31	31	31	60	64	42	26	990	196
23	55	43	35	29	31	29	64	62	41	25	192	168
24	55	42	35	29	30	31	76	62	41	25	74	155
25	57	42	35	29	30	33	1,140	171	40	24	47	146
26	55	41	35	29	30	33	261	87	40	24	37	142
27	55	41	33	33	30	31	139	64	39	23	33	133
28	55	40	33	31	30	29	114	60	39	23	31	126
29	53	40	33	29	-	27	98	57	38	22	29	120
30	51	39	31	31	-	27	92	55	38	22	35	117
31	51	-	29	31	-	29	-	53	-	21	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,138	929	44	101	6,220
November	1,306	51	39	43.5	2,590
December	1,063	39	29	34.3	2,110
Calendar year 1941	108,089	4,760	29	296	214,400
January	917	33	26	29.6	1,820
February	883	37	29	31.5	1,750
March	921	33	27	29.7	1,830
April	6,352	2,790	27	212	12,600
May	2,404	171	53	77.5	4,770
June	1,348	51	38	44.9	2,670
July	890	37	21	28.7	1,770
August	1,922	990	16	62.0	3,810
September	11,419	4,980	29	381	22,650
Water year 1941-42	32,563	4,980	16	89.2	64,590

Peak discharge.- Apr. 8 (6:30 a.m.) 9,880 sec.-ft.; Apr. 25 (1 p.m.) 5,740 sec.-ft.; Aug. 22 (2:30 p.m.) 6,570 sec.-ft.; Sept. 8 (5 a.m.) 12,000 sec.-ft.

Note.- No gage-height record Nov. 22 to Dec. 4, Jan. 8, 9, Feb. 18 to Mar. 15, June 3 to July 9, and July 22 to Aug. 6; discharge computed on basis of known range in stage and weather records.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Plum Creek near Luling, Tex.

Location.- Water-stage recorder, lat. 29°42', long. 97°37', at county highway bridge 1 mile downstream from West Fork of Plum Creek, 2 miles upstream from Texas & New Orleans (Galveston, Harrisburg & San Antonio) Railroad bridge, 3 miles northeast of Luling, Caldwell County. Datum of gage is 326.6 feet above mean sea level, datum of 1929.

Drainage area.- 356 square miles.

Records available.- March 1930 to September 1942.

Average discharge.- 12 years, 102 second-feet.

Extremes.- Maximum discharge during year, 37,000 second-feet July 5 (gage height, 21.48 feet); minimum, 2.8 second-feet June 28.

1930-42: Maximum discharge, 78,500 second-feet July 1, 1936 (gage height, 25.7 feet, from floodmarks), from rating curve extended above 54,000 second-feet; minimum, 0.7 second-foot Oct. 24, 1939.

Flood in December 1913 reached about the same stage as that of July 1, 1936, from information by local residents.

Remarks.- Records good except those above 5,000 second-feet, which are fair. No diversion above station. Slight regulation at low flow by oil field operations above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	9.8	7.2	9.0	9.4	12	7.5	9.0	4.2	3.4	6.0	6.0
2	19	9.0	7.2	8.7	9.4	12	7.8	8.4	4.1	3.2	6.0	5.4
3	46	9.0	7.2	8.7	9.4	11	7.5	7.8	4.0	3.3	5.8	5.0
4	23	8.7	7.8	9.0	9.8	10	7.5	7.5	4.1	10	5.5	47
5	20	8.4	7.5	9.0	10	11	7.8	6.6	4.0	13,600	5.7	53
6	8.7	8.1	7.5	8.7	11	10	8.1	6.9	4.7	6,920	6.3	19
7	7.2	8.1	7.5	9.0	10	9.4	14	7.2	5.2	1,440	5.4	68
8	7.2	8.1	7.5	8.7	10	9.0	600	7.8	8.9	187	5.0	1,040
9	6.9	8.4	7.2	8.4	11	8.4	741	7.8	11	58	4.9	4,060
10	6.6	8.4	7.5	8.4	11	8.7	56	7.2	6.0	24	4.9	4,500
11	6.3	8.1	13	8.4	11	8.7	19	6.3	4.7	16	4.6	835
12	6.0	8.1	16	8.7	10	9.4	14	6.6	4.2	13	4.6	78
13	6.0	8.1	14	9.0	10	9.4	11	6.9	3.8	12	4.6	35
14	5.8	8.4	11	9.0	12	9.4	11	6.3	3.6	11	4.6	131
15	5.7	8.1	9.0	9.0	14	8.7	9.8	5.4	3.4	10	4.6	193
16	5.5	8.4	8.4	8.7	14	9.0	9.4	5.0	3.5	9.8	4.7	39
17	5.5	8.1	8.1	8.7	22	8.7	8.7	5.2	3.4	9.0	4.9	20
18	5.7	8.1	8.1	9.0	19	8.1	8.4	5.4	3.3	9.4	6.0	16
19	5.8	8.4	8.1	9.8	13	7.8	8.4	8.1	3.2	10	8.3	14
20	6.3	9.4	8.1	9.8	11	8.1	8.7	8.1	3.2	9.8	5.7	151
21	6.0	10	8.1	9.0	11	8.1	8.7	6.3	3.2	8.4	6.9	359
22	5.8	11	9.4	9.0	10	8.1	8.1	5.4	3.2	7.8	14	32
23	6.6	14	36	9.0	10	7.5	8.7	5.0	3.2	8.1	12	16
24	59	11	16	9.4	9.8	7.8	19	7.5	3.2	8.1	7.8	13
25	376	10	11	9.4	9.4	8.1	49	18	3.2	8.1	8.1	12
26	28	9.0	10	9.4	9.4	8.7	22	8.4	3.0	7.2	6.3	11
27	16	8.7	9.0	9.4	9.0	8.4	14	13	3.0	7.2	5.4	10
28	12	8.1	8.7	9.4	9.0	7.8	12	7.5	3.1	6.3	5.2	9.8
29	13	7.8	8.7	9.4	-	7.2	11	5.5	3.2	6.0	4.2	9.8
30	12	7.5	8.4	9.4	-	7.2	9.4	4.7	3.2	6.6	4.4	9.8
31	12	-	9.0	9.0	-	7.2	-	4.6	-	6.6	6.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	767.6	376	5.5	24.8	1,520
November	266.3	14	7.5	8.88	528
December	312.2	36	7.2	10.1	619
Calendar year 1941	67,572.0	5,780	4.0	185	134,000
January	279.5	9.8	8.4	9.02	554
February	314.6	22	9.0	11.2	624
March	274.9	12	7.2	8.87	545
April	1,727.5	741	7.5	57.6	3,430
May	225.4	18	4.6	7.27	447
June	124.0	11	3.0	4.13	246
July	22,439.3	13,600	3.2	724	44,510
August	188.4	14	4.2	6.08	374
September	11,797.8	4,500	5.0	393	23,400
Water year 1941-42	38,717.5	13,600	3.0	106	76,800

Peak discharge.- Apr. 9 (9 a.m.) 1,060 sec.-ft.; July 5 (5:30 p.m.) 37,000 sec.-ft.; Sept. 9 (9:30 p.m.) 7,700 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Coleto Creek near Victoria, Tex.

Location.- Water-stage recorder, lat. 28°43', long. 97°08', at bridge on U. S. Highway 96, 100 feet upstream from Texas & New Orleans Railroad bridge, 1.1 miles downstream from Perdido Creek, and 9.4 miles southwest of Victoria, Victoria County. Datum of gage is 49.2 feet above mean sea level, datum of 1929.

Drainage area.- 514 square miles.

Records available.- June 1939 to September 1942.

Extremes.- Maximum discharge during year, 34,300 second-feet July 6 (gage height, 20.75 feet); minimum, 3.0 second-feet July 1.

1939-42: Maximum discharge, 48,200 second-feet Nov. 25, 1940 (gage height, 24.25 feet); minimum, 0.5 second-foot July 9, 1939.

Maximum stage known, 27.2 feet July 1, 1936, at railroad bridge 100 feet below gage, from information by railroad company.

Remarks.- Records good. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	109	15	19	14	112	13	12	5.2	8.2	30	39
2	32	60	15	17	14	172	13	10	5.2	555	24	25
3	30	31	16	16	14	47	13	9.8	5.2	60	22	29
4	26	23	15	16	15	41	13	15	5.2	800	20	34
5	20	19	15	16	15	37	13	14	5.2	1,470	20	90
6	21	17	14	16	15	25	13	12	6.2	15,300	22	58
7	29	16	13	22	14	20	14	12	6.6	10,400	20	33
8	32	16	14	26	17	17	22	12	5.9	841	18	101
9	31	15	14	23	459	16	128	14	6.2	336	16	173
10	25	15	14	20	190	16	105	13	5.9	211	16	295
11	20	14	34	18	112	16	41	12	5.2	176	15	123
12	18	14	31	17	53	16	27	13	4.8	128	14	68
13	16	14	24	17	33	16	23	13	4.4	98	13	46
14	16	14	20	17	36	16	20	12	4.8	82	13	34
15	16	14	17	17	94	16	18	10	5.5	73	13	27
16	16	14	17	16	49	16	16	10	7.8	65	17	23
17	16	14	17	16	28	16	15	10	11	65	85	21
18	16	14	17	16	22	16	14	10	6.2	86	47	18
19	16	14	17	17	19	14	14	11	5.2	77	28	16
20	16	24	16	16	19	14	14	13	4.8	68	17	14
21	16	28	17	15	17	14	15	10	4.4	54	15	13
22	16	27	18	15	19	14	14	9.3	5.2	47	12	12
23	16	21	17	15	22	13	13	8.8	6.2	46	11	12
24	33	17	17	15	19	13	13	8.8	6.2	42	10	11
25	24	16	17	15	16	14	15	8.8	5.2	40	12	10
26	20	16	16	15	15	14	14	7.7	5.2	36	10	9.8
27	17	16	16	15	14	14	14	6.6	4.4	35	10	8.2
28	17	16	15	15	13	13	14	5.9	4.1	51	9.8	7.7
29	16	15	15	15	-	13	13	5.9	4.1	49	8.2	7.7
30	19	15	16	15	-	14	12	6.2	3.7	46	38	8.2
31	34	-	17	14	-	14	-	5.9	-	35	72	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	656	34	16	21.2	1,300
November	658	109	14	21.9	1,310
December	536	34	13	17.3	1,060
Calendar year 1941	74,955	13,400	13	205	148,700
January	522	26	14	16.8	1,040
February	1,367	459	13	48.8	2,710
March	809	172	13	26.1	1,600
April	686	128	12	22.9	1,360
May	321.7	15	5.9	10.4	638
June	165.2	11	3.7	5.51	328
July	31,380.2	15,300	8.2	1,012	62,240
August	678.0	85	8.2	21.9	1,340
September	1,366.6	295	7.7	45.6	2,710
Water year 1941-42	39,145.7	15,300	3.7	107	77,640

Peak discharge.- Feb. 9 (12 m.) 880 sec.-ft.; July 4 (9 p.m.) 3,380 sec.-ft.; July 6 (10 p.m.) 34,300 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

San Antonio River at San Antonio, Tex.

Location.- Water-stage recorder, lat. 29°24'35", long. 98°29'40", at South Alamo Street Bridge in San Antonio, Bexar County, 2.1 miles upstream from San Pedro Creek. Datum of gage is 612.3 feet above mean sea level, datum of 1929.

Drainage area.- 38 square miles.

Records available.- January 1915 to November 1929, February 1939 to September 1942. Estimated monthly ground-water discharge contained in Water-Supply Paper 773-B.

Average discharge.- 17 years (1915-29, 1939-42), 71.5 second-feet.

Extremes.- Maximum discharge during year, 1,680 second-feet Sept. 4 (gage height, 5.90 feet); minimum not determined; minimum daily, 27 second-feet Aug. 15.
1915-29, 1929-42: Maximum discharge, 15,300 second-feet Sept. 10, 1921 (gage height, 20.14 feet, from floodmark), by slope-area method; no flow at times because of regulation.
Flood of July 5, 1819, equalled or exceeded that of Sept. 10, 1921.

Remarks.- Records fair. Normal flow of river comes from springs located about 8 miles above station. Springs emerge from Edwards limestone formation in Balcones fault zone. Diurnal fluctuation caused by industrial pumping from wells (depleting the underground reservoir) above station. Diversions above station for irrigation and industrial uses.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88	107	107	100	80	95	67	85	70	44	38	33
2	88	107	102	100	80	83	64	82	68	28	38	40
3	140	110	100	98	80	82	64	87	62	42	43	50
4	192	108	100	98	83	83	64	83	59	41	38	555
5	107	105	100	97	79	82	65	87	96	383	35	141
6	107	103	98	95	77	83	70	83	147	223	33	65
7	105	100	98	95	74	83	111	83	71	87	32	88
8	114	103	100	95	77	80	224	88	84	79	32	560
9	107	105	98	95	80	80	88	85	68	77	30	151
10	107	107	119	93	79	79	76	85	67	76	35	116
11	107	103	100	93	80	77	74	90	65	73	29	107
12	108	102	98	95	77	80	82	88	61	68	29	108
13	108	102	98	95	76	79	83	87	58	67	28	112
14	108	102	98	93	130	61	83	83	55	64	28	112
15	107	103	96	92	83	73	90	79	70	61	27	110
16	105	105	98	92	105	74	93	77	61	56	71	110
17	105	107	98	92	87	73	93	79	61	55	35	108
18	103	107	101	97	83	58	93	79	58	52	34	107
19	105	107	95	92	82	65	95	122	54	52	33	107
20	105	107	98	92	82	67	97	79	52	52	32	103
21	107	107	105	90	82	64	97	79	51	50	32	102
22	97	124	108	88	87	65	92	85	55	52	32	99
23	107	107	97	87	87	71	102	82	54	48	33	97
24	92	107	100	87	83	58	87	73	54	48	34	97
25	95	107	102	87	83	70	128	77	50	48	32	93
26	95	108	102	87	82	71	92	77	54	47	30	92
27	97	107	102	83	80	68	90	76	40	46	29	88
28	97	107	98	83	80	67	88	74	40	43	28	92
29	102	107	100	80	-	67	88	74	40	42	28	88
30	110	105	100	82	-	68	85	73	35	42	71	87
31	98	-	100	80	-	65	-	73	-	40	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,313	192	88	107	6,570
November	3,186	124	100	106	6,320
December	3,118	119	95	101	6,180
Calendar year 1941	34,945	597	18	95.7	69,300
January	2,833	100	80	91.4	5,620
February	2,338	130	74	83.5	4,640
March	2,271	95	58	73.3	4,500
April	2,725	224	64	90.8	5,400
May	2,554	122	73	82.4	5,070
June	1,860	147	35	62.0	3,690
July	2,186	383	28	70.5	4,340
August	1,089	71	27	35.1	2,160
September	3,818	560	33	127	7,570
Water year 1941-42	31,291	560	27	85.7	62,060

Peak discharge.- Apr. 8 (2 a.m.) 1,140 sec.-ft.; July 5 (12:30 p.m.) 1,460 sec.-ft.; Sept. 4 (6:30 a.m.) 1,680 sec.-ft.; Sept. 8 (10 a.m.) 880 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

San Antonio River near Falls City, Tex.

Location.- Water-stage recorder, lat. 28°57'05", long. 98°03'55", at highway bridge half a mile upstream from Scared Dog Creek and 3.4 miles southwest of Falls City, Karnes County. Datum of gage is 285.5 feet above mean sea level, datum of 1929.

Drainage area.- 2,067 square miles.

Records available.- April 1925 to September 1942.

Average discharge.- 17 years, 306 second-feet.

Extremes.- Maximum discharge during year, 18,500 second-feet July 6 (gage height, 22.13 feet); minimum, 148 second-feet June 26-30.

1925-42: Maximum discharge, that of July 6, 1942; maximum gage height, 22.3 feet June 13, 1935 (affected by backwater); minimum discharge, 36 second-feet May 11, 12, 1928 (gage height, 0.97 foot).

Maximum stage known, 28.36 feet in October 1913, from information by local residents.

Remarks.- Records good. Flow partly regulated by Medina Reservoir (capacity, 254,000 acre-feet). Medina Canal diverts water above gage.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	230	213	200	204	189	189	170	225	181	163	221	159
2	238	209	204	204	189	189	170	217	189	152	217	268
3	230	209	209	204	192	213	166	209	181	189	209	413
4	248	213	209	200	196	200	159	504	163	401	209	488
5	760	209	204	204	192	196	163	1,050	174	2,270	221	1,310
6	1,360	196	196	209	196	192	163	972	178	12,100	221	5,470
7	570	189	196	217	192	192	213	367	249	15,300	209	4,610
8	346	185	200	221	189	189	776	253	482	6,720	204	5,390
9	283	181	330	217	196	185	1,910	234	362	1,520	200	6,690
10	288	181	414	213	192	185	1,170	234	293	812	196	10,600
11	273	185	230	213	196	181	400	230	221	577	192	9,220
12	253	192	248	209	196	178	253	221	196	430	200	3,610
13	243	192	253	213	192	178	221	221	185	390	189	1,090
14	248	192	230	217	192	178	217	217	174	368	181	835
15	234	192	225	217	196	178	230	204	166	346	181	679
16	238	192	225	213	319	178	221	200	174	314	733	615
17	230	189	225	209	263	181	209	196	196	298	356	565
18	221	189	225	209	258	185	200	192	196	288	248	540
19	217	196	221	204	253	178	196	204	163	273	446	503
20	209	192	225	213	492	174	192	318	163	263	230	478
21	213	200	217	217	503	170	200	590	159	268	204	460
22	221	200	221	209	262	174	213	309	152	263	192	454
23	253	209	230	200	209	174	270	234	159	248	192	448
24	270	225	234	189	204	178	584	204	163	256	217	436
25	509	209	217	181	209	181	283	181	163	273	185	419
26	319	200	213	196	196	181	288	181	155	243	185	407
27	263	196	213	204	189	174	758	185	152	238	181	395
28	248	196	209	213	185	174	647	178	155	243	174	384
29	225	200	204	209	-	174	314	174	155	238	170	384
30	209	200	204	192	-	170	243	181	152	225	189	384
31	209	-	209	192	-	170	-	181	-	221	174	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,858	1,360	209	318	19,550
November	5,931	225	181	198	11,760
December	7,040	414	196	227	13,960
Calendar year 1941	148,168	4,320	127	406	293,900
January	6,412	221	181	207	12,720
February	6,437	503	185	230	12,770
March	5,639	213	170	182	11,180
April	11,199	1,910	159	373	22,210
May	9,066	1,050	174	292	17,980
June	5,851	482	152	195	11,610
July	45,892	15,300	152	1,480	91,030
August	7,126	733	170	230	14,130
September	57,704	10,600	159	1,923	114,500
Water year 1941-42	178,155	15,300	152	488	353,400

Peak discharge.- July 6 (7:30 p.m.) 18,500 sec.-ft.; Sept. 6 (10:30 p.m.) 7,060 sec.-ft.; Sept. 8 (1:30 p.m.) 7,880 sec.-ft.; Sept. 10 (4 a.m.) 10,800 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

San Antonio River at Goliad, Tex.

Location.- Water-stage recorder, lat. 28°39', long. 97°23', at bridge on State Highway 29, 1.3 miles southeast of courthouse in Goliad, Goliad County, and 10 miles upstream from Manahuilla Creek. Datum of gage is 90.6 feet above mean sea level, unadjusted.

Drainage area.- 3,914 square miles.

Records available.- June 1924 to March 1929, February 1939 to September 1942.

Extremes.- Maximum discharge during year, 33,800 second-feet July 9 (gage height, 44.9 feet); minimum, 195 second-feet Apr. 6. 7.

1924-29, 1939-42: Maximum discharge, that of July 9, 1942; minimum observed, 44 second-feet several periods in 1927.

Floods of October 1913 and June 15, 1935 reached about the same stage as that of July 9, 1942.

Remarks.- Records poor. Low flow partly regulated by Medina Reservoir (capacity, 254,000 acre-feet). Water diverted at Medina Reservoir for irrigation and in city of San Antonio for industrial use and municipal supply.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	f353	3,580	299	290	263	263	220	407	272	229	452	560
2	335	1,560	299	290	272	272	218	353	272	712	445	578
3	371	470	290	281	272	254	220	335	263	341	434	445
4	344	389	290	281	272	254	213	326	272	448	416	542
5	668	362	299	281	272	272	207	362	263	1,380	407	928
6	1,810	344	290	281	281	254	196	820	245	6,910	407	1,750
7	2,310	335	290	290	272	243	200	1,210	308	13,000	407	3,910
8	1,380	317	281	299	281	241	236	801	281	20,000	407	6,010
9	f744	299	281	299	317	236	888	470	398	32,000	380	8,130
10	f542	290	290	299	317	232	1,850	389	542	27,700	371	13,100
11	f506	281	470	290	317	232	2,070	371	416	12,900	362	23,200
12	f488	281	452	290	281	231	953	362	371	2,190	353	28,600
13	434	290	326	290	281	229	524	344	308	1,140	344	24,000
14	407	290	353	281	281	223	398	344	281	1,140	353	14,900
15	398	290	335	290	281	225	353	335	272	820	344	4,600
16	416	290	317	299	272	229	344	326	263	744	389	1,670
17	371	290	317	290	290	229	344	308	254	668	353	1,420
18	362	290	317	281	380	225	326	308	254	632	787	1,350
19	335	290	317	281	335	227	308	317	281	614	902	1,280
20	326	299	308	281	326	234	299	317	272	596	542	1,210
21	317	308	308	281	344	227	290	326	236	560	542	1,120
22	317	466	308	281	560	220	281	488	234	542	371	1,070
23	335	589	308	281	524	220	290	560	241	542	308	1,030
24	353	353	308	281	335	223	299	380	227	542	290	986
25	380	335	317	272	281	225	948	335	240	542	281	965
26	416	326	317	263	272	229	791	308	236	596	317	944
27	542	308	299	254	272	234	445	772	231	560	263	902
28	407	299	290	272	263	227	470	488	220	524	254	860
29	362	290	290	281	-	222	839	335	214	524	241	839
30	353	290	290	290	-	222	632	299	222	506	488	820
31	537	-	281	281	-	223	-	281	-	488	488	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	17,219	2,310	317	555	34,150
November	14,401	3,580	281	480	28,560
December	9,737	470	281	314	19,310
Calendar year 1941	385,081	15,000	204	1,055	763,800
January	8,801	299	254	284	17,460
February	8,714	560	263	311	17,280
March	7,277	272	220	236	14,430
April	15,652	2,070	196	522	31,050
May	13,377	1,210	281	432	26,530
June	8,389	542	214	280	16,640
July	130,090	32,000	229	4,196	258,000
August	12,698	902	241	410	25,190
September	147,719	28,600	445	4,924	293,000
Water year 1941-42	394,074	32,000	196	1,080	781,600

f Fragmentary gage-height record; discharge computed from partly estimated gage height.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Cibolo Creek near Falls City, Tex.

Location.- Water-stage recorder, lat. 29°01', long. 97°56', at bridge on State Highway 123, 5.5 miles northeast of Falls City, Karnes County, and 9 miles upstream from mouth. Datum of gage is 264.0 feet above mean sea level, unadjusted.

Drainage area.- 831 square miles.

Records available.- November 1930 to September 1942.

Average discharge.- 11 years, 138 second-feet.

Extremes.- Maximum discharge during year, 33,600 second-feet July 6 (gage height, 34.45 feet); minimum, 11 second-feet June 28 to July 2.

1930-42: Maximum discharge, that of July 6, 1942; minimum, 4.9 second-feet Aug. 27, 28, Oct. 23, 1940.

Flood in October 1913 reached a stage about half a foot higher than that of July 6, 1942.

Remarks.- Records excellent. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	37	26	25	21	25	22	20	18	11	44	52
2	30	27	26	24	21	26	22	20	18	12	42	66
3	47	27	26	24	21	23	22	20	17	15	42	52
4	1,000	27	26	24	22	23	22	114	16	15	41	68
5	1,970	26	26	24	22	22	22	28	28	602	46	2,330
6	354	26	25	24	22	22	22	20	21	20,900	42	816
7	158	25	25	24	22	22	165	19	57	16,900	40	193
8	80	25	25	24	22	22	499	19	47	1,530	38	7,020
9	116	25	25	24	26	22	880	18	32	322	37	17,300
10	150	25	26	25	24	21	158	18	23	196	36	12,200
11	62	25	30	24	24	21	68	18	19	145	35	1,580
12	45	25	30	24	24	22	44	18	18	118	33	412
13	45	26	28	24	23	22	36	18	16	101	32	258
14	101	26	27	25	24	22	31	18	15	90	32	196
15	59	26	29	26	25	22	28	18	14	81	32	165
16	42	26	28	25	25	22	26	17	18	72	31	144
17	36	26	27	24	24	22	26	17	19	68	407	130
18	33	27	27	24	27	22	24	17	14	65	239	123
19	32	27	27	24	28	22	24	22	13	62	78	117
20	32	29	27	24	25	22	25	21	13	59	56	109
21	32	51	27	23	24	22	25	19	12	57	48	107
22	31	31	27	22	22	22	25	18	12	56	44	102
23	32	28	27	22	22	20	57	18	17	57	41	99
24	30	26	27	22	22	20	167	17	13	147	43	97
25	30	26	26	22	22	22	35	308	12	73	39	95
26	42	26	25	22	21	23	24	444	12	64	38	93
27	37	27	25	22	21	22	24	87	12	64	37	90
28	30	27	25	22	21	22	26	43	12	52	36	86
29	29	27	24	22	-	22	22	30	11	48	36	85
30	325	26	24	22	-	21	21	24	11	46	36	83
31	401	-	25	22	-	22	-	20	-	46	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,440	1,970	29	175	10,790
November	828	51	25	27.6	1,640
December	818	30	24	26.4	1,620
Calendar year 1941	88,073	9,960	20	241	174,700
January	729	26	22	23.5	1,450
February	647	28	21	23.1	1,280
March	685	26	20	22.1	1,360
April	2,592	880	21	86.4	5,140
May	1,508	444	17	48.6	2,990
June	560	57	11	18.7	1,110
July	42,074	20,900	11	1,357	83,450
August	1,821	407	31	58.7	3,610
Septsmber	44,268	17,300	52	1,476	87,800
Water year 1941-42	101,970	20,900	11	279	202,200

Peak discharge.- Oct. 5 (3:30 p.m.) 2,930 sec.-ft.; July 6 (11:30 p.m.) 33,600 sec.-ft.; Sept. 5 (7:00 p.m.) 4,170 sec.-ft.; Sept. 9 (8:30 p.m.) 25,000 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Mission River at Refugio, Tex.

Location.- Wire-weight gage, lat. 28°17', long. 97°17', on bridge on U. S. Highway 77, 500 feet upstream from Missouri Pacific Railroad bridge and a quarter of a mile southwest of Refugio, Refugio County. Datum of gage is 1.7 feet above mean sea level, datum of 1929.

Drainage area.- 643 square miles.

Records available.- July 1939 to September 1942.

Extremes.- Maximum discharge observed during year, 41,700 second-feet July 7 (gage height, 33.3 feet); minimum observed, 3.1 second-feet June 5, 30, July 1.
1939-42: Maximum discharge observed, that of July 7, 1942; minimum observed, 0.7 second-foot Oct. 7, 9, 1940.
Maximum stage known, prior to 1942, 32.3 feet in August 1914 and May 17, 1938, from information by local residents.

Remarks.- Records fair except those for doubtful or no gage-height record, which are poor. Gage read twice daily, more often during floods. No large diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	11	9.8	9.1	8.9	a12	8.3	6.8	3.7	3.2	45	5,140
2	15	10	9.6	9.1	8.7	75	8.3	6.8	3.5	3.8	a43	1,000
3	15	10	9.4	9.1	8.7	39	8.3	6.8	3.4	4.1	41	511
4	14	9.4	9.3	9.1	8.7	37	8.3	7.6	3.4	74	39	398
5	16	9.4	9.4	8.9	8.7	40	a8.4	7.0	3.2	737	39	450
6	21	9.6	9.3	8.9	8.7	15	8.5	6.8	4.4	4,780	38	409
7	19	9.4	9.1	8.9	8.7	13	8.5	7.2	a4.2	30,300	35	768
8	15	9.1	9.1	9.1	9.5	12	9.4	8.1	3.9	c9,010	34	2,010
9	14	a8.9	9.1	8.9	102	11	9.8	8.3	3.7	c1,600	32	1,210
10	13	8.7	10	8.9	134	9.6	19	a8.0	3.5	c540	32	376
11	12	8.5	14	8.9	115	9.4	12	7.6	3.5	287	29	231
12	a11	8.3	15	8.7	102	9.4	a10	7.7	3.4	210	27	a196
13	12	8.1	15	8.7	96	9.4	8.3	8.1	3.4	182	32	178
14	21	8.1	14	8.9	144	9.4	7.9	7.6	a3.6	161	25	151
15	40	e.5	13	8.9	241	9.3	7.7	7.4	3.7	134	36	136
16	68	a8.4	12	8.9	d113	9.3	7.6	7.0	4.3	122	35	122
17	90	8.3	11	8.9	d49	9.3	7.9	a7.1	16	115	29	115
18	70	8.7	13	8.9	d22	9.3	8.1	7.2	7.1	112	69	105
19	54	8.9	14	8.9	d16	9.3	a8.4	16	4.3	a88	57	99
20	20	9.4	15	8.9	16	9.1	8.7	15	3.2	65	29	93
21	•13	10	a14	8.7		8.9	8.9	34	a3.4	84	21	84
22	12	11	14	8.7		8.7	8.1	16	a3.6	81	26	81
23	11	11	14	8.5		8.7	7.7	9.6	a3.8	73	25	76
24	11	11	12	8.5		8.7	8.1	a7.4	4.1	68	24	73
25	10	11	12	a8.6	a12	8.7	8.5	6.3	6.8	64	28	71
26	10	11	11	8.7		8.7	a8.1	5.1	6.8	61	23	66
27	9.8	11	11	8.7		8.7	7.7	4.7	4.9	a58	22	61
28	9.8	10	9.8	8.7		8.7	7.2	4.4	a4.0	a57	21	54
29	12	11	9.3	8.7	-	a8.8	7.2	4.0	3.2	54	21	61
30	13	10	9.1	8.9	-	8.9	7.6	4.0	3.2	52	11,000	58
31	11	-	9.1	8.9	-	8.7	-	4.0	-	48	21,400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	677.6	90	9.8	21.9	1,340
November	287.7	11	8.1	9.59	571
December	355.4	15	9.1	11.5	705
Calendar year 1941	80,276.9	6,860	7.3	220	159,200
January	274.2	9.1	8.5	8.85	544
February	1,316.6	241	-	47.0	2,610
March	453.0	75	8.7	14.6	899
April	262.5	19	7.2	8.75	521
May	263.6	34	4.0	8.50	523
June	133.2	16	3.2	4.44	264
July	49,228.1	30,300	3.2	1,588	97,640
August	33,357	21,400	21	1,076	66,160
September	14,383	5,140	54	479	28,530
Water year 1941-42	100,991.9	30,300	3.2	277	200,300

a No gage-height record; discharge interpolated or from graph based on gage heights of adjacent days and weather records.

c Stage-discharge relation affected by backwater from return flow downstream; discharge computed from backwater curve based on discharge measurements following floods exceeding about 10,000 second-feet.

d Doubtful gage-height record; discharge computed from graph based on engineer's reading and indicated trend of readings by observer.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Nueces River at Laguna, Tex.

Location.- Water-stage recorder, lat. 29°25'45", long. 99°59'50", half a mile downstream from Sycamore Creek and 1 mile northeast of Laguna, Uvalde County. Datum of gage is 1,119.72 feet above mean sea level, datum of 1929.

Drainage area.- 764 square miles.

Records available.- October 1923 to September 1942.

Average discharge.- 19 years, 158 second-feet.

Extremes.- Maximum discharge during year, 19,600 second-feet Oct. 24 (gage height, 12.40 feet); minimum, 23 second-feet Aug. 13-16, 27-30.

1923-42: Maximum discharge, 222,000 second-feet July 13, 1939 (gage height, 26.40 feet), from rating curve extended above 40,000 second-feet on basis of float measurement (110,000 second-feet) and slope-area determination (213,000 second-feet); minimum, 7.8 second-feet Nov. 3-15, 18, 1934.

Flood of Sept. 21, 1923 reached a stage of 26.5 feet (discharge, 226,000 second-feet, from rating curve outlined above). Flood of June 1913 reached a stage 2 or 3 feet higher than that of Sept. 21, 1923, from information by local resident.

Remarks.- Records good except those above 4,000 second-feet, which are poor. Part of the flow of Nueces River and its tributaries enters the Edwards limestone, in the Balcones fault zone which crosses basin just north of Uvalde and downstream from the station. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	148	95	76	61	55	52	80	71	43	29	1,670
2	97	143	95	74	61	54	49	80	69	44	29	667
3	100	138	93	74	61	54	49	80	68	45	28	448
4	103	134	93	74	61	54	48	78	66	64	27	372
5	103	129	93	74	61	54	48	76	69	64	26	329
6	109	127	93	72	61	54	52	74	68	52	25	318
7	135	125	91	72	60	54	57	82	69	52	25	292
8	139	123	89	72	60	54	55	283	68	50	25	1,480
9	139	121	89	71	60	54	52	160	64	50	24	992
10	139	118	89	71	60	54	50	116	63	48	24	655
11	146	118	87	71	60	54	49	97	61	45	24	520
12	153	116	87	69	60	54	49	85	58	44	24	440
13	149	114	87	69	60	54	49	76	55	43	23	386
14	132	114	87	69	60	54	49	69	54	42	23	348
15	129	112	85	69	60	54	48	68	60	41	23	315
16	126	110	85	68	60	54	48	78	54	40	24	292
17	126	110	84	68	58	54	48	84	53	38	26	274
18	122	108	84	66	58	53	48	89	49	37	28	257
19	119	108	84	66	57	53	49	121	49	36	26	240
20	116	108	82	66	57	53	49	116	49	35	26	235
21	112	108	82	66	57	53	48	106	48	34	25	227
22	109	106	82	66	57	53	48	97	46	36	25	218
23	109	106	80	66	57	53	52	93	45	37	25	218
24	2,770	104	80	64	55	53	54	89	44	35	24	210
25	505	101	78	64	55	53	84	87	43	34	24	198
26	284	99	76	64	55	53	89	84	42	33	24	186
27	257	99	76	63	55	52	82	82	41	33	23	174
28	235	99	76	63	55	52	78	80	40	32	23	164
29	206	97	76	63	-	52	76	78	38	31	23	153
30	169	97	76	63	-	52	80	76	38	30	30	146
31	158	-	76	61	-	52	-	72	-	30	1,040	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,388	2,770	92	238	14,650
November	3,440	148	97	115	6,820
December	2,630	95	76	84.8	5,220
Calendar year 1941	43,704	2,770	50	120	86,690
January	2,114	76	61	68.2	4,190
February	1,642	61	55	58.6	3,260
March	1,656	55	52	53.4	3,280
April	1,689	89	48	56.3	3,350
May	2,936	283	68	94.7	5,820
June	1,642	71	38	54.7	3,260
July	1,278	64	30	41.2	2,530
August	1,795	1,040	23	57.9	3,560
September	12,424	1,670	146	414	24,640
Water year 1941-42	40,634	2,770	23	111	80,580

Peak discharge.- Oct. 24 (8:30 a.m.) 19,600 sec.-ft.; Sept. 1 (12:30 a.m.) 3,100 sec.-ft.; Sept. 8 (1 p.m.) 2,140 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Nueces River below Uvalde, Tex.

Location.- Water-stage recorder, lat. 29°08' (corrected), long. 99°54', on Smyth Ranch, 4 miles upstream from bridge on U. S. Highway 83, 9 miles southwest of Uvalde, Uvalde County, and 15 miles downstream from West Nueces River. Datum of gage is 796.1 feet above mean sea level, datum of 1929.

Drainage area.- 1,947 square miles.

Records available.- April 1939 to September 1942.

Extremes.- Maximum discharge during year, 11,200 second-feet Oct. 24 (gage height, 9.05 feet); minimum, 8.9 second-feet Aug. 29, 30.
1939-42: Maximum gage height, 19.25 feet July 13, 1939 (discharge not determined); minimum, 8.0 second-feet Mar. 8, 1941.
Maximum stage known, 40.4 feet, from floodmarks, June 14, 1935 (discharge at former station, 5 miles upstream, 616,000 second-feet, by slope-area method).

Remarks.- Records good. Part of the flow of Nueces River enters the Edwards limestone in the Balcones fault zone which crosses the basin just north of Uvalde. At low stages most of the headwater flow enters this formation. No diversion.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	49	40	32	24	21	17	21	16	12	12	30
2	25	48	38	32	25	22	17	22	15	12	12	57
3	25	46	38	32	25	22	16	22	15	12	12	86
4	25	44	38	32	25	21	16	22	15	13	12	52
5	24	43	37	32	25	21	18	22	14	59	12	37
6	24	41	37	32	24	22	18	22	20	23	11	32
7	24	41	37	32	24	20	22	22	20	18	11	43
8	23	41	37	30	24	19	24	22	18	17	11	62
9	23	41	35	30	24	21	18	22	17	17	11	898
10	23	41	37	30	24	21	19	23	18	15	11	534
11	23	40	37	30	24	21	19	22	17	15	11	370
12	23	40	37	30	24	22	18	23	17	14	11	288
13	22	41	35	30	24	22	17	23	16	14	11	233
14	21	41	35	30	25	22	17	22	15	13	10	189
15	21	41	35	30	24	22	17	22	15	13	10	157
16	22	41	35	30	24	21	18	22	15	13	10	135
17	21	41	35	30	23	21	18	22	15	13	11	120
18	21	41	34	30	23	21	18	24	14	13	12	105
19	21	41	34	30	23	22	18	50	13	13	11	93
20	21	40	34	30	23	22	18	22	13	12	11	84
21	20	41	34	29	23	20	19	20	13	12	11	77
22	20	41	34	29	24	21	19	20	13	12	11	71
23	20	40	33	29	22	21	21	20	13	12	11	67
24	2,330	40	33	29	22	21	20	20	12	12	11	64
25	969	40	32	28	23	22	20	19	13	12	11	62
26	257	41	32	28	22	21	20	19	13	12	11	62
27	144	40	32	26	22	20	20	19	13	12	10	62
28	95	40	32	25	23	20	20	18	12	13	10	60
29	71	40	33	25	-	19	21	17	12	13	8.9	60
30	62	40	33	24	-	18	20	17	12	13	20	58
31	54	-	32	24	-	17	-	16	-	12	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,498	2,330	20	145	8,920
November	1,245	49	40	41.5	2,470
December	1,085	40	32	35.0	2,150
Calendar year 1941	15,735.6	2,330	8.8	43.1	31,200
January	910	32	24	29.4	1,800
February	662	25	22	23.6	1,310
March	646	22	17	20.8	1,280
April	563	24	16	18.8	1,120
May	677	50	16	21.8	1,340
June	444	20	12	14.8	881
July	466	59	12	15.0	924
August	354.9	20	8.9	11.4	704
September	4,248	898	30	142	8,430
Water year 1941-42	15,798.9	2,330	8.9	43.3	31,330

Peak discharge.- Oct. 24 (5 p.m.) 11,200 sec.-ft.; Sept. 9 (6 p.m.) 1,140 sec.-ft.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Nueces River near Asherton, Tex.

Location.- Water-stage recorder, lat. 28°30', long. 99°42', at bridge on county road between Asherton and Brundage, 1.2 miles downstream from El Moro Creek, and 5.5 miles northeast of Asherton, Dimmit County. Datum of gage is 470.9 feet above mean sea level, datum of 1929.

Drainage area.- 4,082 square miles.

Records available.- October 1939 to September 1942.

Extremes.- Maximum discharge during year, 5,000 second-feet Sept. 5 (gage height, 24.07 feet); no flow at times.
1939-42: Maximum discharge, 5,200 second-feet Apr. 7, 1940 (gage height, 24.65 feet); no flow at times.
Maximum stage known, 32 feet June 17, 1935, from information by local residents.

Remarks.- Records good. Part of the flow of the Nueces River and its tributaries enters the Edwards limestone in the Balcones fault zone which crosses the basin just north of Uvalde in an east-west course. At low stages most of the headwater flow enters this formation. Flow partly regulated by several small reservoirs, and irrigation of about 12,000 acres from river or jointly from wells and river above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	19					0	0	45	0	0	74
2	0	8.7					0	0	28	0	0	33
3	0	5.0					0	0	17	0	0	16
4	0	2.9					0	0	10	0	0	1,560
5	0	1.8					0	0	6.9	0	0	4,610
6	0	1.2					0	0	4.8	.2	0	4,080
7	0	.8					0	0	3.6	102	0	3,260
8	0	.6					0	0	2.4	S13	0	3,180
9	0	.4					0	0	1.6	1,120	0	2,650
10	0	.3					98	0	1.0	586	0	2,650
11	0	.2					785	0	.7	273	0	3,250
12	0	.1					478	0	.5	142	0	3,050
13	0	0					188	0	.3	83	0	1,490
14	0	0					94	0	.2	48	0	598
15	0	0					56	0	.1	27	0	371
16	0	0					35	0	.1	13	0	274
17	0	0					19	0	0	6.3	0	205
18	0	0					9.3	0	0	3.4	0	161
19	0	0					5.2	.3	0	1.8	0	130
20	0	0					3.1	.3	0	1.0	0	106
21	0	0					2.0	299	0	.5	0	96
22	0	0					1.1	1,750	0	3.1	0	81
23	0	0					.8	2,030	0	2.1	0	68
24	0	0					.5	1,160	0	.5	0	56
25	0	0					.3	467	0	.1	0	49
26	0	0					.1	321	0	0	0	42
27	0	0					0	268	0	0	0	34
28	0	0					0	225	0	0	0	29
29	g996	0					0	148	0	0	0	26
30	56	0					0	100	0	0	73	24
31	33	-					-	66	-	0	180	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	185	96	0	5.97	367
November	41.0	19	0	1.37	81
December	0	0	0	0	0
Calendar year 1941	36,291.1	2,970	0	99.4	71,990
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	1,775.4	785	0	59.2	3,520
May	6,834.6	2,030	0	220	13,560
June	122.2	45	0	4.07	242
July	3,226.0	1,120	0	104	6,400
August	253	180	0	8.16	502
September	32,253	4,610	16	1,075	63,970
Water year 1941-42	44,690.2	4,610	0	122	88,640

Peak discharge: May 23 (7 a.m.) 2,130 sec.-ft.; Sept. 5 (4 p.m.) 5,000 sec.-ft.; Sept. 8 (7:30 a.m.) 3,320 sec.-ft.; Sept. 11 (11 p.m.) 3,420 sec.-ft.
g Computed from graph based on gage readings.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Nueces River at Cotulla, Tex.

Location.- Wire-weight gage, lat. 28°26', long. 99°16', at bridge on U. S. Highway 81 at Cotulla, La Salle County, a third of a mile upstream from International-Great Northern Railroad bridge. Datum of gage is 368.08 feet above mean sea level, datum of 1929.

Drainage area.- 5,260 square miles.

Records available.- October 1923 to September 1942. July 1915 to June 1918 at site 4 miles upstream. 1914-17 and since 1922 (gage heights only) in reports of U. S. Weather Bureau.

Average discharge.- 19 years, 328 second-feet.

Extremes.- Maximum discharge observed during year, 10,200 second-feet Sept. 8 (gage height, 17.40 feet); no flow June 28 to July 2, Aug. 1-29.
1923-42: Maximum discharge, 82,600 second-feet June 18, 1935 (gage height, 32.4 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records good. Part of the flow of Nueces River and its tributaries enters the Edwards limestone in the Balcones fault zone which crosses the basin just north of the Uvalde. At low stages most of the headwater flow enters this formation. Low-water flow partly regulated by small storage reservoirs above station; most of it is diverted above station by pumping. Gage read once daily.

Cooperation.- Gage-height record furnished by U. S. Weather Bureau.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	52	0.3	0.3	0.3	0.3	0.2	1.0	182	0	0	113
2	1.5	47	.3	.3	.3	.3	.2	1.0	86	0	0	429
3	1.5	47	.3	.3	.3	.2	.2	1.0	54	61	0	523
4	1.5	26	.3	.3	.3	.2	.2	1.0	30	181	0	1,080
5	1.8	19	.3	.3	.3	.2	.2	1.0	26	334	0	918
6	1.5	6.1	.2	.3	.3	.2	.2	1.0	19	686	0	1,230
7	.4	5.5	.3	.3	.3	.2	.2	1.5	11	646	0	4,620
8	.4	2.9	.3	.3	.4	.2	.3	1.5	6.4	706	0	9,800
9	.4	1.2	.3	.3	.3	.2	.3	1.5	4.9	1,030	0	7,480
10	1.0	.4	.4	.3	.4	.2	.2	1.5	2.6	1,560	0	5,080
11	.3	.4	.4	.3	.4	.2	.2	1.5	1.8	1,620	0	4,920
12	.1	.3	.3	.3	.4	.2	6.0	1.2	1.2	1,190	0	4,220
13	.1	.3	.3	.3	.3	.2	227	.4	.3	473	0	3,660
14	.2	.4	.3	.3	.3	.2	498	1.0	.4	216	0	3,180
15	.1	.3	.3	.4	.3	.2	276	.3	.3	136	0	2,510
16	.3	.3	.3	.3	.3	.2	140	.4	.3	89	0	1,580
17	.3	.4	.3	.3	.3	.2	73	.3	.2	62	0	735
18	.4	.4	.3	.4	.3	.2	42	.3	d.2	40	0	404
19	13	.4	.3	.4	.3	.2	34	4.4	d.2	27	0	284
20	8.4	.4	.3	.3	.3	.2	20	1.0	d.1	14	0	200
21	2.9	.7	.3	.3	.3	.2	12	.4	d.1	d10	0	152
22	3.2	.7	.3	.3	.2	.2	11	.4	.1	d7.0	0	115
23	2.1	1.0	.3	.3	.3	.2	10	127	d.1	2.9	0	118
24	1.5	.4	.3	.4	.2	.2	17	944	.1	2.4	0	111
25	2.9	.4	.3	.4	.3	.2	6.7	1,360	.1	1.5	0	73
26	2.4	.4	.3	.3	.3	.2	1.8	1,510	.1	1.0	0	55
27	d1.8	.4	.3	.3	.2	.2	2.1	1,050	.1	.4	0	55
28	d1.0	.4	.3	.3	.2	.2	1.8	512	0	.4	0	44
29	.4	.4	.3	.3	-	.2	1.2	420	0	.4	0	26
30	d.4	.4	.4	.3	-	.2	1.5	324	0	.3	56	26
31	.4	-	.3	.3	-	.2	-	223	-	.3	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	53.7	13	0.1	1.73	107
November	215.9	52	.3	7.20	428
December	9.5	.4	.2	.31	19
Calendar year 1941	55,300.2	4,080	.1	152	109,700
January	9.8	.4	.3	.32	19
February	8.4	.4	.2	.30	17
March	6.4	.3	.2	.21	13
April	1,383.5	498	.2	46.1	2,740
May	6,493.6	1,510	.3	209	12,880
June	429.6	182	0	14.3	852
July	9,097.6	1,620	0	293	18,040
August	97	56	0	3.13	192
September	53,741	9,800	26	1,791	106,600
Water year 1941-42	71,546.0	9,800	0	196	141,900

d Doubtful gage-height record; discharge computed on basis of discharge measurements and engineer's notes.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Nueces River near Three Rivers, Tex.

Location.- Water-stage recorder, lat. 28°26'10", long. 98°11'10", 100 feet downstream from San Antonio, Uvalde & Gulf (Missouri Pacific) Railroad bridge, half a mile downstream from Frio River, and 2 miles southeast of town of Three Rivers, Live Oak County. Datum of gage is 101.16 feet above mean sea level, datum of 1929.

Drainage area.- 15,500 square miles.

Records available.- July 1915 to September 1942.

Average discharge.- 25 years (1915-18, 1920-42), 850 second-feet.

Extremes.- Maximum discharge during year, 55,000 second-feet July 9 (gage height, 44.64 feet); minimum, 6.4 second-feet June 22.

1915-42: Maximum discharge observed, 85,000 second-feet Sept. 18, 1919 (gage height, 46.0 feet), from rating curve extended above 55,000 second-feet; no flow at times.

Remarks.- Records good. Part of the flow of the Nueces River and its tributaries enters the Edwards limestone in the Balcones fault zone which crosses the basin just north of Uvalde in an east-west course. At low stages most of the headwater flow enters this formation. About 5,000 acres irrigated from river above station, and about 12,000 acres jointly from river and wells.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	324	546	54	48	45	48	34	188	1,060	150	63	6,500
2	296	205	51	46	45	49	34	159	769	200	56	5,760
3	306	163	51	44	45	46	33	102	391	924	49	3,720
4	609	116	63	44	45	46	33	74	268	482	48	2,760
5	2,730	96	174	44	45	45	33	464	180	3,130	45	3,810
6	2,040	87	112	44	46	44	33	224	121	9,460	44	4,960
7	449	77	69	50	45	44	33	59	95	25,400	39	5,750
8	268	71	55	48	48	42	82	52	85	41,800	35	6,580
9	212	69	49	48	52	40	949	184	93	51,000	31	12,000
10	182	67	47	48	125	39	1,580	445	49	51,000	29	17,000
11	161	65	51	48	209	39	452	169	37	36,500	28	20,000
12	146	63	50	48	106	39	306	183	29	24,400	26	20,600
13	152	59	50	49	67	39	214	152	24	14,300	24	20,600
14	144	59	49	49	61	38	134	67	20	7,490	22	21,600
15	152	57	49	49	59	38	148	44	18	g4,770	21	18,600
16	182	55	50	49	57	38	123	35	16	g2,600	22	12,600
17	134	52	50	50	57	38	84	31	13	g1,840	227	8,540
18	127	52	50	50	61	37	69	28	12	g1,230	296	6,320
19	127	52	49	50	56	37	61	283	10	g581	146	5,500
20	119	54	49	50	49	37	98	1,080	8.8	g391	69	4,750
21	104	60	50	49	48	37	146	1,320	7.4	g324	41	4,210
22	91	79	51	48	48	37	110	1,060	8.0	g268	28	3,780
23	85	65	49	47	50	35	89	1,150	22	g210	157	3,250
24	104	58	48	46	49	34	194	1,010	89	g178	106	1,690
25	91	56	48	47	48	34	897	587	264	g163	50	543
26	81	56	47	47	47	34	822	306	87	g131	37	400
27	74	55	46	46	45	33	363	315	188	116	28	315
28	70	55	46	46	44	32	220	524	165	106	25	277
29	569	56	46	46	-	34	186	740	268	96	22	250
30	1,090	55	46	45	-	34	121	1,180	258	93	1,460	224
31	1,370	-	46	45	-	34	-	980	-	76	6,040	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	12,569	2,730	70	406	24,970
November	2,660	546	52	88.7	5,280
December	1,745	174	46	56.3	3,460
Calendar year 1941	628,819	32,600	13	1,723	1,247,000
January	1,468	50	44	47.4	2,910
February	1,704	209	44	60.9	3,380
March	1,201	49	32	38.7	2,380
April	7,681	1,580	33	256	15,240
May	13,195	1,320	28	426	26,170
June	4,655.2	1,060	7.4	155	9,230
July	279,409	51,000	76	9,013	554,200
August	9,314	6,040	21	300	18,470
September	222,909	21,600	224	7,430	442,100
Water year 1941-42	558,530.2	51,000	7.4	1,530	1,108,000

g Computed from graph based on gage readings furnished by U. S. Weather Bureau.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Nueces River near Mathis, Tex.

Location.- Water-stage recorder, lat. 28°02', long. 97°52', at bridge on U. S. Highway 96, 200 feet downstream from Texas & New Orleans Railroad bridge, 0.8 mile downstream from Lake Corpus Christi Dam, and 4 miles southwest of Mathis, San Patricio County. Datum of gage is 27.53 feet above mean sea level, datum of 1929.

Drainage area.- 16,660 square miles.

Records available.- August 1939 to September 1942.

Extremes.- Maximum discharge during year, 49,400 second-feet July 12 (gage height, 37.38 feet); minimum, 10 second-feet (regulated) Aug. 28, 29; minimum daily, 11 second-feet (regulated) Aug. 27, 28.

1939-42: Maximum discharge, that of July 12, 1942; minimum, 3.7 second-feet (regulated) Aug. 15, 1940; minimum daily, 6.8 second-feet (regulated) Aug. 15, 1940. Maximum stage known, 39.9 feet September 1919, from floodmark at railroad bridge 200 feet upstream; mark identified by railroad engineers.

Remarks.- Records good except those for periods of no recorder record, which are fair. Flow regulated by Lake Corpus Christi reservoir. (Original capacity at spillway crest, about 64,000 acre-feet, as determined by Texas State Board of Water Engineers, computed from Geological Survey advance topographic sheets, scale 1:48,000, contour interval, 10 feet; the U. S. Soil Conservation Service in connection with a siltation survey, determined the capacity in 1942 to be 43,400 acre-feet, which survey also determined the original capacity to be 54,000 acre-feet, indicating a loss of 10,600 acre-feet by siltation). Part of the flow of the Nueces River and its tributaries enters the Edwards limestone in the Balcones fault zone which crosses the basin just north of Uvalde in an east-west course. At low stages most of the headwater flow enters this formation. About 5,000 acres irrigated from river above station and about 12,000 acres jointly from river and wells.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	f420	387	119	114	24	84	96	142	588	37	55	5,560
2	494	356	113	113	23	29	97	142	626	33	53	6,570
3	420	265	78	114	22	25	96	142	554	34	52	6,650
4	420	237	209	117	22	51	97	142	368	167	51	5,480
5	513	251	164	117	21	148	96	141	272	889	50	4,250
6	1,310	170	138	115	20	120	94	142	328	9,580	49	4,090
7	1,510	157	131	124	20	118	94	121	244	14,500	46	4,850
8	752	153	129	121	22	56	98	112	195	14,800	45	5,900
9	430	121	125	120	21	61	96	104	120	24,100	45	8,250
10	336	117	127	118	21	96	90	104	118	36,400	44	10,900
11	251	114	130	115	21	96	92	96	90	44,800	43	14,000
12	188	114	112	115	21	97	94	81	85	49,000	41	17,400
13	177	115	103	114	21	96	96	63	85	45,500	41	20,800
14	251	114	103	114	25	96	97	63	84	36,100	42	22,500
15	239	112	103	113	26	96	98	63	73	23,000	42	22,200
16	354	115	98	114	26	95	97	62	70	12,100	41	21,800
17	372	117	97	114	25	95	98	60	70	5,170	40	19,800
18	258	116	109	133	26	97	96	59	68	2,400	40	15,900
19	244	118	115	157	26	98	94	62	66	1,480	39	11,700
20	143	118	119	120	26	98	53	59	67	848	40	8,100
21	130	120	125	109	26	97	155	82	70	528	39	5,840
22	124	121	114	111	27	98	153	85	68	376	38	4,680
23	120	119	115	113	31	98	153	110	68	431	37	4,110
24	119	118	115	111	28	98	152	317	68	440	37	3,580
25	118	118	115	108	28	96	152	483	68	381	37	2,430
26	118	119	115	58	28	96	144	418	56	354	34	1,540
27	118	117	113	24	26	96	144	284	45	78	11	848
28	117	115	112	24	28	96	153	230	45	36	11	631
29	117	114	111	24	-	96	153	258	47	34	21	576
30	132	114	112	32	-	96	144	376	49	34	596	666
31	282	-	112	26	-	96	-	494	-	60	2,660	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	10,477	1,510	117	338	20,780
November	4,544	387	112	151	9,010
December	3,681	209	78	119	7,300
Calendar year 1941	674,217	27,400	19	1,847	1,337,000
January	3,122	157	24	101	6,190
February	681	31	20	24.3	1,350
March	2,815	148	25	90.8	5,580
April	3,372	155	53	112	6,690
May	5,097	494	59	164	10,110
June	4,755	626	45	158	9,430
July	323,890	49,000	33	10,440	642,000
August	4,440	2,680	11	143	8,810
September	261,601	22,500	576	8,720	518,900
Water year 1941-42	628,275	49,000	11	1,721	1,246,000

f Fragmentary gage-height record; discharge computed from partly estimated gage heights

Note.- Discharge Oct. 9-13, 17-25, Oct. 30 to Nov. 16, Dec. 3-22, Jan. 18-22, Jan. 26 to Feb. 16 computed from graph based on once-daily or more frequent gage readings.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Nueces River at Calallen, Tex.

Location.- Staff gage, lat. 27°52'40", long. 97°37'35", at old pump house of city of Corpus Christi, half a mile northwest of Calallen, Nueces County, and half a mile upstream from tidewater and breakwater dam. Datum of gage is 1.12 feet above mean sea level, datum of 1929.

Drainage area.- 16,920 square miles.

Records available.- August 1915 to September 1942. (1918-42, gage heights only.)

Extremes.- Maximum gage height observed during year, 13.58 feet July 13; minimum observed, 3.34 feet Feb. 6.
1915-42: Maximum gage height observed, that of July 13, 1942; no flow Aug. 23-29, 1918 (only period of no flow known).

Remarks.- Discharge not computed. Gage read twice daily.

Cooperation.- Gage readings furnished by city of Corpus Christi.

Gage height, in feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.40	4.27	3.90	3.90	3.47	3.55	3.82	3.90	4.46	3.56	3.80	6.49
2	4.40	4.38	3.88	3.89	3.50	3.61	3.80	3.91	4.62	3.51	3.80	7.55
3	4.45	4.41	3.87	3.90	3.49	3.68	3.77	3.91	4.69	3.52	3.76	8.30
4	4.49	4.24	3.88	3.91	3.50	3.55	3.83	3.90	4.57	3.61	3.80	8.76
5	4.49	4.20	4.10	3.90	3.50	3.48	3.80	3.90	4.34	3.96	3.79	8.81
6	4.71	4.15	3.88	3.91	3.42	3.91	3.80	3.91	4.24	6.53	3.80	8.53
7	5.60	3.94	3.88	3.93	3.44	3.94	3.81	3.90	4.30	9.12	3.78	8.11
8	5.66	3.90	3.90	3.90	3.47	3.85	3.80	3.88	4.16	10.35	3.77	8.06
9	4.94	3.98	3.90	3.89	3.61	3.77	3.84	3.79	4.05	10.23	3.76	8.25
10	4.45	3.95	3.90	3.91	3.68	3.59	3.80	3.80	3.85	10.40	3.73	8.65
11	4.55	3.88	3.97	3.90	3.60	3.81	3.79	3.81	3.83	11.94	3.73	9.13
12	4.26	3.85	3.89	3.91	3.54	3.79	3.80	3.80	3.74	13.06	3.70	9.45
13	4.05	3.85	3.88	3.89	3.55	3.83	3.79	3.78	3.67	13.55	3.71	9.90
14	4.04	3.83	3.87	3.91	3.84	3.83	3.81	3.68	3.72	13.34	3.69	10.60
15	4.24	3.86	3.86	3.91	3.84	3.81	3.79	3.61	3.67	12.62	3.76	11.02
16	4.09	3.87	3.85	3.93	3.79	3.83	3.79	3.63	3.87	11.53	3.74	11.09
17	4.35	3.90	3.84	3.91	3.68	3.81	3.76	3.63	3.66	10.56	3.73	11.05
18	4.21	3.88	3.85	3.91	3.61	3.76	3.82	3.65	3.61	9.68	3.74	10.96
19	4.21	3.88	3.87	3.97	3.60	3.77	3.83	3.64	3.55	8.66	3.73	10.68
20	4.12	3.88	3.84	3.94	3.55	3.82	3.80	3.63	3.54	7.23	3.72	10.24
21	3.92	3.89	3.89	3.91	3.59	3.80	3.79	3.62	3.65	5.38	3.72	9.79
22	3.91	3.90	3.88	3.93	3.55	3.80	3.78	3.66	3.55	4.74	3.74	9.30
23	3.91	3.90	3.86	3.91	3.57	3.81	3.88	3.69	3.78	4.50	3.73	8.78
24	3.93	3.88	3.86	3.91	3.51	3.80	3.96	3.76	3.70	4.72	3.75	8.29
25	3.90	3.80	3.88	3.91	3.54	3.81	3.93	4.25	3.65	4.62	3.76	7.83
26	3.90	3.84	3.90	3.90	3.45	3.81	3.93	4.48	3.64	4.58	3.75	6.90
27	3.88	3.81	3.88	3.66	3.49	3.77	3.90	4.36	3.65	4.48	3.75	5.39
28	3.89	3.85	3.88	3.57	3.52	3.77	3.89	4.18	3.56	3.93	3.60	4.51
29	3.89	3.89	3.88	3.54	-	3.81	3.91	4.06	3.58	3.69	3.55	4.41
30	3.90	3.89	3.89	3.54	-	3.81	3.91	4.16	3.54	3.72	4.14	4.41
31	3.93	-	3.90	3.49	-	3.81	-	4.36	-	3.69	5.59	-

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

West Nueces River near Brackettville, Tex.

Location.- Water-stage recorder, lat. 29°28'55", long. 100°14'20", at Bruce Ranch, 11 miles upstream from Liveoak Creek, 15.8 miles northeast of Brackettville, Kinney County. Datum of gage is 1,326.8 feet above mean sea level, datum of 1929. Prior to Mar. 14, 1940, staff gage at same site and datum.

Drainage area.- 700 square miles.

Records available.- October 1939 to September 1942.

Extremes.- 1939-40: Maximum gage height during year, 11,56 feet, from floodmark, Oct. 27 (discharge not determined); no flow at times.
1940-41: Maximum discharge during year, 7.6 second-feet May 6 (gage height, 3.21 feet); no flow at times.
1941-42: Maximum discharge during year, 6.8 second-feet Sept. 11; maximum gage height, 2.96 feet Sept. 11, 12; no flow at times.
Maximum stage known, 48.0 feet June 14, 1935, from floodmark, at site 0.6 mile above gage (discharge at a point 33 miles above gage and 2½ miles downstream from Kickapoo Creek, 580,000 second-feet, by slope-area method; a second determination 24 miles below gage and 8 miles north of Cline, 536,000 second-feet, by slope-area method).

Remarks.- Records fair. No diversion above station. Staff gage read twice daily prior to Mar. 14, 1940.

Discharge, in second-feet, of West Nueces River near Brackettville, Tex., 1939-42

1939-40

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	4.1					0	0	1.0	15		
2	0	3.6					0	0	.9	16		
3	0	3.0					0	0	.7	15		
4	0	2.7					0	0	.6	13		
5	0	2.6					0	0	.5	10		
6	0	2.3					0	0	.4	7.6		
7	0	2.1					0	0	.3	5.5		
8	0	1.8					.3	0	.2	4.1		
9	0	1.5					.9	0	.2	3.4		
10	2,160	1.4					.9	0	.1	2.9		
11	237	1.5					.7	0	0	2.4		
12	38	1.4					.4	.7	0	2.1		
13	8.0	1.3					.3	.7	0	1.8		
14	4.3	1.2					.1	.6	0	1.6		
15	3.9	1.1					0	.4	0	1.5		
16	4.1	1.1					0	.4	0	1.2		
17	3.7	1.0					0	.3	0	1.0		
18	3.3	.9					0	.5	0	.7		
19	2.9	.9					0	8.6	0	.5		
20	2.6	.7					0	13	0	.3		
21	2.5	.5					0	13	0	.1		
22	2.1	.5					0	12	0	0		
23	1.8	.4					0	10	0	0		
24	1.6	.2					0	8.0	0	0		
25	1.6	.1					0	7.2	0	0		
26	2.1	0					0	5.8	0	0		
27	2,180	0					0	4.3	0	0		
28	195	0					0	2.9	0	0		
29	38	0					0	1.7	.9	0		
30	8.9	0					0	1.3	7.6	0		
31	5.2	-					-	1.1	-	0		

1940-41

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	0.7	3.6	0.4			
2						0	.5	4.1	.4			
3						0	.4	4.7	.4			
4						0	.3	6.8	.4			
5						0	.1	6.8	.3			
6						0	0	7.2	.3			
7						0	0	6.8	.3			
8						0	0	6.1	.2			
9						0	0	4.7	.3			
10						0	0	3.9	.3			
11						0	0	3.3	.2			
12						0	0	2.7	0			
13						0	0	2.2	0			
14						0	0	1.9	0			
15						0	0	1.8	.3			
16						0	0	1.7	.3			
17						0	0	1.5	0			
18						0	0	1.3	0			
19						0	0	1.3	0			
20						.5	0	1.1	0			
21						.7	0	1.1	0			
22						.6	0	1.0	0			
23						.4	0	.9	0			
24						.3	0	.8	0			
25						.2	0	.7	0			
26						.2	0	.7	0			
27						.4	0	.6	0			
28						1.1	1.3	.5	0			
29						1.2	2.9	.5	0			
30						1.1	3.7	.4	0			
31						.9	-	.4	-			

556253 O - 43 - 11

Discharge, in second-feet, of West Nueces River near Brackettville, Tex., 1939-42--Continued

1941-42

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.7										0
2	0	.5										0
3	0	.4										0
4	0	.2										0
5	0	.1										0
6	0	0										.8
7	0	0										2.0
8	0	0										2.9
9	0	0										4.5
10	0	0										6.4
11	0	0										6.8
12	0	0										5.5
13	0	0										4.1
14	0	0										2.7
15	0	0										1.9
16	0	0										1.5
17	0	0										1.2
18	0	0										.8
19	0	0										.7
20	0	0										.6
21	0	0										.4
22	0	0										.2
23	0	0										.1
24	0	0										0
25	1.4	0										0
26	2.5	0										0
27	2.0	0										0
28	1.6	0										0
29	1.4	0										0
30	1.3	0										0
31	1.0	-										-

Monthly discharge, in second-feet, 1939-42

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1939	4,906.6	2,180	0	158	9,730
November	37.9	4.1	0	1.26	75
December	0	0	0	0	0
Calendar year	-	-	-	-	-
January 1940	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	3.6	.9	0	.12	7.1
May	92.5	13	0	2.98	183
June	13.4	7.6	0	.45	27
July	105.7	16	0	3.41	210
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1939-40	5,159.7	2,180	0	14.1	10,230
October 1940	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1940	215.2	16	0	.59	427
January 1941	0	0	0	0	0
February	0	0	0	0	0
March	7.6	1.2	0	.25	15
April	9.9	3.7	0	.33	20
May	81.1	7.2	.4	2.62	161
June	4.1	.4	0	.14	8.1
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1940-41	102.7	7.2	0	.28	204
October 1941	11.2	2.5	0	.36	22
November	1.9	.7	0	.06	3.8
December	0	0	0	0	0
Calendar year 1941	115.8	7.2	0	.32	230
January 1942	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	43.1	6.8	0	1.44	85
Water year 1941-42	56.2	6.8	0	.15	111

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Frio River at Concan, Tex.

Location.- Water-stage recorder, lat. 29°29', long. 99°42', half a mile southeast of Concan post office, Uvalde County, and 15 miles upstream from Dry Frio River. Datum of gage is 1,203.71 feet above mean sea level, datum of 1929.

Drainage area.- 485 square miles.

Records available.- October 1923 to September 1942.

Average discharge.- 17 years (1924-29, 1930-42), 118 second-feet.

Extremes.- Maximum discharge during year, 5,260 second-feet Oct. 24 (gage height, 6.32 feet); minimum, 27 second-feet Aug. 14.
1923-42: Maximum discharge, 162,000 second-feet July 1, 1932 (gage height, 34.44 feet, from floodmarks), by slope-area method; minimum observed, 8.1 second-feet Aug. 2, 3, 1928.

Remarks.- Records good except those above 300 second-feet, which are fair. Part of the flow of the Frio River enters the Edwards limestone in the Balcones fault zone which crosses the basin just north of Uvalde and most of the low flow enters this formation. No diversion above gage.

Rating tables, water year 1941-42 (gage height, in feet, and discharge, in second-feet)

Oct. 1-24

1.8	122	2.4	380	3.0	805
2.0	184	2.6	510	3.2	980
2.2	270	2.8	650	3.4	1,180

Oct. 25 to Sept. 30

1.4	27	2.0	162	2.6	460
1.6	58	2.2	245	2.8	590
1.8	100	2.4	345		

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	160	205	128	95	77	73	58	120	84	58	40	122
2	160	197	128	93	77	71	58	111	81	60	39	93
3	156	193	128	93	77	69	58	108	79	70	39	84
4	163	189	125	93	77	69	58	106	77	64	39	81
5	174	185	125	93	77	67	58	100	81	147	39	81
6	196	182	122	93	75	67	60	100	79	71	38	79
7	184	178	122	90	75	67	73	103	79	69	36	107
8	174	174	122	88	75	65	77	208	77	63	36	515
9	166	174	122	88	75	65	63	148	75	60	36	394
10	184	170	122	86	75	65	62	122	73	56	34	285
11	217	166	122	86	75	63	60	114	71	55	34	236
12	225	162	122	84	75	63	58	111	69	55	34	214
13	209	162	117	84	73	63	58	106	67	53	33	197
14	196	162	117	86	81	63	58	98	65	53	32	189
15	188	158	114	88	81	63	58	93	73	52	32	178
16	196	155	111	86	79	63	58	93	69	50	58	170
17	188	155	111	84	75	63	58	90	65	50	63	162
18	180	155	108	84	73	63	58	90	63	48	53	158
19	177	151	108	84	71	63	72	260	62	47	45	155
20	174	148	108	81	73	63	255	250	62	47	42	178
21	170	148	108	81	73	62	170	151	60	47	44	158
22	170	144	106	81	73	62	122	125	56	50	44	148
23	174	144	103	79	71	62	108	117	55	47	44	141
24	1,000	144	100	79	69	62	108	108	53	47	44	138
25	270	141	98	79	69	63	207	103	53	45	44	134
26	236	141	98	79	69	63	170	100	52	45	44	131
27	223	138	98	79	69	62	158	98	50	45	42	125
28	214	138	98	79	69	60	141	95	48	44	40	122
29	210	134	98	79	-	60	131	93	48	44	40	120
30	219	131	98	79	-	60	125	90	47	42	331	120
31	214	-	98	77	-	60	-	86	-	42	220	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,767	1,000	156	218	13,420
November	4,824	205	131	161	9,570
December	3,485	128	98	112	6,910
Calendar year 1941	57,929	2,340	50	159	114,900
January	2,630	95	77	84.8	5,220
February	2,078	81	69	74.2	4,120
March	1,984	73	60	64.0	3,940
April	2,858	255	58	95.3	5,670
May	3,697	260	86	119	7,330
June	1,973	84	47	65.8	3,910
July	1,726	147	42	55.7	3,420
August	1,739	331	32	56.1	3,450
September	5,015	515	79	167	9,950
Water year 1941-42	38,776	1,000	32	106	76,910

Peak discharge: Oct. 24 (5:45 a.m.) 5,260 sec.-ft.; May 19 (4:30 p.m.) 622 sec.-ft.; Aug. 30 (6:30 p.m.) 1,540 sec.-ft.; Sept. 8 (2 p.m.) 726 sec.-ft.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Frio River near Derby, Tex.

Location.- Water-stage recorder and concrete control, lat. 28°44'10", long. 99°08'45", at bridge on U. S. Highway 81, 150 feet upstream from International-Great Northern Railroad bridge, 750 feet downstream from Leona River, and 2.4 miles south of Derby, Frio County. Datum of gage is 449.3 feet above mean sea level, datum of 1929.

Drainage area.- 3,493 square miles.

Records available.- August 1915 to September 1942.

Average discharge.- 27 years, 172 second-feet.

Extremes.- Maximum discharge during year, 5,080 second-feet Sept. 9 (gage height, 9.06 feet); minimum, 1.0 second-foot June 22.
1915-42: Maximum discharge, 230,000 second-feet July 4, 1932 (gage height, 29.60 feet, present site, from floodmarks at former site), by slope-area method; no flow at times.

