UNITED STATES DEPARTMENT OF THE INTERIOR

HAROLD L. ICKES, Secretary

GEOLOGICAL SURVEY

W. C. MENDENHALL, Director

Water-Supply Paper 826

SURFACE WATER SUPPLY *of the* UNITED STATES

1937

PART 6

MISSOURI RIVER BASIN

NATHAN C. GROVER, Chief Hydraulic Engineer

H. C. BECKMAN, ROBERT FOLLANSBEE, R. G. KASEL, W. A. LAMB
T. R. NEWELL, AND J. B. SPIEGEL
District Engineers

Prepared in cooperation with the States of
COLORADO, IOWA, KANSAS, MISSOURI, MONTANA
NEBRASKA, AND WYOMING

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1938

For sale by the Superintendent of Documents, Washington, D. C. - - - Price 45 cents (paper cover)

CONTENTS

	Page
Scope of work	1
Definition of terms	1
Explanation of data	1
Accuracy of field data and computed results	2
Publications	3
Cooperation	8
Division of work	8
Gaging-station records	9
Missouri River main stem	9
Red Rock River near Lakeview, Mont.	9
Red Rock River at Kennedy ranch, near Lakeview, Mont.	10
Red Rock River below Red Rock Reservoir, near Monida, Mont.	12
Beaverhead River at Barratts, Mont.	13
Beaverhead River at Blaine, Mont.	14
Jefferson River near Silverstar, Mont.	15
Missouri River below Hauser Lake Dam, near Helena, Mont.	16
Missouri River at Fort Benton, Mont.	17
Missouri River at Loma, Mont.	18
Missouri River at power-plant ferry near Zortman, Mont.	19
Missouri River below Fort Peck Dam, Mont.	20
Missouri River near Wolf Point, Mont.	21
Missouri River near Williston, N. Dak.	22
Missouri River at Bismarck, N. Dak.	23
Missouri River near Mobridge, S. Dak.	24
Missouri River at Pierre, S. Dak.	25
Missouri River at Yankton, S. Dak.	26
Missouri River at Omaha, Nebr.	27
Missouri River at Nebraska City, Nebr.	28
Missouri River at St. Joseph, Mo.	29
Missouri River at Kansas City, Mo.	30
Missouri River at Waverly, Mo.	31
Missouri River Boonville, Mo.	32
Missouri River at Hermann, Mo.	33
Ruby River Basin	34
Ruby River near Alder, Mont.	34
Big Hole River Basin	35
Big Hole River near Melrose, Mont.	35
Pipestone Creek Basin	36
Little Pipestone Creek near Whitehall, Mont.	36
Boulder River Basin	37
Boulder River near Boulder, Mont.	37
Madison River Basin	38
Madison River near West Yellowstone, Mont.	38
Gallatin River Basin	39
Gallatin River near Gallatin Gateway, Mont.	39
Gallatin River at Logan, Mont.	40
Hyalite Creek at Hyalite ranger station, near Bozeman, Mont.	41
Prickly Pear Creek Basin	42
Tenmile Creek near Rimini, Mont.	42
Tenmile Creek near Helena, Mont.	43
Dearborn River Basin	44
Dearborn River near Clemons, Mont.	44
Smith River Basin	45
Smith River above Fivemile Creek, near White Sulphur Springs, Mont.	45
Sun River Basin	46
North Fork of Sun River near Augusta, Mont.	46
Sun River near Vaughn, Mont.	47
Muddy Creek near Power, Mont.	48
Muddy Creek at Vaughn, Mont.	49
Marias River Basin	50
Marias River near Shelby, Mont.	50
Marias River near Brinkman, Mont.	51
Judith River Basin	52
Judith River near Utica, Mont.	52
Big Spring Creek near Lewiston, Mont.	53
Musselshell River Basin	54
Musselshell River at Harlowton, Mont.	54
Musselshell River at Mosby, Mont.	55
Careless Creek at Wallum, Mont.	56
Box Elder Creek near Winnett, Mont.	57
McDonald Creek at Winnett, Mont.	58
Flatwillow Creek near Flatwillow, Mont.	58
Milk River Basin	59
South Fork of Milk River near international boundary	59
Milk River at Milk River, Alberta	60
Milk River at eastern crossing of international boundary	61
Milk River at Lohman, Mont.	62
Milk River near Vandalia, Mont.	63

Gaging-station records--Continued.
Milk River Basin--Continued. Page
North Fork of Milk River above St. Mary Canal, near Browning, Mont. 64
North Fork of Milk River near international boundary 65
Big Sandy Creek near Box Elder, Mont. 66
Lodge Creek at international boundary 67
McRae Coulee at international boundary 68
North Chinook Canal near Havre, Mont. 69
Battle Creek at international boundary 70
Woodpile Coulee near international boundary 71
East Fork of Battle Creek near international boundary 72
Lyons Coulee at international boundary 73
Matheson Canal near Chinook, Mont. 75
Whitewater Creek near international boundary 76
Frenchman River at international boundary 77
Frenchman Canal near Saco, Mont. 78
Rock Creek at international boundary 79
Horse Creek at international boundary 80
McEachern Creek at international boundary 81
Redwater Creek Basin 82
Redwater Creek at Circle, Mont. 82
Poplar River Basin 83
Middle Fork of Poplar River at international boundary 83
Poplar River near Bredette, Mont. 84
East Fork of Poplar River at international boundary 85
East Fork of Poplar River near Scobey, Mont. 86
West Fork of Poplar River at international boundary 87
West Fork of Poplar River near Richland, Mont. 88
Yellowstone River Basin 89
Yellowstone Lake at Lake Hotel, Yellowstone National Park 89
Yellowstone River at Yellowstone Lake outlet, Yellowstone National Park 90
Yellowstone River near Canyon Hotel, Yellowstone National Park 91
Yellowstone River at Corwin Springs, Mont. 92
Yellowstone River at Billings, Mont. 93
Yellowstone River at Miles City, Mont. 94
Yellowstone River near Sidney, Mont. 95
Tower Creek at Tower Falls, Yellowstone National Park 96
Lamar River near Tower Falls ranger station, Yellowstone National Park 97
Gardiner River at Mammoth Hotel, Yellowstone National Park 98
Shields River near Wilsall, Mont. 99
Shields River at Clyde Park, Mont. 100
Brackett Creek near Clyde Park, Mont. 101
Sweetgrass Creek above Melville, Mont. 102
Sweetgrass Creek below Melville, Mont. 103
Stillwater River near Absarokee, Mont. 104
Rosebud Creek near Absarokee, Mont. 105
Clarks Fork at Chance, Mont. 106
Clarks Fork at Edgar, Mont. 107
Rock Creek near Red Lodge, Mont. 108
Rock Creek at Rockvale, Mont. 109
West Fork of Rock Creek below Basin Creek, near Red Lodge, Mont. 110
West Fork of Rock Creek near Red Lodge, Mont. 111
Red Lodge Creek above Cooney Reservoir, near Boyd, Mont. 112
Red Lodge Creek near Boyd, Mont. 113
Willow Creek near Boyd, Mont. 114
Wind River at Riverton, Wyo. 115
Big Horn River at Thermopolis, Wyo. 116
Big Horn River at Kane, Wyo. 117
Big Horn River near St. Xavier, Mont. 118
Dry Creek near Burris, Wyo. 119
Willow Creek near Crowheart, Wyo. 120
Bull Lake Creek near Lenore, Wyo. 121
Little Wind River near Fort Washakie, Wyo. 122
North Fork of Little Wind River at Fork Washakie, Wyo. 123
Greybull River at Meeteetse, Wyo. 124
Greybull River near Basin, Wyo. 125
Wood River near Meeteetse, Wyo. 127
Bench Canal near Burlington, Wyo. 128
Shoshone River below Shoshone Reservoir, Wyo. 129
Shoshone River at Byron, Wyo. 130
Pass Creek near Wyola, Mont. 131
Tongue River near Decker, Mont. 132
Goose Creek near Sheridan, Wyo. 133
Powder River at Arvada, Wyo. 134
Powder River at Moorhead, Mont. 135
Little Missouri River Basin 136
Little Missouri River near Alzada, Mont. 136
Little Missouri River near Watford City, N. Dak. 137
Cannonball River Basin 136
Cannonball River at Breien, N. Dak. 138
Grand River Basin 139
Grand River near Wakpala, S. Dak. 139
Moreau River Basin 140
Moreau River at Promise, S. Dak. 140
Cheyenne River Basin 141
Cheyenne River near Wasta, S. Dak. 141
Cheyenne River near Eagle Butte, S. Dak. 142
Rapid Creek at Big Bend, S. Dak. 143
Belle Fourche River near Belle Fourche, S. Dak. 144

Gaging-station records--Continued.
Cheyenne River Basin--Continued. Page
Belle Fourche River near Elm Springs, S. Dak. 145
Redwater Creek near Beulah, Wyo. 146
Bad River Basin. 147
Bad River near Fort Pierre, S. Dak. 147
White River Basin. 148
White River at Crawford, Nebr. 148
White River near Chadron, Nebr. 149
White River near Oacoma, S. Dak. 150
Niobrara River Basin. 151
Niobrara River at Dunlap, Nebr. 151
James River Basin. 152
James River near Scotland, S. Dak. 152
Big Sioux River Basin. 153
Big Sioux River at Akron, Iowa. 153
Floyd River Basin. 154
Floyd River at James, Iowa. 154
Little Sioux River Basin. 155
Little Sioux River at Spencer, Iowa. 155
Little Sioux River at Correctionville, Iowa. 157
Spirit Lake at Orleans, Iowa. 159
Okoboji Lake at Arnolds Park, Iowa. 160
Platte River Basin. 161
Grizzly Creek near Walden, Colo. 161
North Platte River near Walden, Colo. 162
North Platte River near Northgate, Colo. 163
North Platte River at Saratoga, Wyo. 164
North Platte River above Pathfinder Reservoir, Wyo. 165
North Platte River below Pathfinder Reservoir, Wyo. 166
North Platte River at Alcova, Wyo. 167
North Platte River below Casper, Wyo. 168
North Platte River at Douglas, Wyo. 169
North Platte River below Guernsey Reservoir, Wyo. 170
North Platte River below Whalen, Wyo. 171
North Platte River at Torrington, Wyo. 172
North Platte River at Wyoming-Nebraska State line. 173
North Platte River at Mitchell, Nebr. 174
North Platte River near Minatare, Nebr. 175
North Platte River at Bridgeport, Nebr. 176
North Platte River at Lisco, Nebr. 177
North Platte River at Oshkosh, Nebr. 178
North Platte River at Martin, Nebr. 179
North Platte River near Sutherland, Nebr. 180
North Platte River at North Platte, Nebr. 181
Platte River near Overton, Nebr. 182
Platte River near Grand Island, Nebr. 183
Platte River near Duncan, Nebr. 184
Platte River near Ashland, Nebr. 185
Little Grizzly Creek near Hebron, Colo. 186
Roaring Fork near Walden, Colo. 187
North Fork of North Platte River near Walden, Colo. 188
Michigan River at Haworth School, near Lindland, Colo. 189
Michigan River near Lindland, Colo. 190
Michigan River at Walden, Colo. 191
Michigan River near Gowdrey, Colo. 192
Owl Creek near Lindland, Colo. 193
Illinois Creek near Rand, Colo. 194
Illinois Creek at Walden, Colo. 195
Willow Creek near Rand, Colo. 196
Canadian River at Cowdrey, Colo. 197
Bates Creek near Alcova, Wyo. 198
Deer Creek at Glenrock, Wyo. 199
Running Dutchman Canal near Careyhurst, Wyo. 200
Boxelder Creek near Careyhurst, Wyo. 201
La Prele Creek near Douglas, Wyo. 202
La Prele Creek near Orpha, Wyo. 203
Douglas Canal near Orpha, Wyo. 204
Wagonhound Creek near La Bonte, Wyo. 205
La Bonte Creek near La Bonte, Wyo. 206
Horseshoe Creek near Glendo, Wyo. 207
Cottonwood Creek at Wendover, Wyo. 208
Laramie River near Glendevey, Colo. 209
Laramie River near Jelm, Wyo. 210
Laramie River and Pioneer Canal near Woods, Wyo. 211
Laramie River at Laramie, Wyo. 213
Laramie River at Two Rivers, Wyo. 214
Laramie River near Lookout, Wyo. 215
Laramie River near Fort Laramie, Wyo. 216
Little Laramie River near Filmore, Wyo. 217
Little Laramie River at Two Rivers, Wyo. 218
Rawhide Creek near Lingle, Wyo. 219
Cherry Creek Drain near Torrington, Wyo. 220
Katzer Drain near Henry, Nebr. 221
Horse Creek near Lyman, Nebr. 222
Sheep Creek near Morrill, Nebr. 223
Winter Creek near Scottsbluff, Nebr. 224
Gering Drain near Gering, Nebr. 225
Ninemile Drain near McGrew, Nebr. 226

Gaging-station records--Continued.

Platte River Basin--Continued. Page
Bayard Sugar Factory Drain near Bayard, Nebr. 227
Red Willow Creek near Bayard, Nebr. 228
Pumpkin Creek near Bridgeport, Nebr. 229
Blue Creek near Lewellen, Nebr. 230
Otter Creek near Lemoyne, Nebr. 231
Birdwood Creek near Hershey, Nebr. 232
South Platte River near Lake George, Colo. 233
South Platte River above Lake Cheesman, Colo. 234
South Platte River below Lake Cheesman, Colo. 235
South Platte River at South Platte, Colo. 236
South Platte River at Waterton, Colo. 237
South Platte River at Denver, Colo. 238
South Platte River at Henderson, Colo. 239
South Platte River at Fort Lupton, Colo. 240
South Platte River near Kersey, Colo. 241
South Platte River at Sublette, Colo. 242
South Platte River at Balzac, Colo. 243
South Platte River at Julesburg, Colo. 244
South Platte River at North Platte, Nebr. 245
Tarryall Creek near Lake George, Colo. 246
Goose Creek above Lake Cheesman, Colo. 247
North Fork of South Platte River at South Platte, Colo. 248
Bear Creek at Morrison, Colo. 249
Bear Creek at mouth, at Sheridan Junction, Colo. 250
Clear Creek near Golden, Colo. 251
Clear Creek at mouth, near Derby, Colo. 252
North St. Vrain Creek at Longmont Dam, near Lyons, Colo. 253
St. Vrain Creek at Lyons, Colo. 254
St. Vrain Creek at mouth, Near Platteville, Colo. 255
Lefthand Creek at mouth, at Longmont, Colo. 256
Middle Boulder Creek at Nederland, Colo. 257
Boulder Creek near Orodell, Colo. 258
Boulder Creek at mouth, near Longmont, Colo. 259
South Boulder Creek near Eldorado Springs, Colo. 260
Thompson River near Estes Park, Colo. 261
Thompson River below power-house, near Drake, Colo. 262
Thompson River at mouth, near La Salle, Colo. 263
Cache la Poudre River at mouth of canyon, near Fort Collins, Colo. 264
Cache la Poudre River near Greeley, Colo. 265
Lonetree Creek near Granite Canyon, Wyo. 266
Middle Fork of Crow Creek near Hecla, Wyo. 267
South Fork of Crow creek near Hecla, Wyo. 268
North Fork of Crow Creek near Hecla, Wyo. 269
Lodgepole Creek near Federal, Wyo. 270
Lodgepole Creek at Bushnell, Nebr. 271
South Fork of Lodgepole Creek near Federal, Wyo. 272
Middle Loup River at Sargent, Nebr. 273
Middle Loup River near Comstock, Nebr. 274
Middle Loup River at Arcadia, Nebr. 275
Middle Loup River at Loup City, Nebr. 276
Middle Loup River at Boelus, Nebr. 277
Middle Loup River at St. Paul, Nebr. 278
Loup River at Columbus, Nebr. 279
North Loup River at Taylor, Nebr. 280
North Loup River near Burwell, Nebr. 281
North Loup River near Ord, Nebr. 282
North Loup River at Scotia, Nebr. 283
North Loup River near St. Paul, Nebr. 284
Elkhorn River at Neligh, Nebr. 285
Elkhorn River at Waterloo, Nebr. 286
Nishnabotna River Basin. 287
Nishnabotna River above Hamburg, Iowa. 287
East Nishnabotna River at Red Oak, Iowa. 288
Tarkio River Basin. 290
East Tarkio Creek at Blanchard, Iowa. 290
Tarkio River at Fairfax, Mo. 291
West Tarkio Creek near Westboro, Mo. 292
Nodaway River Basin. 294
Nodaway River at Clarinda, Iowa. 294
Nodaway River near Burlington, Junction, Mo. 296
Platte River Basin (Iowa-Missouri). 297
Platte River near Agency, Mo. 297
One Hundred and Two River near Maryville, Mo. 298
Kansas River Basin. 299
Arikaree River at Haigler, Nebr. 299
Republican River at Max, Nebr. 300
Republican River at Culbertson, Nebr. 301
Republican River near Bloomington, Nebr. 302
Republican River near Hardy, Nebr. 303
Republican River at Scandia, Kans. 304
Republican River at Clay Center, Kans. 305
Kansas River at Ogden, Kans. 306
Kansas River at Wamego, Kans. 307
Kansas River at Topeka, Kans. 308
Kansas River at Lecompton, Kans. 309
Kansas River at Bonner Springs, Kans. 310
North Fork of Republican River at Colorado-Nebraska State line. 311
Frenchman Creek near Champion, Nebr. 312

Gaging-station records--Continued.
Kansas River Basin--Continued. Page
Frenchman Creek below Champion, Nebr. 313
Frenchman Creek near Hamlet, Nebr. 314
Frenchman Creek at Culbertson, Nebr. 315
Medicine Creek near Cambridge, Nebr. 316
Beaver Creek near Beaver City, Nebr. 317
Sappa Creek near Beaver City, Nebr. 318
West Buffalo Creek near Jewell, Kans. 319
West Buffalo Creek at Jewell, Kans. 320
Smoky Hill River at Ellsworth, Kans. 321
Smoky Hill River at Lindsborg, Kans. 322
Smoky Hill River at Enterprise, Kans. 323
Saline River near Wilson, Kans. 324
Saline River at Tescott, Kans. 325
Solomon River at Beloit, Kans. 326
Solomon River at Niles, Kans. 327
East Limestone Creek near Ionia, Kans. 328
Elm Creek near Ionia, Kans. 329
Big Blue River at Barnston, Nebr. 330
Big Blue River at Hull, Kans. 331
Big Blue River at Randolph, Kans. 332
Little Blue River near Endicott, Nebr. 333
Little Blue River at Waterville, Kans. 334
Red Vermillion Creek near Wamego, Kans. 335
Soldier Creek near Topeka, Kans. 336
Delaware River at Valley Falls, Kans. 337
Wakarusa River near Lawrence, Kans. 338
Stranger Creek near Tonganoxie, Kans. 339
Grand River Basin. 340
Grand River near Gallatin, Mo. 340
Grand River near Sumner, Mo. 341
East Fork of Big Creek near Bethany, Mo. 342
Thompson River at Trenton, Mo. 343
Weldon River at Mill Grove, Mo. 344
Medicine Creek near Galt, Mo. 345
Locust Creek near Linneus, Mo. 346
Chariton River Basin. 347
Chariton River at Novinger, Mo. 347
Chariton River near Keytesville, Mo. 348
Lamine River Basin. 349
Lamine River at Clifton City, Mo. 349
Osage (Marais des Cygnes) River Basin. 350
Osage River near Quenemo, Kans. 350
Osage River near Ottawa, Kans. 351
Osage River at Trading Post, Kans. 352
Osage River at Osceola, Mo. 353
Osage River near Bagnell, Mo. 354
Osage River near St. Thomas, Mo. 355
Marmaton River near Fort Scott, Kans. 356
Sac River near Stockton, Mo. 357
Pomme de Terre River at Hermitage, Mo. 358
South Grand River near Brownington, Mo. 359
Niangua River near Decaturville, Mo. 360
Bennett Spring at Brice, Mo. 361
Gasconade River Basin. 362
Gasconade River near Hazlegreen, Mo. 362
Gasconade River near Waynesville, Mo. 363
Gasconade River at Jerome, Mo. 364
Gasconade River near Rich Fountain, Mo. 365
Piney Creek near Big Piney, Mo. 366
Little Piney Creek at Newburg, Mo. 367
Miscellaneous discharge measurements. 368
Index. 371

ILLUSTRATION

Page
Plate 1. Typical river-measurement stations. 2

SURFACE WATER SUPPLY OF MISSOURI RIVER BASIN, 1937

SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of meaeurements of flow made on streams in the United States during the water year ending September 30, 1937. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of stream flow have been made at about 7,200 points in the United States and aleo at many points in Alaska and the Hawaiian Islands. In July 1937, 3,380 gaging stations were being maintained by the Geological Survey and the cooperating organizations. Many miscellaneous discharge measurements were made at 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. Acknowledgments for cooperation of the first kind are made in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 8.

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 a rate of flow of 1 cubic foot per second, or the rate of discharge of water flowing in a channel when the cross-sectional area ie 1 square foot and the 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 run-off ie distributed uniformly both as regards time and area.

"Run-off in inches" is the depth to which an area would be covered if all the water flowing from it in a givsn period were uniformly distributed on its surface. It is used for comparing run-off with rainfall, which is usually expressed in inches.

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

"Second-foot-day" is the volume of water rspresented by a flow of 1 second-foot for 24 hours.

"Stage-discharge relation" ie an abbreviation for the term "relation of gage height to discharge."

"Control" is a term used to designate the natural section or reach of the channel or artificial structure below the gage which determines the stage-discharge relation at the gage.

EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the gage heights 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 gaging stations, equipped with water-stage recorder and measuring cable and car, are shown on plate 1.

Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the daily gage height to these rating tables gives the daily discharge from which the monthly and yearly mean discharge is computed.

The data presented for each gaging station in the area covered by this report usually comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and run-off. Skeleton rating tables are published except for those stations whose daily discharge for the greater part of the year was determined by shifting-control method or by use of slope 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 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. Information under "Extremes" gives 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, and also the minimum discharge if useful; and the minimum gage height except when 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 represents the lowest discharge unless otherwise qualified.

The table of daily discharge gives, for stations equipped with nonrecording gages, the discharge in second-feet corresponding to once-daily or the mean of twice-daily readings of the gage. For stations equipped with water-stage recorders the table gives the discharge corresponding to the mean daily gage height except for stations on streams subject to sudden or rapid fluctuation. For stations subject to such fluctuation the mean daily gage height may not indicate the true mean daily discharge, which must be obtained by averaging the discharge for intervals of the day or by using the discharge integrator, an instrument for obtaining the mean daily discharge from a continuous gage-height graph and containing as an essential element the rating curve of the station.

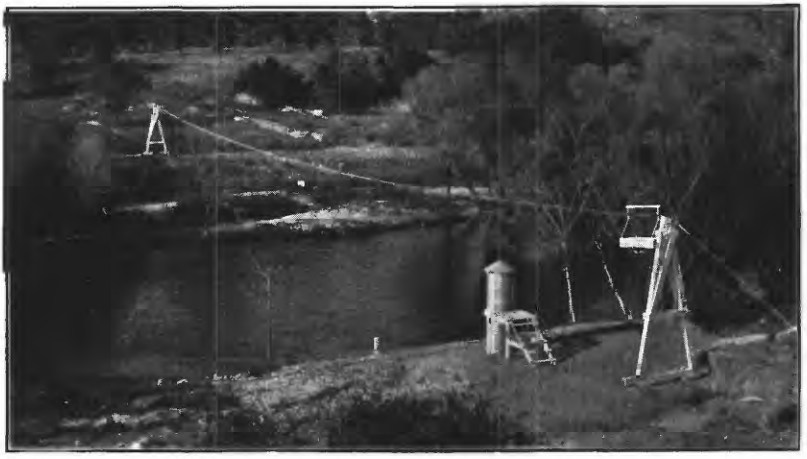
In the table of monthly discnarge the column headed "Second-foot-days" gives the sum for each month of the discharge given in the table of daily discharge. The column headed "Maximum" gives the maximum daily discharge and not the discharge when the water surface was at crest height. Likewise, in the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

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily (1) on the permanency of the stage-discharge relation and (2) on the accuracy of observation of stage, measurements of flow, and interpretation of records.

The station description gives a statement under "Remarks" in regard to the general accuracy of the records. "Excellent" indicates that, in general, the daily records are

A. ARTIFICIAL CONTROL, RECORDER HOUSE, AND MEASURING CABLE ON OLEN TANGY RIVER, DELAWARE, OHIO.



B. RECORDER HOUSE AND MEASURING CABLE ON KAWEAH RIVER, THREE RIVERS, CALIF.

TYPICAL RIVER-MEASUREMENT STATIONS.

in error not more than 5 percent; "good", not more than 10 percent; "fair", not more than 15 percent; and "poor", over 15 percent.

The monthly means for any station may represent with high accuracy the quantity of water flowing past the gage, but the figures showing discharge per square mile and depth in inches may be subject to gross errors caused by the inclusion of large noncontributing districts in the measured drainage area, by lack of information concerning water diverted for irrigation or other use, or by inability to interpret the effect of artificial regulation of the flow of the river above the station. "Second-feet per square mile" and "run-off in inches" are therefore not computed if such errors appear probable. The computations are also omitted for stations on streams draining areas in which the annual rainfall 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 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 gives a general idea of the flow at the station. The table of daily discharge allows more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published, and that greater degrees of refinement in computations and records may be warranted with increased data and use of improved equipment.

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 in regard to the water resources of the United States may be obtained or consulted as indicated 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:

Augusta, Maine, Statehouse.
Boston, Mass., 945 Post Office Building.
Hartford, Conn., 203 Federal Building.
Albany, N. Y., 528 Federal Building.
Trenton, N. J., 228 Federal Building.

Harrisburg, Pa., 490 Education Building.
Charlottesville, Va., University of Virginia.
South Charleston, W. Va., Naval Ordnance Plant.
Asheville, N. C., 220 Post Office Building.
Columbia, S. C., 119 United States Courthouse.
Atlanta, Ga., Georgia School of Technology.
Ocala, Fla., Post Office Building.
Montgomery, Ala., Post Office Building.
Chattanooga, Tenn., 442 Post Office Building.
Louisville, Ky., Federal Building.
Columbus, Ohio, Engineering Experiment Station, Ohio State University.
Indianapolis, Ind., 319 Federal Building.
Urbana, Ill., 14 Post Office Annex.
Madison, Wis., 337N State Capitol.
St. Paul, Minn., 808 New Post Office Building.
Iowa City, Iowa, 402 Hydraulic Laboratory, University of Iowa.
St. Louis, Mo., 906 Customhouse, 1114 Market Street.
Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
Topeka, Kans., 305 Federal Building.
Fort Smith, Ark., Post Office Building.
Austin, Tex., State Highway Building.
Santa Fe, N. Mex., 3 United States Courthouse.
Tucson, Ariz., 210 Post Office Building.
Denver, Colo., 230 Customhouse.
Salt Lake City, Utah, 303 Federal Building.
Idaho Falls, Idaho, 228 Federal Building.
Boise, Idaho, 429 Federal Building.
Helena, Mont., 412 Federal Building.
Tacoma, Wash., 406 Federal Building.
Portland, Oreg., 606 Post Office Building.
San Francisco, Calif., 208 Federal Office Building.
Los Angeles, Calif., 512 Eighth and Figueroa Building.
Honolulu, Hawaii, 225 Federal Building.

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

Records of flow of streams in the United States have been published in the reports tabulated as follows:

Stream-flow data 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, eastern United States, eastern Mississippi River, and Missouri River above junction with Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights, western Mississippi River below junction of Missouri and Platte Rivers, and western United States.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights, eastern United States, eastern Mississippi River, and Missouri River.	1898.
W 28.....	Measurements, ratings, and gage heights, Arkansas River and western United States.	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.

Note.- The reports which contain records after 1901 are given in the table on page 5.

Numbers of water-supply papers containing results of stream measurements, 1899-1937

(For basins included see p. 3)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b 35, 36	36	36	36	c 36, 37	37	37	d 37, 38	38, e 39	38, f 39	38	38	38
1900 g...	47, h 48	48	48, i 49	49	49	49, j 50	50	50	50	51	51	51	51	51
1901.....	65, 75	65, 75	65. 75	65, 75	k 65, 66, 75	56, 75	k 65, 66, 75	66, 75	66, 75	66, 75	66, 75	56, 75	66, 75	66, 75
1902.....	82	b 82, 83	83	m 82, 83	k 83, 85	84	k 83, 84	84	85	85	85	85	85	85
1903.....	97	b 97, 98	98	97	k 98, 99, n 100	99	k 98, 99	99	100	100	100	100	100	100
1904.....	o 124, p 125, q 126	q 126, 127	128	129	k 128, 130	130, r 131	k 128, 131	132	133	133, s 134	134	135	135	135
1905.....	o 165, p 166, q 167	q 167, 158	169	170	171	172	k 169, 173	174	175, t 177	176, s 177	177	178	178	u 177, 178
1906.....	o 201, p 202, q 203	q 203, 204	205	205	207	208	k 205, 209	210	211, t 213	212, s 213	213	214	214	214
1907-8...	241	242	243	244	245	246	247	248	249	250, s 251	251	252	252	252
1909.....	261	262	263	264	265	266	267	268	269	270, s 271	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	435	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

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 junction with Gila River.
u Rogue, Umpqua, and Siletz Rivers only.

The foregoing table gives, by years and drainage basins, the numbers of the papers on surface water supply published from 1899 to 1937. 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 from 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 383, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

The records at most of the stations discussed in these 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 in the same relative order as the regular gaging stations. An index of the records obtained prior to 1904 has been published in Water-Supply Paper 119.

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	Year ending	State or drainage basin and title
		STATE
107	1903	Alabama, Water powers of, with an appendix on stream measurements in Mississippi.
298	1912	California, Water resources of, part 1, Stream measurements in Sacramento River Basin.
299	1912	California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.
300	1912	California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific coast river basins.
447	1918	California, Surface water supply of the southern Pacific slope of.
597e	1927	California, Surface water supply of Sacramento River Basin.
636d	1927	California, Surface water supply of San Joaquin River Basin.
636e	1927	California, Surface water supply of Pacific slope basins in.
637a	1927	California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.
74	1900	Colorado, Water resources of.
197	1905	Georgia, Water resources of.
415	1915	Massachusetts, Surface waters of.
230	1908	Nebraska, Surface water supply of.
370	1910	Oregon, Surface water supply of.
424	1916	Vermont, Surface waters of.
492	1919	Washington, Summary of hydrometric data in.
469	1921	Wyoming, Surface waters of, and their utilization.
		DRAINAGE BASIN
395	1914	Colorado River (Colo., Utah, etc.) and its utilization, 1916.
617	1927	Colorado River, upper (Colo., Utah), and its utilization, 1929.
517	1920	Great Salt Lake Basin, Water powers of, 1924.
618	1926	Green River (Wyo., Utah) and its utilization, 1930.
198	1906	Kennebec River Basin (Maine), Water resources of, 1907.
		Milk River. (See St. Mary and Milk Rivers.)
536	1920	New-Kanawha River Basin (W. Va., Va., N. C.), Surface water supply of, 1925.
279	1909	Penobscot River Basin (Maine), Water resources of, 1912.
192	1906	Potomac River Basin (W. Va., Va., Md., etc.), 1907.
358	1913	Rio Grande Basin (N. Mex., Tex., etc.), Water resources of, 1888-1913.
491	1917	St. Mary and Milk Rivers (Mont. and Canada), Water supply of, 1920.
109	1904	Susquehanna River Basin (Pa., Md.), Hydrography of, 1905.

In addition to the records noted above, records of discharge have been published 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	Year ending	Report	Issued by
Alabama....	1915	Bull. 17, Water powers of Alabama.....	Geological Survey of Alabama.
Arkansas...	1928	Stream gaging report 1.....	Arkansas Geological Survey.
Georgia....	1920	Bull. 38, Water powers of Georgia.....	Geological Survey of Georgia.
Illinois...	1937	Stream flow data of Illinois.....	Division of Waterways.
Do.....	1911	Water resources of Illinois.....	Rivers and Lakes Commission.
Indiana....	1927	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	[a]1930	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	1932	Stream-flow records of Iowa.....	Iowa State Planning Board.
Kansas.....	[b]1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	[c]1924	.....do.....	Do.
Do.....	[d]1928	.....do.....	Do.
Kentucky...	1920	Surface waters of Kentucky.....	Kentucky Geological Survey.
Minnesota..	1912	Water resources investigation of Minnesota.	State Drainage Commission.
Missouri...	1926	Reports of Bureau of Geology and Mines, Vol. 20, 2d series, Water Resources of Missouri.	Missouri Bureau of Geology and Mines.
Nebraska...	1914	1st hydrographic report.....	Bureau of Water Power, Irrigation and Drainage.
Do.....	[e]1928	2d hydrographic report.....	Do.
New Jersey.	1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	[f]1934	Special Report 5, Surface water supply of New Jersey.	State Water Policy Commission.
New Mexico.	1925	Surface water supply of New Mexico....	Office of the State Engineer.
North Carolina.	1923	Bull. 34, Discharge records of North Carolina streams.	Department of Conservation and Development.
Oregon.....	1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	[g]1924	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	[h]1930	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	[i]1936	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1911	Report of Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	[j]1932	Stream-flow records of Pennsylvania...	Department of Forests and Waters.
Tennessee..	1924	Bull. 34, Water resources of Tennessee.	Department of Education.
Do.....	[k]1930	Bull. 40, Surface waters of Tennessee.	Do.
Utah.....	1905	5th Biennial Report, State Engineer...	Office of the State Engineer.
Virginia...	1927	Bull. 31, Water resources of Virginia.	Conservation and Development Commission.
Washington.	1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin..	1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	[l]1923	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

a Includes records for the years 1927-30.
b Includes records for the years 1895-1919.
c Includes records for the years 1919-24.
d Includes records for the years 1924-28.
e Includes records for the years 1914-28.
f Includes records for the years 1928-34.
g Includes records for the years 1914-24.
h Includes records for the years 1924-30.
i Includes records for the years 1930-36.
j Includes records for the years 1928-32.
k Includes average weekly discharge for the years 1920-30.
l Includes records for the years 1914-23.

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, Idaho, Indiana, Missouri, Montana, Nebraska, New Mexico, New York (also New York City Board of Water Supply), North Dakota, Oregon, Pennsylvania, Utah, Washington, and Wyoming.

COOPERATION

The work in the several States was done under cooperative agreements as follows: In Colorado, with the office of the State engineer, M. C. Hinderlider. In Iowa, with the Iowa Geological Survey, Dr. A. C. Trowbridge, director; the University of Iowa Institute of Hydraulic Research, Prof. E. W. Lane, associate director, and Francis M. Dawson, dean, College of Engineering; the State Conservation Commission, M. L. Hutton, director; the State Highway Commission, Fred White, chief engineer; the State Department of Health, A. H. Wieters, director, Division of Engineering; and the State Planning Board, R. H. Matson, director. In Kansas, with the water resources division of the State Board of Agriculture, George S. Knapp, chief engineer. In Missouri, with the Missouri Geological Survey and Water Resources, H. A. Buehler, State geologist; the Missouri Highway Department, T. H. Cutler, succeeded by C. W. Brown, chief engineer; the Missouri Game and Fish Department, W. C. Buford, Commissioner; and the Missouri Park Department, I. T. Bode, director. In Montana, with the office of the State engineer, J. S. James. In Nebraska, with the Department of Roads and Irrigation, A. C. Tilley, State engineer, through R. H. Willis, chief, Bureau of Irrigation, Water Power, and Drainage. In Wyoming, with the office of the State engineer, John D. Quinn.

Acknowledgment of financial assistance in collecting records published herein is due also the Corps of Engineers, United States Army, the United States Department of State, the United States Soil Conservation Service, and the United States Weather Bureau.

Full cooperation exists between the Geological Survey of the United States Department of the Interior and the Dominion Water and Power Bureau, Department of Mines and Resources, Canada. On waters adjacent to the international boundary certain stations are maintained jointly by the United States and Canada under the terms of the Boundary Waters Treaty of 1909, and others are maintained under a subsequent agreement between the two Governments. The records from all these stations are obtained in such a manner as to be equally acceptable and available in either country. These stations are herein designated "international gaging stations."

Assistance in collecting records was also rendered as follows: In Kansas, by the Kansas Gas & Electric Co.; in Missouri, by the Union Electric Light & Power Co., the Gasconade River Power Co., and the Missouri Electric Power Co.; and in Montana by the Montana Power Co.

DIVISION OF WORK

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 Iowa, H. C. Beckman (for stations on Big Sioux and Nishnabotna Rivers and East Tarkio Creek) and R. G. Kasel; in Kansas, J. B. Spiegel; in Missouri, H. C. Beckman; in Montana (except for Madison River near West Yellowstone and Tongue River near Decker) and for Missouri River near Williston, N. Dak. and Little Missouri River near Watford City, N. Dak., W. A. Lamb; in Nebraska (except for the two stations on Missouri River), Robert Follansbee; in North Dakota (except for Missouri River at Williston and Little Missouri River near Watford City), South Dakota (except for Rapid Creek at Big Bend), and for the two stations on Missouri River in Nebraska, H. C. Beckman; in Wyoming and for Tongue River near Decker, Mont., and Rapid Creek at Big Bend, S. Dak., Robert Follansbee; and in Yellowstone National Park (including Madison River near West Yellowstone, Mont.), Thomas R. Newell.

MISSOURI RIVER MAIN STEM

Red Rock River near Lakeview, Mont.

Location.- Water-stage recorder, lat. 44°39', long. 111°52', in NE¼ sec. 6, T. 14 S., R. 2 W., at dam on Lower Red Rock Lake, and 5 miles northwest of Lakeview.

Records available.- May 1933 to September 1937 (fragmentary).

Extremes.- Maximum discharge during period, 254 second-feet May 25 (gage height, 2.11 feet); no flow at times during July and during Aug. 6 to Sept. 30.
1933-37: Maximum discharge observed, 1,010 second-feet May 1, 1933 (gage height, 2.94 feet); no flow at times.

Remarks.- Records poor. No records Oct. 23 to May 18. Natural storage in the Red Rock Lakes.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.44	0
1.5	.8
1.6	8
1.7	23
1.8	56
2.0	170
2.2	330

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22							-	85	46	0.8	
2	20							-	76	40	.8	
3	22							-	76	33	.7	
4	17							-	56	26	.3	
5	18							-	61	22	.1	
6	23							-	66	22	0	
7	30							-	80	8.0	0	
8	30							-	105	9.5	0	
9	23							-	76	8.0	0	
10	26							-	76	6.6	0	
11	23							-	90	5.8	0	
12	22							-	66	5.8	0	
13	23							-	118	3.0	0	
14	30							-	118	1.5	0	
15	33							-	105	1.5	0	
16	33							-	112	1.5	0	
17	33							-	118	1.5	0	
18	33							-	80	.5	0	
19	40							178	95	.3	0	
20	43							164	80	.4	0	
21	43							176	100	.1	0	
22	26							124	85	0	0	
23	-							95	66	0	0	
24	-							138	61	.4	0	
25	-							144	66	.1	0	
26	-							90	61	0	0	
27	-							90	56	.4	0	
28	-							71	56	.3	0	
29	-							100	46	0	0	
30	-							112	40	.3	0	
31	-							85	-	.4	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1-22	613	43	17	27.9	1,220
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January					
February					
March					
April					
May 19-31	1,569	178	85	121	3,110
June	2,376	118	40	79.2	4,710
July	244.9	46	0	7.90	486
August	2.7	.8	0	.09	54
September	0	0	0	0	0
Water year					

Red Rock River at Kennedy ranch, near Lakeview, Mont.

Location.- Water-stage recorder, lat. 44°38', long. 112°01', in sec. 1, T. 14 S., R. 4 W., at Kennedy ranch, about 13 miles northwest of Lakeview.

Records available.- July 1936 to September 1937.

Extremes.- Maximum discharge observed during period, 1,050 second-feet Apr. 28 (gage height, 3.52 feet); minimum, 3.4 second-feet Sept. 18, 1937.

Discharge, in second-feet, 1936-37

1936

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										-	31	18
2										-	31	20
3										-	31	23
4										-	31	27
5										-	24	26
6										-	24	29
7										-	20	28
8										-	19	28
9										-	14	29
10										-	16	29
11										-	22	30
12										8.0	27	36
13										8.8	29	37
14										11	30	31
15										11	31	30
16										51	25	29
17										33	21	29
18										18	22	29
19										16	19	28
20										13	18	28
21										16	18	28
22										16	18	29
23										16	19	28
24										17	16	23
25										24	13	25
26										22	12	21
27										27	10	35
28										29	12	32
29										29	15	29
30										30	17	31
31										30	19	-

Discharge, in second-feet, of Red Rock River at Kennedy ranch, near Lakeview, Mont., 1936-37--Con.

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	18	12				*33	980	117	27	13	4.8
2	32	22	12				*33	960	109	4.8	12	4.8
3	28	26	13				33	892	105	4.0	15	4.0
4	27	31	12				*33	780	84	9.6	14	4.0
5	26	31	13				*33	650	93	27	16	4.0
6	23	30	13				*33	570	63	78	16	4.0
7	29	29	14				33	492	59	27	16	4.0
8	32	28	12				*34	418	87	29	16	3.7
9	32	25	14				36	360	126	31	15	6.4
10	31	23	*14				*36	353	123	28	15	9.6
						20						
11	32	21	*13				*36	248	92	24	15	6.4
12	32	19	13				*36	228	104	22	14	4.0
13	28	18	*12				36	248	92	21	17	3.7
14	28	17	*12				37	208	112	24	10	4.0
15	29	16	*11				38	192	110	21	8.8	3.7
16	32	16	*11				38	190	99	21	13	3.4
17	38	16	*10				38	183	98	21	5.6	4.8
18	36	15	10				42	210	94	20	*5.4	3.7
19	36	14	*11				55	198	81	21	*5.2	4.0
20	38	13	*13				115	187	74	20	*5.0	5.6
21	44	13	14			*33	161	166	84	18	*4.8	8.0
22	46	12	*14			33	226	174	77	17	*4.6	9.6
23	36	12	*13			*33	326	133	62	16	*4.4	7.2
24	33	12	*12			*33	550	128	183	17	*4.2	7.2
25	38	11	*11			*33	630	144	53	16	*4.0	7.2
26	46	11	11			33	870	137	56	17	*3.8	8.0
27	43	12	*10			*33	938	126	53	18	3.7	7.2
28	31	14	10			33	1,030	117	47	16	4.8	7.2
29	37	15	*10			*33	1,030	96	44	14	5.6	8.0
30	43	11	10			*33	1,000	123	38	14	5.6	*8.0
31	41	-	*10			33	-	129	-	13	5.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
July 12-31	425.8	51	8.0	21.3	845
August	654	31	10	21.1	1,300
September	845	37	18	28.2	1,680
The period					3,820
October 1936	1,058	46	23	34.1	2,100
November	551	31	11	18.4	1,090
December	370	14	10	11.9	734
Calendar year					
January 1937	310	-	-	10	615
February	280	-	-	10	555
March	763	33	-	24.6	1,510
April	7,569	1,030	33	252	15,010
May	10,020	980	96	323	19,870
June	2,619	183	38	87.3	5,190
July	656.4	78	4.0	21.2	1,300
August	297.7	17	3.7	9.60	590
September	170.2	9.6	3.4	5.67	338
Water year 1936-37	24,664.3	1,030	3.4	67.6	48,900

*Interpolated.

Red Rock River below Red Rock Reservoir, near Monida, Mont.

Location.- Staff gage, lat. 44°39', long. 112°21', in SW¼ sec. 32, T. 13 S., R. 6 W., just below Red Rock Reservoir and 8 miles northwest of Monida.

Drainage area.- 560 square miles.

Records available.- July 1911 to September 1918, May 1925 to September 1937.

Extremes.- Maximum discharge observed during year, 483 second-feet July 1, 2, 4-8 (gage height, 2.30 feet); no flow at times when gates were closed.
1911-18, 1925-37: Maximum discharge observed, 2,500 second-feet May 15, 1933 (gage height, 5.40 feet); no flow at times.

Remarks.- Records fair. Flow regulated by operation of reservoir. Some small diversions from tributaries above reservoir. No records Oct. 1 to Apr. 14. Gage read twice daily.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0	0
.2	11
.4	33
.6	61
.8	95
1.0	134
1.2	177
1.4	225
1.6	276
1.8	331
2.0	390
2.2	451
2.4	516

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	225	103	483	67	
2							-	225	101	483	67	
3							-	225	99	483	41	
4							-	225	99	483	13	
5							-	225	99	483	8.2	
6							-	225	90	483	8.2	
7							-	225	81	483	8.2	
8							-	225	81	483	7.5	
9							-	225	81	483	6.8	
10							-	225	201	483	5.4	
11							-	225	331	238	4.0	
12							-	225	303	69	4.0	
13							-	225	276	71	4.0	
14							-	225	276	71	4.0	
15							7.5	225	276	71	4.0	
16							*7.5	225	276	75	4.0	
17							*7.5	225	276	82	3.2	
18							7.5	225	276	77	2.4	
19							9.6	225	276	77	2.0	
20							15	225	213	84		
21							15	213	155	84		
22							15	213	155	84	†1.0	
23							16	201	155	84		
24							16	201	155	84		
25							16	201	166	112		
26							130	177	177	144	25	
27							144	166	177	144	23	
28							144	166	177	166	8.2	
29							225	124	177	189	0	
30							225	114	276	166	0	
31							-	103	-	110	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 15-30	1,000.6	225	7.5	62.5	1,980
May	6,379	225	103	206	12,650
June	5,584	331	81	186	11,080
July	7,112	483	69	229	14,110
August	326.1	67	0	10.5	647
September	0	0	0	0	0
The period					40,470

*Interpolated.
†Estimated.

Beaverhead River at Barratts, Mont.

Location.- Water-stage recorder, lat. 45°08', long. 112°45' (revised), in SE¼ sec. 19, T. 8 S., R. 9 W., 1 mile above Barratts and 8¼ miles southwest of Dillon.

Drainage area.- 2,850 square miles.

Records available.- August 1907 to September 1937.

Average discharge.- 30 years, 410 second-feet.

Extremes.- Maximum discharge during year, 398 second-feet July 9 (gage height, 0.95 foot); minimum, 95 second-feet Sept. 3 (gage height, 0.29 foot).
1907-37: Maximum discharge, 3,640 second-feet June 19, 20, 1908 (gage height, 6.0 feet); minimum, 81 second-feet Sept. 12-17, 1934 (gage height, 0.28 foot).

Remarks.- Records good except those for period of winter, Dec. 29 to Mar. 8, which are poor. Numerous diversions above station. Storage and release of flood waters of Red Rock River near Monida affect the flow at this station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	130	190	222	200	*142	*180	231	173	135	124	131	98
2	130	182	222	186	*136	*178	236	173	128	143	131	98
3	130	231	218	190	131	177	222	177	124	190	131	95
4	133	208	236	190	*131	*182	213	173	126	213	124	116
5	136	218	231	186	*130	*186	208	169	128	231	113	120
6	136	218	231	177	*130	*191	204	164	128	264	109	109
7	136	236	218		*129	*195	204	160	124	274	105	102
8	133	250	222		*129	*206	213	148	128	299	109	105
9	133	255	222		*128	204	218	148	139	361	109	105
10	130	250	218		128	200	227	143	169	329	113	102
11	130	255	218		*134	208	231	143	177	324	120	102
12	139	250	227		*140	204	216	135	208	314	120	102
13	143	250	218		*146	195	236	128	190	227	120	105
14	148	250	218		*152	195	241	120	177	227	124	105
15	152	250	218	†175	*158	195	264	116	164	200	128	105
16	152	250	218		*164	206	260	128	164	182	124	105
17	152	255	227		*170	204	241	120	169	164	128	109
18	156	255	222		177	200	231	116	169	152	120	109
19	156	260	222		*182	200	213	113	164	156	116	109
20	156	250	222		*186	195	218	124	164	148	113	109
21	160	250	222		190	200	218	139	169	139	113	109
22	160	250	222		*189	200	208	143	156	131	109	109
23	164	246	222	177	*188	200	195	148	139	135	105	109
24	160	241	222	*175	*186	195	177	139	131	139	105	109
25	160	241	227	*173	*185	204	169	135	128	139	105	109
26	152	236	227	*171	*184	204	173	135	128	135	109	105
27	160	227	222	169	*182	204	182	148	128	135	102	102
28	164	222	227	*164	*181	208	200	131	128	135	102	102
29	169	222	227	*158	-	213	200	124	124	131	105	102
30	177	222	218	*153	-	218	190	139	116	131	105	105
31	177	-	208	*147	-	222	-	139	-	135	102	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,614	177	130	149	9,150
November	7,120	260	182	237	14,120
December	6,894	278	208	222	13,670
Calendar year 1936	80,308	1,110	116	219	159,300
January	5,416	200	147	175	10,740
February	4,408	190	128	157	8,740
March	6,157	222	177	199	12,210
April	6,441	264	169	215	12,780
May	4,391	177	113	142	8,710
June	4,424	208	116	147	8,770
July	6,007	361	124	194	11,910
August	3,550	131	102	115	7,040
September	3,171	120	95	106	6,290
Water year 1936-37	62,593	361	95	171	124,100

*Interpolated.
†Estimated.

Beaverhead River at Blaine, Mont.

Location.- Wire gage, lat. 45°23', long. 112°27', in SW¼ sec. 22, T. 5 S., R. 7 W., at highway bridge at Blaine, 14 miles northeast of Dillon.

Records available.- August 1935 to September 1937.

Extremes.- Maximum discharge observed during year, 472 second-feet Nov. 14 (gage height, 3.03 feet); minimum, 14 second-feet May 21 (gage height, 1.30 feet).
1935-37: Maximum discharge, 720 second-feet Aug. 12, 1936 (gage height, 3.48 feet); minimum, 9 second-feet Sept. 19, 1935 (gage height, 1.16 feet).

Remarks.- Records fair except those for periods of ice effect, Dec. 4-15, Dec. 27 to Feb. 28, which were computed on basis of two discharge measurements, gage heights, and weather records, and are poor. Numerous diversions above station for irrigation. Gage read once daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79	276	376			376	354	141	28	29	46	26
2	87	310	354			376	424	128	28	31	53	26
3	94	354	354			376	354	111	30	24	47	29
4	98	448	331			376	331	98	31	23	36	35
5	107	448	280	*235	*105	376	354	88	32	24	35	37
6	109	472	284			424	354	79	26	27	32	40
7	107	448	354			424	331	66	26	23	28	42
8	109	448	310			354	331	56	26	26	26	40
9	107	448	310			376	354	48	26	30	26	38
10	87	472	310			400	331	42	27	23	25	31
11	88	472	288			400	354	32	27	24	22	25
12	78	448	310			376	331	23	53	26	20	27
13	68	448	288			354	331	20	41	20	20	28
14	66	472	331			354	310	20	34	56	21	31
15	70	472	354	*165	*190	310	310	18	33	29	21	28
16	64	448	354			376	331	17	31	22	20	28
17	68	448	331			354	310	17	31	22	18	27
18	74	448	400			376	310	17	30	22	19	29
19	78	472	354			354	288	18	30	23	18	26
20	79	448	376			331	280	17	27	29	19	24
21	81	448	354		310	310	263	14	25	26	22	26
22	105	448	354		354	331	255	18	24	29	22	24
23	111	424	354		331	310	247	16	24	29	20	26
24	128	424	354		331	331	247	16	24	22	20	21
25	155	448	354		331	331	199	20	18	24	18	22
26	186	400	354	*125	331	331	192	19	16	29	21	20
27	192	424	331		310	310	143	18	15	29	24	22
28	199	448	288		354	310	146	20	15	37	26	20
29	202	354	284		-	331	152	20	19	37	26	22
30	199	376	280		-	331	143	22	26	38	24	22
31	259	-	288		-	354	-	26	-	34	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,534	259	64	114	7,010
November	12,894	472	276	430	25,570
December	10,244	400	280	330	20,320
Calendar year 1936	74,160	720	21	203	147,100
January	5,375	-	-	173	10,660
February	5,602	354	-	200	11,110
March	11,023	424	310	356	21,860
April	8,660	424	143	289	17,180
May	1,265	141	14	40.8	2,510
June	823	53	15	27.4	1,630
July	867	56	20	28.0	1,720
August	801	53	18	25.8	1,590
September	842	42	20	28.1	1,670
Water year 1936-37	61,930	472	14	170	122,800

*Estimated.

Jefferson River near Silverstar, Mont.

Location.- Wire gage, lat. 45°39', long. 112°18', in SE¼ sec. 23, T. 2 S., R. 6 W., at highway bridge, 5 miles southwest of Silverstar and 5 miles below junction of Beaverhead and Big Hole Rivers.

Drainage area.- 7,840 square miles.

Records available.- August 1910 to September 1916, July 1920 to September 1937.

Average discharge.- 23 years, 1,743 second-feet.

Extremes.- Maximum discharge observed during year, 2,090 second-feet May 8 (gage height, 3.39 feet); minimum, 50 second-feet Sept. 4 (gage height, 0.85 foot).
1910-16, 1920-37: Maximum discharge observed, 19,800 second-feet June 15, 1927 (gage height, 9.85 feet); minimum, that of Sept. 4, 1937.

Remarks.- Records good except those for period of ice effect, Nov. 29 to Mar. 16, (computed on basis of four discharge measurements, gage readings, and weather records) and those for period of low water during August and September, which are poor. Numerous diversions. Flow partly regulated by operation of two reservoirs. Gage read once daily to hundredths.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	256	541				550	910	1,460	1,580	516	370	55
2	256	576				665	965	1,580	1,390	468	396	53
3	285	611				760	910	1,720	1,320	431	410	53
4	260	760				860	860	1,790	1,390	410	376	50
5	265	860				1,020	860	1,860	1,390	333	339	53
6	265	965	*590	*450	*270	1,020	810	1,940	1,320	316	265	62
7	285	965				1,080	810	2,090	1,200	300	214	67
8	305	965				1,080	810	2,090	1,200	333	195	71
9	316	965				1,140	810	2,090	1,200	370	192	76
10	305	965				1,140	810	2,090	1,200	410	182	79
11	316	1,020				1,390	810	2,090	1,460	424	170	81
12	295	965				1,020	810	1,940	1,520	311	164	83
13	305	965				1,020	860	1,790	1,650	516	148	87
14	316	965				965	860	1,720	1,650	665	139	87
15	316	1,020				910	860	1,790	1,790	541	130	90
16	305	965	*460	*410	*370	910	860	1,860	1,650	492	121	90
17	327	965				965	910	1,860	1,650	431	116	93
18	352	965				965	965	1,860	1,790	403	108	92
19	352	965				910	1,020	1,940	1,860	345	104	88
20	376	965				860	1,020	2,090	1,790	333	94	90
21	376	965				860	1,080	1,940	1,720	290	86	96
22	389	965				910	1,390	1,860	1,940	251	81	98
23	417	910				910	1,520	1,860	1,940	206	70	111
24	460	860				860	1,460	1,790	1,860	188	67	118
25	460	860			*450	860	1,320	1,650	1,460	182	66	129
26	476	965	*530	*330		860	1,260	1,720	965	173	62	127
27	508	860				860	1,260	1,860	910	167	57	130
28	508	810				860	1,200	1,860	810	173	55	139
29	492	750			-	860	1,320	1,860	710	176	55	148
30	508	700			-	860	1,390	1,790	665	176	59	156
31	524	-			-	910	-	1,790	-	247	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	11,176	524	256	361	22,170
November	26,578	1,020	541	886	52,720
December	16,330	-	-	527	32,390
Calendar year 1936	423,776	7,000	148	1,158	840,500
January	12,230	-	-	395	24,260
February	10,000	-	-	357	19,830
March	28,840	1,390	550	930	57,200
April	30,730	1,520	810	1,024	60,950
May	57,630	2,090	1,460	1,859	114,300
June	42,980	1,940	665	1,433	85,250
July	10,577	665	167	341	20,980
August	4,946	410	55	160	9,810
September	2,752	156	50	91.7	5,460
Water year 1936-37	254,769	2,090	50	698	505,300

*Estimated.

Missouri River below Hauser Lake Dam, near Helena, Mont.

Location.- Water-stage recorder, lat. 46°46', long. 111°53', in SW¼ sec. 29, T. 12 N., R. 2 W., at Hauser Lake power plant, about 15 miles northeast of Helena.

Drainage area.- 16,600 square miles.

Records available.- December 1922 to September 1937.

Average discharge.- 14 years, 1923-37, 4,082 second-feet.

Extremes.- Maximum discharge during year, 4,420 second-feet July 2, 3 (gage height, 69.02 feet); minimum, 290 second-feet Sept. 6 (gage height, 65.37 feet).
1922-37: Maximum discharge, 33,300 second-feet June 14, 15, 18, 1927 (gage height, 78.80 feet); minimum, that of Sept. 6, 1937.

Remarks.- Records good. Numerous diversions. Flow partly regulated by operation of reservoirs and power plants above station. Records furnished by Montana Power Co.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

65.3	255	66.6	1,070	69.0	4,390
65.4	305	66.8	1,250	69.5	5,250
65.5	360	67.0	1,460	70.0	6,150
65.6	415	67.2	1,680	70.5	7,050
65.8	530	67.4	1,930	71.0	8,000
66.0	650	67.7	2,340	71.5	8,950
66.2	770	68.0	2,790	72.0	9,900
66.4	910	68.5	3,570	72.6	11,100

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,100	4,080	3,940	2,550	1,650	1,920	2,980	3,150	3,170	4,120	1,100	2,340
2	4,030	4,030	3,910	2,260	2,090	2,400	3,300	1,750	2,420	4,420	826	2,400
3	4,050	4,000	3,940	2,270	1,780	2,340	2,420	3,140	4,250	4,420	975	2,540
4	3,150	2,670	3,940	3,110	1,740	2,740	2,380	3,280	4,300	2,340	1,610	2,820
5	3,380	3,190	3,940	3,300	1,720	2,940	3,140	2,960	4,300	847	1,760	1,400
6	3,860	2,310	3,910	3,550	1,580	2,600	3,540	3,040	2,030	2,380	1,580	290
7	3,550	1,760	3,920	3,670	542	1,720	3,830	2,780	2,660	2,900	1,490	1,040
8	2,840	1,070	3,090	2,160	1,380	3,470	3,780	2,920	3,410	3,790	704	1,480
9	2,160	2,500	2,970	1,430	1,730	3,890	3,250	3,150	2,620	3,760	1,360	2,460
10	2,780	1,780	1,920	1,130	1,610	3,890	3,570	3,170	3,000	3,750	1,610	2,970
11	2,030	2,100	2,190	1,350	1,840	3,870	2,720	3,680	3,190	2,070	1,930	2,610
12	2,840	2,200	1,810	1,330	2,120	3,360	2,940	3,910	1,750	3,150	1,880	1,790
13	3,350	2,540	847	1,260	1,370	2,920	3,730	4,220	758	2,120	2,020	2,490
14	2,860	3,250	1,310	1,450	560	2,000	3,440	4,250	903	1,380	2,030	2,780
15	3,310	1,310	1,200	1,610	2,090	3,310	3,200	4,250	1,180	1,420	1,120	2,380
16	3,220	2,130	1,600	1,750	2,720	3,940	3,310	4,250	1,400	2,420	1,550	2,300
17	2,680	1,880	2,120	1,390	2,970	3,390	3,700	4,240	2,230	2,600	2,170	2,700
18	1,350	3,630	2,960	1,580	3,090	2,940	3,460	4,250	4,050	924	2,170	2,270
19	2,670	4,000	3,490	1,560	2,850	3,350	2,700	3,300	2,550	1,540	2,190	606
20	3,220	4,000	1,970	1,960	2,560	3,360	3,580	3,810	1,320	1,640	2,170	2,260
21	2,960	2,430	2,680	1,980	2,550	3,920	3,670	4,220	3,890	1,680	2,260	2,610
22	2,980	1,720	2,070	2,270	2,560	3,910	3,840	4,070	4,370	2,420	989	1,380
23	2,850	3,200	2,550	1,700	2,660	3,910	3,810	3,040	4,390	2,550	2,010	2,660
24	2,790	3,590	2,960	1,690	2,310	3,890	3,760	3,950	4,390	1,930	1,700	3,110
25	2,100	2,500	1,600	1,580	2,580	3,840	3,760	4,240	4,370	1,080	2,010	2,680
26	1,860	3,990	3,250	1,650	2,620	3,870	3,780	4,200	4,390	1,900	2,190	1,310
27	3,350	3,990	3,890	1,320	2,610	3,860	3,790	4,220	2,820	1,830	2,300	2,540
28	2,860	3,970	3,890	1,680	2,200	2,860	3,780	4,220	2,720	2,100	2,050	3,110
29	4,070	3,650	3,840	1,740	-	1,780	3,560	4,220	2,600	2,170	2,210	2,940
30	3,840	3,220	2,340	1,500	-	3,110	2,460	3,040	2,960	1,610	2,310	2,150
31	4,120	-	1,540	989	-	3,490	-	3,410	-	1,520	2,240	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	94,990	4,120	1,350	3,064	188,400
November	86,670	4,080	1,070	2,889	171,900
December	85,587	3,940	847	2,761	169,800
Calendar year 1936	1,234,742	11,100	572	3,374	2,449,000
January	58,769	3,670	989	1,896	116,600
February	58,082	3,090	542	2,074	115,200
March	98,790	3,940	1,720	3,187	195,900
April	100,760	3,840	2,380	3,359	199,900
May	112,330	4,250	1,750	3,624	222,800
June	88,391	4,390	758	2,946	175,300
July	72,781	4,420	847	2,348	144,400
August	54,512	2,310	704	1,758	108,100
September	66,398	3,110	290	2,213	131,700
Water year 1936-37	978,060	4,420	290	2,680	1,940,000

Missouri River at Fort Benton, Mont.

Location.- Water-stage recorder, lat. 47°49', long. 110°39', in NE¼ sec. 26, T. 24 N., R. 8 E., at highway bridge at Fort Benton.

Drainage area.- 24,600 square miles.

Records available.- July 1881 to September 1937 (1881-89 published in Water-Supply Paper 548; 1890-1918 published in Water-Supply Paper 761).

Average discharge.- 56 years (1881-1937), 8,449 second-feet.

Extremes.- Maximum discharge during year, 10,600 second-feet July 13 (gage height, 3.56 feet); minimum, 1,220 second-feet July 6 (gage height, 0.22 foot); minimum mean daily discharge, 1,420 second-feet Jan. 17 (ice present; Morony power-plant record). 1881-1937: Maximum discharge observed, about 140,000 second-feet June 7, 1908 (gage height, 18.5 feet, present datum); minimum discharge, 320 second-feet July 5, 1936; minimum daily discharge, 627 second-feet July 5, 1936 (gage height, about -0.21 foot).

Remarks.- Records good except those for winter periods, Dec. 7-16, Dec. 27 to Mar. 10, which were obtained from Morony power-plant records and are fair. Numerous diversions from tributaries. Flow partly regulated by storage in reservoirs.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0	900	0.8	2,250	2.5	6,660
.2	1,190	1.0	2,690	3.0	8,350
.4	1,510	1.5	3,850	3.5	10,220
.6	1,860	2.0	5,160	4.0	12,230

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,800	4,420	3,750	3,670	2,030	3,290	4,350	4,520	3,280	5,200	2,950	2,850
2	3,980	4,050	4,040	3,930	2,300	3,330	4,290	4,450	4,720	5,180	2,640	2,620
3	3,940	3,480	3,680	3,130	2,130	3,590	3,970	3,920	4,490	4,780	3,550	2,950
4	3,440	3,160	5,020	3,810	2,270	3,380	4,320	4,530	4,640	3,360	3,140	3,050
5	3,720	3,840	4,030	3,280	2,160	3,690	4,130	4,680	4,520	2,380	3,000	2,810
6	4,120	4,290	2,850	4,140	1,840	3,660	4,270	4,690	3,630	3,240	2,940	1,950
7	3,710	4,200	3,610	2,140	1,770	3,620	4,280	4,820	4,120	3,840	2,800	2,500
8	3,870	4,000	3,550	3,790	2,160	3,970	4,040	4,690	4,480	3,930	3,030	3,010
9	4,190	4,050	3,300	2,650	2,130	3,670	4,900	4,020	4,090	4,000	2,920	2,920
10	4,280	4,000	4,210	1,640	2,340	3,670	4,640	4,180	4,600	3,320	3,080	3,060
11	3,780	4,020	3,860	2,240	2,330	4,190	4,080	5,120	4,310	3,250	2,910	2,780
12	3,990	4,100	3,920	2,610	2,630	4,480	4,190	4,660	4,550	2,990	2,770	2,710
13	3,900	4,100	3,870	2,960	2,430	4,690	4,420	4,560	4,550	4,910	2,820	2,410
14	4,030	3,840	3,850	2,850	2,390	4,520	4,630	5,500	6,110	4,570	2,820	2,670
15	4,000	3,620	3,970	3,260	2,550	4,600	4,440	4,480	6,010	3,820	2,300	2,590
16	4,140	3,860	3,930	2,450	2,730	4,490	4,650	4,410	4,860	3,600	2,570	3,130
17	4,020	4,220	3,940	1,420	3,040	4,530	4,510	3,320	4,660	3,290	2,760	2,880
18	3,900	3,890	3,990	2,440	2,700	5,290	3,990	4,020	4,340	2,790	2,940	3,050
19	3,840	3,480	3,340	2,480	3,260	5,270	3,980	4,890	4,310	3,320	2,930	2,670
20	4,140	3,570	3,500	2,530	2,480	5,010	4,370	4,660	4,860	3,690	3,000	2,290
21	4,100	3,840	3,300	2,680	1,820	4,020	4,330	4,850	4,400	3,450	2,790	2,840
22	4,240	3,490	3,630	2,400	2,360	3,600	4,080	4,660	4,510	3,940	2,690	3,090
23	4,310	3,920	3,980	2,360	2,760	4,520	4,770	4,490	4,080	2,890	2,220	3,210
24	4,200	3,240	3,740	1,490	3,020	4,770	4,340	4,660	4,600	3,160	2,710	3,090
25	3,820	3,800	2,900	2,500	3,190	4,860	4,290	4,570	4,980	2,620	2,620	2,780
26	3,880	3,620	2,900	2,200	3,380	4,900	3,720	4,300	4,460	2,840	2,880	3,020
27	4,050	3,720	2,210	2,560	3,050	4,590	4,640	4,390	4,460	3,140	2,940	2,860
28	4,220	3,270	2,900	2,340	2,510	3,070	4,490	4,820	4,680	3,420	3,200	3,000
29	3,780	3,180	2,620	2,380	-	4,660	4,580	5,000	5,440	2,490	2,450	2,980
30	3,700	3,360	2,560	2,270	-	4,990	4,500	4,680	5,010	2,500	2,000	3,420
31	4,010	-	5,410	2,150	-	4,230	-	2,360	-	2,870	2,700	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	125,100	4,310	3,440	3,971	244,200
November	113,630	4,420	3,160	3,788	225,400
December	112,360	5,410	2,210	3,625	222,900
Calendar year 1936	1,699,147	17,600	627	4,642	3,370,000
January	82,750	4,140	1,420	2,669	164,100
February	69,780	3,380	1,770	2,492	138,400
March	131,350	5,290	3,070	4,237	260,500
April	130,190	4,900	3,720	4,340	258,200
May	138,920	5,500	2,360	4,481	275,500
June	137,750	6,110	3,280	4,592	273,200
July	108,680	5,200	2,380	3,506	215,600
August	87,070	3,550	2,000	2,809	172,700
September	85,190	3,420	1,950	2,840	169,000
Water year 1936-37	1,320,770	6,110	1,420	3,618	2,620,000

Missouri River at Loma, Mont.

Location.- Water-stage recorder, lat. 47°56', long. 110°28', in lot 6, SE¼ sec. 8, T. 25 N., R. 10 E., half a mile below mouth of Marias River at Loma.

Records available.- February 1935 to September 1937.

Extremes.- Maximum discharge during year, 15,400 second-feet June 16 (gage height, 6.10 feet); maximum gage height, 11.48 feet Jan. 1 (ice jam); minimum discharge, 948 second-feet (computed) Feb. 2; minimum daily discharge, 1,880 second-feet Aug. 30 (gage height, 2.48 feet).

1935-37: Maximum discharge, 23,700 second-feet May 18, 1936 (gage height, 7.60 feet); maximum gage height, that of Jan. 1, 1937; minimum discharge, 480 second-feet July 5, 6, 1936 (gage height, 1.70 feet); minimum daily discharge, 638 second-feet July 5, 1936 (gage height, 1.82 feet).

Remarks.- Records good except those for periods of ice effect, Dec. 3, 8-17, 27, Dec. 29 to Mar. 27, which were computed on basis of two discharge measurements, gage heights, and weather records and are fair. Operation of power plants above station cause considerable diurnal fluctuation. Numerous diversions from tributaries.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,050	4,260	3,390		2,140	3,450	4,300	6,100	4,640	6,280	3,230	2,870
2	3,850	4,020	3,450		2,000	3,520	4,820	5,720	6,460	6,280	2,690	2,440
3	4,120	3,850	3,780		2,160	3,780	4,470	5,360	6,100	5,910	3,470	2,620
4	3,780	2,780	4,120		2,020	3,980	4,640	5,910	6,100	5,360	3,340	2,980
5	3,460	3,780	3,710		2,000	4,020	5,180	6,460	6,100	3,160	3,340	2,990
6	4,220	3,680	3,450	*3,160	2,060	4,120	†5,360	7,020	5,910	3,260	3,140	2,100
7	3,850	4,640	1,940		1,960	3,980	5,540	7,400	5,720	4,190	2,960	2,960
8	4,020	4,470	2,180		1,940	4,190	5,000	7,210	6,100	4,470	3,030	3,730
9	4,130	3,920	2,160		2,000	4,160	6,100	7,020	5,720	4,640	2,930	3,260
10	4,370	3,680	2,280		2,200	4,260	6,280	5,910	6,280	4,120	3,230	3,290
11	3,950	3,880	2,390		2,390	4,640	6,100	6,460	5,910	3,830	2,990	2,750
12	3,880	3,880	2,850		2,660	5,000	†5,820	6,460	6,650	3,470	2,810	2,910
13	3,950	3,920	3,550		2,730	5,000	†5,550	6,460	7,020	5,640	2,960	2,220
14	3,890	4,050	3,980		2,460	4,470	†5,280	7,020	11,000	6,100	2,900	2,820
15	4,120	3,780	4,050		2,540	4,640	5,000	6,280	13,400	5,720	2,610	2,530
16	4,050	3,780	3,710	*3,000	2,610	4,640	5,720	6,280	13,800	4,640	2,140	2,810
17	4,080	4,190	4,820		2,850	4,820	5,720	4,820	12,400	4,400	2,890	2,830
18	4,050	4,190	4,820		2,750	4,820	5,360	5,720	10,200	3,440	2,630	2,760
19	3,810	3,810	3,520		3,650	5,000	4,400	6,280	9,060	3,520	2,770	2,920
20	4,160	3,710	3,390		3,260	4,820	5,180	6,840	9,060	3,580	2,910	2,210
21	4,220	3,810	3,050		2,970	4,640	6,180	6,840	7,780	3,580	2,890	2,740
22	4,320	3,850	3,390		2,850	3,620	5,180	6,840	7,210	3,720	2,700	2,740
23	4,360	3,620	3,780		2,970	4,640	5,360	6,650	7,400	3,260	2,330	3,030
24	4,130	3,390	3,360		3,000	5,000	5,540	6,100	6,650	3,080	2,330	2,980
25	4,130	3,450	3,200		3,080	5,540	5,540	6,480	7,400	3,060	2,700	2,720
26	3,680	3,810	2,780	*2,400	3,000	3,520	4,260	7,020	6,460	2,270	2,590	2,960
27	4,080	3,390	3,200		3,200	4,820	5,180	6,100	6,840	3,140	2,700	2,550
28	4,150	4,120	1,920		3,360	3,920	5,360	6,460	5,540	3,160	3,060	3,010
29	3,780	2,780	3,050		-	4,120	5,180	7,020	7,020	3,010	2,870	2,900
30	3,950	2,410	2,390		-	5,540	5,720	7,210	6,280	2,040	1,880	2,920
31	3,750	-	2,180		-	4,820	-	5,000	-	3,060	2,440	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	124,340	4,370	3,460	4,011	246,600
November	112,900	4,640	2,410	3,763	223,900
December	99,840	4,820	1,920	3,221	198,000
Calendar year 1936	1,840,268	19,600	636	5,028	3,650,000
January	88,000	-	-	2,839	174,500
February	72,810	3,650	1,940	2,600	144,400
March	137,490	5,540	3,450	4,435	272,700
April	158,320	6,280	4,260	5,277	314,000
May	198,450	7,400	4,820	6,402	393,600
June	226,210	13,800	4,640	7,540	448,700
July	125,290	6,280	2,040	4,042	248,500
August	87,460	3,470	1,880	2,821	173,500
September	84,530	3,730	2,100	2,818	167,700
Water year 1936-37	1,515,640	13,800	1,880	4,152	3,006,000

*Estimated.
†Interpolated.

Missouri River at power-plant ferry near Zortman, Mont.

Location.- Water-stage recorder, lat. 47°44', long. 108°56', in NW¼ sec. 29, T. 23 N., R. 22 E., at power-plant ferry, about 30 miles southwest of Zortman.

Records available.- February 1934 to September 1937.

Extremes.- Maximum discharge during year, 19,000 second-feet June 12 (gage height, 7.22 feet); minimum, 1,220 second-feet (computed) Dec. 13.
1934-37: Maximum discharge, 31,900 second-feet June 13, 1934 (gage height, 9.37 feet); minimum, 1,120 second-feet July 8, 1936 (gage height, 1.92 feet).
Maximum stage recorded, 14.49 feet, while ice was breaking Mar. 16, 1935.

Remarks.- Records good except those for periods of ice effect, Nov. 2-20, Dec. 2 to Apr. 3, which were computed on basis of one discharge measurement, gage heights, and weather records and are poor. Numerous diversions from tributaries. Flow partly regulated by reservoirs. Operation of power plants above station causes considerable fluctuation at medium and low stages.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,940	4,090	3,520		2,400	2,890	6,580	5,670	6,430	6,260	2,790	2,080
2	4,360	4,090	3,520		2,250	2,690	7,200	6,060	5,240	6,250	3,630	2,890
3	3,870	4,340	3,420		2,280	3,520	7,690	5,910	5,520	6,230	3,420	2,790
4	4,240	3,970	3,740		2,160	3,970	7,200	5,720	6,420	5,630	3,100	2,690
5	3,990	3,630	3,520		2,210	4,710	5,960	6,010	6,260	5,350	3,970	3,100
				*3,400								
6	3,630	3,630	3,420		2,030	4,970	5,520	6,460	6,260	3,360	3,630	4,580
7	3,630	3,630	2,890		2,190	4,970	5,960	7,000	6,260	3,200	3,520	3,200
8	3,990	3,740	2,790		2,190	4,970	5,960	7,260	5,960	3,810	3,420	2,490
9	4,020	5,520	1,940		2,140	4,840	5,810	7,360	6,110	4,040	3,310	3,740
10	3,970	4,970	1,940		2,100	4,840	6,400	7,060	6,260	3,920	3,420	3,740
11	4,360	4,970	1,500		2,490	4,970	6,880	6,260	6,730	4,310	3,420	3,420
12	4,240	4,970	1,240		2,690	4,970	6,400	6,580	12,800	4,340	3,420	3,310
13	3,860	4,460	1,220		2,690	5,100	6,100	6,680	10,700	5,240	3,200	3,200
14	4,110	4,090	1,580		2,890	5,100	6,730	6,840	8,200	6,730	3,100	3,000
15	3,990	3,970	1,910		2,890	5,520	6,420	6,940	9,640	6,260	3,200	2,690
				*2,500								
16	4,120	3,970	2,590		2,890	5,380	6,420	6,840	13,700	5,520	3,000	3,000
17	4,050	3,740	3,630		2,880	5,520	6,110	6,380	14,700	4,460	2,690	2,690
18	4,240	3,970	3,970		3,000	5,960	6,260	5,380	14,200	4,460	2,690	3,200
19	4,110	4,340	4,210		3,100	5,810	5,960	5,810	11,000	3,970	3,000	3,100
20	3,990	4,210	4,210		3,000	5,960	5,240	6,480	9,450	3.520	3,100	3,200
21	4,240	3,970	4,340		3,000	6,580	5,810	7,160	9,260	3,740	3,100	2,890
22	4,210	4,090	3,860		3,000	5,810	5,810	6,940	9,080	3,860	3,200	2,690
23	4,360	4,580	3,970		2,490	5,100	5,660	7,000	7,690	3,740	2,890	3,310
24	4,360	4,090	4,210		2,210	3,630	5,660	6,780	7,360	3,860	2,690	3,420
25	4,360	4,090	4,340		3,310	4,560	6,260	6,540	6,730	3,310	2,300	3,310
26	4,240	3,740	3,860	*2,540	3,420	4,840	5,810	6,630	7,690	3,520	2,890	3,310
27	4,090	4,340	3,420		3,200	4,970	5,240	6,730	6,420	3,100	2,790	3,100
28	4,210	3,860	3,310		3,100	5,100	5,240	6,690	6,880	3,100	2,890	3,310
29	4,140	3,970	3,100		-	4,840	5,520	6,160	5,300	3,520	3,100	3,520
30	4,240	3,740	3,000		-	4,460	5,520	6,880	6,880	3,630	3,310	3,420
31	4,090	-	2,590		-	4,840	-	7,200	-	3,000	2,690	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	127,830	4,360	3,630	4,124	253,500
November	124,770	5,570	3,630	4,159	247,500
December	96,760	4,340	1,220	3,121	191,900
Calendar year 1936	1,940,720	20,100	1,220	5,303	3,849,000
January	86,940	-	-	2,805	172,400
February	74,190	3,420	2,030	2.650	147,200
March	151,410	6,580	2,690	4.884	300,300
April	183,330	7,890	5,240	6,111	363,600
May	203,310	7,360	5,380	6,558	403,300
June	245,130	14,700	5,240	8,171	486,200
July	135,240	6,730	3,000	4,363	268,200
August	96,680	3,970	2,300	3,119	191,800
September	94,390	4,580	2,080	3,146	187,200
Water year 1936-37	1,619,980	14,700	1,220	4,438	3,213,000

*Estimated.

Missouri River below Fort Peck Dam, Mont.

Location.- Water-stage recorder, lat. 48°03', long. 106°22', in SE¼ sec. 36, T. 27 N., R. 41 E., 4 miles below Fort Peck Dam and 6 miles south of Nashua, Mont.

Records available.- March 1934 to September 1937.

Extremes.- Maximum discharge observed during year, 33,100 second-feet June 14 (gage height, 9.95 feet); minimum (computed), 1,010 second-feet Dec. 9.
1934-37: Maximum discharge observed, that of June 14, 1937; maximum gage height, 12.30 feet Mar. 10, 1936 (ice present); minimum discharge observed, 935 second-feet Jan. 3, 1935 (gage height, 3.83 feet; ice present).

Remarks.- Records good except those for periods of ice effect, Nov. 1-15, Nov. 29 to Apr. 9, which were computed on basis of 13 discharge measurements, gage heights, and weather records and are fair. Numerous diversions from tributaries. Flow partly regulated by reservoirs.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,940	4,230	3,940	3,760	2,400	2,760	6,000	5,430	6,470	7,200	3,180	2,900
2	3,760	4,030	3,760	3,100	2,150	2,960	6,000	5,540	6,470	6,950	3,250	2,900
3	3,760	3,760	3,330	2,640	2,050	3,330	6,000	5,770	6,710	6,710	3,250	3,030
4	3,850	3,850	2,570	2,390	2,300	3,500	5,770	5,770	6,950	6,710	3,500	3,030
5	3,940	3,850	2,450	2,160	2,100	3,940	6,710	5,770	5,770	6,710	3,670	2,810
6	4,040	3,760	2,450	2,000	1,900	6,230	7,200	6,100	5,540	6,470	3,330	2,770
7	3,950	2,760	2,600	2,330	1,800	5,770	6,950	6,010	6,230	6,230	2,960	2,690
8	3,920	2,160	1,410	3,180	2,250	5,770	7,200	5,760	6,230	6,000	2,700	2,510
9	4,040	2,390	1,060	3,250	2,510	5,770	7,450	6,010	6,230	5,540	2,830	2,610
10	3,760	2,640	1,090	3,180	2,510	6,230	7,450	6,530	6,230	4,800	3,250	3,490
11	3,920	2,450	1,160	3,180	2,670	6,230	6,950	6,570	6,230	4,310	3,250	5,000
12	3,950	5,000	1,200	3,030	2,570	5,770	6,230	7,040	6,470	4,400	3,180	3,940
13	3,660	5,000	1,300	2,900	2,570	5,540	6,710	7,290	17,700	4,700	3,030	2,710
14	3,850	4,500	1,260	3,030	2,450	5,540	7,200	6,790	27,600	4,800	3,030	3,940
15	3,940	4,700	1,340	2,760	2,390	5,620	6,710	6,300	18,000	5,430	3,030	3,370
16	4,030	5,220	1,660	3,030	2,570	5,700	6,230	6,540	12,800	7,970	3,030	2,430
17	3,850	5,220	2,450	2,960	2,700	5,770	6,470	6,330	10,200	10,900	2,960	2,440
18	3,890	5,110	3,580	2,640	2,900	5,840	6,710	6,330	12,200	9,340	2,830	2,600
19	3,940	5,000	4,700	2,390	2,900	5,920	6,710	6,330	14,700	7,710	2,700	2,630
20	4,030	4,900	5,000	2,570	2,960	6,000	6,470	6,330	14,700	6,470	2,760	2,690
21	4,030	5,110	5,110	2,700	2,960	6,000	6,470	5,970	13,800	4,900	2,700	2,990
22	4,120	4,500	5,110	2,760	2,960	6,230	6,230	5,640	10,600	4,030	2,570	3,670
23	4,120	4,700	5,110	2,830	3,030	6,230	6,000	5,870	9,640	4,120	2,640	3,410
24	4,220	4,120	5,110	2,640	3,100	6,230	5,770	6,330	8,770	4,030	2,700	3,250
25	4,120	4,030	5,000	2,390	3,180	7,200	6,000	6,710	6,950	4,030	2,760	2,910
26	4,220	4,120	4,700	2,390	3,330	6,230	6,000	6,710	8,770	3,940	2,830	2,460
27	4,220	4,120	4,400	2,450	3,250	6,710	6,000	6,710	7,970	4,030	2,830	2,840
28	4,320	4,030	4,030	2,500	2,960	6,000	6,000	6,570	7,450	4,030	2,760	4,400
29	4,320	3,940	4,220	2,540	-	5,430	6,000	6,230	7,200	3,760	2,760	3,940
30	4,200	3,850	4,220	2,500	-	5,540	5,770	6,470	7,200	3,580	2,760	3,160
31	4,140	-	4,030	2,500	-	5,770	-	6,710	-	3,250	2,760	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	124,250	4,320	3,760	4,008	246,400
November	123,050	5,220	2,160	4,102	244,100
December	98,750	5,110	1,060	3,185	195,900
Calendar year 1936	2,107,470	24,900	1,060	5,758	4,180,000
January	84,680	3,760	2,000	2,732	168,000
February	73,320	3,330	1,800	2,619	145,400
March	171,760	7,200	2,760	5,541	340,700
April	193,360	7,450	5,770	6,445	383,500
May	194,460	7,290	5,430	6,273	385,700
June	290,780	27,600	5,540	9,693	576,800
July	173,050	10,900	3,250	5,582	343,200
August	91,790	3,670	2,570	2,961	182,100
September	93,440	5,000	2,430	3,115	185,300
Water year 1936-37	1,712,690	27,600	1,060	4,692	3,397,000

Missouri River near Wolf Point, Mont.

Location.- Water-stage recorder, lat. 48°04', long. 105°33', in NW¼ sec. 28, T. 27 N., R. 48 E., at highway bridge, 6 miles southeast of Wolf Point.

Drainage area.- 82,400 square miles.

Records available.- April 1930 to September 1937. September 1928 to April 1930, at ferry crossing at Wolf Point, 6 miles upstream, records equivalent.

Extremes.- Maximum discharge observed during year, 23,900 second-feet June 14 (gage height, 10.44 feet); minimum, 1,120 second-feet (computed) Dec. 10.
1928-37: Maximum discharge, 41,000 second-feet May 23, 1932; maximum gage height, 17.45 feet Mar. 30, 1930; minimum, that of Dec. 10, 1936.

Remarks.- Records good except those for periods of ice effect, Nov. 2-20, Dec. 3 to Apr. 10, which were computed on basis of 12 discharge measurements, gage heights, and weather records, and are fair. Numerous diversions from tributaries. Flow partly regulated by operation of power plants above station. Staff gage read once daily Oct. 1 to July 9.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,770	4,280	4,190	4,200			5,870	5,750	6,590	7,460	3,300	2,780
2	3,850	4,280	4,100	4,000			5,660	5,350	6,380	7,240	4,450	2,850
3	3,770	4,190	2,440	3,000	*2,500	*3,400	5,660	5,350	6,170	7,020	3,220	2,850
4	3,690	4,100	1,320	2,500			5,460	5,750	6,590	6,590	3,300	3,000
5	3,770	4,190	1,360	2,710			5,460	5,750	6,800	6,800	3,300	3,150
6	3,770	3,940	1,240	3,070	2,510		5,870	5,960	5,750	6,590	3,890	2,850
7	3,850	3,530	1,360	2,710	2,440		8,270	5,960	5,150	6,380	3,720	2,570
8	3,940	2,850	1,280	2,780	2,380	*5,950	8,530	6,170	5,750	6,170	3,000	2,570
9	4,020	2,440	1,240	2,780	2,440		12,000	5,960	6,170	5,960	2,850	2,300
10	3,940	2,260	1,120	2,850	2,320		11,000	6,170	5,960	5,550	3,000	2,430
11	3,770	2,380	1,160	3,000	2,380		10,000	6,170	5,960	4,950	3,300	2,780
12	3,850	3,530	1,320	3,300	2,320		9,420	6,800	6,170	4,550	3,540	4,650
13	3,770	4,360	1,320	3,300	2,380		9,710	7,240	10,600	4,650	3,380	4,550
14	3,770	6,300	1,450	3,200	2,440		10,000	7,460	23,900	5,350	3,300	3,080
15	3,690	6,080	1,540	3,000	2,440	*5,800	10,000	7,240	19,000	5,150	3,150	3,630
16	3,610	5,870	1,540	2,900	2,440		9,420	6,380	12,900	5,550	3,080	3,890
17	3,770	5,870	1,540	2,800	2,580		8,880	6,590	11,900	8,620	3,080	2,640
18	3,690	5,660	1,720	2,600	2,640		8,880	6,170	11,900	10,600	3,080	2,500
19	3,770	5,460	2,200	2,510	2,930		8,750	6,590	15,500	9,150	2,920	2,570
20	3,690	5,070	3,000	2,510	3,220		8,220	6,380	17,800	7,900	2,780	2,640
21	3,690	5,070	3,940	2,510	3,220		7,900	6,380	17,000	6,800	2,780	2,640
22	3,940	4,710	4,710	2,580	3,220		7,240	5,960	15,100	6,170	2,780	2,780
23	3,850	4,710	4,710	2,510	3,220		6,380	5,350	13,600	5,350	2,570	3,720
24	4,020	4,710	4,710	2,510	3,220		6,470	5,550	12,200	4,950	2,570	3,890
25	4,100	4,360	4,890	2,510	3,220	*6,400	6,260	5,960	10,900	4,650	2,640	3,630
26	3,850	4,280	5,070	2,440	3,220		6,470	6,590	9,150	4,450	2,710	3,460
27	4,100	4,100	4,890	2,510	3,140		6,470	6,590	10,000	4,260	2,780	2,640
28	4,100	4,100	5,260	2,580	3,140		6,260	6,590	8,620	4,260	2,780	2,640
29	4,280	4,100	4,280	2,640	-	5,460	6,060	6,590	7,900	4,160	2,780	3,980
30	4,190	4,280	4,320	2,510	-	5,660	6,470	6,170	7,680	3,890	2,710	4,350
31	4,360	-	4,360	2,500	-	6,080	-	6,170	-	3,800	2,710	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	120,230	4,360	3,610	3,878	238,500
November	131,060	6,300	2,260	4,369	260,000
December	87,580	5,260	1,120	2,825	173,700
Calendar year 1936	2,279,530	27,400	1,120	6,226	4,522,000
January	87,420	4,200	2,440	2,820	173,400
February	75,960	3,220	2,320	2,713	150,700
March	173,150	-	-	5,585	343,400
April	233,040	12,000	5,460	7,768	462,200
May	193,090	7,460	5,350	6,229	383,000
June	309,090	23,900	5,150	10,300	613,100
July	184,970	10,600	3,800	5,967	366,900
August	95,450	4,450	2,570	3,079	189,300
September	94,010	4,650	2,300	3,134	186,500
Water year 1936-37	1,785,050	23,900	1,120	4,891	3,541,000

*Estimated.

Missouri River near Williston, N. Dak.

Location.- Water-stage recorder, lat. 48°07', long. 103°44', in sec. 31, T. 154 N., R. 101 W., at Lewis & Clark highway bridge, 7 miles west of Williston.

Drainage area.- 164,500 square miles.

Records available.- September 1928 to September 1937.

Extremes.- Maximum discharge during year, 88,300 second-feet June 16 (gage height, 10.27 feet); minimum, 2,490 second-feet (computed) Dec. 10-12.
1928-37: Maximum discharge, 231,000 second-feet Apr. 4, 1930 (gage height, 18.0 feet); minimum, that of Dec. 10-12, 1936.
Maximum stage recorded, 18.6 feet, while ice was breaking Apr. 4, 1930.

Remarks.- Records good except those for periods of ice effect, Nov. 1-24, Dec. 3 to Apr. 10, which were computed from 13 discharge measurements, gage heights, and weather records and are fair. Numerous diversions above station. Several reservoirs on tributaries.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,400	9,130	9,850	7,420	5,100	6,080	11,300	12,100	34,200	57,600	11,400	4,570
2	7,920	9,130	9,850	7,420	5,210	6,210	12,500	11,700	36,700	33,800	11,800	4,670
3	7,920	8,770	9,850	6,080	5,320	6,210	13,300	11,300	35,000	31,400	13,900	4,880
4	7,920	8,770	9,490	5,810	5,320	6,080	12,900	11,700	31,400	31,400	14,300	4,670
5	8,080	8,770	7,920	5,320	5,100	5,940	13,300	11,700	28,100	31,400	13,000	4,880
6	8,250	7,750	6,210	4,700	5,000	6,210	14,100	11,300	27,000	27,000	11,000	5,190
7	8,250	6,790	5,000	4,400	5,100	6,490	17,100	10,900	29,200	25,100	10,200	6,270
8	8,420	6,490	4,400	4,100	5,210	8,420	23,900	10,600	35,000	24,200	9,890	8,880
9	8,770	6,210	3,420	3,900	5,320	11,300	25,800	10,600	35,000	22,600	9,540	6,670
10	8,770	5,810	2,490	3,800	5,320	14,100	27,200	10,900	31,400	21,800	8,570	6,050
11	8,770	5,810	2,490	3,800	5,440	14,600	19,000	11,700	30,300	26,000	8,000	6,680
12	8,770	7,580	2,490	3,610	5,440	14,600	16,700	13,700	30,300	36,300	7,470	6,270
13	8,630	8,420	2,870	3,420	5,560	14,600	16,700	16,200	37,600	40,200	7,220	6,050
14	8,480	8,770	3,140	3,700	5,680	14,100	16,200	18,500	51,400	43,000	7,220	6,270
15	8,320	9,850	3,040	3,900	5,680	14,100	16,700	19,000	75,800	47,200	7,220	7,220
16	8,480	11,300	3,320	4,200	5,810	14,100	17,100	19,500	88,300	50,000	6,970	7,470
17	8,320	12,500	5,100	4,100	5,810	15,400	17,100	19,000	63,400	52,900	6,730	6,970
18	8,320	14,100	5,940	3,800	5,680	15,800	16,200	17,600	51,400	45,800	6,500	6,970
19	8,320	14,600	5,940	3,900	5,560	15,400	15,800	16,700	48,600	43,000	6,270	6,730
20	8,670	11,300	6,080	4,200	5,560	14,600	15,800	17,600	53,400	40,200	6,050	5,830
21	8,490	11,300	6,940	4,700	5,680	14,100	16,200	18,500	62,800	35,000	5,830	5,610
22	8,280	11,700	7,420	5,000	5,680	14,100	17,600	20,500	66,000	29,200	5,610	5,610
23	8,660	11,300	7,920	5,000	5,940	17,100	17,600	24,500	62,400	25,100	5,400	5,610
24	8,840	10,900	8,420	5,100	5,940	17,100	16,200	26,500	60,800	21,800	5,400	5,610
25	8,850	10,900	8,080	5,320	6,080	15,400	14,600	27,200	66,000	18,900	5,300	5,830
26	8,670	10,600	7,750	5,560	6,080	14,100	13,700	25,100	69,800	17,200	5,080	6,500
27	8,850	10,200	7,750	5,810	6,080	12,900	12,900	22,600	66,200	15,200	4,980	6,730
28	8,670	9,850	7,750	5,810	6,080	12,100	12,900	24,800	53,200	14,300	4,770	6,970
29	8,620	9,490	7,100	5,440	-	12,100	12,900	28,500	47,700	13,400	4,670	7,430
30	8,850	9,490	7,260	5,000	-	11,700	12,900	28,500	41,600	12,600	4,570	8,280
31	8,840	-	7,260	5,000	-	11,300	-	30,700	-	11,600	4,570	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	262,400	8,850	7,400	8,465	520,500
November	287,580	14,600	5,810	9,586	570,400
December	192,340	9,850	2,490	6,205	381,500
Calendar year 1936	5,664,720	62,500	2,490	15,480	11,240,000
January	149,320	7,420	3,420	4,817	296,200
February	155,780	6,080	5,000	5,564	309,000
March	376,340	17,100	5,940	12,140	746,500
April	486,200	27,200	11,300	16,210	964,400
May	559,700	30,700	10,600	18,050	1,110,000
June	1,450,000	88,300	27,000	48,330	2,876,000
July	925,400	52,900	11,800	29,850	1,836,000
August	239,430	14,300	4,570	7,724	474,900
September	187,570	8,880	4,570	6,252	372,000
Water year 1936-37	5,272,060	88,300	2,490	14,440	10,460,000

Missouri River at Bismarck, N. Dak.

Location.- Water-stage recorder, lat. 46°48'30", long. 100°49'05", in sec. 31, T. 139 N., R. 80 W., at Memorial Highway Bridge, 1 mile west of Bismarck and about 4 miles above Heart River. Zero of gage is 1,617.91 feet above mean sea level (general adjustment of 1929).

Drainage area.- 186,400 square miles.

Records available.- September 1904 to December 1905, October 1927 to September 1937.

Extremes.- Maximum discharge during year, 98,900 second-feet June 18 (gage height, 12.65 feet); minimum, about 3,100 second-feet Dec. 13; minimum gage height observed, 1.90 feet Sept. 5.

1904-5, 1927-37: Maximum discharge, 201,000 second-feet Mar. 24, 1928; maximum gage height, 17.8 feet, former site and datum, Mar. 27, 1929 (ice jam); minimum discharge, that of Dec. 13, 1936; minimum gage height, 1.35 feet, former site and datum, Sept. 4, 1934.

Maximum stage known, about 30.4 feet, former site and datum, Mar. 31, 1881, Mar. 14, 1910 (ice jams).

Remarks.- Records good except those for period of ice effect, Nov. 1 to Apr. 12, which were computed on basis of seven discharge measurements, gage heights, weather records, engineer's and observer's notes, and records for nearby stations and are fair.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,250	8,900	9,700	9,900	5,200	5,400	17,200	13,600	23,400	42,300	15,200	5,080
2	7,250	8,800	8,800	10,300	5,300	5,500	16,700	13,400	27,200	38,800	14,400	4,980
3	7,250	8,700	8,200	10,500	5,300	5,500	16,200	13,200	29,700	36,200	14,000	4,990
4	7,360	8,500	7,500	10,400	5,400	5,500	15,800	13,000	34,400	33,900	13,600	4,940
5	7,470	8,300	6,700	10,100	5,500	5,700	15,500	12,600	34,800	31,400	13,400	4,850
6	7,580	8,200	6,000	9,600	5,600	5,900	15,200	12,200	30,100	30,900	13,200	4,940
7	7,920	8,200	5,400	8,800	5,700	6,300	15,100	12,000	27,200	29,700	14,200	4,750
8	8,280	8,300	4,800	8,200	5,700	7,600	15,500	12,000	26,400	28,900	14,700	4,940
9	8,280	8,400	4,200	7,500	5,700	8,500	17,000	11,900	24,900	27,200	14,400	5,040
10	8,280	8,700	3,700	6,700	5,700	9,000	24,000	11,700	29,400	25,800	13,200	5,130
11	8,280	8,900	3,400	6,100	5,700	10,800	34,000	11,900	35,500	25,500	11,900	4,940
12	8,280	9,100	3,200	5,250	5,700	9,200	42,000	11,900	33,400	26,900	11,200	7,740
13	8,160	9,500	3,100	4,750	5,700	9,200	33,900	11,800	32,400	26,400	10,500	7,480
14	8,280	9,600	3,300	4,300	5,600	9,400	24,600	11,800	33,400	25,300	9,900	7,810
15	8,520	10,300	3,600	4,250	5,600	9,700	20,200	12,600	40,000	30,900	9,230	7,260
16	8,320	10,800	3,800	4,200	5,500	10,200	19,100	12,900	69,200	44,200	8,450	6,820
17	8,220	11,100	3,900	4,100	5,400	10,700	18,600	14,300	89,100	66,200	7,840	6,930
18	8,380	11,000	4,000	4,100	5,300	11,200	18,300	16,800	94,500	72,200	7,400	7,040
19	8,250	11,000	4,000	4,100	5,200	11,800	18,100	18,600	71,600	61,500	7,370	6,720
20	8,340	13,800	4,000	4 100	5,200	12,600	17,400	19,900	54,000	47,000	6,960	6,960
21	8,340	16,000	3,900	4,200	5,200	13,500	17,000	19,900	48,600	38,800	6,850	7,090
22	8,730	18,000	3,800	4,250	5,200	14,500	16,100	19,300	55,600	35,700	6,600	7,370
23	8,530	12,200	3,700	4,250	5,200	15,400	16,200	19,400	65,100	31,400	6,500	7,410
24	8,470	10,100	3,800	4,300	5,200	16,800	16,400	19,400	63,600	28,000	6,290	7,470
25	8,590	9,700	4,200	4,300	5,200	18,600	16,400	19,800	59,000	26,800	5,980	7,040
26	8,720	9,800	4,800	4,500	5,200	20,900	16,600	23,100	60,900	24,600	5,670	6,820
27	9,050	10,000	5,800	4,600	5,200	21,600	16,000	29,700	64,600	22,100	5,770	6,280
28	9,170	10,200	6,600	4,700	5,300	21,700	15,600	28,900	69,500	20,500	5,570	6,160
29	9,270	10,200	7,400	4,700	-	21,000	14,800	25,700	66,600	18,800	5,370	5,950
30	9,400	10,000	8,500	4,800	-	18,700	14,200	23,100	52,400	17,000	5,180	5,870
31	9,200	-	9,200	5,000	-	17,800	-	22,100	-	16,200	5,080	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	257,420	9,400	7,250	8,304	510,600
November	306,500	10,000	8,200	10,220	607,900
December	165,000	9,700	3,100	5,258	323,300
Calendar year 1936	5,687,830	95,200	3,100	15,540	11,280,000
January	186,850	10,500	4,100	6,027	370,600
February	151,700	5,700	5,200	5,418	300,900
March	378,400	21,700	5,400	12,210	750,500
April	573,700	42,000	14,200	19,120	1,136,000
May	518,500	29,700	11,700	16,730	1,028,000
June	1,446,500	94,500	23,400	48,220	2,869,000
July	1,031,100	72,200	16,200	33,260	2,045,000
August	295,910	15,200	5,080	9,545	586,900
September	186,800	7,810	4,750	6,227	370,500
Water year 1936-37	5,496,380	94,500	3,100	15,060	10,900,000

Missouri River near Mobridge, S. Dak.

Location.- Water-stage recorder, lat. 45°32', long. 100°29', in sec. 7, T. 18 N., R. 30 E., at bridge on U. S. Highway 12, 3 miles west of Mobridge. Zero of gage is 1,527.19 feet above mean sea level (general adjustment of 1929).

Drainage area.- 208,700 square miles.

Records available.- August 1928 to September 1937.

Extremes.- Maximum discharge during year, 105,000 second-feet June 18 (gage height, 10.80 feet); minimum, 2,900 second-feet (computed) Dec. 13, 14; minimum gage height observed, 2.04 feet Dec. 16.

1928-37: Maximum discharge, 164,000 second-feet Mar. 29, 1929; maximum gage height, 12.65 feet Mar. 18, 1936 (ice jam); minimum discharge, that of Dec. 13, 14, 1936; minimum gage height, 1.00 foot Sept. 6, 7, 1934.

Remarks.- Records good except those for periods of ice effect, Nov. 1-20, Dec. 3 to Apr. 13, which were computed on basis of eight discharge measurements gage heights, weather records, engineer's notes, and records for nearby stations and are fair.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,120	9,000	10,800	7,900	4,800	5,600	16,300	16,200	21,200	52,000	18,200	5,900
2	7,120	9,600	9,780	8,400	4,600	5,600	16,300	15,200	20,900	43,600	17,300	5,780
3	6,600	10,300	8,700	8,800	4,800	5,600	16,000	14,600	23,000	39,200	16,200	5,670
4	6,990	11,000	7,800	9,300	4,800	5,700	15,700	13,900	28,400	35,000	15,200	5,620
5	7,120	9,700	6,900	9,700	4,800	6,000	15,300	13,700	39,600	31,800	15,000	5,470
6	7,120	9,500	6,100	9,800	4,900	11,000	15,200	13,500	40,400	29,800	14,000	5,420
7	7,240	9,700	5,400	9,600	4,900	14,200	15,100	13,300	42,600	29,000	13,900	5,420
8	7,240	9,600	4,700	9,600	5,000	16,000	15,100	13,000	38,000	28,800	13,900	5,580
9	7,510	9,600	4,200	9,100	5,000	17,200	15,400	12,600	28,200	28,400	14,600	5,580
10	7,650	9,600	3,700	8,100	5,000	16,900	17,600	12,400	24,200	28,400	15,000	5,580
11	7,930	9,600	3,300	7,300	5,200	16,500	35,300	12,400	26,400	27,200	14,600	5,680
12	8,210	9,700	3,000	6,600	5,200	16,100	61,000	12,400	36,000	27,100	13,300	5,680
13	8,210	9,800	2,900	5,800	5,200	15,900	70,700	12,600	40,000	28,700	11,900	5,900
14	8,210	9,800	2,900	5,200	5,300	15,300	41,200	12,400	47,200	29,600	11,100	6,020
15	8,110	9,700	3,000	4,700	5,300	14,600	29,600	12,100	57,600	29,000	10,500	7,160
16	8,350	9,900	3,100	4,400	5,300	14,000	24,300	12,100	62,600	30,200	10,100	7,750
17	8,350	10,000	3,300	4,200	5,300	13,500	20,900	12,100	96,000	47,400	9,480	7,760
18	8,480	10,400	3,400	3,600	5,300	12,900	20,200	12,300	102,000	69,400	8,770	7,480
19	8,630	10,500	3,500	3,800	5,300	12,500	19,700	13,000	101,000	74,000	8,220	7,350
20	8,910	10,900	3,600	3,800	5,300	12,400	18,400	15,200	70,800	68,200	7,680	7,090
21	8,770	11,300	3,800	4,100	5,300	12,300	18,400	17,700	55,300	51,000	7,550	7,060
22	8,770	14,800	4,200	4,300	5,300	12,500	18,000	18,900	53,600	42,400	7,290	7,160
23	8,520	14,600	4,500	4,500	5,300	12,600	17,500	19,200	60,700	38,400	7,160	7,420
24	8,630	10,800	4,700	4,500	5,400	12,900	17,300	18,700	65,600	34,900	6,900	7,500
25	8,760	9,760	4,900	4,600	5,500	13,300	17,300	18,400	62,600	30,400	6,900	7,580
26	8,620	9,630	5,000	4,700	5,600	13,700	16,900	18,200	58,000	27,100	6,650	7,300
27	8,660	10,100	5,300	4,700	5,600	14,000	16,900	18,900	58,000	26,000	6,400	7,040
28	8,660	10,200	5,700	4,800	5,700	14,400	17,100	24,800	62,600	23,900	6,400	6,880
29	8,760	11,000	6,300	4,800	-	14,900	17,500	28,400	65,600	22,000	6,150	6,600
30	8,670	11,100	6,600	4,800	-	15,500	17,300	26,800	53,600	20,600	6,020	6,150
31	8,870	-	7,400	4,800	-	16,000	-	23,400	-	19,200	5,900	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	251,190	8,910	6,800	8,103	498,200
November	311,210	14,800	9,000	10,370	617,300
December	158,680	10,800	2,900	5,119	314,700
Calendar year 1936	5,795,210	99,100	2,900	15,830	11,500,000
January	190,700	9,600	3,600	6,152	378,200
February	145,200	5,700	4,600	5,166	288,000
March	399,600	17,200	5,600	12,890	792,600
April	673,500	70,700	15,100	22,450	1,336,000
May	496,400	28,400	12,100	16,080	988,600
June	1,551,700	102,000	20,900	51,720	3,078,000
July	1,112,700	74,000	19,200	35,890	2,207,000
August	332,270	18,200	5,900	10,720	659,000
September	194,600	7,780	5,420	6,487	386,000
Water year 1936-37	5,819,750	102,000	2,900	15,940	11,540,000

Missouri River at Pierre, S. Dak.

Location.- Water-stage recorder, lat. 44°22'25", long. 100°22'05", in SW¼ sec. 32, T. 111 N., R. 79 W., at Chicago and North Western Railway bridge at Pierre, 1½ miles above Bad River. Zero of gage is 1,414.41 feet above mean sea level (general adjustment of 1929).

Drainage area.- 243,500 square miles.

Records available.- October 1929 to September 1937.

Extremes.- Maximum discharge during year, 120,000 second-feet June 20 (gage height, 12.00 feet); minimum, 3,500 second-feet (computed) Dec. 12; minimum gage height, 1.65 feet Nov. 8.

1929-37: Maximum discharge, 131,000 second-feet July 14, 1935 (gage height, 12.25 feet); minimum, that of Dec. 12, 1936; minimum gage height, 0.26 foot (present datum) Nov. 27, 1931.

Maximum stage known, 21.0 feet in March 1881 (ice jam, relation to present datum not known).

Remarks.- Records good except those for periods of ice effect, Nov. 3-11, Dec. 2 to Apr. 13, which were computed on basis of nine discharge measurements, gage heights, engineer's and observer's notes, weather records, and records for nearby stations and are fair. Gage heights computed from graph based on U. S. Weather Bureau readings Jan. 1-3, 8-14, Jan. 27 to Mar. 18, Aug. 7-11.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,350	8,900	12,000	4,800	4,800	5,300	16,600	17,000	26,200	64,200	21,500	6,500
2	7,500	9,080	11,200	4,800	5,050	5,400	17,200	17,000	24,000	52,200	20,000	6,250
3	7,350	10,200	10,200	4,800	5,150	5,700	17,600	16,600	22,900	44,000	19,100	6,120
4	7,350	10,500	9,200	4,900	5,200	11,400	18,600	15,600	23,900	39,400	18,300	6,000
5	7,200	9,000	8,100	5,200	5,200	15,000	20,000	15,200	27,600	35,300	16,800	6,000
6	7,050	7,250	6,900	5,900	5,200	17,500	19,600	14,400	40,500	32,400	15,900	5,850
7	7,200	5,750	5,800	6,750	5,200	18,700	19,600	14,000	42,100	30,600	15,200	5,820
8	7,200	4,900	5,000	7,600	5,200	17,500	20,000	13,800	47,800	29,600	14,600	5,820
9	7,200	5,100	4,200	8,300	5,200	16,800	19,000	13,600	44,600	28,800	14,200	6,080
10	7,350	5,500	3,700	9,000	5,200	16,100	19,000	13,200	33,800	28,000	14,200	6,200
11	7,500	5,900	3,600	9,600	5,200	15,400	20,300	12,600	28,000	28,800	14,000	6,080
12	7,800	6,620	3,500	9,800	5,200	15,200	38,400	12,900	29,400	28,200	14,800	5,950
13	7,950	7,650	3,700	9,250	5,200	14,900	57,600	12,700	42,600	36,300	14,800	5,820
14	8,250	9,780	4,200	8,600	5,200	14,700	61,200	12,900	52,500	91,200	14,200	5,820
15	8,400	9,950	4,300	7,750	5,300	14,300	45,900	12,000	57,200	56,200	13,000	5,720
16	8,400	8,400	4,300	7,200	5,300	14,200	32,800	12,300	70,200	53,200	12,000	6,080
17	8,400	7,800	4,400	6,500	5,300	13,000	28,600	12,100	77,900	46,400	11,600	6,450
18	8,400	7,650	4,600	5,800	5,300	13,700	24,300	11,700	101,000	48,800	10,800	7,000
19	8,550	8,250	4,700	5,250	5,200	13,500	22,000	11,600	109,000	83,400	10,300	7,650
20	8,550	14,000	4,750	4,700	5,200	13,300	20,600	11,600	110,000	67,600	9,600	7,650
21	8,720	14,600	4,800	4,200	5,200	13,100	19,500	13,000	74,200	79,200	8,900	7,500
22	8,720	13,600	4,800	3,750	5,200	12,800	19,500	14,800	59,200	62,000	8,400	7,300
23	8,550	14,000	4,800	3,750	5,200	12,600	19,000	16,100	56,200	48,100	7,800	7,250
24	8,550	19,100	4,900	3,800	5,200	12,400	18,800	18,000	63,200	43,300	7,500	6,720
25	8,720	17,600	4,900	3,950	5,200	12,300	18,800	18,800	67,200	39,400	7,200	6,820
26	8,720	14,800	4,900	4,100	5,250	12,200	18,300	19,100	64,200	33,800	7,200	7,100
27	8,720	13,000	4,800	4,200	5,250	12,400	17,000	19,100	59,200	30,100	7,200	7,250
28	8,720	12,000	4,800	4,300	5,300	13,600	16,100	18,600	59,200	28,000	7,650	7,400
29	8,550	12,200	4,800	4,350	-	14,800	16,100	19,100	63,200	26,400	7,800	7,450
30	8,720	12,400	4,800	4,550	-	14,900	16,400	25,300	66,200	24,600	6,750	7,050
31	8,720	-	4,800	4,750	-	15,600	-	29,100	-	22,800	6,500	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	250,380	8,720	7,050	8,076	496,600
November	305,480	19,100	4,900	10,180	605,900
December	171,450	12,000	3,500	5,551	340,100
Calendar year 1936	5,951,070	86,300	3,500	16,260	11,800,000
January	182,200	9,800	3,750	5,877	361,400
February	145,600	5,300	4,800	5,200	288,800
March	419,200	18,700	5,300	13,520	831,500
April	718,400	61,200	16,100	23,950	1,425,000
May	483,800	29,100	11,600	15,610	959,600
June	1,643,200	110,000	22,900	54,770	3,259,000
July	1,382,300	91,200	23,800	44,590	2,742,000
August	377,800	21,500	6,500	12,190	749,400
September	196,700	7,650	5,720	6,557	390,100
Water year 1936-37	6,276,490	110,000	3,500	17,200	12,450,000

Missouri River at Yankton, S. Dak.

Location.- Water-stage recorder, lat. 42°52', long. 97°24', between sec. 18, T. 93 N., R. 55 W., and sec. 13, T. 93 N., R. 56 W., at Meridian Highway bridge in Yankton, 7 miles above James River. Zero of gage is 1,159.75 feet above mean sea level (general adjustment of 1929).

Drainage area.- 279,500 square miles.

Records available.- November 1930 to September 1937.

Extremes.- Maximum discharge during year, 112,000 second-feet June 22 (gage height, 9.60 feet); minimum, about 4,700 second-feet Dec. 15, 16; minimum gage height, 0.60 foot Sept. 21.

1930-37: Maximum discharge, 130,000 second-feet July 16, 1935; maximum gage height, 10.30 feet (present datum), Mar. 3, 1934; minimum discharge, about 3,500 second-feet Dec. 29, 1934; minimum gage height, -0.05 foot (present datum) Nov. 30, 1931.

Maximum stage known, 30.5 feet (present datum) Apr. 5, 1881 (ice jam).

Remarks.- Records good except those for period of ice effect, Dec. 4 to Mar. 19, which were computed on basis of three discharge measurements, gage heights, engineer's and observer's notes, weather records, and records for nearby stations and are fair. Gage heights computed from graph based on U. S. Weather Bureau readings Oct. 25-31, Nov. 30 to Dec. 9, Mar. 10 to 31.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,600	10,800	15,400	5,800	6,200	8,000	14,600	19,300	21,300	58,800	28,800	9,740
2	9,200	10,600	13,300	5,800	5,900	8,100	15,800	18,300	21,600	59,700	26,900	9,740
3	9,200	11,000	11,800	5,750	5,750	8,200	17,200	18,300	28,000	61,500	25,400	9,920
4	9,200	10,200	10,800	5,750	5,600	8,300	19,000	19,000	29,500	57,200	24,400	9,570
5	9,000	9,600	8,700	5,750	5,500	8,500	21,000	19,300	28,800	49,200	22,300	9,400
6	8,800	10,000	7,900	5,750	5,500	9,750	22,300	19,000	29,500	44,100	20,300	8,900
7	8,800	10,200	7,600	5,750	5,500	12,300	23,400	19,000	29,400	40,100	19,300	8,240
8	8,800	10,400	7,200	5,750	5,500	16,100	23,000	18,400	42,000	36,900	18,400	9,080
9	8,800	10,600	6,900	5,750	5,500	18,200	23,000	17,500	46,200	33,600	17,500	9,920
10	8,800	10,000	6,700	5,750	5,500	20,200	23,700	17,200	50,600	31,200	16,600	8,900
11	8,610	10,400	6,300	5,750	5,600	20,600	26,900	16,600	51,400	29,900	15,800	8,900
12	8,610	9,800	5,900	5,750	5,700	20,200	29,100	16,300	44,800	29,100	15,000	8,080
13	8,610	9,600	5,600	5,750	5,750	19,700	29,300	15,800	38,200	28,800	14,300	7,300
14	8,700	9,600	4,900	5,750	5,800	19,200	36,700	15,300	38,200	28,800	13,900	7,000
15	8,600	9,200	4,700	5,750	5,900	18,700	55,500	14,800	43,400	38,800	13,700	7,150
16	8,800	9,200	4,700	5,800	6,000	18,400	49,200	14,300	61,500	90,400	13,900	7,000
17	8,800	8,800	4,800	7,100	6,100	18,300	40,700	14,100	59,700	64,200	14,100	6,560
18	8,800	8,420	5,700	8,800	6,250	18,500	35,700	13,900	72,000	52,200	15,800	6,420
19	8,800	8,800	5,800	9,700	6,600	19,000	30,300	13,700	81,400	47,600	15,000	6,560
20	9,100	9,800	5,700	10,400	6,800	19,700	28,000	13,200	102,000	42,700	14,300	6,560
21	9,400	10,600	5,700	10,600	7,100	21,600	25,800	13,200	107,000	63,300	12,800	6,560
22	9,600	10,200	5,800	10,400	7,250	21,600	23,700	13,000	107,000	77,100	12,400	6,560
23	9,700	10,000	6,100	10,000	7,400	21,000	22,000	13,200	84,700	74,000	12,000	7,000
24	10,000	10,400	6,200	9,600	7,600	19,300	22,000	13,000	70,000	61,500	11,400	7,300
25	10,000	13,600	6,300	8,900	7,700	18,400	21,000	13,700	67,100	54,600	12,200	7,920
26	10,200	15,100	6,300	8,400	7,750	17,200	20,000	14,300	74,000	49,900	10,600	8,400
27	10,100	15,100	6,250	7,900	7,800	16,300	19,600	16,100	74,000	45,500	10,500	8,400
28	10,100	16,900	6,200	7,300	7,900	15,300	19,600	18,100	66,200	41,400	10,100	8,400
29	10,200	19,200	6,200	6,800	-	15,300	19,600	21,600	59,700	37,500	9,740	8,240
30	10,100	17,500	6,000	6,600	-	15,500	20,000	22,000	58,000	35,200	9,740	7,920
31	10,200	-	5,900	6,250	-	14,800	-	21,000	-	32,600	9,920	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	287,230	10,200	8,600	9,265	569,700
November	335,620	19,200	8,420	11,190	665,700
December	217,350	15,400	4,700	7,011	431,100
Calendar year 1936	6,744,540	86,500	4,700	18,430	13,380,000
January	220,900	10,600	6,750	7,126	438,100
February	177,450	7,900	5,500	6,338	352,000
March	506,250	21,600	8,000	16,330	1,004,000
April	777,700	55,500	14,600	25,920	1,543,000
May	512,500	22,000	13,000	16,530	1,017,000
June	1,687,300	107,000	21,300	56,240	3,347,000
July	1,497,400	90,400	28,800	48,300	2,970,000
August	487,100	28,800	9,740	15,710	966,100
September	241,620	9,920	6,420	8,054	479,200
Water year 1936-37	6,948,420	107,000	4,700	19,040	13,780,000

Missouri River at Omaha, Nebr.

Location.- Water-stage recorder, lat. 41°15'40", long. 95°55'15", in sec. 23, T. 15 N., R. 14 E., at Douglas Street bridge, at Omaha. Prior to Oct. 1, 1936, water-stage recorder, same datum, at Nebraska Power Company's intake pier, about 1,900 feet below present gage. Zero of gage is 958.24 feet above mean sea level (general adjustment of 1929).

Drainage area.- 322,800 square miles.

Records available.- September 1928 to September 1937.

Extremes.- Maximum discharge during year, 111,000 second-feet June 24 (gage height, 18.15 feet); minimum, about 2,200 second-feet Jan. 6; minimum gage height, 1.70 feet Jan. 4.
1928-37: Maximum discharge, 198,000 second-feet June 7, 1929; maximum gage height, that of June 24, 1937; minimum discharge, that of Jan. 6, 1937; minimum gage height, that of Jan. 4, 1937.
Maximum stage known, 24.65 feet Apr. 25, 1881, present datum (ice jam).

Remarks.- Records good except those for period of ice effect, Jan. 5 to Mar. 12, which were computed on basis of four discharge measurements, gage heights, engineer's and observer's notes, weather records, and records for nearby stations and are fair. Gage heights computed from graph based on U. S. Weather Bureau readings Jan. 10-14, Aug. 10-18.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,390	10,200	15,800	5,600	7,300	8,700	17,700	23,100	30,700	58,400	35,800	10,900
2	9,390	10,200	17,400	5,050	6,200	8,900	17,500	24,400	29,500	55,400	33,400	10,600
3	9,390	10,300	17,700	2,840	5,800	9,400	17,500	23,300	27,900	56,900	30,100	10,400
4	9,520	10,400	16,200	2,370	5,700	10,500	18,100	22,800	24,900	57,900	28,400	10,300
5	9,520	10,600	14,300	2,250	5,700	11,900	19,200	22,100	24,600	57,900	28,100	10,200
6	9,520	10,400	11,900	2,200	5,600	13,500	20,400	22,100	30,400	53,400	27,300	10,000
7	9,390	10,300	10,800	2,400	5,400	15,400	22,800	22,600	33,100	46,900	26,200	9,910
8	9,130	9,390	9,520	3,300	5,100	18,000	26,000	23,600	32,500	42,800	23,600	9,910
9	9,000	8,000	8,620	4,800	5,100	22,000	26,800	23,600	31,900	40,100	21,100	9,520
10	9,130	7,500	7,740	5,700	5,100	22,100	25,700	23,100	44,200	39,900	19,700	9,130
11	9,000	7,620	7,370	5,800	5,100	23,100	24,900	22,100	49,600	39,100	19,500	9,130
12	8,870	8,000	7,000	5,700	5,100	23,400	25,400	21,100	51,100	37,600	20,200	9,650
13	8,870	9,000	6,520	5,400	5,100	26,000	25,700	20,200	53,000	37,600	18,400	9,780
14	8,740	9,260	5,840	5,400	6,100	29,500	33,800	18,800	45,100	36,400	17,300	9,390
15	8,870	9,520	5,950	5,500	5,100	29,500	34,100	17,900	37,900	35,400	16,200	9,260
16	8,740	9,780	5,600	5,600	5,100	25,700	47,400	17,500	40,300	35,100	15,600	8,740
17	8,740	9,910	5,600	5,800	5,400	23,300	68,900	16,900	43,800	50,100	15,300	8,370
18	8,870	9,780	5,490	6,200	6,300	23,600	67,800	16,200	56,400	79,900	16,600	8,120
19	8,870	9,780	5,380	6,500	7,700	25,700	51,100	15,600	64,700	91,000	27,000	8,000
20	8,870	9,780	5,050	7,100	7,700	31,900	39,900	15,300	77,800	71,000	37,200	7,870
21	8,870	9,650	4,940	7,800	6,800	24,900	34,800	14,900	87,800	51,100	37,900	7,740
22	9,130	9,260	5,270	8,600	6,900	23,100	31,600	14,700	96,200	48,200	35,100	7,620
23	9,390	9,260	6,060	9,400	7,100	22,800	29,800	14,500	103,000	67,800	26,800	7,620
24	9,520	9,780	6,760	10,100	7,800	24,600	30,100	14,200	109,000	76,200	21,600	7,620
25	9,780	10,300	6,760	11,300	8,200	24,400	31,600	14,000	104,000	74,700	18,600	7,620
26	10,000	10,400	8,370	11,800	8,700	23,100	26,000	14,000	86,200	64,200	16,600	9,520
27	10,300	10,200	7,620	11,700	8,800	20,900	22,800	17,900	73,600	53,000	19,500	9,390
28	10,200	10,900	7,240	11,200	8,700	19,500	22,600	20,400	73,100	47,800	18,400	8,740
29	10,200	13,200	8,120	10,300	-	18,100	22,300	23,600	72,600	45,100	14,200	8,740
30	10,200	14,600	7,370	9,400	-	17,500	22,300	26,500	66,300	41,600	12,000	9,000
31	10,300	-	6,180	8,300	-	17,700	-	31,000	-	37,900	11,300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	289,710	10,300	8,740	9,345	574,600
November	297,270	14,600	7,500	9,909	589,600
December	264,470	17,700	4,940	8,531	524,600
Calendar year 1936	7,200,680	84,100	4,600	19,670	14,280,000
January	205,410	11,800	2,200	6,626	407,400
February	177,700	8,800	5,100	6,346	352,500
March	638,700	31,900	8,700	20,600	1,267,000
April	907,600	68,900	17,500	30,250	1,800,000
May	618,000	31,000	14,000	19,940	1,226,000
June	1,701,200	109,000	24,600	56,710	3,374,000
July	1,630,400	91,000	35,100	52,590	3,234,000
August	709,000	37,900	11,300	22,870	1,406,000
September	272,790	10,900	7,620	9,093	541,100
Water year 1936-37	7,712,250	109,000	2,200	21,130	15,300,000

Missouri River at Nebraska City, Nebr.

Location.- Water-stage recorder, lat. 40°40'35", long. 95°50'10", in SW¼ sec. 10, T. 8 N., R. 14 E., at Waubonsie Highway bridge at Nebraska City. Zero of gage is 903.94 feet above mean sea level (general adjustment of 1929).

Drainage area.- 414,400 square miles.

Records available.- August 1929 to September 1937.

Extremes.- Maximum discharge during year, 111,000 second-feet June 25 (gage height, 18.55 feet); minimum, about 3,600 second-feet Jan. 8; minimum gage height, 2.80 feet Sept. 26.

1929-37: Maximum discharge, 138,000 second-feet, June 17-19, 1932, Mar. 5, 1934; maximum gage height, that of June 25, 1937; minimum discharge, 3,230 second-feet Dec. 13, 14, 1932; minimum gage height, that of Sept. 26, 1937.

Maximum stage known, 18.0 feet in April 1881.

Remarks.- Records good except those for period of ice effect, Nov. 30 to Mar. 7, which were computed on basis of three discharge measurements, gage heights, engineer's and observer's notes, weather records, and records for nearby stations and are fair.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,300	12,800	16,000	9,500	8,600	21,000	25,100	25,500	36,200	73,200	45,900	13,700
2	10,600	12,800	18,000	8,600	8,000	22,600	24,300	26,900	35,100	65,600	42,000	13,700
3	10,600	12,600	20,500	7,500	7,900	24,400	23,700	27,700	34,400	62,200	38,400	13,500
4	10,600	12,800	20,000	6,500	7,800	26,000	23,400	27,500	32,000	63,800	34,800	13,700
5	11,000	13,200	19,000	5,600	7,800	28,000	23,400	27,300	30,200	65,300	32,600	13,300
6	11,400	14,000	17,500	4,600	7,800	31,700	23,600	26,900	30,200	62,600	30,400	12,400
7	11,000	14,000	16,000	4,000	7,800	37,100	24,700	26,900	35,400	55,800	28,800	12,100
8	11,400	13,000	14,000	3,600	7,800	42,600	27,300	27,100	39,600	49,500	27,500	13,200
9	11,000	11,100	11,500	3,700	7,800	33,900	30,400	27,900	38,000	45,100	25,500	14,100
10	10,600	10,600	9,500	3,800	7,800	33,100	31,200	27,900	40,000	41,700	23,500	12,800
11	10,600	10,400	7,500	4,200	7,900	33,900	30,400	27,900	52,200	40,000	22,100	11,600
12	10,600	10,400	6,500	4,300	8,000	33,500	29,800	27,700	52,200	41,400	22,300	11,600
13	10,600	10,900	5,500	4,700	8,200	34,100	30,400	26,500	56,900	37,500	21,400	12,800
14	10,300	11,400	5,000	5,200	8,500	38,000	33,700	25,100	55,200	38,600	19,600	14,800
15	10,600	11,700	4,500	5,500	9,000	40,400	36,000	23,700	44,900	36,700	18,600	12,600
16	10,600	12,000	4,400	5,800	9,500	38,600	39,000	22,800	46,600	37,800	17,600	11,700
17	10,600	12,300	4,900	6,200	10,100	33,300	63,500	21,800	53,200	37,000	16,900	10,300
18	10,600	12,400	5,400	6,300	10,500	31,600	76,400	21,300	54,800	68,200	16,500	9,920
19	10,800	12,300	5,900	6,700	11,000	31,400	70,900	20,200	66,200	90,000	24,500	9,500
20	10,800	12,400	6,600	6,800	11,500	35,600	52,900	19,800	77,100	94,000	31,500	8,990
21	10,700	13,000	7,500	7,100	12,000	37,100	41,200	19,300	87,300	72,900	38,100	8,740
22	10,700	13,000	7,800	7,300	12,600	31,600	36,200	18,500	95,700	55,800	38,900	8,820
23	11,000	12,800	8,500	7,700	13,400	30,600	33,500	18,000	101,000	57,800	35,600	8,480
24	11,100	12,100	9,500	8,100	14,400	31,600	31,800	17,600	105,000	74,700	27,000	8,650
25	11,500	12,400	10,400	8,600	15,500	34,900	33,700	17,500	109,000	78,400	23,000	8,820
26	11,900	13,000	11,500	9,000	16,700	34,600	34,100	20,000	109,000	74,100	20,700	9,160
27	12,100	13,000	12,600	9,500	18,000	32,000	29,300	20,000	93,000	59,300	19,600	11,600
28	12,100	13,000	13,400	9,500	19,500	29,900	27,300	23,700	81,400	50,300	21,400	12,100
29	12,300	13,400	13,100	9,500	-	27,100	26,500	24,900	85,700	47,900	19,800	12,400
30	12,700	15,000	12,500	9,500	-	24,900	25,500	29,800	81,700	52,400	16,300	11,700
31	12,500	-	11,000	9,100	-	24,700	-	33,700	-	43,700	14,400	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	343,200	12,700	10,300	11,070	680,700
November	373,200	15,000	10,400	12,440	740,200
December	336,000	20,500	4,400	10,840	666,400
Calendar year 1936	8,534,700	108,000	4,400	23,320	16,930,000
January	208,000	9,500	3,600	6,710	412,600
February	295,400	19,500	7,800	10,550	585,900
March	989,700	42,600	21,000	31,930	1,963,000
April	1,041,200	76,400	23,400	34,710	2,065,000
May	751,400	33,700	17,500	24,240	1,490,000
June	1,859,200	109,000	30,200	61,970	3,688,000
July	1,773,300	94,000	36,700	57,200	3,517,000
August	815,200	45,900	14,400	26,300	1,617,000
September	346,780	14,800	8,480	11,560	687,800
Water year 1936-37	9,132,580	109,000	3,600	25,020	18,110,000

Missouri River at St. Joseph, Mo.

Location.- Water-stage recorder, lat. 39°45'10", long. 94°51'28", in sec. 17, T. 57 N., R. 35 W., at St. Joseph & Grand Island Railroad bridge in St. Joseph. Zero of gage is 788.19 feet above mean sea level (general adjustment of 1929).

Drainage area.- 424,300 square miles.

Records available.- August 1928 to September 1937.

Extremes.- Maximum discharge during year, 100,000 second-feet June 28 (gage height, 14.85 feet); minimum, about 2,300 second-feet Jan. 9; minimum gage height, 0.90 foot Jan. 7. 1928-37: Maximum discharge observed, 196,000 second-feet June 4, 1929 (gage height, 15.6 feet, present datum); minimum discharge, that of Jan. 9, 1937; minimum gage height, that of Jan. 7, 1937.
Maximum stage known, 27.2 feet (present datum) Apr. 29, 1881.

Remarks.- Records good except those for period of ice effect, Jan. 8 to Feb. 15, which were computed on basis of one discharge measurement, gage heights, engineer's and observer's notes, weather records, and records for nearby stations and are fair. Gage heights computed from graph based on U. S. Weather Bureau readings Feb. 1-4, Sept. 4-10.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,400	12,600	13,300	15,200	8,200	16,000	25,300	28,800	31,600	85,900	51,800	17,100
2	11,900	13,000	14,400	14,000	7,800	18,300	25,400	28,000	40,300	78,600	48,000	15,900
3	11,600	13,100	16,000	11,600	7,700	28,300	25,400	29,000	41,100	68,500	48,000	15,200
4	11,600	13,300	17,600	11,300	7,700	49,200	24,700	31,000	37,900	62,800	42,200	15,000
5	12,400	13,600	19,000	6,330	7,600	48,100	24,000	31,600	35,700	62,200	37,800	14,900
6	17,200	13,300	18,600	5,000	7,600	50,100	23,900	31,000	32,900	62,200	34,500	14,900
7	17,900	13,300	15,400	3,500	7,700	51,300	24,300	30,200	31,900	61,600	32,500	14,400
8	14,900	13,600	9,180	2,400	7,700	43,100	25,500	29,900	33,900	57,800	31,100	13,900
9	15,300	13,800	8,560	2,300	7,800	49,800	27,700	29,900	40,300	52,300	30,800	13,400
10	13,000	13,000	8,560	2,800	8,200	44,500	30,200	29,900	43,100	47,600	28,400	13,400
11	12,300	11,900	7,640	3,500	9,100	37,000	32,100	30,500	40,700	44,800	26,100	14,400
12	11,600	10,900	6,330	4,200	10,100	36,300	32,100	30,500	45,500	47,100	24,400	13,300
13	11,400	10,900	5,910	4,600	15,200	36,300	31,200	30,200	54,800	71,500	23,000	12,600
14	11,400	11,100	6,050	5,000	23,300	36,000	31,600	28,800	58,300	60,900	23,000	12,600
15	11,100	11,100	6,050	5,300	27,300	37,800	33,900	27,400	59,800	48,500	22,000	13,600
16	11,100	11,600	6,330	5,700	23,100	39,700	37,900	26,200	57,200	45,700	20,600	14,700
17	10,900	12,100	6,900	5,900	19,900	41,800	41,800	24,500	54,800	41,900	19,800	13,700
18	10,900	12,400	7,040	6,100	19,000	37,000	49,800	23,700	52,800	39,500	18,600	12,900
19	10,900	12,600	6,900	6,200	20,400	31,900	66,200	22,700	55,200	52,900	19,600	12,000
20	11,100	12,600	7,040	6,300	23,900	31,600	69,200	22,100	58,300	77,600	23,200	11,600
21	11,400	12,600	7,190	6,400	23,900	32,800	68,000	23,100	62,800	85,700	30,900	11,200
22	10,800	12,400	7,640	6,600	22,500	37,900	47,700	33,000	69,700	88,100	37,200	11,100
23	10,800	12,400	8,400	6,700	20,600	36,000	41,800	26,400	78,300	72,300	39,100	11,000
24	10,800	12,400	8,710	6,800	18,800	33,600	45,000	20,600	81,900	57,300	37,500	10,700
25	10,800	12,300	9,480	7,200	16,500	34,500	39,200	22,000	85,700	66,200	31,600	10,400
26	11,100	12,100	10,600	7,300	15,000	36,000	35,700	21,600	92,500	72,100	26,100	10,300
27	11,400	12,400	12,300	7,700	14,500	37,100	37,000	24,600	96,000	72,100	23,200	10,300
28	11,800	12,800	14,000	7,800	14,400	34,400	34,500	25,300	98,800	65,000	21,400	10,700
29	12,100	13,000	14,400	8,000	-	31,000	29,900	23,200	98,100	54,200	21,000	12,000
30	12,300	13,000	15,400	8,300	-	27,900	29,000	24,800	92,400	56,800	22,000	12,600
31	12,300	-	16,500	8,300	-	25,800	-	26,400	-	61,800	19,800	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	374,500	17,900	10,800	12,080	742,800
November	375,200	13,800	10,900	12,510	744,200
December	331,410	19,000	5,910	10,690	657,300
Calendar year 1936	9,297,910	106,000	5,880	25,400	18,440,000
January	208,330	15,200	2,300	6,720	413,200
February	415,500	27,300	7,600	14,840	824,100
March	1,130,900	51,300	16,000	36,480	2,245,000
April	1,090,000	69,200	23,900	36,330	2,162,000
May	836,900	33,000	20,600	27,000	1,660,000
June	1,760,300	98,800	31,600	58,680	3,492,000
July	1,921,400	88,100	39,500	61,980	3,811,000
August	915,200	51,300	18,400	29,520	1,815,000
September	389,800	17,100	10,300	12,990	773,200
Water year 1936-37	9,749,440	98,800	2,300	26,710	19,340,000

Missouri River at Kansas City, Mo.

Location.- Water-stage recorder, lat. 39°06'42", long. 94°35'20", in sec. 31, T. 50 N., R. 33 W., at Chicago, Burlington, & Quincy Railroad bridge at Kansas City, 1 mile below Kansas River. Zero of gage is 715.79 feet above mean sea level (general adjustment of 1929).

Drainage area.- 489,200 square miles.

Records available.- August 1928 to September 1937.

Extremes.- Maximum discharge during year, 102,000 second-feet June 30 (gage height, 15.55 feet); minimum, about 1,500 second-feet Jan. 9, 10 (gage height, -2.70 feet).
1928-37: Maximum discharge, 254,000 second-feet June 5, 1929; maximum gage height, 23.80 feet June 6, 1935; minimum discharge and gage height, those of Jan. 9, 10, 1937; minimum discharge during navigation season, 9,000 second-feet Oct. 16, 1934 (gage height, 2.70 feet).
Maximum stage known, 38.0 feet June 16, 1844.

Remarks.- Records good except those for periods of ice effect, Jan. 9, 10, 14, 30, 31, Feb. 1-9, which were computed on basis of five discharge measurements, gage heights, engineer's and observer's notes, weather records, and records for nearby stations and are fair. Gage heights computed from graph based on U. S. Weather Bureau readings Jan. 8-14, Feb. 9, 10, Apr. 15-19, Aug. 2-13, 20, 21.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18,300	13,300	13,600	18,600	17,100	19,100	29,200	32,000	29,200	93,700	65,000	21,500
2	17,200	13,600	13,600	18,800	16,700	19,400	28,100	32,500	34,500	87,900	55,000	19,200
3	16,500	13,600	14,400	15,800	11,400	22,200	28,400	32,000	42,200	81,300	52,800	17,700
4	16,000	14,000	15,600	12,300	9,900	41,800	28,400	32,600	45,800	71,000	52,800	17,200
5	16,000	14,100	17,500	8,220	9,900	63,700	27,800	35,500	41,400	64,800	47,800	17,200
6	17,600	14,400	18,800	6,620	10,700	64,600	27,000	33,400	39,400	64,400	43,000	17,300
7	20,900	14,400	18,400	5,530	10,400	66,300	26,400	33,500	38,000	63,800	39,000	17,200
8	22,800	14,000	16,300	2,620	12,300	66,800	26,700	32,500	36,100	63,700	36,100	16,000
9	20,300	14,300	11,700	1,600	28,300	61,200	27,200	32,000	42,200	59,400	34,500	15,600
10	18,000	14,400	9,680	1,500	24,500	59,900	30,100	31,700	48,200	54,200	33,600	15,600
11	17,300	14,100	9,120	2,360	17,400	49,300	33,300	31,400	51,500	50,300	31,100	17,300
12	15,600	13,300	8,340	3,140	20,900	41,400	35,800	31,400	48,700	45,800	29,200	17,700
13	14,400	12,600	7,600	3,880	31,400	41,400	35,500	31,400	56,000	63,400	29,000	16,000
14	13,600	12,200	7,030	3,900	37,200	40,600	33,900	31,100	63,600	97,200	27,800	14,900
15	13,100	12,300	6,920	4,700	48,700	39,400	33,300	29,500	66,800	82,100	27,000	14,700
16	12,700	12,200	7,030	5,280	45,800	41,000	35,200	27,500	68,200	65,700	24,900	15,400
17	12,500	12,500	7,360	5,620	39,800	43,800	39,800	26,200	63,100	59,100	23,200	16,900
18	12,300	13,000	7,840	5,970	31,100	45,000	45,400	23,400	61,200	51,200	21,500	16,200
19	12,200	13,300	8,100	6,430	27,800	39,000	56,000	24,300	59,900	46,700	21,500	15,600
20	12,000	13,300	7,970	6,430	29,200	34,500	65,800	23,900	59,900	64,200	36,100	15,400
21	12,300	13,300	7,970	6,720	32,600	33,900	66,300	23,200	63,600	86,300	33,000	14,900
22	12,600	13,100	7,970	7,600	33,000	36,100	65,000	24,700	68,600	93,600	37,600	13,900
23	12,300	13,100	8,470	7,840	30,100	43,000	52,800	34,500	74,000	93,500	40,600	13,400
24	12,200	12,600	8,980	7,970	25,700	41,400	46,200	29,000	77,500	77,300	42,200	13,200
25	12,100	12,600	9,530	8,100	23,400	40,200	48,200	23,600	82,100	63,800	40,200	12,500
26	12,200	12,600	10,400	8,220	21,400	42,200	42,400	29,500	86,700	72,000	33,600	12,000
27	12,200	12,300	11,800	8,340	20,000	43,400	38,900	34,800	90,800	76,800	28,700	11,600
28	12,200	12,300	13,100	8,600	19,300	43,800	40,200	35,200	96,200	76,500	25,200	11,200
29	12,600	12,800	14,900	5,850	-	39,800	37,300	33,300	99,900	66,800	23,200	11,200
30	12,800	13,300	16,100	10,400	-	35,200	33,200	29,000	101,000	59,400	22,600	12,500
31	13,000	-	17,200	14,000	-	31,700	-	28,100	-	64,500	23,200	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	456,000	22,800	12,000	14,710	904,500
November	396,900	14,400	12,200	13,230	787,200
December	353,310	18,800	6,920	11,400	700,800
Calendar year 1936	10,627,480	113,000	6,650	29,040	21,080,000
January	235,940	18,800	1,500	7,611	468,000
February	686,000	48,700	9,900	24,500	1,361,000
March	1,331,500	66,800	19,100	42,950	2,641,000
April	1,163,800	66,300	26,400	38,790	2,308,000
May	936,700	35,500	23,200	30,220	1,858,000
June	1,836,300	101,000	29,200	61,210	3,642,000
July	2,162,800	97,200	45,800	69,770	4,290,000
August	1,081,000	65,000	21,500	34,870	2,144,000
September	461,000	21,500	11,200	15,370	914,400
Water year 1936-37	11,101,250	101,000	1,500	30,410	22,020,000

Missouri River at Waverly, Mo.

Location.- Water-stage recorder, lat. 39°12'51", long. 93°30'57", in sec. 14, T. 51 N., R. 24 W., at bridge on U. S. Highway 65 at Waverly. Zero of gage is 645.49 feet above mean sea level (general adjustment of 1929).

Drainage area.- 491,200 square miles.

Records available.- March 1929 to September 1937.

Extremes.- Maximum discharge during year, 105,000 second-feet June 30 (gage height, 14.45 feet); minimum, about 4,250 second-feet Jan. 13; minimum gage height observed, 1.00 foot Jan. 8.

1929-37: Maximum discharge observed, 263,000 second-feet June 5, 1929; maximum gage height, 21.99 feet June 8, 1935; minimum discharge, that of Jan. 13, 1937; minimum gage height, 0.4 foot (present datum) Jan. 12, 1930.

Remarks.- Records good except those for period of ice effect, Jan. 9 to Feb. 15, which were computed on basis of gage heights, engineer's and observer's notes, weather records, and records for nearby stations and are fair. Gage heights computed from graph based on U. S. Weather Bureau readings Nov. 2-16, Nov. 20 to Dec. 16, Dec. 20-30, Jan. 7-11, 15, 16, 19-28, Feb. 1 to Mar. 5, Mar. 19-24, Apr. 16-20, May 1-7, Aug. 8-23, Sept. 7-30.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19,800	13,300	13,000	16,500	13,600	19,200	32,700	35,100	28,900	99,300	67,400	23,200
2	18,000	13,500	13,300	18,200	11,700	17,300	30,100	33,700	31,000	91,000	63,000	21,700
3	17,100	13,300	13,300	18,800	12,700	15,600	29,200	34,400	30,800	86,300	55,100	19,400
4	16,000	13,500	13,800	16,400	11,400	26,100	29,500	34,400	44,200	80,600	54,600	17,800
5	15,500	14,200	15,000	12,900	10,800	51,300	28,900	35,100	43,600	70,000	51,300	17,500
6	15,300	14,300	16,400	9,700	10,700	71,500	28,300	36,900	41,100	66,600	46,800	17,300
7	16,000	15,500	18,200	7,670	12,800	69,200	27,500	36,600	39,400	64,600	42,500	17,000
8	19,000	14,500	18,000	7,040	15,000	75,600	26,900	34,400	37,300	64,600	38,200	17,300
9	22,000	14,200	16,500	6,200	25,000	65,700	27,200	33,000	36,800	63,000	36,900	16,900
10	23,800	14,100	13,000	5,500	30,000	62,500	27,700	32,000	42,500	58,400	35,000	16,000
11	20,200	14,400	10,500	4,800	34,000	58,000	30,600	31,700	49,000	54,200	34,000	16,300
12	17,400	14,300	9,580	4,400	33,500	48,600	33,600	31,400	51,300	50,000	31,800	16,700
13	16,300	13,500	8,920	4,250	31,000	43,700	35,800	31,400	50,400	53,700	29,600	17,500
14	15,000	12,800	8,420	4,400	50,000	42,800	35,800	31,400	58,000	78,600	28,900	16,400
15	14,200	12,400	8,040	4,700	44,000	42,100	33,900	30,000	66,000	88,700	27,700	14,900
16	13,400	12,100	7,760	5,000	52,700	41,200	33,800	29,000	67,100	72,000	27,000	14,800
17	13,100	12,500	7,580	5,250	49,000	41,600	35,700	27,200	67,600	65,200	25,600	15,300
18	13,000	12,400	7,760	5,600	42,100	44,200	41,200	26,100	60,000	58,500	23,500	16,600
19	12,700	12,600	8,040	5,800	36,600	43,800	46,800	24,800	38,000	54,100	22,200	16,800
20	12,700	12,900	8,330	6,200	34,800	38,500	61,500	24,100	57,000	53,200	27,500	15,700
21	12,500	13,000	8,420	6,300	44,200	33,700	69,100	23,600	57,500	75,000	38,000	15,300
22	12,500	13,400	8,330	6,600	41,200	33,400	68,400	23,800	61,000	88,700	34,800	14,200
23	12,600	13,400	8,330	6,800	36,200	36,600	58,300	25,600	66,000	95,000	38,100	13,900
24	12,600	13,200	8,520	7,200	31,000	45,500	49,100	32,700	72,600	94,300	40,100	12,800
25	12,600	12,700	8,920	7,400	28,600	44,600	46,000	28,600	75,600	74,300	41,400	12,900
26	12,300	12,600	9,460	7,800	23,600	42,100	45,500	25,300	81,100	70,000	38,300	12,500
27	12,400	12,600	10,800	8,200	21,000	42,900	42,400	32,700	87,500	76,400	32,800	12,100
28	12,400	12,400	12,100	8,700	20,000	43,800	40,700	37,200	92,900	77,000	29,300	11,800
29	12,600	12,400	12,700	9,300	-	40,600	40,700	36,600	96,500	73,800	25,600	11,500
30	12,900	12,600	13,600	10,300	-	40,300	38,200	32,700	104,000	65,600	23,800	11,200
31	13,200	-	15,500	11,500	-	36,000	-	29,200	-	62,500	22,700	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	469,100	23,800	12,300	15,130	930,400
November	398,600	15,500	12,100	13,290	790,600
December	352,110	18,200	7,580	11,360	698,400
Calendar year 1936	10,511,610	120,000	6,000	29,540	21,440,000
January	259,410	18,800	4,250	8,368	514,500
February	805,200	52,700	10,700	28,760	1,597,000
March	1,361,200	75,600	15,600	43,910	2,700,000
April	1,175,100	69,100	26,900	39,170	2,331,000
May	960,700	37,200	23,600	30,990	1,906,000
June	1,764,700	104,000	28,900	58,820	3,500,000
July	2,225,200	99,300	50,000	71,780	4,414,000
August	1,134,500	67,400	22,200	36,600	2,250,000
September	473,300	25,200	11,200	15,780	938,800
Water year 1936-37	11,379,120	104,000	4,250	31,180	22,570,000

Missouri River at Boonville, Mo.

Location.- Water-stage recorder, lat. 38°58'40", long. 92°45'15", in sec. 35, T. 49 N., R. 17 W., on Missouri-Kansas-Texas Railroad bridge at Boonville. Zero of gage is 564.95 feet above mean sea level (general adjustment of 1929).

Drainage area.- 505,700 square miles.

Records available.- October 1925 to September 1937.

Average discharge.- 12 years, 54,020 second-feet.

Extremes.- Maximum discharge during year, 123,000 second-feet July 25 (gage height, 15.70 feet); minimum, 5,340 second-feet (computed) Jan. 13 (gage height, -0.85 foot).
1925-37: Maximum discharge observed, 381,000 second-feet Apr. 23, 1927; maximum gage height, 26.75 feet June 5, 1935; minimum discharge, 5,140 second-feet Dec. 31, 1935; minimum gage height, that of Jan. 13, 1937.
Maximum stage known, 32.7 feet June 21, 1844.

Remarks.- Records good. Discharge for period of ice effect, Jan. 12-14, computed on basis of three discharge measurements, gage heights, engineer's and observer's notes, weather records, and records for nearby stations. Records for Dec. 13-27, Jan. 8 to Feb. 12 computed from graph based on readings furnished by Corps of Engineers, U. S. Army.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40,900	15,100	13,300	21,800	41,900	33,200	40,900	53,700	37,200	109,000	64,200	24,100
2	29,600	16,100	13,600	22,100	44,700	29,600	38,000	63,800	35,200	110,000	68,300	24,300
3	24,600	18,600	13,600	23,400	45,000	29,300	35,100	80,000	39,000	99,800	67,000	24,100
4	21,400	19,700	14,000	23,900	39,600	40,600	33,900	82,700	45,600	91,800	67,800	22,000
5	19,500	17,300	14,000	21,800	31,700	59,600	33,900	72,700	51,300	81,600	63,000	20,200
6	18,200	16,100	14,700	18,000	24,900	89,200	33,900	61,800	49,300	71,600	58,800	19,400
7	17,500	16,100	15,700	14,700	20,600	107,000	33,600	51,300	45,600	67,000	52,300	18,700
8	17,800	15,900	17,500	12,200	27,000	109,000	32,000	45,000	42,800	65,400	45,300	18,500
9	19,900	15,500	18,800	9,840	38,000	101,000	30,800	41,000	40,400	65,400	39,600	18,600
10	28,100	15,500	18,400	7,730	47,400	78,500	30,500	37,800	44,100	63,000	37,200	18,300
11	46,700	15,300	16,100	7,000	45,300	79,000	31,100	36,000	51,700	58,800	35,800	17,200
12	51,200	15,300	13,600	5,500	42,600	64,200	32,900	39,000	52,400	54,800	34,300	16,800
13	40,000	15,300	11,700	5,400	43,000	54,800	36,400	38,900	52,400	52,300	32,400	16,600
14	28,400	15,300	10,600	6,800	51,200	48,800	38,600	34,900	56,000	57,000	30,600	17,600
15	22,400	14,500	9,990	12,700	89,200	46,700	38,300	34,600	64,700	88,000	29,200	17,600
16	19,000	13,600	9,560	12,600	81,600	45,700	36,700	33,800	68,900	106,000	28,200	16,400
17	17,300	13,100	9,150	8,760	93,700	45,300	36,100	32,700	78,300	86,000	27,400	15,500
18	16,300	13,100	9,150	7,730	85,600	48,400	38,300	31,400	87,600	70,400	26,400	15,500
19	15,900	12,700	8,890	7,840	74,700	57,400	43,300	30,600	70,000	61,500	25,200	16,400
20	15,100	12,900	8,890	10,300	73,800	63,000	50,200	29,500	60,100	57,000	24,300	17,400
21	14,700	13,100	9,150	17,800	95,900	60,000	70,400	29,700	56,800	63,000	26,000	17,200
22	14,500	13,300	9,150	20,100	115,000	47,400	61,600	34,100	56,400	82,100	37,800	17,200
23	14,200	13,600	9,280	16,900	115,000	41,900	51,600	42,800	59,700	93,100	38,100	16,400
24	14,200	13,600	9,280	14,500	110,000	47,700	67,000	47,700	65,200	99,800	36,400	15,900
25	15,300	13,800	9,280	11,900	87,400	63,800	57,000	40,400	71,100	112,000	40,100	15,100
26	15,900	13,600	9,840	11,000	64,200	63,000	52,600	38,100	76,300	83,900	41,000	14,300
27	16,100	13,600	10,700	11,400	48,400	56,200	51,600	38,400	81,700	75,600	39,000	13,900
28	15,700	13,600	13,400	11,000	39,000	51,900	47,700	53,200	88,300	81,000	33,800	13,400
29	15,300	13,600	14,900	10,700	-	50,500	45,700	56,000	93,500	81,600	29,700	13,000
30	14,900	13,300	15,900	12,900	-	49,100	49,400	48,700	102,000	74,700	27,400	12,800
31	15,100	-	18,800	25,700	-	45,000	-	42,500	-	66,600	25,500	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	675,700	51,200	14,200	21,800	1,340,000
November	442,100	19,700	12,700	14,740	878,900
December	390,910	18,800	8,890	12,610	775,400
Calendar year 1936	12,039,060	132,000	5,560	32,890	23,880,000
January	424,000	25,700	5,400	13,680	841,000
February	1,716,400	115,000	20,600	61,300	3,404,000
March	1,906,800	109,000	29,300	58,280	3,584,000
April	1,329,100	81,600	30,500	44,300	2,636,000
May	1,400,800	82,700	29,500	45,190	2,778,000
June	1,823,600	102,000	35,200	60,790	3,617,000
July	2,429,800	112,000	52,300	78,380	4,819,000
August	1,234,100	68,300	24,300	39,810	2,448,000
September	524,300	24,300	12,800	17,480	1,040,000
Water year 1936-37	14,197,610	115,000	5,400	38,900	28,160,000

Missouri River at Hermann, Mo.

Location.- Water-stage recorder, lat. 38°42'36", long. 91°26'21", in SW¼ sec. 25, T. 46 N., R. 5 W., at bridge on State Highway 19 at Hermann. Zero of gage is 481.40 feet above mean sea level (general adjustment of 1929).

Drainage area.- 528,200 square miles.

Records available.- August 1928 to September 1937.

Extremes.- Maximum discharge during year, 194,000 second-feet June 10 (gage height, 19.85 feet); minimum, 12,200 second-feet Dec. 22, 23 (gage height, 0.40 foot).
1928-37: Maximum discharge, 473,000 second-feet June 7, 1935 (gage height, 29.15 feet); minimum, 8,500 second-feet Jan. 25, 1936 (gage height, -0.15 foot).
Maximum stage known, 35.7 feet in June 1844.

Remarks.- Records good. Those for Feb. 28, Mar. 1-3, May 25-31 computed from graph based on U. S. Weather Bureau gage readings.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64,300	22,400	16,900	30,900	69,900	57,400	66,600	79,000	65,400	104,000	72,300	31,500
2	54,500	35,400	16,500	28,600	76,000	49,800	62,800	97,000	60,300	106,000	69,900	31,700
3	41,800	115,000	21,200	29,500	97,000	50,900	59,200	163,000	58,500	106,000	70,300	30,900
4	34,400	88,500	23,200	29,800	97,000	49,500	56,000	168,000	74,000	102,000	75,500	30,600
5	29,800	72,300	25,200	29,200	82,000	56,000	51,300	153,000	81,000	95,000	75,500	28,900
6	26,200	75,500	23,700	28,400	64,700	76,000	50,600	134,000	84,500	87,500	69,100	25,000
7	25,000	60,300	24,400	28,100	58,500	104,000	54,900	110,000	75,000	77,500	64,300	22,400
8	25,700	44,600	22,200	39,100	62,100	115,000	54,200	89,500	67,000	74,000	58,000	21,200
9	28,100	37,900	24,700	58,500	72,300	120,000	53,100	74,500	102,000	74,000	51,800	22,400
10	29,800	33,500	27,500	57,400	76,500	118,000	50,600	62,100	185,000	73,600	45,900	23,400
11	31,800	32,600	28,100	46,400	84,500	95,000	47,000	56,300	173,000	70,700	43,900	23,700
12	42,400	29,500	27,300	43,200	84,500	85,000	41,500	56,300	156,000	65,100	42,400	23,200
13	56,000	27,300	24,400	40,100	79,500	80,000	38,800	57,000	151,000	60,300	40,100	20,700
14	54,500	26,200	20,700	56,000	76,500	71,900	49,500	59,600	146,000	59,900	37,900	19,500
15	48,100	26,000	17,100	94,500	80,500	67,700	54,500	57,000	134,000	62,100	35,400	20,200
16	43,200	23,200	16,500	77,500	108,000	66,600	54,500	53,400	134,000	86,500	33,000	21,000
17	40,100	19,700	19,200	63,600	112,000	70,700	53,800	48,400	137,000	104,000	31,300	20,000
18	36,300	20,400	18,000	66,900	116,000	76,500	51,300	46,000	149,000	94,000	32,500	18,500
19	31,200	22,000	16,500	61,000	109,000	91,200	49,200	47,000	156,000	85,000	33,800	17,800
20	26,700	21,700	16,600	45,000	100,000	104,000	52,000	45,600	136,000	78,000	31,400	18,000
21	26,500	21,200	14,200	46,000	102,000	97,000	71,100	41,800	107,000	70,300	29,800	18,900
22	24,400	20,400	12,900	52,700	117,000	83,200	100,000	42,500	96,000	69,900	29,200	19,500
23	25,200	19,700	13,100	54,900	127,000	68,700	109,000	55,200	89,500	87,500	35,400	19,500
24	25,200	17,800	14,400	50,600	132,000	65,200	107,000	76,500	87,000	99,500	42,500	20,000
25	24,200	19,200	14,000	44,200	130,000	68,600	93,500	92,000	90,000	109,000	42,800	20,200
26	23,200	20,200	12,600	40,500	111,000	84,000	77,000	92,000	94,000	116,000	45,000	19,500
27	22,200	20,200	15,500	38,500	88,000	85,500	71,100	85,500	95,000	97,000	46,800	18,000
28	25,400	18,300	22,700	38,200	69,600	76,000	71,500	76,000	93,500	85,000	44,700	16,400
29	24,700	17,800	22,400	38,200	-	67,600	71,100	70,700	94,500	87,500	40,100	16,200
30	23,700	17,800	23,000	39,500	-	66,300	81,000	75,000	99,500	88,000	34,000	16,200
31	22,400	-	30,600	61,700	-	69,900	-	74,000	-	82,500	31,300	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,037,000	64,300	22,200	33,450	2,057,000
November	1,026,600	115,000	17,800	34,220	2,036,000
December	631,300	30,600	12,600	20,360	1,252,000
Calendar year 1936	14,574,900	140,000	9,300	39,820	28,910,000
January	1,458,700	94,500	28,100	47,050	2,893,000
February	2,583,100	132,000	58,500	92,250	5,124,000
March	2,437,200	120,000	49,500	78,620	4,834,000
April	1,903,700	109,000	38,800	63,460	3,776,000
May	2,437,900	168,000	41,800	78,640	4,836,000
June	3,270,700	185,000	58,500	109,000	6,487,000
July	2,657,400	116,000	59,900	85,720	5,271,000
August	1,435,900	75,500	29,200	46,320	2,848,000
September	655,000	31,700	16,200	21,830	1,299,000
Water year 1936-37	21,534,500	185,000	12,600	59,000	42,710,000

Ruby River near Alder, Mont.

Location.- Staff gage, lat. 45°18', long. 112°05', in SW¼ sec. 21, T. 6 S., R. 4 W., at highway bridge, 1½ miles south of Alder. Zero of gage is 5,190 feet above mean sea level.

Records available.- April 1929 to September 1937. April 1911 to June 1914, at site at Lauterbach ranch, 8 miles south of Alder, records not equivalent on account of inflow and diversions between stations.

Extremes.- Maximum discharge observed during year, 204 second-feet May 10 (gage height, 1.58 feet); minimum, 6.5 second-feet Aug. 21 (gage height, 0.40 foot).
1929-37: Maximum discharge, 965 second-feet Aug. 11 and 14, 1936 (gage height, 3.70 feet); minimum, 3.2 second-feet July 23 and Aug. 11, 1934 (gage height, 0.36 foot).

Remarks.- Records good except those for periods of ice effect, Nov. 2-7, Dec. 7-12, Dec. 27 to Mar. 11, which are poor. Discharge for Nov. 2-7 interpolated; that for January and February, estimated; that for periods of ice effect in December and March computed on basis of one discharge measurement, gage heights, observer's notes, and temperature records. Numerous diversions. No storage. Gage read once daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	49	76			85	102	52	26	10	22	8.5
2	22	52	73			85	98	55	27	9.0	18	7.7
3	17	56	70			89	93	59	28	17	11	7.7
4	15	60	48			91	89	70	39	20	12	8.5
5	16	64	67	55	60	89	93	109	35	23	11	10
6	19	68	70			87	93	143	30	23	19	12
7	22	72	66			91	98	128	27	26	19	16
8	20	76	68			93	89	181	26	35	20	16
9	19	76	64			89	93	172	24	51	17	17
10	9.5	82	62			91	102	204	38	22	20	16
11	10	78	59			93	96	204	33	20	23	16
12	10	78	62			102	91	140	78	19	16	15
13	12	82	76			98	91	111	93	17	16	15
14	12	82	80			98	96	145	68	21	17	15
15	15	82	100	60	70	107	100	172	70	32	15	14
16	28	84	96			111	113	138	76	42	15	14
17	35	87	96			107	87	128	64	38	12	14
18	35	84	96			98	91	155	59	32	11	15
19	39	91	91			98	96	175	56	27	11	15
20	36	87	109			93	87	118	45	26	10	15
21	37	84	84			98	71	96	43	23	6.5	16
22	41	84	80			93	66	59	41	17	10	17
23	43	84	76			102	68	56	32	15	10	20
24	43	96	76			93	63	80	32	14	6.9	25
25	43	87	73		75	89	66	71	18	14	6.9	26
26	45	80	67	55		89	54	62	13	15	6.9	28
27	47	76	66			85	61	61	12	15	6.9	28
28	45	96	61			89	66	57	10	15	9.5	30
29	41	62	49		—	93	68	43	10	15	8.5	30
30	41	80	49		—	98	58	39	10	21	9.5	28
31	43	-	54		—	93	-	31	-	18	9.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	885.5	47	9.5	28.6	1,760
November	2,317	96	49	77.2	4,500
December	2,264	109	48	73.0	4,490
Calendar year 1936	27,480.6	510	8.1	75.1	54,500
January	1,755	-	-	56.6	3,480
February	1,900	-	-	67.9	3,770
March	2,917	111	85	94.1	5,790
April	2,559	113	54	84.6	5,040
May	3,312	204	31	107	6,570
June	1,163	93	10	38.8	2,310
July	692.0	51	9.0	22.3	1,370
August	406.1	23	6.5	13.1	805
September	515.4	30	7.7	17.2	1,020
Water year 1936-37	20,666.0	204	6.5	56.6	41,000

Big Hole River near Melrose, Mont.

Location.- Water-stage recorder, lat. 45°31', long. 112°41', in SE¼ sec. 3, T. 4 S., R. 9 W., at highway bridge, 8 miles south of Melrose.

Records available.- October 1931 to September 1937. March 1924 to September 1931, at site 1½ miles upstream; records equivalent.

Extremes.- Maximum discharge during year, 2,390 second-feet May 20 (gage height, 3.43 feet); minimum, 101 second-feet Aug. 28 (gage height, 0.98 foot).

1924-37: Maximum discharge observed, 9,230 second-feet May 26, 27, 1928 (gage height, 7.60 feet, former site and datum); minimum, 49 second-feet Aug. 17, 1931 (gage height, 0.70 foot, former site and datum).

Maximum stage, 14.0 feet at former site and datum (from high-water mark) June 10, 1927 (discharge not determined).

Remarks.- Records good except those for period of ice effect, Dec. 30 to Mar. 18, which were computed on basis of two discharge measurements, gage heights, and weather records and are fair. Several diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	196	312	204	186	141	186	266	1,300	1,580	544	471	115
2	208	189	213	186	141	186	280	1,580	1,420	497	477	116
3	221	189	217	168	138	195	256	1,630	1,330	445	477	118
4	221	301	193	164	135	204	271	1,780	1,340	414	452	118
5	225	301	200	147	135	216	290	1,940	1,280	402	414	125
6	238	317	208	141	135	229	280	2,100	1,180	452	373	130
7	238	301	280	138	136	256	285	2,070	1,080	484	333	130
8	238	290	261	135	135	242	285	2,130	1,000	464	312	132
9	254	301	242	135	135	238	306	2,220	1,000	458	290	135
10	254	271	221	135	135	242	328	2,300	1,120	433	261	132
11	234	290	256	138	135	240	333	2,220	1,450	402	261	132
12	229	301	290	141	135	238	322	2,070	1,840	414	256	132
13	234	306	295	138	135	242	344	1,940	1,810	414	247	132
14	238	301	317	135	135	256	373	1,920	1,780	458	229	130
15	238	295	301	130	135	247	414	1,970	1,590	458	217	128
16	247	317	306	125	135	252	433	1,990	1,450	445	208	125
17	252	317	317	130	125	317	530	2,020	1,410	445	189	122
18	256	328	290	135	115	295	630	2,110	1,390	427	175	118
19	261	333	280	135	115	276	750	2,220	1,190	414	171	118
20	261	328	238	135	115	261	893	2,300	1,170	385	150	120
21	261	317	295	138	128	271	1,110	2,130	1,350	361	141	130
22	266	328	266	141	141	261	1,150	1,920	1,450	339	132	150
23	271	285	248	141	164	271	1,170	1,860	1,680	301	125	161
24	266	266	252	141	186	247	902	1,860	1,410	290	125	164
25	266	276	247	141	186	261	848	1,860	1,110	280	115	164
26	280	252	229	141	186	256	930	2,030	930	290	112	164
27	285	221	242	141	186	247	1,210	2,100	814	290	110	164
28	296	206	221	141	186	266	1,620	2,050	735	306	103	168
29	280	196	213	141	-	271	1,370	2,080	638	333	106	168
30	276	221	204	141	-	261	1,170	2,020	586	333	110	161
31	295	-	196	141	-	261	-	1,750	-	356	110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,744	296	196	250	15,400
November	8,458	333	189	282	16,780
December	7,735	317	193	250	15,340
Calendar year 1936	336,465	6,790	178	919	667,300
January	4,425	186	125	143	8,780
February	4,006	186	115	143	7,950
March	7,671	317	186	247	15,220
April	19,329	1,620	256	644	38,340
May	61,450	2,300	1,300	1,982	121,900
June	38,113	1,840	598	1,270	75,600
July	12,334	544	280	398	24,460
August	7,252	477	103	234	14,380
September	4,101	168	115	137	8,130
Water year 1936-37	182,620	2,300	103	500	362,300

Little Pipestone Creek near Whitehall, Mont.

Location.- Staff gage, lat. 45°50', long. 112°17', in NW¼ sec. 13, T. 1 N., R. 6 W., 10 miles west of Whitehall.

Records available.- May 1935 to September 1937.

Extremes.- Maximum discharge observed, 7.2 second-feet Apr. 20 (gage height, 1.05 feet); minimum, 0.5 second-foot Aug. 28 to Sept. 2 (gage height, 0.72 foot).
1935-37: Maximum discharge, 74 second-feet July 4, 1935 (gage height, 2.30 feet, from floodmark), from rating curve extended above 10 second-feet; minimum, 0.5 second-foot at various times.

Remarks.- Records fair. Several small diversions above station. Gage read once daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	1.4	1.4	0.9	0.9	1.6	2.7	3.4	4.0	2.2	3.6	0.5
2	.8	1.7	1.4	.9	.9	1.6	2.7	3.4	4.3	2.0	2.7	.5
3	.9	1.7	1.2	.9	.9	1.8	2.7	3.4	3.8	1.8	1.9	.6
4	.9	1.7	1.2	.9	.9	2.0	2.7	2.5	4.5	1.8	1.6	.6
5	.9	1.7	1.2	.9	.9	2.0	2.7	2.7	4.5	3.1	1.3	.6
6	.9	1.7	1.2	.9	.9	2.0	2.7	2.7	4.0	2.5	1.0	.6
7	.9	1.7	1.2	.9	.9	2.2	2.7	2.9	4.0	2.5	.9	.6
8	.9	1.7	1.2	.9	1.0	2.2	2.7	2.9	4.0	2.7	.9	.7
9	.9	1.7	1.2	.9	1.0	2.2	2.7	3.4	4.3	3.1	.9	.8
10	.9	1.7	1.2	.9	1.0	2.2	2.5	3.4	4.3	2.2	.8	.8
11	.9	1.7	1.2	.9	1.1	2.2	2.5	4.0	4.3	1.8	.6	.8
12	.9	1.7	1.2	.9	1.2	2.2	2.4	4.0	4.3	1.6	.6	.8
13	.9	1.7	1.2	.9	1.2	2.2	3.3	4.3	5.2	4.8	.6	.8
14	.9	1.7	1.2	.9	1.2	2.2	4.0	4.3	4.8	3.3	.6	.8
15	1.0	1.7	1.2	.9	1.3	2.2	6.5	4.5	4.3	1.3	.6	.8
16	1.0	1.7	1.2	.9	1.3	2.2	6.2	5.5	4.0	1.1	.6	.8
17	1.0	1.7	1.2	.9	1.3	2.2	6.2	5.7	4.0	.9	.6	.8
18	1.0	1.7	1.2	.9	1.1	2.2	6.2	5.7	4.0	.9	.6	.8
19	1.0	1.7	1.2	.9	1.1	2.2	6.0	6.0	4.0	.9	.6	.8
20	1.2	1.7	1.2	.9	1.1	2.2	7.2	6.0	4.0	.8	.6	.9
21	1.2	1.7	1.2	.9	1.2	2.2	5.7	6.2	4.0	.8	.6	.9
22	1.4	1.7	1.2	.9	1.4	2.2	3.4	6.2	3.8	.8	.6	.9
23	1.4	1.7	1.2	.9	1.4	2.2	2.4	6.2	3.6	.8	.6	.9
24	1.4	1.7	1.2	.9	1.4	2.2	2.4	6.0	3.4	.8	.6	.9
25	1.4	1.7	1.2	.9	1.4	2.2	2.2	5.2	3.1	.9	.6	.9
26	1.4	1.7	1.2	.9	1.4	2.4	3.1	5.2	3.1	.8	.6	.9
27	1.4	1.7	1.2	.9	1.4	2.4	3.3	5.2	2.7	.8	.6	.9
28	1.4	1.7	1.2	.9	1.4	2.7	2.9	5.0	2.2	.8	.5	.9
29	1.4	1.7	1.2	.9	-	2.7	3.6	4.8	2.2	.8	.5	.8
30	1.4	1.4	1.2	.9	-	2.7	3.6	4.5	2.2	.9	.5	.8
31	1.4	-	1.2	.9	-	2.7	-	4.3	-	2.4	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	33.8	1.4	0.8	1.09	67
November	50.4	1.7	1.4	1.68	100
December	37.6	1.4	1.2	1.21	75
Calendar year					
January	27.9	.9	.9	.90	55
February	32.2	1.4	.9	1.15	64
March	68.4	2.7	1.6	2.21	136
April	109.9	7.2	2.2	3.66	218
May	139.5	6.2	2.5	4.50	277
June	114.9	5.2	2.2	3.83	228
July	51.9	4.8	.8	1.67	103
August	27.8	3.6	.5	.90	55
September	23.2	.9	.5	.77	46
Water year 1936-37	717.5	7.2	.5	1.97	1,420

Boulder River near Boulder, Mont.

Location.- Chain gage, lat. 46°13', long. 112°05', in sec. 32, T. 6 N., R. 4 W., at highway bridge 2 miles east of Boulder.

Records available.- April 1929 to September 1931, March 1934 to September 1937.

Extremes.- Maximum discharge observed during year, 430 second-feet May 10 (gage height, 7.88 feet); minimum, 3.5 second-feet Jan. 12-16 and Feb. 7, 8 (gage height, 5.66 feet).

1929-31, 1934-37: Maximum discharge, 1,480 second-feet May 25, 1929 (gage height, 9.90 feet); no flow Mar. 5, July 15-17, 21, 1931.

Remarks.- Records fair. Gage read once daily. Numerous diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	22	14	20	6.8	9.1	34	142	151	33	19	7.9
2	13	22	15	20	6.8	10	34	199	125	28	24	7.9
3	13	22	14	16	6.8	10	32	265	118	22	19	7.9
4	13	22	15	16	6.8	12	32	378	126	19	16	7.9
5	19	22	13	16	6.8	12	36	412	151	19	13	9.1
6	24	22	13	16	6.8	13	32	346	134	26	12	10
7	22	22	12	16	5.5	16	32	346	118	43	12	10
8	22	22	12	16	5.5	17	32	412	151	36	12	9.1
9	22	22	12	16	4.4	18	34	378	151	37	12	7.9
10	22	20	12	9.1	5.6	22	40	430	160	33	12.	7.9
11	16	16	12	9.1	6.8	22	45	378	189	28	12	7.9
12	16	18	12	3.5	6.8	22	45	395	210	26	12	9.1
13	16	18	13	3.5	7.9	22	49	362	395	26	12	7.9
14	16	20	13	3.5	9.1	23	61	362	317	37	12	7.9
15	16	22	13	3.8	9.1	25	66	346	278	43	10	7.9
16	16	21	13	3.6	9.1	24	49	346	210	37	10	7.9
17	16	22	15	7.9	9.1	26	52	317	210	35	10	7.9
18	17	22	16	7.9	9.1	28	64	332	189	24	10	7.9
19	17	22	18	7.9	9.1	26	76	362	160	19	10	9.1
20	17	22	18	7.9	9.1	26	102	346	151	17	10	9.1
21	17	22	18	7.9	9.1	22	118	254	134	14	9.1	10
22	17	25	18	7.9	9.1	22	66	254	220	11	9.1	10
23	17	23	20	7.9	9.1	22	69	254	142	11	9.1	10
24	17	22	20	9.1	9.1	22	66	231	110	9.7	9.1	10
25	16	22	20	9.1	9.1	22	60	220	118	7.3	9.1	9.1
26	16	16	20	7.9	9.1	22	102	242	88	9.7	9.1	7.9
27	17	14	22	9.1	9.1	22	189	220	80	11	9.1	9.1
28	17	14	22	9.1	9.1	24	210	179	62	9.7	9.1	9.1
29	17	14	22	9.1	-	24	170	189	50	9.7	7.9	9.1
30	17	14	22	9.1	-	28	170	179	36	9.7	7.9	9.1
31	19	-	22	6.8	-	31	-	179	-	9.7	7.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	533	24	13	17.2	1,060
November	607	25	14	20.2	1,200
December	601	22	12	16.2	994
Calendar year 1936	22,778.0	448	6.2	62.2	45,170
January	312.3	20	3.5	10.1	619
February	215.8	9.1	3.5	7.71	428
March	642.1	31	9.1	20.7	1,270
April	2,166	210	32	72.2	4,300
May	9,255	430	142	299	18,360
June	4,733	396	36	158	9,390
July	700.6	43	7.3	22.6	1,390
August	355.6	24	7.9	11.5	705
September	261.6	10	7.9	8.72	519
Water year 1936-37	20,282.8	430	3.5	55.6	40,240

Madison River near West Yellowstone, Mont.

Location.- Water-stage recorder, lat. 44°39', long. 111°04', a quarter of a mile upstream from Riverside ranger station and 1½ miles east of West Yellowstone and west boundary of Yellowstone National Park.

Drainage area.- 419 square miles.

Records available.- June 1913 to September 1937.

Average discharge.- 21 years (1913-17, 1918-21, 1923-37), 475 second-feet.

Extremes.- Maximum discharge during year, 780 second-feet May 16 (gage height, 2.23 feet); maximum stage, about 10.0 feet Jan. 8 during ice jam; minimum discharge, not determined.
1913-37: Maximum discharge, 1,950 second-feet June 10, 1917; maximum gage height, that of Jan. 8, 1937; minimum discharge, 100 second-feet (estimated), Feb. 7, 1933.

Remarks.- Records good except those for Jan. 1 to May 14, which are fair. Discharge during periods of ice effect or missing gage-height records, Dec. 3-8, Dec. 29 to Apr. 15, Apr. 17 to May 14, May 20-25, June 4, 8-11 computed on basis of weather records and records for stations on nearby streams. Discharge for Oct. 16, Nov. 1, 8-13, May 30, June 27, 28, July 11 interpolated. No diversion or regulation. Gage-height record furnished by officials of Yellowstone National Park.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	328	348	334						552	334	365	297
2	328	352	328						535	334	334	297
3	328	365	325						535	328	318	297
4	334	377	325						600	328	312	312
5	345	377	325						527	334	307	312
6	345	371	325						485	403	307	307
7	339	371	325						455	397	302	302
8	334	365	325				400	600	450	377	302	302
9	334	359	323						450	410	302	312
10	328	353	328						450	403	302	307
11	328	346	323						500	371	302	302
12	328	340	323						567	339	302	302
13	328	334	328						671	339	297	302
14	339	328	356						624	352	297	302
15	339	328	334					690	578	377	297	302
16	334	334	334				*447	720	535	352	297	302
17	328	334	334					690	518	339	297	302
18	334	334	328					710	477	334	297	302
19	345	334	334					660	462	334	297	302
20	358	339	328					640	462	328	297	307
21	345	334	334					610	447	323	297	328
22	339	328	334					580	440	318	297	323
23	334	323	334					560	425	318	291	365
24	339	323	334				450	560	410	323	291	365
25	345	323	339					560	397	328	291	334
26	339	323	339					552	390	328	297	328
27	339	323	339					552	377	328	297	328
28	334	323	358					569	365	318	297	323
29	334	328	325					569	352	318	297	318
30	339	323	325					560	339	312	297	312
31	345	-	325				—	552	-	328	302	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	10,436	358	328	337	0.804	0.93	20,700
November	10,240	377	323	341	.814	.91	20,310
December	10,273	358	323	331	.790	.91	20,380
Calendar year 1936	148,795	1,210	295	407	.971	13.22	295,100
January	10,075	-	-	325	.776	.89	19,980
February	9,800	-	-	350	.835	.87	19,440
March	10,850	-	-	350	.835	.96	21,520
April	12,747	-	-	425	1.01	1.13	25,280
May	18,754	720	552	605	1.44	1.66	37,200
June	14,395	671	339	480	1.15	1.28	28,550
July	10,655	410	312	344	.812	.95	21,130
August	9,385	365	291	303	.723	.83	18,610
September	9,394	365	297	313	.747	.86	18,630
Water year 1936-37	137,004	720	-	375	.895	12.18	271,700

*Based on discharge measurement of same date.

Gallatin River near Gallatin Gateway, Mont.

Location.- Water-stage recorder, lat. 45°30', long. 111°16', in NE¼ sec. 18, T. 4 S., R. 4 E., a quarter of a mile below mouth of Spanish Creek and 8 miles south of Gallatin Gateway.

Drainage area.- 810 square miles.

Records available.- August 1889 to June 1894, June 1930 to September 1937.

Average discharge.- 12 years (1889-94, 1930-37), 738 second-feet.

Extremes.- Maximum discharge for year, 3,120 second-feet June 17 (gage height, 4.22 feet); minimum, 175 second-feet Mar. 27 (gage height, 0.90 foot).
1930-37: Maximum discharge observed, 5,780 second-feet June 16, 1932 (gage height, 4.60 feet); minimum, 117 second-feet Jan. 19, 1935 (gage height, 0.68 foot).

Remarks.- Records good. Discharge for period of ice effect, Nov. 5-7, interpolated.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.8	146	1.8	598	2.8	1,475
1.0	204	2.0	736	3.0	1,690
1.2	276	2.2	892	3.5	2,250
1.4	370	2.4	1,067	4.0	2,860
1.6	478	2.6	1,265	4.5	3,520

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	302	276	220	204	253	227	220	355	1,420	1,160	536	302
2	298	250	224	211	256	227	230	444	1,370	1,090	507	298
3	298	214	230	230	249	230	220	555	1,580	1,010	467	298
4	298	249	214	237	249	224	211	611	1,530	952	450	311
5	307	246	214	234	249	220	214	789	1,370	926	433	335
6	307	242	227	234	237	224	217	926	1,260	1,050	422	320
7	298	238	241	234	245	220	217	876	1,160	960	412	307
8	294	234	245	230	245	217	214	1,210	1,210	892	406	302
9	294	227	241	230	241	211	227	1,320	1,260	986	396	311
10	289	245	230	253	241	217	245	1,320	1,370	860	396	307
11	289	249	214	230	249	224	245	1,210	1,480	789	401	298
12	289	245	217	245	260	224	230	1,070	1,910	751	386	294
13	289	253	224	253	230	224	253	1,100	2,080	736	380	294
14	289	264	230	253	237	224	276	1,260	2,080	812	370	289
15	311	260	230	256	230	224	335	1,530	2,310	812	360	285
16	298	268	245	256	230	227	302	1,530	2,550	722	360	289
17	294	268	241	253	230	220	264	1,640	2,990	685	355	289
18	294	268	234	241	230	220	253	2,020	2,430	664	355	285
19	298	256	230	237	227	220	253	2,190	2,310	651	350	285
20	311	264	230	234	214	217	256	2,140	2,370	611	345	285
21	302	260	234	234	220	217	276	1,740	2,490	579	345	311
22	280	264	234	234	234	220	272	1,690	2,740	555	340	307
23	294	253	237	234	237	224	249	1,960	2,490	536	330	335
24	289	245	237	237	237	217	237	2,020	2,020	524	330	330
25	302	245	241	241	237	211	249	2,190	1,740	507	325	311
26	280	245	241	241	227	201	294	2,250	1,530	519	320	311
27	294	230	234	237	227	187	360	2,310	1,420	507	316	316
28	268	224	227	237	230	204	391	2,490	1,370	501	311	311
29	268	217	214	237	-	211	355	2,430	1,260	484	316	311
30	280	227	204	241	-	214	330	1,860	1,260	472	311	302
31	294	-	204	249	-	224	-	1,530	-	478	311	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	9,098	311	268	293	0.362	0.42	18,050
November	7,406	276	214	247	.305	.34	14,690
December	7,088	245	204	229	.283	.33	14,060
Calendar year 1936	209,430	3,380	192	572	.706	9.59	415,400
January	7,377	256	204	238	.294	.34	14,630
February	6,651	260	214	238	.294	.31	13,190
March	6,771	230	187	218	.269	.31	13,430
April	7,895	391	211	263	.325	.36	15,660
May	46,866	2,490	355	1,502	1.85	2.13	92,360
June	54,300	2,990	1,160	1,810	2.23	2.49	107,700
July	22,761	1,160	472	735	.907	1.05	45,190
August	11,642	536	311	376	.464	.53	23,090
September	9,129	335	285	304	.375	.42	18,110
Water year 1936-37	196,704	2,990	187	539	.665	9.03	390,200

Gallatin River at Logan, Mont.

Location.- Chain gage, lat. 45°53', long. 111°27', in sec. 26, T. 2 N., R. 2 E., at highway bridge, half a mile west of Logan.

Records available.- August 1893 to December 1905, August 1928 to September 1937.

Average discharge.- 18 years (1894-98, 1900, 1901-05, 1928-37), 857 second-feet.

Extremes.- Maximum discharge observed during year, 3,650 second-feet June 17 (gage height, 5.95 feet); minimum, 212 second-feet July 3 (gage height, 2.38 feet). 1893-1905, 1928-37: Maximum discharge observed, 4,570 second-feet June 17, 1929, and June 16, 1932 (gage height, 6.44 feet and 6.42 feet respectively); minimum, 143 second-feet July 21, 1934 (gage height, 2.14 feet).

Remarks.- Records good except those for periods of ice effect, Nov. 3-8, Nov. 29 to Dec. 9, Dec. 25, 30, 31, Jan. 3 to Feb. 27, which were computed on basis of two discharge measurements, gage heights, and weather records and are fair. Gage read once daily. Numerous diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	370	392	460	485	535	520	706	782	494	271	310	271
2	370	392	438	485	828	520	948	863	374	235	310	290
3	370	370	415	460	865	548	782	948	271	212	290	290
4	370	548	415	485	758	548	706	1,040	310	215	271	290
5	392	392	415	460	725	548	672	1,220	352	218	271	330
6	392	392	415	415	628	575	672	1,400	330	252	252	330
7	370	370	460	392	665	606	638	1,400	310	310	252	330
8	370	370	510	460	610	606	638	1,500	290	271	252	352
9	370	392	510	438	610	606	672	1,700	290	*280	252	352
10	370	438	510	438	585	606	744	1,700	330	*290	271	352
11	*370	485	535	438	585	672	822	1,700	330	*300	*271	352
12	370	485	535	392	638	575	706	1,500	744	310	271	352
13	370	610	535	392	638	575	706	1,400	2,520	352	271	352
14	370	535	535	370	638	548	906	1,400	2,650	468	271	352
15	370	535	535	370	*624	548	1,040	1,600	2,790	548	271	330
16	348	560	535	348	610	606	1,220	1,600	3,070	520	271	330
17	370	560	535	348	638	606	906	1,500	3,650	494	271	330
18	370	560	535	325	725	606	822	1,700	3,210	468	252	310
19	370	560	535	325	725	575	822	1,810	2,930	444	252	310
20	370	585	535	325	725	575	822	1,700	*2,860	397	252	310
21	370	585	535	348	758	548	782	1,400	2,790	374	252	352
22	370	*585	535	348	758	548	782	1,080	2,790	310	235	352
23	370	585	535	370	905	548	706	1,220	2,590	290	218	420
24	392	535	535	348	560	548	*729	1,040	1,700	271	235	420
25	392	535	535	438	485	548	*752	1,120	1,400	271	235	420
26	392	535	535	438	485	548	*776	1,040	1,040	271	235	420
27	392	510	535	460	485	548	*799	1,170	744	252	235	420
28	392	510	535	460	548	548	822	1,120	606	252	252	420
29	392	510	392	460	-	548	906	1,400	468	271	252	420
30	392	460	438	485	-	575	863	863	330	271	252	420
31	392	-	460	392	-	638	-	638	-	271	252	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	11,668	392	348	376	23,140
November	14,581	585	348	486	28,920
December	15,468	535	392	499	30,680
Calendar year 1936	228,778	3,990	154	625	453,770
January	12,698	485	325	410	25,190
February	18,339	905	485	655	36,370
March	17,714	672	520	571	35,140
April	23,867	1,220	638	796	47,340
May	40,554	1,810	638	1,308	80,440
June	42,363	3,650	271	1,412	84,030
July	9,959	548	212	321	19,750
August	8,037	310	218	259	15,940
September	10,579	420	271	353	20,980
Water year 1936-37	225,827	3,650	212	619	447,920

*Interpolated.

Hyalite Creek at Hyalite ranger station, near Bozeman, Mont.

Location.- Water-stage recorder and concrete control, lat. 45°34', long. 111°03', in NE¼ sec. 23, T. 3 S., R. 5 E., 7⅛ miles south of Bozeman.

Records available.- September 1934 to September 1937. August 1895 to October 1900 and May 1902, September 1903, equivalent record published as Middle Creek near Bozeman.

Extremes.- Maximum discharge during year, 330 second-feet June 12 (gage height, 2.68 feet); minimum observed, 11.2 second-feet Mar. 4 (ice present).
1895-1900, 1902-3, 1934-37: Maximum discharge observed, 958 second-feet June 14, 1898; minimum, 9.6 second-feet Jan. 14, 1935.

Remarks.- Records fair except those for periods of ice effect, Nov. 1 to Dec. 17, Dec. 28 to Apr. 6, which were computed on basis of two discharge measurements, gage heights, and weather records and are poor.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23					*13	*14	35	66	106	33	23
2	23					e13	14	50	88	98	30	23
3	23					*13	14	73	117	93	30	23
4	23					13	14	88	109	84	28	24
5	25	†20				13	15	117	96	81	27	27
6	23					13	15	127	88	96	27	25
7	23					13	16	136	88	73	27	24
8	23			†15	†13	15	16	161	96	62	27	24
9	*23		†17			18	18	161	101	57	27	25
10	*22					14	18	154	106	52	27	24
11	*22					13	18	133	120	47	27	23
12	22					13	18	130	258	50	26	23
13	21					13	19	109	272	52	26	23
14	21					*13	20	130	236	64	26	22
15	21	†19				*13	23	143	232	57	26	23
16	20					*14	21	133	245	48	25	23
17	20					*15	20	146	238	44	24	22
18	20		17			*15	20	176	180	42	24	22
19	20		17			15	21	184	188	41	24	22
20	20		16			*15	21	173	214	38	24	22
21	19		18		†12	*15	22	154	227	36	24	23
22	21		17			*15	20	150	254	35	24	23
23	19		17	†14		*15	21	165	201	35	23	27
24	19		17			*15	20	169	154	*35	23	25
25	20		17			*15	22	180	136	*34	23	24
26	19	†18				15	27	169	133	*34	23	26
27	20					*15	36	173	124	*33	23	27
28	20		†16			*15	40	193	124	*32	24	26
29	21				-	*15	33	161	124	32	24	26
30	20				-	*14	30	111	120	32	24	25
31	19	-			-	*14	-	93	-	32	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	655	25	19	21.1	1,300
November	570	-	-	19.0	1,130
December	521	18	-	16.8	1,030
Calendar year 1936	13,617	192	-	37.2	27,010
January	449	-	-	14.5	891
February	351	-	-	12.5	696
March	440	18	13	14.2	873
April	626	40	14	20.9	1,240
May	4,267	193	35	138	8,460
June	4,753	272	86	158	9,430
July	1,655	106	32	53.4	3,280
August	794	33	25	25.6	1,570
September	719	27	22	24.0	1,430
Water year 1936-37	15,800	272	-	43.3	31,330

*Interpolated.
†Estimated.

94296 O—38——4

Tenmile Creek near Rimini, Mont.

Location.- Water-stage recorder and concrete control, lat. 46°30', long. 112°15', in NE¼ sec. 20, T. 9 N., R. 5 W., at Moose Creek ranger station, 500 feet above mouth of Moose Creek and 3 miles north of Rimini.

Drainage area.- 34 square miles.

Records available.- March 1915 to September 1937.

Extremes.- Maximum discharge during year, 134 second-feet May 20 (gage height, 2.15 feet); no flow Sept. 12-20.
1915-37: Maximum discharge, 948 second-feet May 15, 1917 (gage height, 4.87 feet); no flow at times.

Remarks.- Records good except those for period of ice effect, Nov. 27 to Feb. 28 (computed on basis of one discharge measurement, intermittent gage heights, and weather records), and those for Oct. 1-8 and Nov. 2-14 (estimated), which are poor. Flow partly regulated by reservoir on a tributary above station. Some small diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0.2				0.2	0.3	15.4	21	4.5	6.2	*0.1
2						*.2	.4	20	18.0	3.2	3.0	*.1
3				0.2		*.2	.3	30	16.8	2.5	.7	*.1
4	0.3					.2	.3	44	18.0	1.9	.4	*.1
5		.2				.2	.3	59	20	1.7	.3	*.1
6				‡.2		.2	.3	58	19.6	2.3	.3	*.1
7						.2	.3	58	18.0	2.1	.3	*.1
8						.2	.4	60	21	1.6	.3	*.1
9	.3					.2	.6	64	20	1.4	.3	*.1
10	.3					.2	1.0	70	21	1.4	1.0	.1
11	.3					.2	.7	64	29	1.3	.3	.1
12	.2	.3				.2	.6	59	48	1.7	.3	0
13	.2					.1	1.3	62	60	1.6	.3	0
14	.3					.1	6.2	70	48	1.6	.3	0
15	.3	.3				.1	23	67	44	.8	.3	0
16	.3	.2				.1	25	63	40	.7	.3	0
17	.3	.2				.1	21	63	38	.6	.2	0
18	.3	.2				.1	21	66	37	.6	.2	0
19	.3	.2		.2		.1	21	63	30	.4	.2	0
20	.2	.1				.1	20	59	26	1.0	.2	0
21	.2	.1				.1	10.2	46	24	.4	.2	2.3
22	.2	.1				.1	4.5	45	24	.3	.2	1.4
23	.2	.2				.2	3.8	44	20	.3	.2	.2
24	.2	.9				.2	3.2	40	16.8	.3	.2	.2
25	.3	.7				.2	5.8	39	14.2	.4	.2	.2
26	.3	.3				.2	12.8	43	12.2	.6	.1	.2
27	.3					.2	18.7	34	11.2	1.7	.1	.2
28	.3	.3				.2	16.0	28	10.2	.7	.1	1.4
29	.2					.2	14.2	26	8.5	.6	.1	1.4
30	.2					.2	13.5	26	4.8	.4	.1	1.4
31	.2	-				.2	-	23	-	.6	*.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8.3	0.3	0.2	0.27	16
November	7.9	.9	.1	.26	16
December	6.2	-	-	.2	12
Calendar year 1936	1,837.7	54	0	5.02	3,640
January	6.2	-	-	.2	12
February	5.6	-	-	.2	11
March	5.2	.2	.1	.17	10
April	248.7	25	.3	8.29	493
May	1,508.4	70	15.4	48.7	2,990
June	737.3	60	4.8	24.8	1,460
July	39.2	4.5	.3	1.26	78
August	17.0	6.2	.1	.55	34
September	9.0	2.3	0	.30	18
Water year 1936-37	2,599.0	70	0	7.12	5,150

*Interpolated.
‡Discharge measurement.

Tenmile Creek near Helena, Mont.

Location.- Water-stage recorder and concrete control, lat. 46°36', long. 112°05', in SE¼ sec. 22, T. 10 N., R. 4 W., opposite Broadwater Hotel, near Helena.

Drainage area.- 103 square miles.

Records available.- July 1908 to September 1937.

Extremes.- Maximum discharge during year, 86 second-feet May 20 (gage height, 1.86 feet); minimum, 0.3 second-foot July 12, 19-21, 25 (gage height, 0.98 foot).
1908-37: Maximum discharge, 865 second-feet May 28, 1917, July 11, 1927; maximum gage height, 6.58 feet, former datum, June 11,1927; no flow at times.

Remarks.- Records good except those interpolated and estimated, which are fair. Diversions above station for irrigation and city water supply of Helena.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	1.6	2.0	1.8				18	21	4.4	0.5	*0.6
2	1.1	1.8	1.8			2.5		*25	17	4.1	.5	*.6
3	1.1	1.8	1.8				†1.0	*32	15	2.6	.5	*.6
4	1.1	2.0	1.8			3.0		39	18	1.8	.4	*.6
5	1.1	2.0	1.6			3.3		54	13	1.e	.4	*.6
6	1.1	2.0	1.6			4.0		58	14	2.3	.4	*.5
7	1.1	*2.0	1.8			4.0		58	21	2.3	.4	*.5
8	1.1	*2.0	2.2			3.7	†2.0	60	25	1.4	.4	*.5
9	1.1	*2.0	2.2			3.7		64	25	1.2	.4	*.5
10	1.1	*1.9	2.2			4.0		71	24	.e	.4	.5
11	1.3	*1.9	1.8			4.4		60	34	.5	.4	.5
12	1.3	*1.9	2.0			3.7		54	44	.3	.4	.5
13	1.3	*1.9	2.0			3.3		62	62	.4	.4	.5
14	1.1	*1.8	2.0			3.3	†5.0	69	40	.5	.4	.5
15	1.1	*1.8	2.0			3.3		67	35	.5	.4	.5
16	1.1	1.8	2.0	†1.5		3.3		64	33	.4	.4	.5
17	1.1	*1.8	2.0			3.3	10	64	31	.4	.4	.5
18	.9	*1.7	2.0			3.3	8.5	64	31	.4	.4	.5
19	.9	*1.7	2.0			3.0	9.5	64	26	.3	.4	.5
20	.9	*1.6	2.0			3.0	12	58	23	.3	.4	.5
21	.9	1.6	2.0			3.0	e.0	46	24	.3	.4	.6
22	1.1	1.6	2.0			3.0	3.2	42	25	.4	.4	.6
23	1.3	1.6	2.0			3.0	1.7	42	24	.4	.4	.5
24	1.3	1.6	2.0			3.0	1.4	37	20	.4	.5	.5
25	1.6	1.8	2.0				1.1	37	16	.3	.5	.5
26	1.6	1.8	1.8				*9.0	44	13	.4	.5	.5
27	1.6	1.8	1.8			†2.0	*17	33	11	.4	.5	.5
28	1.6	2.0	1.1				25	28	8.5	.4	.5	.5
29	1.8	2.0	1.8				*22	25	7.0	.4	.5	.6
30	1.6	2.2	1.8				*20	25	4.7	.4	.5	.8
31	1.6	-	1.8				-	22	-	.4	.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	38.0	1.8	0.9	1.23	75
November	55.0	2.2	1.6	1.83	109
December	58.9	2.2	1.1	1.90	117
Calendar year 1936	2,404.2	83	.4	6.57	4,780
January	46.8	-	-	1.51	93
February	56.0	-	-	†2.0	111
March	93.1	4.4	-	3.00	185
April	193.4	25	-	6.45	384
May	1,486	71	18	47.9	2,950
June	705.2	62	4.7	23.5	1,400
July	30.9	4.4	.3	1.00	61
August	13.6	.6	.4	.44	27
September	16.0	.8	.5	.53	32
Water year 1936-37	2,792.9	71	.3	7.65	5,540

*Interpolated.
†Estimated.

Dearborn River near Clemons, Mont.

Location.- Water-stage recorder, lat. 47°17', long. 112°29', in NW¼ sec. 26, T. 18 N., R. 7 W., 300 feet above highway bridge, 2 miles below mouth of Falls Creek, and 5 miles southwest of Clemons.

Drainage area.- 122 square miles.

Records available.- April 1921 to September 1923, July 1929 to September 1932, and March 1934 to September 1937. May 1908 to December 1911, at station half a mile above mouth of Falls Creek.

Extremes.- Maximum discharge during year, 515 second-feet June 13 (gage height, 2.58 feet); minimum, 7.4 second-feet Oct. 22, 23 (gage height, 0.84 foot).
1921-23, 1929-32, and 1934-37: Maximum discharge 2,450 second-feet June 7, 1934 (gage height, 5.58 feet); minimum, that of Oct. 22, 23, 1936.

Remarks.- Records good. Several small diversions above gage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	24	22	19		20	20	51	60	59	18	11
2	10	22	23	19		20	21	60	53	54	18	11
3	9.8	22	23	19		20	21	80	70	50	18	11
4	9.8	23	22	20	*19	20	21	106	74	44	18	11
5	10	24	21	20		21	21	126	67	41	17	11
6	9.4	23	22	20		22	22	124	64	39	17	11
7	9.0	22	24	20		21	22	119	60	37	17	10
8	9.0	24	23	20		20	23	108	78	31	16	10
9	9.0	25	24	20	19	20	24	100	91	29	16	9.8
10	9.0	25	24	20	19	20	26	110	102	26	16	9.8
11	8.2	26	25	21	19	21	27	104	154	23	15	9.8
12	7.8	28	25	21	19	20	28	95	274	23	14	9.4
13	7.8	28	24	21	19	19	28	100	485	22	14	9.0
14	7.8	28	24	21	20	18	28	110	475	21	14	8.6
15	7.8	27	24	21	20	19	31	119	427	20	13	8.6
16	7.8	28	24	21	20	18	32	108	377	20	14	8.6
17	7.8	28	24	21	20	18	32	106	338	20	14	8.6
18	7.8	28	24	21	20	17	33	115	282	19	14	8.6
19	8.2	27	24	21	20	16	34	124	238	18	14	8.6
20	8.2	27	24	21	20	18	34	128	214	18	14	8.6
21	7.8	27	23		20	15	34	115	198	18	14	8.6
22	7.4	27	23		20	15	33	106	201	18	14	9.0
23	7.4	27	23		20	15	33	115	176	18	14	9.0
24	8.2	28	23		20	15	32	106	146	18	14	9.4
25	10	26	23		20	15	32	106	128	17	13	9.0
26	14	28	22	20	20	15	34	115	115	17	12	9.0
27	20	28	21		20	16	38	117	106	17	12	9.0
28	22	26	20		20	17	46	115	80	18	12	9.4
29	23	26	20		"	17	50	106	67	18	12	9.4
30	23	22	19		"	18	48	89	62	17	12	9.4
31	25	"	19		"	18	"	72	"	18	11	"

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	342.0	25	7.4	11.0	678
November	772	28	22	25.7	1,530
December	706	25	19	22.8	1,400
Calendar year					
January	627	21	19	20.2	1,240
February	547	20	19	19.5	1,080
March	562	22	15	18.1	1,110
April	908	50	20	30.3	1,800
May	3,257	128	81	105	6,460
June	5,269	485	53	176	10,450
July	808	59	17	26.1	1,600
August	451	18	11	14.5	895
September	265.2	11	8.6	9.61	566
Water year 1936-37	14,534.2	485	7.4	39.8	28,810

*Estimated.

Smith River above Fivemile Creek, near White Sulphur Springs, Mont.

Location.- Water-stage recorder, lat. 46°36', long. 110°46', in sec. 19, T. 10 N., R. 8 E., a quarter of a mile above mouth of Fivemile Creek and 10 miles northeast of White Sulphur Springs.

Records available.- April 1934 to October 1937.

Extremes.- Maximum discharge observed during period, 69 second-feet July 4 (gage height, 2.54 feet); minimum, 0.8 second-foot Sept. 20 (gage height, 0.69 foot).
1934-37: Maximum discharge observed, 930 second-feet Apr. 11, 1936 (gage height, 7.65 feet, from high-water mark); minimum, that of Sept. 20, 1937.

Remarks.- Records fair. No records Oct. 1 to May 11. Some diversions above station. Complete regulation for irrigation at dam one-eighth of a mile upstream.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								--	45	57	30	4.6
2								--	42	63	30	4.6
3								--	41	66	30	4.6
4								--	41	68	29	4.5
5								--	41	68	28	4.6
6								--	41	67	28	4.5
7								--	40	65	28	4.6
8								--	39	63	27	4.3
9								--	38	61	20	4.3
10								--	34	59	16	4.2
11								-	33	55	17	4.0
12								2.1	34	52	15	3.3
13								2.1	34	52	15	3.1
14								2.0	32	47	18	2.8
15								32	28	40	14	2.0
16								48	28	38	11	1.9
17								50	28	32	7.8	1.9
18								51	28	27	8.3	1.8
19								52	28	28	9.6	1.7
20								51	26	30	10	1.0
21								53	29	34	9.8	1.1
22								51	28	36	9.4	1.5
23								46	*32	35	9.1	1.8
24								46	37	35	9.1	1.9
25								42	40	39	8.9	1.9
26								46	42	41	8.9	2.0
27								49	41	41	7.8	2.0
28								48	46	38	5.0	2.4
29								45	52	36	4.8	2.8
30								45	55	36	4.6	2.9
31								45	--	34	4.6	--

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May 12-31	806.2	53	2.0	40.3	1,600
June	1,100	55	25	36.7	2,180
July	1,445	68	27	46.5	2,860
August	473.7	30	4.6	15.3	940
September	88.4	4.6	1.0	2.95	175
The period	--	--	--	--	7,760

*Interpolated.

North Fork of Sun River near Augusta, Mont.

Location.- Water-stage recorder, lat. 47°37', long. 112°42.', near center of sec. 36, T. 22 N., R. 9 W., about 150 feet upstream from diversion dam and 18 miles northwest of Augusta.

Records available.- January 1916 to September 1928 and October 1936 to September 1937. August 1889 to December 1890 and October 1903 to December 1915, at site 8 miles downstream.

Extremes.- Maximum discharge during year, 2,500 second-feet June 18 (gage height, 2.30 feet); minimum daily discharge recorded, 10 second-feet Oct. 10, Dec. 1; no flow over dam July 2, 13, when all of flow was being diverted into canal.
1889-90, 1903-28, 1937: Maximum discharge, 32,300 second-feet June 21, 1916 (gage height, 11.4 feet); minimum, that of July 2, 13, 1937.

Remarks.- Records fair. None for winter season, Dec. 12 to Mar. 7. Discharge does not include water diverted into Pishkun Canal.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0	0	1.4	1,130
.2	50	1.6	1,390
.4	152	1.8	1,680
.6	291	2.0	2,000
.8	461	2.2	2,350
1.0	659	2.4	2,680
1.2	885		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	34	10			-	30	135	399	232	372	158
2	40	30	17			-	30	307	372	236	381	152
3	34	12	17			-	30	307	364	332	356	152
4	24	24	24			-	30	340	381	361	356	172
5	40	30	27			-	27	381	372	340	348	165
6	37	30	20			-	30	364	372	315	340	185
7	30	27	24			-	30	390	315	323	340	158
8	27	24	24			17	30	443	247	332	307	158
9	27	27	24			15	27	480	239	323	299	158
10	24	27	24			15	27	443	239	332	291	172
11	14	30	24			17	27	425	252	340	307	165
12	24	30	-			17	27	399	191	348	315	165
13	24	27	-			15	34	399	152	255	307	146
14	34	27	-			14	37	390	146	323	291	118
15	34	24	-			17	40	399	135	315	291	102
16	30	24	-			20	34	408	158	323	332	78
17	10	24	-			20	30	399	1,200	315	323	92
18	17	12	-			20	34	471	2,420	323	284	87
19	27	27	-			20	37	471	2,160	348	284	87
20	30	30	-			20	30	480	2,000	356	291	87
21	34	24	-			24	27	471	1,870	348	307	91
22	27	24	-			27	30	443	1,860	340	299	91
23	30	24	-			27	30	480	1,730	332	291	91
24	30	24	-			27	34	471	1,390	332	291	82
25	27	20	-			30	55	443	1,130	323	299	64
26	20	20	-			30	64	434	980	315	299	68
27	30	14	-			30	82	461	745	323	291	73
28	24	17	-			30	87	471	569	332	224	68
29	30	20	-			30	107	471	315	323	158	68
30	27	24	-			30	96	471	276	348	158	68
31	34	-	-			30	-	390	-	364	158	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	885	43	10	28.5	1,750
November	731	34	12	24.4	1,450
December 1-11	255	27	10	21.4	466
Calendar year					
January					
February					
March 8-31	542	30	14	22.6	1,080
April	1,235	107	27	41.1	2,450
May	12,857	480	135	414	26,460
June	22,899	2,420	135	763	45,490
July	10,073	361	232	325	19,980
August	9,190	361	158	296	18,230
September	3,491	172	64	116	6,920
Water year					

Sun River near Vaughn, Mont.

Location.- Water-stage recorder, lat. 47°32', long. 111°29', in SE¼ sec. 33, T. 21 N., R. 2 E., about 5 miles southeast of Vaughn.

Records available.- April 1934 to September 1937.

Extremes.- Maximum discharge during year, 1,940 second-feet June 19 (gage height, 2.74 feet); minimum, 43 second-feet Apr. 27 (gage height, 0.69 foot).
1934-37: Maximum discharge observed, 11,000 second-feet June 8, 1934 (gage height, 9.50 feet); minimum, that of Apr. 7, 1937.

Remarks.- Records excellent except those for periods of ice effect, Nov. 2-12, Nov. 29 to Dec. 20, Dec. 25 to Mar. 14, Mar. 17 which were computed on basis of four discharge measurements, gage heights, and weather records, and are fair. Numerous diversions above station. Storage and release of water at Gibson Dam on North Fork of Sun River partly regulate flow.

Rating table, water year 1936-37 except for Oct. 1 to Mar. 17 (gage height, in feet, and discharge, in second-feet)

0.6	32	1.6	555
.8	60	1.8	785
1.0	115	2.0	1,015
1.2	207	2.5	1,630
1.4	355	3.0	2,270

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	155	96	101				197	89	364	227	513	323
2	151	88	96			*150	197	62	282	197	693	298
3	159	121	98		*65		197	57	274	178	578	261
4	155	124	68				176	60	314	171	513	247
5	151	127	70			*170	155	78	412	214	601	290
				*75								
6	147	163	71				151	67	422	247	647	402
7	151	140	72			187	147	73	460	220	624	274
8	159	163	74		*60	187	143	112	555	191	566	254
9	147	159	101			†204	139	108	482	290	513	254
10	144	175	114			221	127	171	364	207	460	220
11	144	147	109			204	131	207	347	186	355	207
12	140	151	111			187	135	234	471	197	298	202
13	134	187	124			204	119	227	808	364	290	197
14	130	183	137			167	95	214	750	450	306	197
15	124	175	167			147	108	197	492	422	347	202
				*65	*100							
16	127	167	187			147	89	186	384	422	364	181
17	130	167	193			127	92	234	450	513	374	178
18	130	163	187			115	85	240	778	590	384	181
19	134	159	167			‡*116	69	227	1,880	482	355	214
20	144	155	175			‡*117	73	*250	1,810	402	364	176
21	144	155	167			‡*118	75	274	1,750	339	374	147
22	147	159	140			‡*119	80	267	1,690	323	364	181
23	151	159	147			‡*120	87	290	1,750	314	364	220
24	147	163	221			‡*121	57	323	1,630	282	331	214
25	147	159	204			‡*122	52	364	1,410	247	331	220
				*60								
26	151	155	117			133	49	306	1,120	261	306	220
27	147	151	114			147	50	267	946	274	339	207
28	151	151	101			165	115	207	808	247	323	214
29	140	114			"	181	181	254	578	274	374	247
30	134	104	*90		"	197	155	306	331	306	374	274
31	124	"			"	197	"	412	"	351	339	"

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,439	159	124	143	8,800
November	4,482	187	88	149	8,890
December	3,923	221	68	127	7,780
Calendar year 1936	159,399	4,700	68	436	316,200
January	2,060	"	"	66.5	4,090
February	2,825	"	"	101	5,600
March	4,900	221	115	158	9,720
April	3,494	197	49	116	6,930
May	6,363	412	57	205	12,620
June	24,112	1,880	274	804	47,830
July	9,296	590	171	300	18,440
August	12,964	693	290	418	25,710
September	6,880	402	147	229	13,650
Water year 1936-37	85,738	1,880	49	235	170,100

*Estimated.
†Discharge measurement.
‡Interpolated.

Muddy Creek near Power, Mont.

Location.- Water-stage recorder, lat. 47°43', long. 111°43', in NE¼ sec. 34, T. 23 N., R. 1 W., at highway bridge, 1½ miles west of Power.

Records available.- April 1935 to September 1937.

Extremes.- Maximum discharge recorded for year, 277 second-feet June 16 (gage height, 5.69 feet); minimum, 6.8 second-feet Apr. 25, 26 (gage height, 1.18 feet).
1935-37: Maximum discharge, that of June 16, 1937; minimum, 0.2 second-foot May 27, 1936 (gage height, 1.03 feet).

Remarks.- Records good except those for periods of ice effect, Nov. 1-7, Mar. 10, which were computed on basis of one discharge measurement and weather records and are fair, and those estimated, which are poor. Natural flow materially increased by return flow from irrigation through Sun River drainage ditch.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*26	18	23				16	15	34	30	142	44
2	*25	18	24				18	18	32	29	134	46
3	*24	21					18	20	34	32	91	38
4	*23	21				*16	17	23	36	38	103	32
5	*22	†19					17	20	29	40	110	34
6	*22	†17					16	19	29	37	94	32
7	22	‡16				17	16	25	31	39	82	30
8	22					17	15	28	45	42	65	30
9	20					20	15		49	40	60	30
10	19					20	16		36	38	54	29
11	20					20	16		31	41	39	30
12	22					13	16		64	45	39	29
13	22						16		97	51	44	28
14	22	*22					16	*40	54	57	51	28
15	19						16		38	60	52	28
16	21					*19	15		72	72	60	28
17	26						12		38	79	59	27
18	27						12		32	91	48	31
19	26						12		30	91	48	40
20	26	20					12		29	64	43	30
21	25	21					12	33	26	62	48	31
22	26	20					11	32	26	56	48	34
23	25	20				*14	11	34	27	52	49	37
24	25	20					7.9	35	26	47	44	37
25	24	20					7.5	34	25	55	44	35
26	24	20				14	7.7	34	18	64	54	32
27	23	19				†13	7.5	28	20	57	56	35
28	23	20				†12	27	24	30	53	54	40
29	23	19				†12	38	35	24	75	45	46
30	23	19				12	25	38	30	77	52	50
31	23	-				14	-	37	-	79	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	720	27	19	23.2	1,430
November	611	-	15	20.4	1,210
December	-	-	-	-	-
Calendar year					
January					
February					
March	502	20	12	16.2	996
April	459.5	38	7.5	15.3	912
May	1,010	-	15	32.6	2,000
June	1,082	72	18	36.1	2,150
July	1,693	91	29	54.6	3,360
August	1,960	142	39	63.2	3,890
September	1,021	50	27	34.0	2,030
Water year					

*Estimated.
†Interpolated.
‡Discharge measurement.

Muddy Creek at Vaughn, Mont.

Location.- Wire gage, lat. 47°34', long. 111°33', in SE¼ sec. 24, T. 21 N., R. 1 E., at old highway bridge at Vaughn.

Records available.- May 1925 to February 1926, April 1934 to September 1937.

Extremes.- Maximum discharge observed during year, 504 second-feet Aug. 2 (gage height, 5.59 feet.
1925-26, 1934-37: Maximum discharge observed, 602 second-feet June 5, 1925 (gage height, 6.90 feet, former site); minimum, 4.9 second-feet Jan. 24, 1936.

Remarks.- Records good except those for periods of ice effect Nov. 3-14 and Nov. 29 to Apr. 5 which were computed on basis of seven discharge measurements, observer's notes, and weather records and are fair. Gage usually read twice daily. Natural flow increased by return flow from irrigation through Sun River drainage ditch.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	47	39	28		23	65	53	165	71	400	102
2	58	37	41	28		26	60	34	108	81	504	86
3	52	37	37	30		28	56	48	108	76	309	76
4	47	44	35	31		31	52	57	186	81	292	76
5	45	45	35	27		36	34	57	244	108	276	158
6	44	40	34	25		32	32	50	244	86	400	97
7	45	42	33	23		28	28	52	276	76	400	81
8	47	42	33	22		27	28	71	326	86	309	86
9	47	45	33	21		29	33	114	229	108	292	92
10	44	48	35	26		33	34	138	172	86	179	86
11	46	49	36	26		27	28	138	145	86	108	81
12	46	51	*36	26		27	26	152	179	120	92	71
13	46	60	39	24		27	26	132	440	145	97	76
14	43	56	44	22		30	26	138	244	152	126	76
16	46	47	48	20		40	22	132	120	244	172	76
16	44	47	43	20		40	22	102	102	292	200	76
17	43	44	46	21		35	23	158	230	440	179	66
18	45	41	45	18		33	21	138	92	362	186	97
19	48	39	47	17		33	21	120	92	276	179	81
20	54	38	41	15		34	21	138	86	172	172	76
21	52	38	39	14		*31	21	126	81	138	165	65
22	63	41	42	16		34	22	126	76	152	152	86
23	53	41	54	16		33	22	126	114	158	114	97
24	62	43	38	16		36	22	120	108	97	120	102
25	52	44	32	14		35	20	120	97	108	120	97
26	51	44	41			35	19	108	71	138	114	97
27	52	41	41			32	24	86	52	138	108	97
28	51	41	35	†11		32	120	71	76	132	179	108
29	49	37	27			40	114	86	76	145	120	114
30	54	38	30			43	86	108	66	152	114	126
31	52	"	32			52	"	200	"	186	108	"

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,531	63	43	49.4	3,040
November	1,307	60	37	43.6	2,590
December	1,191	54	27	38.4	2,360
Calendar year 1936	22,340.4	292	4.9	61.0	44,300
January	612	31	"	19.7	1,210
February	420	"	"	15	833
March	1,022	52	23	33.0	2,030
April	1,127	120	19	37.6	2,240
May	3,299	200	34	106	6,540
June	4,605	440	52	154	9,130
July	4,692	440	71	151	9,310
August	6,286	504	92	203	12,470
September	2,705	158	65	90.2	5,370
Water year 1936-37	28,797	504	-	78.9	57,120

*Discharge measurement.
†Estimated.

Marias River near Shelby, Mont.

Location.- Water-stage recorder, lat. 48°26', long. 111°53', in sec. 20, T. 31 N., R. 2 W., at highway bridge, 7 miles south of Shelby.

Drainage area.- 2,610 square miles.

Records available.- April 1902 to January 1908, April 1911 to September 1937.

Extremes.- Maximum discharge during year, 9,100 second-feet June 13 (gage height, 8.55 feet).
1902-08, 1911-37: Maximum discharge, 29,500 second-feet June 24, 1907 (gage height, 14.9 feet); minimum, 10 second-feet Aug. 20, 1919 (gage height, 1.50 feet).

Remarks.- Records good except those for periods of ice effect, Nov. 3-14, Nov. 29 to Apr. 7 (computed on basis of gage heights, five discharge measurements, and weather records) and of missing gage heights, June 12-16, June 19 to July 2, July 4-9, 18-23 (computed on basis of recorded high-water mark and of records for station near Brinkman). The records for periods of missing gage heights are fair. Numerous diversions and some storage above gage. The records for periods of ice effect are fair except those for January and February, which are poor.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	104	80	135			69	251	1,260	1,560	1,100	217	82
2	107	64	121			42	386	1,400	1,420	1,080	358	73
3	112	54	115			64	610	1,710	1,440	*1,060	304	73
4	110	49	102			62	720	2,060	1,840	1,000	265	89
5	104	49	77	†55	†25	107	668	2,360	1,840	980	217	82
6	107	42	67			115	744	2,520	1,600	900	188	229
7	99	37	69			157	912	2,360	1,450	820	208	208
8	92	56	62			145	939	2,060	1,440	740	188	151
9	85	80	67			168	1,100	1,540	1,540	670	178	126
10	82	115	62			208	1,620	1,480	†1,550	610	160	102
11	89	121	82	60		261	1,630	1,550	1,560	†586	148	97
12	89	142	92	65		330	1,220	1,360	4,500	562	160	89
13	92	217	99	70	†35		1,010	1,280	8,200	‡607	157	85
14	87	247	97	73		†260	994	1,340	7,600	652	138	82
15	85	221	94	62			930	1,700	7,000	‡594	151	77
16	87	200	104				966	1,840	6,000	‡536	145	71
17	87	204	110				957	1,710	4,840	478	126	67
18	82	200	126	†35	†100	†250	876	1,840	4,150	440	118	64
19	82	185	157				828	1,840	3,600	400	129	62
20	92	182	154				817	1,980	3,100	360	138	56
21	104	174	151				851	1,980	2,700	320	123	58
22	110	164	154				842	1,840	2,500	290	145	62
23	112	168	154	†25	†150	†220	784	1,730	2,300	260	135	87
24	121	160	132				690	1,760	2,100	233	107	85
25	121	164	107				617	1,640	1,950	247	89	75
26	118	160	94				582	1,560	1,800	229	77	73
27	115	151	87		†100	†200	602	1,770	1,650	221	89	73
28	118	154	94	†20			1,020	1,980	1,500	233	89	75
29	118	135	77		-		1,210	2,140	1,300	225	107	85
30	115	135	69		-	221	1,320	2,060	1,150	200	112	97
31	110	-	82		-	221	-	1,770	-	188	92	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,136	121	82	101	6,220
November	4,110	247	37	137	8,150
December	3,193	157	62	103	6,330
Calendar year 1936	166,508	3,000	-	455	330,300
January	1,300	70	-	41.9	2,580
February	1,975	-	-	70.5	3,920
March	6,100	-	42	197	12,100
April	26,774	1,630	251	892	53,110
May	55,440	2,520	1,260	1,788	110,000
June	85,180	8,200	1,150	2,839	169,000
July	16,801	1,100	188	542	33,320
August	4,858	358	77	157	9,640
September	2,735	229	56	91.2	5,420
Water year 1936-37	211,602	8,200	-	580	419,800

*Discharge measurement.
†Estimated.
‡Interpolated.

Marias River near Brinkman, Mont.

Location.- Water-stage recorder, lat. 48°16', long. 110°42', in NW¼ sec. 21, T. 29 N., R. 8 E., 4 miles southwest of Brinkman post office. Zero of gage is 2,670.26 feet above mean sea level.

Records available.- October 1921 to September 1937 (winter records incomplete).

Extremes.- Maximum discharge during year, 8,870 second-feet June 15 (gage height, 8.10 feet); minimum daily discharge, 30 second-feet (estimated) Jan. 21-25 and Feb. 7, 8. 1921-37: Maximum discharge observed, 14,300 second-feet June 1, 1927 (gage height, 7.9 feet, present datum); minimum, that of Jan. 21-25 and Feb. 7, 8, 1937. Maximum known stage, 16.7 feet, present datum, during flood of 1908.

Remarks.- Records good except those for period of ice effect, Nov. 1 to Apr. 9 (computed on basis of four discharge measurements, gage heights, and weather records), of which those for December, March, and April are fair and those for November and January are poor. Numerous diversions. Flow partly regulated by storage on tributaries.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83		124		32	102	215	1,300	1,900	1,220	251	*76
2	83		118		32	108	218	1,320	1,760	1,150	258	*74
3	78	70	112	55	31	114	234	1,510	1,640	1,140	339	*72
4	82		106		31	122	462	1,570	1,700	1,090	280	70
5	85		88		31	147	639	1,460	1,760	1,030	284	72
6	85		72		31	172	469	1,640	1,830	1,000	268	1,300
7	92		68		30	187	820	1,640	1,700	910	244	1,020
8	90	40	50	50	30	228	1,110	2,040	1,570	840	218	666
9	66		33		31	268	960	2,180	1,470	800	196	359
10	93		33		32	612	990	2,040	1,570	751	193	193
11	90		34		33	666	1,310	1,640	1,530	722	184	143
12	85		34		34	666	1,830	1,470	1,640	648	170	139
13	80	105	35	35	35	639	1,450	1,550	3,750	621	154	134
14	77		36		48	571	1,110	1,460	5,730	1,550	145	102
15	78		42		52	530	1,110	1,510	8,210	1,080	132	85
16	80		54		56	503	1,090	1,640	7,580	1,260	130	88
17	82		60		118	362	960	1,700	6,530	840	124	86
18	78	210	85	35	138	330	930	2,040	5,130	666	118	88
19	82		147		188	265	840	2,180	4,230	571	122	*87
20	88		172		178	224	780	1,970	3,570	489	118	86
21	*88		190		187	218	372	1,970	3,050	432	110	82
22	*87		181		184	244	530	1,970	2,810	383	104	84
23	*86	150	184	30	181	268	850	1,760	2,570	339	108	85
24	86		172		178	265	860	1,760	2,410	313	99	*84
25	*86		147		159	254	840	1,830	2,260	288	97	84
26	*86		122		140	237	870	1,640	2,110	265	106	82
27	*86		99		122	254	510	1,570	1,900	248	*98	*88
28	*86	145	90	35	122	265	530	1,700	1,640	234	*90	*73
29	*86		88		-	268	850	1,970	1,490	228	82	*79
30	*86		70		-	261	1,180	2,110	1,330	254	*80	*84
31	86	-	70		-	260	-	1,970	-	301	*78	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,626	93	77	84.7	5,210
November	3,600	-	-	120	7,140
December	2,916	190	33	94.1	5,780
Calendar year 1936	160,387	2,650	33	438	318,100
January	1,235	-	-	39.8	2,450
February	2,434	187	30	86.9	4,830
March	9,610	666	102	310	19,060
April	24,919	1,830	215	831	49,430
May	54,100	2,180	1,300	1,745	107,300
June	86,370	8,210	1,330	2,879	171,300
July	21,663	1,550	228	699	42,970
August	4,980	339	78	161	9,880
September	5,545	1,300	62	185	11,000
Water year 1936-37	219,998	8,210	-	603	436,400

*Interpolated.

Judith River near Utica, Mont.

Location.- Water-stage recorder, lat. 46°53', long. 110°14', in NW¼ sec. 17, T. 13 N., R. 12 E., at Noel ranch, 10 miles above Utica. Prior to June 5, wire gage at same datum at site 30 feet downstream.

Drainage area.- 326 square miles.

Records available.- October 1919 to September 1937.

Extremes.- Maximum discharge observed during year, 66 second-feet May 30 (gage height, 2.10 feet); minimum, 0.2 second-feet at times.
1919-37: Maximum discharge observed, 1,070 second-feet June 11, 1927 (gage height, 5.70 feet at former site); no flow Mar. 19-21, 1933.

Remarks.- Records good except those for low-water periods, which are poor. Wire gage read once or twice daily. Several diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	2.3	1.7	1.9	0.5	0.3	0.7	1.1	50	25	9.0	2.3
2	3.8	2.3	1.7	1.9	.7	.3	.9	.7	43	24	8.8	2.7
3	4.5	2.3	1.7	1.9	.7	.3	.7	.7	41	22	8.0	2.3
4	4.5	2.3	1.7	1.7	.7	.3	.9	.9	44	21	7.5	2.3
5	4.5	2.3	1.7	1.7	.9	.5	.7	.9	41	20	6.5	2.3
6	4.5	2.3	1.7	1.9	.9	.5	.3	.5	41	21	6.0	2.3
7	4.5	2.3	1.7	1.5	.5	.7	.3	.5	44	19	6.0	1.9
8	4.5	2.3	1.7	1.3	.3	.7	.2	.5	45	16	5.8	1.9
9	4.5	2.3	1.7	.3	.3	1.1	.2	.5	40	14	5.3	1.9
10	4.5	2.3	1.3	.3	.2	1.1	.2	.5	36	14	5.8	1.7
11	4.5	2.3	1.3	.3	.3	.7	.2	.5	39	14	5.3	1.5
12	4.5	2.3	1.3	.3	.2	.7	.2	.5	43	13	4.9	1.5
13	3.8	2.3	1.5	.5	.2	.7	.2	.5	50	13	4.5	1.5
14	3.8	2.3	1.3	.3	.2	.7	.2	3.8	52	42	4.5	1.5
15	3.8	2.3	1.3	.3	.2	1.1	.2	16	57	31	4.5	1.3
16	3.8	2.3	1.3	.3	.2	1.1	.2	28	53	22	4.2	1.1
17	3.8	2.3	1.3	.3	.2	1.1	.3	35	54	17	3.4	.9
18	3.8	2.3	1.3	.5	.2	1.1	.3	43	55	16	3.4	.9
19	3.8	1.9	1.3	.5	.2	1.5	.5	51	57	14	3.0	.9
20	3.8	1.9	1.3	.5	.2	1.1	.5	58	53	13	3.0	.9
21	3.8	1.9	1.3	.9	.2	1.1	.5	63	50	12	2.7	1.1
22	3.8	1.9	1.3	1.1	.2	.7	.5	57	48	12	2.7	1.1
23	3.0	1.9	1.3	1.1	.2	.7	.5	51	43	12	2.3	1.1
24	3.0	1.9	1.3	1.1	.2	.7	.5	51	42	12	2.7	1.1
25	3.0	1.9	1.3	1.3	.2	.7	.6	54	40	12	2.7	1.3
26	3.0	1.9	1.5	.9	.2	.7	.5	57	37	12	3.0	1.3
27	3.0	1.9	1.5	.9	.2	.7	1.1	60	34	11	2.7	1.1
28	3.0	1.9	1.5	.7	.2	.7	1.1	61	30	10	2.7	1.3
29	3.0	1.9	1.7	.7	-	.7	1.1	64	28	10	2.3	1.1
30	3.0	1.9	1.7	.7	-	.5	1.1	64	25	10	2.3	1.1
31	2.3	-	1.7	.5	-	.5	-	57	-	10	2.3	-

Month	Second foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	116.9	4.5	2.3	3.77	232
November	64.2	2.3	1.9	2.14	127
December	45.7	1.7	1.5	1.47	91
Calendar year 1936	13,686.4	426	.2	37.4	27,140
January	27.9	1.9	.3	.90	55
February	9.4	.9	.2	.34	19
March	23.3	1.5	.3	.75	46
April	15.1	1.1	.2	.50	30
May	882.1	64	.5	28.5	1,750
June	1,315	57	25	43.8	2,610
July	514	42	10	16.6	1,020
August	137.1	9.0	2.3	4.42	272
September	45.2	2.7	.9	1.51	90
Water year 1936-37	3,195.9	64	.2	8.76	6,340

Big Spring Creek near Lewistown, Mont.

Location.- Staff gage, lat. 47°01', long. 109°21' (revised), in NE¼ sec. 5, T. 14 N., R. 19 E., at highway bridge, half a mile below Big Springs and 5 miles southeast of Lewistown.

Records available.- June 1932 to September 1937.

Extremes.- Maximum discharge observed during year, 102 second-feet July 29 to Aug. 20; minimum, 85 second-feet May 19-22.
1932-37: Maximum discharge observed, 183 second-feet May 7, 1933; minimum, that of May 19-22, 1937.

Remarks.- Records fair. Discharge for days of no gage reading interpolated. Mean discharge for January and February estimated.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	98	98				96	* *89	88	*98	102	
2	98	98	*98				96	89	88	*98	102	
3	98	98	98				96	89	88	*98	102	†99
4	*98	*98	98				96	89	89	98	102	
5	98	98	98			†92	*96	89	*89	98	102	
6	*98	98	98				96	89	90	98	*102	
7	98	97	98				96	89	‡92	98	102	
8	98	97	98				96	89	92	*98	102	†98
9	98	97	98			‡92	96	89	92	*98	*102	
10	98	96	98			*96	96	89	92	98	102	
11	98	96	98			96	96	*89	93	98	102	
12	98	*96	*98			96	*96	88	93	99	102	
13	98	96	98			96	96	*87	93	99	102	†97
14	*98	96	98			96	96	87	93	100	*102	
15	98	96	98			96	95	87	93	*100	102	
16	98	96	99			96	95	*87	94	100	102	
17	98	96	99			96	95	87	94	100	102	
18	98	*96	99			96	95	86	94	99	102	†96
19	98	97	99			96	94	85	*94	99	102	
20	98	*98	100			*96	94	*85	94	99	*102	
21	*98	98	100			96	*94	85	94	98		
22	98	98	100			96	94	85	94	*98		
23	98	98	‡100			96	93	86	94	98	†101	†95
24	98	98	100			96	93	86	*94	99		
25	98	98	99			96	93	86	94	99		
26	98	98	98			*96	92	86	95	100		
27	98	98	*98			96	*92	87	96	100		
28	98	*98	98			96	91	87	96	101	100	†94
29	98	98	98			96	90	87	97	102		
30	98	98	98			96	90	87	98	*102		
31	*98	-	98			96	-	88	-	102		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,038	98	98	98.0	6,030
November	2,918	98	96	97.3	5,790
December	3,053	100	98	98.5	6,060
Calendar year 1936	37,344	113	96	102	74,080
January	2,790	-	-	90	5,530
February	2,576	-	-	92	5,110
March	2,940	96	-	94.8	5,830
April	2,834	96	90	94.5	5,620
May	2,708	89	85	87.4	5,370
June	2,787	98	88	92.9	5,530
July	3,072	102	98	99.1	6,090
August	3,145	102	-	101	6,240
September	2,895	-	-	96.5	5,740
Water year 1936-37	34,756	102	85	95.2	68,940

*Gage read.
†Estimated.
‡Discharge measurement.

Musselshell River at Harlowton, Mont.

Location.- Chain gage, lat. 46°26', long. 109°50', in sec. 26, T. 8 N., R. 15 E., at highway bridge, 1 mile south of Harlowton.

Drainage area.- 1,130 square miles.

Records available.- July 1907 to September 1937.

Extremes.- Maximum discharge observed during year, 368 second-feet Apr. 17 (gage height, 3.62 feet); no flow at times.
1907-37: Maximum discharge observed, 4,020 second-feet May 27, 1917 (gage height, 7.3 feet, present datum); no flow at times.

Remarks.- Records fair except those for periods of ice effect, Nov. 2-21 and Nov. 27 to Apr. 3 (computed on basis of two discharge measurements, gage heights, and temperature records), and those for June 21 to July 6 (estimated), which are poor. Gage read twice daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	13						220	102		1.9	
2	.9	14					*100	220	81		1.6	
3	.9	14						236	71	10	1.3	
4	.7	15					96	253	71		.9	
5	.4	15					96	262	76		.6	
			*30	*50	*45	*85						
6	.5						91	279	76		.3	
7	.7						86	279	81	4.6	0	
8	.3	*16					91	266	86	4.0	0	
9	.9						96	257	76	4.0	0	
10	2.5						109	228	71	3.1	.3	
11	3.7						96	216	216	1.9	.4	
12	3.1						132	220	163	1.6	0	
13	1.9	*18					135	204	182	193	0	
14	3.1						178	170	236	60	0	
15	3.1						232	160	316	33	0	
			*40	*40	*55	*85						
16	5.8						302	156	292	22	0	
17	7.0						341	142	266	19	0	
18	2.5	*30					257	122	232	14	0	
19	4.6						232	109	200	14	0	
20	5.8						244	149	163	4.6	0	
21	5.2	33					249	160		3.7	0	
22	4.0	36					266	142		1.0	0	
23	5.2	34					236	109	*110	1.3	0	
24	7.0	38			*70		196	99		.9	0	
25	5.8	38	*45	*30			174	91		.6	0	
26	14	38				*85	196	86		.8	0	
27	9.4	33					224	88		.6	0	
28	10	28					274	102	*80	.5	0	
29	10	27			-		316	109		2.5	0	
30	11	27			-		253	122		1.9	0	
31	12	-			-		-	122	-	1.3	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	142.5	14	0.3	4.60	283
November	722	38	13	24.1	1,430
December	1,195	-	-	38.5	2,370
Calendar year 1936	44,546.8	1,940	0	122	88,350
January	1,230	-	-	39.7	2,440
February	1,560	-	-	55.7	3,090
March	2,636	-	-	85.0	5,230
April	5,498	341	86	183	10,910
May	5,378	279	86	173	10,670
June	3,907	316	-	130	7,750
July	453.7	193	.5	14.6	900
August	7.3	1.9	0	.24	14
September	0	0	0	0	0
Water year 1936-37	22,729.5	341	0	62.3	45,090

*Estimated.

Musselshell River at Mosby, Mont.

Location.- Water-stage recorder, lat. 47°00', long. 111°53', in NW¼ sec. 11, T. 14 N., R. 30 E., at highway bridge, half a mile west of Mosby.

Drainage area.- 8,010 square miles.

Records available.- May 1929 to September 1932, February 1934 to September 1937.

Extremes.- Maximum discharge during year, 13,400 second-feet June 12 (gage height, 12.18 feet); no flow during several months.
1929-32, 1934-37: Maximum discharge, that of June 12, 1937; no flow at times.

Remarks.- Records fair. Numerous diversions.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	143	71	4.9	46		0
2						0	154	80	4.7	41		0
3						3.8	218	116	5.2	40		0
4						5.6	182	111	4.9	31		0
5						98	227	98	4.7	25		0
6						329	251	84	4.4	18		0
7						394	200	84	3.6	12		0
8						260	200	80	2.3	5.2		0
9						265	160	86	1.6	5.6		13
10						265	140	104	.8	4.7		14
11						218	127	124	1.6	4.1		0
12						178	113	118	10,200	67		0
13						209	124	100	6,450	129		0
14						279	134	88	2,210	1,820		0
15						182	129	80	797	459		0
16						246	127	76	482	864		0
17						162	104	71	310	590		0
18						114	94	67	276	691		0
19						124	98	59	280	173		0
20						138	136	51	260	86		0
21						111	152	45	248	37		0
22						111	143	42	234	17		0
23						117	122	36	219	7.9		0
24						93	118	28	194	3.3		0
25						91	115	19	173	1.1		0
26						104	107	12	145	.6		0
27						101	109	10	127	0		0
28						101	104	10	111	2.3		0
29						218	90	8.2	98	2.2		0
30						186	80	7.1	87	0		0
31						204	-	6.3	-	0		0

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	48,654.4	3,460	0	133	96,500
January	0	0	0	0	0
February	0	0	0	0	0
March	4,905.4	394	0	158	9,730
April	4,201	251	80	140	8,330
May	1,970.6	124	6.3	63.6	3,910
June	23,919.7	10,200	.8	764	45,460
July	5,183.0	1,820	0	167	10,280
August	0	0	0	0	0
September	27	14	0	.90	54
Water year 1936-37	39,206.7	10,200	0	107	77,760

Careless Creek at Wallum, Mont.

Location.- Staff gage, lat. 46°25', long. 109°23', in SW¼ sec. 32, T. 8 N., R. 19 E., at highway bridge at Wallum, 7 miles north of Barber.

Records available.- April 1934 to September 1937.

Extremes.- Maximum discharge observed, 126 second-feet July 14 (gage height, 5.32 feet, from floodmark); no flow at times.
1934-37: Maximum discharge observed, 240 second-feet July 10, 1935 (gage height, about 7.0 feet), and Mar. 3, 1936 (gage height, 7.03 feet); no flow at times.

Remarks.- Records poor. No records Jan. 1 to Mar. 5. Period of ice effect, Mar. 6-15, 17-26. Gage read once daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	0	0.1	0	0		
2						-	15	.1	0	0		
3						-	7.6	.1	0	0		
4						-	5.8	.1	0	0		
5						-	5.0	.1	0	0		
6							2.3	.2	0	0		
7							1.8	.2	0	0		
8						*7.0	1.1	.2	0	0		
9							.8	.2	0	0		
10							.1	.3	0	0		
11						3.4	.1	.2	0	0		
12						2.0	.1	.2	0	0		
13						.1	0	.1	.5	0		
14						.1	0	.1	.1	48		
15						0	.2	.1	.2	2.0		
16						0	.1	.2	.2	0		
17						2.0	.1	.2	.1	0		
18						3.4	.1	.2	.1	0		
19						2.7	.2	.3	0	0		
20						.1	.2	.3	0	0		
21						.5	.2	.1	0	0		
22						.1	.2	.1	0	0		
23						.1	.1	.1	0	0		
24						.1	.1	0	0	0		
25						.1	.1	0	0	0		
26						.1	.1	0	0	0		
27						0	.1	0	0	0		
28						0	.1	0	0	0		
29						0	.1	0	0	0		
30						0	.1	0	0	0		
31						0	"	0	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year					
January					
February					
March 6-31	49.8	-	0	1.92	99
April	41.8	15	0	1.39	83
May	3.8	.3	0	.12	7.5
June	1.2	.5	0	.04	2.4
July	50.0	48	0	1.61	99
August	0	0	0	0	0
September	0	0	0	0	0
Water year					

*Estimated.

Box Elder Creek near Winnett, Mont.

Location.- Wire gage, lat. 47°00', long. 108°09', near north quarter corner of sec. 3, T. 14 N., R. 28 E., on highway bridge, a quarter of a mile above mouth of McDonald Creek and 9 miles east of Winnett.

Records available.- June 1930 to December 1932, February 1934 to September 1937 (fragmentary).

Extremes.- Maximum discharge observed during year, 4,730 second-feet July 14 (gage height, 11.1 feet); no flow for several months.
1930-32, 1934-37: Maximum discharge observed, 4,740 second-feet June 8, 1932; maximum gage height, that of July 14, 1937; no flow at times.

Remarks.- Records poor. No records Oct. 1 to Apr. 9 and Aug. 4 to Sept. 30. Some diversions for storage and for irrigation on tributaries. Gage read once daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							--		0	0.1	2.2	
2							--		0	.9	1.3	
3							--		0	.6	.9	
4							--		0	.3	--	
5							--		0	*.2	--	
6							-		0	0	--	
7							--		0	†0	--	
8							-		0	0	--	
9						†64	-		0	0	--	
10							6.4		0	0	--	
11							3.3	†0	‡50	0	--	
12							1.3		2,470	0	--	
13							.9		3,020	144	--	
14							.6		461	1,210	--	
15							.6		286	41	--	
16							.4		45	43	-	
17							.4		21	14	--	
18							.3		25	9.7	--	
19							.3		16	5.6	--	
20							.2		6.4	2.4	--	
21							.2		1.1	†1.8	-	
22							.2		2.8	1.0	--	
23							.2		1.9	1.0	--	
24							.2		1.8	.6	--	
25							.1		.7	.3	--	
26							.1		.6	.3	-	
27							.1		.4	.3	--	
28							.1		.4	.3	--	
29							0		.2	.6	--	
30							0		.2	16	--	
31							--		-	6.0	--	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April 10-30	15.9	6.4	0	0.76	32
May	0	0	0	0	0
June	6,413.5	3,020	0	214	12,720
July	1,600.0	1,210	0	48.4	2,980
August 1-5	4.4	2.2	.9	-	8.7
September	-	-	-	-	-
The period					15,740

*Interpolated.
†Discharge measurement.
‡Estimated.

94296 O—38——5

McDonald Creek at Winnett, Mont.

Location.- Wire gage, lat. 46°59', long. 108°20', in NE¼ sec. 6, T. 14 N., R. 27 E., at Winnett.
Records available.- April 1930 to December 1932, February 1934 to September 1937.
Extremes.- Maximum discharge during year, 401 second-feet July 13 (gage height, 18.75 feet, from floodmark); no flow at times.
1930-32, 1934-37: Maximum discharge observed, 562 second-feet June 9, 1932 (gage height, 20.40 feet); no flow at times.
Remarks.- Records fair. No records Jan. 1 to Mar. 8. Numerous diversions.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0.1				-	0.2	0	0	0		
2		0				-	.2	0	0	0		
3		0				-	1.5	0	0	0		
4		0				-	.6	0	0	0		
5		0				-	.4	0	0	0		
6		0				-	.2	0	0	0		
7		0				-	.2	0	0	0		
8		0				-	.1	0	0	0		
9		0				8.3	.1	.1	0	0		
10		0				6.0	.1	.1	0	0		
11		0				5.6	.1	0	.1	0		
12		0				2.0	.1	.1	7.8	0		
13		0				1.4	.1	.1	2.7	90		
14		0				.7	.1	0	102	156		
15		0				.7	.1	.1	88	24		
16		0				.5	.1	.1	22	6.0		
17		0				.4	.1	.1	2.8	*3.2		
18		0				.3	.1	.1	.5	.3		
19		0				.3	.1	0	.3	.1		
20		0				.3	.1	0	.1	0		
21		0				.2	.1	0	.1	0		
22		0				.2	.1	0	0	0		
23		0				.2	.1	0	0	0		
24		0				.4	.1	0	0	0		
25		0				.3	.1	0	0	0		
26		0				.3	.1	0	0	0		
27		0				.2	.1	0	0	0		
28		0				.2	0	0	0	0		
29		0				.2	0	0	0	.1		
30		0				.2	.1	0	0	.1		
31		-				.2	-	0	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	.1	.1	0	.003	.2
December	3.1	-	-	†.1	6.1
Calendar year					
January					
February					
March 9-31	29.1	-	.2	1.27	58
April	5.4	1.5	0	.18	11
May	.8	.1	0	.03	1.6
June	226.4	102	0	7.55	449
July	279.8	156	0	9.03	555
August	0	0	0	0	0
September	0	0	0	0	0
Water year					

*Interpolated.
†Estimated.

Flatwillow Creek near Flatwillow, Mont.

Location.- Chain gage, lat. 46°47', long. 108°37', in NE¼ sec. 19, T. 12 N., R. 25 E., on Flatwillow Land & Livestock Co.'s ranch, 12 miles above Flatwillow.

Drainage area.- 195 square miles.

Records available.- April 1918 to September 1932, February 1934 to September 1937. May 1911 to April 1918, at site in sec. 23, T. 12 N., R. 25 E., about 4 miles downstream.

Extremes.- 1911-32, 1934-37: Maximum discharge observed, 954 second-feet June 4-10, 1917 (gage height, 9.0 feet, at former site and datum); no flow at times.

Remarks.- No flow during year. Several diversions above station.

South Fork of Milk River near international boundary

(International gaging station)

Location.- Water-stage recorder, lat. 49°00', long. 112°32', in NW¼ sec. 6, T. 1, R. 19 W. fourth meridian, 1 mile north of international boundary and 20 miles west of Milk River, Alberta.

Drainage area.- 433 square miles.

Records available.- March 1931 to September 1937. April 1905 to October 1930, at site 5 miles south of international boundary.

Extremes.- Maximum discharge observed during year, 1,660 second-feet June 13 (gage height, 4.82 feet); no flow at times.
1905-37: Maximum stage, 15.4 feet June 6, 1908, former site and datum (discharge not determined); no flow at times.

Remarks.- Records good except those for Oct. 1-10 (estimated), and those for period of ice effect, Mar. 1 to Apr. 7 (computed on basis of one discharge measurement, gage heights, and weather records), which are fair. No records Nov. 1 to Feb. 28. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Rating table, Apr. 8 to Sept. 30, 1937 (gage height, in feet, and discharge, in second-feet)

0.5	0	1.1	27.4	2.0	241	3.0	671
.6	.6	1.2	40	2.2	311	3.5	932
.7	2.2	1.4	74	2.4	390	4.0	1,206
.8	6.0	1.6	119	2.6	478	4.5	1,492
.9	11.0	1.8	176	2.8	572	5.0	1,791
1.0	18.0						

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						3	32	293	78	55	*7.6	1.2
2						3	40	300	61	52	9.5	.8
3						4	49	300	54	47.5	25.5	.9
4						6	58	304	57	43.0	27.4	.9
5						8	†67	293	74	38.7	24.6	1.7
6	0.01					8	†85	275	84	35.0	*19.9	23.6
7						†8	100	248	78	32.4	15.2	15.2
8						10	152	211	89	29.9	*14.5	16.6
9						13	202	*194	100	27.4	13.8	21.3
10						15	322	176	95	24.6	13.8	17.3
11	0					16	403	173	112	21.8	15.2	13.1
12	0					16	378	*160	278	22.7	11.7	11.0
13	0					15	438	146	1,210	24.6	9.0	9.0
14	0					†15	501	158	1,010	26.5	8.0	7.5
15	0					14	506	132	606	29.9	*8.5	7.0
16	0					12	456	*132	330	31.2	9.0	5.6
17	0					11	370	132	268	33.7	3.7	5.6
18	0					11	326	*132	241	33.7	*4.3	5.2
19	0					10	304	132	202	27.4	4.9	4.9
20	0					9	286	122	170	22.7	4.9	4.9
21	0					†7	286	122	143	16.6	*3.9	5.2
22	0					5	244	117	124	14.5	*3.0	4.9
23	0					1	205	119	105	11.0	2.0	4.5
24	0					1	192	138	95	9.0	2.6	5.2
25	0					1	192	119	89	8.8	2.6	6.0
26	0					1	255	100	84	8.5	2.2	7.0
27	0					10	326	91	76	8.0	*1.9	7.5
28	0					13	345	95	70	7.0	*1.6	8.5
29	0					18	330	91	64	6.0	*1.4	11.7
30	0					22	311	82	57	7.0	*1.1	15.2
31	0					27	-	82	-	5.6	.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0.10	-	-	0.003	0.2
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	313	27	1	10.1	621
April	7,761	506	32	259	15,390
May	5,169	304	82	167	10,250
June	6,104	1,210	54	203	12,110
July	761.7	55	5.6	24.6	1,510
August	274.1	27.4	.8	8.84	544
September	249.3	23.6	.8	8.31	494
Water year					

*Interpolated.
†Estimated.

Milk River at Milk River, Alberta

(International gaging station)

Location.- Water-stage recorder, lat. 49°09', long. 112°05', in SE¼ sec. 28, T. 2., R. 16 W., fourth meridian, at Milk River, Alberta. Zero of gage is 3,402.78 feet above mean sea level.

Drainage area.- 1,104 square miles.

Records available.- July 1909 to September 1937. Prior to October 1920 station maintained by Department of the Interior, Canada.

Average discharge.- 24 years (1913-37), 265 second-feet.

Extremes.- Maximum discharge during year, 3,840 second-feet June 14 (gage height, 6.74 feet); minimum discharge observed during year, 0.6 second-foot Mar. 3 (discharge measurement, ice present).

1909-37: Maximum discharge, 7,460 second-feet May 22, 1927 (gage height, 11.41 feet); no flow at times.

Remarks.- Records good except those for periods of ice effect, Oct. 19-25, Oct. 31 to Nov. 10, and Nov. 29 to Apr. 8 which were computed on basis of nine discharge measurements, gage heights and weather records, and are fair. Flow increased during irrigation season by water from St. Mary Canal. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. Records collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	14	11				23	413	767	650	716	656
2	72	13	8			*1	25	404	454	683	722	563
3	72	12	7				26	521	196	705	722	484
4	68	12	6			2	58	521	124	711	716	448
5	68	10	4			5	85	505	100	716	722	448
6	70	10	4			6	88	558	152	722	711	433
7	60	10				7	162	547	634	711	711	270
8	60	10				11	297	623	694	716	711	196
9	58	12				14	789	767	722	711	700	160
10	53	14				18	778	778	722	711	700	156
11	51	19.7				23	886	784	756	711	694	150
12	49.0	19.7				28	672	784	875	716	694	135
13	51	28.2				33	666	756	2,150	722	688	127
14	49.0	28.2	*3			37	756	761	2,940	733	678	116
15	49.0	16.8				40	772	767	1,930	728	672	113
16	51	21.4				40	733	784	944	739	666	110
17	49.0	72				37	580	778	526	739	666	110
18	46.5	102				37	464	778	423	705	672	108
19	44	88				37	423	795	323	623	666	105
20	42	85				35	379	806	253	644	678	108
21	42	90				35	389	812	214	574	678	110
22	40	77				33	394	817	196	521	672	108
23	40	37.3				32	270	829	166	558	666	110
24	37	37.3				28	261	921	144	650	661	113
25	37	19.7				28	240	880	135	661	661	116
26	35.0	31.6	*2			26	283	829	127	666	661	119
27	31.6	21.4				25	474	795	119	678	666	121
28	29.9	18.0				25	601	800	110	683	678	121
29	31.6	16				23	526	806	105	683	666	133
30	26.5	14				23	469	795	403	683	672	121
31	18	-				23	-	795	-	683	672	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,503.1	72	18	48.5	2,980
November	960.3	102	10	32.0	1,900
December	105	11	-	3.4	208
Calendar year 1936	96,098.2	2,110	0	263	190,600
January	31	-	-	*1.0	61
February	28	-	-	*1.0	56
March	714	40	-	23.0	1,420
April	12,569	886	23	419	24,930
May	22,509	921	404	726	44,650
June	17,404	2,940	100	580	34,520
July	21,136	739	521	682	41,920
August	21,258	722	661	686	42,160
September	6,168	656	105	206	12,250
Water year 1936-37	104,385.4	2,940	-	286	207,000

*Estimated.

Milk River at eastern crossing of international boundary

(International gaging station)

Location.- Water-stage recorder, lat. 49°00', long. 110°35', in NE¼ sec. 6, T. 37 N., R. 9 E., at east crossing of international boundary, just below mouth of Canada Coulee, 30 miles north of Rudyard, Mont., and 37 miles south of Many Berries, Alberta. Zero of gage 2,698.92 feet above sea level.

Drainage area.- 2,514 square miles.

Records available.- August 1909 to September 1937. From August 1909 to November 1912 station maintained by Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Extremes.- Maximum discharge during year, 3,530 second-feet June 15 (gage height, 6.10 feet); minimum, 0.1 second-foot (estimated) Feb. 1 to Mar. 1.
1909-37: Maximum discharge, 12,000 second-feet May 23, 1927 (gage height, 10.16 feet); no flow at times.

Remarks.- Records good except those for periods of ice effect, Nov. 6-9, Nov. 11 to Apr. 6, which are fair. Discharge for Nov. 6-9, Nov. 11 to Dec. 31, Mar. 5 to Apr. 6 computed on basis of gage heights, weather records, and six discharge measurements; that for Jan. 1 to Mar. 4 estimated on basis of several gage heights and weather records. No diversions. Flow increased during irrigation season by water from St. Mary Canal. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	39.4	24			0.1	60	654	746	111	712	628
2	55	*31.1	14			.2	94	579	725	103	712	641
3	55	22.8	10			1	124	519	739	350	686	603
4	55	22.8	7			15	180	474	654	485	692	519
5	54	*17	4	1		76	184	508	381	542	712	463
6	52	12	10			141	240	610	269	579	706	*502
7	52	14	10			234	287	560	220	560	725	542
8	52	*13	8			190	622	560	177	597	725	463
9	49.0	12	6			161	654	597	332	597	706	391
10	47.5	8	4			184	767	585	666	641	680	283
11	49.0	10	*3			98	988	830	706	622	680	213
12	47.5	13	2			63	1,040	767	1,340	1,050	660	190
13	47.5	29	*2			56	988	753	1,350	1,170	647	180
14	46.0	27	2			55	865	718	2,060	1,050	660	174
15	43.8	34	4			*80	956	732	2,750	956	641	158
16	42.7	43	4			106	1,020	753	2,060	739	641	149
17	42.7	54	6			96	925	774	1,290	718	635	141
18	43.8	50	6			80	837	753	872	699	628	138
19	47.5	36	8			82	760	774	628	718	660	132
20	47.5	27	*13			92	616	774	474	692	660	126
21	49.0	34	18	.5		50	568	774	367	622	660	129
22	56	25	17			21	548	774	313	591	666	132
23	46.0	42	11			21	530	809	269	585	654	129
24	63	33	12			*22	530	851	230	566	673	124
25	52	46	14			22	458	844	220	525	622	126
26	58	38	12			18	442	902	184	641	610	132
27	61	32	14			18	468	851	158	732	641	138
28	56	30	9			20	479	788	149	706	673	144
29	49.0	28	6			29	566	802	144	718	641	149
30	43.8	31	6			33	753	802	124	712	610	164
31	38.3	-	4			72	-	781	-	706	622	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,555.6	63	38.3	50.2	3,090
November	854.1	54	8	28.5	1,690
December	270	24	2	8.71	536
Calendar year 1936	103,303.2	2,330	0	282	204,900
January	20.5	-	-	.66	40.7
February	2.8	-	-	.10	5.6
March	2,136.3	234	.1	68.9	4,240
April	17,547	1,040	60	585	34,800
May	22,252	902	474	718	44,140
June	20,597	2,750	124	687	40,860
July	20,083	1,170	103	648	39,830
August	20,640	726	610	666	40,940
September	8,003	641	124	267	15,870
Water year 1936-37	113,961.3	2,750	.1	312	226,000

*Interpolated.

Milk River at Lohman, Mont.

Location.- Water-stage recorder, lat. 48°36', long. 109°23', in SE¼ sec. 20, T. 33 N., R. 18 E., a quarter of a mile below Fort Belknap dam and three-quarters of a mile north of Lohman.

Records available.- March 1923 to September 1925, March 1934 to September 1937.

Extremes.- Maximum discharge observed during year, 2,680 second-feet June 16 (gage height, 11.24 feet); no flow Dec. 1-5 (estimated).
1923-25, 1934-37: Maximum discharge, 3,290 second-feet Mar. 24, 1925 (gage height, 13.20 feet, former site and datum); minimum, that of December 1-5, 1936.

Remarks.- Records good except those for periods of ice effect, Nov. 20 to Dec. 31, Mar. 1-28 which were computed on basis of two discharge measurements, gage heights, and weather records and are poor. No records for January and February. Fort Belknap Canal diverts at dam a quarter of a mile upstream. Flow increased during irrigation season by inflow from St. Mary Canal.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*17	19				14	118	400	527	80	449	436
2	*17	10				16	114	400	514	73	500	424
3	16	4.9	†0			17	134	330	474	66	514	412
4	13	3.6				24	147	105	462	66	487	400
5	16	3.8				26	201	265	462	114	462	400
6	16	3.8				28	274	232	307	364	449	487
7	16	3.6				109	318	296	242	424	462	651
8	15	6.4	†.1			285	353	330	203	449	462	556
9	14	10				376	474	307	147	412	487	556
10	12	7.9				376	793	318	114	412	487	449
11	16	7.0				412	1,010	376	527	412	474	353
12	16	8.5				424	1,070	474	802	449	449	265
13	16	7.9	†2.5			364	1,110	500	1,560	1,790	436	217
14	17	8.2				259	1,070	474	1,420	1,840	436	172
15	18	7.3				296	949	500	1,200	1,420	436	152
16	18	4.9				296	890	514	2,570	1,030	436	129
17	18	3.8				281	890	500	2,190	756	436	106
18	10	5.8	†3.5			215	793	474	1,370	685	424	91
19	12	16				199	685	527	909	634	436	68
20	16	18				191	586	487	668	586	487	56
21	18	19				189	474	527	514	556	474	50
22	20	22				176	424	527	353	500	487	48
23	20	24	†5.5			105	318	527	318	424	462	43
24	18	17				131	364	556	296	376	449	39
25	24	9.7				101	412	586	240	342	436	44
26	32					122	353	556	187	318	436	64
27	34					122	265	602	160	307	400	78
28	23	†5	†1.0			101	187	602	132	376	400	80
29	26					93	215	542	112	424	474	88
30	28					100	234	527	91	424	500	89
31	22	–				115	-	527	-	400	462	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	574	34	10	18.5	1,140
November	277.1	24	3.6	9.24	550
December	64.0	-	-	2.06	127
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	5,563	424	14	179	11,030
April	15,225	1,110	114	508	30,200
May	13,888	602	105	448	27,550
June	19,071	2,570	91	636	37,830
July	16,509	1,840	66	533	32,750
August	14,189	514	400	458	28,140
September	7,003	651	39	233	13,890
Water year					

*Interpolated.
†Estimated.

Milk River near Vandalia, Mont.

Location.- Staff gage, lat. 48°23', long. 106°57', in NE¼ sec. 7, T. 30 N., R. 37 E., at Vandalia Dam, 2 miles west of Vandalia.

Drainage area.- 21,900 square miles.

Records available.- May 1915 to September 1920, August 1928 to September 1937.

Extremes.- Maximum discharge observed during year, 5,990 second-feet Apr. 11 (gage height, 3.28 feet at gage above crest); minimum, 1.1 second-feet July 5, 6 (gage height, 1.66 feet).
1915-20, 1928-37: Maximum discharge, 25,200 second-feet Apr. 11, 1917 (gage height, 34.5 feet); no flow Aug. 9-13, 1910, June 5, 1919, Sept. 4, 7-16, 1929.

Remarks.- Records fair. Chain gage above crest of dam used Dec. 1 to Apr. 19. Gage read twice daily. Numerous diversions from river and tributaries above station, including Vandalia Canal, which diverts at dam above gage. Some regulation at Vandalia Dam and some storage in Nelson Reservoir.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	8.0	34	39	25	20	196	111	1.4	42	41	5.2
2	10	496	63	34	25	20	180	39	1.3	24	37	5.6
3	10	405	25	34	44	20	164	5.6	1.3	6.0	37	8.0
4	10	74	63	34	63	20	156	5.2	1.6	2.3	38	8.0
5	10	56	63	30	72	20	156	3.8	1.6	1.2	38	8.0
6	10	48	63	22	72	18	164	2.6	1.5	1.2	9.0	7.5
7	10	48	63	22	67	18	354	2.4	1.6	1.4	1.3	8.0
8	10	42	63	20	67	22	540	2.3	1.5	1.8	1.3	8.5
9	10	42	63	18	67	34	1,330	2.6	1.4	1.8	1.4	10
10	10	42	44	20	67	53	2,690	2.9	1.3	1.8	2.0	9.5
11	10	43	44	22	67	188	4,340	2.8	1.3	1.8	2.8	12
12	10	44	44	30	67	283	2,820	1.8	1,210	1.8	3.2	74
13	10	44	44	30	67	238	2,330	1.4	2,550	1.8	3.4	138
14	10	44	44	30	86	274	2,690	1.4	533	1.8	3.5	104
15	10	44	44	30	67	596	2,820	1.4	2,580	1.8	5.6	50
16	10	44	44	34	53	846	2,570	1.4	3,470	3.2	5.6	28
17	10	44	44	34	48	815	2,330	1.6	2,680	108	6.3	20
18	10	44	44	34	48	735	1,660	1.6	2,290	1,100	6.0	17
19	10	44	44	30	34	666	780	1.6	2,510	1,280	4.9	25
20	10	40	44	22	30	568	225	1.6	2,750	1,280	5.2	55
21	9.3	29	44	22	30	504	640	1.5	3,000	795	5.6	65
22	9.3	56	44	22	30	480	640	1.5	2,960	570	6.0	65
23	9.3	22	44	18	22	456	570	1.4	2,160	502	6.0	74
24	9.3	25	44	18	20	420	536	1.4	1,100	297	6.0	53
25	9.3	56	44	20	20	376	403	1.4	350	211	5.6	42
26	8.8	56	44	20	20	365	357	1.5	21	160	6.0	44
27	8.0	64	44	22	20	332	225	1.5	32	81	6.0	42
28	8.0	64	44	22	20	310	211	1.5	62	59	6.0	55
29	8.0	64	44	22	-	301	160	1.5	68	59	5.6	65
30	8.0	64	44	22	-	247	138	1.4	55	44	5.6	78
31	8.0	-	39	25	-	204	-	1.4	-	42	5.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	295.3	10	8.0	9.53	586
November	2,196.0	496	8.0	73.2	4,360
December	1,463	63	25	47.2	2,900
Calendar year 1936	132,176.4	7,230	3.4	361	262,200
January	802	39	18	25.9	1,590
February	1,318	86	20	47.1	2,610
March	9,439	846	18	304	18,720
April	32,375	4,340	138	1,079	64,210
May	210.0	111	1.4	6.77	417
June	30,396.8	3,470	1.3	1,013	60,290
July	6,683.7	1,280	1.2	216	13,260
August	316.1	41	1.3	10.2	627
September	1,184.3	138	5.2	39.5	2,350
Water year 1936-37	86,679.2	4,340	1.2	237	171,900

North Fork of Milk River above St. Mary Canal, near Browning, Mont.

(International gaging station)

Location.- Water-stage recorder, lat. 48°58', long. 113°03', in SW¼ sec. 16, T. 37 N., R. 11 W., about 1¼ miles above outlet of canal, 3 miles south of international boundary, and 30 miles north of Browning.

Drainage area.- 62 square miles.

Records available.- June 1921 to September 1937, May 1911 to July 1912, at site 1 mile below present gage. Records obtained at this station only when St. Mary Canal is in operation.

Extremes.- Maximum discharge during year, 659 second-feet June 12 (gage height, 4.72 feet); minimum, 5.5 second-feet Aug. 15 (gage height, .97 foot).
1911-12, 1921-37: Maximum discharge, that of June 12, 1937; minimum, 2.5 second-feet Aug. 12, 1933 (gage height, 0.35 foot).

Remarks.- Records good except those for the two days of high water, June 12, 13, which are fair. No record Nov. 1 to May 2. No diversions or regulation. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2							-	17.3	11.0	11.3	6.1
2	7.2							-	17.3	10.3	11.3	7.5
3	7.2							56	20.8	10.0	8.4	7.5
4	7.2							54	20.8	9.6	7.5	7.8
5	7.0							50	20.3	9.0	6.9	10.7
6	7.2							39.8	18.8	8.7	6.9	17.8
7	7.2							33.7	24.2	8.7	7.2	12.7
8	7.0							30.1	23.0	8.7	7.8	10.0
9	7.2							32.9	18.8	8.7	7.5	9.0
10	7.0							34.4	20.3	8.4	7.2	8.7
11	7.0							37.4	29.3	8.4	6.9	9.0
12	7.2							28.6	213	8.7	6.6	8.7
13	7.2							28.6	260	10.0	6.3	8.7
14	7.2							31.5	47.9	10.3	5.8	8.7
15	7.2							30.8	33.7	10.3	5.5	8.7
16	7.2							25.5	28.6	11.7	5.8	6.7
17	7.4							26.7	27.9	11.3	6.0	9.0
18	7.2							24.8	22.4	9.6	6.0	9.0
19	7.4							22.4	19.8	*9.1	6.9	9.0
20	8.2							23.0	17.3	*8.5	7.8	9.0
21	8.2							23.6	16.4	*8.0	7.2	9.0
22	7.8							21.3	15.6	*7.4	6.6	9.0
23	8.0							27.3	14.8	6.9	6.3	9.3
24	8.2							27.9	13.9	6.9	6.0	10.0
25	9.0							23.0	13.1	6.6	6.0	10.0
26	8.6							23.0	12.7	6.6	6.3	10.7
27	9.2							22.4	12.0	6.6	6.0	13.1
28	8.6							21.8	11.7	6.6	6.3	13.1
29	8.2							20.8	11.7	6.3	6.6	15.2
30	8.0							19.3	11.3	5.8	6.9	13.9
31	7.6							17.3	-	6.9	6.9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	236.0	9.2	7.0	7.61	468
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January					
February					
March					
April					
May 3-31	857.9	56	17.3	29.6	1,700
June	1,034.7	260	11.3	34.5	2,050
July	265.6	11.7	5.8	8.57	527
August	216.7	11.3	5.5	6.99	430
September	301.6	17.8	7.5	10.1	598
Water year					

*Interpolated.

North Fork of Milk River near international boundary

(International gaging station)

Location.- Water-stage recorder, lat. 49°01', long. 112°59', in NE¼ sec. 11, T. 1, R. 23 W. fourth meridian, about 2 miles north of international boundary and 18 miles east of Kimball, Alberta.

Drainage area.- 101 square miles.

Records available.- January 1913 to September 1937. July 1909 to December 1912 at site in NE¼ sec. 13, T. 1, R. 23 W. fourth meridian, about 2 miles downstream.

Extremes.- Maximum discharge during year, 1,490 second-feet June 12 (gage height, 6.06 feet); minimum occurred during period of ice effect.
1909-37: Maximum discharge, that of June 12, 1937; minimum discharge observed, 3.2 second-feet Mar. 1, 1927.

Remarks.- Records good except those for periods of ice effect, Mar. 1 to Apr. 26, which were computed on basis of gage heights, weather records, and two discharge measurements and are poor. No records Nov. 1 to Feb. 28. No diversions. Flow increased during irrigation season by discharge of St. Mary Canal. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64					10	17	105	307	635	731	545
2	62					12	17	238	144	688	731	473
3	64					15	20	180	105	704	727	456
4	64					17	24	199	72	*708	727	448
5	61					17	28	263	347	711	715	364
6	61					20	33	273	601	711	711	225
7	53					20	40	392	639	711	715	174
8	47.5					20	45	556	646	711	711	162
9	46.2					20	51	586	635	*710	708	156
10	47.5					20	54	601	646	708	708	153
11	48.8					20	56	597	669	*710	708	144
12	48.8					20	57	594	986	711	708	135
13	48.8					20	59	601	1,090	*713	708	129
14	50					20	61	605	626	715	708	129
15	46.2					20	62	601	254	*725	708	124
16	46.2					20	62	608	90	735	708	124
17	51					17	62	623	52	642	708	121
18	47.5					15	62	639	37.2	597	708	121
19	46.2					12	64	658	34.4	579	711	121
20	51					10	64	665	30.0	*548	719	121
21	50						54	680	25.0	516	711	118
22	47.5						44	684	*22.0	620	708	118
23	28.6						39	696	19.1	673	715	121
24	22.3						36	684	19.1	680	711	118
25	23.0						39	669	*19.1	688	708	124
26	22.3					5	77	669	19.1	692	711	121
27	22.3						79	665	19.1	688	708	121
28	20.9						61	669	12.8	700	692	110
29	15.4						68	680	627	708	688	52
30	13.6						61	680	*631	708	688	22.4
31	10.0						-	661	-	711	654	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,330.6	64	10.0	42.9	2,640
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	400	20	-	12.9	793
April	1,496	79	17	49.9	2,970
May	17,021	696	105	549	33,760
June	9,423.9	1,090	12.8	314	18,690
July	21,056	735	516	679	41,760
August	21,972	731	654	709	43,580
September	5,460.4	545	22.4	182	10,810
Water year					

*Interpolated.
†Estimated.

Big Sandy Creek near Box Elder, Mont.

Location.- Staff gage, lat. 48°22', long. 109°59', in NE¼ sec. 13, T. 30 N., R. 13 E., just below mouth of Sage Creek, at Cowan ranch, 3 miles north of Box Elder.

Records available.- March 1928 to September 1932, March 1934 to September 1937.

Extremes.- Maximum discharge observed during year, 18.6 second-feet Mar. 12, by current-meter measurement (gage height, 4.27 feet, ice present); minimum, no flow at times.
1928-32, 1934-37: Maximum discharge observed, 338 second-feet Mar. 25, 1928 (gage height, 10.96 feet); no flow at times.

Remarks.- Records poor. Data insufficient to warrant estimates of discharge for Nov. 22 to Dec. 31. No records Jan. 1 to Mar. 11. Flow regulated by storage in Cowan Reservoir. Small diversions for irrigation above station. Gage read twice daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.4				-	0.5	0.2	0.5	0.6	0.2	
2	0	.3				-	.6	.1	.4	.6	.2	
3	0	.3				-	.5	.1	.5	.6	.1	
4	0	.4				-	.6	.1	.5	.6	.1	
5	0	.2				-	.6	.1	.5	.4	.1	
6	0	.4				-	.6	.2	.4	.6	0	
7	0	.3				-	.6	.2	.5	.6	0	
8	0	1.8				-	.5	.3	.4	.4	0	
9	0	1.5				-	.5	.3	.5	.4	.1	
10	0	1.0				-	.6	.3	.5	.4	.1	
11	0	1.2				-	.4	.3	.6	.4	0	
12	0	1.3				18.6	.4	.4	1.5	.4	0	
13	0	1.2				14.2	.5	.4	.8	.6	.1	
14	0	1.0				.6	.5	.3	.6	.7	0	
15	0	.9				4.8	.5	.4	.7	.6	0	
16	0	.7				1.0	.4	.4	.8	.6	0	
17	0	.6				.7	.4	.4	.9	.6	0	
18	0	.4				.5	.4	.4	.8	.4	0	
19	0	.4				.4	.4	.4	.8	.4	0	
20	.1	.4				.4	.5	.4	.8	.4	0	
21	.1	.4				.4	.4	.4	.7	.3	0	
22	.2	-				.3	.4	.4	.8	.3	0	
23	.2	-				.4	.4	.6	.8	.3	0	
24	.3	-				.6	.4	.5	.6	.4	0	
25	.2	-				.6	.5	.6	.6	.3	0	
26	.3	-				.6	.3	.4	.7	.3	0	
27	.2	-				.6	.3	.5	.7	.2	0	
28	.2	-				.5	.2	.5	.6	.1	0	
29	.3	-				.6	.3	.4	.6	.2	0	
30	.3	-				.6	.3	.5	.4	.1	0	
31	.2	-				.6	-	.4	-	.1	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2.6	0.3	0	0.08	5.2
November 1-21	15.1	1.8	.2	.72	30
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 12-31	47.0	18.6	.3	2.35	93
April	13.5	.6	.2	.45	27
May	10.9	.6	.1	.35	22
June	19.5	1.5	.4	.65	39
July	12.9	.7	.1	.42	26
August	1.0	.2	0	.03	2.0
September	0	0	0	0	0
Water year					

Lodge Creek at international boundary

(International gaging station)

Location.- Water-stage recorder, lat. 49°01', long. 109°45', in SE¼ sec. 12, T. 1, R. 29 W. third meridian, in Saskatchewan, 1 mile north of international boundary, 1½ miles above mouth of McRae Coulee, and 30 miles northwest of Havre, Mont. Zero of gage is 2,721.06 feet above mean sea level.

Drainage area.- 797 square miles.

Records available.- April 1910 to September 1937. Prior to 1917 station maintained by Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Extremes.- Maximum discharge during year, 2,200 second-feet Apr. 10 (gage height, 9.76 feet); no flow at times.
1910-37: Maximum discharge, 3,680 second-feet May 23, 1927 (gage height, 12.40 feet); no flow at times.

Remarks.- Records excellent. Several diversions above gage. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.87	0	2.5	87	5.5	590
1.0	.15	3.0	148	6.0	710
1.2	.7	3.5	218	6.5	845
1.4	5	4.0	296	7.0	995
1.6	15	4.5	384	8.0	1,360
1.8	28	5.0	480	9.0	1,790
2.0	42				

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	1.4	21.0	0			
2						0	1.9	14.0	0			
3						0	1.7	8.0	0			
4						0	1.6	4.4	0			
5						0	13.0	3.8	0			
6						0	116	2.6	0			
7						0	233	1.6	0			
8						0	547	1.2	0			
9						0	1,080	1.1	0			
10						0	1,680	.8	0			
11						0	1,240	.6	0			
12						0	744	.4	0			
13						0	418	.3	0			
14						0	316	.3	0			
15						.1	228	.2	0			
16						.1	210	.1	0			
17						.3	145	.1	0			
18						.6	98	.1	0			
19						28.0	86	.1	0			
20						19.8	67	.1	0			
21						19.2	67	0	0			
22						15.0	74	0	0			
23						12.0	62	0	7.9			
24						29.4	48.4	0	2.0			
25						32.2	32.2	0	.6			
26						16.8	18.6	0	.3			
27						8.0	14.0	0	.2			
28						5.5	15.0	0	.1			
29						2.9	29.4	0	0			
30						1.9	28.7	0	0			
31						1.7	-	0	0			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	6,274.8	-	0	17.1	12,440
January	0	0	0	0	0
February	0	0	0	0	0
March	193.5	32.2	0	6.24	384
April	7,616.9	1,680	1.4	254	15,110
May	60.8	21.0	0	1.96	121
June	11.1	7.9	0	.37	22
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1936-37	7,882.3	1,680	0	21.6	15,640

McRae Coulee at international boundary

(International gaging station)

Location.- Water-stage recorder, lat. 49°01', long. 109°43', in NW¼ sec. 5, T. 1, R. 28 W. third meridian, a quarter of a mile above mouth and three quarters of a mile north of international boundary in Saskatchewan.

Drainage area.- 53 square miles.

Records available.- March 1927 to September 1937.

Extremes.- Maximum discharge during year, 216 second-feet Apr. 7 (gage height, 4.88 feet); no flow during most of year.
1927-37: Maximum discharge, 486 second-feet May 23, 1927 (gage height, 5.74 feet); no flow at times.

Remarks.- Records good. No regulation or diversion. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	0					
2						0	0					
3						0	0					
4						0	1.0					
5						0	4.3					
6						0	35.7					
7						0	110					
8						0	143					
9						0	72					
10						0	26.0					
11						0	7.5					
12						0	3.4					
13						0	1.9					
14						0	.7					
15						.3	.3					
16						.2	.2					
17						1.6	0					
18						2.6	0					
19						2.0	0					
20						1.2	0					
21						.3	0					
22						0	0					
23						0	0					
24						0	0					
25						0	0					
26						0	0					
27						0	0					
28						0	0					
29						0	0					
30						0	0					
31						0	-					

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	487.3	234	0	1.33	967
January	0	0	0	0	0
February	0	0	0	0	0
March	8.2	2.6	0	.26	16
April	406.0	143	0	13.5	805
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	0	0	0	0	0
Water year 1936-37	414.2	143	0	1.13	821

North Chinook Canal near Havre, Mont.

Location.- Water-stage recorder, lat. 48°47', long. 109°26', in SE¼ sec. 2, T. 35 N., R. 17 E., 1 mile below headworks of canal and 23 miles northeast of Havre.

Records available.- May 1928 to September 1937.

Remarks.- Records poor. No record Mar. 1 to Apr. 19. Canal diverts floodwater from Lodge Creek, in sec. 3, T. 35 N., R. 17 E., and stores it in North Chinook Reservoir for irrigation of lands between Lodge Creek and Battle Creek north of Chinook.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	29	0			
2							-	31	0			
3							-	23	0			
4							-	18.1	0			
5							-	13.7	0			
6							-	10.2	0			
7							-	8.1	0			
8							-	6.8	0			
9							-	6.7	0			
10							-	5.5	0			
11							-	4.4	0			
12							-	3.8	1.2			
13							-	3.3	1.2			
14							-	2.9	.1			
15							-	2.7	0			
16							-	2.2	0			
17							-	1.9	0			
18							-	1.4	0			
19							-	.3	0			
20							85	0	0			
21							70	0	0			
22							66	0	0			
23							72	0	0			
24							66	0	0			
25							56	0	0			
26							44	0	0			
27							30	0	0			
28							23	0	0			
29							17.1	0	0			
30							15.7	0	0			
31							-	0	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year					
January	0	0	0	0	0
February	0	0	0	0	0
March	-	-	-	-	-
April 20-30	544.8	85	15.7	49.5	1,080
May	175.0	29	0	5.65	347
June	2.5	1.2	0	.08	5.0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year					

Battle Creek at international boundary

(International gaging station)

Location.- Water-stage recorder, lat. 49°00', long. 109°25', in SE¼ sec. 4, T. 1, R. 26 W. third meridian, in Saskatchewan, a quarter of a mile above international boundary and 35 miles north of Chinook, Mont. Zero of gage is 2,731.04 feet above mean sea level.

Drainage area.- 726 square miles.

Records available.- April 1917 to September 1937.

Extremes.- Maximum discharge during year, 622 second-feet Apr. 8 (gage height, 4.97 feet); no flow at times.
1917-37: Maximum discharge, 3,200 second-feet Apr. 13, 1917 (gage height, 8.50 feet); no flow at times.

Remarks.- Records good except those for period of ice effect, Mar. 19-24, which are fair. Numerous diversions above station. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	0.4	2.4				
2						0	.4	4.1				
3						0	.6	4.1				
4						0	.7	2.4				
5						0	18.4	1.4				
6						0	74	1.2				
7						0	168	1.0				
8						0	361	.8				
9						0	357	1.3				
10						0	264	1.4				
11						0	126	1.0				
12						0	112	.8				
13						0	106	.6				
14						0	78	.4				
15						0	85	.4				
16						.4	110	.3				
17						4.5	108	*.2				
18						14.0	79	.1				
19						48.0	67	0				
20						.9	63	0				
21						5.0	49.7	0				
22						0	33.0	0				
23						1.3	28.2	0				
24						.1	22.2	0				
25						.7	18.4	0				
26						.6	14.8	0				
27						.4	12.2	0				
28						.2	9.0	0				
29						.4	5.4	0				
30						.5	3.7	0				
31						.5	-	0				

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	6,520.5	1,230	0	17.8	12,940
January	0	0	0	0	0
February	0	0	0	0	0
March	77.5	48.0	0	2.50	154
April	2,375.1	361	.4	79.2	4,710
May	23.9	4.1	0	.77	47
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1936-37	2,476.5	361	0	6.78	4,910

*Interpolated.

Woodpile Coulee near international boundary

(International gaging station)

Location.- Water-stage recorder, lat. 48°58', long. 109°31', in NW¼ sec. 8, T. 37 N., R. 17 E., just below Antelope Coulee and 1.1 miles south of international boundary, Montana.

Drainage area.- 70 square miles.

Records available.- March 1927 to September 1937.

Extremes.- Maximum discharge during year, 341 second-feet Apr. 9 (gage height, 5.71 feet); no flow at times.
1927-37: Maximum discharge, 544 second-feet Apr. 13, 1936 (gage height, 7.11 feet); no flow at times.

Remarks.- Records fair. No diversions. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.2	0	1.9	15	3.0	87
1.3	.1	2.0	21	3.5	126
1.4	.4	2.2	33	4.0	170
1.5	.9	2.4	46	4.5	220
1.6	2	2.6	59	5.0	270
1.7	5	2.8	73	5.5	320
1.8	9				

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	0			0		
2						0	0			0		
3						0	.1			0		
4						0	.8			0		
5						0	18.0			0		
6						0	60			0		
7						0	141			0		
8						0	208			0		
9						0	150			0		
10						0	58			0		
11						0	18.6			0		
12						0	4.7			0		
13						0	2.0			0		
14						0	1.1			0		
15						0	.6			.5		
16						0	.3			.4		
17						2.0	.2			.1		
18						4.4	.1			0		
19						15.6	0			0		
20						28.8	0			0		
21						19.8	0			0		
22						*17	0			0		
23						*13	0			0		
24						*10	0			0		
25						*7	0			0		
26						*5	0			0		
27						0	0			0		
28						0	0			0		
29						0	0			0		
30						0	0			0		
31						0	-			0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	1,006.3	394	0	2.75	2,000
January	0	0	0	0	0
February	0	0	0	0	0
March	120.6	28.8	0	3.89	239
April	663.5	208	0	22.1	1,320
May	0	0	0	0	0
June	0	0	0	0	0
July	1.0	.5	0	.03	2.0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1936-37	785.1	208	0	2.15	1,560

*Interpolated.

East Fork of Battle Creek near international boundary

(International gaging station)

Location.- Water-stage recorder, lat. 48°58', long. 109°08', in NW¼ sec. 17, T. 37 N., R. 20 E., 2 miles south of international boundary, about 6 miles above mouth of Lyons Coulee, and 27 miles north of Chinook, Mont.

Drainage area.- 98 square miles.

Records available.- March 1927 to September 1937.

Extremes.- Maximum discharge during year, 272 second-feet Apr. 9 (gage height, 5.45 feet); no flow at times.
1927-37: Maximum discharge observed, 507 second-feet Apr. 12, 1936 (gage height, 6.65 feet); no flow at times.

Remarks.- Records good except those for period of ice effect, Mar. 11-24, which were computed on basis of one discharge measurement, gage heights, and weather records and are fair. No diversions. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	0					
2						0	0					
3						0	0					
4						0	.2					
5						0	2.4					
6						0	19					
7						0	80					
8						0	115					
9						0	140					
10						0	113					
11						15	38					
12						*8	7.0					
13						0	2.2					
14						0	2.2					
15						0	1.8					
16						0	1.4					
17						.2	.6					
18						1.1	.3					
19						18	.2					
20						26	.1					
21						19	.1					
22						*15	0					
23						11	0					
24						1.1	0					
25						0	0					
26						0	0					
27						0	0					
28						0	0					
29						0	0					
30						0	0					
31						0	-					

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	1,391.4	507	0	3.80	2,760
January	0	0	0	0	0
February	0	0	0	0	0
March	114.4	26	0	3.69	227
April	523.5	140	0	17.4	1,040
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	0	0	0	0	0
Water year 1936-37	637.9	140	0	1.75	1,270

*Interpolated.

Lyons Coulee at international boundary

(International gaging station)

Location.- Staff gage, lat. 49°01', long. 109°14', in SW¼ sec. 12, T. 1, R. 25 W. third meridian, 1½ miles north of international boundary and 7 miles southwest of Arena, Saskatchewan.

Records available.- October 1935 to September 1937, March 1927 to September 1935 at site at Norheim half a mile south of international boundary.

Extremes.- Maximum discharge observed during year ending Sept. 30, 1936, 326 second-feet Apr. 12 (gage height, 6.75 feet); no flow at times.
Maximum discharge observed during year ending Sept. 30, 1937, 152 second-feet Apr. 9 (gage height, 5.1 feet); no flow at times.
1927-37: Maximum discharge observed, 668 second-feet Apr. 3, 1927 (gage height, 7.65 feet, former site and datum); no flow at times.

Remarks.- Records below 80 second-feet are good; because of lack of measurements at high stages, those above 80 second-feet are poor. Gage read twice daily. Some small diversions above gage when creek flows, during irrigation season. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Rating table, water years 1935-36 and 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting control method used in 1936)

2.5	0	3.4	20
2.6	.2	3.6	32
2.7	.8	3.8	45
2.8	1.4	4.0	59
2.9	2.1	4.5	98
3.0	4	5.0	143
3.1	7	5.5	188
3.2	10	6.0	237
3.3	15	6.5	287

Discharge, in second-feet, 1935-37

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	0.6				
2							0	.3				
3							0	.1				
4							0	.1				
5							0	0				
6							0	0				
7							0	0				
8							0	0				
9							0	0				
10							3.e	0				
11							66	0				
12							273	0				
13							192	0				
14							73	0				
15							35.0	0				
16							3.8	0				
17							2.0	0				
18							1.3	0				
19							1.3	0				
20							.9	0				
21							.7	0				
22							.6	0				
23							.5	0				
24							.7	0				
25							1.3	0				
26							1.0	0				
27							1.0	0				
28							1.0	0				
29							1.0	0				
30							.7	0				
31							-	0				

94296 O—38——6

Discharge, in second-feet of Lyons Coulee at international boundary, 1935-37 -- Continued

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	0					0
2						0	0					0
3						0	0					0
4						0	0					0
5						0	.1					0
6						0	30.8					15.0
7						0	*28.5					.1
8						0	†60					0
9						0	99					0
10						0	88					0
11						0	30.8					0
12						0	8.5					0
13						0	6.4					0
14						0	3.6					0
15						0	2.7					0
16						0	2.1					0
17						1.5	1.8					0
18						.9	1.7					0
19						1.8	1.4					0
20						.5	.9					0
21						.1	.6					0
22						0	.1					0
23						0	0					0
24						0	0					0
25						0	0					0
26						0	0					0
27						0	0					0
28						0	0					0
29						0	0					0
30						0	0					0
31						0	-					-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1935	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1935	933.8	248	0	2.56	1,850
January 1936	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	660.6	273	0	22.0	1,310
May	1.1	.6	0	.04	2.2
June	0	0	0	0	0
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1935-36	661.7	273	0	1.81	1,310
October 1936	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	661.7	273	0	1.81	1,310
January 1937	0	0	0	0	0
February	0	0	0	0	0
March	4.8	1.8	0	.15	9.5
April	367.0	99	0	12.2	728
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	15.1	15.0	0	.50	30
Water year 1936-37	386.9	99	0	1.06	768

*From mean of four discharge measurements.
†Estimated.

Matheson Canal near Chinook, Mont.

Location.- Water-stage recorder, lat. 48°36', long. 109°09', in NW¼ sec. 29, T. 33 N., R. 20 E., at headworks of canal, 3½ miles east of Chinook.

Records available.- April 1905 to October 1921, May 1928 to September 1937.

Remarks.- Records fair except those for June 1 to August 7, which are poor. Staff gage readings used after June 8. Canal diverts water from right bank of Battle Creek for irrigation of lands between Battle Creek and Milk River.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								6.5	1.0	0	0.6	
2								5.2	.8	0	.6	
3								3.9	.8	0	.5	
4								4.0	.8	0	.5	
5								4.4	1.0	0	.4	
6								4.5	.9	0	.2	
7								4.0	1.0	0	0	
8								3.7	.8	0	0	
9								4.0	.8	0	0	
10							*0.5	4.4	.8	0	0	
11								4.4	3.2	0	0	
12								3.9	10.2	0	0	
13								5.2	4.7	0	0	
14								9.0	3.2	0	0	
15								8.5	2.7	0	0	
16								4.4	2.0	11.0	0	
17								3.4	2.4	11.6	0	
18							3.3	3.0	1.8	10.9	0	
19							10.0	2.8	1.2	8.5	0	
20							9.7	3.0	.9	5.5	0	
21							11.0	3.0	.6	3.7	0	
22							10.9	2.9	.4	2.3	0	
23							10.1	2.7	.3	1.6	0	
24							7.9	2.5	.2	1.4	0	
25							7.3	2.2	.1	1.5	0	
26							9.7	1.9	.1	1.0	0	
27							10.0	1.6	.1	1.0	0	
28							9.0	1.4	.1	.9	0	
29							8.4	1.3	.1	1.0	0	
30							7.5	1.2	.1	.9	0	
31							-	1.1	-	.9	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	357.1	-	-	-	709
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	123.3	11.0	-	4.11	245
May	114.0	9.0	1.1	3.88	226
June	43.1	10.2	.1	1.44	86
July	63.7	11.6	0	2.05	128
August	2.8	.6	0	.09	5.6
September	0	0	0	0	0
Water year 1936-37	346.9	-	-	-	688

*Estimated.

Whitewater Creek near international boundary

(International gaging station)

Location.- Water-stage recorder, lat. 48°57', long. 107°52', in NW¼ sec. 24, T. 37 N., R. 29 E., just below mouth of North Fork of Whitewater Creek, 3⅔ miles south of international boundary, 5 miles northeast of Lowrane, Mont., and 14 miles south of Orkney, Saskatchewan.

Records available.- March 1927 to September 1937.

Extremes.- Maximum discharge observed during year, 27.7 second-feet July 11 (gage height, 1.82 feet); no flow at times.
1927-37: Maximum discharge, 1,140 second-feet Apr. 5, 1927 (gage height, 4.71 feet); no flow at times.

Remarks.- Records fair. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1						0	0.2	0.1	0		0
2	.1						0	.2	.1	0		0
3	.1						0	.2	0	0		0
4	.1						0	.2	0	0		0
5	.1						*1	.1	0	0		0
6	.1						*3	.1	0	0		0
7	.1						*8	.1	.1	0		0
8	.1						*11	.1	0	0		0
9	†.1						‡15	.1	0	0		0
10	.1						*14	.1	0	0		0
11	.1						11.8	.1	.1	5.1		0
12	†.1						2.9	0	.1	.8		0
13	†.1						2.3	.1	.1	.1		0
14	†.1						2.0	.1	.1	0		0
15	.1						1.4	.1	.1	0		0
16	†.1						.5	.1	.1	0		0
17	.1						.3	.1	.1	0		0
18	.1						.4	.1	0	0		0
19	†.1						.2	.1	0	0		0
20	†.2						.2	.1	0	0		0
21	†.2						.2	.1	0	0		0
22	.2						.2	.1	0	†0		0
23	†.2						.2	.2	0	0		0
24	.1						.2	.1	0	0		0
25	.1						.2	.1	0	0		0
26	†.1						.2	.1	0	0		0
27	†.1						.2	.1	0	0		.1
28	†.1						.2	.1	0	0		.1
29	.1						.2	.1	0	0		†.1
30	†.1						.2	.1	0	0		†.1
31	.1						-	.1	-	0		-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3.5	0.2	0.1	0.11	6.9
November	3.0	-	-	*.10	6.0
December	0	0	0	*0	0
Calendar year					
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	76.0	15	0	2.53	151
May	3.5	.2	0	.11	6.9
June	1.0	.1	0	.03	2.0
July	6.0	5.1	0	.19	12
August	0	0	0	0	0
September	0.4	.1	0	.01	.8
Water year 1936-37	93.4	15	0	.26	186

*Estimated.
†Interpolated.
‡Computed from staff-gage reading and temperature records (ice affected).

Frenchman River at international boundary

(International gaging station)

Location.- Water-stage recorder, lat. 49°00', long. 107°18', at international boundary, at north edge of lot 3, sec. 6, T. 37 N., R. 34 E. Prior to June 23, 1937, water-stage recorder about half a mile upstream in SW¼ sec. 4, T. 1, R. 10 W. third meridian, in Saskatchewan.

Drainage area.- 2,020 square miles (revised).

Records available.- April 1917 to September 1937.

Extremes.- Maximum discharge during year, 347 second-feet July 14 (gage height, 4.28 feet); no flow at times.
1917-37: Maximum discharge, 5,440 second-feet Mar. 29, 1925 (gage height, 13.12 feet, former site and datum); no flow at times.

Remarks.- Records good. Numerous diversions in Canada. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	*0.5	23.1	0	107		
2						0	.3	21.0	0	63		
3						0	2.8	17.4	0	50		
4						0	2.8	9.2	0	58		
5						0	14.0	4.5	0	58		
6						0	38.8	2.0	0	57		
7						1.8	39.8	1.1	0	53		
8						1.1	64	.5	0	26.2		
9						.8	128	.2	0	11.6		
10						.6	149	.1	0	6.4		
11						.3	155	.1	0	2.0		
12						.1	124	0	0	50		
13						0	86	0	.4	164		
14						0	47.7	0	2.0	71		
15						0	28.0	0	2.5	114		
16						0	16.2	0	2.3	89		
17						†.1	10.5	0	1.3	53		
18						.5	6.0	0	.9	56		
19						.6	3.9	0	.7	67		
20						.5	2.5	0	.3	40.5		
21						.2	1.5	0	.2	31.4		
22						0	1.1	0	.1	18.6		
23						0	.9	0	.4	10.6		
24						0	31.8	0	.3	5.0		
25						0	83	0	.2	1.9		
26						0	59	0	.1	.8		
27						0	48.8	0	0	.7		
28						0	28.0	0	0	.4		
29						.6	21.0	0	0	.2		
30						.6	22.4	0	0	.1		
31						.7	-	0	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	20,452.3	1,280	0	55.9	40,570
January	0	0	0	0	0
February	0	0	0	0	0
March	8.5	1.8	0	.27	17
April	1,217.3	155	.3	40.6	2,410
May	79.2	23.1	0	2.55	157
June	11.7	2.5	0	.39	23
July	1,266.4	164	0	40.9	2,510
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1936-37	2,583.1	164	0	7.08	5,120

*Interpolated.
†Estimated.

Frenchman Canal near Saco, Mont.

Location.- Water-stage recorder, lat. 48°36', long. 107°16', in NE¼ sec. 27, T. 33 N., R. 34 E., 14 miles northeast of Saco.

Records available.- May 1928 to September 1937.

Remarks.- Records poor. Canal diverts from Frenchman River about 1 mile above gage for irrigation of land in Frenchman Valley.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	11.4		0		
2							0	9.0		0		
3							0	9.7		0		
4							0	9.4		0		
5							0	8.7		10.7		
6							0	7.7		17.3		
7							0	6.6		14.1		
8							0	4.2		7.4		
9							0	2.8		16.8		
10							0	1.8		14.3		
11							0	.3		12.2		
12							0	.9		8.3		
13							0	1.1		3.7		
14							0	.8		6.7		
15							0	.4		24.0		
16							0	.1		27.3		
17							0	0		22.1		
18							1.6	0		20.8		
19							5.2	0		18.5		
20							4.0	0		20.0		
21							3.1	0		19.0		
22							2.4	0		14.3		
23							2.8	0		13.3		
24							2.9	0		12.2		
25							2.3	0		9.4		
26							1.8	0		6.2		
27							7.7	0		3.9		
28							6.4	0		2.0		
29							2.4	0		.6		
30							10.2	0		0		
31							-	0		0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	924.4	-	-	-	1,820
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	52.8	10.2	0	1.76	105
May	74.5	11.4	0	2.40	148
June	0	0	0	0	0
July	325.1	27.3	0	10.5	645
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1936-37	452.4	-	-	-	898

Rock Creek at international boundary

(International gaging station)

Location.- Chain gage, lat. 48°59', long. 106°47', in SE¼ sec. 1, T. 37 N., R. 37 E., three-quarters of a mile south of international boundary, 2 miles above mouth of Horse Creek, and 5 miles west of Barnard, Mont.

Drainage area.- 242 square miles.

Records available.- March 1927 to September 1937. Station maintained by Department of the Interior, Dominion of Canada, 1914-15 at present location and 1916-26 at site below mouth of Horse Creek.

Extremes.- Maximum discharge during year, 208 second-feet July 13 (gage height, 4.55 feet, from floodmark); no flow at times.
1927-37: Maximum discharge, 982 second-feet Apr. 6, 1927 (gage height, 10.51 feet); no flow at times.

Remarks.- Records for July are fair; others are poor because of insufficient gage readings. Those for November, December, and March computed on basis of weather records, observer's notes, and one discharge measurement. One small diversion above gage. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0				0	12.7	1.8	*1.1	0		
2		0				0	*13.5	1.5	1.1	0		
3		0	†0.5			0	*14.3	*1.5	*1.0	0		
4		0				0	15.1	1.5	*.9	0		
5		0	0			0	*34.6	*1.5	*.7	0		
6			0			0	54	*1.5	*.6	0		
7			0			0	*76	*1.5	*.5	0		
8			0			0	99	*1.5	*.4	0		
9			0			0	*108	1.5	*.2	0		
10			0			†1.0	118	*1.6	.1	0		
11			0			5.0	*84	*1.6	.1	0		
12			0			†4.0	51	*1.6	*.1	0		
13			0			3.0	26.5	*1.7	*.1	60		
14			0			†2.0	*26.5	*1.8	*.1	125		
15			0			†2.0	26.5	1.8	*.1	65		
16			0			†1.0	*21.4	1.8	.1	64		
17			0			1.0	*16.3	*1.7	*.1	55		
18		†.5	0			†.5	11.2	*1.7	*0	42.5		
19			0			.5	*9.2	*1.6	*0	18.6		
20			0			.5	7.2	*1.5	0	7.6		
21			0			†.6	6.1	*1.4	0	4.2		
22			0			†.6	*5.4	*1.4	0	2.3		
23			0			†.7	*4.6	1.3	0	1.0		
24			0			†.8	3.9	*1.3	0	.8		
25			0			.8	3.6	*1.2	0	.6		
26			0			†.9	*3.0	*1.2	0	.5		
27			0			.9	*2.4	*1.1	0	.3		
28			0			†1.0	1.8	1.1	0	.1		
29			0			1.0	*1.8	*1.1	0	*.1		
30			0			†5.5	*1.8	*1.1	0	*.1		
31		-	0			†10.0	-	*1.1	-	*0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	12.5	-	0	.42	25
December	2.0	-	0	.06	4.0
Calendar year					
January	0	0	0	0	0
February	0	0	0	0	0
March	43.3	10.0	0	1.40	86
April	859.4	118	1.8	28.6	1,700
May	45.5	1.8	1.1	1.47	90
June	7.3	1.1	0	.24	14
July	447.7	125	0	14.4	888
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1936-37	1,417.7	125	0	3.88	2,810

*Interpolated.
†Estimated.

Horse Creek at international boundary

(International gaging station)

Location.- Staff gage, lat. 48°59', long. 106°50', in SE¼ sec. 3, T. 37 N., R. 37 E., three-quarters of a mile south of international boundary, in Montana.

Drainage area.- 71 square miles.

Records available.- May 1914 to October 1917 and March 1927 to September 1937 in reports of the Geological Survey; May 1914 to September 1937 in reports of the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Extremes.- Maximum discharge observed during year, 43.5 second-feet Apr. 10 (gage height, 4.01 feet); no flow at times.
1914-37: Maximum discharge, 1,040 second-feet Mar. 30, 1925 (gage height, 10.85 feet); no flow at times.

Remarks.- Records fair. No diversions. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0					
2							0					
3							0					
4							0					
5							0					
6							0					
7							14.1					
8							28.2					
9							34.8					
10							41.5					
11							27.6					
12							13.8					
13							7.8					
14							6.4					
15							5.0					
16							3.5					
17							1.9					
18							.4					
19							.2					
20							0					
21							0					
22							0					
23							0					
24							0					
25							0					
26							0					
27							0					
28							0					
29							0					
30							0					
31							-					

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	756.0	218	0	2.07	1,500
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	185.2	41.5	0	6.17	367
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	0	0	0	0	0
Water year 1936-37	185.2	41.5	0	.51	367

*Interpolated.

McEachern Creek at international boundary

(International gaging station)

Location.- Staff gage, lat. 49°00', long. 106°56', in SW¼ sec. 1, T. 37 N., R. 36 E., a quarter of a mile below mouth of east fork of this stream, half a mile south of international boundary, and 7 miles north of Thoeny, Mont.

Drainage area.- 160 square miles.

Records available.- March 1927 to September 1937. Station maintained by Department of the Interior, Dominion of Canada, March 1924 to October 1926 at present site and May 1914 to October 1923 at site on McCoy's ranch, in SW¼ sec. 6, T. 1, R. 7 W. third meridian, in Saskatchewan.

Extremes.- Maximum discharge observed during year, 39.4 second-feet Apr. 11 (gage height, 3.11 feet); no flow at times.

1924-37: Maximum discharge observed, 1,850 second-feet Apr. 9, 1927 (gage height, 10.42 feet): no flow at times.

Remarks.- Records fair. No diversions. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.43	0	1.8	2.1	2.2	10.8	2.6	22.6
1.5	.12	1.9	3.7	2.3	13.6	2.8	29.0
1.6	.26	2.0	5.7	2.4	16.5	3.0	35.7
1.7	.8	2.1	8.2	2.5	19.5	3.2	42.5

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0					
2							0					
3							0					
4							0					
5							0					
6							0					
7							0					
8							18.3					
9							31.3					
10							37.4					
11							37.4					
12							21.7					
13							12.8					
14							8.0					
15							7.0					
16							3.9					
17							1.4					
18							.5					
19							.2					
20							*.2					
21							.1					
22							0					
23							0					
24							0					
25							0					
26							0					
27							0					
28							0					
29							0					
30							0					
31							-					

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	572.9	134	0	1.57	1,140
January	0	0	0	0	0
February	0	0	0	0	0
March	0	0	0	0	0
April	180.2	37.4	0	6.01	357
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	0	0	0	0	0
Water year 1936-37	180.2	37.4	0	.49	357

*Interpolated.

Redwater Creek at Circle, Mont.

Location.- Chain gage, lat. 47°25', long. 105°35', in NE¼ sec. 15, T. 19 N., R. 48 E., at highway bridge half a mile south of Circle.

Records available.- April 1929 to September 1937.

Extremes.- Maximum discharge observed during year, 1,320 second-feet June 12 (gage height, 9.35 feet), from rating curve extended beyond 30 second-feet; no flow at times.

1929-37: Maximum discharge observed, 2,920 second-feet Apr. 23, 1932 (gage height, 11.1 feet); from rating curve extended beyond 30 second-feet; no flow at times.

Remarks.- Records poor. Data for November and March, when ice was present, insufficient to warrant estimates of discharge. No record for December, January and February. Some irrigation above station. Gage read once or twice daily and during June 12-18 from two to seven times daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3						0	0.1	0	0.1	0.2	0
2	.2						0	.1	0	.1	.2	0
3	.2						0	.1	0	.1	.3	0
4	.3						0	.2	0	0	.3	0
5	.2						0	.2	0	0	.3	0
6	.2						1.8	.2	0	0	.2	0
7	.2						2.6	.1	0	0	.2	0
8	.2						1.1	.1	0	0	.2	0
9	.2						0	.1	0	0	.1	0
10	.2						.4	0	0	.5	.1	0
11	.2						*.8	0	0	.6	.1	0
12	.2						1.1	0	1,120	*4.4	.1	0
13	.2						1.3	0	765	*8.2	.1	0
14	.2						1.1	0	41	12	.1	0
15	.2						1.0	0	12	5.5	0	0
16	.2						.8	0	5.7	1.6	0	0
17	.2						.6	0	3.4	.5	0	0
18	.2						*.5	0	2.9	15	0	0
19	.1					†1.4	.4	0	2.0	*9.0	0	*0
20	.1						.4	0	1.8	3.0	0	0
21	.1						.4	0	1.2	1.7	0	0
22	.1						.5	0	*1.0	1.1	0	0
23	.1						.3	0	.7	1.0	0	0
24	.1						.2	0	.4	.7	0	0
25	.1						0	0	.3	.3	0	0
26	.1						0	0	.3	*.4	0	0
27	.1						0	0	.3	.5	0	0
28	*.1						0	0	.2	.4	0	0
29	.1						0	0	.2	.1	0	0
30	.1						0	0	.1	.1	0	.1
31	.1						-	0	-	.2	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5.1	0.3	0.1	0.16	10
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	15.3	2.6	0	.51	30
May	1.2	.2	0	.04	2.4
June	1,958.5	1,120	0	65.3	3,885
July	*67.1	15	0	2.16	133
August	2.5	.3	0	.08	5.0
September	.1	.1	0	.00	.2
Water year					

*Interpolated.
†Discharge measurement.

Middle Fork of Poplar River at international boundary

(International gaging station)

Location.- Water-stage recorder, lat. 49°00', long. 105°42', in SE¼ sec. 6, T. 37 N., R. 46 E., half a mile south of international boundary, half a mile above mouth of Coal Creek, and 20 miles northwest of Scobey, Mont.

Drainage area.- 381 square miles.

Records available.- March 1931 to September 1937.

Extremes.- Maximum discharge during year, 407 second-feet July 13 (gage height, 5.63 feet); no flow at times.
1931-37: Maximum discharge, 515 second-feet June 15, 1935 (gage height, 6.32 feet); no flow at times.

Remarks.- Records fair except those for Nov. 3-30 (estimated), and those for period of ice effect, Mar. 9 to Apr. 11 (computed on basis of one discharge measurement, gage heights, and weather records), which are poor. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.2				0	*7.0	6.3	2.3	0.1	0.5	0.1
2	.2	.2				0	5.7	6.0	1.9	.1	2.1	.1
3	.2	}				0	7.8	*6.0	1.9	.1	1.2	.1
4	.2	.2				0	*9.3	*5.9	2.1	.1	.6	.1
5	.2	}				0	10.8	*5.8	1.4	.1	.5	.1
6	.2					0	17.0	5.7	1.6	0	.4	.1
7	.2					0	23.0	6.0	1.1	0	.3	.1
8	.2					0	15.6	5.7	1.0	0	.4	.1
9	.2					34.0	31.6	6.3	1.0	0	.5	.1
10	.2					14.0	28.5	6.9	1.0	.1	.5	.1
11	.2					7.5	29.5	6.0	1.1	6.3	.5	.1
12	.2					7.5	31.0	5.2	1.4	3.7	.4	.1
13	.2					2.3	21.5	5.5	1.6	112	.5	.1
14	.2					1.0	17.0	5.5	1.2	108	.4	.1
15	.2					.1	14.4	5.2	1.1	104	.3	.1
16	.2					.1	11.1	5.0	.8	25.0	.3	.1
17	.2					.8	11.1	5.0	.9	68	.2	.1
18	.2	} .1				3.2	9.6	5.2	.6	58	.1	.1
19	.2					8.7	9.0	4.7	.5	21.0	.1	.2
20	.2					2.5	8.7	4.4	.2	9.9	.1	.2
21	.2					2.5	8.7	3.9	.1	6.6	.1	.2
22	.2					.3	8.1	3.9	.1	4.2	.1	.2
23	.2					.6	7.8	3.4	.1	3.9	.1	.2
24	.2					.9	7.5	3.4	.1	3.2	.1	.3
25	.3					.9	7.5	3.4	.1	3.2	.1	.3
26	.2					1.4	7.2	3.4	.1	2.7	.1	.1
27	.2					5.2	6.9	3.7	.1	2.1	.1	.1
28	.2					6.9	6.3	3.7	.1	1.0	.1	.1
29	.2					8.1	6.3	3.4	.1	.8	.1	.6
30	.2					9.3	6.6	3.0	.1	.6	.1	.9
31	.2	-				8.4	-	3.0	-	.3	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6.3	0.3	0.2	0.20	12
November	3.5	-	-	.12	6.9
December	0	0	0	0	0
Calendar year 1936	4,207.3	259	0	11.5	8,340
January	0	0	0	0	0
February	0	0	0	0	0
March	126.2	34.0	0	4.07	250
April	392.1	31.6	5.7	13.1	778
May	150.5	6.9	3.0	4.85	299
June	25.7	2.3	.1	.86	51
July	545.1	112	0	17.6	1,080
August	11.0	2.1	.1	.35	22
September	5.2	.9	.1	.17	10
Water year 1936-37	1,265.6	112	0	3.47	2,510

*Interpolated.

Poplar River near Bredette, Mont.

Location.- Wire gage, lat. 48°25', long. 105°12', in SW¼ sec. 27, T. 31 N., R. 50 E., 11 miles southeast of Bredette and 24 miles north of Poplar.

Drainage area.- 2,840 square miles.

Records available.- March 1934 to September 1937.

Extremes.- Maximum discharge observed during year, 2,770 second-feet July 16 (gage height, 8.47 feet); no flow June 30 to July 11.
1934-37: Maximum discharge observed, that of July 16, 1937; no flow at times.

Remarks.- Records good except those for period of ice effect, Mar. 1 to Apr. 10 (computed on basis of gage-height records, observer's notes, weather records, and one discharge measurement), and those interpolated for some days in July, which are poor. No records for Nov. 4 to Feb. 28. Some diversions above gage. No storage. Gage read once daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.5	4.6					5.9	13	5.9	0	35	9.7
2	3.1	4.6					7.8	11	5.2	0	32	878
3	3.1	4.6				5	7.8	11	4.6	*0	348	203
4	3.1	-					11	15	4.6	*0	189	65
5	2.5	-					15	15	4.6	*0	80	40
6	3.1	-					9.1	13	4.6	*0	70	33
7	3.1	-					7.2	11	4.6	*0	58	25
8	3.1	-				10	9.1	9.7	4.6	*0	42	19
9	3.1	-					13	9.1	4.0	*0	33	19
10	2.8	-					33	8.4	4.0	*0	25	16
11	3.1	-					110	8.4	5.9	*0	20	17
12	3.1	-					120	7.8	4.6	117	20	14
13	3.1	-				7	128	7.2	5.9	117	19	13
14	3.4	-					131	7.2	8.4	1,250	19	13
15	3.1	-					117	7.2	7.2	2,410	17	11
16	3.1	-				8.4	95	8.4	5.9	2,410	17	10
17	3.1	-				9.7	83	8.4	4.6	†1,560	17	9.7
18	3.1	-				15	78	7.2	3.1	†18	17	9.7
19	3.7	-				18	68	7.2	3.1	†579	19	9.7
20	3.7	-				16	60	9.1	2.8	†441	19	9.7
21	3.7	-				13	53	9.7	2.2	†303	18	9.7
22	4.0	-				9.7	44	8.4	2.2	155	17	†10
23	4.0	-				8.4	33	7.8	2.2	131	17	11
24	†4.3	-				7.2	30	7.2	2.5	83	16	13
25	4.6	-				5.9	25	7.2	1.6	72	15	11
26	7.2	-				5.9	20	7.2	1.3	58	13	11
27	5.9	-				5.9	19	7.2	.6	51	13	11
28	4.6	-				4.6	16	7.2	.3	46	11	15
29	4.6	-				4.0	14	7.2	.3	42	9.7	55
30	4.6	-				4.6	13	7.2	0	42	9.7	60
31	4.6	-				5.9	-	5.9	-	42	9.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	114.1	7.2	2.5	3.68	226
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	252.2	18	-	8.14	500
April	1,375.9	131	5.9	45.9	2,730
May	276.5	15	5.9	8.92	548
June	111.4	8.4	0	3.71	221
July	10,637	2,410	0	343	21,100
August	1,224.5	348	9.1	39.5	2,430
September	1,631.2	878	9.7	54.4	3,240
Water year					

*Estimated.
†Interpolated.

East Fork of Poplar River at international boundary

(International gaging station)

Location.- Water-stage recorder, lat. 49°00', long. 105°25', in SW¼ sec. 3, T. 1, R. 26 W. third meridian, at international boundary in Saskatchewan, 16 miles north of Scobey, Mont. Zero of gage is 2,411.02 feet above mean sea level.

Drainage area.- 256 square miles.

Records available.- March 1931 to September 1937.

Extremes.- Maximum discharge during year, 26.4 second-feet July 15 (gage height, 4.43 feet); minimum, 1 second-foot (estimated) Dec. 1 to Feb. 28.
1931-37: Maximum discharge, 975 second-feet Aug. 13, 1932 (gage height, 10.70 feet); no flow Mar. 1-12, 1936.

Remarks.- Records fair except those for periods of ice effect, Nov. 1 to Feb. 28 (estimated) and Mar. 1 to Apr. 15 (computed on basis of one discharge measurement, gage heights, and weather records), which are poor. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0					*2.0	3.5	8.0	7.6	2.0	2.7	2.2
2	2.0					*2.0	3.7	8.0	7.0	2.0	4.8	2.7
3	2.1					*2.0	3.3	8.0	6.9	2.0	6.0	3.1
4	2.2					*2.0	3.7	8.1	6.6	1.9	4.6	2.9
5	2.2					*2.0	4.8	8.1	6.5	1.9	3.9	2.9
6	2.2					2.4	6.0	8.5	6.0	2.0	3.1	3.0
7	2.2					3.3	7.1	8.5	5.7	1.9	2.8	3.1
8	2.2					1.6	8.4	7.8	5.4	1.8	2.2	3.2
9	2.2					1.9	10.6	8.1	5.2	1.8	1.8	3.2
10	2.3					1.9	12.6	8.1	5.0	2.0	1.8	3.2
11	2.1					2.4	15.9	8.7	5.1	2.0	1.9	3.2
12	2.1					*2.2	16.1	8.2	4.9	2.4	1.8	3.2
13	2.2					*2.0	15.0	7.7	4.8	3.0	1.6	3.0
14	2.3					*2.0	19.1	8.3	4.5	4.0	1.6	2.8
15	2.3					*2.0	18.7	8.2	4.2	12.6	1.6	2.4
16	2.3					*2.5	19.1	8.0	3.9	15.3	1.4	2.4
17	2.3					*3.0	11.8	7.9	3.9	11.5	1.4	2.4
18	2.3					3.1	10.4	7.5	3.7	14.5	1.5	2.4
19	2.3					2.9	9.9	8.4	3.7	11.8	1.5	2.4
20	2.3					2.9	9.0	9.0	3.4	11.5	1.6	2.4
21	2.3					2.6	8.9	9.2	3.2	10.1	1.6	2.4
22	2.3					2.2	9.2	8.7	3.2	8.3	1.6	2.4
23	2.3					1.8	8.6	8.8	3.2	7.2	1.6	3.2
24	2.6					1.8	8.3	9.4	2.9	6.9	1.5	3.3
25	2.3					2.1	8.1	9.2	2.4	5.5	1.6	3.1
26	2.4					2.9	7.5	8.8	2.2	4.8	1.6	3.3
27	2.7					2.7	7.0	9.3	2.0	4.6	1.6	3.3
28	2.7					2.9	7.4	9.2	2.0	4.1	1.7	3.4
29	2.5					3.2	7.4	8.4	2.0	3.5	1.8	3.4
30	2.7					3.4	7.8	7.6	2.0	3.2	2.0	3.9
31	2.8					3.7	-	7.5	-	3.0	2.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	71.7	2.8	2.0	2.31	142
November	45.0	-	-	*1.50	89
December	31.0	-	-	*1.00	61
Calendar year 1936	2,281.5	170	0	6.23	4,520
January	31.0	-	-	*1.00	61
February	28.0	-	-	*1.00	56
March	75.4	3.7	1.6	2.43	150
April	288.9	19.1	3.3	9.63	573
May	259.2	9.4	7.5	8.36	514
June	129.1	7.6	2.0	4.30	256
July	169.1	15.3	1.8	5.45	335
August	68.4	6.0	1.4	2.21	136
September	87.8	3.9	2.2	2.93	174
Water year 1936-37	1,284.6	19.1	1.0	3.52	2,550

*Estimated.

East Fork of Poplar River near Scobey, Mont.

Location.- Wire gage, lat. 48°51', long. 105°24', near north line of sec. 27, T. 36 N., R. 48 E., on highway bridge 4 miles north of Scobey.

Records available.- April 1935 to September 1937.

Extremes.- Maximum discharge observed during year, 1,000 second-feet July 15 (gage height, 5.02 feet); no flow Jan. 16 to Mar. 5.
1935-37: Maximum discharge, that of July 15, 1937; no flow at times.

Remarks.- Records good except those for periods of ice effect, Nov. 1-12, Nov. 28 to Apr. 10 which were computed on basis of gage heights, observer's notes, temperature records, and two discharge measurements and are poor. Gage read once daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	3.0				0	9.8	6.4	2.6	0.5	9.7	0.5
2	2.1	2.9				0	9.0	6.4	2.8	.5	10	.5
3	1.9	2.2				0	8.3	5.9	2.6	.5	3.7	.7
4	2.1	2.0				0	9.8	5.3	2.8	.2	2.8	1.0
5	2.3	2.2				0	11	5.3	2.6	.2	3.5	.9
6	2.3	2.5				2.2	13	5.3	2.8	.3	5.3	.9
7	2.3	2.2				13	18	4.8	2.6	.2	5.1	1.0
8	2.3	2.5	*2	*0.2		13	36	4.8	2.1	.2	3.9	1.4
9	2.6	3.2				11	50	4.8	2.1	.3	3.2	1.6
10	2.3	3.6				13	55	4.4	2.1	.3	3.2	1.6
11	†2.2	3.6				9.8	57	4.4	2.7	.2	2.7	1.6
12	2.1	4.2				7.4	54	4.8	3.0	.4	3.0	1.4
13	2.1	5.7				7.4	43	3.9	2.7	81	2.4	1.6
14	2.3	5.7				8.3	24	3.9	3.0	366	2.6	1.4
15	2.6	5.3				9.4	33	3.9	2.7	636	2.8	1.4
16	2.3	5.7		0		8.7	14	3.5	2.7	147	2.6	1.4
17	2.3	5.7		0		7.4	13	3.5	2.1	216	2.7	1.4
18	2.6	5.7		0		6.4	17	3.5	2.2	295	2.7	1.2
19	2.6	5.3		0		5.7	23	3.0	2.0	120	2.7	1.2
20	2.6	6.4		0		5.7	16	3.9	2.0	70	2.2	1.2
21	2.3	4.4		0		5.7	13	3.9	1.4	42	2.2	1.0
22	2.6	4.9		0		5.5	12	3.5	1.2	28	2.0	1.0
23	2.6	4.0		0		5.3	10	3.0	1.2	16	1.5	1.6
24	2.1	4.0	*1	0		5.3	9.7	3.9	1.2	13	1.3	2.0
25	3.5	3.6		0		5.3	8.1	3.2	1.0	8.5	1.3	2.0
26	3.2	3.6		0		5.3	8.1	3.2	1.2	6.7	1.2	2.0
27	2.9	3.6		0		6.4	7.5	3.2	.7	7.0	1.0	1.6
28	3.2	3.3		0		5.7	7.5	3.2	.6	6.4	1.2	2.0
29	2.9	3.3		0		7.0	7.0	3.2	.4	4.8	.5	3.2
30	2.3	3.3		0		7.7	7.0	2.8	.4	4.8	.4	2.6
31	2.9	-		0		9.0	-	2.6	-	3.5	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	76.3	3.5	1.9	2.46	151
November	117.6	6.4	-	3.92	233
December	46	-	-	1.5	91
Calendar year 1936	3,024.9	224	0	8.26	6,000
January	3.0	-	0	.10	6.0
February	0	0	0	0	0
March	196.6	13	0	6.34	390
April	603.8	57	7.0	20.1	1,200
May	127.4	6.4	2.6	4.11	253
June	59.5	3.0	.4	1.98	118
July	2,075.5	636	.2	67.0	4,120
August	89.8	10	.4	2.90	178
September	42.9	3.2	.5	1.43	85
Water year 1936-37	3,438.4	636	0	9.42	6,820

*Estimated.
†Interpolated.

West Fork of Poplar River at international boundary

(International gaging station)

Location.- Water-stage recorder, lat. 49°00', long. 106°22', in SE¼ sec. 5, T. 1, R. 3 W. third meridian, in Saskatchewan, at international boundary, at West Poplar River Canadian customs post, 11 miles north and three-quarters of a mile east of Opheim, Mont. Zero of gage is 2,854.83 feet above mean sea level.

Drainage area.- 141 square miles.

Records available.- March 1931 to September 1937.

Extremes.- Maximum discharge during year, 4.6 second-feet Apr. 12, 13 (gage height, 1.83 feet); no flow at times.
1931-37: Maximum discharge observed, 115 second-feet Mar. 18 1933 (gage height, 3.36 feet); no flow at times.