Remarks.- Records good except those for period of no gage-height record; which are fair. Part of the flow of the Frio River and its tributaries enters the Edwards limestone in the Balcones fault zone which crosses the basin just north of Uvalde in an east-west course. At low stages all of the headwater flow, with few exceptions, enters this formation. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	36	18	21	22	27	19	25	17	2.4	4.2	1,000
2	39	32	18	21	22	26	20	22	16	2.4	4.2	257
3	37	30	18	22	24	26	21	20	16	3.6	4.2	85
4	37	31	17	22	25	26	21	18	12	6.3	4.2	524
5	39	30	16	22	25	25	19	17	9.5	43	4.2	3,110
6	37	28	16	22	26	25	19	16	10	617	4.2	1,640
7	36	26	17	22	26	25	61	14	9.5	2,430	4.2	484
8	55	25	17	21	27	24	114	14	6.6	1,130	4.2	1,790
9	52	24	16	21	28	24	82	13	8.6	400	4.2	4,900
10	46	22	16	20	28	24	61	12	8.6	256	4.2	2,790
11	42	22	18	21	30	22	110	12	8.6	99	4.2	359
12	38	24	18	22	30	22	52	32	7.7	38	4.2	147
13	34	24	19	22	31	22	32	22	6.8	21	3.6	63
14	36	25	20	22	31	24	27	19	5.9	16	3.6	34
15	39	25	20	22	31	22	25	17	5.0	12	3.2	24
16	36	25	20	21	31	21	24	17	3.6	11	3.2	17
17	33	24	19	21	31	21	24	17	2.8	11	3.2	14
18	30	24	19	22	33	20	24	16	3.6	8.6	186	12
19	31	21	20	22	32	19	24	14	3.6	7.7	140	11
20	32	20	20	21	31	19	24	50	2.1	6.8	42	11
21	31	18	20	21	31	21	24	47	1.8	6.8	19	11
22	30	18	21	21	32	22	24	38	1.8	5.9	14	11
23	30	18	21	20	31	21	25	33	2.1	5.9	10	10
24	27	18	21	19	27	22	26	30	2.1	5.0	7.7	33
25	1,120	18	20	21	28	22	25	28	2.1	5.0	2.8	24
26	2,850	17	20	21	28	21	22	27	2.4	5.9	3.2	18
27	409	17	19	22	37	20	199	26	2.1	5.9	3.2	13
28	144	18	19	21	27	22	76	19	2.1	5.0	3.2	12
29	82	17	20	20	-	22	39	19	2.1	5.0	2.8	11
30	57	19	21	21	-	22	30	19	2.1	5.0	5.9	10
31	43	-	21	21	-	20	-	18	-	5.0	111	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,591	2,850	27	180	11,090
November	696	36	17	23.2	1,380
December	585	21	16	18.9	1,160
Calendar year 1941	78,018.6	13,000	.7	214	154,700
January	658	22	19	21.2	1,310
February	795	33	22	28.4	1,580
March	699	27	19	22.5	1,390
April	1,295	199	19	43.2	2,570
May	691	50	12	22.3	1,370
June	186.2	17	1.8	6.21	369
July	5,182.2	2,430	2.4	167	10,280
August	618.0	186	2.8	19.9	1,230
September	17,425	4,900	10	581	34,560
Water year 1941-42	34,421.4	4,900	1.8	94.3	68,290

Peak discharge.- Oct. 26 (9 a.m.) 3,700 sec.-ft.; July 7 (4 p.m.) 2,800 sec.-ft.; Sept. 5 (8 p.m.) 3,700 sec.-ft.; Sept. 9 (9 p.m.) 5,080 sec.-ft.

Note.- No gage-height record Feb. 27 to Mar. 10, Apr. 28 to May 26; discharge computed on basis of known range in stage, engineer's notes, and weather records.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Frio River at Calliham, Tex.

Location.- Water-stage recorder and concrete control, lat. 28°29'30", long. 98°20'45", at bridge on Calliham-Whitsett highway, 1 mile north of Calliham, McMullen County, and 9.7 miles downstream from San Miguel Creek. Datum of gage is 153.47 feet above mean sea level.

Drainage area.- 5,491 square miles.

Records available.- October 1924 to April 1926, April 1932 to September 1942.

Average discharge.- 11 years (1924-25, 1932-42), 329 second-feet.

Extremes.- Maximum discharge during year, 23,700 second-feet July 7 (gage height, 32.00 feet); minimum, 3.4 second-feet June 22.
1924-26, 1932-42: Maximum discharge, 109,000 second-feet July 6, 1932 (gage height, 39.20 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records good. Part of the flow of the Frio River and its tributaries enters the Edwards limestone in the Balcones fault zone which crosses the basin just north of Uvalde in an east-west course. At low stages all of the headwater flow, with few exceptions, enters this formation. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	176	23	22	22	27	18	123	29	5.8	34	2,110
2	92	100	26	21	23	26	17	73	23	12	32	1,780
3	84	77	27	20	22	25	17	48	19	6.2	32	490
4	150	63	110	20	22	25	17	36	17	1,120	33	577
5	236	55	107	21	22	25	17	30	16	3,350	33	1,500
6	102	49	60	21	21	25	17	26	17	16,900	31	2,540
7	79	44	37	23	21	24	17	27	14	21,900	28	2,850
8	68	42	28	23	24	22	49	69	22	21,100	25	3,170
9	65	40	25	23	27	21	747	404	20	13,200	23	6,620
10	63	39	23	23	53	21	310	285	15	4,680	23	8,700
11	58	38	23	23	63	21	188	84	11	2,570	21	6,990
12	66	36	23	25	37	20	161	65	9.7	1,830	20	4,550
13	69	33	24	26	33	18	96	46	8.3	825	18	4,460
14	65	32	25	25	33	18	88	34	7.1	377	17	3,550
15	60	30	26	25	32	18	98	27	6.8	188	15	1,650
16	57	27	26	26	29	18	65	24	6.8	135	96	386
17	52	26	25	26	34	19	44	22	6.8	109	137	185
18	49	25	25	26	33	17	36	20	5.8	96	26	135
19	50	26	26	27	32	17	32	394	4.8	88	17	109
20	50	28	26	26	29	19	31	943	4.5	77	13	92
21	48	32	28	26	29	19	28	999	3.8	71	12	80
22	43	31	27	25	30	17	27	782	4.3	66	92	71
23	49	28	26	23	30	16	26	358	10	61	98	66
24	57	27	25	24	30	15	173	135	34	57	55	61
25	46	26	24	24	29	15	224	84	22	50	123	58
26	44	24	24	23	28	15	164	93	39	48	105	55
27	42	23	24	23	26	16	106	105	28	43	98	a49
28	245	23	24	23	26	18	60	68	17	43	98	a48
29	889	22	23	22	-	19	50	55	11	43	84	a44
30	1,310	22	22	23	-	18	83	43	6.8	40	687	a43
31	960	-	24	23	-	18	-	37	-	37	3,400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,344	1,310	42	172	10,600
November	1,244	176	22	41.5	2,470
December	986	110	22	31.8	1,960
Calendar year 1941	228,856	20,800	3.8	627	453,900
January	731	27	20	23.6	1,450
February	840	63	21	30.0	1,670
March	612	27	15	19.7	1,210
April	3,006	747	17	100	5,960
May	5,539	999	20	179	10,990
June	439.5	39	3.8	14.6	872
July	89,128.0	21,900	5.8	2,875	176,800
August	5,526	3,400	12	178	10,960
September	53,019	8,700	43	1,767	105,200
Water year 1941-42	166,414.5	21,900	3.8	456	330,100

a No gage-height record; discharge computed on basis of known range in stage and weather records.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Sabinal River seepage investigation

A series of discharge measurements was made on each day May 8, 18, and Aug. 5, 1942 on the Sabinal River and tributaries in Texas, in reaches 9.5 and 17.5 miles in length between points below Utopia and a point 6.0 miles north of Sabinal, Uvalde County. The investigations were made during periods of constant stage of the river except as noted, and the determinations of gain or loss represent normal conditions.

Discharge measurements on Sabinal River and tributaries between point 1.0 mile south of Utopia and point 6 miles north of Sabinal, Tex., 1942

Date	Stream or diversion	Location	Distance below initial point (miles)	Discharge, in second-feet			
				Main stream	Tributary	Gain or loss in section	Total gain or loss
May 8	Sabinal River..	1.0 mile south of Utopia, Uvalde County.	0	32.0	-	-	-
8	....do.....	¼ mile upstream from county road crossing, 3½ miles south of Utopia, Uvalde County.	3.0	36.3	-	+4.3	-
8	Onion Creek....	Mouth 7½ miles south of Utopia, Uvalde County.	8.0	-	a0.7	-	-
8	Sabinal River..	Just downstream from Onion Creek, 7½ miles south of Utopia, Uvalde, County.	8.0	45.5	-	+8.5	+12.8
8	....do.....	100 feet downstream from county road crossing, 9.0 miles south of Utopia, Uvalde County.	10.0	b45.1	-	-.4	+12.4
8	....do.....	At county road crossing, 10½ miles south of Utopia, Uvalde County.	12.0	c35.1	-	-10.0	+2.4
8	....do.....	At side road crossing, 0.4 mile west of Utopia-Sabinal county road, 6.0 miles north of Sabinal, Uvalde County.	17.5	d1.5	-	-	-
18	....do.....	175 feet downstream from Onion Creek, 7½ miles south of Utopia, Uvalde County.	0	e32.3	-	-	-
18	....do.....	200 feet downstream from county road crossing, about 2 miles downstream from Onion Creek and 9.0 miles south of Utopia, Uvalde County.	2	31.8	-	-.5	-
18	....do.....	At county road crossing, 10.5 miles south of Utopia, Uvalde County.	4	23.0	-	-8.8	-9.3
18	....do.....	At side road crossing, 0.4 mile west of Sabinal-Utopia county road, 6.0 miles north of Sabinal, Uvalde County.	9.5	0	-	-23.0	-32.3
Aug. 5	....do.....	175 feet downstream from Onion Creek, 7½ miles south of Utopia, Uvalde County.	0	f6.55	-	-	-
5	....do.....	200 feet downstream from county road crossing, about 2 miles downstream from Onion Creek and 9.0 miles south of Utopia, Uvalde County.	2	3.03	-	-3.52	-
5	....do.....	At county road crossing, 10.5 miles south of Utopia, Uvalde County.	4	0	-	-3.03	-6.55
5	....do.....	At side road crossing, 0.4 mile west of Sabinal- Utopia county road, 6.0 miles north of Sabinal, Uvalde County.	9.5	0	-	0	-6.55

a Estimated.
b A second discharge measurement on May 9 gave 42.3 second-feet.
c A second discharge measurement on May 9 gave 33.2 second-feet.
d Flow estimated at 8:30 a.m.; discharge determined again at 7:40 p.m. gave 7.2 second-feet. A small rise, which at 8 a.m. May 8 had passed downstream from other points of flow determination, affects seepage results in this vicinity only and not used. River was not flowing at 8 p.m. May 7, from information by local resident.
e Onion Creek was contributing an estimated discharge of 1.2 second-feet during investigation.
f Onion Creek was contributing an estimated discharge of 0.4 second-feet during investigation.
Time basis: Central war time. To convert war time to standard time, subtract 1 hour.

Leona River spring flow near Uvalde, Tex.

Location.- Water-stage recorder, lat. 29°09', long. 99°44', at old road crossing on White's ranch, 3½ miles downstream from Cooks Slough and 5.6 miles southeast of Uvalde, Uvalde County.

Records available.- January 1939 to September 1942. Occasional discharge measurements since 1925 in connection with seepage investigations.

Extremes.- Maximum daily spring discharge during year, 33 second-feet Feb. 15-18; maximum gage height (flood runoff), 2.90 feet July 6; minimum daily, 18 second-feet Aug. 27-29.

1939-42: Maximum daily spring discharge, that of Feb. 15-18, 1942; maximum gage height (flood runoff), 12.87 feet July 13, 1939; minimum daily, 12 second-feet several days in February, March, and April 1941.

Remarks.- Records good. Discharge represents flow from several springs that enter river above station and below Uvalde. Surface runoff from precipitation is excluded. Many small diversions by pumping from river channel above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	29	32	31	32	32	29	30	26	20	23	e21
2	26	29	32	31	32	32	29	30	26	20	22	e21
3	26	29	32	32	32	32	29	30	26	20	22	21
4	26	29	32	32	32	32	29	30	25	20	22	21
5	26	29	32	32	32	32	30	30	25	e21	22	21
6	26	28	31	32	32	31	30	30	25	e22	22	21
7	26	28	31	32	32	31	e29	30	25	e23	22	e22
8	26	28	30	31	32	31	e29	29	25	24	22	e23
9	26	28	30	31	32	31	29	29	24	24	22	e24
10	26	28	30	32	32	31	29	29	24	24	22	25
11	27	29	31	32	32	31	29	29	24	24	21	24
12	27	29	30	32	32	31	29	29	24	24	20	23
13	27	29	30	32	32	31	30	29	24	24	20	22
14	27	29	30	32	32	31	30	28	24	24	19	22
15	27	30	30	32	33	31	30	28	24	24	19	22
16	27	30	30	31	33	30	30	28	24	24	19	22
17	27	30	31	31	33	30	29	28	23	24	19	22
18	27	30	31	31	33	30	30	28	22	23	19	22
19	27	30	31	31	32	30	30	e28	22	23	19	22
20	27	30	30	31	32	30	30	27	22	23	19	22
21	27	31	30	31	32	30	30	27	22	23	19	22
22	27	31	30	31	32	30	30	27	22	23	19	22
23	27	31	30	31	32	30	30	27	22	23	19	23
24	27	31	30	32	32	30	30	28	22	22	19	23
25	27	31	30	31	32	30	30	27	22	22	19	23
26	27	31	30	32	31	30	30	27	22	22	19	24
27	27	31	30	31	31	30	30	27	22	22	18	23
28	27	31	30	31	31	29	30	27	22	22	18	23
29	27	31	30	31	-	30	30	27	22	22	18	23
30	27	31	30	31	-	30	30	27	21	23	e20	23
31	28	-	30	31	-	30	-	27	-	23	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	828	28	26	26.7	1,640
November	891	31	28	29.7	1,770
December	946	32	30	30.5	1,880
Calendar year 1941	7,558	32	12	20.7	15,000
January	974	32	31	31.4	1,930
February	897	33	31	32.0	1,780
March	949	32	29	30.6	1,880
April	889	30	29	29.6	1,760
May	877	30	27	28.3	1,740
June	703	26	21	23.4	1,390
July	702	24	20	22.6	1,390
August	624	23	18	20.1	1,240
September	672	25	21	22.4	1,330
Water year 1941-42	9,952	33	18	27.3	19,730

e Gage-height not representative of spring flow; discharge interpolated.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Atascosa River at Whitsett, Tex.

Location.- Water-stage recorder and wooden control, lat. 28°39', long. 98°18', 0.9 mile west of Whitsett, Live Oak County, and 4 miles downstream from La Parita Creek. Datum of gage is 159.0 feet above mean level, datum of 1929.

Drainage area.- 1,171 square miles.

Records available.- September 1924 to May 1926, May 1932 to September 1942.

Average discharge.- 11 years (1924-25, 1932-42), 171 second-feet.

Extremes.- Maximum discharge during year, 39,300 second-feet July 7 (gage height, 38.3 feet, from floodmark), from rating curve extended above 12,000 second-feet on basis of slope-area measurement at gage height 38.0 feet; minimum, 2.7 second-feet, July 1. 1924-26, 1932-42: Maximum discharge, that of July 7, 1942; no flow at times.

Remarks.- Records good. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	21	18	17	15	18	14	27	9.4	4.6	36	3,310
2	63	20	18	16	15	18	13	25	9.0	699	34	700
3	79	20	18	16	14	18	13	23	8.2	339	33	144
4	1,350	20	18	16	14	18	13	74	7.8	164	32	122
5	2,330	20	17	15	15	16	13	521	7.4	2,460	31	1,270
6	424	19	16	16	15	16	13	56	17	a23,900	30	1,720
7	117	19	16	16	15	16	13	37	22	a37,200	29	1,900
8	70	18	16	16	16	15	303	35	51	a20,100	27	3,130
9	53	18	16	16	52	14	819	29	21	2,490	26	a14,300
10	45	18	17	16	144	14	578	25	14	364	25	a16,500
11	40	18	19	16	56	15	96	22	10	225	25	a12,300
12	35	16	18	16	31	15	54	21	8.6	160	23	1,400
13	32	16	19	16	22	15	41	21	7.4	129	22	253
14	30	16	18	16	21	16	36	20	6.4	109	22	190
15	28	16	18	17	20	16	33	18	5.5	94	21	159
16	25	16	18	17	22	16	29	16	5.5	84	23	146
17	24	17	18	16	24	16	27	15	5.5	75	145	128
18	24	17	18	16	21	16	25	15	5.2	68	127	110
19	23	17	18	16	16	15	25	117	4.6	61	60	102
20	23	18	18	16	15	14	23	270	4.0	58	41	97
21	22	24	18	16	15	13	23	80	3.6	53	25	96
22	21	22	18	16	15	13	22	29	3.6	50	22	124
23	25	20	18	16	16	13	21	20	4.6	47	19	90
24	23	19	18	16	18	12	102	19	4.6	44	18	76
25	24	19	18	16	18	15	711	16	4.3	42	21	70
26	22	18	16	15	17	15	217	27	4.3	41	20	66
27	22	18	16	15	16	14	72	25	3.8	40	19	61
28	20	18	16	15	15	15	45	15	3.4	29	16	58
29	21	18	16	15	-	15	37	12	3.0	42	15	56
30	22	18	16	15	-	15	31	11	2.9	42	1,210	54
31	22	-	16	15	-	15	-	10	-	37	3,640	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,144	2,330	20	166	10,200
November	554	24	16	18.5	1,100
December	538	19	16	17.4	1,070
Calendar year 1941	148,645.9	21,000	4.6	407	294,800
January	492	17	15	15.9	976
February	693	144	14	24.8	1,370
March	472	18	12	15.2	936
April	3,462	819	13	115	6,870
May	1,651	521	10	53.3	3,270
June	267.6	51	2.9	8.92	531
July	89,260.6	37,200	4.6	2,879	177,000
August	5,837	3,640	15	188	11,580
September	58,732	16,500	54	1,958	116,500
Water year 1941-42	167,103.2	37,200	2.9	458	331,400

Peak discharge.- July 7 (9 a.m.) 39,300 sec.-ft.; Sept. 10 (10:30 p.m.) 18,400 sec.-ft.

a No gage-height record; discharge computed from graph based on available gage heights, floodmarks, and engineer's notes.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande at Thirtymile Bridge, near Creede, Colo.

Location.- Water-stage recorder, lat. 37°44', long. 107°16', in sec. 13, T. 40 N., R. 4 W., 500 feet upstream from Squaw Creek, three-quarters of a mile downstream from Rio Grande Reservoir, and 20 miles southwest of Creede.

Drainage area.- 163 square miles.

Records available.- June 1909 to September 1913 and October 1933 to September 1942 in reports of Geological Survey. June 1909 to September 1942 in reports of State engineer.

Average discharge.- 29 years (1910-23, 1926-42), 230 second-feet.

Extremes.- Maximum discharge during year, 2,050 second-feet June 8 (gage height, 4.59 feet); minimum not determined.
1909-42: Maximum discharge, 7,500 second-feet June 28, 1927 (gage height, 7.03 feet); minimum daily, 0.6 second-foot at times when reservoir was about empty and gates were closed.

Remarks.- Records good except those for period of no gage-height record and those for Oct. 1-19, Aug. 1-31, which are fair. Flow regulated by Rio Grande Reservoir (capacity, 51,110 acre-feet, revised), just above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	232					41	350	1,320	875	728	235
2	12	224					42	302	1,280	843	765	162
3	15	219					44	252	1,350	875	772	155
4	17	214					46	219	1,310	942	803	155
5	18	212					50	209	1,330	1,070	803	102
6	33	207					49	204	1,420	1,040	706	80
7	55	200					45	209	1,670	950	607	79
8	50	192					40	230	1,920	884	462	79
9	46	188					42	258	1,810	867	428	80
10	42	185					44	298	1,720	818	467	80
11	38	185					47	346	1,770	735	530	80
12	35	183					47	391	1,810	735	542	93
13	32	180					49	391	1,770	843	562	110
14	31	173					52	362	1,700	875	568	117
15	29	171					56	338	1,550	892	524	115
16	28	168	55	45	35	40	54	324	1,420	908	467	106
17	26	168					53	320	1,490	900	400	89
18	26	166					54	324	1,560	1,040	382	83
19	25	162					56	346	1,600	967	370	83
20	26	158					58	391	1,590	795	374	83
21	30	151					61	477	1,540	742	405	83
22	31	147					66	621	1,400	692	400	83
23	31	143					145	735	1,230	677	391	83
24	43	154					243	908	1,040	649	391	83
25	86	148					327	1,150	574	635	335	72
26	141	140					324	1,360	772	628	291	63
27	183	130					370	1,670	1,020	677	294	46
28	214	120					366	1,570	1,160	684	309	42
29	230	100			-		335	1,600	1,120	706	316	37
30	232	95			-		350	1,520	976	706	312	48
31	232	-			-		-	1,410	-	699	309	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,046.5	232	9.5	66.0	4,060
November	5,115	232	95	170	10,150
December	1,705	-	-	55	3,380
Calendar year 1941	109,263.4	2,480	-	299	216,700
January	1,395	-	-	45	2,770
February	980	-	-	35	1,940
March	1,240	-	-	40	2,460
April	3,558	370	40	119	7,060
May	19,085	1,670	204	616	37,850
June	42,222	1,920	574	1,407	83,750
July	25,349	1,070	628	818	50,280
August	15,013	803	291	484	29,780
September	2,806	235	37	93.5	5,570
Water year 1941-42	120,514.5	1,920	-	330	239,000

Note.- No gage-height record Nov. 24 to Apr. 16 (stage-discharge relation probably affected by ice during most of period); discharge computed on basis of weather records and records for station at Wason, below Creede.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande at Wason, below Creede, Colo.

Location.- Water-stage recorder, lat. 37°49', long. 106°53', in NE¼ sec. 8, T. 41 N., R. 1 E., at Wason, 1½ miles downstream from Willow Creek and 3 miles southeast of Creede.

Drainage area.- 705 square miles.

Records available.- April 1907 to September 1913 and October 1933 to September 1942 in reports of Geological Survey. April 1907 to September 1942 in reports of State engineer.

Average discharge.- 35 years, 642 second-feet.

Extremes.- Maximum discharge during year, 4,750 second-feet June 9 (gage height, 4.59 feet); minimum daily, 73 second-feet Feb. 18.
1907-42: Maximum discharge, 9,750 second-feet June 28, 1927 (gage height, 7.65 feet); minimum not determined.

Remarks.- Records good except those for period of ice effect, which are fair. Diversions above station for irrigation. Flow regulated by three reservoirs (total capacity, 122,900 acre-feet, revised).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	400	725	266	110	95	100	188	778	3,400	1,770	1,430	815
2	385	710	228	110	95	100	218	770	3,260	1,670	1,530	493
3	600	688	211	110	98	100	250	695	3,310	1,630	1,520	395
4	632	672	182	108	105	105	329	688	3,200	1,390	1,550	390
5	554	658	*154	107	110	104	415	792	3,260	1,760	1,520	400
6	499	639	142	107	105	90	421	823	3,490	1,750	1,490	316
7	445	600	157	105	105	*78	303	929	4,050	1,650	1,330	307
8	433	568	157	100	105	85	266	1,040	4,430	1,580	1,170	291
9	415	606	151	100	100	93	316	1,150	4,300	1,530	1,060	278
10	400	568	148	105	93	99	427	1,360	3,900	1,480	1,080	270
11	395	535	148	105	93	113	511	1,450	4,160	1,470	1,120	395
12	395	523	137	110	98	107	451	1,480	4,280	1,350	1,190	360
13	755	529	139	110	93	118	535	1,280	4,010	1,420	1,300	356
14	904	499	131	110	88	120	710	1,130	3,800	1,550	1,290	347
15	732	499	131	105	82	134	688	1,060	3,360	1,590	1,190	334
16	658	493	126	100	78	139	639	1,020	3,330	1,680	1,120	312
17	613	499	126	94	75	148	740	1,030	3,530	1,700	1,100	291
18	568	487	115	94	73	142	580	1,020	3,600	1,710	1,090	266
19	568	493	113	92	75	139	481	1,090	3,760	1,740	1,110	258
20	606	463	115	91	84	151	493	1,230	3,600	1,550	1,110	254
21	778	439	115	90	94	145	561	1,490	3,330	1,420	1,070	250
22	808	410	120	90	100	151	725	1,800	3,090	1,380	1,010	246
23	762	405	95	88	98	163	895	2,060	2,800	1,350	1,020	242
24	732	433	111	86	96	166	855	2,560	2,600	1,340	1,020	238
25	839	415	118	85	100	157	800	3,010	2,020	1,350	980	235
26	847	385	107	90	87	148	839	3,360	1,620	1,330	938	221
27	823	347	105	90	92	139	792	3,960	2,020	1,340	938	214
28	839	320	99	86	100	145	823	3,780	1,990	1,410	938	194
29	823	307	115	*86	-	151	778	3,710	2,060	1,400	920	194
30	778	282	111	88	-	157	770	3,530	1,820	1,320	920	188
31	*732	-	111	95	-	169	-	3,290	-	1,190	887	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	19,718	904	385	636	39,110
November	15,197	725	282	507	30,140
December	4,284	266	95	138	8,500
Calendar year 1941	309,871	4,850	48	849	614,700
January	3,047	110	85	98.3	6,040
February	2,617	110	73	93.5	5,190
March	3,956	169	78	128	7,850
April	16,799	895	188	560	33,320
May	53,365	3,960	688	1,721	105,800
June	97,580	4,430	1,820	3,253	193,500
July	47,100	1,770	1,190	1,519	93,420
August	35,941	1,550	887	1,159	71,290
September	9,350	815	188	312	18,550
Water year 1941-42	308,954	4,430	73	846	612,700

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 24 to Mar. 21 (no gage-height record Dec. 31 to Mar. 7); discharge computed on basis of three discharge measurements and weather records.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande near Del Norte, Colo.

Location.- Water-stage recorder, lat. 37°41', long. 106°28', near east line of sec. 30, T. 40 N., R. 5 E., 5 miles upstream from Pinos Creek and 6 miles west of Del Norte. Datum of gage is 7,982.21 feet above mean sea level, datum of 1929.

Drainage area.- 1,320 square miles.

Records available.- July 1889 to November 1906 (at site 4 miles downstream), April 1908 to September 1913, and October 1933 to September 1942 in reports of Geological Survey. July 1889 to September 1906 and April 1908 to September 1942 in reports of State engineer. May to September 1907 (at site 4 miles downstream), unpublished, in files of State engineer.

Average discharge.- 53 years (1889-1942), 967 second-feet.

Extremes.- Maximum discharge during year, 7,150 second-feet May 27 (gage height, 5.09 feet); minimum daily, 99 second-feet Feb. 18.
1889-1942: Maximum discharge, 18,000 second-feet Oct. 5, 1911 (gage height, 6.80 feet), from rating curve extended above 6,000 second-feet; minimum daily, 90 second-feet Dec. 3, 1934.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are fair. Small diversions above station for irrigation. Flow regulated by three main reservoirs (total capacity, 122,900 acre-feet, revised) and several smaller ones.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	706	*1,140	356	164	140	140	374	1,270	5,510	2,520	1,570	905
2	650	1,140	280	158	147	142	547	1,340	5,400	2,390	1,630	706
3	938	1,070	270	154	150	145	603	1,260	5,280	2,320	1,630	540
4	1,160	1,030	280	152	160	151	666	1,320	5,280	2,300	1,620	505
5	982	993	*225	149	170	149	746	1,620	5,190	2,360	1,550	526
6	905	960	186	148	160	142	861	1,700	5,330	2,370	1,560	491
7	802	894	235	144	154	*145	642	2,020	5,740	2,270	1,450	446
8	794	826	260	143	152	150	498	2,360	4,890	2,190	1,280	416
9	770	872	220	143	148	170	618	2,630	4,960	2,100	1,140	398
10	730	834	220	146	137	200	738	3,170	5,650	1,970	1,100	386
11	722	786	240	150	140	215	1,080	3,270	5,970	1,920	1,150	477
12	714	754	178	153	144	210	1,070	3,340	6,180	1,760	1,180	596
13	1,360	786	200	155	138	220	1,030	2,720	5,880	1,730	1,330	512
14	2,050	730	178	158	127	235	1,530	2,320	5,650	1,840	1,330	470
15	1,560	722	166	145	123	255	1,600	2,220	5,030	1,870	1,240	464
16	1,410	706	178	138	117	245	1,380	2,210	4,960	1,980	1,180	446
17	1,300	722	178	137	105	230	1,520	2,240	5,140	2,050	1,160	422
18	1,210	722	170	137	99	245	1,270	2,140	5,210	2,020	1,140	398
19	1,170	658	154	136	100	290	960	2,270	5,330	2,050	1,160	374
20	1,190	596	147	135	112	290	927	2,540	5,070	1,830	1,150	362
21	1,360	533	154	135	170	265	1,030	3,100	4,710	1,660	1,140	350
22	1,550	512	166	135	178	270	1,360	3,700	4,390	1,620	1,050	344
23	1,450	422	162	132	170	280	1,970	4,050	3,970	1,600	1,050	344
24	1,390	440	150	132	166	280	1,780	4,850	3,720	1,590	1,060	344
25	1,530	526	152	132	154	270	1,590	5,440	3,150	1,570	1,060	332
26	1,550	526	142	135	150	250	1,600	5,860	2,790	1,550	1,020	326
27	1,420	477	145	138	147	245	1,460	6,670	2,860	1,550	1,000	314
28	1,430	440	149	142	141	265	1,490	6,280	2,720	1,600	993	302
29	1,370	416	156	*145	-	330	1,430	6,230	2,860	1,590	971	285
30	1,270	386	162	145	-	340	1,340	6,160	2,590	1,530	971	280
31	1,180	-	167	153	-	360	-	5,510	-	1,340	938	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	36,623	2,050	650	1,181	72,640
November	21,619	1,140	386	721	42,860
December	6,026	356	142	194	11,950
Calendar year 1941	517,133	7,620	140	1,417	1,026,000
January	4,469	164	132	144	8,860
February	3,999	178	99	143	7,930
March	7,124	360	140	230	14,130
April	33,710	1,970	374	1,124	66,860
May	101,810	6,670	1,260	3,284	201,900
June	141,410	6,180	2,590	4,714	280,500
July	59,040	2,520	1,340	1,905	117,100
August	37,803	1,630	938	1,219	74,980
September	13,061	905	280	435	25,910
Water year 1941-42	466,694	6,670	99	1,279	925,600

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 19 to Mar. 6. No gage-height record Jan. 1-28, Mar. 7 to Apr. 1, Apr. 3-5, 7 (stage-discharge relation affected by ice most of period); discharge computed on basis of three discharge measurements and weather records.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande near Monte Vista, Colo.

Location.- Water-stage recorder, lat. 37°37', long. 106°09', at west line of sec. 19, T. 39 N., R. 8 E., 2 miles north of Monte Vista. Datum of gage is 7,654.54 feet above mean sea level, datum of 1929.

Drainage area.- 1,590 square miles.

Records available.- October 1933 to September 1942 in reports of Geological Survey (no winter records in earlier years). May 1926 to September 1942 in reports of State engineer.

Extremes.- Maximum discharge during year, 5,420 second-feet June 9 (gage height, 5.96 feet); minimum daily, 9.6 second-feet Sept. 28-30.
1926-42: Maximum discharge, 18,500 second-feet June 30, 1927 (gage height, 7.85 feet); minimum daily, 4 second-feet Apr. 18, 1926.

Remarks.- Records good except those for period of no gage-height record or ice effect, which are poor. Diversions above station for irrigation. Flow regulated by three main reservoirs (total capacity, 122,900 acre-feet, revised) and several smaller ones.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	477	1,090					246	1,170	3,470	524	143	82
2	392	1,090					249	1,140	3,370	574	189	89
3	800	1,030					415	1,030	3,830	560	233	50
4	961	981					431	1,010	3,640	524	240	39
5	925	953					583	1,150	3,470	529	237	46
6	820	876					628	1,220	3,690	534	240	38
7	738	841					547	1,360	4,180	463	227	38
8	694	766					480	1,600	4,750	388	141	29
9	650	827					403	1,740	5,150	380	76	23
10	595	820					542	2,240	4,770	431	55	21
11	547	778					754	2,560	4,650	502	82	20
12	547	749					876	2,600	4,900	529	53	76
13	1,200	749					690	1,860	4,790	475	43	70
14	1,930	760					1,130	1,290	4,500	455	36	57
15	1,680	750					1,440	1,020	3,910	488	41	39
16	1,340	750	300	200	180	200	1,260	904	3,410	516	35	29
17	1,210	740					1,290	890	3,540	529	53	23
18	1,130	740					1,310	738	3,740	542	57	19
19	1,050	740					932	637	3,790	556	59	18
20	1,050	715					848	665	3,620	498	55	16
21	1,150	695					848	1,020	3,150	376	59	15
22	1,420	670					1,090	1,480	2,710	324	57	15
23	1,380	630					1,700	1,760	2,120	291	64	15
24	1,330	620					1,850	2,650	1,790	249	61	15
25	1,380	640					1,760	3,440	1,260	212	64	14
26	1,510	645					1,610	3,900	614	181	70	11
27	1,380	620					1,400	4,580	650	165	48	10
28	1,350	600					1,320	4,670	592	178	48	9.6
29	1,320	580			-		1,250	4,350	637	162	57	9.6
30	1,230	560			-		1,200	4,120	588	146	64	9.6
31	1,170	-			-		-	3,720	-	121	68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	33,076	1,930	392	1,067	65,610
November	23,005	1,090	560	767	45,630
December	9,300	-	-	300	18,450
Calendar year 1941	291,751.5	5,210	9.5	799	578,800
January	6,200	-	-	200	12,300
February	5,040	-	-	180	10,000
March	6,200	-	-	200	12,300
April	29,282	1,850	246	976	58,080
May	62,514	4,670	637	2,017	124,000
June	95,281	5,150	588	3,176	189,000
July	12,402	574	121	400	24,600
August	2,955	240	35	95.3	5,860
September	945.8	89	9.6	31.5	1,880
Water year 1941-42	286,200.8	5,150	9.6	784	567,700

Note.- Stage-discharge relation affected by ice Nov. 26 to Dec. 8. No gage-height record Nov. 14-25, Dec. 9 to Mar. 31 (stage-discharge relation affected by ice most of period); discharge computed on basis of weather records and records for station near Del Norte.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande at Alamosa, Colo.

Location.- Water-stage recorder, lat. 37°29', long. 105°53', in SE¼ sec. 4, T. 37 N., R. 10 E., a quarter of a mile northwest of Alamosa and 7 miles upstream from Alamosa Creek. Datum of gage is 7,532.66 feet above mean sea level, datum of 1929. Prior to July 1, 1942, at datum 1 foot higher.

Drainage area.- 1,710 square miles.

Records available.- May 1912 to September 1913 and October 1933 to September 1942 in reports of Geological Survey. May 1912 to September 1942 in reports of State engineer.

Average discharge.- 30 years, 340 second-feet.

Extremes.- Maximum discharge during year, 3,800 second-feet June 10 (gage height, 8.63 feet, present datum); minimum daily, 13 second-feet Aug. 11.
1912-42: Maximum discharge, 14,000 second-feet July 1, 1927 (gage height, 9.37 feet, present datum); minimum daily, 2 second-feet Oct. 24-29, 1933.

Remarks.- Records good except those for period of no gage-height record or ice effect, which are poor. Many diversions above station for irrigation. During irrigation season low-water flow is water returned from irrigated lands above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	329	1,180				190	325	1,330	2,550	177	36	31
2	316	1,120				185	304	1,250	2,260	137	49	66
3	310	1,110				190	323	1,200	2,120	130	62	62
4	513	1,050				200	440	1,100	1,860	108	45	57
5	757	1,000				195	430	1,020	2,160	100	27	44
6	754	950				210	492	1,100	2,160	90	17	43
7	726	890				200	543	1,140	2,290	78	16	42
8	645	844				190	561	1,220	2,670	65	16	45
9	603	796				200	462	1,350	3,190	49	15	43
10	561	866				230	452	1,470	3,630	48	14	49
11	513	866				270	543	1,680	3,340	48	13	51
12	485	820				280	736	1,870	3,020	40	14	27
13	445	799				300	897	1,890	3,190	41	14	40
14	756	813				340	939	1,500	3,100	46	14	40
15	1,340	764	280	190	155	320	1,150	1,090	2,880	46	14	36
16	1,360	746				300	1,280	834	2,430	48	14	26
17	1,250	712				330	1,230	673	2,080	41	14	26
18	1,160	704				350	1,320	612	2,060	39	15	24
19	1,080	704				350	1,300	462	2,240	44	15	20
20	1,020	690				350	1,060	386	2,300	46	15	18
21	1,020	698				340	932	376	2,200	42	15	18
22	1,120	597				330	918	600	1,860	35	15	18
23	1,300	435				350	1,120	932	1,540	34	15	18
24	1,310	400				372	1,570	1,140	1,220	33	15	18
25	1,290	430				323	1,620	1,500	922	33	16	18
26	1,320	450				275	1,850	1,860	504	39	18	17
27	1,380	460				228	1,740	2,300	300	44	19	18
28	1,340	470				241	1,560	2,920	306	44	19	18
29	1,330	430			-	321	1,460	3,290	249	43	19	16
30	1,310	410			-	344	1,400	3,140	239	40	19	16
31	1,240	-			-	340	-	2,900	-	35	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	28,883	1,380	310	932	57,290
November	22,204	1,160	400	740	44,040
December	8,680	-	-	280	17,220
Calendar year 1941	215,846	4,870	25	591	428,100
January	5,690	-	-	190	11,680
February	4,340	-	-	155	8,610
March	8,644	372	185	279	17,150
April	29,157	1,850	304	972	57,830
May	44,135	3,290	376	1,424	87,540
June	60,870	3,630	239	2,029	120,700
July	1,843	177	33	59.5	3,660
August	628	62	13	20.3	1,250
September	965	66	16	32.2	1,910
Water year 1941-42	216,239	3,630	13	592	428,900

Note.- Stage-discharge relation affected by ice Nov. 24 to Dec. 17. No gage-height record Dec. 18 to Mar. 23 (stage-discharge relation affected by ice most of period); discharge computed on basis of weather records. No gage-height record Aug. 7-26; discharge computed on basis of discharge measurement on Aug. 13, weather records, and records for station near Monte Vista.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande above mouth of Trinchera Creek, near La Sauses, Colo.

Location.- Water-stage recorder, lat. 39°19', long. 105°45', in sec. 35, T. 36 N., R. 11 E., a quarter of a mile upstream from Trinchera Creek and 5 miles north of La Sauses.

Records available.- May 1936 to September 1942.

Drainage area.- 5,740 square miles (includes 2,940 square miles in closed basin).

Extremes.- Maximum discharge during year, 3,870 second-feet June 12 (gage height, 7.97 feet); minimum daily, 41 second-feet Aug. 24-25.

1936-42: Maximum discharge, 4,740 second-feet June 28, 1941 (gage height, 8.77 feet), from rating curve extended above 4,000 second-feet; minimum daily, 0.4 second-foot July 4, 1940.

Remarks.- Records good except those for period of no gage-height record, which are poor. Storage and several diversions above station for irrigation. During irrigation season, low flow is water returned from irrigated lands above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	426	1,490	850				470	1,830	3,260	440	58	56
2	522	1,420	810				449	1,710	2,950	378	62	77
3	522	1,380	820				423	1,600	2,670	328	66	78
4	562	1,340	815				474	1,510	2,600	302	68	80
5	790	1,280	645				586	1,420	2,400	300	66	83
6	935	1,230	850				630	1,410	2,540	292	64	88
7	925	1,160	825				720	1,500	2,380	268	61	88
8	895	1,110	765				780	1,560	2,690	230	57	87
9	830	1,050	735				830	1,700	2,950	185	54	87
10	785	1,030	820				705	1,680	3,290	154	49	79
11	745	1,060	740				725	2,080	3,650	148	43	76
12	700	1,040	710				850	2,330	3,770	177	44	72
13	685	980	795			355	1,040	2,550	3,460	183	62	67
14	760	970	760				1,160	2,490	3,430	165	55	65
15	1,120	960	750				1,290	2,010	3,480	143	51	75
16	1,460	915	725	260	230		1,530	1,530	3,300	138	47	70
17	1,450	895	690				1,550	1,280	2,910	133	47	64
18	1,390	870	685				1,700	1,130	2,550	122	48	62
19	1,320	850	680				1,880	1,000	2,460	122	48	63
20	1,270	805	670				1,760	884	2,570	117	47	57
21	1,220	820	670				1,490	838	2,610	112	45	53
22	1,240	890	680				1,360	884	2,510	102	43	52
23	1,370	905	650				1,460	1,070	2,210	89	43	52
24	1,490	850	610				1,770	1,290	1,780	81	41	51
25	1,540	790	560			534	2,210	1,500	1,670	74	41	52
26	1,540	805	530			474	2,390	1,840	1,020	72	42	52
27	1,590	880	500			423	2,420	2,180	733	70	46	52
28	1,630	940	470			390	2,260	2,540	576	66	46	50
29	1,610	910	440		-	426	2,060	2,930	572	62	44	48
30	1,600	875	430		-	466	1,960	3,350	490	59	44	48
31	1,570	-	425		-	482	-	3,410	-	56	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	34,492	1,630	426	1,113	68,410
November	30,500	1,490	790	1,017	60,500
December	21,305	850	425	687	42,260
Calendar year 1941	289,333	4,680	64	793	573,900
January	8,060	-	-	260	15,990
February	6,440	-	-	230	12,770
March	11,715	-	-	378	23,240
April	39,072	2,420	423	1,302	77,500
May	55,236	3,410	838	1,782	109,600
June	73,481	3,770	490	2,449	145,700
July	5,168	440	56	167	10,250
August	1,578	68	41	50.9	3,130
September	1,984	88	48	66.1	3,940
Water year 1941-42	289,031	3,770	41	792	573,300

Note.- No gage-height record Dec. 18 to Mar. 24 (stage-discharge relation probably affected by ice during most of period), July 22 to Aug. 11, Aug. 15 to Sept. 8; discharge computed on basis of one discharge measurement, weather records, and records for station near Lobatos and Conejos River near La Sauses.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande near Lobatos, Colo.

Location.- Water-stage recorder, lat. 37°05', long. 105°45', in sec. 22, T. 33 N., R. 11 E., 6 miles north of Colorado-New Mexico State line, 7 miles downstream from Culebra Creek, and 10 miles east of Lobatos. Datum of gage is 7,426.79 feet above mean sea level, datum of 1929.

Drainage area.- 7,700 square miles (includes 2,940 square miles in closed basin).

Records available.- June 1899 to September 1913 and October 1933 to September 1942 in reports of Geological Survey. June 1899 to September 1942 in reports of State engineer.

Average discharge.- 43 years (1899-1942), 762 second-feet.

Extremes.- Maximum discharge during year, 5,580 second-feet May 13; maximum gage height, 5.55 feet June 12; minimum daily discharge, 54 second-feet Aug. 23, 25, 30, 31.
1899-1942: Maximum daily discharge, 13,100 second-feet June 8, 1905, from rating curve extended above 8,000 second-feet; minimum daily, 5.0 second-feet Aug. 4, 1940.

Remarks.- Records good except those for period of ice effect and those below 200 second-feet, which are fair. Diversions above station for irrigation. Flow regulated by many reservoirs on headwaters.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	440	1,830	964	470		390	588	2,920	4,860	530	68	71
2	658	1,750	937	465		380	588	2,730	4,510	447	66	93
3	690	1,690	937	435		370	573	2,640	4,150	402	74	85
4	746	1,660	937	415		370	611	2,500	4,250	370	76	88
5	919	1,600	*955	400		380	805	2,480	4,170	364	88	106
					310							
6	1,110	1,530	928	395		340	892	2,710	4,070	359	76	110
7	1,120	1,470	892	390		320	1,050	3,000	4,090	341	74	106
8	1,090	1,390	848	390		*360	1,040	3,400	4,320	287	74	110
9	1,040	1,330	822	390		400	1,040	3,850	4,520	261	68	110
10	991	1,270	866	390		470	955	4,280	4,950	219	66	106
11	955	1,280	831	390		510	946	4,800	5,050	195	58	106
12	910	1,270	822	400		600	1,140	5,240	5,410	190	63	103
13	892	1,220	805	350		682	1,410	5,410	5,080	204	63	90
14	1,000	1,160	840	330		698	1,550	4,800	4,910	195	82	82
15	1,510	1,150	788	325		690	1,860	3,990	4,960	177	71	79
					250							
16	1,910	1,090	780	305		603	2,270	3,260	4,570	151	68	82
17	1,920	1,050	797	290		666	2,610	2,720	4,120	155	63	79
18	1,850	1,040	772	275		596	2,860	2,520	3,610	147	66	71
19	1,780	1,010	740	270		627	2,970	2,360	3,420	134	61	63
20	1,700	973	730	250		642	2,710	2,330	3,430	130	61	66
21	1,640	946	720	230		603	2,270	2,430	3,430	123	61	61
22	1,630	946	730	225		603	2,160	2,680	3,320	116	58	58
23	1,720	857	730	220		642	2,820	3,160	2,970	99	54	58
24	1,850	788	700	200		698	3,750	3,610	2,480	90	56	58
25	1,900	857	670	205	290	706	4,020	3,860	1,960	85	54	58
26	1,890	901	640	220		635	3,690	4,340	1,510	79	61	58
27	1,910	937	560	235		558	3,540	4,610	1,050	74	66	58
28	1,950	991	510	*260		515	3,350	5,080	780	74	63	58
29	1,920	1,010	470	265	-	522	3,100	5,030	714	68	56	58
30	1,900	982	460	270	-	573	3,040	5,270	580	66	54	58
31	1,890	-	460	300	-	603	-	5,170	-	63	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	43,431	1,950	440	1,401	86,140
November	35,978	1,830	788	1,199	71,360
December	23,641	964	460	763	46,890
Calendar year 1941	481,148	7,890	93	1,318	954,300
January	9,955	470	200	321	19,750
February	7,920	-	-	283	15,710
March	16,752	706	320	540	33,230
April	60,208	4,020	573	2,007	119,400
May	113,190	5,410	2,330	3,651	224,500
June	107,244	5,410	580	3,575	212,700
July	6,194	530	63	200	12,290
August	2,023	88	54	65.3	4,010
September	2,389	110	58	79.6	4,740
Water year 1941-42	428,915	5,410	-	1,175	850,700

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Dec. 19-26. No gage-height record Dec. 27 to Mar. 12 (stage-discharge relation affected by ice during most of period); discharge computed on basis of two discharge measurements and weather records.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande below Taos Junction Bridge, near Taos, N. Mex.

Location.- Water-stage recorder, lat. 36°19', long. 105°46', in sec. 15, T. 24 N., R. 11 E., 2 miles downstream from Taos Creek and bridge on Taos-Taos Junction highway, and 12 miles southwest of Taos.

Drainage area.- 9,730 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- October 1930 to September 1942 in reports of Geological Survey. July 1925 to December 1931 in reports of State engineer.

Average discharge.- 17 years (1925-42), 894 second-feet.

Extremes.- Maximum discharge during year, 8,640 second-feet May 13 (gage height, 8.75 feet); minimum daily discharge, 250 second-feet Aug. 28-30.
1930-42: Maximum discharge, 9,630 second-feet May 17, 1941 (gage height, 9.41 feet); minimum daily, 140 second-feet (estimated) Aug. 21, 1931.
Flood of July 4, 1927 reached a stage of 11.0 feet (discharge, 8,700 second-feet).

Remarks.- Records good. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	630	2,240	1,380	810	794	745	897	4,440	7,610	1,140	348	360
2	698	2,170	*1,370	785	802	729	924	4,340	7,110	1,070	338	365
3	951	2,100	1,340	785	802	761	951	4,060	6,630	960	338	407
4	1,050	2,040	1,330	769	794	*794	960	3,960	6,870	897	332	389
5	1,040	1,970	1,270	b700	*810	794	1,030	4,060	6,870	853	326	371
6	1,210	1,890	1,140	b690	802	819	1,350	4,440	6,390	828	326	371
7	1,370	1,840	1,110	b680	819	802	1,480	4,940	6,160	802	338	389
8	1,380	1,750	1,070	698	836	652	1,540	5,700	6,390	769	338	383
9	1,340	1,710	1,070	721	836	794	1,570	6,160	6,390	729	332	377
10	1,280	1,650	1,070	698	819	862	1,570	7,110	6,630	682	326	371
11	1,220	1,600	1,090	698	828	879	1,520	7,860	6,630	630	326	395
12	1,180	1,640	1,220	729	802	906	1,760	8,380	6,870	588	490	477
13	1,160	1,610	1,200	761	794	933	2,040	8,380	6,870	567	383	444
14	1,210	1,550	1,070	785	769	969	2,380	7,610	6,630	560	383	407
15	1,350	1,510	1,080	761	753	996	2,920	6,630	6,630	546	365	395
16	1,900	1,380	1,010	769	705	996	3,600	5,700	6,160	504	365	383
17	2,240	1,440	1,010	785	721	888	4,250	4,940	5,700	477	343	371
18	2,170	1,460	1,010	777	a650	942	4,740	4,540	5,160	458	338	371
19	2,100	1,420	960	761	a660	924	4,440	4,250	4,740	444	a310	360
20	2,040	1,320	915	737	b680	906	4,160	4,250	4,640	438	a300	354
21	1,970	1,230	951	729	705	888	3,690	4,340	4,640	432	a290	348
22	1,960	1,230	933	721	705	888	3,510	4,840	4,440	419	a280	348
23	1,970	1,190	888	737	698	879	4,540	5,480	4,160	401	a270	343
24	2,100	978	785	737	690	924	5,480	6,160	3,690	383	a260	332
25	2,240	933	698	713	713	987	5,480	6,630	3,170	371	a270	332
26	2,240	1,040	729	737	690	987	5,160	7,110	2,600	365	a260	332
27	2,240	1,150	729	753	729	915	4,840	7,610	2,100	348	a260	332
28	2,460	1,210	705	777	777	853	4,740	7,860	1,610	343	a250	332
29	2,530	1,320	737	785	-	802	4,540	7,860	1,350	338	a250	321
30	2,380	1,390	836	802	-	794	4,540	7,860	1,250	332	a250	316
31	2,310	-	853	785	-	870	-	7,860	-	326	a260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	51,919	2,530	630	1,675	103,000
November	45,961	2,240	933	1,532	91,160
December	31,559	1,380	698	1,018	62,600
Calendar year 1941	688,877	9,630	390	1,887	1,366,000
January	23,175	810	680	748	45,970
February	21,183	836	650	757	42,020
March	26,878	996	652	867	53,310
April	90,602	5,480	897	3,020	179,700
May	185,360	8,380	3,960	5,979	367,700
June	156,090	7,610	1,250	5,203	309,600
July	18,000	1,140	326	581	35,700
August	9,865	490	250	318	19,570
September	11,076	477	316	369	21,970
Water year 1941-42	671,668	8,380	250	1,840	1,332,000

Peak discharge.- Oct. 28 (10 p.m.) 3,600 sec.-ft.; May 13 (1 a.m.) 8,640 sec.-ft.; Aug. 12 (7 p.m.) 2,100 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of records for station at Embudo.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande at Embudo, N. Mex.

Location.- Water-stage recorder, lat. 36°12', long. 105°57', in SW¼ sec. 23, T. 23 N., R. 9 E., a quarter of a mile downstream from bridge at Embudo and about 2¼ miles below Embudo Creek.

Drainage area.- 10,400 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- January 1889 to December 1903, September 1912 to September 1916, and October 1930 to September 1942 in reports of Geological Survey. January 1889 to December 1903 and September 1912 to December 1931 in reports of State engineer.

Average discharge.- 42 years (1889-93, 1894-1903, 1912-16, 1917-42), 1,096 second-feet.

Extremes.- Maximum discharge during year, 10,800 second-feet May 13 (gage height, 12.02 feet); minimum daily, 263 second-feet Aug. 30.
1889-1903, 1912-42: Maximum discharge, 15,900 second-feet June 19, 1903 (gage height, 15.8 feet); minimum daily, 35 second-feet Dec. 31, 1903.

Remarks.- Records good except those for periods of no gage-height record, which are fair.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	740	2,320	1,390	868	852	796	984	5,010	8,930	1,340	361	473
2	775	2,270	1,390	831	866	768	1,060	4,880	8,330	1,260	347	a440
3	1,020	2,170	1,390	810	873	810	1,160	4,490	7,880	1,100	396	a430
4	1,210	2,120	1,390	796	859	838	1,260	4,360	8,180	1,030	382	a470
5	1,160	2,070	1,300	727	859	810	1,390	4,490	8,030	976	340	a580
6	1,300	1,970	1,210	714	845	845	1,670	4,880	7,430	933	369	a520
7	1,480	1,920	1,120	708	859	817	1,720	5,530	7,130	890	354	480
8	1,480	1,820	1,110	740	880	669	1,770	6,370	7,130	849	361	438
9	1,440	1,770	1,100	768	866	754	1,820	7,360	7,130	841	334	403
10	1,390	1,770	1,100	740	866	888	1,870	8,860	7,130	793	327	382
11	1,340	1,670	1,120	740	866	896	1,970	9,910	7,280	737	334	436
12	1,300	1,720	1,260	775	838	936	2,440	10,500	7,430	668	514	615
13	1,300	1,720	1,260	817	838	944	2,540	10,500	7,580	652	604	548
14	1,340	1,620	1,100	845	824	984	2,880	9,760	7,130	645	361	473
15	1,390	1,570	1,100	810	796	1,010	3,510	8,410	7,130	645	410	438
16	1,920	1,570	1,050	831	754	1,010	3,990	7,070	6,640	600	382	431
17	2,270	1,520	1,050	852	775	928	4,620	6,370	6,280	578	362	410
18	2,270	1,570	1,040	824	682	936	5,530	5,810	5,580	540	368	410
19	2,220	1,480	992	817	688	952	5,010	5,050	5,050	510	334	396
20	2,170	1,390	936	796	734	936	4,620	4,920	4,920	495	314	375
21	2,120	1,300	984	789	747	896	4,110	5,050	4,790	488	301	375
22	2,120	1,340	960	769	754	936	3,990	a5,800	4,660	473	294	389
23	2,120	1,260	912	803	740	912	5,810	a6,700	4,400	445	282	368
24	2,220	1,070	859	803	720	984	6,790	a7,500	3,900	424	301	354
25	2,380	984	754	775	761	1,040	6,510	a8,000	3,300	396	294	354
26	2,440	1,090	740	803	740	1,030	5,950	a8,600	2,780	375	282	354
27	2,440	1,210	789	803	761	960	5,530	9,250	2,290	361	275	347
28	2,600	1,260	727	638	631	904	5,400	9,250	1,830	347	269	347
29	2,760	1,340	754	852	-	852	5,140	9,570	1,530	334	269	340
30	2,490	1,440	866	859	-	859	5,270	9,250	1,440	327	263	347
31	2,440	-	866	838	-	912	-	9,250	-	320	269	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	55,645	2,760	740	1,795	110,400
November	48,324	2,320	984	1,611	95,850
December	32,619	1,390	727	1,052	64,700
Calendar year 1941	777,369	11,700	360	2,130	1,542,000
January	24,781	868	708	799	49,150
February	22,474	880	682	803	44,580
March	27,812	1,040	669	897	55,160
April	106,314	6,790	984	3,544	210,900
May	222,750	10,500	4,360	7,185	441,800
June	173,440	8,930	1,440	5,781	344,000
July	20,372	1,340	320	657	40,410
August	10,693	604	263	345	21,210
September	12,725	615	340	424	25,240
Water year 1941-42	757,949	10,500	263	2,077	1,503,000

Peak discharge.- Oct. 29 (1 a.m.) 3,390 sec.-ft.; May 13 (4 a.m.) 10,800 sec.-ft.; Aug. 12 (10 p.m.) 2,400 sec.-ft.

a No gage-height record; discharge computed on basis of records for station below Taos Junction Bridge, near Taos.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

556253 O - 43 - 12

Rio Grande at Otowi Bridge, near San Ildefonso, N. Mex.

Location.- Water-stage recorder, lat. 35°52'25", long. 106°08'35", in San Ildefonso Pueblo Grant, 100 feet downstream from highway bridge, 1¾ miles southwest of San Ildefonso Pueblo, 2½ miles downstream from Rio Pojoaque, and 7 miles west of Pojoaque (revised). Datum of gage is 5,488.48 feet above mean sea level, datum of 1929.

Drainage area.- 14,300 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- February 1895 to December 1905, June 1909 to December 1914 and October 1930 to September 1942 in reports of Geological Survey. February 1895 to December 1905 and June 1909 to December 1931 in reports of State engineer. January 1941 to December 1942 in reports of Rio Grande Compact Commission.

Average discharge.- 15 years (1927-42), 1,667 second-feet.

Extremes.- Maximum discharge during year, 16,400 second-feet Apr. 23 (gage height, 10.22 feet); minimum daily, 735 second-feet Jan. 6.
1930-42: Maximum discharge, 22,500 second-feet May 16, 1941; maximum gage height, 13.70 feet May 14, 1941; minimum daily discharge, 128 second-feet June 21, 1934.

Remarks.- Records good except those for periods of doubtful or no gage-height record, which are fair. Flow partially regulated by El Vado Reservoir on upper Rio Chama which stores water for irrigation. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,230	3,940	1,520	1,090	1,010	982	2,480	7,520	12,500	1,870	2,000	1,400
2	1,080	3,850	1,420	1,070	1,040	926	2,620	8,750	11,600	1,990	1,440	1,400
3	1,280	3,760	1,470	910	1,050	942	3,040	8,850	11,100	1,700	1,300	1,360
4	1,900	3,680	1,470	950	1,040	1,030	3,340	8,580	11,600	1,640	1,540	1,420
5	1,680	3,680	1,470	819	1,040	1,200	3,850	8,580	11,400	1,590	1,350	1,470
6	1,620	3,680	1,380	735	1,030	1,290	5,060	8,850	10,800	1,490	1,580	1,210
7	1,730	3,190	1,270	882	1,040	1,330	4,130	9,410	a10,200	1,540	1,450	1,210
8	2,030	2,320	1,320	875	1,040	1,120	3,680	10,500	9,690	1,810	1,360	1,180
9	2,590	2,190	1,310	926	1,050	1,010	3,680	11,400	9,690	1,760	1,320	1,140
10	2,660	2,130	1,380	868	1,050	1,230	3,940	13,000	9,130	1,810	1,290	1,100
11	2,590	2,070	1,470	889	1,030	1,770	4,620	13,900	8,850	1,870	1,140	1,440
12	2,520	2,320	1,470	966	1,050	1,520	5,400	14,700	8,310	1,930	1,100	1,490
13	3,020	2,380	1,520	1,020	1,010	2,030	4,950	15,600	8,580	1,810	1,270	1,210
14	3,550	2,380	1,420	1,080	1,040	2,890	4,800	14,700	8,310	1,700	975	1,100
15	2,800	2,320	1,330	1,040	1,020	2,450	6,720	12,600	8,040	1,640	1,100	1,010
16	2,960	2,260	1,330	1,010	950	2,260	7,540	9,410	d7,800	1,590	1,040	975
17	3,350	2,190	1,290	1,130	903	2,190	8,790	9,410	d7,400	1,640	1,180	945
18	3,430	2,380	1,280	1,100	791	2,070	11,400	9,130	d7,000	1,490	1,040	915
19	3,350	2,260	1,270	1,030	889	2,260	10,100	8,580	6,520	955	975	1,010
20	3,270	2,070	1,200	1,010	861	2,190	9,110	9,470	5,710	1,330	943	1,180
21	3,190	2,010	1,200	982	942	2,130	8,160	9,970	5,820	1,330	915	1,140
22	3,190	2,070	1,200	982	990	2,190	8,160	10,200	5,380	1,390	915	1,140
23	3,320	1,900	1,160	990	958	2,380	13,200	10,200	5,060	1,440	1,010	1,100
24	2,590	1,840	1,130	1,020	903	2,730	15,000	11,100	4,460	1,440	1,250	1,100
25	2,800	1,780	974	982	903	2,380	11,600	11,600	3,900	1,440	1,100	1,100
26	3,030	1,730	840	998	918	2,320	11,900	11,600	3,310	1,340	832	1,070
27	2,800	1,730	1,090	1,010	910	2,260	11,600	12,200	2,780	1,260	915	1,070
28	2,960	1,420	990	1,040	982	2,190	11,100	12,500	2,170	1,260	1,010	1,100
29	3,940	1,520	926	1,060	-	2,260	10,200	12,800	1,870	1,290	1,100	1,040
30	3,110	1,570	1,080	1,050	-	2,300	9,690	12,800	1,640	1,290	1,210	975
31	3,680	-	1,080	1,050	-	2,360	-	12,800	-	1,330	1,250	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	83,250	3,940	1,080	2,685	165,100
November	72,620	3,940	1,420	2,421	144,000
December	39,260	1,520	840	1,266	77,870
Calendar year 1941	1,307,203	22,000	505	3,581	2,593,000
January	30,564	1,130	735	986	60,620
February	27,440	1,050	791	980	54,430
March	58,190	2,890	926	1,877	115,400
April	219,660	15,000	2,480	7,328	436,100
May	340,710	15,600	7,520	10,990	675,800
June	220,620	12,500	1,640	7,354	437,600
July	47,965	1,990	955	1,547	95,140
August	36,902	2,000	832	1,190	73,190
September	35,000	1,490	915	1,167	69,420
Water year 1941-42	1,212,381	15,600	735	3,322	2,405,000

a No gage-height record; discharge interpolated.
d Doubtful gage-height record; discharge computed on basis of records for station at Embudo and Rio Chama near Chamita.
Note.- Discharge computed on basis of twice-daily staff-gage readings Nov. 18 to Jan. 11.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande at Cochiti, N. Mex.

Location.- Water-stage recorder, lat. 35°38', long. 106°19', at highway bridge 1 mile northeast of Cochiti, Sandoval County, 4 miles north of Pena Blanca and 8 miles upstream from Galisteo Creek.

Drainage area.- 14,600 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- October 1930 to September 1942 in reports of Geological Survey. January 1925 to December 1931 in reports of State engineer.

Average discharge.- 17 years (1925-42), 1,661 second-feet.

Extremes.- Maximum discharge during year, 16,700 second-feet Apr. 24 (gage height, 9.51 feet); minimum daily, 760 second-feet Aug. 27.
1930-42: Maximum discharge, 23,400 second-feet May 15, 1941; minimum daily, 1 second-foot Aug. 10-12, 1934.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,260	4,600	1,760	1,050	1,060	1,010	2,570	7,850	11,600	1,570	1,770	1,160
2	1,030	4,600	1,760	1,020	1,060	976	2,920	8,180	11,200	1,820	1,340	1,220
3	1,110	4,600	1,760	1,000	1,050	994	3,200	9,030	10,800	1,630	1,140	1,200
4	1,760	4,480	1,760	1,050	1,060	1,050	3,600	8,340	10,800	1,550	1,370	1,380
5	1,690	4,240	1,690	a950	1,060	1,160	4,020	8,340	10,800	1,470	1,200	1,430
6	1,500	4,240	1,560	855	1,070	1,160	4,980	8,510	10,100	1,350	1,270	1,350
7	1,560	a3,700	1,440	1,040	1,060	1,270	4,600	9,030	9,740	1,260	1,270	1,300
8	1,700	a2,800	1,450	1,070	1,090	1,140	4,360	10,100	9,380	1,580	1,230	1,200
9	2,490	a2,500	1,410	1,070	1,060	1,030	4,240	11,200	8,680	1,520	1,250	1,130
10	2,490	a2,500	1,440	994	1,050	1,210	4,480	12,400	8,510	1,550	1,150	1,080
11	2,490	a2,400	1,490	958	994	1,640	5,100	13,200	8,510	1,670	1,060	1,240
12	2,490	a2,700	1,510	958	1,020	1,640	5,760	14,500	8,340	1,760	967	1,440
13	2,930	a2,800	1,640	1,000	994	1,810	5,760	14,900	8,510	1,620	1,190	1,160
14	3,630	a2,700	1,530	1,030	985	2,740	5,230	13,600	7,850	1,550	1,030	976
15	3,400	a2,700	1,410	1,060	985	2,740	6,470	12,000	7,530	1,470	1,070	898
16	3,200	a2,600	1,380	1,030	958	2,490	7,850	9,380	7,370	1,460	1,020	847
17	3,600	a2,500	1,320	1,100	889	2,330	9,030	9,030	6,910	1,460	1,100	831
18	3,800	a2,700	1,320	1,110	a850	2,180	10,500	9,030	6,470	1,530	976	807
19	3,800	a2,600	1,270	1,050	a900	2,330	10,100	8,680	5,630	932	932	855
20	3,600	a2,400	1,190	1,040	a900	2,330	9,380	9,030	5,230	1,260	906	1,070
21	3,600	a2,300	1,150	1,010	940	2,250	8,340	9,740	5,230	1,210	872	1,010
22	3,600	a2,300	1,200	1,030	1,020	2,250	8,340	10,100	4,980	1,250	880	985
23	3,800	a2,100	1,150	1,020	1,020	2,410	12,000	10,500	4,850	1,190	949	976
24	3,110	2,030	1,080	1,060	872	2,740	14,500	11,200	4,360	1,280	1,100	976
25	3,200	1,890	1,040	1,020	839	2,570	11,200	11,600	3,800	1,250	1,140	967
26	3,500	1,960	906	1,040	914	2,490	11,200	11,600	3,300	1,240	791	994
27	3,200	1,960	949	1,070	906	2,330	11,200	12,000	2,830	1,070	760	976
28	3,200	1,690	994	1,070	958	2,330	11,200	12,000	2,330	1,000	914	967
29	4,240	1,650	958	1,080	-	2,410	10,100	12,000	1,890	985	949	958
30	3,700	1,690	1,020	1,090	-	2,330	9,380	12,000	1,620	1,040	1,080	847
31	4,090	-	1,050	1,060	-	2,410	-	12,000	-	1,050	1,010	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	88,770	4,240	1,030	2,864	176,100
November	83,930	4,600	1,650	2,798	166,500
December	41,587	1,760	906	1,342	82,490
Calendar year 1941	1,347,270	22,400	500	3,691	2,672,000
January	31,985	1,110	855	1,032	63,440
February	27,564	1,090	839	984	54,670
March	59,750	2,740	976	1,927	118,500
April	221,610	14,500	2,570	7,387	439,600
May	331,070	14,900	7,850	10,680	656,700
June	209,150	11,600	1,620	6,972	414,800
July	42,577	1,820	932	1,373	84,450
August	33,686	1,770	760	1,087	66,820
September	32,230	1,440	807	1,074	63,930
Water year 1941-42	1,203,909	14,900	760	3,298	2,388,000

a No gage-height record; discharge computed on basis of weather records and records for station near San Ildefonso.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande at San Felipe, N. Mex.

Location.- Water-stage recorder, lat. 35°26', long. 106°26', at highway bridge in San Felipe Grant, 2,000 feet downstream from Tonque Arroyo, half a mile upstream from San Felipe Pueblo, Sandoval County, and about 12 miles northeast of Bernalillo. Datum of gage is 5,110.38 feet above mean sea level, datum of 1929.

Drainage area.- 16,100 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- October 1930 to September 1942 in reports of Geological Survey. March 1925 to December 1931 in reports of State engineer.

Average discharge.- 16 years (1926-42), 1,787 second-feet.

Extremes.- Maximum discharge during year, 18,900 second-feet Apr. 24 (gage height, 8.59 feet), from rating curve extended above 10,900 second-feet by logarithmic plotting; minimum daily, 900 second-feet Feb. 18, 19, Sept. 30.

1930-42: Maximum discharge, 42,100 second-feet Aug. 21, 1935, from rating curve extended above 15,000 second-feet by logarithmic plotting; maximum gage height, 11.13 feet June 26, 1937; minimum daily discharge, 34 second-feet July 7, 1934.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,700	5,210	e1,900	1,340	1,190	1.020	2,410	7,890	11,300	1,940	2,070	1,440
2	968	4,840	e1,900	e1,260	1,180	968	2,630	7,650	11,000	2,020	1,750	1,380
3	940	4,720	e1,900	1,190	1,190	927	3,130	8,840	10,600	1,660	e1,300	1,320
4	2,420	4,600	e1,900	1,140	1,210	996	3,480	8,200	11,000	1,480	e1,500	1,410
5	2,400	4,600	e1,800	1,080	1,220	1,190	3,720	7,740	10,600	1,440	e1,400	1,610
6	1,700	4,720	e1,700	1,040	1,220	1,190	4,460	8,200	10,200	1,290	e1,500	1,440
7	1,800	e4,400	e1,600	1,020	1,160	e1,300	4,080	8,840	9,510	1,240	1,530	1,390
8	1,990	e3,000	e1,600	1,040	1,220	e1,200	3,720	10,600	9,170	1,530	1,500	1,290
9	e2,900	e2,600	e1,600	1,150	1,220	e1,100	3,480	11,000	8,520	1,660	1,640	1,230
10	e3,000	e2,600	e1,600	1,160	1,210	e1,300	3,840	11,700	8,200	1,960	1,410	1,240
11	e3,000	e2,500	e1,700	1,090	1,210	e1,700	4,330	13,200	7,890	1,680	e1,300	1,770
12	e3,000	e2,800	e1,700	1,150	1,210	1,960	4,830	14,400	7,740	1,820	e1,200	2,610
13	3,650	e2,900	e1,800	1,180	1,150	1,600	5,220	14,800	7,890	1,750	e1,200	1,800
14	4,480	e2,900	e1,800	1,220	1,150	2,900	4,460	13,600	7,290	1,680	1,310	1,570
15	e4,200	e2,900	e1,600	1,280	1,160	3,020	5,480	11,300	7,140	1,660	1,620	1,020
16	3,580	e2,800	e1,500	1,250	1,070	2,780	7,140	8,520	7,290	1,680	e1,200	924
17	e4,000	e2,700	e1,500	1,340	927	2,580	e8,200	8,200	7,140	1,770	e1,200	1,070
18	e4,100	e2,700	e1,400	e1,300	e900	2,320	10,200	8,520	6,710	1,730	1,100	1,070
19	e4,100	e2,800	e1,400	e1,200	e900	2,470	9,860	7,890	6,020	1,120	1,120	1,070
20	e3,900	e2,600	e1,300	e1,100	e1,000	2,600	8,840	8,200	5,610	1,390	1,080	1,290
21	e3,900	e2,500	e1,300	e1,100	e1,000	2,430	8,200	9,170	5,610	1,380	1,070	e1,300
22	e3,900	e2,500	1,300	1,110	e1,100	2,270	8,200	9,860	5,350	1,390	1,020	a1,300
23	e4,200	e2,400	1,370	1,120	e1,100	2,560	13,100	10,200	4,960	1,260	938	a1,300
24	e4,000	e2,200	1,250	1,150	e1,000	2,780	17,200	10,600	4,460	1,290	1,190	a1,300
25	e3,700	e2,000	1,160	1,160	e1,000	2,630	12,900	11,700	3,840	1,260	1,430	1,290
26	e3,900	e2,200	968	1,120	e1,000	2,230	e11,000	12,100	3,240	1,320	980	1,210
27	e3,600	e2,200	e1,000	1,160	e1,000	2,080	11,000	12,100	2,780	1,540	1,020	a1,300
28	e3,700	1,940	1,040	1,150	e1,000	e2,300	10,200	12,100	2,210	1,360	e1,100	a1,000
29	5,720	1,830	1,050	1,220	-	e2,500	9,510	11,700	e1,800	1,310	e1,100	a1,000
30	4,360	e1,900	1,150	1,220	-	e2,400	9,170	11,300	e1,700	1,310	1,640	a900
31	4,360	-	e1,200	1,190	-	e2,600	-	11,300	-	1,270	1,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	103,168	5,720	940	3,328	204,600
November	90,560	5,210	1,830	3,019	179,600
December	45,988	1,900	968	1,483	91,220
Calendar year 1941	1,424,372	21,300	554	3,902	2,825,000
January	36,230	1,340	1,020	1,169	71,860
February	30,897	1,220	900	1,103	61,280
March	61,901	3,020	927	1,997	122,800
April	213,990	17,200	2,410	7,133	424,400
May	321,420	14,800	7,650	10,370	637,500
June	206,770	11,300	1,700	6,892	410,100
July	47,190	2,020	1,120	1,522	93,600
August	40,678	2,070	938	1,312	80,680
September	39,744	2,610	900	1,325	78,830
Water year 1941-42	1,238,536	17,200	900	3,393	2,456,000

a No gage-height record; discharge computed on basis of weather records, records for stations at Otowi and near Bernalillo, and combined flow of Rio Grande at Cochiti plus Galisteo Creek at Domingo.
e Stage-discharge relation indefinite; discharge computed on same basis as that for days of no gage-height record.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande near Bernalillo, N. Mex.

Location.- Water-stage recorder, lat. 35°17'05", long. 106°35'45", in Alameda Grant, 2 miles northwest of Sandia Pueblo, 3 miles southwest of Bernalillo, Sandoval County, 3.3 miles northeast of Sandoval post office, 3.5 miles below bridge on State Highway 44, 8.5 miles below mouth of Jemez Creek

Records available.- May 1941 to September 1942.

Extremes.- 1941: Maximum discharge during period May to September, 25,400 second-feet May 16; maximum gage height, 6.83 feet Sept. 20; minimum daily discharge, 350 second-feet Aug. 28, 29.
1941-42: Maximum discharge during water year, 24,200 second-feet Apr. 24 (gage height, 5.84 feet); minimum daily, 451 second-feet Aug. 27.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, 1941-42

1941

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								a5,500	15,100	8,880	1,280	a1,100
2								a7,800	12,900	8,000	948	a800
3								9,490	12,500	6,840	974	a1,300
4								10,700	12,500	e5,800	1,180	a700
5								10,700	12,500	e5,600	1,340	630
6								12,200	12,900	e5,400	1,640	594
7								14,700	12,500	e5,400	1,680	1,120
8								15,700	13,800	e5,400	1,890	594
9								16,800	13,800	5,130	2,310	420
10								17,900	13,300	e4,800	2,700	373
11								19,000	13,800	e4,500	2,190	366
12								19,600	12,500	e4,200	2,250	366
13								20,700	10,100	e4,000	2,560	452
14								21,300	8,370	e3,600	3,040	1,300
15								22,400	7,410	e3,500	2,380	1,180
16								23,000	7,060	3,320	2,170	1,200
17								23,000	e6,700	2,920	2,610	1,070
18								23,000	6,680	2,950	1,960	974
19								20,700	6,410	c2,750	1,580	1,180
20								19,000	6,520	2,610	1,430	2,520
21								17,000	7,640	2,700	1,800	4,790
22								16,000	8,440	2,530	1,940	2,210
23								14,600	9,080	2,250	1,150	4,390
24								e14,500	9,990	2,300	a800	1,240
25								e14,000	12,600	2,760	a600	864
26								e14,200	11,100	1,960	a450	a650
27								e15,200	11,000	2,760	a400	a600
28								e16,500	10,500	1,820	a350	1,260
29								17,500	11,400	1,710	a350	2,060
30								17,000	9,780	1,450	a450	1,820
31								16,000	-	1,280	a700	-

a No gage-height record; discharge computed on basis of records for stations at Otowi Bridge, San Felipe and San Acacia.
e Uncertain stage-discharge relation; discharge computed on basis of records for stations at Otowi Bridge, San Felipe and San Acacia.