Remarks.- Records fair except those for November, March, and Apr. 1-11, which were computed on basis of two discharge measurements, observer's notes, and temperature records, and are poor. This station is one of the international gaging stations maintained jointly by the United States and Canada under the Boundary Waters Treaty. The records have been collected and compiled jointly with the Dominion Water and Power Bureau, Department of Mines and Resources, Canada.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0						*0.5	0.4	0.4	0	0.3	0
2	0	†0.2					*.5	.3	.4	0	.3	0
3	0						*.5	.3	.4	0	.2	0
4	0						*.5	.3	.4	0	.2	0
5	0						*1	.3	.4	0	.2	0
6	0						*2	.3	.4	0	.2	0
7	0						*3	.3	.4	0	.2	0
8	0						*4	.3	.4	0	.2	0
9	0						*4	.3	.5	0	.2	0
10	0						*4	.3	.5	0	.2	0
11	0						*4	.3	.6	0	.2	0
12	0						4.6	.3	.6	0	.2	0
13	.1						4.6	.3	.6	0	.1	0
14	.1						2.7	.3	.5	0	.1	0
15	.1						1.6	.3	.4	0	.1	0
16	.1						1.3	.3	.4	.1	.1	0
17	.1						1.2	.3	.4	.2	0	0
18	.2						1.0	.3	.3	.3	0	0
19	.2					†0.8	.9	.3	.2	1.4	0	0
20	.2						.8	.3	.2	2.1	0	0
21	.2						.6	.3	.2	1.4	0	0
22	.2						.5	.3	.2	1.0	0	0
23	‡.2						.5	.3	.2	.6	0	0
24							.5	.3	.1	.5	0	0
25							.5	.3	.1	.4	0	0
26							.4	.3	0	.4	0	0
27							.4	.4	0	.4	0	0
28							.4	.4	0	.3	0	0
29							.4	.4	0	.3	0	.1
30							.3	.4	0	.3	0	.1
31							-	.4	-	.3	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3.3	0.2	0	0.11	6.5
November	3.0	-	-	*.1	6.0
December	0	0	0	0	0
Calendar year 1936	473.3	55	0	1.29	939
January	0	0	0	0	0
February	0	0	0	0	0
March	12.4	-	-	*.4	25
April	47.2	4.6	.3	1.57	94
May	9.9	.4	.3	.32	20
June	9.2	.6	0	.31	18
July	10.0	2.1	0	.32	20
August	3.0	.3	0	.10	6.0
September	.2	.1	0	.007	.40
Water year 1936-37	98.2	4.6	0	.27	196

*Estimated.
†Discharge measurement
‡Interpolated.

West Fork of Poplar River near Richland, Mont.

Location.- Wire gage, lat. 48°48', long. 106°01', 600 feet south of northwest corner sec. 7, T. 35 N., R. 44 E., on Great Northern Railway bridge, 1½ miles southeast of Richland.

Records available.- April 1935 to September 1937.

Extremes.- Maximum discharge observed during year, 47 second-feet July 17 (gage height, 2.80 feet); no flow at times.
1935-37: Maximum discharge observed, 164 second-feet Apr. 13, 1936 (gage height, 4.60 feet); no flow at times.

Remarks.- Records good. No records Jan. 1 to Mar. 3. Data insufficient to warrant estimates of discharge for period of ice effect, Mar. 4 to Apr. 12. Gage read twice daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.2	0.3				-	1.8	0.9	0.2	0.9	0.2
2	.2	.3	.2				-	1.9	.8	.3	.7	.2
3	.2	.3	.2				-	1.8	.6	.2	.4	.2
4	.2	.3	.2				-	1.9	.5	.2	.4	.2
5	.2	.3	.2				-	1.9	.6	.1	.4	.3
6	.2	.3	.2				-	1.9	.8	.2	.4	.3
7	.2	.3	0				-	3.3	.6	.2	.4	.2
8	.2	.3	.2				-	4.8	.4	.1	.4	.2
9	.2	.3	.2				-	1.5	.4	.2	.4	.2
10	.2	.3	.2				-	1.6	.5	.2	.4	.2
11	.2	.2	.2				-	1.8	.8	.2	.4	.2
12	.2	.2	.2				-	1.8	.6	.2	.4	.2
13	.2	.3	.1				21	1.9	.4	.3	.3	.2
14	.2	.3	.3				18	1.8	.6	.5	.2	.2
15	.2	.3	.2				13	1.5	.6	.6	.2	.2
16	.2	.3	.2				9.9	1.5	.6	4.3	.2	.2
17	.2	.2	.2				7.5	1.5	.5	22	.3	.2
18	.2	.2	.2			*6.4	5.1	1.2	.4	15	.2	.2
19	.2	.2	.2				5.5	1.2	.4	37	.2	.2
20	.2	.2	.2				4.4	1.2	.4	17	.3	.2
21	.2	.2	.2				4.4	1.3	.4	9.1	.2	.2
22	.2	.3	.2				3.7	1.2	.4	6.0	.2	.2
23	.2	.2	.3				3.0	1.2	.4	4.3	.2	.3
24	.2	.2	.2				3.0	1.3	.4	3.2	.2	.3
25	.2	.2	.2				2.6	1.3	.4	2.5	.2	.3
26	.2	.2	.2				2.3	1.3	.3	2.1	.2	.3
27	.2	.2	.2				2.3	1.3	.3	1.7	.2	.4
28	.2	.2	.2				1.8	1.3	.3	2.5	.2	.4
29	.2	.2	.2				1.9	1.3	.2	1.3	.2	.5
30	.2	.2	0				1.9	1.2	.3	.5	.2	.4
31	.2	-	.2				-	1.2	-	.5	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6.2	0.2	0.2	0.20	12
November	7.4	.3	.2	.25	15
December	6.0	.3	0	.19	12
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 13-30	111.3	21	1.8	6.18	221
May	51.7	4.8	1.2	1.67	103
June	15.1	.9	.2	.50	30
July	132.7	37	.1	4.28	263
August	9.7	.9	.2	.31	19
September	7.5	.5	.2	.25	15
Water year					

*Discharge measurement.

Yellowstone Lake at Lake Hotel, Yellowstone National Park

Location.- Staff gage, lat. 44°33', long. 110°24', at boat landing at Lake Hotel, 1½ miles southwest of lake outlet. Zero of gage is 7,729.45 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,010 square miles.

Records available.- October 1921 to September 1937.

Extremes.- Maximum stage observed during year, 3.84 feet June 28; minimum observed, 0.03 foot Dec. 20.
1921-37: Maximum stage observed, 6.12 feet June 30, 1927; minimum, -0.1 foot Dec. 7, 8, 1931.

Remarks.- Records good. No regulation. Records furnished by officials of Yellowstone National Park.

Gage height, in feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-					-	-	-	2.85	1.70
2	-	0.45	-					-	-	-	2.85	-
3	-	-	-					-	-	3.83	-	-
4	-	-	-					-	-	3.81	-	-
5	0.88	-	-					-	-	3.81	2.71	-
6	-	-	-					-	-	3.75	-	-
7	.85	-	-					-	-	3.79	2.64	-
8	-	-	-					-	2.81	3.79	-	-
9	-	-	-					-	-	-	2.53	-
10	.83	-	0.07					-	-	3.73	2.47	1.49
11	-	.35	-					-	-	-	-	-
12	-	-	-					-	2.91	-	-	-
13	-	-	-					-	-	-	-	1.40
14	-	-	-					-	-	3.60	2.33	-
15	-	-	-					-	3.11	3.57	-	-
16	-	-	-					-	-	-	2.25	-
17	.69	-	-					1.32	-	3.51	2.23	-
18	-	-	-					-	-	-	-	-
19	-	-	-					-	-	3.39	-	-
20	-	-	.03					-	-	-	-	-
21	-	-	-					-	-	-	-	-
22	-	.22	-					-	-	3.27	-	-
23	-	-	-					-	-	-	-	-
24	-	-	-					-	3.73	3.17	-	1.29
25	.57	-	-					-	-	-	-	-
26	-	-	-					-	3.82	3.05	-	-
27	-	-	-					-	3.83	-	-	-
28	-	-	-					-	3.84	3.03	1.91	-
29	-	.15	-					-	3.83	-	-	-
30	-	-	-					-	3.83	-	-	-
31	-	-	-					-	-	2.95	-	-

Yellowstone River at Yellowstone Lake outlet, Yellowstone National Park

Location.- Water-stage recorder, lat. 44°34', long. 110°23', 550 feet below Fishing Bridge and a quarter of a mile below outlet of Yellowstone Lake. Zero of gage at recorder site is 7,729.78 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,010 square miles.

Records available.- December 1922 to September 1937. Prior to October 1926, gage-height records only.

Average discharge.- 11 years (1926-37), 1,190 second-feet.

Extremes.- Maximum discharge during year, 3,590 second-feet June 24 to July 2; maximum gage height, 5.11 feet July 2; minimum discharge, 200 second-feet Dec. 17 (gage height, 1.45 feet).
1922-37: Maximum discharge, 7,420 second-feet June 29, 30, July 1, 1927 (gage height, 7.1 feet); minimum, that of Dec. 17, 1936 (gage height, 1.45 feet).

Remarks.- Records good except those for period of ice effect, Jan. 5 to May 3, which were computed on basis of weather records, records for stations on nearby streams, and storage records for Jackson Lake and are fair. Discharge for Oct. 8, 9 interpolated. Gage-height record furnished by Yellowstone National Park officials. No artificial regulation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	646	457	317	270				520	2,170	3,590	2,110	1,050
2	646	448	309	270				540	2,170	3,520	2,050	1,040
3	640	439	302	270				550	2,240	3,520	1,980	1,030
4	640	444	298	274				564	2,300	3,440	1,920	1,020
5	634	439	298					569	2,360	3,370	1,920	1,020
6	622	439	284					580	2,360	3,370	1,860	974
7	622	439	317					592	2,360	3,370	1,800	958
8	610	430	305					616	2,420	3,370	1,740	949
9	598	421	298					646	2,420	3,300	1,690	949
10	586	412	294					686	2,490	3,300	1,690	924
11	580	408	284					712	2,490	3,230	1,630	915
12	574	398	284					738	2,560	3,160	1,620	900
13	569	390	283					757	2,620	3,160	1,620	892
14	564	390	277					777	2,680	3,090	1,600	878
15	558	385	283					812	2,680	3,090	1,550	870
16	552	385	266					855	2,750	3,020	1,480	878
17	542	385	283	275				900	2,820	2,950	1,480	855
18	542	377	283					966	2,950	2,820	1,440	840
19	542	365	266					1,050	2,950	2,750	1,400	812
20	547	361	274					1,160	3,020	2,680	1,360	826
21	530	365	260					1,230	3,160	2,620	1,340	833
22	525	345	252					1,250	3,300	2,560	1,320	819
23	515	341	256					1,250	3,440	2,490	1,300	840
24	510	345	266					1,350	3,590	2,420	1,240	840
25	495	337	266					1,320	3,590	2,360	1,200	840
26	480	329	274					1,290	3,590	2,360	1,180	826
27	480	333	277					1,690	3,590	2,300	1,160	798
28	475	333	277					1,800	3,590	2,240	1,120	777
29	470	329	277					1,920	3,590	2,240	1,100	791
30	470	309	274					2,050	3,590	2,170	1,090	764
31	466	-	270					2,110	-	2,110	1,080	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	17,230	646	466	556	0.550	0.63	34,180
November	11,578	457	309	386	.382	.43	22,960
December	8,674	317	252	280	.277	.32	17,200
Calendar year 1936	433,566	4,690	252	1,185	1.17	15.96	860,000
January	8,509	-	-	274	.271	.31	16,880
February	9,100	-	-	325	.322	.34	18,050
March	10,850	-	-	350	.347	.40	21,520
April	12,000	-	-	400	.396	.44	23,800
May	31,850	2,110	520	1,027	1.02	1.18	63,170
June	85,840	3,590	2,170	2,861	2.83	3.16	170,300
July	89,970	3,590	2,110	2,902	2.87	3.31	178,500
August	47,070	2,110	1,080	1,518	1.50	1.73	93,360
September	26,708	1,050	764	890	.881	.98	52,970
Water year 1936-37	359,379	3,590	252	985	.975	13.23	712,900

Yellowstone River near Canyon Hotel, Yellowstone National Park

Location.- Water-stage recorder, lat. 44°43', long. 110°30', 0.5 mile upstream from Upper Falls and Canyon ranger station and 1½ miles south of Canyon Hotel.

Drainage area.- 1,160 square miles.

Records available.- June 1913 to September 1937 (except winters).

Extremes.- Maximum discharge during year, 3,660 second-feet June 26 to July 1; maximum gage height, 2.72 feet June 26; minimum occurred during period of no record in winter. 1913-37: Maximum discharge, 8,550 second-feet June 27, 1918 (gage height, 4.50 feet); minimum usually occurs during winter.

Remarks.- Records good. None for Nov. 4 to May 16. No artificial regulation or diversion. Gage-height record furnished by officials of Yellowstone National Park.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	658	479						-	2,120	3,660	2,180	1,140
2	650	446						-	2,140	3,550	2,120	1,120
3	650	440						-	2,180	3,550	2,040	1,120
4	642	-						-	2,260	3,550	2,000	1,120
5	642	-						-	2,340	3,440	1,950	1,110
6	635	-						-	2,400	3,550	1,900	1,090
7	635	-						-	2,380	3,440	1,860	1,060
8	628	-						-	2,360	3,440	1,810	1,060
9	620	-						-	2,420	3,440	1,780	1,050
10	612	-						-	2,500	3,340	1,750	1,030
11	605	-						-	2,460	3,340	1,700	1,010
12	598	-						-	2,560	3,230	1,670	1,000
13	590	-						-	2,730	3,170	1,660	990
14	582	-						-	2,730	3,100	1,620	970
15	575	-						-	2,770	3,060	1,610	950
16	568	-						-	2,790	3,000	1,550	930
17	568	-						1,170	2,850	2,940	1,540	920
18	561	-						1,230	2,960	2,870	1,510	910
19	561	-						1,290	3,020	2,810	1,480	892
20	561	-						1,380	3,080	2,770	1,450	882
21	554	-						1,440	3,150	2,700	1,420	901
22	540	-						1,450	3,230	2,620	1,390	892
23	533	-						1,460	3,440	2,560	1,380	940
24	526	-						1,490	3,550	2,520	1,350	910
25	519	-						1,560	3,550	2,440	1,320	892
26	505	-						1,370	3,660	2,400	1,280	892
27	505	-						1,750	3,660	2,360	1,250	872
28	486	-						1,900	3,660	2,320	1,240	854
29	486	-						2,000	3,660	2,260	1,200	854
30	479	-						2,040	3,660	2,200	1,190	844
31	479	-						2,120	-	2,180	1,170	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	17,753	658	479	573	0.494	0.57	35,210
November	-	-	-	-	-	-	-
December	-	-	-	-	-	-	-
Calendar year							
January							
February							
March							
April							
May 17-31	23,650	2,120	1,170	1,577	1.36	.76	46,910
June	86,270	3,660	2,120	2,876	2.48	2.77	171,100
July	91,810	3,660	2,180	2,962	2.55	2.94	182,100
August	49,370	2,180	1,170	1,593	1.37	1.58	97,920
September	29,205	1,140	844	974	.840	.94	57,930
Water year							

Yellowstone River at Corwin Springs, Mont.

Location.- Water-stage recorder, lat. 45°07', long. 110°48', in NW¼ sec. 30, T. 8 S., R. 8 E., at highway bridge at Corwin Springs, 8 miles north of Gardiner.

Drainage area.- 2,630 square miles.

Records available.- September 1910 to September 1937.

Average discharge.- 27 years, 2,989 second-feet.

Extremes.- Maximum discharge during year, 12,100 second-feet May 28 (gage height, 6.26 feet): minimum, 389 second-feet Feb. 23, Mar. 5, 9 (gage height, 0.05 foot).
1910-37: Maximum discharge observed, 26,500 second-feet June 14, 15, 1918 (gage height, 11.5 feet); minimum, that of Feb. 23, Mar. 5, 9, 1937.

Remarks.- Records good except those for periods of ice effect, Dec. 5, 6, Dec. 29 to Feb. 14, which were computed on basis of weather records and are poor. Gage read once daily Dec. 8-31 and Feb. 15 to May 3. No gage-height record Jan. 1 to Feb. 14.

Rating tables, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1-21		Oct. 22 to Sept. 30			
1.0	920	0	370	0.6	650
1.1	1,020	.1	408	.7	710
1.2	1,130	.2	450	.8	775
		.3	495	.9	845
		.4	545	1.0	920
		.5	595	1.2	1,095

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,090	831	617			421	450	1,210	6,170	*6,330	3,270	1,510
2	1,060	698	565			412	464	1,460	6,040	*6,060	3,030	1,510
3	1,060	600	622		†400	404	450	2,420	7,400	5,790	2,870	1,460
4	1,040	742	560			404	442	2,200	7,680	5,550	2,720	1,510
5	1,060	838	550			389	450	2,800	6,570	5,310	2,640	1,510
6	1,060	810	525	†500		400	437	3,270	6,040	5,920	2,570	1,460
7	1,030	768	606			400	421	3,190	5,670	5,670	2,570	1,400
8	1,020	723	585		†390	400	404	4,060	5,550	5,430	2,500	1,390
9	1,000	730	570			389	437	4,450	5,670	5,430	2,340	1,400
10	990	723	560			421	464	4,450	6,300	5,200	2,340	1,400
11	970	730	550			421	490	4,060	6,840	4,970	2,270	1,360
12	960	710	540		†400	425	472	3,520	7,400	4,860	2,200	1,320
13	950	716	520			400	500	3,780	7,680	4,650	2,200	1,310
14	940	723	520			416	520	4,250	7,960	4,650	2,130	1,280
15	960	716	565	†450	421	416	560	4,970	8,530	4,650	2,060	1,260
16	950	723	595		425	429	686	5,430	9,130	4,450	1,990	1,240
17	950	730	570		425	404	585	5,920	10,300	4,250	1,990	1,220
18	950	730	540		495	408	617	7,680	8,830	4,060	1,920	1,200
19	960	710	515		429	400	617	7,960	8,830	3,960	1,920	1,190
20	1,010	710	495		472	400	634	6,840	9,430	3,870	1,860	1,180
21	970	692	545		429	400	650	5,670	10,000	3,690	1,860	1,250
22	898	692	540		408	416	680	5,920	10,600	3,600	1,800	1,290
23	898	680	540		389	429	710	7,680	10,000	3,520	1,800	1,380
24	905	662	545		404	416	680	8,240	8,530	3,440	1,740	1,510
25	905	674	545		404	416	650	8,530	7,680	3,350	1,740	1,380
26	852	668	545	†400	404	408	680	8,530	7,400	3,350	1,680	1,320
27	875	662	545		421	404	710	9,430	6,980	3,270	1,620	1,310
28	824	644	545		421	404	680	10,600	6,840	3,190	1,620	1,280
29	810	622	530		-	404	775	9,730	6,840	3,110	1,620	1,250
30	810	634	515		-	472	962	7,400	6,600	3,030	1,560	1,240
31	838	-	510		-	429	-	6,300	-	3,030	1,560	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	29,595	1,090	810	955	0.363	0.42	58,700
November	21,291	838	600	710	.270	.30	42,230
December	17,075	617	510	551	.210	.24	33,870
Calendar year 1936	971,012	14,900	510	2,653	1.01	13.73	1,926,000
January	13,900	-	-	448	.170	.20	27,570
February	11,497	495	389	411	.156	.16	22,800
March	12,757	472	389	412	.157	.18	25,300
April	17,277	962	404	576	.219	.24	34,270
May	171,950	10,600	1,210	5,547	2.11	2.43	341,100
June	229,490	10,600	5,550	7,650	2.91	3.25	455,200
July	137,640	6,330	3,030	4,440	1.69	1.95	273,000
August	65,990	3,270	1,560	2,129	.810	.93	130,900
September	40,320	1,510	1,180	1,344	.511	.57	79,970
Water year 1936-37	768,782	10,600	389	2,106	.801	10.87	1,525,000

*Interpolated.
†Estimated.

Yellowstone River at Billings, Mont.

Location.- Water-stage recorder, lat. 45°47', long. 108°28', in NE¼ sec. 2, T. 1 S., R. 26 E., at Billings.

Records available.- May 1904 to December 1905, August 1928 to September 1937.

Extremes.- Maximum discharge during year, 34,000 second-feet June 23 (gage height, 8.34 feet); minimum, 1,040 second-feet Dec. 5 (gage height, 0.45 foot).
1904-5, 1928-37: Maximum discharge, 38,300 second-feet June 14, 1933, and June 15, 1935 (maximum gage height, 8.70 feet June 15, 1935); minimum, 430 second-feet Dec. 12, 1932 (ice present).

Remarks.- Records good except those for periods of ice effect, Nov. 6, 7, Dec. 6-10, Dec. 30 to Mar. 20, which were computed on basis of three discharge measurements, gage heights, and temperature records and are poor. Numerous diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,690	3,150	2,170	1,380	2,080	1,600	2,270	3,150	13,000	15,600	4,380	1,750
2	2,850	3,150	2,110	1,450	2,110	1,930	2,330	2,850	11,600	14,500	4,380	1,670
3	2,800	2,780	2,080	1,500	2,040	2,430	2,410	2,820	11,100	13,000	4,380	1,580
4	2,710	2,710	1,640	1,670	2,080	3,150	2,370	3,390	15,000	12,000	4,000	1,560
5	2,600	2,940	1,320	1,690	2,090	3,880	2,310	4,120	17,100	11,600	3,630	1,740
6	2,690	2,930	1,100	1,640	2,130	4,250	2,350	4,900	15,000	10,900	3,510	3,630
7	2,690	2,910	1,090	1,720	2,130	4,510	2,210	6,130	13,000	12,000	3,270	2,670
8	2,620	2,890	1,280	1,660	2,130	4,380	2,210	6,560	12,300	11,800	3,150	2,270
9	2,540	3,150	1,520	1,720	2,000	4,120	2,310	7,470	12,000	10,600	3,030	2,210
10	2,710	3,150	1,700	1,800	1,850	4,250	2,480	9,010	12,500	10,600	2,870	2,230
11	2,560	3,150	1,720	1,870	1,870	4,120	2,710	9,200	15,100	10,600	2,760	2,210
12	2,430	3,030	1,740	1,870	1,930	4,000	2,800	8,480	24,300	10,600	2,600	2,230
13	2,450	3,030	1,700	1,850	1,930	4,000	2,580	7,160	24,400	9,590	2,580	2,060
14	2,520	2,920	2,210	1,850	1,890	3,750	2,500	6,410	22,000	9,200	2,650	1,750
15	2,500	2,820	2,560	1,930	1,840	3,270	2,780	7,000	22,000	9,010	2,690	1,740
16	2,780	2,760	2,820	1,840	1,940	3,390	3,150	8,830	23,800	8,830	2,560	1,740
17	2,690	2,710	2,870	1,820	1,960	3,510	3,510	9,590	27,400	8,300	2,480	1,640
18	2,620	2,710	2,760	1,840	1,980	3,630	3,270	10,300	30,400	7,800	2,430	1,640
19	2,580	2,670	2,710	1,850	1,840	3,150	2,800	11,800	26,800	7,160	2,190	1,720
20	2,850	2,690	2,580	1,940	1,720	3,030	2,580	14,000	25,600	6,410	2,130	1,640
21	3,030	2,600	2,430	2,000	1,670	2,250	2,580	14,000	28,000	5,850	2,150	1,580
22	3,150	2,560	2,170	1,980	1,660	1,980	2,780	11,800	31,600	5,300	2,230	1,580
23	3,150	2,480	2,230	1,980	1,660	2,060	2,820	10,900	33,400	4,770	2,150	1,930
24	3,150	2,430	2,250	2,020	1,840	2,080	2,730	13,000	31,000	4,640	2,000	2,650
25	3,510	2,450	2,410	2,020	1,750	1,980	2,520	14,500	24,400	4,640	1,820	3,030
26	3,510	2,430	2,310	2,130	1,640	1,840	2,310	16,600	19,800	4,510	1,780	3,150
27	3,270	2,370	1,940	2,020	1,450	1,850	2,090	17,100	17,700	4,250	1,700	3,030
28	3,270	2,290	1,640	2,060	1,430	1,580	2,410	18,700	16,600	4,250	1,640	2,980
29	3,030	2,250	1,460	2,130	-	1,840	3,150	21,500	15,600	4,380	1,780	3,030
30	3,030	2,250	1,380	2,130	-	1,890	3,510	23,200	15,000	4,380	1,870	3,030
31	3,030	-	1,310	2,040	-	1,980	-	17,100	-	4,250	1,840	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	88,010	3,510	2,430	2,839	174,600
November	82,360	3,150	2,250	2,745	163,400
December	61,210	2,870	1,090	1,975	121,400
Calendar year 1936	2,001,480	32,800	960	5,469	3,970,000
January	57,400	2,130	1,380	1,852	113,900
February	52,640	2,130	1,430	1,880	104,400
March	91,680	4,510	1,580	2,957	181,800
April	78,830	3,510	2,090	2,628	156,400
May	321,570	23,200	2,820	10,370	637,800
June	607,500	33,400	11,100	20,250	1,205,000
July	261,320	15,600	4,250	8,430	518,300
August	82,630	4,380	1,640	2,665	163,900
September	65,670	3,630	1,560	2,189	130,300
Water year 1936-37	1,850,820	33,400	1,090	5,071	3,671,000

Yellowstone River at Miles City, Mont.

Location.- Water-stage recorder, lat. 46°26', long. 105°49', at highway bridge, just below mouth of Tongue River, at Miles City.

Records available.- September 1922 to August 1923 and August 1928 to September 1937.

Extremes.- Maximum discharge during year, 51,600 second-feet June 25 (gage height, 11.10 feet); minimum, 1,430 second-feet Jan. 8, 9 (ice present).
1922-23, 1928-37: Maximum discharge, 66,400 second-feet June 17, 1935 (gage height, 12.22 feet); minimum, 996 second-feet Dec. 14, 1932 (ice present).

Remarks.- Records good except those for periods of ice effect, Nov. 6-13, Dec. 2 to Mar. 17, which were computed on basis of five discharge measurements, observer's notes and temperature records, and are fair. Gage read once daily Oct. 21-27, Dec. 6-8, Dec. 31 to Jan. 4, Jan. 11-13, 21, Jan. 30 to Feb. 1, Feb. 10-12, June 13, 14, July 15-19, Aug. 13 to Sept. 14. Numerous diversions from main stream and tributaries above gage. Some storage on tributary streams.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,630	5,720	4,330	1,700	2,270	3,020	5,480	4,930	28,400	22,900	6,870	2,340
2	4,630	5,590	4,140	1,500	2,270	2,940	6,400	5,720	24,100	22,300	6,710	2,400
3	4,730	5,480	3,660	1,660	2,140	3,020	6,400	5,840	21,200	22,300	6,870	2,470
4	4,830	5,480	3,660	1,500	2,200	3,870	5,720	5,360	20,600	20,000	6,710	2,540
5	4,930	5,140	3,110	1,500	2,200	5,250	5,980	4,930	22,300	18,300	6,400	2,620
6	4,830	5,140	1,750	1,500	2,270	9,390	5,590	4,830	26,500	17,200	5,720	2,690
7	4,830	4,830	1,910	1,460	2,400	9,800	5,250	5,140	27,800	15,600	5,250	3,660
8	4,930	4,630	1,910	1,430	2,400	9,590	5,140	5,980	25,900	15,100	4,830	4,430
9	5,040	4,430	2,020	1,430	2,340	9,390	5,040	7,700	22,900	17,200	4,430	4,040
10	5,040	4,330	1,960	1,460	2,540	8,800	4,930	10,000	21,700	25,300	4,140	3,950
11	4,930	5,250	2,690	1,570	2,620	8,420	5,040	11,700	21,200	27,100	3,860	3,860
12	4,830	5,590	2,940	1,700	2,620	8,240	5,140	12,700	25,300	27,800	3,760	3,860
13	4,830	5,590	2,540	1,960	2,690	8,240	5,360	13,100	43,800	29,000	3,480	3,950
14	4,830	5,720	2,470	1,910	2,690	8,240	5,590	12,700	43,800	30,300	3,380	4,240
15	4,730	5,720	2,620	2,080	2,770	8,610	5,360	11,700	41,000	30,900	3,290	4,040
16	4,830	5,480	3,020	2,200	2,770	11,300	5,140	10,600	37,500	27,800	3,110	3,570
17	4,830	5,360	3,480	2,270	2,770	8,830	5,360	10,400	36,800	25,900	3,020	3,380
18	5,040	5,250	3,200	2,270	2,850	6,710	5,720	11,700	39,600	22,300	2,940	3,480
19	4,930	5,140	3,380	2,270	2,940	7,030	7,360	13,100	44,500	18,300	2,770	3,290
20	5,040	5,040	3,950	2,270	3,110	8,240	8,050	14,600	46,600	16,100	2,620	3,200
21	5,140	4,930	3,760	2,270	3,110	7,880	7,030	18,300	45,900	14,100	2,470	3,200
22	5,360	4,930	3,570	2,470	3,110	7,530	5,980	21,200	43,800	12,200	2,400	3,200
23	5,480	4,930	3,660	2,620	3,020	7,030	5,480	23,500	45,900	10,600	2,470	3,200
24	5,980	4,930	3,950	2,690	3,020	5,250	5,360	20,000	48,800	9,590	2,400	3,200
25	5,720	4,830	3,950	2,690	3,020	4,730	5,360	17,800	50,900	8,420	2,270	3,660
26	6,110	4,730	3,760	2,770	2,940	3,950	5,360	17,800	45,900	7,880	2,200	4,240
27	6,260	4,730	3,660	2,540	2,940	3,950	5,360	20,000	37,500	7,700	2,140	5,360
28	5,980	4,730	3,200	2,400	2,940	4,140	5,040	21,700	32,200	6,870	1,960	5,590
29	5,840	4,630	2,400	2,340	-	4,730	4,730	23,500	27,800	6,710	2,020	5,480
30	5,720	4,530	2,340	2,340	-	5,040	4,630	24,700	24,700	6,400	2,020	5,360
31	5,720	-	1,910	2,270	-	5,480	-	27,100	-	7,360	2,080	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	160,550	6,260	4,630	5,179	318,400
November	152,810	5,720	4,330	5,094	303,100
December	94,900	4,330	1,750	3,061	188,200
Calendar year 1936	3,210,600	48,000	1,500	8,772	6,367,900
January	63,040	2,770	1,430	2,034	125,000
February	74,960	3,110	2,140	2,677	148,700
March	208,340	11,300	2,940	6,721	413,200
April	168,380	8,050	4,630	5,613	334,000
May	418,330	27,100	4,830	13,490	829,700
June	1,024,900	50,900	20,600	34,160	2,033,000
July	549,530	30,900	6,400	17,730	1,090,000
August	114,590	6,870	1,960	3,696	227,300
September	110,500	5,590	2,340	3,683	219,200
Water year 1936-37	3,140,830	50,900	1,430	8,605	6,230,000

Yellowstone River near Sidney, Mont.

Location.- Water-stage recorder, lat. 47°41', long. 104°08', in SW¼ sec. 9, T. 22 N., R. 59 E., at highway bridge 2 miles south of Sidney.

Drainage area.- 69,450 square miles.

Records available.- April 1934 to September 1937.

Average discharge.- Maximum discharge during year, 65,300 second-feet June 14 (gage height, 9.88 feet); minimum, 868 second-feet (computed) Jan. 12.
1934-37: Maximum discharge, 77,800 second-feet June 18, 1935 (gage height, 10.6 feet); minimum, 860 second-feet Dec. 31, 1934 (gage height, 1.96 feet; ice present).

Remarks.- Records good except those for period of ice effect, Nov. 3 to Apr. 8, which were computed on the basis of eleven discharge measurements, gage heights, and weather records and are fair. Numerous diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,560	6,120	5,300	2,850	2,580		4,850	5,000	29,500	28,100	6,510	1,890
2	4,560	6,120	4,700	1,930	2,580		5,780	5,150	29,500	25,400	8,390	1,750
3	4,560	5,780	3,850	1,740	2,430		4,700	5,780	26,000	24,500	9,250	1,820
4	4,420	5,300	2,780	1,740	2,490	3,500	5,780	6,300	22,000	24,500	7,330	1,980
5	4,560	4,700	2,990	1,590	2,490		5,780	6,120	20,600	22,200	6,510	2,090
6	4,700	4,270	3,990	1,600	2,470		6,300	5,300	20,600	20,000	6,120	3,300
7	5,000	3,990	2,780	1,720	2,600		8,370	5,000	25,200	18,600	5,740	6,510
8	4,850	4,130	2,470	1,370	2,600		9,200	5,000	28,600	16,600	5,030	3,340
9	4,700	4,560	1,970	1,370	2,560	8,600	7,970	5,620	27,700	15,900	4,540	3,420
10	4,700	4,700	1,080	1,190	2,800		7,580	6,830	26,200	17,900	4,380	4,230
11	4,850	4,850	953	1,150	2,940		6,830	8,990	23,600	24,500	3,780	3,930
12	5,000	4,850	1,150	868	2,960		7,200	10,900	23,600	29,000	3,450	3,640
13	4,850	6,470	1,200	1,080	2,960		7,200	12,400	35,600	33,200	3,270	3,500
14	4,850	8,990	1,370	1,680	2,960		7,020	12,800	55,600	36,500	3,210	3,480
15	4,850	9,200	3,850	1,830	2,940	9,800	7,580	13,800	62,500	41,300	2,940	3,450
16	4,850	7,780	3,710	1,890	2,960		7,390	12,800	54,300	45,100	2,850	3,640
17	4,850	7,200	3,060	1,760	3,060		6,470	11,400	43,900	47,700	2,740	3,610
18	4,850	6,470	3,710	1,910	3,040		6,300	11,200	41,400	37,700	2,610	3,210
19	5,000	5,460	5,150	2,220	3,040		6,650	12,800	45,200	32,100	2,540	2,990
20	5,150	4,850	5,000	2,640	3,040		7,020	13,800	54,300	26,200	2,480	3,010
21	5,460	4,850	4,700	2,850	3,080	7,800	9,200	15,300	57,000	20,700	2,300	2,890
22	5,620	4,850	5,300	3,010	3,040		9,410	18,600	52,900	18,600	2,240	2,890
23	5,620	5,000	4,850	2,940	3,110		7,780	22,000	50,300	15,300	2,440	2,890
24	5,620	5,000	4,700	2,920	3,110		6,470	23,600	54,300	13,600	2,300	3,040
25	5,780	5,150	4,560	2,890	3,060		6,120	19,900	59,700	12,000	2,220	3,060
26	6,120	5,000	4,270	2,920	2,940		5,950	18,000	62,500	10,400	2,140	3,110
27	6,300	4,850	4,130	2,850	2,990		6,120	18,600	52,900	9,040	1,910	3,420
28	6,470	4,850	3,850	2,640	3,060	3,900	5,950	20,600	41,300	8,390	1,730	4,380
29	6,470	4,850	3,850	2,580	-		5,780	22,800	35,400	7,750	1,640	5,550
30	6,470	5,000	3,340	2,490	-		5,300	23,600	32,100	7,120	1,590	5,740
31	6,300	-	3,130	2,470	-		-	26,000	-	6,510	1,560	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	161,940	6,470	4,420	5,224	321,200
November	165,190	9,200	3,990	5,506	327,600
December	107,745	5,300	953	3,476	213,700
Calendar year 1936	3,366,863	54,000	953	9,199	6,679,000
January	64,688	3,010	868	2,087	128,300
February	79,890	3,110	2,430	2,853	158,500
March	210,600	-	-	6,794	417,700
April	204,050	9,410	4,700	6,802	404,700
May	405,990	26,000	5,000	13,100	805,300
June	1,194,300	62,500	20,600	39,810	2,369,000
July	696,410	47,700	6,510	22,460	1,381,000
August	115,740	9,250	1,560	3,734	229,600
September	101,760	6,510	1,750	3,392	201,800
Water year 1936-37	3,508,301	62,500	868	9,612	6,958,000

Tower Creek at Tower Falls, Yellowstone National Park

Location.- Staff gage, lat. 44°54', long. 110°23', a short distance above Tower Falls, a quarter of a mile above mouth, and 2 miles southeast of Camp Roosevelt.

Drainage area.- 51 square miles.

Records available.- September 1922 to September 1937 (winter records incomplete).

Extremes.- Maximum discharge observed, 120 second-feet (computed) June 16, 17 minimum not determined.
1922-37: Maximum discharge observed, 642 second-feet May 30, 1925 (gage height, 6.16 feet, former site and datum); maximum gage height, 6.27 feet, former site and and datum, May 28, 1928; minimum discharge observed, 5.6 second-feet (discharge measurement) Mar. 17, 1934.

Remarks.- Records good except those for Apr. 21 to June 21, which are fair. None for Nov. 1 to Apr. 20. No diversions or regulation. Gage-height records furnished by officials of Yellowstone National Park.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*19						-	21	*85	63	54	22
2	*19						-	*22	*80	60	34	22
3	*19						-	*30	*100	58	33	22
4	19						-	*35	*95	58	34	22
5	*19						-	*40	*85	56	32	22
6	*19						-	*45	74	70	30	22
7	*19						-	*50	*70	59	29	21
8	*19						-	52	*70	58	27	*20
9	*19						-	*55	*70	60	27	19
10	*19						-	*55	*80	58	26	*19
11	*19						-	*55	*90	52	26	19
12	*20						-	*60	*100	54	26	*19
13	*20						-	*60	98	51	26	*19
14	*20						-	*60	*95	49	26	*19
15	*20						-	65	115	50	26	*19
16	*20						-	62	*120	50	25	*19
17	*20						-	*70	*120	46	25	*19
18	*20						-	*80	*110	45	25	*19
19	*20						-	*85	*110	44	25	*19
20	20						-	*80	*110	45	24	*19
21	20						21	66	*110	42	24	*24
22	19						*21	69	111	40	24	*29
23	19						*20	80	100	40	23	34
24	19						*20	*85	90	39	22	*27
25	19						*21	*85	81	36	23	20
26	*18						*23	*85	78	35	22	*20
27	*18						*24	*90	*74	33	22	*20
28	*16						24	*110	70	34	22	*19
29	*16						*21	106	68	33	22	*19
30	*16						*20	*100	65	34	22	19
31	*16						-	*90	-	35	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	585	20	16	18.9	0.371	0.43	1,160
November	-	-	-	-	-	-	-
December	-	-	-	-	-	-	-
Calendar year							
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-
April 21-30	215	24	20	21.5	.422	.16	426
May	2,048	110	21	66.1	1.30	1.50	4,060
June	2,724	120	65	90.8	1.78	1.99	5,400
July	1,487	70	33	48.0	.941	1.08	2,950
August	828	54	22	26.7	.524	.60	1,640
September	632	34	19	21.1	.414	.46	1,250
Water year							

*Computed on basis of weather records and hydrographic comparison with records for nearby streams.

Lamar River near Tower Falls ranger station. Yellowstone National Park

Location.- Water-stage recorder, lat. 44°56', long. 110°22', 0.5 mile north of Cooke City road, three-quarters of a mile above mouth, and 2 miles northeast of Tower Falls ranger station.

Drainage area.- 640 square miles.

Records available.- September 1922 to September 1937 (except winters of 1922-23, 1923-24, 1924-25, 1935-36, 1936-37).

Average discharge.- 10 years (1925-35), 793 second-feet.

Extremes.- Maximum discharge during year, 6,660 second-feet May 28 (gage height, 6.83 feet); minimum recorded, 45 second-feet Nov. 2 (gage height, 0.63 foot).
1922-37: Maximum discharge, 13,600 second-feet May 25, 1928 (gage height, 9.75 feet); minimum recorded, that of Nov. 2, 1936.

Remarks.- Records good except those for periods of missing gage heights, Apr. 16-22, 24-30, May 2, 3, 5-7, 9-14, Aug. 23-31, Sept. 1, 3-5, which were computed on basis of weather records and records for stations on nearby streams and are fair. No records Nov. 4 to Apr. 14. No regulation or diversion. Gage-height record furnished by officials of Yellowstone National Park.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	82					-	270	2,390	1,590	523	130
2	109	56					-	430	2,450	1,400	403	127
3	109	74					-	600	3,180	1,320	338	130
4	111	-					-	760	3,040	1,220	314	140
5	118	-					-	970	2,330	1,140	267	135
6	122	-					-	1,180	2,000	1,400	257	129
7	116	-					-	1,380	1,840	1,180	246	120
8	116	-					-	1,590	1,790	1,270	234	116
9	116	-					-	1,660	1,840	1,140	218	146
10	116	-					-	1,720	2,220	1,050	212	129
11	113	-					-	1,790	2,510	1,050	215	122
12	111	-					-	1,850	2,770	956	206	118
13	111	-					-	1,920	2,580	863	195	120
14	113	-					-	1,980	2,900	870	183	116
15	122	-					*160	2,050	3,260	877	183	113
16	124	-						2,330	3,870	753	178	109
17	116	-						2,840	4,380	688	175	109
18	116	-						3,870	3,400	614	170	107
19	122	-					160	4,120	3,330	596	164	107
20	131	-						3,260	3,630	534	159	109
21	127	-						2,640	4,290	486	156	138
22	98	-						2,900	4,650	460	151	170
23	103	-					161	3,710	4,040	431	148	215
24	105	-						4,040	2,900	436	145	253
25	105	-						4,470	2,390	403	140	198
26	96	-					230	4,380	2,160	417	140	170
27	98	-						4,740	1,940	403	140	172
28	87	-						5,420	1,890	398	145	170
29	82	-						5,030	1,890	372	150	161
30	85	-						3,260	1,890	338	145	156
31	101	-					-	2,510	-	350	140	-

Month	*Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	3,408	131	82	110	0.172	0.20	6,760
November	-	-	-	-	-	-	-
December	-	-	-	-	-	-	-
Calendar year							
January	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-
April 15-30	3,051	-	-	191	.298	.18	6,050
May	79,670	5,420	270	2,570	4.02	4.64	158,000
June	83,750	4,650	1,790	2,792	4.36	4.86	166,100
July	25,005	1,890	338	807	1.26	1.45	49,600
August	6,440	523	140	208	.325	.37	21,770
September	4,235	253	107	141	.220	.25	8,400
Water year							

*Discharge measurement.

Gardiner River at Mammoth Hotel, Yellowstone National Park

Location.- Water-stage recorder, lat. 44°59', long. 110°41', a quarter of a mile below footbridge on Mount Everts trail, three-eighths of a mile below Mammoth Hot Springs, and 0.9 mile east of Mammoth Hotel.

Drainage area.- 201 square miles.

Records available.- September 1922 to September 1937.

Average discharge.- 12 years (1925-37), 157 second-feet.

Extremes.- Maximum discharge during year, 621 second-feet May 29 (gage height, 2.24 feet); minimum not determined.
1922-37: Maximum discharge, 1,790 second-feet May 28, 1928 (gage height, 3.59 feet); minimum recorded discharge, 31 second-feet Apr. 7, 1928; minimum gage height, 0.51 foot Apr. 3, 1931.

Remarks.- Records good except those for periods of missing gage heights, Oct. 21-23, Oct. 25 to Apr. 11, Apr. 13, 16-30, May 2-14, which were computed on basis of weather records and records for stations on nearby streams and are fair. No regulation or diversion. Gage-height record furnished by officials of Yellowstone National Park.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0.7	52	1.7	332
9	85	1.9	428
1.1	129	2.1	535
1.3	182	2.3	660
1.5	248	2.5	800

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80							93	323	194	142	76
2	80							100	306	188	118	74
3	80							120	356	174	106	74
4	80							140	370	165	100	78
5	83							170	323	162	96	80
6	81						60	200	280	216	93	78
7	80							220	248	188	89	76
8	80							240	241	182	87	78
9	80							260	248	185	85	80
10	80							280	268	171	87	78
11	78							290	284	160	87	74
12	78						58	300	370	149	83	72
13	78						62	310	351	152	81	74
14	80						67	320	332	152	78	74
15	83						71	328	356	165	78	74
16	81							337	389	144	78	74
17	78							365	433	136	80	74
18	78							428	365	129	81	74
19	80							454	360	127	80	72
20	85							433	360	122	80	76
21	80						70	374	370	115	80	89
22	70							356	379	111	76	83
23	70							423	351	111	76	100
24	71							438	297	113	74	91
25	70							454	260	108	76	85
26	70							449	241	111	74	83
27	70							486	224	115	74	80
28	65						90	530	216	111	76	78
29	65							496	210	104	81	78
30	65							389	204	102	78	76
31	65						-	332	-	102	78	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,364	85	65	76.3	0.380	0.44	4,690
November	1,950	-	-	65.0	.323	.36	3,870
December	2,015	-	-	65.0	.323	.37	4,000
Calendar year 1936	55,541	931	-	152	.756	10.29	110,200
January	1,860	-	-	60.0	.299	.34	3,690
February	1,680	-	-	60.0	.299	.31	3,330
March	1,860	-	-	60.0	.299	.34	3,690
April	2,068	-	-	68.9	.343	.38	4,100
May	10,115	530	93	326	1.62	1.87	20,060
June	9,315	433	204	310	1.54	1.72	18,480
July	4,464	216	102	144	.716	.83	8,850
August	2,652	142	74	85.5	.425	.49	5,260
September	2,351	100	72	78.4	.390	.44	4,660
Water year 1936-37	42,694	530	-	117	.582	7.89	84,680

Shields River near Wilsall, Mont.

Location.- Staff gage, lat. 46°09', long. 110°33', in SW¼ sec. 34, T. 5 N., R. 9 E., at county bridge about 13 miles northeast of Wilsall.

Records available.- May 1935 to September 1937.

Extremes.- Maximum discharge observed during year, 251 second-feet May 8 (gage height, 1.76 feet); minimum, 4.4 second-feet Aug. 27 (gage height, 0.65 foot).
1935-37: Maximum discharge observed, 523 second-feet May 15, 16, 1936 (gage height, 2.20 feet); minimum, 2.3 second-feet (estimated) Feb. 11-15, 1936 (ice present).

Remarks.- Records fair except those for periods of ice effect, Nov. 1-12, Dec. 1-18, Dec. 25 to Mar. 5, Mar. 13-20, which were estimated and are poor. Gage read once or twice daily. Several small diversions for irrigation above gage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.7						7.4	65	86	30	25	9.2
2	8.7						7.8	77	86	40	25	8.4
3	8.7					6.5	7.4	122	81	40	23	8.4
4	9.2						7.4	118	72	37	20	9.2
5	9.6		9.0				7.8	180	72	37	20	9.2
6	9.6					6.5	8.3	190	59	36	17	14
7	9.6	9.0				6.5	8.3	237	48	23	17	14
8	9.6					6.5	8.3	251	45	23	15	13
9	9.6					6.5	8.7	240	42	23	16	13
10	9.6					6.5	9.2	240	41	21	17	11
11	9.2					7.4	10	228	52	15	21	9.2
12	9.2					7.4	12	228	120	15	20	9.2
13	8.3	9.6					13	170	207	17	20	9.2
14	8.3	9.6					16	175	240	38	18	9.2
15	7.8	9.6	8.5				20	165	240	42	17	8.8
16	7.8	9.6				7.4	26	156	217	40	15	8.0
17	8.3	11					31	147	196	37	14	8.0
18	8.7	10					31	156	165	32	10	8.0
19	8.7	10	8.3				34	165	156	35	*9.2	8.0
20	9.6	9.6	8.3				36	138	165	36	8.4	7.6
21	9.6	9.6	8.3			7.4	36	120	156	37	7.6	7.6
22	9.6	9.6	8.3			7.4	36	120	120	30	5.2	8.0
23	10	9.6	7.8			6.5	34	113	103	26	4.6	8.8
24	10	8.7	7.8			6.1	34	138	86	25	4.9	10
25	10	8.7				6.5	34	165	76	23	4.8	12
26	9.6	8.7				6.5	44	186	45	21	4.6	13
27	9.6	8.7				7.4	80	186	42	22	4.4	13
28	9.6	8.7	7.5			7.4	108	196	42	21	4.8	14
29	9.6	9.2				7.8	101	196	23	19	5.2	13
30	9.6	9.2				7.8	64	165	23	23	6.8	14
31	9.6	-				8.3	-	120	-	23	9.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	285.6	10	7.8	9.21	566
November	277.7	11	8.7	9.26	551
December	259.3	-	-	8.36	514
Calendar year 1936	17,893.4	523	4.1	48.9	35,500
January	217.0	-	-	†7.0	430
February	182.0	-	-	†6.5	361
March	218.1	8.3	6.1	7.04	433
April	880.6	108	7.4	29.4	1,750
May	5,153	251	65	166	10,220
June	3,106	240	23	104	6,160
July	889	42	15	28.7	1,760
August	409.7	25	4.4	13.2	813
September	308.0	14	7.6	10.3	611
Water year 1936-37	12,186.0	251	4.4	33.4	24,170

*Interpolated.
†Estimated.

Shields River at Clyde Park, Mont.

Location.- Wire gage, lat. 45°53', long. 110°36', in NW¼ sec. 33, T. 2 N., R. 9 E., at highway bridge, a quarter of a mile northwest of Clyde Park and 2 miles above mouth of Brackett Creek.

Drainage area.- 544 square miles.

Records available.- March 1921 to September 1923, April 1929 to December 1932, February 1934 to September 1937.

Extremes.- Maximum discharge observed during year, 580 second-feet June 17 (gage height, 2.83 feet); minimum, 5.0 second-feet Aug. 27-29 (gage height, 1.36 feet).
1921-23, 1929-32, 1934-37: Maximum discharge observed, 1,880 second-feet May 26, 1923; minimum, 1.8 second-feet Aug. 29, 1935 (gage height, 0.72 foot).

Remarks.- Records good except those for periods of ice effect, Nov. 6, 7, Nov. 29 to Dec. 1, Dec. 6-22, Dec. 28 to Feb. 22, Feb. 28-28, Mar. 20, 21, 26-29, which were computed on basis of one discharge measurement, gage heights, observer's notes, and temperature records, and are poor. Numerous diversions above and below station. Gage read twice daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	33	35			*36	78	288	150	47	31	7.0
2	25	30	38			35	282	366	98	47	27	7.0
3	27	32	35			32	178	359	101	46	29	7.0
4	27	47	33			32	95	451	104	46	29	6.5
5	28	41	34			33	92	511	101	44	26	13
6	29	36	34	*20	*20	34	77	545	98	56	18	18
7	29	40	33			43	125	511	101	55	17	18
8	29	42	30			40	107	545	104	53	17	18
9	30	39	30			56	166	511	98	48	15	17
10	30	40	32			68	340	545	92	48	15	16
11	30	40	34			75	366	511	107	50	15	17
12	30	40	33			72	276	437	155	47	16	14
13	32	41	30			61	239	333	340	46	14	12
14	33	41	32			56	340	392	545	51	15	11
15	34	42	34	*14	*30	53	511	385	511	63	12	12
16	35	44	35			48	464	352	545	56	8.8	13
17	35	43	35			47	366	282	545	51	10	15
18	35	42	35			47	308	282	477	51	11	12
19	33	43	32			48	257	352	378	51	9.4	14
20	34	43	35			42	257	411	385	46	10	14
21	35	39	33			41	263	333	359	43	9.4	16
22	33	39	33			40	320	245	378	36	8.8	17
23	35	31	33			38	245	245	301	32	8.2	21
24	37	33	33			37	251	257	257	25	8.8	21
25	37	40	34		*40	36	160	314	232	25	7.0	22
26	37	39	36	*15		36	232	301	202	31	6.0	25
27	36	39	33			30	359	295	107	28	5.5	25
28	35	41	33			29	424	320	75	28	5.0	26
29	35	40	34		—	28	378	320	70	27	5.5	25
30	35	35	31		—	41	288	282	55	26	6.5	26
31	34	-	28		—	58	-	232	-	32	7.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	997	37	23	32.2	1,980
November	1,175	47	30	39.2	2,230
December	1,030	38	28	33.2	2,040
Calendar year 1936	39,946.6	860	2.4	109	79,130
January	505	-	-	16.3	1,000
February	820	-	-	29.3	1,630
March	1,372	75	28	44.3	2,720
April	7,844	511	77	261	15,560
May	11,513	545	232	371	22,840
June	7,071	545	55	236	14,030
July	1,335	63	25	43.1	2,650
August	423.5	31	5.0	13.7	840
September	485.5	26	6.5	16.2	963
Water year 1936-37	34,571.0	545	5.0	94.7	68,480

*Estimated.

Brackett Creek near Clyde Park, Mont.

Location.- Staff gage, lat. 45°52', long. 110°40', near center of NE¼ sec. 1, T. 1 N., R. 8 E., 4 miles southwest of Clyde Park.

Records available.- April 1934 to September 1937. March 1921 to September 1923, at site three-quarters of a mile upstream.

Extremes.- Maximum discharge observed during year, 118 second-feet June 13 (gage height, 2.94 feet); minimum, 2.9 second-feet Aug. 24 and Sept. 3.
1921-23, 1934-37: Maximum discharge observed, 370 second-feet June 22, 1923; minimum, 1.0 second-foot Aug. 21, 22, 1934.

Remarks.- Records good. No records for Oct. 1 to Apr. 7. Gage read once daily. Numerous small diversions above and below gage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	52	31	16	13	3.3
2							-	64	27	17	7.8	3.1
3							-	74	27	17	7.0	2.9
4							-	81	35	19	6.3	3.3
5							-	78	33	20	7.0	9.3
6							-	93	37	26	7.8	6.0
7							-	85	29	23	7.8	6.0
8							12	95	43	31	7.8	4.1
9							20	96	36	20	6.3	7.0
10							26	90	41	21	9.3	5.7
11		-					19	81	45	18	11	5.7
12							16	76	56	18	6.3	4.1
13							26	69	110	18	6.3	3.3
14							29	69	103	21	6.3	3.1
15							43	72	92	20	6.3	3.5
16							34	62	85	22	6.3	3.1
17							29	57	77	19	4.6	3.3
18							29	61	82	19	4.6	3.3
19							26	57	66	19	5.7	3.8
20	*6.1						30	76	65	15	6.3	3.8
21							39	56	54	12	6.3	5.5
22							33	52	50	11	6.0	4.9
23							30	48	43	11	4.9	†5.4
24							25	46	41	9.6	2.9	†5.8
25							26	45	33	8.5	3.3	6.3
26							41	39	31	9.3	3.1	6.3
27							50	36	26	7.4	13	5.7
28							55	35	24	6.7	5.2	5.7
29							46	39	24	7.0	4.6	6.3
30							45	41	24	6.3	4.1	6.3
31							-	34	-	6.3	4.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 8-30	729	55	12	31.7	1,450
May	1,959	96	34	63.2	3,890
June	1,470	110	24	49.0	2,920
July	494.1	31	6.3	15.9	980
August	201.8	13	2.9	6.51	400
September	145.9	9.3	2.9	4.86	289
The period	4,999.8	-	-	-	9,930

*Discharge measurement.
†Interpolated.

Sweetgrass Creek above Melville, Mont.

Location.- Water-stage recorder, lat. 46°09', long. 110°05', near center of sec. 27, T. 5 N., R. 13 E., about 9 miles northwest of Melville. Gage is 500 feet upstream from site used August 1913 to December 1924.

Drainage area.- 59.6 square miles.

Records available.- August 1913 to December 1924 and April to September 1937. May 1907 to December 1912, at site 6 miles upstream; records equivalent. No diversions or tributaries of importance between the two sites.

Extremes.- 1937: Maximum discharge during period, 600 second-feet June 17 (gage height, 3.01 feet); minimum, 7.5 second-feet Apr. 24 (gage height, 0.47 foot).
1907-24, 1937: Maximum discharge observed, 1,510 second-feet June 11, 1918 (gage height, 2.85 feet, former site and datum); minimum, 2.6 second-feet Mar. 12, 1922 (gage height, 0.12 foot, former site and datum).

Remarks.- Records good. None for Oct. 1 to Apr. 16.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	13	151	228	65	26
2							-	13	154	192	61	24
3							-	13	242	170	58	24
4							-	13	233	156	56	24
5							-	12	192	151	56	27
6							-	12	163	182	53	25
7							-	11	147	175	52	24
8							-	9	143	151	51	23
9							-	9	134	143	48	23
10							-	12	130	132	50	21
11							-	65	154	153	48	20
12							-	94	233	278	45	19
13							-	108	302	219	44	18
14							-	134	338	205	42	18
15							-	168	367	187	40	18
16							-	163	443	154	39	18
17							13	175	478	136	38	17
18							*13	214	334	120	35	16
19							*14	287	328	110	34	16
20							*15	287	367	101	33	16
21							16	225	426	94	33	17
22							13	203	512	85	32	16
23							9.0	254	423	80	30	18
24							8.0	248	266	77	29	18
25							10	302	190	72	28	17
26							12	380	170	71	28	16
27							13	370	168	71	27	17
28							13	380	165	70	28	17
29							14	386	185	65	29	17
30							13	248	219	65	28	16
31							-	182	-	65	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 17-30	176	16	8	12.6	349
May	4,990	386	9	161	9,900
June	7,757	512	130	259	15,390
July	4,158	278	65	134	8,250
August	1,268	65	27	40.9	2,520
September	586	27	16	19.5	1,160
The period					37,570

*Interpolated.

Sweetgrass Creek below Melville, Mont.

Location.- Wire gage, lat. 46°04', long. 109°51', near middle of south line of sec. 27, T. 4 N., R. 15 E., 6 miles southeast of Melville.

Drainage area.- 137 square miles.

Records available.- April 1909 to September 1924, April to September 1937. May 1907 to April 1909, at site 2½ miles downstream.

Extremes.- Maximum discharge observed during April to September 1937, 613 second-feet June 23 (gage height, 3.38 feet); minimum, 12 second-feet Aug. 19 (gage height, 1.60 feet).

1909-24, 1937: Maximum discharge, 1,700 second-feet June 27, 1916 (gage height, 4.2 feet); minimum, 8 second-feet Aug. 16-18, 1919 (gage height, 1.12 feet).

Remarks.- Records fair. No records Oct. 1 to Apr. 10. Numerous diversions above and below gage. Gage read twice daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	33	59	39	32	22
2							-	30	44	38	40	19
3							-	29	50	30	30	18
4							-	25	92	28	27	17
5							-	25	77	26	28	40
6							-	27	65	53	29	62
7							-	21	60	85	29	59
8							-	19	69	79	27	52
9							-	19	59	69	24	65
10							-	16	56	65	25	56
11							50	15	77	62	30	48
12							44	14	100	205	26	47
13							48	28	193	152	22	46
14							53	34	298	131	22	46
15							53	58	333	122	17	46
16							42	64	402	98	19	43
17							39	67	490	81	18	42
18							35	65	359	69	16	42
19							35	122	328	59	13	37
20							30	146	323	48	14	39
21							35	98	402	33	19	40
22							33	72	460	26	16	40
23							30	79	490	22	14	48
24							31	83	256	23	16	50
25							29	98	122	21	19	46
26							30	149	87	20	20	47
27							31	182	85	19	19	52
28							30	169	74	22	19	62
29							30	247	40	21	23	58
30							33	137	34	22	23	53
31							-	83	-	20	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 11-30	741	53	29	37.0	1,470
May	2,254	247	14	72.7	4,470
June	5,584	490	34	186	11,080
July	1,788	205	19	57.7	3,550
August	696	40	13	22.5	1,380
September	1,332	65	17	44.4	2,640
The period					24,590

Stillwater River near Absarokee, Mont.

Location.- Wire gage, lat. 45°32', long. 109°25', in SE¼ sec. 30, T. 3 S., R. 19 E., at highway bridge, 1.7 miles northeast of Absarokee and half a mile below mouth of Rosebud Creek.

Records available.- July 1910 to September 1914, March 1935 to September 1937.

Extremes.- Maximum discharge observed during year, 7,450 second-feet June 23 (gage height, 5.34 feet); minimum, 98 second-feet Dec. 29 (gage height, 1.30 feet).
1910-14, 1935-37: Maximum discharge observed, that of June 23, 1937; minimum, 58 second-feet Apr. 2, 1936 (gage height, 1.25 feet).

Remarks.- Records fair except those for period of ice effect, Jan. 1 to Mar. 9, which were computed on basis of one discharge measurement, gage heights, observer's notes, and temperature records, and are poor. Gage read once daily. Numerous diversions for irrigation above gage. Flow partly regulated by power plant at Mystic Lake.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	293	391	188				193	260	1,230	3,990	900	260
2	281	281	168				193	276	1,230	3,100	960	307
3	269	269	144			235	172	291	1,900	2,880	900	260
4	256	293	136				161	346	3,100	2,470	520	283
5	256	244	136	125	100		172	654	2,470	2,370	510	299
6	269	269	133				220	550	1,550	2,570	530	315
7	319	306	188				226	501	1,720	2,180	530	291
8	293	269	154			180	233	900	1,990	2,270	530	276
9	269	275	174				322	1,160	1,550	2,670	501	307
10	250	250	154			260	338	1,160	1,720	2,670	600	395
11	227	250	188			193	247	1,160	2,470	2,180	580	395
12	204	239	306			172	172	1,090	4,450	2,180	643	226
13	227	250	250			182	220	1,020	3,540	1,990	570	233
14	250	239	300			172	233	900	3,320	1,640	530	247
15	312	227	204	115	250	206	220	1,020	3,320	1,640	492	260
16	312	164	222			322	247	1,020	4,220	1,550	492	213
17	287	210	210			276	233	1,020	6,150	1,470	429	226
18	250	233	193			438	247	1,300	5,170	1,640	447	253
19	244	244	216			474	220	1,990	4,450	1,390	429	233
20	293	188	227			371	182	1,810	4,220	1,390	412	151
21	319	210	210			456	151	1,470	6,670	1,090	354	140
22	256	159	199			840	206	1,390	7,450	1,090	322	136
23	293	149	222			510	220	1,470	7,450	1,090	338	240
24	281	210	216			438	247	1,640	5,410	960	322	447
25	348	275	193		275	354	193	2,180	4,220	900	291	346
26	233	199	164	110		387	151	2,670	3,760	900	276	465
27	293	159	133			338	233	3,100	2,880	900	260	346
28	227	164	125			307	260	3,540	3,100	900	268	363
29	227	154	98			322	247	3,540	2,680	900	299	412
30	262	173	140			338	233	2,670	3,100	720	268	379
31	275	-	125			307	-	1,550	-	676	299	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,375	348	204	270	16,610
November	6,943	391	149	231	13,770
December	5,716	306	98	184	11,340
Calendar year 1936	184,866	5,140	58	505	366,700
January	3,610	-	-	116	7,160
February	5,700	-	-	204	11,310
March	9,556	840	172	308	18,960
April	6,592	338	151	220	13,080
May	43,648	3,540	260	1,408	86,570
June	106,690	7,450	1,230	3,556	211,600
July	54,366	3,990	676	1,754	107,800
August	14,802	960	260	477	29,360
September	8,704	447	136	290	17,260
Water year 1936-37	274,704	7,450	98	753	544,800

Rosebud Creek near Absarokee, Mont.

Location.- Staff gage, lat. 45°29', long. 109°27', in NW¼ sec. 13, T. 4 S., R. 18 E., at Smith Bridge, 2 miles south of Absarokee.

Records available.- April 1935 to September 1937.

Extremes.- Maximum discharge recorded during year, 4,850 second-feet June 22 (gage height, 6.36 feet); minimum, 31 second-feet Dec. 29 (discharge measurement, ice present).
1935-37: Maximum discharge, that of June 22, 1937; minimum, 31 second-feet May 25 and Dec. 29, 1936; minimum gage height, 1.47 feet May 25, 1936.

Remarks.- Records good except those for periods of ice effect, Nov. 3, 4, 6, Dec. 5-14, Dec. 27 to Mar. 7, which were computed on basis of two discharge measurements, gage heights, observer's notes, and temperature records, and are poor. Gage read twice daily. Flow is subject to large fluctuations due to operation of power plant on West Rosebud Creek. Some diversion for irrigation from East Rosebud Creek into Red Lodge Creek. Numerous diversions above and below gage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	285	285	138			106	104	132	465	1,330	465	178
2	266	266	148			110	127	115	495	1,170	465	184
3	266	252	122			122	120	108	465	1,070	465	181
4	247	237	119			149	125	113	790	1,020	438	184
5	230	222	110	*45	*50	164	127	143	790	1,020	410	299
6	236	202	118			160	125	209	595	1,120	360	257
7	285	183	118			152	132	202	670	1,330	303	238
8	222	183	125			127	167	336	750	1,330	272	260
9	219	180	120			138	184	360	750	1,390	234	294
10	230	212	113			294	138	336	710	1,450	268	286
11	230	193	118			135	174	312	790	1,170	336	385
12	190	174	125			113	135	360	2,760	1,120	336	202
13	202	183	138			98	157	294	1,570	875	336	160
14	230	206	125			85	174	281	1,330	920	336	202
15	236	171	140	*45	*70	90	167	303	1,170	830	312	188
16	285	157	135			110	154	234	1,330	750	312	170
17	233	171	130			96	152	253	2,340	750	303	174
18	222	193	120			96	146	268	2,200	670	257	160
19	233	222	125			100	127	312	1,570	632	238	138
20	266	177	130			83	120	385	1,570	632	241	110
21	285	190	106			181	113	410	2,900	595	238	130
22	266	166	125			234	132	303	4,400	525	216	110
23	240	143	130			118	140	299	4,100	525	188	198
24	285	209	130			98	146	312	2,620	495	188	234
25	285	190	122		*100	71	120	312	1,570	465	188	264
26	219	157	83	*50		68	127	385	1,120	465	167	241
27	266	124	76			65	125	525	1,020	525	149	212
28	236	138	57			68	143	595	1,020	525	160	241
29	266	186	45		-	71	152	750	1,020	525	157	245
30	285	166	68		-	76	146	1,020	1,390	495	174	198
31	285	-	48		-	96	-	525	-	465	178	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,731	285	190	249	15,330
November	5,738	285	124	191	11,380
December	3,507	148	45	113	6,960
Calendar year 1936	91,643	1,930	33	250	181,800
January	1,450	-	-	46.8	2,880
February	2,000	-	-	71.4	3,970
March	3,724	294	65	120	7,390
April	4,249	188	104	142	8,430
May	10,492	1,020	108	338	20,810
June	44,270	4,400	465	1,476	87,810
July	26,184	1,450	465	845	51,940
August	8,890	465	149	280	17,240
September	6,323	385	110	211	12,540
Water year 1936-37	124,358	4,400	45	341	246,700

*Estimated.

Clarks Fork at Chance, Mont.

Location.- Water-stage recorder, lat. 45°00', long. 109°04', in NW¼ sec. 32, T. 9 S., R. 22 E., just below highway bridge at Chance, just above mouth of Sand Coulee, and half a mile north of Wyoming-Montana State line.

Records available.- July 1921 to September 1937.

Extremes.- Maximum discharge during year, 8,490 second-feet June 12 (gage height, 5.83 feet); minimum, 77 second-feet Dec. 5 (gage height, -0.07 foot).
1921-37: Maximum discharge observed, 10,900 second-feet May 26, 1928 (gage height, 6.5 feet); minimum, 72 second-feet Mar. 19, 1927 (gage height, 0.5 foot).

Remarks.- Records good except those for periods of ice effect Dec. 7-27, and Jan. 1 to Mar. 26, which were estimated on basis of three discharge measurements, temperature records, and comparison with records for station at Edgar and are poor. Numerous diversions.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	260	263	215		165		192	308	2,130	3,430	651	161
2	255	242	210		165		198	414	1,800	3,000	617	166
3	252	218	192		165		190	630	2,220	2,580	516	156
4	255	238	177				181	695	3,100	2,390	444	169
5	258	311	137				185	880	2,680	2,300	380	209
6	260	281	192				181	1,150	2,040	2,390	339	195
7	255	272			180		181	1,160	1,650	2,390	330	195
8	250	275					175	1,380	1,510	2,130	302	192
9	252	296					173	1,580	1,380	2,040	272	198
10	250	302					195	1,580	1,450	2,040	272	195
11	248	296					225	1,580	1,960	2,040	263	179
12	248	287					222	1,280	5,000	1,880	275	179
13	245	287					218	1,280	2,890	1,580	282	168
14	242	290				220	263	1,450	2,680	1,650	261	166
15	258	281					299	1,800	3,100	1,510	279	152
16	260	281			200		362	1,960	3,770	1,380	272	149
17	258	287	180				299	2,220	4,950	1,230	254	142
18	255	281					245	2,740	4,590	1,110	247	140
19	260	275					255	3,430	4,470	1,030	231	145
20	275	272					258	3,320	4,950	959	206	145
21	281	275					255	2,680	5,580	871	195	145
22	278	266					275	2,220	6,230	804	184	169
23	272	263			220		250	2,580	6,360	740	176	218
24	284	245					222	3,100	5,450	718	171	298
25	290	260					212	3,540	3,880	651	163	234
26	284	263			235		252	3,770	3,100	651	154	206
27	272	252			235	167	366	4,120	2,890	702	152	192
28	275	238	185		235	175	465	4,470	2,740	724	156	189
29	260	222	177			183	402	4,830	2,890	724	163	195
30	260	235	157			190	338	3,880	3,430	644	166	189
31	269	-	151			198	-	2,740	-	597	161	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,121	290	242	262	16,110
November	8,054	311	218	268	15,970
December	5,573	215	137	180	11,050
Calendar year 1936	357,720	8,790	135	977	709,500
January	5,270	-	-	*170	10,450
February	5,560	235	165	199	11,030
March	6,633	-	167	214	13,160
April	7,534	465	173	251	14,940
May	68,767	4,830	308	2,218	136,400
June	100,870	6,360	1,380	3,362	200,100
July	46,885	3,430	597	1,512	93,000
August	8,539	651	152	275	16,940
September	5,436	298	140	181	10,780
Water year 1936-37	277,242	6,360	137	760	549,900

*Estimated.

Clarks Fork at Edgar, Mont.

Location.- Wire gage, lat. 45°28', long. 109°04', in SW¼ sec. 24, T. 4 S., R. 23 E., on highway bridge, half a mile east of Edgar.

Records available.- July 1921 to September 1937.

Extremes.- Maximum discharge observed during year, 10,200 second-feet June 12 (gage height, 8.59 feet); minimum, 131 second-feet Aug. 27 (gage height, 1.56 feet).
1921-37: Maximum discharge observed, 10,900 second-feet June 2, 1936 (gage height, 8.62 feet); minimum, 41 second-feet July 25, 1931 (gage height, 1.55 feet).

Remarks.- Records good except those for period of ice effect, Dec. 4 to Mar. 14, which were computed on basis of three discharge measurements, gage heights, observer's notes, and temperature records and are fair. Gage read twice daily. Numerous diversions.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	472	500	397	196	262	318	340	418	2,570	2,990	543	160
2	472	560	397	208	262	354	391	391	2,290	2,710	644	160
3	472	275	397	208	275	354	340	576	2,430	2,570	543	160
4	472	627	262	262	288	445	316	610	3,420	2,030	340	160
5	472	530	208	215	288	472	316	610	3,750	2,160	316	168
6	500	500	186	177	288	500	316	970	2,850	1,900	228	188
7	472	500	202	169	288	560	296	1,380	2,430	2,290	201	201
8	445	664	251	191	275	530	276	1,380	2,290	2,030	178	201
9	472	737	240	191	275	500	276	1,900	2,160	1,900	168	201
10	472	594	191	208	275	472	296	1,770	2,030	1,770	151	201
11	472	594	202	202	275	421	391	1,770	2,430	2,030	144	214
12	472	664	215	208	288	421	340	1,540	6,550	1,900	151	228
13	445	472	196	222	303	445	340	1,120	3,580	1,650	151	214
14	472	500	202	215	275	421	316	1,320	2,990	1,770	188	201
15	530	500	202	202	288	418	418	1,900	3,130	1,650	178	201
16	530	472	202	215	288	340	448	2,030	3,580	1,430	178	188
17	530	472	202	222	336	340	511	2,430	4,450	1,320	168	201
18	500	472	196	222	318	316	391	3,130	4,450	1,220	168	201
19	500	472	196	231	336	364	364	3,750	4,090	1,020	151	214
20	530	472	202	202	303	316	364	3,420	4,090	875	151	201
21	530	472	196	208	303	296	340	3,130	5,190	716	151	201
22	530	445	191	222	303	296	391	2,430	5,950	644	151	201
23	530	445	186	231	336	316	364	2,710	6,750	543	160	260
24	530	445	186	222	336	296	364	2,990	6,150	418	144	391
25	813	445	177	240	318	296	316	3,270	4,090	391	160	479
26	1,100	445	169	240	288	276	296	3,750	3,130	448	144	391
27	500	445	154	240	288	276	340	4,090	2,850	448	137	364
28	500	445	151	240	288	276	511	4,450	2,570	543	137	364
29	472	421	186	240	-	296	543	5,190	2,570	679	160	391
30	472	397	196	251	-	296	511	5,000	2,710	576	160	391
31	472	-	191	251	-	340	-	3,920	-	479	160	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	16,151	1,100	445	521	32,040
November	14,982	737	275	499	29,720
December	6,729	397	151	217	13,350
Calendar year 1936	380,235	10,600	151	1,039	754,200
January	6,751	262	169	218	13,390
February	8,246	336	262	294	16,360
March	11,567	560	276	373	22,940
April	11,022	543	276	367	21,860
May	73,345	5,190	391	2,366	145,500
June	107,520	6,750	2,030	3,584	213,300
July	43,100	2,990	391	1,390	85,490
August	6,604	644	137	213	13,100
September	7,296	479	160	243	14,470
Water year 1936-37	313,313	6,750	137	858	621,500

Rock Creek near Red Lodge, Mont.

Location.- Staff gage, lat. 45°07', long. 109°17', in SW¼ sec. 17, T. 8 S., R. 20 E., at highway bridge at U. S. ranger station, 4 miles southwest of Red Lodge.

Records available.- April to December 1932, May 1934 to September 1937.

Extremes.- Maximum discharge observed during year, 1,930 second-feet June 16 (gage height, 4.80 feet); minimum, 20 second-feet Feb. 10-13 (gage height, 1.10 feet). 1932, 1934-37: Maximum discharge observed, that of June 16, 1937; minimum, 19 second-feet Mar. 15, 1936.

Remarks.- Records fair. Discharge for periods of ice effect, Nov. 4, Dec. 3-7, Dec. 29 to Jan. 2, interpolated. Several diversions above gage. Gage read once daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	97	62	28	33	22	26	23	29	254	645	306	106
2	97	62	36	33	22	26	23	32	237	645	306	106
3	97	62	36	33	22	26	21	39	270	614	288	106
4	97	61	35	30	24	26	23	54	288	614	288	97
5	97	60	34	30	24	26	23	73	270	584	254	106
6	88	55	34	30	24	26	23	108	254	584	254	114
7	88	55	33	30	22	25	23	151	254	584	237	114
8	80	50	33	28	22	22	23	132	270	554	237	105
9	79	49	33	28	22	22	23	156	288	526	237	114
10	87	49	33	28	20	22	21	170	348	526	222	114
11	79	49	30	28	20	25	23	158	394	498	222	105
12	85	43	30	28	20	25	23	170	419	498	207	105
13	70	43	33	28	20	24	23	194	419	471	207	95
14	64	43	33	28	22	27	28	181	471	498	207	95
15	76	47	33	28	22	24	26	170	498	444	207	95
16	69	43	33	28	25	27	26	194	1,930	444	207	95
17	83	43	30	28	25	27	23	207	1,010	419	194	87
18	90	46	33	28	22	24	26	327	773	419	181	87
19	82	42	33	26	22	24	26	288	740	471	170	87
20	90	42	33	26	22	24	28	207	1,490	419	170	87
21	66	41	30	26	26	24	26	181	1,320	394	170	85
22	60	37	33	24	26	24	26	181	942	371	170	77
23	66	28	33	24	26	22	26	222	1,010	348	158	77
24	72	31	33	24	26	22	26	237	676	327	149	77
25	72	28	30	24	23	21	28	270	554	327	147	77
26	70	28	33	24	23	21	28	327	526	327	130	70
27	77	28	30	24	26	21	30	584	554	348	126	70
28	70	26	33	24	26	41	*30	444	584	306	126	74
29	69	24	33	24	-	24	31	394	526	306	126	70
30	69	26	33	22	-	24	28	444	498	306	116	64
31	63	-	33	22	-	21	-	288	-	306	116	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,449	97	60	79.0	4,860
November	1,303	62	24	43.4	2,580
December	1,010	36	28	32.6	2,000
Calendar year 1936	58,401	1,240	19	160	115,800
January	841	33	22	27.1	1,670
February	646	26	20	23.1	1,280
March	763	41	21	24.6	1,510
April	757	31	21	25.2	1,500
May	6,612	584	29	213	13,110
June	18,067	1,930	237	602	35,840
July	14,123	645	306	456	28,010
August	6,135	306	116	198	12,170
September	2,761	114	64	92.0	5,480
Water year 1936-37	55,467	1,930	20	152	110,000

*Interpolated.

Rock Creek at Rockvale, Mont.

Location.- Wire gage, lat. 45°31', long. 108°50', in NW¼ sec. 2, T. 4 S., R. 23 E., at highway bridge, half a mile south of Rockvale.

Records available.- October 1920 to September 1922, April 1932 to September 1937.

Extremes.- Maximum discharge observed during year, 2,240 second-feet June 18, 22 (gage height, 4.52 feet); minimum, 1.9 second-feet May 22, 27 (gage height, 0.88 foot).
1920-22, 1932-37: Maximum discharge observed, 2,310 second-feet June 8, 1932 (gage height, 9.10 feet, present datum); minimum, no flow July 14-16, 1935.

Remarks.- Records fair except those for periods of ice effect, Dec. 1-20, Dec. 26 to Feb. 28, which were computed on basis of three discharge measurements, gage heights, observer's notes, and temperature records and are poor. Flow partly regulated by reservoir on Red Lodge Creek. Numerous diversions.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	225	68		83	109	156	37	25	18	39	33
2	120	188	65		85	244	156	37	2.8	4.5	36	25
3	116	118	57		85	380	161	37	6.1	4.5	33	16
4	102	232	35		78	580	117	21	150	5.0	20	20
5	116	225	23		88	696	150	14	286	43	13	46
				*25								
6	120	150	21		91	590	135	14	178	36	5.5	43
7	116	126	16		91	350	166	8.6	135	104	28	53
8	120	126	13		91	122	178	5.2	86	15	36	49
9	116	209	12		88	109	230	69	83	18	43	53
10	109	168	15		88	145	394	48	73	9.0	13	46
11	102	162	18		102	124	350	37	258	23	28	49
12	102	156	23		91	113	135	4.6	1,160	33	20	43
13	91	156	21		102	93	172	2.8	950	49	25	43
14	88	150	30		91	83	184	2.2	770	39	15	46
15	102	145	33		102	73	145	43	812	104	28	39
				*50								
16	103	140	40		102	93	140	35	1,410	95	46	33
17	114	140	42		105	86	97	24	2,240	125	30	53
18	114	136	59		113	97	83	3.4	2,240	125	30	100
19	118	131	74		109	101	76	2.8	1,780	180	25	90
20	150	131	86		91	73	83	2.0	1,550	109	23	86
21	150	126	100		85	76	76	4.6	2,050	114	28	90
22	156	126	111		77	69	86	2.2	2,240	43	23	90
23	209	118	103		77	73	76	2.8	1,620	5.0	18	114
24	217	122	93		65	66	79	2.8	1,220	6.0	9.0	114
25	314	118	86		66	63	76	2.8	690	28	3.5	125
26	252	118	80	*75	55	58	76	2.2	356	30	30	119
27	314	118	71		58	58	76	1.9	227	33	20	167
28	272	103	72		82	63	58	25	210	46	30	167
29	252	100	55		-	76	55	2.2	109	43	43	173
30	225	100	19		-	76	48	2.0	15	46	39	167
31	217	-	20		-	93	-	22	-	39	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,806	314	88	155	9,530
November	4,363	232	100	145	8,650
December	1,561	111	12	50.4	3,100
Calendar year 1936	36,942.5	984	1.5	101	73,270
January	1,575	-	-	50.8	3,120
February	2,441	113	55	87.2	4,840
March	5,032	696	58	162	9,980
April	4,014	394	48	134	7,960
May	518.1	69	1.9	16.7	1,030
June	22,931.9	2,240	2.8	764	45,480
July	1,572.0	180	4.5	50.7	3,120
August	826.0	46	3.5	26.6	1,640
September	2,292	173	16	76.4	4,550
Water year 1936-37	51,932.0	2,240	1.9	142	103,000

*Estimated.

West Fork of Rock Creek below Basin Creek, near Red Lodge, Mont.

Location.- Water-stage recorder, lat. 45°09', long. 109°23', near center of sec. 3, T. 8 S., R. 19 E., about one-eighth mile below Basin Creek and six miles west of Red Lodge.

Records available.- July to September 1937.

Extremes.- Maximum discharge for period, 191 second-feet July 27 (gage height, 1.16 feet, temporary site and datum); minimum, 31 second-feet Sept. 30 (gage height, 1.16 feet).
Discharge measurement of 342 second-feet made on June 26.

Remarks.- Records good. Those for July 23 to Sept. 17 at temporary site, one-eighth of a mile downstream. One small canal above gage diverted water during July and part of August.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										-	146	46
2										-	143	45
3										-	123	46
4										-	108	51
5										-	101	53
6										-	95	53
7										-	98	49
8										-	95	51
9										-	93	53
10										-	93	54
11										-	88	53
12										-	90	49
13										-	95	49
14										-	98	48
15										-	93	45
16										-	90	45
17										-	81	43
18										-	85	49
19										-	78	48
20										-	70	46
21										-	63	45
22										-	61	42
23										146	61	46
24										146	58	45
25										146	58	39
26									*342	156	54	38
27										174	51	38
28										162	49	34
29										152	49	34
30										146	51	32
31										137	48	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June					
July 23-31	1,365	174	137	152	2,710
August	2,566	146	48	82.8	5,090
September	1,369	54	32	45.6	2,720
The period	5,300	-	-	-	10,520

*Discharge measurement.

West Fork of Rock Creek near Red Lodge, Mont.

Location.- Staff gage, lat. 45°09', long. 109°18', in SE¼ sec. 6, T. 8 S., R. 20 E., at U. S. ranger station, 3 miles southwest of Red Lodge.

Records available.- April to December 1932, May 1934 to September 1937.

Extremes.- Maximum discharge observed during year, 1,850 second-feet June 22 (gage height, 6.10 feet); minimum, 4.8 second-feet Apr. 3 (gage height, 0.98 foot). 1932, 1934-37: Maximum discharge observed, that of June 22, 1937; minimum 4.4 second-feet Oct. 30, 1935 (gage height, 0.86 foot).

Remarks.- Records fair. Several diversions above gage. Gage read twice daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.8	14	16	*11	9.8	9.2	7.2	10	65	236	*64	*26
2	7.6	12	14	11	9.8	9.2	7.2	12	68	251	65	25
3	7.0	*17	11	10	9.4	9.2	4.8	12	65	251	58	26
4	6.8	22	11	11	*9.5	9.4	*6.1	14	65	208	57	28
5	6.8	17	12	10	*9.6	9.4	7.4	20	77	208	*52	30
6	7.0	14	14	10	*9.7	8.8	7.2	20	38	236	47	28
7	7.0	16	16	10	*9.8	8.8	7.2	*43	43	*216	46	28
8	6.8	16	16	10	9.8	9.2	7.4	66	74	195	42	28
9	6.8	22	16	10	9.8	8.8	7.4	49	61	195	42	30
10	6.8	22	14	10	9.8	9.4	8.4	54	83	183	42	31
11	6.8	23	12	11	10	8.8	8.4	58	*174	160	35	30
12	6.4	22	12	11	10	8.8	8.4	47	266	195	37	29
13	6.4	22	14	11	10	8.8	8.4	25	282	140	39	28
14	6.4	21	11	10	9.6	8.8	9.6	36	282	150	47	26
15	7.2	16	12	10	9.6	8.8	9.2	39	292	130	45	26
16	7.6	16	12	10	9.2	8.6	9.4	37	427	113	40	25
17	7.0	16	12	10	8.8	8.6	9.6	40	596	106	40	24
18	7.8	16	12	10	9.2	8.4	9.0	62	427	98	30	23
19	8.6	16	11	10	8.8	8.4	9.0	77	407	92	31	23
20	12	16	11	9.4	9.2	8.0	9.0	73	640	98	25	23
21	24	*15	12	9.0	8.8	8.4	8.6	72	830	98	26	22
22	25	14	12	9.6	8.8	8.0	8.6	40	1,190	*89	25	16
23	27	15	12	9.4	8.8	8.0	6.0	50	640	80	24	12
24	28	15	12	*9.3	9.2	8.0	5.2	49	468	70	23	25
25	28	15	11	9.2	9.0	*8.1	5.2	113	266	70	30	22
26	23	13	11	9.2	8.8	*8.2	8.6	84	236	66	30	22
27	25	13	11	9.2	9.2	*8.2	10	92	222	65	28	20
28	25	13	14	8.8	9.2	8.2	10	122	208	85	28	20
29	18	14	14	8.8	-	7.8	9.6	140	222	80	30	20
30	14	15	13	8.8	-	7.6	9.6	98	251	75	28	19
31	14	-	12	9.2	-	7.6	-	92	-	64	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	397.6	28	6.4	12.8	789
November	498	23	12	16.6	988
December	393	16	11	12.7	780
Calendar year 1936	12,351.0	427	6.4	33.7	24,500
January	305.9	11	8.8	9.87	607
February	263.2	10	8.8	9.40	522
March	265.5	9.4	7.6	8.56	527
April	241.7	10	4.8	8.06	479
May	1,748	140	10	56.4	3,470
June	8,965	1,190	38	299	17,780
July	4,303	251	64	139	8,530
August	1,184	65	23	38.2	2,350
September	735	31	12	24.5	1,460
Water year 1936-37	19,299.9	1,190	4.8	52.9	38,280

*Interpolated.

Red Lodge Creek above Cooney Reservoir, near Boyd, Mont.

Location.- Water-stage recorder, lat. 45°26', long. 109°16', in SW¼ sec. 34, T. 4 S., R. 20 E., above Cooney Reservoir and 9 miles west of Boyd.

Records available.- May to September 1937.

Extremes.- Maximum discharge during period, 777 second-feet June 12 (gage height, 5.55 feet); minimum, 1.5 second-feet May 27 (gage height, 0.75 foot).

Remarks.- Records fair. Numerous small diversions above gage. Flow during part of irrigation season increased by water diverted from East Rosebud Creek.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	28	98	43	14
2								-	26	90	44	14
3								-	32	76	45	16
4								-	96	70	39	16
5								-	130	68	30	15
6								-	121	71	27	16
7								-	105	79	24	20
8								-	174	74	22	20
9								-	160	71	22	20
10								-	160	75	20	18
11								-	205	79	23	18
12								-	616	90	23	18
13								-	562	93	*22	18
14								-	474	120	20	16
15								-	388	122	20	16
16								-	333	116	20	16
17								-	306	118	21	15
18								-	297	105	19	12
19								-	279	98	20	9.9
20								-	270	90	18	8.7
21								-	306	81	18	6.9
22								-	279	79	17	5.6
23								6.0	236	75	16	9.0
24								*3.8	210	64	15	23
25								1.7	183	52	14	30
26								1.8	173	54	14	30
27								1.7	172	53	13	31
28								2.0	159	44	13	31
29								2.9	128	40	14	30
30								16	105	36	15	31
31								41	-	38	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May 22-31	76.9	41	1.7	8.54	153
June	6,713	616	26	224	13,320
July	2,419	122	36	78.0	4,600
August	687	45	13	22.2	1,360
September	544.1	31	5.6	18.1	1,080
The period	10,440.0				20,710

*Interpolated.

Red Lodge Creek near Boyd, Mont.

Location.- Wire gage, lat. 45°28', long. 109°05', in SW¼ sec. 26, T. 4 S., R. 21 E., 1½ miles west of Boyd.

Records available.- April to December 1932, May 1934 to December 1936 (discontinued).

Extremes.- Maximum discharge observed during period, 87 second-feet Oct. 7 (gage height, 2.30 feet); minimum, no flow Nov. 1 (gage height, 1.12 feet).
1932, 1934-37: Maximum discharge observed, 1,400 second-feet June 8, 1932 (gage height, 7.34 feet, former datum); minimum, that of Nov. 1, 1937.

Remarks.- Records good except those for periods of ice effect, Dec. 6-15, 28-31, which were computed on basis of gage heights, observer's notes, and weather records and are fair. Gage read twice daily. Complete regulation due to storage in Cooney Reservoir after Nov. 1. Numerous diversions above gage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	80	0	2.7									
2	83	6.2	3.1									
3	80	53	2.9									
4	78	50	3.1									
5	78	48	2.7									
6	83	7.6	2.7									
7	85	4.8	2.7									
8	82	4.4	2.9									
9	78	4.8	2.7									
10	69	4.0	2.5									
11	62	4.0	2.7									
12	60	4.0	2.9									
13	57	3.5	3.5									
14	54	3.5	3.5									
15	57	3.3	3.1									
16	64	3.3	3.1									
17	66	3.3	2.5									
18	68	3.3	2.5									
19	66	2.9	2.5									
20	68	2.7	2.5									
21	68	2.5	2.1									
22	60	2.5	2.1									
23	54	2.9	2.1									
24	53	2.9	1.9									
25	60	3.1	1.9									
26	69	2.9	1.9									
27	66	2.9	2.1									
28	64	3.3	2.1									
29	63	2.9	1.9									
30	60	2.9	1.7									
31	56	-	1.5									

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,091	85	53	67.4	4,150
November	245.4	53	0	8.18	487
December	78.1	3.5	1.5	2.52	155
Calendar year 1936	14,323.4	301	0	39.1	28,410
January					
February					
March					
April					
May					
June					
July					
August					
September					
The period					4,790

Willow Creek near Boyd, Mont.

Location.- Water-stage recorder, lat. 45°26', long. 109°14', in SW¼ sec. 2, T. 5 S., R. 20 E., above Cooney Reservoir and 8 miles west of Boyd.

Records available.- June to September 1937.

Extremes.- Maximum discharge during period, 450 second-feet June 12 (gage height, 6.60 feet); minimum, 4.4 second-feet May 22 (discharge measurement prior to establishment of station).

Remarks.- Records fair. Discharge during June increased by water diverted from West Fork of Rock Creek.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									*14	34	28	14
2									14	33	27	13
3									14	34	25	13
4									†36	33	24	12
5									57	34	22	12
6									76	33	20	12
7									75	33	20	12
8									104	33	20	12
9									97	32	20	12
10									82	34	21	12
11									89	33	20	12
12									*250	34	19	12
13									*310	34	18	12
14									*140	34	16	13
15									78	34	16	15
16									66	34	15	15
17									64	34	15	16
18									67	34	14	15
19									64	32	15	14
20									63	33	16	14
21									61	32	16	13
22								‡4.4	44	32	16	12
23									40	31	15	13
24									42	31	15	15
25									40	†30	14	19
26									36	†30	14	23
27									36	29	13	26
28									38	29	13	26
29									36	†29	13	26
30									35	†28	14	26
31									-	28	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June	2,168	310	14	72.3	4,300
July	998	34	28	32.2	1,980
August	548	28	13	17.7	1,090
September	461	26	12	15.4	914
The period	4,175	-	-	-	8,280

*Estimated.
†Interpolated.
‡Discharge measurement.

Wind River at Riverton, Wyo.

Location.- Water-stage recorder, lat. 43°00', long. 108°22', in sec. 2, T. 1 S., R. 4 E., three-quarters of a mile southeast of Riverton. Zero of gage is 4,844.38 feet above mean sea level.

Drainage area.- 2,320 square miles.

Records available.- May 1906 to November 1908, May 1911 to September 1927, October 1928 to September 1937.

Average discharge.- 27 years (1907, 1908, 1911-27, 1928-37), 1,176 second-feet.

Extremes.- Maximum discharge during year, 6,450 second-feet June 22 (gage height, 6.52 feet); minimum daily discharge, 135 second-feet (computed) Jan. 9.
1906-8, 1911-27, 1928-37: Maximum discharge, 12,300 second-feet June 14, 1906; minimum daily discharge, 110 second-feet Dec. 21, 1934.

Remarks.- Records good except those for periods of ice effect, Nov. 2-7, Nov. 29 to Mar. 15, which were computed on basis of two discharge measurements, weather records, and records for station at Thermopolis and are fair. Several diversions for irrigation above station. Gage-height record furnished by Bureau of Reclamation.

Rating table, June 24 to Sept. 30, 1937 (gage height, in feet, and discharge, in second-feet)

2.7	178	3.6	970	4.6	2,470
2.8	230	3.8	1,230	4.8	2,820
3.0	365	4.0	1,520	5.0	3,180
3.2	544	4.2	1,820	5.5	4,140
3.4	740	4.4	2,140	5.9	4,940

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	226	492	290	170	190	305	304	408	2,840	2,640	946	435
2	453	490	270	165	195	320	324	401	2,450	2,470	874	400
3	461	450	235	170	200	330	310	508	2,380	2,320	720	375
4	477	370	220	170	210	330	290	686	2,840	2,200	611	400
5	477	320	210	170	220	335	271	795	2,930	2,040	498	435
6	477	330	220	165	210	350	258	1,160	2,770	2,240	392	418
7	500	370	240	155	200	380	271	1,240	2,550	2,870	336	426
8	517	394	250	145	180	390	271	1,190	2,420	3,600	292	400
9	500	394	275	135	180	395	264	1,560	2,300	3,680	280	426
10	500	387	285	145	190	400	264	1,570	2,020	3,770	261	526
11	517	394	275	170	200	410	304	1,320	2,060	3,520	225	516
12	461	380	265	170	210	430	351	1,240	2,330	3,560	286	480
13	469	387	245	160	215	415	338	1,200	2,330	3,110	329	435
14	469	372	250	155	220	390	331	1,300	2,140	3,140	336	392
15	500	401	260	170	225	385	372	1,680	2,500	2,890	344	366
16	500	394	270	160	230	394	542	2,260	2,750	2,640	366	351
17	469	408	290	165	238	408	649	2,310	3,820	2,410	392	351
18	469	401	295	147	230	408	485	2,730	4,430	2,190	383	322
19	477	401	295	140	240	438	453	3,150	4,010	2,080	344	314
20	603	380	295	140	250	461	453	2,930	3,670	1,900	307	307
21	677	358	290	145	260	351	446	2,190	4,830	1,720	299	292
22	640	394	285	155	265	317	438	1,680	5,530	1,580	344	280
23	577	358	275	155	270	297	423	1,900	5,550	1,360	299	286
24	534	372	260	160	280	277	394	2,550	4,860	1,290	344	292
25	542	351	250	165	280	258	358	2,720	3,980	1,090	351	351
26	560	331	250	180	280	232	344	2,700	3,430	983	351	351
27	542	338	240	175	285	239	351	2,480	3,090	996	344	314
28	560	338	225	170	290	239	525	2,910	2,820	1,310	336	286
29	534	330	205	165	-	245	542	3,760	2,750	1,070	366	280
30	525	310	185	170	-	271	446	3,800	2,590	817	435	280
31	492	-	180	175	-	284	-	3,130	-	784	461	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	15,705	677	226	507	31,150
November	11,395	492	310	380	22,600
December	7,880	295	180	254	15,630
Calendar year 1936	353,229	5,570	160	965	700,600
January	4,982	180	135	161	9,880
February	6,443	290	180	230	12,780
March	10,684	461	232	345	21,190
April	11,372	649	258	379	22,560
May	59,458	3,800	401	1,918	117,900
June	94,970	5,550	2,020	3,166	188,400
July	68,470	3,880	784	2,209	135,800
August	12,452	946	225	402	24,700
September	11,087	526	280	370	21,990
Water year 1936-37	314,898	5,550	135	863	624,600

Big Horn River at Thermopolis, Wyo.

Location.- Water-stage recorder, lat. 43°39', long. 108°12', in sec. 36, T. 43 N., R. 95 W., at Thermopolis. Prior to Oct. 1, 1936, datum 1 foot higher.

Drainage area.- 8,080 square miles.

Records available.- May 1900 to December 1905, June 1910 to September 1937.

Average discharge.- 32 years, 2,004 second-feet.

Extremes.- Maximum discharge during year, 15,400 second-feet July 12 (gage height, 11.70 feet); minimum daily discharge, 283 second-feet Jan. 1.
1900-1905, 1910-37: Maximum discharge, 29,800 second-feet July 24, 1923 (gage height, 16.2 feet, former site and datum); minimum, 180 second-feet Apr. 5, 1904 (gage height, 0.2 foot, former site and datum).

Remarks.- Records good for Oct. 1 to Dec. 31 and excellent for Jan. 1 to Sept. 30. Those for Nov. 7-11 computed on basis of records for Wind River at Riverton. Practically no diversions between Thermopolis and junction of Wind and Popo Agie Rivers. Hot springs entering canyon below station discharge about 50 second-feet.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 24)

Oct. 1 to July 16						July 17 to Sept. 30					
1.0	260	2.5	890	6.0	4,890	1.3	510	2.2	906	3.5	1,820
1.2	312	3.0	1,240	7.0	6,540	1.4	542	2.4	1,02e	4.0	2,230
1.4	370	3.5	1,650	8.0	8,300	1.6	618	2.6	1,156	4.5	2,740
1.6	440	4.0	2,110	9.0	10,100	1.8	704	2.8	1,294	5.0	3,380
1.8	524	4.5	2,690	10.0	12,000	2.0	798	3.0	1,440	5.4	3,960
2.0	618	5.0	3,370	10.7	13,400						

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	529	916	515	283	326	561	648	1,030	5,290	4,620	1,410	660
2	542	896	444	299	323	561	673	884	5,760	4,520	1,520	631
3	673	884	429	326	320	561	796	848	4,890	4,060	1,340	610
4	684	854	373	326	320	561	764	1,080	5,110	3,750	1,140	606
5	694	710	367	315	323	564	780	1,020	6,510	3,400	995	651
6	699	628	329	299	323	628	725	1,250	5,880	3,560	845	673
7	720	650	346	318	320	678	633	1,960	5,030	7,800	695	647
8	747	780	422	304	332	684	653	2,080	4,630	6,560	602	656
9	742	750	460	294	334	699	623	2,320	4,590	7,630	590	647
10	699	745	484	291	334	725	613	3,100	4,870	8,710	578	656
11	699	750	440	307	337	758	663	3,100	4,730	9,220	571	736
12	710	747	390	309	346	785	842	3,120	5,350	13,300	582	722
13	684	720	377	320	352	751	836	2,980	5,480	12,500	578	673
14	673	720	364	323	364	648	890	2,320	4,970	7,600	602	631
15	694	720	387	332	377	689	1,050	2,320	5,110	5,960	553	610
16	747	715	436	343	377	704	1,670	3,900	5,550	4,620	553	582
17	824	715	460	340	370	785	2,070	4,110	6,000	3,940	574	560
18	758	725	480	340	380	836	1,730	4,110	7,780	3,520	598	556
19	736	725	476	326	404	994	1,340	4,790	8,390	3,160	598	549
20	796	710	472	326	411	896	1,120	5,450	7,420	2,940	571	539
21	1,180	678	456	323	440	872	1,120	4,620	7,360	2,550	542	536
22	968	694	460	315	448	922	1,150	3,960	9,330	2,310	526	539
23	942	673	460	320	452	864	1,210	3,560	9,670	2,070	542	536
24	896	648	440	318	468	658	1,120	3,920	9,510	1,890	523	556
25	936	648	426	315	484	648	968	4,340	8,350	1,840	556	578
26	903	623	426	315	484	613	802	4,510	7,070	1,800	556	606
27	896	618	422	312	493	604	763	4,300	6,420	1,780	546	618
28	916	613	404	312	538	623	830	4,060	5,840	1,830	549	586
29	910	575	401	312	-	623	1,240	4,840	5,340	2,180	536	567
30	896	547	373	318	-	633	1,220	5,880	4,950	1,610	560	560
31	948	-	315	329	-	638	-	5,630	-	1,440	626	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	24,441	1,180	529	788	48,480
November	21,377	916	547	713	42,400
December	13,054	515	315	421	25,890
Calendar year 1936	550,687	8,780	315	1,505	1,092,000
January	9,810	343	283	316	19,460
February	10,780	538	320	385	21,380
March	21,786	994	561	703	43,210
April	29,541	2,070	613	985	58,590
May	101,412	5,880	848	3,271	201,100
June	187,180	9,670	4,590	6,239	371,300
July	142,690	13,300	1,440	4,603	283,000
August	21,557	1,520	523	695	42,760
September	18,257	736	536	609	36,210
Water year 1936-37	601,685	13,300	283	1,649	1,194,000

Big Horn River at Kane, Wyo.

Location.- Water-stage recorder, lat. 44°51', long. 108°12', in sec. 4, T. 56 N., R. 94 W., half a mile east of Kane. Zero of gage is 3,610.23 feet above mean sea level (Chicago, Burlington & Quincy Railroad datum).

Drainage area.- 15,900 square miles.

Records available.- August 1928 to September 1937.

Extremes.- Maximum discharge during year, 19,300 second-feet July 12 (gage height, 9.57 feet); minimum daily discharge, 213 second-feet Aug. 28.
1928-37: Maximum discharge, 25,200 second-feet June 16, 1935 (gage height, 11.10 feet); minimum daily discharge, 179 second-feet July 22, 1934.

Remarks.- Records excellent except those for period of ice effect, Dec. 6 to Mar. 15, which were computed on basis of two discharge measurements, weather records, and records for station at Thermopolis and are fair. Diversions for irrigation above station.

Rating table, water year 1936-37, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-22 and Sept. 24-30)

0.5	160	1.4	515	3.0	2,120	6.0	7,250
.6	185	1.6	655	3.5	2,770	7.0	10,200
.8	245	1.8	830	4.0	3,490	8.0	13,620
1.0	320	2.0	1,030	4.5	4,250	9.0	17,190
1.2	410	2.5	1,540	5.0	5,090	10.0	20,950

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	758	1,430	1,000	460	560	900	1,240	1,780	7,250	4,250	1,870	288
2	767	1,440	910	480	560	910	1,300	1,530	7,670	3,840	1,660	266
3	749	1,370	840	580	550	920	1,340	1,330	7,120	3,680	1,330	304
4	732	1,260	471	620	550	900	1,390	1,230	7,090	3,370	1,400	356
5	860	1,320	370	600	550	980	1,390	1.240	9,620	3,090	1,260	356
6	970	1,330	360	580	540	1,020	1,250	1,610	9,190	2,850	1,000	365
7	1,000	1,180	420	550	550	1,130	1,200	2,320	7,860	3,790	732	498
8	1,020	1,330	510	500	560	1,200	1,190	2,980	6,690	13,200	648	488
9	1,010	1,380	550	520	570	1,280	1,150	3,430	5,760	15,100	534	528
10	1,010	1,350	600	550	580	1.380	1,200	3,790	5,680	14,900	466	554
11	1,030	1,390	610	610	580	1,430	1,210	4,230	6,990	15,300	401	960
12	960	1,320	580	640	590	1,480	1,230	4,350	9,500	18,200	374	812
13	1,010	1,280	590	640	600	1,430	1,270	4,190	13,100	18,100	342	758
14	1,040	1,300	610	630	630	1,370	1,400	4,060	10,200	17,700	300	860
15	1,120	1,320	650	650	650	1,400	1,470	3,820	8,620	14,800	280	812
16	1,110	1,340	690	650	670	1,430	1,880	3,800	8,410	10,500	252	714
17	1,160	1,300	730	640	670	1.690	3,490	4,670	9,820	7,350	252	672
18	1,230	1,290	780	630	660	1,900	3,840	5,090	12,700	5,800	276	632
19	1,300	1,290	780	620	660	1,830	2,910	5,700	13,900	5,110	273	602
20	1,230	1,280	790	590	664	1,940	2,180	6,640	12,900	4,520	256	580
21	1,370	1,290	790	590	680	1,810	1,810	10,400	12,300	4,140	252	602
22	1,460	1,250	790	581	700	1,570	1,720	6,990	12,500	3,730	252	567
23	1,650	1,170	780	570	730	1,500	1,920	5,130	13,700	3,080	248	534
24	1,530	1,120	790	560	750	1,390	1,900	4,740	13,400	2,640	235	950
25	1,400	1,070	800	560	810	1,300	1,760	5,530	12,200	2,330	226	960
26	1,350	1,120	800	560	860	1,270	1,530	5,540	9,820	2,110	216	1,000
27	1,460	1,170	800	570	880	1,180	1,500	5,760	7,510	1,960	216	1.090
28	1,480	1,180	770	570	890	1,150	1,350	5,560	6,320	2,590	213	990
29	1,610	1,130	760	560	-	1,130	1,460	6,430	5,360	2,660	232	1,050
30	1,540	1,020	690	560	-	1,160	1,760	7,350	4,710	2,140	232	1,020
31	1,510	-	560	560	-	1,200	-	8,150	-	2,240	252	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	36,426	1,650	732	1,175	72,250
November	38,020	1,440	1,020	1,267	75,410
December	21,171	1,000	360	683	41,990
Calendar year 1936	713,617	11,500	360	1,950	1,415,000
January	17,981	650	460	580	35,660
February	18,244	890	540	652	36,190
March	41,180	1,940	900	1.328	81,680
April	50,240	3,840	1,150	1,675	99,650
May	139,370	10,400	1,230	4,496	276,400
June	277,890	13,900	4,710	9,263	551,200
July	215,070	18,200	1,960	6,938	426.600
August	16,480	1,870	213	532	32,690
September	20,168	1,090	266	672	40,000
Water year 1936-37	892,240	18,200	213	2,444	1,770,000

Big Horn River near St. Xavier, Mont.

Location.- Water-stage recorder, lat. 45°19', long. 107°57', in NE¼ sec. 17, T. 6 S., R. 31 E., 22 miles southwest of St. Xavier, Mont., and 50 feet above diversion dam of Crow Agency irrigation ditch.

Records available.- October 1934 to September 1937.

Extremes.- Maximum discharge during year, 23,700 second-feet June 24; minimum, 338 second-feet Dec. 6.
1934-37: Maximum discharge, 37,400 second-feet June 16, 1935; minimum, that of Dec. 6, 1937.

Remarks.- Records fair. Discharge is sum of flow of river over diversion dam and that of canal that diverts above gage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,750	2,400	1,610	758	1,350	1,310	1,880	2,550	8,370	8,780	2,330	1,460
2	1,860	2,280	1,610	650	1,330	1,360	1,840	2,110	8,370	7,960	2,160	1,500
3	1,900	2,220	1,720	703	1,310	1,500	1,800	1,940	8,900	7,440	2,040	1,460
4	1,910	2,620	1,280	858	1,160	1,630	1,860	2,110	8,880	6,940	1,950	1,560
5	1,970	2,820	838	878	1,000	1,770	1,920	2,290	9,140	6,130	1,890	1,690
6	2,080	2,760	436	1,050	1,020	1,900	1,830	2,470	9,970	5,900	1,840	1,690
7	2,120	2,400	530	964	1,050	2,040	1,730	2,760	10,800	5,540	1,530	1,730
8	2,110	1,920	878	1,070	1,070	2,120	1,640	3,460	9,650	12,600	1,210	1,830
9	2,110	2,100	1,160	982	1,100	2,190	1,640	4,250	8,240	18,700	1,550	1,780
10	2,080	2,180	1,090	1,280	1,120	2,260	1,640	4,450	7,700	17,600	1,340	1,810
11	2,050	2,180	1,180	1,400	1,180	2,340	1,640	4,700	8,200	17,600	1,340	1,950
12	2,050	2,160	1,590	1,560	1,230	2,300	1,830	4,740	9,560	19,100	1,340	2,140
13	2,020	1,980	1,610	1,560	1,290	2,270	1,940	4,800	13,600	21,100	1,340	2,000
14	2,020	1,940	1,640	1,480	1,340	2,240	2,190	4,760	12,600	21,500	1,350	1,870
15	2,020	1,980	1,540	1,460	1,400	2,330	2,270	4,780	11,900	20,300	1,350	1,840
16	2,000	2,000	1,540	1,460	1,310	2,420	2,330	4,990	12,600	17,900	1,310	1,780
17	2,020	2,040	1,560	1,460	1,310	2,500	2,940	5,240	13,600	10,400	1,270	1,710
18	2,120	2,000	1,640	1,460	1,300	2,590	3,510	5,890	15,700	7,860	1,220	1,690
19	2,180	1,980	1,720	1,460	1,290	2,480	3,310	6,380	17,200	6,660	1,220	1,600
20	2,210	2,000	1,720	1,460	1,280	2,360	3,110	7,890	17,600	6,120	1,180	1,580
21	2,240	2,040	1,750	1,460	1,270	2,250	3,000	8,950	17,600	5,310	1,120	1,610
22	2,560	1,980	1,660	1,460	1,260	2,130	2,800	8,360	19,900	3,740	1,080	1,640
23	2,700	1,940	1,690	1,460	1,250	2,020	2,590	7,100	20,700	4,320	1,030	1,670
24	2,920	1,890	1,660	1,460	1,240	1,900	2,390	6,160	21,700	3,700	1,200	2,080
25	2,680	1,860	1,640	1,460	1,230	1,790	2,170	6,060	19,500	3,490	1,090	2,290
26	2,700	1,800	1,610	1,460	1,220	1,670	1,950	6,900	16,500	3,160	986	2,110
27	2,490	1,750	1,540	1,440	1,210	1,560	2,070	7,140	13,700	2,960	986	2,060
28	2,490	1,690	1,430	1,420	1,260	1,780	2,190	7,140	11,400	2,800	933	2,010
29	2,460	1,750	1,090	1,400	-	2,000	2,310	8,150	9,910	3,630	1,060	1,980
30	2,490	1,780	1,210	1,380	-	1,960	2,430	7,890	9,340	2,890	1,250	1,950
31	2,460	-	898	1,360	-	1,920	-	8,390	-	2,470	1,330	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	68,770	2,920	1,750	2,218	136,400
November	62,440	2,820	1,690	2,081	123,800
December	43,070	1,750	436	1,389	85,430
Calendar year 1936	1,117,644	19,700	436	3,054	2,217,000
January	39,521	1,560	650	1,275	78,390
February	34,380	1,400	1,000	1,228	68,190
March	62,890	2,590	1,310	2,029	124,700
April	66,750	3,510	1,840	2,225	132,400
May	164,800	8,950	1,940	5,316	326,900
June	382,830	21,700	7,700	12,760	759,300
July	284,600	21,500	2,470	9,181	564,500
August	42,825	2,330	933	1,381	84,940
September	54,070	2,290	1,460	1,802	107,200
Water year 1936-37	1,306,946	21,700	436	3,581	2,592,000

Dry Creek near Burris, Wyo.

Location.- Water-stage recorder, lat. 43°20', long. 109°18', in SW¼ sec. 12, T. 4 N., R. 5 W., 2 miles south of Burris.

Drainage area.- 57 square miles.

Records available.- January to October 1909 (gage heights only) and May 1921 to September 1937.

Extremes.- 1933-37: Maximum discharge undetermined; minimum daily discharge recorded, 1.0 second-foot Apr. 24, probably less during period of no record.
1921-37: Maximum discharge, 1,100 second-feet June 12, 1921 (gage height, 3.9 feet, former datum); no flow Mar. 1 to Apr. 11, 1934.

Remarks.- Records fragmentary. None for Nov. 1 to Apr. 18. Dry Creek Ditch diverts water for irrigation above station. Gage-height records furnished by Indian Service.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12						-	4.7	-	-	49	-
2	10						-	9.6	-	-	46	-
3	8.8						-	13	-	-	-	-
4	8.8						-	13	-	127	-	20
5	7.9						-	21	160	-	-	21
6	7.9						-	-	-	-	-	-
7	7.6						-	-	-	-	30	-
8	7.6						-	76	-	-	27	-
9	7.3						-	95	-	-	-	-
10	6.7						-	93	-	200	-	-
11	6.4						-	91	-	174	-	19
12	6.4						-	82	137	150	-	19
13	5.8						-	-	123	-	-	19
14	5.0						-	-	-	-	24	-
15	4.4						-	155	-	-	23	-
16	5.0						-	-	-	-	25	-
17	6.4						-	-	-	90	26	-
18	7.0						-	-	-	83	25	16
19	5.2						1.2	-	191	80	23	16
20	11						1.5	-	-	-	21	15
21	10						1.7	-	-	-	21	14
22	7.0						1.7	101	-	-	19	14
23	6.7						1.2	-	203	-	19	14
24	6.7						1.0	-	-	58	18	13
25	7.3						1.2	-	-	61	18	12
26	7.0						1.2	-	160	61	17	12
27	7.0						2.8	-	-	58	16	12
28	5.0						5.8	-	-	58	18	12
29	7.3						4.7	206	-	56	21	11
30	6.1						3.9	-	-	56	-	11
31	5.8						-	-	-	49	-	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	223.1	12	4.4	7.20	443
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 19-30	27.9	5.8	1.0	2.32	55
May	-	-	-	-	-
June	-	-	-	-	-
July	-	-	-	-	-
August	-	-	-	-	-
September	-	-	-	-	-
Water year					

Willow Creek near Crowheart, Wyo.

Location.- Water-stage recorder, lat. 43°17', long. 109°12', in SW¼ sec. 35, T. 4 N., R. 4 W., 2 miles southwest of Crowheart.

Drainage area.- 50 square miles.

Records available.- May to October 1909, May 1921 to June 1923, April 1925 to September 1937.

Extremes.- Maximum discharge during year, 194 second-feet June 16 (gage height, 2.47 feet); minimum daily discharge recorded, 6.2 second-feet Oct. 26 (probably less during period of no record).
1921-23, 1925-37: Maximum discharge, 750 second-feet July 26, 1923; minimum not determined.

Remarks.- Records good except those for periods of missing gage heights, Oct. 18-23, Aug. 22 to Sept. 10, which were computed on basis of partial gage heights and range in stage from recorder chart and are fair. No records for Nov. 1 to Apr. 18. Small diversion for irrigation above station. Gage-height record furnished by Indian Service.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-31)

0.6	5.2	1.4	53
.7	8.4	1.6	74
.8	12	1.8	98
.9	16	2.0	125
1.0	21	2.2	153
1.2	35	2.3	168

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.8						-	7.1	53	48	17	9.8
2	6.8						-	7.1	56	42	15	9.5
3	7.1						-	7.1	76	37	14	9.5
4	7.4						-	7.4	91	33	12	9.8
5	7.4						-	7.8	68	30	12	9.5
6	7.1						-	8.4	63	33	11	9.1
7	7.1						-	9.8	66	33	12	8.8
8	7.1						-	11	79	43	11	8.8
9	7.4						-	25	79	38	11	8.4
10	7.8						-	31	79	34	11	8.4
11	7.8						-	32	99	45	11	8.4
12	7.8						-	29	91	39	10	8.1
13	7.4						-	30	86	39	10	8.1
14	7.4						-	43	91	32	9.5	8.1
15	7.8						-	72	104	29	9.1	8.1
16	7.8						-	61	128	27	9.5	8.1
17	7.8						-	65	164	24	9.8	7.8
18	7.8						-	87	124	22	9.6	7.8
19	8.1						8.4	93	93	20	9.1	7.8
20	10						8.4	67	108	20	8.8	7.8
21	8.8						8.4	61	128	19	9.1	7.8
22	7.8						8.4	67	131	18	9.5	8.1
23	7.1						7.1	87	117	18	9.1	8.4
24	6.5						7.1	82	102	16	8.4	8.8
25	6.5						6.8	87	88	16	8.1	9.1
26	6.2						6.8	63	64	16	7.8	8.8
27	6.5						6.8	74	58	15	7.4	8.8
28	6.5						7.1	93	53	16	8.8	8.4
29	6.5						7.4	92	54	14	9.1	8.8
30	6.5						7.1	73	52	14	9.1	8.8
31	6.5						-	56	-	18	9.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	227.1	10	6.2	7.33	450
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January					
February					
March					
April 19-30	89.8	8.4	6.8	7.48	178
May	1,535.7	93	7.1	49.5	3,050
June	2,645	164	52	88.2	5,250
July	848	48	14	27.4	1,680
August	318.5	17	7.4	10.3	632
September	257.5	9.8	7.8	8.58	511
Water year					

Bull Lake Creek near Lenore, Wyo.

Location.- Water-stage recorder, lat. 43°15', long. 109°01', near north line of sec. 17, T. 3 N., R. 2 W., a quarter of a mile above mouth and 14 miles southeast of Lenore.

Drainage area.- 222 square miles.

Records available.- 1909 (discharge measurements only), May 1918 to September 1937.

Average discharge.- 19 years (1918-37), 303 second-feet.

Extremes.- Maximum discharge during year, 1,390 second-feet June 25 (gage height, 3.81 feet); no flow Feb. 28 to Apr. 7.
1918-37: Maximum discharge, 3,990 second-feet June 16, 1918 (gage height, 5.20 feet); minimum (prior to construction of Bull Lake Reservoir), 8.6 second-feet Dec. 17, 1933; no flow Feb. 28 to Apr. 7, 1937.

Remarks.- Records good. Those for period of ice effect, Nov. 24 to Apr. 26, computed on basis of two discharge measurements, weather records, and occasional gage readings. Two small ditches divert above station. Bull Lake irrigation reservoir completed above station in December 1936 (capacity, 155,000 acre-feet).

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	77	54	26	18	25		0	35	1,040	1,080	493	285
2	75	50	27	17	25		0	35	1,010	1,050	480	276
3	72	48	26	17	26		0	36	990	1,020	462	276
4	66	47	25	16	26		0	38	980	1,000	457	276
5	64	46	25	16	26		0	40	980	960	446	271
6	63	45	25	15	28		0	46	940	950	423	267
7	61	45	26	15	27		0	55	888	950	407	262
8	57	45	38	15	26		7	70	859	990	396	254
9	54	44	27	16	24		20	88	805	1,040	385	249
10	50	44	26	17	20		22	112	769	1,080	369	245
11	48	44	25	19	22		23	157	752	1,080	358	237
12	48	43	26	22	25		23	209	736	1,070	353	228
13	47	41	27	24	28		24	241	720	1,060	358	224
14	46	40	27	25	30		24	249	696	1,020	358	213
15	46	41	28	26	31		26	276	680	960	348	206
16	48	41	26	27	30		27	333	680	913	343	198
17	47	40	26	27	28		27	385	712	850	348	195
18	49	39	26	27	26		26	434	823	787	348	191
19	48	38	26	25	24		24	451	895	736	348	188
20	63	38	26	23	23		24	593	913	696	343	188
21	68	39	26	22	23		25	544	970	656	343	184
22	66	39	26	22	25		28	530	1,070	616	328	181
23	64	37	26	23	26		31	586	1,160	586	318	177
24	63	37	25	23	26		32	640	1,280	572	318	167
25	61	37	25	24	26		33	586	1,360	551	318	160
26	59	37	25	25	25		34	593	1,340	537	323	153
27	61	36	25	26	17		33	664	1,270	524	313	147
28	61	35	25	25	0		32	760	1,210	518	303	140
29	59	34	24	25	-		34	990	1,170	511	299	131
30	57	30	22	24	-		35	1,030	1,110	505	299	124
31	55	-	21	24	-		-	1,040	-	505	294	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,805	77	46	58.2	3,580
November	1,234	54	30	41.1	2,450
December	794	28	21	25.6	1,570
Calendar year 1936	101,395	1,520	14	277	201,100
January	670	27	15	21.6	1,330
February	688	31	0	24.6	1,360
March	0	0	0	0	0
April	614	35	0	20.5	1,220
May	11,846	1,040	35	382	23,500
June	28,806	1,360	680	960	57,140
July	25,373	1,080	505	818	50,330
August	11,279	493	294	364	22,370
September	6,293	285	124	210	12,480
Water year 1936-37	89,402	1,360	0	245	177,300

Little Wind River near Fort Washakie, Wyo.

Location.- Water-stage recorder, lat. 43°00', long. 108°54', in SE¼SE¼ sec. 1, T. 1 S., R. 2 W., above Ray Ditch and 6 miles above mouth of North Fork, near Fort Washakie.

Drainage area.- 118 square miles.

Records available.- May 1921 to September 1937.

Extremes.- Maximum discharge during year, 1,340 second-feet June 21 (gage height, 4.52 feet); minimum daily discharge recorded, 21 second-feet Apr. 19-21, Apr. 30 to May 2 (probably less during period of no record).
1921-37: Maximum discharge, 5,220 second-feet July 9, 1926 (gage height, 7.59 feet); minimum, 9 second-feet Dec. 5, 15, 1933.

Remarks.- Records excellent except those for days of ice effect, Dec. 1, 3, 4, which were estimated and are fair. No record Dec. 6 to Apr. 13. Water diverted for irrigation above station. Flow regulated by Washakie Reservoir (capacity, 7,800 acre-feet) 6 miles above station. Gage-height record furnished by Indian Service.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.9	20	2.3	186
1.0	24	2.7	286
1.2	34	3.0	392
1.4	50	3.5	656
1.6	74	4.0	980
1.8	98	4.6	1,400
2.0	128		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	40	31				-	21	418	360	174	99
2	70	38	33				-	21	410	352	176	98
3	70	36	32				-	46	405	338	180	90
4	70	38	33				-	46	405	323	186	88
5	69	38	34				-	51	405	298	199	84
6	68	38	-				-	93	405	289	206	80
7	63	38	-				-	215	405	418	204	80
8	62	37	-				-	292	401	581	197	79
9	61	37	-				-	368	392	575	197	78
10	57	37	-				-	441	384	513	197	75
11	44	37	-				-	471	380	581	195	67
12	38	37	-				-	471	384	552	195	63
13	38	38	-				-	456	384	491	190	61
14	38	35	-				24	384	384	364	190	56
15	40	34	-				23	313	384	316	190	51
16	41	35	-				22	316	384	286	180	50
17	35	35	-				22	316	418	264	166	51
18	35	35	-				22	323	518	235	158	55
19	35	35	-				21	338	592	237	142	55
20	39	36	-				21	348	615	237	130	54
21	38	36	-				21	352	1,190	240	118	55
22	34	36	-				22	356	1,110	230	109	55
23	34	37	-				22	364	1,140	197	109	54
24	35	36	-				22	372	945	154	106	52
25	37	37	-				22	384	699	148	102	48
26	38	37	-				22	414	540	146	97	45
27	38	38	-				22	414	446	142	90	44
28	38	37	-				22	405	384	141	88	43
29	40	34	-				22	384	348	152	90	43
30	40	33	-				21	401	364	172	91	42
31	40	-	-				-	401	-	174	97	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,457	72	34	47.0	2,890
November	1,095	40	33	36.5	2,170
December 1-5	163	34	31	32.6	325
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 14-30	373	23	21	21.9	740
May	9,577	471	21	309	19,000
June	15,639	1,190	348	521	31,020
July	9,506	581	141	307	18,850
August	4,749	206	88	153	9,420
September	1,895	99	42	63.2	3,760
Water year					

North Fork of Little Wind River at Fort Washakie, Wyo.

Location.- Water-stage recorder, lat. 43°01', long. 108°53', in SE¼SW¼ sec. 33, T. 1 N., R. 1 W., at Fort Washakie, a quarter of a mile above mouth.

Drainage area.- 127 square miles.

Records available.- May 1921 to September 1937.

Extremes.- Maximum discharge during year, 1,190 second-feet June 18 (gage height, 3.33 feet); minimum daily discharge recorded, 18 second-feet Dec. 1 (probably less during period of no record).
1921-37: Maximum discharge, 2,640 second-feet July 9, 1926 (gage height, 4.85 feet); minimum daily discharge, 13 second-feet Mar. 21, 1935.

Remarks.- Records good except those for periods of ice effect, Nov. 3-9, 22, 27, 28, which were estimated and are fair. No record Dec. 2 to Apr. 13. Water diverted for irrigation above station. Gage-height record furnished by Indian Service.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	48	18				-	43	477	285	92	31
2	35	43					-	66	431	271	90	30
3	35	39					-	70	418	261	84	32
4	35	32					-	79	515	254	82	35
5	36	35					-	98	454	235	79	35
6	38	34					-	115	388	251	76	35
7	36	33					-	134	337	337	69	37
8	35	34					-	162	349	481	64	37
9	34	35					-	181	372	531	60	38
10	32	36					-	219	334	515	56	37
11	32	32					-	245	388	510	52	36
12	34	34					-	245	531	486	49	34
13	32	30					-	254	397	431	48	32
14	29	30					29	285	409	372	46	31
15	36	30					54	360	462	316	44	29
16	36	30					76	372	531	241	43	28
17	32	30					40	372	608	213	44	28
18	34	31					43	431	986	198	43	26
19	35	28					39	505	745	159	38	24
20	55	27					37	440	699	113	39	24
21	49	25					43	384	851	86	38	23
22	44	25					47	353	829	61	36	24
23	44	27					32	393	794	86	35	24
24	44	30					29	414	693	131	35	24
25	48	29					29	449	578	124	34	27
26	47	27					48	436	481	117	31	27
27	46	26					66	426	401	115	30	26
28	49	25					58	449	341	106	28	25
29	51	24					40	510	316	100	31	25
30	49	21					35	541	291	96	34	25
31	49	-					-	467	-	98	34	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,228	55	29	39.6	2,440
November	930	48	21	31.0	1,840
December	-	-	-	-	-
Calendar year					
January					
February					
March					
April 14-30	745	76	29	43.8	1,480
May	9,498	541	43	306	18,840
June	15,606	986	291	520	30,950
July	7,582	531	61	245	15,040
August	1,564	92	28	50.5	3,100
September	889	38	23	29.6	1,760
Water year					

Greybull River at Meeteetse, Wyo.

Location.- Water-stage recorder, lat. 44°09', long. 108°53', in sec. 4, T. 48 N., R. 100 W., at Meeteetse. Zero of gage is 5,725.5 feet above mean sea level.

Drainage area.- 690 square miles.

Records available.- June to September 1897, April to October 1903, July 1920 to September 1937.

Average discharge.- 17 years (1920-37), 370 second-feet.

Extremes.- Maximum discharge during year, 10,500 second-feet June 20 (gage height, 7.47 feet); minimum daily discharge, 32 second-feet (computed) Feb. 9.
1897, 1903, 1920-37: Maximum discharge, that of June 20, 1937; minimum, 11 second-feet Mar. 26, 1931.

Remarks.- Records good for Oct. 1 to Nov. 30, July 1 to Sept. 30, and fair for Dec. 1 to June 30. Those for periods of ice effect, Dec. 4-17, Dec. 23 to Apr. 24, computed on basis of two discharge measurements and weather records. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	138	142	69	44	52	58	120	311	471	1,360	450	155
2	138	107	70	45	56	60	125	487	497	1,220	390	155
3	142	93	62	49	60	58	135	591	634	1,020	337	155
4	140	146	60	50	64	64	145	726	925	959	303	161
5	162	162	74	44	70	66	130	933	968	866	270	163
6	153	130	90	40	62	64	110	942	1,020	1,000	261	164
7	155	128	100	39	52	70	110	883	740	1,140	239	161
8	148	118	110	41	43	76	130	908	835	1,020	231	150
9	146	130	100	45	32	84	200	828	883	1,070	215	161
10	142	128	96	50	33	70	340	804	1,040	1,060	213	147
11	138	126	100	56	35	66	210	653	1,370	1,150	203	137
12	134	121	110	54	38	64	170	482	1,510	1,100	191	134
13	134	130	130	50	39	74	180	427	1,270	964	186	132
14	138	121	135	54	40	82	230	641	1,320	901	182	129
15	165	118	140	59	35	94	240	660	1,660	832	184	129
16	138	121	130	56	38	108	250	616	2,450	710	184	128
17	144	118	135	52	39	105	170	782	5,830	666	184	134
18	153	110	142	50	41	110	130	835	4,460	661	184	132
19	167	113	138	48	36	110	120	812	4,520	619	180	132
20	189	118	148	45	34	112	160	686	6,270	582	174	130
21	172	104	134	44	37	125	200	487	5,870	531	170	128
22	138	110	128	47	37	135	220	401	5,530	482	163	128
23	148	95	130	48	38	140	220	579	3,890	450	172	133
24	153	100	140	43	41	130	220	660	2,520	432	168	156
25	165	98	130	41	46	120	178	747	1,850	402	164	145
26	148	96	120	45	44	115	302	673	1,680	536	161	148
27	160	93	100	50	48	135	286	789	1,570	482	160	145
28	130	82	84	48	52	150	178	933	1,530	526	161	140
29	144	80	66	44	-	165	148	900	1,600	406	172	140
30	160	67	48	46	-	190	183	653	1,600	370	163	137
31	155	-	40	50	-	170	-	465	-	464	155	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,637	189	130	150	9,200
November	3,405	162	67	114	6,750
December	3,259	148	40	105	6,460
Calendar year 1936	89,875	1,440	38	246	178,300
January	1,477	59	39	47.6	2,930
February	1,242	70	32	44.4	2,460
March	3,172	190	58	102	6,290
April	5,542	340	110	185	10,990
May	21,294	942	311	687	42,240
June	66,303	6,270	471	2,210	131,500
July	23,981	1,360	370	774	47,570
August	6,570	450	155	212	13,030
September	4,289	164	128	143	8,510
Water year 1936-37	145,171	6,270	32	398	287,900

Greybull River near Basin, Wyo.

Location.- Water-stage recorder, lat. 44°23', long. 108°11', in sec. 17, T. 51 N., R. 94 W., 8 miles west of Basin.

Drainage area.- 1,130 square miles.

Records available.- April 1930 to September 1937.

Extremes.- Maximum discharge during water year 1935-38, 1,920 second-feet (revised) Aug. 4 (gage height, 5.60 feet); no flow July 31.
Maximum discharge during water year 1936-37, 4,220 second-feet June 21 (gage height, 6.93 feet); minimum daily discharge, 4.8 second-feet Aug. 24.
1930-37: Maximum discharge, 5,270 second-feet June 13, 1935 (gage height, 5.58 feet, former datum); no flow at times during 1931-34, 1936.

Remarks.- Records fair. Discharge for periods of ice effect, Nov. 2, 1935, to Apr. 14, 1936, computed on basis of three discharge measurements, weather records, and records for station at Meeteetse; that for May 1, 2, 1936, estimated. Discharge for period of ice effect and missing gage heights, Dec. 6, 1936, to May 14, 1937, computed on basis of two discharge measurements, weather records, and records for station at Meeteetse. Numerous diversions for irrigation above station.

Discharge, in second-feet, 1935-37
1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	102					45	22	143	4.0	2.4	6.5
2	14						50	16	767	43	4.0	6.0
3	13					*150	55	8.0	174	37	863	5.8
4	8.3						60	6.0	64	35	781	5.2
5	7.1						65	4.6	72	17	386	5.4
6	9.5						60	5.8	194	11	268	5.4
7	7.7						75	6.0	370	2.4	154	5.6
8	6.4						95	3.8	409	2.1	118	6.5
9	6.4						90	3.3	317	1.7	66	6.5
10	7.1						100	3.1	160	1.2	53	6.0
11	8.3	*109					120	5.2	122	10	55	5.0
12	7.1						150	16	146	48	228	4.0
13	4.6						170	31	297	519	264	3.6
14	4.6						200	46	444	282	104	4.0
15	4.6						198	13	463	74	78	5.4
16	4.0						207	5.6	392	8.5	64	10
17	4.0						245	4.0	215	3.3	61	7.5
18	4.0						232	2.7	127	19	57	10
19	4.0						236	2.2	116	52	61	17
20	4.0						254	20	170	5.2	46	23
21	4.0						236	17	219	101	40	18
22	3.4			*65			198	3.8	228	9.5	31	18
23	3.4						202	2.7	184	1.1	18	19
24	5.2						260	4.0	160	4.4	12	9.0
25	5.8						207	35	174	10	7.5	8.5
26	5.2						180	3.8	160	4.0	5.6	15
27	4.6						152	4.2	104	.8	5.0	23
28	4.6						115	3.1	45	.4	5.0	17
29	4.0						72	61	22	1.0	8.5	13
30	4.0						32	19	6.5	.6	14	13
31	30						-	3.6	-	0	7.5	-

*Discharge measurement.

Greybull River near Basin, Wyo., 1935-37--Continued

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	76	82					150	70	187	26	13
2	16	86	74					190	53	118	10	9.5
3	17	122	82					250	115	76	12	8.0
4	15	130	59					340	463	55	19	7.0
5	9.0	163	59					370	544	45	9.5	7.5
6	9.0	154	65					340	481	34	10	8.0
7	10	152	90					300	392	66	9.5	9.0
8	8.0	170	110					290	322	427	13	10
9	5.8	154	100					300	392	656	15	10
10	5.8	177	105					310	438	781	10	11
11	5.6	180	115					220	901	1,220	8.0	12
12	5.6	187	120					140	1,640	1,130	5.8	12
13	5.2	167	135					90	1,240	1,020	5.4	13
14	7.0	163	150					110	1,100	886	5.6	13
15	8.5	154	150					167	1,220	924	5.6	13
16	7.5	138	150					52	1,510	760	17	10
17	7.5	138	155					17	2,180	663	35	9.5
18	7.5	115	160		*56			35	2,370	487	28	9.0
19	8.0	110	170					104	1,650	403	22	10
20	9.0	110	165					130	1,430	288	13	13
21	15	110	180	*68				76	2,890	132	7.5	17
22	32	101	165					14	2,370	59	6.0	17
23	32	104	160					50	2,100	26	5.4	24
24	29	113	180					118	1,260	72	4.8	32
25	23	108	170					104	796	38	5.0	23
26	31	122	150					132	538	35	8.0	17
27	32	115	130					97	370	70	6.0	17
28	38	115	110					236	297	113	5.4	15
29	48	104	80		-			354	250	57	5.6	16
30	46	97	50		-			282	245	15	7.0	13
31	45	-	40		-			143	-	12	50	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1935	216.9	30	3.4	7.00	430
November	3,450	-	-	115	6,840
December	3,255	-	-	105	6,460
Calendar year 1935	81,659.5	4,570	.1	224	161,900
January 1936	2,635	-	-	85	5,230
February	2,320	-	-	80	4,600
March	3,720	-	-	120	7,380
April	4,351	254	32	145	8,630
May	383.5	61	2.2	12.4	761
June	6,466.5	767	6.5	216	12,830
July	1,316.2	519	0	42.5	2,610
August	3,869.5	863	2.4	125	7,680
September	301.9	23	3.6	10.1	599
Water year 1935-36	32,285.5	863	0	88.2	64,050
October 1936	553.0	48	5.2	17.8	1,100
November	3,935	187	76	131	7,800
December	3,711	180	40	120	7,360
Calendar year 1936	33,562.6	863	0	91.7	66,580
January 1937	2,232	-	-	72	4,430
February	1,792	-	-	64	3,550
March	4,495	-	-	145	8,920
April	7,800	-	-	260	15,470
May	5,511	370	14	178	10,930
June	29,627	2,890	53	988	58,760
July	10,835	1,220	12	350	21,490
August	390.1	50	4.8	12.6	774
September	398.5	32	7.0	13.3	790
Water year 1936-37	71,279.6	2,890	4.8	195	141,400

*Discharge measurement.

Note.- The above records for water year 1935-36 supersede those published in Water Supply Paper No. 806.

Wood River near Meeteetse, Wyo.

Location.- Water-stage recorder, lat. 44°06', long. 108°58', in sec. 22, T. 48 N., R. 101 W., a quarter of a mile above mouth and 6 miles southwest of Meeteetse.

Drainage area.- 218 square miles.

Records available.- September 1910 to October 1912, May 1915 to September 1917, April 1930 to September 1937.

Extremes.- Maximum discharge during year, 1,020 second-feet June 20 (gage height, 3.06 feet); minimum daily discharge, 16 second-feet Feb. 9 (computed).
1910-12, 1915-17, 1930-37: Maximum discharge, 1,700 second-feet (estimated), June 8, 1912; minimum daily discharge, that of Feb. 9, 1937.

Remarks.- Records good for Oct. 1 to Dec. 1, Apr. 5 to June 10 and fair for the remainder of the year. Records for periods of ice effect, Dec. 2, Dec. 5 to Mar. 30, Apr. 3, 4, computed on basis of two discharge measurements and weather records. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	63	31	27	31	33	55	52	161	200	189	62
2	60	51	34	25	33	33	40	69	168	178	178	63
3	60	51	24	29	33	31	46	95	267	157	164	63
4	60	76	17	30	36	35	48	108	311	147	144	63
5	68	66	17	30	39	39	49	212	272	137	137	65
6	65	59	18	24	34	37	46	267	263	168	133	62
7	66	59	25	22	22	40	38	233	272	189	127	59
8	63	59	35	21	18	43	38	254	324	362	121	60
9	62	59	33	23	16	45	58	237	351	357	116	68
10	62	59	30	27	18	42	85	220	383	403	113	62
11	58	56	34	36	20	37	60	180	460	384	113	63
12	56	55	35	40	22	35	51	128	545	366	110	64
13	55	58	33	37	22	39	63	115	520	371	107	59
14	56	58	40	35	28	44	63	176	515	366	101	58
15	69	56	45	40	19	50	68	212	620	304	97	60
16	60	56	42	38	20	53	62	180	690	291	96	64
17	65	55	44	36	21	52	42	212	295	270	97	70
18	69	53	47	35	22	54	38	263	510	254	94	70
19	72	53	48	33	18	52	39	258	510	246	90	70
20	81	53	48	30	17	50	44	220	690	234	85	68
21	75	48	46	28	19	52	53	139	630	227	78	65
22	65	49	50	30	21	54	55	142	590	211	78	64
23	69	47	49	32	21	54	49	200	470	204	83	71
24	69	47	52	30	22	52	51	204	318	211	80	76
25	74	44	47	28	23	48	40	220	278	219	76	72
26	69	43	42	30	22	44	47	204	270	258	74	76
27	70	42	35	32	25	45	65	237	246	200	74	72
28	62	40	30	28	33	52	68	267	227	234	74	68
29	69	39	24	25	-	54	55	267	223	196	74	67
30	74	38	23	26	-	58	47	176	215	189	63	67
31	72	-	22	28	-	63	-	128	-	204	59	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,031	81	55	65.5	4,030
November	1,592	76	38	53.1	3,160
December	1,100	52	17	35.5	2,180
Calendar year					
January	935	40	21	30.2	1,850
February	675	39	16	24.1	1,340
March	1,420	63	31	45.8	2,820
April	1,563	85	38	52.1	3,100
May	5,875	267	52	190	11,650
June	11,594	690	161	386	23,000
July	7,737	403	137	250	15,350
August	3,225	189	59	104	6,400
September	1,971	76	58	65.7	3,910
Water year 1936-37	39,718	690	16	109	78,790

Bench Canal near Burlington, Wyo.

Location.- Staff gage, lat. 44°24', long. 108°33', in sec. 8, T. 51 N., R. 97 W., 200 yards below headgate and 7 miles southwest of Burlington.

Records available.- April 1930 to September 1937.

Extremes.- Maximum daily discharge during year, 245 second-feet July 2; no flow during winter.
1930-37: Maximum daily discharge, that of July 2, 1937.

Remarks.- Records good except those for Aug. 27 to Sept. 30, which were estimated and are poor. None for Oct. 1 to Apr. 28. Complete regulation at headgate. Staff gage read twice daily. Gage-height record furnished by Bench Canal Co. Canal diverts water from Greybull River for irrigation of 10,000 to 15,000 acres in vicinity of Burlington.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	96	140	239	164	25
2							-	118	125	246	140	20
3							-	148	111	237	53	18
4							-	143	86	206	53	17
5							-	158	63	179	43	17
6							-	181	43	124	34	17
7							-	222	111	124	34	18
8							-	199	111	224	34	22
9							-	199	76	162	34	22
10							-	199	92	138	34	20
11							-	199	92	30	34	20
12							-	194	0	29	17	20
13							-	204	0	57	17	22
14							-	199	53	57	16	22
15							-	0	53	59	16	22
16							-	172	53	0	16	18
17							-	208	53	25	20	18
18							-	208	58	98	18	18
19							-	217	65	172	17	18
20							-	190	68	172	17	20
21							-	153	132	226	17	24
22							-	104	172	208	17	24
23							-	43	217	111	17	32
24							-	199	236	114	17	38
25							-	156	236	118	17	30
26							-	156	245	74	17	20
27							-	156	217	122	17	20
28							-	159	217	140	17	20
29							54	156	217	140	17	20
30							86	156	217	92	17	18
31							-	156	-	53	55	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May	5,048	222	0	163	10,010
June	3,559	245	0	119	7,060
July	3,975	245	0	128	7,880
August	1,036	164	16	33.4	2,050
September	640	38	17	21.3	1,270
The period					28,270

Shoshone River below Shoshone Reservoir, Wyo.

Location.- Water-stage recorder, lat. 44°31', long. 109°09', in lot 76, sec. 4, T. 52 N., R. 102 W., 3 miles below Shoshone Reservoir and 3½ miles (revised) west of Cody.

Drainage area.- 1,470 square miles.

Records available.- January 1921 to September 1937.

Average discharge.- 16 years, 1,273 second-feet.

Extremes.- Maximum discharge during year, 10,600 second-feet June 23; minimum daily discharge, 197 second-feet Nov. 15, Dec. 4, 6.
1921-37: Maximum discharge, 14,700 second-feet May 28, 1928 (gage height, 10.62 feet); minimum daily discharge, 14 second-feet Nov. 19, 1933.
Maximum flood known since construction of Shoshone Reservoir, 18,700 second-feet. June 15, 1918.

Remarks.- No diversions between station and Shoshone Dam. Flow completely regulated by Shoshone Reservoir (capacity, 456,000 acre-feet). Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	772	722	203	226	212	209	216	779	2,200	4,790	1,520	1,480
2	766	747	200	243	219	216	216	772	2,050	4,790	1,500	1,490
3	766	747	200	209	219	216	229	779	2,100	4,130	1,470	1,520
4	740	747	197	219	219	216	206	785	2,210	3,800	1,490	1,550
5	753	603	206	226	219	216	209	1,040	1,860	3,590	1,460	1,520
6	753	344	197	226	233	229	216	1,310	1,540	3,490	1,420	1,520
7	740	265	216	226	209	206	216	1,310	1,716	3,420	1,720	1,490
8	747	273	243	226	212	209	216	1,560	1,750	3,380	1,940	1,400
9	753	280	229	243	219	216	216	1,550	1,800	3,380	1,860	1,400
10	747	280	243	209	219	216	216	1,670	1,870	3,280	1,770	1,360
11	734	265	243	219	219	216	209	1,750	1,960	3,210	1,720	1,370
12	753	280	250	226	219	216	223	1,880	2,240	3,160	1,660	1,190
13	753	258	223	226	233	229	236	1,970	2,710	2,910	1,740	1,160
14	753	219	233	226	209	206	243	1,970	3,030	2,680	1,800	1,160
15	753	197	216	226	212	209	243	1,980	3,390	2,580	1,720	1,160
16	753	223	216	243	219	216	243	1,980	3,980	2,420	1,760	1,160
17	760	226	240	209	219	216	250	2,010	5,420	2,240	1,750	1,160
18	747	229	243	219	219	216	236	2,060	5,800	2,120	1,710	1,160
19	760	229	250	226	219	216	336	2,140	5,850	2,050	1,710	1,160
20	747	229	223	226	233	229	396	2,180	6,330	2,020	1,640	1,160
21	760	223	219	226	209	206	485	2,100	8,000	1,960	1,610	1,160
22	760	212	223	226	212	209	537	2,110	9,560	1,910	1,560	1,160
23	747	223	229	243	219	216	537	2,120	9,600	1,850	1,600	1,140
24	734	233	229	209	219	216	580	2,180	7,770	1,780	1,560	1,140
25	722	236	209	219	219	216	798	2,080	6,290	1,710	1,470	1,140
26	747	216	219	226	219	216	906	2,040	5,140	1,590	1,400	1,130
27	753	243	206	226	233	229	1,140	2,070	4,480	1,640	1,430	1,140
28	753	250	219	226	212	206	1,200	2,100	4,060	1,590	1,460	1,020
29	753	233	216	226	-	209	798	2,140	3,570	1,540	1,420	893
30	740	243	219	243	-	216	785	2,180	3,190	1,500	1,450	893
31	747	-	229	209	-	216	-	2,220	-	1,450	1,470	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	23,266	772	722	751	46,150
November	9,675	747	197	322	19,190
December	6,888	250	197	222	13,660
Calendar year 1936	491,355	10,400	197	1,342	974,600
January	6,978	243	209	225	13,840
February	6,123	233	209	219	12,140
March	6,673	229	206	215	13,240
April	12,537	1,200	206	418	24,870
May	54,815	2,220	772	1,768	108,700
June	121,560	9,600	1,640	4,052	241,100
July	82,040	4,790	1,450	2,646	162,700
August	49,790	1,940	1,400	1,606	98,760
September	37,386	1,550	893	1,246	74,150
Water year 1936-37	417,731	9,600	197	1,144	828,500

Shoshone River at Byron, Wyo.

Location.- Water-stage recorder, lat. 44°47', long. 108°31', in sec. 34, T. 56 N., R. 97 W., at Byron.

Drainage area.- 2,300 square miles.

Records available.- January 1929 to September 1937.

Extremes.- Maximum discharge during year, 7,890 second-feet June 23 (gage height, 4.68 feet); minimum daily discharge, 112 second-feet (computed) Jan. 10.
1929-37: Maximum discharge, about 13,900 second-feet June 25, 1932 (gage height, 6.45 feet); minimum, 29 second-feet Feb. 14, 1932 (discharge measurement).

Remarks.- Records good except those for periods of ice effect, Nov. 2-6, Dec. 3-16, Dec. 27 to Mar. 15 (computed on basis of two discharge measurements, weather records, and gage heights), which are fair, and those for period of missing gage heights, Mar. 23 to May 23 (computed on basis of precipitation records and records for station below Shoshone Reservoir), which are poor. Water diverted for irrigation above station. Flow regulated by Shoshone Reservoir.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	516	507	422	235	165	165	320	820	1,610	3,440	593	722
2	536	480	398	250	175	170	300	800	1,610	3,370	558	758
3	526	410	375	285	180	170	305	800	1,530	2,960	477	796
4	547	440	360	260	185	200	310	820	2,240	2,670	430	845
5	526	530	345	230	190	240	325	830	2,200	2,460	398	848
6	487	480	340	200	185	265	320	880	1,420	2,330	344	874
7	477	458	365	160	165	260	315	910	1,270	2,330	278	874
8	458	487	380	125	140	255	325	1,000	1,240	2,420	616	822
9	438	467	360	115	135	260	350	1,040	1,400	2,860	686	796
10	422	438	335	112	145	255	380	1,110	1,420	2,700	582	835
11	422	438	340	115	165	245	365	1,200	1,500	2,760	570	809
12	438	398	350	125	170	230	390	1,230	3,180	2,700	507	822
13	430	406	365	140	175	245	425	1,240	2,730	2,540	467	698
14	430	344	385	160	190	295	480	1,300	2,860	2,450	570	674
15	374	331	400	170	185	340	510	1,340	3,080	2,200	639	662
16	398	304	380	165	175	331	475	1,420	3,560	1,960	582	639
17	422	317	374	170	170	324	490	1,480	4,360	1,560	593	627
18	438	331	374	175	170	317	500	1,500	5,300	1,320	526	547
19	414	374	382	180	160	324	510	1,520	5,170	1,320	497	536
20	430	398	382	140	148	290	530	1,500	5,070	900	507	526
21	430	406	338	130	150	261	530	1,480	6,060	758	438	559
22	448	414	358	134	155	232	540	1,320	7,010	674	487	593
23	526	414	366	135	165	240	550	1,140	7,620	570	458	746
24	526	414	374	140	170	245	575	1,030	7,010	809	438	835
25	559	382	382	150	170	235	680	1,080	5,830	604	438	874
26	507	366	358	165	170	210	840	914	4,910	616	374	848
27	536	351	340	165	165	220	930	1,040	4,360	558	366	809
28	547	406	330	155	165	230	1,100	1,010	3,950	558	487	822
29	536	458	285	145	-	245	1,320	1,060	3,720	593	536	746
30	516	398	250	150	-	280	870	1,500	3,500	477	582	722
31	507	-	230	155	-	300	-	1,560	-	467	698	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	14,767	559	374	476	29,290
November	12,347	530	304	412	24,490
December	11,023	422	230	356	21,860
Calendar year 1936	352,976	7,780	180	964	700,100
January	5,136	285	112	166	10,190
February	4,683	190	135	167	9,290
March	7,879	340	165	254	15,630
April	15,860	1,320	300	529	31,460
May	35,874	1,560	800	1,157	71,160
June	106,720	7,620	1,240	3,557	211,700
July	53,954	3,440	467	1,740	107,000
August	15,722	698	278	507	31,180
September	22,267	874	526	742	44,170
Water year 1936-37	306,232	7,620	112	839	607,400

Pass Creek near Wyola, Mont.

Location.- Wire gage, lat. 45°03', long. 107°21' (revised), in sec. 13, T. 9 S., R. 35 E., at highway bridge 5 miles south of Wyola.

Records available.- June 1935 to September 1937.

Extremes.- Maximum discharge observed during year, 182 second-feet June 14 (gage height, 2.34 feet); minimum, 1.1 second-feet Aug. 24 (gage height, 0.70 foot).
1935-37: Maximum discharge observed, 182 second-feet June 7, 1935 and June 14, 1937; maximum gage height, 2.34 feet June 14, 1937; no flow Aug. 3, 9, 10, 1935 (pool stage).

Remarks.- Records fair except those for periods of ice effect, Oct. 22, Nov. 2-4, 15, 21-25, 27-30, Dec. 4-26, 28, which were computed on basis of gage heights, observer's notes, and weather records, and are poor. No records Jan. 1 to Mar. 31. Gage read twice daily. Several diversions above gage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	12	6.9					24	23	13	2.8	4.1
2	3.4	13	6.9				*10	22	16	14	3.6	4.1
3	2.4	14	10					23	19	13	2.8	4.3
4	2.4	15	10				*130	22	64	14	2.4	2.4
5	6.0	15	11				*80	27	96	14	2.8	2.4
6	8.1	15	10				43	29	57	12	3.0	2.8
7	6.0	14	9.7				79	36	35	14	3.0	2.8
8	5.2	10	10				82	45	38	15	3.0	3.6
9	4.9	14	9.3				89	47	41	15	3.2	4.9
10	4.3	12	10				117	41	56	15	2.2	4.9
11	4.6	15	11				102	27	68	14	1.5	4.6
12	4.3	13	9.3				45	24	113	19	1.7	4.6
13	4.3	13	9.7				44	24	139	20	1.6	4.3
14	4.1	15	13				108	24	160	16	1.6	3.8
15	4.6	12	12				80	29	150	16	1.8	3.8
16	4.3	9.7	11				68	32	119	15	1.7	3.2
17	4.9	8.9	14				36	31	104	16	2.0	3.2
18	5.4	8.9	13				25	25	111	15	1.6	2.4
19	6.0	8.9	13				22	26	80	8.1	1.5	2.4
20	8.1	8.9	13				22	31	66	6.9	1.4	2.4
21	9.3	8.9	13				26	35	66	6.5	1.4	2.8
22	9.3	7.3	13				25	30	45	4.9	1.5	2.4
23	9.3	8.5	11				26	26	47	3.8	1.7	4.1
24	10	12	12				19	21	41	4.1	1.2	6.2
25	14	10	12				16	20	35	4.1	1.7	7.3
26	13	9.3	12				15	20	26	3.8	1.5	7.7
27	13	10	e.9				15	20	25	4.1	1.6	6.5
28	13	e.1	11				15	18	18	4.1	2.4	7.3
29	12	9.7	13				20	19	14	4.1	2.8	7.3
30	11	e.1	12				23	30	13	3.2	3.6	6.9
31	10	-	12				-	38	-	2.4	3.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	221.0	14	2.4	7.13	438
November	339.2	15	7.3	11.3	673
December	342.7	14	6.9	11.1	680
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,402	130	-	46.7	2,780
May	866	47	18	27.9	1,720
June	1,887	160	13	82.9	3,740
July	330.1	20	2.4	10.6	655
August	68.4	3.8	1.2	2.21	136
September	129.5	7.7	2.4	4.32	257
Water year					

*Estimated.

Tongue River near Decker, Mont.

Location.- Water-stage recorder, lat. 45°02', long. 106°48', in sec. 23, T. 9 S., R. 40 E., 1½ miles east of Decker and 2 miles north of Wyoming State line.

Drainage area.- 1,610 square miles.

Records available.- April 1928 to September 1937.

Extremes.- Maximum discharge during year, 4,330 second-feet June 19 (gage height, 6.91 feet); minimum daily discharge, 47 second-feet Aug. 19.
1928-37: Maximum discharge observed, 7,220 second-feet June 2, 1929 (gage height, 9.25 feet); minimum daily discharge, 2.9 second-feet Aug. 20, 21, 1934.

Remarks.- Records excellent except those for October, which are good, and those for periods of ice effect, Nov. 8-13, Dec. 7 to Mar. 22 (computed on basis of two discharge measurements and weather records), which are fair. Diversions for irrigation above station.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-31, Sept. 27-30)

1.0	28	2.2	290	4.0	1,250
1.2	48	2.4	362	4.5	1,660
1.4	75	2.6	440	5.0	2,140
1.6	112	2.8	526	5.5	2,680
1.8	160	3.0	620	6.0	3,230
2.0	220	3.5	890	6.5	3,820

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	100	217	163	75	70	105	420	355	884	491	163	62
2	114	204	144	78	66	110	510	304	884	482	139	64
3	112	147	142	82	62	118	416	362	925	448	134	58
4	110	160	130	75	64	125	412	344	1,230	416	123	58
5	112	204	116	60	70	130	440	544	1,650	381	119	56
6	130	204	98	58	68	130	412	821	1,550	348	108	59
7	134	182	130	60	62	140	482	861	1,500	389	94	68
8	137	170	120	60	70	200	601	878	1,520	432	78	75
9	137	170	112	60	76	250	567	960	1,610	448	74	74
10	142	175	122	66	75	230	620	1,020	1,750	461	70	69
11	147	190	120	70	90	240	686	1,190	2,100	465	66	66
12	144	185	130	73	95	210	554	1,090	3,140	565	64	63
13	142	195	130	74	88	190	377	815	3,720	1,190	66	63
14	137	204	133	66	86	200	333	712	3,500	1,340	68	63
15	144	207	135	75	80	210	377	771	2,930	1,010	66	60
16	144	204	130	74	82	220	650	861	2,820	844	64	54
17	160	194	135	70	90	230	601	804	2,920	798	56	53
18	160	198	140	64	88	240	432	832	3,600	686	52	53
19	160	198	140	60	86	250	355	995	3,620	706	47	55
20	177	191	135	56	88	260	326	1,190	2,460	738	52	54
21	207	191	125	58	90	270	297	1,100	2,100	596	55	53
22	207	180	135	60	98	275	279	953	2,090	495	58	55
23	182	163	130	63	96	261	362	727	2,060	420	58	62
24	185	177	135	62	88	214	294	691	1,660	370	56	74
25	210	171	130	60	80	214	254	787	1,310	330	53	116
26	223	180	115	65	86	207	230	691	1,060	283	50	130
27	210	177	105	58	90	198	240	630	890	261	53	144
28	194	177	100	58	98	198	448	670	776	244	50	150
29	227	166	90	60	-	230	540	1,120	655	251	48	155
30	198	155	88	64	-	268	432	960	563	204	48	147
31	204	-	75	66	-	214	-	1,030	-	177	53	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,990	227	100	161	9,900
November	5,536	217	147	185	10,980
December	3,833	163	75	124	7,600
Calendar year 1936	84,806	3,460	26	232	168,200
January	2,030	82	56	65.5	4,030
February	2,282	98	62	81.5	4,530
March	6,337	275	105	204	12,570
April	12,947	686	230	432	25,680
May	25,068	1,190	304	809	49,720
June	57,477	3,720	563	1,916	114,000
July	16,369	1,340	177	528	32,470
August	2,287	163	47	73.8	4,540
September	2,313	155	53	77.1	4,590
Water year 1936-37	141,469	3,720	47	388	280,600

Goose Creek near Sheridan, Wyo.

Location.- Water-stage recorder, lat. 44°42', long. 107°11', in sec. 35, T. 55 N., R. 86 W., half a mile above Cave Creek and 14 miles southwest of Sheridan.

Drainage area.- 110 square miles.

Records available.- September 1929 to September 1937.

Extremes.- Maximum discharge during year, 1,900 second-feet June 18 (gage height, 4.89 feet); minimum daily discharge, 2.4 second-feet Feb. 20, 21, Mar. 9, 10.
1930-37: Maximum and minimum discharges, those of 1937.

Remarks.- Records excellent except those for periods of ice effect, Nov. 3-5, Dec. 11-16, Jan. 6 to Apr. 7 (computed on basis of two discharge measurements and weather records), and those for periods of missing gage heights, June 4-9 (computed on basis of records for Tongue River near Decker, Mont.), which are fair. Water diverted above station from East Fork of Goose Creek into Little Goose Creek. Flow partly regulated by storage in Dome Lake. Gage-height record furnished by city of Sheridan.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 12 to Sept. 5 and Sept. 11-30)

0.1	2.0	1.0	27	2.0	143	3.0	466
.2	2.6	1.2	40	2.2	180	3.5	775
.4	4.8	1.4	58	2.4	224	4.0	1,150
.6	9	1.6	80	2.6	286	4.5	1,550
.8	16	1.8	109	2.8	368	5.0	2,000

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	18	7.5	9.3	3.5	2.6	3.8	42	214	180	41	24
2	20	8.0	13	9.0	3.3	2.6	3.8	54	219	150	35	25
3	19	7.5	11	8.8	3.4	2.6	3.7	55	252	133	32	26
4	12	8.2	8.0	8.5	3.6	2.6	3.7	87	630	109	28	26
5	12	11	10	8.5	3.7	2.6	3.9	156	600	86	26	32
6	11	18	9.0	6.2	3.8	2.6	4.0	159	555	96	29	34
7	13	18	9.6	4.5	3.8	2.5	3.9	148	540	170	34	29
8	14	15	9.6	4.0	3.6	2.5	4.6	163	545	163	32	29
9	11	14	9.6	3.9	3.5	2.4	5.1	224	565	170	31	32
10	10	14	10	3.6	3.1	2.4	6.5	324	593	157	30	32
11	9.3	17	10	3.8	2.8	2.5	9.3	350	645	154	34	32
12	8.8	14	10	3.9	2.7	2.5	8.2	214	1,310	272	39	32
13	8.3	16	10	4.0	2.9	2.6	9.6	210	1,080	378	35	29
14	7.2	16	9.7	4.1	3.1	2.6	34	241	716	301	34	28
15	18	11	9.4	4.4	3.0	2.6	81	301	638	165	38	26
16	14	13	9.1	4.5	2.5	2.7	65	279	749	154	35	24
17	9.9	14	9.0	4.5	2.5	2.7	34	286	1,470	134	32	23
18	20	13	9.3	4.5	2.7	2.6	28	406	1,710	123	31	22
19	27	16	9.9	4.5	2.7	2.6	26	456	890	154	31	23
20	29	12	11	4.4	2.4	2.5	20	477	562	123	28	24
21	23	6.5	8.5	4.2	2.4	2.7	29	446	749	98	29	24
22	18	17	8.5	4.1	2.5	2.9	33	249	920	83	30	26
23	23	9.9	9.3	3.6	2.6	3.0	23	252	697	73	29	31
24	16	18	9.0	3.7	2.5	2.9	16	252	337	70	25	34
25	22	14	9.3	3.9	2.5	2.8	19	217	252	65	22	34
26	15	14	8.2	3.9	2.5	2.8	46	244	214	67	21	33
27	38	14	8.0	3.8	2.5	2.8	94	272	167	81	25	27
28	22	12	6.8	3.7	2.6	3.1	90	324	165	75	25	15
29	24	12	7.8	3.6	-	3.6	48	441	148	52	25	28
30	24	9.9	8.8	3.8	-	3.7	37	309	172	45	26	26
31	23	-	9.0	3.9	-	3.9	-	214	-	49	25	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	533.5	38	6.3	17.2	1,060
November	401.0	18	6.5	13.4	795
December	287.9	13	6.8	9.29	571
Calendar year					
January	151.1	9.3	3.6	4.87	300
February	82.7	3.8	2.4	2.95	164
March	85.4	3.9	2.4	2.75	169
April	793.1	94	3.7	26.4	1,570
May	7,852	477	42	253	15,570
June	18,304	1,710	148	610	36,310
July	4,130	378	45	133	8,190
August	937	41	21	30.2	1,860
September	830	34	15	27.7	1,650
Water year 1936-37	34,387.7	1,710	2.4	94.2	68,210

Powder River at Arvada, Wyo.