Discharge, in second-feet, of Rio Grande near Bernalillo, N. Mex., 1941-42--Continued

1941-42

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-			1,000	1,020	2,560	8,000	12,500	1,600	1,370	912
2		-			974	988	3,110	6,630	11,700	1,920	1,440	1,130
3		-			974	912	4,300	8,120	10,900	1,510	867	1,030
4		-		e1,000	1,020	924	4,060	7,520	12,500	1,390	984	1,160
5		-			1,030	948	5,000	7,350	12,100	2,060	993	1,130
6		-			1,040	1,040	6,050	7,640	10,500	1,020	840	1,440
7		-			988	1,150	4,300	8,250	10,100	888	1,050	894
8		-		a960	e1,200	1,100	4,350	10,500	9,420	1,120	903	824
9		-		988	e1,220	936	4,730	12,500	9,290	1,360	1,250	824
10		-		948	1,230	1,060	5,000	14,200	8,180	1,370	816	800
11		-		1,000	1,260	1,280	5,320	15,500	8,000	1,370	752	1,140
12		-		1,020	1,230	1,710	6,210	16,000	7,940	2,530	582	1,560
13		-		1,040	1,200	1,200	7,120	16,500	8,310	1,370	589	1,410
14		-		1,070	1,150	1,750	6,650	14,500	8,690	1,210	776	939
15		-		1,150	1,100	2,730	6,310	12,500	8,000	1,130	784	824
16		-		1,120	829	2,020	8,820	8,750	7,760	1,160	1,050	744
17		-		1,130	796	1,620	9,020	8,500	7,010	1,130	624	617
18		-		1,180	e850	1,580	11,300	9,350	6,100	1,130	752	561
19		-		1,070	924	1,820	11,300	9,080	5,270	1,330	624	540
20		-		1,060	807	1,840	9,290	9,350	5,040	579	589	1,040
21		-		1,210	936	1,820	10,100	10,900	5,560	800	568	800
22		-		1,130	1,030	1,890	8,820	11,000	5,180	1,070	534	824
23		-		1,120	988	1,780	14,200	11,200	4,910	885	939	800
24		-		1,160	924	1,960	20,700	12,100	4,390	948	704	816
25		1,370		1,120	936	2,640	14,200	12,500	3,530	957	948	824
26		1,300		1,070	936	2,120	11,700	12,900	3,150	1,420	712	808
27		1,370		1,210	974	1,840	12,900	13,300	3,010	1,070	451	1,200
28		1,390		1,030	1,000	2,060	12,100	13,800	3,010	832	469	768
29		1,390		1,030	-	2,410	11,300	13,800	1,750	816	603	816
30		a1,380		e1,020	-	2,470	9,420	12,900	1,490	858	1,320	720
31		-		e1,000	-	2,440	-	10,900	-	858	867	-

a No gage-height record; discharge computed on basis of records for stations at Otowi Bridge, Cochiti, San Felipe and Rio Galisteo at Domingo.
e Doubtful stage-discharge relation; discharge computed as above.

Monthly discharge, in second-feet, 1941-42

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
January 1941	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	505,690	23,000	5,500	16,310	1,003,000
June	318,880	15,100	6,410	10,630	632,500
July	119,120	8,880	1,280	3,843	236,300
August	47,102	3,040	350	1,519	93,430
September	38,123	4,790	366	1,271	75,620
The period	-	-	-	-	2,041,000
October 1941	-	-	-	-	-
November 25-30	8,200	1,390	1,300	1,367	16,260
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January 8-31, 1942	32,836	1,210	-	1,059	65,130
February	28,546	1,260	796	1,020	56,620
March	51,058	2,730	912	1,647	101,300
April	250,240	20,700	2,560	8,341	496,300
May	346,040	16,500	6,630	11,160	686,400
June	215,290	12,500	1,490	7,176	427,000
July	37,691	2,530	579	1,216	74,760
August	25,750	1,440	451	831	51,070
September	27,895	1,560	540	930	55,330
Water year	-	-	-	-	-

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande at Albuquerque, N. Mex.

Location.- Water-stage recorder, lat. 35°05'20", long. 106°40'45", in SE¼ sec. 13, T. 10 N., R. 2 E. (projected), at bridge on U. S. Highway 66, at Albuquerque, in Albuquerque Grant, Bernalillo County. Datum of gage is 4,948.18 feet above mean sea level (Middle Rio Grande Conservancy District bench mark).

Records available.- January to September 1942.

Extremes.- Maximum discharge during period, 25,000 second-feet Apr. 24 (gage height, 4.07 feet), from rating curve extended above 13,900 second-feet by logarithmic plotting; minimum daily, 395 second-feet July 20.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							e2,500	11,300	12,000	1,200	810	530
2							e3,000	10,200	12,300	1,240	1,600	855
3							e3,500	8,970	11,300	1,100	648	780
4							e4,500	9,420	11,700	1,100	590	765
5						e1,100	e6,000	9,330	11,400	1,320	1,130	1,030
6							7,160	9,600	11,400	1,130	735	1,650
7							5,550	10,500	11,000	862	924	870
8							3,750	10,400	9,800	924	1,070	648
9						1,220	4,540	e12,000	9,200	855	1,530	636
10						1,070	4,720	e13,000	8,390	840	888	612
11						1,330	5,480	12,700	8,390	855	720	1,200
12						2,020	6,850	15,400	8,750	a1,100	612	2,950
13						1,400	7,980	15,700	8,660	a1,600	466	1,240
14						2,150	6,920	12,600	8,390	a1,000	720	1,330
15						e2,750	6,040	14,000	7,760	a1,000	996	1,220
16						e2,200	9,600	9,600	7,240	978	1,500	942
17						e1,800	10,900	7,760	6,920	750	590	600
18						e1,600	11,500	7,940	5,960	855	696	483
19						e1,700	11,400	a7,500	4,970	1,430	560	474
20						e1,800	11,000	a9,000	4,030	395	483	1,050
21						e2,000	10,400	a10,000	4,900	449	415	735
22						e1,700	8,430	a12,000	4,710	648	401	780
23						e1,800	14,200	a11,000	3,850	750	973	780
24						e2,100	20,600	a11,500	3,850	708	1,060	708
25						e2,500	14,400	a12,000	3,480	942	942	672
26						e2,100	11,500	12,500	2,720	1,530	1,220	708
27						e1,900	11,300	12,900	2,320	1,700	550	1,380
28				*1,180		e2,000	11,100	12,500	1,950	893	449	570
29						e2,300	11,100	13,200	1,370	492	492	500
30						e2,600	11,200	12,500	1,080	466	1,190	510
31						e2,300	-	11,300	-	720	684	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	------	------	------	------	------
November	------	------	------	------	------
December	------	------	------	------	------
Calendar year	------	------	------	------	------
January	35,650	-	-	e1,150	70,710
February	30,800	-	-	e1,100	61,090
March	53,040	2,750	-	1,711	105,200
April	257,120	20,600	2,500	8,571	510,000
May	348,320	15,700	7,500	11,240	690,900
June	209,790	12,300	1,080	6,993	416,100
July	29,832	1,700	395	962	59,170
August	25,644	1,600	401	827	50,860
September	27,208	2,950	474	907	53,970
The period	-	-	-	-	2,018,000

* Discharge measurement made on this day.
a No gage-height record; discharge computed on basis of range of stage, weather records, and records for stations near Belen and near Bernalillo.
e Stage-discharge relation uncertain; discharge computed on basis of gage heights, weather records, and records for stations near Belen and near Bernalillo.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande near Belen, N. Mex.

Location.- Water-stage recorder, lat. 34°39'10", long. 106°44'10", in Tome Claim, at bridge on State Highway 52, 2 miles east of Belen, Valencia County.

Records available.- January to September 1942.

Extremes.- Maximum discharge during period, 23,100 second-feet Apr. 24 (gage height, 5.05 feet), from rating curve extended above 12,500 second-feet by logarithmic plotting; minimum daily, 321 second-feet Aug. 22.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				e1,300	e1,280	e1,220	2,080	e8,900	e11,000	741	459	763
2				e1,280	e1,230	1,260	2,220	e9,400	10,700	1,260	791	594
3				e1,280	e1,060	1,100	2,640	e10,000	e10,200	1,000	763	763
4				e1,260	e1,140	1,000	3,390	e9,400	e12,100	752	549	828
5				e1,200	e1,150	1,020	4,560	e8,500	11,600	806	513	864
6				e1,170	e1,130	1,120	5,160	8,380	e11,300	1,020	710	1,330
7				e1,150	e1,130	1,280	5,880	7,530	e10,800	504	603	1,460
8				e1,190	e1,140	1,200	4,700	9,360	e10,000	402	621	670
9				e1,160	e1,200	1,090	3,590	10,600	e9,200	540	752	585
10				e1,180	e1,260	852	3,880	11,900	e8,600	806	900	468
11				e1,290	e1,240	888	4,460	12,200	e8,400	828	621	700
12				e1,280	e1,170	1,420	5,880	13,900	e9,000	936	585	1,980
13				e1,270	e1,210	1,870	6,540	14,600	e9,300	1,560	540	2,050
14				e1,300	e1,160	1,300	5,820	e13,600	e8,800	936	459	1,460
15				e1,250	e1,120	2,440	5,820	e14,100	e8,000	828	576	974
16				e1,240	e1,060	2,000	7,120	e13,600	e7,400	720	912	1,000
17				e1,240	e990	1,780	9,680	e11,000	6,740	852	784	876
18				e1,220	e1,030	1,580	11,900	e9,600	6,360	660	459	741
19				e1,180	e1,060	1,460	e11,000	e9,500	5,600	784	450	650
20				e1,160	e1,070	1,660	e10,000	e8,200	5,010	1,300	378	752
21				e1,200	e1,000	1,870	9,130	e9,000	4,900	434	349	876
22				e1,360	e950	1,870	7,460	e10,500	4,700	410	321	741
23				e1,240	e1,000	1,620	11,000	e11,200	4,750	540	342	752
24				e1,130	e1,070	1,780	17,900	e10,500	4,610	594	513	690
25				e1,170	e1,080	2,250	18,500	11,200	4,010	540	603	594
26				e1,100	e1,050	e2,100	e11,000	11,900	2,920	752	549	540
27				e1,120	e1,040	e2,000	11,700	e12,000	2,050	1,000	594	594
28				e1,150	e1,180	e1,900	e10,200	e11,800	1,950	1,110	426	817
29				1,230	-	2,100	e11,000	e11,400	1,460	670	370	795
30				e1,200	-	1,820	e9,800	e13,000	612	450	394	576
31			e1,300	e1,140	-	1,850	-	e12,000	-	426	680	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October					
November					
December					
Calendar year					
January	37,640	1,360	1,100	1,214	74,660
February	31,200	1,280	950	1,114	61,880
March	48,700	2,440	852	1,571	96,600
April	234,010	18,500	2,080	7,800	464,200
May	338,770	14,600	7,530	10,930	671,900
June	212,072	12,100	612	7,069	420,600
July	24,161	1,560	402	779	47,920
August	17,566	912	321	567	34,840
September	26,483	2,050	468	883	52,530
The period	-	-	-	-	1,925,000

e Stage-discharge relation indefinite; discharge computed on basis of records for stations near Bernalillo, at Albuquerque, and at San Acacia.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande near Bernardo, N. Mex.

Location.- Water-stage recorder, lat. 34°25', long. 106°48', in W½NW¼ sec. 12, T. 2 N., R. 1 E., at bridge on U. S. Highway 60, 2¼ miles east of Bernardo and 3½ miles upstream from Rio Puerco. Datum of gage is 4,723.95 feet above mean sea level, datum of 1929.

Drainage area.- 19,230 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- June 1936 to January 1939, October 1941 to September 1942.

Extremes.- Maximum discharge during year not determined; maximum daily discharge, 19,600 second-feet Apr. 25; maximum gage-height, 6.90 feet Apr. 25; minimum daily discharge, 236 second-feet Aug. 23.

1936-39, 1941-42: Maximum discharge not determined, probably occurred Apr. 25, 1942; maximum daily discharge, that of Apr. 25, 1942; maximum gage height, that of Apr. 25, 1942; minimum daily discharge, 36 second-feet July 26, 1936.

Remarks.- Records poor. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		4,240	1,580	1,090	1,190	1,070	1,610	e9,600	10,300	1,360	389	806
2		5,260	e1,700	1,120	1,240	1,030	2,180	e8,600	11,000	1,440	465	635
3		e4,500	e1,800	1,140	1,010	944	2,210	e9,400	e11,200	1,390	1,520	590
4		4,590	e1,700	1,240	1,050	e900	2,650	e9,600	e11,500	1,170	923	660
5		e3,800	1,610	1,170	e1,150	e1,000	3,870	e8,300	e11,500	1,070	680	824
6		e3,600	2,180	e1,200	e1,150	e1,150	4,790	e7,900	11,000	e1,100	788	1,050
7	e1,800	e3,800	1,950	1,290	e1,150	1,310	5,480	e8,100	e10,500	e950	842	1,420
8		e3,100	1,550	1,010	e1,100	1,360	4,590	9,240	e9,700	770	768	860
9		e3,400	e1,500	e900	1,170	1,340	4,150	a11,000	e9,300	665	881	560
10		2,880	e1,600	1,090	1,210	1,120	4,290	a12,800	8,760	986	966	413
11		e2,300	e2,000	1,120	1,240	986	4,440	a11,600	7,880	1,070	923	517
12		e2,300	e1,900	e1,300	1,140	944	5,100	a14,000	8,580	1,050	650	1,960
13		2,140	1,950	e1,300	1,050	1,390	e6,300	e13,200	e9,400	1,210	620	3,640
14		2,180	e1,800	e1,300	1,010	1,240	e5,900	e14,000	8,010	1,210	478	1,850
15	4,100	2,350	1,700	1,240	e1,000	1,790	5,800	13,200	7,570	881	517	1,470
16	3,640	2,280		1,120	e950	2,210	6,200	11,700	7,390	680	842	1,760
17	2,920	2,320		1,070	e900	1,700	7,940	9,450	6,670	698	902	1,390
18	3,420	2,210	e1,650		e950	1,610	10,300	e9,400	5,800	698	665	1,210
19	4,200	2,460		e1,100	e1,000	1,700	e11,500	e8,000	5,050	650	378	1,090
20	3,420	2,800			e1,100	1,670	e10,500	e8,200	e5,400	752	367	1,050
21	3,090	e2,400			1,070	1,980	e8,600	8,580	e5,400	698	301	1,170
22	3,210	e2,200			1,090	1,820	11,000	9,310	e5,000	290	272	1,090
23	3,820	e2,200	e1,350	e1,200	1,140	1,820	12,100	e10,500	4,540	400	236	881
24	4,100	2,080			1,140	1,610	15,500	e11,000	4,240	530	281	788
25	3,960	1,910			1,170	1,910	19,600	e11,000	e3,800	517	530	698
26	4,010	1,640			1,170	2,280	e16,000	e12,000	2,920	530	575	620
27	3,820	e1,700			1,190	2,210	e10,500	e11,700	3,000	698	605	620
28	3,510	e1,800	e1,150	e1,100	1,260	1,980	e11,500	e11,600	e2,300	806	575	752
29	3,300	e1,800			-	2,010	e10,300	e11,400	e2,000	824	400	965
30	4,950	e1,600			-	2,010	e11,000	12,400	1,820	426	378	680
31	3,910	-			-	1,530	-	12,100	-	334	452	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	88,580	4,950	-	2,857	175,700
November	81,840	5,260	1,600	2,728	162,300
December	48,420	2,180	-	1,562	96,040
Calendar year	-	-	-	-	-
January	35,600	1,300	900	1,148	70,610
February	30,990	1,260	900	1,107	61,470
March	47,624	2,280	900	1,536	94,460
April	235,900	19,600	1,610	7,863	467,900
May	328,880	14,000	7,900	10,610	652,300
June	211,550	11,500	1,820	7,052	419,600
July	25,853	1,440	290	834	51,280
August	19,209	1,520	236	620	38,100
September	32,219	3,640	413	1,074	63,910
Water year 1941-42	1,186,665	19,600	236	3,251	2,354,080

a No gage-height record; discharge computed on basis of records for station at San Acacia and Rio Puerco near Bernardo.

e Stage-discharge relation indefinite; discharge computed on basis of records for station at San Acacia and Rio Puerco near Bernardo.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande at San Acacia, N. Mex.

Location.- Water-stage recorders on right (not used for 1942) and left banks, lat. 34°15', long. 106°53', in NE¼ sec. 1, T. 1 S., R. 1 W., 0.2 mile downstream from San Acacia diversion dam, half a mile east of San Acacia, and 2 miles downstream from Rio Salado. Datum of right bank gage is 4,662.56, left bank gage 4,660.16 feet above mean sea level, datum of 1929.

Drainage area.- 26,770 square miles (includes 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- April 1936 to September 1942 in reports of Geological Survey. February to December 1925 and January 1926 to September 1927 (gage heights and discharge measurements only) in reports of State engineer. January 1941 to September 1942 in reports of Rio Grande Compact Commission.

Extremes.- Maximum discharge during year, 26,100 second-feet Oct. 25 (gage height, 7.10 feet); minimum daily, 180 second-feet Aug. 23.
1936-42: Maximum discharge, 27,400 second-feet Aug. 5, 1936 (gage height, 8.35 feet, datum of gage was 4,662.56 feet), from rating curve extended above 13,000 second-feet by logarithmic plotting; minimum daily, 1 second-foot June 23, 1939.

Remarks.- Records good. Socorro main canal north diverts water 0.2 mile above gage. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,960	3,840	1,550	1,250	1,040	1,170	1,780	9,660	11,700	1,290	305	544
2	1,960	5,200	1,690	1,210	1,170	1,130	1,880	8,440	10,600	1,500	364	657
3	1,880	4,230	1,780	1,370	1,120	1,150	1,910	9,350	10,300	1,250	1,150	553
4	3,970	4,420	1,760	1,330	888	888	2,400	9,660	11,300	1,170	790	760
5	4,910	3,880	1,690	1,130	1,030	837	3,550	8,440	12,400	1,060	474	905
6	2,640	3,620	1,950	1,120	1,040	888	4,270	8,160	11,700	1,060	354	973
7	2,040	3,730	2,010	1,120	1,010	1,120	4,890	7,600	11,300	956	618	1,120
8	1,830	3,020	1,570	1,210	1,030	1,480	5,420	9,040	9,660	644	689	990
9	1,830	3,370	1,570	871	973	1,210	4,270	10,600	9,350	592	507	507
10	1,730	2,700	1,450	1,010	1,100	973	3,920	12,400	8,740	540	644	392
11	2,490	2,290	1,960	1,250	1,230	871	4,150	12,700	7,870	631	715	598
12	2,890	2,340	1,930	1,210	1,230	790	5,070	11,400	8,740	854	775	1,840
13	2,610	2,230	1,910	1,170	1,040	1,170	6,280	13,900	9,040	871	715	3,400
14	2,090	2,200	1,880	1,210	1,100	1,520	6,540	13,100	9,040	1,100	631	1,640
15	3,240	2,120	2,060	1,100	1,060	1,580	5,940	13,900	8,160	715	592	1,200
16	4,150	2,350	1,590	1,150	1,010	2,550	5,650	13,500	7,600	553	566	973
17	2,930	2,550	1,550	1,150	820	2,370	8,090	10,300	7,060	631	905	905
18	2,960	2,200	1,780	1,150	888	1,990	9,980	9,350	6,330	685	685	730
19	3,730	2,290	1,690	1,010	939	1,660	11,600	9,350	5,070	670	328	775
20	3,370	2,470	1,390	1,040	990	1,410	11,400	7,870	5,110	775	248	644
21	2,960	2,550	1,410	1,130	939	1,810	9,040	8,440	4,980	973	248	888
22	3,090	2,340	1,410	1,190	905	2,200	8,740	10,300	4,850	463	206	700
23	3,230	2,040	1,390	1,080	905	2,170	9,980	11,000	4,110	344	180	605
24	3,550	2,230	1,410	1,030	1,040	1,590	13,300	10,300	4,070	328	1,200	566
25	5,570	1,880	1,270	1,060	990	2,090	19,500	11,000	3,840	452	990	579
26	9,970	1,940	1,370	956	973	2,260	16,000	11,000	3,300	507	618	566
27	4,150	1,660	1,370	973	922	2,150	10,300	12,000	2,640	592	452	518
28	3,470	1,690	1,290	1,040	1,130	2,060	11,300	11,700	2,060	715	529	474
29	3,650	1,830	1,190	1,060	-	1,820	10,300	11,700	1,960	922	575	715
30	5,000	1,830	1,230	1,060	-	1,960	11,000	11,300	1,610	485	402	605
31	4,110	-	1,370	1,010	-	1,330	-	13,100	-	260	354	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	104,960	9,970	1,730	3,386	208,200
November	81,040	5,200	1,660	2,701	160,700
December	49,470	2,060	1,190	1,596	98,120
Calendar year 1941	1,410,933	23,700	122	3,866	2,799,000
January	34,650	1,370	871	1,118	68,730
February	28,512	1,230	820	1,018	56,550
March	48,197	2,550	790	1,555	95,600
April	228,450	19,500	1,780	7,615	453,100
May	330,560	13,900	7,600	10,660	655,700
June	214,490	12,400	1,610	7,150	425,400
July	23,588	1,500	260	761	46,790
August	17,809	1,200	180	574	35,320
September	26,322	3,400	392	877	52,210
Water year 1941-42	1,188,048	19,500	180	3,255	2,356,000

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande at San Marcial, N. Mex.

Location.- Water-stage recorder, lat. 33°41', long. 106°58', in Pedro Armendaris Grant 34, at Atchison, Topeka & Santa Fe Railway bridge, 1.1 miles downstream from San Marcial, Socorro County.

Drainage area.- 27,700 square miles (including 2,940 square miles in closed basin in northern part of San Luis Valley, Colo.).

Records available.- January 1895 to September 1942 in reports of Geological Survey. January 1895 to December 1931 in reports of State engineer. Prior to January 1922 at site 0.3 mile upstream; January 1922 to February 1932 at highway bridge half a mile northeast of San Marcial and 1.5 miles above present site.

Average discharge.- 46 years (1896-1942), 1,586 second-feet.

Extremes.- Maximum discharge during year, 18,400 second-feet Apr. 26 (gage height, 10.10 feet); minimum daily, 221 second-feet Aug. 23.
1895-1942: Maximum discharge, about 50,000 second-feet Oct. 11, 1904; no flow at times.

Remarks.- Records good. Diversions above station for irrigation.

Cooperation.- Records furnished by International Boundary Commission, U. S. Section.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,280	4,430	1,600	1,360	1,140	1,170	1,540	10,500	11,900	1,190	320	354
2	3,280	4,250	1,670	1,340	1,200	1,100	1,670	9,620	10,700	1,190	366	465
3	2,370	4,420	1,560	1,320	1,190	940	1,820	8,310	11,700	1,400	447	557
4	3,320	4,310	1,640	1,290	1,190	845	2,030	9,210	11,300	1,150	921	437
5	6,110	4,070	1,640	1,250	1,050	945	2,810	9,050	10,800	1,060	710	799
6	4,260	4,030	1,740	1,160	1,180	833	3,890	7,960	10,700	950	509	992
7	2,520	4,000	2,000	1,160	1,210	930	4,930	7,770	10,400	834	425	710
8	1,850	3,700	1,780	1,110	1,160	1,450	5,850	8,070	9,850	915	650	1,030
9	1,900	3,440	1,680	1,000	1,030	1,680	4,640	8,710	9,200	575	845	893
10	1,940	3,200	1,560	945	1,210	1,740	4,230	9,570	8,700	478	553	533
11	2,360	2,600	1,630	1,180	1,450	1,120	3,940	10,800	7,780	423	653	395
12	2,590	2,370	1,870	1,500	1,330	760	4,350	11,700	7,400	639	971	1,220
13	2,600	2,220	1,820	1,240	1,150	790	5,130	12,600	7,550	656	726	2,800
14	2,710	2,390	1,730	1,200	1,040	1,210	5,810	14,400	7,580	640	580	2,750
15	2,640	2,420	1,770	1,120	1,170	1,540	5,790	14,400	8,260	546	437	1,560
16	3,640	2,500	1,750	1,140	1,120	1,990	5,230	13,600	7,140	648	428	1,100
17	3,630	2,560	1,720	1,200	1,140	2,800	6,110	12,000	6,500	668	519	949
18	3,130	2,580	1,600	1,200	1,050	2,150	7,710	9,350	6,310	536	722	844
19	3,350	2,550	1,590	1,180	980	1,910	9,510	8,840	5,630	604	625	840
20	3,490	2,680	1,540	1,230	1,010	1,890	11,600	8,540	4,960	596	438	733
21	3,390	2,700	1,520	1,300	1,010	1,600	11,300	8,300	4,490	475	299	666
22	3,200	2,540	1,460	1,200	900	1,800	10,000	8,810	4,680	678	247	708
23	3,510	2,420	1,410	1,140	850	1,960	9,050	9,470	4,610	530	221	779
24	3,910	2,420	1,410	1,080	915	1,670	9,080	10,200	3,980	313	279	668
25	3,950	2,340	1,450	1,110	1,110	1,380	12,900	10,400	3,790	316	1,030	650
26	7,120	2,180	1,250	1,120	1,130	1,850	17,800	10,700	3,490	372	955	532
27	6,010	1,920	1,200	1,100	1,110	2,200	14,500	10,900	2,690	349	564	505
28	4,020	1,580	1,150	1,100	1,100	1,960	12,000	10,800	2,370	377	445	534
29	3,620	1,640	1,050	1,080	-	1,950	11,600	11,000	2,110	586	481	488
30	3,850	1,680	1,090	1,100	-	1,730	10,900	11,700	1,840	709	469	734
31	5,670	-	1,200	1,130	-	1,790	-	11,900	-	564	402	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	111,220	7,120	1,850	3,588	220,600
November	86,140	4,430	1,580	2,871	170,900
December	48,070	2,000	1,040	1,551	95,350
Calendar year 1941	1,427,465	23,900	154	3,911	2,831,000
January	36,585	1,500	945	1,180	72,570
February	31,125	1,450	850	1,112	61,740
March	47,683	2,800	760	1,538	94,580
April	217,720	17,800	1,640	7,257	431,800
May	319,180	14,400	1,770	10,300	633,100
June	208,410	11,900	1,840	6,947	413,400
July	21,267	1,400	313	686	42,180
August	17,237	1,030	221	556	34,190
September	26,225	2,800	354	874	52,020
Water year 1941-42	1,170,862	17,800	221	3,208	2,322,000

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande below Elephant Butte Dam, N. Mex.

Location.- Water-stage recorder, lat. 33°09'05", long. 107°12'10", in N½ sec. 25, T. 13 S., R. 4 W., (projected), 3,800 feet downstream from Elephant Butte Dam in Pedro Armendaris grant. Prior to Apr. 23, 1942, water-stage recorder at site 1,900 feet upstream. Datum of gage was 4,240.94 feet above mean sea level.

Records available.- October 1916 to September 1942.

Average discharge.- 26 years, 1,211 second-feet.

Extremes.- Maximum daily discharge during year, 8,220 second-feet May 22; minimum daily, 798 second-feet Oct. 1.
1916-42: Maximum daily discharge, that of May 22, 1942; no flow at times.

Remarks.- Records good. Considerable diversion above station for irrigation. Flow regulated by Elephant Butte Reservoir (capacity, 2,219,000 acre-feet).

Cooperation.- Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	798	1,230	1,380	1,350	1,210	1,390	1,000	6,340	8,050	5,500	3,610	1,500
2	949	1,040	1,410	1,410	1,450	1,470	1,030	6,450	8,000	5,380	3,620	1,370
3	1,110	1,420	1,430	1,460	1,490	1,510	1,010	6,510	7,830	4,540	3,740	1,200
4	1,090	2,010	1,290	1,340	1,460	1,420	1,010	6,680	6,530	3,950	3,720	1,260
5	980	2,560	1,400	1,420	912	1,490	938	6,720	6,350	3,930	2,980	1,230
6	1,110	2,570	1,410	1,450	1,370	1,310	986	6,720	6,280	4,040	1,620	1,050
7	1,210	2,910	1,290	1,450	1,290	1,030	1,020	6,570	6,200	4,060	1,500	1,170
8	1,120	3,030	1,860	1,370	1,260	1,010	1,090	6,900	6,250	4,080	1,410	1,230
9	1,230	3,070	1,960	1,370	1,380	1,040	1,020	7,430	6,160	4,080	1,290	1,200
10	1,260	3,170	1,480	1,370	1,320	1,050	1,110	7,430	6,420	2,770	1,390	1,190
11	1,000	3,250	1,480	1,310	1,410	1,040	1,320	7,560	6,360	1,640	1,500	1,100
12	1,160	3,220	1,460	1,410	1,420	1,010	1,350	7,950	6,350	1,530	1,540	1,200
13	1,250	3,300	1,440	1,440	1,430	970	1,790	7,850	6,180	1,590	1,500	937
14	1,260	3,340	1,360	1,440	1,420	1,000	2,670	7,920	6,140	1,640	1,470	1,100
15	1,240	3,340	1,420	1,430	1,330	897	2,590	7,980	6,290	1,620	1,040	1,190
16	1,320	3,190	1,430	1,430	1,400	961	2,730	8,040	6,210	1,640	1,350	1,150
17	1,300	3,250	1,420	1,430	1,350	994	2,630	7,980	6,150	2,480	1,510	1,140
18	1,250	3,380	1,420	1,340	1,410	998	2,610	8,040	6,200	3,750	1,550	1,140
19	1,140	3,410	1,420	1,400	1,380	998	2,500	8,110	5,970	3,660	1,570	1,140
20	1,220	3,330	1,420	1,410	1,290	1,010	2,740	8,160	5,510	3,720	1,570	1,030
21	1,120	3,210	1,330	1,410	1.390	1,030	3,240	8,190	5,180	3,810	1,590	1,100
22	1,210	3,350	1,380	1,410	1,350	913	3,130	8,220	5,310	3,710	1,490	1,130
23	1,190	3,220	1,430	1,440	1,420	906	3,620	8,000	5,620	3,810	1,320	1,130
24	1,300	3,090	1,300	1,430	1,470	1,040	4,090	8,070	5,360	3,920	1,430	1,160
25	1,270	2,360	1,260	1,320	1,460	983	4,650	8,140	5,440	3,720	1,470	1,180
26	1,080	2,200	1,330	1,440	1,430	957	4,930	8,100	5,370	3,610	1,490	1,200
27	1,230	2,190	1,360	1,430	1,480	996	5,650	8,100	5,290	3,680	1,490	1,110
28	1,250	1,620	1,300	1,420	1,480	973	6,300	8,020	5,070	3,640	1,470	1,170
29	1,220	1,380	1,370	1,390	-	950	6,440	7,820	5,260	3,670	1,480	1,210
30	1,230	1,230	1,390	1,460	-	978	6,330	7,850	5,610	3,620	1,360	1,220
31	1,230	-	1,400	1,440	-	1,030	-	7,780	-	3,570	1,460	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	36,327	1,320	798	1,172	72,050
November	79,870	3,410	1,040	2,662	158,400
December	44,030	1,960	1,260	1,420	87,330
Calendar year 1941	489,882	3,410	467	1,342	971,600
January	43,620	1,460	1,310	1,407	86,520
February	38,462	1,490	912	1,374	76,290
March	33,354	1,510	897	1,076	66,160
April	81,524	6,440	938	2,717	161,700
May	235,630	8,220	6,340	7,601	467,400
June	182,940	8,050	5,070	6,098	362,900
July	106,360	5,500	1,530	3,431	211,000
August	55,530	3,740	1,040	1,791	110,100
September	35,137	1,500	937	1,171	69,690
Water year 1941-42	972,784	8,220	798	2,665	1,930,000

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Grande below Caballo Dam, N. Mex.

Location.- Water-stage recorder, lat. 32°53', long. 107°18', in NE¼SW¼ sec. 30, T. 16 S., R. 4 W., 600 feet upstream from Bojorquez Bridge, 4,200 feet downstream from Caballo Dam, 1 1/3 miles upstream from Percha diversion dam, 3 miles northeast of Arrey and 5 miles south of Caballo. Datum of gage is 4,145.9 feet above mean sea level.

Records available.- January 1938 to September 1942.

Extremes.- Maximum daily discharge during year, 7,650 second-feet May 20; minimum daily, 3.0 second-feet Oct. 22.
1938-42: Maximum daily discharge, that of May 20, 1942; minimum daily, 1.3 second-feet Nov. 18-21 and Dec. 12-27, 1940.

Remarks.- Records good. Considerable diversion above station for irrigation. Flow regulated by Caballo Reservoir (capacity when constructed, 345,900 acre-feet) and Elephant Butte Reservoir (capacity, 2,219,000 acre-feet).

Cooperation.- Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8	4.0	8.8	64	588	1,150	2,330	7,390	5,060	6,140	3,760	2,950
2	5.6	4.2	9.2	64	771	1,150	2,290	7,440	5,030	6,160	3,730	2,980
3	4.9	4.3	11	64	1,270	1,200	2,310	7,430	5,090	5,280	3,700	3,030
4	4.5	4.3	11	66	1,580	1,220	2,390	7,330	5,450	4,370	3,670	3,180
5	4.0	4.4	259	68	1,480	1,230	2,410	7,320	5,700	4,370	3,430	3,280
6	3.7	4.4	835	70	1,480	1,250	2,450	7,360	6,260	4,350	2,770	3,200
7	3.1	4.4	738	70	1,600	1,250	2,470	7,380	6,060	4,270	2,740	3,170
8	3.1	4.5	678	75	1,890	1,250	2,400	7,380	6,090	4,240	2,700	3,220
9	104	220	678	70	1,380	1,250	2,250	7,390	6,140	4,180	2,690	3,190
10	330	770	673	70	1,280	1,250	2,260	7,410	6,100	3,360	2,710	3,270
11	330	647	558	75	1,290	1,250	2,360	7,440	6,070	2,150	2,720	3,300
12	330	618	20	73	1,240	1,250	2,360	7,590	6,080	3,190	2,720	3,330
13	330	458	20	82	1,180	1,250	2,510	7,610	6,070	3,070	2,700	3,210
14	296	8.1	21	75	1,180	1,250	2,870	7,620	6,070	2,900	2,770	3,120
15	203	7.1	25	75	1,180	1,250	2,970	7,610	6,080	2,970	2,820	3,210
16	124	5.6	26	73	1,180	1,250	2,970	7,610	6,070	2,960	2,760	3,180
17	3.3	5.8	29	70	1,180	1,250	3,040	7,610	6,080	3,180	2,740	3,250
18	3.3	5.8	32	64	1,180	1,260	3,100	7,610	6,090	3,560	2,710	2,760
19	3.3	5.1	35	66	899	1,260	3,100	7,630	6,090	3,560	2,730	2,230
20	3.3	5.3	38	66	859	1,260	3,180	7,650	6,090	3,550	2,690	3,150
21	3.3	5.5	42	64	859	1,330	3,450	6,580	6,080	3,570	2,380	3,040
22	3.0	5.8	46	68	859	1,430	3,470	5,230	6,060	3,690	2,110	3,190
23	3.1	5.8	51	73	859	1,440	3,950	4,890	6,080	3,710	3,070	3,240
24	3.3	6.0	56	78	859	1,660	4,730	5,110	6,110	3,790	2,960	3,290
25	3.4	6.0	58	84	868	1,910	5,170	5,220	6,090	3,770	2,870	2,970
26	3.2	6.5	56	90	1,070	1,880	5,820	5,270	6,050	3,780	2,910	2,710
27	3.3	6.8	59	102	1,170	1,830	6,980	5,320	6,030	3,780	2,870	2,710
28	3.7	6.8	58	113	1,170	1,990	7,000	5,260	6,000	3,790	2,880	2,710
29	3.7	7.4	61	115	-	2,160	7,190	5,080	5,990	3,780	2,980	2,710
30	3.7	8.4	63	121	-	2,160	7,270	5,080	6,100	3,410	2,920	2,700
31	3.8	-	63	124	-	2,200	-	5,070	-	2,940	2,880	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,132.6	330	3.0	68.8	4,230
November	2,855.3	770	4.0	95.2	5,660
December	5,318.0	835	8.8	172	10,550
Calendar year 1941	355,063.5	2,360	1.4	973	704,200
January	2,432	124	64	78.5	4,820
February	32,401	1,890	588	1,157	64,270
March	44,720	2,200	1,150	1,443	88,700
April	107,050	7,270	2,250	3,568	212,300
May	207,920	7,650	4,890	6,707	412,400
June	178,360	6,260	5,030	5,945	353,800
July	117,820	6,160	2,150	3,801	233,700
August	90,090	3,760	2,110	2,906	178,700
September	91,480	3,330	2,230	3,049	181,400
Water year 1941-42	882,578.9	7,650	3.0	2,418	1,751,000

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Reservoirs in the Rio Grande Basin

Elephant Butte Reservoir.- Water-stage recorder, lat. 33°09'15", long. 107°11'30", at dam on Rio Grande in NW¼ sec. 30, T. 13 S., R. 3 W. (surveys by Bureau of Reclamation), 1 mile west of Elephant Butte, N. Mex., post office and 4 miles northeast of Hot Springs. Datum of gage is 43.3 feet above mean sea level. Records available, January 1940 to September 1942. Maximum daily contents during year, 2,303,000 acre-feet June 16-18 (gage height, 4,409.19 feet); minimum daily, 1,864,000 acre-feet Mar. 14-17 (gage height, 4,397.00 feet). Maximum daily contents during period 1940-42, that of June 16-18, 1942; minimum daily, 418,500 acre-feet Sept. 21-23, 1940.

Reservoir is formed by concrete dam; storage began Jan. 6, 1915; dam completed May 13, 1916. Capacity, 2,219,000 acre-feet between gage heights 4,231.5 feet (sill of lower outlet gate) and 4,407.0 feet (spillway crest), survey of 1940. No dead storage. Figures given herein represent usable contents. Water is used for power development and irrigation on Rio Grande project of Bureau of Reclamation. Contents as here given are computed from mean daily gage heights.

Gage-height record and capacity table furnished by Bureau of Reclamation.

Caballo Reservoir.- Water-stage recorder, lat. 32°53'45", long. 107°17'30", at dam on Rio Grande, in SE¼SW¼ sec. 19, T. 16 S., R. 4 W., 0.5 mile downstream from Apache Canyon, 0.9 mile (revised) upstream from Bojarquez Bridge, 2 miles upstream from Percha diversion dam, 3.5 miles northeast of Arrey, and 4.5 miles south of Caballo, N. Mex. Datum of gage is 43.3 feet above mean sea level. Records available, February 1938 to September 1942. Maximum daily contents during year, 347,000 acre-feet Mar. 4 (gage height, 4,182.06 feet); minimum daily, 28,680 acre-feet Oct. 1 (gage height, 4,133.68 feet). Maximum daily contents during period 1938-42, that of Mar. 4, 1942; minimum daily, 118 acre-feet Oct. 14, 1938 (gage height, 4,108.1 feet).

Reservoir is formed by earth-fill dam; storage began Feb. 8, 1938; dam completed Sept. 19, 1938. Capacity, 345,870 acre-feet between gage heights 4,104 feet (bottom of tunnel entrance to gates) and 4,182 feet (maximum gage heights at which spillway gates operate automatically). No dead storage. Figures given herein represent usable contents. Water released from Elephant Butte Reservoir for power development is stored in Caballo Reservoir and released for irrigation on Rio Grande project of Bureau of Reclamation. Contents as here given are computed from mean daily gage heights.

Gage-height record and capacity table furnished by Bureau of Reclamation.

Carson Reservoir.- Water-stage recorder, lat. 36°25', long. 105°50', in S½NW¼ sec. 12, T. 25 N., R. 10 E., on Aquaje de la Petaca, 4¾ miles northeast of Stong and 4¾ miles northwest of Carson, Taos County, N. Mex. Prior to Feb. 9, staff gage at same site and datum. Records available, January 1940 to September 1942. Maximum daily contents during year, 1,260 acre-feet Apr. 25 (gage height, 25.6 feet); no storage most of period. Maximum contents during period 1940-42, 3,620 acre-feet May 6, 1941 (gage height, 38.5 feet); no storage much of time.

Reservoir is formed by earth dam, stone-faced, completed in 1935. Usable capacity, 5,684 acre-feet between gage heights 8.0 feet (sill of outlet gate) and 45 feet (crest of spillway). Dead storage negligible. Water used for irrigation in Carson irrigation district near Carson, N. Mex. Staff read once weekly prior to Feb. 9.

Contents during water year October 1941 to September 1942 were as follows: dry except Apr. 2 to June 4 during which time it filled to the maximum of Apr. 25 and was gradually dissipated by reservoir leaks and a partially-opened outlet gate. Gage heights and contents at midnight.

El Vado Reservoir.- Water-stage recorder (records stages above spillway floor only) and slope gage, lat. 36°35'45", long. 106°43'55", on Rio Chama, in SE¼ sec. 4, T. 27 N., R. 2 E., (survey projected from portion of T. 27 N., R. 2 E., approved Dec. 4, 1918), at left end of dam, 2 miles downstream from old town of El Vado, and 13 miles southwest of Tierra Amarilla, N. Mex. Datum of gage is 9.565 feet above mean sea level, datum of 1929. Records available, January 1935 to September 1942. Maximum daily contents during year, 186,700 acre-feet June 18-21, 29, 30 (gage height, 6,897.8 feet); minimum daily, 51,760 acre-feet Sept. 30 (gage height, 6,834.1 feet). Maximum daily contents during period 1935-42, 197,700 acre-feet July 4, 13-24, 1941 (gage height, 6,901.2 feet); minimum daily, 56 acre-feet Jan. 1, 1935.

Reservoir is formed by rock-fill dam, steel-faced; storage began in January 1935. Capacity, 200,300 acre-feet between gage height 6,740.0 feet (bottom of trash rack) and 6,902.0 feet (top of spillway gate). Dead storage unknown. Figures given here represent usable contents. Water is used for irrigation by Middle Rio Grande Conservancy District. Gage read daily about 7:30 a.m. Continuous recorder registers gage height above 6,879.3 feet (floor of spillway). Contents given herein are those at 7:30 a.m. Staff gage readings and capacity table furnished by Middle Rio Grande Conservancy District.

San Mateo Reservoir.- Water-stage recorder, lat. 35°19', long. 107°38', on San Mateo Creek in SE¼ sec. 25, T. 13 N., R. 8 W., over concrete outlet tower in upstream face of dam, three-quarters of a mile southeast of San Mateo, N. Mex. Records available, December 1939 to September 1942. Maximum daily contents recorded, 63 acre-feet Apr. 1-5 (gage height, 35.7 feet); minimum daily recorded, 12 acre-feet, Oct. 1, 2. Maximum daily contents recorded during period 1939-42, 63 acre-feet Jan. 12, 13, July 2-11, 1941, Apr. 1-5, 1942 (gage height, 35.7, 35.8 feet); no storage Sept. 4-13, 1940.

Reservoir is formed by earth dam, rock-faced, completed in 1937. Capacity, 57 acre-feet between gage heights 15.1 feet (bottom of reservoir, survey of 1941) and 34.6 feet approximate floor level in earth channel spillway). No dead storage. Water is diverted below reservoir for irrigation.

Contents during water year October 1941 to September 1942, less than 50 acre-feet except Feb. 28 to June 14.

Reservoirs in Rio Grande Basin--Continued

Alamogordo Reservoir.- Mercury gage, lat. 34°36'30", long. 104°23'10", in SW¼ of Sec. 34, T. 5 N., R. 24 E., at Alamogordo Dam on Pecos River, 5 miles northeast of Guadalupe, N. Mex. Datum of gage is at mean sea level (Bureau of Reclamation datum). Drainage area, 4,390 square miles (contributing area). Records available, January 1939 to September 1942. Maximum daily contents (live) during year, 149,400 acre-feet Apr. 19, 20 (elevation, 4,275.30 feet); minimum daily, 127,900 acre-feet, Apr. 30, (elevation, 4,270.45 feet). Maximum daily contents during period 1939-42, that of Apr. 19, 20; minimum daily, 3,000 acre-feet Aug. 5, 1940 (elevation, 4,205.9 feet). (Note that contents has been changed to live storage).

Reservoir is formed by Alamogordo Dam, completed and storage began in 1938. Capacity, 148,000 acre-feet between elevations 4,200.00 (sill of outlet gates) and 4,275.00 feet (top of spillway gates) above mean sea level. Commencing Oct. 1, 1941 figures given are for live storage only (previous figures included 9,000 acre-feet dead storage). Gage read daily at 8 a.m. Gage-height record and capacity table furnished by Bureau of Reclamation.

Lake McMillan.- Staff gage, lat. 32°35'45", long. 104°20'55", in SE¼ sec. 2, T. 20 S., R. 26 E., at McMillan Dam on Pecos River, 3 miles southeast of Lakewood, N. Mex. Datum of gage is 3,241.6 feet above mean sea level (levels by Bureau of Reclamation). Drainage area 16,990 square miles (contributing area). Records available, January 1939 to September 1942. Maximum daily contents during year, 55,890 acre-feet Oct. 3 (gage height, 28.60 feet); minimum daily, 6,400 Sept. 4 (gage height, 18.00 feet). Maximum daily contents during period 1939-42, 68,500 acre-feet Sept. 26, 1941 (gage height, 29.95 feet); minimum daily, 1,500 acre-feet Oct. 6-11, 1940, Feb. 12, 1941; minimum gage height, 15.2 feet Nov. 11, 1940 (affected by wind).

Lake is formed by McMillan Dam, completed and storage began in 1906. Capacity, 38,500 acre-feet between gage heights 0.0 (sill of outlet gates) and 26.1 feet (crest of spillway 1). No dead storage. Figures given herein represent usable contents. Water is used for irrigation on Carlsbad project of Bureau of Reclamation. Contents computed from daily gage readings. Gage-height record and capacity curve furnished by Bureau of Reclamation.

Lake Avalon.- Staff gage, lat. 32°29'25", long. 104°15'00", in SW¼ sec. 12, T. 21 S., R. 26 E., at Avalon Dam on Pecos River, 5 miles north of Carlsbad, N. Mex. Datum of gage is 3,157.0 feet above mean sea level (levels by Bureau of Reclamation). Drainage area, 18,070 square miles (contributing area). Records available, January 1939 to September 1942. Maxumum daily contents during year, 7,840 acre-feet Oct. 3 (gage height, 22.20 feet); minimum daily, 690 acre-feet July 30 (gage height, 12.80 feet). Maximum daily contents during period 1939-42, 11,000 acre-feet May 22, 1941 (gage height, 25.0 feet); no storage Sept. 7, Oct. 2-11, 1940.

Lake is formed by Avalon Dam; storage began in 1906. Capacity, 6,600 acre-feet between gage heights 0.0 (sill of outlet gates) and 21.0 feet (crest of spillway 1). No dead storage. Figures given herein represent usable contents. Water is used for irrigation on Carlsbad project of Bureau of Reclamation. Contents computed from daily reading at 6 a.m. Gage-height record and capacity curve furnished by Bureau of Reclamation.

Red Bluff Reservoir.- Ashcroft Durogauge (pressure type) and staff gage, lat. 31°54'05", long. 103°54'40", at Red Bluff Dam on Pecos River, 3 miles upstream from Salt (Screwbean) Draw and 4.5 miles north of Orla, Reeves County, Tex. Datum of gage is 0.30 foot below mean sea level, datum of 1929. Contributing drainage area, 20,720 square miles. Records available, February 1937 to September 1942. Maximum contents observed during year, 343,000 acre-feet Oct. 4, 5 (elevation, 2,845.3 feet, from auxiliary staff gage reading at service spillway, affected by variable drawdown due to flow through Tainter gates); minimum observed, 251,000 acre-feet Aug. 24 (elevation, 2,836.1 feet). Maximum contents observed during period 1937-42, 352,000 acre-feet Sept. 27, 28, 1941 (elevation, 2,846.2 feet, observed on auxiliary gage mentioned above with same drawdown); minimum, 28,000 acre-feet Sept. 17, 23-28, 1940 (elevation, 2,794.8 feet).

Reservoir is formed by earth-fill dam, rip-rap faced; storage began in 1936; dam completed early in 1937. Capacity, 307,000 acre-feet between gage heights 2,764.0 feet (penstock intake sill) and 2,842.0 feet (top of Tainter gates). Dead storage, 3,000 acre-feet. Records herein represent total contents. Water is used for power development and for irrigation from Mentone to Grandfalls, Tex. Gage read about 9 a.m. daily. Elevation record and capacity curve furnished by Red Bluff Water Power Control District.

Monthly gage height and contents, of reservoirs in the Rio Grande Basin, water year October 1941 to September 1942

Date	Elephant Butte Reservoir			Caballo Reservoir		
	Elevation or gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	4,396.74	1,855,000	-	4,133.11	27,240	-
Oct. 31	4,400.08	1,969,000	+114,000	4,149.96	85,510	+58,270
Nov. 30	4,399.56	1,950,000	-19,000	4,169.22	216,600	+131,090
Dec. 31	4,399.22	1,938,000	-12,000	4,175.62	227,100	+60,500
Calendar year 1941	-	-	+1,449,500	-	-	+235,060
Jan. 31	4,398.31	1,907,000	-31,000	4,181.76	343,600	+66,500
Feb. 28	4,397.36	1,875,000	-32,000	4,182.00	345,900	+2,300
Mar. 31	4,397.66	1,885,000	+10,000	4,179.32	315,400	-30,500
Apr. 30	4,404.25	2,117,000	+232,000	4,174.24	263,600	-51,800
May 31	4,407.47	2,236,000	+119,000	4,179.24	314,300	+50,700
June 30	4,407.90	2,253,000	+17,000	4,179.41	316,600	+2,300
July 31	4,402.54	2,055,000	-198,000	4,176.82	288,800	-27,800
Aug. 31	4,400.08	1,969,000	-86,000	4,171.53	237,400	-51,400
Sept. 30	4,399.00	1,931,000	-38,000	4,158.80	137,200	-100,200
Water year 1941-42	-	-	+76,000	-	-	+109,960

Date	El Vado Reservoir †			Alamogordo Reservoir		
Sept. 30	6,879.1	133,500	-	4,275.00	148,000	-
Oct. 31	6,876.6	127,400	-6,100	4,274.75	146,800	-1,200
Nov. 30	6,868.1	108,300	-19,100	4,275.00	148,000	+1,200
Dec. 31	6,869.6	111,500	+3,200	4,274.65	146,400	-1,600
Calendar year 1941	-	-	+89,650	-	-	+123,200
Jan. 31	6,870.5	113,500	+2,000	4,274.50	145,700	-700
Feb. 28	6,871.0	114,600	+1,100	4,273.70	142,000	-3,700
Mar. 31	6,847.6	71,200	-43,400	4,274.35	145,000	+3,000
Apr. 30	6,885.7	150,800	+79,600	4,270.45	127,900	-17,100
May 31	6,896.5	182,600	+31,800	4,272.75	137,800	+9,900
June 30	6,897.8	186,700	+4,100	4,273.90	143,000	+5,200
July 31	6,880.4	136,800	-49,900	4,273.90	143,000	00
Aug. 31	6,858.6	89,810	-46,990	4,274.40	145,200	+2,200
Sept. 30	6,834.1	51,760	-38,050	4,272.95	138,700	-6,500
Water year 1941-42	-	-	-81,740	-	-	-9,300

Date	Lake McMillan			Lake Avalon		
Sept. 30	26.80	42,700	-	19.15	4,840	-
Oct. 31	23.60	26,210	-16,490	17.25	3,250	-1,590
Nov. 30	24.70	31,300	+5,090	21.20	6,800	+3,550
Dec. 31	24.80	31,790	+490	20.65	6,250	-550
Calendar year 1941	-	-	+29,890	-	-	+440
Jan. 31	24.25	29,160	-2,630	20.85	6,450	+200
Feb. 28	24.70	31,300	+2,140	21.00	6,600	+150
Mar. 31	24.35	29,620	-1,680	18.00	3,850	-2,750
Apr. 30	24.75	31,540	+1,920	19.60	5,240	+1,390
May 31	24.45	30,100	-1,440	20.65	6,250	+1,010
June 30	23.90	27,550	-2,550	15.40	1,950	-4,300
July 31	21.80	18,750	-8,800	13.00	750	-1,200
Aug. 31	20.10	12,630	-6,120	14.45	1,380	+630
Sept. 30	24.00	28,000	+15,370	20.95	6,550	+5,170
Water year 1941-42	-	-	-14,700	-	-	+1,710

Date	Red Bluff Reservoir		
Sept. 30	‡2,843.7	327,000	-
Oct. 31	‡2,843.0	320,000	-7,000
Nov. 30	‡2,842.5	315,000	-5,000
Dec. 31	‡2,842.2	312,000	-3,000
Calendar year 1941	-	-	+254,800
Jan. 31	††2,842.3	313,000	+1,000
Feb. 28	-	310,000	-3,000
Mar. 31	††2,841.8	308,000	-2,000
Apr. 30	-	310,000	+2,000
May 31	††2,842.0	310,000	0
June 30	-	300,000	-10,000
July 31	††2,838.2	272,000	-28,000
Aug. 31	††2,836.3	253,000	-19,000
Sept. 30	††2,841.2	302,000	+49,000
Water year 1941-42	-	-	-25,000

† Gage heights are at 7:30 a.m.
‡ Elevation at 6 to 10 a.m.
†† Elevation at 8 or 9 a.m.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942and mountain war time thereafter except Red Bluff Reservoir which is central standard time prior to 2 a.m., Feb. 9, 1942 and central war time thereafter.

Clear Creek below Continental Reservoir, Colo.

Location.- Water-stage recorder and Parshall flume, lat. 37°53', long. 107°11', in sec. 22, T. 42 N., R. 3 W., 1,000 feet downstream from Continental Reservoir and 15 miles west of Creede.

Drainage area.- 49 square miles.

Records available.- October 1933 to September 1942 in reports of Geological Survey. May 1929 to September 1942 in reports of State engineer.

Average discharge.- 13 years, 29.6 second-feet.

Extremes.- Maximum discharge during year, 251 second-feet May 23 (gage height, 2.89 feet); minimum daily, 3.5 second-feet Sept. 23-30.
1929-42: Maximum discharge, 313 second-feet May 4, 1937 (gage height, 3.41 feet); no flow June 22, 23, 1935.

Remarks.- Records fair. Flow regulated by Continental Reservoir (capacity, 26,700 acre-feet).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	11	20	20	20	20	20	20	93	65	61	41
2	16	16	20	20	20	20	20	20	44	54	60	40
3	16	22	20	20	20	20	20	20	17	54	64	40
4	13	24	20	20	20	20	20	20	17	53	67	33
5	11	24	20	20	20	20	20	20	17	52	63	31
6	11	24	20	20	20	20	20	9.3	18	54	63	31
7	11	24	20	20	20	20	20	3.6	18	56	63	31
8	12	24	20	20	20	20	20	26	19	55	64	25
9	11	24	20	20	20	20	20	83	17	54	67	23
10	11	24	20	20	20	20	20	115	16	55	63	23
11	12	23	20	20	20	20	20	157	16	63	59	23
12	11	23	20	20	20	20	20	182	16	58	67	24
13	11	23	20	20	20	20	20	187	16	56	67	23
14	12	23	20	20	20	20	20	171	16	75	61	22
15	11	23	20	20	20	20	20	117	16	80	63	22
16	11	22	20	20	20	20	20	71	17	82	66	22
17	11	22	20	20	20	20	20	71	16	82	66	22
18	11	22	20	20	20	20	20	89	65	83	66	23
19	11	22	20	20	20	20	20	124	175	82	66	24
20	11	22	20	20	20	20	20	178	17[illegible]	84	61	18
21	11	21	20	20	20	20	20	205	163	84	59	15
22	11	21	20	20	20	20	20	229	150	75	60	6.3
23	11	21	20	20	20	20	20	249	142	72	59	3.5
24	11	21	20	20	20	20	20	148	142	72	59	3.5
25	11	21	20	20	20	20	20	20	142	67	59	3.5
26	11	20	20	20	20	20	20	35	144	66	58	3.5
27	11	20	20	20	20	20	20	47	112	66	51	3.5
28	11	20	20	20	20	20	20	53	75	64	39	3.5
29	11	20	20	20	-	20	20	59	67	63	44	3.5
30	11	20	20	20	-	20	20	83	7[illegible]	60	40	3.5
31	11	-	20	20	-	20	-	95	-	61	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	361	16	11	11.6	716
November	647	24	11	21.6	1,280
December	620	20	20	20	1,230
Calendar year 1941	15,200.0	262	-	41.6	30,140
January	620	20	20	20	1,230
February	560	20	20	20	1,110
March	620	20	20	20	1,230
April	600	20	20	20	1,190
May	2,906.9	249	3.6	93.8	5,770
June	2,009	173	16	67.0	3,980
July	2,047	84	52	66.0	4,060
August	1,844	67	39	59.5	3,660
September	590.3	41	3.5	19.7	1,170
Water year 1941-42	13,425.2	249	3.5	36.8	26,630

Note.- No gage-height record Nov. 7 to May 2 (stage-discharge relation affected by ice during part of period), Oct. 4, Oct. 20 to Nov. 2, Sept. 24-30; discharge computed on basis of release flow from Continental Reservoir.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

556253 O - 43 - 13

Goose Creek near Wagon Wheel Gap, Colo.

Location.- Water-stage recorder, lat. 37°41', long. 106°50', in NW¼ sec. 26, T. 40 N., R. 1 E., 1½ miles downstream from Roaring Fork and 6 miles south of Wagon Wheel Gap.

Drainage area.- 51 square miles.

Records available.- October 1939 to September 1942 (no winter records after October 1941). October 1924 to July 1926 at site 1 mile upstream.

Extremes.- Maximum discharge during year, 548 second-feet June 11 (gage height, 2.40 feet); minimum daily recorded, 12 second-feet Sept. 29, 30, may have been less during period of ice effect.

1924-26, 1939-42: Maximum discharge, 780 second-feet June 23, 1941 (gage height, 2.99 feet), from rating curve extended above 500 second-feet; minimum, 8 second-feet (regulated) Nov. 29 to Dec. 16, 1924 (gage height, 0.08 foot, site and datum then in use).

Remarks.- Records good except those for periods of no gage-height record, which are fair. Lake Humphreys, above station, (capacity, 842 acre-feet) has slight effect on flow.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	65						-	310	172	67	24
2	55	60						-	320	169	60	26
3	100	56						-	335	163	65	28
4	81	53						-	330	154	58	24
5	65	50						-	355	149	49	21
6	61	-						-	404	146	48	19
7	58	-						-	457	143	46	19
8	56	-						-	451	140	43	52
9	55	-						-	415	128	38	38
10	53	-						-	388	117	37	35
11	53	-						-	457	107	36	29
12	53	-						-	463	100	36	25
13	115	-						-	427	94	42	24
14	124	-						-	398	92	43	27
15	109	-						-	345	88	40	20
16	a91	-						-	388	88	37	18
17	a76	-						-	427	92	36	19
18	a69	-						-	451	94	32	16
19	a68	-						128	433	83	28	16
20	a96	-						149	388	76	30	15
21	115	-						181	350	72	30	a15
22	113	-						208	315	69	27	a15
23	105	-						234	283	63	30	a15
24	102	-						274	283	63	30	a14
25	113	-						301	248	60	30	13
26	103	-						350	222	53	35	13
27	88	-						376	204	53	29	13
28	85	-						345	184	63	27	13
29	78	-						355	175	61	22	12
30	70	-						325	172	56	23	12
31	67	-						301	-	52	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,529	124	52	81.6	5,020
November 1-5	284	65	50	56.8	563
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 19-31	3,527	376	128	271	7,000
June	10,378	463	172	346	20,580
July	3,060	172	52	98.7	6,070
August	1,177	67	22	38.0	2,330
September	630	52	12	21.0	1,250
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of discharge measurement on Sept. 21 and records for Rio Grande at Wason, below Creede.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

South Fork of Rio Grande at South Fork, Colo.

Location.- Water-stage recorder, lat. 37°40', long. 106°39', in sec. 4, T. 39 N., R. 3 E., 1¼ miles upstream from mouth and 1½ miles southwest of village of South Fork. Datum of gage is 8,221.79 feet above mean sea level, datum of 1929.

Drainage area.- 216 square miles.

Records available.- August 1910 to September 1913 and May 1936 to September 1942 in reports of Geological Survey. August 1910 to September 1922 and May 1936 to September 1942 in reports of State engineer. Records for 1910-22 at site 1 mile downstream.

Average discharge.- 18 years (1910-22, 1936-42), 246 second-feet.

Extremes.- Maximum discharge during year, 1,730 second-feet May 26 (gage height, 5.18 feet); minimum daily recorded, 33 second-feet Sept. 30, may have been less during period of ice effect.

1910-22, 1936-42: Maximum discharge, 3,000 second-feet Oct. 5, 1911 (gage height, 9.7 feet, from floodmarks, site and datum now in use), from rating curve extended above 1,500 second-feet; minimum daily, 20 second-feet Jan. 1, 2, 8, 17, 23-25, 1915, Dec. 20, 1937.

Remarks.- Records excellent except those for period of no gage-height record and those for Aug. 1-31, which are fair. A few small diversions above station for irrigation, and several small storage reservoirs.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	169	231	60				94	233	1,240	392	171	44
2	163	224	60				101	244	1,220	386	131	41
3	267	211	58				111	246	1,290	368	114	39
4	246	204	44				140	239	1,360	342	93	46
5	220	196	*54				195	344	1,330	336	85	60
6	217	190	40				210	395	1,330	339	85	58
7	202	176	48				190	446	1,370	328	97	50
8	204	161	60				155	493	1,350	314	79	45
9	198	172	56				*156	557	1,260	297	74	39
10	188	161	48				169	664	1,190	274	70	36
11	188	156	55				204	702	1,310	258	68	120
12	184	149	51				213	664	1,290	242	74	103
13	538	154	48				255	508	1,220	231	76	86
14	592	145	47				342	449	1,090	222	68	62
15	446	143	46				377	442	960	217	62	54
16	404	141	46	40	37	60	362	464	1,010	206	68	48
17	380	145	47				377	471	1,070	235	72	44
18	353	131	46				328	467	1,110	222	68	41
19	333	129	45				267	485	1,060	198	78	40
20	330	115	45				260	549	973	180	67	38
21	353	109	46				289	678	876	171	61	38
22	359	112	43				377	783	799	184	58	38
23	347	106	41				482	887	757	228	62	36
24	333	110	42				404	1,060	702	233	67	35
25	374	112	43				353	1,130	605	226	73	34
26	350	115	40				316	1,290	530	215	70	34
27	311	102	39				*292	1,440	493	204	55	44
28	297	94	39				276	1,340	453	202	50	35
29	279	79	40		-		267	1,390	416	184	50	36
30	255	76	41		-		244	1,310	392	174	47	33
31	*244	-	42		-		-	1,230	-	159	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,324	592	163	301	18,490
November	4,349	231	76	145	8,630
December	1,460	60	39	47.1	2,900
Calendar year 1941	129,309	1,970	-	354	256,500
January	1,240	-	-	40	2,460
February	1,036	-	-	37	2,050
March	1,860	-	-	60	3,690
April	7,806	482	94	260	15,480
May	21,650	1,440	233	698	42,940
June	30,056	1,370	392	1,002	59,620
July	7,767	392	159	251	15,410
August	2,342	171	44	75.5	4,650
September	1,457	120	33	48.6	2,890
Water year 1941-42	90,347	1,440	-	248	179,200

* Winter discharge measurement made on this day.

Note.- Stage-discharge relation affected by ice Nov. 25 to Apr. 15 (no gage-height record Dec. 12 to Apr. 8; discharge computed on basis of two discharge measurements and weather records).

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Pinos Creek near Del Norte, Colo.

Location.- Water-stage recorder and Parshall flume, lat. 37°27', long. 106°35', in sec. 29, T. 39 N., R. 5 E., just downstream from Bennett Creek and 8 miles southwest of Del Norte.

Drainage area.- 53 square miles.

Records available.- May 1936 to September 1942 in reports of Geological Survey. May 1919 to September 1924 and May 1936 to September 1942 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 443 second-feet May 26 (gage height, 3.33 feet); minimum daily recorded, 8.4 second-feet Aug. 31, may have been less during period of no record.

1919-24, 1936-42: Maximum daily discharge, 2,400 second-feet June, 1922; minimum not determined.

Remarks.- Records poor. One small diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14.0	22					a10	68	227	74	41	9.5
2	14.0	24					a11	71	212	74	32	9.5
3	29	22					a13	74	242	71	26	9.9
4	23	22					a18	100	249	61	23	11
5	19	21					a21	140	245	58	18	13
6	18	21					a17	165	240	56	18	13
7	16	17					a13	190	247	54	19	14
8	18	18					14	198	231	52	17	12
9	17	20					18	209	218	50	15	11
10	15	18					31	207	201	47	15	10
11	15	17					38	198	227	46	15	15
12	16	18					38	194	229	41	14	13
13	42	18					49	144	212	37	14	13
14	42	17					50	131	192	35	17	11
15	32	17					100	133	168	38	15	11
16	30	16					81	140	183	40	15	11
17	28	16					80	144	192	42	15	11
18	26	14					62	148	196	38	15	11
19	26	12					45	214	192	35	15	11
20	25	-					46	190	183	30	15	11
21	28	-					54	234	172	28	13	11
22	28	-					104	240	157	26	13	11
23	29	-					140	267	148	24	14	11
24	28	-					100	297	144	23	11	10
25	29	-					76	308	113	22	11	9.2
26	27	-					78	328	104	23	11	8.8
27	25	-					78	322	95	26	9.5	8.8
28	26	-					78	280	82	25	9.2	9.5
29	26	-					75	282	66	23	9.5	9.5
30	25	-					73	251	64	22	9.2	9.5
31	22	-					-	231	-	22	8.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	758	42	14	24.5	1,500
November 1-19	350	24	12	18.4	694
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,611	140	10	53.7	3,200
May	6,098	328	68	197	12,100
June	5,431	249	64	181	10,770
July	1,243	74	22	40.1	2,470
August	492.8	41	8.4	15.9	977
September	329.2	15	8.8	11.0	653
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of records for nearby stations.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

San Francisco Creek near Del Norte, Colo.

Location.- Water-stage recorder, lat. 37°35', long. 106°22', in sec. 31, T. 39 N., R. 6 E., 1½ miles downstream from East Fork and 6 miles south of Del Norte.

Drainage area.- 13.1 square miles.

Records available.- April 1936 to September 1942 (no winter records most years); discontinued.

Extremes.- Maximum discharge during year, 75 second-feet May 26 (gage height, 0.97 foot), from rating curve extended above 50 second-feet; minimum daily recorded, 0.6 second-foot Nov. 18, may have been less during period of no record.
1936-42: Maximum discharge, 364 second-feet July 27, 1936 (gage height, 1.47 feet), by slope-area method; minimum daily recorded, 0.4 second-foot Oct. 30, 31, 1937, Nov. 14, 1940.

Remarks.- Records fair. One small diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	2.8						a5.2	25	12	9.2	3.4
2	2.8	2.3						a5.4	22	11	7.2	3.0
3	4.7	1.7						a5.5	23	11	5.9	3.0
4	2.8	1.7						5.5	23	9.9	4.7	3.4
5	2.8	1.9						4.7	26	9.9	5.1	3.8
6	2.6	1.7						9.9	28	9.2	5.5	3.8
7	2.3	3.4						13	24	8.6	5.1	3.4
8	2.6	6.4						14	21	7.9	5.1	3.0
9	2.6	3.4						21	20	7.9	4.7	2.8
10	2.3	2.6						35	16	7.9	4.3	2.6
11	2.3	2.6						40	21	7.9	4.3	2.8
12	2.6	2.6						36	29	7.2	4.7	2.8
13	4.7	1.0						34	26	7.2	4.3	2.6
14	4.7	1.5						22	23	7.2	4.3	2.3
15	3.4	.8						19	21	7.2	4.3	2.3
16	3.4	.8						20	21	7.2	3.8	2.3
17	2.8	.7						19	21	7.2	3.8	2.3
18	2.8	.6						20	21	6.8	3.4	2.1
19	2.8	-						22	20	6.4	3.4	2.3
20	2.6	-						25	19	5.9	3.0	2.8
21	2.8	-						25	17	5.5	3.0	2.8
22	2.8	-						28	16	5.5	3.0	2.6
23	3.4	-						31	16	5.5	3.4	2.3
24	3.0	-						36	16	5.5	3.4	2.6
25	3.0	-						38	14	4.7	3.8	2.3
26	2.3	-						47	13	4.7	3.8	1.7
27	2.6	-						38	13	4.7	3.4	1.7
28	2.8	-						32	13	4.7	3.4	1.9
29	2.3	-						28	12	4.3	3.0	1.9
30	1.7	-						25	11	4.3	3.0	1.9
31	1.9	-						24	-	3.8	3.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	88.5	4.7	1.7	2.85	176
November 1-18	38.5	6.4	.6	2.14	76
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	728.2	47	4.7	23.5	1,440
June	591	29	11	19.7	1,170
July	218.7	12	3.8	7.05	434
August	132.3	9.2	3.0	4.27	262
September	78.5	3.8	1.7	2.62	156
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of records for nearby stations.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rock Creek near Monte Vista, Colo.

Location.- Water-stage recorder and 8-foot Parshall flume, lat. 37°29', long. 106°16', in SE¼ sec. 36, T. 38 N., R. 6 E., 3 miles downstream from North Fork and 9 miles southwest of Monte Vista.

Drainage area.- 33.6 square miles.

Records available.- May 1935 to September 1942 in reports of Geological Survey. April 1919 to September 1924, May 1935 to September 1942 in reports of State engineer. (No winter records.)

Extremes.- Maximum discharge during year, 136 second-feet May 26 (gage height, 2.36 feet); minimum discharge recorded, 3.2 second-feet Sept. 26-28, may have been less during period of no record.

1935-42: Maximum discharge, 161 second-feet May 13, 1941 (gage height, 2.63 feet); minimum not determined.

Remarks.- Records good except those for period of no gage-height record, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8	9.5					a3.7	34	69	27	11	5.4
2	5.4	9.8					a4.2	37	61	27	14	4.9
3	9.5	9.5					a5.0	40	63	25	11	4.5
4	8.4	9.5					a6.2	50	65	24	9.1	5.1
5	7.1	9.5					a7.0	60	67	22	8.8	7.4
6	7.1	8.1					6.1	66	68	21	9.5	5.8
7	6.8	7.1					4.5	71	69	20	9.1	6.4
8	8.1	7.7					4.7	72	65	19	8.1	5.1
9	7.7	9.8					8.4	81	64	19	7.7	4.7
10	7.1	8.4					15	97	61	18	7.7	4.5
11	6.8	7.4					22	97	63	16	8.1	5.4
12	6.8	6.4					21	89	61	14	7.7	5.4
13	11	8.1					23	66	59	13	7.7	5.1
14	16	6.8					34	54	56	13	6.8	4.5
15	12	6.8					40	52	51	14	6.4	4.5
16	12	6.8					39	53	50	14	6.8	4.0
17	11	6.8					37	52	49	16	6.8	3.8
18	11	5.4					26	53	49	14	6.1	3.8
19	11	3.6					20	55	46	15	6.4	4.0
20	11	-					19	60	44	13	5.8	4.3
21	12	-					24	61	42	11	5.1	4.3
22	12	-					43	68	39	11	5.1	4.3
23	14	-					56	80	36	9.5	4.9	4.3
24	14	-					42	91	34	9.5	4.9	3.8
25	14	-					36	94	31	8.8	5.1	3.6
26	14	-					36	104	30	9.5	4.9	3.2
27	13	-					39	98	28	9.8	4.3	3.2
28	13	-					41	83	28	9.8	4.0	3.2
29	13	-					39	85	27	9.1	3.8	3.4
30	12	-					36	75	27	8.1	3.8	3.4
31	9.8	-					-	72	-	7.7	4.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	322.4	16	5.4	10.4	639
November 1-19	147.0	9.8	3.6	7.74	292
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	737.8	56	3.7	24.6	1,460
May	2,150	104	34	69.4	4,260
June	1,500	69	27	50.0	2,980
July	467.8	27	7.7	15.1	928
August	214.5	14	3.8	6.92	425
September	135.3	7.4	3.2	4.51	268
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of records for nearby stations.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Closed basin in San Luis Valley, Colo.