Location.- Chain gage, lat. 44°39', long. 106°08', in sec. 16, T. 54 N., R. 77 W., at Arvada, a quarter of a mile above Wildhorse Creek. Zero of gage is 3,823.8 feet above mean sea level (Chicago, Burlington & Quincy Railroad datum).

Drainage area.- 6,050 square miles.

Records available.- May 1919 to September 1937. July 1915 to April 1919, at site just above mouth of Clear Creek, 16 miles downstream.

Average discharge.- 21 years (1916-37), 496 second-feet.

Extremes.- Maximum discharge during year, 14,100 second-feet July 14 (gage height, 8.12 feet); no flow Oct. 1-3, Aug. 22 to Sept. 1.
1915-37: Maximum discharge, determined by slope-area method, 72,000 second-feet Sept. 29, 1923 (gage height, 23.7 feet); no flow at times during summers of 1919, 1921-23, 1931-34, 1936, 1937.

Remarks.- Records good except those for periods of ice effect, Nov. 29 to Mar. 18, Mar. 26-28, which were computed on basis of one discharge measurement and weather records and are fair. Gage read twice daily. Diversions for irrigation above station.

Rating table, period Mar. 10 to Sept. 30, 1937, except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 21 to Sept. 6)

0.5	0	1.4	160	2.7	1,740	5.0	6,610
.7	4	1.6	300	3.0	2,300	6.0	9,000
.9	22	1.8	490	3.5	3,270	7.0	11,400
1.0	38	2.0	710	4.0	4,330	8.0	13,800
1.2	86	2.3	1,100	4.5	5,460	8.2	14,280

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	119	65			125	160	64	236	75	178	0
2	0	159	52			140	220	93	208	69	166	1.0
3	0	124	52			145	309	103	430	50	184	2.5
4	22	122	50			250	420	126	480	38	228	3.4
5	28	114	44			420	534	172	490	18	202	11
6	35	100	60			480	830	244	523	1	156	633
7	35	114	95			600	1,330	156	567	1	124	677
8	42	119	100			850	1,130	152	644	72	89	622
9	51	111	95			900	1,380	284	644	2,000	64	578
10	63	124	65			2,020	1,510	166	770	3,270	54	545
11	68	135	58			1,470	722	1,240	1,020	6,820	42	501
12	63	124	58			1,180	644	1,030	8,980	3,980	32	363
13	66	191	60			1,100	440	830	5,920	12,000	20	268
14	66	162	62			200	390	677	2,830	9,310	15	244
15	71	236	66			180	260	644	1,960	3,940	12	220
16	72	250	64			220	128	688	1,780	3,460	8.2	140
17	75	194	66			250	190	622	1,690	934	3.1	113
18	66	156	70			700	512	440	1,250	974	.9	96
19	68	127	78			611	430	470	960	699	1.6	83
20	82	122	80			611	430	501	430	644	.6	75
21	85	127	84			611	318	545	354	710	1.9	66
22	83	135	86			148	381	534	268	430	0	56
23	88	138	92			390	420	410	208	363	0	50
24	109	135	105	*16		567	430	208	166	309	0	46
25	124	132	95			450	512	166	148	252	0	42
26	92	119	92			400	440	140	117	260	0	38
27	119	92	94			300	400	136	103	363	0	35
28	119	92	92			290	300	166	89	440	0	32
29	109	e8	88			345	190	184	103	460	0	52
30	122	78	72			208	103	228	113	480	0	61
31	122	-	54			140	-	244	-	372	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,145	124	0	69.2	4,250
November	4,039	250	78	135	8,010
December	2,294	105	44	74.0	4,550
Calendar year 1936	67,093	5,420	0	183	133,100
January	806	-	-	26	1,600
February	1,400	-	-	50	2,780
March	16,301	2,020	125	526	32,330
April	15,463	1,510	103	515	30,670
May	11,665	1,240	64	376	23,140
June	33,481	8,980	89	1,116	66,410
July	52,794	12,000	1	1,703	104,700
August	1,582.3	228	0	51.0	3,140
September	5,653.9	677	0	188	11,210
Water year 1936-37	147,624.2	12,000	0	404	292,800

*Discharge measurement.

Powder River at Moorhead, Mont.

Location.- Water-stage recorder, lat. 45°03', long. 105°56', in sec. 18, T. 9 S., R. 48 E., at Moorhead.

Records available.- May 1929 to September 1937.

Extremes.- Maximum discharge observed during year, 14,500 second-feet July 14 (gage height, 10.20 feet); minimum, 10 second-feet Aug. 24 (gage height, 1.93 feet); discharge estimated 10 second-feet Feb. 6-16 (ice present).
1929-37: Maximum discharge, 14,800 second-feet Aug. 30, 1933 (gage height, 10.85 feet); no flow at times during 1931-34.

Remarks.- Records fair except those for periods of ice effect, Nov. 2-17, Dec. 3 to Mar. 10, Mar. 24-27, which were computed on basis of three discharge measurements, gage heights, and weather records and are poor. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	144	100	90	11	135	289	403	578	212	427	23
2	65	147	64	88	11	154	328	386	592	154	308	20
3	65	118	57	85	15	170	339	349	640	118	260	22
4	65	205	72	72	16	365	370	313	780	112	216	23
5	65	187	55	*64	11	470	403	293	884	100	173	20
6	76	136	74	*56		519	512	293	1,320	85	157	58
7	83	132	83	*48		740	615	700	1,690	112	130	365
8	90	135	78	40		1,050	600	578	1,500	604	98	229
9	92	141	72	42		1,050	632	692	1,120	1,760	83	176
10	88	138	74	44		2,120	683	1,160	933	3,740	72	144
11	85	141	74	40	†10	1,920	836	1,360	985	5,610	65	98
12	85	166	76	44		1,530	959	1,300	9,300	9,250	69	81
13	85	173	81	42		908	770	1,200	7,590	10,600	65	251
14	85	180	72	65		649	624	998	4,860	12,300	53	170
15	90	190	81	60		397	578	848	3,640	7,850	48	127
16	92	246	85	52		433	540	674	2,150	5,500	42	100
17	92	251	81	50	12	526	666	770	1,740	4,650	37	85
18	85	251	92	48	22	615	740	790	1,900	3,060	33	78
19	83	216	95	45	30	658	710	824	2,260	2,170	30	64
20	95	201	95	45	36	555	640	1,500	1,950	1,550	29	60
21	102	180	100	42	37	505	491	1,480	1,730	1,260	26	53
22	108	176	110	45	45	540	414	998	1,450	1,120	20	48
23	108	160	115	42	72	600	414	674	1,360	836	13	50
24	121	138	121	34	78	555	459	578	1,310	632	10	52
25	144	135	115	36	92	570	512	498	1,120	562	12	53
26	144	147	112	27	115	420	484	477	800	477	20	76
27	147	160	121	27	127	397	445	519	608	445	20	105
28	150	154	110	22	130	370	526	458	464	770	12	110
29	144	141	110	20	-	540	365	433	349	439	11	98
30	144	112	110	11	-	427	451	533	265	812	20	95
31	144	-	102	13	-	255	-	615	-	608	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,100	150	65	100	6,150
November	5,003	251	112	167	9,920
December	2,787	121	55	89.9	5,530
Calendar year 1936	133,789.2	7,040	3.6	366	265,400
January	1,439	90	11	46.4	2,850
February	970	130	-	34.6	1,920
March	20,143	2,120	135	650	39,950
April	16,375	959	289	546	32,480
May	22,494	1,480	293	726	44,620
June	55,868	9,300	265	1,862	110,800
July	77,488	12,300	85	2,500	153,700
August	2,578	427	10	83.2	5,110
September	2,934	365	20	97.8	5,820
Water year 1936-37	211,179	12,300	-	579	418,800

*Interpolated.
†Estimated.

Little Missouri River near Alzada, Mont.

Location.- Chain gage, lat. 45°06', long. 104°25', near southwest corner of T. 8 S., R. 60 E., 3 miles below mouth of Thompson Creek and 4 miles below Alzada.

Drainage area.- 780 square miles.

Records available.- June 1911 to September 1925, August 1928 to September 1932, March 1935 to September 1937.

Extremes.- Maximum discharge observed during year, 2,780 second-feet June 14 (gage height, 12.05 feet); no flow at times.
1911-25, 1928-32, 1935-37: Maximum discharge observed, 4,550 second-feet Apr. 6, 1912 (gage height, 15.3 feet); no flow at times.

Remarks.- Records poor. Some small diversions. Small storage in coulees. Gage read twice daily.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.5	0	3.5	197	6.5	1,028	9.5	1,860
1.6	.6	4.0	323	7.0	1,168	10.0	2,020
1.8	3.0	4.5	464	7.5	1,308	10.5	2,195
2.0	7.0	5.0	618	8.0	1,442	11.0	2,380
2.5	30	5.5	766	8.5	1,572	11.5	2,580
3.0	92	6.0	900	9.0	1,712	12.0	2,780

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	3.2	0	464	1.1	7.6	0
2						0	13	0	221	41	4.1	0
3						0	15	0	29	246	4.1	0
4						19	21	0	65	378	3.0	0
5						32	94	0	650	26	2.2	0
6						19	66	0	1,420	9.8	1.2	0
7						34	26	0	1,360	6.3	1.1	0
8						60	14	0	766	9.8	.6	0
9						47	7.6	0	78	5.0	.9	0
10						92	4.8	0	24	2.4	.4	0
11						60	3.7	0	18	1.3	.6	16
12						51	3.2	0	271	76	.9	76
13						22	2.2	0	1,060	618	1.0	11
14						19	1.9	0	2,620	586	.8	5.7
15						16	1.2	0	1,830	738	.4	3.0
16						11	1.0	0	900	1,470	.5	1.9
17						11	.9	0	102	1,660	.3	.9
18						9.5	.6	0	35	650	.2	.9
19						9.0	.5	0	20	972	.2	.5
20						6.6	.3	0	38	1,110	0	.2
21						5.9	.1	0	234	209	0	.2
22						4.1	.1	21	26	48	0	0
23						5.2	.2	18	13	23	0	0
24						3.0	.1	7.8	7.3	12	0	0
25						2.9	0	2.6	3.9	8.7	0	0
26						5.2	0	1.2	2.6	6.3	0	0
27						4.3	0	.7	1.7	5.0	0	0
28						3.9	0	.1	1.6	3.9	0	0
29						3.4	0	0	1.0	2.9	0	0
30						2.9	0	94	.5	2.7	0	0
31						3.2	-	680	-	17	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	14,566.4	1,290	0	39.8	28,890
January	0	0	0	0	0
February	0	0	0	0	0
March	562.1	92	0	18.1	1,110
April	280.6	94	0	9.35	557
May	825.4	680	0	26.6	1,640
June	12,262.6	2,620	.5	409	24,320
July	8,945.2	1,660	1.1	289	17,740
August	30.1	4.1	0	.97	60
September	116.3	76	0	3.88	231
Water year 1936-37	23,022.3	2,620	0	63.1	45,660

Little Missouri River near Watford City, N. Dak.

Location.- Water-stage recorder, lat. 47°36', long. 103°16', in NW¼ sec. 35, T. 148 N., R. 99 W., at highway bridge 17⅞ miles south of Watford City. Zero of gage is 1,863.51 feet above mean sea level.

Drainage area.- 8,490 square miles.

Records available.- October 1934 to September 1937.

Extremes.- Maximum discharge observed during year, 8,990 second-feet June 15 (gage height, 7.85 feet); no flow at times.
1934-37: Maximum discharge observed, 28,000 second-feet July 11, 1935 (gage height, 10.10 feet); no flow at times.

Remarks.- Records fair. Discharge for period of ice effect, Nov. 1-22, Nov. 29 to Mar. 25, computed on basis of two discharge measurements, gage heights, and weather records.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	1.3	0.1			0	117	100	122	238	5,360	9.4
2	.2	1.1	.1			0	115	91	148	224	5,210	46
3	.2	.9	.1			0	79	89	163	216	4,930	98
4	.2	.7	.1			53	62	83	153	200	4,800	72
5	.2	1.1	0			56	84	72	322	182	4,800	50
6	.2	1.3	0			1,080	220	65	588	158	3,460	25
7	.2	1.5	0			2,070	595	59	1,210	138	3,460	1,380
8	.2	1.6	0			1,780	848	53	1,520	131	3,140	1,200
9	.2	1.3	0			1,460	1,250	53	1,460	332	2,570	848
10	.2	1.5	0			1,230	1,970	50	2,480	474	2,050	622
11	0	1.6	0			1,020	2,220	45	2,100	517	1,600	445
12	0	1.6	0			875	2,570	40	2,300	615	1,060	322
13	0	1.8	0			814	2,940	40	6,090	575	530	257
14	0	2.4	0			864	2,940	37	6,090	766	87	220
15	0	3.6	0			839	2,300	30	8,070	1,560	70	166
16	.1	2.8	0			830	1,830	30	7,050	1,870	72	133
17	.1	1.8	0			920	1,410	30	8,430	1,130	54	106
18	.1	2.4	0			848	1,020	32	6,560	1,660	50	85
19	.4	2.4	0			629	822	37	5,210	2,300	47	70
20	3.0	2.8	0			608	542	950	4,400	3,240	40	58
21	3.6	2.4	0			542	439	678	2,940	2,940	24	52
22	3.2	2.0	0			505	360	492	2,130	3,800	18	42
23	3.8	2.0	0			650	280	179	1,620	3,570	27	38
24	3.2	2.4	0			750	234	98	1,020	2,480	18	37
25	3.0	2.8	0			406	194	81	782	1,840	20	31
26	2.8	2.4	0			360	163	59	562	1,390	17	26
27	3.2	1.8	0			314	145	100	445	1,450	15	26
28	3.2	.9	0			309	136	113	380	1,040	12	31
29	2.8	.6	0			301	122	83	305	806	7.8	96
30	2.2	.7	0			284	113	108	249	332	6.1	182
31	2.0	-	0			264	-	113	-	249	7.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	38.9	3.8	0	1.25	77
November	53.5	3.6	.6	1.78	106
December	.4	.1	0	.01	.8
Calendar year 1936	109,939.9	8,620	0	300	218,100
January	0	0	0	0	0
February	0	0	0	0	0
March	20,681	2,070	0	667	41,020
April	26,120	2,940	62	871	51,810
May	4,090	950	30	132	8,110
June	74,899	8,430	122	2,497	148,500
July	36,423	3,800	131	1,175	72,240
August	43,562.7	5,360	6.1	1,406	86,410
September	6,773.4	1,380	9.4	226	13,430
Water year 1936-37	212,641.9	8,430	0	583	421,700

Cannonball River at Breien, N. Dak.

Location.- Water-stage recorder, lat. 46°23', long. 100°56', in sec. 36, T. 134 N., R. 82 W., at bridge on State Highway 6, 0.5 mile south of Breien.

Drainage area.- 4,066 square miles.

Records available.- August 1934 to September 1937.

Extremes.- Maximum discharge during year, 12,700 second-feet June 14 (gage height, 14.28 feet); no flow Feb. 16 to Mar. 3; minimum gage height, 0.19 foot Jan. 20.
1934-37: Maximum discharge and gage height, those of June 14, 1937; no flow on many days of each year; minimum gage height, 0.00 foot Aug. 19-21, 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 30 to Mar. 6, Mar. 23-28, which were computed on basis of two discharge measurements, gage heights, engineer's notes, and weather records and are poor.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.6	0.4	0.5	0.1	0	151	67	80	278	51	10
2	.2	.7	.5	.5	.1	0	151	61	32	242	50	10
3	.2	.6	.9	.7	.1	0	65	48	22	207	48	9
4	.2	.6	.5	.3	.1	.5	118	42	56	185	43	8
5	.2	.7	.4	.7	.1	1,510	78	38	1,500	164	39	8
6	.2	.7	.4	1.5	.1	1,420	182	36	6,750	149	27	14
7	.3	.6	.4	.3	.1	1,360	860	32	4,640	141	28	304
8	.3	.6	.4	.3	.1	1,010	762	29	1,300	127	30	149
9	.3	.7	.4	.3	.1	716	693	27	786	120	29	251
10	.4	.9	.4	.2	.1	456	626	26	534	114	254	472
11	.4	.9	.4	.3	.1	338	604	22	373	109	97	294
12	.4	.7	.4	.3	.1	285	582	20	288	213	54	177
13	.4	.9	.4	.3	.1	213	547	21	6,870	199	38	116
14	.4	1.0	.4	.5	.1	224	488	20	10,400	984	29	134
15	.6	1.3	.5	.7	.1	248	492	19	4,300	693	27	105
16	.6	1.2	.5	.5	0	207	521	17	4,970	488	25	78
17	.6	.7	.5	.7	0	193	422	15	4,300	384	24	64
18	.5	.9	.5	1.5	0	199	341	14	2,270	836	21	53
19	.5	.7	.6	.5	0	167	294	12	1,540	453	20	44
20	.6	.7	.6	.2	0	164	260	12	1,250	338	17	39
21	.7	.6	.5	.1	0	154	213	6	3,240	239	16	34
22	.7	.5	.5	.1	0	154	196	6	5,090	177	14	30
23	.7	.5	.5	.1	0	67	172	10	5,450	141	14	28
24	.7	.6	.6	.1	0	38	144	8	1,980	118	12	24
25	.6	.6	.6	.1	0	27	116	8	1,090	105	11	22
26	.7	.7	.5	.1	0	38	97	12	739	93	11	21
27	.7	.7	.5	.1	0	67	80	12	547	81	10	21
28	.7	.7	.7	.1	0	67	65	8	441	71	10	21
29	.6	.7	.5	.1	-	114	62	4.2	369	67	9	21
30	.6	.5	.3	.1	-	127	67	6	314	62	9	20
31	.5	-	.7	.1	-	149	-	71	-	56	9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	14.7	0.7	0.2	0.47	29
November	21.8	1.3	.5	.73	43
December	15.4	.9	.3	.50	31
Calendar year 1936	22,497.5	2,040	0	61.5	44,610
January	11.9	1.5	.1	.38	24
February	1.5	.1	0	.05	3.0
March	9,712.5	1,510	0	313	19,260
April	9,449	860	62	315	18,740
May	729.2	71	4.2	23.5	1,450
June	71,521	10,400	22	2,384	141,900
July	7,636	984	56	246	15,150
August	1,076	254	9	34.7	2,130
September	2,581	472	8	86.0	5,120
Water year 1936-37	102,770.0	10,400	0	282	203,900

Grand River near Wakpala, S. Dak.

Location.- Water-stage recorder, lat. 45°35', long. 100°30', in sec. 26, T. 19 N., R. 29 E., at bridge on U. S. Highway 12, about 4 miles downstream from Snake Creek and 5 miles south of Wakpala. Prior to Mar. 12, 1937, wire-weight gage at same site and datum. Datum lowered 2.00 feet Oct. 1, 1936.

Drainage area.- 5,664 square miles.

Records available.- August 1928 to September 1937. September 1911 to March 1918 at site 5 miles upstream.

Extremes.- Maximum discharge during year, 13,700 second-feet June 15 (gage height, 14.98 feet); no flow Oct. 1 to Mar. 4.
1911-18, 1928-37: Maximum discharge and gage height, those of June 15, 1937; no flow during long periods of each year.

Remarks.- Records good except those for periods of ice effect, Mar. 21-28, which were computed on basis of gage heights, weather records, records for nearby stations and are poor.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	173	69	4.0	244	103	30
2						0	122	66	5	222	94	30
3						0	135	62	145	201	85	29
4						0	125	58	102	195	79	26
5						1,180	105	53	88	347	74	25
6						1,740	237	49	998	198	70	23
7						1,960	487	45	6,420	156	65	23
8						1,870	1,870	44	6,720	146	63	36
9						1,780	1,580	39	2,050	187	66	37
10						1,180	935	35	1,030	180	65	52
11						470	613	32	642	167	128	42
12						310	670	29	464	974	128	35
13						180	804	26	3,020	1,130	82	165
14						123	993	24	7,020	1,210	64	108
15						111	2,640	20	12,100	1,620	56	81
16						123	3,240	18	11,100	1,390	51	68
17						171	1,120	16	7,570	1,580	48	58
18						235	632	14	2,710	1,210	53	49
19						225	453	11	2,050	804	122	44
20						210	331	11	1,620	1,320	89	39
21						203	256	10	3,590	865	71	35
22						158	213	8	2,280	642	61	32
23						108	180	7	1,130	477	51	29
24						63	140	4.0	746	347	42	26
25						50	118	3.5	562	274	39	25
26						50	108	4.0	460	216	37	24
27						63	96	9	394	180	36	23
28						78	84	4.0	343	146	33	22
29						93	78	1.5	310	128	32	22
30						105	70	4.0	270	113	32	20
31						123	-	7	-	103	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	24,766.5	2,010	0	67.6	49,120
January	0	0	0	0	0
February	0	0	0	0	0
March	12,962	1,960	0	418	25,710
April	18,608	3,240	70	620	36,910
May	783.0	69	1.5	25.3	1,550
June	75,943.0	12,100	4.0	2,531	150,600
July	16,972	1,620	103	547	33,660
August	2,053	128	32	66.2	4,070
September	1,258	165	20	41.9	2,500
Water year 1936-37	128,579.0	12,100	0	352	255,000

Moreau River at Promise, S. Dak.

Location.- Water-stage recorder, lat. 45°20', long. 100°36', in sec. 17, T. 16 N., R. 29 E., 0.5 mile below Virgin Creek and three-quarters of a mile north of Promise.

Drainage area.- 5,223 square miles.

Records available.- August 1928 to September 1937.

Extremes.- Maximum discharge during year, 9,100 second-feet June 16 (gage height, 15.80 feet); no flow on many days.
1928-37: Maximum discharge observed, 13,400 second-feet Sept. 17, 1928, from rating curve extended above 4,000 second-feet; maximum gage height observed, 16.80 feet May 26, 1933; no flow on many days.

Remarks.- Records good except those for period of ice effect, Mar. 24-30 (computed on basis of gage heights, weather records, and records for nearby stations), and those for period of missing gage heights, Aug. 23-26 (estimated), which are fair.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	149	36	67	69	43	
2						0	167	32	44	61	52	
3						0	110.	28	28	42	27	
4						96	76	26	19	32	23	
5						1,500	147	24	28	25	18	
6						2,700	720	23	277	57	13	
7						2,070	1,200	23	3,760	49	9	
8						2,370	864	17	4,860	37	7	
9						1,490	930	15	3,420	30	7	
10						1,020	1,020	13	2,320	24	6	
11						740	842	9	1,140	29	5	
12						502	864	7	655	258	4.7	
13						394	1,170	6	3,500	953	4.3	
14						245	1,490	4.6	4,080	2,180	3.4	
15						213	1,720	4.3	6,220	5,130	3.0	
16						149	1,440	3.5	7,840	4,070	2.7	
17						287	1,140	2.8	5,580	3,000	2.5	
18						308	930	2.4	4,430	4,560	2.2	
19						277	568	2.1	2,130	2,940	1.5	
20						253	350	1.9	1,110	1,380	1.3	
21						209	243	1.7	601	798	1.3	
22						156	184	4.9	436	436	1.0	
23						113	140	64	674	309	.7	
24						82	106	16	391	276	.5	
25						52	82	5	268	183	.3	
26						38	67	3.0	195	136	.1	
27						26	55	120	156	91	0	
28						16	48	108	129	80	0	
29						16	45	72	106	66	0	
30						26	39	66	89	54	0	
31						85	-	60	-	50	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	18,797.5	858	0	51.4	37,280
January	0	0	0	0	0
February	0	0	0	0	0
March	15,433	2,700	0	498	30,610
April	16,906	1,720	39	564	33,530
May	801.2	120	1.7	25.8	1,590
June	54,573	7,840	19	1,819	108,200
July	27,405	5,130	24	884	54,360
August	239.5	52	0	7.73	475
September	0	0	0	0	0
Water year 1936-37	115,357.7	7,840	0	316	228,800

Cheyenne River near Wasta, S. Dak.

Location.- Chain gage, lat. 44°05', long. 102°24', in sec. 2, T. 1 N., R. 14 E., at bridge on U. S. Highway 16, 3 miles east of Wasta. Zero of gage is about 2,263.4 feet above mean sea level.

Drainage area.- 12,800 square miles.

Records available.- July 1914 to June 1915, August 1928 to June 1932, March 1934 to September 1937.

Extremes.- Maximum discharge observed during year, 20,000 second-feet July 14 (gage height, 8.20 feet); minimum discharge, 12 second-feet Aug. 24, 25 (gage height, 1.20 feet).

1914-15, 1928-32, 1934-37: Maximum discharge observed, 46,300 second-feet May 6, 1932 (gage height, 11.28 feet) from rating curve extended above 26,000 second-feet; minimum discharge, 6 second-feet July 8, 9, 11, 1936; minimum gage height, 0.92 foot July 26, 27, 1931.

Remarks.- Records fair. Discharge for periods of ice effect, Nov. 1-12, Nov. 22 to Mar. 17, Mar. 24 to Apr. 2, computed on basis of five discharge measurements, gage heights, weather records, and records for nearby stations. Gage read once daily below 5.0 feet and twice daily above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	23	59	88	28	66	1,130	66	156	53	123	30
2	23	23	59	86	28	112	2,010	72	149	50	121	30
3	22	23	59	88	28	178	955	362	118	47	300	29
4	22	23	59	88	28	344	1,620	250	107	45	279	29
5	28	23	52	88	28	545	1,400	206	2,840	42	220	24
6	30	23	52	88	28	438	1,400	79	1,400	50	190	37
7	30	23	52	77	28	374	1,260	68	900	60	150	42
8	32	23	52	77	28	316	1,070	66	344	72	120	37
9	39	23	52	77	28	264	955	63	115	84	102	33
10	44	23	52	68	32	218	755	58	152	100	90	38
11	44	23	52	68	32	197	508	58	115	500	77	59
12	42	23	52	68	32	178	374	53	11,300	2,670	63	200
13	39	37	52	68	32	159	284	47	3,200	5,020	42	625
14	32	95	59	68	38	142	174	40	5,020	15,300	36	668
15	28	459	99	59	38	178	167	40	4,500	16,000	31	240
16	23	368	240	59	44	240	136	32	1,480	3,580	29	174
17	27	333	197	59	59	289	129	28	508	3,800	26	133
18	32	316	159	59	68	344	126	28	11,300	3,020	27	121
19	34	255	142	52	59	344	126	31	11,300	2,840	27	99
20	44	210	126	52	52	300	112	27	2,170	1,010	23	95
21	42	178	112	52	52	279	118	37	800	625	20	86
22	32	99	112	52	52	223	110	48	438	356	17	81
23	32	68	112	52	44	197	139	68	227	344	14	77
24	30	68	112	44	44	178	102	28	167	368	12	81
25	28	68	112	44	38	142	54	25	167	260	12	66
26	28	68	112	44	38	126	59	26	99	250	28	77
27	29	59	112	38	38	99	59	24	99	240	109	70
28	28	59	112	32	44	88	52	23	86	197	47	63
29	26	59	112	32	-	77	68	23	63	170	36	59
30	24	59	99	32	-	126	66	156	56	156	36	56
31	26	-	86	32	-	800	-	955	-	118	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	968	44	22	31.2	1,920
November	3,134	459	23	104	6,220
December	2,921	240	52	94.2	5,790
Calendar year 1936	51,237	1,680	6	140	101,600
January	1,893	88	32	61.1	3,750
February	1,088	68	28	38.9	2,160
March	7,563	800	68	244	15,000
April	15,516	2,010	52	517	30,760
May	3,087	955	23	99.6	6,120
June	59,376	11,300	56	1,979	117,800
July	57,427	16,000	42	1,852	113,900
August	2,439	300	12	78.7	4,840
September	3,479	668	24	116	6,900
Water year 1936-37	158,893	16,000	12	435	315,200

Cheyenne River near Eagle Butte, S. Dak.

Location.- Water-stage recorder, lat. 44°42', long. 101°13', in sec. 31, T. 9 N., R. 24 E., at bridge on State Highway 63, 0.5 mile above Hermaphrodite Creek and 21 miles south of Eagle Butte.

Drainage area.- 24,500 square miles.

Records available.- August 1928 to September 1937.

Extremes.- Maximum discharge during year, 64,400 second-feet July 13 (gage height, 11.79 feet) from rating curve extended above 30,000 second-feet; minimum, about 4 second-feet (based on discharge measurement Feb. 21) Feb. 21-25.
1928-37: Maximum discharge observed, 104,000 second-feet May 24, 1933 (gage height, 15.00 feet) from rating curve extended above 30,000 second-feet; minimum discharge, that of Feb. 21-25, 1937.

Remarks.- Records good except those for periods of ice effect, Nov. 3-14, Dec. 2 to Apr. 3 (computed on basis of five discharge measurements, gage heights, weather records, and records for nearby stations), and those for period of incorrect gage heights, Oct. 1-4 (computed on basis of records for nearby stations), which are poor.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	76	162	14	6	23	330	127	764	323	352	174
2	29	45	131	14	6	39	740	131	764	274	332	174
3	25	34	131	14	6	78	1,470	131	594	236	235	184
4	28	34	76	14	6	330	1,140	131	614	201	278	194
5	30	34	58	14	6	740	925	144	393	393	272	179
6	27	34	39	11	6	1,140	1,140	236	470	295	231	162
7	28	34	34	11	6	800	1,470	236	2,810	191	278	649
8	26	34	34	11	6	682	1,740	201	1,840	162	231	869
9	26	39	34	11	6	572	1,470	176	1,300	148	203	744
10	25	44	34	11	8	470	1,060	167	1,140	131	194	461
11	25	44	39	11	17	420	1,220	131	1,220	254	179	323
12	25	44	48	11	23	375	1,650	110	2,410	436	169	278
13	26	48	53	11	26	330	2,120	88	5,540	26,100	189	304
14	27	110	48	11	26	330	1,940	88	3,710	38,900	203	272
15	31	309	44	11	26	420	1,470	76	5,810	32,300	198	352
16	30	393	39	11	26	740	1,060	68	4,190	22,200	189	361
17	31	541	34	11	26	330	800	58	2,810	11,500	184	285
18	33	590	30	11	23	375	562	51	3,470	14,200	174	231
19	34	450	26	11	17	420	384	51	8,460	13,600	174	194
20	39	330	23	e	8	330	295	123	4,690	6,430	184	169
21	44	288	20	8	4	295	260	990	3,030	3,970	179	158
22	45	254	20	8	4	295	225	191	2,220	2,580	174	141
23	46	213	20	e	4	295	181	127	1,650	2,070	174	129
24	49	167	20	8	4	625	172	110	1,140	1,700	158	112
25	52	152	17	8	4	682	152	94	800	1,330	158	100
26	53	127	14	e	6	520	135	84	925	1,000	158	90
27	68	162	14	8	11	375	131	78	925	744	162	83
28	91	148	14	8	17	260	127	74	450	615	194	83
29	84	135	14	e	-	201	127	66	411	515	158	97
30	78	172	14	8	-	176	127	76	366	474	155	102
31	76	-	14	6	-	176	-	68	-	394	169	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,262	91	25	40.7	2,500
November	4,995	541	34	166	9,910
December	1,300	162	14	41.9	2,580
Calendar year 1936	101,057	4,690	14	276	200,400
January	318	14	6	10.3	631
February	334	26	4	11.9	662
March	12,844	1,140	23	414	25,480
April	24,623	2,120	127	821	48,840
May	4,502	990	51	145	8,930
June	64,916	8,460	366	2,164	128,800
July	183,666	38,900	131	5,925	364,300
August	6,338	352	155	204	12,570
September	7,654	869	83	255	15,180
Water year 1936-37	312,752	38,900	4	857	620,400

Rapid Creek at Big Bend, S. Dak.

Location.- Water-stage recorder, lat. 44°04', long. 103°24', in sec. 9, T. 1 N., R. 6 E., at Big Bend.

Drainage area.- 332 square miles.

Records available.- March 1915 to September 1917, April 1932 to September 1937.

Extremes.- Maximum discharge during year, 86 second-feet July 12 (gage height, 1.51 feet); minimum daily discharge, 9.3 second-feet Sept. 3, 30.
1932-37: Maximum discharge, 1,570 second-feet May 24, 1933 (gage height, 5.20 feet); minimum daily discharge, 2.2 second-feet July 25, 1936.

Remarks.- Records good except those for periods of ice effect, Nov. 3, 4, Apr. 8-13, which were computed on basis of one discharge measurement and temperature records and are fair. No records for Dec. 1 to Apr. 7. Flow regulated by power plant 100 feet above station. Several small diversions for irrigation above station. Discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	23					-	28	36	18	15	10
2	13	24					-	29	31	20	14	9.9
3	13	26					-	31	28	21	14	9.3
4	13	18					-	32	26	20	16	9.9
5	14	12					-	31	41	16	14	13
6	16	17					-	30	48	14	13	14
7	16	21					-	29	48	13	12	12
8	17	19					30	29	53	13	10	12
9	16	20					31	27	49	13	10	14
10	16	20					36	26	41	18	9.9	24
11	16	19					36	27	36	18	14	24
12	16	19					36	26	36	56	16	21
13	16	21					39	26	36	68	15	18
14	16	21					38	24	35	55	14	16
15	16	26					36	26	33	43	13	14
16	16	26					36	26	32	39	9.9	13
17	16	25					33	24	32	39	6.6	13
18	14	26					30	22	33	61	9.6	12
19	18	26					27	21	31	58	8.7	11
20	20	25					26	23	28	49	8.7	12
21	20	25					26	23	25	39	8.1	11
22	20	22					27	22	22	33	7.8	10
23	18	20					28	22	20	30	7.2	9.9
24	18	21					26	21	18	29	6.9	10
25	20	19					25	20	20	27	7.2	12
26	20	23					24	19	23	25	6.9	12
27	21	21					24	18	24	24	6.9	12
28	22	21					27	17	22	21	6.9	12
29	21	20					27	17	20	20	6.9	12
30	21	20					28	28	18	18	7.2	9.3
31	21	-					-	34	-	16	9.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	532	22	12	17.2	1,060
November	646	26	12	21.5	1,280
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 8-30	696	39	24	30.3	1,380
May	778	34	17	25.1	1,540
June	945	53	18	31.5	1,870
July	934	68	13	30.1	1,850
August	324.7	16	6.6	10.5	644
September	392.3	24	9.3	13.1	779
Water year					

Belle Fourche River near Belle Fourche, S. Dak.

Location.- Staff gage, lat. 44°41', long. 103°50', in sec. 2, T. 8 N., R. 2 E., at diversion dam of Belle Fourche irrigation project, 1⅛ miles below Belle Fourche.

Drainage area.- 4,310 square miles.

Records available.- May to November 1906, January 1912 to September 1937.

Average discharge.- 26 years (1911-37), 398 second-feet.

Extremes.- Maximum discharge observed during year, 5,350 second-feet July 17; minimum daily discharge, 5 second-feet May 28, 29.
1912-37: Maximum discharge, 22,400 second-feet Apr. 9, 1924; no flow for several days in 1914 and 1919.

Remarks.- Diversions for irrigation above station. Flow regulated by Belle Fourche Reservoir (capacity, 203,770 acre-feet). Records include water diverted at Belle Fourche diversion dam. Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	93	134	139	98	126	160	92	96	47	89	15
2	58	102	132	125	120	126	172	91	86	60	80	16
3	60	105	130	119	131	149	165	92	86	40	72	25
4	62	106	122	165	134	149	167	93	403	139	69	78
5	69	108	127	77	136	151	192	92	821	141	62	94
6	86	109	66	114	131	165	189	74	813	60	38	350
7	72	108	101	124	127	159	177	81	454	120	16	130
8	73	110	123	129	122	156	164	78	765	62	13	122
9	73	112	127	127	107	159	166	77	629	51	12	107
10	95	112	131	141	119	164	164	74	425	897	11	147
11	89	104	137	147	138	157	165	62	338	313	13	99
12	100	113	143	147	138	157	161	51	422	1,170	13	105
13	115	126	130	149	143	154	159	46	1,100	3,920	12	85
14	87	130	147	130	146	149	152	42	682	2,000	11	77
15	90	124	145	141	138	169	149	29	524	2,030	10	81
16	93	132	145	147	145	164	147	21	899	812	10	79
17	104	130	149	147	156	163	147	19	540	2,700	11	71
18	97	128	149	150	154	183	117	10	649	1,650	10	73
19	97	125	149	146	146	173	108	10	322	750	6	74
20	98	122	141	120	149	172	108	6	279	632	6	68
21	93	119	142	105	146	163	103	8	193	692	6	62
22	92	118	141	125	146	167	100	10	171	418	11	98
23	93	113	140	136	154	160	102	12	109	303	11	68
24	105	121	140	144	140	157	102	9	120	227	6	63
25	89	154	137	132	141	164	97	9	123	208	8	44
26	78	119	139	139	127	150	94	8	118	201	6	47
27	88	138	139	139	134	154	93	6	64	189	6	57
28	84	127	142	135	144	163	81	5	83	119	6	73
29	86	136	133	129	-	165	87	5	64	134	8	86
30	87	135	123	119	-	164	95	124	51	113	24	80
31	94	-	67	124	-	160	-	182	-	108	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,663	115	56	85.9	5,280
November	3,579	154	93	119	7,100
December	4,071	149	66	131	8,070
Calendar year 1936	43,940	1,400	2	120	87,140
January	4,111	165	77	133	8,150
February	3,810	156	98	136	7,560
March	4,912	183	126	158	9,740
April	4,083	192	81	136	8,100
May	1,518	182	5	49.0	3,010
June	11,429	1,100	51	381	22,670
July	20,306	3,920	40	655	40,280
August	672	89	6	21.7	1,330
September	2,574	350	15	85.8	5,110
Water year 1936-37	63,728	3,920	5	175	126,400

Belle Fourche River near Elm Springs, S. Dak.

Location.- Chain gage, lat. 44°22', long. 102°33', in lot 1, sec. 29, T. 5 N., R. 13 E., at county highway bridge 6 miles north of Elm Springs.

Drainage area.- 7,210 square miles.

Records available.- August 1928 to June 1932, March 1934 to September 1937.

Extremes.- Maximum discharge during year, 38,600 second-feet July 13 (gage height, 12.3 feet, from floodmark) from rating curve extended above 10,000 second-feet; no flow at times.
1928-32, 1934-37: Maximum discharge and gage height, those of July 13, 1937; no flow on many days in 1936, 1937.
Maximum stage known, 21.8 feet in May 1927.

Remarks.- Records good except those for periods of ice effect, Nov. 4-15, Nov. 29 to Mar. 30, which were computed on basis of three discharge measurements, gage heights, weather records, and records for nearby stations and are poor. Gage read once daily below 5.0 feet and twice daily above.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.7	0	1.2	35	1.6	129	3.0	1,260	5.0	4,660	8.0	15,500
.8	3	1.3	50	1.8	222	3.5	1,940	5.5	5,980	9.0	20,200
.9	8	1.4	69	2.0	338	4.0	2,720	6.0	7,550	10.0	25,300
1.0	13	1.5	95	2.5	698	4.5	3,600	7.0	11.200	11.0	30,800
1.1	21									12.0	36,700

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	42	17	17	0	21	60	27	177	47	79	168
2	0	40	13	17	0	42	63	28	261	41	102	163
3	0	31	13	17	0	82	60	35	119	35	95	168
4	13	28	13	17	0	222	72	32	129	27	90	159
5	11	2e	13	13	0	535	98	27	1,510	21	85	159
6	18	28	10	8	0	467	202	21	2,090	18	65	965
7	15	28	10	6	0	400	394	19	1,510	27	69	698
8	16	28	10	6	0	308	332	18	611	35	65	654
9	18	28	10	2	0	222	501	18	573	47	182	344
10	17	35	13	0	0	150	611	19	350	65	182	296
11	15	35	13	3	0	112	698	21	182	109	182	261
12	16	35	10	13	0	82	1,200	16	202	1,310	182	239
13	18	35	8	8	0	50	654	15	394	34,300	172	159
14	19	35	8	0	0	42	573	13	1,380	17,800	163	112
15	35	69	10	0	0	50	501	15	1,790	5,150	168	77
16	38	129	13	0	0	42	350	15	1,650	2,890	163	60
17	36	95	17	0	0	42	138	13	800	5,410	163	56
18	34	79	21	0	0	50	109	15	3,990	8,220	159	48
19	32	52	21	0	0	60	87	15	2,560	3,600	155	50
20	32	50	21	0	42	60	42	32	611	1,790	146	48
21	35	44	17	0	28	50	38	46	267	1,940	138	46
22	41	38	17	0	28	50	41	24	155	611	138	52
23	47	32	17	0	21	42	38	15	90	467	129	67
24	50	42	17	0	17	42	32	16	79	212	126	77
25	63	40	17	0	17	35	27	21	65	155	122	87
26	54	46	17	0	17	28	19	29	50	122	119	105
27	61	34	21	0	17	28	18	21	61	95	115	112
28	47	25	17	0	17	21	15	15	65	102	109	115
29	44	21	17	0	-	28	21	15	65	90	155	112
30	41	17	13	0	-	278	24	172	61	79	187	119
31	42	-	13	0	-	56	-	119	-	65	177	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	908	63	0	29.3	1,800
November	1,269	129	17	42.3	2,520
December	447	21	.8	14.4	887
Calendar year 1936	33,224.3	1,890	0	90.8	65,900
January	127	17	0	4.1	252
February	204	42	0	7.3	405
March	3,697	535	21	119	7,330
April	7,018	1,200	15	234	13,920
May	907	172	13	29.3	1,800
June	21,847	3,990	50	728	43,330
July	84,880	34,300	18	2,738	168,400
August	4,182	187	65	135	8,290
September	5,776	965	46	193	11,460
Water year 1936-37	131,262	34,300	0	360	260,400

Redwater Creek near Beulah, Wyo.

Location.- Chain gage, lat. 44°33'40", long. 104°04'15", in sec. 29, T. 7 N., R. 60 W., 1½ miles downstream from Beulah.

Drainage area.- 459 square miles.

Records available.- April 1929 to September 1931, February 1936 to July 1937 (discontinued).

Extremes.- Maximum discharge during period, 3,250 second-feet July 17 (gage height, about 11.5 feet from floodmarks), from rating curve extended above 200 second-feet; minimum daily discharge, 7.5 second-feet May 25, 28.
1929-31, 1936-7: Maximum discharge, that of July 17, 1937; no flow Aug. 13-15, 1929.

Remarks.- Records good except those for July 12 and 17, which are fair. Records for periods of ice effect, Jan. 5-10, 15, 20-22, 27-29, 31, computed on basis of weather records. Diversions for irrigation above station. Chain gage read twice daily. Gage-height record and discharge measurements furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	32	36	38	38	37	40	38	34	65		
2	21	32	37	37	38	38	40	39	30	40		
3	21	32	36	38	38	38	40	42	29	56		
4	25	33	36	38	36	37	40	40	28	36		
5	30	36	37	36	36	39	40	39	39	34		
6	30	36	37	36	36	38	40	39	41	35		
7	30	36	37	37	36	38	40	38	38	39		
8	30	36	36	39	36	37	42	35	38	36		
9	30	36	36	40	36	38	41	35	36	35		
10	31	37	36	40	38	37	42	33	37	37		
11	31	37	36	38	38	39	42	30	43	56		
12	32	37	36	38	38	38	43	28	53	425		
13	32	36	36	38	38	38	43	22	65	60		
14	32	37	37	38	38	38	42	21	52	112		
15	32	36	37	38	38	3e	41	21	54	59		
16	32	36	37	38	38	38	41	19	43	60		
17	32	36	37	38	39	38	41	19	40	688		
18	32	36	37	38	38	38	40	17	38	63		
19	32	36	37	38	38	38	40	15	38	45		
20	36	36	37	37	38	38	40	14	38	41		
21	32	36	37	39	39	40	40	14	36	39		
22	32	36	37	38	39	38	40	16	36	39		
23	32	36	37	38	38	38	40	13	36	36		
24	32	36	37	38	38	38	42	10	36	36		
25	32	36	37	38	36	38	40	7.5	41	36		
26	32	36	37	37	37	39	40	8.2	40	37		
27	32	36	37	37	36	39	41	9.4	41	36		
28	32	37	37	38	38	39	40	7.5	40	36		
29	32	36	37	39	-	39	39	11	40	36		
30	32	37	38	38	-	39	38	22	39	36		
31	32	-	37	38	-	40	-	30	-	35		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	961	38	21	31.0	1,910
November	1,071	37	32	35.7	2,120
December	1,139	38	36	36.7	2,260
Calendar year					
January	1,176	40	36	37.9	2,330
February	1,050	39	36	37.5	2,080
March	1,185	40	37	38.2	2,350
April	1,218	43	38	40.6	2,420
May	732.6	42	7.5	23.6	1,450
June	1,199	65	28	40.0	2,380
July	2,424	688	34	78.2	4,810
August	-	-	-	-	-
September	-	-	-	-	-
The period					24,110

Bad River near Fort Pierre, S. Dak.

Location.- Wire-weight gage, lat. 44°19'40", long. 100°23'00", in NW¼ sec. 10, T. 4 N., R. 31 E., at highway bridge 2½ miles south of Fort Pierre. Zero of gage is 1,427.83 feet above mean sea level (general adjustment of 1929).

Drainage area.- 3,107 square miles.

Records available.- August 1928 to June 1932, March 1934 to September 1937.

Extremes.- Maximum discharge observed during year, 13,800 second-feet June 13 (gage height, 21.85 feet, from floodmarks); no flow during long periods.
1928-32, 1934-37: Maximum discharge and gage height, those of June 13, 1937; no flow during long periods.
Maximum stage known, 30.89 feet in 1927 (estimated discharge, 35,000 second-feet).

Remarks.- Records fair except those for periods of ice effect, Nov. 24, 25, Feb. 28 to Mar. 2, Mar. 24-30 (computed on basis of gage heights and weather records), and those for periods of missing gage heights, Feb. 22, Apr. 2, May 12 (computed on basis of flow preceding each period and weather records), which are fair. Gage read once daily below 5.0 feet and twice daily above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0			0	102	126	2.0	39	1.6	5	0.1
2		0			0	442	92	1.4	22	.5	3.1	.1
3		0			0	1,470	58	16	18	.9	4.2	.1
4		0			0	2,020	96	14	49	.8	3.1	0
5		0			0	2,530	266	55	44	.2	2.6	0
6		0			0	2,530	986	25	149	.2	2.4	0
7		0			0	2,220	1,390	10	61	.1	1.7	0
8		0			0	1,560	1,100	7	24	.1	1.4	0
9		0			0	874	910	5	16	.1	1.1	0
10		0			0	470	696	1.6	88	0	1.1	0
11					0	362	662	1.2	126	0	.8	0
12		0			0	234	662	.9	3,810	0	.7	0
13		0			0	194	362	.5	9,580	1,030	.5	0
14		0			0	103	194	.5	6,640	7,380	.2	0
15		0			0	76	133	.4	2,420	2,640	.1	0
16		0			0	203	77	.1	978	2,910	.1	0
17		0			0	184	35	.1	525	1,180	.1	0
18		0			0	158	25	.1	1,700	375	.1	0
19		0			0	149	16	0	2,640	346	.1	0
20		0			0	72	12	0	1,220	824	1.4	0
21		7			0	54	8	0	346	910	1.0	0
22		2.3			50	33	9	0	133	250	10.0	0
23		.5			379	17	5	0	82	116	4.5	0
24		.5			296	12	6	0	49	73	2.6	0
25		.5			194	8	3.0	0	27	50	1.7	0
26		0			126	4.5	2.2	0	19	37	1.3	0
27		0			110	3.0	1.6	0	10	25	1.0	0
28		0			102	3.0	.8	0	6	21	.6	0
29		0			-	3.0	1.4	184	2.6	13	.2	0
30		0			-	8	.8	910	3.3	8	.2	0
31		-			-	22	-	255	-	6	.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	10.8	7	0	.36	21
December	0	0	0	0	0
Calendar year 1936	11,947.8	844	0	32.6	23,700
January	0	0	0	0	0
February	1,257	379	0	44.9	2,490
March	16,120.5	2,530	3.0	520	31,970
April	7,935.8	1,390	.8	265	15,740
May	1,489.8	910	0	48.1	2,950
June	30,826.9	9,580	2.6	1,028	61,140
July	18,198.5	7,380	0	587	36,100
August	53.1	10	.1	1.71	105
September	.3	.1	0	.01	.6
Water year 1936-37	75,892.7	9,580	0	208	150,500

White River at Crawford, Nebr.

Location.- Chain gage, lat. 42°41', long. 103°25', in sec. 9, T. 31 N., R. 52 W., 1 mile southwest of Crawford.

Drainage area.- 295 square miles.

Records available.- July to December 1897, February 1931 to September 1937.

Extremes.- Maximum discharge during year, 81 second-feet Feb. 15 (gage height, 2.32 feet); minimum daily discharge, 7.0 second-feet Aug. 9.
1931-37: Maximum discharge, 1,100 second-feet Sept. 4, 1936 (gage height, 10.82 feet); minimum daily discharge, 3.9 second-feet Aug. 11, 1936.

Remarks.- Records good. Discharge for periods of ice effect, Dec. 7, 15, Jan. 6-10, 15, 20-23, computed on basis of one discharge measurement and weather records. Gage read twice daily. Small diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	19	19	25	24	27	26	23	32	14	8.2	10
2	14	17	23	25	24	29	26	23	24	25	8.0	9.2
3	14	19	14	24	24	28	25	25	22	17	10	28
4	13	25	17	24	24	30	25	24	25	14	9.4	18
5	13	27	20	24	24	30	24	23	27	13	8.4	12
6	17	19	20	25	25	30	24	22	24	12	8.4	13
7	14	16	21	21	28	25	25	25	22	12	8.2	12
8	15	16	22	18	21	27	26	23	21	12	7.8	12
9	14	17	23	22	20	28	25	22	21	11	7.0	12
10	14	21	21	25	22	26	24	22	22	11	7.2	12
11	15	20	22	26	26	26	23	22	21	13	8.0	11
12	15	20	22	24	27	27	24	21	36	14	9.2	11
13	15	20	18	25	30	28	23	22	23	17	9.2	11
14	15	20	22	26	38	24	23	20	22	17	7.6	10
15	15	20	23	23	61	28	23	21	21	13	7.6	11
16	16	20	24	21	31	28	22	20	21	13	7.2	11
17	16	21	24	25	28	27	24	20	21	11	7.4	11
18	16	21	24	24	28	26	23	19	18	11	13	11
19	16	18	24	25	28	26	22	19	17	13	9.0	11
20	16	18	24	23	24	26	23	19	17	11	9.0	13
21	17	19	24	19	20	26	22	27	17	10	8.2	11
22	18	19	22	24	28	26	22	20	16	9.2	7.6	10
23	17	19	25	25	26	26	25	19	16	8.8	8.2	10
24	18	19	24	25	26	*26	23	18	15	8.8	8.4	11
25	17	22	24	24	22	22	22	18	16	8.8	8.8	12
26	17	20	25	24	24	29	22	21	18	8.8	8.6	13
27	17	21	27	24	28	24	22	18	17	9.2	8.0	13
28	17	21	20	24	27	27	26	18	16	8.6	7.6	13
29	17	21	21	24	-	27	26	17	15	8.4	10	14
30	17	20	19	24	-	26	24	31	14	8.0	12	14
31	17	-	26	25	-	28	-	23	-	8.2	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	486	18	13	15.7	964
November	595	27	16	19.8	1,180
December	684	27	14	22.1	1,360
Calendar year 1936	7,745.2	759	3.9	21.2	15,380
January	735	26	18	23.7	1,460
February	758	61	20	27.1	1,500
March	837	30	22	27.0	1,660
April	714	26	22	23.8	1,420
May	665	31	17	21.5	1,320
June	617	36	14	20.6	1,220
July	370.8	25	8.0	12.0	735
August	268.2	13	7.0	8.65	532
September	370.2	28	9.2	12.3	734
Water year 1936-37	7,100.2	61	7.0	19.5	14,080

*Estimated.

White River near Chadron, Nebr.

Location.- Water-stage recorder, lat. 42°50', long. 103°07', in sec. 18, T. 33 N., R. 49 W. 2 miles below mouth of Dead Horse Creek and 6 miles west of Chadron.

Drainage area.- 750 square miles.

Records available.- October 1931 to September 1937.

Extremes.- Maximum discharge during year, 532 second-feet May 30 (gage height, 10.32 feet); no flow Dec. 2-7, Jan. 8-10, July 9, Aug. 21-26.
1931-37: Maximum discharge, 2,350 second-feet Sept. 4, 1936 (gage height, 17.36 feet); no flow on several days during 1932, 1934, and 1937.

Remarks.- Records fair. Records for periods of ice effect, Nov. 5-9, Nov. 29 to Dec. 12, Dec. 16-21, Jan. 14 to Feb. 1, Feb. 6 to Apr. 4, computed on basis of one discharge measurement and weather records. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.9	13	2	17	3	14	44	16	201	0.5	3.5	10
2	1.9	16	0	18	7.2	17	49	16	197	.3	3.5	6.4
3	1.9	14	0	21	7.6	16	48	16	38	6.8	4.2	3.1
4	1.9	5.2	0	30	9.6	23	46	16	34	5.5	5.5	3.1
5	1.9	8	0	26	17	29	45	7.6	108	1.9	7.2	83
6	2.3	10	0	12	20	30	38	4.2	93	.4	8.0	39
7	8.8	6	0	4.5	16	30	26	3.8	32	.3	6.8	10
8	5.8	19	7	0	11	22	15	4.0	16	.1	5.0	10
9	3.5	26	4	0	12	24	10	4.2	14	0	4.8	5.0
10	2.3	37	3	0	17	28	8.4	5.8	13	.3	4.2	3.1
11	1.1	41	2	.8	22	24	6.4	14	10	.3	7.6	2.9
12	.9	34	16	2.5	24	20	5.8	10	336	.4	57	1.9
13	1.1	29	34	4.5	26	17	8.8	5.5	217	14	24	2.1
14	2.9	32	38	6	28	14	10	7.2	44	25	7.6	1.3
15	1.5	143	47	10	28	17	9.6	10	22	56	1.9	1.0
16	1.0	73	36	13	--	24	8.4	6.8	12	22	1.2	.5
17	1.3	58	34	11	32	24	7.2	6.0	6.8	13	2.9	.4
18	2.3	38	36	10	31	23	7.2	5.2	26	8.0	1.7	.4
19	1.3	23	36	12	28	21	6.8	4.8	22	7.2	1.0	.8
20	1.3	13	37	8	23	19	6.4	5.0	6.8	7.2	.6	2.9
21	1.0	13	34	3	17	18	6.0	5.0	5.2	7.2	0	4.2
22	1.3	9.2	36	4	19	14	5.5	4.2	4.2	10	0	4.2
23	2.9	14	38	7	19	12	5.5	3.8	1.9	11	0	3.1
24	3.8	17	40	9	16	10	31	4.0	1.0	11	0	1.3
25	4.0	17	40	14	13	9	32	5.0	.6	11	0	.4
26	4.0	12	39	18	12	9	10	4.0	1.2	13	0	.2
27	5.5	13	30	12	12	10	6.4	3.5	1.5	9.2	1.3	1.1
28	6.8	2.9	32	7	12	14	7.6	3.8	1.0	5.2	3.1	8.0
29	7.2	3.0	28	5	-	20	12	2.1	.9	7.2	6.8	6.8
30	6.4	3.5	40	10	-	34	12	246	.8	4.2	8.0	6.0
31	6.8	-	28	12	-	36	-	308	-	3.8	9.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	97.6	8.8	0.9	3.15	194
November	742.8	143	2.9	24.8	1,470
December	717	47	0	23.1	1,420
Calendar year 1936	5,948.2	1,160	0	16.3	11,790
January	307.3	30	0	9.91	610
February	513.4	32	3	18.3	1,020
March	622	36	9	20.1	1,230
April	534.0	49	5.5	17.8	1,060
May	757.5	308	2.1	24.4	1,500
June	1,466.9	336	.6	48.9	2,910
July	262.0	56	0	8.45	520
August	187.0	57	0	6.03	371
September	222.2	83	.2	7.41	441
Water year 1936-37	6,429.7	336	0	17.6	12,750

White River near Oacoma, S. Dak.

Location.- Water-stage recorder, lat. 43°44', long. 99°28', in NE¼ sec. 17, T. 103 N., R. 72 W., at bridge on State Highway 47, 6 miles southwest of Oacoma.

Drainage area.- 10,200 square miles.

Records available.- August 1928 to September 1937.

Extremes.- Maximum discharge during year, 8,500 second-feet June 19; maximum gage height, 8.68 feet Mar. 6 (ice jam); minimum discharge, 4.8 second-feet Feb. 3-6; minimum gage height, 0.82 foot Aug. 24.

1928-37: Maximum discharge, 15,800 second-feet June 2, 1935, from rating curve extended above 7,500 second-feet; maximum gage height, that of Mar. 6, 1937; minimum discharge, 0.5 second-foot July 21, 23, Aug. 8, 10, 1936; minimum gage height, 0.48 foot Sept. 5, 1935.

Remarks.- Records good except those for periods of ice effect, Dec. 1-17, Dec. 24 to Mar. 10, Mar. 19 to Apr. 1, which were computed on basis of three discharge measurements, gage heights, and weather records and are poor.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	54	132	168	11	1,790	352	146	66	199	74	24
2	9	59	100	150	7	2,270	427	191	100	154	69	19
3	9	57	71	132	4.8	2,800	1,060	293	950	126	76	19
4	13	52	59	116	4.8	3,220	2,710	269	1,200	157	60	19
5	25	41	38	116	4.8	3,940	2,180	233	970	146	44	24
6	38	34	28	100	4.8	2,900	1,640	228	811	110	40	24
7	57	61	22	71	7	2,270	1,490	274	880	80	40	23
8	57	41	15	47	7	1,940	1,270	389	2,440	64	28	18
9	57	30	15	28	11	1,640	2,100	325	1,580	136	19	13
10	41	30	15	15	11	1,440	2,620	274	1,210	199	15	14
11	41	24	15	11	11	1,250	1,630	224	900	157	12	11
12	34	25	15	11	11	1,110	1,310	191	970	116	12	12
13	32	36	15	11	11	1,020	1,090	164	1,330	122	11	13
14	30	41	15	11	11	950	900	150	2,900	246	23	12
15	30	54	15	11	11	2,530	748	136	4,080	1,770	24	13
16	27	71	15	11	11	2,800	590	126	2,020	3,220	19	14
17	27	154	22	11	11	970	481	122	1,600	1,400	19	19
18	24	246	25	11	11	581	427	110	1,120	890	15	18
19	18	526	28	11	15	518	420	110	3,750	615	15	15
20	19	573	38	11	22	447	358	106	4,800	3,830	15	14
21	27	598	39	15	28	382	320	103	2,360	3,220	13	12
22	28	503	49	15	71	352	279	91	1,270	1,920	23	12
23	32	440	64	15	352	352	264	83	775	1,170	13	11
24	36	376	86	15	1,640	382	279	77	511	676	47	12
25	45	376	116	15	1,250	325	216	66	395	454	218	12
26	47	370	150	15	1,020	298	191	49	447	290	143	13
27	38	330	150	15	1,370	352	176	69	496	207	80	12
28	57	250	150	15	1,440	325	161	80	395	146	56	11
29	52	224	150	15	-	325	157	54	330	119	54	10
30	45	168	168	11	-	352	136	61	250	95	45	11
31	49	-	188	11	-	325	-	64	-	80	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,053	57	9	34.0	2,090
November	5,844	598	24	195	11,590
December	2,008	188	15	64.8	3,980
Calendar year 1936	90,335.6	7,210	.5	247	179,200
January	1,210	168	11	39.0	2,400
February	7,369.2	1,640	4.8	263	14,620
March	40,156	3,940	298	1,295	79,650
April	25,982	2,710	136	866	51,530
May	4,858	389	49	157	9,640
June	40,906	4,800	66	1,364	81,140
July	22,114	3,830	64	713	43,860
August	1,358	218	11	43.8	2,690
September	454	24	10	15.1	900
Water year 1936-37	153,312.2	4,800	4.8	420	304,100

Niobrara River at Dunlap, Nebr.

Location.- Water-stage recorder, lat. 42°28', long. 102°56', in sec. 27, T. 29 N., R. 48 W., a quarter of a mile west of Dunlap and three quarters of a mile above Cottonwood Creek. Prior to Nov. 17, 1936, staff gage a quarter of a mile downstream at different datum; records equivalent.

Drainage area.- 1,550 square miles.

Records available.- February 1931 to September 1937.

Extremes.- Maximum discharge during year, 2,890 second-feet Sept. 4 (gage height, 9.80 feet, present datum, from high-water mark), by slope-area method; minimum daily discharge, 6.3 second-feet May 20-22.
1931-37: Maximum discharge, that of Sept. 4, 1937; minimum daily discharge, 0.6 second-foot Aug. 2-4, 1936.

Remarks.- Records fair. Discharge for periods of ice effect, Jan. 1-16 and Feb. 8-10, computed on basis of one discharge measurement and weather records that for periods of missing gage heights, Mar. 26-28, Apr. 17-22, May 4-6, Sept. 26, computed on basis of precipitation records. No diversion or regulation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	28	51	45	53	50	71	23	10	9.0	9.0	9.6
2	19	29	50	40	50	58	76	15	23	8.8	8.8	9.0
3	18	38	49	40	45	57	82	16	21	9.0	8.8	19
4	20	43	49	45	40	58	79	15	31	13	8.6	1,060
5	18	46	48	50	32	64	71	14	28	12	8.2	292
6	19	46	46	45	36	76	69	12	30	12	8.6	172
7	18	46	51	40	40	78	67	10	33	11	9.0	104
8	16	29	53	35	35	74	65	10	32	9.9	9.0	81
9	19	46	54	30	30	77	63	11	30	8.8	9.0	70
10	19	50	58	30	35	82	61	10	30	8.6	9.3	64
11	17	48	60	35	38	94	58	9.3	30	9.0	10	61
12	15	48	61	35	42	88	54	8.6	29	16	11	57
13	14	48	62	40	44	83	51	8.4	28	32	9.0	53
14	15	52	63	39	48	72	50	8.0	24	19	9.3	50
15	14	54	62	35	51	66	51	7.4	21	11	9.0	47
16	19	55	64	40	54	70	47	7.4	19	12	9.3	44
17	20	58	63	49	58	82	50	7.2	16	12	10	43
18	20	55	63	48	58	77	48	6.7	14	11	17	41
19	18	56	62	48	64	72	47	6.4	10	11	14	40
20	19	56	62	36	59	71	45	6.3	9.0	12	11	39
21	19	56	60	38	63	71	42	6.3	9.0	14	9.0	37
22	17	56	58	43	64	71	39	6.3	9.3	15	9.3	37
23	20	54	58	49	62	72	36	6.7	8.8	14	8.8	37
24	22	51	59	57	56	97	34	9.6	9.0	14	8.8	35
25	22	50	60	60	51	122	31	18	9.6	18	9.6	35
26	25	50	60	59	48	105	23	24	9.3	14	8.8	36
27	25	53	58	58	48	90	23	12	9.3	11	9.6	36
28	28	53	57	58	51	75	24	9.0	9.3	9.0	9.9	36
29	28	51	53	56	-	57	25	8.0	9.0	9.3	9.9	36
30	29	51	50	54	-	59	28	8.2	9.0	9.0	9.6	36
31	28	-	49	55	-	66	-	8.0	-	9.0	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	622	29	14	20.1	1,230
November	1,456	58	28	48.5	2,890
December	1,753	64	46	56.5	3,480
Calendar year 1936	13,756.9	123	.6	37.6	27,280
January	1,394	60	30	45.0	2,760
February	1,355	64	30	48.4	2,690
March	2,334	122	50	75.3	4,630
April	1,510	82	23	50.3	3,000
May	327.8	23	6.3	10.6	650
June	559.6	33	8.8	18.7	1,110
July	383.4	32	8.6	12.4	760
August	301.2	17	8.2	9.72	597
September	2,716.6	1,060	9.0	90.6	5,390
Water year 1936-37	14,712.6	1,060	6.3	40.3	29,190

James River near Scotland, S. Dak.

Location.- Water-stage recorder, lat. 43°11'00", long. 97°37'55", in SW¼ sec. 30, T. 97 N., R. 57 W., at county highway bridge 500 feet above Dawson Creek and 5 miles northeast of Scotland.

Drainage area.- 21,550 square miles.

Records available.- September 1928 to September 1937.

Extremes.- Maximum discharge during year, 2,710 second-feet (computed) Aug. 20 (gage height, 10.72 feet, affected by backwater from Dawson Creek);no flow Oct. 11 to Nov.24, Jan. 30 to Feb. 4.
1928-37: Maximum discharge observed, 2,970 second-feet Mar. 31, 1929 (gage height, 11.92 feet); no flow on many days during 1934-37.

Remarks.- Records good except those for period of ice effect, Dec. 1 to Mar. 12 (computed on basis of three discharge measurements, gage heights, and weather records), those for periods when stage-discharge relation was affected by backwater from Dawson Creek, June 26-28, Aug. 18-21 (computed on basis of records for periods during which similar conditions prevailed and discharge measurements were made), and those for periods when stage-discharge relation was affected by beaver dam on control, July 30, 31, Sept. 22-24, 26-30 (computed on basis of effective gage-height graph), all of which are poor.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

(Shifting-control method used Oct. 1-9, June 26-28, July 30, 31, Aug. 18-21, Sept. 21-24, 26-30)

0.5	0	.9	4.7	1.4	32	2.5	168	6.0	940	10.1	2,710
.6	.2	1.0	7.9	1.6	50	3.0	267	7.0	1,240		
.7	.9	1.1	12.2	1.8	70	4.0	477	8.0	1,600		
.8	2.4	1.2	18	2.0	93	5.0	690	9.0	2,070		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	0	5	6	0	10	362	646	81	158	11.3	16
2	1.2	0	5	4	0	15	340	561	68	112	11.3	13.9
3	1.0	0	5	2	0	24	320	540	68	79	11.8	16
4	.8	0	4	2	0	45	330	508	56	61	11.8	18
5	.8	0	4	2	1	65	309	519	50	49	11.3	16
6	.7	0	4	2	1	106	278	519	58	36	11.3	14.5
7	.3	0	4	2	1	152	265	498	62	30	11.3	11.8
8	.1	0	4	2	1	236	256	477	53	23	10.0	11.3
9	.1	0	4	2	1	351	246	456	54	18	8.3	11.8
10	.1	0	4	2	1	446	242	404	43	16	6.9	10.9
11	0	0	5	2	2	561	221	351	37	12.2	6.3	10.0
12	0	0	8	2	4	646	229	351	38	10.9	5.3	11.3
13	0	0	8	2	6	738	278	340	50	10.9	4.7	8.8
14	0	0	8	2	10	810	309	288	166	11.8	3.8	7.3
15	0	0	8	2	10	914	424	267	107	14.5	3.3	5.7
16	0	0	8	2	10	996	540	267	81	19	4.0	7.9
17	0	0	8	2	10	996	668	252	66	21	4.5	15
18	0	0	8	1	18	1,020	810	229	53	23	1,770	22
19	0	0	8	1	93	1,110	940	200	53	20	1,920	26
20	0	0	10	1	320	1,110	1,020	183	63	19	2,460	24
21	0	0	10	1	225	1,020	1,110	180	73	23	1,400	24
22	0	0	10	1	144	968	1,170	168	79	16	488	18
23	0	0	8	1	93	888	1,170	139	60	10.9	123	12
24	0	0	8	1	50	810	1,240	113	54	7.3	76	7
25	0	8.3	8	1	24	738	1,240	114	125	6.9	51	6.3
26	0	9.6	8	1	15	646	1,110	98	1,150	7.9	43	7
27	0	7.3	8	1	12	561	940	116	1,450	13.9	30	7
28	0	6.9	10	1	10	488	836	101	960	17	24	7
29	0	6.9	10	1	-	414	762	82	540	28	23	6
30	0	6.0	10	0	-	372	714	78	278	28	23	5
31	0	-	10	0	-	362	-	81	-	12	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7.1	2.0	0	0.23	14
November	45.0	9.6	0	1.50	89
December	222	10	4	7.2	440
Calendar year 1936	27,634.4	2,080	0	75.5	54,820
January	52	6	0	1.7	103
February	1,062	320	0	37.9	2,110
March	17,618	1,110	10	568	34,940
April	18,679	1,240	221	623	37,050
May	9,126	646	78	294	18,100
June	6,076	1,450	37	203	12,050
July	915.2	158	6.9	29.5	1,820
August	8,588.2	2,460	3.3	277	17,030
September	377.5	26	5	12.6	749
Water year 1936-37	62,768.0	2,460	0	172	124,500

Big Sioux River at Akron, Iowa

Location.- Water-stage recorder, lat. 42°50', long. 96°33', in sec. 31, T. 93 N., R. 48 W., 300 feet below county highway bridge at Akron. Zero of gage is 1,118.90 feet above mean sea level (general adjustment of 1929).

Drainage area.- 8,851 square miles.

Records available.- October 1928 to September 1937.

Extremes.- Maximum discharge during year, 5,760 second-feet May 26 (gage height, 13.14 feet); minimum discharge, about 13 second-feet Feb. 13-17; minimum gage height, 0.75 foot Dec. 4.

1928-37: Maximum discharge, 14,000 second-feet Mar. 15, 1929; maximum gage height, 18.63 feet Mar. 15, 1929, Mar. 12, 1936; minimum discharge, 7 second-feet Feb. 26-28, 1936.

Remarks.- Records excellent except those for period of ice effect, Dec. 6 to Mar. 12, which were computed on basis of four discharge measurements, gage heights, and weather records and are fair.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	107	101	66	44	21	158	564	2,100	1,860	803	170	102
2	106	115	75	44	21	240	624	2,200	1,500	675	253	96
3	101	91	70	44	21	404	654	2,700	1,100	585	392	91
4	100	79	65	44	21	748	992	2,350	924	527	405	89
5	96	79	78	44	21	2,070	1,110	2,910	803	485	444	85
6	96	77	74	44	21	2,960	954	3,090	738	431	310	86
7	92	59	74	44	17	3,580	918	2,850	690	405	233	86
8	88	84	74	44	17	4,360	1,180	2,550	820	380	193	110
9	86	75	68	39	17	5,000	2,500	2,350	996	356	183	107
10	84	81	68	39	17	5,100	3,090	2,100	837	332	178	109
11	81	81	68	39	17	3,720	3,390	1,770	690	299	176	127
12	79	84	68	39	17	2,780	3,810	1,500	660	284	172	163
13	75	84	68	34	13	2,270	4,380	1,290	1,500	277	168	118
14	70	81	68	34	13	1,830	4,880	1,140	2,100	264	166	102
15	69	79	68	34	13	1,520	4,790	1,100	1,370	299	164	86
16	68	77	68	34	13	1,390	4,880	1,070	1,180	332	161	78
17	66	77	61	29	13	1,350	4,540	960	1,220	310	168	71
18	68	73	61	29	17	1,270	4,150	854	960	356	469	70
19	68	73	61	29	21	1,150	4,010	786	1,330	392	1,430	60
20	66	75	61	29	44	992	4,080	722	1,140	321	392	57
21	65	73	61	29	88	954	4,080	690	871	273	310	51
22	63	70	55	25	158	882	3,810	645	837	249	233	47
23	61	72	55	25	240	848	3,150	615	803	260	176	46
24	58	75	55	25	356	918	2,450	585	786	281	146	61
25	59	53	55	25	332	882	2,000	3,480	690	472	130	53
26	54	73	55	25	274	654	1,770	5,550	645	310	154	60
27	53	74	50	25	218	624	1,540	3,770	871	299	113	72
28	59	81	50	25	177	684	1,410	3,250	1,070	231	105	71
29	72	72	50	25	-	624	1,410	2,090	1,180	200	104	65
30	70	65	50	25	-	564	1,680	1,330	996	189	102	67
31	74	-	44	21	-	536	-	2,150	-	178	105	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,356	107	53	76.0	0.0086	0.01	4,670
November	2,333	115	53	77.8	.0088	.01	4,630
December	1,944	78	44	62.7	.0071	.008	3,860
Calendar year 1936	260,477	13,300	7	712	.080	1.10	516,700
January	1,035	44	21	33.4	.0038	.004	2,050
February	2,218	356	13	79.2	.0089	.01	4,400
March	51,062	5,100	158	1,647	.186	.21	101,300
April	78,796	4,880	564	2,627	.297	.33	156,300
May	61,047	5,550	565	1,969	.222	.26	121,100
June	31,167	2,100	645	1,039	.117	.13	61,820
July	11,055	803	178	357	.040	.05	21,930
August	7,905	1,430	102	255	.029	.03	15,680
September	2,486	163	46	82.9	.0094	.01	4,930
Water year 1936-37	253,404	5,550	13	694	.078	1.06	502,700

Floyd River at James, Iowa

Location.- Wire gage, lat. 42°35', long. 96°18', in NW¼NW¼ sec. 32, T. 90 N., R. 46 W., at highway bridge at James.

Drainage area.- 918 square miles.

Records available.- December 1934 to September 1937.

Extremes.- Maximum discharge observed during year, 3,160 second-feet May 27 (gage height, 18.91 feet); minimum discharge, 3 second-feet (computed) Dec. 6, 7, Jan. 14 to Feb. 10; minimum gage height observed, 5.19 feet Oct. 27.
1934-37: Maximum discharge observed, that of May 27, 1937; maximum gage height observed, 18.10 feet Mar. 10, 1936 (ice jam); minimum discharge observed, 1 second-foot Aug. 20, 27, 1936; minimum gage height observed, 4.74 feet June 12, 1935.

Remarks.- Records fair except those for period of ice effect, Dec. 1 to Mar. 4, which were computed on basis of three discharge measurements, gage heights, weather records, and observer's notes and are poor. Gage read once daily, oftener during periods of high water. Discharge Mar. 5-12, Aug. 18-23 determined from graphs based on gage readings.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*30	20	12	7	3	15	79	309	864	126	7	110
2	*32	18	10	7	3	40	79	269	632	118	6	98
3	*35	18	7	6	3	100	79	232	508	102	6	70
4	*35	17	5	6	3	400	151	196	352	102	†70	57
5	*40	16	4	6	3	1,390	134	187	296	90	133	54
6	*80	14	3	6	3	1,600	91	178	340	87	98	51
7	*150	14	3	5	3	1,600	91	126	727	73	70	48
8	35	14	4	5	3	1,440	85	104	388	70	60	51
9	33	14	5	4	3	629	73	91	274	63	48	57
10	35	14	5	4	3	319	73	79	243	57	43	54
11	31	14	‡5	4	4	232	73	73	196	49	34	51
12	†24	15	6	4	4	196	73	68	187	42	205	169
13	17	15	8	4	4	160	68	68	178	49	98	124
14	15	15	10	3	4	111	68	63	178	70	54	82
15	15	15	11	3	4	118	60	54	598	57	51	64
16	15	14	11	3	4	111	58	54	598	57	40	54
17	14	14	11	3	5	111	58	52	285	632	38	48
18	14	14	11	3	8	97	60	48	243	864	178	43
19	14	13	10	3	16	97	60	42	307	466	727	40
20	14	13	10	3	11	63	60	46	329	223	1,420	40
21	13	13	10	3	10	91	60	44	263	196	1,740	38
22	12	13	10	‡3	9	85	58	38	253	124	480	34
23	13	13	10	3	‡9	85	58	35	187	43	263	28
24	14	12	11	3	9	85	56	34	187	32	233	115
25	16	13	12	3	9	85	56	36	169	38	142	67
26	15	†13	12	3	9	79	56	1,380	160	82	205	34
27	10	13	11	3	9	79	85	2,930	151	70	169	34
28	13	13	11	3	10	79	73	2,400	134	64	160	32
29	13	13	11	3	-	79	79	1,990	134	57	151	30
30	13	13	10	3	-	79	169	650	134	51	115	28
31	15	-	8	3	-	79	-	536	-	22	124	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
October	825	150	10	26.6	0.029	0.03
November	430	20	12	14.3	.016	.02
December	267	12	3	8.61	.0094	.01
Calendar year 1936	39,421	2,560	1	108	.118	1.60
January	122	7	3	3.94	.0043	.005
February	168	16	3	6.00	.0065	.007
March	9,734	1,600	15	314	.342	.39
April	2,323	169	56	77.4	.084	.09
May	12,412	2,930	34	400	.436	.50
June	9,495	864	134	316	.344	.38
July	4,176	864	22	135	.147	.17
August	7,166	1,740	6	231	.252	.29
September	1,805	169	28	60.2	.066	.07
Water year 1936-37	48,925	2,930	3	134	.146	1.96

*Estimated.
†Interpolated.
‡Discharge measurement.

Little Sioux River at Spencer, Iowa

Location.- Wire gage, lat. 43°08', long. 95°08', in sec. 18, T. 96 N., R. 36 W., at bridge on U. S. Highways 18 and 71 at Spencer, about three-quarters of a mile below mouth of Ocheydan River.

Drainage area.- 1,030 square miles.

Records available.- April 1936 to September 1937.

Extremes.- Maximum discharge observed during period of record, 2,560 second-feet June 14, 1937 (gage height, 13.96 feet), from rating curve extended above 1,510 second-feet on basis of velocity-area studies; minimum discharge observed, 4.7 second-feet Jan. 23 (discharge measurement); minimum gage height observed, 4.14 feet Feb. 7, 16.

A stage of 15.8 feet, from floodmarks, occurred in the spring of 1936 (discharge, about 3,650 second-feet).

Remarks.- Records fair except those for periods of ice effect, Nov. 11, 12, Nov. 27 to Mar. 4 (computed on basis of four discharge measurements, gage heights, weather records, and records for station at Correctionville) and those for periods of missing gage heights, which are poor. Discharge Mar. 5, 7, 8, June 13-17 determined from graphs based on gage readings. Gage read once daily.

Rating tables, April 1936 to September 1937 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Sept. 17-30, 1937)

Apr. 17, 1936, to Mar. 6, 1937		Mar. 7, 1937, to Sept. 30, 1937	
4.1	4.8	4.2	8.6
4.2	8.0	4.3	13.2
4.3	12.6	4.5	27
4.4	18.0	4.7	46
4.6	32	5.0	79
4.8	49	5.3	118
5.0	70	5.6	159
5.3	104	6.0	218
5.6	140	6.5	298
6.0	192	7.0	386
6.5	266	8.0	580
7.0	357	9.0	815
8.0	569	10.0	1,060
9.0	815	12.0	1,670
10.0	1,060	14.0	2,560
12.0	1,670		
14.0	2,560		

Discharge, in second-feet, 1935-37

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	153	192	29	8.0	36
2							-	172	166	26	7.7	28
3							-	166	146	24	8.9	23
4							-	140	128	*22	8.5	*26
5							-	128	116	20	7.4	29
6							-	116	146	17.5	7.7	47
7							-	122	134	15.3	7.4	263
8							-	134	122	12.6	7.0	172
9							-	206	250	*14	7.0	*110
10							-	235	192	15.8	7.0	49
11							-	235	146	13.1	6.7	43
12							-	206	128	11.7	6.4	39
13							-	206	92	12.1	8.9	32
14							-	192	81	10.8	9.8	32
15							-	172	68	10.8	8.9	34
16							-	146	69	10.3	7.4	42
17							206	*131	56	9.4	7.7	*43
18							179	116	51	8.5	6.9	44
19							160	110	48	7.4	8.0	45
20							146	110	43	8.9	*8.0	48
21							134	116	44	14.8	8.0	42
22							128	116	45	14.2	7.7	34
23							122	377	42	*11	7.7	31
24							110	569	38	7.4	7.4	31
25							104	417	33	6.5	7.7	30
26							98	377	*34	8.0	*10	31
27							92	338	34	7.7	38	31
28							92	301	30	8.5	60	30
29							92	250	32	9.8	70	28
30							98	220	31	*9.4	60	*28
31							-	*206	-	8.9	43	-

*Interpolated or computed on basis of records for station at Correctionville.

Discharge, in second-feet, of Little Sioux River at Spencer, Iowa, 1935-37--Continued

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	38	9	10	5	10	940	461	442	138	*60	105
2	26	44	9	9	5	50	715	386	298	124	46	*84
3	25	*35	8	8	5	200	423	480	233	112	36	75
4	28	*30	8	7	5	700	404	461	203	105	34	66
5	38	*27	8	7	5	1,530	350	368	218	89	33	68
6	38	*25	7	7	5	1,640	640	315	*250	83	32	62
7	32	*24	7	6	5	1,740	765	265	188	77	54	57
8	30	*23	7	6	5	1,060	500	233	173	68	92	55
9	28	*23	7	5	5	404	404	*200	145	63	60	51
10	28	*25	†7.3	5	5	560	315	180	138	60	38	78
11	27	†26	7	6	5	368	*270	159	118	*58	47	59
12	28	28	7	6	5	350	249	152	112	55	78	64
13	30	22	8	6	5	281	233	138	915	51	46	54
14	*29	24	8	5	5	*220	218	131	2,410	203	44	51
15	28	25	9	5	5	180	188	124	2,220	350	*50	46
16	29	24	9	5	5	92	188	124	1,560	218	152	41
17	30	26	10	5	6	180	173	112	404	138	*140	40
18	29	27	10	5	9	166	159	112	233	*150	315	38
19	28	28	11	5	6	166	*150	98	218	98	815	45
20	26	27	10	5	6	152	*170	118	480	89	*350	46
21	*28	*25	9	5	6	*130	145	118	500	78	218	*40
22	30	27	8	5	5	124	131	98	368	67	152	*37
23	34	28	8	†4.7	5	124	124	87	281	58	118	*35
24	27	28	9	6	†5.2	131	145	75	233	53	98	*60
25	28	27	10	7	5	249	218	315	203	*60	84	*40
26	27	*20	12	7	5	180	218	865	218	46	112	36
27	28	22	10	6	5	166	249	940	*230	45	203	36
28	*30	15	9	6	5	152	298	423	188	44	203	46
29	31	11	13	6	-	233	298	332	173	42	*110	45
30	32	10	20	6	-	461	350	*450	159	42	92	45
31	36	-	13	6	-	600	-	665	-	41	92	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
April 17-30, 1936	1,761	206	92	126	0.122	0.06
May	6,483	569	110	209	.203	.23
June	2,737	250	30	91.2	.089	.10
July	407.4	29	7.4	13.1	.013	.01
August	476.8	70	6.4	15.4	.015	.02
September	1,521	283	23	50.7	.049	.05
Water year						
October 1936	915	38	25	29.5	0.029	0.03
November	764	44	10	25.5	.025	.03
December	287.3	20	7	9.27	.0090	.01
Calendar year						
January 1937	187.7	10	†4.7	6.05	.0059	.007
February	148.2	9	5	5.29	.0051	.005
March	12,599	1,740	10	406	.394	.45
April	9,630	940	124	321	.312	.35
May	8,985	940	75	290	.282	.33
June	13,511	2,410	112	450	.437	.49
July	2,905	350	41	93.7	.091	.10
August	4,004	815	32	129	.125	.14
September	1,605	105	35	53.5	.052	.06
Water year 1936-37	55,541.2	2,410	†4.7	152	.148	2.00

*Interpolated or computed on basis of records for station at Correctionville.
†Discharge measurement.

Little Sioux River at Correctionville, Iowa

Location.- Chain gage, lat. 42°29', long. 95°47', in SW¼ sec. 34, T. 89 N., R. 42 W., at bridge on U. S. Highway 20, 1,000 feet above Bacon Creek and half a mile west of Correctionville.

Drainage area.- 2,450 square miles.

Records available.- May 1918 to July 1925; October 1928 to July 1932; June 1936 to September 1937.

Extremes.- Maximum discharge observed during June 1936 to September 1937, 7,610 second-feet June 19, 1937 (gage height, 16.38 feet), from rating curve extended above 2,600 second-feet on basis of velocity-area studies; minimum observed, 2.6 second-feet July 17, 25, 1936 (gage height, 2.14 feet), caused by construction dam above gage.
1918-25, 1928-32, 1936-37: Maximum discharge, 20,700 second-feet (estimated), June 12, 1919* (gage height, 19.57 feet, former site and datum); minimum observed, that of July 17, 25, 1936.

Remarks.- Records fair except those for period of ice effect, Dec. 1 to Mar. 5, which were computed on basis of three discharge measurements, gage heights, observer's notes, and weather records and are poor. Some regulation during July and August 1936 incidental to construction of highway bridge half a mile above gage. Gage read once daily—more often during periods of high water. Discharge May 25 to June 2, June 17-23, Aug. 18-21 computed from graphs based on gage readings.

Rating tables, June 1936 to September 1937 except period of ice effect (gage height, in feet, and discharge, in second-feet)

June 15, 1936, to May 25, 1937		May 26, 1937, to Aug. 19, 1937		Aug. 20, 1937, to Sept. 30, 1937	
2.1	2.0	3.5	117	4.0	100
2.2	3.5	3.7	148	4.2	136
2.3	10	3.9	183	4.4	180
2.4	18	4.2	241	4.6	228
2.6	37	4.6	329	4.8	277
2.8	58	5.0	425	5.0	328
3.0	81	5.5	555	5.3	408
3.3	120	6.0	692	5.6	491
3.6	172	7.0	995	5.9	577
3.9	237	8.0	1,350	6.2	666
4.2	312	9.0	1,750	6.6	793
4.6	422	10.0	2,180	7.0	930
5.0	541	11.0	2,660	7.5	1,100
5.5	701	13.0	3,910	8.0	1,310
6.0	868	15.0	5,740	9.0	1,730
7.0	1,230	17.0	8,620	10.0	2,180
8.0	1,610			11.0	2,180
10.0	2,470			13.0	3,910
12.0	3,480			15.0	5,740
				17.0	8,620

Discharge, in second-feet, 1935-37

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									-	106	33	237
2									-	100	29	192
3									-	93	28	128
4									-	87	25	93
5									-	79	22	214
6									-	81	76	113
7									-	74	18	81
8									-	69	20	74
9									-	61	22	286
10									-	56	23	214
11									-	60	24	734
12									-	54	22	451
13									-	54	23	451
14									-	47	22	237
15									339	44	19	153
16									312	44	22	120
17									274	2.6	22	113
18									237	22	22	144
19									214	37	25	120
20									203	3.2	144	182
21									182	62	172	182
22									162	24	261	136
23									153	100	56	106
24									153	24	30	93
25									144	2.6	16	81
26									136	31	18	74
27									136	43	18	67
28									120	37	422	56
29									113	29	834	60
30									106	34	610	55
31									-	31	386	-

*Published erroneously as Mar. 12, 1919, in Water-Supply Papers 686, 701, 716 and 731.

Discharge, in second-feet, of Little Sioux River at Correctionville, Iowa, 1935-37--Continued

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	56	25	27	13	100	868	1,010	2,940	664	1,100	408
2	54	81	20	24	13	250	1,650	1,010	2,040	582	555	354
3	51	56	30	22	14	750	1,450	972	1,910	555	720	328
4	47	43	24	20	14	1,500	1,420	1,150	1,830	502	582	277
5	49	69	25	18	14	2,500	1,450	1,080	1,590	450	400	228
6	48	64	25	17	14	2,660	1,300	1,010	1,240	400	262	204
7	668	47	30	16	14	2,470	1,260	1,010	1,140	376	148	216
8	203	49	32	16	14	2,560	1,120	937	995	352	132	204
9	113	50	31	15	14	2,520	1,040	767	900	329	502	315
10	81	51	*31	14	14	2,960	1,080	668	778	306	400	216
11	71	62	30	14	15	2,470	1,120	604	692	284	636	180
12	62	60	30	14	15	2,110	902	510	636	262	528	192
13	56	56	30	13	16	1,340	834	451	582	241	550	180
14	51	54	28	13	16	1,040	701	422	609	221	376	192
15	49	56	28	12	17	868	636	394	995	284	306	180
16	47	54	28	12	17	734	572	366	1,140	273	221	168
17	45	54	25	12	17	636	541	366	1,590	329	1,280	157
18	39	54	25	12	18	572	480	312	2,720	400	963	157
19	43	54	25	12	150	541	422	286	6,320	400	5,180	132
20	41	54	25	12	100	510	451	286	4,390	376	6,320	136
21	39	51	26	12	90	451	422	286	3,620	306	2,000	121
22	37	47	25	*13	95	440	400	274	2,510	262	1,350	157
23	37	43	25	13	*95	450	380	261	1,670	241	1,270	157
24	35	25	25	13	90	541	451	237	1,390	231	965	180
25	41	10	26	13	90	636	422	500	1,100	212	697	121
26	41	39	31	13	90	572	422	2,500	1,060	192	1,510	128
27	41	37	30	13	85	394	510	3,110	900	202	930	100
28	41	41	30	13	80	541	668	2,660	808	241	636	107
29	39	25	33	13	-	572	800	2,090	778	221	548	121
30	41	6	40	13	-	480	972	2,610	720	252	519	128
31	51	-	30	13	-	572	-	4,930	-	231	463	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
June 15-30, 1936	2,984	339	106	186	0.076	0.05
July	1,591.4	106	2.6	51.3	.021	.02
August	3,344	834	16	108	.044	.05
September	5,247	734	55	175	.071	.08
Water year						
October 1936	2,315	668	35	74.7	0.030	0.03
November	1,448	81	6	48.3	.020	.02
December	868	40	20	28.0	.011	.01
Calendar year						
January 1937	457	27	12	14.7	.0060	.007
February	1,234	150	13	44.1	.018	.02
March	34,740	2,960	100	1,121	.458	.53
April	24,744	1,650	380	825	.337	.38
May	33,069	4,930	237	1,067	.436	.50
June	49,593	6,320	582	1,653	.675	.75
July	10,177	664	192	328	.134	.15
August	32,049	6,320	132	1,034	.422	.49
September	5,744	408	100	191	.078	.09
Water year 1936-37	196,438	6,320	6	538	.220	2.98

*Discharge measurement.

Spirit Lake at Orleans, Iowa

Location.- Float gage in pipe well, lat. 43°27', long. 95°06', in sec. 27, T. 100 N., R. 36 W., at State fish hatchery at Orleans. Zero of gage is at elevation 90.00 feet (Iowa Lake Survey datum).

Records available.- May 1933 to September 1937.

Extremes.- Maximum gage height observed during year, 98.42 feet June 28; minimum observed, 97.01 feet Oct. 14, 16.
1933-37: Maximum gage height observed, 99.88 feet May 20, 1933; minimum observed, 96.75 feet Oct. 20, 1935.

Remarks.- Daily gage heights subject to fluctuation caused by direction and velocity of wind. No gage readings on days of missing record. There has been no discharge from lake for several years.

Gage height, in feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-						-	7.80	8.12	8.34	-	8.16
2	-						-	-	-	-	8.00	8.16
3	-						-	-	8.13	8.36	8.01	8.16
4	7.12						-	7.80	-	-	7.96	8.16
5	7.14						-	-	8.15	-	7.93	-
6	-						-	7.83	-	8.29	7.93	8.05
7	-						-	-	8.17	-	7.91	8.06
8	-						-	7.79	-	-	-	-
9	-						-	7.80	8.09	-	7.91	8.04
10	7.04						-	7.78	8.08	8.19	7.87	8.17
11	-						-	-	-	-	7.98	8.07
12	7.05						-	-	8.08	8.17	7.90	-
13	-						-	-	8.30	-	7.93	8.03
14	7.01						7.60	7.76	-	8.31	7.89	8.03
15	-						-	-	-	8.29	-	7.99
16	7.01						7.58	-	-	-	7.84	7.96
17	-						-	7.79	8.36	8.22	8.19	7.97
18	-						7.65	-	-	-	8.22	-
19	-						-	7.82	8.37	-	-	7.91
20	-						-	-	-	8.20	8.24	7.80
21	-						-	-	8.40	-	8.22	7.86
22	-						-	7.79	-	-	8.18	-
23	-						-	-	8.38	8.15	8.15	-
24	-						7.70	7.79	8.38	8.13	8.10	7.93
25	-						7.73	7.98	-	-	8.10	7.90
26	-						-	8.01	8.42	8.08	-	7.87
27	-						7.76	7.99	-	-	8.18	7.93
28	-						-	8.01	8.38	8.04	8.16	7.89
29	-						7.78	7.97	-	8.00	8.14	7.88
30	-						-	-	8.37	-	8.22	7.88
31	-						-	-	-	7.97	8.18	-

Okoboji Lake at Arnolds Park, Iowa

Location.- Staff gage, lat. 43°22', long. 95°8', in sec. 24, T. 99 N., R. 36 W., at State Pier in Arnolds Park. Zero of gage is at elevation 94.51 feet (Iowa Lake Survey datum).

Records available.- May 1933 to September 1937.

Extremes.- Maximum gage height observed during year, 4.34 feet Aug. 21, 27; minimum observed, 1.78 feet Dec. 24.
1933-37: Maximum gage height observed, that of Aug. 21, 27, 1937; minimum observed, 1.38 feet Nov. 17, 19, 24, 25, 1934, Jan. 27, 1935.

Remarks.- Gage heights subject to fluctuation caused by direction and velocity of wind. No gage readings during periods of missing record.

Gage height, in feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	-	-	2.56	3.14	-	-	-	4.30
2	-	-	-	-	-	-	-	-	-	-	3.90	-
3	-	-	-	-	-	-	-	-	-	4.22	-	4.28
4	-	1.90	-	1.90	-	-	-	3.22	3.70	-	-	-
5	-	-	-	-	-	-	-	-	-	4.20	3.90	-
6	-	-	-	-	1.90	2.10	-	3.25	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	3.88	4.20
8	2.20	-	-	-	-	-	-	3.30	-	4.14	-	-
9	-	-	1.80	-	-	-	-	-	-	4.11	-	-
10	-	-	-	-	-	-	-	-	3.72	4.08	-	-
11	-	-	-	-	-	-	-	-	3.70	-	-	-
12	-	-	-	-	-	-	-	-	-	4.08	3.86	-
13	-	-	-	-	-	-	-	-	4.06	-	3.84	-
14	-	-	-	-	-	-	2.90	3.26	-	-	3.82	-
15	2.10	-	1.80	1.92	-	-	-	-	-	-	-	-
16	-	1.96	-	-	-	2.20	-	-	4.20	-	-	4.02
17	-	-	-	-	1.92	-	-	-	-	4.10	4.26	4.02
18	-	-	-	1.92	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	4.10	-	-
20	-	-	-	-	-	2.22	2.92	-	-	-	-	-
21	-	-	-	-	-	-	-	-	-	4.08	4.34	3.92
22	-	-	-	-	-	-	2.92	-	-	-	4.30	-
23	-	-	-	-	-	-	-	3.32	4.24	-	-	3.90
24	-	-	1.78	-	-	-	-	-	-	4.04	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	3.98	-	-
27	1.90	1.80	-	-	1.92	-	-	-	-	-	4.34	-
28	-	-	-	-	-	-	-	-	4.28	3.96	-	-
29	-	1.80	-	1.92	-	-	-	3.53	-	3.90	4.30	-
30	-	1.80	-	-	-	-	-	3.54	4.26	-	-	-
31	1.94	-	-	-	-	-	-	-	-	3.90	-	-

Grizzly Creek near Walden, Colo.

Location.- Water-stage recorder, lat. 40°38', long. 106°23', in sec. 29, T. 8 N., R. 80 W., half a mile above junction with Little Grizzly Creek and 10 miles south of Walden.

Drainage area.- 229 square miles.

Records available.- May 1904 to October 1905, May to September 1923, October 1926 to September 1930, October 1933 to September 1937 in reports of Geological Survey; May 1904 to October 1905, May to September 1923, October 1926 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 320 second-feet May 8 (gage height, 3.07 feet); minimum daily discharge, 1.6 second-feet Sept. 26.
1904-5, 1923, 1926-37: Maximum discharge, 1,340 second-feet June 10, 1923 (gage height, 4.8 feet); no flow June 20 to Nov. 12, 1934.

Remarks.- Records fair. Discharge for Oct. 26, 27, Nov. 3-30, Apr. 1-28, June 16-21, 25-28, 30, July 1, 3-5 computed on basis of three discharge measurements and records for North Platte River near Walden. No record Dec. 1 to Mar. 31. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	14					19	103	258	21	23	9.8
2	11	16					22	103	190	18	20	9.0
3	11	15					21	124	190	16	18	8.2
4	11	14					20	147	210	13	17	7.4
5	11	13					19	207	256	12	15	7.1
6	11	14					21	262	183	9.8	14	7.1
7	11	14					20	252	134	9.8	13	6.4
8	11	13					20	258	106	9.8	12	6.4
9	11	13					19	260	91	9.0	9.8	6.4
10	11	13					20	228	85	8.5	9.0	5.0
11	10	13					26	214	72	8.2	7.8	4.4
12	10	13					64	189	54	9.0	7.4	3.8
13	10	13					100	169	48	20	6.8	3.2
14	9.2	12					150	172	45	26	6.0	2.9
15	9.6	13					210	166	41	29	5.7	2.6
16	10	12					210	183	43	30	6.0	2.6
17	10	12					205	166	37	26	7.8	2.9
18	11	12					195	152	30	22	17	2.9
19	11	11					190	133	24	18	25	2.9
20	11	10					195	131	19	15	20	3.2
21	12	10					199	117	16	13	15	2.9
22	12	10					210	104	14	10	13	2.3
23	13	10					205	100	18	8.5	9.8	3.5
24	14	10					200	111	18	15	9.0	3.2
25	12	11					190	91	17	13	8.2	2.3
26	12	11					195	95	25	11	8.5	1.6
27	11	11					198	97	24	12	8.5	2.9
28	12	10					140	86	22	14	7.1	4.4
29	12	10					122	96	21	18	7.4	4.7
30	12	10					116	147	20	21	9.0	4.7
31	13	-					-	254	-	22	8.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	346.8	14	9.2	11.2	688
November	363	16	10	12.1	720
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	3,551	210	19	118	7,040
May	4,937	262	86	159	9,790
June	2,311	258	14	77.0	4,580
July	467.6	30	8.2	15.7	967
August	364.3	25	5.7	11.8	723
September	136.7	9.8	1.6	4.56	271
Water year					

North Platte River near Walden, Colo.

Location.- Water-stage recorder, lat. 40°42', long. 106°23', in sec. 6, T. 8 N., R. 80 W., 8 miles southwest of Walden.

Drainage area.- 446 square miles.

Records available.- May 1904 to October 1905, October 1923 to September 1930, and October 1933 to September 1937 in reports of Geological Survey; May 1904 to October 1905 and October 1923 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 1,260 second-feet June 5 (gage height, 4.33 feet); minimum daily discharge recorded, 23 second-feet Sept. 21, 22 (probably less during period of no records).

1904-5, 1923-37: Maximum discharge, 1,770 second-feet June 1, 1928 (gage height, 5.33 feet); minimum daily discharge, 5.2 second-feet Sept. 19, 20, 1934.

Remarks.- Records excellent except those for periods of ice effect, Nov. 4-6, 9-14, 21-29, Apr. 1-29 (computed on basis of two discharge measurements and records for station at Northgate), and for July 30 to Aug. 2 (estimated), which are fair. No records Dec. 1 to Mar. 31. Diversions for irrigation above station.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 30, Aug. 3-7, 20-28, Sept. 25-30)

0.7	22	1.6	148	2.8	514
.8	30	1.8	194	3.0	600
.9	40	2.0	244	3.2	692
1.0	52	2.2	300	3.4	790
1.2	77	2.4	362	3.7	940
1.4	108	2.6	434	4.0	1,090

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	63					138	252	975	266	111	36
2	52	65					142	234	702	239	110	36
3	51	60					140	289	810	177	108	35
4	51	58					140	327	1,010	144	98	34
5	47	56					140	462	1,120	126	86	32
6	50	62					140	600	669	105	78	29
7	51	65					142	664	466	116	70	27
8	51	60					150	669	349	140	64	26
9	52	62					158	745	300	150	59	28
10	51	62					164	755	300	218	56	28
11	50	60					168	721	272	187	51	27
12	46	56					185	632	324	223	46	26
13	42	57					240	522	382	261	42	25
14	41	52					330	514	365	300	39	24
15	41	56					410	591	407	228	38	25
16	45	56					470	466	466	187	38	24
17	50	52					480	697	587	161	52	25
18	45	56					500	765	632	155	76	24
19	44	53					490	750	596	144	82	24
20	52	51					510	692	543	128	77	24
21	63	49					540	578	578	112	64	23
22	67	49					560	490	632	102	53	23
23	67	48					530	514	600	94	46	25
24	63	46					510	609	458	102	42	38
25	62	43					500	651	389	120	48	35
26	60	44					520	587	574	122	41	37
27	60	43					530	506	438	114	41	32
28	62	42					450	552	300	112	38	31
29	56	42					340	660	221	122	38	30
30	58	42					264	890	204	120	37	29
31	60	-					-	1,050	-	112	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,643	67	41	53.0	3,260
November	1,610	65	42	53.7	3,190
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	9,981	560	138	333	19,800
May	18,434	1,050	234	595	36,560
June	15,669	1,120	204	522	31,080
July	4,887	300	94	158	9,690
August	1,866	111	37	60.2	3,700
September	862	38	23	28.7	1,710
Water year					

North Platte River near Northgate, Colo.

Location.- Water-stage recorder, lat. 40°57', long. 106°21', in sec. 11, T. 11 N., R. 80 W., 6 miles south of Colorado-Wyoming state line and 6 miles northwest of Northgate. Zero of gage is 7,806.98 feet above mean sea level.

Drainage area.- 1,440 square miles.

Records available.- May to November 1904, May 1915 to September 1937.

Average discharge.- 22 years (1915-37), 515 second-feet.

Extremes.- Maximum discharge during year, 2,410 second-feet June 5; maximum gage height, 5.76 feet Apr. 17 (ice jam); minimum daily discharge, 30 second-feet (computed) Jan. 19, 20.
1904, 1915-37: Maximum discharge, 6,720 second-feet June 11, 1923 (gage height, 6.24 feet); maximum gage height, 7.70 feet Apr. 14, 1936 (ice jam); minimum daily discharge, 19 second-feet July 19, 1934.

Remarks.- Records excellent except those for periods of ice effect, Nov. 3-7, Nov. 24 to Apr. 25, which were computed on basis of two discharge measurements and records for station at Saratoga, Wyo., and are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	121	179	68	50	44	80	205	474	1,610	536	295	105
2	116	166	68	44	46	85	215	430	1,260	585	286	100
3	112	165	58	40	48	95	210	424	1,340	455	286	96
4	112	160	54	38	50	90	210	443	1,730	370	267	96
5	114	193	52	40	52	85	215	572	2,360	342	234	98
6	123	195	52	40	52	95	215	816	,680	315	211	96
7	126	190	54	38	48	105	220	965	1,150	320	200	93
8	123	179	58	36	46	110	225	987	826	331	186	93
9	121	186	62	32	48	120	240	1,110	642	353	172	91
10	118	189	58	34	50	135	250	1,130	610	474	160	89
11	118	176	56	36	54	160	260	1,060	536	455	147	89
12	114	182	60	34	56	175	270	976	443	480	136	82
13	112	182	64	33	56	170	350	776	522	550	126	78
14	109	176	66	38	56	160	480	702	522	900	118	74
15	107	169	68	40	56	165	700	720	565	1,080	112	68
16	109	182	70	40	54	170	760	847	610	805	107	63
17	118	176	64	38	56	175	750	889	684	565	114	61
18	126	196	60	34	58	180	760	910	767	572	150	59
19	118	153	54	30	60	170	770	932	796	522	179	59
20	128	156	60	30	64	180	777	965	758	449	172	55
21	163	156	65	38	68	190	800	805	767	376	160	53
22	179	160	70	40	68	195	780	676	910	326	139	53
23	176	136	75	42	70	200	760	668	943	290	123	61
24	163	115	78	42	75	190	740	805	858	276	114	65
25	160	90	80	44	75	185	730	910	693	304	114	96
26	163	100	78	46	75	180	720	987	998	336	116	89
27	163	110	72	46	75	190	738	776	932	315	109	85
28	163	95	64	44	80	200	748	738	710	358	105	78
29	160	75	52	42	-	210	684	889	543	331	107	78
30	156	65	50	42	-	210	558	1,200	501	320	112	78
31	163	-	48	42	-	205	-	1,540	-	299	112	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,154	179	107	134	8,240
November	4,652	196	65	155	9,230
December	1,938	80	48	62.5	3,840
Calendar year 1936	168,914	3,980	42	462	335,000
January	1,213	50	30	39.1	2,410
February	1,640	80	44	58.6	3,250
March	4,860	210	80	157	9,640
April	15,340	800	205	511	30,430
May	26,122	1,540	424	843	51,810
June	27,266	2,360	443	909	54,080
July	13,993	1,080	276	451	27,750
August	4,969	295	105	160	9,860
September	2,381	105	53	79.4	4,720
Water year 1936-37	108,528	2,360	30	297	215,300

North Platte River at Saratoga, Wyo.

Location.- Water-stage recorder, lat. 41°27', long. 106°49', in sec. 14, T. 17 N., R. 84 W., at Saratoga. Zero of gage is 6,773.8 feet above mean sea level.

Drainage area.- 2,880 square miles.

Records available.- June 1903 to October 1906, April to December 1909, April 1911 to September 1937.

Average discharge.- 30 years (1903-6, 1910-37), 1,285 second-feet.

Extremes.- Maximum discharge during year, 6,370 second-feet June 1 (gage height, 7.53 feet); minimum daily discharge, 131 second-feet Sept. 22.
1903-6, 1909, 1911-37: Maximum discharge, 18,000 second-feet June 8, 1909 (gage height, 11.06 feet); minimum daily discharge, 38 second-feet July 18-20, 1934.

Remarks.- Records excellent except those for periods of ice effect, Dec. 4 to Mar. 10, which were computed on basis of two discharge measurements, gage heights, and weather records and are fair. A few diversions between Northgate and Saratoga.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-16, Oct. 20 to Dec. 3)

3.4	104	4.4	550	6.0	2,700
3.5	134	4.6	725	6.5	3,720
3.6	166	4.8	920	7.0	4,900
3.8	236	5.0	1,140	7.3	5,700
4.0	310	5.3	1,530	7.6	6,580
4.2	405	5.7	2,160		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	222	384	276	180	190	186	344	1,050	5,640	1,760	457	261
2	240	394	265	176	193	197	378	944	4,760	1,650	424	250
3	243	272	193	166	200	200	405	910	4,560	1,450	431	243
4	258	254	176	166	200	236	394	953	5,640	1,180	431	295
5	258	299	176	163	200	211	389	1,190	5,870	1,040	389	247
6	272	418	176	163	183	236	424	1,560	5,060	964	348	243
7	276	412	176	176	163	258	412	1,890	3,850	997	335	240
8	268	327	193	186	163	286	400	2,390	3,220	1,110	323	229
9	268	327	204	190	162	314	400	2,660	3,000	1,100	291	218
10	268	302	197	193	173	327	494	2,960	2,960	1,310	272	214
11	265	344	193	200	169	384	601	3,120	2,830	1,420	261	214
12	258	363	204	204	173	400	558	2,810	3,020	1,620	247	204
13	254	363	204	188	180	378	626	2,790	2,830	1,970	236	193
14	247	348	204	179	180	344	850	2,810	2,980	1,930	229	186
15	240	323	211	200	180	348	1,310	3,080	3,120	1,960	222	180
16	254	335	218	186	176	348	1,740	3,370	3,120	1,780	225	169
17	268	344	204	193	180	363	2,290	3,630	3,350	1,350	265	163
18	276	368	200	186	176	373	1,760	4,040	3,630	1,200	283	160
19	287	331	186	176	173	357	1,740	4,660	3,460	1,120	265	156
20	295	310	214	169	180	373	1,530	4,520	3,410	944	280	153
21	323	299	214	169	186	373	1,430	4,110	3,320	792	265	147
22	339	295	225	176	186	389	1,640	3,570	3,370	662	250	131
23	344	283	258	180	183	400	1,650	3,680	3,320	592	229	144
24	344	247	218	180	190	335	1,560	3,610	2,940	550	214	169
25	339	229	218	180	193	344	1,340	3,830	2,660	550	232	190
26	344	287	218	193	186	405	1,260	3,760	2,830	610	236	186
27	344	314	211	193	183	389	1,430	3,680	2,640	592	229	190
28	335	291	211	183	190	405	1,500	4,010	2,230	550	225	180
29	331	261	214	173	-	405	1,360	4,080	1,830	601	258	173
30	335	258	200	176	-	394	1,200	4,760	1,700	534	318	173
31	352	-	197	183	-	363	-	5,240	-	502	287	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,947	352	222	289	17,750
November	9,582	418	229	319	19,010
December	6,454	276	176	208	12,800
Calendar year 1936	405,382	6,810	136	1,108	804,100
January	5,626	204	163	181	11,160
February	5,091	200	162	182	10,100
March	10,318	405	186	333	20,470
April	31,415	2,290	344	1,047	62,310
May	95,667	5,240	910	3,086	189,800
June	103,150	5,870	1,700	3,438	204,600
July	34,390	1,970	502	1,109	68,210
August	8,957	457	214	289	17,770
September	5,901	295	131	197	11,700
Water year 1936-37	325,498	5,870	131	892	645,700

North Platte River above Pathfinder Reservoir, Wyo.

Location.- Water-stage recorder, lat. 42°12', long. 106°52', in sec. 27, T. 28 N., R. 84 W., 900 feet below mouth of Lost Creek and 2½ miles above upper end of Pathfinder Reservoir.

Drainage area.- 7,410 square miles.

Records available.- October 1913 to September 1925, June 1929 to September 1937.

Average discharge.- 21 years (1913-25, 1928-37), 1,593 second-feet.

Extremes.- Maximum discharge during year, 8,600 second-feet June 2 (gage height, 4.47 feet); minimum daily discharge, 158 second-feet Sept. 25.
1913-25, 1929-37: Maximum discharge, 18,800 second-feet June 26, 1917 (gage height, 6.2 feet); minimum daily discharge, 20 second-feet Sept. 7, 1934.

Remarks.- Records excellent except those for periods of ice effect, Nov. 4, 8, 9, Dec. 4 to Apr. 6, which were computed on basis of two discharge measurements, gage heights, weather records, and records for station at Saratoga and are fair. Diversions for irrigation above station.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 9 to Sept. 2)

0.4	140	1.0	400	2.3	1,940
.5	160	1.2	556	2.7	2,720
.6	192	1.4	738	3.0	3,380
.7	234	1.6	950	3.5	4,720
.8	282	1.8	1,190	4.0	6,520
.9	338	2.0	1,460	4.2	7,380
				4.5	8,720

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	217	482	239	210	240	225	580	1,990	7,340	1,990	748	1,060
2	239	452	253	200	235	255	655	1,770	7,910	1,990	710	635
3	277	444	186	215	245	285	720	1,610	6,940	1,870	618	474
4	277	400	255	240	255	270	790	1,560	6,200	1,770	582	388
5	282	422	275	260	275	260	975	1,630	7,470	1,550	556	369
6	282	437	240	260	255	365	1,390	1,820	7,960	1,360	531	357
7	282	482	240	250	260	355	1,540	2,290	7,160	1,240	482	350
8	288	430	245	240	265	400	1,260	2,760	5,630	1,310	422	316
9	304	395	250	220	265	475	1,120	3,310	4,630	1,980	394	316
10	304	459	260	225	260	505	1,030	3,770	4,220	1,670	369	299
11	293	388	255	245	250	555	1,170	4,140	4,060	1,640	350	263
12	304	407	255	250	215	405	1,400	4,310	3,920	2,130	327	244
13	299	499	255	250	310	415	1,560	4,000	3,920	2,310	304	230
14	288	482	260	245	280	370	1,690	3,770	3,620	3,430	277	226
15	299	467	265	235	270	450	2,740	3,740	3,670	3,480	263	217
16	321	474	275	250	255	515	3,980	3,950	3,770	3,000	258	218
17	293	531	285	235	235	430	4,220	4,340	3,770	2,590	381	205
18	288	531	280	220	220	430	4,280	4,630	4,000	2,120	663	192
19	304	556	265	235	215	555	3,110	4,980	4,280	1,720	626	182
20	338	523	260	215	210	540	2,720	5,890	4,170	1,550	738	176
21	363	490	270	190	215	525	2,450	5,740	4,090	1,390	523	170
22	363	467	285	185	220	610	2,390	5,240	3,950	1,180	407	160
23	394	394	300	190	218	580	2,470	4,600	3,900	1,050	369	160
24	437	388	290	215	215	540	2,680	4,660	3,900	917	316	160
25	459	344	275	210	215	490	2,450	4,600	3,600	840	288	158
26	482	282	280	215	210	450	2,140	4,780	3,240	928	263	182
27	482	316	295	220	210	515	1,940	4,750	3,240	862	244	239
28	482	277	300	220	205	590	2,050	4,660	3,060	830	253	217
29	474	310	290	225	-	645	2,200	5,040	2,700	862	459	205
30	474	316	270	230	-	625	2,200	5,280	2,230	1,170	917	205
31	474	-	240	235	-	610	-	6,160	-	974	986	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	10,663	482	217	344	21,150
November	12,845	556	277	428	25,480
December	8,193	300	186	264	16,250
Calendar year 1936	495,037	8,360	152	1,353	981,800
January	7,035	260	185	227	13,950
February	6,723	310	205	240	13,330
March	14,240	645	225	459	28,240
April	60,400	4,280	580	2,013	119,800
May	121,770	6,160	1,560	3,928	241,500
June	138,550	7,960	2,230	4,618	274,800
July	51,703	3,480	830	1,668	102,600
August	14,624	986	244	472	29,010
September	8,568	1,060	158	286	16,990
Water year 1936-37	455,314	7,960	158	1,247	903,100

North Platte River below Pathfinder Reservoir, Wyo.

Location.- Water-stage recorder, lat. 42°28', long. 106°50', in sec. 24, T. 29 N., R. 84 W., a quarter of a mile below Pathfinder Dam.

Drainage area.- 10,700 square miles.

Records available.- May 1905 to September 1937.

Average discharge.- 30 years (1907-37), 1,793 second-feet.

Extremes.- Maximum discharge since completion of reservoir, 18,900 second-feet June 25-27, 1917; no flow for same periods during 1928, 1932-37.

Remarks.- Flow regulated by Pathfinder Reservoir which was completed in June 1909 (capacity, 1,070,000 acre-feet). Winter records computed on basis of records for station at Alcova. Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	201	49	49	49	248	49		0	3,830	5,020	4,970	3,700
2	102	49	49	49	248	49		438	1,960	4,530	4,960	3,670
3	100	49	49	49	65	49		478	1,800	4,510	5,030	3,650
4	100	49	49	49	49	49		478	1,810	4,500	5,030	3,620
5	100	49	49	49	49	49		478	1,820	4,500	5,020	3,590
6	100	49	49	49	49	49		1,320	1,150	4,510	5,050	3,550
7	100	49	49	49	49	49		1,490	1,090	4,510	5,040	2,700
8	100	49	49	49	49	49		1,500	1,100	5,310	5,010	2,540
9	100	49	49	49	49	49		1,500	545	5,360	4,980	2,600
10	100	49	49	49	49	0		1,500	491	5,340	5,040	2,570
11	100	0	49	49	49	0		1,510	493	5,330	5,020	2,560
12	100	0	49	49	49	0		1,520	497	5,310	5,040	2,540
13	100	22	49	173	49	0		873	499	1,770	5,020	2,520
14	100	49	49	248	49	0		819	499	0	5,000	2,500
15	100	49	49	248	49	0		1,430	501	1,040	4,970	2,920
16	100	49	49	248	49	0		1,520	506	1,070	4,940	3,000
17	100	49	49	248	49	0		1,530	1,400	1,070	4,910	2,960
18	100	49	49	248	49	0		2,290	2,430	2,630	4,880	2,900
19	100	49	49	248	49	0		2,420	3,540	4,000	4,860	2,850
20	100	49	49	248	49	0		2,420	4,390	4,080	4,820	2,800
21	61	49	49	248	49	0		2,430	5,200	4,080	4,790	2,750
22	49	49	49	248	49	0		3,430	5,300	4,560	4,760	2,700
23	49	49	49	248	49	0		4,050	5,690	5,040	4,730	2,650
24	49	49	49	248	49	0		4,440	5,880	5,040	4,700	2,590
25	49	49	49	248	49	0		4,460	5,870	5,030	4,660	2,530
26	49	49	49	248	49	0		4,480	5,870	5,010	4,630	2,470
27	49	49	49	248	49	0		5,000	5,860	5,000	4,580	497
28	49	49	49	248	49	0		5,500	5,850	5,020	4,530	495
29	49	49	49	248	-	0		5,560	5,200	5,010	4,490	493
30	49	49	49	248	-	0		5,760	5,030	4,990	4,450	491
31	49	-	49	248	-	0		4,000	-	4,970	3,920	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,654	201	49	85.6	5,260
November	1,345	49	0	44.8	2,670
December	1,519	49	49	49.0	3,010
Calendar year 1936	511,566	6,070	0	1,398	1,015,000
January	5,225	248	49	169	10,360
February	1,786	248	49	63.8	3,540
March	441	49	0	14.2	875
April	0	0	0	0	0
May	74,624	5,760	0	2,407	148,000
June	86,101	5,880	491	2,870	170,800
July	128,140	5,360	0	4,134	254,200
August	149,830	5,050	3,920	4,833	297,200
September	77,406	3,700	491	2,580	153,500
Water year 1936-37	529,071	5,880	0	1,450	1,049,000

North Platte River at Alcova, Wyo.

Location.- Water-stage recorder, lat. 42°33', long. 106°43', in sec. 25, T. 30 N., R. 83 W., at Alcova.

Drainage area.- 10,600 square miles.

Records available.- February 1904 to December 1905, June 1935 to September 1937.

Remarks.- Flow regulated by Pathfinder Reservoir (capacity, 1,070,000 acre-feet). Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	185	66	64	36	263	39	38	60	3,950	4,790	4,950	3,570
2	150	66	64	36	321	56	56	460	2,940	4,500	4,930	3,550
3	95	66	64	38	83	68	32	473	2,620	4,440	5,050	3,500
4	94	66	64	41	66	65	14	478	2,580	4,440	4,990	3,480
5	94	64	64	54	56	65	10	594	2,300	4,440	4,990	3,450
6	94	64	66	51	59	62	10	1,280	1,240	4,660	5,010	3,210
7	93	64	66	54	62	62	11	1,370	1,080	4,740	5,010	2,460
8	93	64	50	56	68	14	10	1,390	930	5,460	4,950	2,480
9	93	64	42	56	83	48	11	1,390	544	6,810	4,950	2,500
10	93	64	38	59	88	32	14	1,320	511	7,020	4,990	2,480
11	93	50	34	59	92	25	22	1,370	500	5,550	4,990	2,470
12	93	30	26	63	83	36	25	1,260	506	5,500	5,010	2,470
13	92	16	24	196	79	22	28	887	506	866	4,970	2,460
14	92	36	42	267	75	14	68	1,220	506	270	4,950	2,500
15	92	54	42	260	65	12	62	1,420	511	1,030	4,930	2,890
16	92	60	38	250	65	16	53	1,440	709	1,070	4,910	2,860
17	92	60	30	250	62	25	41	1,630	1,610	1,440	4,870	2,820
18	90	60	26	250	62	19	16	2,220	2,720	3,740	4,850	2,780
19	90	62	95	250	68	18	14	2,260	3,550	3,970	4,810	2,740
20	90	62	95	267	68	14	12	2,270	4,460	3,970	4,790	2,680
21	82	62	62	267	68	12	16	2,510	4,970	3,990	4,770	2,620
22	70	62	62	267	67	10	16	3,180	5,070	4,740	4,700	2,570
23	70	62	68	283	67	10	16	3,640	5,550	5,050	4,660	2,530
24	69	64	68	283	68	10	19	4,020	5,740	5,050	4,660	2,470
25	69	64	68	283	67	10	19	4,150	5,740	5,010	4,640	2,430
26	69	64	76	290	62	10	22	4,290	5,760	5,010	4,640	1,570
27	68	64	84	321	56	9	22	4,790	5,760	5,010	4,640	544
28	68	64	76	321	51	9	28	5,200	5,630	5,010	4,500	517
29	68	64	62	329	-	9	34	5,390	5,070	5,030	4,360	511
30	68	64	56	342	-	9	36	5,370	4,910	5,030	4,270	506
31	68	-	46	321	-	9	-	4,400	-	4,970	3,650	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,769	185	68	89.3	5,490
November	1,772	66	16	59.1	3,510
December	1,762	95	24	56.8	3,490
Calendar year					
January	5,900	342	36	190	11,700
February	2,384	321	51	85.1	4,730
March	819	68	9	26.4	1,620
April	775	68	10	25.8	1,540
May	71,732	5,390	60	2,314	142,300
June	88,473	5,760	500	2,949	175,500
July	132,606	7,020	270	4,278	263,000
August	148,390	5,050	3,650	4,787	294,300
September	73,618	3,570	506	2,454	146,000
Water year 1936-37	531,000	7,020	9	1,455	1,053,000

North Platte River below Casper, Wyo.

Location.- Water-stage recorder, lat. 42°52', long. 106°13', in NW¼NW¼ sec. 4, T. 33 N., R. 78 W., 6½ miles east of Casper.

Drainage area.- 12,600 square miles.

Records available.- October 1932 to September 1937. May 1929 to September 1932, at Casper; records equivalent.

Extremes.- Maximum discharge during year, 9,980 second-feet July 12 (gage height, 6.78 feet); minimum daily discharge, 33 second-feet Jan. 7.
1929-37: Maximum discharge, 13,800 second-feet May 30, 1929; minimum daily discharge, that of Jan. 7, 1937.

Remarks.- Records excellent except those for periods of ice effect, Dec. 3-13, Dec. 28 to Apr. 5, which were computed on basis of three discharge measurements, weather records, and records for station at Alcova and are fair. Flow regulated by Pathfinder Reservoir.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.0	50	1.0	462	2.0	1,360	4.5	5,270
.2	95	1.2	604	2.5	1,920	5.0	6,230
.4	170	1.4	770	3.0	2,550	5.5	7,240
.6	250	1.6	960	3.5	3,380	6.0	8,290
.8	345	1.8	1,160	4.0	4,320		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	259	120	80	40	260	120	110	72	4,110	5,060	4,950	3,830
2	259	109	70	42	265	140	98	72	3,000	4,810	4,930	3,790
3	234	106	68	52	275	140	96	202	2,060	4,590	4,970	3,790
4	190	116	62	63	290	135	96	456	2,060	4,590	5,000	3,790
5	190	138	52	47	300	135	100	476	2,080	4,570	5,000	3,790
6	186	116	46	36	300	145	109	589	1,740	4,590	5,000	3,690
7	178	95	87	33	285	145	106	1,490	1,310	5,840	5,000	3,240
8	174	90	98	34	270	150	88	1,640	1,260	6,250	4,980	2,660
9	170	116	90	38	250	150	80	1,670	1,120	5,610	4,970	2,670
10	170	116	78	50	240	150	75	1,700	718	5,590	5,000	2,700
11	170	109	80	60	225	140	78	1,580	628	5,670	5,000	2,680
12	170	106	*86	64	220	135	109	1,590	574	7,870	5,020	2,660
13	158	102	85	70	205	130	134	1,380	545	6,370	5,020	2,610
14	154	88	85	*76	195	125	120	1,010	545	2,670	5,000	2,580
15	162	82	102	85	180	140	154	1,120	545	1,270	4,980	2,830
16	174	82	109	100	160	150	604	1,560	537	1,640	4,970	3,060
17	170	95	116	120	135	150	668	1,640	770	1,450	4,970	3,010
18	158	109	95	130	120	130	259	2,020	1,850	2,170	4,950	2,960
19	162	109	102	130	110	120	158	2,480	3,060	3,860	4,870	2,930
20	182	106	102	120	105	115	120	2,490	3,920	4,210	4,850	2,880
21	174	102	112	135	110	115	98	2,490	4,740	4,150	4,810	2,840
22	170	95	106	150	*118	125	102	3,130	5,080	4,360	4,810	2,830
23	146	95	98	165	120	125	102	3,670	5,330	4,910	4,780	2,780
24	130	92	95	175	125	105	126	4,280	5,650	4,970	4,760	2,730
25	134	88	98	190	120	90	92	4,570	5,730	4,980	4,720	2,680
26	134	92	102	200	110	88	85	4,640	5,760	4,980	4,680	2,610
27	126	95	64	215	100	92	80	4,890	5,760	5,000	4,640	1,600
28	123	95	80	235	110	110	75	5,270	5,740	5,000	4,590	736
29	116	92	68	250	-	130	68	5,500	5,440	5,000	4,640	652
30	112	88	38	260	-	135	80	5,740	5,100	5,000	4,600	612
31	116	-	38	260	-	135	-	4,910	-	5,000	4,210	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,171	259	112	167	10,260
November	3,044	138	82	101	6,040
December	2,592	116	38	83.6	5,140
Calendar year 1936	517,870	5,790	38	1,415	1,027,000
January	3,625	260	33	117	7,190
February	5,303	300	100	189	10,520
March	3,995	150	88	129	7,920
April	4,270	66e	68	142	8,470
May	74,327	5,740	72	2,398	147,400
June	86,762	5,760	537	2,892	172,100
July	142,030	7,870	1,270	4,582	281,700
August	150,670	5,020	4,210	4,860	298,800
September	82,220	3,830	612	2,741	163,100
Water year 1936-37	564,009	7,870	33	1,545	1,119,000

*Discharge measurement.

North Platte River at Douglas, Wyo.

Location.- Water-stage recorder, lat. 42°46', long. 105°24', in sec. 8, T. 32 N., R. 71 W., half a mile northwest of Douglas.

Drainage area.- 14,200 square miles.

Records available.- May 1891 to September 1894, April 1919 to September 1923, April 1929 to September 1937.

Extremes.- Maximum discharge during year, 16,700 second-feet July 13 (gage height, 8.44 feet); minimum daily discharge, 45 second-feet (computed) Jan. 8.
1891-94, 1919-23, 1929-37: Maximum discharge, that of July 13, 1937; minimum daily discharge, that of Jan. 8, 1937.

Remarks.- Records excellent except those for period of ice effect, Dec. 2 to Apr. 6 (computed on basis of three discharge measurements, weather records, and computed inflow to Guernsey Reservoir), and those for Apr. 25 to May 3 and June 11-13 (computed on basis of records for station below Casper), which are fair. Flow regulated by Pathfinder Reservoir.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.0	72	2.0	712	3.0	1,920	5.5	6,760
1.2	154	2.2	920	3.5	2,680	6.0	8,000
1.4	260	2.4	1,150	4.0	3,520	6.5	9,370
1.6	384	2.6	1,390	4.5	4,480	7.0	11,000
1.8	532	2.8	1,640	5.0	5,570	7.5	12,900

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	320	179	159	56	235	155	290	255	4,440	4,920	4,610	3,950
2	308	194	145	55	245	160	270	240	4,040	4,860	4,610	3,700
3	308	210	130	67	255	160	250	270	2,940	4,480	4,540	3,660
4	308	238	115	87	265	180	235	308	2,490	4,340	4,610	3,660
5	272	333	105	105	280	195	240	509	2,550	4,260	4,670	3,700
6	260	346	95	90	290	220	260	752	2,570	4,260	4,730	3,570
7	249	204	100	50	295	235	278	931	2,420	5,520	4,820	3,630
8	226	284	110	45	290	230	260	1,770	2,220	5,360	4,880	3,000
9	221	358	120	52	285	245	221	2,040	2,180	5,680	4,900	2,700
10	215	371	110	60	275	245	194	2,250	2,020	5,410	4,900	2,660
11	204	391	110	60	250	260	194	2,320	1,920	5,750	4,900	2,650
12	199	365	120	60	230	280	189	2,180	1,780	8,000	4,900	2,600
13	199	290	130	63	220	255	221	2,070	1,570	12,800	4,920	2,570
14	189	140	*123	*69	270	230	284	1,840	1,280	5,660	4,900	2,550
15	189	136	125	73	200	215	674	1,510	1,190	3,390	4,860	2,540
16	210	136	135	75	180	240	1,010	1,520	1,100	2,490	4,820	2,760
17	210	136	145	90	165	255	1,510	1,850	1,010	1,960	4,800	2,900
18	199	136	135	105	155	255	1,150	1,880	1,020	1,880	4,800	2,900
19	194	149	140	110	150	260	693	2,040	1,910	2,570	4,730	2,870
20	199	149	155	110	145	255	501	2,400	3,000	3,720	4,650	2,840
21	210	154	160	110	145	235	516	2,430	3,800	4,100	4,610	2,790
22	210	154	150	125	140	240	501	2,420	4,500	4,020	4,540	2,730
23	204	194	150	140	145	250	732	2,940	4,750	4,360	4,500	2,710
24	194	184	145	150	*142	180	440	3,410	5,050	4,730	4,420	2,680
25	179	154	150	170	140	140	380	3,890	5,360	4,770	4,360	2,630
26	179	194	155	185	130	150	335	4,140	5,500	4,750	4,360	2,580
27	179	149	130	200	130	190	290	4,200	5,520	4,710	4,380	2,540
28	184	164	135	215	150	210	260	4,520	5,620	5,050	4,400	1,710
29	174	159	110	220	-	250	245	4,920	5,640	4,710	4,540	1,130
30	174	169	80	245	-	280	230	5,430	5,120	4,650	4,630	888
31	169	-	62	230	-	315	-	5,550	-	4,670	4,460	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6,735	320	169	217	13,360
November	6,420	391	136	214	12,730
December	3,934	160	62	127	7,800
Calendar year 1936	514,121	5,480	62	1,405	1,020,000
January	3,472	245	45	112	6,890
February	5,802	295	130	207	11,510
March	6,970	315	140	225	13,820
April	12,853	1,510	189	428	25,490
May	72,785	5,550	240	2,348	144,400
June	94,510	5,640	1,010	3,150	187,500
July	147,830	12,800	1,880	4,769	293,200
August	144,750	4,920	4,360	4,669	287,100
September	83,798	3,950	888	2,793	166,200
Water year 1936-37	589,859	12,800	45	1,616	1,170,000

*Discharge measurement.

North Platte River below Guernsey Reservoir, Wyo.

Location.- Water-stage recorder, lat. 42°17', long. 104°45', in sec. 27, T. 27 N., R. 66 W., three-quarters of a mile below Guernsey Dam and 1 mile northwest of Guernsey.

Drainage area.- 16,200 square miles.

Records available.- June 1900 to November 1908, March to October 1912, January 1928 to September 1937.

Remarks.- Flow regulated by Pathfinder and Guernsey Reservoirs. Only a few minor diversions for irrigation between this station and diversion dam at Whalen. Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	341	339	296	330	175	221	221	923	3,420	4,710	4,710	3,910
2	330	291	324	232	180	242	269	931	2,270	4,600	4,840	3,750
3	296	291	335	369	177	232	235	948	2,800	4,840	4,960	3,620
4	296	393	264	206	176	232	180	939	2,680	4,840	4,980	3,640
5	313	352	264	307	175	232	200	948	1,860	4,840	4,620	3,640
6	381	307	242	335	180	237	253	989	1,310	4,960	4,620	3,580
7	330	324	206	335	170	237	242	1,010	1,310	5,310	4,620	3,460
8	318	296	285	335	180	190	226	1,080	1,660	5,210	4,860	3,370
9	330	346	296	269	170	274	253	1,620	3,690	5,310	4,930	3,400
10	324	369	280	253	175	247	232	1,650	3,240	5,820	4,980	3,090
11	291	381	237	280	175	274	226	1,760	2,610	5,920	5,090	3,010
12	291	318	237	318	170	258	211	1,930	2,930	5,820	5,050	2,970
13	313	324	247	318	175	285	263	1,930	2,680	5,190	5,070	3,020
14	341	296	232	335	180	232	253	2,040	2,380	7,500	4,980	3,280
15	330	313	296	307	190	269	313	2,260	2,390	5,050	5,020	3,350
16	269	242	269	341	190	269	291	2,220	2,900	4,620	5,020	3,510
17	269	358	264	274	170	307	242	2,300	3,440	4,750	4,930	3,510
18	280	398	232	285	170	285	369	2,640	4,030	4,640	5,000	3,460
19	274	358	232	335	170	285	410	2,710	4,540	4,840	4,960	3,400
20	296	330	253	296	160	253	620	2,960	4,560	4,800	4,840	3,240
21	324	307	237	285	175	221	761	3,070	4,630	4,750	4,840	3,100
22	307	307	302	268	155	226	865	3,500	4,810	5,090	4,770	2,830
23	318	247	285	285	170	313	880	3,820	4,940	5,120	4,800	2,600
24	318	379	285	190	160	247	858	3,940	5,280	4,980	4,750	2,420
25	318	302	280	221	180	216	858	4,280	5,040	5,050	4,440	2,420
26	269	318	216	180	160	285	880	4,590	4,990	4,890	4,400	2,390
27	346	221	258	180	226	274	910	4,920	4,700	4,770	4,250	2,350
28	341	269	264	180	242	264	903	5,280	4,590	4,710	4,190	2,020
29	318	242	318	170	-	170	914	5,350	4,560	4,820	4,210	1,410
30	352	258	274	185	-	318	898	5,200	4,400	5,070	4,150	1,050
31	318	-	296	180	-	280	-	3,940	-	4,890	3,970	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	9,742	381	269	314	19,320
November	9,476	398	221	316	18,800
December	8,306	335	206	268	16,470
Calendar year 1936	554,167	5,500	140	1,514	1,099,000
January	8,384	369	170	270	16,630
February	4,976	242	155	178	9,870
March	7,875	318	170	254	15,620
April	14,286	914	180	476	28,340
May	81,678	5,350	923	2,635	162,000
June	104,640	5,280	1,310	3,488	207,600
July	157,710	7,500	4,600	5,087	312,600
August	146,850	5,090	5,970	4,737	291,300
September	90,800	3,910	1,050	3,027	180,100
Water year 1936-37	644,723	7,500	155	1,766	1,279,000

North Platte River below Whalen, Wyo.

Location.- Lat. 42°14', long. 104°37', in sec. 11, T. 26 N., R. 65 W., at diversion dam at Whalen, 7 miles below Guernsey Dam.

Drainage area.- 16,300 square miles.

Records available.- May 1909 to September 1937.

Average discharge.- 28 years, 1,286 second-feet.

Remarks.- Records obtained by subtracting flow of Interstate and Fort Laramie Canals from flow below Guernsey Reservoir. Flow regulated by Pathfinder and Guernsey Reservoirs. Records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	75	51	24	44	36	21	55	1,410	1,660	1,300	636
2	90	31	90	99	40	42	114	46	759	1,630	1,350	562
3	41	60	113	81	35	32	25	43	1,090	1,910	1,440	486
4	49	43	55	6	34	37	40	41	880	1,970	1,500	514
5	83	142	44	87	39	52	130	54	396	1,960	1,220	546
6	69	28	35	85	25	49	55	49	241	1,790	1,160	542
7	47	20	28	129	10	47	52	58	137	1,930	1,160	495
8	58	125	45	65	39	85	82	114	418	1,860	1,340	479
9	83	25	54	24	24	51	63	443	2,160	1,840	1,400	532
10	57	138	33	53	19	59	42	448	1,910	2,240	1,440	297
11	60	105	25	68	15	49	84	566	898	2,440	1,510	208
12	72	48	32	68	17	42	56	732	898	2,370	1,510	202
13	53	42	42	63	12	53	51	724	712	2,110	1,530	228
14	91	32	38	77	27	37	83	832	292	4,290	1,480	358
15	60	40	46	75	38	59	113	1,040	163	2,370	1,500	432
16	44	20	57	73	48	44	61	993	422	2,020	1,500	556
17	57	72	64	83	30	50	232	1,050	879	2,090	1,420	599
18	60	103	38	129	30	60	163	1,100	1,210	2,140	1,460	585
19	76	72	37	55	40	40	120	1,200	1,490	2,160	1,470	544
20	46	51	60	90	29	56	220	1,400	1,480	2,120	1,380	455
21	74	48	42	105	65	36	131	1,460	1,520	1,950	1,380	442
22	49	45	60	63	19	74	85	1,530	1,600	1,930	1,370	270
23	64	20	28	78	43	58	68	1,520	1,670	1,840	1,370	137
24	56	72	48	60	40	22	40	1,530	1,840	1,630	1,300	81
25	53	34	66	66	55	111	58	1,740	1,710	1,690	1,040	89
26	49	20	34	36	40	25	80	1,840	1,760	1,550	963	91
27	61	20	56	47	26	51	72	2,140	1,750	1,320	898	101
28	57	20	52	48	82	47	53	2,150	1,660	1,220	895	172
29	91	20	50	50	-	55	69	2,160	1,610	1,290	912	160
30	97	20	46	49	-	84	40	2,110	1,470	1,570	834	142
31	81	-	94	44	-	55	-	1,740	-	1,480	695	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,979	97	41	63.8	3,930
November	1,591	142	20	53.0	3,160
December	1,563	113	25	50.4	3,100
Calendar year 1936	169,557	2,240	10	463	336,300
January	2,080	129	6	67.1	4,130
February	965	82	10	34.5	1,910
March	1,598	111	22	51.5	3,170
April	2,503	232	21	83.4	4,960
May	30,908	2,160	41	997	61,310
June	34,435	2,160	137	1,148	68,300
July	60,370	4,290	1,220	1,947	119,700
August	39,727	1,530	695	1,282	78,800
September	10,941	636	81	365	21,700
Water year 1936-37	188,660	4,290	6	517	374,200

North Platte River at Torrington, Wyo.

Location.- Water-stage recorder, lat. 42°03', long. 104°10', in sec. 15, T. 24 N., R. 61 W., at Torrington.

Drainage area.- 21,700 square miles.

Records available.- April 1930 to September 1937 in reports of Geological Survey; April 1926 to September 1937 in reports of State engineer of Nebraska.

Extremes.- Maximum discharge during year 5,690 second-feet July 14 (gage height, 3.12 feet); minimum daily discharge, 246 second-feet Apr. 27-29.
1926-37: Maximum discharge, 14,200 second-feet June 2, 1929; minimum daily discharge, 80 second-feet May 16, 1934.

Remarks.- Records good except those for periods of ice effect, Nov. 3, Dec. 3-7, and Dec. 30 to Mar. 5 (computed on basis of five discharge measurements and weather records), and those for period of missing gage heights, Mar. 24-30 (computed on basis of records for station at Wyoming-Nebraska State line), which are fair. Diversions for irrigation above station. Flow regulated by Pathfinder and Guernsey Reservoirs.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	509	560	547	342	292	380	371	275	2,180	1,800	1,460	873
2	445	576	522	332	295	410	330	275	1,590	1,740	1,420	788
3	458	550	460	340	292	418	350	260	1,740	1,970	1,420	704
4	470	483	440	360	288	420	361	260	1,570	2,030	1,380	688
5	445	592	415	348	280	424	445	260	1,220	2,030	1,380	688
6	483	560	400	345	280	422	445	260	941	1,990	1,380	704
7	522	560	390	338	280	412	432	299	873	1,970	1,370	688
8	496	534	391	318	272	412	432	307	941	1,970	1,380	624
9	445	560	381	300	309	381	391	522	2,070	1,990	1,380	624
10	470	576	412	305	280	371	361	822	2,140	1,970	1,380	592
11	470	608	432	333	282	391	330	839	1,500	1,990	1,400	496
12	458	608	432	318	285	401	314	992	1,290	2,500	1,400	458
13	496	576	445	318	295	412	322	1,030	1,330	2,910	1,420	422
14	483	547	361	325	306	412	361	1,040	890	4,920	1,400	470
15	509	509	401	318	325	401	350	1,130	688	3,530	1,420	576
16	496	483	422	320	340	422	371	1,110	704	2,770	1,460	672
17	470	483	422	322	332	361	576	1,100	975	2,460	1,440	737
18	470	509	401	324	328	361	576	1,110	1,290	2,350	1,480	720
19	458	534	401	326	303	340	470	1,220	1,590	2,330	1,480	688
20	534	534	350	305	320	340	381	1,440	1,700	2,290	1,380	656
21	547	522	381	280	335	340	330	1,500	1,780	2,260	1,380	640
22	560	522	401	285	340	275	299	1,590	1,800	2,220	1,350	592
23	576	496	422	282	345	322	283	1,590	1,840	2,200	1,350	470
24	576	496	432	285	330	340	275	1,670	2,010	2,140	1,290	445
25	576	534	391	288	325	335	291	1,820	1,900	1,990	1,060	432
26	560	522	381	294	320	344	275	1,910	1,990	1,910	1,100	432
27	547	522	361	296	315	355	246	2,120	1,970	1,780	1,060	422
28	547	509	391	290	330	360	246	2,140	1,910	1,610	1,040	401
29	534	496	381	286	-	343	246	2,140	1,880	1,520	1,030	381
30	534	496	376	288	-	335	283	2,370	1,820	1,480	1,040	391
31	560	-	360	290	-	330	-	2,260	-	1,480	958	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	15,704	576	445	507	31,150
November	16,057	608	483	535	31,850
December	12,702	547	350	410	25,190
Calendar year 1936	265,388	2,060	166	725	526,400
January	9,701	360	280	313	19,240
February	8,624	345	272	308	17,110
March	11,570	424	275	373	22,950
April	10,743	576	246	358	21,310
May	35,661	2,370	260	1,150	70,730
June	46,122	2,180	688	1,537	91,480
July	68,100	4,920	1,480	2,197	135,100
August	40,888	1,480	958	1,319	81,100
September	17,474	873	381	582	34,660
Water year 1936-37	293,346	4,920	246	804	581,900

North Platte River at Wyoming-Nebraska State line

Location.- Water-stage recorder, lat. 41°59', long. 104°03', in sec. 10, T. 23 N., R. 60 W., a quarter of a mile above Wyoming-Nebraska State line and 1 mile southwest of Henry, Nebr.

Drainage area.- 22,100 square miles.

Records available.- April 1929 to September 1937.

Extremes.- Maximum discharge during year, 5,490 second-feet July 14 (gage height, 4.06 feet); minimum daily discharge, 98 second-feet May 5.
1929-37: Maximum discharge, 17,900 second-feet June 2, 1929 (gage height, 6.04 feet); minimum daily discharge, 21 second-feet May 16, 1934.

Remarks.- Records good. Records for periods of ice effect, Jan. 1 to Feb. 20, Feb. 27, 28, computed on basis of four discharge measurements, gage heights, and weather records; that for Mar. 24 computed on basis of records for station at Torrington. Large diversions for irrigation between Torrington and this station. Flow regulated by Pathfinder and Guernsey Reservoirs.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	529	476	489	382	312	414	402	138	1,910	1,580	1,280	925
2	496	470	457	266	332	408	396	120	1,440	1,560	1,280	934
3	496	509	438	340	315	414	372	109	1,420	1,710	1,310	857
4	529	543	470	380	306	402	396	112	1,530	1,800	1,380	802
5	522	577	451	370	295	402	432	98	1,320	1,810	1,290	788
6	536	628	426	368	300	384	464	105	1,060	1,730	1,210	788
7	543	628	451	348	300	402	457	120	934	1,800	1,150	772
8	432	584	444	310	280	378	444	138	959	1,800	1,200	750
9	414	556	451	283	255	350	426	232	1,710	1,700	1,250	758
10	432	584	444	306	275	361	420	489	2,140	1,830	1,250	758
11	426	606	432	318	290	372	420	606	1,610	1,930	1,260	655
12	384	606	420	324	305	384	378	784	1,190	2,210	1,290	620
13	438	577	402	322	315	390	378	836	1,520	2,420	1,280	600
14	432	592	396	326	325	414	408	872	1,020	3,970	1,270	594
15	432	563	426	335	350	378	384	947	832	3,360	1,320	669
16	420	543	464	320	385	426	408	1,020	705	2,770	1,340	765
17	390	536	464	320	400	414	516	1,020	866	2,600	1,320	882
18	396	556	438	328	390	414	529	1,040	1,130	2,550	1,380	891
19	378	584	426	330	381	426	476	1,080	1,300	2,530	1,380	891
20	408	577	408	310	374	426	384	1,140	1,420	2,490	1,340	874
21	432	570	402	290	367	396	328	1,190	1,460	2,260	1,330	857
22	444	563	420	285	361	367	291	1,270	1,520	2,040	1,300	810
23	489	536	438	282	361	402	275	1,280	1,550	1,910	1,300	669
24	483	516	451	288	356	398	256	1,320	1,670	1,820	1,280	543
25	489	536	426	292	333	390	260	1,370	1,690	1,740	1,140	420
26	476	516	408	295	322	402	236	1,470	1,760	1,650	1,100	405
27	457	489	384	300	325	438	194	1,660	1,740	1,520	976	425
28	489	476	390	298	330	420	194	1,760	1,690	1,370	950	410
29	509	483	384	292	-	396	151	1,770	1,620	1,320	925	400
30	476	457	408	290	-	367	155	2,020	1,590	1,360	950	390
31	470	-	396	295	-	396	-	1,940	-	1,390	916	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	14,247	543	378	460	28,260
November	16,437	628	457	548	32,600
December	13,304	489	384	429	26,390
Calendar year 1936	258,671	2,060	135	707	513,100
January	9,795	382	266	316	19,430
February	9,240	400	255	330	18,330
March	12,331	438	350	398	24,460
April	10,830	529	151	361	21,480
May	28,056	2,020	98	905	55,650
June	42,306	2,140	705	1,410	83,910
July	63,030	3,970	1,320	2,033	125,000
August	37,947	1,380	916	1,224	75,270
September	20,902	934	390	697	41,460
Water year 1936-37	278,425	3,970	98	763	552,200

North Platte River at Mitchell Nebr.

Location.- Water-stage recorder, lat. 41°56', long. 103°48', in sec. 27, T. 23 N., R. 56 W., half a mile south of Mitchell.

Drainage area.- 24,300 square miles.

Records available.- June 1901 to July 1913, October 1930 to September 1937 in reports of Geological Survey; June 1901 to July 1913, April 1916 to September 1937 in reports of State engineer.

Average discharge.- 17 years (1920-37), 1,346 second-feet.

Extremes.- Maximum discharge during year, 4,090 second-feet July 15 (gage height, 4.39 feet); minimum daily discharge, 101 second-feet May 20.
1901-13, 1916-37: Maximum discharge, 23,600 second-feet June 17, 1921, minimum daily discharge, 45 second-feet May 10, 1934.

Remarks.- Records good except those for period of missing gage heights, Oct. 4-6 (computed on basis of records for station at Wyoming-Nebraska State line), and those for period of ice effect, Jan. 2 to Apr. 5 (computed on basis of seven discharge measurements and weather records), which are fair. Numerous diversions for irrigation. Flow partly regulated by Pathfinder and Guernsey Reservoirs.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	143	558	644	494	445	520	610	158	1,300	432	376	231
2	163	558	658	420	460	525	630	143	1,020	425	364	209
3	168	579	615	440	480	535	645	138	706	425	358	199
4	170	769	630	430	475	539	650	134	934	612	352	195
5	175	776	608	375	460	545	595	153	1,170	659	328	199
6	530	850	558	350	450	560	589	158	1,000	635	287	204
7	739	813	586	305	435	550	597	189	706	682	253	231
8	702	821	622	280	426	560	582	194	522	860	226	220
9	666	813	651	265	415	550	529	174	754	643	226	209
10	673	821	651	315	410	543	459	158	1,730	589	215	199
11	673	828	651	345	435	540	452	158	1,410	795	209	204
12	630	850	644	360	450	535	432	168	1,460	1,020	231	220
13	586	843	644	420	470	540	405	163	1,510	1,900	242	220
14	543	843	630	410	485	550	372	168	782	2,370	242	215
15	550	806	622	400	500	535	378	163	372	3,350	226	209
16	565	769	630	415	515	540	398	158	268	1,910	220	204
17	550	739	666	435	590	545	432	143	222	1,570	220	204
18	550	732	622	430	558	560	508	119	194	1,550	258	215
19	536	724	608	415	520	570	515	105	194	1,490	270	226
20	522	724	594	380	500	575	473	101	326	1,380	275	231
21	515	724	558	350	515	580	352	129	385	1,240	242	253
22	515	710	579	369	540	565	245	124	418	1,040	236	258
23	543	695	586	400	570	543	227	129	398	902	264	253
24	565	695	594	435	540	525	205	174	439	864	270	242
25	558	702	579	455	500	510	189	174	522	685	258	253
26	550	710	558	470	485	520	184	300	582	634	242	258
27	543	673	529	465	500	550	163	412	706	548	215	287
28	558	651	522	475	510	570	189	566	659	453	209	299
29	572	651	550	480	-	560	168	659	635	395	209	316
30	579	630	550	465	-	570	210	901	566	376	209	408
31	550	-	536	450	-	575	-	1,110	-	389	215	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	15,882	739	143	512	31,500
November	22,057	850	558	735	43,750
December	18,675	666	522	602	37,040
Calendar year 1936	154,744	1,080	75	423	306,900
January	12,498	494	265	403	24,790
February	15,639	590	410	487	27,050
March	16,985	580	510	548	33,690
April	12,383	650	163	413	24,560
May	7,723	1,110	101	249	15,320
June	21,870	1,730	194	729	43,380
July	30,823	3,350	376	994	61,140
August	7,947	376	209	256	15,760
September	7,071	408	195	236	14,030
Water year 1936-37	187,553	3,350	101	514	372,000

North Platte River near Minatare, Nebr.

Location.- Water-stage recorder, lat. 41°47', long. 103°03', on west line of sec. 18, T. 21 N., R. 53 W., 2 miles south of Minatare.

Drainage area.- 24,700 square miles.

Records available.- October 1930 to September 1937 in reports of Geological Survey; May 1916 to October 1920, April 1922 to September 1937 in reports of State engineer.

Average discharge.- 14 years (1923-37), 1,568 second-feet.

Extremes.- Maximum discharge during year, 3,930 second-feet July 15 (gage height, 3.09 feet); minimum daily discharge, 45 second-feet May 24.
1916-37: Maximum discharge, 23,400 second-feet June 18, 1921; minimum daily discharge, 17 second-feet May 23, 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 30 to Feb. 20, Feb. 26-28, Mar. 24, 25, which were computed on basis of four discharge measurements and weather records and are fair. Numerous diversions for irrigation. Flow partly regulated by Pathfinder and Guernsey Reservoirs.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	396	866	842	600	625	703	807	367	1,420	479	420	302
2	439	902	866	505	650	726	807	329	1,590	424	426	265
3	475	938	818	560	680	749	772	321	1,150	470	419	273
4	484	986	866	590	665	749	737	324	1,020	456	418	322
5	493	1,080	854	555	649	737	726	297	1,390	578	353	365
6	523	1,110	784	460	620	749	737	307	1,360	582	310	416
7	749	1,120	784	370	615	714	784	335	1,130	544	260	576
8	1,020	1,050	795	355	600	737	749	322	894	670	253	513
9	986	1,030	795	400	590	726	714	309	849	655	235	526
10	962	1,020	830	435	600	703	692	301	1,300	538	208	515
11	962	1,050	842	475	630	692	649	303	1,950	624	183	504
12	974	1,080	818	530	640	682	649	289	1,470	829	174	521
13	950	1,110	784	560	660	703	564	264	1,090	1,260	159	501
14	950	1,110	772	530	680	772	502	250	1,140	1,930	134	494
15	938	1,100	749	540	720	714	484	241	749	2,900	151	479
16	902	1,060	760	560	750	737	466	220	418	2,940	170	469
17	878	1,010	902	565	777	772	457	197	296	2,080	170	469
18	842	986	890	540	760	784	502	151	228	1,780	446	440
19	854	974	830	500	740	807	554	132	219	1,720	404	429
20	842	998	842	450	750	854	523	108	240	1,570	381	415
21	854	986	830	383	795	854	457	96	301	1,420	374	386
22	830	986	807	420	772	842	404	77	312	1,190	375	379
23	795	938	807	455	714	795	372	68	310	1,020	376	360
24	795	938	807	505	703	710	310	45	280	1,000	354	396
25	795	926	784	565	714	760	296	54	333	905	339	449
26	807	962	772	630	660	749	303	88	553	811	302	493
27	818	914	772	615	610	726	303	181	616	716	273	521
28	830	878	760	630	660	760	340	316	638	580	261	552
29	842	890	726	645	-	795	348	435	611	473	285	587
30	866	866	650	640	-	795	356	884	540	401	354	597
31	866	-	680	620	-	795	-	1,190	-	392	322	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	24,717	1,020	396	797	49,030
November	29,864	1,120	866	995	59,230
December	24,818	902	650	801	49,230
Calendar year 1936	211,651	1,760	30	578	419,800
January	16,188	645	355	522	32,110
February	19,029	795	590	680	37,740
March	23,391	854	682	755	46,400
April	16,364	807	296	545	32,460
May	8,801	1,190	45	284	17,460
June	24,397	1,950	219	813	48,390
July	31,937	2,940	392	1,030	63,350
August	9,289	446	134	300	18,420
September	13,514	597	265	450	26,800
Water year 1936-37	242,309	2,940	45	664	480,600

North Platte River at Bridgeport, Nebr.

Location.- Water-stage recorder, lat. 41°40', long. 103°06', in sec. 28, T. 20 N., R. 50 W., half a mile north of Bridgeport. Zero of gage is 3,656.14 feet above mean sea level.

Drainage area.- 25,300 square miles.

Records available.- May 1902 to November 1906, June to September 1915, October 1930 to September 1937 in reports of Geological Survey; May 1902 to November 1906, June 1915 to September 1937 in reports of State engineer.

Average discharge.- 18 years (1919-37), 1,956 second-feet.

Extremes.- Maximum discharge during year, 3,540 second-feet July 16 (gage height, 6.67 feet; minimum daily discharge, 118 second-feet May 24.
1902-6, 1915-37: Maximum discharge, 23,000 second-feet June 19, 1921; minimum daily discharge, 55 second-feet May 28, 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 5-18, Jan. 1 to Feb. 21 and Feb. 26-28, which were computed on basis of six discharge measurements and weather records and are fair. Numerous diversions for irrigation. Flow partly regulated by Pathfinder and Guernsey Reservoirs.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	469	1,210	1,240	689	802	1,080	1,010	514	1,410	574	397	437
2	597	1,210	1,280	549	848	1,050	994	467	1,680	459	442	415
3	648	1,240	1,300	662	863	1,100	994	434	1,650	457	503	361
4	675	1,330	1,330	744	878	1,100	959	428	1,260	442	490	366
5	648	1,460	942	680	893	1,210	942	394	1,410	529	500	422
6	717	1,480	878	689	863	1,240	959	398	1,620	571	453	527
7	744	1,420	982	573	848	1,120	1,050	381	1,540	544	423	647
8	959	1,390	1,030	502	787	1,010	1,050	398	1,300	526	360	783
9	1,240	1,410	950	512	772	959	1,030	447	1,160	666	326	788
10	1,260	1,420	930	597	802	959	1,030	416	1,110	602	298	763
11	1,240	1,420	1,000	648	818	977	994	399	1,760	472	249	794
12	1,260	1,460	1,060	787	943	994	909	394	2,190	614	227	807
13	1,210	1,460	1,100	863	977	994	894	507	1,730	924	226	804
14	1,190	1,460	1,280	818	1,010	1,080	802	501	1,480	1,350	194	789
15	1,140	1,420	1,400	772	1,030	1,060	703	445	1,470	1,960	170	759
16	1,080	1,440	1,240	802	1,120	1,060	717	390	1,010	2,690	168	719
17	1,010	1,390	1,080	833	1,250	1,060	689	326	683	3,020	176	677
18	959	1,330	1,080	817	1,200	1,060	662	316	440	2,140	418	707
19	909	1,350	1,120	817	1,050	1,060	731	240	370	1,850	823	652
20	977	1,370	1,080	573	950	1,030	731	213	342	1,780	635	625
21	994	1,350	1,010	479	900	994	675	148	276	1,660	544	563
22	1,030	1,390	977	573	863	959	622	141	333	1,410	470	581
23	1,080	1,330	977	717	909	942	634	135	323	1,160	472	519
24	1,100	1,300	977	772	878	772	585	118	321	1,080	495	503
25	1,100	1,300	959	863	818	994	561	162	304	1,020	464	529
26	1,080	1,300	959	909	818	1,370	549	181	607	913	424	600
27	1,100	1,280	894	848	848	959	536	138	710	814	385	674
28	1,120	1,260	848	863	941	909	597	133	727	638	354	700
29	1,120	1,240	787	863	-	1,010	585	189	656	528	352	741
30	1,140	1,230	731	802	-	1,010	536	611	607	455	408	780
31	1,210	-	758	772	-	1,010	-	1,120	-	434	451	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	31,006	1,260	469	1,000	61,500
November	40,650	1,480	1,210	1,355	80,630
December	32,179	1,400	731	1,038	63,830
Calendar year 1936	282,406	1,980	61	772	560,200
January	22,388	909	479	722	44,410
February	25,679	1,250	772	917	50,930
March	32,132	1,370	772	1,037	63,730
April	23,730	1,050	536	791	47,070
May	11,084	1,120	118	358	21,980
June	30,479	2,190	276	1,016	60,450
July	32,282	3,020	434	1,041	64,030
August	12,297	823	168	397	24,390
September	19,032	807	361	634	37,750
Water year 1936-37	312,938	3,020	118	857	620,700

North Platte River at Lisco, Nebr.

Location.- Water-stage recorder, lat. 41°30', long. 102°38', in sec. 33, T. 18 N., R. 46 W., half a mile south of Lisco.

Drainage area.- 26,900 square miles.

Records available.- September 1931 to September 1937.