Kerber Creek at Ashley Ranch, near Villa Grove, Colo.

Location.- Water-stage recorder, lat. 38°15', long. 106°08', in sec. 7, T. 46 N., R. 8 E., at Ashley Ranch, 10 miles west of Villa Grove.

Drainage area.- 38 square miles.

Records available.- May 1936 to September 1942 in reports of Geological Survey. June 1923 to September 1926 and May 1936 to September 1942 in reports of State engineer. (No winter records some years.)

Extremes.- Maximum discharge during year, 291 second-feet May 27 (gage height, 3.34 feet), from rating curve extended above 150 second-feet; minimum daily recorded, 2.1 second-feet Sept. 3, may have been less during period of ice effect.

1923-26, 1936-42: Maximum discharge, 407 second-feet May 14, 1941 (gage height, 3.88 feet), from rating curve extended above 150 second-feet; minimum daily recorded, 1.2 second-feet Aug. 14, 16, 17, 1940.

Remarks.- Records poor. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.2	13					-	31	174	12	8.3	3.6
2	8.6	12					-	32	162	11	19	3.4
3	11	12					-	34	158	11	14	2.1
4	9.4	12					-	43	150	9.9	12	2.4
5	9.0	12					-	54	137	8.8	12	2.8
6	8.2	12					-	60	129	8.0	11	2.4
7	8.6	12					-	74	123	7.8	11	2.5
8	9.0	13					-	90	114	6.8	10	2.3
9	8.6	15					-	108	101	7.8	8.0	2.4
10	8.2	14					-	129	94	8.3	8.3	2.6
11	9.0	14					-	142	89	11	8.5	2.9
12	9.0	12					a20	137	83	14	8.3	2.8
13	11	-					a19	123	75	18	8.0	2.5
14	11	-					a16	112	71	19	8.0	2.5
15	11	-					15	105	64	18	8.0	3.3
16	12	-					14	104	63	16	8.0	3.3
17	12	-					16	105	63	16	7.3	3.1
18	12	-					14	102	60	18	8.0	2.7
19	12	-					14	102	61	16	8.3	2.5
20	12	-					16	119	63	14	9.2	2.6
21	14	-					21	111	63	13	9.6	2.7
22	14	-					34	136	60	12	9.6	3.0
23	15	-					44	176	43	11	9.6	3.3
24	15	-					39	224	24	9.9	10	3.6
25	14	-					34	226	20	9.2	11	3.5
26	14	-					31	239	17	10	8.8	3.5
27	14	-					30	275	21	11	7.1	3.4
28	14	-					28	236	14	11	5.9	3.1
29	12	-					30	217	12	9.6	5.2	3.0
30	12	-					27	202	12	8.8	4.7	3.0
31	13	-					-	186	-	8.5	3.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	350.8	15	8.2	11.3	696
November 1-12	153	15	12	12.8	303
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 12-30	462	44	14	24.3	916
May	4,034	275	31	130	8,000
June	2,320	174	12	77.3	4,600
July	365.4	19	6.8	11.8	725
August	280.5	19	3.8	9.05	556
September	86.8	3.6	2.1	2.89	172
Water year	-	-	-	-	-

a No gage-height record; discharge interpolated between discharge measurement on Apr. 12 and recorded discharge on Apr. 15.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Closed basin in San Luis Valley, Colo.

Saguache Creek near Saguache, Colo.

Location.- Water-stage recorder, lat. 38°09', long. 106°19', in sec. 11, T. 45 N., R. 6 E., 10 miles northwest of Saguache.

Drainage area.- 595 square miles.

Records available.- August 1910 to September 1912 and October 1933 to September 1942 in reports of Geological Survey. August 1910 to September 1912 and June 1914 to September 1942 in reports of State engineer. (No winter records some years.)

Extremes.- Maximum discharge during year, 693 second-feet May 27 (gage height, 2.97 feet), from rating curve extended above 500 second-feet; minimum daily, 15 second-feet or less at times during period of ice effect.

1910-12, 1914-42: Maximum discharge, 746 second-feet June 15, 1921 (gage height, 3.45 feet, datum then in use); minimum daily recorded, 14 second-feet Oct. 1, 2, 1933, July 15, Sept. 12, 1940.

Remarks.- Records fair except those for periods of no gage-height record or ice effect, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	52					a67	161	393	163	94	34
2	48	60					97	165	402	161	103	33
3	72	66					101	175	450	161	121	33
4	75	63					121	196	496	158	101	33
5	72	63					166	281	420	156	89	39
6	60	59					193	298	373	154	89	44
7	55	55					137	312	411	156	85	42
8	51	46					89	373	459	163	80	37
9	48	55					99	399	459	170	72	36
10	47	59					123	489	408	158	69	33
11	47	52					203	532	347	149	69	35
12	48	52					235	536	390	139	68	47
13	57	57					219	420	417	137	69	39
14	77	54					298	287	376	139	63	36
15	66	55	25	18	15	35	462	246	347	146	60	35
16	60	54					405	248	287	156	56	35
17	59	57					a300	243	281	158	59	33
18	55	57					216	235	318	158	54	32
19	55	36					151	248	293	151	54	32
20	56	39					139	270	270	134	54	32
21	59	39					163	309	262	121	54	32
22	64	37					295	399	224	112	52	34
23	72	35					462	459	211	110	57	35
24	75	34					304	471	201	103	60	34
25	70	35					203	536	193	99	68	33
26	72	35					a185	556	188	94	54	33
27	66	34					165	609	175	97	44	33
28	64	33					161	520	173	108	37	33
29	64	33			-		178	492	163	105	34	33
30	64	32			-		196	483	161	96	33	32
31	60	-			-		-	432	-	92	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,889	77	47	60.9	3,750
November	1,438	66	32	47.9	2,850
December	775	-	-	25	1,540
Calendar year 1941	37,208	502	-	102	73,810
January	558	-	-	18	1,110
February	420	-	-	15	833
March	1,085	-	-	35	2,150
April	6,156	462	67	205	12,210
May	11,400	609	161	368	22,610
June	9,548	496	161	318	18,940
July	4,204	170	92	136	8,340
August	2,036	121	33	65.7	4,040
September	1,052	47	32	35.1	2,090
Water year 1941-42	40,561	609	-	111	80,460

a No gage-height record; discharge computed on basis of records for nearby stations.

Note.- Stage-discharge relation affected by ice Nov. 20 to Dec. 10 and Dec. 17-24, no gage-height record Dec. 11-16 and Dec. 25 to Apr. 1 (stage-discharge relation affected by ice most of period); discharge computed on basis of weather records.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Closed basin in San Luis Valley, Colo.

North Crestone Creek near Crestone, Colo.

Location.- Water-stage recorder, lat. 38°01', long. 105°41', in sec. 5, T. 43 N., R. 12 E., 1½ miles upstream from Crestone and 3 miles upstream from South Crestone Creek.

Drainage area.- 10.7 square miles.

Records available.- May 1936 to September 1942 (no winter records).

Extremes.- Maximum discharge during year, 270 second-feet May 26 (gage height, 2.54 feet); minimum daily, 4.2 second-feet Apr. 1, but may have been less during period of no record.
1936-42: Maximum discharge, 735 second-feet Aug. 6, 1936 (gage height, 4.33 feet), by slope-area method; minimum daily, 2.1 second-feet Aug. 19, 24, 1939.

Remarks.- Records good except those for period of no gage-height record, which are fair. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	16					4.2	12	137	76	18	15
2	12	15					4.7	12	127	68	21	14
3	14	14					5.2	12	128	64	20	11
4	18	13					5.9	14	128	63	18	11
5	16	13					7.0	20	143	64	16	11
6	15	12					7.9	25	162	67	15	9.5
7	14	-					4.8	35	170	65	14	9.0
8	14	-					4.6	48	153	68	13	9.0
9	13	-					4.8	63	134	64	12	8.5
10	13	-					5.6	67	150	64	12	8.1
11	12	-					7.0	77	177	65	11	19
12	12	-					7.2	72	168	63	11	21
13	15	-					8.8	60	144	55	11	21
14	24	-					12	48	130	51	11	22
15	23	-					17	42	119	48	11	17
16	24	-					19	38	148	50	10	14
17	26	-					17	35	157	46	10	14
18	27	-					13	32	157	45	10	13
19	27	-					12	38	144	41	9.8	12
20	27	-					11	45	122	38	9.2	11
21	26	-					11	60	112	32	9.0	10
22	26	-					19	78	100	26	9.0	9.2
23	29	-					33	109	112	26	8.8	9.0
24	31	-					25	124	98	25	8.5	8.3
25	32	-					21	135	84	22	8.8	7.9
26	29	-					16	162	86	21	8.8	7.7
27	26	-					14	177	83	21	8.3	7.4
28	23	-					13	137	74	20	8.3	7.2
29	21	-					13	132	74	18	7.9	7.0
30	18	-					13	124	78	17	7.7	7.0
31	16	-					-	127	-	17	7.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	636	32	12	20.5	1,260
November 1-6	83	16	12	13.8	165
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	356.7	33	4.2	11.9	708
May	2,160	177	12	69.7	4,280
June	3,799	177	74	127	7,540
July	1,412	76	17	45.5	2,800
August	355.3	21	7.2	11.5	705
Septsmber	350.8	22	7.0	11.7	696
Water year	-	-	-	-	-

Note.- No gage-height record Apr. 1-6, Sept. 18-21; discharge computed on basis of weather records or interpolated.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Closed basin in San Luis Valley, Colo.

Carnero Creek near La Garita, Colo.

Location.- Water-stage recorder, lat. 37°52', long. 106°20', in sec. 26, T. 42 N., R. 6 E., 3 miles northwest of La Garita.

Drainage area.- 117 square miles.

Records available.- October 1933 to September 1942 in reports of Geological Survey. April 1919 to September 1942 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 435 second-feet Apr. 14 (gage height, 2.29 feet), from rating curve extended above 180 second-feet; minimum daily recorded, 2.5 second-feet Sept. 16, 17, may have been less during period of no record.
1919-42: Maximum daily discharge, 500 second-feet Apr. 14, 1924; minimum daily, 0.5 second-foot July 9, 1940.

Remarks.- Records good except those for periods of no gage-height record and those below 10 second-feet, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8						a47	102	92	22	11	2.8
2	9.0						a52	114	90	21	14	2.8
3	22						a56	100	86	21	11	3.1
4	18						a66	166	104	20	8.7	3.2
5	14						a73	196	82	19	7.7	4.4
6	11						a79	169	77	18	8.4	4.6
7	9.8						a70	210	77	18	7.7	3.8
8	9.8						a52	210	74	17	7.4	3.2
9	9.4						a54	222	72	18	6.1	2.8
10	9.0						a58	261	65	16	6.1	2.7
11	9.0						a62	244	65	16	5.8	2.8
12	8.7						70	207	62	14	6.1	3.4
13	11						72	131	58	14	8.7	3.1
14	16						136	107	57	12	7.1	2.8
15	13						131	98	57	14	6.4	2.8
16	12						100	102	55	14	5.8	2.5
17	10						92	102	49	16	5.8	2.5
18	9.4						a80	92	45	14	5.6	2.8
19	9.0						a65	102	45	13	5.2	2.8
20	9.0						50	109	40	11	5.2	3.0
21	9.8						60	131	36	9.4	5.0	3.0
22	13						112	131	36	9.0	5.0	3.1
23	14						164	139	34	8.7	5.0	3.1
24	18						77	155	32	8.4	4.8	3.1
25	16						75	155	30	7.7	4.8	3.1
26	14						88	166	27	7.1	4.8	3.1
27	11						96	169	24	8.4	4.0	3.1
28	11						161	136	23	15	3.2	3.1
29	a10						152	129	22	11	3.0	3.1
30	a9.6						124	112	21	10	2.8	3.1
31	a9.4						-	98	-	10	2.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	364.7	22	8.7	11.8	723
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	2,576	164	47	85.9	5,110
May	4,565	261	92	147	9,050
June	1,647	104	21	54.9	3,270
July	432.7	22	7.1	14.0	858
August	194.9	14	2.7	6.29	387
September	92.8	4.6	2.5	3.09	184
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of records for Saguache Creek near Saguache.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Closed basin in San Luis Valley, Colo.

La Garita Creek near La Garita, Colo.

Location.- Water-stage recorder, lat. 37°49', long. 106°18', in sec. 10, T. 41 N., R. 6 E., 4 miles southwest of La Garita.

Drainage area.- 61 square miles.

Records available.- October 1933 to September 1942 in reports of Geological Survey. April 1919 to September 1942 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 282 second-feet May 9 (gage height, 2.63 feet), from rating curve extended above 120 second-feet; minimum daily recorded, 5.0 second-feet Sept. 1, 2, may have been less during period of no record.
1919-42: Maximum discharge, 457 second-feet May 16, 1941 (gage height, 5.11 feet), from rating curve extended above 220 second-feet; minimum daily, 0.7 second-foot Aug. 29, 1940.

Remarks.- Records good except those for periods of no gage-height record or backwater from beaver dam, and those for Apr. 22 to May 15, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.7	9.5					17	55	89	28	15	5.0
2	7.7	9.3					19	62	86	27	15	5.0
3	10	9.1					21	61	87	27	13	5.2
4	15	8.8					25	83	82	27	12	5.5
5	12	8.8					27	90	80	27	12	6.0
6	11	8.7					33	100	77	25	14	6.7
7	9.5	8.7					25	124	78	26	12	6.8
8	8.4	8.7					23	143	76	24	12	6.0
9	7.7	7.4					23	181	77	26	11	5.4
10	7.1	8.4					26	176	70	23	11	5.4
11	6.8	8.0					28	161	78	22	11	6.1
12	6.8	7.4					32	129	76	20	11	7.4
13	7.4	7.4					44	103	71	20	11	7.0
14	12	7.7					64	94	67	19	11	6.5
15	12	-					66	93	60	20	10	6.1
16	10	-					60	95	58	19	10	5.6
17	9.5	-					55	96	59	21	9.8	5.6
18	8.0	-					50	93	58	18	9.8	5.8
19	7.4	-					44	102	57	15	10	5.8
20	7.4	-					42	117	55	14	11	5.8
21	7.7	-					52	134	52	13	10	5.8
22	11	-					67	132	49	12	9.8	5.7
23	12	-					74	141	44	12	9.4	5.7
24	13	-					49	138	42	11	9.0	5.6
25	14	-					55	138	39	11	8.4	5.6
26	14	-					55	131	36	10	8.0	5.6
27	12	-					54	111	34	10	7.6	5.6
28	11	-					60	98	32	13	7.2	5.6
29	10	-					64	104	29	16	6.5	5.6
30	10	-					62	95	28	14	6.0	5.6
31	9.8	-					-	90	-	18	5.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	308.9	15	6.8	9.96	613
November 1-14	117.9	9.5	7.4	8.42	234
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,316	74	17	43.9	2,610
May	3,470	181	55	112	6,880
June	1,826	89	28	60.9	3,620
July	588	28	10	19.0	1,170
August	318.9	15	5.4	10.3	633
September	175.1	7.4	5.0	5.84	347
Water year	-	-	-	-	-

Note.- No gage-height record Oct. 29 to Nov. 6, Apr. 1-21, 28, and backwater from beaver dam Aug. 23 to Sept. 30; discharge computed on basis of discharge measurements on Nov. 6, Apr. 12, and Sept. 24, and records for Saguache Creek near Saguache.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Alamosa Creek above Terrace Reservoir, Colo.

Location.- Water-stage recorder, lat. 37°23', long. 106°21', in sec. 8, T. 36 N., R. 6 E., 3 miles upstream from Terrace Reservoir Dam and 15 miles northwest of Capulin.

Drainage area.- 107 square miles.

Records available.- September 1911 to June 1912 and October 1934 to September 1942 in reports of Geological Survey. April 1915 (revised) to October 1919, October 1923 to September 1927 and October 1934 to September 1942 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 1,310 second-feet May 27 (gage height, 3.74 feet); minimum discharge recorded, 18 second-feet Sept. 27-30, may have been less at times during period of no record.

1911-12, 1915-19, 1923-27, 1934-42: Maximum discharge, 5,200 second-feet Oct. 5, 1911 (gage height, 11.0 feet, datum then in use, from floodmark), computed by weir formula; minimum not determined.

Remarks.- Records good except those for periods of no gage-height record, which are fair.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a72	95				-	30	143	826	279	101	28
2	84	93				-	45	154	840	283	95	28
3	133	92				-	56	151	833	262	84	27
4	124	a90				-	57	191	770	234	84	28
5	a119	a85				-	65	246	805	223	71	31
6	a116	a80				-	59	318	888	223	73	28
7	a109	a71				-	31	332	936	210	68	30
8	a108	-				-	41	374	864	223	61	28
9	103	-				-	50	430	872	223	58	25
10	99	-				-	56	536	812	207	56	23
11	93	-				-	81	548	960	185	53	44
12	90	-				-	81	524	944	170	51	41
13	242	-				-	92	359	848	159	51	37
14	a300	-				-	145	310	744	140	49	30
15	a270	-				-	182	318	620	140	44	27
16	a200	-				-	194	336	668	143	44	26
17	176	-				-	197	354	731	162	43	24
18	176	-				-	143	369	770	154	43	23
19	167	-				-	122	388	724	145	41	22
20	a163	-				-	105	458	656	122	41	21
21	a165	-				-	113	590	596	109	37	21
22	a165	-				34	179	650	536	103	37	21
23	a164	-				41	220	731	506	99	37	21
24	162	-				37	176	833	476	93	36	20
25	156	-				34	148	920	403	92	34	20
26	140	-				29	140	976	364	92	32	19
27	a132	-				43	133	1,000	346	88	30	18
28	a125	-				35	138	872	301	93	28	18
29	a115	-				66	138	928	279	86	27	18
30	a105	-				23	133	812	270	79	27	18
31	a100	-				26	-	757	-	74	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	4,473	300	72	144	8,870
November 1-7	606	95	71	86.6	1,202
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 22-31	368	66	23	36.8	730
April	3,350	220	30	112	6,640
May	15,908	1,000	143	513	31,550
June	20,188	960	270	673	40,040
July	4,895	283	74	158	9,710
August	1,562	101	26	50.4	3,100
September	765	44	18	25.5	1,520
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of discharge measurement on Nov. 7 and storage records for Terrace Reservoir.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Alamosa Creek below Terrace Reservoir, Colo.

Location.- Water-stage recorder, lat. 37°21', long. 106°17', in sec. 23, T. 36 N., R. 6 E., half a mile downstream from Terrace Reservoir and 11 miles northwest of Capulin.

Drainage area.- 116 square miles.

Records available.- April 1909 to June 1912 and October 1933 to September 1942 in reports of Geological Survey. April 1909 to November 1912, April to October 1915, February 1917 to October 1920, and April 1922 to September 1942 in reports of State engineer.

Average discharge.- 24 years (1909-10, 1915-18, 1922-42), 124 second-feet.

Extremes.- Maximum discharge during year, 1,060 second-feet May 28 (gage height, 4.76 feet); minimum daily, 10 second-feet Nov. 20 to Mar. 28.
1909-12, 1915, 1917-20, 1922-42: Maximum daily discharge, 1,450 second-feet June 16-18, 1917; minimum daily, 2.8 second-feet Mar. 30, 1941.

Remarks.- Records good except those for periods of no gage-height record, which are fair. No diversion above station. Flow regulated by Terrace Reservoir (capacity, 17,700 acre-feet).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	78	10	10	10	10	30	180	875	469	144	91
2	71	78	10	10	10	10	30	180	711	437	142	61
3	69	83	10	10	10	10	30	177	662	405	142	60
4	69	85	10	10	10	10	29	174	666	289	142	61
5	69	85	10	10	10	10	29	174	670	286	144	61
6	71	83	10	10	10	10	29	174	675	303	147	54
7	69	83	10	10	10	10	36	233	680	303	147	50
8	66	81	10	10	10	10	49	275	680	306	134	46
9	66	83	10	10	10	10	49	324	675	306	121	48
10	67	83	10	10	10	10	50	353	675	310	121	56
11	67	83	10	10	10	10	55	417	684	306	137	55
12	67	83	10	10	10	10	64	477	796	303	139	55
13	69	83	10	10	10	10	78	489	810	300	142	49
14	71	83	10	10	10	10	87	489	810	268	142	46
15	72	79	10	10	10	10	87	489	698	264	142	42
16	72	64	10	10	10	10	99	417	675	268	139	33
17	71	60	10	10	10	10	115	361	680	272	137	28
18	71	60	10	10	10	10	113	361	680	272	117	25
19	71	50	10	10	10	10	113	361	684	264	117	23
20	72	10	10	10	10	10	117	361	684	258	117	22
21	72	10	10	10	10	10	119	361	684	247	111	22
22	74	10	10	10	10	10	142	361	680	247	101	22
23	74	10	10	10	10	10	150	361	666	217	101	20
24	74	10	10	10	10	10	150	433	634	217	101	20
25	74	10	10	10	10	10	174	616	598	198	99	22
26	76	10	10	10	10	10	180	801	557	189	97	18
27	76	10	10	10	10	10	180	940	521	192	97	18
28	76	10	10	10	10	10	180	1,040	521	198	99	18
29	76	10	10	10	-	27	180	975	509	201	101	18
30	78	10	10	10	-	28	180	960	469	189	99	18
31	78	-	10	10	-	29	-	960	-	150	95	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,219	78	66	71.6	4,400
November	1,577	85	10	52.6	3,130
December	310	10	10	10	615
Calendar year 1941	67,294	1,170	2.8	184	133,500
January	310	10	10	10	615
February	280	10	10	10	555
March	364	29	10	11.7	722
April	2,924	180	29	97.5	5,800
May	14,274	1,040	174	460	28,310
June	20,009	875	469	667	39,690
July	8,434	469	150	272	16,730
August	3,814	147	95	123	7,560
September	1,164	91	18	38.8	2,310
Water year 1941-42	55,679	1,040	10	153	110,400

Note.- No gage-height record Nov. 17 to Mar. 28 (stage-discharge relation affected by ice part of period), Sept. 18-30; discharge computed on basis of release flow from Terrace Reservoir.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

La Jara Creek at Gallegos Ranch, near Capulin, Colo.

Location.- Water-stage recorder, lat. 37°09', long. 106°13', in NE¼ sec. 32, T. 34 N., R. 7 E., 2 miles upstream from former station (published as La Jara Creek near Capulin, Colo.), 2¼ miles upstream from Canyon del Rancho, 11 miles southwest of Capulin, and 11½ miles downstream from La Jara Reservoir.

Drainage area.- 79 square miles.

Records available.- May 1936 to September 1942 (no winter records).

Extremes.- Maximum discharge during year, 542 second-feet Apr. 14 (gage height, 5.37 feet); minimum daily recorded, 6.0 second-feet June 20, 29, 30, may have been less during period of no record.

1936-42: Maximum discharge, 653 second-feet Apr. 15, 1937 (gage height, 5.94 feet); minimum daily recorded, 3.5 second-feet Nov. 28, 1936.

Remarks.- Records good. Small diversions above station for irrigation. Flow regulated by La Jara Reservoir (capacity, 14,040 acre-feet).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	12					18	97	30	9.5	30	15
2	11	12					26	126	29	14	33	12
3	12	11					35	117	29	14	36	9.0
4	11	10					43	134	48	11	36	9.0
5	11	11					56	154	27	11	34	11
6	10	11					60	155	24	9.5	35	9.0
7	10	10					23	176	22	7.0	35	9.0
8	9.8	-					17	178	22	8.0	35	9.0
9	9.5	-					23	198	19	8.0	35	10
10	9.5	-					35	192	17	8.0	40	10
11	9.5	-					79	205	14	8.5	40	14
12	9.5	-					81	173	11	8.0	44	13
13	9.8	-					114	103	10	8.0	45	10
14	16	-					242	93	9.0	8.0	38	8.5
15	13	-					245	94	9.5	8.0	38	9.0
16	12	-					213	85	9.0	8.5	37	10
17	11	-					188	93	8.5	9.0	36	10
18	11	-					116	96	7.0	8.5	36	10
19	11	-					69	94	6.5	9.0	29	11
20	11	-					60	100	6.0	8.5	26	13
21	11	-					79	104	6.5	8.5	19	15
22	12	-					152	104	7.0	9.0	18	14
23	13	-					179	93	7.5	9.0	18	13
24	15	-					109	85	7.5	9.0	22	11
25	14	-					102	84	7.5	23	18	9.5
26	14	-					86	73	7.0	24	18	9.0
27	13	-					71	62	7.0	24	20	8.5
28	13	-					83	45	7.0	23	21	8.5
29	13	-					92	38	6.0	30	20	8.5
30	12	-					80	37	6.0	28	21	8.5
31	13	-					-	33	-	29	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	361.6	16	9.5	11.7	717
November 1-7	77	12	10	11.0	153
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	2,776	245	17	92.5	5,510
May	3,421	205	33	110	6,790
June	426.5	48	6.0	14.2	846
July	400.5	30	7.0	12.9	794
August	933	45	18	30.1	1,850
September	317.0	15	8.5	10.6	629
Water year	-	-	-	-	-

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Trinchera Creek above Turners Ranch, near Fort Garland, Colo.

Location.- Water-stage recorder, lat. 37°22', long. 105°19', in sec. 2, T. 31 S., R. 71 W., just upstream from Turners Ranch and 7 miles southeast of Fort Garland.

Drainage area.- 45 square miles.

Records available.- October 1933 to September 1942 in reports of Geological Survey. April 1923 to September 1942 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 689 second-feet May 27, from rating curve extended above 220 second-feet; maximum gage-height, 3.44 feet June 5; minimum daily discharge, 9 second-feet Nov. 25-30, but may have been less during period of no record. 1923-42: Maximum discharge, that of May 27, 1942; minimum not determined.

Remarks.- Records good except those for period of no gage-height record and those above 250 second-feet, which are fair. No diversion or regulation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	23				-	30	45	291	84	31	23
2	21	23				-	17	43	297	82	28	18
3	22	22				-	17	43	291	76	28	16
4	24	21				-	13	50	314	71	27	14
5	21	21				-	14	63	320	67	27	14
6	21	21				-	15	75	297	66	25	14
7	20	21				-	14	122	281	63	24	14
8	20	*20				-	16	144	260	62	24	13
9	18	21				-	13	172	254	60	23	12
10	16	22				-	13	169	244	61	22	11
11	16	21				-	18	228	236	55	24	14
12	15	20				-	20	220	240	53	21	14
13	21	20				-	20	213	236	50	20	14
14	32	21				-	30	206	222	49	19	14
15	26	21				-	38	187	204	50	19	15
16	23	21				-	38	176	189	48	19	15
17	22	20				-	38	172	177	45	18	14
18	22	21				-	36	169	177	43	18	14
19	22	18				-	33	172	174	41	17	15
20	22	11				-	34	180	170	39	16	16
21	24	11				-	33	172	160	39	17	17
22	23	10				-	43	213	151	38	16	17
23	26	10				-	60	277	142	37	16	16
24	26	10				-	54	290	139	37	16	15
25	26	9				-	43	375	124	36	17	14
26	26	9				41	39	404	114	33	16	15
27	26	9				48	41	428	104	31	14	16
28	27	9				39	41	356	96	31	13	14
29	27	9				34	45	332	87	31	12	13
30	26	9				28	47	297	84	28	12	15
31	24	-				27	-	276	-	27	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	707	32	15	22.8	1,400
November	504	23	9	16.8	1,000
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 26-31	217	48	27	36.2	430
April	913	60	13	30.4	1,810
May	6,269	428	43	202	12,430
June	6,075	320	84	202	12,050
July	1,533	84	27	49.5	3,040
August	611	31	12	19.7	1,210
September	446	23	11	14.9	885
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.

Note.- No gage-height record Nov. 8-30 (stage-discharge relation probably affected by ice during most of period); discharge computed on basis of one discharge measurement, weather records, and records for station above Mountain Home Reservoir near Fort Garland.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Trinchera Creek above Mountain Home Reservoir, near Fort Garland, Colo.

Location.- Water-stage recorder upstream from rating flume, lat. 37°24', long. 105°32', in sec. 31, T. 30 S., R. 71 W., 1½ miles upstream from Mountain Home Reservoir Dam and 4 miles southeast of Fort Garland.

Drainage area.- 61 square miles.

Records available.- October 1933 to September 1942 in reports of Geological Survey. May 1923 to September 1942 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 391 second-feet May 27 (gage height, 3.83 feet), from rating curve extended above 220 second-feet; minimum daily recorded, 8.5 second-feet Mar. 30, but may have been less during period of no record.
1923-42: Maximum discharge, that of May 27, 1942; minimum not determined.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	22				-	10	80	240	73	21	11
2	18	22				-	11	80	240	76	19	11
3	18	22				-	14	75	236	70	20	9.3
4	20	22				-	14	81	238	66	19	9.3
5	20	22				-	14	103	228	64	17	11
6	20	20				-	18	128	218	63	17	12
7	19	20				-	14	138	210	62	18	13
8	19	17				-	13	159	193	53	17	13
9	17	21				-	14	181	190	48	16	12
10	17	22				-	13	183	174	62	15	12
11	17	20				-	18	214	168	64	16	13
12	16	19				-	20	226	176	61	16	13
13	19	20				-	20	197	179	59	17	12
14	36	20				-	25	174	183	57	18	11
15	30	20				-	43	149	171	47	18	10
16	28	20				-	46	137	162	40	17	10
17	c25	19				-	54	142	159	38	17	9.9
18	c23	20				-	52	143	162	35	16	9.9
19	c23	17				-	42	145	166	35	15	10
20	c22	10				-	47	162	159	33	14	11
21	c23	11				-	46	186	154	33	15	11
22	c22	b10				-	59	212	146	32	14	11
23	c24	b10				-	96	259	137	27	14	11
24	c25	b10				-	86	270	138	25	14	11
25	c25	b10				-	75	308	126	24	14	10
26	c25	b10				-	67	327	114	22	14	11
27	c25	b10				-	68	346	105	22	12	11
28	c26	b9				-	66	315	92	20	11	11
29	c26	b9				-	70	306	83	21	9.6	11
30	c25	b9				8.5	83	281	75	19	9.3	11
31	c23	-				8.8	-	265	-	18	9.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	696	36	16	22.5	1,380
November	493	22	9	16.4	978
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,218	96	10	40.6	2,420
May	5,972	346	75	193	11,850
June	5,022	240	75	167	9,960
July	1,369	76	18	44.2	2,720
August	478.9	21	9.0	15.4	950
September	332.4	13	9.3	11.1	659
Water year	-	-	-	-	-

b Stage-discharge relation affected by ice.
c Stage-discharge relation affected by backwater from beaver dam; discharge computed on basis of records for station above Turners Ranch near Fort Garland.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Trinchera Creek below Smith Reservoir, near Blanca, Colo.

Location.- Water-stage recorder, lat. 37°23', long. 105°35', in sec. 5, T. 31 S., R. 73 W., 1 mile downstream from Smith Reservoir and 5 miles southwest of Blanca.

Drainage area.- 396 square miles.

Records available.- October 1933 to September 1942 in reports of Geological Survey. October 1929 to September 1942 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum daily discharge during year, 1,340 second-feet May 11; minimum daily, 1.2 second-feet Sept. 21-30.
1929-42: Maximum daily discharge, that of May 11, 1942; minimum daily recorded, 0.1 second-foot Nov. 3, 1937, to Feb. 28, 1938.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Diversions above station for irrigation. Flow regulated by Smith Reservoir (capacity, 5,335 acre-feet).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.2	68				-	39	512	445	28	1.4	1.3
2	2.2	64				-	41	501	405	23	1.4	1.3
3	2.2	62				-	49	503	369	16	1.4	1.3
4	3.0	63				-	57	526	380	12	1.3	1.3
5	2.8	63				-	64	608	384	8.5	1.3	1.3
6	2.0	61				-	83	812	366	6.0	1.3	1.3
7	2.2	57				-	76	877	343	6.0	1.3	1.3
8	2.2	54				-	84	925	332	8.9	1.3	1.3
9	10	52				-	76	1,040	313	8.9	1.3	1.3
10	14	51				-	71	1,200	289	8.2	1.3	1.3
11	15	52				-	73	1,340	253	7.8	1.3	1.3
12	14	52				-	95	1,200	208	6.6	1.3	1.3
13	14	49				-	118	1,020	179	5.7	1.3	1.3
14	17	50				-	164	900	167	4.9	1.3	1.3
15	29	51				-	242	780	162	4.6	1.3	1.3
16	38	49				-	319	670	153	4.0	1.3	1.3
17	47	47				-	283	610	139	3.5	1.3	1.3
18	54	46				-	274	580	121	3.0	1.3	1.3
19	56	47				-	277	550	102	2.5	1.3	1.3
20	58	46				-	236	540	88	2.0	1.3	1.3
21	59	45				-	224	550	78	1.5	1.3	1.2
22	62	46				-	236	585	69	1.5	1.3	1.2
23	62	41				-	382	659	49	1.5	1.3	1.2
24	63	37				-	565	675	41	1.5	1.3	1.2
25	67	37				45	561	675	34	1.5	1.3	1.2
26	67	37				45	464	675	38	1.5	1.3	1.2
27	66	36				43	407	660	47	1.5	1.3	1.2
28	64	36				43	385	620	40	1.5	1.3	1.2
29	69	35				40	399	560	35	1.5	1.3	1.2
30	71	35				40	479	517	30	1.4	1.3	1.2
31	68	-				39	-	485	-	1.4	1.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,102.8	71	2.0	35.6	2,190
November	1,469	68	35	49.0	2,910
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March 25-31	295	45	39	42.1	585
April	6,823	565	39	227	13,530
May	22,355	1,340	485	721	44,340
June	5,659	445	30	189	11,220
July	186.4	28	1.4	6.01	370
August	40.6	1.4	1.3	1.31	81
September	38.0	1.3	1.2	1.27	75
Water year	-	-	-	-	-

Note.- No gage-height record Nov. 27-30, May 8-22, 26-29, July 16 to Sept. 30; discharge computed on basis of discharge measurements on May 11, Aug. 7, Sept. 16, weather records, and summation of records for tributary flow above station.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

556252 O - 43 - 14

Sangre de Cristo Creek near Fort Garland, Colo.

Location.- Water-stage recorder, lat. 37°26', long. 105°24', in sec. 23, T. 30 S., R. 72 W., 1½ miles east of Fort Garland and 4 miles upstream from confluence with Ute Creek.

Drainage area.- 187 square miles.

Records available.- October 1933 to September 1942 in reports of Geological Survey. March to October 1916 and May 1923 to September 1942 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 1,090 second-feet May 10 (gage height, 7.65 feet, from floodmarks), from rating curve extended above 800 second-feet; minimum daily recorded, 11 second-feet Aug. 30, Sept. 18, 19, 24-26, 29, may have been less during period of ice effect.

1916, 1923-42: Maximum discharge, 1,520 second-feet Aug. 31, 1936, by slope-area method; maximum gage height, that of May 10, 1942; no flow at times during 1934-36, 1939-40.

Remarks.- Records good except those for period Apr. 1 to May 31, which are fair. A few diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	34					13	376	360	80	42	24
2	22	34					24	399	326	95	32	29
3	20	34					41	392	314	87	41	22
4	26	33					45	451	329	74	38	18
5	27	32					49	613	294	72	30	18
6	22	31					88	671	272	66	28	18
7	20	31					33	759	249	65	30	21
8	18	20					30	771	229	64	28	19
9	18	-					36	a820	217	60	25	16
10	17	-					42	a1,020	197	67	24	13
11	16	-					87	a1,010	183	57	28	19
12	16	-					116	a940	170	51	24	20
13	18	-					126	871	161	45	23	17
14	40	-					184	743	163	43	24	16
15	40	-					330	648	161	42	26	14
16	35	-					304	601	147	40	24	13
17	36	-					184	556	139	39	22	13
18	34	-					202	520	133	38	20	11
19	31	-					122	494	124	37	18	11
20	30	-					114	491	115	35	17	12
21	29	-					142	516	107	39	16	13
22	34	-					200	523	99	41	16	12
23	38	-					463	582	96	35	16	12
24	49	-					402	628	90	35	16	11
25	42	-					306	628	84	35	15	11
26	43	-					286	640	76	34	13	11
27	39	-					281	632	72	32	13	12
28	38	-					292	582	70	33	13	12
29	43	-					342	527	69	30	13	11
30	38	-					494	476	69	28	11	12
31	35	-					-	412	-	26	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	941	49	16	30.4	1,870
November 1-8	249	34	20	31.1	494
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	5,378	494	13	179	10,670
May	19,292	1,020	376	622	38,270
June	5,115	360	69	170	10,150
July	1,525	95	26	49.2	3,020
August	698	42	11	22.5	1,380
September	461	29	11	15.4	914
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of discharge measurement on May 11 and record for Ute Creek near Fort Garland.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Ute Creek near Fort Garland, Colo.

Location.- Water-stage recorder upstream from rating flume, lat. 37°28', long. 105°24', in sec. 2, T. 30 S., R. 72 W., 2½ miles north of Fort Garland and 6 miles upstream from mouth.

Drainage area.- 32 square miles.

Records available.- October 1933 to September 1942 in reports of Geological Survey. March to October 1916 and May 1923 to September 1942 in reports of State engineer. (No winter records some years.)

Extremes.- Maximum discharge during year, 148 second-feet May 11 (gage height, 2.35 feet); minimum daily, 3.1 second-feet Apr. 1, may have been less during period of no record.
1916, 1923-42: Maximum daily discharge, 630 second-feet May 15, 1941; minimum daily recorded, 1.6 second-feet July 6, 1936.

Remarks.- Records fair. A few diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4S	30					b3.1	62	79	56	36	31
2	3S	30					b3.4	67	76	59	30	35
3	33	30					7.0	66	80	58	44	22
4	33	30					14	75	S9	50	34	1S
5	33	30					18	S7	SO	49	27	17
6	30	30					21	97	78	49	22	15
7	28	29					11	111	79	52	22	16
8	24	22					7.4	123	75	50	22	14
9	22	-					9.9	134	73	51	22	12
10	20	-					14	139	71	47	21	9.2
11	1S	-					26	13S	79	38	19	36
12	1S	-					26	126	78	35	19	38
13	1S	-					27	106	75	32	19	30
14	31	-					43	S9	75	30	27	22
15	30	-					53	76	59	30	21	17
16	30	-					46	70	59	31	20	15
17	30	-					40	68	65	30	1S	13
18	30	-					41	65	75	32	18	11
19	30	-					35	68	75	30	15	9.9
20	30	-					48	75	71	30	14	11
21	30	-					46	81	68	30	14	8.8
22	30	-					61	93	60	30	11	7.4
23	31	-					117	107	56	26	9.9	7.9
24	31	-					101	112	55	27	9.2	7.0
25	30	-					85	110	52	28	12	6.1
26	30	-					71	107	4S	23	9.9	6.6
27	30	-					63	111	43	21	7.9	6.6
28	30	-					59	99	3S	22	7.9	5.7
29	31	-					62	91	41	23	7.4	6.6
30	30	-					66	S5	46	23	7.9	7.9
31	30	-					-	7S	-	31	7.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	905	4S	1S	29.2	1,800
November 1-8	231	30	22	28.9	458
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,224.8	117	3.1	40.S	2,430
May	2,916	139	62	94.1	5,7S0
June	1,99S	89	38	66.6	3,960
July	1,123	59	21	36.2	2,230
August	575.0	44	7.4	1S.5	1,140
September	462.7	3S	5.7	15.4	91S
Water year	-	-	-	-	-

b Stage-discharge relation affected by ice.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Conejos River at Platoro, Colo.

Location.- Water-stage recorder, lat. 37°21'00", long. 106°31'30", in sec. 22, T. 36 N., R. 4 E., half a mile east of Platoro and 5 miles downstream from Adams Fork.

Drainage area.- 44.4 square miles.

Records available.- April 1937 to September 1942. (No winter records.)

Extremes.- Maximum discharge during year, 1,000 second-feet June 17 (gage height, 2.78 feet), from rating curve extended above 850 second-feet; minimum daily recorded, 6.6 second-feet Sept. 29-30, but may have been less during period of no record.

1937-42: Maximum discharge, 1,310 second-feet June 25, 1941 (gage height, 3.15 feet), from rating curve extended above 850 second-feet; minimum daily recorded, 6.6 second-feet Dec. 13, 1937, Sept. 29, 30, 1942, may have been less during periods of no record.

Remarks.- Records good except those for periods of no gage-height record, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	135	86							a480	326	92	15
2	129	86							a530	313	a88	16
3	187	80							631	287	a84	14
4	156	73							583	248	a82	17
5	143	73							604	256	a65	20
6	126	71							670	252	a57	17
7	126	60							698	252	a51	19
8	121	60							664	256	50	15
9	113	61							670	225	45	13
10	108	58							693	199	40	11
11	102	56							775	191	37	86
12	111	52							763	176	39	52
13	384	56							716	159	39	42
14	330	50							642	143	34	29
15	268	50							567	143	27	23
16	244	50					a115	a445	647	137	29	20
17	233	50							733	180	28	17
18	221	24							787	162	32	14
19	206	-							763	129	27	13
20	195	-							693	111	29	12
21	191	-							642	99	27	11
22	172	-							604	92	23	11
23	176	-							583	90	23	9.6
24	159	-							516	77	21	9.0
25	153	-							441	73	21	9.0
26	140	-							403	69	20	8.4
27	126	-							375	65	19	7.8
28	121	-							321	84	17	7.2
29	116	-							304	77	15	6.6
30	104	-							304	67	14	6.6
31	92	-					-		-	61	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,188	384	92	167	10,290
November 1-18	1,096	86	24	60.9	2,170
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	3,450	-	-	115	6,840
May	13,795	-	-	445	27,360
June	17,802	787	304	593	35,310
July	4,999	326	61	161	9,920
August	1,189	92	14	38.4	2,360
September	551.2	86	6.6	18.4	1,090
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of records for station near Mogote.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Conejos River near Mogote, Colo.

Location.- Water-stage recorder, lat. 37°03', long. 106°11', in SE¼ sec. 34, T. 33 N., R. 7 E., three-quarters of a mile downstream from Fox Creek and 5½ miles west of Mogote.

Drainage area.- 282 square miles.

Records available.- September 1899 to March 1900, April 1903 to September 1913 and October 1933 to September 1942 in reports of Geological Survey. September 1899 to March 1900 and April 1903 to September 1942 in reports of State engineer.

Average discharge.- 40 years (1902-42), 379 second-feet.

Extremes.- Maximum discharge during year, 2,780 second-feet May 27 (gage height, 4.72 feet); minimum daily, 24 second-feet Feb. 17, 18.
1899-1900, 1903-42: Maximum discharge, 9,000 second-feet Oct. 5, 1911 (gage height, 8.50 feet, site and datum then in use), from rating curve extended above 3,500 second-feet; minimum, 18 second-feet (discharge measurement) Dec. 19, 1939.

Remarks.- Records good except those for period of ice effect, which are fair. No diversion or regulation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	318	211	78	37	33	38	104	350	1,990	740	214	77
2	277	206	69	40	34	39	137	401	2,050	800	211	81
3	344	*191	73	40	35	40	174	378	2,120	730	252	70
4	389	186	70	39	36	41	191	453	2,080	615	252	72
5	339	179	45	37	37	38	244	592	1,980	578	186	74
6	318	172	*49	36	34	37	248	692	2,080	592	174	74
7	268	154	69	36	36	30	197	840	2,290	555	163	74
8	298	139	70	38	38	*31	163	977	2,080	570	154	69
9	281	149	69	39	39	40	181	1,170	2,120	578	145	61
10	252	141	72	44	38	48	208	1,400	2,010	533	137	57
11	236	133	70	48	36	60	313	1,520	2,200	498	137	100
12	220	123	53	50	36	72	361	1,460	2,240	477	129	167
13	453	133	52	50	35	78	366	1,080	2,090	441	123	131
14	740	123	55	49	34	78	512	933	2,010	424	120	102
15	562	123	48	46	31	74	658	944	1,590	418	109	88
16	498	121	50	42	27	72	658	911	1,760	401	107	78
17	470	123	59	40	24	69	674	944	1,840	453	111	72
18	441	116	52	39	24	69	555	999	1,990	435	104	65
19	424	82	54	37	25	84	418	1,090	1,920	401	102	61
20	412	79	54	37	27	65	366	1,280	1,760	334	102	59
21	401	84	60	34	28	65	412	1,540	1,620	302	96	58
22	401	78	51	31	30	70	666	1,780	1,450	277	92	57
23	401	73	46	29	32	78	810	1,890	1,320	252	88	55
24	401	65	41	28	34	85	592	1,840	1,260	252	86	53
25	389	74	35	29	36	91	464	2,090	1,060	240	85	52
26	344	86	40	31	38	79	424	2,160	933	236	81	52
27	334	86	37	32	39	75	389	2,370	880	232	75	51
28	318	79	33	*33	41	74	384	2,060	780	220	72	50
29	285	84	31	33	-	75	389	2,160	692	281	68	49
30	260	78	33	32	-	81	355	2,030	666	220	66	49
31	236	-	35	32	-	91	-	1,910	-	197	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	11,310	740	220	365	22,430
November	3,671	211	65	122	7,280
December	1,653	78	31	53.3	3,280
Calendar year 1941	202,547	3,350	31	555	401,300
January	1,168	50	28	37.7	2,320
February	937	41	24	33.5	1,860
March	1,967	91	30	63.5	3,900
April	11,613	810	104	387	23,030
May	40,244	2,370	350	1,298	79,820
June	50,861	2,290	666	1,695	100,900
July	13,282	800	197	428	26,340
August	3,905	252	64	126	7,750
September	2,158	167	49	71.9	4,280
Water year 1941-42	142,769	2,370	24	391	283,200

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Nov. 21 to Mar. 14.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Conejos River near La Sauses, Colo.

Location.- Two water-stage recorders (two channels), lat. 37°23', long. 105°45', in sec. 2, T. 35 N., R. 11 E., half a mile upstream from mouth and 2 miles north of La Sauses.

Drainage area.- 887 square miles.

Records available.- October 1933 to September 1942 in reports of Geological Survey. March 1921 to September 1942 in reports of State engineer.

Average discharge.- 21 years, 254 second-feet.

Extremes.- Maximum discharge during year, 2,390 second-feet May 13; minimum daily, 3.4 second-feet Aug. 2, 4-6.
1921-42: Maximum discharge, 3,890 second-feet May 15, 1941; no flow July 21 to Sept. 8, 1934.

Remarks.- Records good above 100 second-feet, fair between 20 and 100 second-feet, and poor below 20 second-feet. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	207	302	86	92	57	55	97	669	1,190	67	3.6	19
2	192	285	83	85	56	57	101	618	1,100	72	3.4	20
3	194	277	83	73	58	60	112	593	1,070	68	3.8	20
4	253	261	86	73	58	63	166	575	1,310	66	3.4	22
5	253	256	*67	72	62	52	240	726	1,360	60	3.4	21
6	230	246	71	61	56	65	304	903	1,200	60	3.4	22
7	224	236	79	61	61	*57	322	1,060	1,240	54	3.6	23
8	207	226	84	68	64	55	286	1,320	1,400	52	3.6	23
9	210	215	82	70	64	64	224	1,580	1,310	51	3.8	23
10	204	198	83	65	56	81	229	1,780	1,300	49	3.8	23
11	191	195	79	77	52	86	299	2,080	1,240	41	4.6	25
12	189	190	77	73	52	92	427	2,270	1,270	31	4.8	25
13	183	170	74	73	52	108	525	2,140	1,260	27	5.9	25
14	374	159	75	76	48	113	605	1,430	1,210	23	7.5	26
15	514	151	69	77	44	107	891	1,120	1,180	21	12	26
16	451	144	69	71	41	97	1,030	1,000	986	16	12	26
17	413	136	73	62	37	102	1,140	923	896	15	12	24
18	391	134	71	59	35	105	1,240	898	850	14	12	25
19	370	123	64	56	35	105	1,010	934	838	11	13	25
20	362	95	65	54	40	103	755	1,050	773	8.6	13	25
21	358	91	72	51	46	104	643	1,240	695	7.0	12	25
22	362	84	82	47	50	92	826	1,490	613	5.5	11	27
23	357	75	78	39	51	102	1,500	1,720	525	5.5	11	28
24	370	72	85	40	51	114	1,810	1,860	444	5.5	11	28
25	351	72	64	44	53	123	1,320	1,840	351	5.5	12	29
26	368	74	71	46	56	120	935	1,940	265	5.1	11	29
27	357	79	69	47	56	101	808	1,900	224	5.1	12	30
28	353	83	62	*56	63	103	746	2,030	200	5.3	13	30
29	360	88	54	59	-	100	722	1,660	172	4.6	13	30
30	338	88	59	59	-	97	746	1,540	82	4.3	15	30
31	321	-	62	56	-	97	-	1,330	-	3.7	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,507	514	183	307	18,860
November	4,805	302	72	160	9,530
December	2,278	86	54	73.5	4,520
Calendar year 1941	177,367	3,820	10	486	351,800
January	1,942	92	39	62.6	3,850
February	1,454	64	35	51.9	2,880
March	2,780	123	52	89.7	5,510
April	20,059	1,810	97	669	39,790
May	42,219	2,270	575	1,362	83,740
June	26,554	1,400	82	885	52,670
July	863.7	72	3.7	27.9	1,710
August	268.6	15	3.4	8.66	633
September	754	30	19	25.1	1,500
Water year 1941-42	113,484.3	2,270	3.4	311	225,100

* Winter discharge measurement made on this day.
Note.- Stage-discharge relation affected by ice Dec. 6-14, Jan. 1-22, Feb. 15-20.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

San Antonio River at Ortiz, Colo.

Location.- Water-stage recorder, lat. 37°00', long. 106°02', in New Mexico, in sec. 19, T. 32 N., R. 9 E., a quarter of a mile south of Colorado-New Mexico State line, half a mile south of Ortiz, and half a mile upstream from Los Pinos Creek.

Drainage area.- 110 square miles.

Records available.- October 1933 to September 1942 in reports of Geological Survey. January to October 1915, May 1919 to October 1920 and October 1924 to September 1942 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 720 second-feet Apr. 23 (gage height, 3.50 feet); no flow July 24 to Aug. 3, Aug. 24 to Sept. 1.
1915, 1919-20, 1924-42: Maximum discharge, 1,750 second-feet Apr. 15, 1937 (gage height, 5.38 feet), from rating curve extended above 1,100 second-feet; no flow at times in most years.

Remarks.- Records good above 10 second-feet and poor below. A few small diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.0	10					56	145	69	2.6	0	0
2	5.1	9.7					62	154	58	4.2	0	4.7
3	4.7	*12					68	134	52	6.3	0	5.5
4	5.9	11					76	174	98	9.2	5.4	3.4
5	6.3	11					88	243	58	5.1	8.6	2.2
6	5.1	11	(*)				82	254	49	3.0	4.2	2.6
7	3.8	11					74	320	43	2.6	1.7	1.9
8	3.4	13					82	370	38	1.9	1.2	1.2
9	3.4	14					102	392	32	1.6	1.1	1.4
10	2.2	11					150	441	27	1.6	1.1	1.1
11	2.0	9.2					270	424	24	1.4	1.2	1.2
12	1.9	8.6					273	405	22	.9	1.7	14
13	1.9	5.9					275	273	19	.6	1.9	6.9
14	9.7	5.9					364	220	19	.4	1.4	4.2
15	14	5.5	2.6	2.0	2.2	6.5	376	238	17	.4	1.6	2.2
16	7.4	5.1					351	218	13	.2	1.7	1.7
17	5.1	4.7					370	220	12	.3	a1.5	1.2
18	3.8	6.9					281	228	11	.2	a1.3	.6
19	3.0	10					178	243	9.7	.4	a1.1	.4
20	3.0	1.7					137	248	8.6	.4	a.9	.4
21	3.4	6.3					205	270	9.2	.3	a.7	.3
22	6.9	6.0					345	273	7.4	.2	a.5	.2
23	8.0	5.0					472	254	5.5	.2	a.3	.3
24	9.2	4.5					254	218	5.5	0	0	.3
25	8.6	4.0					190	220	4.2	0	0	.4
26	11	4.2					174	198	3.4	0	0	.4
27	10	4.0					181	181	2.6	0	0	.4
28	11	3.9					183	141	2.2	0	0	.4
29	12	3.6			-		193	124	2.2	0	0	.4
30	14	3.2			-		183	102	2.0	0	0	.5
31	13	-			-		-	88	-	0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	206.8	14	1.9	6.67	410
November	221.9	14	1.7	7.40	440
December	80.6	-	-	2.60	160
Calendar year 1941	20,337.2	1,050	0	55.7	40,340
January	62.0	-	-	2.00	123
February	61.6	-	-	2.20	122
March	201.5	-	-	6.50	400
April	6,095	472	56	203	12,090
May	7,413	441	88	239	14,700
June	723.5	98	2.0	24.1	1,440
July	44.0	9.2	0	1.42	87
August	39.1	8.6	0	1.26	78
September	60.4	14	0	2.01	120
Water year 1941-42	15,209.4	472	0	41.7	30,170

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Los Pinos River near Ortiz.
Note.- No gage-height record Nov. 22 to Apr. 10 (stage-discharge relation affected by ice during most of period); discharge computed on basis of two discharge measurements, and weather records.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

San Antonio River at mouth, near Manassa, Colo.

Location.- Water-stage recorder, lat. 37°11', long. 105°53', in sec. 21, T. 34 N., R. 10 E., 1 mile upstream from mouth and 2½ miles east of Manassa.

Drainage area.- 348 square miles.

Records available.- October 1933 to September 1942 in reports of Geological Survey. April 1923 to September 1942 in reports of State engineer.

Average discharge.- 19 years, 104 second-feet.

Extremes.- Maximum discharge during year, 1,440 second-feet May 12 (gage height, 5.72 feet); no flow July 24, July 26 to Sept. 30.

1923-42: Maximum discharge, 2,620 second-feet May 14, 1941 (gage height, 6.26 feet), from rating curve extended above 2,200 second-feet; no flow at times in most years.

Remarks.- Records excellent above 200 second-feet and fair below except those for period of no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	60	34				80	323	578	14		
2	10	53	30				82	299	537	17		
3	10	52	31				84	275	516	24		
4	11	50	28				98	293	760	26		
5	12	51	30				150	422	620	24		
6	11	49	22				145	509	516	20		
7	14	44	21				135	659	483	20		
8	18	38	22				140	885	470	15		
9	18	37	24				158	1,030	428	10		
10	19	39	25				170	1,170	407	7.7		
11	20	38	26				232	1,290	389	5.6		
12	27	32	26				299	1,330	374	3.2		
13	38	32	25				329	1,150	356	2.3		
14	43	32	23				434	881	356	2.3		
15	46	27	22				620	785	353	2.3		
				12	9	40						
16	44	27	20				652	722	299	2.3		
17	30	26	21				793	690	262	1.4		
18	26	27	21				805	708	245	1.2		
19	22	24	20				564	782	218	1.0		
20	21	22	19				392	893	185	.8		
21	26	14	18				350	990	175	.6		
22	29	18	17				561	1,080	168	.4		
23	26	20	17				1,060	1,130	130	.4		
24	26	17	18				977	1,020	113	0		
25	36	19	17				620	1,040	89	.2		
26	40	24	16				440	1,030	61	0		
27	40	26	17				383	1,060	51	0		
28	45	30	17				377	877	38	0		
29	60	32	17		-		371	817	28	0		
30	64	32	17		-		383	740	17	0		
31	61	-	17		-		-	642	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	904	64	10	29.2	1,790
November	992	60	14	33.1	1,970
December	678	34	16	21.9	1,340
Calendar year 1941	71,766.4	2,380	0	197	142,300
January	372	-	-	12	738
February	252	-	-	9	500
March	1,240	-	-	40	2,460
April	11,884	1,060	80	396	23,570
May	25,522	1,330	275	823	50,620
June	9,222	760	17	307	18,290
July	201.7	26	0	6.51	400
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1941-42	51,267.7	1,330	0	140	101,700

Note.- No gage-height record Dec. 7 to Apr. 10 (stage-discharge relation affected by ice most of period); discharge computed on basis of discharge measurement on Apr. 10, weather records, and records for Conejos River near La Sauses.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Los Pinos River near Ortiz, Colo.

Location.- Water-stage recorder, lat. 36°58', long. 106°03', in New Mexico, in N½ sec. 34, T. 32 N., R. 8 E., 1 mile south of Colorado-New Mexico State line, 2 miles southwest of Ortiz, and 2½ miles upstream from mouth.

Drainage area.- 167 square miles.

Records available.- October 1933 to September 1942 in reports of Geological Survey. January 1914 to November 1920 and October 1924 to September 1942 in reports of State engineer. (No winter records most years.)

Extremes.- Maximum discharge during year, 2,000 second-feet May 21 (gage height, 4.68 feet), from rating curve extended above 1,610 second-feet; minimum, not determined, occurred during period of no gage-height record.
1914-20, 1924-42: Maximum discharge, 3,160 second-feet May 12, 1941 (gage height, 5.77 feet), from rating curve extended above 1,610 second-feet; minimum daily, 5 second-feet Aug. 11, Sept. 19, 1934.

Remarks.- Records good except those for Aug. 1, 2, 17-24, which are fair, and those for Nov. 20 to Apr. 4, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57	77					70	302	731	144	a30	22
2	47	79					79	315	695	155	a30	28
3	46	*70					94	308	819	141	29	20
4	51	72					110	390	890	111	29	20
5	51	75					123	502	695	100	29	19
6	55	68	(*)				123	569	652	88	28	17
7	46	65					94	766	656	79	28	17
8	53	58					81	964	598	77	26	15
9	50	64					92	1,140	576	79	25	15
10	45	60					108	1,310	551	70	25	14
11	44	58					217	1,390	559	60	25	39
12	42	53					237	1,240	542	55	24	39
13	57	58					266	797	510	48	23	32
14	164	51					400	670	479	45	22	21
15	111	54	12	11	13	28	479	680	421	44	22	18
16	104	53					563	638	410	43	22	16
17	96	54					589	680	400	41	a22	14
18	86	43					456	770	387	43	a21	13
19	86	24					342	902	370	34	a21	15
20	100	20					298	1,120	336	34	a20	15
21	98	38					370	1,330	312	34	a20	14
22	98	32					666	1,360	274	33	a20	14
23	98	35					819	1,200	251	32	a19	14
24	111	35					530	1,180	230	32	a19	13
25	113	31					404	1,220	198	32	18	13
26	113	28					356	1,250	170	32	17	13
27	106	26		(*)			339	1,110	155	32	16	13
28	104	24					342	950	138	32	15	13
29	96	22			-		353	938	123	32	14	12
30	88	20			-		332	819	116	31	14	12
31	88	-			-		-	764	-	30	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,504	164	42	80.8	4,970
November	1,447	79	20	48.2	2,870
December	372	-	-	12	738
Calendar year 1941	75,517	2,410	-	207	149,800
January	341	-	-	11	676
February	364	-	-	13	722
March	868	-	-	28	1,720
April	9,334	819	70	311	18,510
May	27,614	1,390	302	891	54,770
June	13,244	890	116	441	26,270
July	1,843	155	30	59.5	3,660
August	688	30	14	22.2	1,360
September	540	39	12	18.0	1,070
Water year 1941-42	59,159	1,390	-	162	117,300

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for Conejos River near Mogote.
Note.- Stage-discharge relation affected by ice during most of period Nov. 20 to Apr. 4 (no gage-height record Dec. 14 to Apr. 4; discharge computed on basis of two discharge measurements and weather records).
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Culebra Creek at San Luis, Colo.

Location.- Water-stage recorder and 12-foot Parshall flume, lat. 37°11', long. 105°26', in sec. 35, T. 3 N., R. 72 W., Beaubien grant survey, 1 mile southeast of San Luis, and 1½ miles upstream from Rito Seco.

Drainage area.- 220 square miles.

Records available.- January 1910 to December 1911 and October 1933 to September 1942 in reports of Geological Survey. May 1909 to December 1910 and April 1927 to September 1942 in reports of State engineer. 1911-19 (unpublished) in files of State engineer.

Average discharge.- 25 years (1909-19, 1927-42), 66.3 second-feet.

Extremes.- Maximum discharge during year, 595 second-feet May 30 (gage height, 4.84 feet), from rating curve extended above 300 second-feet; minimum daily, 30 second-feet Nov. 23, Feb. 1, 17-19.

1909-19, 1927-42: Maximum discharge, that of May 30, 1942; minimum daily, 5 second-feet Sept. 14-16, 1934.

Remarks.- Records good except those for period June 1 to July 7, which are fair. Diversions above station for irrigation. Flow regulated by Sanchez Reservoir on Ventero Creek (capacity, 103,000 acre-feet).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	33	35	35	30	32	36	71	479	230	286	68
2	36	34	37	35	31	34	37	60	396	150	251	45
3	35	32	36	35	33	36	37	53	428	110	251	43
4	37	42	36	34	34	36	39	50	362	80	259	43
5	36	66	35	34	34	36	39	48	282	68	239	42
6	37	67	35	34	34	36	39	53	280	98	250	42
7	37	68	35	33	35	36	43	58	306	150	218	42
8	36	58	35	33	34	36	44	57	199	227	161	42
9	35	32	35	33	35	37	43	66	271	228	144	42
10	35	34	35	32	34	38	40	68	322	238	166	42
11	35	34	35	32	34	38	40	80	387	210	182	45
12	36	35	35	32	34	38	40	95	414	91	178	45
13	40	36	35	32	33	38	40	98	355	266	147	47
14	52	35	34	32	33	37	41	82	330	316	134	45
15	42	34	35	32	33	36	40	64	305	314	89	45
16	36	32	35	31	32	36	44	66	300	305	67	44
17	35	41	35	31	30	35	55	61	292	309	92	43
18	35	48	34	31	30	35	58	79	272	281	103	42
19	35	33	33	31	30	36	57	78	255	265	112	42
20	34	32	33	31	31	35	51	97	230	276	112	42
21	36	31	34	31	32	35	45	61	210	285	107	40
22	35	33	34	31	32	35	44	67	225	278	106	40
23	35	30	35	31	32	37	86	120	250	299	91	40
24	35	33	33	31	33	38	80	120	270	272	93	40
25	38	33	33	31	33	37	62	186	300	242	107	39
26	33	36	33	31	32	33	57	318	295	218	105	39
27	37	40	33	32	32	38	56	276	282	250	96	38
28	38	40	34	32	33	37	52	202	260	273	93	38
29	38	38	34	32	-	37	50	348	265	272	74	38
30	35	32	35	32	-	37	54	455	260	278	73	38
31	35	-	35	31	-	37	-	469	-	274	75	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,137	52	33	36.7	2,260
Novsmber	1,172	68	30	39.1	2,320
December	1,071	37	33	34.5	2,120
Calsndar year 1941	25,751	351	10	70.6	51,070
Jannary	998	35	31	32.2	1,980
February	913	35	30	32.6	1,810
March	1,122	38	32	36.2	2,230
April	1,449	86	36	48.3	2,870
May	4,006	469	48	129	7,950
June	9,082	479	199	303	18,010
July	7,153	316	66	231	14,190
August	4,461	286	67	144	8,850
September	1,281	68	38	42.7	2,540
Water year 1941-42	33,845	479	30	92.7	67,130

Note.- No gage-height record Jan. 5-12 (discharge computed on basis of storage release from Sanchez Reservoir), and June 13 to July 7 (discharge computed on basis of discharge measurements on June 16, July 7, records for station below San Luis).

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Culebra Creek below San Luis, Colo.

Location.- Water-stage recorder, lat. 37°12', long. 105°26', in sec. 27, T. 3 N., R. 72 W., Beaubien Grant survey, 500 feet downstream from bridge on State Highway 160, 600 feet downstream from Rito Seco, and a quarter of a mile southwest of San Luis.

Drainage area.- 255 square miles.

Records available.- August 1938 to September 1942 (no winter records most years).

Extremes.- Maximum discharge during year, 866 second-feet May 30 (gage height, 4.54 feet), from rating curve extended above 300 second-feet; minimum daily, 37 second-feet Nov. 23, but may have been less during period of ice effect.
1938-42: Maximum discharge, that of May 30, 1942; minimum daily recorded, 18 second-feet Sept. 1, 1940, may have been less during period of no record.

Remarks.- Records good except those for periods of ice effect or no gage-height record, and those May 23 to June 15, which are fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	48	44				45	89	682	284	290	78
2	55	46	51				45	77	560	211	245	58
3	58	49	50				47	67	516	131	248	58
4	61	60	50				48	65	409	104	263	55
5	58	80	48				48	68	364	77	237	53
6	55	80	48				50	73	342	133	245	54
7	54	82					54	72	367	194	216	54
8	57	72	45				58	78	245	219	162	51
9	53	60					55	88	415	222	142	54
10	50	54					55	104	406	242	150	51
11	51	48					55	114	443	237	164	55
12	53	48					55	125	460	211	186	55
13	58	48					55	125	410	272	150	58
14	65	48					57	105	380	329	133	57
15	63	46					55	92	351	339	87	51
16	54	42		41	39	43	61	89	367	326	70	49
17	51	46					70	84	351	336	85	44
18	49	57					77	120	332	296	98	44
19	54	42					74	120	332	284	106	45
20	49	44					64	155	290	296	104	46
21	54	41	44				53	100	248	302	98	44
22	51	44					55	145	272	284	98	45
23	51	37					120	194	311	320	91	46
24	50	44					113	208	311	287	87	45
25	53	42					82	281	358	254	100	45
26	46	48					72	505	354	216	100	45
27	48	50					68	460	345	248	91	44
28	54	50					64	336	299	275	89	41
29	53	53			-		62	509	314	275	72	41
30	50	44			-		72	678	311	275	72	42
31	48	-			-		-	662	-	260	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,666	65	46	53.7	3,300
November	1,555	82	37	51.8	3,080
December	1,395	-	-	45.0	2,770
Calendar year 1941	33,253	470	-	91.1	65,950
January	1,271	-	-	41	2,520
February	1,092	-	-	39	2,170
March	1,333	-	-	43	2,640
April	1,889	120	45	63.0	3,750
May	5,988	678	65	193	11,880
June	11,145	682	245	372	22,110
July	7,739	339	77	250	15,350
August	4,353	290	70	140	8,630
September	1,508	78	41	50.3	2,990
Water year 1941-42	40,934	682	-	112	81,190

Note.- No gage-height record Oct. 14, 15, Nov. 9, Apr. 1-13, May 6-22, June 13, 14, and Nov. 23, 24, Dec. 26 to Mar. 31 (stage-discharge relation affected by ice most of period); discharge computed on basis of discharge measurement on Apr. 10 and records for station at San Luis. Stage-discharge relation affected by ice Dec. 7-25.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Costilla Creek above reservoir, near Costilla, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°54'25", long. 105°15'00", in Sangre de Cristo Grant, 2¾ miles by road upstream from Costilla Dam, and 17 miles southeast of Costilla, Taos County.

Records available.- April 1937 to September 1942 (irrigation season only).

Extremes.- Maximum discharge recorded during year, 174 second-feet May 22, from rating curve extended above 84 second-feet by logarithmic plotting; maximum gage height recorded, 1.56 feet Aug. 2; minimum daily discharge recorded, 3.0 second-feet Aug. 28-30.

1937-42: Maximum discharge recorded, 175 second-feet May 15, 1938 (gage height, 1.90 feet); minimum daily recorded, 2.0 second-feet Aug. 29, 1940.

Remarks.- Records good except those for period of no gage-height record, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.2							-	82	33	6.2	23
2	5.4							-	79	23	17	7.0
3	7.0							-	82	20	8.5	5.4
4	8.5							-	a90	18	6.6	7.5
5	6.6							-	a81	17	5.8	7.0
6	5.8	8.5						-	a70	17	6.2	5.0
7	4.6							-	a64	16	6.6	5.4
8	5.0							-	a58	16	5.4	5.4
9	5.0							-	a54	15	5.0	4.2
10	5.0							-	a50	13	6.2	3.8
11	4.6							-	a57	11	8.0	5.8
12	5.0							-	a60	12	6.2	7.5
13	9.5							-	a62	9.0	7.0	5.8
14	17							-	a65	12	9.0	4.6
15	13							-	a46	11	5.8	4.2
16	9.5							-	a42	9.5	5.4	3.8
17	8.5							-	43	8.5	5.0	3.4
18	7.5							-	42	9.0	5.4	3.4
19	7.5							-	39	10	4.6	3.8
20	7.0							68	35	9.5	4.2	3.8
21	11							89	33	9.0	3.8	3.8
22	11							106	31	7.5	3.8	3.8
23	17							112	29	6.6	3.8	4.2
24	-							108	27	6.2	4.2	3.8
25	-							114	23	6.6	4.2	3.8
26	-							120	20	8.5	3.8	3.8
27	-							118	20	6.6	3.4	3.8
28	-							100	19	6.2	3.0	3.8
29	-							106	18	5.8	3.0	3.8
30	-							95	20	5.8	3.0	3.8
31	-							82	-	5.4	3.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1-23	187.2	17	4.6	8.14	371
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 20-31	1,218	120	68	102	2,420
June	1,441	90	18	48.0	2,860
July	363.7	33	5.4	11.7	721
August	173.9	17	3.0	5.61	345
September	156.2	23	3.4	5.27	314
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of weather records and records for Casias Creek near Costilla.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Costilla Creek below reservoir, near Costilla, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°52'25", long. 105°16'55", in Sangre de Cristo Grant, 125 feet downstream from outlet of reservoir at Costilla Dam and 18 miles southeast of Costilla, Taos County.

Records available.- April 1937 to September 1942 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 286 second-feet May 9, 10 (gage height, 2.65 feet May 9, 10); minimum daily recorded, 0.9 second-foot Oct. 1-7.
1937-42: Maximum discharge recorded, that of May 9, 10, 1942; minimum daily recorded, 0.4 second-foot May 21-25, June 15, 1940.

Remarks.- Records good. No diversion above station. Flow regulated by Costilla Reservoir (capacity, 15,700 acre-feet, revised).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	1.1					-	260	121	124	176	43
2	.9	1.1					-	260	135	124	159	12
3	.9	1.1					-	220	148	64	132	12
4	.9	1.1					-	213	159	30	141	12
5	.9	1.1					-	182	168	43	139	12
6	.9	1.1					-	194	169	139	139	12
7	.9	1.1					-	156	159	159	74	12
8	1.1	1.1					-	170	106	170	28	12
9	1.1	1.1					-	260	95	169	57	12
10	1.1	1.1					-	286	95	145	141	12
11	1.1	1.1					-	286	116	15	141	12
12	1.1	1.1					-	252	136	41	139	9.0
13	1.1	1.1					21	220	148	160	139	6.2
14	1.3	1.1					127	160	152	164	71	7.1
15	1.3	1.1					150	114	166	162	23	18
16	1.3	1.1					150	100	176	162	52	30
17	1.3	1.1					100	100	176	67	126	30
18	1.4	1.1					80	99	176	18	119	30
19	1.4	1.1					87	100	176	48	111	30
20	1.4	-					87	119	176	177	108	30
21	1.4	-					118	119	176	180	55	33
22	1.3	-					115	119	157	176	18	45
23	1.3	-					84	137	148	176	40	39
24	1.4	-					89	170	148	90	100	35
25	1.3	-					63	170	148	29	99	35
26	1.3	-					54	172	139	68	99	30
27	1.3	1.6					41	172	123	182	98	29
28	1.1	-					80	123	123	180	49	29
29	1.1	-					190	110	124	183	15	29
30	1.3	-					235	121	124	197	39	29
31	1.3	-					-	121	-	190	96	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	36.4	1.4	0.9	1.17	72
November 1-19	20.9	1.1	1.1	1.10	41
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 13-30	1,871	235	21	104	3,710
May	5,355	286	99	173	10,620
June	4,360	176	95	145	8,650
July	3,832	197	15	124	7,600
August	2,923	176	15	94.3	5,800
September	686.3	45	6.2	22.9	1,360
Water year	-	-	-	-	-

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Costilla Creek near Costilla, N. Mex.

Location.- Water-stage recorder, lat. 36°58', long. 105°32', in Sangre de Cristo Grant, half a mile upstream from diversion dam and 2 miles south of Costilla, Taos County.

Records available.- March 1936 to September 1942 (irrigation seasons only prior to October 1941).

Extremes.- Maximum discharge during year, 1,150 second-feet May 11 (gage height, 5.37 feet); minimum daily, 10 second-feet Jan. 2, 5-7.
1936-42: Maximum discharge, that of May 11, 1942; minimum daily, that of Jan. 2, 5-7, 1942.