Extremes.- Maximum discharge during year, 3,360 second-feet July 18 (gage height, 2.39 feet); minimum daily discharge, 104 second-feet May 25.
1931-37: Maximum discharge, 12,100 second-feet June 15, 1935 (gage height, 3.57 feet); minimum daily discharge, 8 second-feet Aug. 4, 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 5-20, Dec. 30 to Mar. 5, Mar. 24-28, which were computed on basis of six discharge measurements and weather records and are fair. Numerous diversions for irrigation. Flow partly regulated by Pathfinder and Guernsey Reservoirs.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	454	1,490	1,430	800	873	1,590	1,110	563	1,190	497	444	508
2	497	1,530	1,450	710	900	1,610	1,090	574	1,530	454	424	530
3	666	1,580	1,380	635	910	1,630	1,020	552	1,810	343	444	454
4	596	1,620	1,360	566	930	1,650	978	519	1,980	304	475	486
5	642	2,210	1,200	560	950	1,750	964	508	1,670	285	465	444
6	654	1,800	1,020	540	990	1,720	978	519	1,590	324	444	519
7	700	1,620	1,080	520	1,010	1,340	978	497	1,810	413	372	1,250
8	736	1,560	1,020	500	1,020	1,170	1,010	465	1,740	424	353	937
9	872	1,560	1,000	540	950	1,190	1,010	486	1,700	424	314	950
10	1,060	1,560	980	600	980	1,170	992	475	1,380	585	248	911
11	1,090	1,530	1,020	680	1,050	1,200	992	454	1,340	552	221	898
12	1,150	1,530	1,100	810	1,120	1,190	937	413	1,780	541	257	898
13	1,190	1,530	1,180	1,000	1,200	1,170	872	393	2,240	688	294	846
14	1,200	1,530	1,250	1,060	1,300	1,340	846	497	1,650	820	203	859
15	1,190	1,530	1,360	970	1,360	1,300	748	475	1,510	1,110	185	846
16	1,170	1,530	1,420	841	1,480	1,360	736	434	1,340	1,630	194	784
17	1,150	1,530	1,500	900	1,610	1,190	724	372	885	2,100	221	736
18	1,110	1,530	1,460	940	1,500	1,150	724	353	585	2,960	212	724
19	1,080	1,510	1,420	1,050	1,320	1,280	724	353	424	1,920	424	712
20	1,170	1,450	1,370	1,000	1,080	1,240	724	353	324	1,380	666	642
21	1,200	1,450	1,340	650	1,200	1,240	700	257	304	1,250	486	596
22	1,220	1,450	1,300	700	1,400	1,220	724	248	239	1,140	393	596
23	1,220	1,400	1,260	810	1,580	1,240	666	230	230	1,030	294	596
24	1,260	1,380	1,220	920	1,540	950	631	148	203	978	382	563
25	1,280	1,300	1,190	970	1,500	1,020	541	104	266	872	497	574
26	1,260	1,280	1,190	1,030	1,380	1,130	519	239	343	820	413	631
27	1,240	1,320	1,090	1,080	1,420	1,170	508	221	454	724	343	724
28	1,170	1,360	1,090	985	1,500	1,250	642	132	530	642	343	796
29	1,170	1,380	1,090	1,000	-	1,380	620	132	585	563	434	872
30	1,170	1,430	1,000	970	-	1,260	552	372	552	552	343	924
31	1,220	-	940	880	-	1,170	-	784	-	596	424	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	31,787	1,280	454	1,025	63,050
November	45,480	2,210	1,280	1,516	90,210
December	37,710	1,500	940	1,216	74,800
Calendar year 1936	310,850	2,440	75	849	616,600
January	25,217	1,080	500	813	50,020
February	34,053	1,610	873	1,216	67,540
March	40,270	1,750	950	1,299	79,870
April	24,260	1,110	508	809	48,120
May	12,122	784	104	391	24,040
June	32,184	2,240	203	1,073	63,840
July	26,921	2,960	285	868	53,400
August	11,212	666	185	362	22,240
September	21,806	1,250	444	727	43,250
Water year 1936-37	343,022	2,960	104	940	680,400

North Platte River at Oshkosh, Nebr.

Location.- Water-stage recorder, lat. 41°23', long. 102°20', on west line of sec. 2, T. 16 N., R. 44 W., 1 mile south of Oshkosh.

Drainage area.- 27,500 square miles.

Records available.- October 1930 to September 1937 in reports of Geological Survey; April 1916 to October 1917, March 1928 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 3,020 second-feet July 19 (gage height, 2.41 feet); minimum daily discharge, 101 second-feet May 29, 30.
1916-17, 1928-37: Maximum discharge, 19,200 second-feet June 4, 1929; no flow July 21 to Aug. 11, Aug. 21, 24-31, 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 5 to Mar. 10, and Mar. 24-29, which were computed on basis of six discharge measurements and weather records and are fair. Numerous diversions for irrigation. Flow partly regulated by Pathfinder and Guernsey Reservoirs.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	418	1,420	1,300	900	930	1,650	1,040	639	650	468	487	311
2	418	1,420	1,370	810	945	1,720	1,060	662	1,080	556	418	442
3	450	1,390	1,230	700	960	1,810	1,100	627	1,370	402	410	402
4	497	1,660	1,230	820	971	1,990	1,060	536	1,780	319	402	434
5	517	2,230	1,200	530	1,000	1,850	1,060	478	1,730	263	386	458
6	517	2,030	1,100	520	1,020	1,720	1,020	468	1,460	223	386	468
7	527	1,980	1,120	540	1,050	1,580	1,080	527	1,700	304	363	1,080
8	591	1,880	1,080	560	1,100	1,420	1,130	468	1,880	319	326	1,020
9	662	1,800	1,050	600	1,120	1,400	1,150	478	1,880	334	284	946
10	820	1,680	1,070	720	1,200	1,450	1,080	478	1,560	348	236	928
11	982	1,580	1,120	790	1,240	1,490	1,000	536	1,320	426	223	910
12	1,000	1,560	1,150	910	1,260	1,390	1,130	497	1,460	426	210	892
13	1,000	1,560	1,200	1,080	1,350	1,390	1,060	458	2,030	556	250	874
14	1,080	1,510	1,320	1,180	1,400	1,130	1,000	434	1,980	580	204	838
15	1,170	1,540	1,400	1,100	1,500	1,390	874	458	1,610	703	191	820
16	1,190	1,510	1,480	930	1,620	1,780	838	394	1,580	1,170	178	732
17	1,190	1,490	1,520	1,000	1,700	1,540	791	371	1,040	1,730	160	689
18	1,150	1,460	1,580	1,150	1,810	1,210	805	297	662	2,420	160	674
19	1,130	1,490	1,670	1,100	1,480	1,440	776	277	478	2,600	154	674
20	1,150	1,490	1,620	1,080	1,190	1,390	820	270	378	1,780	410	591
21	1,170	1,510	1,500	900	1,250	1,440	762	256	341	1,490	434	556
22	1,170	1,540	1,420	720	1,400	1,420	762	236	304	1,280	348	556
23	1,190	1,420	1,350	800	1,650	1,460	732	204	284	1,100	326	580
24	1,210	1,510	1,300	920	1,780	1,000	747	178	277	1,060	341	556
25	1,280	1,420	1,250	1,000	1,700	1,110	703	148	270	820	507	580
26	1,230	1,440	1,200	1,100	1,460	1,130	639	178	326	747	402	615
27	1,300	1,440	1,180	1,120	1,500	1,190	568	154	341	703	311	650
28	1,210	1,440	1,150	1,050	1,600	1,260	662	130	450	615	311	674
29	1,190	1,440	1,130	1,030	-	1,450	747	101	458	627	326	718
30	1,170	1,390	1,080	1,020	-	1,390	662	101	468	603	319	791
31	1,210	-	990	970	-	1,080	-	277	-	568	304	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	29,789	1,300	418	961	59,090
November	47,130	2,230	1,390	1,571	93,480
December	39,360	1,670	990	1,270	78,070
Calendar year 1936	319,884	2,850	53	874	634,500
January	27,450	1,180	520	885	54,450
February	37,186	1,810	930	1,328	73,760
March	44,670	1,990	1,000	1,441	88,600
April	26,858	1,150	568	895	53,270
May	11,316	662	101	365	22,440
June	31,147	2,030	270	1,038	61,780
July	25,540	2,600	223	824	50,660
August	9,767	487	154	315	19,370
September	20,459	1,080	311	682	40,580
Water year 1936-37	350,672	2,600	101	961	695,600

North Platte River at Martin, Nebr.

Location.- Water-stage recorder, lat. 41°14', long. 101°43 , in sec. 31, T. 15 N., R. 38 W., 1 mile south of Martin.

Drainage area.- 30,000 square miles.

Records available.- October 1933 to September 1937.

Extremes.- Maximum discharge during year, 2,910 second-feet July 20 (gage height, 2.00 feet); minimum daily discharge, 150 second-feet May 29.
1933-37: Maximum discharge, 16,400 second-feet June 17, 1935 (gage height, 3.35 feet); no flow July 25 to Aug. 14, Aug. 27, 29-31, 1934.

Remarks.- Records good except those for period of missing gage heights, Nov. 3-12 (computed on basis of record for station at Oshkosh), and those for period of ice effect, Dec. 4 to Mar. 7 (computed on basis of four discharge measurements and weather records), which are fair. Numerous diversions above station. Flow partly regulated by reservoirs in Wyoming.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	454	1,270	1,530	920	1,000	1,450	1,780	688	215	448	568	307
2	488	1,400	1,530	810	970	1,530	1,710	668	872	474	487	345
3	454	1,650	1,500	650	980	1,800	1,710	704	1,260	838	368	474
4	488	1,800	1,350	690	1,020	2,050	1,670	642	1,730	626	298	1,190
5	586	2,100	1,120	776	1,110	2,310	1,540	582	2,210	380	278	541
6	653	1,980	1,100	700	1,200	2,520	1,520	500	1,950	229	278	541
7	653	1,940	1,080	680	1,180	2,650	1,500	514	1,750	194	316	785
8	682	1,900	1,060	560	1,170	2,510	1,400	554	2,110	222	316	1,220
9	696	1,950	1,020	600	1,180	2,210	1,400	541	2,180	243	250	1,400
10	668	2,000	1,040	710	1,200	1,810	1,440	568	1,930	260	215	1,110
11	801	2,150	1,100	820	1,280	1,570	1,440	672	1,580	269	187	1,070
12	1,080	2,100	1,150	1,000	1,330	1,500	1,480	657	1,280	541	208	1,030
13	1,160	2,000	1,300	1,180	1,420	1,380	1,380	554	1,260	855	243	1,110
14	1,180	1,980	1,400	1,300	1,500	1,440	1,300	460	1,820	785	260	1,110
15	1,250	2,050	1,480	1,160	1,620	1,330	1,070	437	2,090	719	288	1,040
16	1,250	2,160	1,520	910	1,760	1,350	1,090	460	1,710	802	215	999
17	1,250	2,110	1,630	1,000	2,050	2,050	1,020	460	1,540	1,130	187	980
18	1,190	2,050	1,710	1,100	2,120	1,780	908	380	1,190	1,580	180	999
19	1,160	2,050	1,830	1,210	1,550	1,780	944	307	820	2,090	229	908
20	1,140	2,030	1,880	1,050	1,240	1,730	980	336	582	2,630	236	890
21	1,160	1,930	1,670	850	1,300	1,660	908	260	437	1,730	250	838
22	1,160	2,000	1,540	690	1,500	1,690	925	260	269	1,380	448	820
23	1,140	1,900	1,450	700	1,760	1,830	855	243	194	1,300	345	838
24	1,190	1,880	1,340	890	1,850	1,380	890	260	162	1,380	326	750
25	1,290	1,810	1,290	1,080	2,000	832	785	250	174	1,150	657	838
26	1,210	1,730	1,250	1,150	1,580	1,160	719	278	288	872	820	820
27	1,270	1,710	1,210	1,200	1,240	1,810	582	194	296	750	595	802
28	1,350	1,710	1,180	1,180	1,400	2,160	610	194	307	657	414	785
29	1,330	1,690	1,120	1,100	-	2,450	719	150	336	582	356	802
30	1,270	1,620	1,080	1,080	-	2,400	802	269	414	554	326	890
31	1,270	-	1,000	1,050	-	2,210	-	168	-	626	345	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	30,923	1,350	454	998	61,330
November	56,650	2,160	1,270	1,888	112,400
December	41,460	1,880	1,000	1,337	82,230
Calendar year 1936	363,999	3,400	65	995	722,000
January	28,796	1,300	560	929	57,120
February	39,510	2,120	970	1,411	78,370
March	56,332	2,650	832	1,817	111,700
April	35,077	1,780	582	1,169	69,570
May	13,230	704	150	427	26,240
June	32,958	2,210	162	1,099	65,370
July	26,296	2,630	194	848	52,160
August	10,489	820	180	338	20,800
September	26,232	1,400	307	874	52,030
Water year 1936-37	397,953	2,650	150	1,090	789,300

North Platte River near Sutherland, Nebr.

Location.- Water-stage recorder, lat. 41°12', long. 101°06', in sec. 4, T. 14 N., R. 33 W., at highway bridge 1½ miles above mouth of Birdwood Creek and 3½ miles north of Sutherland.

Drainage area.- 31,300 square miles.

Records available.- July to September 1931, April 1936 to September 1937.

Extremes.- Maximum daily discharge during year, 3,000 second-feet (computed) Mar. 7; minimum daily discharge, 1 second-feet Aug. 22.
1931, 1936-7: Maximum daily discharge, that of Mar. 7, 1937; minimum, 1 second-foot July 9-11, 18, 24-27, Aug. 15-18, 1936, and Aug. 22, 1937.

Remarks.- Records good except those for periods of missing gage heights, Oct. 1, Oct. 24 to Nov. 5 (computed on basis of records for station at North Platte), and those for period of ice effect, Jan. 3 to Mar. 8 (computed on basis of two discharge measurements and weather records), which are fair. Diversion canal for Sutherland Reservoir (capacity 180,000 acre-feet) diverts water from North Platte River 27 miles above station. Flow partly regulated by reservoirs in Wyoming.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	195	1,450	664	309	210	2,100	1,640	695	29	2	186	8
2	282	1,400	435	350	250	2,210	1,300	510	127	3	255	11
3	336	1,530	405	320	320	2,450	1,230	540	390	8	198	20
4	390	1,560	244	290	410	2,500	1,100	510	888	33	268	309
5	390	1,280	244	260	580	2,750	1,090	480	1,330	140	120	839
6	450	1,170	309	170	600	2,900	1,070	435	2,060	31	63	648
7	480	1,210	282	90	540	3,000	1,100	376	1,840	11	45	540
8	602	1,210	282	50	496	2,820	1,050	376	1,600	5	22	775
9	695	1,070	255	30	450	2,570	1,040	363	1,740	4	18	921
10	743	1,050	232	50	510	2,190	1,330	390	2,060	2	39	1,320
11	791	1,040	209	80	600	1,640	1,170	420	1,910	2	9	1,100
12	839	1,000	648	170	740	1,390	1,100	363	1,620	4	7	1,040
13	987	1,000	1,280	280	1,000	1,370	1,070	336	1,260	15	5	987
14	1,190	872	1,230	290	1,320	1,390	1,100	336	1,240	255	4	1,000
15	1,300	556	1,140	310	1,680	1,350	1,040	255	1,740	198	2	855
16	1,300	405	970	270	2,020	1,350	921	186	2,120	186	2	775
17	987	480	872	150	2,350	1,480	839	209	1,560	209	2	743
18	1,230	970	1,120	100	2,440	1,760	855	108	1,280	480	2	695
19	1,280	376	1,160	160	2,280	1,890	888	66	1,050	904	4	680
20	1,260	405	921	170	2,030	1,640	888	57	727	1,260	6	540
21	1,240	322	987	115	2,100	1,640	839	37	480	1,820	2	525
22	1,160	309	904	162	2,250	1,580	711	22	244	1,390	1	495
23	1,240	556	711	170	2,450	1,230	759	13	66	855	2	495
24	1,300	938	602	180	2,770	1,480	695	9	35	970	12	540
25	1,380	807	525	200	2,480	921	664	25	24	872	69	525
26	1,400	695	405	260	2,210	510	727	140	41	648	186	540
27	1,410	680	232	330	1,760	209	775	31	25	465	376	525
28	1,420	602	296	350	1,920	174	839	22	13	363	282	495
29	1,440	633	282	330	-	198	807	16	7	405	101	556
30	1,500	648	244	280	-	556	823	22	4	268	25	648
31	1,510	-	186	230	-	2,190	-	16	-	255	9	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	30,727	1,510	195	991	60,950
November	26,224	1,560	309	874	52,010
December	18,276	1,280	186	590	36,250
Calendar year					
January	6,486	350	30	209	12,860
February	38,766	2,770	210	1,384	76,890
March	51,438	3,000	174	1,659	102,000
April	29,460	1,640	664	982	58,430
May	7,364	695	9	238	14,610
June	27,510	2,120	4	917	54,570
July	12,063	1,820	2	389	23,930
August	2,322	376	1	74.9	4,610
September	19,150	1,320	8	638	37,980
Water year 1936-37	269,786	3,000	1	739	535,100

North Platte River at North Platte, Nebr.

Location.- Water-stage recorder, lat. 41°09', long. 100°46', in sec. 28, T. 14 N., R. 30 W., half a mile north of North Platte and 4⅛ miles above mouth of South Platte River. Zero of gage is 2,794.9 feet above mean sea level.

Drainage area.- 32,000 square miles.

Records available.- February 1895 to September 1915, October 1930 to September 1937 in reports of Geological Survey; February 1895 to October 1937 in reports of State engineer.

Average discharge.- 42 years, 2,562 second-feet.

Extremes.- Maximum daily discharge during year, 3,560 second-feet Feb. 24; minimum daily discharge, 79 second-feet Aug. 16, 22-24.
1895-37: Maximum discharge, 27,100 second-feet June 6, 1909; minimum daily discharge, 20 second-feet Sept. 20, 1904.

Remarks.- Records good except those for periods of ice effect, Jan. 1 to Mar. 9, which were computed on basis of five discharge measurements and weather records and are fair. Numerous diversions for irrigation. Flow partly regulated by reservoirs in Wyoming.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	227	1,660	720	280	360	2,750	3,010	948	208	179	316	134
2	307	1,690	702	290	390	2,900	2,520	913	349	179	278	129
3	380	1,840	508	285	480	2,950	2,140	828	316	184	308	134
4	434	1,890	464	204	610	3,150	2,040	845	571	158	325	202
5	434	1,430	185	195	730	3,400	1,930	745	1,090	202	333	443
6	434	1,330	420	190	690	3,550	1,890	684	1,580	232	219	730
7	434	1,350	369	190	630	3,450	1,860	596	2,070	153	202	583
8	479	1,610	449	185	540	3,150	1,780	534	1,800	112	190	714
9	593	1,530	464	180	525	2,960	1,730	484	1,890	104	162	913
10	665	1,530	523	200	580	2,670	1,860	484	2,040	89	120	1,170
11	702	1,400	494	240	810	1,980	1,780	596	2,090	112	108	1,340
12	761	1,330	479	270	1,060	1,660	1,670	571	1,860	104	108	1,150
13	761	1,230	611	340	1,380	1,500	1,670	453	1,480	144	112	1,070
14	972	1,300	904	400	1,720	1,480	1,670	382	1,220	158	97	1,040
15	1,160	1,090	996	440	2,250	1,400	1,630	357	1,340	262	81	984
16	1,160	782	972	470	2,850	1,690	1,480	325	2,380	255	79	879
17	1,070	702	802	465	2,920	1,820	1,280	300	2,240	357	81	760
18	864	1,090	761	460	3,140	2,140	1,200	285	1,750	316	81	714
19	1,330	972	948	420	2,850	3,020	1,130	248	1,630	558	89	684
20	1,330	684	996	340	2,720	2,560	1,130	219	1,200	1,040	108	638
21	1,380	611	948	260	2,550	2,740	1,110	232	811	1,540	85	583
22	1,300	629	822	130	2,800	2,740	1,090	213	413	2,140	79	558
23	1,430	574	740	160	3,110	2,740	1,110	196	240	1,320	79	558
24	1,530	802	647	200	3,560	2,390	1,280	196	158	1,130	79	571
25	1,580	864	611	260	3,020	1,580	1,070	208	134	1,130	112	608
26	1,580	802	464	300	2,850	1,140	1,000	285	270	984	167	654
27	1,580	822	380	350	2,450	684	1,020	292	278	745	202	669
28	1,630	782	369	400	2,600	508	1,190	208	240	546	285	638
29	1,690	782	380	440	-	449	1,190	173	213	464	240	669
30	1,690	740	359	400	-	464	1,000	173	202	366	285	745
31	1,710	-	271	380	-	2,230	-	179	-	341	184	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	31,597	1,710	227	1,019	62,670
November	33,848	1,890	574	1,128	67,140
December	18,758	996	185	605	37,210
Calendar year 1936	272,272	4,500	36	744	540,000
January	9,324	470	130	301	18,490
February	50,175	3,560	360	1,792	99,520
March	67,845	3,550	449	2,189	134,600
April	46,460	3,010	1,000	1,549	92,150
May	13,152	948	173	424	26,090
June	32,063	2,380	134	1,069	63,600
July	15,604	2,140	89	503	30,950
August	5,194	333	79	168	10,300
September	20,664	1,340	129	689	40,990
Water year 1936-37	344,684	3,560	79	944	683,700

Platte River near Overton, Nebr.

Location.- Water-stage recorder, lat. 40°41', long. 99°32', in sec. 12, T. 8 N., R. 20 W., 4 miles south of Overton.

Drainage area.- 58,400 square miles.

Records available.- October 1930 to September 1937 in reports of Geological Survey; June 1918 to December 1923 and April 1925 to September 1937 in reports of State engineer.

Extremes.- Maximum daily discharge during year, 5,000 second-feet Feb. 22; no flow at times.
1918-23, 1925-37: Maximum discharge, 37,600 second-feet June 5, 1935 (gage height, 6.25 feet); no flow at times during 1925, 1927, 1938, 1930-37.

Remarks.- Records good except those for periods of ice effect, Dec. 31 to Mar. 10, which were computed on basis of four discharge measurements and weather records and are fair. Numerous diversions from headwaters for irrigation. Flow partly regulated by reservoirs in Colorado and Wyoming.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	786	510	400	2,500	1,040	515	0			0
2		0	593	460	430	3,100	1,300	526	23			0
3		0	475	410	510	3,890	3,770	590	18			0
4		0	503	430	600	4,150	2,920	473	34			0
5		299	810	500	680	4,500	2,420	263	442			190
6		702	646	300	750	4,750	2,060	155	245			0
7		563	725	220	650	4,850	2,150	105	245			0
8		1,420	798	200	620	4,900	1,530	146	637			0
9		614	810	160	590	4,750	1,500	120	2,060			0
10		786	835	230	565	4,500	1,500	67	1,950			4
11		1,420	905	250	700	4,040	1,180	34	1,840			0
12		823	980	280	1,200	3,420	1,560	39	2,240			0
13		691	905	320	1,720	3,020	1,620	67	2,330			0
14		532	950	370	2,150	2,480	1,380	34	2,060			291
15		375	920	410	2,980	2,640	1,060	23	1,690			282
16		290	848	430	3,650	2,280	900	18	1,560			254
17		315	1,010	445	4,120	3,150	867	14	1,440			226
18		208	1,420	420	3,880	2,640	723	7	2,280			190
19		117	1,740	380	3,350	2,940	558	4	2,690			105
20		117	1,090	330	3,650	4,300	661	0	1,760			34
21		298	950	260	4,200	4,460	569	0	1,250			7
22		484	995	165	5,000	3,600	590	14	867			0
23		248	1,090	115	4,510	3,060	558	4	431			0
24		200	1,130	145	4,250	3,110	649	1	129			0
25		349	1,010	200	3,840	2,520	624	0	34			0
26		513	1,150	295	3,460	2,520	547	7	320			0
27		604	736	360	2,600	1,810	462	23	558			0
28		736	950	420	2,200	1,540	282	11	340			0
29		691	810	450	-	1,260	360	0	208			0
30		748	573	440	-	1,240	442	0	82			0
31		-	460	390	-	1,290	-	0	-			-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	14,143	1,420	0	471	28,050
December	27,603	1,740	460	890	54,750
Calendar year 1936	258,427	5,500	0	706	512,600
January	10,295	510	115	332	20,420
February	63,255	5,000	400	2,259	125,500
March	99,210	4,900	1,240	3,200	196,800
April	35,782	3,770	282	1,193	70,970
May	3,260	590	0	105	6,470
June	29,763	2,690	0	992	59,030
July	0	0	0	0	0
August	0	0	0	0	0
September	1,583	291	0	52.8	3,140
Water year 1936-37	284,894	5,000	0	781	565,100

Platte River near Grand Island, Nebr.

Location.- Water-stage recorder, lat. 40°53', long. 98°17', in sec. 36, T. 11 N., R. 9 W., 5 miles southeast of Grand Island.

Drainage area.- 59,500 square miles.

Records available.- October 1933 to September 1937.

Extremes.- Maximum discharge during year, 5,390 second-feet Mar. 7 (gage height, 3.92 feet); no flow Oct. 1 to Dec. 23, Jan. 5 to Feb. 15, May 21, July 5 to Sept. 30. 1933-37: Maximum discharge, 44,400 second-feet June 6, 1935 (gage height, 5.99 feet); no flow at times during 1934-37.

Remarks.- Records good. Records for period of ice effect, Feb. 26-28, computed on basis of one discharge measurement, gage heights, and weather records. Numerous diversions for irrigation above station. Flow partly regulated by reservoirs in Colorado and Wyoming.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	88	0	1,760	889	378	147	227		
2			0	95	0	2,290	870	367	118	118		
3			0	35	0	2,600	708	472	118	35		
4			0	2	0	3,870	1,170	547	138	2		
5			0	0	0	4,430	2,320	510	248	0		
6			0	0	0	4,140	2,160	423	227	0		
7			0	0	0	4,310	2,000	412	196	0		
8			0	0	0	4,730	1,940	434	237	0		
9			0	0	0	4,670	1,760	344	322	0		
10			0	0	0	4,030	1,500	311	333	0		
11			0	0	0	4,030	1,350	311	870	0		
12			0	0	0	3,870	1,080	248	1,450	0		
13			0	0	0	3,340	927	95	1,550	0		
14			0	0	0	2,750	927	88	1,520	0		
15			0	0	0	1,970	1,150	88	1,550	0		
16			0	0	4	2,640	1,080	80	2,160	0		
17			0	0	389	2,570	805	88	1,850	0		
18			0	0	2,160	2,490	757	42	1,470	0		
19			0	0	2,790	2,750	740	7	946	0		
20			0	0	3,000	2,460	664	2	965	0		
21			0	0	2,120	2,790	535	0	1,820	0		
22			0	0	2,000	3,820	547	57	1,380	0		
23			0	0	2,790	3,290	590	157	789	0		
24			237	0	3,570	3,040	664	42	472	0		
25			678	0	1,550	2,420	522	22	301	0		
26			575	0	1,260	2,090	344	757	344	0		
27			290	0	1,580	3,120	378	389	290	0		
28			167	0	1,760	2,290	447	290	590	0		
29			269	0	-	2,190	472	472	560	0		
30			237	0	-	1,680	447	356	344	0		
31			157	0	-	1,240	-	269	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	2,610	678	0	84.2	5,180
Calendar year 1936	226,367	13,700	0	618	449,000
January	220	95	0	7.1	436
February	24,973	3,570	0	892	49,530
March	93,670	4,730	1,240	3,022	185,800
April	29,743	2,320	344	991	58,990
May	8,058	757	0	260	15,980
June	23,305	2,160	118	777	46,220
July	382	227	0	12.3	758
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1936-37	182,961	4,730	0	529	362,900

Platte River near Duncan, Nebr.

Location.- Water-stage recorder, lat. 41°22', long. 97°29', in sec. 12, T. 16 N., R. 2 W., 1½ miles south of Duncan. Zero of gage is 1,478.55 feet above mean sea level (general adjustment of 1929).

Drainage area.- 61,600 square miles.

Records available.- October 1928 to September 1937. June 1895 to September 1915, at site 7 miles downstream; records equivalent.

Extremes.- Maximum discharge during year, 6,450 second-feet Mar. 6 (gage height, 3.57 feet); no flow Oct. 1-22, 25, 26, 31, Nov. 1-4, 7, 24, 25, Jan. 2 to Feb. 6, Aug. 13-19, Aug. 21 to Sept. 19, Sept. 21-25, 27-30.
1895-1915, 1928-37: Maximum discharge, 51,100 second-feet June 23, 1905; no flow at times.

Remarks.- Records fair. Discharge for periods of ice effect, Dec. 31 to Jan. 2, Feb. 7-19, 25, 26, and Mar. 1-5, computed on basis of three discharge measurements and weather records. Numerous diversions from headwaters. Flow partly regulated by reservoirs in Colorado and Wyoming. Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0	2	3	0	2,740	1,940	503	354	642	89	0
2	0	0	3	0	0	3,220	1,470	503	486	600	39	0
3	0	0	3	0	0	3,780	1,200	620	246	452	18	0
4	0	0	3	0	0	4,420	1,040	600	184	256	11	0
5	0	2	7	0	0	5,050	990	560	216	152	5	0
6	0	.6	28	0	0	5,450	2,360	560	235	66	5	0
7	0	0	30	0	2	5,360	2,360	520	251	30	14	0
8	0	7	9	0	4	5,320	2,150	802	180	18	5	0
9	0	7	2	0	3	5,280	2,020	878	180	14	2	0
10	0	3	3	0	3	4,640	2,020	550	246	11	.6	0
11	0	2	5	0	5	3,780	1,640	420	278	28	.9	0
12	0	2	3	0	20	3,560	1,390	354	347	56	.6	0
13	0	2	12	0	30	3,170	1,280	314	934	66	0	0
14	0	2	3	0	40	2,750	1,150	290	1,190	72	0	0
15	0	2	3	0	62	2,090	1,090	184	1,260	25	0	0
16	0	3	2	0	85	1,730	1,170	148	1,330	2	0	0
17	0	3	2	0	100	1,750	1,120	138	1,570	0	0	0
18	0	3	2	0	210	1,920	1,020	109	1,600	22	0	0
19	0	3	2	0	950	2,020	920	123	1,260	138	0	0
20	0	2	5	0	2,500	2,390	814	102	990	66	.3	.2
21	0	2	9	0	1,970	2,360	708	69	838	39	0	0
22	0	2	5	0	1,310	2,280	653	50	934	22	0	0
23	.3	1	7	0	1,220	3,780	530	36	1,330	7	0	0
24	.6	0	2	0	1,850	3,380	560	39	990	3	0	0
25	0	0	2	0	1,080	2,970	590	50	730	109	0	0
26	0	2	2	0	946	2,590	590	240	620	168	0	1
27	1	2	2	0	2,680	1,750	503	730	444	66	0	0
28	.9	2	2	0	2,170	2,150	478	790	340	30	0	0
29	.6	2	1	0	-	2,940	494	478	246	44	0	0
30	2	2	1	0	-	2,220	486	478	620	184	0	0
31	0	-	2	0	-	2,120	-	478	-	160	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5.4	2	0	0.17	11
November	58.6	7	0	1.95	116
December	164	30	1	5.3	325
Calendar year 1936	220,819.0	17,800	0	603	438,000
January	3	3	0	.1	6.0
February	17,240	2,680	0	616	34,200
March	98,960	5,450	1,730	3,192	196,300
April	34,736	2,360	478	1,158	68,900
May	11,716	878	36	378	23,240
June	20,429	1,600	180	681	40,520
July	3,548	642	0	114	7,040
August	190.4	89	0	6.14	378
September	1.2	1	0	.04	2.4
Water year 1936-37	187,051.6	5,450	0	512	371,000

Platte River near Ashland, Nebr.

Location.- Water-stage recorder, lat. 41°04', long. 96°20', in sec. 30, T. 13 N., R. 10 E., 3 miles northeast of Ashland. Zero of gage is 1,020.1 feet above mean sea level.

Drainage area.- 83,800 square miles.

Records available.- August 1928 to September 1937.

Extremes.- Maximum discharge during year, 24,500 second-feet Mar. 6 (gage height, 5.80 feet); minimum daily discharge, 416 second-feet Jan. 3.
1928-37: Maximum discharge, 59,000 second-feet Mar. 5, 1936 (gage height, 8.33 feet); minimum, 386 second-feet Feb. 26, 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 6 to Mar. 2, which were computed on basis of six discharge measurements, weather records, and records for station on Loup River at Columbus and are fair. Numerous diversions from headwaters. Flow partly regulated by reservoirs on headwaters in Colorado and Wyoming.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,700	2,020	2,410	632	1,460	12,300	5,330	3,720	3,580	3,870	6,200	1,840
2	1,770	1,930	2,470	530	1,480	13,100	5,120	3,870	3,740	3,300	3,340	2,060
3	1,770	1,880	2,500	416	1,510	14,100	4,750	4,250	3,620	3,010	3,300	2,020
4	1,860	1,980	2,640	423	1,530	15,000	4,470	4,250	4,220	2,620	2,930	1,820
5	2,000	2,620	2,520	446	1,550	14,100	4,040	4,340	4,340	2,330	2,060	1,570
6	1,890	2,450	1,150	478	1,560	14,500	3,920	4,220	3,490	1,840	1,610	1,570
7	2,000	1,700	775	510	1,580	14,500	4,150	3,870	7,810	1,570	1,480	3,840
8	1,890	1,590	819	520	1,580	13,700	5,500	3,740	5,010	1,350	2,070	3,170
9	1,810	1,950	863	502	1,590	14,200	5,580	3,740	3,490	1,230	1,790	2,180
10	1,820	2,390	918	486	1,590	15,600	4,890	4,060	2,680	1,180	1,390	2,220
11	1,820	2,310	907	469	1,620	14,000	4,510	4,120	2,330	1,110	1,220	1,880
12	1,810	2,110	852	470	1,650	13,300	4,440	3,620	2,180	1,120	1,120	3,320
13	1,740	2,430	830	478	1,670	11,400	4,040	3,300	4,710	1,250	1,120	3,870
14	1,740	2,560	829	494	1,710	9,290	3,770	3,090	5,120	1,460	1,020	2,730
15	1,760	2,370	830	550	1,740	8,150	3,560	2,970	8,010	6,250	950	2,070
16	1,760	2,260	874	676	1,900	7,550	3,740	3,090	4,750	3,870	902	1,700
17	1,740	2,280	1,000	918	1,980	7,810	3,560	2,830	4,310	2,330	878	1,570
18	1,760	2,300	1,250	896	2,160	8,220	3,450	2,710	3,820	1,790	866	1,460
19	1,860	2,310	1,800	874	2,420	8,640	3,360	2,590	5,540	2,160	1,510	1,380
20	1,860	2,370	2,350	830	2,630	7,940	3,380	2,510	6,120	2,020	1,560	1,330
21	1,860	2,430	2,950	852	2,670	6,040	3,450	2,390	7,880	7,310	3,190	1,280
22	1,840	2,350	3,250	918	2,650	6,460	3,190	2,260	5,540	3,950	3,320	1,220
23	1,860	2,370	3,350	1,040	3,330	6,840	2,910	2,090	3,740	2,910	2,850	1,230
24	1,980	2,520	3,400	1,110	4,410	9,750	3,130	1,970	3,250	1,970	2,560	1,280
25	2,410	2,390	3,460	1,340	6,040	9,820	3,530	2,040	3,300	1,460	2,370	2,580
26	2,060	2,580	3,330	1,480	7,420	8,780	3,620	3,950	3,030	1,350	1,790	2,180
27	1,930	2,390	3,120	1,530	10,900	7,810	3,720	3,340	4,150	1,540	1,540	2,370
28	2,040	2,560	2,750	1,510	11,200	5,670	3,490	3,700	16,300	1,970	1,380	2,790
29	2,220	2,470	2,320	1,480	-	4,930	3,230	8,710	8,560	1,380	1,280	2,750
30	2,130	2,370	1,700	1,440	-	5,810	3,280	6,250	4,680	1,890	1,110	2,480
31	2,060	-	950	1,410	-	5,720	-	4,250	-	4,540	1,260	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	58,750	2,410	1,700	1,895	116,500
November	68,240	2,620	1,590	2,275	135,400
December	59,167	3,460	775	1,909	117,400
Calendar year 1936	1,151,382	41,000	600	3,146	2,284,000
January	25,708	1,530	416	829	50,990
February	83,530	11,200	1,460	2,983	165,700
March	315,030	15,600	4,930	10,160	624,900
April	119,110	5,580	2,910	3,970	236,300
May	111,440	8,710	1,970	3,595	221,000
June	148,300	16,300	2,180	4,943	294,100
July	75,930	7,310	1,110	2,449	150,600
August	59,966	6,200	866	1,934	118,900
September	63,760	3,870	1,220	2,125	126,500
Water year 1936-37	1,188,931	16,300	416	3,257	2,358,000

Little Grizzly Creek near Hebron, Colo.

Location.- Water-stage recorder, lat. 40°37', long. 106°24', in sec. 32, T. 8 N., R. 80 W., 1 mile above junction with Grizzly Creek and 3 miles north of Hebron. Prior to May 22, 1937, staff gage at same site and datum.

Drainage area.- 96 square miles.

Records available.- June 1904 to October 1905 and October 1933 to September 1937 in reports of Geological Survey; June 1904 to October 1905 and June 1931 to October 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 442 second-feet May 30 (gage height, 4.45 feet); minimum daily discharge, 2.3 second-feet Sept. 16, 17, 22.
1904-5, 1931-37: Maximum daily discharge observed, 592 second-feet June 11, 1905; no flow July 8 to Oct. 4, 1934.

Remarks.- Records good except those for periods of ice effect, Nov. 17-30, Apr. 1-21, and of missing gage heights, May 16-21 and June 5-7, which were computed on basis of one discharge measurement and records for nearby stations and are fair. No records Dec. 1 to Mar. 31. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.6	15					24	97	353	49	28	5.6
2	5.6	14					25	81	233	43	25	5.0
3	5.6	14					25	105	286	39	24	4.6
4	5.6	14					24	214	312	39	24	4.6
5	8.0	14					24	266	320	33	18	4.6
6	9.2	14					25	277	220	21	17	4.6
7	9.2	13					25	297	140	24	14	5.6
8	8.6	14					25	305	94	24	12	5.6
9	10	16					24	305	87	32	11	5.0
10	12	17					24	294	92	52	8.0	4.1
11	12	17					24	299	86	38	7.4	3.6
12	12	17					26	242	137	68	6.2	3.6
13	12	17					34	212	143	67	6.2	3.2
14	14	17					54	214	135	75	5.6	2.8
15	14	18					74	216	157	50	5.0	2.8
16	14	19					80	220	171	43	4.6	2.3
17	14	17					86	250	202	30	8.0	2.3
18	15	13					94	310	196	28	14	2.8
19	18	12					105	320	186	48	14	2.8
20	22	14					115	280	166	35	12	3.2
21	25	13					113	220	177	29	8.0	2.8
22	20	13					130	194	188	25	5.6	2.3
23	25	13					105	224	170	25	6.2	2.8
24	16	13					113	290	120	21	5.0	4.6
25	16	13					113	305	97	28	5.0	10
26	16	13					122	275	175	34	5.6	9.2
27	14	12					120	198	135	38	8.2	7.4
28	16	12					111	231	68	34	4.1	6.2
29	16	12					94	286	53	46	4.6	5.6
30	16	12					80	372	45	36	4.6	5.0
31	16	-					-	408	-	29	6.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	422.4	25	5.6	13.6	838
November	432	19	12	14.4	857
December	-	-	-	-	-
Calendar year					
January	-				
February	-				
March	-				
April	2,038	130	24	67.9	4,040
May	7,807	408	81	252	15,480
June	4,944	353	45	165	9,810
July	1,183	75	21	38.2	2,350
August	325.1	28	4.1	10.5	645
September	134.6	10	2.3	4.49	267
Water year					

Roaring Fork near Walden, Colo.

Location.- Water-stage recorder, lat. 40°41', long. 106°28', in sec. 11, T. 8 N., R. 81 W., 10 miles southwest of Walden. Zero of gage is 8,037.44 feet above mean sea level.

Drainage area.- 84 square miles.

Records available.- May 1904 to October 1905, October 1923 to September 1930, and October 1933 to September 1937 in reports of Geological Survey; May 1904 to October 1905 and October 1923 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 443 second-feet June 4 (gage height, 2.71 feet); minimum daily discharge, 14 second-feet Nov. 29, 30 (probably less during period of ice effect).

1904-5, 1923-37: Maximum discharge, 790 second-feet June 15, 1924 (gage height, 3.73 feet); minimum daily discharge, 2 second-feet Aug. 15, 1904.

Remarks.- Records excellent except those for periods of ice effect, Nov. 4, 8-11, 23-29, Apr. 1-25, which were computed on basis of one discharge measurement, weather records, and records for stations on nearby streams and are fair. No records Dec. 1 to Mar. 31. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	26					28	79	196	148	49	20
2	25	25					29	77	142	116	48	20
3	28	19					30	80	235	82	53	19
4	26	19					29	80	374	66	44	20
5	25	19					29	96	224	62	41	18
6	26	20					30	111	133	55	38	18
7	26	21					30	118	88	62	35	16
8	25	20					29	121	62	85	34	15
9	25	21					29	139	52	85	32	18
10	25	21					28	139	60	119	32	18
11	20	20					28	142	56	99	30	17
12	18	18					28	116	99	112	29	18
13	17	21					28	93	114	146	27	18
14	17	21					28	96	118	146	25	18
15	17	18					28	130	137	93	25	19
16	21	17					30	160	184	71	27	19
17	25	18					38	162	264	66	37	20
18	18	17					49	218	306	69	50	18
19	17	17					68	224	282	57	39	18
20	24	17					90	196	252	55	32	18
21	27	18					96	155	298	49	29	17
22	25	16					94	131	365	49	26	18
23	25	15					88	166	338	48	25	21
24	26	16					92	178	240	52	24	33
25	25	15					94	182	227	62	29	27
26	25	15					96	151	269	60	25	25
27	25	15					103	135	157	57	25	25
28	25	15					87	175	111	56	23	24
29	21	14					85	222	83	59	24	23
30	21	14					80	332	88	52	23	23
31	25	-					-	233	-	53	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	722	28	17	23.3	1,430
November	548	26	14	18.3	1,090
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,621	103	28	54.0	3,220
May	4,637	332	77	150	9,200
June	5,554	374	52	185	11,020
July	2,391	148	48	77.1	4,740
August	1,001	53	21	32.3	1,990
September	601	33	15	20.0	1,190
Water year					

North Fork of North Platte River near Walden, Colo.

Location.- Water-stage recorder, lat. 40°44', long. 106°24', in sec. 29, T. 9 N., R. 80 W., at Erickson ranch, a quarter of a mile above mouth and 7 miles west of Walden.

Drainage area.- 168 square miles.

Records available.- October 1923 to September 1928, May to September 1937.

Extremes.- Maximum discharge during period, 403 second-feet June 5 (gage height, 2.85 feet); minimum daily discharge, 22 second-feet Sept. 19-22.
1923-28, 1937: Maximum discharge, 694 second-feet Apr. 19, 1926 (gage height, 2.83 feet, former datum); minimum, 19 second-feet Sept. 29, 30, 1926.

Remarks.- Records excellent. Diversions for irrigation above station.

Rating table, period May 12 to Sept. 30, 1937 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 31 to June 20)

1.0	22	1.8	128
1.1	29	2.0	176
1.2	36	2.2	226
1.3	45	2.4	279
1.4	70	2.6	335
1.6	86	2.8	394

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	263	178	110	47
2								-	135	210	104	45
3								-	329	142	104	43
4								-	310	121	92	46
5								-	299	147	83	45
6								-	174	138	83	44
7								-	106	150	81	42
8								-	88	159	78	41
9								-	76	145	73	39
10								-	83	223	73	40
11								-	64	159	69	38
12								57	57	157	64	36
13								41	76	195	63	34
14								45	78	178	59	29
15								69	108	126	56	29
16								53	128	133	59	29
17								54	142	128	70	28
18								55	176	198	88	27
19								70	198	164	59	22
20								83	193	138	59	22
21								63	229	121	53	22
22								63	249	108	49	22
23								76	260	108	48	23
24								104	244	119	48	38
25								154	234	142	50	32
26								186	321	135	48	27
27								117	203	119	46	26
28								119	169	142	45	26
29								176	150	121	52	26
30								241	145	115	57	25
31								332	-	119	52	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 12-31	2,158	332	41	108	4,280
June	5,285	329	57	176	10,480
July	4,538	223	108	146	9,000
August	2,085	110	45	67.3	4,140
September	993	47	22	33.1	1,970
The period					29,870

Michigan River at Haworth School, near Lindland, Colo.

Location.- Water-stage recorder, lat. 40°37', long. 106°05', in SE¼ sec. 36, T. 8 N., R. 78 W., a quarter of a mile east of Haworth School and 2⅔ miles northwest of Lindland.

Records available.- May to September 1937.

Extremes.- Maximum discharge during period, 524 second-feet July 13 (gage height, 2.96 feet); minimum daily discharge, 12 second-feet Aug. 12-16, Sept. 5, 13-17, 30.

Remarks.- Records excellent except those for period of missing gage heights, May 1-21, which were computed on basis of records for station near Lindland and are good. Numerous small diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								13	151	52	28	15
2								14	141	44	27	14
3								15	207	38	25	14
4								36	197	35	23	13
5								44	173	40	20	12
6								47	136	42	18	14
7								62	118	49	17	25
8								75	110	46	16	22
9								77	95	43	15	17
10								92	90	50	14	14
11								87	92	68	14	14
12								70	99	79	12	14
13								75	87	249	12	12
14								77	86	239	12	12
15								115	87	123	12	12
16								124	88	87	12	12
17								136	110	61	14	12
18								140	117	64	30	14
19								145	111	49	26	14
20								106	110	39	22	13
21								98	110	33	18	14
22								70	117	29	16	13
23								95	120	26	16	14
24								94	99	26	16	19
25								99	102	24	19	16
26								88	173	23	18	14
27								81	101	24	16	14
28								116	70	26	16	13
29								125	55	26	19	13
30								165	54	27	24	12
31								169	-	32	20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May	2,750	169	13	88.7	5,450
June	3,406	207	54	114	6,760
July	1,793	249	23	57.8	3,560
August	567	30	12	18.3	1,120
September	431	25	12	14.4	865
The period					17,740

Michigan River near Lindland, Colo.

Location.- Water-stage recorder, lat. 40°33', long. 106°02', in sec. 21, T. 7 N., R. 77 W., 1 mile above mouth of North Fork of Michigan River and 3 miles southeast of Lindland. Zero of gage is 8,734.28 feet above mean sea level.

Drainage area.- 62 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; July 1931 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 292 second-feet July 13 (gage height, 1.88 feet); minimum daily discharge, 4.0 second-feet Oct. 31, Nov. 2.
1931-37: Maximum discharge, 663 second-feet June 11, 1933 (gage height, 3.08 feet); minimum daily discharge, 1.8 second-feet Oct. 13, 1935.

Remarks.- Records good. Discharge for Nov. 2-4 estimated. No records Nov. 5 to Apr. 27. Diversions for irrigation above station. Treasure Ditch diverts water to Owl Creek 1½ miles above station. Water also diverted from headwaters into Cache la Poudre River.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	4.4					-	7.5	115	26	18	11
2	12	4.0					-	8.1	126	33	16	12
3	12	8.0					-	8.6	164	22	15	11
4	11	7.9					-	11	158	28	14	11
5	11	-					-	25	126	33	12	12
6	14	-					-	29	97	36	11	23
7	13	-					-	42	82	35	12	20
8	11	-					-	56	67	29	11	17
9	11	-					-	59	61	29	10	15
10	11	-					-	76	61	45	10	14
11	10	-					-	69	65	53	9.8	14
12	11	-					-	53	68	65	9.2	12
13	11	-					-	62	64	211	9.2	10
14	13	-					-	69	67	133	10	9.8
15	12	-					-	95	81	74	9.8	11
16	11	-					-	106	88	42	10	11
17	11	-					-	116	122	29	13	11
18	9.0	-					-	122	135	29	30	11
19	8.0	-					-	126	128	18	18	11
20	13	-					-	88	116	14	15	8.6
21	12	-					-	81	120	13	11	8.1
22	9.0	-					-	62	120	11	10	8.6
23	7.2	-					-	102	118	11	9.8	12
24	6.4	-					-	107	88	13	11	20
25	6.4	-					-	98	95	13	11	16
26	6.4	-					-	79	152	13	11	14
27	7.2	-					-	98	67	14	11	13
28	9.0	-					21	150	42	14	13	11
29	9.0	-					11	152	33	13	20	11
30	4.4	-					9.2	145	29	15	19	10
31	4.0	-					-	124	-	17	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	309.0	14	4.0	9.97	613
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January					
February					
March					
April					
May	2,428.2	152	7.5	78.3	4,820
June	2,875	164	29	95.8	5,700
July	1,131	211	11	36.5	2,240
August	404.8	30	9.2	13.1	803
September	379.1	23	8.1	12.6	752
Water year					

Michigan River at Walden, Colo.

Location.- Water-stage recorder, lat. 40°44', long. 106°17', in NW¼ sec. 21, T. 9 N., R. 79 W., half a mile north of Walden. Zero of gage is 8,044.87 feet above mean sea level.

Drainage area.- 185 square miles.

Records available.- May 1904 to October 1905, May 1923 to September 1930, and October 1933 to September 1937 in reports of Geological Survey; May 1904 to October 1905, and May 1923 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 430 second-feet July 15 (gage height, 2.62 feet); minimum daily discharge, 4.2 second-feet May 21.
1904-5, 1923-37: Maximum discharge, 1,070 second-feet June 10, 1923 (gage height, 3.3 feet); minimum daily discharge, 2 second-feet July 17-20, 1934.

Remarks.- Records good except those for Oct. 12 to Nov. 30, which were computed on basis of one discharge measurement, intermittent gage heights, weather records, and records for Roaring Fork near Walden and are fair. No records Dec. 1 to Apr. 23. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	28					-	50	136	42	30	20
2	17	31					-	47	98	24	29	19
3	17	30					-	49	130	20	27	17
4	16	28					-	51	259	13	25	18
5	16	26					-	60	259	13	22	18
6	18	24					-	56	176	15	20	17
7	18	22					-	49	111	20	17	19
8	19	20					-	39	74	23	14	20
9	18	18					-	43	55	21	13	20
10	20	18					-	45	48	22	11	18
11	20	16					-	51	31	19	10	15
12	22	16					-	37	21	35	10	15
13	23	17					-	20	*18	125	10	14
14	24	17					-	17	15	365	9.5	12
15	26	18					-	15	15	289	7.9	9.0
16	24	19					-	14	15	116	9.0	8.4
17	22	20					-	15	19	85	11	7.9
18	20	18					-	8.4	43	74	17	8.4
19	18	16					-	5.3	66	53	25	9.0
20	24	14					-	4.5	64	41	27	10
21	28	14					-	4.2	64	32	23	9.0
22	26	14					-	7.9	76	29	19	7.4
23	26	13					-	7.9	66	19	15	7.4
24	26	13					132	21	56	15	15	9.5
25	24	12					121	62	47	15	16	8.4
26	24	11					119	103	96	12	18	10
27	24	13					114	82	100	12	18	10
28	24	14					104	64	48	14	16	11
29	22	13					90	93	27	14	15	11
30	22	10					63	121	31	15	16	12
31	24	-					-	125	-	17	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	669	28	16	21.6	1,330
November	543	31	10	18.1	1,080
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 24-30	743	132	63	106	1,470
May	1,367.2	125	4.2	44.1	2,710
June	2,264	259	15	75.5	4,490
July	1,609	365	12	61.9	3,190
August	533.4	30	7.9	17.2	1,060
September	390.4	20	7.4	13.0	774
Water year					

*Estimated.

Michigan River near Cowdrey, Colo.

Location.- Water-stage recorder, lat. 40°52', long. 106°20', in NE¼ sec. 11, T. 10 N., R. 80 W., 1 mile above mouth and 1½ miles west of Cowdrey. Zero of gage is 7,678.28 feet above mean sea level.

Records available.- May 1904 to October 1905, May to September 1937.

Extremes.- Maximum discharge during period, 535 second-feet July 15 (gage height, 2.66 feet); minimum daily discharge, 0.9 second-feet (estimated) May 19, 20.
1904-5, 1937: Maximum daily discharge, 760 second-feet June 9, 1905; minimum daily discharge, that of May 19, 20, 1937.

Remarks.- Records good. Those for May 19-21 estimated on basis of one discharge measurement. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	124	35	25	11
2								-	247	18	31	12
3								-	128	10	32	11
4								-	296	7.2	25	11
5								-	500	6.1	20	10
6								-	402	5.0	16	10
7								-	241	5.0	13	11
8								-	145	5.0	10	10
9								-	99	5.4	8.5	11
10								-	63	5.4	7.5	12
11								-	21	5.4	7.5	10
12								-	9.5	6.1	6.4	8.5
13								-	5.0	24	6.4	8.0
14								-	2.9	272	6.1	7.5
15								-	2.0	482	5.8	6.4
16								-	2.0	272	5.8	5.4
17								-	1.5	147	7.5	4.7
18								-	1.2	131	9.5	4.7
19								0.9	1.8	101	12	5.0
20								.9	3.2	84	16	5.0
21								1.0	4.4	63	16	5.0
22								1.0	5.8	43	14	4.7
23								1.1	8.5	31	12	5.0
24								1.0	6.1	23	11	5.0
25								1.8	6.4	25	10	5.4
26								2.9	14	23	10	5.4
27								5.4	40	23	10	5.8
28								4.4	39	26	10	5.4
29								6.8	19	25	10	5.8
30								17	14	23	9.5	6.1
31								40	-	22	9.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 19-31	84.2	40	0.9	6.48	167
June	2,452.3	500	1.2	81.7	4,860
July	1,953.6	482	5.0	63.0	3,870
August	393.0	32	5.8	12.7	780
September	227.8	12	4.7	7.59	452
The period					10,130

Owl Creek near Lindland, Colo.

Location.- Water-stage recorder, lat. 40°35', long. 106°07', in SE¼ sec. 15, T. 7 N., R. 78 W., at site of former post office of Owl and 3 miles west of Lindland.

Records available.- June to September 1937 (discontinued).

Extremes.- Maximum discharge during period, 12 second-feet June 16 (gage height, 1.59 feet); minimum daily discharge, 0.1 second-foot Aug. 31, Sept. 17-19, 25-30.

Remarks.- Records good. Diversions for irrigation above station. Treasure Ditch diverts water from Michigan River into Owl Creek half a mile above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									-	11	4.3	0.2
2									-	9.6	3.1	2.1
3									-	8.6	2.9	2.2
4									-	7.9	2.4	2.6
5									-	7.4	1.8	1.9
6									-	5.6	1.1	1.2
7									-	4.4	.4	5.2
8									-	6.2	.7	5.4
9									-	6.4	1.5	4.0
10									-	5.0	2.0	3.2
11									-	3.5	1.6	2.4
12									-	2.8	1.4	2.0
13									-	5.0	1.3	1.4
14									9.5	6.5	1.1	.8
15									9.8	7.5	.8	.6
16									11	6.0	.4	.3
17									11	6.2	.6	.1
18									11	4.7	1.5	.1
19									11	1.3	1.4	.1
20									6.8	2.8	2.0	1.2
21									8.0	2.5	2.1	1.4
22									8.9	4.0	1.2	1.2
23									8.9	7.7	1.3	.4
24									8.4	8.0	1.4	.2
25									8.6	8.2	1.5	.1
26									8.0	7.0	1.0	.1
27									6.5	7.0	.8	.1
28									6.7	7.5	.4	.1
29									8.4	7.0	.4	.1
30									11	7.7	.4	.1
31									-	7.5	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June 14-30	153.5	11	6.5	9.03	304
July	192.5	11	1.3	6.21	382
August	42.9	4.3	.1	1.38	85
September	40.8	5.4	.1	1.36	81
The period					852

Illinois Creek near Rand, Colo.

Location.- Water-stage recorder, lat. 40°27', long. 106°11', in sec. 30, T. 6 N., R. 78 W., 1 mile north of Rand and 2½ miles above mouth of Willow Creek. Zero of gage is 8,550.93 feet above mean sea level.

Drainage area.- 77 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; July 1931 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 230 second-feet June 3 (gage height, 1.40 feet); minimum daily discharge, 4.2 second-feet Sept. 22.
1931-37: Maximum daily discharge, 655 second-feet May 23, 1931; minimum daily discharge, 1.3 second-feet Sept. 3, 1934.

Remarks.- Records good. Discharge for Oct. 29-31, Apr. 22 estimated. No records for Nov. 1 to Apr. 21. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.1						"	21	159	51	13	5.7
2	5.7						"	17	131	58	11	4.8
3	6.6						"	18	201	45	11	5.2
4	7.0	*5.9					"	20	182	31	9.8	6.6
5	7.0						"	36	146	27	8.4	7.0
6	7.5						"	34	93	28	8.4	6.6
7	8.4						"	79	74	33	11	13
8	8.0						"	98	74	30	9.8	11
9	7.5						"	90	68	28	9.3	9.8
10	7.5						"	83	56	24	7.5	8.4
11	7.5						"	79	54	21	7.5	7.0
12	6.6						"	62	74	24	6.6	6.1
13	6.6						"	54	58	107	6.1	5.2
14	6.6						"	90	66	110	5.2	4.8
15	6.1						"	126	83	54	5.0	5.0
16	5.7						"	147	76	47	4.6	5.0
17	6.6						"	143	83	39	5.2	5.0
18	5.7						"	122	100	31	26	5.0
19	5.0						"	159	103	24	18	4.4
20	5.7						"	147	93	23	11	4.6
21	8.0						"	139	76	22	9.8	4.4
22	8.0						60	94	79	23	7.5	4.2
23	6.6						54	118	79	17	7.0	4.8
24	6.1						40	106	71	16	7.0	8.4
25	5.7						34	83	71	15	8.0	8.4
26	6.1						47	122	150	14	8.4	6.1
27	7.0						54	106	90	13	8.4	5.2
28	8.0						38	135	64	16	8.4	4.8
29	7.5						25	155	49	26	8.9	4.6
30	7.0						20	168	51	28	8.0	5.2
31	7.0						"	172	"	16	7.0	"

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	210.4	8.4	5.0	6.79	417
November	"	"	"	"	"
December	"	"	"	"	"
Calendar year					
January					
February					
March					
April 22-30	372	60	20	41.3	738
May	3,023	172	17	97.5	6,000
June	2,754	201	49	91.8	5,460
July	1,041	110	13	33.6	2,060
August	282.8	26	4.6	9.12	561
September	186.3	13	4.2	6.21	370
Water year					

*Discharge measurement.

Illinois Creek at Walden, Colo.

Location.- Water-stage recorder, lat. 40°44', long. 106°18', in NW¼ sec. 29, T. 9 N., R. 79 W., half a mile southwest of Walden. Prior to July 1, 1937, station located 350 feet upstream at different datum. Zero of gage is 8,038.80 feet above mean sea level.

Drainage area.- 254 square miles.

Records available.- May 1923 to September 1930 and October 1933 to September 1937 in reports of Geological Survey; May 1917 to August 1918 and May 1923 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 396 second-feet June 4 (gage height, 2.23 feet, former site and datum); no flow Nov. 27 to Dec. 1.
1917-18, 1923-37: Maximum discharge, 2,520 second-feet May 28, 1926 (gage height, 6.4 feet, former site and datum); no flow at times during 1934-37.

Remarks.- Records good except those for Oct. 28 to Nov. 3 and June 23-30, which were computed on basis of records for Michigan River near Cowdrey and at Walden and are fair. No records for Dec. 2 to Apr. 22. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	5.3	0				-	19	135	23	6.3	19
2	2.6	5.2					-	15	97	20	8.4	2.8
3	2.4	5.2					-	14	112	15	7.9	2.2
4	2.2	5.1					-	11	268	9.4	4.5	2.0
5	2.4	5.1					-	7.2	326	8.4	3.5	1.5
6	2.6	7.5					-	6.3	226	7.4	2.5	1.8
7	2.6	9.5					-	4.2	124	7.9	2.5	1.6
8	2.6	7.0					-	5.1	84	7.9	2.2	1.5
9	2.6	7.5					-	5.1	65	6.8	2.0	1.5
10	2.6	6.5					-	4.6	54	6.3	1.8	1.3
11	2.6	6.5					-	3.8	31	6.3	1.6	1.0
12	2.4	8.5					-	3.0	20	8.4	1.5	.8
13	2.2	12					-	3.4	17	34	1.3	.6
14	1.8	17					-	3.0	15	142	1.1	.8
15	1.6	25					-	2.4	11	218	1.0	.6
16	1.6	22					-	2.2	10	108	.8	.5
17	1.6	5.4					-	1.9	8.2	61	.8	.4
18	1.6	3.3					-	2.4	7.2	46	.8	.3
19	1.8	4.2					-	2.4	6.7	36	.7	.2
20	3.3	5.1					-	1.7	8.7	30	.7	.1
21	5.1	8.0					-	1.1	11	22	.8	.2
22	5.4	11					-	1.1	12	17	1.0	.2
23	5.4	3.6					57	1.3	13	14	.7	.2
24	5.1	1.0					53	1.7	10	10	.8	.2
25	5.4	.6					41	2.4	10	9.4	1.0	.2
26	5.7	.3					44	3.8	42	8.4	.8	.1
27	5.4	0					39	4.2	64	7.9	.8	.1
28	5.4	0					39	5.1	50	6.8	.8	.1
29	5.4	0					29	5.5	28	6.3	1.5	.2
30	5.4	0					22	9.7	26	5.8	1.6	.2
31	5.4	-					-	54	-	5.5	5.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	104.0	5.7	1.6	3.35	206
November	197.4	25	0	6.58	392
December	-	-	-	-	-
Calendar year					
January					
February					
March					
April 23-30	324	57	22	40.5	643
May	207.6	54	1.1	6.70	412
June	1,891.8	326	6.7	63.1	3,750
July	914.9	218	5.5	29.5	1,810
August	67.2	8.4	.7	2.17	133
September	42.2	19	.1	1.41	84
Water year					

Willow Creek near Rand, Colo.

Location.- Water-stage recorder, lat. 40°28', long. 106°13', in sec. 23, T. 6 N., R. 79 W., 2½ miles above mouth and 2.6 miles northwest of Rand.

Drainage area.- 62 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; July 1931 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 121 second-feet June 4 (gage height, 2.90 feet); minimum daily discharge, 0.4 second-foot Sept. 18-22.
1931-37: Maximum daily discharge, 268 second-feet May 23, 1932; no flow for several days during June to September 1934.

Remarks.- Records excellent. None for Nov. 6 to Apr. 21. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	6.0					-	4.6	51	9.7	6.3	2.1
2	1.7	6.6					-	4.1	38	8.0	5.5	2.3
3	1.8	6.9					-	3.8	76	6.0	5.2	3.0
4	1.8	7.6					-	3.6	80	4.1	4.6	3.4
5	1.7	7.6					-	3.4	69	4.1	5.8	3.0
6	2.0	-					-	2.3	39	4.4	6.3	3.0
7	2.0	-					-	4.1	23	4.9	6.6	2.8
8	1.8	-					-	2.1	19	6.0	6.0	3.4
9	1.6	-					-	1.6	16	5.8	5.8	2.1
10	1.7	-					-	1.1	15	6.3	5.2	1.6
11	1.6	-					-	1.7	9.7	7.3	4.4	1.5
12	1.4	-					-	1.7	8.3	14	4.1	.9
13	1.4	-					-	1.9	9.3	35	4.1	.7
14	1.8	-					-	2.3	12	23	3.8	.6
15	1.4	-					-	2.8	18	12	3.8	.9
16	1.4	-					-	3.4	13	8.3	3.8	.7
17	1.4	-					-	3.8	12	4.4	4.4	.9
18	1.3	-					-	3.8	7.6	4.9	11	.4
19	1.3	-					-	4.1	6.9	2.3	9.7	.4
20	1.7	-					-	3.6	5.8	1.1	6.3	.4
21	2.1	-					-	3.6	5.2	.6	4.6	.4
22	1.8	-					16	4.6	6.6	1.0	3.8	.4
23	1.6	-					16	4.1	4.1	3.6	3.4	.6
24	1.4	-					18	6.0	4.1	3.8	3.8	2.1
25	2.3	-					15	8.3	6.3	5.2	3.8	2.8
26	2.7	-					16	18	26	4.9	3.8	1.9
27	6.0	-					20	12	14	5.5	3.6	1.6
28	5.1	-					9.0	14	8.0	5.6	3.6	1.1
29	6.3	-					8.3	26	6.0	6.0	4.4	.9
30	6.9	-					5.2	55	5.5	8.0	5.5	1.0
31	6.9	-					-	56	-	8.3	3.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	75.9	6.9	1.3	2.45	151
November 1-5	34.7	7.6	6.0	6.94	69
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 22-30	123.5	20	5.2	13.7	245
May	267.2	56	1.1	8.62	530
June	614.4	80	4.1	20.5	1,220
July	224.0	35	.6	7.23	444
August	156.8	11	3.4	5.06	311
September	46.9	3.4	.4	1.56	93
Water year					

Canadian River at Cowdrey, Colo.

Location.- Water-stage recorder, lat. 40°52', long. 106°19', in sec. 6, T. 10 N., R. 79 W., 1,000 feet above mouth of Government Creek and half a mile north of Cowdrey. Prior to Nov. 15, 1931, recorder 600 feet upstream at different datum. One small diversion between the two sites.

Drainage area.- 201 square miles.

Records available.- May 1904 to October 1905, May 1929 to November 1929, and May to September 1937 in reports of Geological Survey; May 1904 to October 1905, May 1929 to September 1931, and May to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during period, 181 second-feet (estimated) June 5; minimum daily discharge, 4.0 second-feet May 28, Sept. 17-21.
1904-5, 1929-31, 1937: Maximum daily discharge, 600 second-feet June 10, 1905; minimum daily discharge, 1 second-foot July 8-10, 1930.

Remarks.- Records fair for May 1 to June 23 and good for June 24 to Sept. 30. Discharge for May 1-21 computed on basis of two discharge measurements and records for Michigan River at Walden. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								30	65	22	33	8.8
2								28	50	19	30	7.7
3								30	37	20	24	7.4
4								31	103	18	20	7.4
5								36	176	15	18	8.0
6								33	140	12	16	8.8
7								28	90	11	14	9.6
8								23	68	10	15	11
9								26	66	10	14	8.0
10								28	60	9.6	13	7.1
11								29	39	9.2	11	6.2
12								18	33	12	10	5.6
13								15	22	18	9.2	5.0
14								13	18	68	7.4	4.8
15								12	21	98	6.8	4.6
16								11	23	57	6.2	4.4
17								11	23	46	7.4	4.0
18								9	16	55	10	4.0
19								8	14	49	11	4.0
20								8	17	34	13	4.0
21								9	24	28	11	4.0
22								9	26	26	8.8	5.3
23								6	27	24	7.4	4.8
24								10	20	22	6.5	7.4
25								15	20	20	7.4	9.2
26								12	30	23	8.0	8.6
27								7	62	33	8.0	8.4
28								4	38	35	8.0	8.0
29								6	25	46	10	7.7
30								19	22	33	9.6	7.7
31								45	-	30	8.8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May	569	45	4	18.4	1,130
June	1,375	176	14	45.8	2,730
July	912.8	98	9.2	29.4	1,810
August	382.5	33	6.2	12.3	759
September	201.7	11	4.0	6.72	400
The period					6,830

Bates Creek near Alcova, Wyo.

Location.- Water-stage recorder, lat. 42°41', long. 106°34', in sec. 7, T. 31 N., R. 81 W., 2½ miles above mouth and 11 miles northeast of Alcova.

Drainage area.- 377 square miles.

Records available.- June 1935 to September 1937.

Extremes.- Maximum discharge during year, 390 second-feet July 12 (gage height, 5.2 feet, from floodmarks); no flow at times during October, April, and May.
1935-37: Maximum discharge, that of July 12, 1937; no flow at times during 1935-37.

Remarks.- Records good except those for periods of missing gage heights and ice effect, Oct. 25-28, Nov. 2-12, Nov. 21 to Apr. 17, which were computed on basis of three discharge measurements, weather records, and records for Deer Creek at Glenrock and are fair. Water practically all diverted above station at low and medium stages for irrigation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	4.5					8.5	0	0.6	35	1.3	4.2
2	0	4.5					9	0	1.3	17	1.1	3.8
3	0	3.5					14	0	.4	1.8	1.3	3.8
4	0	4.5					20	0	1.4	.9	1.2	4.2
5	0	4					18	.1	1.8	.5	.9	3.5
6	0	5					16	3.1	6.1	4.2	.5	3.1
7	0	6					17	31	3.3	11	.4	3.1
8	0	5.5					16	39	1.1	33	.2	2.7
9	0	5.5					15	53	1.4	6.1	.1	2.7
10	0	5					17	55	19	2.4	.1	2.9
11	0	5					23	42	6.9	5.3	.1	2.7
12	0	4	*2.0				22	20	1.8	154	.1	2.7
13	0	4.0		*1.7			45	3.5	1.0	198	.1	2.7
14	0	3.2					150	.5	.8	93	.1	2.7
15	0	3.2					120	.4	.6	64	.1	2.4
16	0	2.8					80	.4	.6	47	.3	2.0
17	2.8	2.8					58	.4	.6	40	.4	1.9
18	2.8	3.0					55	.4	.6	31	1.0	1.9
19	2.5	3.0					31	.4	.5	25	.9	1.9
20	2.5	5.0					19	.4	.5	19	.2	1.9
21	2.5	3					15	.4	.5	16	.1	1.8
22	2.4	2.5					8.9	.4	.5	13	.1	1.8
23	2.5	2.5					8.0	.4	.4	8.9	.1	1.9
24	2.5	2.5			*3.8		.1	.4	.4	4.6	.1	1.9
25	2.5	2.5					.1	.4	.4	4.0	.1	1.9
26	3.0	2.5					0	.4	.4	2.7	.1	1.9
27	3.5	2.5					0	.4	.4	13	.1	1.9
28	3.5	2.5					2.7	.4	.4	11	.3	1.9
29	4.0	2					.4	.4	.4	5.0	5.7	1.9
30	4.0	2					.1	.5	.5	2.7	44	1.9
31	4.5	-					-	.4	-	3.1	5.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	45.5	4.5	0	1.47	90
November	106.5	6	2	3.55	211
December	62	-	-	†2	123
Calendar year 1936	1,075.0	71	0	2.94	2,130
January	49.6	-	-	†1.6	98
February	98	-	-	†3.5	194
March	186	-	-	†6	369
April	786.8	150	0	26.2	1,560
May	254.1	55	0	8.20	504
June	54.6	19	.4	1.82	108
July	852.2	198	.5	27.5	1,690
August	66.1	44	.1	2.15	131
September	75.4	4.2	1.8	2.51	150
Water year 1936-37	2,636.8	198	0	7.22	5,230

*Discharge measurement.
†Estimated.

Deer Creek at Glenrock, Wyo.

Location.- Water-stage recorder, lat. 42°52', long. 105°51', in sec. 4, T. 33 N., R. 75 W., a quarter of a mile above mouth at Glenrock.

Drainage area.- 216 square miles.

Records available.- April 1916 to September 1924, May 1928 to September 1933, April 1935 to September 1937.

Extremes.- Maximum discharge during year, 1,300 second-feet Apr. 16 (gage height, 6.40 feet); no flow Oct. 1.
1916-24, 1928-33, 1935-37: Maximum discharge, 4,600 second-feet Apr. 15, 1924; no flow during summers of 1919, 1922, 1933, 1935 and 1936.

Remarks.- Records good except those for periods of ice effect, Dec. 21 to Mar. 13, which were computed on basis of two discharge measurements and weather records and are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	7.2	9.4			12	16	142	200	12	17	0.3
2	.7	7.2	7.2			13	17	156	198	10	16	.3
3	1.2	6.0	2.2			12	36	146	224	9.4	11	.3
4	1.5	7.7	2.4			13	51	136	229	9.4	7.7	.3
5	1.8	7.2	3.5			15	47	195	280	6.6	6.6	.3
6	1.5	8.2	8.2			14	39	265	301	5.2	4.8	.3
7	.5	13	10			13	41	288	414	15	3.5	.3
8	.6	13	9.9			14	38	335	471	14	2.0	.3
9	.8	13	9.4			15	35	386	426	12	1.6	.3
10	1.0	13	8.8			16	35	408	522	19	1.1	.3
11	1.6	13	8.2			14	64	400	426	45	.3	.3
12	1.8	14	8.8	*10.2		13	98	358	368	394	.3	2.7
13	2.1	14	9.4			12	101	290	295	447	.3	3.8
14	2.8	14	11			12	238	270	262	258	.3	3.8
15	3.8	14	11			11	592	265	213	204	.3	3.8
16	4.5	13	11			10	909	246	176	170	.3	3.8
17	4.5	14	12			12	293	222	140	148	.3	4.0
18	4.5	16	13			15	202	193	118	126	.3	4.2
19	4.5	15	13			19	191	176	94	113	.3	4.2
20	5.2	15	12		*12	17	253	156	83	101	.3	4.2
21	5.2	13	10			17	243	148	66	62	.3	4.2
22	5.2	12	11			17	450	138	46	71	.3	4.5
23	5.5	12	12			18	234	122	26	62	.3	5.0
24	6.0	12	12			19	158	111	21	53	.3	5.5
25	6.6	12	11			15	120	102	16	48	.3	5.5
26	7.7	12	12			15	164	101	13	44	.3	6.0
27	7.7	12	10			16	262	91	13	34	.3	6.6
28	7.7	11	9			16	314	74	13	27	.3	7.2
29	7.7	10	8			17	191	56	12	23	.3	7.2
30	8.2	10	7			16	160	91	11	18	.3	6.6
31	7.2	-	6.5			16	-	164	-	19	.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	119.6	8.2	0	3.86	237
November	353.5	16	6.0	11.8	701
December	288.9	13	2.2	9.32	573
Calendar year 1936	5,512.3	233	0	15.1	10,940
January	248	-	-	†8	492
February	294	-	-	†10.5	583
March	454	19	10	14.6	900
April	5,592	909	16	186	11,090
May	6,213	408	56	200	12,320
June	5,680	522	11	189	11,270
July	2,599.6	447	5.2	83.9	5,160
August	77.6	17	.3	2.50	154
September	96.1	7.2	.3	3.20	191
Water year 1936-37	22,016.3	909	0	60.3	43,670

*Discharge measurement.
†Estimated.

Running Dutchman Canal near Careyhurst, Wyo.

Location.- Water-stage recorder, lat. 42°52', long. 105°40', in sec. 1, T. 33 N., R. 74 W., 1 mile north of Careyhurst.

Records available.- June 1935 to September 1937.

Extremes.- Maximum daily discharge, 31 second-feet June 24-26; no flow at times. 1935-37: Maximum daily discharge, that of June 24-26, 1937; no flow during non-irrigation seasons and at times during irrigation season.

Remarks.- Records good. None for Oct. 1 to May 18; probably no flow. Canal diverts from left bank of North Platte River 1 mile north of Careyhurst. Water is used for irrigation east of Careyhurst.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	0	21	1.0	0
2								-	0	24	1.0	0
3								-	3.4	23	7.0	0
4								-	9.7	24	12	0
5								-	10	23	18	0
6								-	10	24	21	0
7								-	8.5	13	23	0
8								-	6.2	8.5	22	0
9								-	6.2	14	15	0
10								-	4.6	18	16	0
11								-	1.4	13	23	0
12								-	.4	5.6	23	.3
13								-	0	9.4	23	1.7
14								-	0	0	23	2.7
15								-	0	0	23	3.6
16								-	0	0	6.2	5.8
17								-	0	0	5.9	5.2
18								-	.7	0	5.9	4.2
19								20	13	0	13	4.8
20								21	19	0	18	4.8
21								21	29	0	16	.3
22								22	30	0	13	.2
23								22	30	.2	11	6.1
24								24	31	4.4	12	5.9
25								27	31	6.4	12	5.0
26								27	31	7.5	12	4.7
27								28	27	9.0	12	3.2
28								25	22	9.0	12	0
29								28	20	5.2	1.6	0
30								11	14	3.8	0	0
31								0	-	1.0	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May 19-31	276	28	0	21.2	547
June	358.1	31	0	11.9	710
July	267.0	24	0	8.61	530
August	401.6	23	0	13.0	797
September	58.5	6.1	0	1.95	116
The period					2,700

Boxelder Creek near Careyhurst, Wyo.

Location.- Water-stage recorder, lat. 42°49', long. 105°41', in sec. 13, T. 33 N., R. 74 W., 2 miles upstream from Careyhurst.

Drainage area.- 202 square miles.

Records available.- May to October 1911, April 1916 to September 1924, May 1928 to September 1933, April 1935 to September 1937.

Extremes.- Maximum discharge during year, 760 second-feet June 10 (gage height, 5.00 feet); minimum daily discharge, 0.6 second-foot Aug. 9.
1911, 1916-24, 1928-33, 1935-37: Maximum discharge, 2,360 second-feet May 23, 1933 (gage height, 9.04 feet); no flow at times during summers of 1922, 1929, 1931, 1932, 1935-37.

Remarks.- Records good except those for periods of ice effect, Dec. 7 to Mar. 18, Mar. 24-30, which were computed on basis of three discharge measurements and weather records and are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	3.1	5.8			5.5	2.4	62	146	15	9.8	0.9
2	1.6	3.1	5.5			6	2.2	65	152	12	6.8	.7
3	1.6	2.7	6.4			5.5	32	70	164	5.8	5.0	.8
4	1.6	2.4	5.5			6.5	31	70	196	5.8	4.5	.9
5	2.0	2.7	5.5			7	23	89	273	4.8	4.5	1.0
6	2.4	2.7	5.8			6.5	15	132	276	3.3	3.5	.9
7	2.4	2.4	6.5			6.5	15	170	448	3.5	2.0	.9
8	2.4	4.0	6			6	8.9	240	560	3.3	.7	.9
9	2.4	4.2	5.8			6	6.0	318	468	4.2	.6	.9
10	2.7	4.2	5.5			6.5	6.0	368	592	5.2	.7	.9
11	2.7	4.2	6			6	6.4	351	452	9.8	.8	.9
12	1.8	4.8	5.5	*4.7		5	46	309	360	150	1.0	.9
13	1.8	5.0	5.5			4	78	270	291	213	1.0	.8
14	2.2	5.2	6.4			3.5	231	243	237	142	.9	.8
15	2.2	5.5	6.5			4	321	234	186	106	.8	.8
16	1.8	5.8	6			4.5	276	243	154	90	.9	.9
17	1.6	5.8	5.5			5	106	216	124	68	1.1	1.0
18	2.2	7.2	5.5			5	74	198	100	70	1.2	1.1
19	2.7	6.8	6			3.3	58	188	86	65	.8	1.1
20	2.4	6.4	5.5		*5.7	2.4	47	170	77	59	.7	1.1
21	2.4	6.4	5			2.2	52	150	65	49	.7	1.2
22	2.7	6.4	5.5			1.8	100	116	49	39	.7	1.2
23	2.9	6.0	6			1.8	72	92	39	27	.7	1.4
24	3.1	6.0	6			1.5	53	72	31	24	.7	2.0
25	3.3	6.0	5.5			1	33	59	18	23	.8	2.0
26	2.9	5.8	6			1.5	44	77	18	21	.7	1.4
27	2.9	5.2	5.5			2	76	64	20	20	.7	1.8
28	2.9	5.8	5			2	132	36	19	17	.8	1.4
29	2.7	5.8	4.8			2.5	95	31	19	16	1.1	1.4
30	2.7	5.8	5			2.5	76	104	17	15	1.2	1.3
31	2.7	-	4.5			2.4	-	140	-	12	1.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	73.1	3.3	1.4	2.56	145
November	147.4	7.2	2.4	4.91	292
December	174.9	6.5	4.5	5.64	347
Calendar year 1936	3,897.8	139	0	10.6	7,740
January	139.5	-	-	†4.5	277
February	168	-	-	†6	333
March	125.9	7	1	4.06	250
April	2,117.9	321	2.2	70.6	4,200
May	4,947	368	31	160	9,810
June	5,637	592	17	188	11,180
July	1,318.7	213	3.3	42.5	2,620
August	56.8	9.8	.6	1.83	113
September	33.3	2.0	.7	1.11	66
Water year 1936-37	14,939.5	592	.6	40.9	29,630

*Discharge measurement.
†Estimated.

94296 O—38——14

La Prele Creek near Douglas, Wyo.

Location.- Water-stage recorder, lat. 42°41', long. 105°38', in sec. 6, T. 31 N., R. 73 W., just above high-water line of La Prele Reservoir and 16 miles southwest of Douglas.

Drainage area.- 146 square miles.

Records available.- August 1919 to September 1937.

Average discharge.- 18 years, 44.1 second-feet.

Extremes.- Maximum discharge during year, 665 second-feet June 7 (gage height, 8.80 feet); minimum daily discharge, 1.7 feet Aug. 24.
1919-37: Maximum discharge, 1,220 second-feet May 11, 1920 (gage height, 11.4 feet); no flow for several days during August and September 1936.

Remarks.- Records good except those for periods of ice effect and backwater from beaver dams, Oct. 2 to Apr. 3 (computed on basis of two discharge measurements, weather records, and records for Deer Creek at Glenrock), and that for Apr. 18 (estimated), which are fair. Diversions for irrigation above station. Gage-height record furnished by Douglas Reservoir Water Users Association.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.3						15	99	220	23	18	6.4
2							16	111	208	25	17	8.1
3							25	99	196	21	15	11
4							35	97	248	20	14	12
5							26	139	346	18	14	13
6							23	208	392	18	12	13
7			*4.9				23	237	534	18	12	15
8							32	267	529	16	11	15
9							27	367	456	18	9.2	15
10							29	407	507	21	8.6	17
11							42	383	386	55	9.2	13
12							40	318	318	402	9.7	7.5
13							82	281	243	117	9.2	5.3
14							276	282	211	68	8.1	3.6
15							265	307	170	54	6.9	3.6
16							153	296	123	47	7.5	4.0
17							99	268	104	44	8.1	3.6
18							87	261	90	40	9.7	2.8
19		*9.0					75	258	79	37	4.0	4.7
20							94	222	66	30	2.8	2.5
21							102	189	56	33	2.5	3.2
22							161	189	47	28	3.2	19
23							100	123	40	28	2.5	28
24							88	103	32	27	1.7	28
25							85	106	27	28	2.1	30
26							116	108	27	27	2.5	31
27							166	95	30	26	2.5	35
28							182	81	29	23	2.8	40
29							123	70	27	22	5.3	42
30							114	149	26	22	5.8	44
31							-	176	-	20	5.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	170.5	-	-	†5.5	338
November	270	-	-	†9	536
December	139.5	-	-	†4.5	277
Calendar year 1936	6,148.5	231	0	16.8	12,200
January	124	-	-	†4	246
February	154	-	-	†5.5	305
March	341	-	-	†11	676
April	2,701	276	15	90.0	5,360
May	6,296	407	70	203	12,490
June	5,767	534	26	192	11,440
July	1,376	402	16	44.4	2,730
August	242.2	18	1.7	7.81	480
September	476.3	44	2.5	15.9	945
Water year 1936-37	18,057.5	534	1.7	49.5	35,820

*Discharge measurements.
†Estimated.

La Prele Creek near Orpha, Wyo.

Location.- Water-stage recorder, lat. 42°51', long. 105°28', in sec. 9, T. 33 N., R. 72 W., three-quarters of a mile above mouth and 1 mile south of Orpha.

Drainage area.- 227 square miles.

Records available.- April to August 1916, April to September 1918, April 1923 to September 1924, May 1928 to September 1933, April 1935 to September 1937.

Extremes.- Maximum discharge during year, 98 second-feet Sept. 29 (gage height, 2.48 feet); no flow Oct. 1-4.
1916, 1918, 1923-24, 1928-33, 1935-37: Maximum discharge, 1,140 second-feet May 23, 1933 (gage height, 6.45 feet); no flow at times during 1931-32, 1935-37.

Remarks.- Records good except those for periods of ice effect, Dec. 7 to Mar. 11, Mar. 24 to Apr. 2 (computed on basis of three discharge measurements and weather records), and those for Mar. 15, Apr. 20, 21 (estimated), which are fair. Diversions for irrigation above station. Flow regulated by La Prele Reservoir (capacity, 20,000 acre-feet).

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.6	2.8			0.5	3	5.1	6.4	0.8	5.6	4.9
2	0	.6	3.1			1	3.5	5.5	3.4	1.1	5.6	3.7
3	0	.5	4.6			1.5	2.0	5.6	.6	3.1	6.0	3.4
4	0	.5	5.6			2	2.3	5.8	1.6	6.4	3.4	6.8
5	.2	.5	6.4			2.5	1.9	3.9	4.4	6.6	1.2	5.6
6	.1	.7	7.6			2	2.5	2.0	3.1	4.7	3.2	5.6
7	.2	1.3	8			1.5	5.1	1.9	3.9	3.4	2.2	5.8
8	.2	2.2	8.5			1	4.6	1.6	2.9	5.4	1.8	6.0
9	.2	2.5	7			.5	4.4	.9	2.9	3.2	3.1	7.8
10	.2	2.0	5.5			1	4.7	.4	3.1	3.2	2.2	7.6
11	.2	1.5	6			1.5	5.8	.4	2.9	3.4	2.6	8.2
12	.3	1.5	5.5	*5.4		1.5	5.5	.4	3.2	18	2.3	8.2
13	.4	2.3	6.5			2.6	4.9	.4	3.6	19	2.5	9.0
14	.3	4.4	8.9			3.1	5.1	.5	3.6	15	1.9	10
15	.4	5.3	8			2.5	5.6	.5	3.2	14	.9	9.6
16	.5	2.8	7			2.0	6.0	.8	2.9	13	.4	10
17	.6	2.0	6.5			1.9	6.0	1.0	2.9	13	.6	10
18	.5	2.2	6.5			1.8	8.0	.6	2.9	10	2.9	9.8
19	.6	2.3	7			1.8	10	.6	2.8	6.2	4.0	9.8
20	.6	3.1	7.5		*7.3	1.5	10	.4	2.0	6.4	4.9	7.6
21	.6	3.1	7			.9	9.5	.4	3.2	6.0	4.2	5.1
22	.8	2.3	7.5			.7	9.2	.4	1.0	6.2	4.7	4.9
23	.7	2.3	8.5			.6	9.8	.4	2.6	6.0	3.7	4.9
24	.7	2.5	8.5			.5	9.5	.4	2.6	6.4	3.1	4.7
25	.7	2.9	8			.5	8.2	.3	.8	6.2	3.6	6.2
26	.6	2.6	8.5			.5	7.4	.3	3.1	8.2	3.6	8.2
27	.7	3.2	7.5			1	6.6	.4	2.6	8.0	2.6	11
28	.6	2.6	7			1	6.6	.6	2.3	8.8	2.6	11
29	.6	2.8	6.5			1.5	5.6	4.6	1.3	6.4	4.6	32
30	.5	3.1	6.5			1.5	5.3	7.4	1.3	5.1	6.4	20
31	.5	-	6.5			2	-	5.6	-	5.1	4.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	12.5	0.8	0	0.40	25
November	66.2	5.3	.5	2.21	131
December	210.5	8.9	2.8	6.79	418
Calendar year 1936	1,379.6	-	0	3.77	2,740
January	155	-	-	†5	307
February	252	-	-	†9	500
March	44.4	3.1	.5	1.43	88
April	178.6	10	1.9	5.95	354
May	59.1	7.4	.3	1.91	117
June	63.1	6.4	.6	2.77	165
July	228.3	19	.8	7.36	453
August	100.6	6.4	.4	3.25	200
September	257.8	32	3.4	8.59	511
Water year 1936-37	1,648.1	32	0	4.52	3,270

*Discharge measurement.
†Estimated.

Douglas Canal near Orpha, Wyo.

Location.- Water-stage recorder, lat. 42°51', long. 105°28', in sec. 9, T. 33 N., R. 72 W., 3 miles below head gate and 1 mile southeast of Orpha.

Records available.- May 1935 to September 1937.

Extremes.- Maximum daily discharge during year, 59 second-feet July 8, 9; no flow during nonirrigation season and July 13-18, Sept. 29, 30.
1935-37: Maximum daily discharge, 60 second-feet July 13, 1936; no flow during nonirrigation season.

Remarks.- Records good. None for Oct. 1 to May 11. Canal diverts from North Platte River 2 miles west of Orpha. Water used for irrigation southeast of Orpha.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	49	56	51	55
2								0	43	56	50	50
3								0	35	56	49	50
4								0	43	56	50	50
5								0	31	56	50	52
6								0	26	56	49	50
7								0	23	56	48	51
8								0	32	59	47	26
9								0	41	59	48	22
10								0	39	56	50	41
11								0	28	55	51	40
12								3	24	17	52	38
13								25	19	0	52	39
14								28	16	0	52	39
15								17	14	0	52	39
16								22	11	0	51	47
17								34	7	0	52	50
18								32	9	0	52	52
19								41	37	10	51	49
20								47	49	41	50	48
21								49	50	45	50	47
22								48	53	45	51	43
23								53	53	47	52	40
24								53	54	48	53	40
25					•			53	54	51	55	38
26								53	54	51	57	36
27								53	55	52	56	32
28								54	56	53	55	4
29								55	56	50	55	0
30								55	56	50	56	0
31								55	-	51	56	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	830	55	3	26.8	1,650
June	1,117	56	7	37.2	2,220
July	1,232	59	0	39.7	2,440
August	1,603	57	47	51.7	3,180
September	1,168	55	0	38.9	2,320
The period					11,810

Wagonhound Creek near La Bonte, Wyo.

Location.- Chain gage, lat. 42°39', long. 105°25', in N½ sec. 16, T. 31 N., R. 71 W., 0.3 mile above mouth, 2 miles northeast of La Bonte and 8 miles south of Douglas. Prior to June 30, 1932, chain gage 1,000 feet upstream, at different datum; records equivalent.

Drainage area.- 125 square miles.

Records available.- April 1916 to September 1924, May 1929 to June 1932, April to September 1937.

Extremes.- Maximum discharge during period, 2,000 second-feet July 12, by slope-area method (gage height, 10.0 feet, from floodmarks); minimum daily discharge, 0.5 second-foot Aug. 19-28.
1916-24, 1929-32, 1937: Maximum discharge, that of July 12, 1937; no flow during summers of 1918-19, 1922, 1930-32.

Remarks.- Records fair. Records for periods of missing gage heights, July 13-16, July 18 to Aug. 1, Aug. 18, 20-28, computed on basis of record for La Bonte Creek near La Bonte. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	3.0	15	7.9	0.7	2.2
2							-	1.9	13	12	.6	1.1
3							-	.9	11	7.9	.5	1.0
4							-	.9	17	6.5	.6	1.0
5							-	1.0	47	6.5	.5	2.5
6							-	1.0	66	7.9	.5	1.0
7							-	3.4	94	18	.5	1.0
8							-	11	88	10	.5	1.0
9							-	18	82	9.3	.5	.9
10							-	8.6	78	13	.5	.9
11							-	2.0	66	33	.7	.9
12							-	1.3	56	825	.7	.8
13							166	1.3	48	350	.7	.7
14							150	1.2	41	150	.6	.7
15							127	1.1	33	50	.5	.7
16							139	1.1	26	36	.6	.7
17							130	1.1	13	24	.6	.7
18							136	1.0	8.6	13	.6	.7
19							120	.9	6.5	42	.5	.7
20							94	.8	5.8	18	.5	.7
21							56	.7	5.4	9.5	.5	.7
22							58	.7	9.0	4.5	.5	.7
23							37	.7	7.9	3.2	.5	.8
24							24	1.2	9.0	2.5	.5	1.3
25							22	2.7	17	2.2	.5	1.4
26							18	5.4	26	1.e	.5	2.4
27							10	5.4	27	1.5	.5	2.4
28							9.3	10	27	1.1	.5	5.1
29							6.5	13	27	.9	1.0	5.1
30							4.8	29	22	.e	3.4	5.1
31							-	31	-	.7	6.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 13-30	1,309.6	166	4.8	72.8	2,600
May	161.3	31	.7	5.20	320
June	992.2	94	5.4	33.1	1,970
July	1,666.7	825	.7	53.e	3,310
August	26.3	6.5	.5	.85	52
September	44.9	5.1	.7	1.50	e9
The period					8,340

La Bonte Creek near La Bonte, Wyo.

Location.- Water-stage recorder, lat. 42°39', long. 105°21', in sec. 21, T. 31 N., R. 71 W., 1¼ miles above mouth and 3 miles northeast of La Bonte.

Drainage area.- 302 square miles.

Records available.- April 1916 to September 1924, May 1928 to September 1933, April 1935 to September 1937.

Extremes.- Maximum discharge during year, 1,580 second-feet July 12 (gage height, 7.17 feet); no flow Oct. 1-26.
1916-24, 1928-33, 1935-37: Maximum discharge, 2,750 second-feet May 22, 23, 1923 (gage height, 7.5 feet, former site and datum); no flow at times during 1917, 1918, 1931, 1933, 1935-37.

Remarks.- Records excellent except those for periods of ice effect, Dec. 7 to Apr. 2, which were computed on basis of four discharge measurements and weather records and are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.8	0.7				70	219	210	50	16	17
2	0	.8	.7				100	231	195	66	15	12
3	0	.6	.7				98	228	180	55	14	11
4	0	.3	.8				78	210	204	54	14	18
5	0	1.4	.8				66	258	300	51	13	16
6	0	.4	.8				60	315	351	45	11	12
7	0	.4	1.0				60	395	437	44	9.8	9.8
8	0	.7	.5				70	440	476	42	9.8	8.4
9	0	.7	.5				72	504	440	39	9.1	7.2
10	0	.7	1.0				102	514	451	37	8.4	6.5
11	0	.7	1.5				162	465	354	52	7.8	6.2
12	0	.7	1.0	*3.3			183	392	330	666	6.5	5.9
13	0	.7	1.5				155	324	270	381	6.2	5.0
14	0	.7	2.0				276	288	237	213	5.6	5.0
15	0	.7	2.8				500	270	201	165	4.7	5.0
16	0	.7	2.0				570	255	168	140	3.8	5.0
17	0	.7	1.5				364	234	130	112	33	5.0
18	0	.7	1.5				297	207	120	80	64	4.7
19	0	.7	2.0				318	186	100	148	35	4.1
20	0	.7	2.0		*6.5		312	168	92	82	27	3.4
21	0	.7	1.5				270	138	82	68	22	2.9
22	0	.7	2.0				364	128	68	54	19	2.8
23	0	.7	2.5			*9.6	288	115	57	46	17	2.9
24	0	.7	2.0				252	105	47	42	18	3.2
25	0	.7	1.5				222	90	43	39	14	4.1
26	0	.7	2.0				231	85	43	35	13	4.1
27	.2	.7	1.5				285	78	43	33	12	4.1
28	1.4	.7	1.5				324	62	42	28	11	3.4
29	1.1	.7	1.0				258	54	41	25	13	2.9
30	.6	.7	1.0				228	112	39	19	17	2.9
31	.7	-	.5				-	294	-	17	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4.0	1.4	0	0.13	7.9
November	20.8	1.4	.3	.69	41
December	42.3	2.8	.5	1.36	84
Calendar year 1936	4,892.2	190	0	13.4	9,700
January	108.5	-	-	†3.5	215
February	182	-	-	†6.5	361
March	434	-	-	†14	861
April	6,635	570	60	221	13,160
May	7,364	514	54	238	14,610
June	5,751	476	39	192	11,410
July	2,928	666	17	94.5	5,810
August	495.7	64	3.8	16.0	983
September	200.5	18	2.8	6.68	398
Water year 1936-37	24,165.8	666	0	66.2	47,940

*Discharge measurement.
†Estimated.

Horseshoe Creek near Glendo, Wyo.

Location.- Water-stage recorder, lat. 42°27', long. 104°58', in sec. 25, T. 29 N., R. 68 W., half a mile above mouth and 5 miles southeast of Glendo.

Drainage area.- 205 square miles.

Records available.- April 1916 to September 1919, April 1921 to September 1924, May 1928 to September 1933, April 1935 to September 1937.

Extremes.- Maximum discharge during year, 350 second-feet June 12 (gage height, 3.17 feet); minimum daily discharge, 0.9 second-foot Sept. 20, 21.
1916-19, 1921-24, 1928-33, 1935-37: Maximum discharge, 11,900 second-feet May 30, 1935, by slope-area method (gage height, 8.80 feet, from floodmarks); no flow at times during 1918-19, 1935.

Remarks.- Records good except those for period of ice effect, Dec. 16 to Mar. 17 (computed on basis of two discharge measurements and weather records), and those for Oct. 11, 20, Dec. 13, 14 (estimated), which are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.6	6.8	4.3			1.5	1.4	52	117	25	11	2.5
2	6.2	6.8	4.3			2	1.4	54	116	27	10	2.9
3	5.0	6.2	4.3			2	1.4	60	107	24	8.6	3.2
4	5.6	5.6	4.3			3	1.2	60	110	22	7.4	3.6
5	8.0	5.0	4.3			4	1.2	57	141	21	4.6	3.6
6	8.6	5.0	4.0			5	1.0	76	188	21	4.6	3.2
7	6.8	5.0	4.0			4.5	1.2	107	220	20	5.6	3.2
8	7.4	4.6	4.0			3.5	1.4	145	227	20	5.6	2.9
9	7.4	4.6	4.3			3.5	1.4	159	222	19	5.6	2.6
10	5.6	4.3	4.0			4	1.5	180	252	21	4.3	2.6
11	6.8	3.6	4.0			3.5	1.4	180	213	21	4.0	2.6
12	8.0	3.6	4.0	*2.0		3	1.2	165	230	82	3.2	2.2
13	6.8	3.6	3.5			2.5	1.2	154	170	141	3.2	1.8
14	6.8	3.2	3			2.5	6.2	138	148	105	3.2	1.5
15	8.6	3.2	2.6			2	107	127	139	87	2.2	1.8
16	6.8	3.6	2.5			3	141	121	129	75	2.2	2.6
17	5.6	2.9	2			4	102	117	116	67	3.2	2.6
18	5.6	3.2	3			3.6	78	105	98	60	42	2.6
19	6.8	2.9	3.5			3.2	80	95	90	52	16	1.2
20	8.5	2.6	2.5		*1.2	3.2	76	83	76	46	8.6	.9
21	6.2	2.2	2.5			2.6	73	68	63	41	6.2	.9
22	6.2	2.2	3			1.8	83	62	51	36	5.6	1.2
23	5.6	2.2	3			1.8	88	57	50	28	5.0	1.4
24	7.4	2.9	3.5			1.2	82	51	39	24	4.6	1.8
25	6.2	3.2	3			1.5	76	42	38	22	4.0	21
26	6.2	3.6	2.5			1.8	68	37	37	23	2.2	100
27	6.2	4.0	2.5			1.8	76	32	36	23	1.8	65
28	5.0	4.0	2.5			1.8	76	27	33	20	1.2	12
29	5.6	4.0	2.5			1.8	67	26	30	19	2.2	2.9
30	6.8	4.0	2			1.5	62	41	27	14	2.2	2.9
31	6.2	-	2			1.5	-	93	-	13	2.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	204.1	8.6	5.0	6.58	405
November	118.6	6.8	2.2	3.95	235
December	101.4	4.3	2	3.27	201
Calendar year 1936	2,374.1	68	.3	6.49	4,708
January	52.7	-	-	†1.7	105
February	42	-	-	†1.5	83
March	82.6	5	1.2	2.66	164
April	1,358.1	141	1.0	45.3	2,690
May	2,771	180	26	89.4	5,500
June	3,513	252	27	117	6,970
July	1,219	141	13	39.3	2,420
August	192.3	42	1.2	6.20	381
September	259.2	100	.9	8.64	514
Water year 1936-37	9,914	252	.9	27.2	19,670

*Discharge measurement.
†Estimated.

Cottonwood Creek at Wendover, Wyo.

Location.- Water-stage recorder, lat. 42°19', long. 104°52', in sec. 10, T. 27 N., R. 67 W., a quarter of a mile above mouth, at Wendover.

Drainage area.- 159 square miles.

Records available.- April 1916 to September 1924, May 1929 to September 1933, April 1935 to September 1937.

Extremes.- Maximum discharge during year, 236 second-feet Sept. 6 (gage height, 3.72 feet); minimum discharge, 1.7 second-feet (discharge measurement) Feb. 20 (probably less during period of ice effect).
1916-24, 1929-33, 1935-37: Maximum discharge, 3,600 second-feet June 11, 1935, by slope-area method (gage height, 8.80 feet, present datum); no flow July 12-15, 1932.
Maximum stage known, 10.6 feet (former site and datum) Aug. 15, 1927 (discharge about 5,800 second-feet).

Remarks.- Records fair. Discharge for period of ice effect, Dec. 1 to Mar. 10, computed on basis of three discharge measurements and weather records. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	3.4				2.	2.9	2.2	3.7	4.7	3.2	3.2
2	2.8	3.1				2.	2.9	2.2	2.0	3.7	3.2	3.4
3	2.8	3.1				2.	2.5	2.4	2.0	3.2	3.2	3.7
4	2.8	3.1				2.5	2.5	2.4	2.0	12	3.0	4.2
5	2.8	3.1				3.	2.5	2.4	11	4.2	2.7	5.1
6	2.8	3.1				2.5	2.5	2.5	26	6.0	2.2	24
7	2.8	3.1				2	2.5	2.5	32	4.4	2.2	4.2
8	2.8	3.1				2.5	2.2	2.5	31	4.9	2.2	2.4
9	3.1	3.1				3	1.9	2.7	26	3.6	2.2	2.2
10	3.4	3.1				3	1.9	2.7	29	2.9	2.2	2.2
11	3.4	3.1				2.9	1.9	3.1	28	5.3	2.2	2.0
12	3.4	3.1		*2.2		2.9	1.8	3.1	23	32	2.0	2.0
13	3.4	2.2				2.9	1.8	3.1	22	38	2.0	2.0
14	3.1	2.2				3.1	1.9	3.3	19	34	2.0	1.9
15	3.1	2.2	*2.0			3.1	1.8	3.6	9.0	28	2.0	1.9
16	2.8	2.2				2.9	1.9	4.2	7.4	27	2.0	1.9
17	2.8	2.2				2.7	1.9	4.4	6.2	23	2.2	1.9
18	2.8	2.2				2.7	1.9	4.6	5.5	21	2.2	1.9
19	2.8	2.2				2.9	1.9	4.6	4.4	20	2.0	1.9
20	3.1	2.2			*1.7	2.9	1.9	4.6	4.0	18	2.0	1.8
21	3.1	2.2				2.9	1.9	4.6	3.7	17	2.0	1.8
22	3.1	2.2				2.9	1.9	4.9	3.7	16	2.0	1.9
23	3.1	2.2				2.7	1.9	4.9	3.7	22	2.0	1.9
24	3.1	2.2				2.7	2.2	5.3	3.4	7.0	2.2	2.0
25	3.4	2.2				2.7	2.4	5.3	3.4	4.0	2.2	2.0
26	3.1	2.2				2.7	2.2	11	3.2	6.2	2.2	1.9
27	3.1	2.2				2.7	2.2	7.4	3.2	4.7	2.2	1.9
28	3.1	2.2				2.9	2.2	2.4	3.0	4.0	2.4	1.9
29	3.1	2.2				2.9	2.2	2.4	3.0	3.7	3.0	1.9
30	3.1	2.2				2.9	2.2	2.7	4.0	3.4	3.0	1.9
31	3.1	-				2.9	-	2.2	-	3.2	3.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	94.0	3.4	2.8	3.03	186
November	77.1	3.4	2.2	2.57	153
December	52.7	-	-	†1.7	105
Calendar year 1936	1,042.3	30	1.6	2.85	2,070
January	46.5	-	-	†1.5	92
February	56	-	-	†2	111
March	84.4	3.1	2	2.72	167
April	64.3	2.9	1.8	2.14	128
May	116.2	11	2.2	3.75	230
June	327.5	32	2.0	10.9	650
July	387.1	38	2.9	12.5	768
August	73.1	3.2	2.0	2.36	145
September	92.9	24	1.8	3.10	184
Water year 1936-37	1,471.8	38	-	4.03	2,920

*Discharge measurement.
†Estimated.

Laramie River near Glendevey, Colo.

Location.- Water-stage recorder, lat. 40°48', long. 105°53', in sec. 25, T. 10 N., R. 76 W., above Stub Creek, just below mouth of Nunn Creek, and 1½ miles north of present location of Glendevey post office.

Drainage area.- 101 square miles.

Records available.- June 1904 to October 1905, August 1910 to September 1930, and October 1933 to September 1937 in reports of Geological Survey; June 1904 to October 1905 and August 1910 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 289 second-feet May 15 (gage height, 2.64 feet); minimum daily discharge recorded, 13 second-feet Apr. 2, Aug. 10-12 (probably less during period of no record).
1904-5, 1910-37: Maximum discharge, 2,240 second-feet June 9, 1923; minimum, 5 second-feet Feb. 14, 15, 1911.

Remarks.- Records excellent. None for Dec. 1 to Mar. 31. Diversions for irrigation above station include two large transmoutain diversions into Cache La Poudre River above Chambers Lake.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	27					14	43	190	51	23	20
2	29	24					13	42	172	37	19	22
3	28	32					14	36	218	29	19	25
4	28	29					16	37	213	25	18	25
5	29	22					16	61	183	25	16	25
6	33	22					17	74	134	25	14	23
7	30	22					18	107	138	28	16	23
8	28	33					18	143	135	32	16	23
9	27	37					16	178	116	30	15	23
10	25	33					17	172	104	51	13	22
11	25	28					16	150	104	47	13	23
12	22	26					18	118	120	56	13	23
13	22	26					20	117	92	77	16	23
14	21	23					31	164	96	53	15	23
15	22	22					62	208	107	31	14	23
16	22	20					67	190	111	25	21	23
17	23	20					45	172	129	23	33	23
18	23	20					39	172	130	27	24	22
19	22	22					41	168	114	22	22	22
20	29	21					41	134	111	19	18	21
21	30	22					56	118	113	20	16	20
22	30	19					72	124	126	25	14	20
23	27	23					56	150	111	25	14	22
24	26	26					44	123	85	23	14	30
25	25	20					45	151	86	22	16	25
26	25	21					50	130	126	22	16	26
27	24	22					67	113	69	36	14	25
28	25	21					57	129	52	30	14	24
29	23	18					51	150	39	27	20	25
30	25	18					44	200	42	26	22	24
31	28	-					-	158	-	30	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	806	33	21	26.0	1,600
November	719	37	18	24.0	1,430
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	1,081	72	13	36.0	2,140
May	4,032	208	36	130	8,000
June	3,566	218	39	119	7,070
July	999	77	19	32.2	1,980
August	540	33	13	17.4	1,070
September	698	30	20	23.3	1,380
Water year					

Laramie River near Jelm, Wyo.

Location.- Water-stage recorder, lat. 41°00', long. 106°01', in sec. 15, T. 12 N., R. 77 W., a quarter of a mile north of Colorado-Wyoming State line, half a mile above mouth of Johnson Creek, and 4 miles south of Jelm. Zero of gage is 7,685.32 feet above mean sea level.

Drainage area.- 297 square miles.

Records available.- June 1904 to October 1905 and May 1911 to September 1937.

Average discharge.- 27 years, 175 second-feet.

Extremes.- Maximum discharge during year, 1,470 second-feet July 11 (gage height, 3.53 feet); minimum daily discharge, 21 second-feet Jan. 4, 5.
1904-5, 1911-37: Maximum discharge, 4,200 second-feet June 9, 1923 (gage height, 4.15 feet); minimum, 5.6 second-feet Dec. 2, 1933.

Remarks.- Records good. Discharge for periods of ice effect, Nov. 9-11, 20-23, Nov. 29 to Mar. 31, computed on basis of two discharge measurements, gage heights, and weather records; that for Apr. 1-21, 23-25 computed on basis of one discharge measurement and records for station near Woods. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	58	44	24	26	28	40	107	755	208	85	39
2	49	54	37	23	26	28	44	107	618	154	75	39
3	46	46	33	22	26	30	52	95	688	131	69	39
4	46	69	28	21	26	2e	65	97	740	119	67	42
5	46	64	26	21	26	29	75	124	639	122	61	38
6	55	61	25	22	25	30	60	157	506	113	60	38
7	52	58	25	22	24	32	56	200	450	105	60	41
8	48	55	27	23	23	35	54	255	450	107	56	38
9	48	50	28	24	23	38	50	316	423	107	54	34
10	46	52	27	24	24	40	62	500	370	107	50	34
11	45	56	27	25	23	42	75	512	355	321	46	34
12	45	60	27	27	23	43	110	423	396	340	46	36
13	45	61	28	26	24	42	98	340	345	401	46	35
14	45	58	28	25	24	40	120	445	350	233	45	35
15	45	60	29	25	24	39	140	599	396	152	42	34
16	48	61	30	25	25	40	167	618	380	124	48	34
17	48	58	29	24	26	41	162	599	412	111	60	33
18	46	64	27	24	25	42	158	639	412	111	61	33
19	46	58	27	24	25	42	150	639	380	103	55	33
20	56	55	26	23	25	41	170	560	340	94	49	32
21	61	52	26	23	26	41	180	500	340	90	43	31
22	61	50	27	23	26	42	194	467	335	83	39	32
23	56	50	29	23	26	43	170	530	321	78	36	34
24	56	49	31	24	27	43	155	489	260	77	39	42
25	54	58	30	24	28	42	130	554	264	77	39	42
26	56	58	29	25	28	40	119	536	445	80	39	39
27	54	52	27	25	28	40	149	489	269	94	36	38
28	55	50	26	24	28	40	128	512	208	95	35	36
29	50	47	26	23	-	39	117	566	176	92	36	34
30	52	48	25	24	-	38	109	786	172	87	42	34
31	60	-	24	24	-	39	-	674	-	88	41	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,574	61	45	50.8	3,120
November	1,672	69	46	55.7	3,320
December	878	44	24	28.3	1,740
Calendar year 1936	49,919	977	24	136	99,000
January	736	27	21	23.7	1,460
February	710	28	23	25.4	1,410
March	1,177	43	28	38.0	2,330
April	3,359	194	40	112	6,660
May	13,435	786	95	433	26,650
June	12,195	755	172	406	24,190
July	4,204	401	77	136	8,340
August	1,560	85	35	50.3	3,090
September	1,083	42	31	36.1	2,150
Water year 1936-37	42,583	786	21	117	84,460

Laramie River and Pioneer Canal near Woods, Wyo.

Location.- Water-stage recorder above diversion dam of Pioneer Canal, lat. 41°09', long. 105°59', in sec. 36, T. 14 N., R. 77 W., 2 miles northeast of Woods. Zero of river gage is 7,389.01 feet above mean sea level. Staff gage about half a mile below headgates is used to determine flow in canal.

Drainage area.- 418 square miles.

Records available.- April 1912 to September 1924, April to September 1927, April 1932 to September 1937.

Extremes.- Laramie River: Maximum discharge during year, 1,130 second-feet July 11 (gage height, 3.10 feet); no flow at times during July, August, September.
Pioneer Canal: Maximum daily discharge during year, 107 second-feet May 22, minimum, about 2 second-feet (leakage through gates when closed).
1912-24, 1927, 1932-37: Combined maximum discharge, 5,060 second-feet June 10, 1923; combined minimum discharge not determined.

Remarks.- Records excellent for river, fair for canal, good for combined flow. None for Nov. 9 to Mar. 26. Discharge of canal for Nov. 1-8, Apr. 1 to May 3 estimated. Staff gage on canal read twice daily. Canal diverts water from left bank of river at diversion dam for irrigation in vicinity of Laramie. Diversions for irrigation above station.

Rating table for Laramie River, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

(Shifting-control method used Aug. 25 to Sept. 30)

0.97	0	1.2	29	1.8	222	2.4	546	3.0	1,040
1.0	1.5	1.4	75	2.0	314	2.6	698		
1.1	13	1.6	144	2.2	420	2.8	865		

Discharge, in second-feet, of Pioneer Canal near Woods, Wyo., for water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	3				-	2	6	84	62	86	44
2	34	3				-	3	6	84	65	79	45
3	34	3				-	3	6	84	64	77	44
4	34	3				-	3	20	87	62	67	45
5	34	3				-	3	22	101	62	58	45
6	21	3				-	3	22	98	62	50	42
7	21	3				-	3	22	98	62	50	42
8	21	3				-	3	22	97	66	49	41
9	21	-				-	3	22	55	64	53	40
10	21	-				-	3	22	54	64	53	28
11	21	-				-	5	16	55	69	51	28
12	20	-				-	6	16	54	71	36	14
13	19	-				-	5	16	73	82	36	14
14	18	-				-	6	16	72	75	40	15
15	17	-				-	6	16	72	76	40	15
16	17	-				-	6	16	71	75	40	30
17	16	-				-	6	16	82	74	72	31
18	15	-				-	6	30	80	60	62	31
19	15	-				-	6	31	80	59	65	33
20	14	-				-	6	48	78	66	65	16
21	14	-				-	6	48	78	63	54	17
22	16	-				-	6	107	79	74	55	23
23	14	-				-	6	105	78	74	35	25
24	14	-				-	6	103	77	79	36	22
25	13	-				-	6	103	76	76	39	22
26	13	-				-	6	101	83	73	20	23
27	13	-				2	6	100	78	79	25	22
28	13	-				2	6	100	75	70	25	30
29	12	-				2	6	82	72	85	28	30
30	11	-				2	6	87	63	84	28	30
31	3	-				2	-	83	-	85	46	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	582	34	3	18.8	1,150
November 1-8	24	3	3	3.0	48
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 27-31	10	2	2	2.0	20
April	147	6	2	4.9	292
May	1,410	107	6	45.5	2,800
June	2,318	101	54	77.3	4,600
July	2,182	85	59	70.4	4,330
August	1,520	66	20	49.0	3,010
September	887	45	14	29.6	1,760
Water year					

Discharge, in second-feet, of Laramie River near Woods, Wyo., for water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	62				-	37	148	908	178	0	0
2	13	59				-	45	159	690	126	0	0
3	8.4	33				-	52	148	747	88	0	0
4	6.1	67				-	62	122	788	70	4.8	0
5	6.1	82				-	82	194	682	62	6.1	1.0
6	15	67				-	72	226	553	62	8.4	0
7	19	62				-	62	319	513	59	8.4	0
8	15	65				-	54	426	539	82	8.4	1.0
9	15	-				-	49	500	526	70	6.1	0
10	13	-				-	65	682	474	65	3.8	0
11	13	-				-	98	675	432	290	0	2.6
12	12	-				-	133	576	438	444	5.2	13
13	13	-				-	95	520	415	356	9.6	13
14	12	-				-	137	628	377	226	8.4	15
15	13	-				-	210	814	404	133	5.0	15
16	15	-				-	280	848	388	95	3.3	0
17	18	-				-	186	814	382	72	2.3	0
18	19	-				-	171	814	371	70	9.6	0
19	21	-				-	171	788	335	65	5.0	2.4
20	24	-				-	159	698	314	47	.8	11
21	39	-				-	167	553	276	31	0	7.2
22	33	-				-	206	444	240	16	0	3.8
23	31	-				-	202	493	235	7.2	0	6.1
24	29	-				-	171	474	214	0	0	13
25	29	-				-	137	526	198	0	7.2	16
26	27	-				-	152	576	377	0	12	15
27	26	-				39	190	468	257	0	11	13
28	27	-				41	178	506	182	27	6.1	7.2
29	31	-				39	167	546	163	21	7.2	1.0
30	27	-				37	152	890	126	9.6	6.1	1.5
31	41	-				39	-	968	-	5.3	1.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	626.6	41	6.1	20.2	1,240
November 1-8	497	82	33	62.1	986
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 27-31	195	41	37	39.0	387
April	3,942	280	37	131	7,820
May	16,543	968	122	534	32,810
June	12,544	908	126	418	24,880
July	2,777.1	444	0	89.6	5,510
August	146.3	12	0	4.72	290
September	157.8	16	0	5.26	313
Water year					

Combined monthly discharge of Laramie River and Pioneer Canal near Woods, Wyo., for water year October 1936 to September 1937

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,208.6	53	30	39.0	2,400
November 1-8	521	85	36	65.1	1,030
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March 27-31	205	43	39	41.0	407
April	4,089	286	39	136	8,110
May	17,953	1,050	206	579	35,610
June	14,862	992	189	495	29,480
July	4,959.1	515	73	160	9,840
August	1,666.3	86	31	53.8	3,310
September	1,044.8	46	24	34.8	2,070
Water year					

Laramie River at Laramie, Wyo.

Location.- Chain gage, lat. 41°20', long. 105°37', in sec. 29, T. 16 N., R. 73 W., at highway bridge, 1½ miles northwest of Laramie.

Drainage area.- Not measured.

Records available.- April 1933 to September 1937.

Extremes.- Maximum discharge observed during period, 730 second-feet May 31 (gage height, 3.33 feet); minimum daily discharge, 5.6 second-feet Sept. 15, 16, 22.
1933-37: Maximum discharge observed, 1,660 second-feet June 18, 1935 (gage height, 5.00 feet, former site and datum); minimum daily discharge, 1.5 second-feet Sept. 6, 7, 1934.

Remarks.- Records good. None for Oct. 1 to Mar. 31. Chain gage read twice daily. Diversions for irrigation above station.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used June 21 to July 12)

0.7	4.5	1.4	103	2.5	420
.8	11	1.6	150	3.0	600
1.0	32	1.8	202	3.5	798
1.2	64	2.0	258		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							85	114	710	150	38	9.7
2							95	103	678	126	32	9.7
3							114	110	650	114	29	8.4
4							117	99	623	74	27	9.7
5							145	89	702	59	24	9.7
6							99	89	658	43	22	9.0
7							99	89	662	35	19	8.4
8							91	95	658	35	18	7.8
9							87	155	483	35	16	9.0
10							72	202	479	50	14	8.4
11							108	252	413	57	14	7.8
12							103	294	333	108	14	7.1
13							103	288	307	326	13	7.1
14							103	282	255	320	11	6.4
15							117	320	258	320	10	5.8
16							166	393	279	202	13	5.8
17							230	434	267	155	17	7.1
18							186	447	307	114	24	8.4
19							143	447	301	95	22	8.4
20							150	486	276	95	22	6.4
21							136	434	255	83	17	7.1
22							133	389	255	64	16	5.8
23							158	342	219	60	14	6.4
24							160	285	224	121	11	7.1
25							150	333	192	60	11	7.1
26							131	352	208	45	10	7.1
27							117	393	197	40	10	7.1
28							126	339	197	35	11	8.4
29							121	339	153	40	11	9.0
30							121	434	124	42	11	9.7
31							-	662	-	38	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	3,766	230	72	126	7,470
May	9,090	662	89	293	18,030
June	11,323	710	124	377	22,460
July	3,141	326	35	101	6,230
August	532	38	10	17.2	1,060
September	234.9	9.7	5.8	7.83	466
The period					55,720

Laramie River at Two Rivers, Wyo.

Location.- Water-stage recprder, lat. 41°28', long. 105°44', in sec. 5, T. 17 N., R. 74 W., at old Two Rivers post office, a quarter of a mile above junction with Little Laramie River and 14 miles northwest of Laramie. Zero of gage is 7,058.90 feet above mean sea level.

Drainage area.- 1,290 square miles.

Records available.- May 1911 to October 1927, May 1933 to September 1937.

Extremes.- Maximum discharge during year, 784 second-feet June 1 (gage height, 4.11 feet); minimum daily discharge, 6.8 second-feet Sept. 16-21.
1911-27, 1933-37: Maximum discharge, 3,930 second-feet June 13, 1923 (gage height, 7.48 feet); no flow Sept. 22-25, 1911.

Remarks.- Records excellent except those for periods of ice effect, Dec. 2 to Apr. 15, (computed on basis of three discharge measurements and weather records), and those for period of missing gage heights, Oct. 6-31 (computed on basis of records for station near Lookout and range in stage from recorder chart), which are fair. Diversions for irrigation above station.

Rating tables, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Aug. 3								Aug. 4 to Sept. 30	
0.4	0	1.4	72	2.4	268	4.0	742	0.5	4.5
.6	3	1.6	108	2.6	314	4.5	964	.6	7
.8	12.5	1.8	145	2.8	364			.8	15
1.0	25	2.0	185	3.0	420			1.0	26
1.2	41	2.2	225	3.5	574			1.1	32

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.1	16	31	13	13	17	66	122	750	126	45	8.2
2	9.2	21	28	12	13	18	68	113	689	110	41	9.4
3	11	21	26	12	13	18	74	110	628	110	36	9.0
4	10	21	25	12	13	20	82	106	564	104	32	9.0
5	9.8	21	23	12	14	20	86	99	628	83	31	9.0
6	9.6	21	22	11	14	22	92	88	665	79	30	9.4
7	9.0	26	22	11	13	24	96	103	580	74	25	9.6
8	8.4	35	20	10	13	25	102	90	472	58	23	9.4
9	7.6	57	19	11	12	27	108	101	460	52	22	9.0
10	7.0	58	18	12	11	30	120	145	472	54	20	9.0
11	7.2	54	17	13	11	32	122	169	442	64	16	9.0
12	7.4	60	17	13	12	36	124	203	370	145	15	8.6
13	7.6	60	17	13	13	37	123	231	309	209	15	7.4
14	7.6	67	18	14	13	37	122	261	288	338	12	7.4
15	7.4	65	18	14	12	37	120	250	244	328	10	7.4
16	7.4	69	19	14	13	38	121	283	236	261	10	6.8
17	7.6	58	18	14	13	39	175	359	270	217	12	6.8
18	7.8	33	18	14	14	40	201	333	257	179	11	6.6
19	7.8	34	17	14	14	41	163	343	275	149	9.8	6.8
20	8.6	36	16	13	13	42	153	361	268	128	9.4	6.8
21	10	29	16	11	13	45	151	375	246	115	9.4	6.8
22	12	31	17	11	14	47	139	333	227	99	9.0	7.0
23	12	32	18	11	15	50	139	297	215	79	8.6	7.4
24	14	36	19	12	16	52	161	272	167	70	9.0	7.0
25	15	37	19	13	16	56	161	290	181	92	9.0	7.0
26	16	38	19	14	16	57	149	328	167	72	8.6	7.0
27	17	36	18	14	16	57	132	351	161	65	7.8	7.0
28	18	39	18	15	17	57	130	341	223	67	7.8	7.0
29	18	39	16	15	-	58	136	307	199	54	9.8	7.0
30	17	36	15	15	-	60	132	400	157	48	10	7.0
31	17	-	14	14	-	64	-	552	-	47	8.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	332.1	18	7.0	10.7	659
November	1,186	69	16	39.5	2,350
December	596	31	14	19.3	1,190
Calendar year					
January	397	15	10	12.8	787
February	380	17	11	13.6	754
March	1,203	64	17	38.8	2,390
April	3,748	201	66	125	7,430
May	7,718	552	88	249	15,310
June	10,650	750	157	361	21,480
July	3,676	338	47	119	7,290
August	522.8	45	7.8	16.9	1,040
September	235.2	9.6	6.8	7.84	467
Water year 1936-37	30,826.1	750	6.8	84.5	61,150

Laramie River near Lookout, Wyo.

Location.- Water-stage recorder, lat. 41°46', long. 105°41', in sec. 27, T. 21 N., R. 74 W., 9 miles northeast of Lookout. Zero of gage is 6,962.68 feet above mean sea level.

Drainage area.- 2,100 square miles.

Records available.- May 1912 to August 1917, May 1932 to September 1937.

Extremes.- Maximum discharge during year, 1,210 second-feet June 2 (gage height, 4.09 feet); minimum daily discharge, 1.5 second-feet Oct. 2, 3.
1915-17, 1932-37: Maximum discharge (estimated), 3,100 second-feet June 28, 1917; no flow July 15 to Aug. 5, 1934, Aug. 11, 1934, to Jan. 10, 1935.

Remarks.- Records excellent. None for Nov. 3 to Apr. 30. Diversions for irrigation above station.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 21 to Nov. 2, Aug. 1 to Sept. 26)

0.9	1.5	1.6	97	3.0	560
1.0	4	1.8	147	3.5	885
1.2	20	2.0	205	4.0	1,150
1.4	55	2.5	365	4.5	1,500

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.5	15						116	963	275	124	20
2	1.5	10						116	1,180	237	111	20
3	1.5	-						131	1,030	205	107	19
4	1.8	-						150	855	202	93	17
5	4.0	-						155	855	199	82	15
6	5.8	-						131	982	181	73	12
7	5.8	-						126	1,000	178	65	14
8	5.2	-						99	754	169	59	13
9	5.2	-						116	640	184	47	11
10	4.6	-						119	645	172	44	11
11	4.0	-						142	655	187	40	10
12	3.2	-						164	587	234	34	8.8
13	3.0	-						184	447	385	28	9.4
14	3.0	-						208	385	517	25	9.4
15	2.5	-						231	343	620	20	8.8
16	3.2	-						231	314	574	18	8.8
17	3.0	-						256	327	435	25	7.6
18	3.2	-						304	365	352	19	7.0
19	3.2	-						295	365	307	22	7.0
20	4.0	-						298	375	256	23	5.8
21	4.6	-						314	372	218	22	4.6
22	5.2	-						327	359	187	20	4.6
23	5.2	-						317	349	164	20	4.6
24	6.4	-						291	333	137	17	5.8
25	8.2	-						298	320	129	15	5.8
26	9.4	-						359	314	131	15	5.8
27	12	-						483	314	131	14	5.8
28	13	-						500	336	202	17	5.2
29	13	-						435	379	250	23	5.2
30	13	-						443	343	155	22	5.8
31	14	-						677	-	137	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	174.2	14	1.5	5.62	346
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	8,016	677	99	259	15,900
June	16,486	1,180	314	550	32,700
July	7,710	620	129	249	15,290
August	1,263	124	14	40.7	2,510
September	287.8	20	4.6	9.59	571
Water year					

Laramie River near Fort Laramie, Wyo.

Location.- Water-stage recorder, lat. 42°12', long. 104°32', in sec. 28, T. 26 N., R. 64 W., half a mile below Old Fort Laramie and 2.1 miles southwest of Fort Laramie.

Drainage area.- 4,600 square miles.

Records available.- April 1915 to September 1937.

Average discharge.- 11 years (1926-37), 168 second-feet.

Extremes.- Maximum discharge during year, 991 second-feet July 14 (gage height, 4.87 feet); minimum daily discharge, 21 second-feet Oct. 1.
1915-37: Maximum daily discharge observed, 4,280 second-feet June 6, 1917; minimum daily discharge recorded, 2 second-feet Aug. 30 to Sept. 5, 1922, Sept. 27-30, 1934.

Remarks.- Records of discharge include flow of Lingle power-plant canal, which diverts water from river 4 miles upstream. Several diversions for irrigation above station. Flow regulated by Wheatland Reservoir (capacity, about 90,000 acre-feet). Complete records furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	85	68	70	66	77	69	162	195	62	108	35
2	22	86	78	70	66	75	68	144	240	58	108	31
3	35	83	64	62	71	91	64	142	275	67	108	32
4	34	93	66	56	72	83	173	148	232	102	104	31
5	32	98	75	66	70	87	277	156	218	102	98	30
6	30	89	65	55	70	86	181	152	240	105	102	40
7	32	77	70	44	70	85	129	161	259	96	100	67
8	49	67	68	46	61	91	115	210	261	92	95	41
9	44	77	79	44	60	73	115	231	245	69	95	36
10	47	97	77	48	66	72	106	286	231	102	45	33
11	56	104	73	48	68	71	95	303	231	102	41	32
12	56	90	79	59	70	67	87	317	241	168	40	30
13	57	87	73	59	72	68	86	279	225	330	40	30
14	53	86	65	63	66	55	83	221	202	710	38	29
15	50	82	67	53	74	69	83	210	185	720	35	28
16	55	82	65	48	73	67	191	200	180	440	33	28
17	59	81	66	45	89	70	464	195	182	360	31	29
18	64	79	79	45	89	71	436	188	156	317	30	29
19	67	76	64	45	89	80	316	178	128	280	29	30
20	75	72	65	43	88	82	260	167	112	261	85	29
21	76	70	62	53	88	79	216	156	108	226	42	29
22	75	69	61	58	79	87	187	137	102	205	45	29
23	77	69	61	59	89	84	163	117	92	180	45	28
24	79	70	59	59	89	84	187	108	82	166	42	28
25	80	71	59	65	89	68	177	90	67	142	39	27
26	82	71	59	64	76	71	152	60	67	134	35	40
27	79	69	56	65	74	71	137	53	67	122	30	41
28	82	68	68	65	91	67	130	65	67	114	29	43
29	85	62	60	65	-	71	152	70	67	110	30	44
30	83	70	41	66	-	72	177	79	67	106	33	45
31	83	-	43	65	-	72	-	110	-	108	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,821	85	21	58.7	3,610
November	2,379	104	62	79.3	4,720
December	2,035	79	41	65.6	4,040
Calendar year 1936	29,944	1,380	12	81.8	59,400
January	1,755	70	43	56.6	3,480
February	2,127	91	60	76.0	4,220
March	2,326	91	55	75.0	4,610
April	5,075	464	64	169	10,070
May	5,095	317	53	164	10,110
June	5,024	275	67	167	9,960
July	6,156	720	58	199	12,210
August	1,771	108	29	57.1	3,510
September	1,024	67	27	34.1	2,030
Water year 1936-37	36,586	720	21	100	72,570

Little Laramie River near Filmore, Wyo.

Location.- Staff gage, lat. 41°17', long. 106°03', in sec. 9, T. 15 N., R. 77 W., at Mays ranch, 1½ miles south of Filmore.

Drainage area.- 155 square miles.

Records available.- July 1902 to August 1903, May 1911 to September 1926, May 1933 to September 1937.

Extremes.- Maximum discharge observed during year, 918 second-feet May 30 (gage height, 3.46 feet); minimum daily discharge observed, 21 second-feet Nov. 22, 27, 28 (probably less during period of no record).
1902-3, 1911-26, 1933-37: Maximum discharge observed, 2,400 second-feet June 1, 1914 (gage height, 5.9 feet); minimum, 1 second-foot Sept. 19, 20, 1913.

Remarks.- Records good. None for Dec. 2 to Apr. 10. Staff gage read twice daily. Small diversions for irrigation above station.

Rating table, period Apr. 11 to Sept. 30, 1937 (gage height, in feet, and discharge, in second-feet)

0.5	13	2.0	240
.6	18	2.2	302
.8	32	2.4	372
1.0	48	2.6	450
1.2	71	2.8	536
1.4	103	3.0	630
1.6	140	3.2	740
1.8	185		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	40	20				-	41	518	305	89	28
2	41	40					-	40	434	188	88	31
3	40	42					-	43	496	123	91	31
4	41	40					-	43	716	110	65	34
5	39	35					-	43	463	105	50	26
6	39	32					-	60	358	153	52	27
7	42	29					-	64	414	188	66	33
8	39	28					-	82	450	258	50	32
9	38	28					-	114	422	201	46	34
10	38	27					-	123	395	376	44	32
11	30	27					50	119	406	322	42	34
12	29	27					59	112	383	564	41	26
13	28	27					67	129	347	496	49	26
14	30	27					64	149	387	414	40	26
15	30	26					65	164	467	258	36	27
16	32	26					67	183	450	203	42	26
17	34	26					66	273	391	167	59	28
18	31	24					67	340	442	164	55	28
19	32	24					63	454	387	164	48	26
20	34	24					61	414	387	129	39	28
21	43	24					58	376	387	105	36	30
22	47	21					60	406	426	105	32	28
23	61	22					60	450	376	101	32	28
24	67	22					55	450	302	98	30	28
25	61	22					50	611	340	93	34	28
26	57	22					51	475	454	91	32	28
27	57	21					54	541	305	93	35	28
28	57	21					46	496	252	93	32	29
29	50	22					43	541	164	93	34	26
30	50	22					41	716	228	93	33	35
31	49	-					-	554	-	89	31	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,308	67	28	42.2	2,590
November	818	42	21	27.2	1,620
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 11-30	1,147	67	41	57.4	2,280
May	8,626	716	40	278	17,110
June	11,947	716	164	398	23,700
July	5,942	564	89	192	11,790
August	1,453	91	31	46.9	2,880
September	871	35	26	29.0	1,730
Water year					

Little Laramie River at Two Rivers, Wyo.

Location.- Water-stage recorder, lat. 41°28', long. 105°44', on line between secs. 5 and 6, T. 17 N., R. 74 W., at old Two Rivers post office, half a mile above mouth, and 14 miles northwest of Laramie. Zero of gage is 7,060.54 feet above mean sea level.

Drainage area.- 310 square miles.

Records available.- March to September 1903, May 1911 to October 1927, May 1933 to September 1937.

Extremes.- Maximum discharge during year, 725 second-feet June 1 (gage height, 4.96 feet); no flow Oct. 1, Dec. 31 to Feb. 21.
1903, 1911-27, 1933-37: Maximum discharge, 1,740 second-feet May 29, 1926 (gage height, 6.32 feet); no flow at times.

Remarks.- Records good except those for period of ice effect, Nov. 8 to Apr. 9, which were computed on basis of three discharge measurements and weather records and are fair. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	12	11		0	2	46	39	643	88	57	5.5
2	2.6	10	8		0	4	56	34	411	85	46	3.8
3	5.1	8.6	5		0	6	66	38	263	88	37	3.0
4	4.2	8.0	4		0	6	72	32	319	83	26	3.0
5	3.8	11	2		0	6	75	30	269	65	19	2.8
6	3.8	13	3		0	7	74	22	411	57	13	2.1
7	3.8	12	3		0	9	73	35	239	110	10	1.8
8	3.6	9	3		0	10	72	28	180	110	7.3	1.6
9	3.6	9	2		0	11	72	24	222	90	6.9	1.4
10	3.4	10	2		0	11	72	24	243	91	5.1	1.0
11	3.2	12	1		0	11	76	19	204	188	3.8	.9
12	3.0	13	1		0	12	85	12	132	364	3.0	.7
13	2.6	14	2		0	12	83	7.3	80	442	2.4	.5
14	2.3	16	2		0	12	98	6.6	61	442	2.1	.5
15	1.9	17	2		0	12	93	5.1	66	370	1.8	.5
16	1.8	17	4		0	13	74	4.4	91	256	1.8	.3
17	1.6	18	3		0	13	51	3.8	101	198	5.5	.3
18	1.5	19	2		0	14	60	3.6	90	180	11	.3
19	2.6	14	2		0	16	63	3.6	91	136	19	.3
20	4.2	14	2		0	18	82	4.2	100	107	13	.3
21	4.8	12	2		0	20	78	12	112	82	8.6	.3
22	4.8	14	3		1	23	61	35	125	64	6.6	.2
23	6.2	15	3		2	24	51	29	125	49	4.8	.3
24	6.6	17	4		4	23	50	41	132	51	4.2	.2
25	10	18	5		3	23	59	110	123	50	3.6	.2
26	12	18	4		2	24	74	265	160	52	3.4	.2
27	12	18	3		2	25	54	286	206	63	3.4	.2
28	13	17	3		2	26	57	184	226	103	3.4	.2
29	13	17	3		-	30	60	178	170	101	5.8	.2
30	13	16	2		-	34	48	375	118	86	8.6	.2
31	13	-	0		-	42	-	613	-	68	8.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	167.0	13	0	5.39	331
November	418.6	19	8.0	14.0	830
December	96	11	0	3.1	190
Calendar year					
January	0	0	0	0	0
February	16	4	0	.6	32
March	499	42	2	16.1	990
April	2,035	98	46	67.8	4,040
May	2,503.6	613	3.6	80.8	4,970
June	5,913	643	61	197	11,730
July	4,319	442	49	139	8,570
August	351.1	57	1.8	11.3	698
September	32.8	5.5	.2	1.09	65
Water year 1936-37	16,351.1	643	0	44.8	32,440

Rawhide Creek near Lingle, Wyo.

Location.- Water-stage recorder, lat. 42°07', long. 104°19', in sec. 20, T . 25 N., R. 62 W., 1 mile east of Lingle and 1 mile above mouth.

Drainage area.- 510 square miles.

Records available.- May 1928 to September 1937.

Extremes.- Maximum discharge during year, 223 second-feet May 30 (gage height, 4.77 feet); minimum daily discharge, 4 second-feet Feb. 26.
1928-37: Maximum discharge, 1,940 second-feet June 1, 1935, by slope-area method (gage height, 10.15 feet, from floodmarks); minimum daily discharge, 0.7 second-foot Aug. 2, 1934.

Remarks.- Records good except those for periods of ice effect and missing gage heights, Nov. 9-14, Nov. 17 to Dec. 10, Dec. 13-21, Dec. 30 to Apr. 6, which were computed on basis of four discharge measurements and weather records and are fair. No diversions. Low-water flow represents return seepage from lands irrigated by Interstate Canal in Rawhide Creek Basin.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	9.2	7.5	6.8	4.5	7	10	22	108	25	27	22
2	20	8.4	7	5.5	5.5	8	11	22	44	32	25	21
3	10	8.0	6.5	5	6	8.5	10	24	36	63	25	21
4	5.7	7.6	7.5	7	6.5	11	9.5	22	37	56	27	21
5	6	7.2	8.5	6.5	8	13	11	21	37	34	31	21
6	12	6.8	10	6	7	15	10	27	38	29	30	49
7	12	6.4	11	5.5	6.5	14	10	29	34	31	30	32
8	6	6.0	10	5.5	6	14	11	27	33	52	27	32
9	5.4	6.5	10	6.5	5.5	14	12	27	41	21	23	30
10	10	7	11	8	5.5	15	11	25	35	28	19	34
11	18	6.5	12	9.9	6	14	8.8	25	29	29	20	36
12	18	6.5	11	9	7	12	11	25	30	109	21	34
13	16	7	11	8	7	11	21	25	32	196	16	26
14	17	7.5	12	7.5	7.5	9.5	23	26	22	120	16	26
15	25	7.6	11	7	7	8.5	18	25	51	58	41	28
16	25	7.6	9.5	7.5	8	9	13	27	50	51	26	27
17	18	7.5	8.5	8	7	12	17	20	22	66	21	30
18	17	8	8	7.5	6.5	13	16	16	24	44	33	29
19	16	7.5	9	7	6	12	14	15	30	36	23	32
20	18	7	8.5	5.5	5.5	11	13	14	30	28	17	28
21	18	7.5	8	4.5	6.5	11	12	13	27	25	18	24
22	16	7.5	9.6	5	6	10	8.4	16	18	27	55	26
23	14	7	11	5.5	5.5	9	10	16	14	29	31	26
24	14	7	10	6	5	8	13	17	39	28	25	27
25	12	7.5	10	6	4.5	7	14	10	18	25	20	30
26	12	7.5	11	7	4	7.5	16	7.6	44	21	20	30
27	10	8	9.6	6	4.5	8.5	14	17	24	21	47	30
28	9.2	7.5	8.8	5.5	6.5	9.5	20	43	24	34	34	32
29	8.4	7	8.8	5	-	10	23	16	24	23	34	34
30	8.4	6.5	7.5	5.5	-	10	23	126	26	24	53	36
31	8.8	-	7	5	-	11	-	201	-	28	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	431.9	26	5.4	13.8	857
November	218.8	9.2	6.0	7.29	434
December	290.8	12	6.5	9.38	577
Calendar year 1936	7,156.2	220	5.4	19.6	14,200
January	200.2	9.9	4.5	6.46	397
February	171.0	8	4	6.11	339
March	333.0	15	7	10.7	660
April	413.7	23	8.4	13.8	821
May	946.6	201	7.6	30.5	1,880
June	1,020	108	14	34.0	2,020
July	1,393	196	21	44.9	2,760
August	862	55	16	27.8	1,710
September	874	49	21	29.1	1,730
Water year 1936-37	7,155.0	201	4	19.6	14,180

Cherry Creek Drain near Torrington, Wyo.

Location.- Water-stage recorder, lat. 42°03', long. 104°09', in sec. 23, T. 24 N., R. 61 W., three-quarters of a mile above mouth and 2 miles southeast of Torrington.

Records available.- May 1935 to September 1937.

Extremes.- Maximum discharge during year, 227 second-feet July 12 (gage height, 4.00 feet); minimum daily discharge, 0.5 second-foot (computed) Jan. 18-21.
1935-37: Maximum discharge, about 340 second-feet June 1, 1935 (gage height, 3.02 feet, former site and datum); minimum daily discharge, that of Jan. 18-21, 1937.

Remarks.- Records good except those for periods of ice effect, Nov. 3, 4, 7-10, Dec. 2-14, Dec. 27 to Mar. 17, Mar. 24 to Apr. 2, which were computed on basis of five discharge measurements and weather records and are fair. Flow is chiefly return water from irrigation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	13	13	1	1	3	5	5.2	58	23	26	33
2	17	12	10	1	1	4.5	4	5.0	28	23	25	36
3	17	10	7	1	1	4	3.5	5.0	19	23	25	31
4	16	11	5	1	1	5	3.4	4.6	28	21	25	35
5	16	12	5.5	1.5	1	5.5	3.2	4.6	19	25	23	41
6	18	12	6.5	1	1	5.1	3.8	4.4	13	25	22	47
7	18	8	7	1	1	4.5	4.7	4.7	11	27	19	45
8	17	10	7	1	1	5	4.1	4.4	9.9	22	20	43
9	16	11	6.5	1	1	3.5	4.0	4.4	9.9	19	22	36
10	16	13	5.6	1	1	6	4.1	4.6	9.9	19	24	36
11	16	14	6	.9	2	5.5	4.0	4.7	26	21	20	36
12	16	13	5.5	1	2.5	5	3.6	4.6	15	167	20	36
13	15	12	6.5	1	3	4	3.8	4.7	16	123	19	38
14	15	11	7	1	5	3	3.6	4.7	14	58	19	40
15	15	11	6.5	1	5	3.5	3.6	5.8	13	33	22	43
16	15	10	6.0	1	5.5	4.5	3.6	6.2	11	23	20	46
17	15	10	6.2	1	3.5	4	4.0	5.0	9.9	22	23	51
18	14	9.9	6.8	.5	3	4.6	4.0	5.2	11	26	26	49
19	15	9.6	6.0	.5	2	4.7	4.1	6.2	17	25	21	50
20	14	10	7.0	.5	1	2.9	4.1	6.5	31	26	21	56
21	15	10	8.7	.5	1	2.3	4.1	10	22	23	23	56
22	15	11	5.2	1	1.5	2.0	4.1	9.3	16	18	25	52
23	15	11	5.8	1	2	1.9	4.4	10	17	15	28	52
24	16	14	6.0	1	1.5	1.5	4.2	9.3	19	27	26	46
25	18	15	7.0	1	1	1	4.2	10	19	22	25	48
26	17	14	5.2	1	1	1.5	4.6	10	27	23	26	45
27	16	14	3	1	1	2	5.0	9.9	26	20	29	45
28	15	15	2.5	1	2	2.5	7.0	13	24	19	29	39
29	15	14	2	1	-	3	5.8	15	22	21	28	38
30	14	14	1.6	1	-	4	5.5	50	25	22	33	33
31	13	-	1.5	1	-	4.5	-	28	-	26	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	488	19	13	15.7	968
November	354.5	15	8	11.8	703
December	185.1	13	1.5	5.98	367
Calendar year 1936	4,018.6	41	1	11.0	7,970
January	29.4	1.5	.5	.95	58
February	53.5	5.5	1.0	1.91	106
March	114.0	6	1	3.68	226
April	127.1	7.0	3.2	4.23	252
May	275	50	4.4	8.87	545
June	586.6	58	9.9	19.6	1,160
July	987	167	15	31.8	1,960
August	746	33	19	24.1	1,480
September	1,282	56	31	42.7	2,540
Water year 1936-37	5,228.2	167	.5	14.3	10,360

Katzer Drain near Henry, Nebr.

Location.- Water-stage recorder, lat. 41°58', long. 104°03', in sec. 15, T. 23 N. R. 60 W., 3 miles southwest of Henry.

Records available.- June 1928 to September 1937.

Extremes.- Maximum discharge during year, 162 second-feet July 13 (gage height, 4.14 feet); minimum daily discharge, 0.5 second-foot Jan. 14.
1928-37: Maximum discharge, about 1,050 second-feet June 2, 1929 (gage height, 9.9 feet, former site and datum); minimum daily discharge, that of Jan. 14, 1937.

Remarks.- Records good except those for periods of ice effect, Nov. 2-4, 6-11, Dec. 3-9, 12, 13, Dec. 20 to Feb. 21, Feb. 25-28, and Mar. 14, 15, 24-28, which were computed on basis of four discharge measurements and weather records and are fair. Records show return flow from area irrigated by Fort Laramie Canal. Katzer Drain empties into North Platte River in Wyoming, 1 mile above Nebraska State line.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0	6.2	5.5	5.5	2	5.2	7.8	4.5	32	15	24	39
2	7.0	5	5.5	5.5	1.5	4.2	7.e	3.8	23	15	24	46
3	7.0	5	5	6	2.5	5.2	6.2	3.4	23	18	22	48
4	7.0	5.5	4	6	2.5	5.5	5.2	3.6	33	23	27	44
5	7.0	6	4	6	3.5	4.2	4.8	3.6	23	20	26	45
6	7.0	5.5	5	4.5	3	5.0	4.5	3.8	9.0	18	27	41
7	6.5	4.5	5.5	2.5	2.5	4.5	4.8	4.2	5.0	19	27	47
8	6.5	4	5.5	1	1.5	4.2	4.8	3.4	4.5	17	27	43
9	6.8	5	5	1.5	1.5	4.5	5.5	3.2	4.8	14	28	40
10	6.8	6	4.5	1.5	1.5	4.2	5.2	3.2	4.2	16	32	39
11	6.8	5.5	4.8	1.3	2	4.0	5.2	3.4	4.0	31	32	37
12	6.8	5.2	4	1	2.5	4.2	5.2	3.0	7.0	84	36	39
13	6.5	5.2	3.5	1	3.5	3.2	5.5	2.8	43	114	33	36
14	6.5	5.5	3.8	.5	4	3	5.2	2.8	33	45	33	36
15	6.5	5.5	4.0	1	4.5	4.5	4.8	2.8	29	31	34	42
16	6.5	5.2	4.5	1.5	5	5.0	5.0	2.6	9.3	19	31	44
17	6.2	5.0	5.0	2	4	5.5	5.0	2.6	6.2	16	31	46
18	6.2	4.8	4.5	1.5	3.7	5.5	5.0	2.2	7.5	16	35	46
19	6.2	4.8	4.2	1	3.5	6.5	5.0	2.2	9.0	15	34	47
20	6.2	4.8	7.5	1	3	6.0	4.8	2.2	16	15	31	46
21	6.2	4.8	7.3	1	3.5	5.8	4.8	14	19	13	30	49
22	6.2	5.0	8	1.5	4.2	5.8	4.8	7.5	15	13	35	50
23	6.2	5.0	8.5	1.5	4.0	6.0	5.2	14	11	45	37	50
24	6.2	5.2	9	1.5	4.2	5	4.8	14	15	40	38	45
25	6.5	5.2	8	2	4	4.5	4.2	4.2	25	28	35	44
26	6.2	5.0	8	3	3.5	5	4.2	4.2	28	22	33	45
27	6.0	4.8	7.5	2.5	4	6	4.2	3.0	25	18	36	45
28	5.8	5.5	6.5	2	4.5	6	6.0	2.8	21	18	36	41
29	5.8	5.5	6.3	1.5	-	6.2	5.0	7.0	18	19	36	41
30	6.2	6.0	6	1.5	-	7.8	4.8	36	16	17	35	43
31	6.2	-	6.5	1.5	-	7.8	-	25	-	22	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	200.5	7.0	5.e	6.47	39e
November	156.2	6.2	4	5.21	310
December	176.9	9	3.5	5.71	351
Calendar year 1936	3,175.1	70	1.6	8.68	6,300
January	71.3	6	.5	2.30	141
February	89.6	5	1.5	3.20	178
March	160	7.8	3	5.16	317
April	155.3	7.8	4.2	5.18	308
May	195	36	2.2	6.29	387
June	518.5	43	4.0	17.3	1,030
July	816	114	13	26.3	1,620
August	961	38	22	31.6	1,950
September	1,304	50	36	43.5	2,590
Water year 1936-37	4,824.3	114	.5	13.2	9,580

Horse Creek near Lyman, Nebr.

Location.- Staff gage, lat. 41°56', long. 104°59', in sec. 25, T. 23 N., R. 58 W., half a mile below mouth of Kiowa Drain and 3 miles northeast of Lyman.

Drainage area.- 1,860 square miles.

Records available.- October 1930 to September 1937.

Extremes.- Maximum discharge observed during year, 421 second-feet Sept. 30 (gage height, 3.40 feet); minimum daily discharge, 3 second-feet (computed) Jan. 22. 1930-37: Maximum discharge, 1,150 second-feet June 13, 1935 (gage height, 4.9 feet, from floodmarks), from rating curve extended above 450 second-feet; minimum daily discharge, that of Jan. 22, 1937.

Remarks.- Records good except those for periods of ice effect, Jan. 1 to Feb. 17, Feb. 19-22, Mar. 14, 24, 25, 28, which were computed on basis of four discharge measurements and weather records and are fair. Staff gage read twice daily. Numerous small diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	26	14	12	7	9.2	19	6.8	165	69	68	59
2	33	25	14	12	8	19	17	7.6	79	43	114	63
3	33	36	12	12	8	23	16	8.0	63	38	91	65
4	38	25	17	11	9	8.0	12	8.8	54	35	89	65
5	33	28	12	11	9	19	11	9.2	131	45	60	62
6	37	25	12	10	9	14	11	8.4	162	47	60	77
7	36	26	14	10	8	19	11	14	90	49	47	104
8	33	22	13	8	7	15	21	14	48	34	47	67
9	32	19	12	8	7	14	23	13	38	30	47	57
10	29	21	17	9	8	15	19	12	34	31	47	59
11	31	22	15	9	8	12	14	11	32	31	48	69
12	31	16	14	10	8	12	10	11	31	59	46	72
13	29	16	8.8	10	12	6.8	8.4	11	65	267	49	60
14	29	22	15	8	11	6	8.8	12	65	262	48	80
15	30	16	16	9	10	18	7.2	13	35	265	47	68
16	27	17	15	8	9	16	7.6	12	29	223	47	68
17	28	19	16	8	10	13	8.4	13	22	215	51	67
18	25	15	10	8	12	11	8.4	12	19	308	61	75
19	27	17	19	8	12	16	6.0	11	20	162	48	86
20	24	12	12	7	12	14	6.4	10	43	118	46	103
21	28	14	16	6	10	12	7.2	45	45	74	44	129
22	32	14	16	3	9	12	6.4	25	59	53	52	126
23	31	14	14	4	9.2	10	7.6	12	45	53	57	98
24	28	14	14	5	9.6	9	6.4	13	57	63	58	113
25	30	14	15	6	9.6	9	6.0	25	36	61	56	116
26	29	14	13	6	7.6	8.8	5.7	17	98	58	55	135
27	27	15	11	6	8.4	10	6.4	12	120	51	57	151
28	29	14	13	6	8.4	12	10	12	124	54	61	148
29	29	11	12	6	-	21	6.8	15	115	46	64	166
30	28	18	10	7	-	28	6.8	81	105	41	80	372
31	29	-	12	8	-	22	-	82	-	63	60	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	937	38	24	30.2	1,860
November	566	36	11	18.9	1,120
December	423.8	19	8.8	13.7	841
Calendar year 1936	9,790.0	379	4	26.7	19,420
January	251	12	3	8.1	498
February	255.8	12	7	9.14	507
March	433.8	28	6	14.0	860
April	314.5	23	5.7	10.5	624
May	556.8	82	6.8	18.0	1,100
June	2,029	165	19	67.6	4,020
July	2,948	308	30	95.1	5,850
August	1,785	114	44	57.6	3,540
September	2,980	372	57	99.3	5,910
Water year 1936-37	13,480.7	372	3	36.9	26,730

Sheep Creek near Morrill, Nebr.

Location.- Staff gage, lat. 41°58', long. 103°56', in sec. 16, T. 23 N., R. 57 W., 1 mile west of Morrill.

Records available.- October 1931 to September 1937.

Extremes.- Maximum discharge observed during year, 72 second-feet Oct. 6 (gage height, 2.54 feet); minimum daily discharge, 1.0 second-foot May 9, 11, 13-17, 19.
1932-37: Maximum stage, 6.75 feet due to break in Interstate Canal Aug. 2, 1932 (discharge not determined); minimum discharge, 0.6 second-foot July 7, 8, 1934.

Remarks.- Records good. Staff gage read twice daily. During irrigation season all the flow is diverted at a point 1¼ miles above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	63	61	46	42	45	50	1.5	37	2.0	2.6	2.8
2	1.2	62	62	48	42	45	50	1.5	47	2.0	2.6	2.8
3	1.3	61	60	49	42	45	50	1.5	44	2.0	2.8	2.9
4	1.3	66	59	50	43	50	47	1.5	44	2.0	2.8	2.8
5	1.3	65	59	50	44	48	50	1.5	45	2.0	2.8	2.8
6	27	63	59	50	43	48	48	1.5	42	2.0	2.6	2.8
7	68	62	61	50	42	48	47	1.2	39	1.8	2.6	5.8
8	66	66	61	52	42	47	47	1.1	39	1.9	2.8	2.3
9	66	68	61	54	43	48	47	1.0	39	1.9	2.8	2.3
10	65	65	58	54	44	50	47	1.2	39	2.0	2.8	2.3
11	64	66	57	53	44	49	44	1.0	39	2.0	2.8	2.3
12	64	67	54	53	43	51	42	1.1	39	2.0	2.8	2.3
13	64	66	54	52	43	52	42	1.0	36	3.0	2.8	2.3
14	65	66	54	50	45	52	44	1.0	16	1.8	2.8	1.9
15	65	65	53	48	47	50	43	1.0	1.6	1.6	2.6	1.9
16	66	66	53	48	46	52	43	1.0	1.6	1.8	4.1	1.9
17	66	65	57	47	46	53	43	1.0	1.8	1.8	5.0	1.9
18	65	66	53	46	45	52	42	1.1	1.9	1.8	3.2	2.0
19	64	66	53	43	45	53	42	1.0	1.8	1.8	1.8	2.0
20	64	64	53	44	44	52	20	1.2	1.8	1.8	1.8	2.0
21	64	64	50	44	43	50	2	1.1	1.9	1.8	1.8	2.0
22	64	63	50	43	45	51	2.6	1.5	1.8	1.8	1.8	2.0
23	64	62	50	43	45	51	3.2	1.5	2.2	4.3	1.8	1.9
24	64	64	50	42	45	50	3.4	1.6	2.2	3.6	2.0	2.3
25	64	63	50	43	45	50	5.3	1.6	2.3	2.6	2.3	2.3
26	64	64	50	43	44	51	5.0	1.5	2.5	2.0	2.3	2.5
27	63	63	50	43	45	52	1.6	1.5	2.5	2.0	2.3	2.5
28	63	62	49	43	45	52	1.6	1.5	2.3	2.3	2.3	2.6
29	62	62	48	43	-	52	1.6	1.9	2.3	2.5	2.3	2.6
30	62	62	47	43	-	53	1.6	2.6	2.2	2.5	2.3	2.6
31	62	-	46	42	-	52	-	2.5	-	2.8	2.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,641.3	68	1.2	52.9	3,260
November	1,927	68	61	64.2	3,820
December	1,682	62	46	54.3	3,340
Calendar year 1936	12,278.8	86	1.0	33.5	24,360
January	1,459	54	42	47.1	2,890
February	1,232	47	42	44.0	2,440
March	1,554	53	45	50.1	3,080
April	916.1	50	1.6	30.5	1,820
May	42.7	2.6	1.0	1.38	85
June	577.7	47	1.6	19.3	1,150
July	67.2	4.3	1.6	2.17	133
August	81.0	5.0	1.8	2.61	161
September	73.6	5.8	1.9	2.45	146
Water year 1936-37	11,253.6	68	1.0	30.8	22,320

Winter Creek near Scottsbluff, Nebr.

Location.- Staff gage, lat. 41°52', long. 103°37', in sec. 19, T. 22 N., R. 54 W., 1 mile east of Scottsbluff.

Records available.- October 1931 to September 1937.

Extremes.- Maximum discharge observed during year, 280 second-feet Aug. 18 (gage height, 3.50 feet); minimum daily discharge, 4 second-feet May 21-23, 25, June 16, Aug. 14.
1932-37: Maximum discharge, 436 second-feet June 8, 1936 (gage height, 4.6 feet); minimum daily discharge, 1 second-foot Aug. 16, 1935.

Remarks.- Records good. Staff gage read twice daily. Diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	106	90	54	49	46	44	39	38	67	39	49	67
2	109	75	58	50	46	45	39	38	57	41	65	70
3	103	63	56	52	46	42	39	39	50	61	61	78
4	90	69	53	51	46	43	40	38	61	44	81	83
5	93	73	53	51	46	43	40	31	36	19	57	117
6	97	60	53	50	45	43	40	25	28	13	41	104
7	98	55	53	49	45	43	40	40	21	9	7	145
8	75	55	53	50	45	43	40	38	24	25	10	119
9	70	55	53	50	44	43	41	35	26	26	47	136
10	65	55	53	51	44	44	41	38	28	16	22	135
11	66	53	53	51	45	44	41	38	15	27	22	126
12	70	53	53	52	46	44	40	38	12	32	11	115
13	68	53	53	52	46	44	39	38	10	49	14	115
14	70	52	56	49	46	44	39	38	10	44	4	115
15	74	52	54	49	45	44	39	41	7	38	18	107
16	74	52	54	49	45	46	38	39	4	27	14	89
17	74	52	55	49	46	44	38	38	5	41	8	70
18	75	52	55	49	46	44	38	18	12	59	248	50
19	72	52	56	48	46	44	39	9	23	43	60	52
20	66	52	56	48	46	44	39	11	53	57	69	50
21	65	52	56	47	44	43	39	4	42	38	148	41
22	66	51	53	48	44	44	39	4	34	28	97	17
23	66	48	53	47	44	43	39	4	20	91	78	28
24	64	48	53	47	44	44	40	5	5	91	37	57
25	66	48	53	48	44	41	39	4	20	82	47	61
26	68	48	53	47	44	41	39	18	30	82	45	62
27	70	47	53	46	44	41	39	39	44	21	69	65
28	68	50	50	46	44	41	41	43	35	36	53	67
29	65	47	49	46	-	41	40	60	38	28	38	88
30	90	54	49	46	-	40	39	77	30	27	46	92
31	92	-	49	46	-	41	-	66	-	32	62	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,395	109	64	77.3	4,750
November	1,666	90	47	55.5	3,300
December	1,655	58	49	53.4	3,280
Calendar year 1936	18,351	211	7	50.1	36,400
January	1,513	52	46	48.8	3,000
February	1,262	46	44	45.1	2,500
March	1,335	46	40	43.1	2,650
April	1,183	41	38	39.4	2,350
May	992	77	4	32.0	1,970
June	847	67	4	28.2	1,680
July	1,266	91	9	40.8	2,510
August	1,628	248	4	52.5	3,230
September	2,521	145	17	84.0	5,000
Water year 1936-37	18,263	248	4	50.0	36,220

Gering Drain near Gering, Nebr.