Remarks.- Records fair except those for periods of no gage-height record or ice effect, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	a36	a25	a15	b14	a18	26	413	505	217	197	125
2	22	a36	a24	a10	b14	a17	44	449	489	201	190	61
3	21	a38	a24	a11	b15	a17	86	406	481	169	190	44
4	24	a40	*b25	a11	b15	a17	103	440	497	120	169	39
5	23	38	a24	a10	b16	a17	110	510	559	98	169	41
6	21	37	a24	a10	b16	a17	152	536	465	162	167	36
7	18	*35	a23	a10	a17	a15	49	a660	437	188	172	38
8	19	28	a23	*12	a17	a15	58	788	380	195	75	36
9	18	35	a22	b13	a17	a17	53	865	352	197	70	32
10	18	34	a22	b14	a17	a17	75	951	333	192	179	28
11	18	32	a22	14	a18	a17	128	1,000	342	97	170	35
12	18	29	a22	13	a16	a17	143	919	349	66	169	49
13	24	36	a21	13	*b18	a17	123	695	346	140	169	35
14	a31	31	a20	13	a18	a17	321	554	339	165	149	26
15	a28	30	a19	13	a18	a16	546	501	330	165	66	22
16	a28	30	a18	13	a15	a16	441	445	323	159	59	43
17	a28	30	a18	13	a18	eb15	370	421	311	127	138	45
18	a28	32	a18	13	a17	b16	290	395	305	58	143	44
19	a30	20	a18	a13	a16	16	224	370	299	59	138	44
20	a28	b22	a18	a12	a18	14	213	410	285	142	132	44
21	a34	a24	a18	a12	a19	11	246	437	279	183	120	44
22	a32	a24	a18	a14	a20	13	366	485	266	184	50	54
23	a35	a24	a15	a13	a19	18	595	582	246	183	44	57
24	a36	a24	a18	a13	a16	b16	314	586	241	160	109	49
25	a38	a27	a16	a13	a17	b17	232	630	235	77	123	48
26	a39	a28	a14	a13	a16	b17	205	640	226	69	123	46
27	a36	a26	a17	a13	a17	b17	201	734	205	167	120	41
28	a40	a26	a16	b14	a17	18	226	728	203	192	100	41
29	a40	a26	a16	b14	-	19	356	675	199	192	40	42
30	a39	a25	a16	b13	-	*21	395	600	201	205	34	42
31	a38	-	a15	b13	-	24	-	582	-	a200	98	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-fsst
October	876	40	18	28.3	1,740
November	903	40	20	30.1	1,790
December	609	25	14	19.6	1,210
Calendar year 1941	-	-	-	-	-
January	391	15	10	12.6	776
February	473	20	14	16.9	938
March	519	24	11	16.7	1,030
April	6,691	595	26	223	13,270
May	18,407	1,000	370	594	36,510
June	10,028	559	199	334	19,890
July	4,729	217	58	153	9,380
August	3,872	197	34	125	7,680
Septsmber	1,331	125	22	44.4	2,640
Water year 1941-42	48,829	1,000	10	134	96,850

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for Rio Hondo at Arroyo Hondo and Latir Creek near Cerro.
b Stage-discharge relation affected by ice.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Casias Creek near Costilla, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°54'05", long. 105°15'30", in Sangre de Cristo Grant, 200 feet downstream from road crossing, 2.5 miles by road upstream from Costilla Dam, and 17 miles southeast of Costilla, Taos County.

Records available.- April 1937 to September 1942 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 120 second-feet June 3, 14 (gage height, 1.56 feet); minimum daily recorded, 6.2 second-feet Sept. 29, 30.
1937-42: Maximum discharge recorded, that of June 3, 14, 1942; maximum gage height, 1.90 feet June 14, 1938 (backwater from Costilla Reservoir); minimum daily discharge recorded, 3.0 second-feet Aug. 14, 1939.

Remarks.- Records good except those for periods of ice effect, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13						-	b25	92	64	19	26
2	12						-	34	96	55	28	13
3	14						-	b36	103	52	22	10
4	15						-	b45	109	49	19	13
5	13						-	48	101	47	17	14
6	11						-	52	91	45	19	9.5
7	11						-	b56	87	44	18	10
8	10						-	b58	81	46	17	9.5
9	10						-	b60	79	44	16	9.1
10	10						-	b62	76	43	17	8.6
11	10						-	b64	87	41	17	11
12	11						-	b63	92	39	16	13
13	17						-	63	94	38	15	9.5
14	22						-	62	98	39	17	9.1
15	16						-	58	82	37	15	9.5
16	14						-	58	78	35	15	7.6
17	13						-	57	78	33	15	7.6
18	13						-	56	82	34	14	7.6
19	13						-	55	83	35	14	8.1
20	13						-	59	78	33	13	7.6
21	17						-	65	72	32	12	7.6
22	16						-	74	68	29	11	7.1
23	23						-	83	67	27	11	7.1
24	17						-	*82	65	25	12	7.1
25	-						-	66	63	24	10	6.7
26	-						-	94	63	26	10	6.7
27	-						-	98	62	24	9.5	7.6
28	-						-	95	58	22	9.5	6.7
29	-						b15	94	55	21	9.1	6.2
30	-						14	92	55	20	9.1	6.2
31	-						-	90	-	20	9.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October 1-24	334	23	10	13.9	662
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	2,024	98	25	65.3	4,010
June	2,395	109	55	79.8	4,750
July	1,123	64	20	36.2	2,230
August	455.7	28	9.1	14.7	903
September	282.3	26	6.2	9.41	560
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Santistevan Creek near Costilla, N. Mex.

Location.- Water-stage recorder and metal Parshall flume, lat. 36°53'05", long. 105°16'50", in Sangre de Cristo Grant, 200 feet upstream from road crossing, 0.9 mile upstream from Costilla Dam, and 16 miles southeast of Costilla, Taos County.

Records available.- April 1937 to September 1942 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 16 second-feet June 3 (gage height, 1.70 feet); minimum daily recorded, 1.1 second-feet, Apr. 25, Sept. 25.
1937-42: Maximum discharge recorded, 18 second-feet Aug. 11, 1941 (gage height, 1.73 feet); minimum daily recorded, 0.5 second-foot Oct. 23, 1938.

Remarks.- Records fair. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	a1.9					-	2.0	13	10	3.3	2.7
2	1.8	a1.9					-	1.9	12	8.9	3.7	2.0
3	1.9	1.9					-	2.0	13	8.5	3.6	1.9
4	1.9	1.8					-	2.7	13	7.8	3.2	1.9
5	1.8	a1.8					-	3.1	13	7.2	2.9	1.9
6	1.6	1.9					-	3.8	12	6.8	3.1	1.6
7	1.7	-					-	4.4	12	6.6	2.9	1.6
8	1.6	-					-	5.0	12	6.6	2.7	1.6
9	1.6	-					-	5.6	12	6.7	2.6	1.6
10	1.6	-					-	5.7	12	6.3	2.8	1.5
11	1.5	-					-	6.0	13	6.0	2.7	1.8
12	1.6	-					-	5.8	13	5.8	2.3	1.7
13	1.9	-					-	5.9	13	5.6	2.2	1.6
14	2.1	-					-	5.9	14	5.7	2.2	1.5
15	1.9	-					-	5.4	13	5.6	2.1	1.5
16	1.9	-					-	5.6	13	5.3	2.0	1.4
17	1.8	-					-	5.2	13	5.1	2.1	1.4
18	1.7	-					-	5.2	13	5.1	2.3	1.4
19	1.8	-					-	4.9	13	5.0	2.3	1.3
20	1.7	-					-	6.0	14	5.1	2.2	1.2
21	1.9	-					-	6.1	14	4.9	2.1	1.2
22	1.9	-					1.5	6.8	14	4.6	2.1	1.2
23	2.2	-					1.5	7.9	13	4.4	2.1	1.2
24	1.9	-					1.2	9.0	13	4.3	2.1	1.2
25	1.9	-					1.1	10	13	a4.1	2.0	1.1
26	1.9	-					b1.2	11	12	a4.5	1.9	1.2
27	1.9	-					1.4	13	11	a4.0	1.9	1.2
28	1.9	-					1.7	13	11	3.4	1.8	1.2
29	a1.9	-					1.9	14	10	3.4	1.6	1.2
30	a1.9	-					1.6	13	9.9	3.4	1.6	1.2
31	a1.9	-					-	13	-	3.4	1.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	56.3	2.2	1.5	1.82	112
November 1-6	11.2	1.9	1.8	1.87	22
December	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 22-30	13.1	1.9	1.1	1.46	26
May	208.9	14	1.9	6.74	414
June	376.9	14	9.9	12.3	748
July	174.1	10	3.4	5.62	345
August	74.2	3.7	1.6	2.39	147
September	45.0	2.7	1.1	1.50	89
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of weather records and records for Costilla Creek near Costilla and Casias Creek near Costilla.
b Stage-discharge relation affected by ice.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Latir Creek near Cerro, N. Mex.

Location.- Water-stage recorder and concrete Parshall flume, lat. 36°49'45", long. 105°32'45", in SW¼ sec. 15, T. 30 N., R. 13 E., at mouth of canyon, 100 feet upstream from heading of Cerro community ditch, 6 miles northeast of Cerro.

Records available.- April 1937 to September 1942 (irrigation seasons only).

Extremes.- Maximum discharge recorded during year, 121 second-feet June 3 (gage height, 2.70 feet), from rating curve extended above 56 second-feet by logarithmic plotting; minimum daily recorded, 3.4 second-feet Nov. 20, 21.
1937-42: Maximum discharge recorded, that of June 3, 1942; minimum daily recorded, 0.6 second-foot May 9, 1937.

Remarks.- Records fair. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.5	6.8	4.1				-	8.7	66	34	11	12
2	9.2	7.0	4.0				-	8.2	65	31	10	7.3
3	7.7	7.3	4.0				-	7.7	73	30	9.7	6.4
4	7.3	7.5	4.1				-	9.2	75	28	8.7	6.4
5	8.0	7.3	4.1				-	12	65	28	8.0	6.4
6	7.0	6.6	4.0				-	15	63	26	8.0	5.7
7	6.4	5.7	4.0				-	19	61	25	8.0	5.5
8	6.4	5.1	4.0				-	22	62	24	7.7	5.1
9	6.1	5.9	3.8				-	28	63	23	7.5	4.9
10	5.9	5.7	3.8				-	31	62	22	7.5	4.7
11	5.7	5.5	3.8				-	27	65	20	7.5	7.3
12	5.9	5.3	3.8				-	25	71	18	7.7	10
13	8.7	5.5	3.8	3.7	3.2		-	22	72	17	7.3	6.8
14	11	5.3	-				-	20	72	17	7.7	5.9
15	9.5	5.5	-				-	19	69	16	7.0	5.7
16	9.2	5.5	-				15	a19	69	16	6.6	5.5
17	9.2	5.3	-			3.0	13	a19	70	15	6.6	5.5
18	9.0	4.1	-				9.7	a20	72	14	6.4	5.3
19	9.0	4.1	-				8.2	a24	72	14	6.4	5.3
20	8.2	3.4	-				7.3	29	69	14	6.4	5.3
21	9.5	3.4	-				7.0	29	63	13	6.1	5.3
22	8.7	3.6	-				11	36	59	12	5.9	5.3
23	9.5	3.6	-				17	35	60	12	5.9	5.1
24	9.0	4.0	-				12	36	57	12	6.1	5.1
25	9.0	4.3	-				9.7	41	52	12	5.9	5.1
26	9.0	4.5	-				8.7	52	47	11	5.7	5.1
27	8.0	4.3	-				8.2	68	43	11	5.5	5.1
28	8.0	4.3	-				8.4	67	40	11	5.3	5.1
29	8.0	4.1	-				8.7	68	36	11	5.3	4.9
30	7.5	4.1	-				9.7	65	35	10	5.5	4.7
31	7.3	-	-				-	63	-	10	5.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	251.4	11	5.7	8.11	499
November	154.6	7.5	3.4	5.15	307
December 1-13	51.3	4.1	3.8	3.95	102
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 16-30	153.6	17	7.0	10.2	305
May	944.8	68	7.7	30.5	1,870
June	1,848	75	35	61.6	3,670
July	557	34	10	18.0	1,100
August	218.8	11	5.3	7.06	434
September	177.6	12	4.7	5.92	352
Water year	-	-	-	-	-

a No gage-height record; discharge computed on basis of records for Rio Hondo at Arroyo Hondo.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

556253 O - 43 - 15

Rio Colorado near Red River, N. Mex.

Location.- Water-stage recorder, lat. 36°37'20", long. 105°23'30", in NE¼ sec. 36, T. 28 N., R. 14 E., 100 feet downstream from confluence of Middle and East Forks and 6 miles south of town of Red River.

Records available.- July 1940 to September 1942 (no winter records).

Extremes.- Maximum discharge recorded during year, 193 second-feet June 3 (gage height, 2.77 feet); minimum daily, 7 second-feet Jan. 5 and 6.

1940-42: Maximum discharge recorded, 218 second-feet June 19, 1941 (gage height, 2.92 feet), from rating curve extended above 160 second-feet by logarithmic plotting; minimum daily, 5 second-feet Dec. 16, 1940.

Remarks.- Records good except those for periods of doubtful gage-height record, which are fair, and those for periods of no gage-height record or ice effect, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	18	a13	a9				-	141	72	23	22
2	19	18	a13	b8				-	141	66	25	17
3	20	17	a12	b8				-	153	61	25	15
4	20	17	12	a8				-	176	60	22	14
5	21	17	b11	b7				-	150	56	21	14
6	18	17	b11	b7				-	134	54	22	13
7	18	16	a12	10				-	134	53	22	12
8	18	15	a12	9.7				-	126	54	19	12
9	17	16	12	9.0				-	141	51	18	11
10	17	16	a12	8.6				-	139	41	18	11
11	16	*15	a12	8.4				-	148	d40	20	19
12	17	15	11	8.4				-	150	d38	19	32
13	19	15	a11	9.3				-	150	d38	18	21
14	22	15	a11	10				-	150	d40	17	18
15	19	15	b11	-				-	139	d38	17	16
16	19	15	b11	-				-	134	d37	17	15
17	19	15	a11	-				-	134	d37	16	14
18	18	14	b11	-				-	143	37	15	14
19	18	13	b11	-				56	146	37	15	13
20	18	b11	b11	-				60	130	35	15	13
21	19	b11	a11	-				72	130	37	14	12
22	18	a13	a10	-				83	117	33	14	11
23	19	b12	b11	-				97	115	31	13	11
24	19	b10	a10	-				109	113	29	13	11
25	19	a13	b10	-				125	103	29	13	10
26	19	a13	b11	-				148	94	28	13	10
27	18	a13	a10	-				160	83	26	12	10
28	19	a13	a11	-				146	77	25	12	10
29	18	a13	a10	-				143	73	25	11	9.7
30	19	a13	a10	-				141	72	24	11	9.7
31	18	-	a10	-				139	-	23	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	579	22	16	18.7	1,150
November	434	18	10	14.5	861
December	345	13	10	11.1	684
Calendar year	-	-	-	-	-
January 1-14	120.4	10	7	8.6	239
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 19-31	1,479	160	56	114	2,930
June	3,846	176	72	128	7,630
July	1,255	72	23	40.5	2,490
August	522	25	11	16.8	1,040
September	420.4	32	9.7	14.0	834
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station near Questa and Rio Hondo at Arroyo Hondo.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge computed on basis of records for station near Questa.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Colorado near Questa, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°42', long. 105°33', in sec. 33, T. 29 N., R. 13 E., 1¾ miles upstream from Cabresto Creek and 2 miles east of Questa. Datum of gage is 7,449.88 feet above mean sea level.

Drainage area.- 112 square miles.

Records available.- October 1912 to August 1915 (fragmentary) and October 1930 to September 1942 in reports of Geological Survey. October 1912 to December 1931 in reports of State engineer.

Average discharge.- 26 years (1915-25, 1926-42), 67.7 second-feet.

Extremes.- Maximum discharge during year, 886 second-feet May 25 (gage height, 2.32 feet), from rating curve extended above 450 second-feet by logarithmic plotting; minimum daily recorded, 18 second-feet Mar. 21.

1930-42: Maximum discharge, that of May 25, 1942; maximum gage height, 3.14 feet, datum then in use, June 14, 1935; minimum daily discharge, 6.3 second-feet Nov. 24, 25, 1931.

Remarks.- Records fair except those for period of no gage-height record, which are poor. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	46	38				28	150	529	172	70	55
2	41	44	38				30	176	508	160	71	49
3	40	44	37				42	156	529	153	75	46
4	42	44	*37				56	180	598	153	73	45
5	41	46	34				60	255	529	150	65	44
6	40	48	33				48	227	452	150	65	42
7	37	47	34				44	265	404	150	65	42
8	37	43	34				40	328	380	150	60	40
9	37	43	34				41	334	417	136	57	41
10	37	41	35			*24	45	473	386	132	56	40
11	37	41	35				55	529	368	125	57	46
12	37	40	33				63	508	404	116	57	73
13	41	41	33	*28			60	417	398	110	56	57
14	53	40	33				86	339	410	104	54	49
15	53	40	33				146	285	374	107	54	45
16	50	40	33				146	265	356	98	53	43
17	48	40	32				132	270	350	98	52	40
18	46	41	32		*28		125	290	362	91	50	40
19	47	38	32			*26	104	275	362	88	49	40
20	44	31	32			22	93	312	350	84	48	38
21	45	31	33			18	104	386	334	88	47	37
22	46	36				19	150	473	306	84	46	37
23	48	33				24	260	522	290	82	44	36
24	49	29				27	240	630	280	80	44	36
25	49	36				27	184	720	240	77	44	36
26	48	37	30			25	156	750	209	71	44	35
27	46	37				19	153	720	192	70	43	35
28	47	37				19	156	630	184	70	43	34
29	47	37				24	172	614	180	68	43	33
30	48	37				25	160	590	176	70	42	33
31	48	-				28	-	558	-	67	42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,372	53	37	44.3	2,720
November	1,188	48	29	39.6	2,360
December	1,015	38	-	32.7	2,010
Calendar year 1941	38,364	556	12	105	76,080
January	806	-	-	26	1,600
February	700	-	-	25	1,390
March	735	28	-	23.7	1,460
April	3,179	260	28	106	6,310
May	12,627	750	150	407	25,050
June	10,857	598	176	362	21,530
July	3,354	172	67	108	6,650
August	1,669	75	42	53.8	3,310
Septsmber	1,267	73	33	42.2	2,510
Water year 1941-42	38,769	750	-	106	76,900

* Winter discharge measurement made on this day.

Note.- No gage-height record Dec. 22 to Mar. 20; discharge computed on basis of four discharge measurements, weather records, and records for Rio Hondo at Arroyo Hondo. Records Mar. 21 to Apr. 6 computed on basis of gage readings obtained thrice daily. Discharge Apr. 7 interpolated.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Hondo near Valdez, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°32'20", long. 105°33'30", in S½ sec. 28, T. 27 N., R. 13 E., a quarter of a mile upstream from Forest Service gate, 1½ miles east of Valdez, and 9 miles upstream from mouth.

Records available.- August 1934 to September 1942. October 1930 to September 1934 at site half a mile downstream, below two diversions.

Extremes.- Maximum discharge during year, 346 second-feet May 29 (gage height, 2.15 feet); minimum daily, 12 second-feet Feb. 16, Mar. 8.

1934-42: Maximum discharge, 541 second-feet May 13, 1941, from rating curve extended above 300 second-feet by logarithmic plotting; maximum gage height, 5.59 feet, datum then in use, Dec. 15, 1936 (ice jam); minimum daily discharge, 3.0 second-feet Jan. 21, 1935.

Remarks.- Records fair except those for periods of doubtful or no gage-height record and periods of ice effect, which are poor. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	48	28	20	19	15	19	95	292	130	46	33
2	35	48	28	b15	19	15	25	95	272	126	44	27
3	35	47	*28	b16	19	16	25	90	289	122	41	26
4	37	47	27	16	19	16	30	90	310	115	39	26
5	37	46	b26	14	19	16	35	114	275	115	38	26
6	39	45	b22	15	18	*15	40	122	279	110	37	27
7	38	42	b24	b17	19	13	35	139	299	107	37	27
8	36	39	26	b25	19	12	35	160	310	108	34	25
9	37	40	26	b24	18	16	35	195	275	100	35	22
10	37	39	25	b23	18	16	35	250	266	94	35	22
11	36	37	25	b22	17	16	55	282	289	89	35	29
12	37	36	24	22	17	16	60	282	296	85	36	35
13	41	35	24	23	16	17	60	231	303	82	35	27
14	49	35	23	*23	16	17	*68	198	289	81	33	26
15	48	34	23	b22	16	17	85	178	269	78	31	25
16	47	34	23	b22	12	17	95	169	269	75	30	24
17	47	34	23	22	15	15	110	174	269	76	30	24
18	46	34	23	b21	14	18	140	167	272	72	30	23
19	46	33	b23	b21	13	*19	110	169	269	71	30	23
20	46	b29	22	b19	16	17	80	180	256	68	29	25
21	47	b30	22	b19	18	15	75	211	246	65	29	25
22	47	34	21	d20	20	17	60	240	228	63	28	25
23	48	b31	b20	d22	17	17	190	292	220	61	29	25
24	49	b27	b22	d21	14	17	160	306	208	60	29	25
25	50	30	20	d20	15	17	140	303	190	57	28	24
26	50	29	b18	d19	13	15	110	335	176	55	28	24
27	49	28	b21	d20	14	13	95	331	162	52	28	24
28	49	28	b19	21	15	14	90	317	154	50	28	23
29	50	28	20	21	-	*15	95	338	143	49	27	23
30	50	28	20	20	-	17	100	313	135	46	27	22
31	48	-	20	19	-	17	-	306	-	44	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,349	50	35	43.5	2,680
November	1,075	48	27	35.8	2,130
December	716	28	18	23.1	1,420
Calendar year 1941	26,168	416	10	71.7	51,910
January	624	25	14	20.1	1,240
February	465	20	12	16.6	922
March	493	19	12	15.9	978
April	2,312	190	19	77.1	4,590
May	6,672	338	90	215	13,230
June	7,510	310	135	250	14,900
July	2,507	130	44	80.9	4,970
August	1,013	46	27	32.7	2,010
September	762	35	22	25.4	1,510
Water year 1941-42	25,498	338	12	69.9	50,580

* Winter discharge measurement made on this day.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed on basis of weather records and records for station at Arroyo Hondo.

Note.- No gage-height record Jan. 4-6, Jan. 28 to May 4; discharge computed on basis of four discharge measurements, weather records, and records for station at Arroyo Hondo.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Hondo at Arroyo Hondo, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 36°31'55", long. 105°41'05", in sec. 32, T. 27 N., R. 12 E., 1 mile downstream from Arroyo Hondo and 1¼ miles upstream from mouth.

Records available.- April 1910 to August 1915 (at site 200 yards above mouth, published as Rio Hondo near Arroyo Hondo) and January 1932 to September 1942 in reports of Geological Survey. April 1910 to December 1928 in reports of State engineer.

Extremes.- Maximum discharge during year, 364 second-feet June 4 (gage height, 2.74 feet), from rating curve extended above 260 second-feet by logarithmic plotting; minimum daily, 10 second-feet Aug. 27-30, Sept. 10.

1932-42: Maximum discharge, 2,510 second-feet Aug. 23, 1935 (gage height, 5.45 feet, datum then in use), from rating curve extended above 170 second-feet by logarithmic plotting; minimum daily, 4.0 second-feet July 13-16, 1934.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	50	38	28	22	20	23	94	253	98	17	15
2	32	48	37	b21	22	20	28	92	226	94	15	12
3	36	47	*38	22	22	21	34	88	246	86	15	11
4	41	48	38	b22	22	21	37	92	325	83	14	12
5	38	50	37	b19	22	20	39	109	278	81	14	12
6	41	48	35	a20	22	*20	44	126	253	74	13	12
7	38	48	36	*21	22	18	42	152	246	71	14	12
8	36	43	35	29	22	17	38	182	246	71	14	12
9	35	44	36	28	21	20	38	197	253	62	14	11
10	34	43	36	b25	21	20	42	253	242	55	14	10
11	32	40	36	24	21	20	58	294	239	48	15	14
12	32	39	36	24	21	20	66	317	226	43	34	14
13	40	39	35	24	21	20	68	249	222	40	32	12
14	51	38	34	25	21	19	76	203	216	38	30	11
15	48	38	32	24	20	20	96	188	212	34	28	11
16	46	38	32	24	16	20	99	182	206	28	27	11
17	44	38	32	24	*20	18	111	182	203	26	25	11
18	43	44	32	24	b19	20	138	176	197	24	20	11
19	44	38	31	24	b18	21	111	166	194	24	16	13
20	42	34	31	22	b21	20	85	176	188	23	15	17
21	47	36	31	21	23	18	78	188	174	20	13	18
22	44	38	31	22	24	20	98	206	163	20	11	18
23	46	36	28	25	22	20	194	232	160	18	11	18
24	50	37	32	24	18	20	157	274	145	18	11	17
25	53	41	29	23	20	20	135	321	135	18	11	17
26	55	41	b27	22	b18	19	111	313	128	17	11	16
27	52	40	31	23	19	17	94	301	122	16	10	11
28	59	39	b29	24	20	18	90	286	109	16	10	11
29	59	39	b30	24	-	19	92	286	103	15	10	11
30	55	38	29	23	-	20	101	267	101	15	10	11
31	53	-	28	22	-	21	-	264	-	14	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,358	59	32	43.8	2,690
November	1,240	50	34	41.3	2,460
December	1,022	38	27	33.0	2,030
Calendar year 1941	22,943.8	423	6.9	62.6	45,290
January	727	29	19	23.5	1,440
February	580	24	16	20.7	1,150
March	607	21	17	19.6	1,200
April	2,423	194	23	80.8	4,810
May	6,456	321	88	208	12,810
June	6,011	325	101	200	11,920
July	1,290	98	14	41.6	2,560
August	505	34	10	16.3	1,000
September	392	18	10	13.1	778
Water year 1941-42	22,611	325	10	61.9	44,850

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for station near Valdez.
b Stage-discharge relation affected by ice.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Taos at Los Cordovas, N. Mex.

Location.- Water-stage recorder, lat. 36°23', long. 105°39', in N½ sec. 23, T. 25 N., R. 12 E., in Martinez Grant, 50 feet downstream from Rio Ranchos de Taos and Arroyo Seco, half a mile northeast of Los Cordovas, and 4 miles west of Taos.

Drainage area.- 359 miles.

Records available.- April 1910 to August 1915 and October 1930 to September 1942 in reports of Geological Survey. April 1910 to December 1931 in reports of State engineer.

Average discharge.- 31 years (1910-25, 1926-42), 66.0 second-feet.

Extremes.- Maximum discharge during year, 1,710 second-feet May 11 (gage height, 5.69 feet), from rating curve extended above 1,250 second-feet by logarithmic plotting; minimum daily, 13 second-feet July 31.

1930-42: Maximum discharge, 1,830 second-feet May 14, 1941 (gage height, 5.81 feet), from rating curve extended above 1,250 second-feet by logarithmic plotting; minimum daily, 1.4 second-feet Aug. 5, 10, 1934.

Remarks.- Records good except those for periods of no gage-height record or ice effect, which are poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	95	74	b51	56	a55	72	658	902	98	22	62
2	41	92	72	b40	60	a55	86	635	850	90	23	47
3	44	90	*71	b45	60	a60	114	570	875	80	24	41
4	58	88	72	a42	61	a60	132	570	1,010	78	23	44
5	51	87	60	a40	64	*63	165	725	930	73	22	43
6	47	86	55	*a42	*59	56	215	825	800	70	20	40
7	46	82	59	a45	67	50	171	930	725	62	19	39
8	46	75	61	a60	61	52	143	1,070	702	59	18	38
9	47	81	61	a58	56	59	137	1,250	680	57	17	35
10	47	75	63	a55	52	60	159	1,490	635	55	16	33
11	47	74	67	a53	56	58	222	1,600	590	50	24	48
12	46	71	65	a53	52	67	345	1,520	570	47	36	72
13	54	75	61	54	52	65	319	1,350	530	42	40	52
14	72	71	59	55	52	59	364	1,100	530	39	43	46
15	63	67	58	56	54	65	506	958	482	39	39	46
16	58	65	56	56	b40	64	550	902	424	33	35	46
17	56	64	59	54	b45	59	680	902	380	30	34	41
18	55	96	55	54	b40	55	800	850	358	29	33	40
19	55	87	55	52	a35	60	612	800	330	27	33	39
20	51	56	54	51	a40	54	530	825	307	25	31	36
21	51	54	58	51	a45	49	506	902	285	24	28	37
22	56	68	56	54	a50	52	590	1,040	262	23	29	35
23	63	52	49	54	a55	56	1,070	1,130	243	22	29	34
24	65	50	52	56	a45	63	1,040	1,220	210	21	28	32
25	71	59	50	58	a50	63	775	1,250	182	19	29	31
26	72	70	46	60	a45	60	658	1,350	149	18	27	32
27	71	78	51	59	a50	55	635	1,350	126	17	25	32
28	111	77	51	60	a55	58	635	1,220	123	16	23	35
29	171	78	56	60	-	59	635	1,130	108	15	22	36
30	107	75	56	58	-	63	702	1,070	98	14	21	35
31	106	-	56	55	-	65	-	985	-	13	22	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,973	171	41	63.6	3,910
November	2,238	95	50	74.6	4,440
December	1,818	74	46	58.6	3,610
Calendar year 1941	61,119	1,710	19	167	121,200
January	1,641	60	40	52.9	3,250
February	1,457	67	35	52.0	2,890
March	1,819	67	49	58.7	3,610
April	13,568	1,070	72	452	26,910
May	32,177	1,600	570	1,038	63,820
June	14,396	1,010	98	480	28,550
July	1,285	98	13	41.5	2,550
August	835	43	16	26.9	1,660
September	1,227	62	31	40.9	2,430
Water year 1941-42	74,434	1,600	13	204	147,600

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of one discharge measurement, weather records, and records for Rio Hondo at Arroyo Hondo.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time subtract 1 hour.

Embudo Creek at Dixon, N. Mex.

Location.- Water-stage recorder, lat. 36°12'35", long. 105°54'35", in SW¼ sec. 20, T. 23 N., R. 10 E., at bridge on U. S. Highway 64, 0.5 mile upstream from mouth, three-quarters of a mile east of Embudo and 1¾ miles northwest of Dixon.

Drainage area.- 305 square miles.

Records available.- October 1930 to September 1942 in reports of Geological Survey. October 1923 to December 1931 in reports of State engineer.

Average discharge.- 19 years (1923-42), 97.3 second-feet.

Extremes.- Maximum discharge during year, 1,400 second-feet May 12 (gage height, 6.24 feet), from rating curve extended above 1,060 second-feet by logarithmic plotting; minimum daily, 10 second-feet, July 29-31.

1930-42: Maximum gage height, 6.95 feet, site and datum then in use, July 8, 1936 (discharge not determined); minimum daily discharge, 1 second-foot July 23, 24, 1932.

Remarks.- Records fair except those for periods of fragmentary or no gage-height record or ice effect, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	123	136	72	b45	46	35	120	552	S71	a170	11	112
2	110	138	*69	b38	*51	34	165	571	S36	a160	16	101
3	112	132	67	b35	50	36	219	515	S36	a140	53	73
4	138	129	72	b30	47	*41	259	485	938	a130	52	113
5	115	126	46	b25	51	35	313	623	S29	123	48	123
6	108	120	44	b20	40	41	308	717	745	108	55	99
7	100	118	56	b18	54	35	239	S08	696	97	46	76
8	95	100	57	16	50	a38	198	S57	656	S4	42	65
9	91	108	57	20	39	40	198	892	636	84	35	58
10	84	98	69	30	38	51	227	922	590	76	30	55
11	82	95	72	44	46	53	287	1,080	578	69	30	78
12	80	91	59	46	36	53	517	1,300	552	64	30	162
13	98	98	57	42	41	60	456	1,180	552	52	25	116
14	126	93	46	42	41	60	490	1,000	564	44	24	101
15	110	89	49	a44	a45	54	598	908	558	36	23	93
16	98	89	49	a46	46	50	616	885	a540	35	35	84
17	93	87	54	*47	35	43	806	900	a490	38	53	75
18	87	115	49	41	b33	43	960	885	a450	34	52	67
19	84	93	44	42	b30	62	773	836	a430	31	35	65
20	82	51	44	43	b35	51	656	864	a380	28	22	62
21	84	59	53	41	b40	40	604	922	a360	24	19	60
22	93	93	50	49	44	51	717	1,010	a390	22	17	55
23	110	71	35	47	39	72	1,130	1,060	a310	19	18	53
24	129	66	47	42	36	91	850	1,060	a290	17	17	52
25	156	69	50	44	39	82	656	1,090	a260	14	16	52
26	156	80	44	49	39	62	571	1,080	a230	14	17	52
27	144	84	49	42	38	56	539	1,120	a210	12	18	50
28	197	80	54	47	41	60	533	1,060	a200	11	17	50
29	184	82	62	50	-	66	545	1,010	a180	10	19	48
30	153	72	57	46	-	76	597	982	a170	10	20	46
31	162	-	50	36	-	93	-	922	-	10	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,584	197	80	116	7,110
November	2,864	138	51	95.5	5,680
December	1,683	72	35	54.3	3,340
Calendar year 1941	89,919	2,590	14	246	178,400
January	1,207	50	16	38.9	2,390
February	1,170	54	30	41.8	2,320
March	1,664	93	34	53.7	3,300
April	15,147	1,130	120	505	30,040
May	28,096	1,300	485	906	55,730
June	15,327	938	170	511	30,400
July	1,766	170	10	57.0	3,500
August	915	55	11	29.5	1,810
September	2,296	162	46	76.5	4,550
Water year 1941-42	75,719	1,300	10	207	150,200

Peak discharge.- Oct. 28 (8 p.m.) 616 sec.-ft.; May 12 (1 a.m.) 1,400 sec.-ft.; July 1 (3 p.m.) 938 sec.-ft.; Aug. 3 (7 p.m.) 370 sec.-ft.; Sept. 4 (12 p.m.) 257 sec.-ft.; Sept. 6 (6 p.m.) 257 sec.-ft.

* Winter discharge measurement made on this day.

a Fragmentary or no gage-height record; discharge computed on basis of weather records and records for station on Rio Santa Cruz at Cundiyo.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Chama at Park View, N. Mex.

Location.- Water-stage recorder, lat. 36°44'15", long. 106°34'40", in Tierra Amarilla Grant, at bridge on State Highway 51, just below present mouth (shifts position) of Rio Brazos, half a mile northwest of Park View, Rio Arriba County. Prior to November 21, 1941 at site 150 feet upstream at different datum.

Drainage area.- 405 square miles.

Records available.- November 1912 to September 1916 and October 1930 to September 1942 in reports of Geological Survey. November 1912 to September 1916 and August 1924 to December 1931 in reports of State engineer. Records include flow of Rio Brazos.

Average discharge.- 19 years (1913-15, 1925-42), 404 second-feet.

Extremes.- Maximum discharge during year, 5,070 second-feet June 3, from rating curve extended above 2,000 second-feet by logarithmic plotting; maximum gage height, 5.97 feet May 21; minimum daily discharge, 31 second-feet Sept. 30.

1930-42: Maximum discharge, 8,530 second-feet Apr. 16, 1937; maximum gage height, 8.12 feet, site and datum then in use, May 26, 1941; minimum daily discharge, 3 second-feet July 6, 7, 1934.

Remarks.- Records good except those for periods of doubtful or no gage-height record or ice effect, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	238	376	150	b90	a85	b75	268	906	2,400	330	56	37
2	190	355	140	b90	a85	b80	406	1,050	2,250	322	56	43
3	222	334	140	b85	a90	b85	640	888	2,790	339	60	42
4	290	327	140	b85	a85	*b85	892	1,020	3,100	278	63	53
5	272	320	105	b75	a85	b85	1,420	1,320	2,250	243	56	48
6	302	308	118	*b80	*b85	b90	1,280	1,490	1,970	215	52	41
7	232	266	122	b90	b85	d85	924	1,900	1,900	194	50	39
8	249	244	120	a100	b85	d80	844	2,320	1,780	184	49	38
9	232	249	118	a95	b80	d85	1,080	2,640	1,590	194	47	36
10	195	238	118	a90	b75	d95	1,320	3,200	1,460	174	48	34
11	180	232	130	a90	b80	d100	1,650	3,290	1,430	153	52	166
12	175	216	105	a95	b85	d95	2,070	3,100	1,350	138	50	125
13	302	238	132	a95	a85	d95	1,660	2,180	1,240	123	48	72
14	996	222	115	a95	a80	d95	1,930	1,900	1,190	114	44	57
15	586	227	108	a90	a80	d90	2,140	1,970	1,040	112	42	52
16	510	227	103	*b95	a75	87	2,140	1,840	996	106	41	49
17	470	232	108	b100	a75	85	2,590	2,110	969	104	44	45
18	430	216	99	b90	a65	91	2,210	2,320	951	119	46	43
19	430	185	*95	b90	a75	*93	1,510	2,640	879	99	48	42
20	430	170	95	b85	*b80	85	1,430	3,100	814	83	49	40
21	414	186	101	b85	b80	73	1,590	3,490	766	76	46	41
22	406	197	97	a90	b80	85	2,220	3,600	a720	73	44	39
23	430	164	87	a95	b80	103	3,290	3,200	a660	71	43	38
24	446	152	97	a90	b80	132	2,250	2,910	a640	68	41	39
25	494	161	91	a90	b80	122	1,550	2,910	a550	65	43	38
26	494	164	83	a90	b75	115	1,270	2,910	a500	63	43	38
27	446	164	95	a90	b80	105	1,130	2,910	a450	63	40	36
28	438	161	97	a95	b80	118	1,090	2,820	a390	61	38	34
29	446	155	112	a95	-	130	1,040	2,820	a350	80	36	33
30	414	150	110	a90	-	158	970	2,560	a330	65	38	31
31	414	-	b100	a90	-	200	-	2,480	-	59	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	11,773	996	175	380	23,350
November	6,836	376	150	228	13,560
December	3,431	150	83	111	6,810
Calendar year 1941	245,037	5,220	35	671	486,000
January	2,805	100	75	90.5	5,560
February	2,255	90	65	80.5	4,470
March	3,102	200	73	100	6,150
April	44,812	3,290	268	1,494	88,880
May	73,794	3,600	888	2,380	146,400
June	37,725	3,100	330	1,258	74,830
July	4,368	339	59	141	8,660
August	1,451	63	36	46.8	2,880
September	1,469	166	31	49.0	2,910
Water year 1941-42	193,821	3,600	31	531	384,500

Peak discharge.- Oct. 14 (6 a.m.) 1,540 sec.-ft.; June 3 (10 p.m.) 5,070 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for San Juan River at Pagosa Springs, Colo.

b Stage-discharge relation affected by ice.

d Doubtful gage-height record; discharge computed on basis of weather records and records for San Juan River at Pagosa Springs, Colo.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Chama near Tierra Amarilla, N. Mex.

Location.- Water-stage recorder, lat. 36°34', long. 106°43', in NW¼ sec. 15, T. 27 N., R. 2 E. (projected survey), 1.5 miles downstream from El Vado Dam, 2.7 miles upstream from Rio Nutrias, and 13 miles southwest of Tierra Amarilla.

Records available.- October 1935 to September 1942 in reports of Geological Survey. October 1913 to November 1916 at site 1.5 miles upstream (records of unregulated flow), published as Rio Chama near El Vado and near Tierra Amarilla, in reports of Geological Survey. October 1913 to September 1916 and February 1920 to December 1924 in reports of the State engineer.

Extremes (regulated).- Maximum discharge during year, 3,880 second-feet Apr. 25 (gage height, 5.96 feet); minimum daily, 20 second-feet Apr. 13.
1935-42: Maximum discharge, 6,010 second-feet May 17, 1941 (gage height, 6.89 feet); maximum gage height, 9.63 feet May 30, 1937, site and datum then in use; minimum daily discharge, 1.2 second-feet Dec. 3, 1939.

Remarks.- Records good. Flow regulated by El Vado Reservoir (see p. 184). Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	128	1,270	92	90	84	84	1,050	1,590	2,800	623	938	930
2	128	1,270	92	87	84	84	1,050	2,410	2,800	610	908	922
3	134	1,270	92	87	84	87	1,050	2,290	2,670	598	945	804
4	131	1,270	92	87	84	87	1,050	2,110	2,540	592	968	692
5	128	1,270	95	87	84	87	1,060	2,000	2,540	574	968	692
6	131	975	95	87	84	84	1,140	2,000	2,480	740	968	686
7	539	248	92	87	84	84	1,270	2,000	2,110	975	960	686
8	998	248	92	87	84	84	1,260	2,170	1,830	952	960	686
9	990	248	95	87	82	87	1,270	2,350	1,680	1,010	952	686
10	990	337	95	87	82	92	1,270	2,480	1,620	1,150	794	673
11	990	532	95	87	82	132	1,190	2,670	1,430	1,220	673	577
12	990	527	95	90	82	508	291	2,800	1,190	1,190	673	451
13	1,010	527	95	90	84	968	20	2,860	886	1,150	660	451
14	998	527	95	90	84	1,090	470	2,430	886	1,110	660	446
15	990	527	92	90	84	1,090	1,010	968	900	1,080	654	446
16	990	527	92	90	84	1,080	1,050	1,400	908	1,120	654	446
17	990	527	92	90	84	1,070	1,280	2,130	908	730	654	441
18	990	527	92	90	82	1,060	1,680	2,410	915	689	641	628
19	990	532	92	90	84	1,060	1,880	2,740	922	960	641	732
20	990	532	92	87	84	1,060	1,880	3,420	922	975	641	725
21	982	527	92	87	84	1,060	1,880	3,420	930	998	647	725
22	672	532	95	87	84	1,060	2,000	3,060	876	1,070	810	718
23	138	532	92	87	84	1,060	2,540	2,930	610	1,140	908	718
24	138	538	92	87	84	1,050	1,770	3,070	617	1,110	641	712
25	134	538	92	87	84	1,050	2,380	2,760	629	1,010	500	712
26	134	275	92	87	84	1,060	3,720	2,480	561	893	664	705
27	134	84	92	87	84	1,050	3,420	2,600	329	930	738	705
28	138	90	90	87	84	1,060	3,000	2,670	311	960	864	617
29	134	90	90	87	-	1,050	2,670	2,740	348	960	930	563
30	822	90	90	87	-	1,050	1,080	2,800	641	982	930	563
31	1,270	-	90	87	-	1,050	-	2,800	-	990	930	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	18,921	1,270	128	610	37,530
November	16,987	1,270	84	566	33,690
December	2,871	95	90	92.6	5,690
Calendar year 1941	295,517.2	6,010	3.6	810	586,200
January	2,724	90	87	87.9	5,400
February	2,342	84	82	83.6	4,650
March	21,578	1,090	84	696	42,800
April	46,681	3,720	20	1,556	92,590
May	76,558	3,420	968	2,470	151,900
June	38,789	2,800	311	1,293	76,940
July	29,091	1,220	574	938	57,700
August	24,474	968	500	789	48,540
September	19,538	930	441	651	38,750
Water year 1941-42	300,554	3,720	20	823	596,200

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Chama near Abiquiu, N. Mex.

Location.- Water-stage recorder, lat. 36°13'00", long. 106°15'00", at bridge on State Highway 96 in Juan Jose Lobato Grant, 1¾ miles upstream from El Rito Creek, 5 miles downstream from Abiquiu, Rio Arriba County, 13.5 miles downstream from Abiquiu dam site.

Records available.- January to September 1942.

Extremes.- Maximum discharge during period, 6,330 second-feet Apr. 23 (gage height, 5.80 feet), from rating curve extended above 3,210 second-feet by logarithmic plotting; minimum daily discharge, 90 second-feet Jan. 6, Feb. 18.

Remarks.- Records good except those for periods of no gage-height record or ice effect, which are poor. Diversions above and below station for irrigation. Flow regulated by El Vado Reservoir (see p. 184).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				a150	133	154	1,390	1,270	3,270	628	1,130	1,020
2				a140	133	150	1,520	3,330	3,160	636	1,050	990
3				a120	130	170	1,790	3,160	3,160	604	1,090	990
4				a110	130	267	2,100	3,060	3,060	604	1,090	821
5				a100	*140	314	2,600	2,860	2,960	596	1,030	758
6				a90	126	387	2,400	2,760	2,860	596	1,160	740
7				a120	143	253	2,000	2,860	2,670	848	1,050	732
8				a170	136	*198	1,700	2,960	2,320	1,020	1,040	732
9				a240	136	189	1,700	3,160	2,050	1,020	1,030	732
10				a270	b130	409	2,100	3,380	1,900	1,130	1,030	724
11				a280	b120	695	2,700	3,480	1,740	1,210	785	657
12				a250	b120	298	2,300	3,590	1,620	1,220	812	612
13				a230	158	1,120	860	3,590	1,210	1,200	758	510
14				a200	140	1,810	1,070	3,480	1,100	1,150	749	492
15				a170	143	1,180	2,470	2,210	1,080	1,130	749	486
16				158	b130	1,140	2,470	1,570	1,080	1,100	758	480
17				154	b110	1,110	2,960	2,490	1,070	1,210	803	474
18				143	b90	1,110	3,270	2,860	1,050	635	749	474
19				147	130	1,230	3,160	3,160	1,020	869	740	732
20				140	170	1,170	3,160	3,920	1,010	1,010	732	794
21				133	211	1,150	3,160	4,150	1,010	1,080	724	794
22				130	211	1,230	3,380	4,150	1,000	1,050	716	794
23				143	178	1,440	5,330	3,590	839	1,160	970	794
24				133	162	1,770	4,040	3,810	636	1,140	1,000	794
25				140	b140	1,280	2,400	3,810	620	1,130	596	794
26				140	b130	1,200	4,610	3,160	604	1,030	545	785
27				136	b150	1,160	4,500	3,160	492	1,000	776	794
28				143	158	1,200	4,150	3,270	305	980	794	794
29				140	-	1,230	3,480	3,270	276	1,090	970	652
30				136	-	1,260	3,060	3,270	284	1,050	1,010	628
31				126	-	1,350	-	3,270	-	1,090	990	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	------	------	------	------	------
November	------	------	------	------	------
December	------	------	------	------	------
Calendar year	------	------	------	------	------
January	4,882	280	90	157	9,680
February	3,988	211	90	142	7,910
March	27,624	1,810	150	891	54,790
April	81,830	5,330	860	2,728	162,300
May	98,110	4,150	1,270	3,165	194,600
June	45,456	3,270	276	1,515	90,160
July	30,216	1,220	596	975	59,930
August	27,426	1,160	545	885	54,400
September	21,773	1,020	474	726	43,190
The period	-	-	-	-	677,000

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of records for stations near Tierra Amarilla and near Chamita.
b Stage-discharge relation affected by ice.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Chama near Chamita, N. Mex.

Location.- Water-stage recorder, lat. 36°04'20", long. 106°06'40", in NE¼ sec. 8, T. 21 N., R. 8 E., 200 feet downstream from Espanola-Ojo Caliente highway bridge, 2½ miles upstream from mouth and 2½ miles northwest of Chamita. Prior to Mar. 2, 1942, at site 120 feet upstream to datum 0.21 foot higher.

Records available.- October 1912 to June 1915 and October 1930 to September 1942 in reports of Geological Survey. October 1912 to December 1931 in reports of State engineer.

Average discharge.- 28 years (1913-17, 1918-42), 721 second-feet.

Extremes.- Maximum discharge during year, 8,350 second-feet Apr. 23 (gage height, 6.72 feet), from rating curve extended above 4,430 second-feet by logarithmic plotting; minimum daily, 56 second-feet Dec. 26.
1930-42: Maximum discharge, 9,910 second-feet May 14, 1941; maximum gage height, 8.11 feet May 16, 1941; no flow at times.

Remarks.- Records fair except those for periods of doubtful or no gage-height record, which are poor. Diversions above station for irrigation. Flow regulated by El Vado Reservoir (see p. 184).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	270	1,550	222	212	165	138	1,490	2,250	3,280	638	1,600	920
2	203	1,530	203	184	156	101	1,580	3,670	3,180	696	1,050	890
3	298	1,500	184	165	174	90	1,850	3,470	3,180	628	983	910
4	744	1,480	194	222	194	156	2,180	3,470	3,180	612	1,100	830
5	485	1,460	165	156	222	270	2,740	3,570	3,000	604	940	800
6	355	1,440	147	129	212	358	3,090	3,570	2,820	540	1,060	732
7	288	916	129	232	203	305	2,100	3,670	2,740	636	950	741
8	691	415	156	288	232	206	1,870	3,870	2,410	920	940	723
9	1,140	365	156	326	212	194	1,870	4,070	2,100	940	930	714
10	1,090	425	194	336	203	334	2,180	5,350	1,840	983	920	678
11	1,230	495	194	355	250	636	2,740	5,460	1,670	1,080	790	800
12	1,170	734	194	346	298	364	2,910	4,600	1,500	1,160	800	696
13	1,110	712	203	317	298	933	2,180	4,180	1,190	1,130	750	532
14	2,300	754	174	308	279	1,600	1,950	3,870	1,050	1,080	770	508
15	1,290	765	165	241	212	1,250	2,910	2,910	1,040	1,060	800	479
16	1,110	723	138	241	147	1,170	3,380	2,180	994	1,060	820	472
17	1,170	681	147	279	d130	1,160	4,070	2,820	983	1,050	840	472
18	1,190	670	165	222	d100	1,120	4,280	3,280	961	a900	780	472
19	1,170	660	129	222	d110	1,150	3,570	3,670	930	a700	790	636
20	1,110	608	102	184	138	1,120	3,470	4,380	910	880	750	714
21	1,110	576	111	222	184	1,080	3,280	4,800	880	a900	750	714
22	1,080	618	156	222	260	1,170	3,670	4,800	870	a900	705	705
23	881	586	75	260	203	1,340	6,780	4,280	800	a900	830	714
24	445	576	102	279	111	1,670	6,010	4,180	588	a900	961	696
25	566	597	75	270	111	1,390	3,770	4,280	564	a800	732	696
26	555	639	56	260	102	1,300	4,910	3,770	540	a800	604	687
27	425	495	75	241	129	1,230	5,020	3,670	524	a800	760	696
28	374	174	147	260	147	1,270	4,490	3,570	352	860	730	705
29	870	194	184	232	-	1,280	3,970	3,570	270	910	880	604
30	639	212	212	212	-	1,360	3,870	3,470	245	890	910	556
31	1,400	-	232	203	-	1,410	-	3,380	-	930	880	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	26,759	2,300	203	863	53,080
November	22,550	1,550	174	752	44,730
December	4,786	232	56	154	9,490
Calendar year 1941	480,823	8,760	56	1,317	953,700
January	7,626	355	129	246	15,130
Fsbruary	5,182	298	100	185	10,280
March	27,155	1,670	90	876	53,860
April	98,180	6,780	1,490	3,273	194,700
May	118,080	5,460	2,180	3,809	234,200
June	44,591	3,280	245	1,486	88,440
July	26,887	1,160	540	867	53,330
August	27,155	1,600	604	876	53,860
September	20,492	920	472	683	40,650
Water year 1941-42	429,443	6,780	56	1,177	851,800

a No gage-height record; discharge computed on basis of records for station near Abiquiu.
d Doubtful gage-height record; discharge computed on basis of records for station near Abiquiu.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Willow Creek near Park View, N. Mex.

Location.- Water-stage recorder, lat. 36°40'20", long. 106°42'10", in Tierra Amarilla Grant, 400 feet upstream from Willow Creek dam site, 0.3 mile downstream from Horse Lake Creek, and 7 miles southwest of Park View, Rio Arriba County.

Records available.- May 1936 to September 1942 (no winter records).

Extremes.- Maximum discharge during year, 4,500 second-feet Apr. 23 (gage height, 10.49 feet), by slope-area method; minimum daily, 0.2 second-foot Sept. 28-30.
1936-42: Maximum discharge, that of Apr. 23, 1943; no flow at times.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	22	4.9		-	-	418	207	11	3.4	1.6	a0.4
2	7.3	16	4.4		-	-	699	242	10	3.7	1.3	a.4
3	54	13	4.6		-	-	932	196	16	3.2	4.0	.3
4	126	11	4.4		-	-	1,240	152	43	3.5	3.1	3.2
5	44	11	3.9		-	-	2,480	136	22	2.5	2.8	2.7
6	14	9.8	2.8		*4.5	-	1,580	122	14	2.1	2.7	1.5
7	9.8	8.4	2.8		-	-	1,300	116	11	2.0	2.2	1.1
8	7.3	7.3	2.6		-	-	1,020	111	11	1.9	1.8	.9
9	5.6	6.6	2.6		-	-	1,290	102	10	1.8	1.7	.7
10	4.6	6.6	3.1		-	-	1,250	92	8.9	1.5	1.6	.6
11	4.2	6.3	3.5		-	-	1,320	80	7.9	1.3	4.4	1.6
12	3.9	6.0	3.7		-	-	2,140	70	7.0	1.2	3.4	5.6
13	129	6.0	3.9		-	-	1,000	62	6.6	1.1	2.7	5.4
14	346	6.3	2.8		-	-	800	56	8.1	1.1	1.8	4.3
15	28	6.3	3.5		-	-	614	51	6.3	1.0	1.3	2.4
16	15	5.3	2.6	*1.8	-	-	430	49	6.0	1.0	1.0	1.6
17	11	5.3	2.4		-	-	641	43	5.6	1.1	.8	1.0
18	8.9	12	2.2		-	-	692	38	5.3	1.2	.6	.9
19	8.4	14	*2.3		-	-	393	32	4.9	1.4	.5	.7
20	13	7.7			*4.0	-	298	29	4.1	2.5	.5	.5
21	9.8	4.4			-	-	268	27	3.7	2.0	.7	.4
22	15	5.3			-	-	532	26	3.7	1.8	.7	.4
23	80	3.9			-	-	1,580	27	3.7	1.5	.8	.3
24	23	3.5			-	-	820	26	3.7	1.4	.7	.3
25	119	3.3	b2		-	-	470	21	3.5	1.3	.7	.3
26	61	3.3			-	-	312	19	3.4	1.3	.5	.2
27	23	3.9			-	-	262	17	3.4	2.8	.4	.2
28	32	4.2			-	95	216	16	3.2	1.2	.4	.2
29	61	4.4			-	124	189	15	3.1	1.0	.4	.2
30	26	4.6			-	194	269	13	3.2	1.0	.6	.2
31	21	-			-	290	-	12	-	2.0	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,322.8	346	3.9	42.7	2,620
November	227.7	22	3.3	7.59	452
December	87.0	4.9	-	2.81	173
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	25,455	2,480	189	848	50,490
May	2,205	242	12	71.1	4,370
June	253.3	43	3.1	8.44	502
July	55.8	3.7	1.0	1.80	111
August	46.2	4.4	.4	1.49	92
September	38.5	5.6	.2	1.28	76
Water year	-	-	-	-	-

* Winter discharge measurement made on this day.
a No gage-height record; discharge interpolated.
b Stage-discharge relation affected by ice.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

El Rito Creek near El Rito, N. Mex.

Location.- Water-stage recorder, lat. 36°23', long. 106°13', in sec. 19, T. 25 N., R. 7 E., three-quarters of a mile upstream from boundary of Carson National Forest and 3 miles northwest of El Rito.

Records available.- May 1931 to September 1942.

Extremes.- Maximum discharge during year, 1,240 second-feet Apr. 23 (gage height, 5.83 feet), from rating curve extended above 570 second-feet by logarithmic plotting; minimum daily, 2.4 second-feet Sept. 25, 26, 28-30.
1931-42: Maximum discharge not determined; minimum daily recorded, 0.3 second-foot June 21-23, 1934.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. One diversion above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	21	6.1	b5.0	a5.5	a4.5	19	146	99	10	5.2	5.2
2	7.4	20	5.0	b5.0	a5.5	a5.0	36	150	86	10	4.3	4.3
3	9.1	20	4.5	b4.5	a5.5	a5.5	62	133	118	9.4	4.5	6.3
4	14	20	4.8	b4.5	a5.5	a5.5	90	168	112	9.4	4.3	8.0
5	15	20	3.6	b4.5	a5.9	a5.5	139	205	70	9.4	4.1	5.4
6	18	19	b4.0	b4.5	5.0	a6.0	118	232	58	8.5	4.3	4.1
7	12	17	b4.5	b5.0	5.4	a5.5	75	277	54	8.3	4.5	3.8
8	12	15	b4.0	b5.5	b5.0	*5.4	66	306	49	8.0	3.8	3.6
9	10	14	b4.0	b5.5	b5.0	a6.0	93	355	41	8.3	3.5	3.3
10	8.3	13	4.5	b5.5	5.0	a6.5	128	425	37	7.1	3.6	3.1
11	7.4	13	4.8	b5.5	a5.5	a7.0	172	412	34	6.3	3.8	8.3
12	7.1	12	b4.0	b6.0	a5.5	a7.0	250	345	31	5.4	3.3	6.3
13	11	13	b4.5	b6.0	a5.0	a6.5	197	217	28	5.0	3.0	5.0
14	38	12	b5.0	6.1	a5.0	a6.5	268	181	27	4.8	3.1	3.8
15	23	12	b4.0	*5.9	a4.5	a6.5	315	170	25	4.5	3.6	3.5
16	17	12	b4.0	5.9	a4.0	a6.0	306	156	23	4.3	3.5	3.0
17	14	10	b4.0	a6.0	*b4.0	a6.0	325	175	20	4.5	3.3	2.8
18	12	12	b4.0	a5.5	a3.5	a6.0	232	183	20	4.5	3.6	2.7
19	13	10	b4.5	a6.0	a4.0	a6.5	170	188	18	3.6	3.3	2.7
20	14	a9	b4.5	a5.5	a4.5	a6.5	159	224	16	3.3	3.3	2.7
21	17	a8.5	b5.0	a5.5	a4.5	a6.0	199	268	15	4.3	3.0	2.8
22	20	a8	5.0	a5.5	a4.5	a7.0	349	277	14	3.8	2.8	2.7
23	29	a7.5	b5.0	a5.0	a4.5	8.0	590	259	14	3.8	2.8	2.5
24	43	a7.5	5.2	a5.5	a4.5	8.3	306	224	13	3.6	3.1	2.5
25	42	a7.5	b5.0	a5.5	a5.0	7.7	207	232	12	3.6	3.3	2.4
26	39	*7.7	b4.5	a6.0	a4.5	7.4	156	227	11	3.6	2.8	2.4
27	34	7.7	b4.5	a5.5	a4.5	9.1	154	175	10	3.9	2.5	2.5
28	34	7.1	5.4	a6.0	a5.0	8.8	150	159	9.4	3.8	2.5	2.4
29	31	6.9	5.6	a6.0	-	9.1	152	147	9.4	3.8	2.5	2.4
30	28	6.3	5.2	a5.5	-	10	152	120	9.8	3.8	2.7	2.4
31	26	-	b5.0	a5.5	-	13	-	109	-	6.1	2.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	615.3	43	7.1	19.8	1,220
November	368.7	21	6.3	12.3	731
December	143.7	6.1	3.6	4.64	285
Calendar year	-	-	-	-	-
January	169.4	6.1	4.5	5.46	336
February	135.8	5.9	3.5	4.85	269
March	214.3	13	4.5	6.91	425
April	5,637	590	19	188	11,180
May	6,845	425	109	221	13,580
June	1,083.6	118	9.4	36.1	2,150
July	178.7	10	3.3	5.76	354
August	106.7	5.2	2.5	3.44	212
September	112.9	8.3	2.4	3.76	224
Water year 1941-42	15,611.1	590	2.4	42.8	30,970

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for stations on San Juan River at Pagosa Springs, Colo., and Rio Chama at Park View.
b Stage-discharge relation affected by ice.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Ojo Caliente at La Madera, N. Mex.

Location.- Water-stage recorder, lat. 36°20'45", long. 106°02'50", in NE¼ sec. 1, T. 24 N., R. 8 E., 2.5 miles south of La Madera, 3 miles downstream from confluence of Rio Vallecitos and Rio Tusas, and 4 miles north of Ojo Caliente.

Records available.- April 1932 to September 1942.

Average discharge.- 10 years, 92.6 second-feet.

Extremes.- Maximum discharge during year, 2,980 second-feet Apr. 23, from rating curve extended above 1,000 second-feet by logarithmic plotting; maximum gage height, 4.78 feet Apr. 23; minimum daily discharge, 4 second-feet July 30.

1932-42: Maximum discharge, that of Apr. 23, 1942; maximum gage height, 7.60 feet (site and datum then in use) July 15, 1933; minimum daily discharge, 1 second-foot at times.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	88	34	34	21	22	82	501	180	11	53	13
2	28	82	32	b20	23	21	140	540	149	12	8	13
3	38	73	31	37	24	23	210	449	147	13	8	13
4	48	73	32	b30	24	28	314	494	320	12	16	15
5	42	73	22	b20	28	24	398	687	132	12	12	16
6	42	70	20	a20	21	28	386	708	85	11	13	15
7	38	68	24	a20	25	24	190	902	68	12	12	15
8	34	59	26	a25	23	*20	162	1,070	68	11	16	14
9	35	57	28	a25	20	25	200	1,160	73	12	23	13
10	34	57	30	a25	18	30	326	1,280	66	18	20	12
11	32	55	35	a25	21	34	468	1,280	73	17	17	32
12	30	50	28	a25	19	35	666	1,160	66	15	15	41
13	34	50	25	a25	22	40	680	835	63	13	10	28
14	68	52	28	a25	21	45	757	722	66	12	137	13
15	61	50	30	*25	20	38	895	708	66	11	24	10
16	50	46	28	26	*15	32	888	617	59	10	21	10
17	46	45	28	28	b20	29	1,040	673	55	12	21	8
18	40	46	28	25	b20	28	940	708	61	11	19	8
19	38	42	29	25	b20	35	624	750	59	7	18	8
20	43	26	28	23	b20	29	554	785	46	5	17	8
21	43	29	29	22	22	24	568	813	42	5	17	8
22	57	38	32	23	25	29	858	792	37	8	16	9
23	59	25	24	28	23	34	2,180	750	22	10	17	8
24	73	28	30	25	17	50	1,320	624	15	10	16	9
25	85	32	29	25	20	45	865	596	11	9	19	9
26	85	32	b25	25	19	38	687	508	11	7	16	9
27	88	*32	30	25	19	31	638	462	11	6	15	9
28	88	32	34	28	25	31	638	336	13	7	14	9
29	97	34	38	28	-	32	575	344	12	8	14	9
30	100	31	37	24	-	45	568	274	12	4	14	9
31	97	-	35	22	-	66	-	215	-	116	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,684	100	28	54.3	3,340
November	1,475	88	25	49.2	2,930
December	909	38	20	29.3	1,800
Calendar year 1941	77,054	2,000	5	211	152,800
January	783	34	20	25.3	1,550
February	595	28	15	21.2	1,180
March	1,015	66	20	32.7	2,010
April	18,817	2,180	82	627	37,320
May	21,745	1,280	215	701	43,130
June	2,088	320	11	69.6	4,140
July	427	116	4	13.8	847
August	651	137	8	21.0	1,290
September	393	41	8	13.1	780
Water year 1941-42	50,582	2,180	4	139	100,300

Peak discharge.- Apr. 23 (7 a.m.) 2,980 sec.-ft.; July 31 (11 p.m.) 2,820 sec.-ft.; Aug. 14 (4 p.m.) 1,230 sec.-ft.; Sept. 11 (1 a.m.) 192 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for San Juan River at Pagosa Springs, Colo. and Rio Chama at Park View.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Santa Cruz at Cundiyo, N. Mex.

Location.- Water-stage recorder, lat. 35°58', long. 105°55', in SE¼NW¼ sec. 17, T. 20 N., R. 10 E., 135 feet downstream from highway bridge at confluence of Rio Medio and Rio Frijoles and a quarter of a mile northwest of Cundiyo.

Records available.- September 1931 to September 1942 in reports of Geological Survey. September 1915 to December 1931 (published as Rio Medio at Cundiyo and Rio Santa Cruz above Chimayo) in reports of State engineer.

Average discharge.- 25 years (1916-29, 1930-42), 35.5 second-feet.

Extremes.- Maximum discharge during year, 666 second-feet Apr. 23 (gage height, 3.55 feet), from rating curve extended above 370 second-feet by logarithmic plotting; minimum daily, 13 second-feet Jan. 5.

1931-42: Maximum discharge, 2,610 second-feet Sept. 24, 1931 (gage height, 8.20 feet, datum then in use), from rating curve extended above 170 second-feet by logarithmic plotting; minimum daily, 3 second-feet Feb. 3, 1932, and Jan. 21, 1935.

Remarks.- Records good except those for periods of no gage height record and ice effect, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	65	28	a18	a18	a15	53	154	250	61	16	57
2	73	a65	25	a14	a15	a15	67	138	240	57	20	31
3	76	65	29	b15	a18	a15	89	130	247	51	23	25
4	82	64	27	b14	*18	a18	104	140	274	49	31	25
5	73	62	b24	b13	18	a18	121	173	244	47	26	38
6	67	59	b21	a15	b15	a17	121	212	225	44	24	26
7	61	57	b23	a18	18	a16	99	247	218	40	23	24
8	57	53	b25	a20	18	a15	89	268	212	39	21	24
9	54	52	b25	a20	b17	a18	94	309	195	37	20	22
10	51	50	b24	a19	b17	*18	112	345	186	34	19	20
11	48	46	b24	a18	b17	18	138	374	179	33	22	37
12	47	43	23	*18	b17	18	212	365	171	32	20	98
13	77	44	b23	b19	b17	20	204	329	163	30	18	21
14	64	42	b22	a19	b17	21	204	278	156	29	20	15
15	58	41	b22	a20	a16	21	228	247	149	28	19	35
16	52	39	b22	a20	b14	19	224	240	145	27	17	31
17	50	38	b22	a20	b16	b20	313	240	134	27	17	28
18	47	38	b22	a19	b14	b23	361	231	128	25	16	27
19	49	34	b22	a19	a15	27	282	228	122	23	16	25
20	45	a30	b22	a18	a16	24	260	240	113	22	15	24
21	51	a30	b21	a18	a18	23	240	271	106	21	14	23
22	51	a35	21	a19	a20	*27	282	285	100	22	14	22
23	53	a30	b21	a20	a18	35	570	289	97	21	15	21
24	57	a28	b21	a19	a16	42	401	293	88	20	18	20
25	64	a30	b20	a19	a17	36	274	305	80	20	29	19
26	67	a32	b17	a18	a15	32	244	317	75	20	18	19
27	64	*34	b20	a19	a16	31	218	361	69	19	16	19
28	68	34	b20	a19	a17	29	201	325	65	18	15	16
29	73	32	b20	a19	-	30	176	301	61	18	16	18
30	70	30	a20	a19	-	35	181	282	59	16	17	18
31	72	-	a20	a18	-	43	-	260	-	18	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,901	82	45	61.3	3,770
November	1,302	65	28	43.4	2,580
December	699	29	17	22.5	1,390
Calendar year 1941	30,150.3	482	6	82.6	59,800
January	563	20	13	18.2	1,120
February	474	20	14	16.9	940
March	748	43	15	24.1	1,480
April	6,162	570	53	205	12,220
May	8,177	374	130	264	16,220
June	4,557	274	59	152	9,040
July	948	61	16	30.6	1,880
August	592	31	14	19.1	1,170
September	833	98	15	27.8	1,650
Water year 1941-42	26,956	570	13	73.9	53,460

Peak discharge.- Oct. 13 (2 p.m.) 530 sec.-ft.; Apr. 23 (6:30 a.m.) 666 sec.-ft.; Sept. 1 (8 a.m.) 88 sec.-ft.; Sept. 4 (9:30 p.m.) 106 sec.-ft.; Sept. 12 (5 a.m.) 136 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station on Rio Hondo at Arroyo Hondo and Rio Colorado near Questa.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Santa Cruz at Riverside, N. Mex.

Location.- Water-stage recorder, lat. 35°59'15", long. 106°04'05", in SW¼ sec. 2, T. 20 N., R. 8 E., at bridge on U. S. Highway 285, at south edge of Riverside, half a mile above mouth and three-quarters of a mile east of Espanola.

Records available.- January to September 1942.

Extremes.- Maximum discharge during period, 643 second-feet Apr. 24; maximum gage height, 4.85 feet June 7; minimum daily discharge, 0.3 second-foot Mar. 12.

Remarks.- Records fair except for periods of doubtful or no gage-height record or ice effect, which are poor. Flow partially regulated by Santa Cruz Reservoir. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					8.5	9.8	40	384	380	12	1.3	
2				a12	*7.7	7.7	60	227	347	1.1	1.9	
3					7.3	6.3	90	231	391	.7	.7	
4					7.7	5.2	116	155	508	.4	.7	a1.5
5				*a12	6.6	4.4	118	97	476	.5	.7	
6					6.9	4.7	118	60	521	1.9	1.1	
7					6.6	6.9	64	68	594	1.0	.7	
8					5.8	7.3	43	142	455	.7	.5	.6
9					7.7	*7.3	33	408	321	.6	.5	.5
10				a14	6.1	4.7	37	340	266	1.6	.5	.7
11					*6.3	.8	44	508	229	1.3	.5	1.0
12					5.5	.3	124	402	184	.8	.4	44
13					6.1	1.4	90	390	165	.8	.4	31
14					6.1	.8	86	335	169	2.5	.4	11
15				*16	4.7	2.4	81	271	147	2.0	.4	3.8
16				26	b4.0	2.8	15	202	96	1.3	.6	
17				116	b3.0	2.1	24	218	85	2.3	.6	
18				84	b2.5	5.2	191	257	76	1.6	4.5	
19				*12	b2.0	5.2	142	239	46	.8	.8	
20				11	b3.5	14	346	194	17	.6	.6	
21				11	4.7	30	276	191	7.7	.7	.6	
22				12	4.1	27	253	129	4.8	1.0	.5	a4
23				11	3.7	27	379	187	4.0	.6	.5	
24				9.4	b3.5	39	508	168	3.2	1.5	7.7	
25				10	3.5	37	482	161	5.1	1.9	d1.0	
26				9.0	b3.5	37	463	151	5.1	.7	d1.0	
27				9.0	4.1	35	444	231	6.7	.8	d1.0	
28				9.0	6.9	41	396	315	2.5	1.5	a1.0	
29			*12	8.5	-	37	438	330	1.7	.7	a1.0	
30				8.1	-	25	456	358	1.7	.8	a1.0	9.5
31				8.1	-	30	-	353	-	.8	a1.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-fest
October					
November					
December					
Calendar year					
January	556.1	116	-	17.9	1,100
February	148.6	8.5	2.0	5.31	295
March	464.3	41	.3	15.0	921
April	5,957	508	15	199	11,820
May	7,702	508	60	248	15,280
June	5,515.5	594	1.7	184	10,940
July	45.5	12	.4	1.47	90
August	34.1	7.7	.4	1.10	68
Ssptember	168.6	44	.5	5.62	334
The period	-	-	-	-	40,850

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of weather records and records for station at Cundiyo and Embudo Creek at Dixon.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge computed on basis of weather records and records for station at Cundiyo and Embudo Creek at Dixon.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time. subtract 1 hour.

Santa Fe Creek near Santa Fe, N. Mex.

Location.- Water-stage recorder and sharp-crested concrete control, lat. 35°41', long. 105°50', in SW¼SW¼ sec. 24, T. 17 N., R 10 E., 300 feet downstream from upper storage reservoir of New Mexico Power Co., and 6 miles east of Santa Fe.

Records available.- May to June 1910 (at site 3 miles downstream), April 1913 to December 1914 (at site 2 miles downstream), and October 1930 to September 1942 in reports of Geological Survey. January 1913 to November 1930 (at site 2 miles downstream), and November 1930 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 418 second-feet Apr. 23 (gage height, 3.51 feet), from rating curve extended above 150 second-feet; minimum daily, 1.1 second-feet July 17.

1930-42: Maximum discharge that of Apr. 23, 1942; minimum daily, 0.6 second-foot Nov. 13, 1933.

Remarks.- Records good except those above 150 second-feet, which are fair. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	28	8.3	3.6	1.9	2.2	11	50	52	7.9	5.0	3.2
2	31	28	8.3	3.6	1.9	2.2	11	45	50	7.9	8.3	4.5
3	44	26	8.3	3.6	1.9	2.2	19	40	50	8.3	8.3	6.8
4	42	24	8.3	3.6	2.2	2.2	24	37	52	8.3	8.0	6.8
5	36	22	8.3	4.5	2.2	2.2	28	40	46	8.3	8.0	4.1
6	32	21	8.3	5.4	2.2	2.2	31	44	42	8.6	8.0	1.4
7	28	19	8.3	5.4	2.2	2.2	27	47	39	7.6	8.0	1.4
8	24	18	8.3	5.4	2.2	2.2	24	48	38	7.2	8.0	2.2
9	21	16	8.3	5.1	2.2	2.2	22	53	36	6.0	8.0	2.5
10	18	16	8.3	5.1	2.2	2.2	23	59	33	4.2	7.7	1.7
11	17	14	7.9	5.1	2.2	2.1	27	61	32	4.2	7.7	1.7
12	15	13	7.9	5.1	2.2	2.4	38	59	31	4.2	3.5	1.9
13	16	12	7.9	5.1	2.2	2.4	41	56	29	3.9	1.2	1.9
14	16	12	7.2	4.8	2.2	2.4	44	50	26	3.9	2.2	5.4
15	14	11	7.2	4.2	2.2	2.4	47	45	25	3.9	3.4	9.2
16	13	10	7.2	4.2	2.2	2.4	45	42	22	2.6	3.4	9.5
17	12	7.6	7.2	4.2	2.2	2.6	79	40	20	1.1	5.5	9.5
18	11	11	5.7	4.2	2.2	2.6	113	38	18	2.6	7.7	9.5
19	11	8.9	3.6	4.2	2.2	2.6	80	38	16	3.6	7.7	9.5
20	10	7.6	3.6	3.1	2.2	3.6	64	39	14	5.4	7.7	9.5
21	11	7.9	3.6	1.9	2.2	8.3	59	42	13	6.0	7.7	9.5
22	11	8.9	3.6	1.9	2.2	8.6	63	49	12	6.0	7.7	9.5
23	14	7.6	3.6	1.9	2.2	9.6	341	53	11	6.0	7.4	9.5
24	19	7.6	3.6	1.9	2.2	11	178	56	9.3	6.0	7.1	9.5
25	32	7.6	3.6	1.9	2.2	11	88	58	8.3	6.0	7.1	9.5
26	36	7.9	3.6	1.9	2.2	10	77	60	8.3	6.0	7.1	8.0
27	32	7.9	3.6	1.9	2.2	11	75	62	7.9	6.8	5.3	6.3
28	29	7.9	3.6	1.9	2.2	11	69	60	7.9	7.7	3.2	6.3
29	29	7.9	3.6	1.9	-	11	60	59	7.9	7.4	3.2	6.3
30	28	8.3	3.6	1.9	-	11	56	56	7.9	6.0	3.2	6.3
31	28	-	3.6	1.9	-	11	-	54	-	3.2	3.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	700	44	10	22.6	1,390
November	404.6	28	7.6	13.5	803
December	188.0	8.3	3.6	6.06	373
Calendar year 1941	8,025.6	151	2.1	22.0	15,920
January	110.4	5.4	1.9	3.56	219
February	60.7	2.2	1.9	2.17	120
March	161.1	11	2.2	5.20	320
April	1,864	341	11	62.1	3,700
May	1,540	61	37	49.7	3,050
June	764.5	52	7.9	25.5	1,520
July	176.8	8.6	1.1	5.70	351
August	189.5	8.3	1.2	6.11	376
September	182.9	9.5	1.4	6.10	363
Water year 1941-42	6,342.5	341	1.1	17.4	12,580

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

556253 O - 43 - 16

Galisteo Creek at Domingo, N. Mex.