Location.- Chain gage, lat. 41°50', long. 103°36', in line between secs. 5 and 6, T. 21 N., R. 54 W., 2 miles east of Gering.

Records available.- October 1930 to September 1937.

Extremes.- Maximum discharge observed during year, 129 second-feet Sept. 7 (gage height, 4.53 feet); minimum daily discharge, 15 second-feet Jan. 7, 21, Feb. 21-23, Mar. 1, 4, 24.

1931-37: Maximum discharge estimated, 2,700 second-feet June 30, 1935 (gage height, 10.8 feet, from floodmarks); minimum daily discharge, 6 second-feet Aug. 21, Sept. 13, 1934.

Remarks.- Records fair. Discharge for period of ice effect, Jan. 6-8, 20-22, Mar. 24, 25, were computed on basis of two discharge measurements and weather records. Chain gage read twice daily. Flow is mainly return water from irrigated lands under the lower end of Fort Laramie Canal. Gering Drain empties into North Platte River 3 miles east of Gering.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	40	21	18	17	15	20	21	34	2e	44	33
2	21	36	21	19	17	16	20	22	28	28	59	35
3	21	37	20	18	17	16	20	23	26	28	60	33
4	21	38	20	18	17	15	19	22	39	28	46	38
5	21	27	19	18	17	16	18	22	53	30	56	3e
6	21	27	19	16	17	16	19	22	79	27	44	48
7	22	27	19	15	16	16	20	22	53	28	32	85
8	21	27	20	16	16	16	19	23	44	26	32	52
9	20	25	19	17	16	16	19	24	48	26	29	56
10	21	25	18	17	16	17	19	24	50	26	29	51
11	21	24	1e	17	16	17	37	44	53	32	30	50
12	22	24	19	17	16	17	36	44	28	37	29	48
13	21	23	1e	17	16	17	20	46	46	32	28	48
14	46	23	19	17	16	17	17	53	29	30	27	46
15	47	23	19	17	16	18	1e	44	24	31	3e	46
16	38	23	19	17	16	18	17	37	24	34	44	42
17	33	23	20	17	16	17	18	30	24	35	30	48
18	29	20	19	17	16	17	18	22	38	37	63	46
19	29	20	18	17	16	17	18	22	30	38	41	52
20	29	21	19	16	16	17	19	22	34	35	37	46
21	30	20	19	15	15	16	19	23	47	29	40	41
22	30	20	19	17	15	17	19	23	41	22	44	42
23	30	20	19	17	15	17	21	22	31	27	46	42
24	30	20	19	17	16	15	20	22	27	27	39	41
25	29	23	18	17	16	19	21	23	30	31	33	44
26	30	23	19	16	16	19	20	36	33	30	33	50
27	31	23	19	17	16	19	22	23	34	28	32	50
28	31	23	1e	17	16	19	21	22	42	28	34	59
29	32	20	18	17	-	20	21	22	36	30	44	58
30	31	21	18	17	-	20	21	48	31	31	41	43
31	31	-	18	16	-	21	-	26	-	38	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	860	47	20	27.7	1,710
November	746	40	20	24.9	1,480
December	588	21	1e	19.0	1,170
Calendar year 1936	9,823	260	11	26.e	19,490
January	524	19	15	16.9	1,040
February	451	17	15	16.1	895
March	533	21	15	17.2	1,060
April	616	37	17	20.5	1,220
May	879	53	21	28.4	1,740
June	1,136	79	24	37.9	2,250
July	937	3e	22	30.2	1,860
August	1,223	63	27	39.5	2,430
September	1,411	85	33	47.0	2,800
Water year 1936-37	9,904	85	15	27.1	19,660

Ninemile Drain near McGrew, Nebr.

Location.- Staff gage, lat. 41°46', long. 103°24', in sec. 25, T. 21 N., R. 53 W., 1½ miles north of McGrew.

Records available.- January 1932 to September 1937.

Extremes.- Maximum discharge observed during year, 386 second-feet Aug. 18 (gage height, 3.40 feet); minimum daily discharge, 64 second-feet Apr. 15.
1932-37: Maximum discharge, 1,430 second-feet June 8, 1936, by slope-area method (gage height, 4.7 feet); minimum daily discharge, 51 second-feet July 25, 1934.

Remarks.- Records good. Staff gage read twice daily. Flow represents return seepage from irrigated lands. Ninemile Drain empties into North Platte River 2 miles east of McGrew.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	148	108	94	88	72	76	69	80	146	133	153	151
2	140	110	96	89	73	79	69	82	119	129	158	158
3	140	108	91	78	68	74	69	83	108	126	159	155
4	136	106	88	78	70	70	69	84	132	130	159	169
5	140	109	88	77	72	73	69	79	138	124	150	169
6	157	114	88	72	72	73	69	71	114	116	153	170
7	161	115	89	77	72	73	70	80	106	120	133	183
8	163	119	89	75	70	73	70	84	100	146	135	179
9	154	120	92	75	66	72	70	88	101	123	135	169
10	152	111	91	78	67	72	68	93	100	128	154	172
11	152	113	84	76	69	72	66	78	100	138	131	177
12	143	113	81	78	71	72	65	76	99	138	133	175
13	136	113	81	78	69	75	66	72	99	142	138	171
14	136	116	81	76	68	75	65	75	96	153	130	160
15	134	114	84	72	67	75	64	76	90	169	133	157
16	134	108	82	73	72	73	66	78	93	184	138	152
17	129	110	84	73	72	70	67	81	92	154	133	154
18	131	110	88	72	71	69	69	82	95	142	296	163
19	131	109	86	73	70	67	69	84	96	146	163	157
20	143	103	86	71	72	67	69	85	100	141	148	153
21	145	103	85	70	75	68	69	81	100	149	143	163
22	135	96	87	74	75	68	69	87	106	151	138	153
23	135	96	87	69	75	68	72	84	119	146	135	161
24	144	90	84	72	75	66	70	83	135	185	167	161
25	146	91	86	74	73	72	68	87	121	167	133	165
26	135	90	87	74	79	72	67	93	131	161	126	169
27	116	90	85	72	76	69	67	94	127	170	134	167
28	115	91	87	72	76	69	68	100	123	154	145	165
29	111	92	87	72	-	69	79	102	124	159	146	163
30	111	94	85	68	-	69	81	151	131	153	149	153
31	111	-	85	72	-	69	-	119	-	159	150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,252	161	111	137	8,430
November	3,161	120	90	105	6,270
December	2,688	96	81	86.7	5,330
Calendar year 1936	37,492	898	55	102	74,380
January	2,318	89	68	74.8	4,600
February	2,007	79	66	71.7	3,980
March	2,209	79	66	71.3	4,380
April	2,068	81	64	68.9	4,100
May	2,692	151	71	86.8	5,340
June	3,341	146	90	111	6,630
July	4,536	185	116	146	9,000
August	4,598	296	126	148	9,120
September	4,914	183	151	164	9,750
Water year 1936-37	38,784	296	64	106	76,930

Bayard Sugar Factory Drain near Bayard, Nebr.

Location.- Staff gage, lat. 41°44', long. 103°19', in sec. 4, T. 20 N., R. 52 W., 1¼ miles southwest of Bayard.

Records available.- October 1931 to September 1937.

Extremes.- Maximum discharge observed during year, 96 second-feet Aug. 18 (gage height, 1.82 feet); minimum daily discharge, 0.2 second-foot May 21.
1932-37: Maximum discharge 154 second-feet (estimated) Apr. 26, 1935 (gage height, 2.56 feet); no flow June 1, 2, July 4-8, 1934, May 16, 17, 1936.

Remarks.- Records good. Staff gage read twice daily. Flow is mostly return seepage from irrigated lands. Some diversions above station. Bayard Sugar Factory Drain empties into North Platte River 5 miles southeast of Bayard.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	45	33	28	27	28	26	27	57	11	18	38
2	43	45	34	25	27	28	26	26	51	11	36	37
3	44	44	32	26	27	27	26	27	46	15	50	39
4	44	46	32	27	27	27	26	29	32	16	51	38
5	46	46	32	26	28	27	26	32	20	29	51	37
6	47	46	32	23	27	27	25	39	17	25	49	41
7	59	46	32	25	28	26	25	49	15	22	46	44
8	58	46	30	23	27	26	25	51	15	26	43	43
9	58	46	30	26	27	26	26	54	18	24	36	45
10	58	46	31	26	27	26	25	49	18	20	26	42
11	57	46	31	26	30	26	26	32	24	18	25	41
12	55	48	31	26	28	27	25	30	38	23	31	41
13	51	46	30	27	28	27	26	31	39	24	40	38
14	51	46	30	26	28	26	25	35	37	20	41	38
15	50	44	31	26	28	28	25	33	32	22	42	38
16	49	44	32	27	29	28	25	32	32	25	41	38
17	49	43	33	28	28	28	25	35	22	26	40	36
18	49	43	33	28	29	28	25	14	14	24	83	37
19	46	42	33	26	29	29	24	.5	13	24	54	37
20	46	41	32	26	27	29	24	.9	12	22	43	36
21	46	39	33	26	27	29	24	.2	14	19	40	36
22	46	38	32	28	28	29	23	1.2	11	16	42	35
23	47	38	35	28	28	30	24	1.2	9.1	17	38	36
24	46	36	35	27	27	24	23	1.6	8.5	21	33	38
25	46	35	36	27	25	25	23	2.1	20	22	30	52
26	45	36	34	27	24	25	23	3.6	39	20	31	59
27	45	36	34	28	27	25	23	1.8	37	19	34	54
28	45	36	32	27	26	26	29	2.1	22	17	38	54
29	45	35	32	27	-	27	30	1.2	11	17	39	54
30	45	36	30	28	-	27	30	25	10	16	41	50
31	44	-	30	27	-	28	-	53	-	17	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,502	59	42	48.5	2,980
November	1,264	48	35	42.1	2,510
December	997	36	30	32.2	1,980
Calendar year 1936	10,899.2	107	0	29.8	21,640
January	821	28	23	26.5	1,630
February	768	30	24	27.4	1,520
March	839	30	24	27.1	1,680
April	758	30	23	25.3	1,500
May	719.4	54	.2	23.2	1,430
June	733.6	57	8.5	24.5	1,460
July	628	29	11	20.3	1,250
August	1,252	83	18	40.4	2,480
September	1,252	59	35	41.7	2,480
Water year 1936-37	11,534.0	83	.2	31.6	22,880

Red Willow Creek near Bayard, Nebr.

Location.- Staff gage, lat. 41°43', long. 103°15', at southwest corner of sec. 7, T. 20 N., R. 51 W., a quarter of a mile below mouth of Wild Horse Drain, three-quarters of a mile above mouth of creek, and 4½ miles southeast of Bayard.

Records available.- February 1932 to September 1937. October 1930 to September 1931, at station 1 mile upstream and above mouth of Wild Horse Drain.

Extremes.- Maximum discharge observed during year, 320 second-feet Aug. 18 (gage height, 2.68 feet); minimum daily discharge, 21 second-feet Apr. 20.
1932-37: Maximum discharge, 1,650 second-feet Aug. 25, 1933 (gage height, 6.4 feet), from rating curve extended above 650 second-feet; maximum gage height, 6.56 feet June 11, 1935, from floodmarks; minimum daily discharge, 15 second-feet Apr. 23, 1935.

Remarks.- Records good. Staff gage read twice daily. Flow is chiefly return seepage from irrigated lands. Numerous small diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	88	76	60	48	49	45	44	132	41	57	66
2	63	90	76	62	48	47	45	48	128	42	56	56
3	69	88	76	55	49	49	44	50	50	46	53	59
4	76	86	76	56	49	47	44	46	93	49	43	60
5	71	87	69	57	52	48	44	45	127	38	42	61
6	96	86	68	60	50	47	44	52	75	35	44	60
7	92	84	68	64	49	47	44	57	64	49	42	60
8	92	84	68	58	46	46	46	49	92	40	38	60
9	93	84	68	63	49	47	45	42	140	34	38	59
10	100	84	68	58	46	48	47	38	107	35	39	60
11	104	87	69	54	44	46	48	44	94	35	47	60
12	104	86	68	60	45	49	48	35	71	70	48	57
13	104	84	68	56	45	49	47	180	58	39	44	58
14	92	83	68	52	47	52	44	149	72	44	40	53
15	92	84	68	52	44	47	45	124	64	60	41	57
16	92	86	68	51	44	49	37	41	60	46	40	58
17	81	87	70	51	44	49	33	49	44	45	41	57
18	78	84	70	51	44	49	22	39	34	42	167	61
19	78	78	70	52	44	49	22	27	33	44	59	68
20	89	77	70	52	45	50	21	26	36	43	53	69
21	92	80	69	55	45	51	22	31	35	45	54	101
22	93	77	68	54	45	51	23	31	37	44	55	81
23	94	70	71	52	45	50	24	36	38	47	55	86
24	94	76	68	51	45	44	22	40	40	67	54	87
25	93	76	68	50	45	52	22	38	42	51	54	99
26	94	81	64	52	47	47	23	41	52	51	61	95
27	93	76	64	52	47	47	24	42	49	53	61	90
28	92	76	62	53	47	47	35	45	44	51	64	86
29	90	75	60	50	-	46	47	46	45	53	64	83
30	89	76	60	50	-	46	47	93	44	52	54	82
31	92	-	60	49	-	46	-	96	-	53	98	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,744	104	62	88.5	5,440
November	2,460	90	70	82.0	4,880
December	2,116	76	60	68.3	4,200
Calendar year 1936	22,085	385	17	60.3	43,820
January	1,692	64	49	54.6	3,360
February	1,298	52	44	46.4	2,570
March	1,491	52	44	48.1	2,960
April	1,104	48	21	36.8	2,190
May	1,732	180	26	55.9	3,440
June	2,000	140	33	66.7	3,970
July	1,444	67	34	46.6	2,860
August	1,706	167	38	55.0	3,380
September	2,089	101	53	69.6	4,140
Water year 1936-37	21,876	180	21	59.9	43,390

Pumpkin Creek near Bridgeport, Nebr.

Location.- Water-stage recorder, lat. 41°38', long. 103°02', in sec. 13, T. 19 N., R. 50 W., half a mile above mouth and 4 miles southeast of Bridgeport.

Drainage area.- 1,080 square miles.

Records available.- October 1930 to September 1937.

Extremes.- Maximum discharge during year, 94 second-feet Mar. 5 (gage height, 2.45 feet); minimum daily discharge, 3.4 second-feet July 17.
1930-37: Maximum discharge, 700 second-feet estimated, Aug. 28, 1934 (gage height, 6.95 feet, former site and datum); minimum daily discharge, 0.4 second-foot Aug. 6, 1936.

Remarks.- Records good. Discharge for periods of ice effect, Jan. 2, 3, 6-9, 20-23, Mar. 24, 25, computed on basis of weather records. Several diversions above station. Flow is chiefly return seepage from irrigated lands.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	16	12	29	32	42	42	8.4	15	5.3	14	11
2	5.9	16	12	25	30	42	28	6.8	15	5.7	17	11
3	6.2	19	15	26	30	42	24	8.2	15	5.3	28	13
4	6.2	16	23	27	30	42	23	9.4	17	4.9	18	18
5	6.6	17	20	28	32	42	18	6.8	20	4.5	12	30
6	9.2	18	20	27	31	42	17	8.7	33	4.5	11	27
7	9.2	17	20	24	32	40	16	10	45	4.3	9.7	32
8	9.4	17	20	23	36	40	15	15	32	3.6	9.7	46
9	11	19	21	22	30	36	13	25	30	3.6	11	38
10	11	20	21	27	30	36	11	19	30	3.8	9.4	27
11	11	27	20	28	32	30	11	17	34	9.7	9.4	28
12	11	30	20	28	36	30	18	18	34	12	9.0	18
13	11	29	18	29	36	24	22	20	32	7.2	7.7	22
14	11	28	18	30	38	30	21	20	32	3.8	8.0	23
15	11	22	18	30	36	34	21	18	33	3.6	12	19
16	11	15	18	30	36	38	15	21	34	3.6	14	18
17	12	15	19	31	37	38	13	19	36	3.4	17	30
18	11	15	19	31	38	39	13	19	36	4.3	17	26
19	11	15	19	32	39	38	13	12	30	6.2	17	19
20	11	15	20	30	38	30	11	8.7	28	6.8	12	18
21	11	15	19	27	35	34	11	9.2	28	5.9	6.4	14
22	11	16	19	23	40	37	11	9.0	26	5.1	5.1	16
23	11	13	19	25	36	36	8.0	9.0	20	5.1	6.4	20
24	11	12	19	27	38	30	8.2	10	16	5.7	7.4	19
25	11	13	19	27	35	40	9.4	11	11	5.9	7.2	19
26	11	16	20	28	33	30	7.4	12	15	6.4	7.4	28
27	10	17	20	28	34	30	5.9	13	14	6.6	7.7	27
28	11	18	21	29	36	31	6.6	13	13	5.9	8.2	18
29	11	19	22	30	-	34	6.4	13	12	6.4	9.0	16
30	11	16	24	30	-	39	7.7	16	6.8	7.7	9.4	14
31	15	-	26	30	-	43	-	15	-	14	10	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	315.0	15	5.3	10.2	625
November	541	30	12	18.0	1,070
December	601	26	12	19.4	1,190
Calendar year 1936	9,332.8	63	0.4	25.5	18,510
January	861	32	22	27.8	1,710
February	966	40	30	34.5	1,920
March	1,119	43	24	36.1	2,220
April	446.6	42	5.9	14.9	886
May	420.2	25	6.8	13.6	833
June	742.8	45	6.8	24.8	1,470
July	180.8	14	3.4	5.83	359
August	347.1	28	5.1	11.2	688
September	665	46	11	22.2	1,320
Water year 1936-37	7,205.5	46	3.4	19.7	14,290

Blue Creek near Lewellen, Nebr.

Location.- Water-stage recorder, lat. 41°20', long. 102°10', on north line of sec. 30, T. 15 N., R. 42 W., 1½ miles west of Lewellen.

Drainage area.- 267 square miles.

Records available.- October 1930 to September 1937.

Extremes.- Maximum discharge during year, 493 second-feet Aug. 25 (gage height, 3.94 feet); minimum daily discharge, 0.2 second-foot July 11.
1930-37: Maximum discharge, 553 second-feet June 12, 1935 (gage height, 4.20 feet); minimum daily discharge, 0.2 second-foot July 3, 29-31, 1933, Sept. 18-21, 1935, July 11, 1937.

Remarks.- Records good except those for periods of missing gage heights and ice effect, Nov. 9-20, Dec. 31 to Feb. 20, which were computed on basis of two discharge measurements and weather records and are fair. Several diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.6	46	73	92	88	113	131	1.2	12	0.4	1.0	18
2	9.2	78	74	85	80	117	114	.8	23	4.3	.6	53
3	9.2	84	75	85	81	118	104	1.4	25	20	.4	39
4	8.7	94	86	86	83	108	107	1.3	166	17	.4	29
5	8.2	99	77	83	85	108	111	2.1	118	30	.5	55
6	8.7	92	73	76	83	110	113	2.1	97	13	.4	74
7	12	87	84	74	80	110	110	1.3	87	13	.5	129
8	9.2	84	100	74	78	111	92	6.0	80	5.3	.5	163
9	9.2	88	86	78	82	111	87	12	118	.5	.5	124
10	8.7	80	68	80	87	111	87	22	100	.3	.4	121
11	8.2	76	88	85	90	111	97	14	86	.2	.4	115
12	5.0	82	87	90	91	107	110	14	74	10	1.8	110
13	3.2	68	83	94	94	104	106	15	73	82	82	87
14	3.2	63	83	98	92	106	95	13	69	41	73	55
15	2.9	64	87	100	93	106	82	27	77	37	36	72
16	3.5	66	91	102	98	110	72	6.4	74	29	21	53
17	4.6	62	96	100	100	113	74	7.5	59	23	20	61
18	15	62	97	98	103	114	73	5.0	33	24	47	80
19	6.8	68	96	96	105	114	58	3.5	30	6.8	90	99
20	15	70	97	93	110	110	37	6.0	21	.6	70	94
21	25	61	97	87	108	106	21	8.7	12	.4	29	87
22	24	96	96	90	106	104	5.0	9.2	5.0	.4	7.1	87
23	14	91	97	93	108	108	4.6	15	.8	1.4	3.8	67
24	9.6	91	100	95	103	114	6.8	16	.5	22	30	59
25	9.2	95	100	96	97	120	90	12	.6	15	298	56
26	28	101	97	97	101	129	64	14	1.8	9.2	190	55
27	32	104	96	90	100	129	55	16	1.5	2.1	75	53
28	32	106	97	87	106	125	29	12	1.4	.6	26	53
29	32	90	99	85	-	124	11	8.2	.4	.4	24	52
30	33	75	97	88	-	125	5.7	12	1.0	1.5	18	52
31	34	-	96	92	-	129	-	12	-	6.0	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	432.9	34	2.9	14.0	859
November	2,425	106	46	80.8	4,810
December	2,793	100	73	90.1	5,540
Calendar year 1936	24,856.6	152	.3	67.9	49,300
January	2,768	102	74	89.3	5,490
February	2,632	110	78	94.0	5,220
March	3,525	129	104	114	6,990
April	2,152.1	131	4.6	71.7	4,270
May	296.7	27	.8	9.57	588
June	1,447.0	166	.4	48.2	2,870
July	416.4	82	.2	13.4	826
August	1,161.3	298	.4	37.5	2,300
September	2,252	163	18	75.1	4,470
Water year 1936-37	22,301.4	298	.2	61.1	44,230

Otter Creek near Lemoyne, Nebr.

Location.- Water-stage recorder, lat. 41°18', long. 101°55', in sec. 5, T. 15 N., R. 40 W., half a mile above mouth and 5½ miles northwest of Lemoyne.

Drainage area.- 12 square miles.

Records available.- April to September 1931, October 1932 to September 1937 (discontinued).

Remarks.- Records poor. Owing to faulty intake from shifting sand and a continuous shifting of control, neither daily water-stage recorder nor outside staff-gage records could be used to obtain daily discharge. Discharge computed on basis of 18 discharge measurements and records for stations on adjacent streams. Several diversions upstream.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*15	21	23	24	24	23	23	18	1	22	18	25
2	15	20	23	24	24	23	23	21	1	22	18	25
3	15	20	23	24	24	23	23	21	2	7	18	29
4	16	19	*23	24	24	23	24	26	1	21	19	*35
5	16	*19	23	24	*24	23	24	26	20	21	19	30
6	16	19	23	21	24	23	22	21	21	20	18	27
7	16	19	23	21	24	23	22	21	22	20	18	27
8	16	19	23	21	24	*23	22	25	23	19	18	27
9	16	19	23	20	24	23	22	25	22	18	20	30
10	16	19	23	20	24	23	22	25	22	*18	19	28
11	22	20	23	23	24	23	22	25	21	18	19	27
12	22	20	23	23	24	23	22	24	23	18	19	27
13	22	20	23	23	24	23	22	19	23	20	21	27
14	22	20	23	23	24	24	22	19	23	19	*20	27
15	22	20	23	24	23	24	*22	19	*23	19	20	26
16	23	20	23	24	23	24	22	18	26	19	20	25
17	23	20	23	24	23	24	22	7	23	19	20	25
18	23	20	23	25	23	24	23	5	23	19	20	26
19	23	20	*23	*25	23	24	23	5	23	19	20	25
20	23	20	23	23	23	24	23	4	23	19	20	24
21	23	*20	23	21	23	24	22	*2	23	19	21	24
22	23	21	23	23	23	24	21	2	22	19	21	24
23	23	21	23	23	23	24	21	3	15	19	21	22
24	*23	21	24	23	23	24	21	2	16	22	20	21
25	23	21	24	23	23	24	21	2	16	18	23	20
26	23	21	24	23	23	24	21	2	26	18	24	19
27	23	21	24	24	23	*24	18	2	23	18	24	20
28	23	22	24	24	23	24	18	*2	22	18	23	20
29	22	22	24	24	-	24	17	13	22	18	23	20
30	22	23	24	24	-	24	18	1	22	*18	24	20
31	22	-	24	24	-	23	-	1	-	18	24	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	632	23	15	20.4	1,250
November	607	23	19	20.2	1,200
December	721	24	23	23.3	1,430
Calendar year 1936	7,358	-	-	20.1	14,600
January	716	25	20	23.1	1,420
February	658	24	23	23.5	1,310
March	730	24	23	23.5	1,450
April	648	24	17	21.6	1,290
May	406	26	1	13.1	805
June	573	26	1	19.1	1,140
July	582	22	7	18.8	1,150
August	632	24	18	20.4	1,250
September	752	35	19	25.1	1,490
Water year 1936-37	7,657	35	1	21.0	15,180

*Discharge measurement.

Birdwood Creek near Hershey, Nebr.

Location.- Water-stage recorder, lat. 41°13', long. 101°04', in sec. 2, T. 14 N., R. 33 W., 1 mile above mouth and 5 miles northwest of Hershey.

Drainage area.- 286 square miles.

Records available.- January 1931 to September 1937.

Extremes.- Maximum discharge during year, 719 second-feet July 21 (gage height, 3.67 feet); minimum daily discharge, 85 second-feet Jan. 8.
1931-37: Maximum discharge, about 830 second-feet Apr. 24, 1935 (gage height, 3.53 feet); minimum, about 30 second-feet Jan. 19, 1935 (gage height, 1.75 feet).

Remarks.- Records good except those for periods of ice effect, Dec. 5-9, Dec. 28 to Feb. 18, which were computed on basis of one discharge measurement and weather records and are fair. Small diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	155	199	155	110	115	188	209	167	160	140	111	137
2	155	183	158	106	118	192	209	170	218	153	103	134
3	142	169	162	108	118	188	214	188	160	156	114	140
4	128	195	162	108	116	188	192	185	156	147	231	244
5	128	183	150	105	114	174	196	181	163	137	134	178
6	134	187	125	95	105	170	201	174	140	131	108	167
7	137	180	133	88	103	170	185	178	134	117	111	170
8	145	187	135	85	102	167	181	163	140	114	105	174
9	142	195	136	88	100	174	185	144	178	117	100	160
10	137	180	137	95	108	181	192	153	156	134	100	150
11	142	176	140	100	117	185	192	192	156	144	125	147
12	155	163	142	105	127	178	209	163	160	150	125	137
13	145	155	142	110	121	174	185	144	150	218	119	137
14	140	145	148	115	130	170	181	144	144	163	114	137
15	152	145	155	120	140	201	178	144	170	134	111	131
16	148	148	152	120	150	201	174	150	263	131	108	128
17	145	140	158	120	165	218	150	150	163	131	103	125
18	148	140	162	118	185	214	147	147	153	122	117	122
19	162	152	148	116	205	268	167	167	153	117	137	150
20	176	169	145	114	209	226	201	196	140	131	150	156
21	169	155	145	104	209	240	188	160	131	411	131	156
22	166	162	152	106	209	240	176	150	125	160	122	156
23	176	148	152	110	205	226	178	140	119	108	119	156
24	176	155	155	114	192	273	181	125	111	153	125	150
25	187	155	140	116	174	188	153	125	105	137	222	153
26	155	145	137	118	185	185	150	167	240	114	160	150
27	162	142	131	112	165	192	167	156	163	108	144	140
28	180	152	130	110	185	209	218	144	134	103	134	156
29	183	155	125	108	-	209	192	131	128	122	131	163
30	183	152	120	110	-	209	181	156	125	111	140	174
31	180	-	115	110	-	209	-	150	-	117	150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,833	187	128	156	9,590
November	4,932	199	140	164	9,780
December	4,447	162	115	143	8,820
Calendar year 1936	53,248	300	81	145	105,600
January	3,344	120	85	108	6,630
February	4,192	209	100	150	8,310
March	6,207	273	167	200	12,310
April	5,534	218	147	184	10,980
May	4,904	196	125	158	9,730
June	4,638	263	105	155	9,200
July	4,421	411	103	143	8,770
August	4,004	231	100	129	7,940
September	4,578	244	122	153	9,080
Water year 1936-37	56,034	411	85	154	111,100

South Platte River near Lake George, Colo.

Location.- Water-stage recorder, lat. 38°55', long. 105°28', in NW¼ sec. 21, T. 13 S., R. 72 W., 1½ miles below Elevenmile Canyon Reservoir and 8 miles above Lake George. Zero of gage is 8,423.95 feet above mean sea level.

Drainage area.- 929 square miles.

Records available.- October 1929 to September 1937.

Extremes.- Maximum daily discharge during year, 267 second-feet May 26, 27 (gage height, 2.38 feet); minimum daily discharge, 4.4 second-feet Sept. 29, 30.
1930-37: Maximum discharge, 990 second-feet Aug. 15, 1930 (gage height, 4.8 feet); no flow Jan. 25, 1930, during February 1931, and Nov. 5, 6, 1936.

Remarks.- Records excellent except those for Nov. 29 to Apr. 19, which were computed from valve opening at Elevenmile Canyon Reservoir and are good. Diversions for irrigation above station. Flow regulated by Antero and Elevenmile Canyon Reservoirs (capacities, 33,000 and 80,000 acre-feet, respectively).

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 28, July 19 to Aug. 12)

0.4	0	1.4	66
.6	4	1.6	96
.8	13	1.8	133
1.0	26	2.0	175
1.2	42	2.2	222

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	198	79	22	9	9	8.5	8	22	73	27	137	73
2	196	79	22	9	9	8.5	26	23	100	27	91	53
3	156	55	13	9	9	8.5	8	23	56	26	66	53
4	82	40	13	9	9	8.5	8	24	28	25	66	69
5	101	36	9	9	9	8.5	8	25	28	25	65	79
6	114	36	9	9	9	8.5	8	25	28	25	65	79
7	112	36	9	9	9	8	8	25	23	25	63	45
8	114	35	9	9	9	8	8	25	17	25	63	42
9	98	39	9	9	9	8	e	25	17	25	47	47
10	90	49	9	9	9	8	8	40	14	25	20	44
11	80	48	9	9	9	8	8	66	12	25	9.0	34
12	73	48	9	9	9	8	8	127	37	25	9.5	30
13	73	50	9	9	9	8	8	144	34	25	17	26
14	73	50	9	9	9	8	8	144	9	25	32	28
15	73	50	9	9	9	8	8	148	8.5	25	52	28
16	73	46	9	9	9	8	8	193	7.6	25	36	25
17	74	33	9	9	9	8	12	167	7.6	25	31	23
18	74	33	9	9	9	8	114	148	7.2	25	96	15
19	55	34	9	9	9	8	114	156	8.0	19	124	13
20	46	35	9	9	9	8	114	175	8.0	14	42	12
21	56	36	9	9	9	8.5	8	112	180	12	14	28	12
22	72	36	9	9	8.5	8	120	70	17	14	30	12
23	74	42	9	9	8.5	8	127	44	17	14	30	12
24	88	47	9	9	8.5	8	127	58	17	14	34	12
25	73	45	9	9	8.5	8	116	88	17	15	38	9.0
26	70	45	9	9	8.5	8	69	193	17	22	38	5.2
27	65	38	9	9	8.5	8	69	109	17	35	37	5.2
28	69	35	9	9	8.5	8	58	38	21	44	62	4.8
29	80	35	9	9	-	8	36	46	27	68	70	4.4
30	72	35	9	9	-	8	23	65	27	127	52	4.4
31	72	-	9	9	-	8	-	47	-	177	94	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,746	198	46	88.6	5,450
November	1,305	79	33	43.5	2,590
December	313	22	9	10.1	621
Calendar year					
January	279	9	9	9.0	553
February	248.0	9	8.5	8.86	492
March	251.0	8.5	8	8.10	498
April	1,357	127	8	45.2	2,690
May	2,663	193	22	85.9	5,280
June	711.9	100	7.2	23.7	1,410
July	1,029	177	14	33.2	2,040
August	1,644.5	137	9.0	53.0	3,260
September	899.0	79	4.4	30.0	1,780
Water year 1936-37	13,446.4	198	4.4	36.8	26,660

94296 O—38——16

South Platte River above Lake Cheesman, Colo.

Location.- Water-stage recorder and compound rectangular weir, lat. 39°09', long. 105°19', in sec. 22, T. 10 S., R. 71 W., 0.5 mile above high-water line of Lake Cheesman. Zero of gage is 6,845.86 feet above mean sea level.

Drainage area.- 1,680 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; October 1924 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 572 second-feet June 27 (gage height, 2.26 feet); minimum daily discharge recorded, 12 second-feet Sept. 28.
1924-37: Maximum discharge, 3,030 second-feet Aug. 6, 1936 (gage height, 5.30 feet); minimum not determined.

Remarks.- Records excellent except those for Oct. 13-16, Nov. 14-30, Apr. 1-9, June 2-4, June 28 to July 2, which were estimated and are fair. No records for Dec. 1 to Mar. 31. Diversions for irrigation above station. Flow regulated by two reservoirs above station having a total capacity of 115,000 acre-feet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	308	164					30	67	131	110	224	153
2	308	166					48	60	140	115	168	94
3	316	168					30	57	115	100	118	89
4	161	166					30	53	90	85	100	96
5	164	153					30	53	76	71	98	137
6	195	133					36	57	67	65	100	153
7	192	78					46	62	64	64	104	159
8	186	85					50	60	69	58	98	120
9	183	93					60	57	40	49	98	102
10	164	120					65	58	35	53	67	87
11	146	114					67	96	34	58	39	81
12	124	116					78	144	28	91	26	67
13	130	112					83	188	57	280	28	53
14	130	110					110	195	43	159	32	44
15	123	100					133	198	32	94	64	47
16	132	100					139	324	24	76	85	43
17	128	90					139	308	26	65	69	42
18	122	80					148	260	25	57	100.	36
19	120	80					157	266	26	46	221	34
20	108	85					166	243	24	43	133	26
21	108	85					177	263	22	36	64	23
22	133	80					177	221	26	30	52	23
23	131	85					190	116	26	29	49	22
24	139	95					212	120	25	26	49	26
25	139	100					188	144	29	28	52	26
26	133	100					139	192	170	28	89	24
27	144	95					118	284	488	42	76	17
28	124	95					122	133	370	71	67	12
29	135	90					102	118	250	124	94	20
30	139	80					76	159	110	273	100	20
31	137	-					-	139	-	320	100	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,922	316	108	159	9,760
November	3,218	168	78	107	6,380
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	3,146	212	30	105	6,240
May	4,697	324	53	152	9,320
June	2,662	488	22	88.7	5,280
July	2,746	320	26	88.6	5,450
August	2,764	224	26	89.2	5,480
September	1,876	159	12	62.5	3,720
Water year					

South Platte River below Lake Cheesman, Colo.

Location.- Water-stage recorder, lat. 39°13', long. 105°16', in sec. 6, T. 10 S., R. 70 W., a quarter of a mile below Lake Cheesman.

Drainage area.- 1,766 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; October 1924 to September 1937 in reports of State engineer.

Average discharge.- 13 years, 1924-37, 156 second-feet.

Extremes.- Maximum discharge during year, 932 second-feet June 28 (gage height, 4.98 feet); minimum daily discharge, 9.4 second-feet Apr. 15.
1924-37: Maximum discharge, 1,630 second-feet June 25, 1936 (gage height, 6.40 feet), from rating curve extended above 700 second-feet; minimum daily discharge, 6.5 second-feet Jan. 1-31, 1936.

Remarks.- Records good. Discharge for period of ice effect, Dec. 19 to Mar. 5, computed on basis of two discharge measurements and valve openings at Lake Cheesman. Diversions for irrigation above station. Flow regulated by three reservoirs with a total capacity of 194,000 acre-feet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	351	25	27	9.8	42	25	13	91	167	*170	423	217
2	348	25	29	9.8	39	18	14	66	76	128	374	217
3	348	25	46	9.8	39	18	14	88	55	117	247	188
4	314	25	47	9.8	39	18	14	80	37	97	162	177
5	201	25	25	9.8	39	18	14	78	37	116	179	220
6	206	36	25	9.8	39	18	14	97	37	141	240	220
7	208	25	25	9.8	39	18	14	97	37	84	253	232
8	208	25	25	9.8	39	16	14	116	37	84	250	264
9	208	25	19	9.8	39	13	14	125	37	84	245	212
10	208	25	16	9.8	39	13	14	74	37	175	237	154
11	206	25	16	9.8	39	13	14	82	44	147	199	136
12	150	25	16	9.8	39	13	14	147	49	167	177	136
13	65	25	16	9.8	39	13	10	217	48	430	154	140
14	26	25	14	9.8	39	13	9.8	234	32	591	160	165
15	25	25	10	14	39	13	9.4	247	25	314	196	149
16	25	25	10	30	39	13	49	266	25	106	507	117
17	25	25	9.8	42	39	13	171	374	25	97	398	136
18	25	25	9.8	42	39	13	201	320	25	112	351	149
19	25	27	9.8	42	39	13	212	299	25	338	595	136
20	25	28	9.8	42	39	13	305	381	25	261	591	128
21	20	28	9.8	42	39	13	302	364	25	242	469	126
22	18	28	9.8	42	39	13	234	360	25	272	141	117
23	25	28	9.8	42	39	13	240	314	25	308	141	126
24	25	28	9.8	42	39	13	305	203	25	134	217	138
25	25	28	9.8	42	34	13	293	186	34	141	256	128
26	25	28	9.8	42	32	13	224	215	44	199	299	128
27	25	27	9.8	42	30	13	167	406	115	242	215	125
28	25	27	9.8	42	27	13	188	341	700	344	203	104
29	25	27	9.8	42	-	14	158	212	*400	326	217	102
30	25	27	9.8	42	-	14	104	192	*250	194	234	110
31	25	-	9.8	42	-	13	-	357	-	344	237	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,460	351	18	112	6,860
November	792	36	25	26.4	1,570
December	513.0	47	9.8	16.5	1,020
Calendar year 1936	68,814.6	1,440	6.5	188	136,500
January	811.2	42	9.8	26.2	1,610
February	1,062	42	27	37.9	2,110
March	450	25	13	14.5	893
April	3,349.2	305	9.4	112	6,640
May	6,629	406	66	214	13,150
June	2,523	700	25	84.1	5,000
July	6,505	591	84	210	12,900
August	8,567	595	141	276	16,990
September	4,697	264	102	157	9,320
Water year 1936-37	39,358.4	700	9.4	108	78,060

*Estimated.

South Platte River at South Platte, Colo.

Location.- Water-stage recorder, lat. 39°25', long. 105°10', in sec. 25, T. 7 S., R. 70 W., at South Platte, 375 feet below mouth of North Fork of South Platte River. Zero of gage is 6,078.43 feet above mean sea level.

Drainage area.- 2,550 square miles.

Records available.- March 1902 to September 1937.

Average discharge.- 35 years, 391 second-feet.

Extremes.- Maximum discharge during year, 1,260 second-feet June 28 (gage height, 4.05 feet); minimum daily discharge, 42 second-feet (computed) Jan. 6-10.
1902-37: Maximum discharge, 6,320 second-feet June 7, 1921 (gage height, 8.95 feet); minimum, 14 second-feet Mar. 11, 1932.

Remarks.- Records good. Discharge for periods of missing gage heights, Oct. 11-22, Oct. 30 to Nov. 6, and for period of ice effect, Nov. 24 to Apr. 10, computed on basis of four discharge measurements and records for station below Lake Cheesman and for North Fork of South Platte River at South Platte, with estimated inflow. Diversions for irrigation above station. Flow regulated by three reservoirs with a total capacity of 194,000 acre-feet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	490	159	122	58	63	79	84	275	540	520	550	303
2	577	152	126	50	65	73	89	247	530	480	505	313
3	525	122	132	45	66	73	89	250	535	505	437	316
4	525	140	124	44	72	72	82	269	460	402	284	297
5	394	164	115	43	74	73	78	272	428	398	291	326
6	402	183	100	42	78	80	84	323	398	470	406	313
7	377	167	88	42	80	90	83	337	381	373	475	320
8	358	146	81	42	83	102	78	347	373	369	442	333
9	347	141	*78	42	86	114	90	373	377	362	424	320
10	347	144	80	42	89	120	100	410	358	373	410	245
11	347	143	81	43	90	*123	112	347	358	495	323	221
12	310	141	83	45	90	125	136	365	358	500	269	217
13	206	134	85	47	91	130	150	480	344	683	242	212
14	166	143	80	50	93	130	196	525	337	796	240	224
15	170	139	78	55	95	130	221	588	358	632	245	228
16	174	139	77	58	95	125	275	604	316	347	424	198
17	174	138	76	64	99	120	424	634	300	373	599	198
18	168	139	75	63	100	115	300	654	291	402	485	221
19	162	130	75	*58	*101	115	377	566	284	560	577	210
20	164	126	72	60	104	98	414	643	266	555	707	189
21	157	150	71	62	104	100	442	616	266	485	555	187
22	153	134	70	62	104	94	505	604	272	475	323	184
23	157	138	70	62	100	97	470	610	258	475	228	191
24	153	118	70	62	99	83	470	485	256	333	261	210
25	161	122	70	62	90	87	480	465	261	272	320	194
26	163	148	74	62	87	78	455	470	626	307	385	196
27	165	141	70	62	84	77	419	577	555	406	355	194
28	178	133	68	62	81	78	406	616	856	475	278	178
29	182	124	66	62	-	82	385	470	955	610	310	173
30	178	124	60	62	-	76	291	520	822	410	337	178
31	168	-	52	62	-	82	-	671	-	406	358	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,198	577	153	264	16,260
November	4,222	183	118	141	8,370
December	2,569	132	52	82.9	5,100
Calendar year 1936	149,684	1,750	34	409	296,900
January	1,675	64	42	54.0	3,320
February	2,463	104	63	88.0	4,890
March	3,021	130	72	97.5	5,990
April	7,785	505	78	260	15,440
May	14,633	671	247	472	29,020
June	12,719	955	256	424	25,230
July	14,249	796	272	460	28,260
August	12,045	707	228	389	23,890
September	7,089	333	173	236	14,060
Water year 1936-37	90,868	955	42	248	179,800

*Discharge measurement.

South Platte River at Waterton, Colo.

Location.- Water-stage recorder, lat. 39°29', long. 105°06', in sec. 34, T. 6 S., R. 69 W., half a mile south of Waterton.

Drainage area.- 2,621 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; May 1926 to September 1937 in reports of State engineer.

Average discharge.- 11 years, 149 second-feet.

Extremes.- Maximum discharge during year, 888 second-feet May 16 (gage height, 1.92 feet); minimum daily discharge, 1.6 second-feet Mar. 16, 26.
1926-37: Maximum discharge, 2,670 second-feet Aug. 12, 1936 (gage height, 3.10 feet); minimum daily discharge, 0.2 second-foot Mar. 1-3, 1936.

Remarks.- Records good except those for periods of missing gage heights and ice effect, Nov. 3-5, Jan. 1, 2, 7-10, Jan. 21 to Feb. 21, which were estimated and are fair. Diversions for irrigation above station. Flow regulated by three storage reservoirs above station with a total capacity of 194,000 acre-feet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	585	185	72	5.0	2	3.6	10	61	489	156	403	126
2	719	190	59	8.0	2	1.8	15	65	318	210	363	161
3	683	125	61	9.0	3	3.6	38	57	282	275	275	152
4	683	120	57	8.0	4	2.8	33	65	116	221	135	144
5	515	200	45	4.8	5	3.2	28	165	82	221	122	210
6	524	126	36	7.0	4	11	35	221	49	282	190	156
7	471	116	42	5.0	4	7.0	45	245	33	239	275	144
8	355	80	40	5.0	3	2.4	30	251	23	215	257	152
9	347	70	82	5.0	3	3.6	38	297	28	205	245	161
10	200	72	72	9.0	4	6.0	45	311	24	221	233	109
11	148	70	53	16	5	6.0	61	215	12	347	161	90
12	148	65	40	10	5	4.8	96	245	78	325	106	82
13	139	61	36	4.4	5	4.0	122	347	170	489	70	78
14	175	78	23	1.8	4	5.2	122	403	170	550	68	72
15	139	75	24	1.2	3	6.0	122	462	59	506	63	75
16	148	70	23	1.6	3	1.6	190	506	13	215	78	49
17	148	68	22	5.2	3	4.0	257	559	13	210	245	42
18	148	70	20	5.2	3	4.4	175	585	17	227	215	55
19	148	59	15	4.8	3	10	297	480	47	210	185	51
20	180	51	17	6.0	2	3.6	185	471	139	195	311	40
21	161	68	6.0	7.0	5.0	3.6	78	403	119	148	152	31
22	126	53	4.0	4.0	4.8	2.4	106	387	139	135	82	36
23	148	57	4.4	5.0	4.8	10	109	387	106	139	51	31
24	156	31	2.8	5.0	8.0	2.4	96	282	88	148	53	38
25	161	26	4.8	4.0	8.0	3.6	100	251	106	126	82	30
26	175	36	7.0	2.0	7.0	1.6	82	257	318	161	122	26
27	175	40	2.0	4.0	5.6	2.0	72	340	122	239	109	22
28	175	42	6.0	3.0	5.6	10	156	445	119	289	109	13
29	180	36	8.0	2.0	-	20	119	282	195	506	156	14
30	180	36	8.0	2.0	-	9.0	65	325	139	282	144	23
31	175	-	6.0	2.0	-	13	-	471	-	257	221	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,415	719	126	271	16,690
November	2,376	200	26	79.2	4,710
December	898.0	82	2.0	29.0	1,780
Calendar year 1936	95,100.5	1,350	0.2	260	188,600
January	162.0	16	2.0	5.23	321
February	118.8	8.0	2	4.24	236
March	172.2	20	1.6	5.55	342
April	2,927	297	10	97.6	5,810
May	9,841	585	57	317	19,520
June	3,613	489	12	120	7,170
July	7,949	550	126	256	15,770
August	5,281	403	51	170	10,470
September	2,413	210	13	80.4	4,790
Water year 1936-37	44,166.0	719	1.6	121	87,610

South Platte River at Denver, Colo.

Location.- Water-stage recorder, lat. 39°46', long. 105°00', at Nineteenth Street bridge in Denver, a quarter of a mile below mouth of Cherry Creek. Zero of gage is 5,162.16 feet above mean sea level (general adjustment of 1929).

Drainage area.- 3,840 square miles.

Records available.- May 1895 to November 1906, May 1909 to November 1913, and October 1933 to September 1937 in reports of Geological Survey; May 1895 to September 1937 in reports of State engineer.

Average discharge.- 42 years, 362 second-feet.

Extremes.- Maximum discharge during year, 5,280 second-feet June 1 (gage height, 5.35 feet); minimum daily discharge, 32 second-feet Jan. 7, 8.
1902-37: Maximum discharge, 22,000 second-feet Sept. 10, 1933 (gage height, 10.98 feet); minimum daily discharge, 15 second-feet Apr. 15, 1925.

Remarks.- Records good except those for periods of ice effect, Jan. 7-15, Jan. 19 to Feb. 4, Feb. 9, 10 (computed on basis of one discharge measurement and weather records), and those for period of missing gage heights, Mar. 1-21 (computed on basis of records for station at Henderson), which are fair. Diversions for irrigation above station. Flow completely regulated except during extreme high water.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	487	222	106	43	59	75	87	77	1,020	317	291	194
2	644	218	143	40	65	82	81	74	1,740	286	328	186
3	614	198	143	50	71	83	81	103	1,220	312	271	322
4	568	166	129	63	79	62	92	109	919	360	182	291
5	548	261	112	59	95	67	92	136	760	317	103	251
6	568	242	98	37	72	72	81	232	591	271	84	389
7	514	232	98	32	74	70	119	306	541	412	202	276
8	449	194	98	32	46	78	126	306	527	271	232	237
9	418	174	109	38	50	83	109	317	494	242	228	232
10	395	182	133	46	55	83	106	322	474	227	210	186
11	389	178	116	51	61	80	112	333	377	302	190	126
12	377	170	109	54	77	70	103	344	322	372	133	101
13	333	182	147	57	77	65	133	350	406	468	151	87
14	307	190	126	56	81	50	140	355	455	507	112	72
15	256	182	123	54	84	50	155	401	520	500	81	77
16	261	170	129	55	74	55	178	430	251	355	63	77
17	251	170	119	46	59	55	360	500	186	206	143	72
18	237	162	92	45	77	60	468	527	147	256	372	79
19	232	162	84	43	81	60	418	449	129	256	210	87
20	333	140	87	40	66	60	430	430	210	222	271	77
21	281	136	77	34	55	65	424	401	206	182	210	63
22	261	143	77	36	72	66	333	366	194	147	129	57
23	256	126	72	39	89	70	281	350	162	147	92	57
24	242	129	70	45	87	70	276	338	133	151	59	57
25	261	103	68	47	87	63	261	291	261	151	61	63
26	256	101	70	50	63	66	246	317	629	140	103	68
27	256	101	68	51	59	68	194	281	514	174	129	66
28	261	101	66	51	66	72	178	307	377	256	133	63
29	251	95	68	50	-	87	147	296	500	344	140	63
30	237	89	61	57	-	89	98	322	436	344	214	57
31	222	-	41	61	-	87	-	494	-	242	355	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	10,965	644	222	354	21,750
November	4,919	261	89	164	9,760
December	3,039	147	41	98.0	6,030
Calendar year 1936	119,849	1,960	25	327	237,700
January	1,462	63	32	47.2	2,900
February	1,981	95	46	70.8	3,930
March	2,163	89	50	69.8	4,290
April	5,909	468	81	197	11,720
May	9,864	527	74	318	19,560
June	14,701	1,740	129	490	29,160
July	8,737	507	140	282	17,330
August	5,476	372	59	177	10,860
September	4,033	389	57	134	8,000
Water year 1936-37	73,249	1,740	32	201	145,300

South Platte River at Henderson, Colo.

Location.- Water-stage recorder, lat. 39°55', long. 104°52', in sec. 34, T. 1 S., R. 67 W., a quarter of a mile west of Henderson.

Drainage area.- 4,740 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; May 1928 to September 1937 in reports of State engineer.

Average discharge.- 11 years, 246 second-feet.

Extremes.- Maximum discharge during year, 3,200 second-feet June 2 (gage height, 5.20 feet); minimum daily discharge, 42 second-feet Dec. 16.
1926-37: Maximum discharge 5,600 second-feet Sept. 10, 1933 (gage height, 7.15 feet); minimum daily discharge, 6 second-feet Apr. 4, 7, 1935.

Remarks.- Records good except those for Nov. 1 to Feb. 11, which are fair. Discharge for period of ice effect, Dec. 27 to Feb. 11, computed on basis of two discharge measurements, weather records, and records for station at Denver.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	356	138	65	102	150	174	69	105	832	768	286	237
2	485	135	70	100	147	181	62	78	1,990	637	322	171
3	518	154	69	110	154	184	65	70	1,350	552	296	261
4	446	164	69	120	160	158	70	97	944	524	219	286
5	397	204	76	117	168	161	74	118	792	453	125	246
6	440	232	76	108	184	171	67	196	485	410	101	333
7	379	219	65	106	170	168	87	328	261	572	123	270
8	317	174	64	109	144	177	114	373	296	478	133	215
9	286	116	64	118	148	181	110	362	345	453	121	181
10	270	101	65	126	152	181	93	434	246	472	101	161
11	232	99	59	134	159	181	78	459	237	498	97	133
12	211	99	53	138	177	118	60	350	280	792	93	103
13	223	99	49	142	184	116	58	322	385	768	105	83
14	181	99	46	145	171	97	58	440	466	674	105	95
15	148	89	44	142	171	83	59	608	744	615	125	125
16	148	81	42	140	164	79	67	644	356	504	118	121
17	135	74	58	136	158	78	125	652	256	275	138	110
18	125	72	116	132	174	78	422	608	270	339	345	103
19	130	76	121	132	184	93	459	565	246	368	204	105
20	223	76	123	126	161	99	586	453	261	280	158	105
21	265	69	116	125	143	87	498	434	350	232	188	103
22	232	69	116	124	158	87	403	446	403	116	114	101
23	184	69	112	124	184	85	524	478	545	105	95	110
24	174	67	114	126	177	78	373	498	511	164	110	114
25	188	69	116	134	184	78	261	385	701	174	99	121
26	181	69	116	136	184	76	177	446	1,530	154	118	118
27	164	67	114	140	184	76	158	368	1,010	168	141	101
28	192	72	114	140	174	72	161	368	705	312	135	97
29	161	99	116	140	-	67	151	579	784	504	116	93
30	135	72	108	140	-	72	138	936	864	478	188	87
31	128	-	103	146	-	70	-	760	-	350	265	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,654	518	125	247	15,180
November	3,223	232	67	107	6,390
December	2,639	123	42	85.1	5,230
Calendar year 1936	131,261	3,510	35	359	260,400
January	3,958	146	100	128	7,850
February	4,668	184	147	167	9,260
March	3,606	184	67	116	7,150
April	5,627	586	58	188	11,160
May	12,960	936	70	418	25,710
June	18,445	1,990	237	615	36,590
July	13,189	792	105	425	26,160
August	4,884	345	93	158	9,690
September	4,489	333	83	150	8,900
Water year 1936-37	85,342	1,990	42	234	169,300

South Platte River at Fort Lupton, Colo.

Location.- Water-stage recorder, lat. 40°05', long. 104°50', in sec. 6, T. 1 N., R. 66 W., at west edge of Fort Lupton.

Drainage area.- 5,070 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; May to September 1906, April 1929 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 2,680 second-feet June 2 (gage height, 3.40 feet); minimum daily discharge, 48 second-feet July 23, Aug. 12, 13.
1906, 1929-37: Maximum discharge, 4,150 second-feet Sept. 11, 1933 (gage height, 5.80 feet, former site and datum); minimum daily discharge, 17 second-feet Oct. 23, 25, 1934.

Remarks.- Records good except those for period of ice effect, Dec. 27 to Feb. 8, which were computed on basis of one discharge measurement and weather records and are fair. Diversions for irrigation above station. Flow completely regulated except during extreme high water.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	392	193	121	240	240	232	96	66	668	786	218	276
2	396	235	116	235	245	246	94	63	1,730	632	253	144
3	452	228	116	235	248	253	87	61	1,610	548	276	221
4	430	225	106	238	254	239	91	59	1,220	491	218	284
5	401	246	116	260	265	228	101	68	1,250	441	114	308
6	406	295	119	264	270	232	91	72	748	355	61	333
7	387	280	127	250	275	232	114	163	406	458	63	299
8	312	261	124	245	270	207	173	239	337	485	76	250
9	276	186	121	235	265	210	179	239	406	441	66	210
10	253	144	119	230	239	235	160	257	320	420	59	176
11	239	136	119	230	214	235	141	308	253	425	54	114
12	228	138	111	225	239	200	101	218	320	603	48	63
13	232	150	111	220	261	133	89	170	333	629	48	54
14	207	150	108	218	250	138	78	246	446	542	61	50
15	176	150	116	220	243	121	74	378	811	491	61	72
16	173	130	121	220	232	119	74	392	474	468	57	74
17	163	127	130	220	235	111	103	425	308	280	61	66
18	186	127	239	215	239	111	411	406	265	284	200	59
19	210	121	261	210	250	133	480	446	257	320	235	63
20	268	150	272	205	225	136	636	378	214	250	124	66
21	382	147	261	200	207	147	597	355	272	147	179	61
22	295	136	272	200	221	108	425	350	329	70	116	55
23	272	141	276	205	257	121	536	333	416	48	63	54
24	250	138	268	210	243	96	368	312	436	61	68	65
25	265	138	265	215	265	119	253	308	450	114	61	76
26	342	130	253	215	239	106	179	401	1,790	119	80	119
27	253	124	253	215	207	103	163	329	1,290	114	101	78
28	257	136	252	215	221	116	111	276	726	193	116	65
29	232	214	255	220	-	108	76	496	648	416	78	61
30	218	166	260	220	-	108	74	772	844	420	173	61
31	193	-	255	230	-	103	-	697	-	312	228	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,746	452	163	282	17,350
November	5,142	295	121	171	10,200
December	5,643	276	106	182	11,190
Calendar year 1936	133,625	2,640	39	365	265,000
January	6,960	264	200	225	13,800
February	6,819	275	207	244	13,530
March	4,986	253	96	161	9,890
April	6,155	636	74	205	12,210
May	9,283	772	59	299	18,410
June	19,577	1,790	214	653	38,830
July	11,395	788	48	368	22,600
August	3,616	276	48	117	7,170
September	3,877	333	50	129	7,690
Water year 1936-37	92,199	1,790	48	253	182,900

South Platte River near Kersey, Colo.

Location.- Water-stage recorder, lat. 40°25', long. 104°34', in sec. 9, T. 5 N., R. 64 W., 1¼ miles north of Kersey.

Drainage area.- 9,500 square miles.

Records available.- April 1901 to October 1903, March 1905 to November 1913, and October 1933 to September 1937 in reports of Geological Survey; April 1901 to October 1903 and March 1905 to September 1937 in reports of State engineer.

Average discharge.- 31 years (1901-3, 1905-7, 1909-12, 1913-37), 739 second-feet.

Extremes.- Maximum discharge during year, 2,140 second-feet June 28 (gage height, 5.47 feet); minimum daily discharge, 40 second-feet May 17.
1901-3, 1905-37: Maximum discharge recorded, 31,000 second-feet June 7, 1921; minimum daily discharge, 35 second-feet Apr. 23, 24, 1935.

Remarks.- Records good except those for period of ice effect, Jan. 3 to Feb. 8, which were computed on basis of one discharge measurement and weather records and are fair. Diversions for irrigation above station. Flow completely regulated except during extreme high water.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	800	722	550	653	550	566	350	369	202	814	124	175
2	584	702	550	618	560	595	346	318	111	722	119	169
3	533	722	544	615	570	612	336	293	765	550	117	148
4	624	728	544	610	570	612	328	247	1,010	408	104	124
5	647	728	550	600	565	606	332	161	1,160	323	98	379
6	624	722	555	570	580	606	341	113	1,110	269	119	314
7	647	728	550	520	595	612	364	88	702	161	131	198
8	647	722	550	440	590	606	388	79	469	94	135	178
9	612	696	550	435	550	589	403	77	453	68	113	166
10	578	658	561	430	474	584	398	77	566	60	113	135
11	566	624	566	425	516	584	369	67	506	60	104	124
12	544	589	584	425	555	578	350	60	379	63	96	138
13	522	572	589	428	595	511	332	56	341	74	96	158
14	516	572	584	430	635	448	323	48	314	86	100	158
15	490	561	572	438	647	428	314	44	495	98	109	158
16	453	561	566	435	624	418	305	41	884	92	102	156
17	423	555	584	435	606	418	305	40	683	100	96	150
18	413	544	601	435	612	433	336	42	484	115	86	128
19	418	538	624	432	629	464	358	42	374	183	86	111
20	433	538	664	425	624	474	528	44	328	189	88	111
21	544	538	683	420	584	458	612	45	233	169	88	104
22	716	538	683	420	561	433	584	52	229	102	88	104
23	735	533	676	423	589	413	572	60	156	85	94	100
24	709	522	683	425	624	403	696	65	94	86	98	100
25	670	506	676	428	612	388	683	67	81	83	96	102
26	690	506	676	430	612	384	584	65	398	85	109	102
27	748	500	670	440	561	374	474	70	1,730	83	128	109
28	780	506	664	450	550	364	423	72	1,920	85	148	109
29	780	506	653	475	-	379	403	68	1,190	94	172	109
30	774	528	653	500	-	360	379	81	870	113	178	115
31	754	-	664	530	-	360	-	189	-	117	186	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	18,974	800	413	612	37,630
November	17,965	728	500	599	35,630
December	18,819	683	544	607	37,330
Calendar year 1936	156,869	1,880	51	429	311,100
January	14,740	653	420	475	29,240
February	16,540	647	474	584	32,410
March	15,060	612	360	486	29,870
April	12,516	696	305	417	24,830
May	3,140	369	40	101	6,230
June	18,237	1,920	81	608	36,170
July	5,631	814	60	182	11,170
August	3,521	178	86	114	6,980
September	4,432	379	100	148	8,790
Water year 1936-37	149,375	1,920	40	409	296,300

South Platte River at Sublette, Colo.

Location.- Water-stage recorder, lat. 40°18', long. 104°10', in sec. 14, T. 4 N., R. 61 W., 1,000 feet south of Sublette.

Drainage area.- 12,900 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; April 1926 to September 1937 in reports of State engineer.

Average discharge.- 11 years, 248 second-feet.

Extremes.- Maximum discharge during year, 2,140 second-feet June 28 (gage height, 4.44 feet); minimum daily discharge, 49 second-feet Dec. 21.
1926-37: Maximum discharge, 8,090 second-feet Apr. 23, 1926 (gage height, 5.80 feet); minimum daily discharge, 35 second-feet Mar. 8, 1935.

Remarks.- Records good except those for May 20, 21, which were estimated and are fair. Discharge for Jan. 9-12, Mar. 20-26 computed on basis of range in stage on recorder chart. Diversions for irrigation above station. Flow completely regulated except during extreme high water.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	942	79	64	56	57	124	107	383	206	962	154	132
2	747	78	64	58	56	128	102	353	230	896	154	124
3	595	84	62	70	55	126	96	323	255	796	162	124
4	510	83	60	76	52	122	89	294	555	630	157	122
5	466	76	63	63	55	122	96	252	661	510	154	150
6	442	71	60	62	55	126	148	206	846	426	150	298
7	426	74	60	59	56	128	150	182	661	326	159	261
8	430	74	62	62	56	128	239	164	471	239	164	221
9	422	70	60	60	57	130	383	145	315	218	157	195
10	375	79	58	58	60	128	224	148	201	204	152	184
11	239	84	59	56	54	128	206	148	174	195	143	176
12	206	80	62	54	59	145	195	141	164	209	134	164
13	190	79	62	53	62	496	184	134	242	218	132	157
14	187	79	60	53	60	560	215	128	338	218	138	138
15	184	74	62	56	65	560	258	122	410	218	138	128
16	179	71	57	57	68	575	301	122	454	206	136	118
17	169	70	52	56	58	575	326	120	338	190	141	114
18	164	68	52	57	54	565	338	120	212	192	134	114
19	206	64	52	58	55	600	372	120	242	204	134	109
20	190	64	50	59	57	580	479	120	345	230	136	116
21	105	76	49	62	55	570	523	135	330	224	138	128
22	90	64	53	65	55	560	605	150	305	206	138	134
23	80	65	52	70	76	552	640	192	248	182	132	138
24	82	66	50	65	122	546	678	201	195	172	136	141
25	80	66	53	59	120	538	735	209	176	164	136	141
26	79	62	55	60	124	530	666	159	215	182	130	143
27	80	62	53	59	130	528	528	143	625	184	136	145
28	82	63	53	57	128	505	438	148	1,820	184	126	154
29	79	62	55	60	-	323	430	159	1,630	182	130	162
30	78	62	56	58	-	132	406	164	1,140	176	132	159
31	79	-	54	54	-	120	-	162	-	179	132	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	8,183	942	78	264	16,230
November	2,149	84	62	71.6	4,260
December	1,764	64	49	56.9	3,500
Calendar year 1936	70,245	1,160	43	192	139,300
January	1,850	76	53	59.7	3,670
February	1,961	130	52	70.0	3,890
March	10,950	600	120	353	21,720
April	10,157	735	89	339	20,150
May	5,547	383	120	179	11,000
June	14,004	1,820	164	467	27,780
July	9,322	962	164	301	18,490
August	4,395	164	126	142	8,720
September	4,590	298	109	153	9,100
Water year 1936-37	74,872	1,820	49	205	148,500

South Platte River at Balzac, Colo.

Location.- Water-stage recorder, lat. 40°24', long. 103°29', in sec. 13, T. 5 N., R. 55 W., at Balzac siding, 1¼ miles northeast of Union.

Drainage area.- 17,700 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; January 1917 to September 1937 in reports of State engineer.

Average discharge.- 21 years, 368 second-feet.

Extremes.- Maximum discharge, 1,830 second-feet May 26; minimum daily discharge, 8.1 second-feet Nov. 16 and Dec. 3.
1917-37: Maximum stage, 11.43 feet May 31, 1935 (discharge not determined); minimum daily discharge, 4.6 second-feet Jan. 6, 1936.

Remarks.- Records good except those for period of ice effect, Jan. 8 to Feb. 4, which were computed on basis of one discharge measurement and weather records and are fair. Diversions for irrigation above station. Flow is completely regulated except during extreme high water.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	318	9.6	9.2	17	10	14	17	228	220	262	154	450
2	340	9.2	9.1	13	9.7	14	16	218	193	262	163	214
3	297	9.7	8.1	12	9.2	17	17	207	164	308	176	200
4	240	9.2	8.8	12	9.2	16	16	195	189	297	165	436
5	214	8.7	9.9	13	12	11	15	165	194	234	159	202
6	248	9.3	8.9	13	13	10	15	130	190	176	142	182
7	242	10.	10	11	13	9.9	15	135	205	147	114	211
8	247	9.3	9.5	11	13	9.4	14	193	263	130	123	198
9	267	8.3	9.5	11	13	9.6	14	191	155	122	136	145
10	276	8.7	8.9	11	13	9.4	17	152	50	126	138	132
11	246	8.8	9.3	11	13	9.1	15	112	39	115	135	161
12	123	8.2	9.5	10	13	11	15	89	46	143	129	194
13	54	8.4	8.9	10	13	13	29	90	136	149	129	215
14	41	8.6	8.9	10	13	12	68	101	106	144	134	217
15	34	8.2	9.4	11	13	11	70	95	110	132	147	214
16	32	8.1	9.4	11	13	12	86	129	125	135	147	194
17	32	8.5	8.8	10	13	11	124	137	135	142	145	179
18	29	8.7	9.2	9.2	12	11	150	129	166	158	143	175
19	27	8.4	9.3	9.1	13	12	162	118	122	178	134	169
20	28	8.3	8.8	8.8	13	14	162	115	106	156	136	156
21	30	8.7	8.8	9.3	13	13	179	116	104	150	141	146
22	27	9.0	9.1	10	12	13	212	116	129	140	126	148
23	27	8.9	9.1	12	12	14	273	120	193	133	123	146
24	26	9.0	8.7	12	12	14	324	111	199	141	113	146
25	25	8.9	9.2	13	12	13	330	112	177	152	120	154
26	24	8.2	9.7	14	15	16	363	845	177	150	101	155
27	24	8.5	9.4	13	17	23	362	275	182	149	93	152
28	19	9.0	9.0	13	17	22	329	189	211	144	118	155
29	11	8.5	9.7	13	-	20	270	235	293	160	133	159
30	11	8.8	10	13	-	20	232	272	376	162	149	160
31	10	-	13	11	-	19	-	231	-	167	150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,569	340	10	115	7,080
November	263.7	10	8.1	8.79	523
December	289.1	13	8.1	9.33	573
Calendar year 1936	38,414.6	1,360	4.6	105	76,180
January	357.4	17	8.8	11.5	709
February	354.1	17	9.2	12.6	702
March	423.4	23	9.1	13.7	840
April	3,931	363	14	131	7,800
May	5,551	845	89	179	11,010
June	4,955	376	39	165	9,830
July	5,164	308	115	167	10,240
August	4,216	176	93	136	8,360
September	5,765	450	132	192	11,430
Water year 1936-37	34,838.7	845	8.1	95.4	69,100

South Platte River at Julesburg, Colo.

Location.- Water-stage recorder, lat. 40°58', long. 102°15', in Sec. 33, T. 12 N., R. 44 W., 0.5 mile east of Julesburg and 4 miles above Colorado-Nebraska State line.

Drainage area.- 20,600 square miles.

Records available.- April 1902 to November 1906, May 1908 to September 1914, and October 1930 to September 1937 in reports of Geological Survey; April 1902 to November 1906, May 1908 to November 1912, and April 1914 to September 1937 in reports of State engineer of Colorado; October 1914 to September 1937 in reports of State engineer of Nebraska.

Average discharge.- 33 years, 493 second-feet.

Extremes.- Maximum discharge during year, 642 second-feet Feb. 14; minimum daily discharge, 24 second-feet at times from July to September.
1902-37: Maximum discharge, 31,300 second-feet June 2, 1935; no flow Aug. 18-20, 1902.

Remarks.- Records good except those for period or ice effect, Jan. 4 to Feb. 11, which were computed on basis of one discharge measurement and weather records and are fair. Flow represents amount passing Colorado-Nebraska State line. Numerous diversions for irrigation above station. Flow is mostly return water from irrigated lands above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	62	71	74	198	291	242	40	40	31	24	25
2	33	66	70	75	213	274	231	40	52	28	24	24
3	32	64	86	77	223	262	225	39	46	27	27	25
4	34	93	82	82	235	259	193	42	46	28	27	26
5	37	124	88	80	258	250	169	40	45	25	27	30
6	50	121	88	70	286	233	146	40	42	25	27	35
7	66	109	81	74	297	221	126	40	39	24	26	39
8	83	102	101	83	289	186	111	38	51	24	26	39
9	102	116	107	101	279	157	92	44	159	24	26	35
10	116	100	116	129	286	140	84	43	161	24	26	33
11	109	92	130	154	297	127	82	37	118	24	29	35
12	89	88	135	171	572	124	76	36	92	25	32	34
13	79	86	134	178	613	125	76	34	77	25	32	29
14	75	82	129	182	612	148	68	34	68	25	32	29
15	70	78	134	180	526	182	60	40	67	25	30	28
16	65	76	138	174	455	205	60	40	62	25	30	27
17	62	76	133	172	418	200	58	40	60	31	29	27
18	64	72	130	175	388	195	58	34	55	43	29	27
19	59	63	127	178	354	190	57	34	53	37	28	26
20	60	64	126	168	332	205	56	34	42	28	27	25
21	60	64	126	161	350	242	53	33	39	26	27	25
22	60	64	123	157	349	262	53	37	36	25	26	24
23	59	71	125	142	313	270	47	34	31	25	26	24
24	59	66	125	146	303	169	44	34	30	28	26	25
25	58	85	120	158	285	106	43	37	30	27	26	26
26	58	91	123	166	304	162	43	45	35	25	24	26
27	58	90	120	180	318	201	43	42	33	25	25	24
28	60	70	116	195	314	230	45	40	33	24	25	26
29	61	68	112	201	-	276	45	38	32	24	25	26
30	61	68	110	201	-	278	45	38	30	25	25	25
31	61	-	87	194	-	257	-	36	-	24	26	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,973	116	32	63.6	3,910
November	2,472	124	62	82.4	4,900
December	3,493	138	70	113	6,930
Calendar year 1936	39,322	480	17	107	78,000
January	4,478	201	70	144	8,880
February	9,667	613	198	345	19,170
March	6,421	291	106	207	12,740
April	2,731	242	43	91.0	5,420
May	1,183	45	33	38.2	2,350
June	1,704	161	30	56.8	3,380
July	826	43	24	26.6	1,640
August	839	32	24	27.1	1,660
September	849	39	24	28.3	1,680
Water year 1936-37	36,636	613	24	100	72,660

South Platte River at North Platte, Nebr.

Location.- Water-stage recorder, lat. 41°07', long. 100°46', in sec. 9, T. 13 N., R. 30 W., three-quarters of a mile south of North Platte. Prior to Dec. 8, 1936, staff gage at same site and datum. Zero of gage is 2,798.4 feet above mean sea level.

Drainage area.- 24,300 square miles.

Records available.- June 1914 to September 1915, August 1931 to September 1937 in reports of Geological Survey; April 1915 to September 1937 in reports of State engineer.

Extremes.- Maximum daily discharge during year, 530 second-feet Mar. 6; no flow Oct. 1 to Nov. 14, Aug. 24.
1914-37: Maximum discharge observed, 37,100 second-feet June 3, 1935 (gage height, 6.10 feet); no flow at times during the summer months of nearly all years.

Remarks.- Records good except those for periods of ice effect, Nov. 27, 29, Dec. 4-11, Jan. 1-3, Jan. 5 to Mar. 7 (computed on basis of four discharge measurements and weather records), and those for period when staff gage was read once daily, Oct. 1 to Dec. 7, which are poor. Flow partly regulated by reservoirs in Colorado. Numerous diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	52	42	90	370	416	74	88	30	6	1
2		0	56	33	100	410	308	74	119	28	4	1
3		0	56	30	120	430	298	81	98	30	2	1
4		0	40	34	155	470	265	81	98	24	1	2
5		0	10	30	240	500	257	71	98	18	26	21
6		0	5	28	215	530	234	74	88	13	28	36
7		0	10	27	210	480	234	85	85	10	24	40
8		0	15	26	195	449	198	93	88	7	20	46
9		0	16	25	180	363	178	81	124	3	8	36
10		0	30	30	225	354	176	71	114	2	2	28
11		0	70	45	260	335	178	85	93	2	2	24
12		0	81	40	288	317	191	74	81	4	2	23
13		0	88	48	292	272	146	71	81	17	2	27
14		0	93	43	300	257	153	68	81	13	2	28
15		1	109	48	310	265	130	64	78	8	1	20
16		3	124	55	335	250	124	68	104	5	1	17
17		3	81	50	340	227	104	64	104	28	.7	17
18		3	93	40	345	185	93	61	85	18	.7	17
19		20	109	33	350	289	88	61	71	10	.7	14
20		20	146	28	355	326	98	54	64	9	.7	7
21		20	153	26	355	280	93	54	57	4	.7	3
22		20	159	31	310	289	98	64	50	2	.4	3
23		20	166	40	325	308	93	57	33	2	.2	2
24		22	146	52	335	344	159	54	24	5	0	3
25		27	146	65	345	257	114	57	20	3	.2	3
26		22	140	78	352	178	85	85	57	2	.7	5
27		20	98	75	345	212	88	93	74	2	1	18
28		27	114	74	350	280	109	78	61	1	1	18
29		38	104	72	-	308	93	71	46	1	1	18
30		48	85	80	-	335	78	71	38	1	1	19
31		-	48	85	-	482	-	74	-	2	1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	314	48	0	10.5	623
December	2,643	166	5	85.3	5,240
Calendar year 1936	27,714	942	0	75.7	54,960
January	1,413	85	25	45.6	2,800
February	7,622	355	90	272	15,120
March	10,352	530	178	334	20,530
April	4,881	416	78	163	9,680
May	2,213	93	54	71.4	4,390
June	2,302	124	20	76.7	4,570
July	304	30	1	9.8	603
August	141.0	28	0	4.5	280
September	498	46	1	16.6	988
Water year 1936-37	32,683.0	530	0	89.5	64,820

Tarryall Creek near Lake George, Colo.

Location.- Water-stage recorder, lat. 39°05', long. 105°26', in sec. 22, T. 11 S., R. 72 W., 8 miles northwest of Lake George.

Drainage area.- 460 square miles.

Records available.- October 1910 to June 1912 and October 1933 to September 1937 in reports of Geological Survey; June to October 1916 and April 1925 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 480 second-feet June 27 (gage height, 4.11 feet); minimum daily discharge, 5.2 second-feet June 15.
1910-12, 1916, 1925-37: Maximum discharge, 643 second-feet July 31, 1935 (gage height, 5.20 feet); minimum daily discharge, 3 second-feet July 13, 1934.

Remarks.- Records excellent except those for Oct. 22-24, Nov. 3-5, 12-18, which were estimated and are fair. None for Dec. 2 to Apr. 9. Diversions for irrigation above station.

Reting table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-15, July 31 to Aug. 25)

0.5	4	1.6	64	2.6	223
.6	6	1.8	84	2.8	262
.8	13	2.0	111	3.0	299
1.0	22	2.2	142	3.5	384
1.2	33	2.4	180	4.0	463
1.4	47				

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	49	29				-	32	50	75	67	37
2	55	48					-	28	28	78	46	28
3	58	30					-	25	34	63	37	28
4	40	30					-	24	37	51	34	34
5	45	30					-	24	29	40	30	34
6	48	28					-	25	26	37	31	40
7	48	24					-	28	25	26	35	51
8	40	21					-	25	20	22	34	47
9	45	48					-	22	12	18	33	27
10	46	47					39	26	10	21	24	22
11	28	47					38	43	9.8	22	20	26
12	32	45					41	56	7.5	59	24	24
13	36	42					47	50	6.0	252	23	21
14	33	40					60	49	5.6	76	22	18
15	26	38					78	51	5.2	50	24	17
16	34	35					76	114	6.9	36	24	17
17	29	33					81	78	18	28	24	17
18	20	30					82	82	18	16	41	15
19	24	28					33	76	17	9.8	53	15
20	41	29					45	52	14	11	35	8.7
21	24	34					50	52	15	13	27	9.4
22	24	27					48	61	15	17	25	9.0
23	20	20					52	60	8.4	15	23	11
24	20	22					67	68	9.4	13	20	12
25	17	34					39	66	13	13	15	14
26	38	41					31	67	160	18	53	8.1
27	43	39					30	63	443	28	27	5.8
28	36	45					39	63	251	45	30	9.0
29	29	38					31	61	61	49	26	17
30	34	27					34	70	55	256	26	14
31	47	-					-	67	-	93	36	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,124	64	17	36.3	2,230
November	1,049	49	20	35.0	2,080
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 10-30	1,041	82	30	49.6	2,060
May	1,608	114	22	51.9	3,190
June	1,409.8	443	5.2	47.0	2,800
July	1,550.8	256	9.8	50.0	3,080
August	969	67	15	31.3	1,920
September	636.0	51	5.8	21.2	1,260
Water year					

Goose Creek above Lake Cheesman, Colo.

Location.- Water-stage recorder and compound rectangular weir, lat. 39°12', long. 105°19', in sec. 3, T. 10 S., R. 71 W., 1 mile above high-water line of Lake Cheesman.

Drainage area.- 86 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; October 1924 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 126 second-feet June 26 (gage height, 2.40 feet); minimum discharge occurred during period of no record.
1924-37: Maximum discharge, 315 second-feet May 26, 1926 (gage height, 3.75 feet); minimum not determined.

Remarks.- Records excellent except those for Apr. 1-9, which were estimated and are fair. No records Nov. 2 to Mar. 31. A few small diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	22					9.6	22	32	58	31	19
2	44						9.6	22	29	49	29	20
3	44						9.6	25	33	61	30	29
4	38						9.6	24	32	42	28	36
5	35						9.6	31	29	37	27	23
6	31						9.6	35	27	44	27	21
7	24						9.6	37	24	38	29	22
8	31						9.6	46	24	39	27	21
9	29						9.6	38	24	37	25	20
10	30						9.6	40	24	40	24	18
11	30						10	32	23	42	23	18
12	26						11	27	22	57	25	17
13	25						13	29	22	48	22	17
14	23						18	29	22	38	21	16
15	22						31	30	29	33	22	16
16	22						69	30	27	31	21	16
17	22						61	27	24	28	20	16
18	21						28	25	20	33	25	15
19	20						33	25	18	29	30	14
20	21						41	24	17	23	22	14
21	23						43	23	18	23	20	14
22	22						64	22	19	23	19	14
23	22						57	22	18	23	19	13
24	22						28	21	18	23	19	13
25	22						23	22	22	25	19	13
26	21						39	22	94	30	20	13
27	20						58	22	91	44	20	14
28	23						37	22	57	76	18	14
29	20						26	21	48	70	17	14
30	22						26	32	51	54	22	15
31	24						-	36	-	38	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	821	44	20	26.5	1,630
November	-	-	-	-	-
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	812.0	69	9.6	27.1	1,610
May	863	46	21	27.8	1,710
June	938	94	17	31.3	1,860
July	1,236	76	23	39.9	2,450
August	721	31	17	23.3	1,430
September	525	36	13	17.5	1,040
Water year					

North Fork of South Platte River at South Platte, Colo.

Location.- Water-stage recorder, lat. 39°25', long. 105°10', in sec. 25, T. 7 S., R. 70 W., a third of a mile above South Platte. Zero of gage is 6,090.55 feet above mean sea level.

Drainage area.- 484 square miles.

Records available.- June 1909 to September 1910, April 1913 to September 1937.

Average discharge.- 25 years, 171 second-feet.

Extremes.- Maximum discharge during year, 715 second-feet June 27 (gage height, 4.08 feet); minimum daily discharge, 20 second-feet Jan. 26 to Feb. 3.
1909-10, 1913-37: Maximum discharge, 1,910 second-feet June 8, 1921 (gage height, 5.9 feet); minimum discharge, 4 second-feet (discharge measurement) Dec. 8, 1932.

Remarks.- Records good. Records for period of ice effect, Nov. 28 to Mar. 13, computed on basis of four discharge measurements, weather records, and records for South Platte River at South Platte and South Platte River below Lake Cheesman. Minor diversions above station.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-6, Nov. 5-27, June 11-25, July 16-29, Sept. 5-30)

1.7	25	2.6	164	3.4	410
1.8	35	2.8	212	3.6	490
2.0	59	3.0	270	3.8	580
2.2	85	3.2	335	4.0	676
2.4	122				

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	169	102	67	37	20	29	42	102	291	410	149	84
2	155	97	67	36	20	29	47	104	387	402	138	95
3	151	62	64	32	20	29	47	108	437	297	134	112
4	142	77	52	29	22	29	36	110	365	276	126	122
5	140	114	45	30	26	30	35	140	365	279	116	114
6	149	120	36	28	28	35	43	176	335	279	200	104
7	132	106	36	30	28	40	42	183	314	255	220	102
8	130	84	42	26	30	48	33	195	304	258	202	97
9	126	92	*48	30	32	50	42	202	291	243	190	87
10	130	92	52	26	34	54	50	252	264	237	186	78
11	130	88	53	31	34	*57	62	232	246	234	132	77
12	128	87	55	34	34	68	71	198	252	335	94	75
13	110	87	56	34	35	84	82	218	249	273	94	71
14	116	100	56	37	35	97	114	258	261	232	94	73
15	122	95	57	37	35	90	136	285	297	210	88	69
16	124	95	58	28	36	72	176	318	264	202	88	73
17	122	92	58	28	36	64	169	294	252	258	124	84
18	116	95	58	26	37	66	90	270	237	273	151	77
19	112	78	56	*24	*37	59	110	258	220	255	136	60
20	116	80	54	24	36	44	124	232	200	240	92	58
21	118	78	50	22	35	52	108	212	205	234	81	59
22	116	80	53	22	35	47	138	202	205	229	77	58
23	112	81	54	21	35	51	155	212	195	178	77	58
24	102	56	55	21	34	33	102	202	190	138	76	62
25	110	63	52	21	32	37	99	220	202	138	81	62
26	110	99	55	20	29	36	100	215	599	149	90	63
27	104	88	50	20	29	35	142	193	580	176	87	62
28	114	80	43	20	29	37	134	193	421	198	82	59
29	120	75	47	20	-	39	110	212	354	243	80	60
30	116	75	39	20	-	34	100	270	346	188	97	59
31	110	-	33	20	-	37	-	279	-	162	94	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,852	169	102	124	7,640
November	2,618	120	56	87.3	5,190
December	1,601	67	33	51.6	3,180
Calendar year 1936	73,908	830	-	202	146,600
January	834	37	20	26.9	1,650
February	873	37	20	31.2	1,730
March	1,512	97	29	48.8	3,000
April	2,739	176	33	91.3	5,430
May	6,545	318	102	211	12,980
June	9,128	599	190	304	18,110
July	7,481	410	138	241	14,840
August	3,676	220	76	119	7,290
September	2,314	122	58	77.1	4,590
Water year 1936-37	43,173	599	20	118	85,630

Bear Creek at Morrison, Colo.

Location.- Water-stage recorder, lat. 39°39'15", long. 105°11'40", in SE¼ sec. 35, T. 4 S., R. 70 W., just above mouth of Mount Vernon Creek, at Morrison.

Drainage area.- 165 square miles.

Records available.- April 1888 to September 1891, May 1895 to March 1902, and October 1934 to September 1937 in reports of Geological Survey; April 1888 to September 1891, May 1895 to March 1902, and October 1919 to September 1937 in reports of State engineer. October 1919 to September 1934, at Idledale, 3 miles upstream; records equivalent.

Average discharge.- 18 years (1919-1937), 58.3 second-feet.

Extremes.- Maximum discharge during year, 392 second-feet Aug. 30 (gage height, 1.98 feet); minimum discharge recorded, 3.9 second-feet (discharge measurement) Jan. 26 (probably less during period of ice effect).
1888-91, 1895-1902, 1919-37: Maximum discharge, 8,600 second-feet (estimated) July 24, 1898; minimum not determined.

Remarks.- Records good except those for period of ice effect, Dec. 23 to Feb. 22, which were computed on basis of one discharge measurement and weather records and are fair. Small diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	35	11		5.0	16	13	35	85	125	54	41
2	49	33	13		6.5	14	16	35	139	139	51	44
3	48	22	12		7.0	14	18	34	184	125	45	58
4	48	30	12		7.2	17	14	31	228	119	42	68
5	54	34	11		7.5	17	13	36	243	113	41	52
6	51	34	12		6.0	16	14	39	233	100	40	48
7	44	32	13		5.0	14	14	46	205	113	41	46
8	45	26	13		4.8	12	13	51	197	90	39	51
9	46	27	13		4.5	13	14	54	201	81	37	41
10	46	28	12		4.5	13	18	64	159	85	36	35
11	45	28	11		4.8	13	18	56	136	92	34	34
12	44	26	12		5.4	13	20	54	128	152	36	32
13	42	26	22		6.0	13	19	52	113	136	41	29
14	37	29	16		7.0	13	25	58	113	113	35	27
15	39	26	15		7.5	12	26	64	116	95	33	25
16	39	27	18		8.0	12	34	63	90	87	31	22
17	35	28	20		8.5	13	37	61	83	85	37	21
18	34	28	20		8.8	13	22	54	79	92	49	22
19	32	25	20		8.5	13	27	52	74	79	45	25
20	39	26	20		8.0	12	29	51	64	70	33	25
21	36	27	20		8.5	11	27	46	61	70	30	22
22	34	25	16		9.0	12	34	49	63	64	28	22
23	36	25	14		9.8	13	37	49	58	61	28	23
24	31	19	12		12	9.6	32	46	58	61	27	20
25	39	22	13		12	11	32	54	74	64	32	21
26	35	22	15	*3.9	14	11	39	58	263	59	30	21
27	33	22	12		13	10	45	51	201	61	28	25
28	36	20	10		13	11	44	46	142	83	26	26
29	33	16	11		-	12	37	51	130	74	36	28
30	36	12	11		-	12	32	74	122	61	70	34
31	36	-	10		-	12	-	76	-	61	70	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,248	54	31	40.3	2,480
November	780	35	12	26.0	1,550
December	440	22	10	14.2	873
Calendar year 1936	23,892.4	394	-	65.3	47,380
January	217	-	-	†7.0	430
February	221.8	14	4.5	7.92	440
March	397.6	17	9.6	12.8	789
April	763	45	13	25.4	1,510
May	1,590	76	31	51.3	3,150
June	4,042	263	58	135	8,020
July	2,810	152	59	90.6	5,570
August	1,205	70	26	38.9	2,390
September	988	68	20	32.9	1,960
Water year 1936-37	14,702.4	263	-	40.3	29,160

*Discharge measurement.
†Estimated.

94296 O—38——17

Bear Creek at mouth, at Sheridan Junction, Colo.

Location.- Water-stage recorder, lat. 39°39', long. 105°01', in sec. 5, T. 5 S., R. 68 W., 0.5 mile southwest of Sheridan Junction and three-quarters of a mile above mouth.

Drainage area.- 265 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; April to November 1914 and February 1927 to September 1937 in reports of State engineer.

Average discharge.- 10 years (1927-37), 20.7 second-feet.

Extremes.- Maximum discharge during year, 222 second-feet June 2 (gage height, 3.43 feet); minimum daily discharge, 4.1 second-feet May 14, 15, 22.
1914, 1927-37: Maximum discharge, 3,000 second-feet July 7, 1933, by slope-area method (gage height, 6.95 feet); minimum daily discharge, 0.7 second-foot Apr. 28, 1936.

Remarks.- Records fair. Discharge for period of ice effect, Dec. 30 to Feb. 12, computed on basis of one discharge measurement and weather records; that for Sept. 1-5 estimated. Storage and diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	43	32	11		9.5	10	9.0	21	17	17	18	41
2	57	29	11		9.5	10	9.5	25	34	23	20	28
3	59	24	10		9.5	10	10	23	90	28	16	31
4	57	24	10		9.5	10	10	22	47	19	12	35
5	56	22	9.5		9.5	12	11	18	56	17	16	24
6	57	21	17		9.5	12	12	17	39	16	13	19
7	58	22	10		9.5	10	10	17	53	14	12	20
8	57	20	11		9.5	9.5	11	8.0	78	15	9.5	23
9	56	20	10		9.5	9.5	10	6.8	53	13	10	19
10	54	18	9.0		9.5	9.0	9.5	7.7	70	12	8.0	16
11	48	18	10		9.5	9.5	8.0	6.2	69	14	7.5	20
12	46	17	15		9.8	9.0	9.0	4.7	56	37	8.0	23
13	44	17	17		12	9.5	10	4.4	39	62	37	22
14	52	17	18		10	8.0	10	4.1	38	30	14	21
15	47	15	19		10	9.5	12	4.1	49	14	9.0	23
16	49	16	20		11	8.0	10	4.4	36	12	7.0	22
17	50	16	20		10	11	10	4.4	32	8.5	7.0	22
18	50	17	11		11	7.1	10	6.5	31	17	6.7	21
19	50	15	11		12	7.1	8.5	5.3	30	22	7.5	21
20	49	14	12		15	6.8	5.3	5.6	30	14	7.0	20
21	39	13	11		12	6.2	6.2	6.5	28	13	6.7	16
22	44	12	12		12	6.5	7.1	4.1	27	12	6.4	16
23	44	12	11		11	6.2	12	4.7	26	12	6.7	16
24	45	12	12		12	6.2	12	5.3	27	14	9.5	15
25	43	12	12		12	6.2	10	5.9	40	16	14	16
26	38	12	11	*9.5	15	6.5	8.5	5.3	124	16	14	23
27	36	12	11		13	6.8	19	4.7	114	14	15	22
28	39	12	12		10	7.1	27	5.6	52	15	16	22
29	35	12	10		-	7.1	22	6.8	30	14	19	21
30	33	11	10		-	7.7	20	32	15	16	56	19
31	33	-	10		-	7.7	-	15	-	16	108	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,468	59	33	47.4	2,910
November	514	32	11	17.1	1,020
December	383.5	20	9.0	12.4	761
Calendar year 1936	8,635.9	228	.7	23.6	17,120
January	279	-	-	†9.0	553
February	302.3	15	9.5	10.8	600
March	261.7	12	6.2	8.44	519
April	338.6	27	5.3	11.3	672
May	311.1	32	4.1	10.0	617
June	1,430	124	15	47.7	2,840
July	562.5	62	8.5	18.1	1,120
August	516.5	108	6.4	16.7	1,020
September	657	41	15	21.9	1,300
Water year 1936-37	7,024.2	124	4.1	19.2	13,930

*Discharge measurement.
†Estimated.

Clear Creek near Golden, Colo.

Location.- Water-stage recorder, lat. 39°45', long. 105°15', in sec. 32, T. 3 S., R. 70 W., 1½ miles above Golden.

Drainage area.- 392 square miles.

Records available.- December 1908 to December 1909, June 1911 to September 1929, and October 1933 to September 1937 in reports of Geological Survey; December 1908 to December 1909 and June 1911 to September 1937 in reports of State engineer.

Average discharge.- 24 years (1911-22, 1924-37), 241 second-feet.

Extremes.- Maximum discharge during year, 1,750 second-feet June 26 (gage height, 2.72 feet); minimum daily discharge recorded, 28 second-feet Mar. 24.
1908-9, 1911-37: Maximum discharge, 5,890 second-feet Sept. 9, 1933, by slope-area method (gage height, 7.97 feet); minimum daily discharge, 18 second-feet Jan. 11, 1918. Maximum discharge known, 8,700 second-feet Aug. 1, 1888.

Remarks.- Records good except those for periods of missing gage heights and of ice effect, Nov. 14-28, Dec. 1 to Mar. 9, which were computed on basis of four discharge measurements and weather records and are fair. Small diversions for irrigation above station. Several small reservoirs above station slightly regulate flow.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	177	117				50	59	122	578	838	268	140
2	170	109				52	59	109	755	718	259	184
3	170	69				52	59	109	780	644	264	168
4	163	89				54	51	114	852	578	254	209
5	156	114				54	46	131	742	567	244	196
6	170	112				56	48	156	633	556	235	181
7	149	106				58	55	184	611	644	226	177
8	140	82				60	48	201	622	622	201	170
9	143	87				65	48	222	622	578	192	156
10	152	87				61	53	283	556	536	168	146
11	152	84				61	65	288	556	520	188	146
12	152	87				59	59	288	633	622	201	140
13	152	84				53	65	342	622	528	222	131
14	152	84				53	73	411	655	494	201	125
15	156	80				59	87	486	680	460	188	125
16	163	80				53	96	622	692	411	181	119
17	166	80				55	106	644	809	384	209	119
18	152	80				51	91	589	824	372	254	117
19	152	78				53	82	655	780	354	201	112
20	163	*78				39	69	567	680	314	177	114
21	152	78				49	80	502	755	294	166	114
22	140	79	*72			51	104	468	824	278	149	114
23	137	80				57	125	556	652	294	143	140
24	134	70				28	122	468	780	283	146	131
25	140	73			*47	48	112	502	838	278	156	112
26	134	90		*34		82	114	466	1,320	268	152	109
27	122	85				61	117	477	896	314	134	104
28	128	63				55	125	494	768	336	140	101
29	112	82				51	128	520	705	348	146	101
30	112	84				46	125	578	768	309	159	101
31	122	-				59	-	589	-	336	143	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,583	177	112	148	9,090
November	2,591	117	69	86.4	5,140
December	2,170	-	-	†70	4,300
Calendar year 1936	110,542	1,580	26	302	219,200
January	1,240	-	-	†40	2,460
February	1,400	-	-	†50	2,780
March	1,685	82	28	54.4	3,340
April	2,471	128	46	82.4	4,900
May	12,163	655	109	392	24,120
June	22,186	1,320	556	740	44,010
July	14,076	838	268	454	27,920
August	5,987	268	134	193	11,880
September	4,122	209	101	137	8,180
Water year 1936-37	74,678	1,320	28	205	148,100

*Discharge measurement.
†Estimated.

Clear Creek at mouth, near Derby, Colo.

Location.- Water-stage recorder, lat. 39°50', long. 104°57', in sec. 36, T. 2 S., R. 68 W., three-quarters of a mile above mouth and 2¼ miles west of Derby.

Drainage area.- 600 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; April to November 1914 and February 1927 to September 1937 in reports of State engineer.

Average discharge.- 10 years (1927-37), 62.5 second-feet.

Extremes.- Maximum discharge during year, 2,170 second-feet June 26 (gage height, 4.49 feet); minimum daily discharge recorded, 1.1 second-feet Aug. 26, 27.
1914, 1927-37: Maximum discharge, that of June 26, 1937; minimum daily discharge, 1 second-foot Mar. 25 to Apr. 8, Apr. 14-17, 19-23, and Sept. 20, 1935.

Remarks.- Records **poor.** **Discharge** for period of ice effect, Dec. 8 to Feb 28, computed on basis of **three discharge measurements** and weather records; that for Sept. 15-30 estimated. Diversions for **irrigation** above station. Flow slightly regulated by storage for irrigation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	197	66	29	6	10	35	11	8.0	222	532	26	8.4
2	139	80	27	7	12	34	8.4	9.5	290	453	6.5	13
3	118	72	21	9	14	32	7.8	14	543	306	6.0	11
4	96	58	27	9	16	28	9.6	8.0	618	252	5.0	15
5	64	116	18	8	19	26	8.4	11	601	220	4.5	12
6	147	100	24	6	17	25	6.6	47	318	196	5.5	10
7	112	94	19	4	15	25	9.0	106	126	224	5.5	9.1
8	40	27	17	5	13	24	14	100	200	208	5.0	7.7
9	26	42	15	7	16	24	14	89	190	216	4.5	7.7
10	26	34	13	9	17	24	11	200	162	256	4.5	6.5
11	26	34	11	11	*18	24	8.4	168	124	277	5.5	5.5
12	57	34	*10	10	18	24	6.6	154	89	439	6.0	7.7
13	80	36	10	11	18	25	5.7	126	102	344	6.0	9.1
14	9.2	36	10	*12	18	40	5.1	236	119	188	9.8	4.5
15	8.5	32	10	12	18	34	4.5	270	277	147	4.5	4.5
16	12	39	10	12	18	31	4.2	231	204	105	6.0	4.5
17	9.2	34	10	11	18	28	18	96	216	98	10	4.5
18	11	38	11	9	17	25	26	22	200	168	29	4.5
19	15	39	10	8	15	26	12	53	184	159	6.5	4.5
20	82	39	8	6	15	26	12	16	156	100	5.0	4.5
21	120	34	e	5	16	24	12	22	229	62	4.0	4.5
22	90	36	e	6	18	33	8.0	47	300	25	3.0	4.5
23	72	40	e	6	17	39	44	100	484	30	3.0	4.5
24	62	27	8	7	18	38	89	82	425	80	2.0	4.5
25	57	23	8	8	20	41	20	134	652	86	2.5	5.0
26	37	22	8	10	25	169	6.5	106	1,730	79	1.1	5.0
27	18	20	8	9	28	40	8.0	34	1,070	79	1.1	5.0
28	24	27	8	8	30	11	20	44	700	134	1.9	5.0
29	21	22	8	8	-	9.6	17	200	524	168	8.4	5.0
30	15	22	7	9	-	8.4	11	265	492	84	8.4	5.0
31	30	-	7	9	-	8.4	-	75	-	70	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,820.9	197	8.5	58.7	3,610
November	1,345	116	20	44.8	2,670
December	396	29	7	12.8	785
Calendar year 1936	38,706.5	1,010	5	106	76,780
January	257	12	4	8.29	510
February	494	30	10	17.6	980
March	981.4	169	8.4	31.7	1,950
April	437.8	89	4.2	14.6	868
May	3,073.5	270	8.0	99.1	6,100
June	11,547	1,730	89	385	22,900
July	5,785	532	25	187	11,470
August	211.7	29	1.1	6.83	420
September	202.2	15	4.5	6.74	401
Water year 1936-37	26,551.5	1,730	1.1	72.7	52,660

*Discharge measurement.

North St. Vrain Creek at Longmont Dam, near Lyons, Colo.

Location.- Water-stage recorder, lat. 40°14', long. 105°21', in sec. 16, T. 3 N., R. 71 W., three-quarters of a mile above Longmont Dam and 4 miles west of Lyons. Datum lowered 1 foot Oct. 8, 1936.

Drainage area.- 109 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; October 1925 to September 1937 in reports of State engineer.

Average discharge.- 12 years, 86.9 second-feet.

Extremes.- Maximum discharge during year, 713 second-feet June 26 (gage height, 3.86 feet); minimum daily discharge, 4.0 second-feet Jan. 29.
1925-37: Maximum discharge, 930 second-feet Sept. 6, 1935 (gage height, 4.40 feet, present datum); minimum daily discharge, that of Jan. 29, 1937.

Remarks.- Records good. Flow partly regulated by small reservoirs above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	33	16	9.7	5.1	9.0	11	73	252	356	98	53
2	40	30	16	9.0	5.6	9.5	13	68	352	315	92	50
3	39	14	16	7.5	6.4	9.5	16	64	490	284	84	48
4	39	30	20	6.9	7.1	9.5	14	63	509	255	81	50
5	36	36	18	6.9	8.6	10	13	69	454	235	74	64
6	33	33	11	6.7	9.0	12	14	81	381	231	72	68
7	30	30	18	5.4	9.9	12	14	98	319	340	68	73
8	29	25	21	5.1	10	11	13	113	288	255	63	71
9	29	29	20	5.4	10	12	15	129	280	231	56	63
10	30	29	19	7.7	9.7	12	22	151	262	200	53	58
11	30	27	18	8.4	9.7	12	30	146	288	186	52	54
12	30	25	17	8.6	9.7	12	29	146	315	189	51	50
13	30	26	16	8.8	9.3	11	33	148	276	203	51	44
14	29	27	18	8.6	9.3	11	40	175	272	222	56	44
15	28	29	18	8.2	9.3	11	76	219	266	228	64	40
16	30	26	16	7.9	9.5	12	77	244	288	212	93	36
17	29	26	18	7.5	9.3	9.9	67	252	323	189	108	31
18	27	26	17	7.1	9.3	11	52	231	319	175	111	30
19	25	22	17	7.1	9.3	10	62	252	315	162	101	23
20	33	24	16	6.9	9.3	12	71	228	276	148	88	23
21	32	24	16	6.7	9.0	13	77	200	315	135	80	19
22	26	22	16	6.4	9.0	12	87	180	419	121	72	19
23	23	15	15	6.0	9.0	14	81	222	402	117	62	20
24	26	16	15	5.1	9.3	10	78	215	352	111	54	23
25	29	17	14	4.2	9.3	11	80	241	377	106	59	23
26	28	20	14	4.3	9.0	9.5	88	209	578	121	46	19
27	26	16	13	4.3	9.0	9.7	99	212	462	117	44	16
28	29	15	13	4.3	9.0	10	93	248	377	135	45	15
29	29	16	14	4.0	-	9.5	82	280	336	123	55	15
30	30	17	12	4.2	-	9.5	76	319	327	113	62	17
31	34	-	9.5	4.5	-	11	-	258	-	117	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	954	46	23	30.8	1,890
November	725	36	14	24.2	1,440
December	499.5	21	9.5	16.1	991
Calendar year 1936	40,445.1	536	8.4	111	80,210
January	203.4	9.7	4.0	6.56	403
February	248.0	10	5.1	8.86	492
March	337.6	14	9.0	10.9	670
April	1,523	99	11	50.8	3,020
May	5,534	319	63	179	10,980
June	10,470	578	252	349	20,770
July	5,932	356	106	191	11,770
August	2,229	111	44	71.9	4,420
September	1,159	73	15	38.6	2,300
Water year 1936-37	29,614.5	578	4.0	81.7	59,150

St. Vrain Creek at Lyons, Colo.

Location.- Water-stage recorder, lat. 40°13', long. 105°15', in sec. 17, T. 3 N., R. 70 W., 300 feet below junction of North and South St. Vrain Creeks and three-quarters of a mile east of Lyons.

Drainage area.- 226 square miles.

Records available.- August 1887 to October 1892, June 1895 to October 1903, April 1909 to November 1913, and October 1933 to September 1937 in reports of Geological Survey; August 1887 to October 1890 and June 1895 to September 1937 in reports of State engineer.

Average discharge.- 33 years (1900-1903, 1907-37), 129 second-feet.

Extremes.- Maximum discharge during year, 1,230 second-feet June 26 (gage height, 4.37 feet); minimum daily discharge, 2.4 second-feet Jan. 31.
1887-92, 1895-1937: Maximum discharge, 2,340 second-feet May 27, 1935 (gage height, 5.50 feet); no flow at times during January 1920 and January 1922.

Remarks.- Records excellent. Diversion for irrigation above station. Several small reservoirs partly regulate the flow.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1-9, Feb. 7 to Mar. 5, Mar. 16 to Apr. 5, Aug. 12 to Sept. 27)

1.3	2	2.0	51	2.8	247
1.4	4	2.2	79	3.0	324
1.6	15	2.4	124	3.5	584
1.8	31	2.6	178	4.0	930

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	46	14	9.6	2.8	9.6	16	98	280	482	147	79
2	61	45	17	6.5	3.0	11	18	92	380	405	127	76
3	57	24	17	6.5	3.6	11	24	83	621	328	117	76
4	53	33	9.0	6.0	3.4	10	26	77	673	300	107	76
5	53	46	5.5	5.5	7.5	12	24	85	576	300	94	59
6	43	44	3.6	5.0	8.5	14	24	98	455	332	85	68
7	26	38	3.4	4.0	9.6	16	26	132	353	455	79	73
8	20	31	3.8	4.0	11	16	26	164	304	380	77	69
9	22	37	10	4.0	9.6	14	26	184	288	324	74	63
10	20	37	13	3.6	10	15	31	221	269	269	65	56
11	18	34	15	4.0	14	16	44	197	304	232	87	51
12	18	31	15	6.0	13	15	47	200	361	232	92	45
13	18	31	14	7.0	14	14	47	214	312	258	98	56
14	17	31	16	6.5	14	14	55	273	296	284	94	68
15	16	30	16	8.0	13	13	71	336	254	288	77	63
16	15	31	18	9.0	13	14	92	357	320	269	79	65
17	13	31	18	8.5	13	15	85	357	390	228	117	59
18	11	31	17	7.0	13	14	61	349	328	204	117	52
19	11	26	16	7.0	13	16	69	385	340	191	107	45
20	20	28	14	6.0	11	13	81	361	292	167	83	42
21	31	29	14	5.5	12	13	77	336	340	153	79	40
22	35	26	13	5.0	14	13	100	308	494	140	76	36
23	36	23	14	4.5	14	15	110	344	460	153	65	33
24	38	14	14	3.8	13	17	85	340	435	142	57	33
25	42	16	9.6	3.4	11	16	79	385	455	142	62	35
26	40	20	14	3.6	12	17	119	332	937	167	73	34
27	37	20	11	3.6	11	16	140	328	673	167	69	31
28	43	16	8.0	3.6	11	15	127	361	516	178	66	28
29	42	14	9.0	3.2	-	16	114	380	456	191	85	28
30	45	16	6.0	3.0	-	14	100	357	415	161	102	26
31	48	-	5.0	2.4	-	16	-	288	-	158	90	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,014	65	11	32.7	2,010
November	877	46	14	29.2	1,740
December	373.1	18	3.4	12.0	740
Calendar year 1936	54,849.1	746	3.2	149	108,400
January	165.3	9.6	2.4	5.33	328
February	298.0	14	2.8	10.6	591
March	440.6	17	9.6	14.2	874
April	1,944	140	16	64.8	3,860
May	8,022	385	77	259	15,910
June	12,558	937	254	419	24,910
July	7,680	482	140	248	15,230
August	2,747	147	57	88.6	5,450
September	1,664	79	26	52.1	3,100
Water year 1936-37	37,683.0	937	2.4	103	74,740

St. Vrain Creek at mouth, near Platteville, Colo.

Location.- Water-stage recorder, lat. 40°16', long. 104°53', in sec. 3, T. 3 N., R. 67 W., 1 mile above mouth and 4 miles northwest of Platteville.

Drainage area.- 1,000 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; April to December 1915 and February 1927 to September 1937 in reports of State engineer.

Average discharge.- 10 years (1927-37), 135 second-feet.

Extremes.- Maximum discharge during year, 1,990 second-feet June 27 (gage height, 5.20 feet); minimum daily discharge, 46 second-feet May 17.
1915, 1927-37: Maximum discharge not determined; minimum daily discharge, 12 second-feet Apr. 23, 1935.

Remarks.- Records good except those for period of missing gage heights, Nov. 28 to Dec. 4, June 26 (estimated), and those for period of ice effect, Dec. 28 to Mar. 8 (computed on basis of two discharge measurements and weather records), which are fair. Several diversions for irrigation above station. Flow partly regulated by several small reservoirs.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	181	133	108			100	79	176	227	938	131	156
2	172	128	115			100	72	163	216	872	122	102
3	166	129	119			100	70	139	416	690	112	86
4	160	128	123			100	70	131	364	476	92	318
5	148	122	127			100	72	113	665	375	92	186
6	154	118	143			100	70	96	452	237	93	102
7	165	118	113			100	84	86	309	143	82	87
8	152	116	131			100	102	78	281	115	73	86
9	139	112	152			*102	108	77	409	88	75	73
10	133	116	154		*95	112	108	75	397	86	77	68
11	131	110	145			100	104	80	316	141	78	107
12	126	107	158			93	100	64	287	163	75	126
13	126	107	148			94	99	54	242	160	80	135
14	124	105	129	*90		90	107	56	220	154	87	128
15	126	105	143			87	104	49	464	148	87	128
16	124	102	158			100	96	47	436	139	87	135
17	124	96	160			126	90	46	319	143	86	96
18	115	104	154			126	108	49	266	145	92	94
19	113	105	156			143	105	48	287	154	93	77
20	124	104	143			139	115	66	364	131	94	70
21	154	105	124			115	128	58	287	104	93	70
22	141	115	141			100	135	60	220	94	92	70
23	135	105	143			112	186	77	163	83	93	69
24	133	102	131			115	202	84	112	87	87	70
25	122	102	141			108	181	99	179	88	128	62
26	141	102	116			100	158	141	1,520	100	133	86
27	148	102	112			96	179	124	1,950	113	135	84
28	154	103	96			99	168	112	1,610	120	141	88
29	154	105	95			94	204	115	1,150	118	154	83
30	131	105	95			87	197	306	984	108	156	75
31	133	-	95			86	-	378	-	122	158	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	4,348	181	113	140	8,620
November	3,311	133	96	110	6,570
December	4,068	160	95	131	8,070
Calendar year 1936	55,836	1,340	62	147	106,800
January	2,945	-	-	95	5,840
February	2,716	-	-	97	5,390
March	3,224	143	86	104	6,390
April	3,621	204	70	121	7,180
May	3,247	378	46	105	6,440
June	15,114	1,950	112	504	29,980
July	6,635	938	83	214	13,160
August	3,178	158	73	103	6,300
September	3,137	318	68	105	6,220
Water year 1936-37	55,544	1,950	46	152	110,200

*Discharge measurement.

Lefthand Creek at mouth, at Longmont, Colo.

Location.- Water-stage recorder, lat. 40°09', long. 105°06', in sec. 10, T. 2 N., R. 69 W., three-quarters of a mile above mouth and 1 mile south of Longmont. Datum lowered 1 foot July 6, 1937.

Drainage area.- 74 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; March 1927 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 192 second-feet June 3 (gage height, 3.58 feet, present datum); minimum daily discharge, 2.5 second-feet May 23.
1927-37: Maximum discharge, 252 second-feet May 10, 1928; minimum daily discharge, 1 second-foot at times during 1932, 1934, 1935.

Remarks.- Records fair. Discharge for period of ice effect, Dec. 26 to Mar. 11, computed on basis of two discharge measurements and weather records; those for Aug. 13-26 estimated. Diversions for irrigation above station. Flow regulated by storage for irrigation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	14	7.2			3.8	3.6	24	26	91	6.7	9.6
2	24	13	9.0			3.8	3.3	21	40	90	8.0	8.7
3	24	11	8.4			3.6	3.6	17	158	71	6.1	9.0
4	21	11	9.0			3.8	6.9	13	137	48	5.4	10
5	16	14	10			3.9	5.5	11	143	44	5.1	10
6	15	14	9.4			3.9	4.7	11	110	24	4.9	8.0
7	13	16	7.5			3.9	5.5	10	87	17	4.9	7.1
8	13	14	8.4			3.9	4.5	11	76	13	5.0	9.0
9	14	14	7.5			3.9	4.2	9.8	70	14	5.1	8.2
10	14	14	7.8			3.9	4.0	8.6	57	20	5.3	6.8
11	14	14	8.1			3.9	3.5	5.2	39	19	5.3	7.2
12	13	12	8.4			3.9	3.0	6.0	36	16	5.3	9.8
13	13	12	9.0			5.1	3.0	7.4	30	15	5.0	8.6
14	13	12	8.4			4.8	3.8	6.0	34	16	5.0	8.3
15	13	10	7.2			3.6	4.7	6.0	66	17	5.0	9.0
16	13	9.0	6.9			3.9	4.7	4.0	22	17	5.0	9.0
17	13	9.4	6.9			4.5	5.0	3.5	17	17	5.0	8.2
18	9.8	9.8	7.8	*3.7		4.2	4.2	4.5	42	20	5.0	7.7
19	7.8	9.0	8.4			3.9	4.7	5.0	54	17	4.8	7.9
20	9.8	9.4	7.2			4.2	5.5	2.8	71	16	4.8	7.3
21	12	9.4	6.9			3.9	5.2	3.3	42	13	5.0	6.7
22	12	9.0	6.9			3.6	5.2	3.0	28	10	5.0	6.6
23	11	8.4	7.5			3.9	25	2.5	15	9.0	5.0	6.3
24	12	8.1	7.5		*3.8	3.6	22	3.8	4.5	11	6.0	6.0
25	12	8.7	6.9			5.1	24	6.0	13	13	6.0	6.7
26	13	8.4	6.0			4.2	32	4.7	128	11	7.0	6.3
27	12	8.7	6.0			5.1	29	5.5	126	11	8.4	6.1
28	16	8.7	6.0			3.6	30	5.2	97	9.0	8.4	5.8
29	13	8.4	6.0			3.6	28	6.6	103	7.9	8.6	5.8
30	13	7.2	6.0			3.9	21	49	86	6.3	9.6	5.7
31	13	-	6.0			3.3	-	21	-	6.6	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	444.4	32	7.8	14.3	881
November	326.6	16	7.2	10.9	648
December	234.2	10	6.0	7.55	465
Calendar year 1936	5,734.2	150	1.2	15.7	11,380
January	139.5	-	-	†4.5	277
February	112	-	-	†4.0	222
March	124.4	.5.1	3.3	4.01	247
April	309.3	32	3.0	10.3	613
May	297.4	49	2.5	9.59	590
June	1,957.5	158	4.5	65.2	3,880
July	709.8	91	6.3	22.9	1,410
August	186.7	11	4.8	6.02	370
September	231.1	10	5.7	7.70	458
Water year 1936-37	5,072.9	158	2.5	13.9	10,060

*Discharge measurement.
†Estimated.

Middle Boulder Creek at Nederland, Colo.

Location.- Water-stage recorder, lat. 39°57'45", long. 105°30'20", in sec. 13, T. 1 S., R. 73 W., below mouth of North Beaver Creek at Nederland.

Drainage area.- 38 square miles.

Records available.- October 1934 to September 1937 in reports of Geological Survey; October 1929 to September 1937 in reports of State engineer; January 1908 to September 1929 in office of State engineer.

Remarks.- Complete records furnished by Public Service Co. of Colorado.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	18	7.7					30	159	172	53	40
2	22	16	9.6					28	199	153	44	42
3	22	8.5	10					27	195	138	40	41
4	21	16	7.9					29	183	132	36	41
5	21	18	7.0					46	150	127	34	36
6	21	16	6.6					65	115	123	32	37
7	19	14	6.8					87	102	155	31	35
8	19	16	7.1					102	100	127	29	33
9	19	15	6.8				*18	127	100	120	27	31
10	19	14	7.3					144	103	112	26	30
11	19	14	7.1					134	106	103	24	28
12	19	14	7.0					121	175	110	24	23
13	18	13	6.8					128	166	118	27	20
14	16	13	7.0					159	148	117	23	19
15	16	13	7.3					214	163	104	22	19
16	16	13	7.5					214	161	92	54	18
17	16	13	7.3				26	199	185	93	153	18
18	14	12	7.1				28	213	195	91	92	17
19	14	11	7.0				26	211	189	77	54	16
20	16	12	7.0				27	181	175	69	43	16
21	18	12	6.6				29	148	202	63	38	15
22	19	11	6.6				40	153	226	60	34	15
23	17	9.2	6.6				39	175	211	57	32	17
24	15	9.4	6.6				28	172	183	55	31	18
25	16	9.8	6.4				26	187	240	55	32	17
26	17	9.0	6.4				31	144	321	56	29	16
27	13	9.2	6.0				44	147	211	61	27	15
28	14	8.3	5.8				44	179	185	55	26	14
29	14	8.1	5.8				37	193	166	51	32	14
30	17	7.5	5.7				31	189	168	50	35	14
31	18	-	5.3				-	150	-	51	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	550	25	13	17.7	1,090
November	373.0	18	7.5	12.4	740
December	215.7	10	5.3	6.96	428
Calendar year 1936	23,082.8	348	4.0	63.1	45,790
January	62.5	-	-	*2.02	124
February	95.6	-	-	*3.41	190
March	128.5	-	-	*4.15	255
April	744	44	-	24.8	1,480
May	4,296	214	27	139	8,520
June	5,182	321	100	173	10,280
July	2,947	172	50	95.1	5,850
August	1,213	153	22	39.1	2,410
September	715	42	14	23.8	1,420
Water year 1936-37	16,522.6	321	-	45.3	32,790

*Estimated.

Boulder Creek near Orodell, Colo.

Location.- Water-stage recorder, lat. 40°00', long. 105°20', in sec. 34, T. 1 N., R. 71 W., 1 mile above Old Orodell and 1 mile above mouth of Fourmile Creek.

Drainage area.- 105 square mile.

Records available.- August 1887 to October 1888, March 1907 to December 1913, and October 1933 to September 1937 in reports of Geological Survey; August 1887 to October 1888, March 1907 to November 1914, and February 1916 to September 1937 in reports of State engineer.

Average discharge.- 29 years (1906-14, 1916-37), 95.5 second-feet.

Extremes.- Maximum discharge during year, 455 second-feet June 25 (gage height, 3.10 feet); minimum daily discharge, 5.4 second-feet Nov. 3.
1887-88, 1907-14, 1916-37: Maximum discharge, 2,500 second-feet June 6, 1921 (gage height, 4.31 feet); minimum daily discharge, 1.6 second-feet Mar. 1, 1936.

Remarks.- Records excellent except those for period of ice effect, Jan. 2 to Feb. 3, and those for Aug. 28-30, which were estimated and are fair. Flow regulated by Barker Meadow Reservoir, capacity, 11,500 acre-feet. Low-water flow during non-irrigation season regulated by operation of power plant 1,500 feet above station.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 12-27, Aug. 5-21)

0.7	5	1.6	29	2.6	210
.8	6	1.8	46	2.8	296
1.0	9	2.0	70	3.0	395
1.2	13	2.2	104		
1.4	19	2.4	150		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	7.4	40	24	30	29	21	57	171	207	114	64
2	48	6.5	46		30	29	25	34	180	261	104	69
3	48	5.4	41		30	28	27	53	183	214	98	73
4	28	8.0	41		32	30	20	44	177	204	87	73
5	46	7.2	33		28	29	28	62	168	195	78	67
6	38	6.8	21		29	27	25	82	165	204	74	66
7	38	8.8	42		39	20	25	91	171	216	72	60
8	32	32	44		34	34	20	98	156	218	63	66
9	34	38	45		37	48	19	67	123	210	59	57
10	33	27	37		31	47	24	98	114	283	55	60
11	28	36	46		24	44	27	102	110	231	56	59
12	52	33	22		26	40	37	112	121	195	54	49
13	52	35	21		25	24	42	123	145	198	50	49
14	57	29	44		18	18	38	138	145	204	50	50
15	40	23	50		27	35	47	177	135	207	53	54
16	45	36	43		20	45	67	256	138	204	46	50
17	32	32	49		25	40	43	335	142	195	56	44
18	39	26	41		26	45	31	311	156	195	78	49
19	22	24	19		29	40	62	296	153	168	76	51
20	35	32	23		30	25	63	283	142	162	63	48
21	41	33	49		32	21	74	278	150	162	74	50
22	40	22	47		41	38	84	223	166	150	66	48
23	28	23	52		26	37	80	218	274	130	66	57
24	29	22	37		32	44	64	244	306	108	63	82
25	35	22	18		32	39	53	287	345	110	64	64
26	38	20	25		30	31	70	287	278	117	59	57
27	43	38	12		34	60	80	256	207	119	57	49
28	32	33	23		30	30	84	244	162	130	60	46
29	32	21	30		-	63	70	239	165	123	60	38
30	34	44	25		-	30	63	207	171	114	60	35
31	22	-	30		-	35	-	156	-	114	64	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,170	57	22	37.7	2,320
November	731.1	44	5.4	24.4	1,450
December	1,096	52	12	35.4	2,170
Calendar year 1936	39,703.7	535	1.6	108	78,740
January	992	-	-	32	1,970
February	827	41	18	29.5	1,640
March	1,105	63	18	35.6	2,190
April	1,413	84	19	47.1	2,800
May	5,458	335	34	176	10,830
June	5,221	345	110	174	10,360
July	5,550	283	108	179	11,010
August	2,079	114	46	67.1	4,120
September	1,684	82	35	56.1	3,340
Water year 1936-37	27,326.1	345	5.4	74.9	54,200

Boulder Creek at mouth, near Longmont, Colo.

Location.- Water-stage recorder, lat. 40°08', long. 105°01', in NE¼ sec. 17, T. 2 N., R. 68 W., 1⅛ miles above mouth and 5 miles southeast of Longmont.

Drainage area.- 512 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; March 1927 to September 1937 in reports of State engineer.

Average discharge.- 10 years, 40.4 second-feet.

Extremes.- Maximum discharge during year, 680 second-feet June 26 (gage height, 3.97 feet); minimum daily discharge, 1.5 second-feet Aug. 30 and Sept. 16.
1927-37: Maximum discharge, 860 second-feet May 28, 1935 (gage height, 4.62 feet); no flow at times during 1935 and 1936.

Remarks.- Records good except those for period of ice effect, Dec. 31 to Mar. 4, which were computed on basis of two discharge measurements and weather records and are fair. Diversions and storage for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	48	33	55			55	25	112	34	262	6.8	2.0
2	46	36	59			56	21	98	63	287	6.2	2.6
3	50	35	62			57	20	73	72	190	5.0	2.0
4	51	37	61			58	22	76	50	142	3.2	2.0
5	39	34	70			57	21	49	132	105	2.6	4.4
6	61	30	61			64	21	50	66	45	2.6	5.6
7	58	31	49			61	28	39	35	9.4	3.2	4.4
8	47	26	71			51	34	38	71	6.2	2.6	2.6
9	38	23	79			55	46	30	148	4.4	3.8	3.2
10	41	21	81			53	41	16	138	15	4.4	5.0
11	34	20	78			40	52	8.7	114	24	5.6	2.6
12	33	20	70			31	44	1.9	83	10	5.6	2.6
13	33	21	61			35	57	3.2	74	8.7	6.2	1.5
14	33	22	50			28	60	5.0	74	9.4	6.2	2.0
15	40	23	72			29	56	4.4	134	8.0	5.6	1.7
16	35	18	79			43	41	2.6	120	10	5.6	1.5
17	34	19	76			61	53	7.4	94	11	5.6	1.7
18	32	28	77	*43		59	58	8.7	113	6.6	5.6	1.7
19	30	29	78			77	50	9.4	89	4.4	6.2	1.7
20	28	28	66			66	76	2.6	120	3.2	6.8	2.6
21	45	36	53			47	80	5.0	64	5.0	6.8	3.8
22	41	36	81			36	100	4.4	28	5.0	6.2	5.6
23	40	28	71			64	123	5.6	3.8	7.4	6.2	5.6
24	28	28	76		*91	56	123	8.0	3.8	10	5.0	6.2
25	23	28	62			38	102	12	36	11	2.6	8.6
26	33	31	36			35	100	18	523	6.8	2.0	8.0
27	30	26	47			31	117	11	560	4.4	1.7	6.2
28	38	46	31			38	138	9.4	384	8.0	1.7	6.2
29	29	45	72			28	148	8.7	285	8.7	1.6	5.6
30	23	28	79			33	135	120	276	6.2	1.5	2.0
31	33	-	75			24	-	70	-	6.2	1.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,174	61	23	37.9	2,330
November	866	46	18	28.9	1,720
December	2,040	81	31	65.8	4,050
Calendar year 1936	15,654.2	344	0	42.8	31,080
January	1,705	-	-	†55	3,380
February	1,680	-	-	†60	3,330
March	1,466	77	24	47.3	2,910
April	1,992	148	20	66.4	3,950
May	909.0	120	1.9	29.3	1,800
June	3,967.6	560	3.8	133	7,910
July	1,240.2	287	3.2	40.0	2,460
August	136.3	6.8	1.5	4.40	270
September	109.7	6.0	1.5	3.66	218
Water year 1936-37	17,305.8	560	1.5	47.4	34,330

*Discharge measurement.
†Estimated.

South Boulder Creek near Eldorado Springs, Colo.

Location.- Water-stage recorder, lat. 39°56', long. 105°18', in sec. 26, T. 1 S., R. 71 W., 1¼ miles west of Eldorado Springs.

Drainage area.- 114 square miles.

Records available.- April 1888 to October 1892, May 1895 to September 1901, April 1909 to November 1913 and October 1933 to September 1937 in reports of Geological Survey; May 1895 to September 1901 and July 1904 to September 1937 in reports of State engineer. Prior to September 1929, at site at Eldorado Springs (corrected for diversions before publishing); records equivalent.

Average discharge.- 37 years (1896-99, 1900-1901, 1904-37), 76.7 second-feet.

Extremes.- Maximum discharge during year, 1,060 second-feet June 26 (gage height, 4.12 feet), from rating curve extended above 500 second-feet; minimum daily discharge, 2.0 second-feet (computed) Jan. 31, Feb. 1.
1888-92, 1895-1901, 1904-37: Maximum daily discharge, 1,090 second-feet June 3, 1895 (gage height, 3.95 feet, former site and datum); minimum not determined.

Remarks.- Records excellent except those for periods of ice effect, Nov. 25 to Mar. 21, which were computed on basis of three discharge measurements and weather records and are fair. Some small diversions for irrigation above station.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1, 2, Nov. 12-24, Aug. 1 to Sept. 30)

1.3	7	2.0	52	2.8	211
1.4	10	2.2	76	3.0	290
1.6	18	2.4	107	3.2	378
1.8	33	2.6	155	3.4	480
				3.6	610

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	41	12	7	2	7	12	62	274	192	56	18
2	53	44	13	5	3	8	16	59	306	155	46	22
3	50	35	13	5	3	8	21	54	290	145	39	22
4	42	30	7	5	3	7	16	58	336	132	34	33
5	42	48	6	4	5	8	14	70	286	116	32	29
6	51	46	5	4	6	9	16	79	274	116	31	25
7	48	39	5	3	6	10	14	112	249	130	27	27
8	49	31	5	3	8	10	14	114	234	114	24	23
9	45	32	8	3	7	10	14	128	253	96	24	19
10	44	39	12	3	9	10	30	172	257	93	24	19
11	40	31	13	3	10	11	45	162	350	88	22	22
12	37	31	13	4	9	11	38	152	480	105	21	18
13	36	31	12	5	9	10	43	168	460	85	26	16
14	16	28	*14	4	9	10	50	180	373	86	31	16
15	37	28	14	5	9	9	62	222	340	77	24	16
16	35	28	15	6	9	10	73	249	327	70	22	16
17	34	24	15	7	9	11	75	234	404	72	35	16
18	32	23	14	*6.6	9	11	51	249	429	72	46	16
19	31	16	13	7	8	12	53	378	359	61	35	14
20	36	26	*12	6	7	12	54	261	323	54	27	13
21	33	22	12	5	7	14	56	208	306	55	27	13
22	35	17	11	4	6.7	14	72	189	278	52	23	13
23	36	15	11	4	7	18	67	208	226	55	21	13
24	35	14	12	3	7	12	52	219	189	59	19	14
25	46	14	8	3	7	18	51	340	266	56	24	14
26	43	16	9	4	7	16	64	278	586	53	21	13
27	40	16	9	5	7	12	72	319	265	61	20	13
28	46	14	6	4	7	12	70	286	192	63	21	12
29	42	12	7	3	-	12	70	331	180	64	22	13
30	44	12	6	3	-	16	63	354	170	56	26	12
31	44	-	6	2	-	12	-	331	-	85	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,255	53	16	40.5	2,490
November	803	48	12	26.8	1,590
December	318	15	5	103	631
Calendar year 1936	29,966.5	411	-	81.9	59,440
January	135.6	7	2	4.37	269
February	196.7	10	2	6.99	388
March	350	18	7	11.3	694
April	1,348	75	12	44.9	2,670
May	6,226	378	54	201	12,350
June	9,262	586	170	309	18,370
July	2,718	192	52	87.7	5,390
August	869	56	19	28.0	1,720
September	530	33	12	17.7	1,050
Water year 1936-37	24,010.3	586	2	65.8	47,610

*Discharge measurement.

Thompson River near Estes Park, Colo.

Location.- Water-stage recorder, lat. 40°23', long. 105°30', in sec. 29, T. 5 N., R. 72 W., 1½ miles east of Estes Park.

Drainage area.- 158 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; June 1930 to September 1937 in reports of State engineer.

Extremes.- Maximum discharge during year, 1,370 second-feet June 26 (gage height, 5.05 feet); minimum occurred during period of ice effect.
1930-37: Maximum discharge, 1,590 second-feet June 16, 1935 (gage height, 5.54 feet); minimum daily discharge, 5 second-feet Mar. 8, 1934.

Remarks.- Records good except those for periods of ice effect, Nov. 24 to Apr. 19 (computed on basis of five discharge measurements and weather records), and those for Nov. 3-5, Apr. 25, 26 (estimated), which are fair. Some small diversions for irrigation above station. Flow partly regulated by several natural lakes.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	57	18				16	71	619	565	166	89
2	74	57	17				18	57	710	525	151	91
3	73	45	17				21	55	698	445	136	89
4	69	35	17				20	45	704	416	127	89
5	67	45	21				18	69	555	384	118	89
6	67	50	20				18	110	480	375	112	82
7	60	48	20				20	127	431	388	108	86
8	60	36	21				18	169	421	375	103	82
9	58	40	25				20	213	445	329	97	74
10	57	42	22				25	291	416	310	93	71
11	53	45	22				34	267	520	298	93	65
12	52	40	22				34	219	659	302	91	62
13	48	40	21				35	190	505	416	97	58
14	46	36	20				*44	277	505	375	95	53
15	48	32	*20				50	402	525	333	91	52
16	50	32	22				60	455	608	314	110	52
17	50	31	23				56	480	704	277	130	50
18	45	32	23				51	436	767	273	210	45
19	40	31	23	*10			65	470	733	263	156	43
20	53	38	25				69	460	659	241	130	40
21	53	31	23				69	485	744	219	114	37
22	46	27	21				93	460	1,020	196	103	37
23	48	18	22			*18	108	550	954	185	93	53
24	45	15	21		*10		97	515	825	193	91	57
25	46	20	20				98	555	859	180	108	50
26	48	25	19				98	470	1,080	174	99	45
27	43	19	17				99	460	813	177	93	38
28	50	17	17				95	555	636	196	91	38
29	46	16	17				89	664	540	202	103	36
30	52	16	14				84	681	520	193	110	38
31	55	-	10				-	560	-	193	99	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,678	76	40	54.1	3,330
November	1,016	57	15	33.9	2,020
December	620	25	10	20.0	1,230
Calendar year 1936	63,373	843	-	173	125,700
January	279	-	-	†9	553
February	336	-	-	†12	666
March	527	-	-	†17	1,050
April	1,622	108	16	54.1	3,220
May	10,818	681	45	349	21,460
June	19,655	1,080	416	655	38,990
July	9,312	565	174	300	18,470
August	3,518	210	91	113	6,980
September	1,791	91	36	59.7	3,550
Water year 1936-37	51,172	1,080	-	140	101,500

*Discharge measurement.
†Estimated.

Thompson River below power-house, near Drake, Colo.

Location.- Water-stage recorder, lat. 40°25', long. 105°17', in NW¼ sec. 7, T. 5 N., R. 70 W., a quarter of a mile below hydroelectric plant of city of Loveland and 4⅛ miles east of Drake. Cedar Creek enters an eighth of a mile downstream.

Drainage area.- 277 square miles.

Records available.- October 1928 to September 1937. September 1917 to December 1926, at site 3 miles upstream; records equivalent.

Average discharge.- 18 years, 186 second-feet.

Extremes.- Maximum discharge during year, 1,460 second-feet June 26 (gage height, 4.20 feet); minimum daily discharge, 6.0 second-feet Jan. 31.
1929-37: Maximum discharge, 1,950 second-feet June 14, 1935 (gage height, 5.00 feet); minimum daily discharge, 6 second-feet Dec. 23, 1930, Jan. 31, 1937. Maximum discharge known 8,000 second-feet (estimated), July 31, 1919.

Remarks.- Records good except those for period of ice effect, Jan. 4-28 (computed on basis of one discharge measurement and weather records) and those for Mar. 24-27 (estimated), which are fair. Small storage reservoir above power plant (capacity, about 30 acre-feet). Gage-height record furnished by city of Loveland.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	60	24	12	7.8	17	22	95	592	673	201	107
2	103	57	24	12	6.8	19	27	90	710	654	177	107
3	100	32	22	11	6.8	20	30	88	735	569	164	110
4	95	37	22	11	6.8	19	26	85	747	535	151	115
5	93	68	30	10	7.0	20	25	93	611	508	137	107
6	75	63	23	10	7.8	20	26	132	513	497	134	104
7	72	63	24	10	11	25	27	151	445	519	127	106
8	70	35	24	10	11	22	21	212	425	519	118	107
9	80	49	37	10	15	28	24	273	440	455	112	96
10	81	52	28	10	13	20	34	399	430	430	106	90
11	77	50	29	10	15	24	42	367	513	430	102	86
12	74	50	27	11	17	28	35	304	685	416	103	81
13	74	48	25	12	17	24	41	297	552	530	106	77
14	72	54	26	13	18	20	44	359	541	524	96	76
15	72	46	30	12	16	22	64	513	558	455	95	72
16	75	50	33	13	18	24	76	558	611	425	99	71
17	75	47	33	13	16	24	80	586	692	382	151	76
18	70	46	32	12	17	27	56	546	766	374	229	70
19	66	40	36	12	17	29	75	599	760	340	184	64
20	72	42	30	11	16	22	83	558	661	336	144	63
21	77	47	24	10	18	20	82	492	710	240	130	61
22	68	40	27	10	15	25	96	403	904	246	120	58
23	63	34	26	8	17	30	106	524	868	232	109	63
24	62	20	26	8	17	28	99	465	729	237	104	75
25	66	29	27	9	17	26	89	508	735	220	118	71
26	63	39	25	8	16	24	99	455	1,060	209	117	68
27	59	28	20	7	20	22	115	435	846	218	110	62
28	63	22	22	7	13	24	113	563	698	237	110	59
29	60	22	22	6.6	-	20	103	685	630	255	116	59
30	82	22	20	8.6	-	20	95	698	599	229	125	55
31	63	-	15	6.0	-	24	-	592	-	234	113	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,311	109	59	74.5	4,580
November	1,292	68	20	43.1	2,560
December	813	37	15	26.2	1,610
Calendar year 1936	78,796	1,060	15	215	156,300
January	313.2	13	6.0	10.1	621
February	393.0	20	6.8	14.0	780
March	717	30	17	23.1	1,420
April	1,855	115	21	61.8	3,680
May	12,125	698	85	391	24,050
June	19,786	1,080	425	660	39,240
July	12,128	673	209	391	24,060
August	4,010	229	95	129	7,950
September	2,416	115	55	80.5	4,790
Water year 1936-37	58,159.2	1,080	6.0	159	115,300

Thompson River at mouth, near La Salle, Colo.

Location.- Water-stage recorder, lat. 40°21', long. 104°46', in SW¼ sec. 34, T. 5 N., R. 66 W., 1 mile above mouth and 4 miles west of La Salle.

Drainage area.- 818 square miles.

Records available.- October 1933 to September 1937 in reports of Geological Survey; April to November 1914 and March 1927 to September 1937 in reports of State engineer.

Average discharge.- 10 years (1927-37), 34.6 second-feet.

Extremes.- Maximum discharge during year, 935 second-feet Sept. 4 (gage height, 4.38 feet); minimum daily discharge, 2.4 second-feet July 2.
1914, 1927-37: Maximum discharge, 1,300 second-feet July 29, 1932 (gage height, 5.22 feet); no flow at times during 1934 to 1935.

Remarks.- Records fair. Those for period of ice effect, Dec. 28 to Feb. 14, computed on basis of two discharge measurements and weather records; those for Nov. 3-6, 24-27, Dec. 5-11, 13-16, and Sept. 5-10 estimated. Diversions for irrigation above station. Flow regulated by several reservoirs above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	67	58	34	20	48	35	6.6	12	2.8	5.4	4.2
2	16	65	61	33	20	48	33	6.9	11	2.4	5.4	4.2
3	14	65	58	34	22	47	21	5.1	15	3.3	4.5	4.2
4	29	62	57	34	24	46	3.9	5.4	47	3.0	5.7	54
5	46	61	57	33	26	44	3.6	5.4	26	9.5	6.0	76
6	47	60	57	31	28	44	2.9	5.4	10	7.5	6.3	14
7	44	60	57	30	31	44	19	5.7	7.8	5.7	6.6	13
8	44	57	57	34	34	44	46	6.3	7.2	12	6.6	11
9	43	54	58	34	36	44	51	6.0	8.7	8.7	7.2	9
10	47	54	58	33	*39	44	46	6.0	9.5	3.6	6.3	9
11	52	53	58	33	39	44	41	22	12	2.8	5.4	8.7
12	56	53	58	34	40	44	22	4.8	24	21	5.4	8.4
13	58	56	58	36	41	44	4.5	3.6	20	38	4.5	8.1
14	61	57	58	*37	42	41	4.6	3.3	10	34	4.2	7.8
15	62	58	58	37	46	43	3.9	3.9	55	25	3.6	7.8
16	63	56	59	37	44	44	3.9	6.0	26	34	3.6	6.9
17	61	58	60	36	44	47	4.8	5.7	20	43	3.6	6.3
18	54	61	60	36	46	46	5.1	5.4	24	49	3.6	6.0
19	50	58	60	37	49	49	4.8	4.8	12	62	3.9	5.7
20	51	57	57	38	48	54	3.6	3.0	13	49	4.2	6.6
21	61	61	54	37	46	51	3.3	3.9	15	25	4.2	5.7
22	58	62	53	35	44	46	3.3	4.2	20	7.8	4.2	5.7
23	54	61	56	34	46	44	4.8	4.5	16	3.0	4.2	5.7
24	56	62	57	34	47	43	6.0	11	7.8	2.7	4.2	6.0
25	60	61	58	30	47	38	5.4	8.4	16	2.6	4.2	8.1
26	66	59	57	29	49	38	4.8	26	117	2.7	4.2	6.9
27	67	60	55	28	49	39	4.8	8.4	98	2.9	4.2	6.0
28	67	61	54	27	49	38	6.6	7.5	9.5	3.0	4.2	5.7
29	67	58	52	26	-	37	5.7	7.2	4.8	3.6	4.2	5.7
30	66	57	50	25	-	36	5.4	18	4.2	4.2	4.2	5.4
31	69	-	36	20	-	36	-	18	-	5.1	4.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,607	69	14	51.8	3,190
November	1,773	67	53	59.1	3,520
December	1,745	61	36	56.3	3,460
Calendar year 1936	11,568.8	240	2.3	31.6	22,960
January	1,012	38	20	32.6	2,010
February	1,096	49	20	39.1	2,170
March	1,355	54	36	43.7	2,690
April	409.6	51	2.9	13.7	812
May	238.1	26	3.0	7.68	472
June	676.5	117	4.2	22.6	1,340
July	478.9	62	2.4	15.4	950
August	148.2	7.2	3.6	4.78	294
September	331.8	76	4.2	11.1	658
Water year 1936-37	10,871.1	117	2.4	29.8	21,570

*Discharge measurement.

Cache la Poudre River at mouth of canyon, near Fort Collins, Colo.

Location.- Water-stage recorder, lat. 40°40', long. 105°13', in sec. 15, T. 8 N., R. 70 W., at mouth of canyon, 11 miles west of Fort Collins.

Drainage area.- 1,048 square miles.

Records available.- March 1884 to October 1901, February 1910 to November 1913, and October 1933 to September 1937 in reports of Geological Survey; March 1884 to September 1937 in reports of State engineer.

Average discharge.- 53 years, 419 second-feet.

Extremes.- Maximum discharge during year, 2,020 second-feet June 2 (gage height, 3.89 feet); minimum daily discharge, 14 second-feet Jan. 26 to Feb. 2.
1884-1937: Maximum discharge (not determined) occurred May 20, 1904; minimum daily discharge, 5 second-feet Jan. 19-21, 1935.

Remarks.- Records excellent except those for Oct. 11-16 (estimated), those for period of ice effect, Dec. 5 to Mar. 11, (computed on basis of three discharge measurements and weather records), and those for Sept. 1-30, which are fair. Storage and diversions for irrigation above station. Transmountain diversions from Colorado, Laramie, and Michigan River enters above station.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Nov. 9 to Dec. 4, Mar. 12 to Apr. 26, May 11-16, Sept. 7-30)

1.0	13	2.0	265	3.0	980
1.2	34	2.2	360	3.2	1,180
1.4	67	2.4	480	3.4	1,410
1.6	118	2.6	625	3.6	1,650
1.8	184	2.8	794	3.9	1,900

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	69	19	22	14	25	29	215	1,520	951	443	406
2	118	67	18	20	14	25	36	215	1,820	848	430	406
3	118	48	20	17	15	25	40	196	1,810	648	395	430
4	99	37	21	17	18	26	38	181	1,750	578	372	430
5	94	51	17	16	20	27	33	170	1,390	803	350	424
6	96	62	16	16	21	28	33	207	1,240	884	350	449
7	96	56	16	16	22	31	43	270	1,250	675	366	600
8	86	69	18	16	23	33	38	330	1,260	848	265	521
9	89	48	25	17	24	33	34	528	1,270	758	181	401
10	89	56	27	18	25	35	34	866	1,220	803	164	215
11	85	56	28	18	26	37	48	623	1,060	922	184	153
12	85	49	29	20	26	40	49	521	1,270	639	170	151
13	83	44	30	21	26	33	49	541	1,060	714	188	115
14	83	51	30	22	27	34	60	723	1,270	821	257	104
15	81	44	30	24	27	42	79	1,100	1,600	689	320	99
16	81	44	30	22	27	40	96	1,300	1,530	500	389	99
17	81	44	30	22	28	36	121	1,530	1,660	406	443	96
18	81	44	30	20	28	33	84	1,430	1,600	412	541	94
19	81	43	29	19	28	40	89	1,640	1,540	507	548	94
20	86	37	28	18	27	27	104	1,650	1,310	570	514	86
21	99	43	27	18	27	33	107	1,410	1,470	556	437	84
22	94	40	27	17	28	37	115	1,050	1,350	494	320	79
23	86	36	27	16	28	37	140	1,330	1,170	474	211	84
24	79	22	27	16	28	42	121	1,370	970	455	144	91
25	79	20	25	15	26	28	110	1,270	932	310	131	110
26	81	38	30	14	26	27	118	1,060	1,480	261	137	107
27	81	29	25	14	26	28	153	1,020	1,350	288	121	96
28	84	29	22	14	26	30	167	1,360	1,060	283	140	89
29	81	24	22	14	-	33	160	1,580	884	320	252	86
30	72	43	20	14	-	28	215	1,510	857	265	406	84
31	72	-	18	14	-	32	-	1,350	-	274	430	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,735	118	72	88.2	5,420
November	1,343	69	20	44.8	2,660
December	761	30	16	24.5	1,510
Calendar year 1936	147,920	2,970	-	404	293,400
January	547	24	14	17.6	1,080
February	681	28	14	24.3	1,350
March	1,003	42	25	32.4	1,990
April	2,543	215	29	84.8	5,040
May	28,546	1,650	170	921	56,620
June	39,953	1,820	657	1,332	79,250
July	18,156	951	261	586	36,010
August	9,599	548	121	310	19,040
September	6,263	600	79	209	12,420
Water year 1936-37	112,130	1,820	14	307	222,400

Cache la Poudre River near Greeley, Colo.

Location.- Water-stage recorder, lat. 40°25', long. 104°38', in sec. 2, T. 5 N., R. 65 W., 2 miles east of Greeley and 2½ miles above mouth.

Drainage area.- 1,840 square miles.

Records available.- March to October 1903 and October 1933 to September 1937 in reports of Geological Survey; March 1903 to November 1904, February 1914 to December 1919, and May 1924 to September 1937 in reports of State engineer.

Average discharge.- 18 years (1914-19, 1924-37), 106 second-feet.

Extremes.- Maximum discharge during year, 109 second-feet Nov. 10 (gage height, 3.03 feet); minimum daily discharge, 3.0 second-feet Sept. 3.
1903-4, 1914-19, 1924-37: Maximum discharge, 4,240 second-feet June 24, 26, 1917 (gage height, 7.3 feet, former site and datum); minimum, 3 second-feet at times in 1931-32, 1936-37.

Remarks.- Records good except those for periods of ice effect, Jan. 11, 12, and Jan. 22 to Feb. 6, which were computed on basis of weather records and are fair. Diversions for irrigation above station. Flow is return water from irrigated lands above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	84	70	60	55	59	59	5.6	20	36	19	3.6
2	25	84	70	58	60	57	58	5.0	22	56	18	3.6
3	27	83	69	57	60	58	56	5.0	17	58	18	3.0
4	28	82	68	59	65	56	56	5.0	20	57	19	4.2
5	29	81	67	59	68	56	57	4.5	21	56	22	5.4
6	28	74	65	58	62	58	61	4.0	20	48	44	31
7	29	71	69	53	60	59	69	4.0	20	22	43	41
8	30	70	68	56	59	57	71	5.0	17	22	31	43
9	31	69	68	60	61	57	69	5.6	24	21	11	34
10	33	74	67	62	63	56	64	5.6	55	24	12	26
11	31	74	70	61	59	55	59	5.6	50	23	15	16
12	27	73	76	58	63	55	55	6.2	45	25	15	15
13	27	74	73	55	66	57	48	6.2	41	26	16	13
14	27	76	71	55	67	53	37	6.8	24	26	15	12
15	28	76	74	54	68	59	35	6.2	22	23	14	12
16	36	76	75	55	65	59	36	8.0	22	19	14	12
17	36	78	81	54	63	60	40	8.0	19	19	12	12
18	24	78	81	53	63	59	39	9.8	12	18	12	12
19	24	77	82	54	65	70	39	11	8.4	21	9.7	12
20	34	76	81	52	63	70	39	12	8.4	14	9.0	11
21	56	75	82	48	59	69	35	14	7.8	12	9.0	11
22	79	73	83	50	62	68	31	16	9.0	10	8.4	11
23	77	71	77	52	62	66	33	14	10	10	7.8	12
24	64	72	71	55	62	64	37	12	12	12	7.8	12
25	64	70	70	55	59	59	34	12	31	12	7.8	13
26	82	70	69	60	57	59	16	12	63	11	5.4	13
27	92	69	65	55	59	59	5.0	20	50	10	4.8	12
28	89	70	59	50	56	61	5.0	17	44	9.0	5.4	13
29	83	70	63	45	-	62	4.5	17	36	13	4.2	13
30	83	70	62	50	-	63	4.5	26	29	14	3.6	12
31	84	-	56	52	-	62	-	14	-	15	4.2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,435	92	24	46.3	2,850
November	2,240	84	69	74.7	4,440
December	2,202	83	56	71.0	4,370
Calendar year 1936	15,453.7	268	3.0	42.2	30,660
January	1,705	62	45	55.0	3,380
February	1,731	68	55	61.8	3,430
March	1,862	70	53	60.1	3,690
April	1,257.0	71	4.5	41.9	2,490
May	303.7	26	4.0	9.80	602
June	777.6	63	7.8	25.9	1,540
July	742.0	58	9.0	23.9	1,470
August	437.1	44	3.6	14.1	867
September	445.8	43	3.0	14.9	884
Water year 1936-37	15,138.2	92	3.0	41.5	30,010

94296 O—38——18

Lonetree Creek near Granite Canyon, Wyo.

Location.- Water-stage recorder, lat. 41°05', long. 105°11', in sec. 24, T. 13 N., R. 70 W., 1⅛ miles southwest of Granite Canyon.

Drainage area.- 23 square miles.

Records available.- May 1933 to September 1937.

Extremes.- Maximum discharge during year, 13 second-feet June 2 (gage height, 1.30 feet); no flow Oct. 1-4, 7-12, Aug. 19-23.
1933-37: Maximum stage, 4.86 feet Sept. 8, 1933 (discharge not determined); no flow at times during 1934, 1936-37.

Remarks.- Records fair. Discharge for periods of ice effect, Nov. 27 to Dec. 3 and Dec. 18-31, estimated. No records Jan. 1 to Apr. 26. Small diversions above station.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.5	0
.6	.15
.7	.8
.8	2.0
1.0	5.4
1.2	10.0
1.3	12.6

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.7	0.5				-	4.2	7.2	1.4	0.4	0.1
2	0	.5	.5				-	3.4	9.5	1.0	.4	.1
3	0	.5	.5				-	3.0	5.8	.8	.5	.2
4	0	.6	.6				-	2.8	5.4	.7	.7	.2
5	.1	.6	.5				-	3.0	5.8	.7	.7	.2
6	.1	.6	.5				-	3.0	4.6	.7	.6	.3
7	0	.5	.5				-	3.0	4.2	.8	.5	.3
8	0	.5	.5				-	2.8	3.8	.7	.5	.3
9	0	.5	.4				-	2.8	4.0	.8	.4	.2
10	0	.5	.3				-	2.8	4.0	.8	.4	.1
11	0	.5	.5				-	2.7	3.3	.8	.3	.1
12	0	.6	.5				-	2.6	2.8	1.8	.3	.1
13	.1	.5	.5				-	2.4	2.4	1.2	.2	.1
14	.1	.6	.6				-	2.3	2.1	.9	.1	.1
15	.1	.6	.7				-	2.1	2.4	.8	.1	.1
16	.1	.7	.7				-	2.1	2.8	.8	.2	.1
17	.1	.7	.7				-	2.0	2.3	.7	.1	.1
18	.1	.6	.5				-	1.8	2.0	.7	.1	.1
19	.1	.5	.4				-	1.8	1.9	.7	0	.1
20	.1	.6	.3				-	1.6	1.8	.6	0	.1
21	.1	.6	.3				-	1.5	1.8	.5	0	.1
22	.1	.5	.3				-	1.5	1.6	.2	0	.1
23	.2	.5	.3				-	1.4	1.5	.2	0	.1
24	.5	.5	.3				-	1.3	1.4	.2	.1	.1
25	.6	.5	.3				-	1.9	1.9	.2	.1	.1
26	.6	.5	.2				-	1.9	2.1	.2	.1	.1
27	.7	.5	.2				6.9	1.6	1.8	.3	.1	.1
28	.6	.5	.2				6.3	1.4	1.5	.7	.4	.1
29	.6	.5	.2				5.6	1.3	1.4	.3	.3	.1
30	.5	.5	.2				5.0	2.3	1.8	.3	.2	.1
31	.6	-	.2				-	3.1	-	.3	.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6.1	0.7	0	0.20	12
November	16.5	.7	.5	.55	33
December	12.9	.7	.2	.42	26
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May	71.4	4.2	1.3	2.30	142
June	94.9	9.5	1.4	3.16	188
July	20.8	1.8	.2	.67	41
August	7.9	.7	0	.25	16
September	4.0	.3	.1	.13	7.9
Water year					

Middle Fork of Crow Creek near Hecla, Wyo.

Location.- Water-stage recorder, lat. 41°10', long. 105°15', in sec. 20, T. 14 N., R. 70 W., a quarter of a mile above backwater from Crystal Lake Reservoir and 4 miles northwest of Hecla.

Drainage area.- 23 square miles.

Records available.- May 1933 to September 1937. April to July 1902 and April to November 1903, at site 1¼ miles downstream; records equivalent.

Extremes.- Maximum discharge during year, 34 second-feet June 1 (gage height, 1.33 feet); no flow Oct. 1-20, Aug. 11 to Sept. 30.
1902-3, 1933-37: Maximum discharge, 495 second-feet Sept. 8, 1933, by slope-area method (gage height, 4.90 feet); no flow at times during 1934, 1936-37.

Remarks.- Records good. None for Dec. 1 to Apr. 25. No diversion or regulation.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

0	0	0.7	12
.1	.6	.9	18
.2	1.5	1.0	21.5
.3	2.9	1.2	29
.5	6.6	1.4	37

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	1.0					-	7.6	27	1.8	1.3	
2	0	1.0					-	9.0	21	1.6	2.1	
3	0	1.0					-	8.0	15	1.4	1.0	
4	0	1.0					-	7.3	15	1.2	.5	
5	0	.8					-	10	18	1.0	.3	
6	0	.7					-	11	16	1.0	.2	
7	0	.6					-	11	14	1.0	.1	
8	0	.6					-	11	12	1.0	.1	
9	0	.6					-	9.8	14	1.1	.1	
10	0	.5					-	9.6	16	3.9	.1	
11	0	.6					-	8.0	11	2.5	0	
12	0	.5					-	5.9	8.8	5.4	0	
13	0	.5					-	5.0	7.0	7.8	0	
14	0	.6					-	5.0	6.8	3.5	0	
15	0	.6					-	4.2	8.6	2.2	0	
16	0	.8					-	3.5	8.0	1.8	0	
17	0	.8					-	3.2	6.1	1.5	0	
18	0	.8					-	3.4	5.4	1.3	0	
19	0	.5					-	3.5	4.7	1.5	0	
20	0	.6					-	3.5	4.2	1.2	0	
21	.2	.4					-	2.9	4.0	.9	0	
22	.4	.5					-	2.8	3.4	.5	0	
23	.4	.5					-	2.8	3.1	.5	0	
24	.5	.9					-	2.8	2.5	.4	0	
25	.5	.6					-	5.2	2.6	.2	0	
26	.6	.6					9.0	11	7.6	.2	0	
27	.7	.6					10	8.8	5.6	.2	0	
28	.7	1.0					8.8	4.2	3.9	.2	0	
29	.8	.9					8.3	3.7	2.6	.2	0	
30	.8	.7					5.0	11	1.9	.4	0	
31	.8	-					-	11	-	.5	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	6.4	0.8	0	0.21	13
November	20.3	1.0	.4	.68	40
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 26-30	39.1	10	5.0	7.82	78
May	205.7	11	2.8	5.64	408
June	275.8	27	1.9	9.19	547
July	47.9	7.8	.2	1.55	95
August	5.8	2.1	0	.19	12
September	0	0	0	0	0
Water year					

South Fork of Crow Creek near Hecla, Wyo.

Location.- Water-stage recorder, lat. 41°08', long. 105°12', in sec. 2, T. 13 N., R. 70 W., just above backwater from South Crow Creek Reservoir and 2.8 miles southwest of Hecla.

Drainage area.- 16 square miles.

Records available.- May 1933 to June 1937.

Extremes.- Maximum discharge during year, 15 second-feet June 1 (gage height, 2.22 feet); no flow at times.
1933-37: Maximum discharge, 27 second-feet May 31, 1935 (gage height, 2.39 feet); no flow at times.

Remarks.- Records fair. None for Dec. 1 to Apr. 25. No diversion or regulation.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0					-	3.0	8.2	1.3	0	
2		0					-	3.3	9.7	1.0	.1	
3		0					-	3.2	6.4	.9	.2	
4		0					-	2.9	6.0	.9	0	
5		0					-	2.8	6.2	.8	0	
6		0					-	2.8	5.3	.8	0	
7		0					-	2.6	4.6	.8	0	
8		0					-	2.8	4.6	.6	0	
9		.1					-	2.8	4.7	.9	0	
10		.1						2.8	4.6	.6	0	
11		.1					-	2.1	3.9	1.2	0	
12		.1					-	1.9	3.5	2.1	0	
13		.2					-	1.7	2.9	1.4	0	
14		.3					-	1.6	2.8	.9	0	
15		.3					-	1.4	2.6	.9	0	
16		.3					-	1.3	2.3	.9	0	
17		.3					-	1.3	2.3	.8	0	
18		.2					-	1.2	2.0	.8	0	
19		.2					-	1.1	1.8	.7	0	
20		0					-	.9	1.7	.6	0	
21		0					-	.9	1.5	.5	0	
22		0					-	.8	1.3	.4	0	
23		0					-	.9	1.1	.3	0	
24		0					-	.9	.9	.3	0	
25		0					-	1.2	1.5	.3	0	
26		0					4.6	1.9	3.5	.2	0	
27		0					4.6	1.8	2.5	.1	0	
28		0					3.9	1.3	1.5	0	0	
29		0					3.3	1.3	1.2	0	0	
30		0					3.0	3.6	1.2	0	0	
31		-					-	3.6	-	0	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	2.2	.3	0	.07	4.4
December	-	-	-	-	-
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April 26-30	19.4	4.6	3.0	3.88	38
May	61.7	3.6	.8	1.99	122
June	102.5	9.7	.9	3.41	203
July	21.0	2.1	0	.68	42
August	.3	.2	0	.01	.6
September	0	0	0	0	0
Water year					

North Fork of Crow Creek near Hecla, Wyo.

Location.- Water-stage recorder, lat. 41°14', long. 105°12', in sec. 35, T. 15 N., R. 70 W., 800 feet above backwater from North Crow Creek Reservoir and 5⅛ miles northwest of Hecla.

Drainage area.- 27 square miles.

Records available.- May 1933 to September 1937.

Extremes.- Maximum stage during year, 4.20 feet July 28 (discharge not determined); minimum daily discharge recorded, 0.5 second-foot Aug. 23-26 (probably less during period of no record).
1933-37: Maximum stage, 8.65 feet Sept. 8, 1933 (discharge not determined); minimum discharge, 0.1 second-foot at times in 1934-35.

Remarks.- Records good. None for Dec. 10 to Apr. 26. Flow partly regulated by North Crow Creek Reservoir.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 9		Apr. 27 to Sept. 30	
1.3	0.5	1.4	0.3
1.4	1.2	1.5	1.2
1.5	2.2	1.6	2.6
		1.8	6.4
		2.0	10.3

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	1.5	1.3				-	2.8	3.7	1.9	1.9	0.8
2	1.6	1.6	1.3				-	2.6	2.8	1.8	1.6	.8
3	1.5	1.6	1.3				-	2.6	2.3	1.5	1.3	.8
4	1.4	1.6	1.3				-	2.6	2.5	1.5	1.2	.8
5	1.3	1.6	1.3				-	2.6	2.5	1.5	1.1	.8
6	1.3	1.5	1.3				-	2.6	2.3	1.6	1.1	.8
7	1.3	1.5	1.3				-	2.6	2.2	1.9	.9	.8
8	1.4	1.4	1.3				-	2.3	2.2	1.8	.9	.8
9	1.4	1.4	1.3				-	2.5	2.5	2.8	.9	.7
10	1.4	1.3	-				-	1.9	2.8	2.5	.8	.8
11	1.5	1.4	-				-	1.8	2.5	2.2	.8	.9
12	1.5	1.4	-				-	1.8	2.2	3.0	.9	.9
13	1.6	1.3	-				-	1.8	2.2	1.8	.9	.9
14	1.5	1.3	-				-	1.8	2.0	1.3	.8	.9
15	1.5	1.3	-				-	1.8	2.2	1.3	.8	.9
16	1.6	1.3	-				-	1.6	2.0	1.6	.8	.9
17	1.6	1.3	-				-	1.6	1.9	1.8	.8	.8
18	1.5	1.3	-				-	1.6	1.9	1.6	.8	.8
19	1.5	1.3	-				-	1.3	1.8	1.5	.8	.8
20	1.5	1.4	-				-	1.3	1.8	1.3	.8	.8
21	1.6	1.3	-				-	1.2	1.8	1.2	.7	.8
22	1.6	1.4	-				-	1.3	1.8	1.2	.6	.8
23	1.6	1.3	-				-	1.3	1.8	1.2	.5	.8
24	1.6	1.3	-				-	1.6	1.8	1.0	.5	1.0
25	1.6	1.3	-				-	1.6	2.0	1.0	.5	1.0
26	1.7	1.2	-				-	1.8	2.2	1.0	.5	1.0
27	1.7	1.2	-				3.0	1.6	1.8	1.0	.6	1.0
28	1.6	1.2	-				2.8	1.3	1.6	8.3	.6	1.0
29	1.5	1.1	-				2.8	1.6	1.6	3.0	.9	1.0
30	1.5	1.3	-				2.8	2.0	1.9	2.2	.8	1.1
31	1.5	-	-				-	2.2	-	2.2	.7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	47.1	1.7	1.3	1.52	93
November	40.9	1.6	1.1	1.36	81
December 1-9	11.7	1.3	1.3	1.30	23
Calendar year					
January					
February					
March					
April					
May	59.0	2.8	1.2	1.90	117
June	64.6	3.7	1.6	2.15	128
July	59.5	8.3	1.0	1.92	118
August	26.8	1.9	.5	.86	53
September	26.0	1.1	.7	.87	52
Water year					

Lodgepole Creek near Federal, Wyo.

Location.- Water-stage recorder, lat. 41°19', long. 105°13', in sec. 34, T. 16 N., R. 70 W., 7 miles northwest of Federal.

Drainage area.- 25 square miles.

Records available.- May 1933 to September 1937.

Extremes.- Maximum discharge during year, 14 second-feet June 1 (gage height, 1.17 feet); no flow Aug. 26-29.
1933-37: Maximum discharge, 89 second-feet May 31, 1935 (gage height, 2.93 feet), from rating curve extended above 30 second-feet; no flow several days during 1934-37.

Remarks.- Records good. None for Dec. 1 to Apr. 26. A few small diversions above station.

Rating table, period Apr. 27 to Sept. 30, 1937 (gage height, in feet, and discharge, in second-feet)

0.4	0
.5	.3
.6	.9
.7	2.1
.8	3.8
.9	6.1
1.0	8.6
1.2	14.5

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	0.6					-	9.8	13	2.8	1.3	0.4
2	.3	.6					-	9.8	12	2.4	.9	.3
3	.3	.5					-	9.2	9.2	2.1	.8	.3
4	.3	.5					-	8.9	8.9	2.0	.7	.4
5	.3	.5					-	8.9	10	1.9	.6	.7
6	.4	.7					-	8.9	9.2	1.7	.5	.5
7	.5	.7					-	8.6	8.6	2.4	.5	.6
8	.4	.7					-	9.2	8.1	2.4	.5	.5
9	.4	.7					-	8.6	9.2	2.0	.4	.4
10	.4	.5					-	8.4	6.6	2.8	.4	.4
11	.5	.4					-	7.4	7.6	2.6	.4	.4
12	.4	.4					-	7.4	6.8	5.4	.5	.4
13	.5	.5					-	7.6	6.1	6.6	.7	.4
14	.4	.5					-	7.4	5.6	3.6	.5	.4
15	.5	.5					-	8.1	6.4	2.8	.4	.4
16	.6	.7					-	6.6	5.9	2.6	.3	.4
17	.7	.7					-	6.4	5.2	2.6	.3	.4
18	.7	.7					-	5.9	5.0	3.0	.3	.4
19	.6	.6					-	5.9	5.0	2.3	.4	.4
20	.7	.6					-	5.2	4.3	1.9	.3	.5
21	.7	.4					-	4.7	4.3	1.5	.2	.4
22	.7	.6					-	4.7	3.6	1.3	.2	.4
23	.7	.4					-	4.5	3.0	1.0	.2	.3
24	.6	.5					-	4.3	2.8	1.1	.1	.3
25	.6	.6					-	5.4	3.1	1.3	.1	.5
26	.6	.6					-	7.0	5.9	1.0	0	.7
27	.7	.7					10	6.1	4.7	.9	0	.7
28	.6	.7					11	4.7	3.8	1.4	0	.7
29	.5	.7					9.8	4.3	3.0	1.4	0	.7
30	.5	.7					9.5	8.4	2.8	1.0	.3	.8
31	.5	-					-	7.6	-	1.0	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	15.9	0.7	0.3	0.51	32
November	17.5	.7	.4	.58	35
December	-	-	-	-	-
Calendar year					
January					
February					
March					
April					
May	220.7	9.8	4.3	7.12	438
June	191.7	13	2.8	6.39	380
July	68.8	6.6	.9	2.22	136
August	12.3	1.3	0	.40	24
September	14.1	.8	.3	.47	28
Water year					

Lodgepole Creek at Bushnell, Nebr.

Location.- Staff gage in concrete rating flume, lat. 41°14', long. 103°51', in sec. 33, T. 15 N., R. 57 W., 1½ miles east of Bushnell.

Drainage area.- 1,090 square miles.

Records available.- March 1931 to September 1937.

Extremes.- Maximum discharge during year, 390 second-feet Aug. 18 (gage height, 5.30 feet), from rating curve extended above 100 second-feet; minimum daily discharge, 2.7 second-feet Jan. 21.
1931-37: Maximum discharge, 620 second-feet Aug. 27, 1933 (gage height, 6.6 feet), from rating curve extended above 100 second-feet on basis of velocity-area studies; minimum daily discharge, 2 second-feet Apr. 11, 1935.

Remarks.- Records good except those for Jan. 3, Mar. 24, 25, July 29, which were estimated and are fair. Staff gage read twice daily. Some small diversions upstream.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.9	13	14	10	7.0	14	20	12	12	6.4	7.9	4.8
2	8.2	12	13	7.9	7.6	17	19	12	67	12	7.9	4.8
3	8.2	12	11	7.0	7.6	16	17	11	23	9.8	7.9	4.8
4	7.3	12	13	10	8.2	16	17	12	15	8.2	7.9	6.2
5	7.0	14	13	11	9.2	17	16	12	14	8.2	7.9	7.9
6	7.9	15	11	9.5	9.5	17	16	12	13	6.7	7.9	7.9
7	8.6	13	12	10	9.5	17	16	12	12	6.4	7.9	7.9
8	8.6	12	13	10	9.2	15	16	12	11	5.6	7.9	7.9
9	8.6	14	14	9.8	8.6	16	16	12	15	5.9	5.0	8.2
10	8.6	14	13	9.5	8.9	17	15	12	14	5.9	5.0	8.2
11	8.9	14	12	9.8	9.8	17	15	12	12	5.0	5.0	8.2
12	8.9	15	13	9.8	10	17	13	11	10	*90	5.9	8.2
13	8.9	14	12	9.8	12	15	13	11	9.2	*135	5.0	8.6
14	8.9	15	14	9.8	14	11	13	11	9.2	62	5.0	8.6
15	7.0	15	14	9.5	14	15	13	11	9.2	39	5.0	8.6
16	7.6	14	14	9.8	13	20	13	11	9.2	26	6.4	8.6
17	7.9	14	15	10	13	19	13	10	8.6	20	9.5	8.9
18	8.6	14	13	8.9	13	18	14	11	7.9	18	115	8.9
19	9.2	14	13	9.8	13	19	14	10	7.9	16	17	8.9
20	9.2	14	15	5.9	14	17	13	9.8	7.3	15	13	8.9
21	10	13	15	2.7	10	18	13	9.8	6.7	14	12	8.9
22	10	14	15	5.3	13	18	12	10	6.2	12	10	8.9
23	11	11	15	5.9	14	17	13	9.8	6.2	12	10	8.9
24	11	12	13	6.2	15	10	13	10	6.2	11	8.6	8.9
25	11	10	13	6.4	14	3	13	10	7.3	10	5.6	8.9
26	12	12	14	6.7	5.9	3.8	13	11	7.6	10	4.2	8.6
27	12	13	12	7.3	13	8.9	13	11	7.9	9.8	4.2	8.6
28	12	13	12	7.6	15	15	14	9.8	7.3	9.2	8.9	8.6
29	13	13	14	8.2	-	18	13	9.2	7.6	8.5	8.9	8.6
30	13	13	13	7.9	-	24	13	9.8	6.4	7.9	4.5	8.6
31	13	-	13	7.6	-	25	-	11	-	7.9	4.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	294.0	13	7.0	9.48	583
November	398	15	10	13.3	789
December	411	15	11	13.3	815
Calendar year 1936	4,407.5	24	3	12.0	8,740
January	259.6	11	2.7	8.37	515
February	311.0	15	5.9	11.1	617
March	490.7	25	3.	15.8	973
April	432	20	12	14.4	857
May	338.2	12	9.2	10.9	671
June	355.9	67	6.2	11.9	706
July	615.4	135	5.0	19.8	1,220
August	341.4	115	4.2	11.0	677
September	242.5	89	4.8	8.08	481
Water year 1936-37	4,487.7	135	3.	12.3	8,900

*Computed on basis of inflow to Oliver reservoir below station.

South Fork of Lodgepole Creek near Federal, Wyo.

Location.- Water-stage recorder, lat. 41°16', long. 105°13', in sec. 15, T. 15 N., R. 70 W., 6 miles northwest of Federal.

Drainage area.- 16 square miles.

Records available.- May 1933 to September 1937.

Extremes.- Maximum discharge during year, 12 second-feet June 1 (gage height, 0.70 foot); no flow Aug. 4-7, 9-13, 15-29, Sept. 1, 2.
1933-37: Maximum stage, 4.95 feet Sept. 8, 1933 (discharge not determined); no flow several days during 1934, 1936-37.

Remarks.- Records good. None for Dec. 2 to Apr. 26. One small diversion above station.

Rating table, period Apr. 27 to Sept. 30, 1937 (gage height, in feet, and discharge, in second-feet)

0.2	0
.3	.7
.4	1.6
.5	3.8
.6	7.0
.7	11.5

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	1.5	1.3				-	5.4	11	1.8	1.1	0
2	.5	1.6					-	5.7	8.8	1.8	1.0	0
3	.5	1.6					-	5.4	6.4	1.4	.5	.6
4	.6	1.5					-	4.8	7.0	1.2	0	.6
5	.6	1.8					-	6.4	8.4	1.1	0	.6
6	.7	1.9					-	8.4	7.0	1.2	0	.7
7	.8	1.8					-	8.4	6.7	1.3	0	.9
8	1.0	1.6					-	7.9	6.4	1.5	.2	.9
9	.9	1.6					-	7.0	7.9	1.4	0	.7
10	1.0	1.6					-	7.0	7.4	1.8	0	.6
11	1.2	1.5					-	6.4	6.0	2.0	0	.5
12	1.0	1.4					-	5.4	5.1	4.4	0	.4
13	1.0	1.5					-	5.1	4.8	5.7	0	.6
14	1.2	1.6					-	5.1	5.1	2.9	.1	1.0
16	1.3	1.6					-	4.8	5.1	2.0	0	.9
16	1.3	1.8					-	4.1	4.8	2.0	0	.6
17	1.3	1.6					-	4.1	3.8	2.3	0	.4
18	1.3	1.6					-	4.1	3.8	1.8	0	.5
19	1.2	1.6					-	3.6	3.4	1.5	0	.4
20	1.2	1.6					-	3.1	3.1	1.2	0	.5
21	1.5	1.4					-	2.7	2.9	1.0	0	.5
22	1.8	1.5					-	2.5	2.5	.9	0	.3
23	1.8	1.4					-	2.9	2.3	.6	0	.2
24	1.6	1.4					-	2.9	1.8	.8	0	.6
25	1.6	1.4					-	3.6	2.0	.8	0	.7
26	1.8	1.3					-	6.0	3.6	.6	0	1.1
27	1.6	1.3					6.4	4.1	3.4	.6	0	1.1
28	1.6	1.2					6.0	2.9	2.7	.6	0	.9
29	1.5	1.3					5.4	2.9	2.0	.9	0	1.0
30	1.5	1.3					5.1	6.0	1.8	.6	.6	.9
31	1.5	-					-	6.0	-	.8	.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	37.0	1.8	0.5	1.19	73
November	45.8	1.9	1.2	1.53	91
December					
Calendar year					
January					
February					
March					
April					
May	154.7	8.4	2.5	4.99	307
June	147.0	11	1.8	4.90	292
July	48.5	5.7	.6	1.56	96
August	3.9	1.1	0	.13	7.7
September	18.7	1.1	0	.62	37
Water year					

Middle Loup River at Sargent, Nebr.

Location.- Chain gage, lat. 41°37', long. 99°22', in sec. 10, T. 19 N., R. 18 W., on U. S. Highway 83, 1 mile south of Sargent.

Records available.- December 1936 to September 1937.

Extremes.- Maximum discharge observed during period, 1,280 second-feet Mar. 24 maximum gage height, 5.40 feet Feb. 15 (probably top of ice); minimum discharge observed, 473 second-feet June 6 (gage height, 2.40 feet).

Remarks.- Records good except those for period of ice effect, Dec. 4 to Mar. 11 (computed on basis of eight discharge measurements and weather records), and those for July 25, Sept. 13, 14 (estimated), which are fair. Chain gage read twice daily. No diversion or regulation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	700	700	*958	804	793	793	725	595	683
2			-	670	720	980	910	793	804	714	532	672
3			-	630	740	1,000	946	1,030	804	692	574	705
4			*792	680	760	1,030	816	1,080	839	747	670	1,060
5			770	710	800	1,050	816	1,010	827	681	648	1,130
6			700	690	*825	1,060	850	922	512	648	862	1,030
7			620	570	830	1,070	839	946	605	626	553	822
8			670	620	820	1,000	839	958	725	637	596	894
9			700	700	800	990	827	970	616	637	522	882
10			730	780	790	980	886	994	714	681	532	846
11			780	790	840	980	782	922	770	670	543	822
12			800	*805	880	970	910	816	850	670	617	774
13			820	820	*923	862	850	770	816	725	774	770
14			820	810	980	1,020	770	804	714	850	649	720
15			830	800	1,020	982	770	862	648	862	638	694
16			840	790	1,080	1,030	793	850	703	827	543	728
17			830	770	1,140	1,020	839	874	703	816	532	694
18			840	*757	1,130	1,050	816	793	736	850	649	694
19			850	730	*1,120	1,020	714	736	648	759	672	716
20			860	690	1,100	1,070	886	747	605	759	705	739
21			890	670	980	1,090	934	692	648	793	649	716
22			920	660	960	1,100	862	793	616	647	694	660
23			980	660	960	1,070	910	703	605	770	672	694
24			1,000	650	940	1,020	994	714	584	714	660	918
25			1,020	630	920	1,100	725	681	681	690	649	705
26			1,000	640	920	934	886	714	839	637	728	694
27			940	650	940	898	894	770	759	703	786	617
28			*862	650	940	934	922	681	747	703	660	660
29			820	660	-	970	1,020	648	736	725	672	649
30			770	670	-	782	934	747	681	736	906	750
31			730	690	-	793	-	793	-	703	774	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December 4-31	23,184	1,020	620	628	45,980
Calendar year					
January	21,742	820	570	701	43,120
February	25,568	1,140	700	913	50,690
March	30,813	1,100	782	994	61,120
April	25,748	1,020	714	858	51,070
May	25,606	1,080	648	826	50,790
June	21,328	850	512	711	42,300
July	22,397	862	626	722	44,420
August	20,256	906	522	653	40,180
September	23,138	1,130	617	771	45,890
The period					475,600

*Discharge measurement.

Middle Loup River near Comstock, Nebr.

Location.- Chain gage, lat. 41°29', long. 99°13', in sec. 6, T. 17 N., R. 16 W., three-quarters of a mile below the "Narrows" and 5⅛ miles southeast of Comstock.

Records available.- December 1936 to July 1937 (discontinued).

Extremes.- Maximum discharge observed during period, 1,500 second-feet Mar. 20 maximum gage height, 4.56 feet Feb. 18 (top of ice); minimum daily discharge, 570 second-feet (computed) Jan. 2.

Remarks.- Records good except those for period of ice effect, Dec. 10 to Mar. 18, which were computed on basis of four discharge measurements, weather records, and records for station at Sargent and are fair. Chain gage read twice daily. No diversion or regulation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	600	700	900	1,170	908	706	660		
2			-	570	720	*876	1,200	791	881	593		
3			-	600	760	930	1,200	960	728	660		
4			-	630	780	1,000	1,030	1,040	830	694		
5			-	670	800	1,200	817	960	1,000	717		
6			-	660	810	1,220	753	868	740	614		
7			-	590	820	1,240	855	894	706	648		
8			-	580	800	1,280	706	881	728	636		
9			-	620	790	1,300	717	842	728	660		
10			680	700	780	1,260	636	830	740	648		
11			720	700	820	1,200	740	830	804	625		
12			750	790	870	1,140	881	728	778	625		
13			790	800	910	1,080	791	625	842	648		
14		*749	770	820	950	1,000	908	582	778	740		
15			810	800	1,000	1,050	908	660	766	778		
16			850	780	1,080	1,000	894	694	881	717		
17			880	770	1,150	*971	908	753	830	636		
18			890	740	1,120	950	791	804	842	804		
19			910	720	1,060	934	830	830	791	817		
20			920	700	1,000	1,380	960	804	694	791		
21			930	680	950	947	921	778	682	766		
22			940	660	910	894	894	778	671	728		
23			1,000	640	*870	934	974	614	660	766		
24			1,080	630	900	1,070	934	660	660	766		
25			1,100	620	930	1,170	1,040	817	682	791		
26			980	610	950	1,270	908	1,010	868	682		
27			900	*592	970	1,220	894	855	817	694		
28			810	600	930	934	974	830	694	694		
29			780	620	-	987	934	842	660	706		
30			700	650	-	960	830	817	625	717		
31			640	680	-	1,100	-	778	-	694		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December 10-31	18,830	1,100	640	856	37,350
Calendar year					
January	20,822	820	570	672	41,300
February	25,130	1,150	700	898	49,840
March	33,397	1,380	876	1,077	66,240
April	26,998	1,200	636	900	53,550
May	25,063	1,040	582	808	49,710
June	22,812	1,000	625	760	45,250
July	21,715	817	593	700	43,070
August	-	-	-	-	
September	-	-	-	-	
Water year					386,300

*Discharge measurement.

Middle Loup River at Arcadia, Nebr.

Location.- Chain gage, lat. 41°25', long. 99°08', in sec. 26, T. 17 N., R. 16 W., at southwest edge of Arcadia.

Records available.- July to September 1937.

Extremes.- Maximum discharge observed during period, 3,930 second-feet July 18 (gage height, 4.68 feet); minimum,532 second-feet July 10 (gage height, 2.60 feet).

Remarks.- Records good. Discharge for July 1, 2 computed on basis of records for station at Comstock. Chain gage read twice daily. No diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1										740	674	733
2										720	674	674
3										733	759	624
4										699	632	1,620
5										690	858	914
6										616	733	990
7										616	768	812
8										584	682	768
9										553	674	990
10										539	674	886
11										640	640	750
12										648	648	707
13										759	742	724
14										786	724	716
15										830	608	733
16										716	608	777
17										674	640	724
18										1,170	699	682
19										759	699	690
20										803	830	674
21										768	768	632
22										674	699	624
23										904	690	699
24										786	624	707
25										716	632	707
26										657	690	657
27										657	759	665
28										616	777	665
29										724	665	674
30										821	840	616
31										682	794	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May					
June					
July	22,280	1,170	539	719	44,190
August	21,904	858	608	707	43,450
September	22,834	1,620	616	761	45,290
The period					132,900

Middle Loup River at Loup City, Nebr.

Location.- Chain gage, lat. 41°16'45", long. 98°59'30", in sec. 14, T. 15 N., R. 15 W., on State Highway 16, one mile west of Loup City.

Records available.- December 1936 to September 1937.

Extremes.- Maximum discharge observed during period, 3,000 second-feet June 4 (gage height, 3.30 feet); minimum daily discharge, 510 second-feet July 8.

Remarks.- Records fair. Records for period of ice effect, Dec. 10 to Mar. 13, computed on basis of two discharge measurements, weather records, and records for station at Sargent. Chain gage read twice daily. No diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	680	670	980	1,230	858	834	630	610	786
2			-	640	740	*976	1,200	858	1,350	630	590	738
3			-	600	740	1,000	858	786	906	714	1,950	738
4			-	620	760	1,030	1,090	810	1,910	714	650	2,140
5			-	640	780	1,060	1,170	858	1,840	714	810	1,500
6			-	600	790	1,110	882	906	858	690	858	1,410
7			-	550	800	1,110	957	1,090	610	590	738	930
8			-	560	780	1,100	1,230	1,120	650	510	690	906
9			-	680	790	1,080	882	882	1,010	530	738	1,260
10			530	660	800	1,060	1,010	1,040	762	530	590	1,260
11			680	740	860	1,040	762	1,040	738	590	550	882
12			800	760	900	1,020	930	1,010	714	690	610	762
13			830	780	950	1,120	882	906	670	762	610	738
14		*844	860	*785	1,030	1,230	834	690	650	786	738	810
15			890	780	1,090	1,380	690	690	610	1,040	610	786
16			900	770	1,120	1,150	762	738	930	882	590	858
17			920	780	1,130	1,570	1,090	858	690	738	550	834
18			940	720	1,180	1,170	1,170	610	630	882	650	714
19			960	680	1,140	882	930	714	786	1,290	714	810
20			980	650	1,100	1,260	810	906	714	786	738	762
21			1,000	640	1,060	1,120	650	786	670	786	762	858
22			1,020	630	980	1,260	882	1,150	670	714	650	810
23			1,060	620	990	1,230	930	738	670	690	690	810
24			1,090	630	970	1,200	1,440	786	670	786	670	762
25			1,120	620	940	1,350	1,150	714	630	786	650	834
26			1,100	630	960	882	1,060	1,530	1,120	630	610	714
27			910	650	980	858	957	882	1,410	630	714	738
28			880	660	970	930	930	882	984	630	690	690
29			840	660	-	1,060	1,120	714	738	610	550	690
30			790	680	-	1,170	834	786	738	1,290	906	650
31			710	670	-	1,260	-	786	-	738	1,150	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December 10-31	19,810	1,120	530	900	39,290
Calendar year					
January	20,665	785	550	667	40,990
February	25,990	1,180	670	928	51,550
March	34,648	1,570	858	1,118	68,720
April	29,322	1,440	650	977	58,160
May	27,124	1,530	610	876	53,800
June	26,162	1,910	610	872	51,890
July	22,988	1,290	510	742	45,600
August	22,626	1,950	550	730	44,880
September	27,180	2,140	650	906	53,910
The period					508,800

*Discharge measurement.

Middle Loup River at Boelus, Nebr.

Location.- Chain gage, lat. 41°04'00", long. 98°42'45", in sec. 29, T. 13 N., R. 12 W., half a mile south of Boelus and 6 miles above mouth of South Loup River.

Records available.- December 1936 to September 1937.

Extremes.- Maximum discharge observed during period, 7,590 second-feet July 19; minimum discharge, 52 second-feet Dec. 7 (discharge measurement).

Remarks.- Records good except those for periods of ice effect, Dec. 7 to Mar. 12, which were computed on basis of two discharge measurements, weather records, and records for stations at Loup City and at St. Paul. Records represent combined flow of river and Boelus Power Canal. Chain gage read twice daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	720	690	1,950	747	896	804	630	465	748
2			-	440	700	2,100	844	1,160	1,010	630	587	636
3			-	270	720	2,400	1,010	1,340	812	644	917	615
4			-	280	720	2,700	944	1,390	863	606	825	920
5			-	190	730	3,000	654	1,010	3,140	634	613	2,060
6			-	160	740	3,250	703	831	1,680	626	833	758
7			*52	140	740	3,500	946	844	806	587	623	1,100
8			200	130	740	3,350	974	829	719	553	517	858
9			320	120	750	2,500	962	739	951	541	688	643
10			450	130	770	1,500	786	677	806	509	647	1,730
11			730	140	780	1,350	692	659	861	429	570	550
12			800	150	810	1,230	717	729	920	565	585	756
13			860	170	840	1,140	744	694	948	597	579	722
14			880	190	870	1,400	861	576	750	664	586	669
15			900	210	900	1,200	866	556	797	747	636	676
16			910	240	920	1,330	661	589	920	806	587	663
17			910	290	940	995	875	684	924	648	523	687
18			920	320	960	1,290	1,150	602	668	407	560	675
19			930	340	1,030	1,080	852	592	668	4,560	685	506
20			940	370	1,080	1,680	678	589	763	840	738	682
21			960	390	1,120	1,090	997	628	761	729	679	632
22			980	430	1,190	1,160	668	960	758	734	441	618
23			1,040	470	1,250	1,080	962	912	721	657	604	615
24			1,080	520	1,380	2,060	1,030	761	650	787	584	787
25			1,120	560	1,500	2,900	1,520	780	459	651	559	744
26			1,160	580	1,600	1,300	958	1,590	1,550	800	569	587
27			1,160	620	1,700	1,110	668	1,020	1,550	727	585	724
28			1,140	660	1,800	1,400	700	742	950	715	623	695
29			1,110	660	-	807	821	791	962	656	402	691
30			1,020	670	-	874	1,030	605	713	1,180	724	727
31			700	680	-	688	-	757	-	966	840	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December 7-31	21,272	1,160	52	851	42,190
Calendar year					
January	11,240	720	120	363	22,290
February	27,990	1,800	690	1,000	55,520
March	53,414	3,500	688	1,723	105,900
April	26,020	1,520	654	867	51,610
May	25,534	1,590	556	824	50,650
June	28,884	3,140	459	963	57,290
July	24,807	4,560	407	800	49,200
August	19,374	917	402	625	38,430
September	23,674	2,060	506	789	46,960
The period					520,000

*Discharge measurement.

Middle Loup River at St. Paul, Nebr.

Location.- Water-stage recorder, lat. 41°12', long. 98°27', in sec. 10, T. 14 N., R. 10 W., at St. Paul. Zero of gage is 1,778.4 feet above mean sea level (Union Pacific Railroad datum).

Drainage area.- 7,320 square miles.

Records available.- May 1895 to October 1897, April to October 1899, April to November 1903, August 1928 to September 1937.

Extremes.- Maximum discharge during year, 8,500 second-feet June 26 (gage height, 5.14 feet); minimum daily discharge, 102 second-feet Jan. 8.

1895-97, 1899, 1903, 1928-37: Maximum discharge, 18,000 second-feet Mar. 17, 1932 (gage height, 5.19 feet, former site and datum); maximum stage, 6.90 feet (ice affected) Mar. 2, 1936 (discharge not determined); minimum daily discharge that of Jan. 8, 1937.

Remarks.- Records good except those for period of ice effect, Nov. 1-3, 6, 7, Dec. 11-25, Jan. 3 to Mar. 6, which were computed on basis of three discharge measurements, weather records, and records for Loup River at Columbus and are fair. No diversion or regulation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	862	650	862	450	630	2,250	1,370	1,280	1,400	503	815	1,100
2	952	600	768	218	640	2,900	1,330	1,170	2,690	587	712	850
3	815	580	900	180	650	3,400	1,460	1,350	1,620	722	712	827
4	744	838	744	190	650	3,800	1,370	1,390	1,220	779	1,050	1,050
5	722	900	722	150	650	4,200	1,160	1,249	2,840	733	1,120	3,540
6	827	650	538	135	660	4,600	1,110	1,110	2,340	768	1,000	1,310
7	978	580	427	*107	670	5,510	1,110	1,080	952	701	913	1,160
8	862	520	476	102	670	4,720	1,140	1,160	690	668	827	701
9	733	668	558	105	680	4,040	1,040	1,060	827	616	744	712
10	838	1,020	597	110	*692	2,760	1,020	964	815	567	658	4,000
11	838	1,110	650	120	710	2,550	1,060	977	744	538	656	2,580
12	733	779	710	125	720	1,950	1,040	926	926	626	647	990
13	768	1,000	800	130	750	1,570	1,110	990	952	712	607	850
14	827	1,110	920	145	800	1,310	1,040	913	875	791	636	827
15	913	990	980	170	830	1,350	1,040	1,000	1,020	744	607	791
16	888	838	1,020	200	850	1,260	1,000	1,080	1,660	779	679	803
17	862	647	1,000	240	920	1,280	1,050	1,110	1,660	744	567	791
18	815	744	990	280	1,010	1,550	1,040	1,110	900	939	567	815
19	838	779	980	290	1,100	1,780	1,050	1,060	768	4,380	668	827
20	791	733	1,010	300	1,210	1,570	990	1,000	939	1,350	875	722
21	1,050	838	1,060	320	*1,360	1,810	1,050	1,050	964	597	827	712
22	1,110	850	1,080	340	1,430	1,810	1,000	1,210	722	529	768	756
23	838	1,040	1,120	360	1,500	2,090	1,040	1,290	616	558	722	1,040
24	815	862	1,200	420	1,620	1,680	1,190	990	529	722	616	1,390
25	850	701	930	470	1,710	1,570	1,080	977	567	875	607	1,420
26	756	744	977	510	1,790	1,840	1,080	1,550	6,090	679	616	1,220
27	768	756	597	560	1,900	1,760	926	2,340	3,460	626	616	1,280
28	744	913	616	580	2,050	1,920	952	1,330	1,240	658	636	1,110
29	679	964	815	610	-	1,370	1,190	1,210	701	636	626	1,080
30	668	827	558	610	-	1,260	1,440	1,080	597	964	875	1,020
31	768	-	380	620	-	1,460	-	1,240	-	1,280	1,040	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	25,652	1,110	668	827	50,880
November	24,431	1,110	520	814	48,460
December	24,985	1,200	380	806	49,560
Calendar year 1936	371,295	10,500	300	1,014	736,400
January	9,147	620	102	295	18,140
February	28,852	2,050	630	1,030	57,230
March	72,920	5,510	1,260	2,352	144,600
April	33,478	1,460	926	1,116	66,400
May	36,237	2,340	913	1,169	71,880
June	41,324	6,090	529	1,377	81,960
July	26,371	4,380	503	851	52,310
August	23,011	1,120	567	742	45,640
September	36,274	4,000	701	1,209	71,950
Water year 1936-37	382,682	6,090	102	1,048	759,000

*Discharge measurement.

Loup River at Columbus, Nebr.

Location.- Chain gage, lat. 41°25', long. 97°21', in sec. 30, T. 17 N., R. 1 E., at Columbus, 3½ miles above mouth. Zero of gage is 1,432.29 feet above mean sea level.

Drainage area.- 14,200 square miles.

Records available.- March to September 1931, October 1933 to September 1937. October 1894 to September 1915, at site 2 miles upstream, records equivalent.

Extremes.- Maximum discharge during year, 22,300 second-feet July 13; minimum daily discharge, 345 second-feet Jan. 5.
1894-1915, 1931, 1933-37: Maximum discharge, 70,000 second-feet June 6, 7, 1896 (gage height, 12.55 feet, former site and datum); minimum discharge, 185 second-feet Feb. 24, 1934.

Remarks.- Records good except those for periods of ice effect, Nov. 3, 7, 8, Dec. 6, 7, Dec. 15 to Mar. 12, which were computed on basis of seven discharge measurements, gage heights, and weather records and are fair. Chain gage read twice daily. Records represent combined flow of river and Loup River Public Power District canal, which began diverting water from river Dec. 2 at point 25 miles upstream. Also several diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,830	2,140	2,020	570	1,460	7,260	2,520	2,810	2,430	2,660	3,700	2,040
2	1,770	2,170	2,260	485	1,460	8,140	2,640	2,560	2,860	2,220	2,330	2,200
3	1,800	1,950	2,310	410	1,520	8,560	2,940	2,750	4,620	2,140	1,600	1,930
4	2,080	1,640	2,260	350	1,600	8,440	3,140	3,130	3,360	1,800	1,510	1,620
5	1,770	1,380	1,570	345	1,630	8,290	3,040	3,090	5,630	1,740	2,270	5,720
6	1,610	1,300	1,290	370	1,600	8,240	3,020	3,060	4,820	1,750	2,440	3,820
7	1,660	1,360	1,020	435	1,610	8,190	3,080	2,620	3,840	1,690	2,530	2,880
8	1,770	1,450	1,420	455	1,600	8,140	2,330	3,060	2,670	1,920	1,690	3,460
9	1,940	1,500	1,420	520	1,600	8,300	2,340	3,190	2,450	1,810	1,640	2,820
10	1,560	1,860	1,350	530	1,640	8,460	2,520	2,990	2,390	1,700	1,510	2,600
11	1,610	2,340	1,570	590	1,680	7,500	2,290	2,640	2,300	1,540	1,510	10,100
12	1,770	2,370	1,840	565	1,690	6,820	2,200	2,520	2,140	1,410	1,400	3,880
13	1,860	2,170	1,950	380	1,710	5,510	2,140	2,320	4,290	8,930	1,180	2,780
14	1,720	2,250	2,460	350	1,780	5,100	2,640	2,720	2,280	3,700	1,230	2,240
15	1,770	2,250	3,030	360	1,810	5,020	2,620	2,490	1,950	1,730	1,210	2,260
16	1,800	2,460	3,060	530	1,970	3,120	2,210	2,150	1,840	1,640	1,120	2,200
17	2,000	2,620	2,770	610	2,090	3,280	2,040	2,020	2,570	1,570	1,150	2,120
18	2,050	2,400	2,560	710	2,240	3,760	1,790	2,110	4,140	1,600	1,190	2,320
19	2,110	2,460	2,610	664	2,410	3,420	2,180	2,110	3,200	3,500	994	2,180
20	2,020	2,460	2,710	735	2,540	3,520	2,070	1,940	1,890	6,100	2,050	1,980
21	2,000	2,250	2,820	700	2,680	3,540	1,810	1,780	1,840	3,770	2,410	2,150
22	2,110	2,280	2,970	725	2,700	3,680	1,810	1,890	1,950	2,270	1,660	1,780
23	2,810	2,250	3,140	805	2,800	3,480	2,230	2,130	1,860	1,850	1,640	1,720
24	2,080	2,310	3,280	955	3,120	3,870	2,340	2,490	1,860	1,770	1,510	1,700
25	2,020	2,110	3,360	1,180	3,680	3,690	2,210	2,520	1,860	1,640	1,480	3,740
26	2,170	2,400	3,260	1,400	4,520	3,730	1,990	2,640	7,530	1,770	1,390	2,940
27	2,430	2,370	2,850	1,500	5,480	3,480	1,880	7,060	13,900	1,680	1,430	1,840
28	2,250	2,340	2,310	1,460	6,180	3,020	1,990	3,620	4,840	1,490	1,200	1,460
29	2,250	2,020	1,630	1,440	-	2,830	2,130	3,090	4,030	1,510	1,400	1,740
30	2,200	-	1,100	1,450	-	2,840	2,350	2,900	3,200	5,030	1,940	1,850
31	2,250	-	820	1,440	-	2,840	-	2,720	-	3,250	1,740	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	61,070	2,810	1,560	1,970	121,100
November	63,140	2,620	1,300	2,105	125,200
December	69,020	3,360	820	2,226	136,900
Calendar year 1936	841,037	24,500	760	2,298	1,708,000
January	23,019	1,500	345	743	45,660
February	66,700	6,180	1,460	2,382	132,300
March	163,590	8,580	2,640	5,277	324,500
April	70,490	3,140	1,790	2,350	139,800
May	85,120	7,060	1,780	2,746	168,800
June	104,340	13,900	1,640	3,478	207,000
July	77,180	6,930	1,410	2,490	153,100
August	52,054	3,700	994	1,679	103,200
September	82,070	10,100	1,460	2,738	162,800
Water year 1936-37	917,793	13,900	345	2,515	1,820,000

North Loup River at Taylor, Nebr.

Location.- Chain gage, lat. 41°46', long. 99°22', in sec. 23, T. 21 N., R. 18 W., on U. S. Highway 83, at north edge of Taylor.

Records available.- November 1936 to September 1937.

Extremes.- Maximum discharge observed during period, 767 second-feet Mar. 6, maximum gage height, 6.28 feet Feb. 19 (probably top of ice); minimum, 273 second-feet Aug. 16 (gage height, 3.98 feet).

Remarks.- Records good except those for periods of ice effect, Dec. 7-19, Jan. 2 to Mar. 5 (computed on basis of 10 discharge measurements and weather records), and those for period of missing gage heights, July 1-6 (computed on basis of records for station near Burwell), which are fair. Chain gage read twice daily. No diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	407	376	370	550	433	463	429	365	285	349
2		-	410	375	375	615	484	440	467	358	306	337
3		-	404	370	375	620	480	463	436	366	294	355
4		-	410	360	375	650	463	453	453	380	299	355
5		-	394	350	*378	710	460	470	514	402	306	367
6		-	394	335	380	733	484	443	467	384	306	416
7		-	355	315	380	744	487	440	446	316	287	423
8		-	*332	*309	375	532	467	413	423	308	301	410
9		-	340	310	375	539	460	410	397	311	287	433
10		-	375	315	380	497	467	400	388	308	290	423
11		-	395	330	390	542	463	407	385	306	294	413
12		-	410	345	*404	514	457	394	397	337	294	397
13		-	420	365	420	491	426	394	400	329	294	376
14		-	475	*360	425	474	404	385	397	349	290	376
15		-	550	360	430	457	397	373	391	340	290	361
16		-	590	360	450	474	394	394	391	326	277	367
17	*404	-	*595	360	530	470	391	364	385	318	285	382
18		-	570	365	595	446	407	382	370	313	313	367
19		-	540	370	*608	477	420	386	367	308	308	373
20		-	528	370	600	450	446	385	373	303	343	367
21		-	474	370	565	470	429	388	373	299	334	355
22		-	477	*367	520	480	446	394	361	290	303	355
23		-	470	365	510	491	413	410	340	290	299	343
24		-	423	365	500	480	436	391	306	285	294	355
25		-	440	365	470	457	436	394	311	287	303	349
26		*400	443	370	445	429	413	446	382	285	361	358
27		364	453	370	*452	457	373	474	410	285	373	352
28		413	420	370	480	426	410	460	391	294	334	355
29		400	394	*374	-	426	453	450	379	283	321	358
30		404	407	370	-	433	470	446	376	292	367	370
31		-	382	370	-	450	-	433	-	290	358	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November 26-30	1,981	413	364	396	3,930
December	13,677	595	332	441	27,130
Calendar year					
January	11,056	376	309	357	21,930
February	12,557	608	370	448	24,910
March	15,984	744	426	516	31,700
April	13,169	487	373	439	26,120
May	12,944	474	364	418	25,670
June	11,905	514	306	397	23,610
July	9,907	402	283	320	19,650
August	9,596	373	277	310	19,030
September	11,197	433	337	373	22,210
The period					245,900

*Discharge measurement.

North Loup River near Burwell, Nebr.

Location.- Chain gage, lat. 41°47', long. 99°07', in sec. 19, T. 21 N., R. 16 W., 1¼ miles east of Burwell and about 4 miles below mouth of Calamus River.

Records available.- November 1936 to September 1937.

Extremes.- Maximum discharge observed during period, 1,530 second-feet July 18 maximum gage height, 6.40 feet Feb. 13 (top of ice); minimum daily discharge, 240 second-feet (computed) Jan. 4.

Remarks.- Records good except those for Nov. 24-26 and for periods of ice effect, Dec. 9-15, Dec. 30 to Mar. 7, which were computed on basis of 10 discharge measurements, weather records, and records for station at Taylor and are fair. Chain gage read twice daily. No diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	771	580	680	*816	715	855	677	555	531	658
2		-	696	480	660	840	743	855	696	555	543	600
3		-	696	310	650	900	696	892	668	581	543	600
4		-	677	240	640	980	686	813	686	600	549	743
5		-	620	360	*634	1,030	729	799	984	600	581	677
6		-	607	*456	640	1,090	757	771	729	562	555	785
7		-	600	480	640	1,220	729	799	785	531	531	729
8		-	586	500	650	1,170	715	785	729	543	543	677
9		-	620	520	660	841	757	706	648	537	519	715
10		-	*682	540	660	874	785	706	686	519	519	1,040
11		-	700	560	670	910	799	743	677	525	543	729
12		-	720	*580	*675	874	841	696	677	543	519	706
13		-	740	600	730	743	874	607	648	581	519	686
14		-	780	620	780	715	855	620	614	594	519	668
15		-	910	620	800	658	743	639	588	620	519	658
16		-	966	620	820	639	696	658	630	620	485	620
17		-	1,000	620	900	677	715	630	620	620	513	614
18		-	929	600	940	841	668	668	607	910	574	630
19		-	929	590	950	1,060	658	648	620	581	581	614
20		-	827	*586	940	1,080	757	658	620	574	668	639
21		-	677	580	920	1,000	706	639	594	543	639	630
22		-	639	570	*912	1,040	706	757	581	519	648	607
23		-	813	560	880	1,040	729	706	568	507	607	607
24		*717	785	580	850	1,060	729	668	555	507	588	594
25		750	785	600	820	757	706	686	588	507	568	594
26		744	757	620	800	757	620	1,000	855	490	686	607
27		743	743	640	800	813	607	874	892	495	630	581
28		729	743	660	810	706	743	771	771	513	607	614
29		771	743	*670	-	771	771	715	630	501	630	600
30		743	700	680	-	757	892	696	581	562	677	607
31		-	650	690	-	757	-	668	-	525	686	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November 24-30	5,197	771	717	742	10,310
December	23,093	1,000	588	745	45,800
Calendar year					
January	17,312	690	240	558	34,340
February	21,511	950	634	768	42,670
March	27,416	1,220	639	884	54,390
April	22,127	892	607	738	43,890
May	22,728	1,000	607	733	45,080
June	20,204	984	555	673	40,070
July	17,420	910	490	562	34,550
August	17,820	686	485	575	35,350
September	19,829	1,040	581	661	39,330
The period					425,800

*Discharge measurement.

North Loup River near Ord, Nebr.

Location.- Chain gage, lat. 41°35', long. 98°53', in sec. 26, T. 19 N., R. 14 W., 2 miles east of Ord.

Records available.- November 1936 to September 1937.

Extremes.- Maximum discharge observed during period, 3,440 second-feet Sept. 4 maximum gage height, 5.22 feet Feb. 19, 20 (top of ice); minimum daily discharge, 154 second-feet Jan. 3 (discharge measurement).

Remarks.- Records good except those for period of ice effect, Dec. 7 to Mar. 10, and for Sept. 25, 26, which were computed on basis of 11 discharge measurements, weather records, and records for stations on nearby streams and are fair. Chain gage read twice daily. No diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	580	570	*654	910	742	840	756	570	570	550
2		-	688	360	660	940	784	826	840	580	570	520
3		-	560	*154	650	*980	840	862	798	580	826	480
4		-	700	250	650	1,050	862	826	840	580	592	2,850
5		-	676	350	650	1,140	862	826	756	560	560	728
6		-	305	420	650	1,310	862	826	812	530	540	688
7		-	310	470	655	1,330	862	812	812	530	580	742
8		-	355	490	*657	1,300	840	798	812	520	580	756
9		-	500	580	660	1,120	798	770	742	490	580	784
10		-	610	600	680	1,050	756	728	652	459	560	826
11		-	700	*621	700	972	756	756	700	490	530	714
12		-	770	640	690	928	770	728	714	550	530	664
13		-	830	610	720	928	770	688	700	714	520	628
14		-	880	600	750	812	742	676	640	652	550	700
15		-	910	580	760	756	664	676	640	652	580	688
16		-	910	570	*776	742	652	676	664	664	560	676
17		-	900	560	840	728	714	742	628	628	592	688
18		-	900	*541	900	688	728	686	616	728	676	652
19		-	900	540	*928	714	688	688	616	1,290	570	640
20		-	*898	540	930	640	742	714	616	640	728	580
21		-	820	550	920	798	756	742	570	550	676	570
22		-	790	560	915	906	770	742	530	490	652	580
23		-	750	570	910	994	798	714	459	530	640	592
24		-	720	585	*905	950	862	742	520	550	628	640
25		*653	710	*596	900	950	950	798	530	540	628	652
26		630	710	610	890	1,140	862	1,440	742	540	628	686
27		604	710	620	880	1,020	798	1,100	784	520	714	714
28		604	715	620	890	784	812	784	756	530	664	664
29		580	720	630	-	728	840	756	628	540	676	628
30		530	690	630	-	714	840	728	592	1,890	580	628
31		-	680	640	-	728	-	756	-	616	616	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November 25-30	3,601	653	530	600	7,140
December	21,897	910	305	706	43,430
Calendar year					
January	16,677	640	154	538	33,080
February	21,770	930	650	778	43,180
March	28,750	1,330	640	927	57,020
April	23,722	950	652	791	47,050
May	24,448	1,440	676	789	48,490
June	20,465	840	459	682	40,590
July	19,693	1,890	459	635	39,060
August	18,896	826	520	610	37,480
September	21,908	2,850	480	730	43,450
The period					440,000

*Discharge measurement.

North Loup River at Scotia, Nebr.

Location.- Chain gage, lat. 41°27'45", long. 98°43'00", in sec. 8, T. 17 N., R. 12 W., on railroad trestle half a mile southwest of Scotia.

Records available.- November 1936 to September 1937.

Extremes.- Maximum discharge observed during period, 4,200 second-feet July 19 (gage height, 4.36 feet); minimum daily discharge, 260 second-feet Jan. 3.

Remarks.- Records good except those for Nov. 25, 26, and for period of ice effect, Dec. 6 to Mar. 11, which were computed on basis of 10 discharge measurements, weather records, and records for stations on nearby streams and are fair. Chain gage read twice daily. No diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	755	600	610	880	717	812	698	592	568	622
2		-	766	450	610	930	766	790	801	580	546	585
3		-	698	260	620	990	636	858	755	608	989	580
4		-	698	330	*624	1,050	812	847	847	638	563	1,780
5		-	592	400	620	1,100	836	812	1,500	608	510	858
6		-	650	450	620	1,180	790	778	1,110	608	520	660
7		-	540	*469	630	1,250	858	766	824	558	525	755
8		-	560	480	630	1,350	790	790	778	525	525	755
9		-	610	500	640	1,410	726	708	755	496	530	746
10		-	660	520	650	1,400	679	688	670	476	525	824
11		-	720	540	*653	1,150	717	717	670	490	536	887
12		-	740	560	690	1,020	847	708	717	510	558	736
13		-	760	*567	710	955	847	679	688	600	530	688
14		-	780	570	750	904	812	660	645	717	525	670
15		-	800	570	810	955	766	660	652	592	515	652
16		-	840	570	900	904	726	670	717	600	505	645
17		-	860	570	980	904	766	670	679	585	495	608
18		-	860	570	*1,030	921	726	645	645	652	638	580
19		-	890	570	1,020	989	717	622	670	2,240	600	558
20		-	900	570	1,000	1,060	746	652	652	574	726	568
21		-	*882	*581	960	1,080	812	660	608	500	568	568
22		-	850	580	940	1,020	778	746	568	500	558	558
23		-	830	580	900	1,090	801	736	558	500	558	568
24		-	810	580	860	1,130	972	679	558	520	563	574
25		*734	790	580	830	921	904	660	615	515	558	580
26		750	810	580	*807	904	736	1,900	755	500	552	592
27		778	830	580	810	858	726	870	847	500	608	615
28		778	790	*579	830	972	790	790	755	500	585	608
29		824	750	590	-	790	955	717	688	490	580	608
30		812	710	600	-	688	870	746	630	1,590	630	638
31		-	680	600	-	708	-	688	-	708	652	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	-	-	-	-	-
November 25-30	4,676	824	734	779	9,270
December	23,451	900	540	756	46,510
Calendar year					
January	16,546	600	260	534	32,820
February	21,724	1,030	610	776	43,090
March	31,463	1,410	688	1,015	62,410
April	23,824	972	679	794	47,250
May	23,724	1,900	622	765	47,060
June	22,055	1,500	558	735	43,750
July	20,071	2,240	476	647	39,810
August	17,841	989	495	576	35,390
September	20,666	1,780	558	689	40,990
The period					448,400

*Discharge measurement.

North Loup River near St. Paul, Nebr.

Location.- Water-stage recorder, lat. 41°16', long. 98°27', in sec. 22, T. 15 N., R. 10 W., 3 miles north of St. Paul.

Drainage area.- 4,040 square miles.

Records available.- May 1895 to October 1897, April to October 1899, April to December 1903, August 1928 to September 1937.

Extremes.- Maximum discharge during year, 4,150 second-feet May 26 (gage height, 3.26 feet); minimum daily discharge, 433 second-feet June 24.
1895-97, 1899, 1903, 1928-37: Maximum discharge, 90,000 second-feet (estimated), June 6, 1896; minimum, 126 second-feet Jan. 15, 1931.

Remarks.- Records good except those for periods of ice effect, Nov. 2, 3, Dec. 6 to Mar. 8, which were computed on basis of three discharge measurements, weather records, and records for Loup River at Columbus and are fair. Several small diversions on headwaters for irrigation.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	704	714	736	560	570	1,300	813	917	736	564	736	683
2	725	680	747	530	570	1,570	802	917	894	535	583	612
3	725	660	780	520	560	1,480	847	964	824	526	758	593
4	704	694	736	490	560	1,600	791	1,040	940	545	1,180	1,130
5	714	694	673	490	560	1,750	791	976	1,540	554	653	1,260
6	736	802	580	480	570	1,900	791	894	1,050	554	602	870
7	725	758	560	470	580	2,080	813	859	870	535	612	758
8	714	780	510	512	590	2,500	802	882	769	498	602	836
9	747	714	560	520	590	2,340	780	847	780	470	574	769
10	736	714	600	540	590	1,680	758	824	725	452	526	870
11	704	769	620	540	600	1,380	758	813	694	461	498	988
12	694	802	650	540	620	1,110	836	813	683	470	535	870
13	704	870	680	540	640	882	905	791	653	1,020	545	747
14	714	905	720	530	670	882	859	736	593	704	545	747
15	694	882	760	530	700	1,040	836	714	593	602	507	714
16	673	859	750	530	740	940	802	663	663	545	488	663
17	673	824	740	530	770	1,020	802	663	673	574	442	643
18	663	791	740	540	810	928	802	683	602	747	461	602
19	612	747	750	540	840	1,060	747	612	602	1,760	302	554
20	602	747	760	540	860	1,010	747	632	602	1,070	612	507
21	653	747	770	540	880	928	802	643	545	704	694	470
22	714	769	780	540	900	1,120	847	714	498	593	535	479
23	694	780	780	540	940	1,240	824	736	452	526	516	498
24	683	780	770	540	980	1,300	964	704	433	545	498	758
25	673	780	730	540	1,020	1,250	859	694	470	564	479	479
26	673	704	690	540	1,080	1,170	791	1,620	1,050	535	470	479
27	673	704	680	540	1,120	1,010	791	1,200	813	507	461	516
28	663	653	660	550	1,200	1,000	780	1,050	836	516	554	554
29	653	653	640	550	-	847	847	928	736	564	545	554
30	673	673	620	550	-	824	905	917	632	1,050	602	554
31	714	-	600	550	-	802	-	824	-	1,360	683	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	21,429	747	602	691	42,500
November	22,649	905	653	755	44,920
December	21,372	780	510	689	42,390
Calendar year 1936	311,639	9,020	380	851	618,100
January	16,452	560	470	531	32,630
February	21,110	1,200	560	754	41,870
March	39,743	2,500	802	1,282	78,830
April	24,492	964	747	816	48,580
May	26,270	1,620	612	847	52,110
June	21,951	1,540	433	732	43,540
July	20,650	1,760	452	666	40,960
August	18,298	1,180	442	590	36,290
September	20,757	1,260	470	692	41,170
Water year 1936-37	275,173	2,500	433	754	545,800

Elkhorn River at Neligh, Nebr.

Location.- Chain gage, lat. 42°07', long. 98°02', in sec. 20, T. 25 N., R. 6 W., at Neligh.

Drainage area.- 1,740 square miles.

Records available.- March 1931 to September 1937.

Extremes.- Maximum discharge observed during year, 619 second-feet July 14 (gage height, 4.56 feet); minimum discharge, 37 second-feet July 13 (gage height, 1.72 feet).
1931-37: Maximum discharge observed, 2,150 second-feet June 3, 1935 (gage height, 9.44 feet); minimum discharge, 12 second-feet July 2, 1932 (gage height, 1.26 feet, former site).

Remarks.- Records good except those for Oct. 25-31 and for period of ice effect, Dec. 6 to Mar. 27, which were computed on basis of four discharge measurements, weather records, and records for station at Waterloo and are fair. Chain gage read twice daily. No diversions.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	99	128	84	74	200	208	188	148	77	228	54
2	68	94	126	74	80	230	202	206	141	73	204	52
3	67	91	128	70	78	250	197	224	137	71	333	49
4	69	98	128	74	80	260	195	257	133	69	278	49
5	72	100	132	70	88	280	197	262	151	65	144	48
6	71	94	115	66	84	320	195	257	162	61	120	50
7	69	90	100	62	78	300	186	242	153	59	114	52
8	69	94	98	58	80	290	184	219	146	54	94	54
9	69	103	102	58	84	270	186	208	135	50	87	57
10	71	122	100	60	90	250	184	197	130	47	83	62
11	73	139	*98	60	88	230	188	184	123	43	78	65
12	75	133	100	62	86	220	184	168	122	39	74	61
13	75	133	102	*64	84	210	180	157	128	107	70	56
14	77	132	98	66	84	200	176	151	126	538	68	56
15	78	126	100	70	88	175	170	146	122	191	61	58
16	80	120	98	70	*90	170	164	141	120	133	58	59
17	82	120	100	68	98	170	159	137	122	106	56	57
18	74	118	105	66	110	170	153	132	118	99	53	57
19	74	117	110	66	120	165	151	130	114	98	73	56
20	85	117	110	64	120	170	150	126	114	97	88	54
21	87	117	110	65	125	180	150	126	108	95	77	52
22	85	115	115	68	130	200	150	123	104	91	67	48
23	87	125	120	68	140	230	150	117	102	85	60	49
24	89	135	120	70	150	250	153	114	97	79	53	51
25	91	126	120	72	155	260	160	130	98	72	49	53
26	92	123	115	74	165	250	172	160	102	68	45	56
27	93	128	110	72	170	250	178	191	106	64	42	57
28	95	130	110	70	175	238	184	178	98	312	40	60
29	96	130	110	66	-	230	186	168	89	709	41	61
30	97	132	100	66	-	224	191	159	82	757	48	63
31	98	-	94	70	-	215	-	153	-	362	49	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,478	98	67	79.9	4,920
November	3,501	139	90	117	6,940
December	3,402	132	94	110	6,750
Calendar year 1936	57,417	629	25	157	113,900
January	2,094	84	58	67.5	4,150
February	2,994	175	74	107	5,940
March	7,057	320	165	228	14,000
April	5,283	208	150	176	10,480
May	5,351	262	114	173	10,610
June	3,651	162	82	121	7,200
July	4,771	757	39	154	9,460
August	2,935	333	40	94.7	5,820
September	1,656	65	48	55.2	3,280
Water year 1936-37	45,153	757	39	124	89,550

*Discharge measurement.

Elkhorn River at Waterloo, Nebr.

Location.- Water-stage recorder, lat. 41°18', long. 96°17', in sec. 10, T. 15 N., R. 10 E., at Waterloo. Zero of gage is 1,110.13 feet above mean sea level.

Drainage area.- 6,390 square miles.

Records available.- May 1911 to July 1913, August 1928 to September 1937.

Extremes.- Maximum discharge during year, 2,920 second-feet June 20 (gage height, 4.73 feet); minimum discharge, 128 second-feet Sept. 22 (gage height, 0.51 foot). 1911-13, 1928-37: Highest flood known occurred in April 1912 (gage height and discharge not determined); minimum discharge, 73 second-feet Aug. 19, 1936.

Remarks.- Records good except those for period of ice effect, Dec. 7 to Mar. 6, which were computed on basis of three discharge measurements and weather records and are fair. No diversions.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	220	280	316	240	225	960	830	1,000	972	758	1,220	240
2	206	276	320	220	220	1,100	846	1,020	1,100	585	835	240
3	213	252	304	215	216	1,150	846	896	835	480	690	206
4	232	244	324	225	215	1,200	813	906	690	430	665	196
5	240	236	292	210	215	1,300	764	1,030	640	380	626	189
6	358	236	284	200	220	1,500	715	901	747	349	565	183
7	300	224	255	200	220	1,370	725	852	857	320	480	180
8	236	150	250	200	225	1,370	732	802	630	300	452	177
9	228	165	270	200	230	1,270	705	752	610	276	426	174
10	213	228	255	221	230	1,160	685	720	560	252	385	171
11	213	288	250	220	220	1,100	655	700	540	244	344	165
12	213	324	255	220	220	1,060	620	670	535	240	320	159
13	206	376	265	215	230	1,020	600	625	1,340	236	300	156
14	206	332	245	220	230	928	585	595	1,800	248	308	153
15	213	328	260	220	235	852	550	570	1,640	945	276	150
16	217	320	255	210	235	818	525	565	1,040	1,360	244	148
17	224	312	265	215	240	802	515	540	1,130	752	220	145
18	232	308	280	215	275	774	515	525	1,000	690	220	145
19	244	296	300	210	450	774	515	500	668	1,140	276	145
20	228	292	310	215	580	752	545	480	1,550	685	1,350	145
21	210	292	325	230	600	715	510	480	2,350	645	2,050	136
22	206	296	340	230	620	747	495	462	1,840	439	1,180	131
23	217	288	350	230	660	802	490	444	1,230	349	857	134
24	228	288	355	230	700	1,050	510	434	835	312	962	150
25	244	272	360	230	740	1,420	555	421	736	296	852	1,740
26	252	272	350	230	780	1,290	590	1,460	675	284	525	1,160
27	256	280	330	230	790	1,010	610	868	675	565	408	1,600
28	256	300	325	230	820	976	610	736	1,640	615	398	1,160
29	256	336	335	230	-	928	695	1,700	1,140	457	344	846
30	260	332	265	230	-	890	747	1,800	752	1,350	272	560
31	268	-	250	230	-	846	-	1,220	-	1,800	244	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	7,295	358	206	235	14,470
November	8,423	376	150	281	16,710
December	9,140	360	245	295	18,130
Calendar year 1936	183,252	5,740	78	501	363,500
January	6,821	240	200	220	13,530
February	10,640	820	215	387	21,500
March	31,936	1,500	715	1,030	63,340
April	19,098	846	490	637	37,880
May	24,674	1,800	421	796	48,940
June	30,977	2,350	535	1,033	61,440
July	17,702	1,800	236	571	35,110
August	18,293	2,050	220	590	36,280
September	11,084	1,740	131	369	21,980
Water year 1936-37	196,283	2,350	131	538	389,300

Nishnabotna River above Hamburg, Iowa

Location.- Wire-weight gage, lat. 40°38', long. 95°37', in SW¼SE¼ sec. 11, T. 67 N., R. 42 W., 1½ miles below junction of East and West Forks and 2 miles northeast of Hamburg. Zero of gage is 894.17 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,800 square miles.

Records available.- October 1928 to September 1937. March 1922 to September 1923, at site 6 miles downstream.

Extremes.- Maximum discharge observed during year, 7,660 second-feet May 21; maximum gage height observed, 21.56 feet Mar. 5 (backwater from ice); minimum discharge, about 19 second-feet Feb. 8-10 (affected by backwater from ice); minimum gage height observed, 2.58 feet Dec. 5.

1922-23, 1928-37: Maximum discharge, 20,600 second-feet Mar. 5, 1938; maximum gage height, 22.30 feet Mar. 13, 1929 (ice jam); minimum discharge, 4.5 second-feet Aug. 30, 1934 (gage height, 1.58 feet).

Remarks.- Records fair except those for periods of ice effect, Dec. 6-16, Jan. 3 to Feb. 23, 27, Mar. 2-8 (computed on basis of gage heights and weather records), and those for period of backwater from Missouri River, June 20 to July 2 (computed on basis of one discharge measurement, gage heights, and stage of Missouri River at Nebraska City, Nebr.), which are poor. Gage read once daily when below 10.0 feet and twice daily above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	228	82	71	544	21	1,800	402	970	730	100	2,110	58
2	196	186	70	402	21	3,280	471	970	730	100	794	54
3	166	379	84	238	21	4,590	495	495	270	97	291	50
4	218	138	56	218	24	5,570	402	448	218	90	186	207
5	3,150	112	35	196	27	6,380	357	762	402	84	129	90
6	1,140	97	33	147	27	5,850	357	594	402	79	104	58
7	402	97	30	120	27	5,220	448	402	471	77	84	48
8	291	72	33	97	19	4,590	544	357	249	72	218	44
9	238	90	37	90	19	2,730	495	357	176	67	112	39
10	186	83	41	78	19	1,230	448	291	138	64	104	39
11	176	90	46	78	50	930	379	260	112	64	90	35
12	156	90	50	72	228	762	357	238	104	1,180	77	33
13	156	90	55	66	4,190	646	335	228	2,060	1,140	73	33
14	138	90	60	66	3,930	519	313	270	270	1,410	218	34
15	129	84	66	60	3,540	448	313	228	544	594	129	31
16	156	77	72	55	2,610	448	260	218	2,550	357	90	30
17	147	82	80	55	3,930	448	260	207	544	218	72	30
18	129	79	82	46	5,220	448	249	186	425	260	60	31
19	112	78	82	41	6,920	448	238	176	313	3,710	620	30
20	104	78	82	37	6,450	519	249	270	520	594	2,110	28
21	90	74	84	33	5,850	495	260	6,920	500	270	2,060	28
22	84	71	78	33	5,150	448	260	1,550	290	196	544	28
23	90	76	90	33	4,590	594	270	620	250	186	270	30
24	83	65	97	33	3,800	826	894	402	250	104	176	46
25	90	55	138	37	2,730	1,460	495	357	260	207	129	39
26	84	64	228	41	2,380	858	471	5,920	290	228	97	28
27	79	62	291	41	2,440	495	357	1,320	180	129	97	30
28	84	73	357	37	2,330	402	379	1,050	150	112	97	32
29	84	66	238	30	-	448	495	646	130	104	90	32
30	72	66	700	27	-	425	1,050	379	110	1,550	77	29
31	68	-	594	24	-	379	-	335	-	228	65	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	8,526	3,150	68	275	0.098	0.11	16,910
November	2,846	379	55	94.9	.034	.04	5,640
December	4,060	700	30	131	.047	.05	8,050
Calendar year 1936	247,172	19,100	10	675	.241	3.27	490,300
January	3,075	544	24	99.2	.035	.04	6,100
February	66,563	6,920	19	2,377	.849	.88	132,000
March	53,686	6,380	379	1,732	.619	.71	106,500
April	12,303	1,050	238	410	.146	.16	24,400
May	27,426	6,920	176	885	.316	.36	54,400
June	13,638	2,550	104	455	.162	.18	27,050
July	13,671	3,710	64	441	.157	.18	27,120
August	11,373	2,110	60	367	.131	.15	22,560
September	1,324	207	28	44.1	.016	.02	2,630
Water year 1936-37	218,491	6,920	19	599	.214	2.88	433,400

East Nishnabotna River at Red Oak, Iowa

Location.- Wire gage, lat. 41°00'55", long. 95°14'30", in sec. 20, T. 72 N., R. 38 W., at bridge on U. S. Highway 34, half a mile west of Red Oak.

Drainage area.- 890 square miles.

Records available.- May 1936 to September 1937. May 1918 to July 1925, at site half a mile downstream; records equivalent.

Extremes.- Maximum discharge observed during May 1936 to September 1937, 9,600 second-feet Mar. 4, 1937 (gage height, 18.50 feet, from floodmarks); minimum, 6 second-feet (estimated) Aug. 18, 1936.
1918-25, 1936, 37: Maximum discharge observed, that of Mar. 4, 1937; minimum, that of Aug. 18, 1936.

Remarks.- Records fair except those for periods of ice effect, Dec. 6-15, Jan. 4 to Feb. 13, Feb. 21 to Mar. 2 (computed on basis of two discharge measurements, gage heights, weather records, and records for station above Hamburg), those for July 20-23, July 26 to Aug. 5, Aug. 10-17, 1936 (during which periods the gage heights appear to be in error), and those for periods of missing gage heights (determined on basis of records for station above Hamburg and for Nodaway River at Clarinda), all of which are poor. Records for Mar. 3-10 determined from graph based on gage readings.

Discharge, in second-feet, 1935-37

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	44	39	11	*8
2								-	618	37	12	942
3								-	253	32	12	339
4								-	128	32	14	*2,000
5								-	*98	30	23	1,640
6								-	69	29	21	*1,500
7								-	63	25	20	645
8								-	50	20	21	165
9								-	339	16	19	*100
10								-	2,980	15	17	*80
11								-	1,760	15	12	*100
12								-	316	15	12	*1,000
13								-	165	15	12	*900
14								†105	121	14	13	*350
15								-	102	15	12	*1,000
16								-	88	15	9	3,150
17								-	82	*14	7	*1,500
18								-	76	14	*6	*700
19								-	72	15	*7	*400
20								-	65	120	*12	*300
21								-	*62	50	20	*240
22								-	*59	30	43	*190
23								-	56	25	70	*150
24								-	47	22	31	*120
25								-	45	20	*20	*100
26								-	45	18	*17	*200
27								-	44	16	*15	*1,500
28								-	44	14	*13	*400
29								43	44	13	*11	*200
30								45	43	12	*8	*150
31								43	-	11	*7	-

*Gage not read.
†Discharge measurement.

Discharge, in second-feet, of East Nishnabotna River at Red Oak, Iowa, 1935-37 -- Continued

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*75	*40	31	121	13	150	198	244	225	28	*600	22
2	*60	273	*31	63	13	1,050	234	*200	114	26	128	20
3	*55	68	31	*40	13	4,830	165	150	95	24	49	16
4	*70	57	*32	30	14	8,070	135	225	88	*25	32	20
5	942	51	*20	25	14	7,050	135	316	95	26	26	*17
6	*300	47	18	23	14	4,320	121	207	*350	22	20	16
7	114	46	17	22	14	2,160	121	150	*150	21	19	15
8	*115	*35	17	*21	13	1,130	158	135	82	22	*50	15
9	82	38	17	20	13	512	190	*140	72	21	26	15
10	71	38	18	*19	13	253	158	*150	68	21	*24	15
11	50	37	*19	18	20	273	*140	*130	*60	*21	20	14
12	49	38	*22	18	50	244	128	*110	*52	21	244	*13
13	47	38	*25	18	250	190	121	*120	198	253	82	13
14	45	38	*27	17	1,290	165	121	102	*60	68	42	13
15	44	38	30	17	1,290	150	108	*95	*70	35	*25	13
16	45	38	33	*17	807	150	102	*90	*450	65	19	12
17	44	*38	35	*17	969	150	95	*86	58	48	17	13
18	*43	35	38	17	1,270	165	*90	*80	*50	*1,000	17	13
19	42	35	*40	16	3,860	173	80	*100	*60	81	915	*13
20	37	*32	35	16	3,750	190	95	3,640	*150	40	807	13
21	*36	*30	*32	†16	500	181	102	1,560	128	28	486	13
22	36	*29	31	16	210	207	114	165	59	33	*200	13
23	36	29	*29	16	200	244	108	*100	57	26	95	13
24	36	29	*32	15	175	486	88	88	44	47	56	15
25	36	*27	37	15	150	807	*200	77	37	*100	43	16
26	36	*30	56	15	140	234	135	618	38	26	33	*17
27	36	30	142	15	120	142	121	435	*36	19	31	16
28	*36	32	82	14	110	165	225	386	35	22	30	15
29	36	32	*150	13	-	165	165	158	33	21	*28	14
30	36	*31	253	13	-	158	435	*150	*30	23	25	14
31	36	-	645	*13	-	181	-	*250	-	21	23	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
June 1936	7,978	2,980	43	266	0.299	0.33
July	758	120	11	24.5	.028	.03
August	527	70	6	17.0	.019	.02
September	20,069	3,150	8	669	.752	.84
Water year						
October 1936	2,726	942	36	87.9	.099	.11
November	1,359	273	27	45.3	.051	.06
December	2,025	645	17	65.3	.073	.08
Calendar year						
January 1937	716	121	13	23.1	.026	.03
February	15,295	3,860	13	546	.613	.64
March	34,345	8,070	142	1,108	1.24	1.43
April	4,388	435	80	146	.164	.18
May	10,457	3,640	77	337	.379	.44
June	3,044	400	30	101	.113	.13
July	2,234	1,000	19	72.1	.081	.09
August	4,212	915	17	136	.153	.18
September	447	22	12	14.9	.017	.02
Water year 1936-37	81,248	8,070	12	223	.251	3.39

*Gage not read.
†Discharge measurement.

East Tarkio Creek at Blanchard, Iowa

Location.- Water-stage recorder and wooden control, lat. 40°35'40", long. 95°13'25", on line between SE¼ sec. 20 and NE¼ sec. 29, T. 67 N., R. 38 W., at bridge on County Highway G, 1 mile north of Blanchard.

Drainage area.- 200 square miles.

Records available.- March 1934 to September 1937.

Extremes.- Maximum discharge during year, 5,620 second-feet May 21 (gage height, 12.16 feet), from rating curve extended above 3,200 second-feet; minimum, 0.03 second-foot Jan. 27, 28, Feb. 1-5, 7, 10; minimum gage height, 2.00 feet Aug. 12, 13, during repair of control.

1934-37: Maximum discharge, that of May 21, 1937; maximum gage height, 12.7 feet Apr. 28, 1936, from floodmark; no flow July 25, 1934, during construction of control.

Remarks.- Records good except those for period of ice effect, Jan. 15 to Feb. 10, (computed on basis of six discharge measurements, gage heights, and weather records), and those for period when control was out or being repaired, July 2 to Aug. 13, which are poor.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.9	3.2	1.9	7.1	0.03	S.1	13	16	12	2.9	2.4	0.16
2	4.6	7.1	1.8	8.4	.03	1,150	14	30	19	2.0	3.2	.12
3	3.7	30	2.3	5.5	.03	1,510	13	121	14	1.2	2.1	.12
4	87	7.5	1.9	3.7	.03	2,050	12	47	10	1.2	1.4	.20
5	852	4.1	1.6	3.2	.03	448	9.1	28	42	1.1	1.4	.33
6	55	4.3	1.4	2.2	.05	304	5.9	159	21	1.1	1.1	.33
7	21	3.7	.87	.94	.03	128	54	38	6.9	1.1	.50	.25
8	13	2.3	.87	1.0	.06	62	123	15	5.6	1.1	.50	.28
9	11	2.4	1.1	1.1	.05	13	55	16	8.3	1.1	3.6	.24
10	9.2	2.9	1.2	.94	.03	10	36	12	7.6	.91	1.4	.26
11	6.8	3.6	1.1	.73	11	13	27	9.9	5.6	.86	.80	.20
12	5.9	3.7	1.5	.87	306	10	21	10	5.0	24	.20	.16
13	5.3	3.3	1.9	.73	955	9.6	18	8.3	285	73	.20	.12
14	4.8	3.3	2.0	.73	551	3.8	14	7.4	34	295	.51	.20
15	4.7	3.0	2.4	.52	256	3.4	11	7.6	135	40	.45	.20
16	4.6	2.5	3.3	.43	326	4.6	8.8	8.1	1,390	8.6	.39	.16
17	4.4	2.5	3.9	.32	803	11	8.8	8.1	88	3.6	.39	.20
18	3.9	2.4	4.3	.23	1,420	12	7.8	6.1	24	305	.33	.24
19	3.7	2.7	4.6	.20	1,230	14	7.2	4.6	14	725	.85	.24
20	3.7	2.7	4.1	.16	426	35	156	508	10	64	4.5	.20
21	3.2	2.6	3.5	.13	22	24	129	2,050	8.6	15	4.2	.24
22	2.8	2.3	3.0	.10	7.4	15	23	55	6.9	7.9	1.7	.24
23	2.7	2.4	2.9	.08	3.8	23	37	24	5.4	5.5	.94	.28
24	2.5	2.2	4.0	.06	4.0	84	52	12	4.6	5.0	.85	.85
25	2.8	1.7	17	.05	6.5	67	28	9.4	4.3	6.1	.63	.63
26	3.2	1.7	36	.04	3.1	27	18	876	4.1	4.5	.51	1.4
27	2.8	2.0	18	.03	2.4	18	14	87	4.0	3.2	.45	.77
28	3.0	2.5	7.8	.03	3.2	20	12	28	3.9	3.6	.33	.94
29	2.9	2.5	5.3	.05	-	15	12	21	3.6	8.6	.24	.63
30	3.1	2.1	248	.11	-	13	101	23	3.1	37	.24	.33
31	3.0	-	51	.08	-	12	-	20	-	4.1	.20	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,142.4	852	2.5	36.9	0.184	0.21	2,270
November	119.2	30	1.7	3.97	.020	.02	236
December	440.54	248	.87	14.2	.071	.08	874
Calendar year 1936	18,065.59	1,180	.36	49.4	.247	3.36	35,820
January	39.76	8.4	.03	1.28	.0064	.007	79
February	6,336.77	1,420	.03	226	1.13	1.18	12,570
March	6,117.5	2,050	3.4	197	.985	1.14	12,130
April	1,040.6	156	5.9	34.7	.174	.19	2,060
May	4,265.5	2,050	4.6	138	.690	.80	8,460
June	2,185.5	1,390	3.1	72.8	.364	.41	4,330
July	1,653.27	725	.86	53.3	.266	.31	3,280
August	36.51	4.5	.20	1.18	.0059	.007	72
September	10.57	1.4	.12	.352	.0018	.002	21
Water year 1936-37	23,388.12	2,050	.03	64.1	.320	4.36	46,380

Tarkio River at Fairfax, Mo.

Location.- Wire-weight gage, lat. 40°21', long. 95°25', on line between SE¼NE¼ and NE¼ SE¼ sec. 21, T. 64 N., R. 40 W., at county highway bridge 0.5 mile west of Fairfax. Zero of gage is 872.63 feet above mean sea level (general adjustment of 1929).

Drainage area.- 508 square miles.

Records available.- March 1922 to September 1937.

Average discharge.- 15 years, 143 second-feet.

Extremes.- Maximum discharge during year, 6,130 second-feet July 30 (gage height, 17.20 feet), from rating curve extended above 3,000 second-feet; minimum, 1.7 second-feet Sept. 30; minimum gage height observed, 2.00 feet Aug. 18.
1922-37: Maximum discharge, about 15,000 second-feet July 7, 1929 (gage height, 22.33 feet, present datum, from floodmark), from rating curve extended above 7,500 second-feet; no flow on several days in July and August 1934.

Remarks.- Records fair except those for periods of ice effect, Dec. 3-22, Jan. 2 to Feb. 13, Feb. 25-28, which were computed on basis of two discharge measurements, gage heights, and weather records and are poor. Gage read once daily below 8.0 feet and twice daily above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	16	13	37	3	45	49	32	33	5.4	68	4.6
2	19	14	12	30	3	1,800	47	25	59	4.8	89	4.6
3	18	14	5	23	3	3,010	42	166	45	4.8	28	4.6
4	16	21	5	20	3	3,430	38	262	35	4.3	27	4.6
5	1,030	20	4	16	3	749	33	56	57	4.0	17	4.8
6	390	16	4	14	3	461	30	52	104	3.2	14	4.6
7	64	16	4	11	3	232	80	111	32	3.4	11	3.8
8	39	16	4	9	3	158	212	44	21	3.0	12	4.3
9	33	12	4	9	3	70	142	50	24	3.2	17	4.0
10	27	13	4	7	3	49	76	41	23	3.2	12	4.0
11	22	16	4	7	11	48	60	32	18	3.6	7.6	3.8
12	20	16	4	5	175	46	54	30	19	1,420	7.2	3.6
13	17	14	4	5	1,840	44	44	26	537	295	6.8	3.0
14	16	14	4	5	1,020	36	41	22	6.8	363	6.5	3.0
15	16	12	4	5	698	31	31	21	5.7	284	5.7	2.8
16	15	14	4	5	317	24	32	21	746	64	4.8	2.8
17	14	14	4	5	670	42	29	24	273	28	4.6	2.8
18	14	13	4	4	816	40	24	19	50	20	4.3	2.8
19	14	12	5	4	1,700	46	21	17	36	1,060	295	2.4
20	14	12	5	3	755	111	2,060	22	26	411	69	2.4
21	15	12	7	3	295	70	1,070	978	17	56	26	2.4
22	12	9.3	9	3	134	54	74	232	16	22	15	2.6
23	12	12	12	3	126	45	33	59	12	12	9.7	2.6
24	13	12	17	3	97	166	134	36	10	295	8.9	3.4
25	12	14	25	3	76	126	60	28	8.5	14	7.6	2.6
26	17	11	42	3	58	71	42	1,060	24	14	7.2	1.9
27	14	14	60	3	42	42	32	486	8.9	12	6.2	2.0
28	12	14	24	3	34	54	27	60	6.8	12	6.0	2.2
29	13	12	20	3	-	49	24	46	6.2	9.7	6.0	2.2
30	12	11	295	3	-	46	126	31	6.0	2,650	5.4	1.7
31	12	-	166	3	-	42	-	97	-	175	5.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,965	1,030	12	63.4	0.125	0.14	3,900
November	416.3	21	9.3	13.9	.027	.03	826
December	778	295	4	25.1	.049	.06	1,540
Calendar year 1936	37,707.9	1,790	2.0	103	.203	2.75	74,790
January	257	37	3	8.3	.016	.02	510
February	8,944	1,840	3	319	.628	.65	17,740
March	11,237	3,430	24	362	.713	.82	22,290
April	4,767	2,060	21	159	.313	.35	9,460
May	4,186	1,060	17	135	.266	.31	8,300
June	2,255.9	746	5.7	75.5	.149	.17	4,490
July	7,259.6	2,650	3.0	234	.461	.53	14,400
August	829.6	295	4.3	26.8	.053	.06	1,640
September	96.9	4.8	1.7	3.23	.0064	.007	192
Water year 1936-37	43,002.3	3,430	1.7	118	.232	3.15	85,290

West Tarkio Creek near Westboro, Mo.

Location.- Water-stage recorder, lat. 40°32'30", long. 95°23'00", in NW¼ sec. 13, T. 66 N., R. 40 W., at bridge on county highway C, 3½ miles west of Westboro.

Drainage area.- 105 square miles (revised).

Records available.- March 1934 to September 1937.

Extremes.- Maximum discharge during year, 8,720 second-feet July 29 (gage height, 22.10 feet), by slope-area method; minimum discharge, 0.05 second-foot Feb. 7-10; minimum gage height 2.77 Jan. 10-13.

1934-37: Maximum discharge and gage height, those of July 29, 1937; minimum discharge, 0.01 second-foot July 19-25, 1934; minimum gage height, 2.36 feet June 1, 2, 6, 1934.

Remarks.- Records good except those for period of ice effect, Jan. 16 to Mar. 4, which are fair. Discharge for period when intakes were frozen, Jan. 16 to Feb. 10, computed on basis of five discharge measurements and weather records. Discharge during remainder of ice period computed on basis of eight discharge measurements, gage heights, and weather records.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	2.5	1.0	12	0.07	6.1	7.7	5.9	12	1.7	2.9	0.14
2	3.1	3.5	1.2	4.8	.07	433	8.0	10	8.7	1.6	2.7	.17
3	2.5	2.5	1.6	2.7	.06	711	8.0	25	14	1.3	1.9	.21
4	41	1.9	1.3	2.5	.06	821	6.8	18	8.3	1.0	1.6	.29
5	332	2.7	1.3	2.7	.06	316	5.6	13	12	.86	1.4	.17
6	62	2.7	1.3	2.3	.06	131	4.9	42	49	.63	1.0	.25
7	16	2.7	.69	.93	.05	41	31	60	9.5	.54	1.0	.25
8	9.2	1.4	.76	.41	.05	20	38	9.9	4.5	.47	1.1	.21
9	7.9	2.7	1.4	.35	.05	10	28	7.1	6.8	.41	.74	.14
10	5.8	2.7	1.6	.35	.05	7.7	19	7.1	4.9	.29	.47	.17
11	5.1	2.7	1.4	.33	17	6.2	16	6.2	4.7	.41	.54	.17
12	4.5	2.5	1.4	.33	276	5.9	14	5.4	4.3	45	.54	.17
13	3.8	2.3	1.2	.33	534	6.2	12	4.1	170	17	.63	.14
14	3.5	2.7	1.6	.36	388	2.2	9.5	3.8	62	86	.54	.17
15	3.5	2.1	1.9	.38	153	3.3	6.2	4.1	34	77	.29	.14
16	3.1	1.6	2.9	.37	270	4.5	5.9	3.8	589	24	.29	.14
17	2.7	2.1	3.3	.31	423	5.4	5.9	3.8	39	4.5	.29	.17
18	2.7	2.1	3.1	.25	552	5.4	5.1	2.9	11	11	.29	.21
19	2.5	1.9	3.1	.23	690	7.1	5.1	3.1	7.1	450	19	.21
20	2.3	1.9	2.9	.20	214	7.1	70	118	5.9	227	27	.25
21	1.9	1.6	2.5	.18	15	8.0	40	596	4.9	31	2.9	.25
22	1.6	1.3	1.9	.16	6.5	7.1	8.7	160	4.3	6.2	1.0	.21
23	1.7	1.7	2.1	.15	7.8	10	103	14	3.3	4.1	.86	.35
24	1.9	1.2	3.8	.14	6.2	23	37	9.1	2.9	22	.63	.54
25	1.9	1.4	9.2	.13	4.4	17	16	9.1	2.7	4.3	.47	.35
26	2.5	1.2	14	.12	3.1	15	12	204	4.5	3.6	.54	.21
27	1.6	1.4	14	.11	2.9	8.7	9.1	369	2.7	3.3	.41	.17
28	2.1	2.5	6.4	.10	3.7	9.5	8.7	18	2.2	1.9	.35	.41
29	2.1	1.7	5.4	.10	-	8.3	7.7	12	1.9	758	.29	.29
30	1.9	1.2	30	.09	-	6.8	7.1	9.5	1.9	197	.35	.17
31	2.1	-	45	.08	-	7.7	-	64	-	4.9	.25	-

Monthly discharge, in second-feet, of West Tarkio Creek near Westboro, Mo., 1934-1937--Continued

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
March 14-31, 1934	47.19	3.89	1.50	2.62	0.025	0.02	94
April	54.00	4.72	.77	1.80	.017	.02	107
May	127.43	54.4	.07	4.11	.039	.04	253
June	42.48	19.3	.02	1.42	.014	.02	84
July	2.32	.43	.01	.075	.00071	.0008	4.6
August	1.53	.10	.02	.049	.00047	.0005	3.0
September	197.02	76.5	.05	6.57	.063	.07	391
The period							937
October 1934	525.84	394	0.06	17.0	.162	.19	1,040
November	107.66	14.6	.31	3.59	.034	.04	214
December	64.48	4.48	.50	2.08	.020	.02	128
Calendar year							
January 1935	322.40	153	.50	10.4	.099	.11	639
February	207.31	47.9	.21	7.40	.070	.07	411
March	145.93	15.9	.65	4.71	.045	.05	289
April	28.71	2.80	.26	.957	.0091	.01	57
May	869.71	308	.26	28.1	.268	.31	1,730
June	3,275.90	666	8.50	109	1.04	1.16	6,500
July	388.0	88	1.6	12.5	.119	.14	770
August	26.43	1.6	.46	.853	.0081	.009	52
September	73.11	15	.29	2.44	.023	.03	145
Water year 1934-35	6,035.48	666	.06	16.5	.157	2.14	11,980
October 1935	171.64	90	0.53	5.54	.053	.06	340
November	372.7	116	2.5	12.4	.118	.13	739
December	139.7	11	1.5	4.51	.043	.05	277
Calendar year 1935	6,021.64	666	.21	16.5	.157	2.13	11,950
January 1936	96.3	4.2	2.5	3.11	.030	.03	191
February	1,806.6	384	2.5	62.3	.593	.64	3,580
March	2,617.2	492	4.2	84.4	.804	.93	5,190
April	1,096.8	723	3.7	36.6	.349	.39	2,180
May	1,894.7	397	9.7	61.1	.582	.67	3,760
June	902.7	260	3.3	30.1	.287	.32	1,790
July	31.46	3.5	.58	1.01	.0096	.01	62
August	28.36	13	.35	.915	.0087	.01	56
September	525.59	116	.45	17.5	.167	.19	1,040
Water year 1935-36	9,683.75	723	.35	26.5	.252	3.43	19,200
October 1936	538.0	332	1.6	17.4	.166	.19	1,070
November	62.4	3.5	1.2	2.08	.020	.02	124
December	169.25	45	.69	5.46	.052	.06	336
Calendar year 1936	9,769.36	723	.35	26.7	.254	3.46	19,380
January 1937	33.48	12	.08	1.08	.010	.01	66
February	3,567.18	690	.05	127	1.21	1.26	7,080
March	2,671.2	821	2.2	86.2	.821	.95	5,300
April	556.0	103	4.9	18.5	.176	.20	1,100
May	1,817.9	596	2.9	58.6	.558	.64	3,610
June	1,088.0	589	1.9	36.3	.346	.39	2,160
July	1,986.01	758	.29	64.1	.610	.70	3,940
August	72.27	27	.25	2.33	.022	.03	143
September	6.72	.54	.14	.224	.0021	.002	13
Water year 1936-37	12,568.41	821	.05	34.4	.328	4.45	24,940

Note.- Figures of discharge in second-feet per square mile and of run-off in inches for each month from March 1934 to September 1936 supersede those published for these months in previous water-supply papers. Revision of the drainage area.

Nodaway River at Clarinda, Iowa

Location.- Wire gage, lat. 40°44'10", long. 95°00'30", in sec. 32 T. 69 N., R. 36 W., at bridge on State Highway 3, 1.2 miles east of city square of Clarinda. Chain gage at same site and datum May 1918 to July 1925.

Drainage area.- 740 square miles.

Records available.- May 1918 to July 1925, May 1936 to September 1937.

Extremes.- Maximum discharge observed during May 1936 to September 1937, 14,000 second-feet May 21, 1937 (gage height, 16.5 feet, from floodmarks), from rating curve extended above 3,500 second-feet on basis of partly-completed discharge measurement at gage height 12.1 feet; minimum discharge observed, 4 second-feet Aug. 18, 1936; minimum gage height observed, 1.26 feet Sept. 15-22, 29, 30, 1937.
1918-25, 1936-37: Maximum discharge observed, that of May 21, 1937; practically no flow Aug. 25, 1919.
Maximum stage known, 25.4 feet during August 1903.

Remarks.- Records fair except those for periods of ice effect, Dec. 5-15, 18-22, Jan. 1 to Feb. 13, Feb. 21 to Mar. 1, which were computed on basis of two discharge measurements, weather records, gage heights, observer's notes, and records for station at Burlington Junction, and are poor. Discharge Mar. 2-9, May 21, 22, 26, 27, determined from graphs based on gage readings. Gage read once daily, oftener during periods of high water.

Rating tables, water year 1936 and 1937 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

May 20, 1936 to Mar. 4, 1937		Mar. 5 to Sept. 30, 1937	
1.7	4	1.2	5
1.8	7	1.3	7
1.9	11	1.4	10
2.0	16	1.5	14
2.1	24	1.6	20
2.3	43	1.7	29
2.5	65	1.9	59
3.0	128	2.2	113
3.5	230	2.5	175
4.0	390	3.0	295
5.0	850	3.5	435
6.0	1,490	4.0	595
8.0	3,160	5.0	980
10.0	5,120	6.0	1,500
12.0	7,320		
14.0	9,860	Note.- Same as preceding table above 6.1 feet.	
16.0	13,070		

Discharge, in second-feet, 1935-37

1935-36

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								-	35	17	8.5	6.5
2								-	38	15	8	10
3								-	372	15	9.5	10
4								-	120	14	9.5	33
5								-	71	14	12	257
6								-	1,030	14	14	910
7								-	800	13	11	450
8								-	162	11	12	194
9								-	194	10	10	62
10								-	218	10	9	25
11								-	450	10	8.5	17
12								-	144	9.5	8.5	1,940
13								-	76	9.5	8	850
14								*133	69	10	8	230
15								-	53	10	7	121
16								-	48	10	6.5	1,560
17								-	43	10	6	650
18								-	37	10	4	136
19								-	33	11	6.5	65
20								-	32	60	8.5	55
21								-	30	153	7.5	23
22								-	28	39	10	18
23								-	28	16	54	16
24								-	27	12	16	14
25								-	26	10	6.5	12
26								-	24	9.5	.6	30
27								-	22	8.5	5	1,350
28								47	20	10	e	194
29								45	19	9	6	89
30								39	22	9	5	57
31								36	-	e	5	-

*Discharge measurement.

Discharge, in second-feet, of Nodaway River at Clarinda, Iowa, 1935-37 -- Continued.

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	22	15	108	7	54	109	321	144	*11	245	7
2	25	23	15	41	7	910	102	175	127	*10	53	7
3	21	182	15	20	8	4,320	96	269	123	10	29	7
4	22	108	12	17	9	12,400	87	245	123	*10	22	7
5	1,860	64	9	13	9	8,040	73	245	282	9	20	7
6	336	50	7	11	9	3,520	56	186	308	9	20	7
7	121	28	6	10	8	1,940	76	154	186	*9	18	7
8	89	18	6	10	9	815	186	100	92	9	21	7
9	67	22	6	9	10	349	209	109	76	8	*20	*7
10	55	19	6	9	10	144	154	115	61	*8	18	7
11	*45	19	6	8	12	164	109	85	59	7	17	7
12	35	18	6	8	52	175	90	69	59	17	*18	7
13	34	18	7	10	500	154	*86	71	233	377	18	7
14	33	17	8	8	2,890	144	83	71	105	527	40	7
15	31	16	10	8	1,860	144	69	59	102	27	29	6
16	29	16	12	7	750	115	62	59	257	18	19	6
17	28	16	14	7	1,210	109	56	46	94	13	21	6
18	27	15	18	8	1,420	96	53	39	209	144	22	6
19	26	14	22	7	5,670	127	53	595	94	1,020	21	6
20	25	13	20	7	5,340	154	46	197	69	154	21	6
21	24	12	15	†6	450	154	197	6,880	*50	78	527	6
22	22	11	12	6	77	154	144	2,440	*30	61	377	6
23	22	11	13	6	83	186	96	405	18	117	100	7
24	21	11	27	6	83	221	73	245	*16	154	19	8
25	20	12	50	6	83	561	295	197	*14	66	*15	*8
26	21	12	52	6	83	186	133	1,940	13	20	11	8
27	21	13	95	6	54	98	111	815	13	20	9	8
28	21	13	83	6	37	85	154	855	12	21	9	8
29	21	14	73	6	-	85	119	245	12	24	8	6
30	20	14	353	6	-	85	1,630	257	11	26	8	*6
31	21	-	650	7	-	87	-	164	-	26	7	-

Month	Second-feet-days	Maximum	Minimum	Mean	Per square mile	Run-off in inches
June 1936	4,279	1,030	19	143	0.193	0.22
July	567	153	8	18.3	.025	.03
August	304	54	4	9.81	.013	.01
September	9,364.5	1,940	6.5	312	.422	.47
Water year						
October 1936	3,174	1,860	20	102	.138	.16
November	821	182	11	27.4	.037	.04
December	1,643	650	6	53.0	.072	.08
Calendar year						
January 1937	393	108	6	12.7	.017	.02
February	20,740	5,670	7	741	1.00	1.04
March	35,776	12,400	54	1,154	1.56	1.80
April	4,807	1,630	46	160	.216	.24
May	17,653	6,880	39	569	.769	.89
June	2,992	308	11	99.7	.135	.15
July	3,010	1,020	7	97.1	.131	.15
August	1,782	527	7	57.5	.078	.09
September	205	8	6	6.8	.0092	.01
Water year 1936-37	92,996	12,400	6	255	.345	4.67

*Interpolated.
†Discharge measurement.

Nodaway River near Burlington Junction, Mo.

Location.- Wire weight gage, lat. 40°26', long. 95°05', in NW¼ sec. 17, T. 65 N., R. 37 W., at bridge on State Highway 4, 0.5 mile below Wabash Railroad bridge and 1½ miles west of Burlington Junction. Zero of gage is 896.17 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,240 square miles.

Records available.- March 1922 to September 1937.

Average discharge.- 15 years, 386 second-feet.

Extremes.- Maximum discharge observed during year, 17,100 second-feet Mar. 4 (gage height, 14.55 feet); minimum discharge, about 4 second-feet Feb. 4-10 (period of backwater from ice); minimum gage height, 1.25 feet Sept. 15, 16, 19-23.
1922-37: Maximum discharge, 21,000 second-feet July 6, 1929, from rating curve extended above 8,000 second-feet; maximum gage height observed, 19.5 feet Sept. 3, 1926; minimum discharge, 1.1 second-feet Aug. 7, 1934; minimum gage height, that of Sept. 15, 16, 19-23, 1937.

Remarks.- Records good except those for periods of ice effect, Dec. 6-23, Jan. 5 to Feb. 12, Feb. 25 to Mar. 1, which were computed on basis of one discharge measurement, gage heights, and weather records and are fair. Records for periods of missing gage heights, June 8-12, 14, computed on basis of weather records and comparison with records for stations on nearby streams. Gage read once daily below 8.0 feet and twice daily above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	42	16	392	6	171	137	502	180	31	284	16
2	44	21	16	183	6	1,150	148	327	434	29	169	14
3	42	325	15	133	5	4,670	148	502	148	29	81	15
4	29	160	14	127	4	15,700	129	357	123	27	62	15
5	2,690	103	10	108	4	11,300	108	357	148	26	36	13
6	1,100	67	8	99	4	5,280	99	298	468	24	29	14
7	445	47	8	90	4	3,440	148	229	270	23	28	13
8	250	35	8	82	4	1,200	342	192	300	24	26	12
9	148	21	8	82	4	574	284	180	330	26	31	12
10	116	22	8	73	4	610	284	137	360	25	23	12
11	101	29	8	65	90	204	160	148	390	23	22	12
12	85	28	8	55	375	204	169	131	410	342	26	11
13	67	22	8	57	2,850	192	146	123	434	434	35	11
14	68	18	8	50	2,690	137	129	131	280	1,510	31	10
15	57	19	8	50	1,900	84	112	113	129	137	33	9
16	53	21	8	43	990	78	104	99	97	73	26	9
17	53	17	8	36	1,040	96	104	90	87	55	21	10
18	49	18	8	29	2,240	106	89	82	256	46	18	10
19	47	17	8	29	6,170	110	82	79	158	3,570	26	9
20	44	18	8	23	4,550	192	1,540	113	89	402	29	9
21	42	16	11	23	1,830	242	1,030	7,890	57	148	39	9
22	39	16	14	17	555	180	387	3,050	53	79	538	9
23	39	14	18	14	250	192	327	1,350	48	106	148	9
24	35	11	30	14	235	387	242	434	43	242	76	11
25	37	13	43	10	208	724	468	284	38	81	43	13
26	36	16	90	10	195	574	434	6,400	38	49	33	16
27	37	25	142	8	183	256	284	2,570	36	40	25	14
28	30	15	171	6	171	135	312	2,010	36	31	22	15
29	29	24	118	6	-	119	284	686	38	29	18	11
30	25	16	1,260	6	-	131	1,070	468	37	97	16	10
31	23	-	805	6	-	135	-	256	-	67	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	5,935	2,690	23	191	0.154	0.18	11,770
November	1,216	325	11	40.5	.033	.04	2,410
December	2,893	1,260	8	93.3	.075	.09	5,740
Calendar year 1936	104,639	6,520	6	286	.231	3.15	207,600
January	1,936	392	6	62.5	.050	.06	3,840
February	26,568	6,170	4	949	.765	.80	52,700
March	48,573	15,700	78	1,567	1.26	1.45	96,340
April	9,322	1,540	82	311	.251	.28	18,490
May	29,588	7,890	79	954	.769	.89	58,690
June	5,515	468	36	184	.148	.17	10,940
July	7,825	3,570	23	252	.203	.23	15,520
August	1,996	538	12	64.4	.052	.06	3,960
September	353	16	9	11.8	.0095	.01	700
Water year 1936-37	141,720	15,700	4	388	.313	4.26	281,100

Platte River near Agency, Mo.

Location.- Wire-weight gage, lat. 39°41'20", long. 94°42'15", in NE¼NW¼ sec. 10, T. 56 N., R. 34 W., at bridge on U. S. Highway 169, 1⅛ miles below Third Fork and 3⅛ miles northeast of Agency. Zero of gage is 807.22 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,760 square miles.

Records available.- May 1932 to September 1937, May 1924 to August 1930, at site 4 miles downstream.

Extremes.- Maximum discharge during year, 11,400 second-feet Mar. 6; maximum gage height 19.60 feet Feb. 13 (backwater from ice); minimum discharge, 6 second-feet (computed) Dec. 9-13; minimum gage height observed, 1.92 feet Nov. 27, Sept. 26.
1924-30, 1932-37: Maximum discharge, 22,600 second-feet Sept. 18, 1926 (gage height, 25.5 feet, from floodmark, present site and datum); no flow on several days in July and August 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 3-22, Jan. 5 to Feb. 15, Feb. 26 to Mar. 1, which were computed on basis of two discharge measurements, gage heights, and weather records and are poor. Discharge for Aug. 16 interpolated and for July 6 estimated. Gage read once daily below 10.0 feet and twice daily above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	134	29	14	1,020	1,210	165	154	337	136	42	98	17
2	125	26	9	504	830	377	144	287	437	34	84	16
3	87	26	9	350	470	4,200	144	337	698	28	324	16
4	59	24	9	230	165	7,670	144	1,270	470	25	287	16
5	230	26	12	165	58	10,300	125	1,050	437	23	176	16
6	275	31	15	78	40	10,600	108	740	350	22	104	14
7	695	28	12	51	31	6,290	106	539	252	19	67	13
8	1,450	24	9	40	93	2,600	154	740	164	17	63	22
9	312	25	6	31	71	1,450	350	377	116	17	48	21
10	575	22	6	24	51	695	653	324	108	16	42	17
11	252	23	6	21	71	377	539	219	102	16	37	15
12	154	22	6	18	3,800	287	312	230	93	868	35	14
13	106	22	6	12	7,120	230	230	186	197	7,250	33	13
14	77	22	9	12	5,930	186	186	165	406	7,480	30	12
15	60	22	9	12	4,500	154	154	134	835	4,650	27	12
16	50	22	12	9	3,220	108	134	116	350	3,750	27	10
17	47	21	15	9	1,940	106	116	108	219	653	26	12
18	37	21	18	9	1,570	108	92	98	144	695	25	12
19	32	20	18	9	3,750	116	77	78	116	4,420	30	10
20	31	20	18	9	4,970	134	71	75	87	5,210	695	11
21	176	19	12	9	3,820	165	2,590	66	63	3,080	350	10
22	241	20	12	9	1,880	165	1,810	75	51	695	116	10
23	86	19	25	9	504	264	613	61	46	275	64	10
24	86	14	26	9	312	406	504	299	40	230	46	11
25	56	13	32	9	230	740	350	1,630	32	176	30	9
26	43	11	37	9	197	1,160	287	3,900	30	176	24	7
27	37	7	42	9	176	740	287	3,600	25	125	22	8
28	36	19	67	9	165	377	275	2,870	337	100	20	11
29	32	16	87	9	-	241	241	995	144	86	19	10
30	32	16	106	2,200	-	197	406	406	65	108	17	10
31	31	-	2,260	1,820	-	165	-	264	-	324	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	5,643	1,450	31	182	0.103	0.12	11,190
November	630	31	7	21.0	.012	.01	1,250
December	2,924	2,260	6	94.3	.054	.06	5,800
Calendar year 1936	140,600.8	6,150	1.4	384	.218	2.97	278,900
January	6,714	2,200	9	217	.123	.14	13,320
February	47,174	7,120	31	1,685	.957	1.00	93,570
March	50,973	10,600	106	1,644	.934	1.08	101,100
April	11,356	2,590	71	379	.215	.24	22,520
May	21,575	3,900	61	696	.395	.46	42,790
June	6,587	835	25	220	.125	.14	13,070
July	40,610	7,480	16	1,310	.744	.86	80,550
August	2,982	695	16	96.2	.055	.06	5,910
September	385	22	7	12.8	.0073	.008	764
Water year 1936-37	197,553	10,600	6	541	.307	4.18	391,800

One Hundred and Two River near Maryville, Mo.

Location.- Wire-weight gage, lat. 40°23', long. 94°50', in SE¼SW¼ sec. 34, T. 65 N., R. 35 W., on county highway bridge 2½ miles northeast of Maryville. Zero of gage is 970.00 feet above mean sea level (general adjustment of 1929).

Drainage area.- 500 square miles.

Records available.- June 1934 to September 1937.

Extremes.- Maximum discharge observed during year, 4,530 second-feet Mar. 4 (gage height, 15.50 feet); minimum discharge, 1.1 second-feet (computed) Dec. 10-12; minimum gage height, 1.44 feet Sept. 19-21, 23, 26, 27.

1934-37: Maximum discharge, 10,300 second-feet June 1, 1935 (gage height, 19.60 feet, from floodmarks); minimum discharge, less than 0.05 second-foot Aug. 1, 3, 4, 7-11, 29, Sept. 25, 1934; minimum gage height, 1.81 feet Aug. 10, 1934.

Maximum stage known, about 21.2 feet, from floodmarks, date unknown.

Remarks.- Records fair except those for periods of ice effect, Dec. 7-13, Jan. 4 to Feb. 13, 24-28 (computed on basis of gage heights, weather records, and records of nearby stations), and those for days of rapidly changing stage, which are poor. Discharge for Jan. 27, Aug. 27-29 interpolated. Gage read once daily below 10.0 feet and twice daily above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	6	2.9	213	2.3	97	37	113	61	7	7	2.3
2	12	12	3.0	77	2.3	142	39	97	148	7	11	2.2
3	8	10	3.3	58	1.3	1,100	37	258	40	6	68	2.2
4	6	8	3.7	38	1.3	3,940	33	326	72	6	23	13
5	7	6	3.3	31	1.3	2,460	30	227	59	5	12	3.1
6	363	6	3.6	24	2.3	1,340	25	227	28	5	8	2.3
7	291	6	2.1	18	1.3	572	47	148	28	4.8	6	2.2
8	102	4.6	2.1	13	1.3	382	166	113	27	4.8	6	2.1
9	68	5	2.1	8	1.3	160	484	63	28	4.6	5	2.2
10	37	5	1.1	6	1.3	92	148	44	21	4.1	4.6	2.1
11	23	5	1.1	6	6	72	82	34	18	4.8	4.4	2.1
12	19	5	1.1	3.7	46	44	54	36	16	68	4.2	1.9
13	14	4.6	2.1	3.7	616	45	47	32	714	1,520	3.9	1.8
14	13	4.6	3.6	2.3	2,030	30	53	30	130	1,640	3.9	1.9
15	10	4.4	3.7	2.3	1,300	19	37	19	68	688	3.6	1.9
16	8	4.4	4.2	2.3	363	30	29	20	44	113	3.4	1.8
17	8	4.1	4.4	1.3	422	31	25	19	23	58	3.4	1.8
18	8	4.2	4.1	1.3	714	27	17	18	16	28	3.6	1.8
19	7	4.2	4.1	1.3	1,520	29	16	12	14	2,710	11	1.7
20	6	4.2	4.1	1.3	1,640	37	463	12	12	1,130	5	1.7
21	6	3.7	3.9	1.3	363	77	258	13	12	130	4.4	1.7
22	6	3.7	3.3	1.3	308	108	186	308	8	87	4.1	1.8
23	6	3.9	3.6	1.3	154	97	130	97	7	34	3.7	1.7
24	6	3.7	3.9	1.3	136	173	77	33	7	25	2.7	2.3
25	6	3.7	10	1.3	113	402	77	32	6	21	2.9	2.6
26	8	3.7	10	1.3	102	258	92	87	6	16	3.3	1.7
27	6	3.6	6	1.3	82	87	68	1,600	6	14	3.1	1.7
28	6	3.6	4.8	1.3	72	60	63	199	6	10	3.0	2.2
29	6	3.4	16	1.3	-	44	57	108	6	8	2.8	2.1
30	5	2.7	258	1.3	-	39	87	54	6	8	2.6	2.0
31	6	-	136	3.7	-	33	-	68	-	8	2.6	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	1,095	363	5	35.3	0.071	0.08	2,170
November	149.0	12	3.7	4.97	.0099	.01	296
December	515.2	258	1.1	16.6	.033	.04	1,020
Calendar year 1936	28,174.3	3,310	1.0	77.0	.154	2.09	55,890
January	528.2	213	1.3	17.0	.034	.04	1,050
February	10,003.0	2,030	1.3	357	.714	.74	19,840
March	12,027	3,940	19	388	.776	.89	23,860
April	2,964	484	16	98.8	.198	.22	5,880
May	4,447	1,600	12	143	.286	.33	8,820
June	1,637	714	6	54.6	.109	.12	3,250
July	8,375.1	2,710	4.1	270	.540	.62	16,610
August	232.2	68	2.6	7.49	.015	.02	461
September	71.9	13	1.7	2.40	.0048	.005	143
Water year 1936-37	42,044.6	3,940	1.1	115	.230	3.12	83,400

Arikaree River at Haigler, Nebr.

Location.- Staff gage, lat. 40°01', long. 101°57', in sec. 28, T. 1 N., R. 41 W., half a mile northwest of Haigler and 1½ miles above mouth. Zero of gage is 3,243.45 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,600 square miles.

Records available.- March 1932 to September 1937.

Extremes.- Maximum discharge observed during year, 434 second-feet Sept. 7 (gage height, 2.50 feet); no flow Jan. 26-28, Aug. 21-26, Aug. 29 to Sept. 2.
1932-37: Maximum discharge, 50,000 second-feet May 31, 1935 (gage height, 11.2 feet); by slope-area method; no flow several days during 1934, 1936, 1937.

Remarks.- Records fair. Discharge for periods of ice effect, Dec. 5-12, Dec. 31 to Feb. 21, computed on basis of three discharge measurements and weather records. Staff gage read twice daily. Several small diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	22	8	10	4	72	20	13	9	2	1	0
2	16	32	7	11	6	60	16	13	20	2	3	0
3	15	44	6	13	12	44	13	14	51	2	3	.4
4	14	34	6	12	22	32	13	17	30	.6	2	56
5	14	24	5.0	10	25	30	12	16	26	.6	1	28
6	16	24	3.5	8	23	28	11	13	21	.2	.8	20
7	16	26	3.0	6	20	25	10	13	16	.6	1	150
8	14	23	4	6	18	20	9	13	21	1	1	199
9	14	22	6	6	16	17	9	13	21	.4	.6	40
10	13	22	9	6	*15	16	9	13	22	.8	.8	24
11	12	21	*11	8	20	16	8	13	20	.8	.5	24
12	13	19	12	11	25	17	6	13	18	1	.5	17
13	15	9	13	14	30	18	4	8	17	1	3	10
14	15	8	11	18	55	18	4	8	17	.8	.7	10
15	13	8	12	22	60	28	3	8	20	1	.7	9
16	11	8	10	22	70	40	3	8	39	.6	1	10
17	8	9	10	24	90	24	3	7	16	15	1	10
18	4	9	10	26	100	19	3	7	10	8	.4	8
19	6	9	10	20	120	18	3	9	8	22	.3	7
20	16	9	10	18	155	18	3	7	5	17	.1	6
21	18	9	11	14	170	18	3	5	4	20	0	5
22	18	8	10	10	163	18	3	4	2	6	0	5
23	16	7	10	8	92	18	3	3	4	2	0	4
24	15	6	10	2	114	18	4	3	5	16	0	4
25	17	7	11	1	139	16	11	3	86	8	0	6
26	19	8	10	*0	123	18	11	20	72	4	0	4
27	16	8	10	0	104	18	9	20	18	3	.4	4
28	16	7	10	0	86	20	9	18	14	2	.5	5
29	16	7	10	1	-	25	11	16	10	2	0	5
30	16	7	10	2	-	27	14	12	5	2	0	5
31	17	-	9	2	-	25	-	9	-	5	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	449	20	4	14.5	891
November	456	44	6	15.2	904
December	277.5	13	3.0	8.95	550
Calendar year 1936	8,240.5	2,020	0	22.5	16,340
January	311	26	0	10.0	617
February	1,877	170	4	67.0	3,720
March	781	72	16	25.2	1,550
April	240	20	3	8.0	476
May	338	20	3	10.9	670
June	827	86	2	20.9	1,240
July	147.4	22	.2	4.75	292
August	23.3	3	0	.75	46
September	675.4	199	0	22.5	1,340
Water year 1935-37	6,202.6	199	0	17.0	12,300

*Discharge measurement.

Republican River at Max, Nebr.

Location.- Staff gage, lat. 40°06', long. 101°24', in sec. 32, T. 2 N., R. 36 W., three-quarters of a mile south of Max. Zero of gage is 2,877.39 feet above mean sea level (general adjustment of 1929).

Drainage area.- 7,740 square miles, of which 1,900 square miles is largely non-contributing.

Records available.- August 1928 to September 1937.

Extremes.- Maximum discharge observed during year, 5,170 second-feet May 11 (gage height, 6.10 feet); no flow Aug. 9-12, 18-27.
1928-37: Maximum discharge, 190,000 second-feet May 31, 1935 (gage height, 11.8 feet), by slope-area method; no flow during parts of summers of 1930-31, 1933-34, 1937.

Records.- Records poor. Discharge for period of ice effect, Dec. 4 to Mar. 4, computed on basis of five discharge measurements and weather records. Staff gage read twice daily. Several diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	87	87	55	100	400	233	95	327	38	10	10
2	45	95	104	60	120	*451	210	91	250	28	9	6
3	38	95	113	80	105	400	185	87	250	24	8	5
4	50	91	105	100	120	420	176	82	216	20	9	12
5	54	70	90	80	135	327	180	87	222	18	7	244
6	59	74	70	60	80	161	180	95	222	15	8	200
7	78	61	55	50	65	282	171	65	161	14	3	1,470
8	70	56	70	40	60	206	146	74	128	12	1	492
9	65	65	*132	35	*66	238	151	54	137	6	0	672
10	56	61	170	35	90	233	151	61	151	6	0	482
11	56	50	210	40	180	228	151	2,920	176	4	0	210
12	78	43	195	50	170	233	137	421	132	6	0	74
13	65	54	200	70	160	412	130	190	78	23	545	56
14	65	70	*209	90	190	637	109	128	59	61	17	54
15	70	61	215	100	220	545	100	123	109	14	14	43
16	56	70	220	95	200	503	91	113	222	14	6	40
17	61	74	180	95	180	264	82	95	228	18	3	40
18	31	76	170	90	260	264	91	91	123	30	0	43
19	70	87	140	85	230	264	95	238	100	40	0	34
20	56	95	130	50	210	238	95	166	74	61	0	32
21	65	87	120	35	200	264	87	118	47	104	0	30
22	70	91	80	25	195	233	74	87	43	95	0	30
23	87	100	90	15	190	206	70	74	35	35	0	27
24	74	95	100	20	180	260	87	61	32	19	0	23
25	78	87	120	30	170	327	95	61	113	24	0	30
26	82	78	90	50	160	300	82	354	233	21	0	28
27	74	87	100	90	180	327	87	591	255	18	0	35
28	61	87	80	85	280	392	82	238	113	14	38	35
29	70	82	90	80	-	309	87	118	52	11	12	34
30	70	78	70	70	-	309	95	74	35	10	20	34
31	87	-	50	75	-	273	-	47	-	10	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,032	87	38	65.5	4,030
November	2,309	100	43	77.0	4,580
December	3,865	220	50	124	7,650
Calendar year 1936	57,113	12,500	1	156	113,300
January	1,935	100	15	62.4	3,840
February	4,496	280	60	161	8,920
March	9,906	637	161	320	19,650
April	3,710	233	70	124	7,360
May	7,099	2,920	47	229	14,080
June	4,323	327	32	144	8,570
July	815	104	4	26.3	1,620
August	724	545	0	23.4	1,440
September	4,525	1,470	5	151	8,980
Water year 1936-37	45,729	2,920	0	125	90,720

*Discharge measurement.

Republican River at Culbertson, Nebr.

Location.- Staff gage, lat. 40°13', long. 100°51', in sec. 20, T. 3 N., R. 31 W., three-quarters of a mile south of Culbertson and 2 miles above mouth of Frenchman Creek. Zero of gage is 2,561.93 feet above mean sea level (general adjustment of 1929).

Drainage area.- 10,600 square miles, of which 1,900 square miles is largely non-contributing.

Records available.- June 1913 to September 1915, March 1931 to September 1937.

Extremes.- Maximum discharge observed during year, 11,500 second-feet June 1 (gage height, 7.07 feet); no flow Aug. 10-12, 21-24.
1913-15, 1931-37: Maximum daily discharge, 90,000 second-feet (estimated) May 31, 1935; no flow for several days during summers of 1931-34, 1936-37.

Remarks.- Records fair except those for periods of ice effect, Dec. 6-11, Dec. 30 to Mar. 2 (computed on basis of four discharge measurements, weather records, and records for station at Max), and those for May 15, 16, and Sept. 5-11 (computed on basis of records for station at Max), which are poor. Staff gage read twice daily. Several diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	77	129	55	70	*257	306	184	2,590	93	22	21
2	42	77	137	70	130	370	276	188	1,780	79	17	14
3	35	77	120	90	120	560	216	184	510	61	21	1
4	35	77	120	110	150	460	184	150	451	48	1	21
5	37	77	93	80	160	290	196	110	290	45	57	120
6	31	110	75	70	100	220	206	123	206	35	24	210
7	35	100	60	60	40	220	211	144	206	25	28	840
8	45	126	55	40	40	112	161	134	198	22	21	785
9	55	100	*48	35	*42	140	180	144	175	16	7	710
10	59	123	60	40	60	140	180	144	161	13	0	680
11	52	110	120	50	150	132	154	1,500	202	14	0	350
12	55	112	172	65	230	184	164	620	202	9	0	140
13	55	112	172	80	210	154	154	397	188	7	88	93
14	61	107	150	100	240	123	134	354	175	46	202	115
15	61	95	184	110	270	98	147	275	188	57	102	112
16	61	86	283	130	250	137	147	250	755	29	68	90
17	64	93	193	125	240	175	134	227	656	144	31	90
18	66	110	188	120	280	262	147	198	354	64	24	68
19	61	100	150	100	260	262	140	184	220	48	5	70
20	61	118	137	55	240	269	158	433	144	40	1	55
21	57	95	137	40	220	276	164	298	129	50	0	45
22	55	93	86	35	200	255	158	269	123	66	0	37
23	77	105	86	*18	195	283	164	211	102	79	0	18
24	59	93	123	20	190	306	216	154	100	57	0	21
25	79	79	132	35	180	164	188	140	88	21	129	21
26	79	81	98	60	180	206	198	406	227	17	11	22
27	112	73	123	100	210	306	202	1,190	283	39	4	34
28	102	95	86	95	240	298	188	510	202	24	4	31
29	79	120	95	55	-	424	188	306	164	18	5	37
30	102	102	75	70	-	379	193	220	123	59	129	32
31	79	-	55	80	-	306	-	172	-	29	40	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,883	112	31	60.7	3,730
November	2,923	126	77	97.4	5,800
December	3,742	283	48	121	7,420
Calendar year 1936	68,116	13,600	0	186	135,100
January	2,193	130	18	70.7	4,350
February	4,897	280	40	175	9,710
March	7,768	560	98	251	15,410
April	5,456	306	134	182	10,820
May	9,819	1,500	110	317	19,480
June	11,192	2,590	88	373	22,200
July	1,344	144	7	43.4	2,670
August	1,044	202	0	33.7	2,070
September	4,883	840	1	163	9,690
Water year 1936-37	57,144	2,590	0	157	113,400

*Discharge measurement.

Republican River near Bloomington, Nebr.

Location.- Chain gage, lat. 40°04', long. 99°02', in sec. 8, T. 1 N., R. 15 W., 2 miles south of Bloomington. Zero of gage is 1,824.15 feet above mean sea level (general adjustment of 1929).

Drainage area.- 20,900 square miles, of which 1,900 square miles is largely non-contributing.

Records available.- April 1929 to September 1937.

Extremes.- Maximum discharge observed during year, 10,300 second-feet June 5 (gage height, 8.00 feet); minimum daily discharge, 6.8 second-feet Oct. 6, 7.
1929-37: Maximum discharge, 280,000 second-feet June 1, 1935, (gage height, 20.4 feet), by slope-area method; minimum daily discharge, that of Oct. 6, 7, 1937.

Remarks.- Records good except those for periods of ice effect, Dec. 7, 8, Jan. 6 to Feb. 18, which were computed on basis of one discharge measurement and weather records and are fair. Chain gage read twice daily. Minor diversions for irrigation.

Rating table, period June 3 to Sept. 30, 1937 (gage height, in feet, and discharge, in second-feet)

1.6	5	4.5	1,550
1.8	26	5.0	2,060
2.0	75	5.5	2,780
2.5	260	6.0	3,700
3.0	515	6.5	4,880
3.5	810	7.0	6,380
4.0	1,130	7.5	8,220

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	116	201	170	250	549	567	208	549	606	190	335
2	9.4	129	226	208	280	598	524	191	1,830	504	1,100	246
3	9.4	150	249	264	295	777	530	201	8,220	642	786	186
4	7.8	119	230	230	340	1,040	494	198	3,600	510	1,880	256
5	7.8	103	264	129	370	1,130	429	407	6,280	438	6,280	380
6	6.8	103	220	115	340	1,040	407	205	4,780	292	1,490	570
7	6.8	160	226	102	320	751	453	238	2,720	228	690	395
8	9.4	167	232	104	310	573	435	407	1,970	181	548	246
9	25	212	234	110	350	512	412	341	1,540	177	482	1,320
10	25	163	238	125	410	494	396	264	1,000	169	305	1,390
11	11	212	234	134	450	476	365	268	882	310	260	2,310
12	22	226	257	138	510	458	365	322	798	190	165	1,150
13	27	253	312	140	620	447	365	370	924	115	1,590	666
14	27	230	308	142	750	424	350	859	1,220	422	1,840	526
15	47	238	317	146	920	412	346	524	840	238	906	416
16	27	230	290	148	1,020	424	336	494	1,460	233	548	345
17	25	230	303	148	1,130	412	326	470	918	1,190	588	315
18	42	238	346	150	1,300	391	312	412	950	1,030	554	287
19	60	245	299	130	1,020	494	294	360	1,070	1,230	612	242
20	42	238	326	102	922	518	277	322	1,800	858	482	202
21	32	234	376	99	887	592	272	268	1,240	982	471	169
22	55	238	365	*97	790	561	257	244	792	1,090	335	157
23	52	223	356	96	859	573	272	208	612	804	269	142
24	55	226	336	100	894	555	264	223	510	624	177	122
25	60	226	290	115	660	542	260	180	476	672	134	103
26	68	238	365	130	518	530	253	170	449	762	106	95
27	73	286	386	165	441	453	249	1,620	594	858	103	97
28	85	226	365	190	555	424	249	699	1,120	454	146	95
29	103	223	322	185	-	441	253	441	956	345	242	95
30	116	212	365	190	-	500	245	429	762	269	542	86
31	103	-	160	215	-	476	-	726	-	211	444	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,256.4	116	6.8	40.5	2,490
November	6,094	286	103	203	12,090
December	8,998	386	160	290	17,850
Calendar year 1936	173,074.4	10,700	6.8	473	343,300
January	4,517	264	96	146	8,960
February	17,511	1,300	250	625	34,730
March	17,567	1,130	391	567	34,840
April	10,557	567	245	352	20,940
May	12,268	1,620	170	396	24,330
June	50,862	8,220	449	1,695	100,900
July	16,634	1,230	115	537	32,990
August	24,265	6,280	103	783	48,130
September	12,944	2,310	86	431	25,670
Water year 1936-37	185,473.4	8,220	6.8	503	363,900

*Discharge measurement.

Republican River near Hardy, Nebr.

Location.- Water-stage recorder, lat. 40°00', long. 97°56', in sec. 6, T. 1 S., R. 5 W., 1¼ miles southwest of Hardy. Zero of gage is 1,501.46 feet above mean sea level (general adjustment of 1929).

Drainage area.- 22,400 square miles. Of this area 1,900 square miles are largely non-contributing.

Records available.- May 1932 to September 1937.

Extremes.- Maximum discharge during year, 9,100 second-feet June 4 (gage height, 9.65 feet); minimum daily discharge, 24 second-feet Oct. 4.
1932-37: Maximum discharge, 225,000 second-feet June 2, 1935 (gage height, 19.4 feet), by slope-area method; no flow Aug. 9-19, 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 6, Jan. 6 to Feb. 13, which were computed on basis of one discharge measurement and weather records and are fair. Chain gage read twice daily Oct. 1 to Nov. 20. Power plant 8 miles above station regulates flow.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	110	244	346	215	746	526	249	542	854	254	334
2	36	107	232	290	245	630	518	258	737	686	244	421
3	32	118	232	236	270	630	574	258	827	686	334	296
4	24	104	204	232	305	737	542	272	6,470	890	719	262
5	34	149	290	249	350	791	566	276	4,030	818	598	394
6	42	124	235	150	370	1,030	558	285	7,140	622	5,050	449
7	27	130	212	112	350	1,300	558	276	4,930	494	2,340	502
8	32	96	179	115	325	1,160	534	290	3,290	376	1,240	534
9	48	130	224	120	330	920	494	316	2,070	318	970	442
10	48	136	212	135	370	773	449	358	1,940	280	845	414
11	32	133	249	142	430	694	414	463	1,250	290	728	1,390
12	36	149	244	148	500	670	421	400	1,070	1,260	574	2,050
13	52	200	200	150	570	630	400	352	1,750	1,090	486	1,490
14	67	190	244	155	654	590	394	329	1,410	407	478	827
15	60	212	236	160	1,080	598	394	382	1,050	262	900	630
16	50	220	244	165	1,540	558	388	400	1,230	249	1,260	502
17	57	220	258	170	1,020	558	370	428	1,610	590	940	394
18	44	196	280	165	1,080	574	358	534	1,190	654	773	334
19	93	224	249	145	1,340	574	352	518	881	2,270	755	272
20	48	240	272	125	1,270	614	346	478	980	2,580	710	249
21	52	228	307	*105	1,130	582	334	442	670	1,140	694	254
22	67	216	312	102	1,160	662	307	414	1,900	719	574	212
23	88	228	324	100	1,160	719	267	400	1,080	524	435	190
24	64	216	370	110	1,079	728	262	370	719	2,990	352	172
25	101	228	407	120	920	670	262	318	614	2,370	340	220
26	90	228	407	130	782	622	254	296	502	920	267	182
27	93	236	407	140	388	622	240	290	494	630	216	146
28	96	240	400	155	456	590	240	630	510	678	176	143
29	104	236	400	170	-	582	240	1,330	542	662	152	133
30	118	236	407	180	-	518	240	746	755	702	139	130
31	107	-	382	195	-	518	-	518	-	470	179	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,884	118	24	60.8	3,740
November	5,480	240	96	183	10,870
December	8,863	407	179	286	17,580
Calendar year 1936	181,834	8,810	15	497	360,600
January	5,017	346	100	162	9,950
February	19,660	1,540	215	702	39,000
March	21,690	1,300	518	696	42,820
April	11,802	574	240	393	23,410
May	12,878	1,330	249	415	25,540
June	52,185	7,140	494	1,739	103,500
July	27,481	2,990	249	886	54,510
August	23,722	5,050	139	765	47,050
September	13,948	2,050	130	465	27,670
Water year 1936-37	204,508	7,140	24	560	405,640

*Discharge measurement.

Republican River at Scandia, Kans.

Location.- Wire-weight gage, lat. 39°48', long. 97°47', in NE¼ sec. 17, T. 3 S., R. 4 W., at Scandia, 4 miles below Dry Creek.

Drainage area.- 22,930 square miles.

Records available.- August 1919 to July 1925, August 1928 to September 1937.

Average discharge.- 14 years (1919-24, 1928-37), 780 second-feet.

Extremes.- Maximum discharge observed during year, 8,080 second-feet June 6 (gage height, 8.08 feet); minimum observed, 28 second-feet Oct. 13 (gage height, 1.40 feet).

1919-25, 1928-37: Maximum discharge observed, 215,000 second-feet June 2, 1935 (gage height, 17.8 feet, from floodmarks), from rating curve extended above 30,000 second-feet on basis of velocity-area studies; no flow Aug. 9-21, 1934. Bank-full stage, 9 feet.

Maximum stage known prior to flood of June 2, 1935, 14.2 feet June 30, 1915.

Remarks.- Records good except those for October, those for periods of ice effect, Dec. 6-22, Jan. 2 to Mar. 4 (computed on basis of gage heights, observer's notes, weather records, three discharge measurements at station near Hardy, and records for other stations in Republican River Basin), and that for June 22 (estimated), all of which are fair. Gage read twice daily. Some regulation at low water by operation of power plant.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	121	99	279	445	210	1,000	530	336	445	1,090	445	162
2	96	93	279	380	230	850	560	317	740	865	341	350
3	68	99	279	340	250	850	530	298	780	620	285	380
4	52	121	279	300	270	1,400	530	317	7,650	780	780	305
5	48	91	298	260	300	1,070	560	336	3,650	865	780	240
6	40	127	260	220	320	1,020	560	336	5,410	620	2,590	415
7	44	159	230	170	350	1,380	630	336	4,730	700	3,090	510
8	40	180	220	140	380	1,270	530	317	3,360	478	1,590	415
9	40	146	230	140	420	1,070	500	336	2,470	341	1,000	580
10	34	109	240	150	500	825	530	336	1,920	260	740	445
11	34	112	260	150	580	780	500	445	1,490	545	620	955
12	31	139	260	160	670	780	500	445	1,140	218	415	1,290
13	28	153	260	170	780	700	472	376	3,800	1,700	385	1,700
14	34	241	270	180	1,000	700	472	336	3,220	510	330	910
15	40	190	260	180	1,300	630	472	336	2,590	300	865	740
16	40	234	260	180	1,400	595	472	560	1,140	250	1,590	545
17	44	241	270	180	1,200	560	421	700	1,700	260	1,040	510
18	53	241	280	180	1,200	630	445	530	1,190	660	545	445
19	48	241	300	170	1,300	595	421	500	1,040	740	660	341
20	53	241	320	160	1,300	560	421	530	910	3,800	580	341
21	40	241	340	130	1,300	595	421	530	750	1,700	620	320
22	40	241	360	120	1,200	595	421	472	1,400	955	545	255
23	52	241	397	120	1,200	665	421	445	1,140	820	580	226
24	81	260	445	130	1,200	630	376	376	910	1,920	415	214
25	81	260	472	140	1,100	630	376	336	740	2,830	346	275
26	88	260	472	150	970	595	355	336	620	1,590	330	230
27	93	260	472	160	600	595	336	336	478	780	280	154
28	104	279	421	160	800	530	317	336	478	740	218	138
29	99	260	445	170	-	500	317	1,710	445	820	178	132
30	104	279	421	190	-	560	336	970	478	415	126	132
31	101	-	445	-	-	530	-	630	-	1,140	129	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,871	121	28	60.4	3,710
November	5,838	279	91	195	11,580
December	10,024	472	220	323	19,880
Calendar year 1936	191,122	10,100	12	522	379,100
January	5,725	445	120	185	11,360
February	22,330	1,400	210	798	44,290
March	23,690	1,400	500	764	46,990
April	13,732	630	317	458	27,240
May	14,500	1,710	298	468	28,760
June	56,814	7,650	445	1,894	112,700
July	29,312	3,800	218	946	58,140
August	22,438	3,090	126	724	44,510
September	13,685	1,700	132	456	27,140
Water year 1936-37	219,959	7,650	28	603	436,300

Republican River at Clay Center, Kans.

Location.- Water-stage recorder, lat. 39°21', long. 97°08', in SW¼ sec. 17, T. 8 S., R. 3 E., about 1 mile south of Clay Center and about 4 miles below mouth of "Five Creeks", which enters from the west.

Drainage area.- 24,570 square miles.

Records available.- February 1934 to September 1937. June 1917 to February 1934, at site at Wakefield. Records equivalent except for slight inflow from small creeks.

Extremes.- Maximum discharge during year, 10,200 second-feet July 12 (gage height, 14.13 feet); minimum, 35 second-feet Oct. 21 (gage height, 6.10 feet).
1934-37: Maximum discharge, 195,000 second-feet June 3, 1935 (gage height, 25.74 feet, from floodmarks), from rating curve extended above 30,000 second-feet on basis of velocity-area studies; no flow Aug. 6, 7, Aug. 9 to Sept. 8, 1934.

Remarks.- Records fair except those for periods of ice effect, Dec. 7, 8, Jan. 3 to Feb. 14 (computed on basis of gage heights, observer's notes, weather records, and records for stations on nearby streams), those for days of rapidly changing stage, and those computed on basis of weather records and records for station at Scandia, all of which are poor.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	511	100	263	445	190	*900	†623	388	1,100	*600	†1,120	206
2	328	100	263	450	200	†533	†606	376	2,170	*700	†1,090	164
3	260	98	270	270	210	†2,030	†590	370	2,360	†734	†672	172
4	220	102	274	290	230	†2,380	†590	376	1,010	*700	†371	226
5	190	102	294	270	250	†1,920	†590	370	4,680	*620	†328	388
6	154	98	263	230	270	†1,810	†556	347	5,090	†494	†591	430
7	124	112	230	200	330	†1,300	†623	342	4,880	†774	†917	335
8	124	102	220	190	550	*1,400	667	352	6,030	642	3,670	342
9	164	127	211	180	450	†1,350	694	352	4,020	601	2,200	388
10	154	108	202	180	470	†1,300	667	331	2,600	414	†1,440	439
11	98	108	190	190	500	†1,100	606	326	2,080	3,640	†1,120	448
12	82	127	199	190	1,400	†1,180	564	342	2,010	6,620	†856	422
13	70	127	202	180	†3,200	†784	*540	358	1,490	1,490	†774	*700
14	63	151	220	190	†3,000	†748	†495	426	1,860	805	†632	*1,900
15	61	160	263	200	*1,890	†915	510	394	3,500	1,350	†475	†1,600
16	57	163	278	200	†1,100	†640	460	347	3,800	591	†405	†1,020
17	55	184	274	200	1,140	*690	466	347	2,010	†357	†357	*800
18	49	199	294	190	*1,100	†712	453	388	†1,440	†275	†1,600	†672
19	47	217	319	160	*1,000	†658	453	694	*1,300	†240	†1,950	†570
20	43	226	328	170	†640	†676	446	640	*1,200	†456	†693	*460
21	40	226	332	150	*950	*700	426	598	*1,100	2,110	†611	†388
22	40	229	306	130	*1,100	*700	426	573	*1,100	2,400	*600	*340
23	†40	232	346	130	*1,000	†764	419	526	*1,300	1,440	†570	†299
24	40	232	360	140	†868	†639	394	581	1,770	†1,100	†570	*280
25	45	235	373	140	†1,010	†877	382	503	†1,190	†1,040	†531	†264
26	55	236	400	150	†1,100	†1,180	364	446	†1,160	3,080	†439	*290
27	59	246	435	150	†510	*850	376	400	†494	2,600	396	*240
28	75	256	435	150	†1,010	†730	382	370	*500	†1,380	364	†202
29	90	256	435	160	-	†676	376	358	*500	†917	306	†226
30	92	260	435	170	-	†658	376	376	*500	†615	275	197
31	95	-	445	180	-	†640	-	1,100	-	†836	230	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,545	511	40	114	7,030
November	5,121	260	98	171	10,160
December	9,359	445	190	302	18,560
Calendar year 1936	214,803	8,200	34	587	426,100
January	6,245	450	130	201	12,390
February	25,668	3,200	190	917	50,910
March	31,660	2,380	533	1,021	62,800
April	15,140	694	364	505	30,030
May	13,697	1,100	326	442	27,170
June	64,444	6,030	494	2,148	127,800
July	39,821	6,620	240	1,285	78,980
August	26,353	3,870	230	850	52,270
September	14,428	1,300	172	481	28,620
Water year 1936-37	255,481	6,620	40	700	506,700

*Computed on basis of weather records and hydrographic comparison with records for station at Scandia.
†Computed from once-daily chain-gage readings or hydrographs plotted from these readings.

Kansas River at Ogden, Kans.

Location.- Water-stage recorder, lat. 39°07', long. 96°42', in SW¼ sec. 12, T. 11 S., R. 6 E., three-quarters of a mile south of Ogden and 10 miles below junction of Smoky Hill and Republican Rivers.

Drainage area.- 45,240 square miles.

Records available.- June 1917 to September 1937.

Average discharge.- 20 years, 2,097 second-feet.

Extremes.- Maximum discharge during year, 13,600 second-feet July 12 (gage height, 13.37 feet); minimum observed, 178 second-feet Nov. 9 (gage height, 4.29 feet).
1917-37: Maximum discharge, 170,000 second-feet June 3, 1935 (gage height, 28.03 feet), from rating curve extended above 30,000 second-feet on basis of velocity-area studies; minimum, 51 second-feet Aug. 20, 1934. Bank-full stage, 18 feet.
Maximum stage known, about 28.5 feet May 1903 (discharge not known).

Remarks.- Records fair except those for periods of ice effect, Dec. 6-8, Jan. 6 to Feb. 8, which were computed on basis of gage heights, observer's notes, weather records, and records for nearby stations and are poor. Records for Oct. 10 to May 23, May 27 June 2, June 4-6, 13, June 17 to July 21-30, Aug. 10-17, Sept. 9, 10, 14-29, were computed on basis of once-daily chain gage readings or graphs based on gage readings. Some regulation at low water by operations of power plant.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,200	283	356	566	300	1,120	860	525	818	1,120	2,460	743
2	2,880	199	473	407	330	1,580	912	506	1,580	1,070	2,280	702
3	3,180	279	466	546	370	1,160	853	546	2,640	998	2,120	627
4	1,790	215	350	223	450	1,740	811	525	4,180	1,070	1,840	648
5	1,240	218	499	433	550	3,300	867	539	3,920	1,050	1,680	1,200
6	1,160	245	400	260	1,200	2,820	860	539	7,210	1,060	1,380	1,580
7	966	251	300	250	3,420	2,280	889	506	7,030	1,010	1,240	2,640
8	797	206	350	250	7,210	2,230	942	532	8,950	1,030	1,480	3,660
9	882	178	394	270	6,330	1,960	756	479	9,780	1,020	3,340	1,630
10	1,090	223	440	320	4,600	2,120	770	525	8,950	966	3,180	1,100
11	641	208	407	330	3,920	1,960	818	512	8,550	2,240	2,700	1,430
12	440	234	459	320	3,540	1,630	897	446	7,770	10,600	2,060	1,680
13	413	279	343	300	4,180	1,430	818	492	5,990	5,990	1,580	2,120
14	350	276	234	270	5,350	1,340	839	512	3,920	3,180	1,290	1,840
15	426	220	446	260	4,050	1,200	853	519	3,420	2,180	1,100	2,700
16	261	199	473	260	3,920	1,120	832	532	4,320	2,230	966	3,540
17	381	258	473	270	3,540	1,060	777	532	4,460	2,340	853	3,060
18	272	295	466	270	2,820	1,010	695	620	4,600	2,230	860	2,230
19	211	309	459	260	2,940	966	709	600	5,200	2,640	1,630	1,790
20	343	375	394	230	2,880	950	695	661	5,050	2,760	2,280	1,380
21	394	337	299	200	2,120	912	709	709	4,050	3,180	2,060	1,200
22	318	375	539	200	1,900	974	573	818	2,880	3,060	1,960	1,030
23	203	234	532	210	1,790	904	614	1,200	2,340	3,420	1,680	935
24	318	394	519	220	2,010	950	600	1,380	2,280	2,880	1,340	811
25	286	420	492	220	1,630	1,120	506	1,100	2,230	2,400	1,200	763
26	184	433	314	230	1,580	1,290	519	1,960	2,060	2,060	1,110	695
27	343	251	519	250	1,200	1,340	532	1,160	1,680	3,540	1,030	682
28	328	466	381	270	1,160	1,010	486	1,010	1,530	3,790	998	661
29	328	440	634	270	-	990	546	874	1,340	2,940	920	614
30	323	265	688	280	-	927	519	784	1,240	3,420	882	525
31	318	-	668	260	-	867	-	770	-	3,060	811	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	22,266	3,180	184	718	44,160
November	8,565	466	178	286	16,990
December	13,787	688	234	445	27,350
Calendar year 1936	408,793	8,260	140	1,117	810,900
January	8,905	566	200	287	17,660
February	75,290	7,210	300	2,689	149,300
March	44,260	3,300	867	1,428	87,790
April	22,057	942	486	735	43,750
May	22,413	1,960	446	723	44,460
June	129,968	9,780	818	4,332	257,800
July	80,534	10,600	966	2,598	159,700
August	50,310	3,340	811	1,623	99,790
September	44,216	3,660	525	1,474	87,700
Water year 1936-37	522,571	10,600	178	1,432	1,036,000

Kansas River at Wamego, Kans.

Location.- Water-stage recorder, lat. 39°12', long. 96°18', in SE¼ sec. 9, T. 10 S., R. 10 E., at Wamego, 3 miles below Antelope Creek. Zero of gage is 953.84 feet above mean sea level (U. S. Weather Bureau benchmark).

Drainage area.- 55,240 square miles.

Records available.- January 1919 to September 1937.

Average discharge.- 18 years, 3,386 second-feet.

Extremes.- Maximum discharge during year, 19,100 second-feet July 12 (gage height, 9.42 feet, from graph based on gage readings); minimum, 294 second-feet Dec. 7 (gage height, 0.68 foot).

1919-37: Maximum discharge, 177,000 second-feet June 4, 1935 (gage height, 23.79 feet, from graph based on gage readings); minimum, 200 second-feet Aug. 23, 1934 (gage height, 1.14 feet). Bank-full stage, 15 feet. Maximum stage known, 26.3 feet in May 1903 (determined by U. S. Weather Bureau from floodmarks; discharge not determined).

Remarks.- Records good except those for periods of ice effect, Jan. 8 to Feb. 7, which were computed on basis of one discharge measurement, gage heights, observer's notes, weather records, and records for nearby stations and are fair. Discharge for Oct. 12-27, Jan. 23 to Mar. 7, Mar. 13-15, Apr. 18, 19, July 6-16, Sept. 16-30 were computed on basis of twice-daily wire-weight gage readings. Regulation at low water by operations of power plant. Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,220	472	556	861	500	1,620	1,620	938	1,280	1,800	4,140	938
2	1,980	500	636	830	560	1,600	1,530	894	1,450	1,560	4,640	938
3	3,370	493	596	596	600	2,830	1,520	894	3,280	1,520	4,640	850
4	3,190	472	628	620	700	6,720	1,480	949	5,860	1,450	4,140	790
5	2,140	486	644	652	840	8,380	1,350	905	4,740	1,380	3,560	894
6	2,060	532	714	820	1,300	6,950	1,380	949	5,040	1,370	2,920	1,380
7	1,870	524	451	437	2,000	5,240	1,370	927	8,140	1,370	2,480	1,850
8	1,580	486	500	400	13,900	3,740	1,440	883	7,420	1,360	2,300	3,280
9	1,590	540	705	420	7,420	3,190	1,380	894	10,500	1,350	2,560	3,280
10	1,580	516	636	450	5,650	2,920	1,440	861	9,640	1,290	4,140	1,770
11	1,510	548	548	550	4,940	2,920	1,410	872	9,370	1,740	3,650	1,410
12	1,140	472	548	570	6,950	2,560	1,330	872	8,620	15,600	3,460	1,580
13	949	524	540	530	8,380	2,300	1,370	872	7,660	8,860	2,650	1,920
14	780	548	540	530	13,500	2,140	1,230	861	6,280	4,240	2,060	2,140
15	678	532	532	500	11,400	1,840	1,190	820	4,540	3,010	1,760	2,060
16	644	532	596	480	8,380	1,880	1,170	840	4,640	2,560	1,530	3,460
17	669	524	596	510	6,720	1,760	1,090	883	5,440	2,650	1,380	3,840
18	612	572	620	500	5,440	1,680	1,040	894	5,650	2,650	1,270	3,190
19	588	556	652	450	4,840	1,600	1,020	927	5,650	2,650	1,370	3,010
20	580	548	636	430	4,440	1,520	1,050	905	6,070	3,100	2,030	1,980
21	556	572	669	370	3,840	1,520	1,030	960	6,070	3,460	2,390	1,760
22	580	580	636	380	3,190	1,510	1,130	1,040	4,640	3,460	2,220	1,380
23	572	612	687	400	2,920	1,850	1,030	1,180	3,460	3,650	2,140	1,320
24	472	580	604	400	2,650	3,080	1,000	1,550	2,920	3,840	1,800	1,170
25	500	572	636	410	2,220	5,240	1,000	2,390	2,830	3,560	1,480	938
26	556	572	678	430	1,760	4,440	949	2,220	3,010	3,370	1,380	938
27	572	556	669	450	2,060	3,100	949	2,220	2,650	4,240	1,350	938
28	548	556	705	450	2,140	2,560	927	1,560	2,390	5,860	1,280	949
29	532	628	669	440	-	2,140	905	1,480	2,220	5,860	1,320	982
30	458	612	760	420	-	1,920	993	1,280	1,960	5,240	1,220	905
31	451	-	830	400	-	1,740	-	1,130	-	4,940	1,110	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	35,527	3,370	451	1,146	70,470
November	16,217	628	472	541	32,170
December	19,417	830	451	626	38,510
Calendar year 1936	665,436	14,100	310	1,818	1,320,000
January	15,686	861	370	506	31,110
February	129,240	13,900	500	4,616	256,300
March	92,490	8,380	1,510	2,984	183,500
April	36,323	1,620	905	1,211	72,050
May	34,850	2,390	820	1,124	69,120
June	153,420	10,500	1,280	5,114	304,300
July	108,990	15,600	1,290	3,516	216,200
August	74,370	4,640	1,110	2,399	147,500
September	51,840	3,840	790	1,728	102,800
Water year 1936-37	768,370	15,600	370	2,105	1,524,000

Kansas River at Topeka, Kans.

Location.- Water-stage recorder, lat. 39°04', long. 95°39', in NE¼ Sec. 29, R. 16 E., T. 11 S., at Sardou bridge in Topeka, about half a mile above mouth of Soldier Creek.

Drainage area.- 56,710 square miles.

Records available.- April to August 1904, June 1917 to September 1937.

Average discharge.- 20 years (1917-37), 3,857 second-feet.

Extremes.- Maximum discharge during year, 17,000 second-feet July 13 (gage height, 10.86 feet); minimum discharge observed, 380 second-feet (computed) Jan. 21, 22. 1917-37: Maximum discharge, 154,000 second-feet June 5, 1935 (gage height, 26.65 feet); minimum observed, 200 second-feet Aug. 31, 1934.
Maximum stage recorded, 32.7 feet May 30, 1903, from floodmarks (discharge not determined).

Remarks.- Records good except those for Oct. 21 to Feb. 12, which were computed from once-daily gage readings from U. S. Weather Bureau gage 1 mile upstream and are fair. Discharge for period of ice effect, Jan. 8 to Feb. 6, computed on basis of one discharge measurement, gage heights, observer's notes, weather records, and comparison with records for nearby stations on Kansas River.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,460	602	700	900	440	2,120	2,010	1,050	1,260	2,010	4,510	1,130
2	2,230	570	602	1,040	570	2,010	1,900	1,050	1,580	1,840	3,840	982
3	1,960	602	700	538	700	2,880	1,790	999	1,580	1,680	4,420	960
4	3,140	602	668	700	760	7,230	1,900	1,040	2,880	1,580	4,250	903
5	2,940	635	635	765	900	12,000	1,740	1,070	5,810	1,480	3,840	861
6	2,820	602	700	865	1,100	10,100	1,580	1,020	4,250	1,430	3,270	903
7	2,280	602	570	602	4,310	6,860	1,630	990	5,600	1,430	2,700	1,280
8	2,010	602	602	440	13,700	4,420	1,740	990	8,800	1,430	2,340	1,740
9	1,790	602	602	440	11,000	3,770	1,740	960	9,020	1,380	2,180	3,000
10	1,790	602	865	500	7,480	3,270	1,630	922	11,500	1,330	2,520	3,000
11	1,740	602	970	570	6,250	3,000	1,630	909	10,400	1,280	3,700	1,340
12	1,630	635	865	600	6,250	2,940	1,630	915	10,100	5,380	3,340	1,480
13	1,380	602	798	640	11,000	2,700	1,530	915	9,460	14,400	3,140	1,560
14	1,140	538	732	570	12,700	2,400	1,580	897	7,920	8,360	2,400	1,840
15	999	668	700	540	13,400	2,230	1,480	891	5,600	4,510	2,010	2,060
16	873	602	668	500	11,000	2,060	1,380	867	4,250	2,820	1,740	2,010
17	897	635	602	540	9,020	2,010	1,380	879	4,790	2,580	1,530	2,820
18	867	570	700	570	7,280	1,900	1,330	885	5,600	2,520	1,380	3,410
19	816	668	732	500	5,600	1,900	1,260	891	5,600	2,520	1,380	2,820
20	794	635	732	410	5,180	1,840	1,200	903	6,020	2,580	2,280	2,340
21	700	602	732	380	4,980	1,740	1,260	909	6,440	3,000	2,460	2,010
22	700	635	765	380	4,250	1,680	1,330	915	5,600	3,480	2,340	1,680
23	700	570	700	410	3,340	1,790	1,280	1,050	3,920	3,140	2,120	1,530
24	668	668	798	410	3,070	3,560	1,380	1,110	3,200	3,550	2,010	1,380
25	668	635	765	440	2,880	5,390	1,220	1,530	2,820	3,770	1,740	1,280
26	700	602	700	470	2,640	5,600	1,160	2,520	2,820	3,340	1,430	1,160
27	668	602	765	500	2,340	4,340	1,080	2,340	2,940	3,270	1,380	1,090
28	602	635	732	470	2,120	3,140	1,050	2,230	2,580	4,600	1,330	999
29	668	635	732	470	-	2,760	1,030	1,680	2,400	6,650	1,250	990
30	668	668	798	440	-	2,400	982	1,530	2,230	5,600	1,270	975
31	602	-	865	410	-	2,180	-	1,430	-	4,980	1,210	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	41,900	3,140	602	1,352	83,110
November	18,428	668	538	614	36,550
December	22,495	970	570	726	44,620
Calendar year 1936	837,312	15,100	331	2,288	1,661,000
January	16,910	1,040	380	545	33,540
February	154,260	13,700	440	5,509	306,000
March	112,270	12,000	1,680	3,622	222,700
April	43,832	2,010	982	1,461	86,940
May	36,287	2,520	867	1,171	71,970
June	156,970	11,500	1,260	5,232	311,300
July	107,920	14,400	1,280	3,481	214,100
August	75,310	4,510	1,210	2,429	149,400
September	50,053	3,410	861	1,668	99,280
Water year 1936-37	836,635	14,400	380	2,292	1,660,000

Kansas River at Lecompton, Kans.

Location.- Wire-weight gage, lat. 39°03', long. 95°24', in NE¼ sec. 34, T. 11 S., R. 18 E., at Lecompton, half a mile below Delaware River.

Drainage area.- 58,420 square miles.

Records available.- January to November 1896 and April 1899 to July 1906 (gage heights only), March 1936 to September 1937.

Extremes.- Maximum discharge observed during year, 22,100 second-feet Feb. 8 (gage height, 9.43 feet); minimum, 350 second-feet (computed) Jan. 8, 9.
1899-1906, 1936-37: Maximum discharge observed 280,000 second-feet (estimated) May 31, 1903 (gage height, 29.5 feet).

Remarks.- Records good except those for Oct. 15 to Feb. 20, which are fair. Discharge for period of ice effect, Jan. 8 to Feb. 6, computed on basis of gage heights, observer's notes, weather records, and records for nearby stations. Gage read twice daily. Gage-height records collected in cooperation with U. S. Weather Bureau.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

1.7	350	3.6	2,890	6.5	10,000
1.8	420	4.0	3,690	7.0	11,600
2.0	590	4.4	4,560	7.5	13,400
2.3	920	4.8	5,500	8.0	15,600
2.6	1,310	5.2	6,480	9.0	20,200
2.9	1,730	5.6	7,510	10.0	25,200
3.2	2,180	6.0	8,590		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,890	518	745	1,180	3,700	2,340	2,340	1,240	1,380	2,340	5,020	1,380
2	2,520	518	670	1,120	2,700	2,340	2,180	1,310	2,180	2,180	4,340	1,180
3	2,180	492	680	985	2,200	6,480	2,180	1,240	2,890	1,940	4,560	1,050
4	2,520	536	745	630	2,000	11,300	2,180	1,240	2,180	1,870	5,020	1,120
5	3,690	554	745	620	2,200	18,400	2,020	1,380	5,260	1,730	4,340	1,520
6	4,120	500	800	745	2,900	11,600	2,020	1,450	5,740	1,660	4,120	1,050
7	2,890	509	630	436	6,230	8,870	1,870	1,240	4,560	1,590	3,280	1,180
8	2,340	572	690	350	21,600	5,740	2,180	1,240	9,150	1,660	2,700	1,600
9	2,340	554	630	350	16,000	4,560	2,340	1,240	8,590	1,590	2,520	2,520
10	2,180	536	690	420	8,320	3,900	2,020	1,180	12,000	1,590	2,520	3,900
11	2,020	572	860	500	7,250	3,480	1,940	1,120	10,600	1,520	3,900	2,520
12	1,870	554	690	590	17,300	3,280	1,940	1,120	10,300	1,520	3,900	1,870
13	1,660	572	745	600	20,600	3,080	1,870	1,380	9,710	17,600	3,690	1,730
14	1,310	518	745	620	16,000	2,700	1,800	1,120	8,590	12,000	3,080	2,020
15	1,120	590	860	600	16,400	2,520	1,870	1,050	6,730	5,980	2,340	2,340
16	920	610	745	570	13,100	2,340	1,660	1,050	4,790	4,340	2,020	2,340
17	860	581	690	530	10,000	2,180	1,590	985	5,020	3,690	1,800	2,700
18	860	572	800	520	8,320	2,180	1,590	1,050	5,740	2,890	1,730	3,900
19	800	590	745	530	6,990	2,180	1,520	1,050	5,980	3,280	1,450	3,690
20	690	630	800	550	6,230	2,180	1,450	1,050	5,980	3,080	2,180	2,890
21	650	610	800	420	5,740	2,020	1,660	1,050	6,480	3,280	3,900	2,520
22	690	590	800	400	5,020	2,020	1,870	1,120	6,480	3,480	2,700	2,180
23	620	620	860	400	4,120	1,940	1,590	1,240	4,790	3,690	2,520	1,870
24	610	650	860	420	3,690	4,340	1,660	1,180	3,690	3,480	2,340	1,730
25	610	650	860	490	3,280	6,480	2,020	1,520	3,080	3,900	2,180	1,590
26	630	660	860	550	3,280	5,980	1,450	4,340	2,890	3,900	1,800	1,450
27	600	670	860	550	2,890	5,260	1,380	4,560	2,890	3,280	1,590	1,310
28	545	680	860	500	2,520	3,900	1,240	2,890	2,890	3,900	1,520	1,180
29	518	650	860	500	-	3,280	1,310	2,020	2,700	6,480	1,450	1,120
30	610	680	1,050	590	-	2,890	1,240	1,730	2,520	6,230	1,380	1,120
31	590	-	1,800	4,800	-	2,520	-	1,590	-	5,260	1,450	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	46,453	4,120	518	1,498	92,140
November	17,538	680	492	585	34,790
December	25,175	1,800	630	812	49,930
Calendar year					
January	22,066	4,800	350	712	43,770
February	220,580	21,600	2,000	7,878	437,500
March	140,280	16,400	1,940	4,525	278,200
April	53,980	2,340	1,240	1,799	107,100
May	46,975	4,560	985	1,515	93,170
June	165,780	12,000	1,380	5,526	328,800
July	121,130	17,600	1,520	3,907	240,300
August	87,340	5,020	1,380	2,817	173,200
September	58,770	3,900	1,050	1,959	116,800
Water year 1936-37	1,006,067	21,600	350	2,756	1,996,000

Kansas River at Bonner Springs, Kans.

Location.- Water-stage recorder, lat. 39°03', long. 94°52', NE¼ sec. 32, T. 11 S., R. 23 E., at Bonner Springs, half a mile below Wolf Creek.

Drainage area.- 59,890 square miles.

Records available.- July 1917 to September 1937.

Average discharge.- 20 years, 4,909 second-feet.

Extremes.- Maximum discharge during year, 28,400 second-feet Feb. 8 (gage height, 11.64 feet); minimum, 310 second-feet Jan. 7 (gage height, 2.10 feet).
1917-37: Maximum discharge, 122,000 second-feet June 6, 1935 (gage height, 23.05 feet); minimum, 300 second-feet Sept. 1, 1934 (gage height, 1.67 feet).

Remarks.- Records good except those below 500 second-feet, which are poor. Those for periods of ice effect, Dec. 7, 8, Jan. 8 to Feb. 6, computed on basis of one discharge measurement, gage heights, observer's notes, weather records, and records for stations on nearby streams. Those for Feb. 1-12 partly computed from graph based on gage readings, and those for Sept. 7-18, 25-30, from twice-daily gage readings of wire-weight gage.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,660	710	658	1,930	5,200	2,940	2,750	1,500	1,780	2,520	5,040	1,460
2	2,940	658	710	1,340	3,700	2,660	2,570	1,350	1,540	2,430	4,640	1,390
3	2,480	593	697	1,050	2,600	2,750	2,320	1,410	2,760	2,050	4,310	1,350
4	2,320	593	684	632	2,200	6,030	2,320	1,420	3,000	2,000	4,730	1,210
5	2,570	593	794	489	2,200	13,900	2,320	1,400	2,430	1,900	4,940	1,380
6	3,840	606	850	528	2,800	13,000	2,320	1,440	5,150	1,680	4,420	2,170
7	3,950	632	780	463	4,590	10,000	2,070	1,560	4,940	1,720	4,000	1,350
8	2,840	606	710	340	16,400	7,480	2,070	1,350	5,150	1,540	3,400	1,280
9	2,480	632	684	340	16,400	5,470	2,320	1,410	8,310	1,620	3,000	1,750
10	2,400	632	697	370	9,430	4,700	2,570	1,290	8,590	1,630	2,620	2,430
11	2,400	645	738	450	7,750	3,950	2,320	1,250	10,600	1,520	2,710	3,200
12	2,050	593	850	580	11,800	3,740	2,070	1,220	9,430	1,540	3,800	2,430
13	1,930	580	850	640	19,100	3,640	2,070	1,330	9,430	4,100	3,800	1,610
14	1,650	632	697	710	17,500	3,440	1,930	1,720	8,590	13,600	3,700	1,560
15	1,410	580	724	700	15,300	3,040	1,880	1,170	7,480	9,720	3,100	1,540
16	1,220	567	724	640	13,600	2,660	1,910	1,100	6,040	5,810	2,520	2,140
17	1,050	632	684	520	11,200	2,570	1,690	1,080	4,940	4,840	2,120	2,150
18	962	580	671	520	9,150	2,480	1,690	1,040	5,370	4,310	1,890	2,710
19	906	606	697	580	7,750	2,480	1,690	1,070	5,810	3,400	1,940	3,300
20	948	554	780	580	6,940	2,660	1,530	1,030	5,810	3,500	3,100	3,200
21	836	632	619	450	6,420	2,400	1,730	1,080	5,810	3,300	3,900	2,620
22	794	606	684	410	5,700	2,320	2,150	1,110	6,040	3,400	4,100	2,260
23	864	593	671	450	5,260	2,230	2,150	1,100	5,810	3,700	2,900	1,980
24	794	632	710	520	4,480	3,740	1,690	1,140	4,620	4,100	2,520	1,660
25	822	645	671	580	4,060	6,680	2,050	1,220	3,800	3,700	2,340	1,600
26	752	658	752	620	3,740	6,680	2,840	2,090	3,300	4,200	2,170	1,510
27	710	645	752	630	3,540	5,930	1,810	6,730	3,000	3,900	1,980	1,390
28	724	684	738	640	3,340	5,030	1,500	5,040	3,200	3,600	1,800	1,280
29	697	645	724	640	-	3,950	1,440	3,300	2,900	4,200	1,540	1,260
30	619	671	752	850	-	3,440	1,500	2,170	2,710	5,810	1,540	1,150
31	619	-	976	2,400	-	3,140	-	1,840	-	5,590	1,560	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	51,237	3,950	619	1,653	101,600
November	18,635	710	554	621	36,960
December	22,728	976	619	733	45,080
Calendar year 1936	1,001,360	19,900	410	2,736	1,986,000
January	21,592	2,400	340	697	42,830
February	222,140	19,100	2,200	7,934	440,600
March	147,130	13,900	2,230	4,746	291,900
April	61,270	2,840	1,440	2,042	121,500
May	52,960	6,730	1,030	1,708	105,000
June	158,340	10,600	1,540	5,278	314,100
July	118,930	13,600	1,520	3,772	231,900
August	98,130	5,040	1,540	3,101	190,700
September	56,800	3,300	1,150	1,893	112,700
Water year 1936-37	1,025,892	19,100	340	2,811	2,036,000

North Fork of Republican River at Colorado-Nebraska State line

Location.- Water-stage recorder, lat. 40°04', long. 102°03', in sec. 10, T. 1 N., R. 42 W., 100 feet east of Colorado-Nebraska State line. Zero of gage is 3,338.09 feet above mean sea level (general adjustment of 1929).

Records available.- March 1931 to September 1937.

Extremes.- Maximum discharge during year, 139 second-feet July 24 (gage height, 2.66 feet); minimum daily discharge, 2.6 second-feet June 22-24.
1931-37: Maximum discharge, 433 second-feet May 29, 1936, from rating curve extended above 100 second-feet; maximum stage, 4.00 feet June 15, 1934; no flow Aug. 25, 26, 1932.