Location.- Water-stage recorder, lat. 35°30'45", long. 106°18'55", in SW¼ sec. 21, T. 15 N., R. 6 E., in Santo Domingo Pueblo Grant, at highway bridge, 0.3 mile northeast of Domingo, 2¾ miles east of Santo Domingo Pueblo and 4 miles upstream from mouth.

Records available.- October 1941 to September 1942.

Extremes.- Maximum discharge during year, 10,400 second-feet July 27 (gage height, 6.10 feet), from rating curve extended above 740 second-feet by logarithmic plotting; no flow at times.

Remarks.- Records poor. Several small diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	14	1	4	0	1	0	81	0	642	4	161
2	35	19	1	1	0	1	0	33	0	56	0	47
3	135	12	1	1	0	0	0	17	0	21	1	6
4	164	8	1	a0	0	1	0	11	0	6	27	4
5	44	11	0	a0	0	0	0	5	0	2	5	4
6	14	7	0	0	0	0	1	4	0	0	2	2
7	10	6	0	a0	0	0	1	4	0	0	2	2
8	6	7	1	a0	0	0	1	4	21	0	1	11
9	3	8	1	54	0	0	0	3	5	0	1	3
10	2	6	2	a30	0	0	a0	1	1	0	5	83
11	2	4	3	a10	0	0	0	a0	0	0	2	874
12	2	4	2	a5	0	1	a1	a0	0	0	1	1,210
13	4	5	1	2	0	0	a0	a0	0	0	1	362
14	3	4	1	1	0	0	a0	a0	0	0	364	167
15	14	2	1	1	0	1	a0	a0	0	0	492	81
16	4	2	1	1	0	0	a0	0	0	0	29	5
17	2	3	1	1	0	0	20	0	0	0	13	1
18	2	4	1	0	0	0	29	0	0	0	4	0
19	1	2	1	1	0	0	35	0	0	0	2	1
20	1	1	1	0	0	0	38	0	0	35	0	0
21	2	2	1	0	0	0	33	0	0	2	0	0
22	5	3	1	0	0	0	557	3	0	103	0	0
23	207	3	0	1	0	0	698	4	0	15	0	0
24	628	1	0	1	0	0	535	1	0	9	22	0
25	106	1	0	1	0	0	282	0	0	6	115	0
26	12	1	0	0	0	0	282	0	0	6	9	0
27	8	2	0	0	0	0	245	0	0	781	1	0
28	14	3	9	0	1	0	197	0	0	10	0	0
29	794	2	11	1	-	0	150	0	0	1	0	0
30	14	1	5	0	-	0	115	0	201	0	130	0
31	13	-	17	0	-	0	-	0	-	72	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,304	794	1	74.3	4,570
November	148	19	1	4.9	294
December	65	17	0	2.1	129
Calendar year	-	-	-	-	-
January	116	54	0	3.7	230
February	1	1	0	.04	2
March	5	1	0	.2	10
April	3,220	698	0	107	6,390
May	171	81	0	5.5	339
June	228	201	0	7.6	452
July	1,767	781	0	57.0	3,500
August	1,250	492	0	40.3	2,480
September	3,024	1,210	0	101	6,000
Water year 1941-42	12,299	1,210	0	33.7	24,400

Peak discharge.- Apr. 22 (9 p.m.) 9,390 sec.-ft.; June 30 (11 p.m.) 6,190 sec.-ft.; July 27 (3 a.m.) 10,400 sec.-ft.; July 31 (11:30 p.m.) 4,740 sec.-ft.; Aug. 14 (8 p.m.) 5,360 sec.-ft.; Sept. 11 (9 p.m.) 8,600 sec.-ft.

a No gage-height record; discharge estimated.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Puerco at Rio Puerco, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 34°47'35", long. 106°59'15", in W½ sec. 31, T. 7 N., R. 1 W., in hamlet of Rio Puerco in San Clemente Grant, at Atchison, Topeka & Santa Fe Railway bridge 7 miles downstream from San Jose River.

Drainage area.- 5,160 square miles.

Records available.- September 1910 to October 1911, August 1912 to December 1914 (records fragmentary, gage heights only prior to March 1913), and March 1934 to September 1942 in reports of Geological Survey. January 1913 to December 1925 and September 1926 to December 1927 in reports of State engineer.

Average discharge.- 17 years (1913-17, 1919-20, 1921-24, 1926-27, 1934-42), 109 second-feet.

Extremes.- Maximum discharge during year, 13,000 second-feet Oct. 25 (gage height, 4.68 feet), from rating curve extended above 2,500 second-feet by logarithmic plotting on basis of computation of flow over dam at gage height of 7.24 feet; no flow at times.
1934-42: Maximum discharge, 28,300 second-feet Aug. 21, 1935 (gage height, 7.24 feet), by computation of flow over dam; no flow at times.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	414	45	0	5	14	11	5	a300	16	a0	0	a0
2	75	26	0	4	8	9	4	a300	14	0	0	a0
3	127	15	0	1	14	6	3	a80	14	0	5	0
4	5,280	14	0	0	12	6	3	a60	14	0	133	a0
5	1,330	10	0	0	11	3	3	a50	12	0	55	a0
6	162	8	0	0	10	5	3	45	10	0	39	a0
7	28	6	0	0	7	7	52	58	16	0	22	a0
8	12	4	0	0	8	2	93	66	a18	0	26	a0
9	8	3	0	1	5	4	48	86	a17	0	a15	a0
10	6	2	0	4	6	6	d25	100	15	0	a5	a40
11	4	2	0	8	6	6	d20	93	a14	0	0	a80
12	2	1	1	16	7	4	d35	112	a12	0	2	a40
13	66	1	2	14	18	3	d50	179	a8	0	45	1
14	31	1	1	12	12	2	100	196	a4	0	28	269
15	1,150	1	0	14	14	12	93	188	a0	0	6	a50
16	138	0	0	12	9	24	70	145	0	0	a3	a10
17	26	1	0	16	5	34	70	138	0	0	a1	a5
18	14	2	0	15	3	18	145	138	0	0	a0	a4
19	9	1	0	14	2	11	310	132	0	0	a0	a3
20	6	1	0	14	1	9	270	126	0	0	a0	a2
21	4	1	0	11	6	6	240	119	0	0	a0	a2
22	4	1	0	7	20	15	213	119	0	1	a0	a2
23	8	0	0	12	11	18	213	126	0	22	773	1
24	119	0	0	11	9	14	502	138	0	3	556	1
25	5,620	0	0	14	12	6	390	154	0	0	75	1
26	1,590	0	0	10	9	4	a100	138	0	0	12	1
27	378	0	0	10	10	4	a50	112	0	0	3	1
28	132	0	0	10	10	12	a50	62	0	0	1	0
29	112	0	0	10	-	16	a50	58	0	0	a0	0
30	554	0	0	11	-	7	a50	31	0	0	a0	0
31	126	-	5	11	-	5	-	24	-	0	a0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	17,535	5,620	2	566	34,780
November	146	45	0	4.9	290
December	9	5	0	.3	18
Calendar year 1941	89,457	7,340	0	245	177,400
January	267	16	0	8.6	530
February	259	20	1	9.2	514
March	289	34	2	9.3	573
April	3,260	502	3	109	6,470
May	3,673	300	24	118	7,290
June	186	18	0	6.2	369
July	26	22	0	.8	52
August	1,805	773	0	58.2	3,580
September	513	269	0	17.1	1,020
Water year 1941-42	27,968	5,620	0	76.6	55,490

Peak discharge.- Oct. 4 (1 p.m.) 11,400 sec.-ft.; Oct. 25 (4 p.m.) 13,000 sec.-ft.; Aug. 23 (8 p.m.) 9,320 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for station near Bernardo.

d Doubtful gage-height record; discharge computed on basis of weather records and records for station near Bernardo.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Puerco near Bernardo, N. Mex.

Location.- Water-stage recorder, lat. 34°24'30", long. 106°51'10", in Sevilleta Grant, at bridge on U. S. Highway 85, 1.2 miles southwest of Bernardo, 3 miles upstream from mouth, and 16 miles south of Belen.

Records available.- November 1939 to September 1942. Sept. 1910 to August 1914 (fragmentary gage heights only), at site 1½ miles downstream, published as Rio Puerco near La Joya.

Extremes.- Maximum discharge during year, 13,000 second-feet Oct. 4 (gage height, 8.38 feet) from rating curve extended above 7,800 second-feet by logarithmic plotting; no flow for extended periods.

1939-42: Maximum discharge, 18,800 second-feet Sept. 23, 1941 (gage height, 9.80 feet), from rating curve extended above 7,800 second-feet by logarithmic plotting: no flow for extended periods.

Remarks.- Records poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,040	142	0				0	63	25		4	0
2	1,130	69	0				0	63	8		0	0
3	890	53	0				0	87	4		0	0
4	5,240	24	0				0	85	3		0	0
5	1,750	22	0				0	82	2		0	0
6	372	13	0				0	68	1		10	0
7	142	9	0				0	69	1		1	0
8	62	5	0				0	77	0		5	0
9	26	3	0				43	79	1		1	0
10	15	1	0				25	98	0		0	0
11	6	0	0				5	99	0		0	106
12	2	0	14				1	103	0		0	104
13	1	0	1				4	119	0		0	9
14	64	0	0				18	115	0		0	18
15	784	0	0				43	109	0		16	41
16	365	0	0				50	92	0		3	16
17	135	0	0				54	71	0		1	7
18	62	0	0				59	63	0		0	2
19	38	0	0				101	49	0		0	1
20	21	0	0				101	43	0		0	0
21	11	0	0				105	47	0		0	0
22	10	0	0				90	36	0		0	0
23	8	0	0				109	53	0		0	0
24	14	0	0				193	75	0		593	0
25	3,590	0	0				193	72	0		235	0
26	1,830	0	0				96	75	0		83	0
27	512	0	0				72	80	0		24	0
28	196	0	0				71	72	0		14	0
29	135	0	0				71	54	0		12	0
30	459	0	0				62	55	0		4	0
31	288	-	0				-	34	-		1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	20,198	5,240	1	652	40,060
November	341	142	0	11.4	676
December	15	14	0	.5	30
Calendar year 1941	83,707	5,980	0	229	166,000
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	1,566	193	0	52.2	3,110
May	2,287	119	34	73.8	4,540
June	45	25	0	1.5	89
July	0	0	0	0	0
August	1,007	593	0	32.5	2,000
September	304	106	0	10.1	603
Water year 1941-42	25,763	5,240	0	70.6	51,110

Peak discharge.- Oct. 4 (8:30 p.m.) 13,000 sec.-ft.; Oct. 15 (3 p.m.) 1,850 sec.-ft.; Oct. 25 (10 p.m.) 11,300 sec.-ft.; Aug. 24 (9 a.m.) 3,240 sec.-ft.; Sept. 11 (10 p.m.) 1,820 sec.-ft.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Bluewater Creek near Bluewater, N. Mex.

Location.- Water-stage recorder, lat. 35°18', long. 108°01', in SW¼ sec. 5, T. 12 N., R. 11 W., 2½ miles northwest of village of Bluewater and 8 miles downstream from storage reservoir of Bluewater-Toltec Irrigation District.

Drainage area.- 235 square miles.

Records available.- May 1912 to December 1914 and October 1930 to September 1942 in reports of Geological Survey. May 1912 to June 1919 and April 1921 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 128 second-feet Sept. 3 (gage height, 3.85 feet); minimum daily, 9.8 second-feet Feb. 24, Mar. 18, 19, 21.
1930-42: Maximum discharge, 1,010 second-feet Sept. 1, 1936 (gage height, 6.15 feet, site and datum then in use), from rating curve extended above 65 second-feet by logarithmic plotting; no flow Mar. 9, 1931, and Feb. 3, 1935.

Remarks.- Records good except those for periods of ice effect or no gage-height record, which are poor. Flow regulated by Bluewater-Toltec Reservoir (capacity, 46,000 acre-feet).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	12	12	b12	10	10	11	40	72	59	65	37
2	12	12	*12	b12	10	10	11	39	72	57	61	37
3	15	12	12	b12	10	10	11	39	64	56	50	44
4	13	12	12	b12	10	*10	12	39	62	24	48	34
5	12	12	11	a12	10	10	12	39	66	12	43	27
6	12	12	11	a12	10	10	13	39	66	41	36	23
7	12	12	11	a11	10	b10	13	39	66	50	24	23
8	12	11	11	a11	10	b10	13	39	66	57	28	23
9	12	11	11	a11	10	10	13	43	73	58	29	23
10	12	11	11	a11	10	10	13	44	75	58	29	24
11	12	11	11	a11	*10	10	14	43	74	58	29	24
12	12	11	11	a11	10	10	14	43	74	58	29	24
13	13	12	11	*11	b10	10	14	52	74	67	24	24
14	13	11	11	11	10	10	14	54	74	81	23	24
15	12	11	11	10	b10	10	14	54	74	85	24	24
16	12	11	*10	10	b10	10	14	61	74	86	25	26
17	12	12	10	11	b10	10	14	63	74	86	25	29
18	12	13	10	11	b10	9.8	19	64	73	86	24	29
19	12	12	10	10	b11	9.8	22	64	73	83	35	29
20	12	12	10	11	b11	10	22	71	74	75	37	29
21	12	12	10	b11	b11	9.8	22	72	74	75	37	29
22	12	12	b10	11	11	10	23	72	74	75	37	31
23	12	11	b10	11	b10	10	22	72	74	75	37	36
24	12	b11	b11	11	9.8	10	22	72	73	61	30	39
25	12	11	b11	11	10	10	22	71	73	59	28	44
26	12	11	b11	11	b10	*10	22	71	73	59	34	38
27	12	12	b11	11	10	10	22	82	73	59	35	36
28	12	12	b12	*11	10	10	23	85	68	59	35	36
29	12	12	12	11	-	10	40	85	67	61	41	37
30	12	12	*12	b10	-	10	41	74	67	68	37	37
31	12	-	12	10	-	11	-	72	-	71	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	378	15	12	12.2	750
November	349	13	11	11.6	692
December	341	12	10	11.0	676
Calendar year 1941	14,586.3	746	.7	40.0	28,930
January	342	12	10	11.0	678
February	283.8	11	99.8	10.1	563
March	310.4	11	9.8	10.0	616
April	542	41	11	18.1	1,080
May	1,797	85	39	58.0	3,560
June	2,136	75	62	71.2	4,240
July	1,959	86	12	63.2	3,890
August	1,076	65	23	34.7	2,130
September	920	44	23	30.7	1,820
Water year 1941-42	10,434.2	86	9.8	28.6	20,700

* Winter discharge measurement made on this day.
a No gage-height record; discharge computed on basis of range of stage and engineer's notes.
b Stage-discharge relation affected by ice.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Socorro main canal north at San Acacia, N. Mex.

Location.- Water-stage recorder, lat. 34°15', long. 106°54', in SE¼NW¼ sec. 1, T. 1 S., R. 1 W., at San Acacia, half a mile downstream from point of diversion from Rio Grande. Datum of gage is 4,659.74 feet above mean sea level, datum of 1929.

Records available.- April 1936 to September 1942.

Extremes.- Maximum discharge during year, 210 second-feet Oct. 13; maximum gage height, 6.93 feet June 27; no flow at times.

1937-42: Maximum discharge, 315 second-feet sometime in period July 22-24, 1940 (gage height, 5.67 feet, from recorded range in stage); no flow at times.

Remarks.- Records fair. Canal diverts water from right bank of Rio Grande for irrigation. Three acequias, together irrigating about 300 acres, divert water from canal above station.

Monthly discharge, in second-feet, water year 1941-42

Month	Maximum	Minimum	Mean	Runoff in acre-feet
October	155	0	63.2	3,890
November	139	0	81.5	4,850
December	114	0	25.9	1,590
Calendar year 1941	196	0	74.7	54,080
January	120	0	70.3	4,320
February	126	0	89.3	4,960
March	132	34	109	6,710
April	157	1	107	6,380
May	140	15	112	6,910
June	160	101	133	7,930
July	189	118	168	10,220
August	194	54	159	9,770
September	184	0	140	8,300
Water year 1941-42	194	0	105	75,830

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Alamosa River near Monticello, N. Mex.

Location.- Water-stage recorder, lat. 33°35', long. 107°36', in SW¼ sec. 31, T. 8 S., R. 7 W., at Alamosa dam site and old Fort Ojo Caliente, just downstream from Wildhorse Creek, 15 miles northwest of Monticello.

Drainage area.- 470 square miles.

Records available.- May 1931 to April 1942 (discontinued) in reports of Geological Survey. October to December 1929 and May to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during period, 345 second-feet Oct. 24 (gage height, 3.70 feet), from rating curve extended above 120 second-feet by logarithmic plotting; minimum daily, 7.3 second-feet many days.
1931-42: Maximum gage height, 13.6 feet Aug. 21, 1936 (discharge not determined); minimum daily discharge, 5.6 second-feet Jan. 9, 1932, Aug. 28-30, Sept. 3, 1938.

Remarks.- Records good. No diversion above station. Entire normal flow diverted below station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.6	7.3	7.8	7.5	7.3	7.5	8.3					
2	9.1	7.3	7.8	7.5	7.5	7.5	8.3					
3	9.1	7.5	7.8	7.5	7.5	7.5	8.3					
4	8.8	7.3	7.8	7.5	7.5	7.5	8.3					
5	8.3	7.3	7.8	7.5	7.3	7.3	8.3					
6	8.3	7.3	7.8	7.8	7.5	7.3	8.3					
7	8.0	7.3	7.8	7.8	7.8	7.3	8.6					
8	8.0	7.3	8.0	7.8	7.5	7.5	8.3					
9	8.0	7.3	8.0	7.8	7.5	7.5	8.3					
10	8.0	7.3	8.0	8.0	7.5	7.8	8.3					
11	8.3	7.3	8.3	8.0	7.5	7.8	8.3					
12	7.8	7.5	8.3	8.0	7.5	7.8	8.3					
13	7.5	7.8	8.0	8.0	7.5	7.8	8.3					
14	7.5	7.5	8.0	8.0	7.3	7.5	8.3					
15	7.5	7.5	8.0	8.0	7.3	7.5	8.3					
16	7.5	7.5	7.8	7.8	a7.3	7.5	8.3					
17	7.8	7.5	7.8	7.8	a7.4	7.8	8.3					
18	7.8	7.5	7.8	7.8	a7.4	7.8	-					
19	7.8	7.5	7.8	7.8	a7.5	7.8	-					
20	7.8	7.5	7.8	7.5	7.5	7.8	-					
21	7.8	7.8	7.8	7.5	7.3	7.8	-					
22	8.0	7.5	7.5	7.5	7.5	7.8	-					
23	7.8	7.5	7.8	7.5	7.5	7.8	-					
24	22	7.5	7.8	7.5	7.3	8.0	-					
25	8.0	7.5	7.5	7.5	7.3	8.0	-					
26	7.5	7.5	7.5	7.5	7.3	8.0	-					
27	7.5	7.5	7.5	7.3	7.5	8.0	-					
28	7.5	7.5	7.5	7.3	7.8	8.0	-					
29	7.5	7.5	7.5	7.3	-	8.0	-					
30	7.3	7.8	7.5	7.3	-	8.0	-					
31	7.3	-	7.5	7.3	-	8.3	-					

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	260.7	22	7.3	8.41	517
November	223.9	7.8	7.3	7.48	444
December	241.6	8.3	7.5	7.79	479
Calendar year 1941	3,191.6	82	6.2	8.74	6,330
January	236.9	8.0	7.3	7.64	470
February	208.6	7.8	7.3	7.45	414
March	239.5	8.3	7.3	7.73	475
April 1-17	141.4	8.6	8.3	8.32	280
May	-	-	-	-	-
June	-	-	-	-	-
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
The period	-	-	-	-	3,080

a No gage-height record; discharge interpolated.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River near Pecos, N. Mex.

Location.- Water-stage recorder, lat. 35°42'25", long. 105°41'00", in NE¼NE¼ sec. 17, T. 17 N., R. 12 E., at bridge on private road, 600 feet upstream from Indian Creek, 2 miles downstream from Holy Ghost Creek, and 11 miles north of Pecos.

Drainage area.- 189 square miles (contributing area).

Records available.- March 1910 to December 1914 (published as Pecos River near Cowles) and October 1930 to September 1942 in reports of Geological Survey. March 1910 to December 1931 (published as Pecos River near Cowles prior to 1926) in reports of State engineer.

Average discharge.- 12 years (1930-42), 118 second-feet.

Extremes.- Maximum discharge during year, 1,440 second-feet Apr. 23 (gage height, 4.28 feet); minimum daily, 30 second-feet Feb. 18.
1930-42: Maximum discharge, 1,960 second-feet May 14, 1941 (gage height, 4.57 feet); minimum daily, 6.1 second-feet Jan. 16, 1934.

Remarks.- Records good except those for periods of no gage-height record or ice effect, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	502	201	89	b65	b45	b40	a70	427	752	167	63	331
2	385	198	86	b60	b45	b40	a80	410	722	156	74	201
3	342	195	86	b50	b45	b40	a100	370	715	140	91	159
4	319	192	80	b45	b40	b40	a150	400	760	137	99	167
5	282	186	76	b40	b40	b35	a210	520	666	134	74	176
6	259	179	70	b45	40	b35	176	593	612	122	89	145
7	234	170	b70	a50	40	b40	137	659	556	120	99	132
8	211	162	b60	a55	b40	b40	113	680	568	132	82	122
9	195	159	b55	a55	b40	b40	106	790	538	130	73	110
10	179	150	b65	a55	b40	b35	122	888	502	120	71	102
11	167	145	b65	a60	b40	b35	164	915	496	104	86	142
12	162	134	71	a60	*b40	36	234	862	478	97	86	466
13	173	137	b70	a70	b45	35	234	768	454	93	71	298
14	176	132	b65	a70	b45	36	290	680	438	93	80	238
15	162	130	b60	a65	b45	36	390	619	410	91	74	204
16	150	124	b60	*b70	b40	38	395	606	385	89	74	170
17	142	120	b55	b55	b35	39	520	626	365	89	73	153
18	140	124	b55	b50	b30	42	632	600	342	82	76	142
19	140	a130	b55	b45	b35	40	460	568	319	76	76	132
20	134	a120	b55	b40	b40	41	370	619	302	78	76	120
21	142	a100	b55	b35	b40	44	360	715	278	82	68	108
22	145	a110	b55	b35	b40	44	508	798	263	84	63	99
23	156	a110	b50	b35	b40	*52	1,260	806	245	73	60	93
24	195	a150	b50	b35	b40	57	838	846	231	70	73	87
25	266	a100	b50	b40	b40	53	619	697	211	70	87	84
26	256	a100	b50	b45	*b40	50	526	951	198	68	68	80
27	234	a110	b50	b45	b35	46	484	960	182	76	63	74
28	231	a100	b50	b40	b35	52	478	897	167	70	60	71
29	227	*93	b50	b40	-	54	472	870	159	66	60	68
30	214	91	b50	b40	-	59	496	822	167	68	82	66
31	204	-	b60	b45	-	a65	-	798	-	68	71	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	6,724	502	134	217	13,340
November	4,152	201	91	138	8,240
December	1,918	89	50	61.9	3,800
Calendar year 1941	105,329	1,720	23	289	208,900
January	1,540	70	35	49.7	3,050
February	1,120	45	30	40.0	2,220
March	1,339	65	35	43.2	2,660
April	10,994	1,260	70	366	21,810
May	21,960	960	370	708	43,560
June	12,511	760	159	417	24,820
July	3,045	167	66	98.2	6,040
August	2,342	99	60	75.5	4,650
September	4,540	466	66	151	9,000
Water year 1941-42	72,185	1,260	30	198	143,200

Peak discharge.- Apr. 23 (5 a.m.) 1,440 sec.-ft.; Sept. 1 (10 a.m.) 626 sec.-ft.; Sept. 12 (8:30 a.m.) 632 sec.-ft.

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for stations near Anton Chico and at Santa Rosa.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River near Anton Chico, N. Mex.

Location.- Water-stage recorder, lat. 35°10'50", long. 105°06'20", in Anton Chico Grant, 2 miles upstream from Canyon Blanco, 2½ miles southeast of Anton Chico, and 10 miles downstream from Tecolote Creek.

Drainage area.- 1,050 square miles (contributing area).

Records available.- April 1910 to December 1914 and October 1930 to September 1942, in reports of Geological Survey. April 1910 to December 1931 in reports of State engineer. Prior to July 2, 1937, station was, during successive periods, at five different sites, ranging from a sixth of a mile to 5 miles upstream from present site.

Average discharge.- 12 years (1930-42), 175 second-feet.

Extremes.- Maximum discharge during year, 9,850 second-feet Sept. 1 (gage height, 9.29 feet), from rating curve extended above 2,750 second-feet on basis of slope-area determination at 20.34 feet; minimum daily, 45 second-feet Feb. 18, 19.
1930-42: Maximum discharge, 40,300 second-feet June 1, 1937 (gage height, 20.34 feet, present site and datum), by slope-area method; no flow at times.

Remarks.- Records fair except those for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,410	455	a150	a130	64	a60	104	980	842	602	55	5,550
2	980	445	a140	a110	*57	a55	120	899	818	256	156	1,180
3	842	430	a130	a90	67	a55	155	834	786	208	a140	890
4	962	426	a130	a70	71	a55	205	786	802	175	a160	1,640
5	632	416	a120	a60	66	a50	249	802	802	162	a120	762
6	536	403	a110	a70	63	a50	298	890	716	172	a200	530
7	485	377	a110	a80	64	a55	353	962	667	189	a170	475
8	435	361	a100	a80	63	a55	291	1,020	660	145	a110	361
9	403	341	a90	a80	b60	a50	252	1,040	618	148	a100	294
10	369	333	a100	a80	64	50	226	1,160	572	140	a110	246
11	349	313	a110	a90	b60	53	242	1,230	515	135	338	307
12	329	298	a120	a100	b60	61	341	1,230	490	120	a250	2,800
13	317	280	a120	*b110	60	66	485	1,150	475	107	a200	1,010
14	313	284	a110	b90	63	60	505	1,020	460	100	a150	639
15	377	266	a110	b85	b60	58	578	935	435	80	881	485
16	305	256	*102	82	61	62	646	858	390	67	a400	399
17	280	242	104	b80	b50	63	765	834	357	62	a200	329
18	266	238	104	b70	a45	62	1,420	826	333	60	a100	284
19	252	246	104	b70	a45	62	1,340	810	309	85	a150	260
20	242	223	a100	b65	b50	61	1,070	770	291	271	a230	229
21	238	175	a100	b60	b55	68	899	810	280	187	a100	214
22	242	190	a90	b60	*b67	67	917	899	270	301	a70	190
23	284	193	a80	b60	71	63	2,970	971	246	149	a110	168
24	309	a180	a80	b60	a65	72	2,950	953	232	82	a90	158
25	666	a160	a80	b65	a60	98	2,080	962	205	71	558	148
26	475	a170	a80	b70	a60	118	1,560	989	172	123	148	135
27	426	a180	a80	74	a55	102	1,310	1,010	155	123	89	120
28	416	a170	a80	72	a50	89	1,180	989	145	87	67	109
29	1,220	a160	a80	72	-	83	1,080	935	142	67	61	98
30	604	a150	a80	71	-	89	1,020	908	145	61	276	89
31	530	-	a100	71	-	96	-	858	-	81	819	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	15,494	1,410	238	500	30,730
November	8,361	455	150	279	16,580
December	3,194	150	80	103	6,340
Calendar year 1941	200,609	4,210	23	550	397,900
January	2,427	130	60	78.3	4,810
February	1,676	71	45	59.9	3,320
March	2,088	118	50	67.4	4,140
April	25,611	2,970	104	854	50,800
May	29,320	1,230	770	946	58,160
June	13,330	842	142	444	26,440
July	4,616	602	60	149	9,160
August	6,608	881	55	213	13,110
September	20,099	5,550	89	670	39,870
Water year 1941-42	132,824	5,550	45	364	263,500

Peak discharge.- July 1 (6 p.m.) 3,310 sec.-ft.; Aug. 15 (7 p.m.) 3,460 sec.-ft.; Aug. 25 (5 a.m.) 2,810 sec.-ft.; Sept. 1 (5 a.m.) 9,850 sec.-ft.; Sept. 4 (5 a.m.) 4,310 sec.-ft.; Sept. 12 (1 a.m.) 5,890 sec.-ft.

* Winter discharge measurement made on this date.

a No gage-height record; discharge computed on basis of weather records and records for stations near Pecos and at Santa Rosa.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River at Santa Rosa, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 34°56'05", long. 104°41'25", in SW¼SW¼ sec. 2, T. 8 N., R. 21 E., at bridge on U. S. Highway 66 at Santa Rosa, 1 mile upstream from Rio Agua Negra Chiquita.

Drainage area.- 2,650 square miles (contributing area).

Records available.- May 1903 to December 1906 (gage heights only), February 1910 to July 1911, September 1912 to December 1914 and October 1930 to September 1942 in reports of Geological Survey. February 1910 to July 1911 and September 1912 to December 1931 in reports of State engineer.

Average discharge.- 23 years (1912-14, 1916-23, 1928-42), 192 second-feet.

Extremes.- Maximum discharge during year, 40,600 second-feet Sept. 1 (gage height, 20.33 feet), from rating curve extended above 31,700 second-feet by logarithmic plotting; minimum daily, 37 second-feet Apr. 4.

1930-42: Maximum discharge, 55,200 second-feet June 2, 1937 (gage height, 25.7 feet), from rating curve extended above 35,000 second-feet by logarithmic plotting; minimum daily, 2.7 second-feet June 25, 1937.

Remarks.- Records fair. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,220	670	138	106	58	51	47	1,100	737	244	60	24,700
2	1,870	520	118	83	*56	44	45	971	622	822	62	5,020
3	3,460	475	115	60	56	44	44	836	574	250	69	1,160
4	2,340	433	121	53	53	44	37	702	566	265	128	1,490
5	1,510	405	98	50	51	40	38	614	702	200	74	1,340
6	1,050	387	98	53	51	40	109	606	566	135	183	606
7	800	381	98	60	51	47	171	809	512	101	141	535
8	590	363	83	64	50	48	200	935	1,120	90	90	520
9	482	323	76	62	50	47	131	944	468	118	80	312
10	405	285	85	62	50	45	101	1,040	433	80	95	213
11	369	270	87	67	55	44	85	1,210	461	129	87	152
12	328	240	98	71	53	45	98	1,240	440	56	580	5,100
13	301	265	92	92	55	44	200	1,250	419	51	183	2,950
14	290	250	87	78	55	43	306	1,120	405	53	112	845
15	296	245	80	76	53	43	334	971	405	51	730	566
16	328	231	74	80	55	45	426	854	363	60	522	433
17	285	208	69	65	b50	44	433	728	328	67	296	393
18	226	204	69	56	44	43	2,100	670	306	67	187	345
19	195	200	67	55	b50	43	2,060	710	280	64	128	265
20	200	218	69	47	51	41	1,570	542	250	90	208	218
21	204	179	67	44	47	44	1,240	528	231	315	106	191
22	255	159	62	45	*47	44	1,130	598	208	304	83	155
23	218	167	60	45	47	44	3,590	854	179	312	135	145
24	265	183	58	47	45	43	6,050	908	346	213	90	131
25	615	159	64	50	47	41	3,320	908	265	121	230	115
26	670	155	64	53	45	44	2,200	944	148	101	334	95
27	512	167	62	55	43	43	1,740	944	101	76	163	87
28	440	155	64	55	41	44	1,470	1,030	76	112	92	83
29	968	145	62	56	-	44	1,300	953	91	106	74	78
30	1,400	145	62	56	-	45	1,160	917	80	71	232	78
31	899	-	78	56	-	47	-	845	-	62	1,290	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	24,991	3,460	195	806	49,570
November	8,187	670	145	273	16,240
December	2,525	138	58	81.5	5,010
Calendar year 1941	275,592	16,600	17	755	546,700
January	1,902	106	44	61.4	3,770
February	1,409	58	41	50.3	2,790
March	1,368	51	40	44.1	2,710
April	31,835	6,050	37	1,061	63,140
May	27,281	1,250	528	880	54,110
June	11,682	1,120	76	389	23,170
July	4,786	822	51	154	9,490
August	6,844	1,290	60	221	13,570
September	48,321	24,700	78	1,611	95,840
Water year 1941-42	171,131	24,700	37	469	339,400

Peak discharge.- Oct. 3 (10 a.m.) 9,130 sec.-ft.; Apr. 23 (9 p.m.) 8,710 sec.-ft.; Sept. 1 (2 p.m.) 40,600 sec.-ft.; Sept. 12 (4 p.m.) 12,200 sec.-ft.

* Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River near Puerto de Luna, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 34°43', long. 104°32', in sec. 29, T. 6 N., R. 23 E., 10 miles southeast of Puerto de Luna and 14 miles upstream from Alamogordo Dam.

Drainage area.- 3,970 square miles (contributing area).

Records available.- April 1938 to September 1942.

Extremes.- Maximum discharge during year, 48,600 second-feet Sept: 1 (gage height, 17.00 feet), from rating curve extended above 7,400 second-feet on basis of flow at Santa Rosa; minimum daily, 102 second-feet Apr. 4.
1938-42: Maximum discharge, that of Sept. 1, 1942; minimum daily, 59 second-feet Aug. 23, 1938.

Remarks.- Records good except those for periods of ice effect, which are fair. Many diversions above station for irrigation. Discharge represents inflow to Alamogordo Reservoir (capacity, 157,000 acre-feet).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,900	845	210	166	126	152	108	1,090	736	888	132	29,900
2	3,220	730	215	174	129	166	111	1,160	758	881	135	5,780
3	4,040	624	210	149	132	156	111	1,010	648	394	160	1,660
4	3,330	624	197	135	135	146	102	890	648	284	192	1,320
5	2,660	576	*184	b120	135	149	108	645	800	298	174	1,760
6	1,860	564	179	123	132	138	120	845	702	248	170	998
7	1,410	540	b180	135	138	146	254	890	688	197	237	674
8	1,160	518	179	129	138	146	312	1,080	1,320	156	206	674
9	982	452	163	152	126	120	259	1,190	744	142	174	452
10	830	421	163	*132	142	126	220	1,270	600	135	160	367
11	716	421	b170	135	146	123	197	1,370	507	163	170	385
12	624	412	170	149	135	129	206	1,410	485	152	429	4,360
13	540	367	170	166	129	135	232	1,370	430	138	291	5,640
14	474	340	166	179	126	129	367	1,240	412	132	242	1,590
15	441	340	*163	174	135	129	385	1,110	394	117	551	845
16	430	326	156	156	138	132	485	935	385	120	817	518
17	441	291	138	156	132	129	648	890	326	123	333	463
18	385	277	138	138	117	117	2,050	875	305	132	284	430
19	376	270	142	129	138	123	2,100	860	298	166	210	403
20	333	264	132	135	146	114	1,550	772	270	179	179	367
21	412	254	132	135	138	120	1,210	674	254	314	174	333
22	463	237	135	120	132	117	1,110	702	242	328	259	326
23	518	232	129	123	129	114	2,210	905	220	421	156	291
24	744	237	126	123	135	111	6,230	1,080	265	319	210	259
25	529	215	b120	123	135	108	3,440	966	298	277	166	242
26	845	179	126	123	126	105	2,360	935	210	192	390	215
27	702	188	135	120	126	114	1,900	920	188	170	264	197
28	636	215	135	126	146	117	1,570	998	149	149	188	192
29	702	220	135	132	-	114	1,340	950	135	192	417	179
30	1,690	202	146	155	-	114	1,210	905	416	210	600	166
31	998	-	*146	129	-	114	-	875	-	146	2,280	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	36,391	4,040	333	1,174	72,180
November	11,381	845	179	379	22,570
December	4,890	215	120	158	9,700
Calendar year 1941	333,827	17,900	82	915	662,100
January	4,321	179	120	139	8,570
February	3,742	146	117	134	7,420
March	3,953	166	105	128	7,840
April	32,505	6,230	102	1,084	64,470
May	31,012	1,410	674	1,000	61,510
June	13,883	1,320	135	463	27,540
July	7,763	888	117	250	15,400
August	10,350	2,280	132	334	20,530
September	61,986	29,900	166	2,066	122,900
Water year 1941-42	222,177	29,900	102	609	440,600

Peak discharge.- Apr. 18 (8:30 a.m.) 4,140 sec.-ft.; Apr. 24 (3 a.m.) 7,610 sec.-ft.; July 1 (7:30 p.m.) 7,330 sec.-ft.; Sept. 1 (5 p.m.) 48,600 sec.-ft.; Sept. 12 (8 p.m.) 14,000 sec.-ft.; Sept. 13 (10:30 a.m.) 7,890 sec.-ft.

e Winter discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River near Guadalupe, N. Mex.

Location.- Water-stage recorder, lat. 34°36'20", long. 104°23'10", in lot 1, sec. 2, T. 4 N., R. 24 E., 1,200 feet downstream from Alamogordo Dam, 1½ miles downstream from Alamogordo Creek, and 4½ miles northeast of Guadalupe. Datum of gage is 4,142.67 feet above mean sea level (Bureau of Reclamation datum).

Drainage area.- 4,390 square miles (contributing area).

Records available.- October 1912 to December 1914, October 1930 to September 1936 (at site 1½ miles upstream, and September 1936 to September 1942 in reports of Geological Survey. October 1912 to December 1931 in reports of State engineer.

Average discharge.- 21 years (1913-16, 1918-25, 1926-37) 264 second-feet (prior to completion of Alamogordo Dam).

Extremes.- Maximum discharge during water year, 42,800 second-feet Sept. 1 (gage height, 12.44 feet), from Bureau of Reclamation record of operation of Alamogordo Dam; minimum daily discharge, 6.2 second-feet Mar. 9, 10.

1930-42: Maximum discharge, that of Sept. 1, 1942; maximum gage height, 13.58 feet Sept. 22, 1941, from floodmark; no flow at times.

Remarks.- Records good except those above 12,000 second-feet, which are fair. Flow regulated by Alamogordo Reservoir (see p. 185). Diversions above station for irrigation.

Cooperation.- Gage-height record collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,220	600	296	216	195	10	6.4	12	187	121	93	26,400
2	2,480	a13	288	213	182	9.0	65	13	190	332	93	9,230
3	3,900	a13	288	93	236	9.0	123	13	190	464	93	4,830
4	3,580	612	280	30	656	8.5	57	40	190	476	93	292
5	1,060	1,080	276	26	644	8.5	32	56	190	487	93	980
6	450	36	280	26	632	8.0	100	57	140	487	93	1,420
7	450	32	276	25	916	7.5	79	57	13	487	91	1,370
8	706	116	276	24	1,170	6.6	74	57	10	243	91	772
9	1,230	478	276	21	534	6.2	70	56	562	125	93	464
10	492	472	276	20	a16	6.2	93	504	966	133	93	464
11	a12	467	272	20	a16	13	136	924	966	144	94	164
12	738	462	135	20	a16	37	173	924	966	144	94	2,680
13	972	456	25	134	a15	36	199	1,270	966	103	96	6,270
14	972	472	24	192	a15	38	266	1,510	786	88	151	1,850
15	964	489	24	195	a14	38	350	1,680	555	88	615	487
16	956	489	24	198	a14	38	374	1,680	498	86	1,010	487
17	813	484	24	198	a13	44	630	1,650	314	89	1,210	487
18	430	478	24	198	13	38	1,030	1,650	305	89	180	487
19	242	472	25	198	13	36	1,290	1,650	305	233	123	487
20	146	329	27	198	13	37	1,290	1,860	203	750	94	487
21	613	23	25	198	12	67	1,270	2,020	170	341	171	487
22	1,560	21	24	195	12	81	1,270	1,960	170	212	292	476
23	1,370	20	123	201	12	45	1,290	1,960	170	212	286	487
24	1,870	20	207	204	11	47	2,660	1,620	166	212	286	402
25	1,940	20	210	198	11	54	4,550	15	170	212	286	156
26	717	21	207	198	10	53	3,850	81	170	212	286	150
27	a13	21	210	198	10	52	3,820	176	133	212	292	153
28	a13	23	213	198	10	82	3,230	180	116	208	292	156
29	263	31	213	198	-	82	3,670	184	116	132	292	159
30	2,240	614	216	201	-	51	383	187	118	93	292	166
31	2,300	-	219	198	-	30	-	187	-	93	1,450	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	36,714	3,900	12	1,184	72,820
November	8,864	1,080	13	295	17,580
December	5,283	296	24	170	10,480
Calendar year 1941	307,287.2	24,000	0	842	609,500
January	4,432	216	20	143	8,790
February	5,411	1,170	10	193	10,730
March	1,080.5	82	6.2	349	2,140
April	32,430.4	4,550	6.4	1,081	64,320
May	24,134	2,020	12	779	47,870
June	10,001	966	10	333	19,840
July	7,308	750	86	236	14,500
August	8,818	1,450	91	284	17,490
September	62,900	26,400	150	2,097	124,800
Water year 1941-42	207,375.9	26,400	6.2	568	411,400

a No gage-height record; discharge interpolated or computed on basis of records of regulation and leakage from gates of Alamogordo Dam.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River near Acme, N. Mex.

Location.- Water-stage recorder, lat. 33°32'10", long. 104°22'40", in NW¼ sec. 14, T. 9 S., R. 25 E., 1 mile southeast of Melena railroad station, 3½ miles downstream from Salt Creek, 5 miles southwest of Acme and 13 miles northeast of Roswell.

Drainage area.- 11,380 square miles (contributing area).

Records available.- July 1937 to September 1942 in reports of Geological Survey. August 1921 to July 1923 in reports of State engineer.

Extremes.- Maximum discharge during year, 37,000 second-feet Sept. 2 (gage height, 11.38 feet), from rating curve extended above 15,000 second-feet by logarithmic plotting; minimum daily, 5 second-feet Apr. 6.

1937-42: Maximum discharge, 45,000 second-feet Sept. 23, 1941 (gage height, 13.71 feet), from rating curve extended above 15,000 second-feet by logarithmic plotting; no flow at times.

Maximum discharge during flood of May 28, 1937, 53,300 second-feet (gage height, 14.82 feet, from floodmarks, former site and datum), by slope-area method.

Remarks.- Records fair except those for periods of no gage-height record, which are poor Diversions above station for irrigation. Flow regulated by Alamogordo Reservoir (see p.185).

Cooperation.- One discharge measurement furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,600	2,610	256	252	218	66	59	a800	a250	266	78	3,080
2	3,510	a1,500	401	247	218	83	80	a300	150	529	53	27,600
3	3,010	a450	369	266	218	71	61	a200	136	414	102	9,370
4	5,150	a350	332	271	237	71	39	a160	165	293	52	5,420
5	3,900	a300	298	282	261	59	17	a140	180	287	a20	970
6	1,800	a400	315	184	516	50	5	a130	160	252	a15	920
7	900	a600	315	136	532	63	10	a120	161	282	a20	1,300
8	752	a350	315	75	503	57	78	a110	173	304	156	1,360
9	868	a300	338	99	840	48	180	105	154	338	184	1,260
10	766	a400	351	110	1,010	48	252	99	91	351	139	780
11	1,340	594	338	120	523	46	180	93	52	176	78	820
12	a1,000	571	363	126	242	48	130	101	620	133	40	830
13	a900	563	338	93	133	50	113	742	704	146	28	2,390
14	1,060	571	321	75	120	40	107	771	840	50	20	4,480
15	1,120	579	184	61	a100	27	110	1,280	820	33	42	2,190
16	1,020	587	a150	78	a80	17	126	1,440	437	75	312	695
17	970	587	130	214	a70	40	116	1,520	338	59	429	555
18	940	555	120	237	57	66	157	1,540	351	32	1,120	563
19	714	525	113	242	88	71	1,080	1,590	282	28	693	548
20	555	571	110	223	73	63	2,000	1,510	218	385	a400	518
21	482	548	113	223	75	59	1,920	1,610	197	519	a300	518
22	3,490	427	105	232	96	68	2,030	1,940	184	282	326	540
23	4,600	a250	102	242	78	71	2,390	2,520	180	321	214	540
24	3,950	161	85	237	55	71	2,300	3,200	130	157	259	532
25	3,680	157	71	214	52	78	3,890	2,300	83	110	458	496
26	2,520	146	98	214	44	113	4,350	a850	66	425	596	467
27	1,540	136	276	232	44	83	3,320	a250	55	165	266	293
28	a900	154	256	223	46	66	3,760	a220	27	154	237	227
29	434	130	252	218	-	57	3,530	a140	16	126	276	223
30	1,130	136	261	232	-	53	4,110	a180	232	102	783	214
31	2,610	-	232	232	-	55	-	a190	-	91	602	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	68,213	12,600	434	2,200	135,300
November	15,208	2,610	130	507	30,160
December	7,308	401	71	236	14,500
Calendar year 1941	441,870.9	29,500	.3	1,211	876,500
January	5,890	282	61	190	11,680
February	6,531	1,010	44	233	12,950
March	1,860	113	17	60	3,690
April	36,500	4,350	5	1,217	72,400
May	26,151	3,200	93	844	51,870
June	7,472	840	16	249	14,820
July	6,907	529	28	223	13,700
August	8,298	1,120	15	268	16,460
September	69,699	27,600	214	2,323	138,200
Water year 1941-42	260,037	27,600	5	712	515,700

a No gage-height record; discharge computed on basis of weather records and records for stations near Guadalupe and near Lake Arthur.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River near Lake Arthur, N. Mex.

Location.- Water-stage recorder, lat. 32°59'25", long. 104°19'10", on line between secs. 26 and 27, T. 15 S., R. 26 E., 1,100 feet upstream from highway bridge, 3 miles east of Lake Arthur, 10 miles upstream from Cottonwood Creek, and 11 miles northeast of Artesia.

Drainage area.- 14,760 square miles (contributing area).

Records available.- August 1938 to September 1942.

Extremes.- Maximum discharge during year, 27,200 second-feet Oct. 2 (gage height, 18.12 feet), from rating curve extended above 18,500 second-feet on basis of slope-area determination at gage height 21.77 feet; minimum daily, 60 second-feet Aug. 7.

1938-42: Maximum discharge, 49,600 second-feet Sept. 24, 1941 (gage height, 21.90 feet), from rating curve extended above 16,100 second-feet on basis of slope-area determination at gage height 21.77 feet and logarithmic plotting; minimum daily, 2 second-feet Aug. 29, 30, 1940.

Flood of May 30, 1937 reached a stage of 21.77 feet (discharge, 51,500 second-feet, by slope-area method); may have been exceeded by floods of 1904 and 1919.

Remarks.- Records good except for periods of doubtful or no gage-height record, which are fair. Diversions above station for irrigation. Flow regulated to some extent by Alamogordo Reservoir 150 miles above station (see p. 185).

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22,300	3,400	485	534	460	230	156	d2,000	248	218	132	1,690
2	17,500	2,810	588	512	455	238	156	1,140	365	350	134	7,410
3	5,130	680	699	524	485	248	164	648	275	555	132	17,500
4	5,230	1,010	642	540	465	238	178	480	275	465	106	8,960
5	6,060	853	642	540	465	227	181	405	263	287	118	3,360
6	3,870	1,060	630	529	485	217	181	340	283	355	85	1,830
7	2,380	1,760	636	490	692	217	172	307	271	355	60	1,980
8	1,730	909	630	425	777	201	181	291	271	315	84	2,080
9	1,580	751	630	405	784	220	259	271	259	319	79	1,930
10	1,700	699	648	365	1,130	208	380	291	252	307	193	1,450
11	1,770	784	660	370	1,130	189	425	271	230	340	175	811
12	1,560	994	718	380	642	178	345	252	186	315	154	784
13	1,000	962	751	380	465	164	307	230	562	204	127	811
14	934	954	692	370	395	158	291	568	751	164	114	3,380
15	1,580	946	654	350	345	154	288	948	784	158	134	4,020
16	1,580	923	552	350	315	154	279	1,400	758	116	132	1,680
17	1,480	930	475	350	295	148	279	1,680	465	103	248	954
18	1,440	909	455	400	279	141	d500	1,680	327	112	488	777
19	1,440	902	445	465	267	146	a1,000	1,730	327	118	1,050	811
20	1,070	895	430	470	263	164	d1,800	1,680	307	112	637	846
21	938	938	425	485	275	164	1,880	1,680	244	250	315	777
22	1,130	930	420	490	255	169	1,980	1,880	220	518	241	686
23	6,840	811	405	502	259	172	d2,300	2,250	198	365	255	660
24	5,040	588	395	496	234	167	a2,500	2,520	186	275	319	842
25	6,070	546	385	490	238	164	a2,400	2,560	169	275	271	642
26	3,700	529	380	485	234	158	d4,700	1,750	141	234	574	848
27	3,190	512	385	470	217	156	d4,000	678	125	401	546	830
28	1,720	502	502	455	214	172	4,100	410	125	224	299	470
29	1,060	496	524	455	-	172	3,850	295	132	204	291	375
30	1,320	496	529	455	-	167	d4,000	235	118	186	646	355
31	2,390	-	529	440	-	158	-	224	-	161	1,300	-

Month	Second-feet-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	114,722	22,300	934	3,701	227,500
November	29,479	3,400	496	983	58,470
December	16,941	751	380	546	33,600
Calendar year 1941	633,200	39,800	67	1,735	1,256,000
January	13,972	540	350	451	27,710
February	12,500	1,130	214	446	24,790
March	5,657	248	141	182	11,220
April	39,232	4,700	158	1,308	77,820
May	31,094	2,560	224	1,003	61,670
June	9,117	784	118	304	18,080
July	8,361	555	103	270	16,580
August	9,439	1,050	60	304	18,720
September	68,949	17,500	355	2,298	136,800
Water year 1941-42	359,463	22,300	60	985	713,000

a No gage-height record; discharge computed on basis of weather records and records for stations near Guadalupe and near Acme.

d Doubtful gage-height record; discharge computed on basis of weather records and records for stations near Guadalupe and near Acme.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River near Artesia, N. Mex.

Location.- Water-stage recorder, lat. 32°50'10", long. 104°19'30", in W½NW¼ sec. 18, T. 17 S., R. 27 E., at bridge on Artesia-Lovington highway, 4.2 miles east of Artesia, 6.5 miles north of mouth of Rio Penasco, and 16.5 miles north of McMillan Dam.

Drainage area.- 15,300 square miles (contributing area).

Records available.- March 1905 to September 1925 and October 1931 to February 1936 (published as Pecos River near Dayton), and February 1936 to September 1942 in report of Geological Survey. March 1905 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 25,500 second-feet Oct. 2, from rating curve extended above 10,600 second-feet by slope-area method and logarithmic plotting; maximum gage height, 12.43 feet Sept. 4; minimum daily discharge, 70 second-feet Aug. 8.

1905-42: Maximum gage height, 15.9 feet Sept. 18, 1919, site and datum then in use (discharge not determined). Flood of May 30, 1937 reached a discharge of 51,500 second-feet (gage height, 14.7 feet), by slope-area method; no flow Aug. 17-24, 1934.

Remarks.- Records fair. Diversions above station for irrigation. Flow partly regulated by Alamogordo Reservoir (see p.185). Discharge represents inflow to Lake McMillan, which stores water for irrigation of about 25,000 acres of Carlsbad project.

Cooperation.- Gage-height record collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20,600	3,520	564	570	488	274	194	3,520	267	138	161	1,690
2	22,500	3,190	564	556	488	284	194	1,630	296	355	135	4,470
3	8,100	2,260	618	570	501	293	194	895	378	369	136	13,300
4	5,960	1,400	748	584	501	284	208	632	315	585	120	13,600
5	6,610	1,140	715	612	488	274	216	495	296	390	110	4,540
6	4,230	1,000	700	584	501	265	216	415	296	355	105	1,930
7	2,990	2,190	685	570	598	256	223	355	305	378	79	1,810
8	1,990	1,400	665	514	800	248	248	325	296	345	70	2,110
9	1,810	1,140	665	474	816	248	265	315	286	345	94	1,990
10	1,870	1,020	665	436	1,060	256	399	305	276	315	100	1,630
11	1,870	960	700	411	1,360	239	436	315	258	315	160	895
12	2,180	1,220	748	423	905	223	423	296	232	335	144	795
13	1,300	1,220	818	423	598	208	365	267	375	258	120	775
14	1,070	1,180	800	423	488	207	333	360	720	161	111	2,500
15	1,720	1,160	782	411	423	201	333	615	815	178	131	3,840
16	1,990	1,100	730	399	376	194	333	1,230	775	144	138	1,900
17	1,870	1,100	612	399	354	188	323	1,580	615	119	153	1,020
18	1,750	1,020	570	411	344	181	344	1,690	365	112	276	835
19	1,750	1,000	542	501	333	181	436	1,750	335	125	886	835
20	1,430	1,020	514	528	323	188	775	1,750	315	116	625	895
21	1,180	1,060	488	528	323	194	1,800	1,690	276	135	378	855
22	1,090	1,140	474	542	323	194	2,020	1,810	232	433	296	738
23	6,440	1,100	461	542	313	201	2,440	2,180	216	540	249	685
24	5,960	762	448	542	293	201	2,910	2,460	208	335	335	668
25	6,180	700	436	542	284	194	2,840	2,600	186	325	296	668
26	4,230	670	423	528	284	194	4,380	1,990	165	305	386	668
27	3,620	641	411	514	274	188	4,540	956	145	345	702	668
28	2,440	626	488	488	265	194	4,090	495	138	335	378	570
29	1,500	612	556	488	-	208	3,960	365	145	240	345	440
30	1,500	598	570	488	-	201	3,330	296	135	216	364	402
31	2,560	-	570	474	-	194	-	249	-	186	1,480	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	130,290	22,500	1,090	4,203	258,400
November	37,189	3,520	598	1,240	73,760
December	19,030	618	411	614	37,750
Calendar year 1941	681,289	44,300	79	1,867	1,351,000
January	15,475	612	399	499	30,690
February	14,106	1,360	265	504	27,980
March	6,855	293	181	221	13,600
April	38,768	4,540	194	1,292	76,900
May	33,831	3,520	249	1,091	67,100
June	9,662	815	135	322	19,160
July	8,853	540	112	286	17,560
August	9,263	1,480	70	299	18,370
September	67,722	13,600	402	2,257	134,300
Water year 1941-42	391,044	22,500	70	1,071	775,600

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River at Carlsbad, N. Mex.

Location.- Water-stage recorder, lat. 32°24'50", long. 104°13'20", in NW¼SE¼ sec. 6, T. 22 S., R. 27 E., at Green Street Bridge in Carlsbad, half a mile upstream from Dark Canyon. Datum of gage is 3,080.38 feet above mean sea level, datum of 1929.

Drainage area.- 18,100 square miles (contributing area).

Records available.- May 1903 to March 1908, May 1914 to September 1925, October 1928 to September 1930, and October 1931 to September 1942 in reports of Geological Survey. June 1903 to December 1906, May 1914 to December 1928, and January 1930 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 19,600 second-feet October 3 (gage height, 11.82 feet); minimum daily, 9 second-feet June 26 and August 9.
1903-8, 1914-42: Maximum discharge, 85,700 second-feet Aug. 7, 1916 (gage height, about 21.0 feet), from rating curve extended above 34,000 second-feet by logarithmic plotting; no flow May 9, 1904.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Flow regulated by Alamogordo Reservoir, Lake McMillan, and Lake Avalon and by several small diversion dams for power and irrigation. Many diversions above station for irrigation.

Cooperation.- Gage-height record and one discharge measurement furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,600	1,570	605	535	2,300	560		2,590	157	97	116	92
2	13,900	678	577	577	610	330		2,990	129	97	116	1,750
3	19,100	2,570	570	584	500	260	100	2,990	122	100	116	3,100
4	13,700	4,080	563	591	300	200		1,360	119	100	113	3,000
5	8,830	3,960	688	776	250	190		129	113	100	113	3,280
6	6,760	2,330	864	760	300	200	110	129	113	100	113	3,960
7	6,260	1,460	896	760	1,500	190	100	116	110	100	113	4,500
8	5,760	1,180	872	760	2,700	200	110	170	415	103	76	4,040
9	5,060	1,190	704	1,540	220	190	106	145	874	100	9	3,670
10	4,490	1,450	656	2,220	240	190	103	129	548	100	28	1,870
11	4,050	1,460	656	1,730	220	190	103	137	263	106	54	1,100
12	1,790	1,170	752	460	200	170	103	216	122	100	89	1,040
13	1,550	149	880	346	170	180	100	258	110	100	92	998
14	1,740	120	936	394	160	180	100	232	110	100	94	762
15	1,590	120	960	290	160	170	110	216	106	100	94	730
16	1,800	117	976	280	160	160	103	170	277	100	94	1,370
17	1,820	117	1,010	260	140	150	103	137	206	100	92	3,370
18	1,470	377	976	260	130	120	100	383	133	106	92	2,120
19	2,860	2,300	952	250	120	110	100	1,500	129	103	92	113
20	1,660	1,110	752	250	110		100	910	125	100	92	97
21	1,700	1,290	704	250	110		98	1,680	125	106	92	94
22	1,410	1,100	696	250	130		100	1,890	122	100	92	409
23	1,470	1,320	688	250	130		170	1,540	122	100	94	794
24	1,870	1,690	672	250	180		120	1,510	122	100	92	818
25	3,470	138	619	250	190	100	2,500	1,640	57	103	89	834
26	4,380	105	418	360	190		3,500	2,080	9	97	89	810
27	4,960	169	412	1,140	190		3,500	2,450	16	292	89	802
28	5,040	535	412	1,210	450		2,000	1,630	92	174	92	794
29	4,640	840	418	1,600	-		1,500	558	97	119	89	762
30	4,280	840	458	1,000	-		3,690	297	97	116	89	406
31	3,700	-	486	400	-		-	221	-	116	103	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	151,730	19,100	1,410	4,895	301,000
November	35,535	4,080	105	1,184	70,480
December	21,828	1,010	412	704	43,300
Calendar year 1941	699,721	31,700	19	1,917	1,388,000
January	20,583	2,220	250	664	40,830
February	12,060	2,700	110	431	23,920
March	5,140	560	-	166	10,200
April	19,229	3,690	-	641	38,140
May	30,403	2,990	116	981	60,300
June	5,140	874	9	171	10,200
July	3,435	292	97	111	6,810
August	2,808	116	9	90.6	5,570
September	47,485	4,500	92	1,583	94,190
Water year 1941-42	355,376	19,100	9	974	704,900

Note.- No gage-height record Jan. 15 to Apr. 8, Apr. 15, 16, 21-29; discharge computed on basis of weather records, data furnished by U. S. Bureau of Reclamation, and records for station near Malaga.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River near Malaga, N. Mex.

Location.- Water-stage recorder, lat. 32°12'30", long. 104°01'30", in NW¼NW¼ sec. 19, T. 24 S., R. 29 E., 3 miles southeast of Malaga and 3 miles downstream from Black River. Datum of gage is 2,898.68 feet above mean sea level, datum of 1929.

Drainage area.- 19,190 square miles (contributing area).

Records available.- May 1920 to September 1925 and October 1931 to September 1942 in reports of Geological Survey. January 1921 to December 1931 in reports of State engineer.

Extremes.- Maximum discharge during year, 21,200 second-feet Oct. 3, (gage height, 16.83 feet); minimum daily, 60 second-feet June 28.
1920-42: Maximum discharge, 63,700 second-feet Sept. 21, 1941, from rating curve extended above 22,500 second-feet by logarithmic plotting; maximum gage height, 32.1 feet, from floodmark May 22, 1941; no flow Aug. 20-22, 1934.

Remarks.- Records good. Flow regulated by Alamogordo Reservoir, Lake McMillan, and Lake Avalon and by several small diversion dams for power and irrigation. Many diversions above station for irrigation.

Cooperation.- Gage-height record collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11,200	2,370	805	610	2,110	530	110	3,420	286	132	175	271
2	14,800	900	715	650	1,420	510	150	2,210	222	136	150	619
3	19,600	1,640	715	692	692	447	134	3,500	175	202	182	3,040
4	17,400	4,310	715	692	590	370	142	1,990	188	238	155	3,130
5	10,400	4,200	715	782	394	322	140	493	178	230	180	3,220
6	7,640	3,310	950	875	358	307	215	240	178	202	162	3,800
7	6,690	1,410	1,020	875	860	313	175	253	144	208	136	4,530
8	6,170	1,250	1,020	850	2,470	313	178	316	185	230	160	4,420
9	5,440	1,270	875	1,010	1,300	310	225	280	767	168	114	4,000
10	4,640	1,420	782	2,610	322	313	160	245	828	188	106	2,660
11	4,310	1,510	760	1,920	346	307	152	248	355	192	86	1,420
12	2,290	1,330	628	1,130	322	304	105	190	268	218	89	1,210
13	1,420	1,000	925	454	307	295	136	283	175	230	185	1,180
14	1,850	394	1,020	447	292	304	140	295	122	165	188	975
15	1,570	380	1,050	444	271	301	152	259	155	182	289	850
16	1,780	370	1,080	416	274	295	134	232	128	136	218	975
17	1,820	361	1,080	405	274	280	134	205	356	190	274	3,030
18	1,600	349	1,100	391	256	232	152	198	225	170	215	3,360
19	2,120	1,740	1,100	377	240	200	114	1,140	188	126	220	551
20	1,680	1,310	950	377	232	175	142	933	198	150	152	298
21	1,730	1,380	828	370	253	160	122	1,570	168	130	142	277
22	1,640	1,240	805	364	220	158	120	2,060	190	165	132	268
23	1,600	1,340	782	364	240	192	198	1,820	162	136	142	850
24	2,040	1,490	782	358	245	192	144	1,640	144	116	152	1,000
25	3,500	1,060	760	358	292	168	2,050	1,640	185	195	195	1,000
26	4,530	283	610	358	313	178	3,900	2,060	158	120	215	1,000
27	5,320	271	510	475	313	140	3,900	2,530	a100	138	178	950
28	5,440	458	530	1,200	394	146	2,410	1,990	a60	340	134	975
29	5,080	828	530	1,510	-	116	1,740	1,090	72	170	192	950
30	4,750	975	550	1,080	-	168	3,330	478	110	172	134	715
31	4,310	-	590	444	-	158	-	374	-	130	262	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	164,360	19,600	1,420	5,302	326,000
November	40,149	4,310	271	1,338	79,630
December	25,482	1,100	510	822	50,540
Calendar year 1941	817,962	30,300	62	2,241	1,622,000
January	22,888	2,610	358	738	45,400
February	15,600	2,470	220	557	30,940
March	8,204	530	116	265	16,270
April	20,904	3,900	105	697	41,460
May	34,182	3,500	190	1,103	67,800
June	6,672	828	60	222	13,230
July	5,505	340	116	178	10,920
August	5,314	289	86	171	10,540
September	51,524	4,530	268	1,717	102,200
Water year 1941-42	400,784	19,600	60	1,098	794,900

a No gage-height record; discharge computed on basis of records for station at Red Bluff.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

556253 O - 43 - 17

Pecos River at Red Bluff, N. Mex.

Location.- Water-stage recorder, lat. 32°04'40", long. 104°02'20", at Red Bluff, Eddy County, just downstream from Red Bluff Creek and 5½ miles upstream from Delaware River. Datum of gage is 2,850.0 feet above mean sea level, datum of 1929.

Drainage area.- 19,540 square miles (contributing area).

Records available.- October 1937 to September 1942. May 1914 to September 1937 at site 6 miles downstream near Angeles, Tex.; records comparable to combined flow of Pecos River at Red Bluff, N. Mex., and Delaware River near Red Bluff, N. Mex.

Extremes.- Maximum discharge during year, 19,800 second-feet Oct. 4 (gage height, 17.7 feet); minimum, 66 second-feet June 29.

1937-42: Maximum discharge, 52,600 second-feet May 24, 1941 (gage height, 28.3 feet); minimum, 34 second-feet Aug. 13, 1938.

Maximum stage known prior to 1941, 28.0 feet in October 1904, from information by Chief Engineer of Panhandle & Santa Fe Railway Co.

Remarks.- Records excellent except those above 5,000 second-feet, which are good, and those for periods of no gage-height record, which are poor. Flow regulated to large extent by reservoirs above Carlsbad. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,880	2,970	880	560	1,170	487	152	3,770	358	136		311
2	12,400	1,320	702	614	1,910	535	165	2,020	304	148		217
3	16,800	887	690	654	696	500	160	3,640	214	152		2,260
4	18,600	3,870	696	660	678	412	162	2,480	226	235		3,060
5	12,400	g4,190	684		423	372	155	1,100	208	232		3,120
6	8,050	g4,050	880	a800	379	354	205	343	199	208	a147	3,640
7	6,710	a1,500	1,020		445	350	211	262	175	191		4,330
8	6,290	a1,350	1,060		1,880	350	178	307	202	202		4,610
9	5,590	a1,300	985	838	1,890	343	255	340	440	186		4,050
10	4,750	a1,350	817	1,980	433	347	205	282	887	165		3,280
11	4,470	a1,480	792	1,870	347	340	170	296	556	162		1,730
12	3,120	a1,500	831	1,490	343	340	148	248	318	205	91	1,340
13	1,620	a1,200	915	483	322	336	155	248	258	245	132	1,300
14	1,740	g508	1,020	438	304	332	150	343	158	188	175	1,200
15	1,700	g496	1,060	438	286	332	172	304	168	180	220	985
16	1,740	g483	1,060	408	290	340	160	286	158	155	220	985
17	1,870	g504	1,060	394	279	322	152	248	228	165	242	2,210
18	1,870	491	1,060	386	258	290	180	255	332	175	211	3,510
19	1,550	834	1,060	376	265	265	178	596	239	145	217	1,500
20	1,860	2,070	985	368	235	202	175	1,330	208	150	160	419
21	1,740	1,210	804	365	242	178	168	1,210	178	138	160	383
22	1,790	1,290	774	361	205	165	158	1,870	199	178	150	304
23	1,660	1,200	750	361	246	217	191	2,170	188	152	138	585
24	3,520	1,390	750	354	229	191	186	1,660	155	136	150	1,060
25	3,260	1,410	744	358	239	194	1,040	1,620	180	158	162	1,060
26	4,190	376	648	354	311	208	3,470	1,820	191	162	217	1,060
27	5,030	286	487	358	307	172	4,190	2,200	129	134	178	1,020
28	5,450	300	483	866	343	168	2,930	2,150	82	209	165	1,060
29	5,170	690	487	1,380	-	152	1,870	1,450	73		180	1,020
30	4,750	950	496	1,340	-	172	2,740	608	97	a194	170	985
31	4,330	-	530	528	-	178	-	412	-		211	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	162,900	18,600	1,550	5,255	323,100
November	41,455	4,190	286	1,382	82,220
December	25,210	1,060	483	813	50,000
Calendar year 1941	818,072	30,200	62	2,241	1,623,000
January	21,782	1,980	354	703	43,200
February	14,957	1,910	205	534	29,670
March	9,144	535	152	295	18,140
April	20,431	4,190	148	681	40,520
May	35,868	3,770	248	1,157	71,140
June	7,308	887	73	244	14,500
July	5,474	-	134	177	10,860
August	5,166	-	-	167	10,250
September	52,594	4,610	217	1,753	104,300
Water year 1941-42	402,289	18,600	-	1,102	797,900

Peak discharge.- Oct. 4 (6 a.m.) 19,800 sec.-ft.; Oct. 24 (6 a.m.) 7,970 sec.-ft.; Oct. 28 (7 p.m.) 5,450 sec.-ft.; Apr. 27 (7 a.m.) 4,330 sec.-ft.; Sept. 8 (8 a.m.) 4,890 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage, engineer's notes, and records for station near Malaga.

g Computed from graph based on twice-daily gage readings.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River near Orla, Tex.

Location.- Water-stage recorder, lat. 31°49', long. 103°48', in E½ sec. 26, Blk. 56, Texas & Pacific Railway Co. Survey, Loving County, 600 feet upstream from Pasotex pipe line crossing, 6 miles southeast of Orla, Reeves County, 16 miles downstream from Salt (Screwbean) Draw and 19 miles downstream from Red Bluff Dam. Datum of gage is 2,718.0 feet above mean sea level, datum of 1929.

Drainage area.- 21,300 square miles (contributing area).

Records available.- May 1937 to September 1942.

Extremes.- Maximum discharge during year, 15,700 second-feet Oct. 5 (gage height, 19.23 feet); minimum daily, 30 second-feet (regulated) Feb. 28.
1937-42: Maximum discharge, 23,700 second-feet Sept. 29, 1941 (gage height, 20.74 feet); minimum daily, 2.0 second-feet (regulated) June 3, 1937, Dec. 27, 1940.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Flow regulated by Red Bluff Reservoir (see p. 185) except for occasional runoff from draws between dam and station. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,600	4,100	814	690	670	48	356	1,320	435	536	657	103
2	10,400	3,760	748	670	840	101	356	761	235	467	807	120
3	11,000	3,300	761	650	976	243	324	1,040	223	626	807	1,560
4	13,100	2,800	741	630	942	291	315	1,450	212	614	767	663
5	15,000	2,060	767	600	894	283	320	1,550	208	589	682	1,620
6	15,000	*2,480	728	570	807	279	320	1,420	208	559	721	1,620
7	12,600	2,500	741	670	754	338	356	1,110	208	513	650	1,310
8	10,500	2,270	794	700	761	283	366	942	212	513	632	565
9	9,270	2,000	800	748	1,040	263	320	814	216	513	595	453
10	7,690	1,900	867	741	1,110	267	315	708	219	429	650	156
11	6,760	1,600	867	1,010	1,010	271	440	632	223	583	644	185
12	5,170	1,100	833	1,210	888	271	484	571	223	387	607	208
13	4,440	1,380	820	1,210	814	255	490	518	239	392	601	192
14	2,340	1,700	800	1,110	734	267	559	435	231	387	559	177
15	626	1,660	840	976	682	275	595	271	231	403	424	53
16	607		888	847	632	287	518	267	231	451	403	808
17	589	720	942	787	595	303	548	267	227	583	408	1,810
18	583		942	741	601	287	864	259	231	638	413	1,660
19	695	250	976	682	659	287	518	250	231	761	418	1,660
20	1,540	280	970	644	524	291	501	649	231	781	408	1,660
21	2,470	*284	970	614	382	295	496	1,490	231	748	259	1,280
22	2,270	392	950	583	295	247	490	1,520	231	614	255	413
23	2,200	536	910	565	267	243	490	1,550	239	614	247	291
24	3,120	657	890	548	219	259	484	1,520	387	614	212	239
25	5,380	827	900	536	171	291	478	1,520	715	564	166	235
26	3,700	894	880	453	41	283	473	1,590	702	620	170	231
27	3,560	787	820	518	32	343	1,300	2,000	632	614	166	231
28	3,700	888	790	518	30	356	1,700	2,060	456	589	170	235
29	3,970	827	780	524	-	356	1,620	1,920	473	657	196	286
30	4,170	820	750	626	-	356	1,620	1,120	473	807	174	424
31	4,170	-	710	689	-	356	-	536	-	787	196	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	177,220	15,000	583	5,717	351,500
November	44,212	4,100	-	1,474	87,690
December	25,989	976	710	838	51,550
Calendar year 1941	713,744	23,700	2.1	1,955	1,416,000
January	22,060	1,210	453	712	43,760
February	17,270	1,110	30	617	34,250
March	8,575	356	48	277	17,010
April	18,016	1,700	315	601	35,730
May	32,060	2,060	250	1,034	63,590
June	9,213	715	208	307	18,270
July	17,953	807	387	579	35,610
August	14,064	807	166	454	27,900
September	20,448	1,810	53	682	40,560
Water year 1941-42	407,080	15,000	30	1,115	807,400

Note.- No gage-height record Nov. 3-21, Dec. 20 to Jan. 8; discharge computed on basis of known range in stage, discharge measurements, and records for station at Pecos.
* Discharge measurement made this day.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River at Pecos, Tex.

Location.- Water-stage recorder, lat. 31°26', long. 103°29', 70 feet upstream from Texas & Pacific Railway bridge, 1.7 miles east of Pecos, Reeves County, and 11 miles upstream from Toyah Creek. Datum of gage is 2,554.0 feet above mean sea level, datum of 1929.

Drainage area.- 22,100 square miles (contributing area).

Records available.- August 1939 to September 1942. January 1898 to June 1907, at flume of Barstow Irrigation Co. (old Margueretta Canal Co.), 6.4 miles upstream, published as Pecos River near Pecos. April 1914 to August 1915 at site 7 miles downstream, published as Pecos River near Barstow. March 1922 to July 1926 at site about 10 miles upstream, published as Pecos River above Barstow.

Extremes.- Maximum discharge during year, 21,500 second-feet Oct. 1 (gage height, 17.68 feet); minimum daily, 24 second-feet (regulated) June 24.

1898-1907, 1914-15, 1922-26, 1939-42: Maximum gage height, about 18 feet present site and datum, Oct. 5, 1904, (discharge not determined); minimum daily not determined, affected by diversions.

Flood of August 1893 reached approximately the same stage as that of Oct. 5, 1904, from information by local residents.

Remarks.- Records good except those for periods of fragmentary or no gage-height record, which are fair. Flow regulated to large extent by reservoirs upstream from Orla. Several diversion for irrigation between Orla and this station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19,100	4,260	800	715	596	55	231	1,190	583	216	443	143
2	16,200	4,280	817	698	613	49	287	1,150	422	263	384	111
3	14,600	4,280	800	681	664	45	287	681	219	263	443	90
4	12,500	4,130	800	664	834	68	271	706	142	311	494	668
5	12,200	3,980	783	664	851	158	271	990	107	384	494	681
6	12,200	2,970	800	664	817	190	255	1,190	84	359	443	969
7	12,500	2,630	800	647	749	196	231	1,190	84	343	443	1,230
8	12,800	2,680	800	664	698	231	247	974	89	295	418	1,240
9	13,000	2,680	851	698	664	255	263	783	83	279	443	684
10	12,800	2,560	885	698	766	216	263	681	82	279	443	539
11	11,700	2,410	902	732	920	f224	247	579	74	255	477	307
12	10,500	2,230	956	868	885	f231	287	494	66	311	460	224
13	8,980	1,500	920	1,030	885	224	335	426	56	263	443	201
14	7,460	1,320	902	1,100	817	208	311	359	50	224	409	186
15	6,180	1,520	885	1,080	766	183	367	319	66	208	400	180
16	3,820	1,590	885	1,010	715	180	375	188	52	188	351	119
17	1,560	1,560	938	885	613	176	375	139	40	177	303	256
18	1,060	977	956	817	545	172	384	122	42	247	279	1,130
19	902	a596	974	783	528	177	536	122	45	279	279	f1,300
20	868	a494	974	732	511	183	426	108	35	367	255	f1,340
21	1,050	a414	992	681	494	180	392	f144	41	418	255	f1,380
22	1,920	a367	992	647	418	200	409	f852	42	477	208	1,300
23	2,320	a375	956	613	343	176	418	1,050	29	392	182	638
24	2,380	a528	920	579	287	156	409	1,140	24	367	183	426
25	2,970	a630	903	562	208	145	418	1,170	25	359	177	343
26	4,050	a732	938	562	171	165	426	1,190	222	319	158	295
27	4,600	a817	902	528	116	164	426	1,250	303	a392	135	271
28	4,600	a766	851	494	67	166	622	1,440	343	a392	124	263
29	4,350	a800	800	511	-	182	1,120	1,500	247	343	122	255
30	4,130	817	783	494	-	183	1,150	1,590	208	335	115	247
31	4,130	-	749	528	-	182	-	1,330	-	426	146	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	227,430	19,100	868	7,336	451,100
November	54,913	4,280	367	1,830	108,900
December	27,214	992	749	878	53,980
Calendar year 1941	620,622.1	21,400	7.8	1,700	1,231,000
January	22,029	1,100	494	711	43,690
February	16,541	920	67	591	32,810
March	5,320	255	45	172	10,550
April	12,039	1,150	231	401	23,880
May	25,047	1,590	108	808	49,680
June	3,905	583	24	130	7,750
July	9,731	477	177	314	19,300
August	9,909	494	115	320	19,650
September	17,016	1,380	90	567	33,750
Water year 1941-42	431,094	19,100	24	1,181	855,000

a No gage-height record; discharge computed on basis of available gage heights, discharge measurements, and engineer's notes.

f Fragmentary gage-height record; discharge computed on basis of partly estimated gage heights.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River below Grandfalls, Tex.

Location.- Water-stage recorder, lat. 31°18', long. 102°46', at bridge on county road between Grandfalls and Imperial, 7.1 miles southeast of Grandfalls, Ward County and about 10 miles downstream from Chacatori Draw. Datum of gage is 2,373.0 feet above mean sea level, datum of 1929 (levels by Corps of Engineers, U. S. Army).

Drainage area.- 27,820 square miles (contributing area).

Records available.- August 1939 to September 1942. December 1921 to July 1926 at site about 12 miles downstream, published as Pecos River near Buena Vista.

Extremes.- Maximum discharge during year, 22,000 second-feet Oct. 2 (gage height, 20.98 feet); minimum daily, 46 second-feet (regulated) Aug. 30.

1921-26, 1939-42: Maximum discharge, that of Oct. 2, 1941; minimum daily, 8.0 second-feet (regulated) July 27, 1925.

Flood of 1915 is the largest known, and that of September or October 1932 reached a stage of 18 feet, from information by local residents.

Remarks.- Records good except those above 12,000 second-feet, which are fair. Flow regulated to large extent by reservoirs above Orla. Many diversions between Orla and this station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,610	5,040	940	824	650	260	93	578	1,030	70	65	84
2	16,600	4,860	940	795	708	206	85	636	799	63	77	85
3	17,300	4,520	911	766	766	163	72	694	375	66	89	70
4	15,500	4,280	911	766	737	141	70	586	300	61	132	302
5	13,100	4,280	882	737	824	139	61	353	192	106	92	364
6	11,700	4,210	653	737	911	198	59	387	196	94	129	665
7	10,600	4,210	624	766	911	290	56	650	179	93	128	757
8	10,200	4,140	824	737	682	322	58	911	171	112	111	1,030
9	10,600	3,860	824	766	853	322	55	940	184	125	114	1,110
10	11,700	3,240	824	766	795	332	53	824	230	72	139	1,020
11	12,100	2,800	853	795	824	322	49	708	184	52	83	664
12	11,700	2,600	911	795	940	280	52	592	152	54	152	507
13	10,900	2,490	911	853	1,030	260	51	412	112	63	121	342
14	10,600	2,340	940	998	998	260	53	234	83	68	128	290
15	10,200	2,200	911	1,110	940	260	47	133	81	74	136	246
16	8,650	1,810	911	1,140	882	250	47	102	81	56	157	226
17	7,420	1,640	911	1,140	824	240	48	107	68	52	225	238
18	6,450	1,680	911	1,080	766	214	50	102	52	55	147	163
19	5,720	1,610	940	998	708	204	54	115	52	51	125	780
20	4,340	1,140	969	940	694	188	54	101	72	52	108	1,320
21	2,120	853	969	882	679	179	70	89	75	62	89	1,200
22	1,740	737	998	853	650	179	95	83	86	58	72	1,200
23	1,810	694	998	824	621	194	90	143	72	56	84	1,200
24	1,880	694	998	766	549	196	66	563	58	68	94	1,060
25	2,490	737	998	737	479	173	70	694	51	66	103	606
26	2,880	795	998	722	399	122	89	795	47	70	83	452
27	3,090	853	969	708	353	93	98	824	47	72	54	375
28	3,180	940	940	694	311	101	108	853	93	60	48	332
29	3,440	969	911	636	-	112	104	853	146	69	47	332
30	3,930	940	882	650	-	97	394	911	79	66	46	332
31	4,680	-	853	636	-	102	-	969	-	61	74	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	243,230	17,300	1,740	7,846	482,400
November	71,162	5,040	694	2,372	141,100
December	28,415	998	824	917	56,360
Calendar year 1941	538,987	17,300	19	1,477	1,069,000
January	25,617	1,140	636	826	50,810
February	20,684	1,030	311	739	41,030
March	6,399	332	93	206	12,690
April	2,351	394	47	78.4	4,660
May	15,942	969	83	514	31,620
June	5,347	1,030	47	178	10,610
July	2,167	125	51	69.9	4,300
August	3,252	225	46	105	6,450
September	17,352	1,320	70	578	34,420
Water year 1941-42	441,918	17,300	46	1,211	876,400

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River near Girvin, Tex.

Location.- Water-stage recorder, lat. 31°05', long. 102°22', at bridge on U. S. Highway 67, about half a mile downstream from Panhandle & Santa Fe Railway bridge, 2.1 miles east of Girvin, Pecos County, and 6½ miles downstream from Comanche Creek. Datum of gage is 2,269.7 feet above mean sea level, unadjusted.

Drainage area.- 29,560 square miles (contributing area).

Records available.- August 1939 to September 1942.

Extremes.- Maximum discharge observed during year, 20,000 second-feet Oct. 5 (gage height, 20.49 feet); minimum daily discharge, 85 second-feet (regulated) July 21, Aug. 30.
1939-42: Maximum discharge observed, that of Oct. 5, 1941; minimum daily discharge, 30 second-feet (regulated) July 31, 1940.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Flow regulated to large extent by reservoirs upstream from Orla. Many diversions above station for irrigation. Some water from a drain and two wasteways returns to river between station below Grandfalls and this station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,320	3,580	1,180	1,040	704	420	159	258	a923	148	93	228
2	2,560	3,770	1,180	1,010	683	370	159	580	a968	117	88	228
3	2,720	4,130	1,180	968	725	a340	153	662	a879	112	96	175
4	g8,470	4,560	1,180	945	769	a310	144	725	540	106	107	153
5	g19,400	5,090	1,150	923	769	a300	135	704	450	106	125	212
6	g17,000	5,210	1,150	923	791	a300	132	520	320	123	132	390
7	g14,700	5,090	1,130	901	879	a300	126	470	280	139	123	555
8	12,600	4,980	1,130	923	901	a360	120	622	258	126	151	704
9	11,400	4,870	1,130	879	879	410	118	857	238	130	146	923
10	11,000	4,760	1,110	879	857	430	118	923	238	157	128	1,040
11	11,000	4,660	1,110	879	835	430	115	879	270	132	148	1,040
12	12,600	4,560	1,220	901	813	440	112	791	270	104	137	780
13	12,600	4,380	1,320	923	879	400	106	704	228	91	126	641
14	12,200	3,840	1,290	945	968	a370	109	580	193	93	150	490
15	13,100	3,380	1,270	1,010	968	a360	107	390	169	101	153	390
16	13,100	3,130	1,240	1,130	923	a350	107	270	148	107	164	340
17	11,400	2,760	1,240	1,180	879	350	102	205	144	104	166	310
18	10,000	2,290	1,220	1,200	835	340	101	176	137	93	224	310
19	8,850	2,140	1,200	1,130	791	320	102	166	122	88	195	280
20	8,090	2,020	1,220	1,060	747	300	104	160	112	90	159	522
21	7,450	1,640	1,220	991	704	280	107	a164	109	85	173	1,200
22	7,080	1,180	1,220	968	704	270	107	a144	125	94	142	1,240
23	6,400	1,010	1,240	923	683	260	148	a139	125	93	197	1,220
24	5,020	945	1,240	879	662	270	153	a163	123	94	244	1,240
25	3,500	923	1,220	857	620	270	137	a449	110	91	193	1,200
26	3,050	968	1,240	813	580	270	123	a694	104	102	175	813
27	3,010	1,010	1,200	791	520	222	130	a813	98	99	150	580
28	3,090	1,060	1,180	791	460	178	144	a835	93	102	115	500
29	3,210	1,130	1,150	769	-	164	153	a857	91	101	93	430
30	3,340	1,150	1,110	725	-	171	155	a679	171	94	85	420
31	3,420	-	1,080	725	-	164	-	a901	-	99	109	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	263,680	19,400	2,320	8,506	523,000
November	90,216	5,210	923	3,007	178,900
December	36,950	1,320	1,080	1,192	73,290
Calendar year 1941	588,090	19,400	39	1,611	1,166,000
January	28,981	1,200	725	935	57,480
February	21,528	968	460	769	42,700
March	9,719	440	164	314	19,280
April	3,786	159	101	126	7,510
May	16,581	923	139	538	33,090
June	8,036	968	91	268	15,940
July	3,321	157	85	107	6,590
August	4,487	244	85	145	8,900
September	18,554	1,240	153	618	36,800
Water year 1941-42	505,939	19,400	85	1,386	1,003,000

a No gage-height record; discharge computed on basis of discharge measurements and records for station below Grandfalls.
g Computed from graph based on gage readings.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Pecos River near Sheffield, Tex.

Location.- Water-stage recorder, lat. 30°39', long. 101°45', at bridge on U. S. Highway 290, 3¼ miles southeast of Sheffield, Pecos County, and about 4 miles upstream from Liveoak Creek. Datum of gage is 2,026.3 feet above mean sea level, datum of 1929.

Drainage area.- 31,660 square miles (contributing area).

Records available.- October 1921 to April 1925 and October 1939 to September 1942.

Extremes.- Maximum discharge during year, 13,800 second-feet Oct. 8 (gage height, 16.75 feet); minimum observed, 126 second-feet Aug. 3.

1921-25, 1939-42: Maximum discharge, that of Oct. 8, 1941; minimum, 15 second-feet Aug. 15, 1923.

Maximum stage known, about 23.5 feet at former site and datum in September 1916, from information by local residents.

Remarks.- Records good. Flow regulated to large extent by reservoirs above Orla. Many diversions between Orla and this station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,410	3,650	1,390	1,120	850	607	264	222	871	156	128	185
2	2,430	3,820	1,360	1,100	829	a558	252	228	913	210	128	198
3	2,230	3,820	1,360	1,080	829	a508	254	507	958	179	126	273
4	2,370	3,900	1,360	1,050	829	458	246	624	936	165	127	236
5	2,510	4,160	1,360	1,030	850	409	240	676	694	158	130	214
6	3,460	4,330	1,330	1,000	892	374	232	712	558	153	136	196
7	7,180	4,670	1,300	1,000	892	353	230	574	429	156	153	347
8	12,800	4,760	1,270	980	913	342	218	492	353	165	147	475
9	12,900	4,670	1,250	980	980	380	216	590	329	166	153	656
10	12,400	4,500	1,250	958	1,000	458	212	790	303	165	160	810
11	10,800	4,330	1,250	958	980	492	210	892	291	171	155	936
12	10,000	4,240	1,220	958	a958	492	207	892	291	182	147	980
13	10,300	4,160	1,250	980	a958	508	205	810	305	161	161	810
14	11,600	3,990	1,360	980	a936	475	202	732	277	145	145	658
15	12,200	3,820	1,360	1,000	a980	442	202	640	257	139	155	524
16	12,200	3,570	1,330	1,050	a1,050	426	200	508	232	140	395	422
17	12,200	3,170	1,300	1,120	a1,080	422	202	377	212	140	267	368
18	12,200	2,930	1,300	1,170	a1,030	419	200	314	198	142	226	329
19	11,000	2,610	1,270	1,200	980	412	195	277	192	140	209	314
20	9,680	2,380	1,270	1,200	936	399	201	261	185	134	228	305
21	8,630	2,240	1,270	1,200	892	377	205	248	f176	134	202	361
22	7,800	2,030	1,270	1,150	850	362	200	246	f166	145	202	1,010
23	7,120	1,610	1,270	1,100	850	344	204	238	f168	176	2,170	1,170
24	6,650	1,390	1,300	1,050	829	339	212	226	f172	147	1,310	1,150
25	6,650	1,270	1,300	1,030	810	337	228	216	175	135	347	1,150
26	5,740	1,270	1,220	980	770	339	226	327	172	130	286	1,150
27	4,500	1,250	1,220	958	712	337	212	607	165	132	250	871
28	3,570	1,330	1,220	936	658	319	207	712	157	134	228	658
29	3,490	1,330	1,200	913	-	289	214	790	153	134	204	558
30	3,490	1,360	1,170	892	-	268	218	829	151	134	189	475
31	3,490	-	1,150	871	-	264	-	850	-	130	282	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	235,000	12,900	2,230	7,581	466,100
November	92,560	4,760	1,250	3,085	183,600
December	39,730	1,390	1,150	1,282	78,800
Calendar year 1941	557,300	12,900	71	1,527	1,105,000
January	31,994	1,200	871	1,032	63,460
February	25,123	1,080	658	897	49,830
March	12,509	607	264	404	24,810
April	6,516	264	195	217	12,920
May	16,407	892	216	529	32,540
June	10,439	958	151	348	20,710
July	4,698	210	130	152	9,320
August	9,146	2,170	126	295	18,140
September	17,793	1,170	185	593	35,290
Water year 1941-42	501,915	12,900	126	1,375	995,500

a No gage-height record; discharge computed on basis of known range in stage and records for station near Girvin.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Note.- Discharge, June 26 to July 1, July 4-11, July 13 to Aug. 8, computed from graph based on once-daily gage readings.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Gallinas River near Montezuma, N. Mex.

Location.- Water-stage recorder, lat. 35°39', long. 105°19', in Las Vegas Grant, 2 miles west of Montezuma, San Miguel County, and 6 miles northwest of Las Vegas.

Drainage area.- 84 square miles.

Records available.- October 1930 to September 1942 in reports of Geological Survey. March 1915 to December 1931 (1915-1926, no winter records) in reports of State engineer.

Average discharge.- 16 years (1926-42), 23.8 second-feet.

Extremes.- Maximum discharge during year not determined; minimum daily, 5 second-feet Feb. 18.

1930-42: Maximum discharge, 3,310 second-feet Sept. 23, 1941 (gage height, 7.78 feet), from rating curve extended above 350 second-feet by logarithmic plotting; minimum daily, 0.8 second-foot Aug. 15-18, 21, 25, 26, 30, 1934, Jan. 20, 1938.

Remarks.- Records fair except for periods of ice effect or no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	292	118	26	14	11	10	13	a140	47	22	15	647
2	215	111	26	14	11	11	15	a130	46	16	14	a250
3	195	106	*26	b13	10	11	18	111	43	15	25	a170
4	187	104	26	b12	10	11	21	102	46	13	41	a550
5	157	95	20	b11	9.8	10	21	108	46	12	27	a300
6	136	89	18	b12	9.8	11	28	113	42	12	21	a280
7	119	83	22	b12	9.8	10	24	115	41	12	27	a200
8	102	74	19	b13	9.8	11	20	112	45	12	22	a120
9	89	72	20	14	9.4	11	19	119	47	13	20	a90
10	78	66	20	14	b8	11	19	134	41	16	18	a70
11	68	62	22	14	*9.8	*11	25	136	37	12	22	a90
12	64	59	21	14	10	11	63	134	32	11	19	a500
13	62	57	18	14	9.6	11	80	122	32	11	19	a300
14	72	56	16	14	9.8	12	92	111	30	9.8	51	a200
15	59	51	19	12	10	11	104	99	28	9.8	44	a150
16	55	48	16	13	b9	10	94	94	25	9.4	35	a120
17	50	47	19	13	b7	10	333	92	22	9.4	26	a90
18	46	50	16	12	b5	11	367	92	21	9.0	22	a80
19	44	45	16	14	a6	12	233	82	19	9.6	20	a70
20	43	33	15	13	*a5	11	221	79	18	9.8	21	a60
21	45	b33	17	*13	b9	10	219	78	17	10	19	a55
22	46	b35	16	14	10	11	a300	83	18	12	17	a50
23	61	b28	13	13	10	12	a1,000	80	18	12	15	a40
24	85	29	b11	12	10	14	a600	77	16	12	17	a35
25	161	32	13	12	b9	13	a400	76	15	27	19	a35
26	138	31	14	12	b9	12	a250	75	14	16	15	a30
27	119	30	15	12	b10	11	a200	74	14	13	13	a30
28	118	28	17	11	9.6	12	a180	67	13	14	12	a30
29	162	28	18	11	-	12	a160	65	13	20	12	a25
30	138	26	16	10	-	13	a150	57	13	20	90	a25
31	128	-	14	11	-	13	-	52	-	15	a80	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,334	292	43	108	6,610
November	1,726	118	26	57.5	3,420
December	565	26	11	18.2	1,120
Calendar year 1941	34,024.7	961	4.5	93.2	67,470
January	393	14	10	12.7	780
February	259.4	11	5	9.26	515
March	350	14	10	11.3	694
April	5,269	1,000	13	176	10,450
May	3,010	140	52	97.1	5,970
June	859	47	13	28.6	1,700
July	414.8	22	9.0	13.4	823
August	818	90	12	26.4	1,620
September	4,692	647	25	156	9,310
Water year 1941-42	21,690.2	1,000	5	59.4	43,010

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station at Montezuma.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Gallinas River at Montezuma, N. Mex.

Location.- Water-stage recorder, lat. 35°39'15", long. 105°16'30", in Las Vegas Grant, at highway bridge, half a mile downstream from Montezuma, San Miguel County, and 5 miles northwest of Las Vegas.

Drainage area.- 87 square miles.

Records available.- August 1903 to December 1914 (prior to October 1904, gage heights only) and October 1930 to September 1942 in reports of Geological Survey. October 1904 to December 1931 in reports of State engineer (prior to 1930, published as Gallinas River near Las Vegas).

Average discharge.- 35 years (1905-11, 1913-42), 23.1 second-feet.

Extremes.- Maximum discharge during year, 2,220 second-feet Sept. 2 (gage height, 6.00 feet), from rating curve extended above 990 second-feet by logarithmic plotting; minimum daily, 3.2 second-feet July 17, 18.

1930-42: Maximum discharge, 2,590 second-feet Sept. 23, 1941 (gage height, 6.23 feet), from rating curve extended above 990 second-feet by logarithmic plotting; no flow (result of regulation) Oct. 4-7, 1934.

Remarks.- Records fair except those for periods of ice effect, which are poor. Flow regulated by reservoirs owned by Agua Pura Co. Several diversions above station for irrigation and municipal water supply.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	314	102	23	13	8.6	8.0	11	127	50	18	8.0	604
2	*213	96	*23	b12	9.6	7.7	12	115	45	17	6.3	192
3	185	90	22	b11	9.3	8.3	14	106	42	16	8.6	129
4	182	86	23	b10	10	9.3	11	104	44	12	34	512
5	150	80	20	b9	10	8.0	12	112	41	11	16	252
6	127	74	18	b10	9.3	9.3	17	114	39	10	14	237
7	110	68	21	b10	10	8.6	21	119	37	7.2	17	152
8	96	62	17	b11	9.6	7.7	20	119	39	12	15	108
9	82	57	17	b11	8.0	8.9	19	121	41	11	12	78
10	74	53	18	11	b7.0	9.6	16	138	36	13	10	58
11	66	50	18	12	*8.0	*10	23	143	34	11	12	80
12	61	46	17	12	8.0	10	34	141	30	9.3	11	423
13	59	44	16	12	8.6	9.6	56	125	29	7.7	10	240
14	65	41	14	12	8.9	9.6	62	114	27	4.6	31	170
15	58	39	16	10	b8.0	9.3	69	102	26	3.9	30	128
16	52	37	15	11	b6.0	8.6	65	96	23	3.4	24	102
17	50	36	17	12	b4.5	8.0	205	96	20	3.2	18	82
18	43	37	15	10	a4.0	8.0	300	90	13	3.2	14	70
19	41	34	15	11	a5.0	8.3	185	87	12	3.4	12	65
20	40	27	14	10	*a6.0	4.4	168	80	11	5.8	11	58
21	42	b28	17	*9.6	*7.2	3.9	160	78	10	11	11	50
22	44	b30	15	10	7.4	4.8	201	81	8.9	10	9.6	43
23	54	b25	11	12	6.9	5.5	864	75	12	12	8.3	36
24	68	24	b10	10	6.9	8.0	451	78	11	11	8.3	31
25	152	27	11	11	6.9	8.6	292	76	9.6	8.8	15	30
26	125	26	13	10	7.2	7.4	216	75	8.0	18	8.3	28
27	102	26	13	9.3	7.4	6.3	180	75	7.4	7.7	7.2	26
28	96	25	16	10	b7.0	8.9	160	68	7.2	7.2	6.6	26
29	150	25	16	9.6	-	11	145	61	7.4	9.3	11	23
30	123	24	14	8.3	-	11	138	56	8.3	15	92	23
31	110	-	14	7.7	-	11	-	52	-	9.3	77	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,134	314	40	101	6,220
November	1,419	102	24	47.3	2,810
December	509	23	10	16.4	1,010
Calendar year 1941	32,035.1	821	2.4	87.8	63,540
January	327.5	13	7.7	10.6	650
February	215.3	10	4.0	7.69	427
March	257.6	11	3.9	8.31	511
April	4,147	864	11	138	8,230
May	3,024	145	52	97.5	6,000
June	728.8	50	7.2	24.3	1,450
July	302	18	3.2	9.74	599
August	568.2	92	6.3	18.3	1,130
September	4,056	604	23	135	8,040
Water year 1941-42	18,686.4	684	3.2	51.2	37,080

* Winter discharge measurement made on this day.

a No gage-height record; discharge computed on basis of weather records and records for station near Montezuma.

b Stage-discharge relation affected by ice.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Ruidoso at Hondo, N. Mex.

Location.- Water-stage recorder, lat. 33°23', long. 105°17', in NW¼SW¼ sec. 4, T. 11 S., R. 17 E., a quarter of a mile upstream from confluence with Rio Bonito and half a mile southwest of Hondo.

Drainage area.- 307 square miles.

Records available.- October 1930 to September 1942 in reports of Geological Survey. August 1930 to December 1931 in reports of State engineer.

Average discharge.- 12 years, 29.1 second-feet.

Extremes.- Maximum discharge during year not determined; minimum daily, 9.5 second-feet Aug. 2.

1930-42: Maximum discharge, 12,400 second-feet Sept. 29, 1941 (gage height, 21.13 feet), from rating curve extended above 130 second-feet on basis of velocity-area studies; no flow Aug. 15, 16, 1935.

Remarks.- Records good except those for periods of no gage-height record, which are poor. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a1,800	205	68	53	45	37	39	107	29	36	9.8	86
2	a1,200	184	67	54	45	35	42	96	27	49	9.5	80
3	a800	172	67	53	45	35	42	89	49	31	11	70
4	a620	161	67	49	44	35	46	82	49	28	11	61
5	a480	154	66	50	42	31	51	78	53	26	14	56
6	a400	146	66	51	42	30	55	78	44	22	17	50
7	a330	135	66	50	42	30	66	77	42	18	26	47
8	a280	128	66	51	41	28	71	74	40	14	18	46
9	a250	120	65	51	38	26	69	72	35	a14	18	42
10	a220	112	66	49	41	24	77	70	32	a14	19	42
11	a200	103	66	49	41	27	91	72	29	a13	20	56
12	a180	100	66	49	39	29	113	68	27	a13	27	56
13	a170	94	a63	48	38	30	119	63	28	a13	18	138
14	a150	89	a60	49	38	30	116	61	32	a12	25	128
15	a140	86	56	49	38	31	119	61	27	15	27	103
16	a130	83	55	49	37	32	122	57	22	16	27	79
17	a120	81	54	49	37	33	126	56	21	12	25	63
18	117	80	54	47	35	35	117	53	19	12	22	62
19	114	110	53	47	33	35	113	51	15	25	18	68
20	a110	88	54	46	35	36	96	50	12	30	34	50
21	a110	82	54	45	35	37	81	47	12	39	35	46
22	a100	80	55	45	35	34	79	42	12	30	33	42
23	a100	76	54	46	35	37	138	45	12	23	57	41
24	157	69	54	45	35	40	145	44	14	18	51	39
25	158	68	51	45	35	42	132	40	12	16	57	37
26	138	67	50	45	35	45	122	37	12	17	56	35
27	137	67	51	46	35	45	116	35	12	16	64	34
28	132	68	50	47	37	44	122	34	12	14	51	32
29	143	68	51	47	-	40	119	35	12	13	212	31
30	295	68	53	46	-	41	114	30	10	14	81	29
31	241	-	53	46	-	40	-	32	-	12	87	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	9,522	1,800	100	307	18,890
November	3,144	205	67	105	6,240
December	1,821	68	50	58.7	3,610
Calendar year 1941	55,344.2	4,000	5.8	152	109,800
January	1,496	54	45	48.3	2,970
February	1,078	45	33	38.5	2,140
March	1,074	45	24	34.6	2,130
April	2,858	145	39	95.3	5,670
May	1,836	107	30	59.2	3,640
June	752	53	10	25.1	1,490
July	625	49	12	20.2	1,240
August	1,180.3	212	9.5	38.1	2,340
September	1,747	138	29	58.2	3,470
Water year 1941-42	27,133.3	1,800	9.3	74.3	53,830

Peak discharge.- Oct. 30 (3 a.m.) 388 sec.-ft.; July 1 (5:30 p.m.) 450 sec.-ft.; Aug. 20 (5 p.m.) 305 sec.-ft.; Aug. 29 (9 p.m.) 1,330 sec.-ft.; Sept. 11 (7:40 p.m.) 309 sec.-ft.; Sept. 13 (8:20 p.m.) 305 sec.-ft.

a No gage-height record; discharge computed on basis of records for Rio Bonito at Hondo.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Hondo at Diamond A Ranch, near Roswell, N. Mex.

Location.- Water-stage recorder, lat. 33°20', long. 104°50', in NE¼ sec. 20, T. 11 S., R. 21 E., at Diamond A Ranch headquarters, 8 miles upstream from Rocky Arroyo and 18 miles west of Roswell.

Drainage area.- 960 square miles (contributing area).

Records available.- May 1939 to September 1942 in reports of Geological Survey. May 1906 to August 1909 in reports of State engineer.

Extremes.- Maximum discharge during year, 8,740 second-feet Aug. 30 (gage height, 24.40 feet); no flow at times.

1939-42: Maximum discharge, 26,500 second-feet Sept. 22, 1941 (gage height, 28.78 feet), from rating curve extended above 5,000 second-feet on basis of slope-area determination at gage height 28.78 feet; no flow at times.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,160	393	135	92	74	59	26	224	36	1.2	2.6	1,240
2	1,330	344	134	94	74	56	23	212	31	176	.8	401
3	1,080	314	133	95	73	52	25	188	30	138	9.5	209
4	918	284	131	88	72	52	22	176	51	a115	18	138
5	767	266	128	85	71	47	39	163	53	a80	37	105
6	650	254	124	88	69	43	46	148	54	a55	39	81
7	543	242	125	84	68	47	60	147	48	45	68	62
8	486	230	123	84	68	48	112	140	49	32	51	68
9	406	218	122	82	68	46	104	125	38	21	34	48
10	368	206	122	81	68	42	102	118	31	9.9	a30	44
11	344	200	129	81	74	42	104	112	26	8.7	a30	38
12	326	194	128	80	70	39	146	122	20	4.8	48	108
13	302	182	122	79	67	39	182	109	12	5.7	41	368
14	278	182	120	81	68	40	206	97	12	.9	58	388
15	248	166	117	82	66	40	206	94	13	84	104	221
16	230	160	113	80	68	42	212	91	11	34	872	164
17	206	155	112	78	66	42	257	82	9.9	8.7	a35	114
18	188	148	112	77	64	43	236	81	4.1	1.6	a25	88
19	176	170	110	77	62	43	110	74	.7	.6	20	110
20	160	188	109	77	61	40	99	71	.3	7.6	17	82
21	148	168	108	75	62	42	176	68	0	19	44	a80
22	153	165	109	75	61	42	156	63	0	26	95	74
23	223	156	108	76	62	43	362	54	0	24	91	67
24	281	147	103	76	60	43	338	61	.5	13	82	60
25	440	143	103	77	60	43	320	59	1.5	20	91	a57
26	248	141	96	77	58	46	278	52	0	14	78	a53
27	230	140	97	74	56	48	272	48	0	20	99	a51
28	218	140	96	76	58	48	260	39	1.4	6.1	279	49
29	212	139	94	78	-	46	248	38	3.1	a3.7	484	50
30	422	136	94	76	-	43	236	38	1.5	.8	1,620	48
31	472	-	94	73	-	38	-	38	-	.6	1,210	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	14,213	2,160	148	458	28,190
November	5,971	393	136	199	11,840
December	3,551	135	94	115	7,040
Calendar year 1941	99,042.1	12,900	0	271	196,400
January	2,498	95	73	80.6	4,950
February	1,848	74	56	66.0	3,670
March	1,384	59	38	44.6	2,750
April	4,963	362	22	165	9,840
May	3,132	224	38	101	6,210
June	538.0	54	0	17.9	1,070
July	976.9	176	.6	31.5	1,940
August	5,712.9	1,620	.8	184	11,330
September	4,656	1,240	38	155	9,240
Water year 1941-42	49,443.8	2,160	0	135	98,100

Peak discharge.- Aug. 16 (5:30 a.m.) 6,960 sec.-ft.; Aug. 29 (11:30 p.m.) 1,610 sec.-ft.; Aug. 30 (3 a.m.) 8,740 sec.-ft.; Aug. 31 (6 p.m.) 3,300 sec.-ft.; Sept. 1 (2 a.m.) 3,450 sec.-ft.; Sept. 13 (10 p.m.) 2,160 sec.-ft.

a No gage-height record; discharge computed on basis of records for Rio Ruidoso at Hondo and Rio Bonito at Hondo, and by interpolation.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Bonito at Hondo, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 33°23'20", long. 105°16'30", in NE¼NW¼ sec. 4, T. 11 S., R. 17 E., at Hondo, half a mile upstream from confluence with Rio Ruidoso.

Drainage area.- 306 square miles (contributing area).

Records available.- October 1930 to September 1942 in reports of Geological Survey. August 1930 to December 1931 in reports of State engineer.

Average discharge.- 12 years, 15.6 second-feet.

Extremes.- Maximum discharge during year, 1,420 second-feet July 1 (gage height, 5.47 feet); minimum daily, 0.2 second-foot June 22, 28.
1930-42: Maximum discharge, 11,000 second-feet Sept. 28 or 29, 1941 (gage height, 20.92 feet), from rating curve extended above 214 second-feet on basis of slope-area determination at gage height 19.0 feet; no flow at times.

Remarks.- Records fair except those for periods of doubtful or no gage-height record, which are poor. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a1,250	182	42		28	15	a5	116	23	126	8.1	437
2	a880	150	42		30	13	4.5	99	22	154	15	192
3	a620	133	44		28	12	a4	93	24	50	13	112
4	a470	119	46		32	8.5	a4	87	28	34	28	72
5	a360	105	44		32	7.8	3.3	84	36	27	21	56
6	a290	105	42	d30	30	8.9	3.3	81	30	24	49	40
7	a240	102	42		30	13	10	78	28	18	28	a35
8	a200	99	40		28	15	30	78	28	16	17	32
9	164	90	42		27	15	24	72	27	13	15	22
10	144	81	44		32	15	27	72	27	10	14	20
11	144	78	46		32	15	40	67	26	8.5	15	79
12	136	75	44	28	30	15	75	59	22	7.4	34	67
13	126	78	42	30	30	15	90	51	18	5.0	11	129
14	116	78	42	30	28	13	93	44	20	110	9.6	88
15	105	72	42	30	28	12	96	46	16	a6	60	56
16	99	64	42	32	27	12	84	42	13	a5	18	51
17	87	64	42	34	24	11	90	40	11	4.3	13	38
18	84	62	40	32	23	9.2	96	40	6.6	4.8	12	34
19	78	78	36	32	27	7.4	93	40	2.8	8.9	11	34
20	72	64	36	30	27	7.0	81	38	1.5	13	15	27
21	72	62	36	30	28	7.0	67	38	a.8	15	68	26
22	72	56	36	30	26	7.4	181	34	.2	13	17	24
23	128	48	30	32	23	7.0	294	34	3.7	9.2	a25	22
24	186	42	34	34	20	6.3	234	38	5.9	4.5	23	21
25	105	44	34	34	20	5.9	196	32	4.1	5.0	16	21
26	87	46	32	28	17	5.9	164	28	2.0	8.9	13	18
27	87	46		30	17	7.4	147	27	a.4	8.1	22	18
28	84	46		28	16	6.6	133	26	a.2	3.8	14	16
29	108	46	d30	27	-	6.6	130	26	3.3	2.6	52	16
30	304	46		28	-	6.3	d120	26	4.5	6.5	15	15
31	238	-		27	-	5.2	-	24	-	11	147	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	7,136	1,250	72	230	14,150
November	2,361	182	42	78.7	4,680
December	1,192	46	30	38.5	2,360
Calendar year 1941	32,211.4	3,560	0	88.2	63,880
January	936	34	27	30.2	1,860
February	740	32	16	26.4	1,470
March	311.4	15	5.2	10.0	618
April	2,619.1	294	3.3	87.3	5,190
May	1,660	116	24	53.5	3,290
June	435.0	36	.2	14.5	863
July	732.5	154	2.6	23.6	1,450
August	818.7	147	8.1	26.4	1,620
September	1,818	437	15	60.6	3,610
Water year 1941-42	20,759.7	1,250	.2	56.9	41,160

Peak discharge.- Oct. 24 (6 p.m.) 655 sec.-ft.; July 1 (7:30 p.m.) 1,420 sec.-ft.; July 14 (6 p.m.) 1,300 sec.-ft.; Aug. 21 (2 p.m.) 910 sec.-ft.; Sept. 1 (2 a.m.) 655 sec.-ft.; Sept. 11 (7 p.m.) 760 sec.-ft.

a No gage-height record; discharge computed on basis of records for Rio Ruidoso at Rio Hondo and Rio Hondo at Diamond A Ranch, near Roswell.

d Doubtful gage-height record; discharge computed on basis of records for Rio Ruidoso at Rio Hondo and Rio Hondo at Diamond A Ranch, near Roswell.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Felix at old highway bridge near Hagerman, N. Mex.

Location.- Water-stage recorder, lat. 33°07'30", long. 104°20'40", in SE¼ sec. 4, T. 14 S., R. 26 E., on downstream side of bridge, 1¼ miles southwest of Hagerman, and 2½ miles upstream from mouth.

Drainage area.- 932 square miles (contributing area).

Records available.- April 1939 to September 1942. March 1932 to April 1939, at site 1 mile downstream. Records for periods of low flow not equivalent.

Extremes.- Maximum discharge during year, 4,370 second-feet Oct. 23 (gage height, 10.89 feet); minimum daily, 3.0 second-feet Aug. 16.
1939-42: Maximum discharge, 20,000 second-feet Sept. 22, 1941 (gage height, 23.0 feet), from rating curve extended above 5,100 second-feet by logarithmic plotting; minimum daily, 0.4 second-foot Sept. 21, 1940.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	130	6.4	5.5	17	56	37	6.1	39	6.8	6.1	4.6	649
2	71	7.1	5.5	a16	57	40	7.2	39	6.8	6.1	4.0	75
3	42	7.9	5.5	a18	55	27	6.8	32	6.4	6.1	4.0	46
4	29	7.5	a5.3	a18	56	17	7.5	25	6.4	6.1	4.0	42
5	19	7.2	a5.0	19	58	18	6.8	27	6.4	7.5	4.0	41
6	13	6.8	a4.8	19	58	20	6.8	30	6.1	14	3.7	40
7	12	6.8	4.6	19	53	13	7.5	30	5.8	7.5	4.0	45
8	12	6.8	4.6	19	50	26	19	29	5.8	6.1	4.0	47
9	11	6.8	4.6	19	50	23	26	38	5.8	6.1	3.7	52
10	11	6.4	4.6	19	49	22	10	47	5.8	6.4	3.7	55
11	11	6.1	a4.6	32	49	11	9.8	46	5.8	7.2	3.4	57
12	11	5.8	a4.6	44	49	5.8	16	44	5.8	6.8	3.2	56
13	10	6.1	a4.6	45	49	5.2	16	41	5.8	6.4	3.2	58
14	10	6.1	4.6	75	48	5.2	15	40	5.8	6.4	3.2	56
15	10	5.8	4.3	66	44	4.9	13	23	5.8	6.1	5.2	43
16	10	6.1	4.0	60	43	4.9	13	7.5	5.8	6.1	3.0	30
17	9.8	5.8	4.0	58	39	5.2	11	13	5.8	5.8	3.2	27
18	9.4	5.8	4.0	58	35	4.9	9.8	33	5.5	5.8	4.0	18
19	9.4	5.8	4.0	58	34	4.9	9.8	19	5.5	5.5	4.0	22
20	9.1	5.5	4.0	61	43	4.6	8.3	7.9	5.5	5.8	5.2	45
21	9.1	5.5	a3.8	61	48	4.6	6.8	7.5	5.2	5.8	5.2	52
22	9.4	5.5	3.7	62	48	4.9	6.8	7.9	5.2	5.5	6.4	52
23	1,330	5.2	3.7	64	33	4.9	31	7.9	4.9	5.5	7.2	52
24	357	5.2	3.7	62	35	5.2	44	9.1	4.9	5.5	6.1	43
25	237	5.2	3.7	62	34	4.6	44	9.1	4.9	6.1	5.8	44
26	34	5.2	a3.7	63	27	4.9	44	9.4	5.5	5.8	17	51
27	5.5	5.5	a3.7	58	16	4.9	38	8.3	5.5	6.1	13	48
28	4.3	5.5	a3.7	54	19	5.2	25	8.3	5.8	5.5	5.8	45
29	4.9	5.5	3.7	56	-	5.2	34	7.9	6.1	5.2	5.5	45
30	6.1	5.5	6.4	57	-	5.5	42	7.9	6.8	4.9	584	48
31	6.1	-	12	54	-	5.8	-	7.2	-	4.9	118	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,453.1	1,330	4.3	79.1	4,870
November	182.4	7.9	5.2	6.08	362
December	144.5	12	3.7	4.66	287
Calendar year 1941	34,229.7	7,760	.7	93.8	67,900
January	1,395	75	17	45.0	2,770
February	1,235	58	16	44.1	2,450
March	355.3	40	4.6	11.5	705
April	541.0	44	6.1	18.0	1,070
May	700.9	47	7.2	22.6	1,390
June	174.0	6.8	4.9	5.80	345
July	194.7	14	4.9	6.28	386
August	851.3	584	3.0	27.5	1,690
September	1,984	649	18	66.1	3,940
Water year 1941-42	10,211.2	1,330	3.0	28.0	20,260

Peak discharge.- Oct. 23 (11 a.m.) 4,370 sec.-ft.; Oct. 24 (2 p.m.) 1,200 sec.-ft.; Aug. 30 (5 p.m.) 3,730 sec.-ft.; Sept. 1 (5 a.m.) 2,140 sec.-ft.
a No gage-height record; discharge interpolated.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Cottonwood Creek near Lake Arthur, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 32°55'00", long. 104°22'00", in SW¼SE¼ sec. 15, T. 16 S., R. 26 E., 1½ miles upstream from mouth and 6 miles south of town of Lake Arthur.

Drainage area.- 199 square miles (contributing area).

Records available.- March 1932 to September 1942.

Average discharge.- 10 years (1932-42) 10.9 second-feet.

Extremes.- Maximum discharge during year not determined; minimum daily, 0.9 second-foot July 13 and Aug. 30.
1932-42: Maximum discharge, 1,100 second-feet June 13, 1935, from rating curve extended above 15 second-feet by logarithmic plotting; maximum gage height, 13.5 feet May 30, 1937 (present datum, from floodmarks), affected by backwater from Pecos River; no flow at times.

Remarks.- Records fair except those for period of no gage-height record, which are poor. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	58	37	31	18	23	11	16	5.6	8.4	4.3	a110
2	18	51	36	31	21	23	10	16	2.6	9.2	3.8	a25
3	57	46	36	33	21	21	11	15	6.1	8.4	4.0	a19
4	61	45	36	34	22	22	12	15	10	8.4	4.3	a19
5	73	43	32	33	20	22	11	13	8.7	8.7	4.6	a18
6	66	43	31	32	19	17	12	12	2.1	9.7	4.0	a19
7	65	42	30	33	21	15	19	12	2.6	11	3.6	a20
8	62	42	30	34	22	18	53	12	7.3	10	3.8	a21
9	62	42	30	33	21	18	37	10	4.8	5.8	4.0	a21
10	57	42	30	32	21	17	33	11	5.6	2.4	4.0	a20
11	56	41	32	33	27	17	21	10	3.8	2.9	4.3	a18
12	56	41	37	32	27	16	18	13	2.6	3.0	4.6	14
13	54	40	35	31	27	15	17	10	3.3	.9	4.6	23
14	52	40	33	31	25	16	12	12	4.8	3.0	4.6	17
15	49	40	32	32	22	15	9.2	13	3.6	3.7	9.5	15
16	49	40	31	31	23	15	9.2	16	4.5	1.7	8.7	16
17	49	40	30	30	23	15	11	14	2.3	3.0	4.3	16
18	47	39	30	30	22	15	11	14	3.0	1.4	2.1	16
19	46	38	31	30	23	14	11	14	2.6	1.6	3.1	21
20	45	38	31	30	23	11	12	14	3.3	2.1	2.8	20
21	46	39	32	30	23	9.2	4.8	11	2.8	9.1	1.4	20
22	48	39	30	30	23	9.7	5.0	6.9	3.8	8.7	1.0	20
23	71	37	31	31	21	9.2	39	12	5.2	8.4	1.5	21
24	66	37	32	32	19	9.2	24	11	6.8	7.1	1.9	21
25	65	40	32	32	18	8.9	18	7.1	3.0	6.1	2.8	21
26	52	38	31	32	20	8.4	18	6.1	5.8	4.3	5.3	20
27	47	37	30	31	18	8.9	19	5.0	9.5	4.3	1.9	20
28	45	37	30	31	20	9.2	18	5.3	8.2	4.0	2.1	20
29	45	38	30	31	-	10	17	6.3	6.9	4.0	1.7	19
30	70	37	31	20	-	10	16	6.6	7.4	4.0	.9	19
31	69	-	31	19	-	10	-	4.8	-	4.3	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,662	73	13	53.6	3,300
November	1,230	58	37	41.0	2,440
December	990	37	30	31.9	1,960
Calendar year 1941	11,514.8	299	1.1	31.5	22,830
January	955	34	19	30.8	1,890
February	610	27	18	21.8	1,210
March	447.7	23	8.4	14.4	888
April	519.2	53	4.8	17.3	1,030
May	344.1	16	4.8	11.1	683
June	148.6	10	2.1	4.95	295
July	169.6	11	.9	5.47	336
August	120.5	11	.9	3.89	239
September	669	110	14	22.3	1,330
Water year 1941-42	7,865.7	110	.9	21.5	15,600

a No gage-height record; discharge computed on basis of engineer's notes and records for Rio Felix near Hagerman and other nearby stations.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Delaware River near Red Bluff, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 32°01', long. 104°03', sec. 23, T. 26 S., R. 28 E., at bridge on U. S. Highway 285, 3½ miles upstream from mouth and 4 miles south of Red Bluff, Eddy County. Datum of gage is 2,900.7 feet above mean sea level, datum of 1929.

Drainage area.- 967 square miles.

Records available.- October 1937 to September 1942. April 1912 to September 1913 at site 3 miles upstream (published as Delaware River near Malaga, N. Mex.). May 1914 to June 1915, at site 2½ miles downstream (published as Delaware River near Angeles, Tex.).

Extremes.- Maximum discharge during year, 3,710 second-feet Oct. 24 (gage height, 6.15 feet), from rating curve extended above 1,500 second-feet on basis of slope-area determinations at gage heights 8.6 and 18.0 feet; minimum, 2.5 second-feet June 23, July 31, Aug. 1.

1912-13, 1914-15, 1937-42: Maximum discharge, 34,600 second-feet June 27, 1938 (gage height, 18.00 feet, from floodmarks), by slope-area method; no flow at times.

Remarks.- Records excellent. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.5	11	6.3	7.0	7.0	7.4	6.9	6.1	4.8	25	2.9	12
2	8.8	8.0	6.1	7.0	7.4	7.4	6.9	6.3	4.8	9.7	3.0	8.0
3	9.1	7.2	6.1	7.4	7.4	7.0	6.9	6.1	4.6	7.8	3.8	113
4	6.7	6.9	6.0	7.4	7.2	7.4	6.7	6.3	5.0	6.0	3.8	40
5	6.0	6.9	5.8	7.6	6.9	7.4	6.5	6.7	37	5.3	3.7	15
6	5.6	6.9	5.8	7.6	6.7	6.9	6.7	6.5	16	4.8	3.4	11
7	5.4	6.9	6.0	7.6	6.9	6.5	6.7	6.7	7.2	4.3	3.3	85
8	5.6	6.9	6.1	7.6	7.0	7.0	7.0	7.2	5.8	4.0	3.3	64
9	5.6	6.7	6.1	7.6	6.7	7.0	8.0	7.0	5.4	4.0	47	12
10	5.3	6.7	6.5	7.4	6.9	6.7	7.4	6.7	4.5	4.0	25	8.7
11	6.0	6.5	7.2	7.6	7.6	6.5	6.9	6.3	3.8	5.4	10	7.8
12	7.0	6.5	9.2	7.6	7.2	6.9	6.9	5.8	3.3	5.1	7.8	7.0
13	7.4	6.1	8.0	7.6	7.2	6.7	6.5	5.4	3.0	4.3	7.0	7.0
14	6.0	6.0	7.2	8.2	7.4	6.7	6.5	5.4	6.7	3.6	6.9	6.7
15	5.1	6.0	7.0	9.0	7.4	6.5	6.3	6.0	4.3	3.4	7.0	6.7
16	5.1	6.1	7.0	8.2	7.0	6.1	6.3	6.0	4.2	3.8	5.8	6.5
17	5.3	6.1	7.0	8.0	6.9	6.1	13	5.6	3.6	3.8	6.3	6.1
18	5.3	6.1	6.9	7.8	6.7	6.7	29	5.6	3.4	3.8	5.6	10
19	5.3	6.0	6.9	7.6	7.0	6.9	7.8	6.1	7.3	3.3	5.0	19
20	5.3	5.8	6.9	7.6	7.0	6.5	6.7	6.5	5.0	3.1	4.8	15
21	5.4	6.0	7.0	7.6	7.2	6.5	6.5	6.1	3.6	3.3	4.8	10
22	6.1	6.3	7.0	7.6	7.0	6.7	7.2	6.1	3.1	3.6	38	7.8
23	6.1	6.1	6.7	7.8	6.3	6.9	79	59	2.9	3.8	189	7.2
24	512	6.1	6.9	7.8	6.5	6.9	30	10	6.8	3.7	32	7.4
25	41	6.1	6.9	7.8	6.7	6.1	12	6.5	20	4.2	305	7.0
26	20	6.3	7.0	7.2	6.7	6.1	8.5	5.6	6.5	4.3	26	6.3
27	10	6.3	7.0	7.2	6.7	6.3	7.8	5.0	4.5	3.8	12	6.0
28	8.0	6.3	7.2	7.2	7.2	6.7	7.2	4.5	4.3	3.3	16	6.1
29	7.4	6.5	7.4	7.2	-	6.7	6.9	4.5	4.2	3.3	22	6.1
30	11	6.5	7.4	6.9	-	6.7	6.3	4.3	89	3.1	7.6	6.0
31	13	-	7.2	7.0	-	6.7	-	4.3	-	3.0	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-fset
October	764.4	512	5.1	24.7	1,520
November	197.8	11	5.8	6.59	392
December	211.8	9.2	5.8	6.83	420
Calendar year 1941	13,963.9	4,340	.6	38.3	27,700
January	234.7	9.0	6.9	7.57	466
February	195.8	7.6	6.3	6.99	388
March	208.6	7.4	6.1	6.73	414
April	337.0	79	6.3	11.2	668
May	240.2	59	4.3	7.75	476
June	281.6	89	2.9	9.39	559
July	153.9	25	3.0	4.96	305
August	835.8	305	2.9	27.0	1,660
September	530.4	113	6.0	17.7	1,060
Water year 1941-42	4,192.0	512	2.9	11.5	8,320

Peak discharge.- Oct. 24 (6 a.m.) 3,710 sec.-ft.; Aug. 23 (12:10 a.m.) 1,630 sec.-ft.; Aug. 25 (2:30 a.m.) 2,200 sec.-ft.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Principal diversions from Pecos River between Red Bluff Reservoir and Imperial, Tex.

Records of discharge are collected for eight canals that divert water from Pecos River between Red Bluff Reservoir and Imperial, Tex. Each of these canals is equipped with a water-stage recorder for collecting gage-height records. All stations are located within 2 miles of canal head gate except as noted herein. Two stations were relocated during year; latitude and longitude herein are for latest locations. Water diverted by these canals is used for irrigation of lands on both sides of Pecos River in Reeves, Ward, and Pecos Counties. Stations prior to 1941 were published separately (daily discharge figures for the earlier records). Gage-height records collected in cooperation with Red Bluff Water Power Control District, Pecos, Tex.

Reeves County Water Improvement District No. 2 canal near Mentone, diverts from right bank of Pecos River, lat. 31°38', long. 103°34' (corrected). Records available, February 1922 to July 1925 (published as Farmers Independent canal near Porterville, Tex.) and August 1939 to September 1942.

Ward County Water Improvement District No. 3 canal near Barstow, diverts from left bank, lat. 31°36', long. 103°31'. Records available, August 1939 to September 1942.

Ward County Irrigation District No. 1 canal near Barstow, diverts from left bank, lat. 31°33', long. 103°29'. Records available, February 1922 to September 1925, at site about half a mile upstream (published as Barstow Canal near Barstow, Tex.) and August 1939 to September 1942.

Grandfalls-Big Valley canal near Barstow, diverts from left bank, lat. 31°25', long. 103°15'. Records available, March 1922 to November 1925 and September 1939 to September 1942. Water diverted through Ward County Water Improvement District No. 2 Canal irrigates most of lands formerly supplied by this canal.

Pecos County Water Improvement District No. 2 (upper diversion) canal near Grandfalls, diverts from right bank, lat. 31°18', long. 102°55' (gage 15 miles downstream from head gates). Records available, March 1922 to July 1925 at site 11 miles upstream (published as Imperial High-line canal near Grandfalls, Tex.) and August 1939 to September 1942.

Pecos County Water Improvement District No. 2 canal near Imperial, diverts from right bank, lat. 31°16', long. 102°45' (gage 7.0 miles below outlet head gate at Imperial Reservoir). Records available, April 1940 to September 1942.

Ward County Water Improvement District No. 2 canal near Grandfalls, diverts from left bank, lat. 31°22', long. 103°01'. Records available, August 1939 to September 1942.

Pecos County Water Improvement District No. 3 canal near Imperial, diverts from Pecos County Water Improvement District No. 2 canal above the station near Imperial on that canal, lat. 31°18', long. 102°45'. Records available, March 1940 to September 1942.

Several smaller diversions (pumps) divert water between Red Bluff Reservoir and Imperial for irrigation of lands adjacent to Pecos River, but no records for them were obtained.

Diversions in acre-feet, water year October 1941 to September 1942

Month	Reeves County District 2 Canal near Mentone	Ward County District 3 Canal near Barstow	Ward County District 1 Canal near Barstow	Grandfalls-Big Valley Canal near Barstow
October	-	-	2,440	-
November	-	-	4,540	-
December	-	b400	6,120	0
Calendar year 1941	-	-	-	-
January	-	921	3,470	0
February	-	829	4,310	0
March	a330	3,440	6,000	0
April	946	1,520	4,700	1,170
May	2,580	2,250	12,270	2,020
June	2,410	2,620	9,610	1,440
July	2,710	3,560	7,280	1,950
August	1,960	1,690	5,240	726
September	889	1,390	4,200	261
The period	11,820	18,620	70,180	7,570

Month	Pecos County District 2 Canal (upper diver.) near Grandfalls	*Pecos County District 2 Canal near Imperial	Ward County District 2 Canal near Grandfalls	*Pecos County District 3 Canal near Imperial
October	1,520	-	-	-
November	713	-	d0	-
December	0	-	0	-
Calendar year 1941	27,420	-	-	-
January	0	-	0	-
February	0	-	185	-
March	563	c715	6,410	e0
April	10,220	5,210	8,600	4,250
May	11,170	5,000	5,950	4,760
June	3,730	2,080	5,140	2,550
July	7,600	5,440	8,510	4,690
August	13,030	3,300	5,840	2,840
September	1,540	798	2,560	839
The period	50,090	22,540	43,200	19,930

* Canal flow represents released water from Imperial Reservoir (fed by Pecos County Water Improvement District No. 2 upper diversion canal) plus water diverted from the Pecos River by Pecos County Water Improvement District No. 2 lower diversion canal.

a No record Mar. 1-16.
b No record Dec. 1-9.
c No record Mar. 1-24.
d No record Nov. 1-22.
e No record Mar. 1-29.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Madera Canyon near Toyahvale, Tex.

Location.- Water-stage recorder, lat. 30°52', long. 103°58', in Jeff Davis County, 11 miles upstream from Aguja Canyon and 12 miles southwest of Toyahvale, Reeves County.

Drainage area.- 54 square miles.

Records available.- July 1932 to September 1942.

Average discharge.- 10 years, 5.42 second-feet.

Extremes.- Maximum discharge during year, 4,760 second-feet Oct. 25 (gage height, 7.70 feet), from rating curve extended above 200 second-feet on basis of slope-area determination at gage height 6.8 feet; no flow at times.

1932-42: Maximum discharge, 5,120 second-feet Sept. 29, 1932 (gage height, 8.00 feet, from floodmark), from rating curve extended above 200 second-feet on basis of slope-area determination at gage height 6.8 feet; no flow at times.

Remarks.- Records good except those above 200 second-feet and those for period of no gage-height record, which are poor. No diversions.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	349	49	1.7	0.5	0.3	0.1					0	75
2	80	38	1.6	.5	.3	0					20	67
3	42	31	1.6	.6	.2	0					1.5	83
4	29	24	1.5	.6	.2	.6					.3	60
5	22	20	1.5	.6	.2	.4					0	41
6	16	16	1.5	.6	.2	.3					0	31
7	13	13	1.5	.6	.2	.7					0	24
8	10	11	1.5	.6	.2	.8					0	19
9	8.4	9.6	1.4	.6	.2	.7					0	15
10	11	7.9	1.4	.6	.2	a.4					0	12
11	7.4	6.4	1.4	.6	.2	a0					0	9.6
12	6.2	5.4	1.7	.6	.2	a0					0	7.5
13	5.6	4.8	1.5	.5	.3	a0					0	5.7
14	5.1	4.0	1.4	.5	.2	a0					0	5.1
15	7.1	8.4	1.2	.5	.2	a0					.1	4.5
16	11	4.5	1.1	.5	.2	a0					8.8	3.8
17	6.8	3.5	1.0	.5	.2	a0					8.4	3.3
18	6.5	2.9	1.0	.5	.2	0					3.1	2.9
19	7.1	2.5	1.0	.4	.2	0					1.9	3.1
20	7.4	2.3	.9	.4	.2	0					22	3.3
21	7.4	2.2	.9	.4	.2	0					75	2.5
22	16	2.2	.8	.4	.2	0					61	2.5
23	14	2.0	.8	.4	.1	0					84	2.3
24	294	2.0	.7	.4	.1	0					82	2.0
25	772	1.8	.6	.4	.1	0					263	1.8
26	645	1.8	.6	.4	.1	0					73	1.6
27	101	1.8	.6	.4	.1	0					69	1.4
28	80	1.7	.6	.4	.1	0					63	1.2
29	60	1.7	.6	.4	-	0					58	1.2
30	47	1.6	.6	.3	-	0					31	1.0
31	65	-	.6	.3	-	0					83	-

Month	Seoond-foot-days	Maximum	Minimum	Mean	Runcff in acre-feet
October	2,752.0	772	5.1	88.8	5,460
November	283.0	49	1.6	9.43	561
December	34.8	1.7	.6	1.12	69
Calendar year 1941	6,607.3	772	0	18.1	13,100
January	15.0	.6	.3	.48	30
February	5.3	.3	.1	.19	11
March	4.0	.8	0	.13	7.9
April	0	0	0	0	0
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	1,008.1	263	0	32.5	2,000
September	493.3	83	1.0	16.4	978
Water year 1941-42	4,595.5	772	0	12.6	9,120

Peak discharge.- Oct. 24 (7 a.m.) 1,280 sec.-ft.; Oct. 25 (5 a.m.) 4,760 sec.-ft.; Oct. 26 (2:30 a.m.) 1,950 sec.-ft.; Aug. 25 (12:30 a.m.) 1,400 sec.-ft.

a No gage-height record; discharge computed on basis of known range in stage and discharge measurement.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

555253 O - 43 - 18

Toyah Creek below Toyah Lake, near Pecos, Tex.

Location.- Water-stage recorder, lat. 31°21', long. 103°24', SW¼ sec. 8, Blk. C-7, Public School Lands Survey, Reeves County, on bridge on county road between Pecos and Grandfalls, at lower end of Toyah Lake, 6 miles upstream from mouth and 7.4 miles southeast of Pecos, Reeves County.

Drainage area.- 3,709 square miles (contributing area).

Records available.- August 1939 to September 1942.

Extremes.- Maximum discharge during year, 1,660 second-feet Oct. 27 (gage height, 3.25 feet); no flow at times.

1939-42: Maximum discharge, 5,850 second-feet Aug. 7, 1940 (gage height, 4.17 feet); no flow at times.

Flood of September 1932 reached a stage of 7.7 feet from information by local residents.

Remarks.- Records good except those for periods of no gage-height record, which are fair. Several diversions above station for irrigation. Flood flow materially affected by use of spread-out dams above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	288	26	4.4	10	0.5	0				0	26
2	2.6	186	26	3.1	13	.1	0				0	12
3	2.6	129	26	5.5	10	0	0				0	60
4	5.7	95	28	1.5	12	0	0				0	39
5	14	62	21	.3	16	0	0				0	19
6	20	59	16	1.0	15	1.1	0				0	10
7	21	35	16	2.0	14	.2	0				0	6.2
8	19	42	16	1.1	13	0	0				0	3.4
9	14	37	16	4.2	6.0	0	0				0	1.9
10	7.8	28	15	6.4	2.7	.2	0				0	.7
11	8.7	27	14	11		.1	0				0	.3
12	10	24	28	17		.4	0				0	.1
13	12	25	24	18		.2	0				0	0
14	10	25	16	14		0	0				0	0
15	5.7	28	15	17	a6.0	.7	0				0	0
16	8.2	31	17	21		1.2	0				0	0
17	10	31	20	24		.2	0				0	0
18	12	30	19	19		0	6.0				0	0
19	11	30	17	18	4.4	.4					0	0
20	10	21	16	19	3.7	.2					0	0
21	10	16	16	21	3.3	0					0	0
22	10	21	26	21	4.4	0					0	0
23	11	17	37	20	4.4	0					0	0
24	33	21	30	20	3.0	0	a.5				0	0
25	399	24	51	21	3.4	.3					0	0
26	642	25	37	19	1.9	0					0	0
27	1,320	25	25	17	.5	0					0	0
28	1,340	25	16	16	.9	0					0	0
29	900	27	12	19	-	0					0	0
30	516	26	10	14	-	0					0	0
31	395	-	8.7	10	-	0	-				33	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	5,781.0	1,340	0.7	186	11,470
November	1,460	288	16	48.7	2,900
December	660.7	51	8.7	21.3	1,310
Calendar year 1941	9,410.4	1,340	0	25.8	18,670
January	405.5	24	.3	13.1	804
February	189.6	-	.5	6.77	376
March	5.8	1.2	0	.19	12
April	12.0	-	0	.40	24
May	0	0	0	0	0
June	0	0	0	0	0
July	0	0	0	0	0
August	33	33	0	1.06	65
September	178.6	60	0	5.95	354
Water year 1941-42	8,726.2	1,340	0	23.9	17,320

a No gage-height record; discharge computed on basis of known range in stage, discharge measurement, and weather records.

Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

San Solomon Springs at Toyahvale, Tex.

Location.- Water-stage recorder and sharp-crested weir, lat. 30°56', long. 103°47', in 3½, sec. 256, Blk. 13, Houston & Great Northern Railroad Co. survey, on South Canal at Toyahvale, Reeves County, and 540 feet downstream from spring pool. Datum of gage is 3,311.0 feet above mean sea level, datum of 1929.

Records available.- September 1900 to June 1925, February 1934 to April 1936 (occasional discharge measurements published as miscellaneous measurements). October 1931 to December 1933, March 1941 to September 1942.

Extremes.- Maximum daily discharge during year, 71 second-feet Oct. 26-30 (based on discharge measurement made Oct. 28); minimum daily, 36 second-feet, Aug. 14-24.
1931-33, 1941-42: Maximum daily discharge, 71 second-feet Oct. 7-9, 1932, Oct. 26-30, 1941; minimum daily, 30 second-feet, Nov. 5-11, 1931, Jan. 22 to Feb. 23, 1932.

Remarks.- Records good except those for period of no gage-height record, which are fair. Discharge represents total flow of springs and is determined by combining the flows in South Canal and two additional outlets (flow meaeured periodically), Middle and North Canals. Flow into each canal regulated by operation of head gates. Water used for irrigation in vicinity of Balmorhea.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	70	63	56	49	46	42	42	41	40	39	45
2	66	70	63	55	48	46	42	41	41	40	38	46
3	67	70	63	55	48	46	42	41	41	40	38	46
4	68	69	62	55	48	46	42	41	41	40	38	48
5	68	69	62	54	47	46	42	41	40	40	38	49
6	68	69	61	54	47	45	42	41	40	40	38	50
7	68	69	62	54	47	45	42	41	40	40	37	50
8	68	68	62	54	47	45	42	41	40	40	37	50
9	67	68	61	54	47	45	41	41	40	40	37	50
10	67	68	61	54	47	45	41	41	40	40	37	50
11	67	68	61	54	46	45	41	42	40	40	37	50
12	67	67	61	53	46	45	41	42	40	40	37	50
13	67	67	60	52	46	45	41	41	41	40	37	50
14	67	67	60	52	47	44	42	41	41	40	36	50
15	67	67	61	52	47	44	42	41	41	40	36	49
16	67	67	60	51	47	44	42	42	41	40	36	49
17	69	66	60	51	46	44	43	42	41	40	36	50
18	69	66	60	51	46	44	43	42	41	40	36	50
19	69	66	60	51	46	44	43	42	41	40	36	49
20	70	66	30	51	46	44	43	42	41	40	36	49
21	70	65	60	51	46	44	43	42	41	40	36	48
22	70	65	60	51	46	44	43	42	40	40	36	49
23	70	65	59	51	46	44	43	42	40	40	36	48
24	70	65	59	50	46	44	43	42	40	40	36	48
25	70	65	59	50	46	44	43	41	40	40	38	47
26	71	64	59	50	47	44	43	41	40	39	41	47
27	71	64	58	50	48	44	43	41	40	39	42	46
28	71	64	58	50	47	43	42	41	40	39	43	46
29	71	64	57	49	-	43	42	41	40	39	44	46
30	71	63	57	49	-	43	42	41	40	39	44	45
31	70	-	57	49	-	43	-	41	-	39	44	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	2,126	71	65	68.6	4,220
November	2,001	70	63	66.7	3,970
December	1,866	63	57	60.2	3,700
Calendar year	-	-	-	-	-
January	1,613	56	49	52.0	3,200
February	1,310	49	46	46.8	2,600
March	1,378	46	43	44.5	2,730
April	1,266	43	41	42.2	2,510
May	1,283	42	41	41.4	2,540
June	1,213	41	40	40.4	2,410
July	1,234	40	39	39.8	2,450
August	1,180	44	36	38.1	2,340
September	1,450	50	45	48.3	2,880
Water year 1941-42	17,920	71	36	49.1	35,550

Note.- Total flow of springs diverted from South Canal Oct. 18 to Dec. 5; discharge computed on basis of one discharge measurement, trend of spring flow, engineer's notes, and weather records.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Comanche Springs at Fort Stockton, Tex.

Location.- Water-stage recorder, lat. 30°53', long. 102°52', in SW¼ sec. 160, Blk. 117, George C. Thurman survey, on outlet canal of Pecos County Water Improvement District No. 1, in eastern outskirts of Fort Stockton, Pecos County, a quarter of a mile upstream from bridge on U. S. Highway 290, and 0.5 mile downstream from head of springs. Datum of gage is 2,922.8 feet above mean sea level, datum of 1929.

Records available.- February 1941 to September 1942. 1899 to September 1940 (occasional discharge measurements published as miscellaneous measurements).

Extremes.- Maximum daily discharge during year, 54 second-feet Jan. 30; minimum daily, 40 second-feet Nov. 30 to Dec. 2, Dec. 5-13, June 30 to July 2, July 21.
1941-42: Maximum daily discharge, that of Jan. 30, 1942; minimum daily, that of Nov. 30 to Dec. 2, Dec. 5-13, 1941, June 30 to July 2, July 21, 1942.

Remarks.- Records good. Discharge represents total flow of springs exclusive of surface runoff from precipitation. About 6,000 acres of land irrigated below station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	e42	48	40	44	53	46	44	44	43	40	41	e42
2	42	48	40	44	53	46	44	43	43	40	41	e42
3	42	49	41	45	52	46	44	43	43	41	41	42
4	42	50	41	45	51	46	44	43	e42	41	41	42
5	42	49	40	45	51	47	44	43	43	41	41	42
6	42	49	40	45	50	47	45	43	42	41	41	42
7	42	49	40	45	50	47	45	43	42	42	41	42
8	42	49	40	45	50	47	45	43	42	42	41	41
9	42	49	40	45	48	47	45	43	42	42	42	41
10	42	49	a40	46	47	46	44	43	42	43	41	41
11	42	49	a40	46	46	46	44	43	42	44	41	41
12	42	48	a40	46	46	46	44	43	42	43	41	41
13	42	48	a40	46	45	46	44	43	42	43	41	41
14	42	48	a41	46	45	46	44	43	42	42	41	41
15	43	48	a41	46	44	45	44	43	42	42	42	41
16	43	48	a41	47	44	45	44	43	42	42	42	41
17	43	47	a41	48	44	45	44	43	42	41	42	41
18	43	46	a42	48	44	45	44	43	42	41	42	41
19	44	46	a42	47	44	45	44	43	43	41	42	41
20	44	45	a42	46	44	44	44	43	43	41	41	41
21	45	44	a42	48	45	44	44	43	42	40	42	41
22	45	44	a42	49	45	44	44	43	41	e41	e42	42
23	45	43	a43	49	45	44	44	43	41	41	e42	42
24	e45	42	a43	50	45	44	44	43	41	41	42	42
25	e45	42	a43	50	45	44	44	43	41	41	42	42
26	46	41	a43	50	45	44	44	43	41	41	42	42
27	46	41	a43	51	45	44	44	43	41	41	42	42
28	47	41	a44	52	46	44	44	43	41	41	42	42
29	47	41	a44	52	-	44	43	e43	41	41	42	42
30	48	40	a44	54	-	44	44	43	40	41	e42	42
31	48	-	a44	53	-	44	-	43	-	41	e42	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,355	48	42	43.7	2,690
November	1,381	50	40	46.0	2,740
December	1,287	44	40	41.5	2,550
Calendar year	-	-	-	-	-
January	1,475	54	44	47.6	2,930
February	1,312	53	44	46.9	2,600
March	1,402	47	44	45.2	2,780
April	1,323	45	43	44.1	2,620
May	1,334	44	43	43.0	2,650
June	1,256	43	40	41.9	2,490
July	1,283	44	40	41.4	2,540
August	1,288	42	41	41.5	2,550
September	1,246	42	41	41.5	2,470
Water year 1941-42	15,942	54	40	43.7	31,610

a Total discharge diverted through wasteway upstream from gage; discharge computed on basis of discharge measurement and engineer's notes.
e Gage height not representative of average spring flow for day; discharge interpolated.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time subtract 1 hour.

Devils River near Juno, Tex.

Location.- Water-stage recorder, lat. 29°58', long. 101°09', 500 feet downstream from Walter Baker ranch house, 2 miles upstream from Phillips Creek, and 13½ miles southwest of Juno, Val Verde County. Datum of gage is 1,489.7 feet above mean sea level, datum of 1929 (Corps of Engineers, U. S. Army, bench mark).
Drainage area.- 2,733 square miles.
Records available.- May 1925 to September 1942.
Average discharge.- 17 years, 208 second-feet.
Extremes.- Maximum discharge during year, 1,680 second-feet Oct. 15 (gage height, 5.32 feet); minimum, 68 second-feet Aug. 13, 14.
1925-42: Maximum discharge, 370,000 second-feet Sept. 1, 1932 (gage height, 31.3 feet, from floodmarks), by slope-area method; minimum, 48 second-feet June 4-6, 1930.
Remarks.- Records good except those above 100 second-feet, which are fair. No diversion above station.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	97	95	97	95	93	89	81	76	76	72	171
2	91	97	95	97	95	93	89	81	76	77	72	158
3	89	95	95	97	95	93	89	82	74	79	72	155
4	89	95	95	97	95	93	89	81	74	82	72	138
5	89	95	95	97	95	93	89	81	79	79	72	131
6	88	95	93	97	95	91	89	81	79	82	72	125
7	88	95	93	97	95	93	95	81	77	79	72	129
8	88	95	95	97	95	91	93	81	76	79	72	125
9	88	95	95	97	95	91	89	81	74	77	72	315
10	151	95	95	97	95	91	88	81	72	77	71	213
11	105	95	95	97	97	91	88	81	72	77	71	142
12	101	95	95	97	95	91	88	79	72	77	71	133
13	99	95	95	97	95	91	88	77	72	77	71	127
14	99	95	95	101	95	91	86	77	75	76	71	125
15	387	95	95	99	95	91	86	76	99	76	71	123
16	160	95	95	99	95	91	88	76	81	76	81	121
17	133	95	95	99	95	91	88	77	79	76	81	119
18	125	95	95	99	95	91	88	81	77	76	77	117
19	119	95	95	99	95	91	89	91	76	76	86	117
20	115	95	95	99	95	91	88	89	76	76	82	115
21	111	95	95	99	95	91	86	86	76	76	81	115
22	107	95	95	99	95	89	86	84	76	76	81	111
23	105	95	95	99	95	89	88	81	76	76	79	109
24	103	95	95	99	93	89	86	79	74	76	79	107
25	101	95	95	97	93	89	86	77	74	76	76	105
26	99	95	97	97	93	89	82	77	74	74	76	105
27	97	95	97	97	93	89	82	77	74	74	74	103
28	97	95	97	97	93	89	82	76	74	74	74	103
29	97	95	97	97	-	89	82	76	74	74	74	101
30	97	95	97	97	-	89	82	76	74	74	147	101
31	97	-	97	95	-	89	-	76	-	74	504	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	3,508	387	88	113	6,960
November	2,854	97	95	95.1	5,660
December	2,953	97	95	95.3	5,860
Calendar year 1941	30,915	387	61	84.7	61,320
January	3,029	101	95	97.7	6,010
February	2,652	97	93	94.7	5,260
March	2,813	93	89	90.7	5,580
April	2,613	95	82	87.3	5,190
May	2,480	91	76	80.0	4,920
June	2,282	99	72	76.1	4,530
July	2,374	82	74	76.6	4,710
August	2,826	504	71	91.2	5,610
September	3,959	315	101	132	7,850
Water year 1941-42	34,348	504	71	94.1	68,140

Peak discharge.- Oct. 15 (3 p.m.) 1,680 sec.-ft.; Aug. 30 (11:30 p.m.) 1,220 sec.-ft.; Sept. 9 (1:20 p.m.) 610 sec.-ft.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

Las Moras Springs at Brackettville, Tex.

Location.- Staff gage, lat. 29°18', long. 100°25', in spring pool at Brackettville, Kinney County, about a quarter of a mile upstream from bridge on Brackettville-Fort Clark road. Datum of gage is 1,095.0 feet above mean sea level (Texas Highway Department bench mark).
Records available.- December 1895 to August 1938 (occasional miscellaneous discharge measurements), September 1938 to September 1942 (discharge measurements only).
Extremes.- 1895-1942: Maximum discharge measured, 60 second-feet (by Prof. T. U. Taylor) June 30, 1899; minimum measured, 5.8 second-feet July 30, 1928.
Remarks.- Discharge measurements represent total flow of springs. Flow of springs emerges from limestone outcrop in Balcones fault zone and responds to local rainfall on Edwards Plateau. Elevation of pool regulated by outlet gate and discharge is affected to large extent. City of Brackettville and U. S. Army (about 1 second-foot, for Fort Clark) divert water from pool for domestic and recreational uses.

Discharge measurements, in second-feet, of Las Moras Springs at Brackettville, Tex., water year October 1941 to September 1942

Date	Gage height (feet)	Discharge (second-feet)	Date	Gage height (feet)	Discharge (second-feet)
Oct. 27	†5.46	36.8	May 30	‡3.22	10.6
Dec. 14	†4.94	13.8	June 18	†4.84	8.46
Jan. 27	†4.88	10.9	July 20	‡3.14	8.24
27	‡3.34	14.1	Aug. 20	‡3.07	7.65
Mar. 14	†4.85	9.92	Sept. 21	‡3.75	29.9
Apr. 20	†4.86	10.0			

† Outlet gate closed; water flowing over top of gate.
‡ Outlet gate open; water flowing under gate and effective head on springs increased.
Note.- Gage heights indicate elevation of water surface in spring pool. Variation of head on pool has material effect on spring discharge.
Time basis: Central standard time prior to 2 a.m., Feb. 9, 1942; central war time thereafter. To convert war time to standard time, subtract 1 hour.

MIMBRES RIVER BASIN

Mimbres River near Mimbres, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 32°52', long. 107°59', in SE¼NW¼ sec. 33, T. 16 S., R. 11 W., 1 mile downstream from Bear Canyon and 1½ miles northwest of Mimbres.
Drainage area.- 183 square miles.
Records available.- October 1930 to September 1942 in reports of Geological Survey. May 1921 to December 1931 in reports of State engineer.
Average discharge.- 19 years (1921-24, 1926-42), 13.1 second-feet.
Extremes.- Maximum discharge during year, 950 second-feet Aug. 8 (gage height, 4.56 feet), from rating curve extended above 310 second-feet by logarithmic plotting; minimum daily, 2.4 second-feet June 20.
1930-42: Maximum discharge, 2,060 second-feet July 17, 1933, from rating curve extended above 120 second-feet by logarithmic plotting; maximum gage height, 4.89 feet Aug. 6, 1939; minimum daily discharge, 1.4 second-feet July 11, 12, 1933.
Remarks.- Records good except those for period of no gage-height record, which are fair. Flow partly regulated by Bear Canyon Reservoir (capacity, 700 acre-feet). Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	12	9.4	a9.5	9.4	9.9	7.4	10	16	31	4.5	4.7
2	22	12	9.4	a9.5	9.0	9.4	7.0	10	16	33	9.2	3.8
3	71	12	9.0	a9.5	9.0	9.4	8.0	11	16	13	9.0	7.2
4	85	12	9.4	a9.5	9.0	9.4	10	10	16	11	13	10
5	47	12	9.0	a9.5	8.7	9.4	11	9.4	16	9.9	9.4	14
6	33	12	9.0	a9.5	9.0	9.9	11	9.9	16	9.0	8.7	11
7	25	12	9.0	a9.5	9.0	10	11	11	14	8.3	8.7	10
8	20	11	9.0	a9.5	9.0	9.9	11	9.9	14	8.3	110	11
9	18	11	9.0	a9.5	9.0	9.9	11	9.4	13	7.0	25	11
10	17	11	9.4	a9.5	9.4	10	9.9	9.9	10	7.0	9.9	11
11	16	11	9.9	a9.5	9.4	11	10	10	8.0	6.7	7.7	21
12	16	11	11	a10	9.4	12	14	10	7.4	6.4	7.4	23
13	16	11	11	a11	9.0	12	17	9.0	7.4	5.2	7.0	18
14	16	11	10	a12	9.0	13	16	8.3	8.0	4.0	19	33
15	16	11	9.9	13	9.0	13	16	7.4	7.7	3.3	9.6	34
16	16	11	9.4	12	9.0	13	18	7.0	7.4	3.3	9.0	13
17	16	11	9.0	12	9.0	13	18	11	6.7	7.9	6.7	8.3
18	14	12	9.4	12	8.7	11	20	12	5.0	14	6.4	7.7
19	14	11	9.4	11	8.7	10	22	9.9	2.9	12	5.5	7.4
20	14	11	9.4	11	9.0	9.9	18	8.3	2.4	11	5.5	7.0
21	16	10	9.4	10	9.0	9.9	16	8.3	4.3	12	5.0	6.4
22	15	10	9.4	10	9.4	9.9	15	9.4	7.4	12	5.5	6.4
23	15	9.9	9.4	9.9	9.4	9.9	17	7.7	8.3	12	5.5	7.0
24	14	9.9	9.4	9.9	9.4	10	18	7.0	11	13	22	7.0
25	14	9.9	9.4	9.9	9.4	11	17	6.4	13	12	12	7.0
26	13	9.9	9.4	9.4	9.0	11	17	13	14	11	6.7	6.4
27	13	9.9	a9.5	9.4	9.4	10	16	16	14	11	6.4	5.7
28	13	9.9	a9.5	9.9	11	9.0	13	14	13	9.9	6.4	5.0
29	13	9.4	a9.5	9.9	-	8.0	12	15	11	5.2	6.0	4.5
30	12	9.4	a9.5	9.4	-	7.4	12	14	12	4.3	6.0	4.5
31	12	-	a9.5	9.4	-	7.4	-	16	-	4.3	5.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	675	85	12	21.8	1,340
November	326.2	12	9.4	10.9	647
December	293.9	11	9.0	9.48	583
Calendar year 1941	11,854.0	363	5.5	32.5	23,510
January	315.6	13	9.4	10.2	626
February	256.7	11	8.7	9.17	509
March	318.6	13	7.4	10.3	632
April	419.3	22	7.0	14.0	832
May	320.2	16	6.4	10.3	635
June	317.9	16	2.4	10.6	631
July	318.0	33	3.3	10.3	631
August	377.7	110	4.5	12.2	749
September	326.0	34	3.8	10.9	647
Water year 1941-42	4,265.1	110	2.4	11.7	8,460

Peak discharge.- July 1 (8 p.m.) 364 sec.-ft.; July 2 (6 p.m.) 236 sec.-ft.; Aug. 8 (6 p.m.) 950 sec.-ft.; Aug. 14 (7 p.m.) 190 sec.-ft.; Sept. 13 (7 p.m.) 205 sec.-ft.
a No gage-height record; discharge computed on basis of weather records and records for station near Faywood.
Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Mimbres River near Faywood, N. Mex.

Location.- Water-stage recorder, lat. 32°36', long. 107°53', in sec. 7, T. 20 S., R. 10 W., 6 miles northeast of Faywood Hot Springs, 10 miles northeast of Faywood, and 12 miles upstream from San Vicente Arroyo.

Drainage area.- 485 square miles.

Records available.- April 1908 to December 1914 and October 1930 to September 1942 in reports of Geological Survey. April 1908 to December 1931 in reports of State engineer.

Average discharge.- 26 years (1908-10, 1912-17, 1919-24, 1926-27, 1929-42), 23.2 second-feet.

Extremes.- Maximum discharge during year, 1,880 second-feet Aug. 9 (gage height, 4.10 feet), from rating curve extended above 150 second-feet by logarithmic plotting; minimum daily, 1.1 second-feet Aug. 1, 2.
1930-42: Maximum discharge not determined; maximum gage height, 10.0 feet Aug. 4, 1939; no flow at times.

Remarks.- Records fair. Diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	127	21	18	16	12	11	8.8	5.7	2.3	2.1	1.1	3.7
2	73	20	17	17	11	12	8.0	4.8	2.3	37	1.1	2.7
3	91	20	17	17	9.9	13	9.0	5.0	2.3	26	7.7	2.5
4	188	20	17	16	9.3	13	8.2	4.2	2.3	3.5	1.3	4.4
5	114	a20	17	16	8.8	12	7.4	4.2	2.3	2.9	1.3	7.0
6	74	20	17	16	7.4	9.6	6.8	3.9	2.1	3.1	1.2	4.6
7	57	20	17	16	7.4	8.8	9.0	3.5	2.1	2.9	1.5	2.9
8	44	20	17	16	7.4	8.8	12	3.5	2.1	1.9	41	2.7
9	36	21	18	16	4.8	8.2	12	4.2	2.1	2.1	255	2.5
10	32	22	20	15	4.6	8.2	11	4.2	2.3	2.1	89	2.5
11	29	22	20	15	5.5	12	9.6	3.7	2.5	2.1	a60	3.3
12	27	20	22	14	6.4	14	7.0	3.3	2.5	1.9	53	50
13	22	20	20	14	8.0	14	8.0	3.3	2.3	1.9	70	78
14	21	18	20	14	7.7	14	6.4	3.1	2.3	1.9	70	67
15	20	18	19	16	6.0	13	6.4	3.3	2.3	2.1	46	e7
16	20	18	18	16	5.3	12	4.4	3.6	2.1	2.3	90	43
17	20	20	18	17	5.5	10	5.5	3.7	2.1	2.3	a40	27
18	19	22	18	17	5.0	11	7.4	3.3	2.1	2.5	a30	22
19	19	21	18	17	5.5	10	5.7	3.1	2.1	2.3	a15	20
20	18	20	17	17	6.2	9.6	4.4	2.9	2.1	2.9	9.6	15
21	18	20	17	17	7.0	8.2	4.4	2.9	1.9	2.1	5.5	14
22	17	20	17	16	9.0	5.3	5.5	3.1	1.7	2.1	16	52
23	20	18	17	17	7.4	5.3	6.0	3.7	2.1	1.9	17	14
24	18	18	18	16	6.4	7.4	10	3.3	2.1	4.4	80	8.0
25	17	18	17	15	7.7	7.4	15	3.1	2.1	2.7	71	7.0
26	16	18	17	15	7.2	6.7	13	2.9	1.9	1.7	54	6.5
27	16	18	18	15	10	8.8	10	2.7	1.5	1.7	30	5.5
28	17	18	17	15	12	9.3	6.7	2.7	1.7	1.7	18	5.5
29	19	18	17	13	-	9.3	6.4	2.5	1.7	1.7	13	5.5
30	20	18	16	12	-	9.9	6.2	2.5	1.9	1.5	11	4.5
31	21	-	16	13	-	8.2	-	2.5	-	1.3	6.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	1,250	188	16	40.3	2,480
November	587	22	18	19.6	1,160
December	552	22	16	17.8	1,090
Calendar year 1941	19,068.8	1,410	2.0	52.2	37,800
January	482	17	12	15.5	956
February	210.4	12	4.6	7.51	417
March	310.0	14	5.3	10.0	615
April	242.2	15	4.4	8.07	480
May	108.3	5.7	2.5	3.49	215
June	63.2	2.5	1.5	2.11	125
July	128.6	37	1.3	4.15	255
August	1,206	255	1.1	38.9	2,390
September	569.3	87	2.5	19.0	1,130
Water year 1941-42	5,709.0	255	1.1	15.6	11,310

Peak discharge.- Aug. 8 (12 p.m.) 1,180 sec.-ft.; Aug. 9 (10 p.m.) 1,880 sec.-ft.; Aug. 12 (8 p.m.) 432 sec.-ft.; Aug. 13 (5 p.m.) 444 sec.-ft.; Aug. 14 (8 p.m.) 480 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for station near Mimbres.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Bear Canyon near Mimbres, N. Mex.

Location.- Water-stage recorder and concrete Parshall flume, lat. 32°53', long. 108°00', in S½ sec. 29, T. 16 S., R. 11 W., 100 feet downstream from bridge on State Highway 167, 200 feet downstream from Bear Canyon Dam, and 2 miles northwest of Mimbres.

Records available.- October 1937 to September 1942.

Extremes.- Maximum discharge during year, 26 second-feet May 26 (gage height, 1.74 feet); no flow at times.

1937-42: Maximum discharge, 76 second-feet Sept. 29, 1941 (gage height, 2.88 feet), from rating curve extended above 21 second-feet by logarithmic plotting; no flow at times.

Remarks.- Records fair. Flow regulated by Bear Canyon Reservoir (capacity, 700 acre-feet). One diversion above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.9	0.2	0.1	0.3	1.5	0.5	1.8	0.1	5.1	7.4		0
2	4.1	.2	.1	.4	1.3	.4	2.0	.1	5.1	6.2		0
3	9.6	.2	.1	.4	1.2	.4	2.2	0	5.1	0		4.3
4	11	.2	.1	.3	1.1	.4	2.4	0	5.1	0		7.8
5	6.0	.1	.1	.3	1.0	.4	2.5	0	5.0	0		7.5
6	3.4	.1	.1	.2	.8	.7	2.8	0	5.0	0		7.2
7	2.0	.1	.1	.2	.8	.9	3.1	0	5.0	0		7.0
8	1.2	.1	.1	.2	1.0	1.0	3.2	0	5.0	0		7.0
9	.8	.1	.1	.3	.8	1.1	2.5	.1	5.0	0		6.9
10	.5	.1	.2	.4	.8	1.3	1.9	.1	1.9	0		6.7
11	.4	.1	.3	.5	.9	1.7	1.8	0	0	0		6.7
12	.4	.1	.5	.7	.8	2.1	1.7	0	0	0		3.2
13	.4	.1	.6	1.7	.8	2.4	1.5	0	0	0		0
14	.3	.1	.5	3.2	.7	3.1	1.1	0	0	0		0
15	.2	.1	.4	3.7	.7	3.7	.5	0	0	0		0
16	.2	.1	.3	3.5	.6	3.2	.4	0	0	0		0
17	.2	.1	.3	3.6	.5	2.8	.5	0	0	4.8		0
18	.2	.3	.3	3.3	.5	2.7	.4	0	0	12		0
19	.2	.3	.2	3.0	.4	2.6	.2	0	0	9.5		0
20	.1	.2	.2	2.7	.4	2.3	.2	0	0	7.5		0
21	.2	.2	.2	2.4	.4	2.3	.2	0	2.4	7.4		0
22	.2	.1	.2	2.0	.5	2.3	.2	0	5.1	7.4		0
23	.3	.1	.2	2.0	.4	2.4	.3	0	7.1	7.3		0
24	.3	.1	.3	1.7	.4	3.3	.4	0	8.2	7.2		0
25	.3	.1	.3	1.7	.4	3.8	.3	0	8.0	6.9		0
26	.2	.1	.2	1.6	.3	3.2	.2	3.1	8.0	6.9		0
27	.2	.1	.2	1.7	.4	2.7	.2	5.2	8.0	6.7		0
28	.3	.1	.2	1.9	.8	2.4	.2	5.2	6.5	5.9		0
29	.3	.1	.2	2.0	-	2.1	.2	5.2	5.1	0		0
30	.3	.1	.2	1.7	-	1.8	.1	5.2	7.3	0		0
31	.2	-	.3	1.7	-	1.7	-	5.2	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	50.9	11	0.1	1.64	101
November	4.0	.3	.1	.13	7.9
December	7.2	.6	.1	.23	14
Calendar year 1941	965.1	49	0	2.64	1,910
January	49.3	3.7	.2	1.59	98
February	20.2	1.5	.3	.72	40
March	61.7	3.8	.4	1.99	122
April	35.0	3.2	.1	1.17	69
May	29.5	5.2	0	.95	59
June	113.0	8.2	0	3.77	224
July	103.1	12	0	3.33	204
August	0	0	0	0	0
September	64.3	7.8	0	2.14	128
Water year 1941-42	538.2	12	0	1.47	1,070

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Rio Tularosa near Tularosa, N. Mex.

Location.- Water-stage recorder and concrete control, lat. 33°07', long. 105°57', in SW¼SW¼ sec. 15, T. 14 S., R. 10 E., 200 feet upstream from diversion dam for Tularosa Community ditch and 3 miles northeast of Tularosa.

Records available.- December 1912 to December 1914 and October 1931 to September 1942 in reports of Geological Survey. December 1912 to December 1914 and October 1916 to July 1917 in reports of State engineer.

Extremes.- Maximum discharge during year, 2,940 second-feet Aug. 7 (gage height, 4.13 feet), from rating curve extended above 23 second-feet on basis of slope-area determinations at gage heights 3.4 and 8.5 feet; minimum daily, 4 second-feet June 28, July 12.

1931-42: Maximum discharge, 9,640 second-feet Sept. 3, 1938 (gage height, 8.50 feet, from floodmarks), by slope-area method; minimum daily, 1 second-foot July 31, Aug. 1, 1934.

Remarks.- Records fair except those for periods of no gage-height record, which are poor. Several diversions above station for irrigation.

Discharge, in second-feet, water year October 1941 to September 1942

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a40	29	a10	18	19	22	16	17	7	16	14	18
2	a40	24	a10	19	19	22	16	17	15	18	17	20
3	a30	20	a10	18	19	22	16	11	26	14	42	18
4	a30	18	a10	17	19	21	16	11	17	14	16	17
5	a30	17	a10	17	18	20	12	15	16	13	16	17
6	a30	16	a10	18	18	19	16	16	16	10	15	16
7	a30	15	a10	19	19	21	22	16	16	15	150	16
8	a25	14	a10	19	19	19	21	16	14	13	64	16
9	a25	12	a10	18	20	20	21	16	10	17	17	16
10	a25	12	a15	18	21	20	20	16	9	9	a15	40
11	a25	10	a20	18	21	21	20	15	9	9	32	64
12	a25	9	a20	19	20	20	21	13	10	4	a25	51
13	a26	8	a20	19	20	21	21	11	10	6	a15	21
14	a25	8	21	19	20	21	18	12	5	14	a10	20
15	24	a8	21	19	21	21	16	11	6	14	39	19
16	24	a8	21	18	21	21	16	9	12	14	a20	17
17	24	a8	21	18	20	20	17	8	14	13	a15	17
18	23	a8	21	18	17	19	17	11	14	13	a14	19
19	22	a15	20	18	17	17	10	13	13	13	a30	17
20	21	a12	20	18	18	17	12	16	13	48	a15	17
21	22	a9	21	17	19	18	14	16	13	16	17	17
22	77	a9	23	17	20	17	19	14	11	16	17	17
23	15	a9	21	18	20	17	24	17	13	16	22	17
24	19	a8	21	18	19	17	20	17	9	16	26	17
25	16	a9	17	18	19	16	19	12	9	12	21	17
26	15	a10	19	19	20	17	18	8	9	6	18	17
27	14	a10	19	19	21	17	17	11	10	10	17	17
28	16	a10	19	19	24	19	17	10	4	14	17	17
29	77	a10	18	19	-	18	17	12	5	16	18	17
30	70	a10	17	19	-	18	17	13	14	16	79	17
31	38	-	17	19	-	17	-	6	-	17	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Runoff in acre-feet
October	922	77	14	29.7	1,830
November	365	29	8	12.2	724
December	522	23	10	16.8	1,040
Calendar year 1941	6,690	440	3	18.3	13,270
January	567	19	17	18.3	1,120
February	548	24	17	19.6	1,090
March	595	22	16	19.2	1,180
April	526	24	10	17.5	1,040
May	406	17	6	13.1	805
June	349	26	4	11.6	692
July	442	48	4	14.3	877
August	856	150	10	27.6	1,700
September	626	64	16	20.9	1,240
Water year 1941-42	6,724	150	4	18.4	13,340

Peak discharge.- July 20 (8 p.m.) 1,040 sec.-ft.; Aug. 7 (2 p.m.) 2,940 sec.-ft.; Aug. 15 (2 p.m.) 1,040 sec.-ft.; Aug. 30 (2 p.m.) 1,920 sec.-ft.

a No gage-height record; discharge computed on basis of weather records and records for Rio Ruidoso at Hondo and Rio Bonito at Hondo.

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

Alamogordo-La Luz ditch at La Luz, N. Mex.

Location.- Water-stage recorder and Parshall flume, lat. 32°58'50", long. 105°56'15", in SW¼ sec. 25, T. 15 S., R. 10 E., a quarter of a mile upstream from La Luz and half a mile downstream from head gate.

Records available.- October 1934 to September 1942.

Extremes.- Maximum daily discharge during year, 22 second-feet Feb. 2, 3, 5-13; no flow at times.
1934-42: Maximum daily discharge, that of Feb. 2, 3, 5-13, 1942; no flow at times.

Remarks.- Records fair. Ditch diverts water from left bank of Rio La Luz for irrigation.

Monthly discharge, in second-feet, water year October 1941 to September 1942

Month	Maximum	Minimum	Mean	Runoff in acre-feet
October	3.9	0	0.60	37
November	16	0	13.2	783
December	16	.5	8.87	545
Calendar year 1941	16	0	5.81	4,210
January	15	8.8	11.4	700
February	22	8.3	15.8	879
March	19	7.6	14.3	878
April	19	11	16.4	976
May	19	10	13.4	823
June	14	6.0	10.4	616
July	18	4.1	12.3	755
August	21	0	12.2	751
September	19	0	11.1	661
Water year 1941-42	22	0	11.6	8,400

Alamogordo water supply near Alamogordo, N. Mex.

Location.- Water-stage recorder and rectangular contracted weir, lat. 32°52'35", long. 105°55'50", in NW¼ sec. 33, T. 16 S., R. 10 E., at lower end of pipe line, about a mile downstream from Alamo Canyon, and 2 miles southeast of Alamogordo.

Records available.- October 1932 to September 1942.

Average discharge.- 10 years, 1.72 second-feet.

Extremes.- Maximum discharge during year, 4.5 second-feet Sept. 14 (gage height, 0.82 foot); minimum daily, 2.4 second-feet Oct. 1.
1932-42: Maximum discharge, 6.2 second-feet July 8, 1936 (gage height, 0.89 foot, site and datum then in use); no flow July 7, 1933, Sept. 29, 1941.

Remarks.- Records good. Water is diverted from Alamo Creek for municipal supply of Alamogordo by pipe line having one intake on Alamo Creek just above former gaging station at Wood Ranch and a second intake at Fleming Springs in Duncan Arroyo, which is tributary to Alamo Creek about 2 miles below first intake.

Monthly discharge, in second-feet, water year October 1941 to September 1942

Month	Maximum	Minimum	Mean	Runoff in acre-feet
October	3.3	2.4	3.18	195
November	3.3	3.2	3.20	191
December	3.4	3.2	3.23	199
Calendar year 1941	3.4	0	2.20	1,600
January	3.2	3.1	3.16	195
February	3.1	2.9	3.00	166
March	3.4	2.9	3.13	192
April	3.3	3.3	3.30	196
May	3.8	3.1	3.55	219
June	3.7	3.1	3.37	200
July	3.2	3.1	3.15	194
August	3.5	3.1	3.23	199
September	4.2	3.2	3.33	198
Water year 1941-42	4.2	2.4	3.24	2,340

Time basis: Mountain standard time prior to 2 a.m., Feb. 9, 1942; mountain war time thereafter. To convert war time to standard time, subtract 1 hour.

In addition to the records of stream flow obtained at gaging stations in the western Gulf of Mexico basins and reported in the preceding pages, measurements of flow were made at other points, as indicated in the following table:

Miscellaneous discharge measurements in western Gulf of Mexico basins during the water year October 1941 to September 1942*

Sabine River Basin

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Nov. 11	Little Cow Creek.	Sabine River.....	300 feet downstream from State Highway S7, ⅜ mile south of Burkeville, Tex., and above McGraw Creek.	58.2
Dec. 11	....do.....	....do.....	....do.....	63.4
Jan. 16	....do.....	....do.....	....do.....	50.7
Mar. 24	....do.....	....do.....	....do.....	49.5
May 14	....do.....	....do.....	....do.....	76.0
June 17	....do.....	....do.....	....do.....	74.3
July 29	....do.....	....do.....	....do.....	46.9
Sept. 2	....do.....	....do.....	....do.....	47.8
Nov. 11	McGraw Creek.....	Little Cow Creek...	1 mile upstream from mouth, 2 miles southeast of Burkeville, Tex.	39.2
Jan. 16	....do.....	....do.....	....do.....	33.8
Mar. 24	....do.....	....do.....	....do.....	34.8
May 14	....do.....	....do.....	....do.....	52.1
June 17	....do.....	....do.....	....do.....	44.4
July 29	....do.....	....do.....	....do.....	25.0
Sept. 2	....do.....	....do.....	....do.....	26.0
Oct. 2	Quicksand Creek..	Sabine River.....	At U. S. Highway 190, 0.7 mile upstream from mouth and near Bon Weir, Tex.	42.1

Neches River Basin

Mar. 31	Beech Creek.....	East Fork of Angelina River.	300 feet downstream from State Highway 26, 5.2 miles south of Mount Enterprise, Tex.	8.34
Sept.16	Morral Creek.....	Angelina River.....	At county highway, 3 miles upstream from Alazan Creek and 5.6 miles southwest of Nacogdoches, Tex.	14.1
16	Alazan Creek.....	Morral Creek.....	Just below Blounts Lake, 0.5 mile upstream from mouth and 6.7 miles southwest of Nacogdoches, Tex.	5.66
16	Lanana Creek.....	Angelina River.....	At county highway, 4½ miles south of Nacogdoches, Tex., and 6 miles upstream from mouth.	12.1
Mar. 31	Sandy Creek.....	Goldengreen Creek..	At Moody Road bridge, 1 mile upstream from mouth and 6 miles north of Garrison, Tex.	6.32
31	Naconicho Bayou..	Attoyac Bayou.....	Just above Texas & New Orleans Railroad bridge, 5.1 miles southwest of Garrison, Tex.	31.1
31	Camp Tonkawa Spring.	Naconicho Bayou....	At Boy Scout camp, 1 mile south of Rusk County line and 7 miles west of Garrison, Tex.	.47
31	Juandras Creek...	....do.....	200 feet above U. S. Highway 59, 0.4 mile above Texas & New Orleans Railroad bridge, and 2.2 miles southwest of Garrison, Tex.	9.61

Trinity River Basin

May 26	West Fork of Trinity River.	Trinity River.....	Discharge over right (south) spillway opening at Bridgeport Reservoir dam, near Bridgeport, Tex.	a1,300
July 8	....do.....	....do.....	....do.....	b375
7	....do.....	....do.....	Discharge of outlet gate No. 2 in Eagle Mountain Reservoir dam above Fort Worth, Tex.	c608
7	....do.....	....do.....	Discharge of outlet gate No. 3 at above-mentioned dam.	c600
8	....do.....	....do.....	Discharge of outlet gate No. 1 at above-mentioned dam.	c611
8	....do.....	....do.....	Discharge of outlet gate No. 4 at above-mentioned dam.	c548
May 1	Trinity River....	Gulf of Mexico.....	At State Highway 31, 0.6 mile west of Trinidad, Tex.	d91,300
Apr. 20	Marine Creek.....	West Fork of Trinity River.	Between Prairie and Loving Avenues at 34th Street in Fort Worth, Tex.	e24,400

* Includes also measurements in Colorado River Basin in July 1940.

a Discharge measured (constant reservoir level, elevation 833.12 ft., reservoir datum) at Bridgeport, 5½ miles downstream from dam. Head on spillway crest, 7.06 feet; length of spillway 19.92 feet. No inflow between dam and measuring section. Two additional spillway openings and all outlet gates closed.

b Second determination of discharge over same spillway opening as above but with head of 3.23 feet.

c Measured at constant stage 400 feet downstream from dam. Reservoir elevation, 643.9 feet, reservoir datum; head on gate, 41.9 feet. Gate wide open; other 3 gates closed.

d Gage height at U. S. Weather Bureau staff gage 200 feet downstream on St. Louis Southwestern Railway bridge, 43.5 feet; crest of flood, 49.8 feet at 1 p.m., Apr. 25. Levee on left bank broke about 12:30 p.m. and 11:30 p.m., Apr. 25, 3 and 5 miles, respectively, downstream from gage. Flood of May 1908 reached a stage 1.7 feet lower than that of Apr. 25, 1942. No levees were in existence in 1908.

e Crest of flood; computed by slope-area method; drainage area, 18.6 square miles.

Miscellaneous discharge measurements in western Gulf of Mexico basins during the water year October 1941 to September 1942--Continued

Colorado River Basin*

Date	Stream	Tributary to or diverting from-	Location	Discharge (sec.-ft.)
1942				
Aug. 18	Main Spring.....	San Saba River.....	30 feet below Fort McKavett-San Angelo road crossing, and 0.7 mile northeast of Fort McKavett, Tex.	f6.10
18	Clear Creek.....	....do.....	20 feet below Menard-Fort McKavett highway bridge, 7.5 miles west of Menard, Tex.	24.6
1940				
July 24	Rough Creek.....	Colorado River.....	Lat. 31°06'05", long. 98°37'30", 200 feet below county-road bridge, 4½ miles northwest of Chappell, Tex.	.80
23	Pool Branch.....	Rough Creek.....	Lat. 31°07'55", long. 98°35'25", at county-road crossing, 5.2 miles northwest of Bend, Tex.	.03
23	Parker Springs[g]...	Rough Creek.....	Lat. 31°07'35", long. 98°34'10", 3.6 miles northwest of Bend, Tex. Spring 357[h].	1.28
23	Cottonwood Spring.	Colorado River.....	Lat. 31°05'50", long. 98°33'35", 2.8 miles west of Bend, Tex. Spring 364[h].	.11
23	McCrory's artesian well.	....do.....	Lat. 31°05'35", long. 98°32'10", 1.4 miles southwest of Bend, Tex.	.06
24	Heck Springs.....	Cherokee Creek.....	Lat. 30°58'40", long. 98°46'25", 3.7 miles west of Cherokee, Tex. Spring 343[h].	1.72
23	Wilberns Glen Branch.	Little Llano River.	Lat. 30°54'10", long. 98°36'25", 8.0 miles southeast of Cherokee, Tex.	.34
23	Wilberns Springs..	....do.....	Lat. 30°54'20", long. 98°36'20", 8.1 miles southeast of Cherokee, Tex.	.42
24	Honey Creek.....	Llano River.....	Lat. 30°38'15", long. 98°32'45", at county road crossing, 11 miles southeast of Llano, Tex.	3.89
24	North Fork of Honey Creek.	....do.....	Lat. 30°38'20", long. 98°33'40", 600 feet below head of springs and 10 miles southeast of Llano, Tex.	3.48
25	Flatrock Spring...	Flatrock Creek.....	Lat. 30°30'45", long. 98°17'00", 4.2 miles south of Marble Falls, Tex.	.18
25	Ebeling Springs...	Doublehorn Creek...	Lat. 30°28'25", long. 98°16'00", 6.8 miles south of Marble Falls, Tex.	1.74
25	Pecan Spring.....	....do.....	Lat. 30°30'05", long. 98°15'00", 4.3 miles southeast of Marble Falls, Tex.	.02

* Includes discharge measurements made in July 1940.
f Not total flow of all springs.
g Also called Holland Springs.
h Ground-water division identification number.

Guadalupe River Basin

Nov. 4	San Marcos Springs (San Marcos River).	Guadalupe River....	At San Marcos, Tex.....	j162
Dec. 5	....do.....	....do.....	....do.....	j157
Jan. 10	....do.....	....do.....	....do.....	j137
Feb. 9	....do.....	....do.....	....do.....	j130
Mar. 16	....do.....	....do.....	....do.....	j126
May 27	....do.....	....do.....	....do.....	j121
July 10	....do.....	....do.....	....do.....	j136
Aug. 8	....do.....	....do.....	....do.....	j131
Sept.16	....do.....	....do.....	....do.....	j209
June 16	Artesian well No. 4.	San Antonio River..	At San Antonio, Tex., at San Antonio Public Service Co.'s plant on Concepcion Road.	k37.0

j Total flow of springs.
k Computed discharge by measuring San Antonio River 500 feet above and 1,000 feet below point at which well flow enters river (on left bank).

Nueces River Basin

Oct. 23	Live Oak Creek....	West Nueces River..	2¾ miles upstream from mouth and 7½ miles northwest of Laguna, Tex.	0.80
Dec. 13	....do.....	....do.....	....do.....	1.29
Oct. 21	Frio River.....	Nueces River.....	Near Galveston-Harrisburg & San Antonio Railroad crossing, 0.6 miles upstream from Dry Frio, 10 miles northeast of Uvalde, Tex.	m0
26	....do.....	....do.....	....do.....	4.50

m Observation of no flow also made on following dates: Dec. 11, Jan. 24, Mar. 12, Apr. 21, May 20, June 15, July 2, 16, Aug. 17, Sept. 15.

Rio Grande Basin

May 7	Rio Grande.....	Gulf of Mexico.....	Sec. 33, T. 4 S., R. 1 E., at U. S. Highway 380, 1 mile east of San Antonio, N. Mex.	8,620
Nov. 6	Allen Creek.....	Costilla Creek.....	Lat. 36°58', long. 105°15', above Costilla Dam and Reservoir, 16 miles east of Costilla, N. Mex.	1.54
May 24	....do.....	....do.....	....do.....	7.84
July 1	....do.....	....do.....	....do.....	4.28
12	....do.....	....do.....	....do.....	1.63
28	....do.....	....do.....	....do.....	1.78
Aug. 8	....do.....	....do.....	....do.....	.67
31	....do.....	....do.....	....do.....	1.26
Sept.25	....do.....	....do.....	....do.....	.76

Miscellaneous discharge measurements in western Gulf of Mexico basins during the water year October 1941 to September 1942--Continued

Rio Grande Basin--Continued

Date	Stream	Tributary to or diverting from-	Location	Discharge (sec.-ft.)
Nov. 5	Cerro ditch.....	Latir Creek.....	SW¼ sec. 15, T. 30 N., R. 13 E., 50 feet below head and 6 miles northwest of Cerro, N. Mex.	7.88
Apr. 16	....do.....	....do.....	....do.....	10.5
May 13	....do.....	....do.....	....do.....	17.9
June 10	....do.....	....do.....	....do.....	3.60
July 18	....do.....	....do.....	....do.....	6.12
Aug. 1	....do.....	....do.....	....do.....	No flow
10	....do.....	....do.....	....do.....	7.33
Sept. 5	....do.....	....do.....	....do.....	n.10
28	....do.....	....do.....	....do.....	4.99
Oct. 21	Bee Line ditch....	Rio Lucero.....	Sec. 21, T. 26 N., R. 13 E., at head, 3½ miles south of Arroyo Seco, N. Mex.	4.32
Nov. 4	....do.....	....do.....	....do.....	4.32
25	....do.....	....do.....	....do.....	3.21
Dec. 8	....do.....	....do.....	....do.....	1.91
22	....do.....	....do.....	....do.....	1.77
Jan. 7	....do.....	....do.....	....do.....	n3
20	....do.....	....do.....	....do.....	1.19
Feb. 2	....do.....	....do.....	....do.....	1.00
25	....do.....	....do.....	....do.....	.73
Mar. 17	....do.....	....do.....	....do.....	1.10
30	....do.....	....do.....	....do.....	1.78
Apr. 14	....do.....	....do.....	....do.....	3.23
28	....do.....	....do.....	....do.....	8.61
May 13	....do.....	....do.....	....do.....	9.32
June 5	....do.....	....do.....	....do.....	11.5
Dec. 1	Santa Fe Creek....	Rio Grande.....	Sec. 24, T. 17 N., R. 10 E., above upper reservoir, 6½ miles east of Santa Fe, N. Mex.	6.38
Feb. 3	....do.....	....do.....	....do.....	3.50
May 21	....do.....	....do.....	....do.....	36.4
June 17	....do.....	....do.....	....do.....	18.9
July 7	....do.....	....do.....	....do.....	4.82
21	....do.....	....do.....	....do.....	2.61
Aug. 6	....do.....	....do.....	....do.....	3.30
17	....do.....	....do.....	....do.....	2.56
Sept. 9	....do.....	....do.....	....do.....	5.77
15	....do.....	....do.....	....do.....	12.3
Mar. 13	Alamillo ditch....	Socorro Main Canal North.	Lat. 34°15'20", long. 106°53'40", at head, ¼ mile east of San Acacia, N. Mex.	4.26
16	....do.....	....do.....	....do.....	3.40
Oct. 25	Toyah Creek.....	Pecos River.....	At State Highway 17, in S¾ sec. 97, blk. 13 (Houston & Great Northern Railroad Co. survey), at Saragosa, Tex.	p7,850
Mar. 17	Phantom Lake Spring.	Phantom Lake Irrigation System Canal.	At source (mouth of cave), near Toyahvale, Tex.	19.4
25	....do.....	....do.....	500 feet below source (mouth of cave), near Toyahvale, Tex.	15.4
25	....do.....	....do.....	At source (mouth of cave), near Toyahvale, Tex.	16.3
25	....do.....	....do.....	....do.....	16.2
May 6	....do.....	....do.....	....do.....	16.7
26	....do.....	....do.....	....do.....	13.6
June 26	....do.....	....do.....	....do.....	12.8
July 23	....do.....	....do.....	....do.....	12.5
Aug. 17	....do.....	....do.....	....do.....	12.9
Sept. 22	....do.....	....do.....	....do.....	24.6
Mar. 17	Giffin Springs....	Main canal of Reeves Co. Water Improvement District No. 1	In middle of northeast boundary sec. 20, blk. 13 (Houston & Great Northern Railroad survey), at Toyahvale, Tex.	5.63
May 26	....do.....	....do.....	....do.....	4.46
July 23	....do.....	....do.....	....do.....	4.84
Sept. 22	....do.....	....do.....	....do.....	5.27
Mar. 25	West Sandia Spring	Reeves Co. Water Improvement District No. 1 Canal	At head of feeder canal, 800 feet south of U. S. Highway 290 at Balmorhea, Tex.	1.40
May 26	....do.....	....do.....	....do.....	1.31
July 23	....do.....	....do.....	....do.....	1.08
Sept. 23	....do.....	....do.....	....do.....	1.28
Mar. 25	East Sandia Spring	....do.....	At former gaging-station, just below small dam, 1 mile east of Balmorhea, Tex.	1.02
May 26	....do.....	....do.....	....do.....	1.00
July 23	....do.....	....do.....	....do.....	.88
Sept. 23	....do.....	....do.....	....do.....	.91

n Estimated.
p Crest of flood.

Tularosa Valley (closed basin)

Dec. 14	La Luz ditch.....	Alamogordo-La Luz ditch.	SW¼ sec. 25, T. 15 S., R. 10 E., at head, ¼ mile east of La Luz and 6 miles north of Alamogordo, N. Mex.	1.25
Jan. 11	....do.....	....do.....	....do.....	1.26
31	....do.....	....do.....	....do.....	1.22
Feb. 13	....do.....	....do.....	....do.....	1.11
27	....do.....	....do.....	....do.....	1.43

Miscellaneous discharge measurements in western Gulf of Mexico basins during the water year October 1941 to September 1942--Continued

Tularosa Valley (closed basin)--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Mar. 13	La Luz ditch.....	Alamogordo-La Luz ditch.	SW¼ sec. 25, T. 15 S., R. 10 E., at head, ¼ mile east of La Luz and 6 miles north of Alamogordo, N. Mex.	1.30
Apr. 6	....do.....	....do.....	....do.....	1.11
14	....do.....	....do.....	....do.....	1.19
May 1	....do.....	....do.....	....do.....	1.05
15	....do.....	....do.....	....do.....	.88
29	....do.....	....do.....	....do.....	.84
June 12	....do.....	....do.....	....do.....	.64
July 3	....do.....	....do.....	....do.....	1.00
17	....do.....	....do.....	....do.....	1.04
25	....do.....	....do.....	....do.....	1.23
Aug. 7	....do.....	....do.....	....do.....	1.62
21	....do.....	....do.....	....do.....	1.59
Sept. 10	....do.....	....do.....	....do.....	1.55
25	....do.....	....do.....	....do.....	1.41

INDEX

Page

Abiquiu, N. Mex., Rio Chama near..... 228
Accuracy of field data and computed results..... 4
Acme, N. Mex., Pecos River near..... 247
Acre-foot, definition of..... 1
Agencies other than Geological Survey, records collected by..... 10-12
Alamillo ditch, N. Mex., discharge measurements of..... 279
Alamogordo-La Luz ditch at La Luz, N. Mex..... 276
Alamogordo Reservoir, N. Mex., contents of.....185,186
Alamogordo water supply near Alamogordo, N. Mex..... 276
Alamosa, Colo., Rio Grande at..... 167
Alamosa Creek above Terrace Reservoir, Colo..... 198
below Terrace Reservoir, Colo..... 199
Alamosa River near Monticello, N. Mex.. 241
Alazan Creek, Tex., discharge measurement of..... 277
Albuquerque, N. Mex., Rio Grande at.... 177
Allen Creek, N. Mex., discharge measurements of..... 278
Alto, Tex., Angelina River near..... 33
Angelina River at Horger, Tex..... 35
near Alto, Tex..... 33
near Lufkin, Tex..... 34
Anton Chico, N. Mex., Pecos River near. 243
Aquilla Creek near Aquilla, Tex..... 85
Arroyo Hondo, N. Mex., Rio Hondo at.... 223
Artesia, N. Mex., Pecos River near..... 249
Artesian well No.4, Tex., discharge measurement of..... 278
Asherton, Tex., Nueces River near..... 150
Aspermont, Tex., Double Mountain Fork of Brazos River near..... 65
Salt Fork of Brazos River near..... 79
Atascosa River at Whitsett, Tex..... 162
Attoyac Bayou near Chireno, Tex..... 37
Austin, Tex., Barton Springs at..... 128
Colorado River at..... 104
Marshall Ford Reservoir near..... 103

Ballinger, Tex., Colorado River at..... 100
Elm Creek at..... 109
Barton Springs at Austin, Tex..... 128
Basile, La., Bayou Nezpique near..... 14
Bayou Des Cannes near Eunice, La..... 15
Bayou Nezpique near Basile, La..... 14
Bear Canyon near Mimbres, N. Mex..... 274
Bee Line ditch, N. Mex., discharge measurements of..... 279
Beech Creek, Tex., discharge measurement of..... 277
Belen, N. Mex., Rio Grande near..... 178
Belton, Tex., Leon River near..... 88
Bernalillo, N. Mex., Rio Grande near..175-176
Bernardo, N. Mex., Rio Grande near..... 179
Rio Puerco near..... 238
Big Sandy Creek (Trinity River Basin) near Bridgeport, Tex..... 48
Blanca, Colo., Trinchera Creek near.... 203
Blanco River at Wimberley, Tex..... 140
Bluewater Creek near Bluewater, N. Mex. 239
Bon Wier, Tex., Sabine River near..... 25
Brackettville, Tex., Las Moras Springs at.....271-272
West Nueces River near.....154-156
Brady Creek at Brady, Tex..... 123
Brays Bayou at Houston, Tex..... 63
Brazos River at East Columbia, Tex..... 78
at Richmond, Tex..... 77
at Seymour, Tex..... 66
at Waco, Tex..... 72
Clear Fork of, at Fort Griffin, Tex.. 82
at Nugent, Tex..... 81
near Crystal Falls, Tex..... 83

Page

Brazos River, Double Mountain Fork of, at Lubbock, Tex..... 64
near Aspermont, Tex..... 65
near Bryan, Tex..... 74
near Glen Rose, Tex..... 70
near Hempstead, Tex..... 75
near Marlin, Tex..... 73
near Palo Pinto, Tex..... 69
near San Felipe, Tex..... 76
near South Bend, Tex..... 67
near Whitney, Tex..... 71
Salt Fork of, near Aspermont, Tex.... 79
Brazos River Basin, Tex., gaging-station records in..... 64-98
Brazos Valley Irrigation Co.'s canal near Fulshear, Tex..... 98
Bridgeport, Tex., Big Sandy Creek near. 48
Brownwood, Tex., Pecan Bayou at..... 119
Bryan, Tex., Brazos River near..... 74
Buchanan Reservoir near Burnet, Tex.... 103
Buffalo Bayou at Houston, Tex..... 61
Bundick Creek near Dry Creek, La..... 19
Burnet, Tex., Buchanan Reservoir near.. 103

Caballo Dam, N. Mex., Rio Grande below. 183
Caballo Reservoir, N. Mex., contents of.....184,186
Calallen, Tex., Nueces River at..... 154
Calcasieu River near Kinder, La..... 17
near Oberlin, La..... 16
Calcasieu River Basin, La., gaging-station records in..... 16-19
Calliham, Tex., Frio River at..... 159
Cameron, Tex., Little River at..... 89
Camp Tonkawa Spring, Tex., discharge measurement of..... 277
Capulin, Colo., La Jara Creek near..... 200
Carlsbad, N. Mex., Pecos River at..... 250
Carlsbad, Tex., North Concho River near..... 118
Carnero Creek near La Garita, Colo..... 196
Carrollton, Tex., Elm Fork of Trinity River near..... 50
Carson Reservoir, N. Mex., contents of.....184,186
Casias Creek near Costilla, N. Mex..... 217
Cedar Creek near Mabank, Tex..... 53
Cerro, N. Mex., Latir Creek near..... 219
Cerro ditch, N. Mex., discharge measurements of..... 279
Chambers Creek near Corsicana, Tex..... 54
Chamita, N. Mex., Rio Chama near..... 229
Cherokee Bayou near Elderville, Tex.... 27
Chireno, Tex., Attoyac Bayou near..... 37
Christoval, Tex., South Concho Irrigation Co.'s canal at..... 114
South Concho River at..... 110
Cibolo Creek near Falls City, Tex..... 146
Clear Creek below Continental Reservoir, Colo..... 187
Clear Creek, Tex., discharge measurement of..... 278
Clear Fork. See Brazos River, Clear Fork of.
Clear Fork. See Trinity River, Clear Fork of.
Cleveland, Tex., East Fork of San Jacinto River near..... 60
Clifton, Tex., North Bosque River near 86
Cochiti, N. Mex., Rio Grande at..... 173
Coleto Creek near Victoria, Tex..... 142
Colorado River at Austin, Tex..... 104
at Ballinger, Tex..... 100
at Columbus, Tex..... 107
at La Grange, Tex..... 106
at Robert Lee, Tex..... 99
at Smithville, Tex..... 105
at Wharton, Tex..... 108
at Winchell, Tex..... 101
near San Saba, Tex.....102, pl.1,C

Page
Colorado River Basin, Tex., discharge measurements in..... 278
gaging-station records in.....99-129
Columbus, Tex., Colorado River at..... 107
Comal River at New Braunfels, Tex..... 137
Comanche Springs at Fort Stockton, Tex..... 270
Comfort, Tex., Guadalupe River at..... 133
Computations, accuracy of results of... 4
Concan, Tex., Frio River at..... 157
Concho River near Paint Rock, Tex..... 113
near San Angelo, Tex..... 112
Conejos River at Platoro, Colo..... 206
near La Sauses, Colo..... 208
near Mogote, Colo..... 207
Conroe, Tex., West Fork of San Jacinto River near..... 56
Continental Reservoir, Colo., Clear Creek below..... 187
Control, definition of..... 1
Cooperation, record of..... 12
Corsicana, Tex., Chambers Creek near... 54
Costilla, N. Mex., Casias Creek near... 217
Costilla Creek near.....214,215,216
Santistevan Creek near..... 218
Costilla Creek above reservoir, near Costilla, N. Mex..... 214
below reservoir, near Costilla, N. Mex..... 215
near Costilla, N. Mex..... 216
Cottonwood Creek near Lake Arthur, N. Mex..... 264
Cottonwood Spring, Tex., discharge measurement of..... 278
Cotulla, Tex., Nueces River at..... 151
Cowhouse Creek near Killeen, Tex..... 90-93
Creede, Colo., Rio Grande below..... 164
Rio Grande near..... 163
Crestone, Colo., North Crestone Creek near..... 195
Crystal Falls, Tex., Clear Fork of Brazos River near..... 83
Culebra Creek at San Luis, Colo..... 212
below San Luis, Colo..... 213
Cundiyo, N. Mex., Rio Santa Cruz at.... 233

Dallas, Tex., Trinity River at..... 41
Data, accuracy of..... 4
explanation of..... 2-3
Del Norte, Colo., Pinos Creek near..... 190
Rio Grande near..... 165
San Francisco Creek near..... 191
Delaware River near Red Bluff, N. Mex.. 265
Denton Creek near Roanoke, Tex..... 51
Derby, Tex., Frio River near..... 158
Devils River near Juno, Tex..... 271
Diboll, Tex., Neches River near..... 29
Dixon, N. Mex., Embudo Creek at..... 225
Domingo, N. Mex., Galisteo Creek at.... 236
Double Mountain Fork. See Brazos River, Double Mountain Fork of...
Dry Creek, La., Bundick Creek near..... 19
Dry Creek near Smithville, Tex..... 129

East Columbia, Tex., Brazos River at... 78
East Sandia Spring, Tex., discharge measurements of..... 279
Easterly, Tex., Navasota River near.... 97
Ebeling Springs, Tex., discharge measurement of..... 278
Edna, Tex., Lavaca River near..... 130
El Rito Creek near El Rito, N. Mex..... 231
El Vado Reservoir, N. Mex., contents of.....184,186
Elderville, Tex., Cherokee Bayou near.. 27
Elephant Butte Dam, N. Mex., Rio Grande below..... 182
Elephant Butte Reservoir, N. Mex., contents of.....184,186
Elm Creek at Ballinger, Tex..... 109
Elm Fork. See Trinity River, Elm Fork of.
Embudo, N. Mex., Rio Grande at..... 171
Embudo Creek at Dixon, N. Mex..... 225
Eunice, La., Bayou Des Cannes near..... 15
Evadale, Tex., Neches River at..... 31

Falls City, Tex., Cibolo Creek near.... 146
San Antonio River near..... 144
Faywood, N. Mex., Mimbres River near... 273
Flat Rock Spring, Tex., discharge measurement of..... 278

Page
Floods, special reports on..... 10
Fort Garland, Colo., Sangre de Cristo Creek near..... 204
Trinchera Creek near.....201,202
Ute Creek near..... 205
Fort Griffin, Tex., Clear Fork of Brazos River at..... 82
Fort Phantom Hill Reservoir near Nugent, Tex..... 84
Fort Stockton, Tex., Comanche Springs at..... 270
Fort Worth, Tex., Clear Fork of Trinity River at..... 49
West Fork of Trinity River at..... 39
Frio River at Calliham, Tex..... 159
at Concan, Tex..... 157
discharge measurements of..... 278
near Derby, Tex..... 158
Fulshear, Tex., Brazos Valley Irrigation Co.'s canal near..... 98

Galisteo Creek at Domingo, N. Mex..... 236
Gallinas River at Montezuma, N Mex.... 259
near Montezuma, N. Mex..... 258
Ganado, Tex., Navidad River near..... 131
Georgetown, Tex., San Gabriel River at. 95
Giffin Springs, Tex., discharge measurements of..... 279
Girvin, Tex., Pecos River near..... 256
Gladewater, Tex., Sabine River near. 21,21.1,A
Glen Rose, Tex., Brazos River near..... 70
Goliad, Tex., San Antonio River at..... 145
Goose Creek near Wagon Wheel Gap, Colo. 188
Graford, Tex., Possum Kingdom Reservoir near..... 68
Grand Prairie, Tex., West Fork of Trinity River at..... 40
Grandfalls, Tex., Pecos River below.... 255
Grandfalls-Big Valley Canal, Tex., monthly diversion through..... 266
Guadalupe, N. Mex., Pecos River near... 246
Guadalupe River at Comfort, Tex..... 133
at Hunt, Tex..... 132
at New Braunfels, Tex..... 135
at Victoria, Tex..... 136
near Spring Branch, Tex..... 134
Guadalupe River Basin, Tex., discharge measurements in..... 278
gaging-station records in.....132-146

Hagerman, N. Mex., Rio Felix near..... 263
Hasse, Tex., Leon River near..... 87
Heck Springs, Tex., discharge measurement of..... 278
Hempstead, Tex., Brazos River near..... 75
Hondo, N. Mex., Rio Bonito at..... 262
Rio Ruidoso at..... 260
Honey Creek, Tex., discharge measurement of..... 278
North Fork of, discharge measurement of..... 278
Horger, Tex., Angelina River at..... 35
Houston, Tex., Brays Bayou at..... 63
Buffalo Bayou at..... 61
Whitecak Bayou at..... 62
Huffman, Tex., San Jacinto River near.. 58
Humble, Tex., West Fork of San Jacinto River near..... 57
Hunt, Tex., Guadalupe River at..... 132

Jacksonville, Tex., Mud Creek near..... 32
Johnson City, Tex., Pedernales River near..... 127
Juandras Creek, Tex., discharge measurement of..... 277
Junction, Tex., Llano River near..... 125
North Llano River near..... 124
Juno, Tex., Devils River near..... 271

Kerber Creek at Ashley Ranch, near Villa Grove, Colo..... 193
Killeen, Tex., Cowhouse Creek near..... 90-93
Kinder, La., Calcasieu River near..... 17
Kountze, Tex., Village Creek near..... 38

La Garita, Colo., Carnero Creek near... 196
La Garita Creek near La Garita, Colo... 197
La Grange, Tex., Colorado River at..... 106
La Jara Creek near Capulin, Colo..... 200
La Luz, N. Mex., Alamogordo-La Luz ditch at..... 276

Page
La Luz ditch, N. Mex., discharge measurements of....279-280
La Madera, N. Mex., Rio Ojo Caliente at.... 232
La Sauses, Colo., Conejos River near... 208
Rio Grande near.... 168
Laguna, Tex., Nueces River at.... 148
Lake Arthur, N. Mex., Cottonwood Creek near.... 264
Pecos River near.... 248
Lake Avalon, N. Mex., contents of.....185,186
Lake McMillan, N. Mex., contents of...185,186
Lampasas River at Youngsport, Tex.... 93
Lanana Creek, Tex., discharge measurement of.... 277
Las Moras Springs at Brackettville, Tex....271-272
Latir Creek near Cerro, N. Mex.... 219
Lavaca River near Edna, Tex.... 130
Lavaca River Basin, Tex., gaging-station records in....130-131
Leon River near Belton, Tex.... 88
near Hasse, Tex.... 87
Leona River spring flow near Uvalde, Tex.... 161
Liberty, Tex., Trinity River at.... 47
Little Cow Creek, Tex., discharge measurements of.... 277
Little River at Cameron, Tex.... 89
Live Oak Creek, Tex., discharge measurements of.... 278
Llano, Tex., Llano River at.... 126
Llano River at Llano, Tex.... 126
near Junction, Tex.... 125
Lobatos, Colo., Rio Grande near.... 169
Logansport, La., Sabine River at.... 23
Los Cordovas, N. Mex., Rio Taos at.... 224
Los Pinos River near Ortiz, Colo.... 211
Lubbock, Tex., Double Mountain Fork of Brazos River at.... 64
Lufkin, Tex., Angelina River near.... 34
Luling, Tex., Plum Creek near.... 141
San Marcos River at.... 138

McCory's artesian well, Tex., discharge measurement of.... 278
McGraw Creek, Tex., discharge measurements of.... 277
Mabank, Tex., Cedar Creek near.... 53
Madera Canyon near Toyahvale, Tex.... 267
Main Spring, Tex., discharge measurement of.... 278
Malaga, N. Mex., Pecos River near.... 251
Manassa, Colo., San Antonio River near. 210
Marine Creek, Tex., discharge measurement of.... 277
Marlin, Tex., Brazos River near.... 73
Marshall Ford Reservoir near Austin, Tex.... 103
Mathis, Tex., Nueces River near.... 153
Menard, Tex., Noyes Canal at.... 122
San Saba River at.... 120
Mermentau River Basin, La., gaging-station records in.... 14-15
Middle Concho River near Tankersly, Tex.... 115
Midway, Tex., Trinity River near.... 44
Milem, Tex., Sabine River near.... 24
Mimbres, N. Mex., Bear Canyon near.... 274
Mimbres River near.... 272
Mimbres River near Faywood, N. Mex.... 273
near Mimbres, N. Mex.... 272
Mimbres River Basin, N. Mex., gaging-station records in....272-274
Mineola, Tex., Sabine River near.... 20
Mission River at Refugio, Tex.... 147
Mission River Basin, Tex., gaging-station record in.... 147
Mogote, Colo., Conejos River near.... 207
Monte Vista, Colo., Rio Grande near.... 166
Rock Creek near.... 192
Montezuma, N. Mex., Gallinas River at.. 259
Gallinas River near.... 258
Monticello, N. Mex., Alamosa River near. 241
Morral Creek, Tex., discharge measurement of.... 277
Mud Creek near Jacksonville, Tex.... 32

Page
Naconicho Bayou, Tex., discharge measurement of.... 277
Navasota River near Easterly, Tex.... 97
Navidad River near Ganado, Tex.... 131
Neches River at Evadale, Tex.... 31
near Diboll, Tex.... 29
near Neches, Tex.... 28
near Rockland, Tex.... 30
Neches River Basin, Tex., discharge measurements in.... 277
gaging-station records in.... 28-38
New Braunfels, Tex., Comal River at.... 137
Guadalupe River at.... 135
North Bosque River near Clifton, Tex... 86
North Concho River at Sterling City, Tex.... 117
near Carlsbad, Tex.... 118
North Crestone Creek near Crestone, Colo.... 195
North Llano River near Junction, Tex... 124
Noyes Canal at Menard, Tex.... 122
Nueces River at Calallen, Tex.... 154
at Cotulla, Tex.... 151
at Laguna, Tex.... 148
below Uvalde, Tex.... 149
discharge measurements of.... 278
near Asherton, Tex.... 150
near Mathis, Tex.... 153
near Three Rivers, Tex.... 152
Nueces River Basin, Tex., discharge measurements in.... 278
gaging-station records in....148-162
Nugent, Tex., Clear Fork of Brazos River at.... 81
Fort Phantom Hill Reservoir near.... 84

Oakwood, Tex., Trinity River near.... 43
Oberlin, La., Calcasieu River near.... 16
Whiskey Chitto Creek near.... 18
Orla, Tex., Pecos River near.... 253
Ortiz, Colo., Los Pinos River near.... 211
San Antonio River at.... 209
Ottine, Tex., San Marcos River at.... 139

Paint Rock, Tex., Concho River near.... 113
Palo Pinto, Tex., Brazos River near.... 69
Park View, N. Mex., Rio Chama at.... 226
Willow Creek near.... 230
Parker Springs, Tex., discharge measurement of.... 278
Pecan Bayou at Brownwood, Tex.... 119
Pecan Spring, Tex., discharge measurement of.... 278
Pecos, N. Mex., Pecos River near.... 242
Pecos, Tex., Pecos River at.... 254
Toyah Creek near.... 268
Pecos County Water Improvement District No. 2 Canal, Tex., monthly diversion through.... 266
Pecos County Water Improvement District No. 3 Canal, Tex., monthly diversion through.... 266
Pecos River at Carlsbad, N. Mex.... 250
at Pecos, Tex.... 254
at Red Bluff, N. Mex....252,pl.1,B
at Santa Rosa, N. Mex.... 244
below Grandfalls, Tex.... 255
diversions from.... 266
near Acme, N. Mex.... 247
near Anton Chico, N. Mex.... 243
near Artesia, N. Mex.... 249
near Girvin, Tex.... 256
near Guadalupe, N. Mex.... 246
near Lake Arthur, N. Mex.... 248
near Malaga, N. Mex.... 251
near Orla, Tex.... 253
near Pecos, N. Mex.... 242
near Puerto de Luna, N. Mex.... 245
near Sheffield, Tex.... 257
Pedernales River near Johnson City, Tex.... 127
Phantom Lake Spring, Tex., discharge measurements of.... 279
Pinos Creek near Del Norte, Colo.... 190
Plainview, Tex., White River at.... 80
Platoro, Colo., Conejos River at.... 206
Plum Creek near Luling, Tex.... 141

Page
Pool Branch, Tex., discharge measurement of..... 278
Possum Kingdom Reservoir near Graford, Tex..... 68
Publications on stream flow by Geological Survey.....4-8,10
by State agencies..... 8-9
Puerto de Luna, N. Mex., Pecos River near..... 245

Questa, N. Mex., Rio Colorado near..... 221
Quicksand Creek, Tex., discharge measurement of..... 277

Red Bluff, N. Mex., Delaware River near..... 265
Pecos River at.....252, pl.1,B
Red Bluff Reservoir, Tex., contents of.....185,186
Red River, N. Mex., Rio Colorado near.. 220
Reeves County Water Improvement District No. 2 Canal, Tex., monthly diversion through..... 266
Refugio, Tex., Mission River at..... 147
Richland Creek near Richland, Tex..... 55
Richmond, Tex., Brazos River at..... 77
Richmond Irrigation Co.'s canal near Richmond, Tex..... 98
Rio Bonito at Hondo, N. Mex..... 262
Rio Chama at Park View, N. Mex..... 226
near Abiquiu, N. Mex..... 228
near Chamita, N. Mex..... 229
near Tierra Amarilla, N. Mex..... 227
Rio Colorado near Questa, N. Mex..... 221
near Red River, N. Mex..... 220
Rio Felix near Hagerman, N. Mex..... 263
Rio Grande at Alamosa, Colo..... 167
at Albuquerque, N. Mex..... 177
at Cochiti, N. Mex..... 173
at Embudo, N. Mex..... 171
at San Acacia, N. Mex..... 180
at San Felipe, N. Mex..... 174
at San Marcial, N. Mex..... 181
below Creede, Colo..... 164
below Caballo Dam, N. Mex..... 183
below Elephant Butte Dam, N. Mex..... 182
discharge measurement of..... 278
near Belen, N. Mex..... 178
near Bernalillo, N. Mex.....175-176
near Bernardo, N. Mex..... 179
near Creede, Colo..... 163
near Del Norte, Colo..... 165
near Lobatos, Colo..... 169
near La Sauses, Colo..... 168
near Monte Vista, Colo..... 166
near San Ildefonso, N. Mex..... 172
near Taos, N. Mex..... 170
South Fork of, at South Fork, Colo... 189
Rio Grande Basin, N. Mex.-Tex., discharge measurements in.....278-279
gaging-station records in.....163-272
reservoirs in, contents of.....184-186
Rio Hondo (tributary to Pecos River) near Roswell, N. Mex..... 261
Rio Hondo (tributary to Rio Grande) at Arroyo Hondo, N. Mex..... 223
near Valdez, N. Mex..... 222
Rio Ojo Caliente at La Madera, N. Mex.. 232
Rio Puerco at Rio Puerco, N. Mex..... 237
near Bernardo, N. Mex..... 238
Rio Ruidoso at Hondo, N. Mex..... 260
Rio Santa Cruz at Cundiyo, N. Mex..... 233
at Riverside, N. Mex..... 234
Rio Taos at Los Cordovas, N. Mex..... 224
Rio Tularosa near Tularosa, N. Mex..... 275
Riverside, N. Mex., Rio Santa Cruz at.. 234
Riverside, Tex., Trinity River at..... 45
Roanoke, Tex., Denton Creek near..... 51
Robert Lee, Tex., Colorado River at.... 99
Rock Creek near Monte Vista, Colo..... 192
Rockland, Tex., Neches River near..... 30
Rockwall, Tex., East Fork of Trinity River near..... 52
Romayor, Tex., Trinity River at..... 46
Rosser, Tex., Trinity River near..... 42
Roswell, N. Mex., Rio Hondo at Diamond A Ranch, near..... 261
Rough Creek, Tex., discharge measurement of..... 278

Page
Ruliff, Tex., Sabine River near..... 26
Runoff in inches, definition of..... 1

Sabinal River, seepage investigation of..... 160
Sabine River at Logansport, La..... 23
near Bon Wier, Tex..... 25
near Gladewater, Tex.....21, pl.1,A
near Milam, Tex..... 24
near Mineola, Tex..... 20
near Ruliff, Tex..... 26
near Tatum, Tex..... 22
Sabine River Basin, Tex., discharge measurements in..... 277
gaging-station records in..... 20-27
Saguache Creek near Saguache, Colo..... 194
Salt Fork. See Brazos River, Salt Fork of.
San Acacia, N. Mex., Rio Grande at..... 180
Socorro main canal north at..... 240
San Angelo, Tex., Concho River near.... 112
South Concho River at..... 111
San Antonio River (Guadalupe River Basin) at Goliad, Tex..... 145
at San Antonio, Tex..... 143
near Falls City, Tex..... 144
San Antonio River (Rio Grande Basin) at Ortiz, Colo..... 209
near Manassa, Colo..... 210
San Felipe, N. Mex., Rio Grande at..... 174
San Felipe, Tex., Brazos River near.... 76
San Francisco Creek near Del Norte, Colo..... 191
San Gabriel River at Georgetown, Tex.. 95
San Ildefonso, N. Mex., Rio Grande near..... 172
San Jacinto River, East Fork of, near Cleveland, Tex..... 60
near Huffman, Tex..... 58
West Fork of, near Conroe, Tex..... 56
near Humble, Tex..... 57
San Jacinto River Basin, Tex., gaging-station records in..... 56-63
San Luis, Colo., Culebra Creek at..... 212
Culebra Creek below..... 213
San Luis Valley, Colo., closed basin in, gaging-station records for streams in.....193-197
San Marcial, N. Mex., Rio Grande at..... 181
San Marcos River at Luling, Tex..... 138
at Ottine, Tex..... 139
San Marcos Springs, Tex., discharge measurements of..... 278
San Mateo Reservoir, N. Mex., contents of..... 184.186
San Saba, Tex., Colorado River near.....102, pl.1,C
San Saba River at..... 121
San Saba River at Menard, Tex..... 120
at San Saba, Tex..... 121
San Solomon Springs at Toyahvale, Tex.. 269
Sandy Creek, Tex., discharge measurement in..... 277
Sangre de Cristo Creek near Fort Garland, Colo..... 204
Santa Fe, N. Mex., Santa Fe Creek near. 235
Santa Fe Creek, N. Mex., discharge measurements of..... 279
near Santa Fe, N. Mex..... 235
Santa Rosa, N. Mex., Pecos River at.... 244
Santistevan Creek near Costilla, N. Mex. 218
Second-feet per square mile, definition of..... 1
Second-foot, definition of..... 1
Second-foot-day, definition of..... 1
Seymour, Tex., Brazos River at..... 66
Sheffield, Tex., Pecos River near..... 257
Smithville, Tex., Colorado River at.... 105
Dry Creek near..... 129
Socorro main canal north at San Acacia, N. Mex..... 240
Somerville, Tex., Yegua Creek near..... 96
South Bend, Tex., Brazos River near.... 67
South Concho Irrigation Co.'s canal at Christoval, Tex..... 114
South Concho River at Christoval, Tex.. 110
at San Angelo, Tex..... 111
South Fork, Colo., South Fork of Rio Grande at..... 189

Page
Spring, Tex., Spring Creek near..... 59
Spring Branch, Tex., Guadalupe River near..... 134
Spring Creek (Colorado River Basin) near Tankersly, Tex..... 116
Spring Creek (San Jacinto River Basin) near Spring, Tex..... 59
Stage-discharge relation, definition of. 1
Sterling City, Tex., North Concho River at..... 117
Striker Creek near Summerfield, Tex.... 36
Sulphur Creek, seepage investigations of..... 94
Summerfield, Tex., Striker Creek near.. 36

Tankersly, Tex., Middle Concho River near..... 115
Spring Creek near..... 116
Taos, N. Mex., Rio Grande near..... 170
Tatum, Tex., Sabine River near..... 22
Terms, definition of..... 1
Terrace Reservoir, Colo., Alamosa Creek above..... 198
Alamosa Creek below..... 199
Three Rivers, Tex., Nueces River near.. 152
Tierra Amarilla, N. Mex., Rio Chama near..... 227
Time basis, explanation of..... 3-4
Toyah Creek, Tex., discharge measurement of..... 279
near Pecos, Tex..... 268
Toyahvale, Tex., Madera Canyon near.... 267
San Solomon Springs at..... 269
Trinchera Creek above Mountain Home Reservoir, near Fort Garland, Colo..... 202
above Turners Ranch, near Fort Garland, Colo..... 201
near Blanca, Colo..... 203
Trinity River at Dallas, Tex..... 41
at Liberty, Tex..... 47
at Riverside, Tex..... 45
at Romayor, Tex..... 46
Clear Fork of, at Forth Worth, Tex... 49
discharge measurement of..... 277
East Fork of, near Rockwall, Tex..... 52
Elm Fork of, near Carrollton, Tex.... 50
near Midway, Tex..... 44
near Oakwood, Tex..... 43
near Rosser, Tex..... 42
West Fork of, at Fort Worth, Tex..... 39
at Grand Prairie, Tex..... 40
discharge measurements of..... 277

Page
Trinity River Basin, Tex., discharge measurements in..... 277
gaging-station records in..... 39-55
Tularosa, N. Mex., Rio Tularosa near... 275
Tularosa Valley Basin, N. Mex.. discharge measurements in..... 280
gaging-station records in.....275-276

Ute Creek near Fort Garland, Colo..... 205
Uvalde, Tex., Leona River spring flow near..... 161
Nueces River below..... 149

Valdez, N. Mex., Rio Hondo near..... 222
Victoria, Tex., Coleto Creek near..... 142
Guadalupe River at..... 136
Villa Grove, Colo., Kerber Creek near.. 193
Village Creek near Kountze, Tex..... 38

Waco, Tex., Brazos River at..... 72
Wagon Wheel Gap, Colo., Goose Creek near..... 188
Ward County Irrigation District No. 1 Canal, Tex., monthly diversion through..... 266
Ward County Water Improvement District No. 2 Canal, Tex., monthly diversion through..... 266
Ward County Water Improvement District No. 3 Canal, Tex., monthly diversion through..... 266
West Nueces River near Brackettville, Tex.....154-156
West Sandia Spring, Tex., discharge measurements of..... 279
Wharton, Tex., Colorado River at..... 108
Whiskey Chitto Creek near Oberlin, La.. 18
White River at Plainview, Tex..... 80
Whiteoak Bayou at Houston, Tex..... 62
Whitney, Tex., Brazos River near..... 71
Whitsett, Tex., Atascosa River at..... 162
Wilberns Glen Branch, discharge measurement of..... 278
Wilberns Springs, Tex., discharge measurement of..... 278
Willow Creek near Park View, N. Mex.... 230
Wimberley, Tex., Blanco River at..... 140
Winchell, Tex., Colorado River at..... 101
Work, division of..... 12-13
scope of..... 1

Yegua Creek near Somerville, Tex..... 96
Youngsport, Tex., Lampasas River at.... 93