Remarks.- Records good except those for period of ice effect, Jan. 1 to Mar. 1 (computed on basis of two discharge measurements and weather records), and those for periods of missing gage heights, July 28 to Aug. 4 and Aug. 13, 22-24 (computed on basis of precipitation records), which are fair. Several small diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	53	57	47	53	52	58	26	17	5.0	9	5.3
2	44	42	57	48	57	57	58	20	66	5.7	8	5.7
3	47	48	57	49	54	54	61	20	30	5.0	7	7.0
4	50	48	57	50	55	54	63	20	34	e.2	6	23
5	34	49	56	47	59	54	60	14	34	5.7	5.7	22
6	37	46	54	45	52	54	60	12	44	5.7	5.3	13
7	36	48	58	43	50	56	61	12	35	6.0	4.4	18
8	37	48	60	42	57	51	61	24	36	5.0	3.7	22
9	39	49	61	44	57	54	58	38	50	4.1	3.4	18
10	41	49	61	47	*65	54	58	19	43	4.1	3.4	18
11	49	47	58	53	59	56	57	18	36	3.7	3.4	26
12	39	51	57	54	58	57	57	13	36	3.7	3.4	37
13	39	63	56	55	54	58	54	23	36	14	12	24
14	40	61	57	58	55	58	53	8.2	27	6.3	8.9	25
15	40	60	54	57	58	58	50	7.4	32	5.7	7.4	24
16	38	60	56	57	54	57	49	8.2	32	6.3	6.7	22
17	37	61	56	58	52	51	48	6.3	30	10	6.3	23
18	48	61	51	55	57	53	49	7.0	15	17	8.2	24
19	35	61	51	53	54	57	43	9.6	10	8.5	8.2	31
20	38	60	53	49	32	54	43	6.7	7.4	7.0	7.4	18
21	43	58	54	45	47	54	43	6.3	4.4	7.0	9.5	18
22	46	61	53	47	52	54	43	6.0	2.6	6.7	8.0	18
23	46	61	51	49	53	54	46	6.3	2.6	8.2	7.5	18
24	48	60	49	52	52	63	50	6.3	2.6	75	17	16
25	60	63	50	53	48	73	50	9.3	3.1	31	7.0	18
26	47	64	50	*55	50	69	49	23	15	13	6.7	36
27	48	63	49	57	43	66	48	9.6	7.8	10	6.3	24
28	41	61	49	54	48	63	38	7.0	6.3	10	5.7	22
29	38	57	53	49	-	64	34	7.0	4.4	9	5.0	18
30	35	57	50	52	-	64	34	e.9	4.1	12	5.0	20
31	36	-	51	52	-	64	-	7.4	-	11	5.3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,309	60	34	42.2	2,600
November	1,670	64	42	55.7	3,310
December	1,686	61	49	54.4	3,340
Calendar year 1936	17,093.4	269	3.6	46.7	33,910
January	1,574	58	42	50.8	3,120
February	1,505	65	43	53.8	2,990
March	1,787	73	51	57.6	3,540
April	1,536	63	34	51.2	3,050
May	409.5	38	6.0	13.2	812
June	703.3	66	2.6	23.4	1,390
July	337.6	75	3.7	10.9	670
August	210.6	17	3.4	6.79	418
September	614.0	37	5.3	20.5	1,220
Water year 1936-37	13,342.0	75	2.6	36.6	26,460

*Discharge measurement.

Frenchman Creek near Champion, Nebr.

Location.- Water-stage recorder, lat. 40°29', long. 101°48', in sec. 19, T. 6 N., R. 39 W., 2⅔ miles west of Champion.

Records available.- July 1932 to September 1937.

Extremes.- Maximum discharge during year, 168 second-feet May 11 (gage height, 2.66 feet); minimum daily discharge, 9.0 second-feet July 18, 27.
1932-37: Maximum discharge, 849 second-feet June 17, 1934 (gage height, 5.85 feet), from rating curve extended above 100 second-feet; minimum daily discharge, 8 second-feet Apr. 23, 1935.

Remarks.- Records good except those for period of ice effect, Feb. 6 to Mar. 1, which were computed on basis of records for station below Champion and are fair. Several diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	17	21	36	36	36	17	13	26	15	38	28
2	24	18	20	38	34	30	16	13	74	15	34	28
3	22	17	17	30	32	27	16	14	57	16	33	28
4	22	18	18	34	30	20	17	13	24	15	22	18
5	26	18	18	38	33	13	17	13	20	15	18	13
6	40	18	18	36	36	14	20	13	26	15	18	12
7	26	18	18	38	36	14	20	14	26	15	18	14
8	18	18	18	34	40	18	20	14	36	18	18	22
9	18	20	20	33	38	20	20	15	51	36	18	40
10	18	18	28	32	36	16	20	28	48	34	20	32
11	18	17	34	32	38	14	21	100	45	28	28	24
12	18	22	16	32	36	14	21	34	42	20	32	15
13	20	26	16	32	34	14	21	21	40	20	45	15
14	20	18	16	32	34	14	20	20	40	20	40	16
15	20	16	16	32	36	14	17	18	46	21	22	16
16	20	20	16	33	34	14	16	18	45	22	32	14
17	20	20	16	34	36	14	16	17	46	20	28	14
18	20	20	16	36	38	14	16	18	39	9.0	22	14
19	20	20	16	58	36	22	15	18	26	11	26	14
20	21	20	16	42	36	21	14	18	16	13	36	16
21	21	21	17	38	38	18	14	18	16	17	24	17
22	21	21	17	40	36	17	14	18	15	15	24	17
23	21	21	17	44	36	18	14	18	15	9.9	24	17
24	20	22	16	38	36	28	14	16	14	9.9	26	17
25	18	24	16	36	36	33	14	18	15	9.9	24	17
26	18	26	16	36	36	21	13	36	15	9.9	26	18
27	18	24	17	34	34	22	14	36	14	9.0	22	18
28	17	22	16	34	34	22	14	45	13	11	28	18
29	17	21	16	34	-	22	14	21	13	21	28	18
30	17	21	18	36	-	21	14	18	14	24	30	18
31	16	-	38	36	-	21	-	18	-	39	28	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	639	40	16	20.6	1,270
November	604	26	17	20.1	1,200
December	578	38	16	18.6	1,150
Calendar year 1936	9,239	65	10.0	25.2	18,350
January	1,118	58	30	36.1	2,220
February	995	40	30	35.5	1,970
March	606	36	13	19.5	1,200
April	499	21	13	16.6	990
May	694	100	13	22.4	1,380
June	917	74	13	30.6	1,820
July	553.6	39	9.0	17.9	1,100
August	832	45	18	26.8	1,650
September	568	40	12	18.9	1,130
Water year 1936-37	8,603.6	100	9.0	23.6	17,080

Frenchman Creek below Champion, Nebr.

Location.- Water-stage recorder, lat. 40°28', long. 101°49', in SW¼ sec. 22, T. 6 N., R. 39 W., 0.4 mile below Champion.

Records available.- March 1935 to September 1937.

Extremes.- Maximum discharge during year, 504 second-feet May 10 (gage height, 5.10 feet); minimum daily discharge, 11 second-feet Jan. 2.
1935-37: Maximum discharge, 888 second-feet May 28, 1935 (gage height, 6.67 feet), from rating curve extended above 150 second-feet on basis of velocity-area studies; minimum daily discharge, 11 second-feet May 12, 1936, Jan. 2, 1937.

Remarks.- Records good. Flow regulated by two power plants a short distance upstream. Several diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	26	30	15	46	48	32	22	23	21	42	38
2	35	37	39	11	48	41	26	19	92	25	39	38
3	35	19	29	26	49	40	37	19	66	30	40	38
4	35	32	38	44	53	45	19	19	38	26	37	36
5	37	28	29	52	48	24	30	21	32	29	28	26
6	44	40	26	38	48	25	27	18	24	24	33	39
7	38	26	35	49	48	24	35	24	35	28	26	18
8	42	26	24	38	52	32	28	14	29	22	19	29
9	32	34	33	42	47	31	23	19	52	35	30	44
10	32	31	26	44	42	32	30	84	49	47	24	45
11	30	35	51	53	47	27	26	99	58	41	31	43
12	39	28	38	48	49	24	38	56	47	47	38	28
13	30	34	29	42	46	27	21	32	27	25	42	39
14	38	30	40	49	38	24	25	27	46	38	64	21
15	33	37	27	43	39	28	28	36	54	29	34	26
16	33	44	38	41	42	26	24	29	50	36	41	32
17	32	32	37	47	39	25	30	36	44	38	47	23
18	28	31	34	56	37	23	24	25	45	23	38	24
19	30	40	32	48	46	38	37	30	35	24	38	23
20	34	30	28	43	45	45	20	30	24	45	41	36
21	39	36	41	53	46	23	25	28	25	76	44	24
22	27	27	27	51	48	41	23	29	16	30	38	28
23	38	37	45	53	45	25	28	24	28	24	41	37
24	33	33	55	46	42	40	22	25	19	23	41	34
25	29	28	58	59	45	42	17	28	28	20	40	21
26	33	24	61	45	44	30	29	36	23	27	45	26
27	38	41	35	50	41	29	14	37	24	24	42	31
28	27	30	34	50	41	32	22	37	34	22	34	31
29	35	32	38	49	-	34	14	41	17	19	38	29
30	25	38	27	48	-	34	16	19	28	29	46	28
31	42	-	30	48	-	32	-	31	-	45	32	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,060	44	25	34.2	2,100
November	966	44	19	32.2	1,920
December	1,114	61	24	35.9	2,210
Calendar year 1936	14,634	81	11	40.0	29,030
January	1,381	59	11	44.5	2,740
February	1,261	53	37	45.0	2,500
March	991	48	23	32.0	1,970
April	770	38	14	25.7	1,530
May	991	99	14	32.0	1,970
June	1,112	92	16	37.1	2,210
July	972	76	19	31.4	1,930
August	1,173	64	19	37.8	2,330
September	937	45	18	31.2	1,860
Water year 1936-37	12,728	99	11	34.9	25,270

Frenchman Creek near Hamlet, Nebr.

Location.- Water-stage recorder, lat. 40°23', long. 101°13', in sec. 19, T. 5 N., R. 34 W., 1 mile east of Hamlet. Zero of gage is 2,798.43 feet above mean sea level (Chicago, Burlington & Quincy Railroad datum).

Records available.- April 1929 to September 1937.

Extremes.- Maximum discharge during year, 1,970 second-feet June 15 (gage height, 9.66 feet); minimum daily discharge (computed), 60 second-feet Sept. 14-16, 19-21.
1929-37: Maximum discharge, 2,200 second-feet May 27, 1935 (gage height, 10.34 feet), from rating curve extended above 1,000 second-feet; minimum daily discharge, 49 second-feet Nov. 21, 1931.

Remarks.- Records good except those for period of ice effect, Jan. 2 to Feb. 16 (computed on basis of one discharge measurement, weather records, and records for station below Champion), and those for period of missing gage heights, Sept. 11-21 (computed on basis of records for station below Champion), which are fair. Several diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	78	82	90	86	90	107	89	80	84	79	73	68
2	80	82	83	75	95	106	87	81	87	76	78	78
3	81	81	89	65	100	108	92	81	93	74	81	85
4	67	80	92	75	105	109	88	89	97	71	83	179
5	73	76	96	80	110	111	80	81	109	68	78	89
6	78	83	90	80	115	115	88	84	110	68	76	84
7	69	83	94	80	110	115	86	84	108	64	72	85
8	72	82	100	75	105	116	83	88	104	64	66	78
9	75	76	87	70	105	116	84	84	103	64	68	85
10	76	80	88	80	115	120	78	92	102	69	66	81
11	77	79	87	90	115	111	89	92	101	63	70	75
12	77	84	89	90	120	116	82	102	104	61	75	75
13	78	89	89	95	120	116	88	178	100	64	79	70
14	72	86	90	95	120	119	87	132	99	65	76	60
15	73	84	94	95	120	123	82	98	270	61	78	60
16	80	84	91	90	120	116	80	98	560	66	76	60
17	83	82	87	90	124	115	88	91	162	164	80	65
18	83	83	91	85	120	117	83	92	143	164	67	65
19	73	85	90	85	114	109	77	88	127	96	83	60
20	79	86	87	80	110	112	88	85	120	95	76	60
21	76	85	88	75	108	104	79	75	116	165	77	60
22	76	85	84	75	108	106	81	83	112	98	72	63
23	79	80	84	76	110	104	75	78	108	135	72	64
24	81	85	84	75	107	102	76	70	103	109	76	72
25	81	86	88	80	111	103	82	76	96	100	69	72
26	80	85	89	80	111	112	79	76	93	88	77	76
27	80	86	87	85	111	98	79	79	90	84	76	79
28	77	86	87	85	111	95	72	75	87	77	72	79
29	76	86	88	85	-	84	85	76	84	80	75	80
30	76	88	84	85	-	88	78	76	82	78	76	80
31	81	-	84	90	-	88	-	76	-	74	80	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,389	83	67	77.1	4,740
November	2,499	89	76	83.3	4,960
December	2,751	100	83	88.7	5,460
Calendar year 1936	35,778	438	53	97.8	70,990
January	2,552	95	65	82.3	5,060
February	3,110	124	90	111	6,170
March	3,363	123	84	108	6,670
April	2,486	92	72	82.8	4,930
May	2,740	178	70	88.4	5,430
June	3,754	560	82	125	7,450
July	2,684	165	61	86.6	5,320
August	2,323	83	66	74.9	4,610
September	2,287	179	60	76.2	4,540
Water year 1936-37	32,937	560	60	90.2	65,340

Frenchman Creek at Culbertson, Nebr.

Location.- Staff gage, lat. 40°14', long. 100°50', in sec. 17, T. 3 N., R. 31 W., at Culbertson. Zero of gage is 2,561.93 feet above mean sea level (general adjustment of 1929).

Records available.- June 1913 to September 1915, March 1931 to September 1937.

Extremes.- Maximum discharge observed during year, 3,120 second-feet June 1 (gage height, 7.30 feet); minimum daily discharge, 12 second-feet July 16, 17, Aug. 26. 1913-15; 1931-37: Maximum discharge (estimated), 15,000 second-feet May 31, 1935; minimum daily discharge, 7 second-feet Aug. 13, 14, 26, 1936.

Remarks.- Records good except those for period of ice effect, Jan. 3 to Feb. 11, which were computed on basis of two discharge measurements and weather records and are fair. Staff gage read twice daily. Several diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	35	120	148	110	170	154	24	281	63	24	14
2	30	35	122	148	115	168	155	24	210	55	27	17
3	29	89	122	145	120	170	155	31	132	45	24	19
4	27	89	123	155	125	168	155	29	123	36	41	14
5	26	58	136	150	135	173	152	26	124	34	35	61
6	24	48	141	120	*139	168	157	26	147	27	27	38
7	22	55	144	100	135	168	155	25	163	22	23	40
8	22	69	146	90	130	166	155	26	146	23	34	54
9	19	89	154	85	135	168	141	34	152	20	22	50
10	19	104	159	95	145	150	140	41	147	17	37	45
11	20	105	148	105	160	148	128	49	148	17	34	43
12	19	100	148	120	168	150	142	50	148	20	35	45
13	19	122	148	125	150	150	134	50	148	14	36	46
14	19	110	159	125	177	150	138	129	147	27	19	26
15	19	117	164	130	177	135	116	128	140	14	18	24
16	20	117	155	130	186	141	108	108	605	12	18	22
17	20	117	163	130	196	148	100	90	435	12	15	27
18	20	117	164	125	186	147	110	63	240	48	19	30
19	20	111	164	120	196	150	112	53	220	206	22	29
20	20	118	166	115	206	148	102	43	212	102	31	27
21	20	116	157	105	186	150	114	31	172	66	31	25
22	20	118	166	100	177	148	114	31	111	63	28	22
23	20	116	163	*92	177	147	71	24	77	69	22	27
24	20	116	148	95	186	150	60	27	69	62	26	26
25	20	117	148	100	184	168	60	23	48	69	27	21
26	22	112	159	105	186	175	60	24	122	50	12	26
27	27	118	166	105	186	168	50	24	87	52	14	34
28	27	117	166	110	168	150	31	23	80	31	14	29
29	27	118	166	110	-	166	24	22	70	30	15	30
30	23	117	166	105	-	152	24	21	70	27	17	26
31	27	-	157	105	-	154	-	22	-	32	14	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	699	32	19	22.5	1,390
November	2,970	122	55	99.0	5,890
December	4,708	166	120	152	9,340
Calendar year 1936	39,110	424	7	107	77,580
January	3,593	148	85	116	7,130
February	4,541	206	110	162	9,010
March	4,864	173	135	157	9,650
April	3,317	157	24	111	6,580
May	1,321	129	21	42.6	2,620
June	4,974	605	48	166	9,870
July	1,367	206	12	44.1	2,710
August	763	41	12	24.6	1,510
September	937	61	14	31.2	1,860
Water year 1936-37	34,054	605	12	93.3	67,560

*Discharge measurement.

Medicine Creek near Cambridge, Nebr.

Location.- Chain gage, lat. 40°18', long. 100°11', in NE¼ sec. 18, T. 4 N., R. 25 W., 2 miles northwest of Cambridge and 2⅝ miles above mouth.

Records available.- December 1936 to September 1937.

Extremes.- Maximum discharge during period, 1,860 second-feet June 2, by slope-area method (gage height, 9.55 feet, from floodmarks); minimum discharge, 20 second-feet July 27 (gage height, 1.61 feet).

Remarks.- Records fair. Discharge for period of ice effect, Dec. 10 to Mar. 4, computed on basis of five discharge measurements and weather records. Staff gage read twice daily. No diversions above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			-	34	42	*62	54	51	44	61	77	33
2			-	33	44	66	50	49	960	57	48	33
3			-	36	43	70	55	49	109	52	56	32
4			-	38	44	84	54	50	124	49	968	325
5			-	37	47	94	54	49	82	47	117	74
6			-	35	42	68	54	49	113	45	78	55
7			-	33	35	70	52	54	70	46	40	62
8			-	34	*35	60	52	52	80	40	38	49
9			-	37	34	58	50	48	76	38	35	132
10			*63	40	40	58	51	47	73	37	32	70
11			55	41	52	56	52	45	70	37	31	34
12			65	42	57	56	50	46	71	36	31	30
13			45	43	61	64	48	45	64	61	600	28
14			*40	44	60	60	48	44	62	38	70	29
15			38	45	60	66	48	43	58	34	45	29
16			36	44	62	62	47	42	59	34	43	28
17			41	43	63	60	48	41	54	35	39	26
18			39	43	62	65	45	39	54	36	35	27
19			40	43	62	66	45	41	53	36	35	26
20			43	43	60	64	43	40	52	160	34	26
21			45	40	57	67	45	40	51	67	32	26
22			44	*37	55	64	49	41	47	32	32	26
23			44	38	54	66	51	43	49	32	30	26
24			43	41	54	68	55	47	50	32	30	26
25			45	40	54	60	51	49	50	28	31	26
26			37	42	50	58	51	45	185	25	30	26
27			39	41	49	58	51	43	219	21	29	26
28			39	40	60	58	56	43	97	26	31	26
29			37	37	-	56	54	43	92	35	30	27
30			36	39	-	53	51	45	73	37	33	26
31			35	40	-	54	-	42	-	960	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December 10-31	949	65	35	43.1	1,880
Calendar year					
January	1,223	45	33	39.6	2,430
February	1,438	63	34	51.4	2,850
March	1,971	94	53	63.6	3,910
April	1,514	56	43	50.5	3,000
May	1,405	54	39	45.3	2,790
June	3,241	960	44	108	6,430
July	2,264	960	21	73.0	4,490
August	2,795	988	29	90.2	5,540
September	1,409	325	26	47.0	2,790
The period					36,110

*Discharge measurement.

Beaver Creek near Beaver City, Nebr.

Location.- Chain gage, lat. 40°07'30", long. 99°53'45", in W½ sec. 23, T. 2 N., R. 23 W., on State Highway 21, 3½ miles west of Beaver City.

Records available.- May to September 1937.

Extremes.- Maximum discharge during period, 2,270 second-feet Aug. 3 (gage height, 11.8 feet, from floodmarks), by slope-area method; minimum discharge, 1.5 second-feet July 13, 14 (gage height, 0.38 foot).

Remarks.- Records good. Staff gage read twice daily. Several diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								4.2	18	13	21	27
2								4.2	492	12	20	31
3								4.2	55	8.9	75	25
4								5.0	260	e.7	409	18
5								4.2	285	7.8	80	13
6								4.2	282	6.1	92	10
7								7.7	203	5.7	122	26
8								3.4	82	15	127	34
9								4.2	49	8.9	56	18
10								4.2	37	4.5	24	22
11								90	31	3.6	16	9.4
12								23	27	2.7	11	8.0
13								38	22	1.6	13	7.7
14								120	20	18	9.4	19
15								104	18	18	129	23
16								32	37	19	87	13
17								20	26	312	177	8.4
18								13	19	53	161	6.6
19								9.4	102	30	64	12
20								7.8	127	13	29	17
21								6.6	37	19	21	12
22								5.6	58	11	16	8.7
23								4.9	67	6.1	13	6.8
24								4.4	32	95	11	6.1
25								4.1	24	24	10	5.2
26								83	16	13	9.6	4.2
27								15	13	7.5	8.2	3.4
28								7.7	15	6.1	21	2.4
29								178	13	8.7	163	2.0
30								106	13	6.e	100	1.7
31								32	-	5.0	35	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May	950.0	178	3.4	30.6	1,880
June	2,460	492	13	82.0	4,880
July	763.7	312	1.6	24.6	1,510
August	2,130.2	409	8.2	68.7	4,230
September	400.6	34	1.7	13.4	795
The period					13,300

Sappa Creek near Beaver City, Nebr.

Location.- Chain gage, lat. 40°02'45", long. 99°53'45", in W½ sec. 14, T. 1 N., R. 23 W., on State Highway 21, seven miles southwest of Beaver City.

Records available.- May to September 1937.

Extremes.- Maximum discharge observed during period, 2,040 second-feet June 3 (gage height, 15.96 feet); minimum daily discharge, 0.8 second-foot May 30, 31.

Remarks.- Records fair. Chain gage read twice daily. Several diversions for irrigation above station.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								1.0	1.2	14	4.9	42
2								1.0	871	11	3.5	23
3								1.0	1,820	9.6	100	15
4								2.0	1,650	8.4	216	11
5								1.5	984	7.4	68	9.3
6								1.0	1,240	6.8	52	9.3
7								1.0	659	6.3	41	308
8								1.0	154	5.7	35	254
9								1.0	87	5.2	126	274
10								1.0	70	4.7	77	175
11								1.0	61	4.2	52	68
12								1.0	60	3.8	27	54
13								1.0	91	3.7	20	47
14								84	72	125	12	30
15								36	33	36	105	18
16								15	25	17	221	13
17								13	20	9.9	302	9.6
18								4.2	358	6.6	195	8.2
19								4.0	165	6.1	128	7.2
20								3.5	58	5.0	56	7.4
21								2.0	38	9.9	32	5.9
22								1.6	25	31	17	5.4
23								1.2	20	31	16	4.0
24								1.0	16	42	15	2.8
25								.9	14	83	9.6	2.4
26								56	13	73	9.0	2.3
27								2.2	12	40	179	2.3
28								1.4	9.6	39	528	1.9
29								1.0	21	26	191	1.8
30								.8	24	11	97	1.1
31								.8	-	6.8	60	1.1

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January					
February					
March					
April					
May	243.1	84	0.8	7.84	482
June	8,671.8	1,820	1.2	289	17,200
July	689.1	125	3.7	22.2	1,370
August	2,995.0	528	3.5	96.6	5,940
September	1,412.9	306	1.1	47.1	2,800
The period					27,800

West Buffalo Creek near Jewell, Kans.

Location.- Water-stage recorder and concrete control, lat. 39°40', long. 98°11, in NW¼ sec. 25, T. 4 S., R. 8 W., 1 mile northwest of Jewell and 1 mile above dam of city of Jewell.

Drainage area.- 15.2 square miles.

Records available.- March 1934 to September 1937.

Extremes.- Maximum discharge during year, 814 second-feet June 13 (gage height, 7.78 feet); no flow during much of the year.
1934-37: Maximum discharge, 3,520 second-feet Sept. 1, 1935 (gage height, 12.09 feet), from rating curve extended above 1,500 second-feet; no flow during long periods.

Remarks.- Records fair except those for Feb. 13, 14, Mar. 3-5, which were computed on basis of records for nearby stations and are poor.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	0			0			
2					0	0			0			
3					0	.32			0			
4					C	2.1			0			
5					0	.14			.06			
6					0	0			0			
7					0	0			0			
8					0	0			0			
9					0	0			0			
10					0	0			0			
11					4.0	0			0			
12					8.6	0			0			
13					2.7	0			135			
14					1.0	0			.90			
15					0	0			.12			
16					0	0			.03			
17					0	0			0			
18					0	0			0			
19					0	0			0			
20					0	0			0			
21					0	0			0			
22					0	0			0			
23					0	0			0			
24					0	0			0			
25					0	0			0			
26					0	0			0			
27					0	0			0			
28					0	0			0			
29					-	0			0			
30					-	0			0			
31					-	0			0			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	51.98	12	0	.142	103
January	0	0	0	0	0
February	16.3	8.6	0	.582	32
March	2.56	2.1	0	.083	5.1
April	0	0	0	0	0
May	0	0	0	0	0
June	136.11	135	0	4.54	270
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1936-37	154.97	135	0	.425	307

West Buffalo Creek at Jewell, Kans.

Location.- Water-stage recorder above spillway of Jewell city dam, lat. 39°40', long. 98°10', in SE¼ sec. 25, T. 4 S., R. 8 W., at Jewell.

Drainage area.- 18.8 square miles.

Records available.- May 1934 to September 1937.

Extremes.- Maximum discharge during year, 795 second-feet June 13 (gage height, 8.01 feet); no flow during much of the year.
1934-37: Maximum discharge, 3,560 second-feet Sept. 1, 1935 (gage height, 11.40 feet, from high-water marks in gage house), from rating curve extended above 3,000 second-feet; no flow during long periods.

Remarks.- Records fair.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	0			0			
2					0	0			0			
3					0	.18			0			
4					0	1.7			0			
5					0	0			0			
6					0	0			0			
7					0	0			0			
8					0	0			0			
9					0	0			0			
10					0	0			0			
11					0	0			0			
12					7.2	0			0			
13					4.4	0			124			
14					1.7	0			1.7			
15					1.3	0			.29			
16					.40	0			.01			
17					.13	0			0			
18					0	0			0			
19					0	0			0			
20					0	0			0			
21					0	0			0			
22					0	0			0			
23					0	0			0			
24					0	0			0			
25					0	0			0			
26					0	0			0			
27					0	0			0			
28					0	0			0			
29					-	0			0			
30					-	0			0			
31					-	0			-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	33.33	10	0	.091	65.8
January	0	0	0	0	0
February	15.13	7.2	0	.540	30
March	1.86	1.7	0	.061	3.7
April	0	0	0	0	0
May	0	0	0	0	0
June	126.0	124	0	4.20	250
July	0	0	0	0	0
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1936-37	143.01	124	0	.392	284

Smoky Hill River at Ellsworth, Kans.

Location.- Wire-weight gage, lat. 38°44', long. 98°14', in SE¼ sec. 20, T. 15 S., R. 8 W., in Ellsworth, 2 miles below Turkey Creek.

Drainage area.- 7,580 square miles.

Records available.- April 1895 to October 1905, July 1918 to July 1925, August 1928 to September 1937.

Average.- 24 years (1895-1904, 1918-24, 1928-37), 196 second-feet.

Extremes.- Maximum discharge observed during year, 3,130 second-feet July 14 (gage height, 9.38 feet); minimum observed, 1.5 second-feet Jan. 26 (discharge measurement). 1895-1905, 1918-25, 1928-37: Maximum discharge observed, 23,000 second-feet (revised) July 5, 1895 (gage height, about 21.6 feet, present datum), from rating curve extended above 11,000 second-feet; minimum, that of Jan. 26, 1937.
Flood in August 1927, reached a stage of 25.0 feet, from floodmarks, (discharge, about 24,000 second-feet). Bank-full stage, 20 feet.

Remarks.- Records good except those for period of ice effect, Jan. 2 to Feb. 3 (computed on basis of one discharge measurement, gage heights, observer's notes, weather records, and records for Smoky Hill River at Lindsborg), and those for days of rapidly changing stage, which are poor.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	24	16	14	5	41	23	10	38	68	189	210
2	28	24	15	10	5	38	21	9	286	62	158	178
3	24	23	15	8	8	36	21	10	47	65	138	138
4	23	23	14	8	20	36	19	11	38	54	124	121
5	21	22	14	8	65	35	18	11	345	49	110	420
6	30	22	14	7	231	35	19	10	960	47	95	370
7	25	22	14	5	210	35	20	11	673	54	88	527
8	24	19	15	4	264	32	24	10	499	47	82	420
9	21	21	16	4	148	31	22	10	1,550	39	76	264
10	20	21	18	5	158	31	19	10	499	34	68	264
11	20	20	13	5	138	28	19	9	370	40	68	1,460
12	19	21	14	4	168	30	18	8	370	32	64	584
13	18	20	13	4	114	30	16	8	298	117	76	420
14	18	19	16	3	93	27	19	8	264	2,920	345	446
15	17	19	16	3	83	24	18	8	370	828	796	321
16	16	18	16	3	82	29	18	8	210	370	321	286
17	16	18	16	3	76	29	16	7	200	584	220	231
18	16	18	16	3	54	27	16	7	189	960	178	200
19	16	16	16	3	52	29	15	7	168	1,250	139	168
20	15	17	15	3	30	28	13	6	148	754	148	148
21	15	17	15	2	32	25	12	19	138	446	126	128
22	30	17	15	2	59	25	13	7	124	555	121	115
23	28	17	15	2	46	29	11	6	158	860	115	103
24	26	16	15	2	39	29	11	6	138	796	95	121
25	25	16	15	2	32	25	11	6	128	1,910	85	87
26	25	16	15	2	21	29	10	6	103	1,960	72	79
27	24	15	15	2	13	22	10	6	96	643	66	72
28	24	15	15	2	37	21	10	8	88	420	58	65
29	24	14	14	3	-	21	10	7	80	345	90	62
30	24	14	23	4	-	23	10	45	74	275	253	57
31	24	-	16	4	-	24	-	446	-	220	210	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	684	30	15	22.1	1,360
November	566	24	14	18.9	1,120
December	475	23	13	15.3	942
Calendar year 1936	36,433	2,900	10	99.6	72,270
January	134	14	2	4.3	266
February	2,283	264	5	81.5	4,530
March	904	41	21	29.2	1,790
April	484	24	10	16.1	960
May	740	446	6	23.9	1,470
June	8,649	1,550	38	288	17,160
July	16,784	2,920	32	541	33,290
August	4,824	796	58	156	9,570
September	8,065	1,460	57	269	16,000
Water year 1936-37	44,592	2,920	2	122	88,460

Smoky Hill River at Lindsborg, Kans.

Location.- Water-stage recorder, lat. 38°34', long. 97°40', in SE¼ sec. 17, T. 17 S., R. 3 W., at old bridge on U. S. Highway 81, in Lindsborg. Zero of gage is 1,297.19 feet above mean sea level (general adjustment of 1929).

Drainage area.- 8,110 square miles.

Records available.- February 1930 to September 1937.

Extremes.- Maximum discharge during year, 3,880 second-feet June 10 (gage height, 18.16 feet); minimum, 2 second-feet (regulated) Dec. 2 (gage height, 2.88 feet).

1930-37: Maximum discharge, 7,190 second-feet June 30, 1935 (gage height, 25.83 feet); minimum, 1 second-foot (regulated) Apr. 25, 1935 (gage height, 2.40 feet, estimated.

Maximum stage known, about 33.9 feet (present datum) in May 1903, determined in 1938 from floodmarks at mill about 300 feet upstream (discharge not determined). Flood of August 1927 reached a stage of about 31.3 feet.

Remarks.- Records good except those for period of ice effect, Jan. 7-26 (computed on basis of one discharge measurement, engineer's notes, weather records, and records for Smoky Hill River at Ellsworth), and those for days of rapidly changing stage, which are poor. Some regulation at low water by operation of mill 300 feet upstream.

Rating tables, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 25-31)

Oct. 1 to June 9						June 10 to Sept. 30					
2.9	2	4.3	80	8.0	597	3.7	37	6.0	320	11.0	1,460
3.1	5	4.6	108	9.0	791	4.0	62	6.5	398	12.0	1,770
3.3	10	5.0	149	10.0	1,020	4.3	92	7.0	484	13.0	2,090
3.5	19	5.5	209	11.0	1,270	4.6	127	8.0	672	15.0	2,760
3.7	32	6.0	276	13.0	1,870	5.0	178	9.0	900		
4.0	55	7.0	426	15.0	2,580	5.5	247	10.0	1,160		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	18	26	21	4	47	33	34	771	102	320	219
2	52	33	10	28	4	54	32	11	579	98	282	191
3	39	13	3	12	3	79	31	10	634	92	240	191
4	32	28	4	44	3	75	28	32	242	89	212	172
5	45	29	40	11	7	74	26	10	133	94	191	155
6	35	22	11	29	552	64	26	10	96	81	172	138
7	28	22	11	20	615	53	27	25	646	70	157	424
8	28	16	29	15	956	52	28	25	711	71	149	432
9	24	45	10	13	349	38	28	8	2,470	64	135	415
10	35	26	11	11	195	48	28	25	2,730	41	123	320
11	35	33	32	9	108	42	28	8	758	52	115	342
12	31	23	12	8	118	27	26	8	502	56	109	1,210
13	27	25	14	7	138	38	26	25	432	50	109	652
14	29	5	36	7	109	39	27	22	390	50	105	449
15	25	10	13	6	116	52	24	7	561	1,500	108	432
16	26	33	20	5	107	34	24	8	466	925	639	374
17	20	13	24	5	80	15	21	27	358	594	432	312
18	20	14	23	4	76	32	21	11	261	594	374	275
19	32	37	23	4	62	24	20	10	235	714	398	240
20	16	22	22	3	80	44	20	8	212	1,130	261	212
21	20	19	20	3	24	23	20	145	198	758	219	184
22	34	19	21	5	55	34	19	304	178	538	184	164
23	24	29	21	20	65	45	18	120	165	466	144	147
24	26	18	19	10	64	27	18	57	161	714	142	133
25	12	18	21	4	92	38	16	46	172	781	139	122
26	26	17	22	4	66	36	16	18	157	1,240	143	119
27	14	30	21	4	20	44	16	37	143	1,930	104	104
28	30	19	21	3	36	18	17	14	133	758	103	95
29	29	19	24	3	-	28	18	13	123	538	91	91
30	21	19	18	3	-	32	27	13	114	424	83	83
31	38	-	21	3	-	33	-	101	-	398	149	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	909	56	12	29.3	1,800
November	674	45	5	22.5	1,340
December	603	40	3	19.5	1,200
Calendar year 1936	40,262	2,440	3	110	79,860
January	324	44	3	10.5	643
February	4,144	956	3	148	8,220
March	1,289	79	15	41.6	2,560
April	709	33	16	23.6	1,410
May	1,192	304	7	38.5	2,360
June	14,729	2,730	96	491	29,210
July	15,012	1,930	41	484	29,780
August	6,212	639	83	200	12,320
September	8,397	1,210	83	280	16,660
Water year 1936-37	54,194	2,730	3	148	107,500

Smoky Hill River at Enterprise, Kans.

Location.- Water-stage recorder, lat. 38°54', long. 97°07', in NE¼ sec. 20, T. 13 S., R. 3 E., at Atchison, Topeka & Santa Fe Railway bridge a few hundred feet below dam of Hoffman Milling Co. in Enterprise and 14 miles above mouth of Chapman Creek. Zero of gage is 1,098.14 feet above mean sea level (general adjustment of 1929).

Drainage area.- 19,200 square miles.

Records available.- November 1934 to September 1937. June 1918 to September 1921, at site near Abilene April to July 1904 and October 1922 to October 1934 at site at Solomon.

Extremes.- Maximum discharge during year, 7,300 second-feet June 11 (gage height, 17.44 feet); minimum, 38 second-feet Jan. 29 (gage height, 2.42 feet).

1934-37: Maximum discharge, 20,200 second-feet June 9, 1935 (gage height, 29.12 feet), from rating curve extended above 15,000 second-feet; no flow (regulated) Apr. 23, 1935.

Maximum known discharge 90,000 second-feet (estimated), in May 1903 (gage height, about 32 feet). (Data obtained from Corps of Engineers, U. S. Army.)

Remarks.- Records good except those for period of ice effect, Jan. 6-26 (computed on basis of one discharge measurement, gage heights, and weather records) and those for periods of missing or doubtful gage heights, Oct. 6-9, June 21-24, 27-29, July 2, 3, (estimated), which are fair. Gage-height record collected in cooperation with U. S. Weather Bureau. Some regulation at low water by operations of power plant.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Feb. 20 to June 1)

Oct. 1 to July 19						July 20 to Sept. 30					
2.5	44	5.0	577	12.0	3,580	2.3	41	4.5	470	9.0	2,080
2.7	62	6.0	897	13.0	4,200	2.5	63	5.0	601	10.0	2,520
3.0	113	7.0	1,265	14.0	4,850	2.7	93	6.0	919		
3.3	175	8.0	1,660	15.0	5,540	3.0	147	6.5	1,090		
3.6	235	9.0	2,080	16.0	6,250	3.3	206	7.0	1,270		
4.0	321	10.0	2,520	17.0	7,000	3.6	268	7.5	1,460		
4.5	441	11.0	3,000	18.0	7,750	4.0	354	8.0	1,660		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,220	*103	99	103	57	343	175	105	763	*367	1,230	278
2	2,750	*124	103	110	59	343	159	76	1,380	370	953	245
3	1,110	*112	105	67	52	343	154	76	1,380	310	676	234
4	731	124	137	90	50	441	156	145	2,900	*275	560	570
5	731	105	99	107	76	480	164	143	3,000	*288	560	849
6	510	118	120	110	577	637	152	101	3,160	*277	707	2,460
7	390	126	116	100	1,240	667	71	67	4,760	*260	691	1,960
8	320	126	97	85	*5,120	731	169	66	5,820	*310	707	660
9	290	107	112	90	*4,260	652	162	110	6,400	*275	1,230	434
10	*254	122	131	100	*3,400	454	195	148	7,150	*237	1,130	953
11	*241	105	110	100	2,170	367	158	110	6,620	*229	707	1,270
12	*243	99	86	100	1,910	332	152	71	4,400	*187	520	1,500
13	*209	99	82	90	1,580	310	148	137	2,120	441	422	1,310
14	*166	103	99	95	1,700	288	164	152	1,540	715	*354	1,790
15	*137	112	101	80	2,210	266	122	93	1,260	480	*310	2,430
16	*166	124	105	70	1,910	239	124	219	1,230	1,110	*278	2,080
17	*146	124	118	65	1,580	231	73	167	3,060	1,230	*255	1,310
18	*122	107	120	80	1,620	239	141	173	4,070	1,330	530	919
19	*124	107	126	70	1,660	239	187	80	3,940	2,340	1,270	707
20	*128	107	103	80	*1,300	231	80	103	*2,520	2,340	1,200	587
21	*141	93	122	70	747	221	169	185	1,600	1,270	1,130	546
22	*128	82	101	70	*731	221	143	671	1,200	1,270	755	470
23	*120	99	103	65	699	201	76	607	860	1,230	546	422
24	*122	99	112	55	577	207	57	403	700	886	458	482
25	*116	107	107	55	507	213	76	493	*607	1,020	399	343
26	*120	91	120	55	*454	181	129	493	*535	1,500	434	310
27	*114	105	110	54	*355	173	137	480	470	1,350	434	310
28	*118	88	107	53	*332	217	69	310	440	1,540	388	278
29	*122	90	107	47	-	201	114	241	400	2,430	354	258
30	*145	101	103	52	-	199	173	223	*391	2,170	332	260
31	*118	-	112	45	-	262	-	336	-	1,460	310	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	13,354	3,220	114	431	26,490
November	3,209	126	82	107	6,360
December	3,375	137	82	109	6,690
Calendar year 1936	156,966	6,920	73	429	311,400
January	2,413	110	45	77.8	4,790
February	36,933	5,120	50	1,319	73,260
March	10,129	731	173	327	20,090
April	4,079	195	57	136	8,090
May	6,784	671	66	219	13,460
June	74,696	7,150	391	2,490	148,200
July	29,997	2,430	187	968	59,500
August	19,830	1,270	255	640	39,330
September	26,225	2,460	234	874	52,020
Water year 1936-37	231,024	7,150	45	633	458,300

*Based on wire-weight gage readings.

Saline River near Wilson, Kans.

Location.- Water-stage recorder, lat. 38°56', long. 98°32', in SW¼ sec. 11, T. 13 S., R. 11 W., three-quarters of a mile above Hell Creek and 8 miles northwest of Wilson.
Drainage area.- 1,900 square miles.
Records available.- May 1929 to September 1937.
Extremes.- Maximum discharge during year, 1,560 second-feet May 21 (gage height, 8.09 feet); minimum, 1 second-foot Jan. 6 (gage height, 2.46 feet).

1929-37: Maximum discharge, 11,600 second-feet, June 2, 1935 (gage height, 24.79 feet), from rating curve extended above 5,000 second-feet; minimum, 1 second-foot Jan. 23-25, 1935, and Jan. 6, 1937.

Maximum stage in recent years, about 26.8 feet in 1928 (probably in July), determined in 1929 from floodmarks (discharge not determined).

Remarks.- Records good except those for period of ice effect, Jan. 7 to Feb. 5 (computed on basis of one discharge measurement, gage heights, observer's notes, and weather records), those for Feb. 6-19, June 20 to July 13 (computed on basis of intermittent chain-gage readings, weather records, and records for station at Tescott and for Smoky Hill River at Ellsworth), and those for days of very rapidly changing stage, all of which are poor. Discharge for June 2-19, Sept. 19-28, when the intake pipe was partly clogged, computed on basis of graph based on outside gage readings.

Rating table, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 5 to Jan. 6)

2.4	0.8	4.4	352
2.6	6.7	4.8	470
2.8	26	5.2	593
3.0	52	5.6	721
3.3	99	6.0	849
3.6	156	6.5	1,010
4.0	246	7.0	1,180

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	10	7	10	3	24	10	5	49	14	18	10
2	27	9	7	5	3	24	10	5	188	13	12	10
3	24	6	7	5	4	23	9	5	1,050	12	7	9
4	21	8	7	6	6	22	8	7	882	11	7	9
5	16	8	11	7	10	53	8	8	641	10	7	309
6	16	8	8	5	28	32	8	8	440	9	7	53
7	16	8	8	4	90	25	11	10	136	7	8	25
8	15	5	10	3	250	22	27	10	92	6	5	92
9	15	8	12	3	300	20	34	18	561	6	5	24
10	14	8	10	3	310	19	18	16	297	9	4	922
11	13	9	11	3	280	18	13	13	152	14	4	915
12	12	9	10	3	210	18	11	10	74	22	4	381
13	9	9	8	3	170	16	9	8	69	15	7	150
14	9	9	8	3	140	19	8	7	59	9	312	92
15	8	8	8	3	106	15	7	6	52	7	514	55
16	9	8	9	3	80	16	7	6	46	16	128	50
17	13	8	9	3	60	16	7	5	38	10	62	42
18	18	7	8	4	50	15	7	5	31	14	44	38
19	12	7	8	4	40	15	6	5	27	30	32	36
20	10	8	7	4	28	14	7	16	25	22	26	34
21	7	7	7	3	24	14	6	663	23	76	22	31
22	7	7	7	2	26	13	6	49	21	41	28	28
23	7	7	7	2	24	13	5	22	19	28	27	25
24	7	7	8	2	24	14	5	14	18	46	28	23
25	9	7	8	2	24	11	5	11	17	74	35	21
26	11	7	8	2	18	9	5	22	16	37	41	20
27	10	7	8	2	22	9	5	16	16	27	31	18
28	11	7	8	3	23	9	5	12	16	24	23	16
29	13	7	8	3	-	9	5	12	16	21	22	15
30	13	7	8	3	-	10	5	19	15	21	13	14
31	13	-	9	3	-	10	-	13	-	20	13	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	416	31	7	13.4	825
November	230	10	5	7.7	456
December	259	12	7	8.4	514
Calendar year 1936	24,143	2,590	4	66.0	47,890
January	111	10	2	3.6	220
February	2,353	310	3	84.0	4,670
March	547	53	9	17.6	1,080
April	277	34	5	9.2	549
May	1,026	663	5	33.1	2,040
June	5,086	1,050	15	170	10,090
July	671	76	6	21.6	1,330
August	1,496	514	4	48.3	2,970
September	3,477	922	9	116	6,900
Water year 1936-37	15,949	1,050	2	43.7	31,640

Saline River at Tescott, Kans.

Location.- Water-stage recorder, lat. 39°00', long. 97°53', in SE¼ sec. 16, T. 12 S., R. 5 W., at highway bridge, half a mile south of Tescott and half a mile above Dry Creek.

Drainage area.- 2,820 square miles.

Records available.- September 1919 to September 1937.

Average discharge.- 18 years, 153 second-feet.

Extremes.- Maximum discharge during year, 1,270 second-feet Sept. 13 (gage height, 15.15 feet); minimum discharge, 6 second-feet Nov. 3; minimum gage height, 3.42 feet Sept. 6.

1919-37: Maximum discharge, 6,850 second-feet June 3, 1935 (gage height, 29.57 feet, from graph based on gage readings); no flow several days in January, March, and April 1935 and Feb. 9, 1936. Bank-full stage, about 25 feet.

Remarks.- Records fair except those for period of ice effect, Jan. 6 to Feb. 11 (computed on basis of one discharge measurement, gage heights, observer's notes, and weather records), and those for days of rapidly changing stage, which are poor. Some regulation at low water due to operation of power plants.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	136	48	9	21	15	40	21	13	39	26	44	26
2	98	20	20	30	15	37	30	11	42	24	56	24
3	80	7	32	22	20	38	29	10	34	24	155	23
4	60	12	27	12	25	42	19	11	329	24	50	18
5	46	14	13	26	30	44	14	11	1,090	20	30	11
6	40	11	26	10	50	48	24	11	1,070	21	17	8
7	62	13	14	8	200	112	29	15	1,020	17	53	55
8	41	30	8	7	350	95	23	25	680	15	98	170
9	33	16	8	15	500	66	19	24	345	13	71	74
10	36	24	26	25	430	46	21	11	195	29	35	455
11	28	34	31	12	330	35	21	22	415	24	23	237
12	18	15	32	10	435	34	29	11	365	14	14	719
13	28	21	31	10	591	42	44	10	240	17	15	1,080
14	13	14	12	10	628	24	41	9	144	20	14	514
15	22	9	8	10	459	24	21	18	119	18	13	240
16	24	9	21	15	347	29	29	26	110	13	20	141
17	13	26	27	10	276	41	19	13	95	13	478	104
18	14	32	28	10	258	29	20	24	86	15	258	81
19	22	32	28	10	231	26	29	23	74	26	113	65
20	28	32	28	10	140	28	17	16	64	18	76	56
21	11	14	12	8	136	30	14	16	56	44	56	51
22	13	19	9	8	130	32	17	40	49	128	45	43
23	34	13	10	9	82	20	27	436	47	58	35	38
24	32	8	10	9	66	32	25	248	37	78	29	32
25	28	20	12	10	46	19	26	82	41	61	26	36
26	12	27	10	10	46	21	12	42	35	160	32	23
27	20	13	14	10	67	23	22	32	25	295	30	25
28	12	9	11	10	48	34	12	25	24	116	31	16
29	10	20	10	10	-	18	10	23	24	62	29	28
30	27	15	34	10	-	19	10	22	26	43	34	17
31	36	-	30	10	-	33	-	14	-	35	24	-

Month	Second foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,079	136	10	34.8	2,140
November	577	48	7	19.2	1,140
December	591	34	8	19.1	1,170
Calendar year 1936	25,992	2,190	3	71.0	51,540
January	387	30	7	12.5	768
February	5,951	628	15	213	11,800
March	1,161	112	18	37.5	2,300
April	674	44	10	22.5	1,340
May	1,302	436	9	42.0	2,580
June	6,920	1,090	24	231	13,730
July	1,471	295	13	47.5	2,920
August	2,006	478	13	64.7	3,980
September	4,410	1,080	8	147	8,750
Water year 1936-37	26,529	1,090	7	72.7	52,620

Solomon River at Beloit, Kans.

Location.- Water-stage recorder, lat. 39°27', long. 98°07', in SW¼ sec. 9, T. 7 S., R. 7 W., at bridge on State Highway 14 in Beloit and 1½ miles above Leban Creek. Zero of gage is 1,339.88 feet above mean sea level (subject to correction for general adjustment of 1929).

Drainage area.- 5,430 square miles.

Records available.- April 1895 to June 1897, April 1929 to September 1937.

Extremes. Maximum discharge during year, 5,100 second-feet June 6 (gage height, 20.97 feet); minimum, 1 second-foot (regulated) Jan. 18, 19.

1895-97, 1929-37: Maximum discharge, 37,800 second-feet June 3, 1935 (gage height, 34.5 feet, from graph based on gage readings and floodmarks), from rating curve extended above 25,000 second-feet on basis of velocity-area studies; a minimum approaching zero sometimes occurs during low-water periods when power plant is shut down.

Maximum stage recorded, 33.6 feet Sept. 20, 1919 (determined by U. S. Weather Bureau; discharge not determined). Stages of floods in June 1908 and in 1915 were slightly less.

Remarks.- Records good except those based on incomplete recorder record and readings of wire-weight gage, those for days of rapidly-changing stage, and those below 25 second-feet, all of which are poor. Considerable regulation at low water by operation of mill 200 feet upstream.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	725	8	5	20	2	63	6	45	173	157	145	56
2	*218	49	23	10	2	64	63	4	662	146	125	34
3	*94	25	43	7	2	73	7	29	*3,410	137	191	51
4	71	26	5	23	2	225	34	5	*4,030	120	102	*37
5	69	24	33	6	5	502	63	11	4,560	109	536	49
6	*37	3	5	15	3	165	51	63	4,800	92	1,360	82
7	*12	23	5	17	2	100	4	4	3,490	73	361	240
8	*9	12	50	19	2	81	51	56	*983	77	165	*441
9	29	26	5	31	2	71	10	4	*525	92	*140	*491
10	*20	5	22	12	2	67	64	145	*381	101	*120	*354
11	*4	5	8	11	2	21	6	236	*304	96	*110	*474
12	25	5	50	10	50	72	19	138	*328	978	*110	*1,260
13	*41	37	6	9	406	61	28	94	*381	*983	*50	*354
14	*4	26	49	8	1,100	21	37	69	3,680	*304	*75	176
15	33	3	16	10	872	56	15	61	3,090	693	*1,140	140
16	2	24	30	44	605	75	65	24	3,230	410	*671	*113
17	28	6	12	2	432	88	24	36	1,290	256	441	100
18	6	4	5	1	277	22	6	28	*936	217	217	74
19	21	21	47	1	199	56	65	25	*542	178	145	77
20	2	22	5	2	173	9	5	42	*410	153	135	70
21	40	36	45	2	146	48	7	24	*316	210	191	72
22	59	3	5	3	147	64	35	24	*240	*367	236	38
23	47	21	9	24	136	57	56	15	*240	*690	236	47
24	51	6	59	2	123	57	26	71	*220	*316	161	*65
25	6	44	6	2	92	6	3	46	*200	*243	*137	*55
26	59	3	60	3	79	63	4	5	*185	*983	*122	*3
27	29	32	6	3	57	16	53	39	*140	*808	64	*64
28	37	4	45	3	43	34	3	23	172	*354	91	*4
29	6	4	6	4	-	68	21	32	158	*240	58	*42
30	30	22	27	14	-	6	4	6	162	*190	49	*6
31	33	-	59	20	-	63	-	8	-	*161	45	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,847	725	2	59.6	3,660
November	529	49	3	17.6	1,050
December	751	60	5	24.2	1,490
Calendar year 1936	46,582.1	5,050	.1	127	92,390
January	338	44	1	10.9	670
February	4,963	1,100	2	177	9,840
March	2,371	502	6	76.5	4,700
April	835	65	3	27.8	1,660
May	1,412	236	4	45.5	2,800
June	39,240	4,800	140	1,308	77,830
July	9,924	983	73	320	19,680
August	7,749	1,360	45	250	15,370
September	5,069	1,260	3	169	10,050
Water year 1936-37	75,028	4,800	1	206	148,800

*Based on incomplete recorder record and wire weight gage readings.

Solomon River at Niles, Kans.

Location.- Water-stage recorder, lat. 38°58', long. 97°29', in NW¼ sec. 31, T. 12 S., R. 1 W., three-quarters of a mile west of Niles and 12 miles (revised) above confluence with Smoky Hill River.

Drainage area.- 6,770 square miles.

Records available.- May 1897 to November 1903, May 1919 to September 1937. October 1917 to June 1919, at site in SW¼ sec. 28, T. 11 S., R. 3 W., at Darling Point highway bridge, near Bennington. Records equivalent except for inflow from small creeks.

Average discharge.- 24 years (1897-1903, 1919-37), 464 second-feet.

Extremes.- Maximum discharge during year, 4,940 second-feet June 8 (gage height, 21.72 feet); minimum, 14 second-feet Dec. 11 (gage height, 2.65 feet).

1897-1903, 1919-37: Maximum discharge observed, 41,000 second-feet (estimated) June 3, 1903; minimum observed, 1 second-foot Sept. 4, 1926. Bank-full stage, 24 feet.

Flood of June 7, 1935, reached a stage of 29.75 feet (discharge, 29,800 second-feet, from rating curve extended above 10,000 second-feet on basis of velocity-area studies).

Remarks.- Records good except those for period of ice effect, Jan. 7 to Feb. 6 (computed on basis of one discharge measurement, gage heights, observer's notes, and weather records), and those for days of rapidly changing stage, which are fair. Some regulation at low water by power-plant operations. Backwater may occur when Smoky Hill River is at flood stage.

Rating tables, water year 1936-37 except for period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Mar. 8 to Apr. 12)

Oct. 1 to Feb. 14						Feb. 15 to Sept. 30					
2.6	11	5.0	207	11.0	1,190	2.6	21	5.0	239	12.0	1,550
2.9	28	6.0	316	12.0	1,460	2.9	41	6.0	355	14.0	2,140
3.2	48	7.0	430	13.0	1,770	3.2	64	7.0	496	16.0	2,800
3.6	78	8.0	570	14.0	2,110	3.6	99	8.0	658	18.0	3,500
4.0	111	9.0	740	15.0	2,470	4.0	139	9.0	840	20.0	4,240
4.5	157	10.0	950			4.5	189	10.0	1,050	22.0	5,070

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,800	59	44	59	50	194	91	54	81	*189	422	*76
2	474	70	106	54	50	169	67	77	86	*174	239	*72
3	*371	56	44	55	60	204	69	81	1,460	*169	189	*81
4	*443	52	51	49	65	*294	70	38	2,050	*164	250	*99
5	*239	*54	81	63	90	*330	69	64	2,250	*159	355	1,870
6	*182	*66	47	58	400	*408	70	35	4,130	*154	330	1,690
7	*147	51	44	55	430	*528	70	62	4,810	*144	408	283
8	117	77	82	50	570	*408	70	40	4,900	*149	983	169
9	116	50	41	50	*540	*244	75	69	4,730	*139	860	139
10	118	33	17	55	*483	*174	85	80	3,020	*149	435	*381
11	96	64	17	60	360	*164	89	34	*962	*129	239	880
12	73	40	49	60	474	*149	97	62	*528	*283	174	*608
13	*70	49	49	60	1,650	*134	35	34	*451	*244	144	*528
14	61	65	55	60	2,360	*128	44	142	*381	268	119	983
15	71	47	48	60	1,640	*113	90	189	*408	1,000	*119	*658
16	67	41	54	55	1,000	*115	77	149	2,110	592	*64	*283
17	61	44	55	50	1,090	102	77	123	3,430	394	*283	*174
18	*80	65	47	60	1,050	87	31	105	3,430	692	746	*139
19	*75	47	46	50	764	94	64	98	2,160	451	*512	*179
20	*45	38	33	40	560	116	81	95	*983	306	*330	*90
21	38	35	58	25	422	120	35	79	*728	261	*239	*72
22	71	40	42	25	355	90	60	35	*512	239	*199	*76
23	52	48	47	30	294	85	76	139	*394	189	*169	*64
24	34	33	47	30	272	85	33	199	*306	204	*179	*76
25	39	35	49	35	229	74	57	169	*266	468	*239	*56
26	44	28	52	35	199	106	74	67	*272	466	*239	*90
27	47	52	47	40	189	116	34	86	*239	306	*199	*41
28	70	42	51	40	199	98	64	87	*229	468	*159	*48
29	72	44	47	45	-	83	40	40	*214	920	*134	*48
30	70	44	58	50	-	76	26	86	*204	576	*129	*41
31	70	-	54	55	-	92	-	92	-	608	103	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	5,313	1,800	34	171	10,540
November	1,469	77	28	49.0	2,910
December	1,562	106	17	50.4	3,100
Calendar year 1936	59,133	4,150	16	162	117,300
January	1,513	63	25	48.8	3,000
February	15,845	2,360	50	586	31,430
March	5,180	528	74	167	10,270
April	1,920	97	26	64.0	3,810
May	2,710	199	34	87.4	5,380
June	45,724	4,900	81	1,524	90,690
July	10,654	1,000	129	344	21,130
August	9,189	983	64	296	18,230
September	9,994	1,870	41	333	19,820
Water year 1936-37	111,073	4,900	17	304	220,300

*Based on once-daily reading of chain gage.

East Limestone Creek near Ionia, Kans.

Location.- Water-stage recorder and concrete control, lat. 39°42', long. 98°21', in NW¼ sec. 21, T. 4 S., R. 9 W., 2½ miles north of Ionia and 3 miles (revised) above mouth of Elm Creek.

Drainage area.- 27.3 square miles.

Records available.- March 1934 to September 1937.

Extremes.- Maximum discharge during year, 1,550 second-feet June 13 (gage height, 12.65 feet); no flow during much of the year.
1934-37: Maximum discharge, 3,920 second-feet May 28, 1935 (gage height, 16.35 feet), from rating curve extended above 2,800 second-feet; no flow during long periods.

Remarks.- Records good. Discharge for Feb. 12, 13, computed on basis of observer's notes.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	0			0.20	0		
2					0	0			80	0		
3					0	0			2.2	0		
4					0	.02			.64	0		
5					0	0			20	0		
6					0	0			1.8	0		
7					0	0			.10	0		
8					0	0			.02	0		
9					0	0			.01	0		
10					0	0			0	0		
11					0	0			0	0		
12					9.6	0			4.7	0		
13					7.6	0			416	0		
14					0	0			3.7	0		
15					0	0			.31	0		
16					0	0			.05	0		
17					0	0			.01	0		
18					0	0			0	.14		
19					0	0			0	3.15		
20					0	0			0	.20		
21					0	0			0	0		
22					0	0			0	0		
23					0	0			0	0		
24					0	0			0	0		
25					0	0			0	0		
26					0	0			0	0		
27					0	0			0	0		
28					0	0			0	0		
29					-	0			0	0		
30					-	0			0	0		
31					-	0			-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	73.40	72	0	.201	146
January	0	0	0	0	0
February	17.2	9.6	0	.614	34
March	.02	.02	0	.001	.04
April	0	0	0	0	0
May	0	0	0	0	0
June	529.74	416	0	17.7	1,050
July	3.49	3.15	0	.113	6.9
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1936-37	550.45	416	0	1.51	1,090

Elm Creek near Ionia, Kans.

Location.- Water-stage recorder and concrete control, lat. 39°40', long. 98°21', in SW¼ sec. 28, T. 4 S., R. 9 W., three-quarters of a mile northeast of Ionia and 1¼ miles above confluence with East Limestone Creek.

Drainage area.- 22.7 square miles.

Records available.- March 1934 to September 1937.

Extremes.- Maximum discharge during year, 1,300 second-feet June 13 (gage height, 13.46 feet); no flow during much of the year.
1934-37: Maximum discharge, 4,490 second-feet Sept. 1, 1935 (gage height, 18.05 feet), from rating curve extended above 3,400 second-feet; no flow during long periods.

Remarks.- Records fair. Discnarge for Mar. 3, 4 computed on basis of high-water marks and observer's notes.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0	0		0	0	0		
2					0	0		0	3.0	0		
3					0	.18		0	.32	0		
4					0	.92		0	5.5	0		
5					0	.06		0	6.5	0		
6					0	0		0	.39	0		
7					0	0		0	.03	0		
8					0	0		.12	0	0		
9					0	0		0	0	0		
10					0	0		0	0	0		
11					1.1	0		0	0	0		
12					12	0		0	.44	0		
13					6.3	0		0	368	0		
14					1.7	0		0	2.2	0		
15					.70	0		0	.23	0		
16					.15	0		0	.04	0		
17					0	0		0	.01	0		
18					0	0		0	0	.04		
19					0	0		0	0	.46		
20					0	0		0	0	0		
21					0	0		0	0	0		
22					0	0		0	0	0		
23					0	0		0	0	0		
24					0	0		0	0	0		
25					0	0		0	0	0		
26					0	0		0	0	0		
27					0	0		0	0	0		
28					Q	0		0	0	0		
29					-	0		0	0	0		
30					-	0		0	0	0		
31					-	0		0	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	0	0	0	0	0
November	0	0	0	0	0
December	0	0	0	0	0
Calendar year 1936	36.66	32	0	.100	72.9
January	0	0	0	0	0
February	21.95	12	0	.784	44
March	1.16	.92	0	.037	2.3
April	0	0	0	0	0
May	.12	.12	0	.004	.24
June	386.66	368	0	12.9	767
July	.50	.46	0	.016	.99
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1936-37	410.39	368	0	1.12	815

Big Blue River at Barnston, Nebr.

Location.- Water-stage recorder, lat. 40°03', long. 96°35', in sec. 13, T. 1 N., R. 7 E., 1 mile southwest of Barnston. No large tributary between station and Nebraska-Kansas State line, 4 miles downstream.

Drainage area.- 4,350 square miles.

Records available.- May 1932 to September 1937.

Extremes.- Maximum discharge during year, 3,240 second-feet July 25 (gage height, 9.30 feet); minimum daily discharge, 19 second-feet Oct. 22, 25, 28.
1932-37: Maximum discharge, 9,710 second-feet June 2, 1935 (gage height, 20.75 feet); minimum daily discharge, 8 second-feet Aug. 5, Oct. 17, 1934.

Remarks.- Records good except those for period of missing gage heights, Nov. 3-20 (computed on basis of records for station at Hull, Kans.), and for period of ice effect, Jan. 7 to Feb. 23 (computed on basis of one discharge measurement and weather records), which are fair. Low water regulated by power plant at Barnston, which has pondage of about 1,500 acre-feet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	30	108	82	75	231	175	134	504	129	2,140	57
2	61	49	90	39	85	144	131	46	504	136	1,670	214
3	66	63	101	84	100	270	154	193	222	165	1,210	65
4	74	75	112	44	97	451	105	117	382	105	854	343
5	57	85	139	88	92	303	201	97	516	119	722	234
6	92	86	52	94	75	250	129	117	524	90	568	236
7	175	80	80	60	75	245	220	159	917	52	372	149
8	288	54	70	48	95	327	228	146	818	86	282	51
9	245	56	80	40	90	196	180	88	697	51	400	49
10	172	78	70	55	85	99	201	183	500	63	382	90
11	32	70	66	70	210	136	94	136	478	61	214	74
12	159	62	97	85	450	124	134	124	318	110	180	112
13	180	105	45	95	600	198	117	167	436	66	88	185
14	70	92	70	62	750	141	122	159	300	41	76	146
15	63	72	72	70	680	167	82	117	324	51	38	134
16	51	62	84	70	620	129	129	92	436	124	157	206
17	59	70	101	58	540	80	141	209	735	204	72	101
18	24	88	101	54	480	94	74	105	832	285	63	99
19	42	118	209	62	370	146	175	59	580	455	61	63
20	41	110	44	*67	330	165	117	108	372	288	65	149
21	24	90	49	73	328	136	86	141	359	146	48	51
22	19	49	74	70	320	336	124	508	414	126	30	48
23	22	92	101	62	335	500	122	622	540	141	131	68
24	61	112	94	72	352	2,020	124	294	564	731	80	80
25	19	101	78	66	489	840	61	162	584	1,660	74	54
26	34	101	82	75	315	659	149	172	596	2,140	99	22
27	31	37	57	80	327	489	157	162	500	1,700	146	54
28	19	94	129	80	250	336	122	167	365	998	78	66
29	23	61	119	72	-	256	76	291	239	743	56	97
30	33	84	101	64	-	154	129	270	206	1,090	80	211
31	54	-	105	56	-	144	-	447	-	1,900	97	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,329	288	19	75.1	4,620
November	2,326	118	30	77.5	4,610
December	2,780	209	44	89.7	5,510
Calendar year 1936	105,797	7,880	19	289	209,800
January	2,097	95	39	67.6	4,160
February	8,615	750	75	308	17,090
March	9,760	2,020	80	315	19,360
April	4,059	228	61	135	8,050
May	5,792	622	46	187	11,490
June	14,762	917	206	492	29,280
July	14,056	2,140	41	453	27,880
August	10,533	2,140	30	340	20,890
September	3,508	343	22	117	6,960
Water year 1936-37	80,617	2,140	19	221	159,900

*Discharge measurement.

Big Blue River at Hull, Kans.

Location.- Water-stage recorder, lat. 39°55', long. 96°38', in NW¼ sec. 3, T. 2 S., R. 7 E., a quarter of a mile west of Hull and 2 miles above Deer Creek.

Drainage area.- 4,510 square miles.

Records available.- August 1919 to July 1925, August 1928 to September 1937.

Average discharge.- 14 years (1919-24, 1928-37), 499 second-feet.

Extremes.- Maximum discharge during year, 2,460 second-feet Mar. 24 (gage height, 8.87 feet); minimum, 18 second-feet May 3 (gage height, 1.98 feet).
1919-25, 1928-37: Maximum discharge, 15,300 second-feet June 2, 1935 (gage height, 22.30 feet); minimum, 2 second-feet Sept. 8, 14, 1922 (gage height, 1.20 feet).
Maximum stage known, 31.7 feet in May 1903.

Remarks.- Records good except those for periods of ice effect, Dec. 6-11, Jan. 6 to Mar. 3 (computed on basis of gage heights, observer's notes, weather records, and records for station at Barnston, Nebr.), those for period of missing gage heights, Apr. 17-26 (computed on basis of records for station at Barnston), and those below 60 second-feet, all of which are fair. Low water regulated by power plant at Barnston.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Mar. 14-20, Apr. 9-16, Aug. 13-26)

2.1	26	3.4	213	5.0	654	7.0	1,450
2.4	55	3.8	307	5.5	818	7.5	1,670
2.7	92	4.2	414	6.0	1,000	8.0	1,950
3.0	137	4.6	530	6.5	1,220	9.0	2,520

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	135	61	108	127	60	300	188	140	486	167	2,160	77
2	74	46	114	72	80	300	151	96	831	134	1,740	156
3	96	63	105	147	110	450	163	151	266	146	1,260	139
4	131	66	126	126	120	2,000	168	134	337	156	853	198
5	99	77	123	109	120	1,090	180	109	471	129	686	292
6	82	102	85	110	90	751	180	106	456	121	591	277
7	131	102	100	95	70	348	172	137	734	95	386	205
8	258	79	90	80	90	359	359	147	801	84	224	109
9	300	51	100	70	130	327	159	114	686	96	400	83
10	158	68	90	80	110	182	246	135	530	71	638	82
11	92	84	90	90	120	156	231	146	486	84	242	110
12	72	68	123	110	250	182	131	137	317	100	192	114
13	184	96	140	120	900	217	170	123	372	131	159	182
14	139	108	88	130	900	192	167	166	348	67	95	161
15	77	100	96	110	800	165	146	137	292	67	77	135
16	73	71	123	90	700	182	131	149	359	91	86	194
17	63	67	110	95	600	134	160	149	500	196	131	144
18	63	93	151	80	500	121	140	156	836	265	82	110
19	51	108	170	80	420	142	200	106	576	471	87	98
20	57	149	129	100	360	188	170	87	372	348	88	126
21	53	108	83	100	350	165	130	144	322	168	73	109
22	48	91	93	90	350	270	140	345	514	129	73	75
23	51	75	129	70	370	701	140	686	456	123	67	96
24	61	123	123	75	420	2,100	140	372	515	560	132	112
25	80	116	134	75	550	1,060	110	158	500	1,380	110	69
26	57	127	95	85	450	686	160	161	576	2,060	93	72
27	54	73	110	100	400	591	182	156	500	1,890	194	61
28	51	78	92	90	350	359	152	147	428	1,050	139	84
29	51	105	165	110	-	327	126	213	244	768	75	83
30	50	86	142	95	-	184	106	292	224	730	102	176
31	55	-	137	80	-	180	-	372	-	1,740	109	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,946	300	48	95.0	5,840
November	2,641	149	46	88.0	5,240
December	3,544	170	83	114	7,030
Calendar year 1936	133,706	8,820	18	365	265,200
January	2,991	147	70	96.5	5,930
February	9,770	900	60	349	19,380
March	14,409	2,100	121	465	28,580
April	4,998	359	106	167	9,910
May	5,691	686	87	184	11,290
June	14,135	836	224	471	28,040
July	13,617	2,060	67	439	27,010
August	11,344	2,160	67	366	22,500
September	3,929	292	61	131	7,790
Water year 1936-37	90,015	2,160	46	247	178,500

Big Blue River at Randolph, Kans.

Location.- Water-stage recorder, lat. 39°27', long. 96°43', in SW¼ sec. 12 T. 7 S., R. 6 E., at bridge on State Highway 13, half a mile above Fancy Creek and three-quarters of a mile east of Randolph.

Drainage area.- 9,100 square miles.

Records available.- April 1918 to September 1937.

Average discharge.- 19 years, 1,160 second-feet.

Extremes.- Maximum discharge during year, 8,080 second-feet Feb. 13; maximum gage height, 12.08 feet Feb. 12 (ice jam); minimum discharge (regulated), 80 second-feet Dec. 10 (gage height, 2.13 feet).
1918-37: Maximum discharge, 34,600 second-feet June 3, 1935 (gage height, 25.25 feet); minimum, 31 second-feet Aug. 10, 1934 (gage height, 1.85 feet). Bank-full stage, 20 feet.
Maximum stage known, 31.7 feet May 31, 1903 (discharge, about 95,000 second-feet).

Remarks.- Records good except those for periods of ice effect, Dec. 6-8, Jan. 3 to Feb. 12, and those for Mar. 24, 25, June 2, July 11, 12, (computed on basis of gage heights, observer's and engineers' notes, weather records, and records for stations on nearby streams, which are poor. Some regulation at low water by operation of power plants.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	718	197	252	303	190	565	443	285	468	328	2,300	205
2	464	148	190	300	180	678	415	330	1,100	304	2,540	209
3	353	138	277	220	170	2,290	419	341	2,740	243	2,090	152
4	259	148	229	260	190	5,680	359	303	1,010	220	1,690	293
5	860	233	292	230	250	4,680	399	404	632	273	1,310	209
6	586	155	240	210	500	1,750	351	330	750	247	1,010	443
7	651	162	220	180	390	1,280	407	315	750	262	903	347
8	322	286	250	170	1,000	1,010	391	318	903	243	726	336
9	452	237	263	180	670	826	544	349	1,060	196	587	285
10	565	162	194	200	500	750	427	337	955	146	609	247
11	448	148	244	210	1,200	556	411	292	826	700	1,030	205
12	345	233	292	220	5,000	464	431	353	678	780	678	262
13	219	172	274	210	6,490	476	320	322	609	188	427	285
14	211	229	270	200	7,460	460	351	307	501	232	391	304
15	300	176	244	200	6,140	484	304	337	587	324	336	379
16	263	259	259	210	4,270	427	336	330	895	220	228	332
17	142	201	274	190	2,790	435	277	337	1,140	177	232	285
18	211	204	315	200	2,090	403	320	288	826	419	198	328
19	135	190	274	180	1,950	359	332	372	1,060	561	188	281
20	125	233	300	170	1,630	383	282	311	850	800	180	205
21	186	248	337	160	1,360	464	336	277	632	224	177	205
22	135	266	277	170	1,110	509	324	330	497	403	174	258
23	190	277	197	190	955	798	281	511	518	726	166	198
24	131	180	240	190	903	6,000	304	1,250	567	1,030	160	228
25	116	263	300	180	750	3,600	316	959	655	1,110	216	174
26	128	215	259	170	587	1,630	312	565	609	2,300	216	205
27	233	252	274	160	632	1,140	262	416	655	2,620	216	213
28	152	274	248	160	548	981	337	456	632	2,790	343	202
29	131	176	233	170	-	702	337	368	556	2,380	308	367
30	128	252	322	190	-	609	322	384	423	1,690	239	289
31	135	-	349	200	-	526	-	492	-	1,250	170	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	9,294	860	116	300	18,430
November	6,294	277	138	210	12,480
December	8,189	349	190	264	16,240
Calendar year 1936	252,529	14,700	68	690	500,900
January	6,183	303	160	199	12,260
February	49,905	7,460	170	1,782	98,990
March	40,913	6,000	359	1,320	81,150
April	10,630	544	262	354	21,080
May	12,569	1,250	277	405	24,930
June	24,104	2,740	423	803	47,810
July	23,386	2,790	146	754	46,390
August	20,038	2,540	160	646	39,740
September	7,931	443	152	264	15,730
Water year 1936-37	219,438	7,460	116	601	435,200

Little Blue River near Endicott, Nebr.

Location.- Water-stage recorder, lat. 40°05', long. 97°07', in sec. 5, T. 1 N., R. 3 E., 1½ miles southwest of Endicott.

Drainage area.- 2,590 square miles.

Records available.- April 1929 to September 1937. May 1908 to September 1915, at site several miles upstream.

Extremes.- Maximum discharge during year, 1,540 second-feet July 27 (gage height, 5.86 feet); minimum daily discharge, 70 second-feet July 11.
1908-15, 1929-37: Maximum discharge, 14,500 second-feet May 20, 1935, by slope-area method; (gage height, 14.90 feet); minimum, 16 second-feet Sept. 28, 1931 (discharge measurement).

Remarks.- Records good except those for period of ice effect, Jan. 3 to Mar. 2 (computed on basis of two discharge measurements and weather records), and those for period of missing gage heights, June 19-23 (estimated), which are fair. No diversions. Diurnal fluctuations caused by operation of power dams above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	136	97	103	110	90	120	134	122	147	91	290	74
2	106	97	108	100	94	138	127	122	170	91	260	75
3	98	94	110	84	97	188	131	127	187	93	230	73
4	94	96	109	84	100	201	126	136	160	86	205	90
5	91	98	114	83	104	192	120	129	169	106	188	76
6	90	100	80	83	106	201	126	124	158	100	169	106
7	84	98	127	86	106	174	147	122	151	84	178	140
8	89	86	133	87	104	160	156	140	201	82	183	122
9	84	110	133	89	102	152	147	136	190	74	163	112
10	83	100	127	91	97	147	138	133	176	71	170	156
11	83	103	129	90	147	147	138	131	151	70	154	133
12	86	100	127	93	210	143	136	133	147	84	151	205
13	82	98	126	93	360	142	129	127	147	258	143	192
14	82	102	124	93	380	149	131	124	361	109	127	151
15	84	102	133	91	360	133	127	122	342	87	117	133
16	82	104	142	90	340	133	127	115	208	232	110	114
17	79	100	131	87	310	134	124	120	176	217	112	110
18	83	103	126	86	270	133	119	119	226	136	109	87
19	86	103	119	83	230	145	124	117	150	110	108	93
20	84	104	117	*81	205	156	124	110	130	254	108	82
21	86	102	112	81	175	149	122	467	125	744	122	84
22	84	103	110	83	160	142	122	588	120	1,120	109	80
23	86	98	110	87	145	169	122	419	120	498	103	84
24	89	100	109	89	130	199	120	214	117	585	90	106
25	93	100	112	90	125	214	122	165	115	503	89	110
26	98	103	114	90	114	176	119	151	103	1,000	86	248
27	98	100	115	89	110	156	122	133	103	1,520	112	325
28	98	102	112	89	*106	149	127	127	97	988	96	201
29	98	104	112	89	-	138	126	119	97	414	87	158
30	98	102	117	87	-	134	126	115	96	812	84	133
31	98	-	110	84	-	134	-	110	-	384	80	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	2,812	136	79	90.7	5,580
November	3,009	110	86	100	5,970
December	3,651	142	80	118	7,240
Calendar year 1936	50,722	2,240	36	139	100,600
January	2,742	110	81	88.5	5,440
February	4,877	380	90	174	9,670
March	4,848	214	120	156	9,620
April	3,859	156	119	129	7,650
May	5,117	588	110	165	10,150
June	4,840	361	96	161	9,600
July	11,003	1,520	70	355	21,820
August	4,333	290	80	140	8,590
September	3,843	325	73	128	7,620
Water year 1936-37	54,934	1,520	70	151	109,000

*Discharge measurement.

Little Blue River at Waterville, Kans.

Location.- Chain gage, lat. 39°42', long. 96°45', in SE¼ sec. 16, T. 4 S., R. 6 E., half a mile north of Waterville and 1 mile below Corn Creek.

Drainage area. 3,440 square miles.

Records available.- June 1922 to June 1925, August 1928 to September 1937.

Average discharge.- 11 years (1922-24, 1928-37), 397 second-feet.

Extremes.- Maximum discharge observed during year, 2,030 second-feet Mar. 4 (gage height, 7.22 feet); maximum gage height observed, 14.15 feet Feb. 13 (ice jam); minimum discharge observed, 69 second-feet July 10, 12, 13; minimum gage height observed, 1.79 feet Sept. 3.
1922-25, 1928-37: Maximum discharge observed, 23,500 second-feet June 2, 1935 (gage height, 21.90 feet); minimum observed, 28 second-feet Aug. 12, 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 6, 12-16, Jan. 2 to Feb. 16, Feb. 27, 28 (computed on basis of gage heights, observer's notes, weather records, and records for station at Endicott, Nebr.), and those for days of rapidly changing stage, which are fair. Gage read twice daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	265	104	111	120	95	240	144	124	117	86	535	83
2	195	101	111	110	100	335	144	124	649	80	380	80
3	154	97	113	100	105	611	144	126	497	86	305	75
4	132	102	113	95	105	1,540	142	134	265	88	265	82
5	119	104	120	90	110	765	142	136	228	144	228	82
6	110	101	100	85	110	427	138	130	278	122	217	83
7	102	102	124	85	110	395	142	128	217	128	195	82
8	98	93	119	90	110	305	154	130	195	104	195	111
9	104	102	120	95	105	240	164	134	217	85	228	122
10	99	95	134	100	100	217	154	130	217	69	278	120
11	92	111	144	100	200	206	144	134	184	78	217	122
12	93	106	140	100	600	195	140	130	164	72	174	206
13	90	108	140	100	1,100	195	136	132	174	72	164	174
14	90	106	140	100	1,300	184	130	130	195	174	144	195
15	90	108	150	100	1,300	174	124	128	278	144	134	154
16	90	106	160	95	1,300	174	124	128	1,100	97	124	138
17	90	110	154	95	1,200	174	124	132	427	278	115	122
18	90	110	144	95	885	174	124	124	240	265	108	113
19	90	108	136	95	725	174	120	124	228	265	99	111
20	90	111	132	90	611	174	120	122	195	144	102	99
21	88	110	128	85	427	195	122	122	164	111	97	99
22	86	110	130	90	395	184	120	174	195	611	101	88
23	86	110	130	95	350	184	120	611	174	1,060	97	97
24	88	108	128	95	320	611	120	497	140	885	93	97
25	95	110	120	95	265	411	120	278	126	1,060	97	97
26	99	110	119	95	240	320	122	195	108	885	86	124
27	101	108	119	95	210	240	122	174	106	1,020	115	122
28	101	108	119	95	210	195	124	144	93	1,590	108	335
29	102	110	119	95	-	174	126	140	88	1,290	117	252
30	102	110	119	95	-	164	126	138	90	573	95	184
31	101	-	126	90	-	154	-	138	-	805	92	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,333	265	86	108	6,610
November	3,179	111	93	106	6,310
December	3,962	160	100	128	7,860
Calendar year 1936	64,682	5,050	37	177	128,300
January	2,965	120	85	95.6	5,880
February	12,688	1,300	95	453	25,170
March	9,731	1,640	154	314	19,300
April	3,976	154	120	133	7,890
May	5,191	611	122	167	10,300
June	7,349	1,100	88	245	14,580
July	12,471	1,590	69	402	24,740
August	5,305	535	86	171	10,520
September	3,849	335	75	128	7,630
Water year 1936-37	73,999	1,590	69	203	146,800

Red Vermillion Creek near Wamego, Kans.

Location.- Wire-weight gage, lat. 39°21', long. 96°13', in NW¼ sec. 20, T. 8 S., R. 11 E., 1 mile above mouth of Indian Creek, 11 miles northeast of Wamego, and 15 miles above confluence with Kansas River.
Drainage area.- 228 square miles.
Records available.- April 1936 to September 1937.
Extremes.- Maximum discharge observed during year, 2,300 second-feet Feb. 12 (gage height, 17.39 feet); no flow at times during June to September.
1936-37: Maximum discharge observed, 3,110 second-feet May 1, 1936 (gage height, 20.10 feet; no flow at times during fall of 1937.
Remarks.- Records good except those for periods of ice effect, Dec. 6-10, Jan. 6 to Feb. 10, Feb. 18 to Mar. 3 (computed on basis of one discharge measurement, gage heights, observer's and engineer's notes, weather records, and records for stations on nearby streams), those for days of rapidly changing stage, and those below 8 second-feet, all of which are poor. Discharge corrected for backwater from leaves, Oct. 31 to Nov. 6, on basis of one discharge measurement, gage heights, and weather records. Discharge for May 8, 9, June 16 interpolated. Gage read twice daily.

Rating tables, water year 1936-37 except periods of ice effect and of backwater from leaves (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 4

2.0	0.5	3.3	53	6.0	257	11.0	885
2.2	1.7	3.6	71	6.5	302	12.0	1,060
2.4	5.4	4.0	97	7.0	352	13.0	1,260
2.6	15	4.5	134	8.0	462	14.0	1,460
2.8	25	5.0	174	9.0	585	15.0	1,680
3.0	35	5.5	214	10.0	725	16.0	1,920

Mar. 5 to Sept. 30

1.9	0	2.7	18
2.1	.6	2.9	28
2.3	2.5	3.2	46
2.5	8.3	3.5	65

Note.- Same as preceding table above 3.5 feet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2	2	2	4	1	8	23	6	1	0		
2	2	2	2	4	1	10	23	6	29	0		
3	1	2	2	4	2	580	19	7	38	0		
4	1	2	2	3	3	1,950	16	11	18	0		
5	239	2	3	2	10	182	14	11	16	0		
6	35	2	2	1	95	214	13	9	11	0		
7	12	2	1	1	130	74	17	8	2	0		
8	5	1	2	1	470	49	20	8	2	0		
9	4	1	2	1	130	32	18	7	2	0		
10	22	1	2	1	120	19	16	6	2	0		
11	6	2	2	1	785	16	12	5	2	0		
12	3	2	2	1	1,620	15	11	5	2	0		
13	2	2	2	1	1,530	14	10	5	2	0		
14	2	2	2	1	293	13	10	4	2	0		
15	1	2	2	1	190	11	10	4	2	0		
16	1	2	2	1	74	10	8	4	2	0		
17	1	2	2	1	56	10	8	4	2	0		
18	1	2	3	1	50	10	8	4	2	0		
19	1	2	3	1	40	12	8	4	1	30		
20	1	2	5	1	30	19	7	3	1	32		
21	1	2	4	1	25	26	7	3	1	8		
22	1	2	2	1	20	15	16	2	0	2		
23	1	2	2	1	20	22	9	2	0	1		
24	1	2	2	1	10	559	7	2	0	1		
25	1	2	2	1	9	71	6	3	0	0		
26	2	2	2	1	8	32	5	68	0	0		
27	2	2	2	1	7	25	5	15	0	0		
28	2	2	3	1	7	25	6	6	0	0		
29	2	2	3	1	-	20	6	3	0	0		
30	1	2	4	1	-	20	6	2	0	0		
31	1	-	6	1	-	20	-	2	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	357	239	1	11.5	708
November	57	2	1	1.9	113
December	77	6	1	2.5	153
Calendar year					
January	43	4	1	1.4	85
February	5,736	1,620	1	205	11,380
March	4,083	1,950	8	132	8,100
April	344	23	5	11.5	682
May	229	68	2	7.4	454
June	140	38	0	4.7	278
July	74	32	0	2.4	147
August	0	0	0	0	0
September	0	0	0	0	0
Water year 1936-37	11,140	1,950	0	30.5	22,100

Soldier Creek near Topeka, Kans.

Location.- Wire-weight gage, lat. 39°06', long. 95°43', in NW¼ sec. 14, T. 11 S., R. 15 E., at steel highway bridge, 1½ miles above mouth of Halfday Creek, 4 miles northwest of Topeka, and 7 miles above confluence with Kansas River.
Drainage area.- 288 square miles.
Records available.- July 1935 to September 1937. May 1929 to September 1935, at site 2 miles downstream, at which drainage area was 286 square miles.
Extremes.- Maximum discharge observed during year, 4,080 second-feet Feb. 8 (gage height, 18.7 feet, from floodmarks); no flow at times.
1929-37: Maximum discharge observed, 9,560 second-feet May 28, 1935 (gage height, 23.06 feet, former site and datum); no flow at times during 1931, 1933-37.
Maximum stage in recent years, about 28 feet (present site) Apr. 20, 1929.
Remarks.- Records fair except those for periods of ice effect, Dec. 6-15, 20-22, Jan. 6-29 (computed on basis of one discharge measurement, gage heights, observer's notes, and weather records), those for Oct. 2, 20, Mar. 23, Aug. 24 (estimated), those for days of rapidly changing stage, and those below 5 second-feet, all of which are poor.

Rating tables, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second feet)

Oct. 1 to Feb. 8

2.2	1.7	4.0	110	10.0	1,030
2.4	4.0	4.5	160	11.0	1,250
2.6	7.5	5.0	215	12.0	1,500
2.8	13	6.0	340	14.0	2,090
3.0	24	7.0	485	16.0	2,820
3.3	46	8.0	650	18.0	3,730
3.6	72	9.0	830		

Feb. 9 to Sept. 30

1.7	0	2.8	31	5.0	251
1.8	.1	3.0	45	6.0	377
2.0	.8	3.3	69	7.0	516
2.2	2.6	3.6	96	8.0	671
2.4	8.9	4.0	136	9.0	844
2.6	20	4.5	191	10.0	1,030

Note.- Same as preceding table above 9.8 feet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.7	1.8	2.5	11	239	39	30	16	4.4	.5	.3	
2	5	2.2	2.5	5.9	150	22	30	15	24	.5	.2	
3	4.4	2.2	2.2	19	100	808	27	14	7.9	.6	.1	
4	3.7	1.9	2.8	5.5	76	1,320	29	16	11	.5	0	
5	3.0	2.1	3.4	3.3	72	591	38	53	14	.3	0	
6	382	3.7	2	2	485	168	34	38	7.4	.3	0	
7	15	3.1	2	2	666	126	28	14	19	0	0	
8	7.5	2.4	3	3	3,120	82	57	16	16	0	0	
9	5.9	2.3	3	3	390	53	69	22	87	0	0	
10	5.5	2.1	3	3	239	38	37	15	27	0	0	
11	11	2.0	4	3	773	30	31	11	15	0	0	
12	6.8	2.1	4	3	1,840	26	27	10	8.9	0	0	
13	5.0	2.1	3	3	1,160	25	28	8.9	5.5	0	0	
14	4.0	2.2	3	3	364	24	25	7.4	4.4	0	0	
15	2.8	2.2	3	3	263	22	23	6.9	3.3	0	0	
16	2.8	2.4	3.3	2	168	21	20	6.4	3.0	0	0	
17	2.5	2.2	3.3	2	82	24	18	7.4	65	0	0	
18	2.0	2.2	3.3	2	53	31	18	6.4	116	8.9	0	
19	1.9	2.6	3.6	2	57	38	16	6.4	22	14	0	
20	2	3.1	4	2	69	39	15	5.5	6.4	8.9	87	
21	3.4	2.4	3	2	51	29	39	4.7	3.1	22	12	
22	2.8	2.2	3	2	43	21	21	4.7	2.7	6.4	1.9	
23	1.9	2.3	3.0	2	24	20	17	6.0	2.2	2.8	.5	
24	1.8	2.4	3.0	2	22	639	227	4.4	1.8	2.1	.3	
25	1.7	4.7	3.1	2	26	191	92	5.1	1.4	1.5	.1	
26	1.7	2.2	3.3	3	69	65	27	101	1.1	1.0	.1	
27	1.5	4.0	3.4	3	44	39	20	106	.9	.8	.1	
28	1.7	2.3	3.6	4	44	36	17	33	.8	.6	.1	
29	2.2	2.3	3.3	6	-	32	18	14	.7	.5	0	
30	2.8	2.5	26	1,120	-	32	18	8.9	.5	.4	0	
31	2.4	-	16	275	-	32	-	6.0	-	.4	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	504.4	382	1.5	16.3	1,000
November	74.2	4.7	1.8	2.47	147
December	131.6	26	2	4.25	261
Calendar year 1936	28,015.9	2,580	0	76.5	55,570
January	1,503.7	1,120	2	48.5	2,980
February	10,691	3,120	22	382	21,210
March	4,663	1,320	20	150	9,250
April	1,096	227	15	36.5	2,170
May	589.1	106	4.4	19.0	1,170
June	482.4	116	.5	16.1	957
July	73.0	22	0	2.36	145
August	102.7	87	0	3.31	204
September	0	0	0	0	0
Water year 1936-37	19,911.1	3,120	0	54.6	39,490

Delaware River at Valley Falls, Kans.

Location.- Chain gage, lat. 39°21', long. 95°27', in SW¼ sec. 18, T. 8 S., R. 18 E., on Atchison, Topeka & Santa Fe Railway bridge, 500 feet below Walnut Creek and a quarter of a mile north of Valley Falls.
Drainage area.- 922 square miles.
Records available.- June 1922 to September 1937.
Average discharge.- 15 years, 316 second-feet.
Extremes.- Maximum discharge observed during year, 6,430 second-feet Feb. 12 (gage height, 14.06 feet); minimum, 1 second-foot on several days in January, August, and September.
1922-37: Maximum discharge observed, about 30,000 second-feet June 16, 1925 (gage height, 29.72 feet), from rating curve extended above 20,000 second-feet; minimum, about 0.1 second-foot on several days in June, July, and August 1934. Bank-full stage, 22 feet.
Remarks.- Records fair except those for period of ice effect, Jan. 7-29 (computed on basis of gage heights, observer's notes, and weather records), those for May 9, Sept. 23 (interpolated) and those for days of rapidly changing stage, all of which are poor. Gage read twice daily.

Rating tables, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Feb. 12

2.2	0.3	3.7	295	9.0	3,550
2.4	2.1	4.0	520	10.0	4,100
2.6	9.2	4.5	940	11.0	4,650
2.8	27	5.0	1,290	12.0	5,210
3.0	56	6.0	1,890	13.0	5,770
3.2	97	7.0	2,450	14.0	6,330
3.4	153	8.0	3,000	15.0	7,010

Feb. 13 to Sept. 30

2.2	0.4	3.0	68
2.4	3.3	3.2	97
2.6	14	3.4	153
2.8	37		

Note.- Same as preceding table above 3.4 feet.

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	45	10	12	66	74	52	95	55	28	3	3	2
2	29	10	12	39	46	700	95	50	1,290	32	2	39
3	20	9	12	17	37	5,380	91	53	314	18	2	122
4	14	10	13	19	27	4,650	115	80	93	7	2	354
5	785	8	22	18	100	1,010	131	112	187	3	100	71
6	1,080	10	9	17	902	785	110	78	131	3	37	25
7	80	10	11	5	940	405	108	61	60	2	7	14
8	40	9	17	1	2,280	246	742	60	43	2	40	10
9	1,150	10	18	1	220	126	183	55	50	2	34	7
10	273	10	23	1	117	99	126	49	61	2	13	3
11	56	9	14	1	1,950	93	99	40	40	2	3	1
12	37	10	14	2	5,770	87	104	655	33	2	2	1
13	26	10	15	2	4,710	83	99	87	29	825	2	1
14	20	11	17	1	1,480	80	93	49	20	29	2	1
15	18	10	19	1	742	69	87	39	20	44	2	1
16	14	10	21	2	196	63	78	32	100	785	1	1
17	10	10	22	2	200	89	68	28	85	156	1	1
18	11	11	23	2	192	115	68	27	52	74	1	1
19	12	12	21	1	610	112	60	24	34	785	2	2
20	13	12	18	1	150	117	52	21	24	100	262	1
21	70	12	17	1	78	87	150	23	20	43	20	1
22	44	12	16	1	85	73	97	80	14	6	6	1
23	19	12	15	1	71	230	68	36	10	4	4	1
24	10	12	16	1	71	1,360	1,540	31	9	3	3	1
25	10	10	17	1	15	375	225	1,660	6	3	3	1
26	11	10	17	1	63	171	91	2,120	5	2	2	1
27	12	10	30	1	49	99	76	398	5	2	2	2
28	15	10	23	1	43	93	68	89	5	2	2	1
29	14	10	23	2	-	95	69	55	4	25	1	1
30	13	12	1,290	2,060	-	100	68	39	3	14	1	2
31	12	-	328	435	-	91	-	31	-	4	2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,963	1,150	10	128	7,860
November	311	12	8	10.4	617
December	2,125	1,290	9	68.5	4,210
Calendar year 1936	79,273	9,170	1	217	157,200
January	2,704	2,060	1	87.2	5,360
February	21,220	5,770	15	758	42,090
March	17,135	5,380	52	553	33,990
April	5,056	1,540	52	169	10,030
May	6,217	2,120	21	201	12,330
June	2,775	1,290	3	92.5	5,500
July	2,984	825	2	96.3	5,920
August	564	262	1	18.2	1,120
September	670	354	1	22.3	1,330
Water year 1936-37	65,724	5,770	1	180	130,400

Wakarusa River near Lawrence, Kans.

Location.- Chain gage, lat. 38°55', long. 95°16', in NW¼ sec. 24, T. 13 S., R. 19 E., 4 miles southwest of Lawrence and 11 miles above junction with Kansas River.

Drainage area.- 458 square miles.

Records available.- April 1929 to September 1937.

Extremes.- Maximum discharge observed during year, 6,220 second-feet Feb. 8 (gage height, 21.68 feet); no flow several days in November, June, July, August, and September.
1929-37: Maximum discharge observed, 11,700 second-feet May 27, 1935 (gage height, 29.36 feet); no flow at times during 1930-37.

Remarks.- Records fair except those for days of rapidly changing stage and those below 10 second-feet, which are poor. Discharge for periods of ice effect, Dec. 6-8, Jan. 7-10, estimated on basis of gage heights and weather records. Gage read twice daily.

Rating tables, water year 1936-37 except period of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 28 to June 1)

Oct. 1 to Dec. 31

1.1	0	2.5	20
1.4	.4	3.0	43
1.7	2	4.0	125
2.0	4	5.0	270

Jan. 1 to Sept. 30

1.2	0	4.0	138	10.0	1,010
1.5	.4	5.0	274	12.0	1,360
1.8	5.0	6.0	414	14.0	2,000
2.1	14	7.0	554	16.0	2,840
2.5	28	8.0	700	18.0	3,900
3.0	49	9.0	850	20.0	5,120

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8	1	1	40	484	18	49	15	3	0	0	
2	4	1	1	16	330	19	42	18	30	0	0	
3	3	1	1	7	274	19	34	12	20	0	4	
4	2	0	1	4	190	190	36	14	17	0	302	
5	2	1	1	3	232	260	46	14	7	0	163	
6	2	1	1	2	1,170	90	115	16	6	0	32	
7	8	1	1	2	1,260	52	73	12	2	0	13	
8	2	1	1	2	4,810	46	66	12	1	0	6	
9	2	1	1	1	942	34	66	11	4	0	2	
10	2	1	1	1	260	32	90	9	2	0	1	
11	1	1	1	1	512	22	52	3	5	0	0	
12	3	1	1	1	640	16	44	11	12	0	0	
13	5	1	1	1	596	22	40	8	9	0	0	
14	3	0	1	1	358	23	34	5	7	0	0	
15	2	1	1	1	163	20	32	4	3	10	0	
16	2	1	1	1	150	18	28	4	2	0	0	
17	2	0	1	1	73	22	28	3	1	0	0	
18	1	1	1	1	26	36	23	1	156	0	0	
19	1	1	1	1	52	115	17	2	12	0	36	
20	1	0	2	1	40	99	15	2	5	0	760	
21	1	1	1	1	42	73	15	2	1	0	484	
22	1	1	1	1	49	46	13	2	0	0	163	
23	1	1	2	1	52	46	9	2	0	0	42	
24	1	1	1	1	40	670	34	2	0	90	19	
25	1	1	1	1	30	470	90	4	0	190	10	
26	1	1	1	1	36	138	46	6	0	40	6	
27	1	1	2	1	30	85	28	6	0	15	2	
28	1	1	2	1	21	36	21	8	0	7	1	
29	1	1	1	5	-	58	17	15	0	3	1	
30	1	1	3	470	-	52	16	13	0	1	0	
31	1	-	132	1,040	-	52	0	5	-	1	0	

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	67	8	1	2.2	133
November	26	1	0	.9	52
December	168	132	1	5.4	333
Calendar year 1936	13,046.9	1,470	0	35.6	25,870
January	1,611	1,040	1	52.0	3,200
February	12,862	4,810	21	459	25,510
March	2,879	670	16	92.9	5,710
April	1,219	115	9	40.6	2,420
May	241	18	1	7.8	478
June	305	156	0	10.2	605
July	357	190	0	11.5	708
August	2,047	760	0	66.0	4,060
September	0	0	0	0	0
Water year 1936-37	21,782	4,810	0	59.7	43,210

Stranger Creek near Tonganoxie, Kans.

Location.- Wire-weight gage, lat. 39°06', long. 95°01', in NE¼ sec. 13, T. 11 S., R. 21 E., 1 mile above mouth of Tonganoxie Creek, 4 miles east of Tonganoxie, and 9 miles above junction with Kansas River.

Drainage area.- 406 square miles.

Records available.- May 1929 to September 1937.

Extremes.- Maximum discharge observed during year, 2,700 second-feet Feb. 8 (gage height, 22.00 feet); no flow several days in November, June, July, August, September. 1929-37: Maximum discharge observed, 10,600 second-feet June 2, 1929 (gage height, 26.46 feet); no flow at times during 1934-37. Bank-full stage, 23 feet. Maximum stage known, 27.3 feet Apr. 21, 1929 (discharge, 15,300 second-feet, discharge measurement).

Remarks.- Records good except those for period of ice effect, Jan. 9-29 (computed on basis of one discharge measurement, gage heights, and weather records), those for days of rapidly changing stage, and those below 10 second-feet, all of which are poor. Gage read twice daily.

Rating table, water year 1936-37 except for period of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Dec. 31				Jan. 1 to Sept. 30					
3.6	0	6.0	66	3.2	0	6.0	84	13.0	765
3.8	2	6.5	92	3.4	.7	7.0	151	15.0	1,120
4.0	4	7.0	122	3.6	2.9	8.0	228	17.0	1,510
4.5	14	7.5	156	3.8	7.1	9.0	308	19.0	1,930
5.0	27	8.0	193	4.4	16	11.0	490	22.0	2,700
5.5	44	8.5	245	5.0	33				

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	202	3	2	260	130	30	51	58	21	0	1	0
2	104	17	3	116	116	33	44	28	165	0	1	0
3	30	8	2	46	109	90	44	27	84	1	2	0
4	16	8	1	39	109	572	35	28	39	3	4	21
5	14	7	11	96	130	412	37	30	28	0	15	865
6	16	4	11	58	534	165	41	39	123	8	5	158
7	27	3	8	28	566	116	33	33	33	6	1	39
8	27	1	7	22	2,450	90	37	26	33	3	1	18
9	18	0	14	18	1,550	64	41	14	54	1	1	10
10	32	0	14	16	421	48	78	12	130	0	1	5
11	81	0	7	15	628	33	51	13	39	0	1	3
12	36	1	10	13	1,330	37	35	11	22	0	0	2
13	26	1	9	10	2,070	41	32	165	18	26	0	2
14	15	2	6	10	1,590	56	30	66	12	1,610	0	2
15	10	2	3	9	480	46	28	21	12	953	0	1
16	7	2	2	6	300	27	27	15	10	260	0	0
17	4	2	1	4	252	30	24	10	7	430	0	0
18	4	2	6	3	158	39	18	10	69	158	0	0
19	3	2	6	3	165	78	20	10	144	151	0	0
20	2	2	13	3	151	78	26	9	27	84	797	0
21	11	2	18	3	151	66	268	8	10	46	534	0
22	92	2	18	2	130	41	308	8	7	32	90	0
23	46	2	24	2	96	78	116	8	5	24	32	0
24	28	2	16	2	90	500	66	7	4	33	14	0
25	21	2	13	2	84	430	102	7	4	14	8	0
26	16	2	36	2	58	144	41	18	2	11	6	0
27	8	2	18	2	69	78	58	1,570	2	7	4	0
28	8	2	14	2	33	61	30	228	0	4	2	0
29	7	2	15	3	-	78	10	78	0	4	1	0
30	4	2	20	4	-	41	102	46	0	3	1	0
31	4	-	163	165	-	51	-	44	-	1	1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	919	202	2	29.6	1,820
November	87	17	0	2.9	173
December	491	163	1	15.8	974
Calendar year 1936	30,316	2,450	0	82.8	60,130
January	964	260	2	31.1	1,910
February	13,970	2,450	33	499	27,710
March	3,653	572	27	118	7,250
April	1,833	308	10	61.1	3,640
May	2,647	1,570	7	85.4	5,250
June	1,104	165	0	36.8	2,190
July	3,873	1,610	0	125	7,680
August	1,523	797	0	49.1	3,020
September	1,126	865	0	37.5	2,230
Water year 1936-37	32,190	2,450	0	88.2	63,850

Grand River near Gallatin, Mo.

Location.- Wire-weight gage, lat. 39°55'35", long. 93°56'35", in SW¼NW¼ sec. 16, T. 59 N., R. 27 W., at bridge on State Highway 6, 100 feet below Chicago, Rock Island & Pacific Railway bridge and 1 mile northeast of Gallatin. Prior to Nov. 16, 1936, wire-weight gage at site 1,100 feet upstream. Zero of gage is 712.52 feet above mean sea level (unadjusted).

Drainage area.- 2,250 square miles.

Records available.- June 1921 to September 1937.

Average discharge.- 16 years, 1,092 second-feet.

Extremes.- Maximum discharge observed during year, 15,700 second-feet Mar. 5 (gage height, 22.75 feet); minimum, 4 second-feet (computed) Dec. 11 (gage height, 1.35 feet, affected by backwater from ice).

1921-37: Maximum discharge observed, 56,800 second-feet June 2, 1929 (gage height, 37.02 feet, present site and datum), from rating curve extended above 40,000 second-feet; minimum, 3.2 second-feet Aug. 10, 1934 (gage height, 1.16 feet, former site and datum).

Maximum stage known, 39.3 feet in July 1909, from floodmarks (former site and datum).

Remarks.- Records fair except those for periods of ice effect, Dec. 6-23, Jan. 3 to Feb. 26, which were computed on basis of one discharge measurement, gage heights, and weather records and are poor. Gage read once daily below and twice daily above 15.0 feet.

Discharge. in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	414	46	20	1,330	2,050	211	188	2,610	211	38	108	37
2	312	37	20	586	586	721	180	768	916	34	98	33
3	170	137	24	314	434	8,600	188	2,210	1,020	34	220	34
4	76	206	20	118	370	12,400	188	3,360	469	33	118	24
5	104	116	22	98	341	15,200	173	1,710	314	33	103	22
6	504	110	16	195	228	7,860	146	1,230	418	33	89	22
7	642	71	16	180	118	4,130	128	1,170	674	28	84	22
8	905	52	16	153	98	2,900	140	1,660	268	31	84	22
9	714	45	16	166	98	1,930	140	434	188	31	80	22
10	1,840	41	12	140	118	966	228	328	146	30	76	24
11	1,110	34	4	118	64	586	268	268	140	30	76	22
12	336	34	8	64	1,820	418	203	220	118	22	72	24
13	170	29	12	50	7,580	140	203	203	386	5,760	68	21
14	116	28	12	44	10,800	290	153	160	1,440	10,000	60	21
15	87	27	16	38	5,270	220	140	279	545	8,320	60	20
16	71	28	16	32	2,730	173	140	180	238	3,190	57	20
17	62	28	16	26	1,390	153	123	140	140	1,710	54	20
18	52	28	21	26	1,280	160	118	123	64	401	54	20
19	44	28	26	26	5,140	128	98	113	64	4,440	54	22
20	40	27	21	21	4,880	173	80	98	64	9,940	54	22
21	38	24	16	21	5,970	220	140	94	72	3,130	60	16
22	179	24	12	21	2,050	268	2,440	140	76	1,230	356	17
23	414	24	32	16	506	323	1,230	188	64	434	108	18
24	216	22	38	16	268	434	370	123	57	279	76	18
25	130	22	38	16	434	966	469	1,930	50	203	54	18
26	92	22	38	12	290	1,120	341	5,620	47	1,390	47	19
27	92	20	41	12	247	586	166	7,500	47	434	41	19
28	76	20	113	12	228	386	146	3,600	41	203	38	20
29	66	22	113	12	-	247	247	1,390	41	146	37	21
30	57	20	103	80	-	188	2,210	629	50	126	36	21
31	46	-	2,210	4,620	-	188	-	328	-	128	37	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	9,175	1,840	38	296	0.132	0.15	18,200
November	1,372	206	20	45.7	.020	.02	2,720
December	3,088	2,210	4	99.6	.044	.05	6,120
Calendar year 1936	171,860.6	16,000	4	470	.209	2.83	340,900
January	8,563	4,620	12	276	.123	.14	16,980
February	55,388	10,800	64	1,978	.879	.92	109,900
March	62,290	15,200	128	2,009	.893	1.03	123,600
April	10,984	2,440	80	366	.163	.18	21,790
May	38,806	7,500	94	1,252	.556	.64	76,970
June	8,368	1,440	41	279	.124	.14	16,600
July	51,843	10,000	22	1,672	.743	.86	102,800
August	2,559	356	36	82.5	.037	.04	5,080
September	661	37	16	22.0	.0098	.01	1,310
Water year 1936-37	253,097	15,200	4	693	.308	4.18	502,100

Grand River near Sumner, Mo.

Location.- Wire weight gage, lat. 39°38'25", long. 93°16'25", in NE¼ sec. 29, T. 56 N., R. 21 W., on county highway bridge 80 feet below Chicago, Burlington & Quincy Railroad bridge, 2 miles southwest of Sumner. Zero of gage is 630.07 feet above mean sea level (general adjustment of 1929).

Drainage area.- 6,880 square miles.

Records available.- April 1924 to September 1937.

Average discharge.- 13 years, 3,937 second-feet.

Extremes.- Maximum discharge during year, 36,800 second-feet Mar. 6; maximum gage height, 30.28 feet Feb. 22 (backwater from ice); minimum discharge, 71 second-feet Dec. 6 (backwater from ice); minimum gage height observed, 2.51 feet Nov. 28, Dec. 3. 1924-37: Maximum discharge observed, 110,000 second-feet June 4, 1929; maximum gage height observed, 35.35 feet Nov. 20, 1928; minimum discharge, 10 second-feet Aug. 12, 1934; minimum gage height, 2.19 feet Aug. 22, 23, 31, Sept. 1, 1936.

Remarks.- Records good except those for periods of ice effect, Dec. 1-22, Jan. 7 to Feb. 24, which were computed on basis of two discharge measurements, gage heights, and weather records and are poor. Gage read once daily below 15 feet and twice daily above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,270	164	92	3,320	24,200	1,710	1,080	16,700	1,360	266	405	125
2	1,760	186	82	2,450	15,700	2,330	1,080	10,300	1,710	266	1,360	125
3	895	198	74	1,660	12,100	12,000	1,030	9,380	2,570	238	895	116
4	615	295	82	1,160	5,560	25,700	1,030	13,200	3,720	211	1,710	114
5	510	735	82	855	3,940	33,500	980	11,700	2,510	211	1,160	107
6	775	510	71	735	3,580	36,200	940	7,400	2,330	186	615	105
7	1,080	370	79	695	3,450	32,000	895	4,410	1,820	174	815	103
8	1,560	310	79	735	4,330	18,900	855	3,190	1,760	164	510	103
9	3,200	238	95	775	5,050	8,450	855	2,750	1,510	154	855	103
10	15,100	198	95	775	4,890	4,170	1,030	2,210	1,080	144	615	102
11	13,600	186	83	695	4,810	2,510	1,560	1,660	940	154	405	100
12	7,190	174	92	615	4,970	1,980	1,310	1,460	940	164	340	98
13	2,570	164	76	440	12,100	1,660	1,160	1,660	2,570	2,470	252	92
14	1,120	154	76	355	20,100	1,460	980	1,760	5,900	12,600	198	90
15	695	134	76	295	22,500	1,310	895	1,560	3,380	15,700	186	90
16	545	125	72	252	22,500	1,120	815	1,360	2,210	11,400	164	88
17	440	125	72	211	21,900	980	735	1,080	1,980	4,290	154	85
18	340	125	72	198	21,100	940	655	940	3,000	2,090	144	82
19	266	125	80	186	20,300	940	580	815	2,090	1,710	144	82
20	252	125	88	186	27,300	1,080	510	1,210	1,160	10,700	340	82
21	266	116	93	615	31,600	1,160	798	2,930	815	10,800	855	80
22	211	114	111	510	36,200	1,260	3,650	1,660	735	3,190	815	79
23	475	112	134	388	31,200	1,360	3,060	1,510	615	1,560	475	76
24	855	109	164	280	20,100	1,920	2,390	1,870	475	1,210	510	98
25	735	107	154	198	13,100	3,060	2,750	2,040	405	1,310	310	84
26	440	111	144	154	4,750	3,580	2,810	7,560	422	1,610	266	80
27	355	102	295	125	2,690	3,190	2,210	14,200	440	1,760	198	79
28	295	85	355	107	1,980	2,210	1,660	11,700	370	1,120	164	77
29	295	111	615	90	-	1,610	1,360	5,900	370	735	144	76
30	252	103	655	370	-	1,260	9,800	2,690	295	545	134	79
31	198	-	895	28,900	-	1,160	-	1,920	-	475	134	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	59,160	15,100	198	1,908	0.277	0.32	117,300
November	5,711	735	85	190	.028	.03	11,330
December	5,233	895	71	169	.025	.03	10,380
Calendar year 1936	549,649	41,000	29	1,502	.219	2.98	1,090,000
January	48,330	28,900	90	1,559	.227	.26	95,860
February	402,000	36,200	1,980	14,360	2.09	2.18	797,400
March	210,710	36,200	940	6,797	.988	1.14	417,900
April	49,463	9,800	510	1,649	.240	.27	98,110
May	148,725	16,700	815	4,798	.697	.80	295,000
June	49,482	5,900	295	1,649	.240	.27	98,150
July	87,607	15,700	144	2,827	.411	.47	173,800
August	15,272	1,710	134	493	.072	.08	30,290
September	2,800	125	76	93.3	.014	.02	5,550
Water year 1936-37	1,084,493	36,200	71	2,970	.432	5.87	2,151,070

East Fork of Big Creek near Bethany, Mo.

Location.- Water-stage recorder, lat. 40°17'50", long. 94°01'55", in SE¼ sec. 34 T. 64 N., R. 28 W., at bridge on U. S. Highway 69, 2 miles north of Bethany. Zero of gage is 854.73 feet above mean sea level (general adjustment of 1929).

Drainage area.- 95 square miles.

Records available.- March 1934 to September 1937.

Extremes.- Maximum discharge during year, 1,610 second-feet Jan. 30; maximum gage height, 12.10 feet Feb. 13 (ice jam); no flow on many days.
1934-1937: Maximum discharge, 3,500 second-feet May 31, 1935; maximum gage height, that of Feb. 13, 1937; no flow on many days of each year.

Remarks.- Records good except those for periods of ice effect, Jan. 31 to Feb. 6, Feb. 11 to Mar. 5, (computed on basis of two discharge measurements, gage heights, and weather records), which are fair.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.3	0.74	0.11	39	69	221	6.7	177	6.3	0.09	1.6	0
2	2.6	4.1	.11	66	43	960	7.5	129	32	.03	1.4	0
3	1.6	3.5	.11	83	43	1,190	7.1	180	7.1	0	1.2	0
4	1.0	1.6	.11	26	30	1,210	7.1	251	3.5	0	.88	0
5	2.6	1.1	.21	19	9.8	840	6.0	239	19	0	.74	0
6	9.6	.88	.43	8.4	6.0	642	5.3	111	18	0	7.0	0
7	213	.68	.31	5.3	5.0	254	6.7	40	4.7	0	17	0
8	54	.47	.24	3.3	3.0	174	19	29	3.3	0	6.0	0
9	47	.39	.31	1.4	2.4	44	21	20	4.7	0	6.3	0
10	83	.31	.35	1.0	1.7	31	15	13	7.1	0	2.6	0
11	15	.24	.24	.68	158	22	14	10	4.1	0	1.2	0
12	5.7	.35	.24	.56	884	16	7.5	7.9	2.6	296	.74	0
13	2.8	.35	.28	.68	1,350	12	6.7	7.5	18	266	.47	0
14	1.8	.31	.28	.68	862	9.3	5.3	6.0	34	493	.28	0
15	1.3	.28	.35	.43	515	6.3	4.7	5.3	10	83	.13	0
16	1.0	.24	.51	.24	317	6.3	3.5	5.0	5.3	23	.09	0
17	.80	.24	1.3	.28	432	7.5	3.8	5.0	6.7	9.8	.04	0
18	.51	.24	1.8	.11	824	7.9	4.1	4.4	22	107	0	0
19	.39	.24	1.3	0	1,190	9.3	4.1	4.4	15	566	.03	0
20	1.1	.18	1.0	.09	1,140	20	68	4.4	6.3	103	.11	0
21	93	.18	.80	0	712	156	135	2.6	3.3	22	13	0
22	14	.18	.68	0	278	52	97	3.5	2.0	9.8	4.4	0
23	4.4	.18	.62	0	400	29	34	2.8	1.2	5.3	1.6	0
24	2.0	.16	.62	0	220	365	30	3.0	.88	197	.74	0
25	1.4	.21	.80	0	111	481	36	42	.68	261	.43	0
26	1.6	.24	2.8	0	90	62	25	166	.62	54	.21	0
27	1.0	.21	7.5	0	46	16	16	268	.47	14	.09	0
28	1.2	.16	9.8	0	29	11	14	36	.35	7.1	.03	0
29	1.1	.13	8.8	0	-	7.9	140	15	.24	4.7	0	0
30	1.0	.11	77	786	-	6.7	757	7.5	.18	3.3	0	0
31	.88	-	97	310	-	7.1	-	5.7	-	2.2	0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	575.68	213	0.39	18.6	0.196	0.23	1,140
November	18.20	4.1	.11	.607	.0064	.007	36
December	216.01	97	.11	6.97	.073	.08	428
Calendar year 1936	7,683.05	608	0	21.0	.221	3.02	15,240
January	1,352.15	786	0	43.6	.459	.53	2,680
February	9,770.9	1,350	1.7	349	3.67	3.82	19,380
March	6,876.3	1,210	6.3	222	2.34	2.70	13,640
April	1,507.1	757	3.5	50.2	.528	.59	2,990
May	1,801.0	268	2.6	58.1	.612	.71	3,570
June	239.62	34	.18	7.99	.084	.09	475
July	2,527.32	566	0	81.5	.858	.99	5,010
August	68.31	17	0	2.20	.023	.03	135
September	0	0	0	0	0	0	0
Water year 1936-37	24,952.59	1,350	0	68.4	.720	9.78	49,480

Thompson River at Trenton, Mo.

Location.- Wire-weight gage, lat 40°04', long. 93°38', in SE¼ sec. 20, T. 61 N., R. 24 W., at county highway bridge, 1 mile south of Trenton and 4 miles below Weldon River.

Drainage area.- 1,680 square miles.

Records available.- August 1928 to September 1937.

Extremes.- Maximum discharge observed during year, 13,900 second-feet Feb. 20 (gage height, 14.60 feet); minimum, 6 second-feet (computed on basis of discharge measurement, Jan. 28) Jan. 25-28; minimum gage height, 4.28 feet Sept. 19-23.

1928-37: Maximum discharge observed, 26,700 second-feet Nov. 18, 1928, Dec. 31, 1931; maximum gage height observed, 22.31 feet Nov. 18, 1928, former site and datum; minimum discharge, 1.1 second-feet Aug. 10, 1934.

Maximum stage known, 30.7 feet July 6, 1909, former site, before new channel was dredged.

Remarks.- Records good except those for periods of ice effect, Dec. 5-14, Jan. 7 to Feb. 10, Feb. 25-28 (computed on basis of one discharge measurement, gage heights, and weather records), and those for days of rapidly changing stage, which are poor. Gage read once daily below 10.0 feet and twice daily above. Gage-height record collected in cooperation with U. S. Weather Bureau.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	476	41	28	682	624	372	213	4,180	348	58	43	21
2	211	46	21	525	504	2,240	202	656	504	53	41	19
3	120	66	31	388	563	5,780	209	1,780	2,880	58	305	20
4	88	201	21	136	504	12,200	188	1,890	930	52	108	19
5	105	111	29	124	348	9,410	177	2,360	504	45	58	19
6	92	82	29	139	305	7,540	145	1,480	421	44	80	20
7	2,570	61	41	162	305	5,440	129	930	476	43	348	20
8	550	44	29	192	305	3,020	188	788	504	39	788	19
9	368	58	29	136	305	2,120	265	720	265	39	265	18
10	3,000	46	29	113	305	1,010	656	395	246	38	108	20
11	349	42	29	92	305	624	534	305	257	38	59	19
12	129	40	29	92	2,240	421	372	257	198	96	42	19
13	100	37	29	72	10,600	348	261	1,480	209	1,300	38	16
14	80	37	29	56	10,200	285	209	504	1,480	285	36	16
15	69	31	39	41	7,180	205	167	447	447	1,390	33	16
16	59	34	37	41	3,020	183	123	257	250	534	30	15
17	53	36	35	29	2,000	160	118	209	1,680	205	30	15
18	48	35	39	29	3,160	148	89	174	1,580	121	29	13
19	50	34	52	29	9,800	157	68	154	563	6,820	29	13
20	47	34	53	41	13,400	209	65	2,880	254	1,780	36	13
21	46	31	53	19	10,800	326	753	1,390	265	687	31	13
22	154	30	48	19	3,300	348	1,210	753	154	223	32	13
23	141	33	46	12	1,480	594	1,010	1,780	121	121	76	13
24	189	33	40	12	720	1,040	563	2,490	96	87	55	15
25	107	23	35	6	563	1,480	2,120	624	89	788	40	16
26	82	31	58	6	447	1,680	1,580	2,240	82	231	33	15
27	90	29	78	6	395	1,000	788	5,780	72	96	29	15
28	67	31	107	6	348	504	563	4,960	67	67	26	16
29	53	27	92	19	-	285	447	1,680	65	56	24	13
30	39	31	111	453	-	227	6,640	858	58	51	23	15
31	46	-	832	4,480	-	216	-	447	-	46	21	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	9,578	3,000	39	309	0.184	0.21	19,000
November	1,415	201	23	47.2	.028	.03	2,810
December	2,168	832	21	69.6	.041	.05	4,280
Calendar year 1936	103,164	5,280	3.6	282	.168	2.28	204,600
January	8,157	4,480	6	263	.157	.18	16,180
February	84,026	13,400	305	3,001	1.79	1.86	166,700
March	59,572	12,200	148	1,922	1.14	1.31	118,200
April	20,052	6,640	65	668	.398	.44	39,770
May	44,848	5,780	154	1,447	.861	.99	88,950
June	15,065	2,880	58	502	.299	.33	29,880
July	15,490	6,820	38	500	.298	.34	30,720
August	2,896	788	21	93.4	.056	.06	5,740
September	494	21	13	16.5	.0098	.01	980
Water year 1936-37	263,751	13,400	6	723	.430	5.81	523,200

Weldon River at Mill Grove, Mo.

Location.- Wire-weight gage, lat. 40°18', long. 93°36', in SE¼SE¼ sec. 28, T. 64 N., R. 24 W., at county highway bridge in Mill Grove. Zero of gage is 785.945 feet above mean sea level (general adjustment of 1929).

Drainage area.- 494 square miles.

Records available.- April 1929 to September 1937.

Extremes.- Maximum discharge observed during year, 5,540 second-feet Feb. 20 (gage height, 16.40 feet); minimum, 0.5 second-foot Sept. 17-19; minimum gage height, 0.91 foot Sept. 22-24, 30.

1929-37: Maximum discharge observed, 14,200 second-feet June 2, 1929 (gage height, 20.6 feet); minimum discharge, 0.2 second-foot Aug. 29, 1936; minimum gage height, that of Sept. 22-24, 30, 1937.

Maximum stage known, about 23.9 feet in July 1909.

Remarks.- Records fair except those for periods of ice effect, Dec. 23-25, Jan. 6-26, Feb. 1-11, 24-28 (computed on basis of gage heights and weather records), and those for days of rapidly changing stage, which are poor. Gage read once daily below 4.0 feet and twice daily above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	118	4.5	5	218	438	243	32	1,110	48	14	11	3.3
2	26	3.9	4.3	135	386	906	38	334	1,530	10	334	3.3
3	12	148	6	516	282	2,840	35	386	932	9	84	3.1
4	9	47	8	62	180	4,100	28	724	243	8	40	2.7
5	8	105	11	36	86	1,530	27	542	160	8	23	2.7
6	10	60	8	16	35	1,980	23	321	152	7	86	2.9
7	776	12	7	16	24	1,220	20	192	160	4.5	412	2.2
8	62	4.5	6	16	24	646	33	138	82	4.3	230	1.5
9	23	2.4	8	10	24	295	78	145	55	4.5	64	1.4
10	42	3.1	9	10	24	152	101	71	140	5	30	6
11	46	2.7	8	10	24	105	53	57	88	4.5	20	3.1
12	15	6	3.3	10	1,090	48	32	412	58	386	15	2.7
13	12	5	11	4.5	3,720	48	38	542	386	230	13	1.7
14	9	4.5	9	4.5	3,580	44	31	135	516	464	11	1.5
15	7	5	9	2.5	1,110	33	30	67	192	568	8	.6
16	7	5		2.5	490	32	21	50	99	152	7	.6
17	6	4.3	8	2.5	646	31	18	44	464	69	6	.5
18	4.5	4.5	8	2.5	1,060	30	17	40	438	34	5	.5
19	5	4.1	14	2.5	3,720	33	13	542	152	516	7	.5
20	7	3.7	7	2.5	5,000	30	11	192	80	620	8	.7
21	8	3.7	5	2.5	4,220	118	109	55	52	490	7	.7
22	103	3.9	6	2.5	646	138	269	646	36	73	7	.6
23	19	3.9	4.5	2.5	464	88	118	145	27	36	7	.6
24	38	4.1	4.5	2.5	386	118	256	57	24	24	5	.6
25	14	3.9	4.5	2.5	282	206	958	31	22	128	4.5	.9
26	15	4.5	11	2.5	180	130	218	1,770	20	69	4.3	.7
27	26	4.1	31	1.7	86	62	132	1,110	17	23	4.3	.8
28	11	4.1	47	1.7	155	46	109	828	15	16	4.1	2.1
29	8	7	17	1.8	-	33	82	135	15	13	3.9	.9
30	7	6	46	646	-	32	2,320	105	14	12	3.7	.8
31	3.1	-	334	1,240	-	33	-	62	-	11	3.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,455.6	776	3.1	47.0	0.095	0.11	2,890
November	480.2	148	2.4	16.0	.032	.04	952
December	669.1	334	3.3	21.6	.044	.05	1,330
Calendar year 1936	33,556.1	2,880	.2	91.7	.186	2.53	66,570
January	2,985.2	1,240	1.7	96.3	.195	.22	5,920
February	28,362	5,000	24	1,013	2.05	2.14	56,260
March	17,349	4,100	30	560	1.13	1.30	34,410
April	5,250	2,320	11	175	.354	.40	10,410
May	10,988	1,770	31	354	.717	.83	21,790
June	6,217	1,530	14	207	.419	.47	12,330
July	4,012.8	620	4.3	129	.261	.30	7,960
August	1,468.3	412	3.5	47.4	.096	.11	2,910
September	50.2	6	.5	1.67	.0034	.004	100
Water year 1936-37	79,287.4	5,000	.5	217	.439	5.97	157,300

Medicine Creek near Galt, Mo.

Location.- Wire-weight gage, lat. 40°08', long. 93°22', in NW¼ sec. 34, T. 62 N., R. 22 W., at bridge on State Highway 6, 125 feet upstream from Quincy, Omaha & Kansas City Railroad bridge, 1⅛ miles above West Medicine Creek, and 1½ miles east of Galt. Zero of gage is 769.212 feet above mean sea level (general adjustment of 1929).

Drainage area.- 225 square miles.

Records available.- July 1921 to September 1937.

Average discharge.- 14 years (1921-24, 1925-28, 1929-37), 132 second-feet.

Extremes.- Maximum discharge during year, 6,340 second-feet Feb. 21 (gage height, 11.0 feet, from floodmark); minimum discharge, 0.6 second-foot (computed) Dec. 7-11, Jan. 19, 22-28; minimum gage height, 2.32 feet Sept. 15-17, 20, 22, 30.
1921-37: Maximum discharge observed, 7,760 second-feet Aug. 2, 1932; maximum gage height observed, 15.60 feet Apr. 20, 1929: no flow on many days in 1934, 1936.

Remarks.- Records fair except those for periods of ice effect, Dec. 6-16, 19-22, Jan. 3 to Feb. 9, Feb. 24-27 (computed on basis of one discharge measurement, gage heights, and weather records), and those for days of rapidly changing stage, which are poor. Gage read once daily below 8.0 feet and twice daily above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	4.1	2.4	71	350	64	37	1,090	30	13	550	1.8
2	19	13	2.2	61	279	93	35	226	28	13	257	1.8
3	14	4.9	1.9	45	257	700	33	430	860	13	34	1.6
4	8	4.7	1.6	34	236	1,210	33	860	118	13	18	1.6
5	11	4.7	1.1	25	197	700	35	402	68	12	12	1.6
6	12	28	1.4	18	179	376	36	125	430	12	12	1.6
7	10	16	.6	18	162	268	34	76	118	12	10	1.6
8	5	7	.6	11	146	179	39	64	46	15	9	1.5
9	17	5	.6	11	132	93	49	53	33	13	6	1.6
10	61	4.4	.6	6	139	57	48	43	30	12	6	2.0
11	33	3.6	.6	6	154	43	37	35	13	12	5	1.8
12	12	3.4	1.4	3.1	700	38	33	36	42	21	4.3	1.6
13	6	3.1	1.4	3.1	2,170	31	33	28	99	21	4.3	1.3
14	4.7	2.8	1.4	3.1	1,420	28	34	26	376	99	4.0	1.3
15	3.6	2.4	1.4	3.1	820	22	30	24	112	33	3.2	1.1
16	3.4	2.4	3.1	1.4	302	21	29	24	47	42	2.9	1.1
17	3.4	2.4	4.1	1.4	197	25	26	23	36	22	2.9	1.1
18	2.9	2.2	4.9	1.4	350	24	23	21	28	20	2.9	1.2
19	2.8	2.1	6	.6	1,420	25	22	22	26	46	3.7	1.2
20	2.6	1.9	6	3.1	2,170	37	20	66	25	236	4.6	1.1
21	4.7	1.9	6	1.4	3,560	43	34	36	22	46	3.7	1.2
22	4.4	1.3	6	.6	1,670	51	43	25	20	28	2.9	1.1
23	8	1.6	4.9	.6	179	46	42	22	19	23	2.9	1.2
24	4.9	1.3	4.1	.6	71	63	44	26	18	64	2.9	2.4
25	4.1	1.3	3.6	.6	51	99	197	24	17	22	2.2	1.8
26	4.7	2.1	4.4	.6	42	76	93	139	16	46	2.4	1.2
27	4.9	1.7	17	.6	42	48	64	900	15	25	2.6	1.2
28	8	2.6	24	.6	40	40	56	226	14	19	2.2	1.6
29	5	1.2	22	3.1	-	36	49	70	14	16	2.0	1.5
30	6	1.7	29	1,670	-	36	945	46	13	14	2.2	1.1
31	4.7	-	73	660	-	34	-	38	-	14	2.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	318.8	61	2.6	10.3	0.046	0.05	632
November	134.8	28	1.2	4.49	.020	.02	267
December	237.3	73	.6	7.65	.034	.04	471
Calendar year 1936	11,345.1	1,210	0	31.0	.138	1.88	22,500
January	2,665.0	1,670	.6	86.0	.382	.44	5,290
February	17,435	3,560	40	623	2.77	2.88	34,580
March	4,606	1,210	21	149	.662	.76	9,140
April	2,233	945	20	74.4	.331	.37	4,430
May	5,226	1,090	21	169	.751	.87	10,370
June	2,733	860	13	91.1	.405	.45	5,420
July	997	236	12	32.2	.143	.16	1,980
August	979.8	550	2.0	31.6	.140	.16	1,940
September	43.8	2.4	1.1	1.46	.0065	.007	87
Water year 1936-37	37,609.5	3,560	.6	103	.458	6.21	74,610

Locust Creek near Linneus, Mo.

Location.- Wire-weight gage, lat. 39°53', long. 93°14', in NE¼ sec. 34, T. 59 N., R. 21 W., at county highway bridge 3 miles northwest of Linneus.

Drainage area.- 550 square miles.

Records available.- April 1929 to September 1937.

Extremes.- Maximum discharge observed during year, 5,110 second-feet (computed) Jan. 30 (gage height, 14.67 feet, backwater from ice); minimum discharge observed, 1.9 second-feet Sept. 14, 20; minimum gage height observed, 2.80 feet Dec. 4.
1929-37: Maximum discharge observed, 14,100 second-feet Apr. 21, 1929 (gage height, 20.89 feet); no flow July 17 to Aug. 11, 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 6-14, Jan. 3 to Feb. 25 (computed on basis of one discharge measurement, gage heights, and weather records), and those for days of rapidly-changing stage, which are poor. Gage read once daily below 10.0 feet and twice daily above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	14	8	158	807	386	92	2,240	17	7	6	2.4
2	45	19	9	129	320	488	97	1,280	41	5	26	2.3
3	27	38	7	137	199	1,060	90	853	46	9	30	2.3
4	20	85	6	160	147	2,770	84	1,060	336	7	61	2.4
5	78	32	8	185	124	4,210	105	1,220	79	6	17	2.4
6	60	21	10	65	103	1,220	99	419	84	5	22	2.3
7	28	18	10	6	103	853	88	213	129	5	11	2.3
8	16	14	10	6	172	599	97	164	66	4.8	10	2.1
9	14	14	10	31	147	320	95	122	46	3.9	5	2.4
10	1,110	10	10	41	124	157	90	92	36	4.2	5	2.0
11	372	11	10	22	103	142	88	72	52	4.5	3.9	2.3
12	122	11	10	22	1,330	111	81	66	54	4.8	2.8	2.3
13	50	10	10	15	3,860	99	76	66	56	48	2.9	2.2
14	45	10	10	15	3,180	81	64	61	227	199	3.6	1.9
15	35	9	11	10	1,820	81	66	47	560	54	3.2	2.3
16	33	10	10	10	1,110	60	57	43	86	26	2.8	2.2
17	26	9	12	10	639	66	49	39	42	27	3.0	2.2
18	25	9	12	10	453	72	43	36	37	18	2.8	2.3
19	18	8	12	10	419	76	38	34	25	120	2.7	2.2
20	19	8	21	22	419	107	45	853	23	116	8	1.9
21	18	e	57	1,240	2,380	101	257	103	22	126	4.8	2.4
22	16	8	16	295	3,350	99	99	84	18	38	3.0	2.5
23	27	9	13	238	1,330	88	88	59	14	18	2.9	2.5
24	18	6	14	185	660	336	70	42	12	257	2.5	3.9
25	17	8	14	160	488	488	64	42	10	41	2.5	2.4
26	16	8	15	116	1,630	353	57	3,440	18	29	2.6	2.5
27	14	14	53	97	1,220	147	54	1,390	28	8	2.6	2.4
28	14	8	78	97	1,060	105	54	488	9	8	2.6	2.4
29	14	7	87	80	-	95	56	164	7	8	2.5	2.3
30	14	7	60	5,110	-	92	366	116	7	6	2.5	2.1
31	14	-	99	2,170	-	90	-	69	-	3.9	2.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	2,412	1,110	14	77.8	0.141	0.16	4,780
November	443	85	6	14.8	.027	.03	879
December	712	99	6	23.0	.042	.05	1,410
Calendar year 1936	35,573.9	3,100	.2	97.2	.177	2.39	70,560
January	10,852	5,110	6	350	.636	.73	21,520
February	27,717	3,860	103	990	1.80	1.87	54,980
March	14,952	4,210	60	482	.876	1.01	29,660
April	2,729	386	38	91.0	.165	.18	5,410
May	14,977	3,440	34	483	.878	1.01	29,710
June	2,187	560	7	72.9	.133	.15	4,340
July	1,217.1	257	3.9	39.3	.071	.08	2,410
August	259.6	61	2.4	8.37	.015	.02	515
September	70.1	3.9	1.9	2.34	.0043	.005	139
Water year 1936-37	78,527.8	5,110	1.9	215	.391	5.30	155,800

Chariton River at Novinger, Mo.

Location.- Wire-weight gage, lat. 40°14', long. 92°41', in SE¼NW¼ sec. 27, T. 63 N., R. 16 W., at bridge on State Highway 6, 1,000 feet below Chicago, Burlington & Quincy Railroad Bridge and three-quarters of a mile east of Novinger. Zero of gage is 737.65 feet (revised) above mean sea level (general adjustment of 1929).

Drainage area.- 1,370 square miles.

Records available.- January 1931 to September 1937.

Extremes.- Maximum discharge observed during year, 6,820 second-feet (computed) Feb. 21 (gage height, 23.84 feet, backwater from ice); minimum discharge, 2.0 second-feet Sept. 23; minimum gage height, 2.94 feet Nov. 20.
1931-37: Maximum discharge, 15,400 second-feet Nov. 25, 1931 (gage height, 26.03 feet); minimum discharge, 0.1 second-foot Aug. 31, Sept. 1, 1936; minimum gage height, 1.84 feet Jan. 19, 1931.
Maximum stage known, 28.6 feet in June 1917.

Remarks.- Records poor. Discharge for periods of backwater from ice, Dec. 5-14, Jan. 5 to Mar. 3 computed on basis of one discharge measurement, weather records, and gage heights. Gage read once daily below 10.0 feet and twice daily above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	42	24	204	2,600	1,500	204	3,000	520	25	752	9
2	42	47	28	224	1,720	1,410	194	1,380	282	23	59	11
3	43	86	26	137	1,300	2,200	185	2,260	2,350	21	44	11
4	44	120	29	184	809	5,150	214	2,320	1,330	21	34	9
5	47	96	23	120	545	4,710	380	1,550	1,470	20	30	7
6	47	68	17	82	380	4,230	266	971	520	17	20	7
7	3,560	50	17	68	317	4,180	194	701	520	18	16	5
8	2,320	47	12	75	449	4,560	214	426	570	14	34	5
9	388	46	12	89	214	4,960	226	252	185	15	30	5
10	120	42	17	54	194	4,640	214	185	149	15	25	4.2
11	42	40	17	35	176	3,780	194	176	131	15	21	3.4
12	388	37	12	47	782	2,230	194	158	131	27	15	3.0
13	164	36	12	54	2,110	971	194	131	167	62	14	4.2
14	120	32	17	54	3,500	820	176	106	214	140	12	3.4
15	82	29	21	47	3,500	337	149	131	194	158	31	3.0
16	75	28	75	41	3,310	252	122	131	204	140	28	2.8
17	58	26	48	41	3,000	226	122	114	194	114	18	2.4
18	47	25	41	35	3,100	214	94	1,080	122	114	15	2.6
19	44	22	43	35	3,190	214	90	1,580	83	69	13	2.4
20	43	21	44	112	3,340	167	86	1,640	66	66	12	2.2
21	40	24	46	120	6,820	297	545	1,900	62	226	10	2.2
22	75	24	44	82	6,200	280	266	1,410	53	380	26	2.2
23	120	24	43	68	4,710	266	140	674	59	122	19	2.0
24	75	24	44	54	3,820	1,130	114	495	62	149	13	8
25	72	25	47	41	3,000	1,110	102	226	53	472	11	5
26	68	28	61	35	1,900	782	114	4,560	41	106	13	3.0
27	64	32	128	32	1,810	595	114	1,870	37	66	12	2.8
28	61	22	204	29	1,690	357	106	2,140	32	44	11	3.0
29	47	22	194	23	-	297	114	2,200	31	37	9	3.4
30	46	22	164	310	-	238	3,130	2,050	28	28	6	2.6
31	43	-	194	3,000	-	214	-	1,050	-	23	7	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	8,427	3,560	40	272	0.199	0.23	16,710
November	1,187	120	21	39.6	.029	.03	2,350
December	1,724	204	12	55.6	.041	.05	3,420
Calendar year 1936	93,401.9	4,000	.1	255	.186	2.54	185,300
January	5,532	3,000	23	178	.130	.15	10,970
February	64,486	6,820	176	2,303	1.68	1.75	127,900
March	52,017	5,150	167	1,678	1.22	1.41	103,200
April	8,457	3,130	86	282	.206	.23	16,770
May	36,867	4,560	106	1,189	.868	1.00	73,120
June	9,830	2,350	28	328	.239	.27	19,500
July	2,747	472	14	88.6	.065	.07	5,450
August	1,390	782	6	44.8	.033	.04	2,760
September	136.8	11	2.0	4.56	.0033	.004	271
Water year 1936-37	192,800.8	6,820	2.0	528	.385	5.23	382,400

Chariton River near Keytesville, Mo.

Location.- Wire-weight gage, lat. 39°20'55", long. 92°52'10", in SE¼ sec. 25, T. 54 N., R. 18 W., at county highway bridge, 4½ miles northeast of Keytesville.

Drainage area.- 1,950 square miles.

Records available.- April 1929 to September 1937.

Extremes.- Maximum discharge observed during year, 8,700 second-feet (computed) Feb. 22; maximum gage height observed, 21.66 feet Feb. 21 (backwater from ice); minimum discharge observed, 15 second-feet Dec. 8, 12, Sept. 24; minimum gage height observed, 3.58 feet Dec. 8 (backwater from ice).

1929-37: Maximum discharge observed, 18,700 second-feet Apr. 25, 1929; maximum gage height, 22.72 feet June 3, 1935; minimum discharge, 4.6 second-feet Aug. 7, 9, 10, 1934.

Remarks.- Records good except those for periods of ice effect, Dec. 7-15, 21, 22, Jan. 4 to Feb. 23, which were computed on basis of two discharge measurements, gage heights, and weather records and are poor. Discharge for Nov. 15 estimated. Gage read once daily below 12.0 feet and twice daily above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	996	81	43	660	4,290	4,070	404	3,050	1,790	75	87	29
2	600	88	37	544	4,180	2,520	376	3,600	1,080	70	2,520	27
3	388	117	43	439	3,550	2,430	349	2,850	749	66	749	26
4	272	142	40	364	2,230	5,380	336	3,910	1,500	63	1,950	26
5	228	368	31	317	1,600	6,000	433	3,600	1,990	59	1,050	26
6	187	207	34	218	1,160	5,800	684	2,350	1,580	52	298	24
7	168	142	23	150	1,090	5,440	652	1,610	1,300	50	192	22
8	187	117	15	133	2,230	5,020	463	1,160	684	48	136	23
9	150	100	19	150	2,470	4,780	404	848	749	48	104	22
10	491	90	27	218	1,370	4,780	376	620	588	47	83	24
11	3,450	81	23	207	750	4,720	349	463	376	46	73	23
12	3,050	74	15	117	2,070	4,070	310	404	286	46	69	22
13	1,300	71	19	73	3,500	2,750	323	349	323	54	60	20
14	572	66	23	250	4,290	1,540	349	323	684	51	57	21
15	364	62	23	166	4,390	914	323	248	433	59	51	19
16	261	59	25	168	4,450	684	273	224	404	298	47	19
17	218	54	25	101	4,450	556	213	202	349	192	45	19
18	178	52	31	67	4,070	493	182	248	376	224	43	18
19	150	52	59	50	3,250	433	154	588	310	248	43	19
20	133	52	51	50	4,070	463	136	1,580	224	192	45	18
21	117	48	45	1,060	6,660	620	310	1,540	192	145	376	17
22	117	47	50	1,230	8,700	588	2,070	1,870	163	120	87	17
23	101	46	53	900	7,930	524	982	1,830	136	182	62	17
24	97	51	61	439	7,630	782	493	1,160	120	524	48	15
25	207	56	49	272	6,910	2,110	336	749	104	588	40	27
26	168	53	49	168	6,340	1,830	273	2,110	97	620	37	28
27	125	49	207	133	6,000	1,260	236	4,960	97	376	34	19
28	109	47	294	101	5,320	881	224	3,000	112	213	33	18
29	117	53	364	87	-	716	213	2,310	104	145	32	18
30	101	45	340	169	-	556	202	2,350	87	112	32	17
31	94	-	720	6,580	-	463	-	2,270	-	97	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	14,696	3,450	94	474	0.243	0.28	29,150
November	2,590	388	45	86.3	.044	.05	5,140
December	2,838	720	15	91.5	.047	.05	5,630
Calendar year 1936	168,331	9,000	5	460	.236	3.22	333,900
January	15,573	6,580	50	502	.257	.30	30,890
February	114,850	8,700	750	4,102	2.10	2.19	227,800
March	75,173	6,000	433	2,360	1.21	1.40	145,100
April	12,428	2,070	136	414	.212	.24	24,650
May	52,376	4,960	202	1,690	.867	1.00	103,900
June	16,987	1,990	87	566	.290	.32	33,690
July	5,110	620	46	165	.085	.10	10,140
August	8,512	2,520	29	275	.141	.16	16,880
September	640	29	15	21.3	.011	.01	1,270
Water year 1936-37	319,773	8,700	15	876	.449	6.10	634,200

Lamine River at Clifton City, Mo.

Location.- Wire-weight gage, lat. 38°45'20", long. 93°01'10", in NW¼ sec. 16, T. 46 N., R. 19 W., on county highway bridge 300 feet above Missouri-Kansas-Texas Railroad bridge and three-quarters of a mile east of Clifton City. Zero of gage is 621.98 feet above mean sea level (general adjustment of 1929).

Drainage area.- 598 square miles.

Records available.- June 1922 to September 1937.

Average discharge.- 15 years, 471 second-feet.

Extremes.- Maximum discharge, 22,200 second-feet May 23 (gage height, 27.30 feet, from graph based on gage readings); minimum observed, 0.5 second-foot Sept. 23 (gage height, 1.13 feet).

1922-37: Maximum discharge, 33,000 second-feet May 19, 1929 (gage height, 29.0 feet); no flow on many days during 1934 and 1936; minimum gage height, 0.64 foot Aug. 31, 1936.

Maximum stage known, 35.3 feet Sept. 18, 1905.

Remarks.- Records good. Gage read once daily when below 10.0 feet and twice daily above.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second feet)

1.0	0.1	2.0	27	6.0	1,160	25.0	15,700
1.2	1.1	2.2	45	12.0	3,750	26.0	17,500
1.4	4	2.4	72	18.0	7,600	26.5	18,800
1.6	9	2.6	110	20.0	9,400	27.0	20,700
1.8	16	3.0	202	23.0	12,900	27.5	23,200

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	380	56	21	521	2,430	177	202	457	335	51	15	2.4
2	253	306	21	457	922	214	190	3,410	365	43	39	2.4
3	190	2,620	21	619	752	253	177	10,400	3,560	40	29	2.2
4	147	425	20	279	425	279	166	7,860	2,060	36	166	2.1
5	125	240	23	202	335	365	322	3,250	1,230	32	112	2.1
6	136	177	66	154	586	266	335	1,520	521	28	55	1.8
7	489	141	166	154	1,090	202	240	619	266	26	34	1.7
8	380	112	128	1,090	3,600	166	190	395	202	23	25	1.7
9	214	94	81	2,750	2,300	136	166	322	5,010	22	16	1.7
10	425	81	64	1,450	457	114	143	253	10,500	20	13	1.7
11	457	69	55	685	350	106	128	202	4,610	18	12	1.5
12	214	63	46	322	553	102	110	306	752	17	11	1.2
13	136	60	41	350	521	166	102	279	521	16	9	1.2
14	96	55	37	3,820	553	619	119	214	380	14	8	1.1
15	85	47	35	6,060	457	586	214	166	279	14	8	1.0
16	68	43	33	1,300	425	553	128	141	253	13	7	.9
17	56	41	32	586	279	553	94	123	8,620	13	6	.8
18	49	36	32	489	279	4,370	154	110	5,830	12	18	.9
19	43	33	31	395	521	9,200	425	104	619	15	5	.9
20	39	33	30	1,630	1,480	10,900	279	88	306	14	4.0	.8
21	37	32	29	4,680	5,720	2,470	2,020	77	227	12	4.0	.7
22	33	30	29	990	2,790	752	956	12,600	177	13	4.0	.6
23	29	23	28	990	854	553	380	16,200	141	30	3.8	.5
24	26	16	28	854	652	2,480	685	1,910	117	322	3.6	5
25	32	16	28	425	457	1,160	457	489	100	34	3.4	2.4
26	112	25	27	335	292	521	240	395	85	76	3.2	1.8
27	322	23	35	240	227	350	190	322	70	47	3.2	1.7
28	154	22	145	190	202	279	154	365	62	33	3.1	1.5
29	98	22	154	177	-	253	1,380	240	55	26	3.0	4.0
30	72	22	990	1,510	-	240	652	190	57	24	2.6	4.0
31	64	-	2,950	6,220	-	227	-	166	-	18	2.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	4,961	489	26	160	0.268	0.31	9,840
November	4,963	2,620	16	165	.276	.31	9,840
December	5,426	2,950	20	175	.293	.34	10,760
Calendar year 1936	70,886.8	12,500	0	194	.324	4.42	140,600
January	39,924	6,220	154	1,288	2.15	2.48	79,190
February	29,509	5,720	202	1,054	1.76	1.83	58,530
March	38,612	10,900	102	1,246	2.08	2.40	76,590
April	10,998	2,020	94	367	.614	.68	21,810
May	63,173	16,200	77	2,038	3.41	3.93	125,300
June	47,310	10,500	55	1,577	2.64	2.94	93,840
July	1,102	322	12	35.5	.059	.07	2,190
August	626.4	166	2.5	20.3	.034	.04	1,250
September	52.4	5	.5	1.75	.0029	.003	104
Water year 1936-37	246,658.8	16,200	.5	676	1.13	15.33	489,200

Osage River near Quenemo, Kans.

Location.- Wire-weight gage, lat. 38°35', long. 95°28', in NW¼ sec. 12, T. 17 S., R. 17 E., 2½ miles below Dragoon Creek and 3 miles east of Quenemo.

Drainage area.- 1,030 square miles.

Records available.- June 1922 to September 1937.

Average discharge.- 15 years, 320 second-feet.

Extremes.- Maximum discharge observed during year, 8,140 second-feet Feb. 8 (gage height, 26.22 feet); no flow at times.
1922-37: Maximum discharge observed, 90,000 second-feet Nov. 17, 1928 (gage height, 38.38 feet, from floodmarks), from rating curve extended above 20,000 second-feet on basis of velocity-area studies and records for station near Ottawa; no flow at times in 1928, 1931-34, 1936-37. Bank-full stage, 27 feet.

Remarks.- Records fair except those for periods of ice effect, Jan. 6-12, 21-24 (computed on basis of gage heights, observer's notes, weather records, and records for station near Ottawa), those for days of rapidly changing stage, and those below 5 second-feet, all of which are poor. Gage read once daily during low stages, twice daily during high stages.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 15 to Dec. 29)

2.2	0	5.0	392	9.0	1,370	13.0	2,510	20.0	5,220
2.5	1.3	6.0	625	10.0	1,830	14.0	2,840	22.0	6,120
3.0	30	7.0	865	11.0	1,910	16.0	3,600	24.0	7,040
4.0	168	8.0	1,120	12.0	2,210	18.0	4,400	27.0	8,540

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	0	3	140	1,600	77	178	43	484	1	1	1
2	12	1	3	101	1,020	55	158	42	210	1	1	1
3	7	1	3	56	577	64	132	40	415	1	1	1
4	4	0	3	38	577	243	116	42	189	0	323	1
5	2	0	4	35	1,090	1,090	507	47	178	0	200	2
6	1	0	3	30	2,950	438	769	73	168	0	124	132
7	1	1	3	30	3,680	346	323	53	82	0	56	369
8	1	1	3	40	7,540	277	266	55	90	0	26	79
9	2	1	2	40	6,300	189	530	48	1,580	0	14	77
10	178	1	2	40	3,440	116	415	55	1,400	0	10	69
11	82	1	2	35	1,140	90	266	49	369	0	6	48
12	48	1	2	25	1,270	94	210	43	189	0	3	21
13	27	1	2	16	1,600	101	178	346	140	0	1	12
14	13	2	2	13	1,320	132	149	221	93	108	1	8
15	10	2	2	11	649	108	140	140	78	12	0	6
16	5	1	2	9	369	108	210	54	69	4	0	3
17	3	1	1	8	221	323	140	47	58	94	0	2
18	1	1	1	8	189	553	108	277	41	46	0	1
19	1	1	1	8	168	577	80	132	30	35	0	1
20	1	2	2	11	149	438	74	101	27	25	865	1
21	0	2	2	6	178	300	68	369	18	18	1,500	1
22	0	2	2	7	140	189	69	625	13	11	461	0
23	0	1	2	13	132	168	67	577	10	12	288	0
24	0	1	1	14	116	2,330	66	243	7	11	84	0
25	1	1	1	11	108	2,150	288	1,580	4	189	69	0
26	1	1	2	11	95	1,370	140	2,910	2	69	54	0
27	1	2	2	8	88	266	95	1,020	2	25	50	0
28	1	2	3	4	91	266	77	254	1	10	34	0
29	1	3	4	6	-	277	53	168	1	6	28	0
30	0	3	18	288	-	392	49	116	1	4	10	0
31	0	-	51	2,480	-	288	-	254	-	3	3	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	422	178	0	13.6	837
November	37	3	0	1.2	73
December	134	51	1	4.3	266
Calendar year 1936	18,486	1,550	0	50.5	36,670
January	3,541	2,480	4	114	7,020
February	36,797	7,540	88	1,314	72,990
March	13,415	2,330	55	433	26,610
April	5,921	769	49	197	11,740
May	10,024	2,910	40	323	19,880
June	5,949	1,580	1	198	11,800
July	685	189	0	22.1	1,360
August	4,213	1,500	0	136	8,360
September	836	369	0	27.9	1,660
Water year 1936-37	81,974	7,540	0	225	162,600

Osage River near Ottawa, Kans.

Location.- Water-stage recorder, lat. 38°37', long. 95°15', in NW¼ sec. 6, T. 17 S., R. 20 E., three-quarters of a mile below Skunk Creek and 1½ miles southeast of Ottawa. Zero of gage is 852.6 feet above mean sea level (datum of Corps of Engineers, U. S. Army.

Drainage area.- 1,260 square miles.

Records available.- October 1918 to September 1937. August 1902 to October 1905, at Main Street bridge in Ottawa.

Average discharge.- 21 years (1902-05, 1919-37), 518 second-feet.

Extremes.- Maximum discharge during year, 8,490 second-feet Feb. 8 (gage height, 20.94 feet); no flow at times.

1916-37: Maximum discharge, 58,400 second-feet Nov. 17, 1928 (gage height, 38.65 feet), from rating curve extended above 30,000 second-feet on basis of velocity-area studies; no flow at times in 1920, 1930-34, 1936-37. Bank-full stage, 27 feet.

Remarks.- Records good except those for periods of ice effect, Jan. 6-10, 21-29 (computed on basis of gage heights, weather records, and comparison with records for station near Quenemo), those for days of very rapidly changing stage, and those below 5 second-feet, all of which are poor.

Rating table, water year 1936-37 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1-9, July 21-24)

1.2	0.1	3.0	244	10.0	2,920
1.4	2.0	4.0	481	12.0	3,890
1.7	31	5.0	780	14.0	4,890
2.0	70	6.0	1,140	17.0	6,430
2.5	145	8.0	1,990	20.0	8,010

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	1	2	28	2,170	84	220	50	267	0	1	1
2	19	1	2	118	1,140	75	201	47	288	0	1	1
3	10	2	2	60	574	74	177	44	324	0	0	0
4	4	2	2	35	396	208	167	44	278	0	64	1
5	2	2	8	34	600	956	420	47	174	0	468	3
6	3	2	2	30	2,760	650	763	54	242	0	91	33
7	6	2	1	30	4,390	336	444	53	109	0	29	408
8	7	2	1	35	8,060	262	336	48	74	0	12	189
9	60	3	0	40	8,010	195	420	43	1,060	1	13	96
10	185	4	0	40	5,550	145	456	44	1,660	1	9	112
11	143	4	0	34	2,800	112	336	50	519	1	4	54
12	76	4	0	23	1,300	98	246	44	251	1	1	27
13	48	4	4	13	1,460	102	205	193	158	1	1	17
14	32	4	1	13	1,140	152	177	272	114	75	0	10
15	21	4	2	12	713	149	163	145	87	54	0	5
16	16	4	1	8	432	136	205	82	67	3	0	2
17	8	6	1	7	336	165	167	56	52	1	0	1
18	6	6	1	5	212	408	117	47	44	1	0	1
19	9	6	1	4	214	681	93	212	35	47	0	1
20	2	4	1	8	185	546	93	149	26	57	161	0
21	2	2	0	5	185	396	83	89	21	34	1,590	0
22	1	1	0	5	197	268	115	236	18	19	713	0
23	1	2	1	6	176	336	102	681	13	8	236	0
24	1	2	1	8	159	1,890	83	272	8	28	103	1
25	3	2	2	13	145	2,730	244	628	6	302	62	1
26	1	2	7	25	133	892	193	3,600	5	106	35	1
27	1	2	4	45	117	396	131	2,060	1	36	23	1
28	1	5	1	85	97	276	100	372	1	16	12	1
29	1	5	1	180	-	229	74	205	1	6	8	1
30	0	2	2	920	-	209	57	145	1	3	4	1
31	1	-	1	2,270	-	220	-	102	-	2	2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	706	185	0	22.8	1,400
November	92	6	1	3.1	182
December	52	8	0	1.7	103
Calendar year 1936	21,868	2,120	0	59.7	43,380
January	4,139	2,270	4	134	8,210
February	43,051	8,060	97	1,538	85,390
March	13,372	2,730	74	431	26,520
April	6,608	763	57	220	13,110
May	10,114	3,600	43	326	20,060
June	5,904	1,660	1	197	11,710
July	803	302	0	25.9	1,590
August	3,642	1,590	0	117	7,220
September	969	408	0	32.3	1,920
Water year 1936-37	89,452	8,060	0	245	177,400

Osage River at Trading Post, Kans.

Location.- Water-stage recorder, lat. 38°15', long. 94°41', in SE¼ sec. 5, T. 21 S., R. 25 E., at bridge on U. S. Highway 69 at Trading Post, 1 mile above mouth of Big Sugar Creek.

Drainage area.- 2,910 square miles.

Records available.- August 1921 to December 1923, October 1928 to September 1937.

Average discharge.- 11 years, 1,230 second-feet.

Extremes.- Maximum discharge during year, 16,000 second-feet June 10 (gage height, 22.95 feet); minimum daily discharge, 2 second-feet Sept. 28-30.
1921-23, 1928-37: Maximum discharge observed, 120,000 second-feet Nov. 18, 1928 (gage height, 34.45 feet), from rating curve extended above 55,000 second-feet; no flow for several days during 1930, 1931, 1934, 1936, 1937. Bank-full stage, 24 feet.

Remarks.- Records good except those affected by backwater from Big Sugar Creek, May 22-24, which were computed on basis of gage heights, engineers' notes, weather records, and with records for other stations on Osage River in Kansas and are poor. Discharge for some days during periods of faulty recorder operation computed on basis of twice-daily chain-gage readings or graph constructed on basis of chain-gage readings. Some backwater occurs at times during flashy peaks on Big Sugar Creek.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	5	3	310	6,600	374	850	358	440	29	22	18
2	105	87	3	231	3,980	352	798	255	358	26	18	15
3	74	63	4	218	1,940	368	732	231	3,390	22	14	12
4	50	27	3	222	1,300	435	668	222	6,140	22	15	11
5	36	17	4	168	922	452	939	241	6,500	22	13	13
6	30	12	4	135	2,960	939	1,820	274	3,680	22	93	12
7	31	10	4	120	4,580	1,110	1,860	320	1,250	22	279	10
8	24	7	5	124	7,200	703	1,330	284	1,020	19	105	11
9	78	6	5	98	8,860	524	1,240	227	9,740	18	50	270
10	270	4	5	86	8,360	418	1,560	190	15,600	16	32	177
11	65	4	5	67	7,040	347	1,260	186	11,300	15	22	58
12	168	4	5	53	3,580	294	948	208	5,470	15	16	86
13	250	3	5	48	2,020	681	739	177	1,120	14	12	54
14	151	3	5	56	2,090	820	640	160	1,560	14	11	39
15	102	3	5	53	1,940	746	580	316	874	14	10	29
16	63	3	5	51	1,400	732	505	305	753	13	9	22
17	43	3	5	53	835	874	464	222	739	29	8	18
18	32	3	5	48	675	2,770	481	181	761	53	7	14
19	25	3	5	46	524	3,020	390	145	805	53	6	13
20	21	4	5	320	574	2,520	765	128	352	61	6	11
21	19	4	5	1,280	1,150	1,720	3,340	622	284	50	7	6
22	16	3	4	668	890	1,170	1,860	9,100	236	48	795	6
23	12	3	4	966	753	1,280	914	11,000	208	65	975	5
24	10	4	4	587	725	10,600	761	9,600	164	63	429	5
25	12	4	4	368	682	12,900	710	7,800	116	48	213	5
26	16	4	5	284	580	9,070	476	5,690	89	40	112	4
27	12	3	144	213	493	3,670	530	5,720	65	222	69	3
28	10	3	542	173	424	1,280	412	4,520	53	131	50	2
29	8	3	640	135	-	1,120	358	1,040	43	69	37	2
30	6	3	336	1,650	-	984	347	620	35	43	26	2
31	5	-	352	7,440	-	939	-	587	-	29	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,864	270	5	60.1	3,700
November	305	87	3	10.2	605
December	2,130	640	3	68.7	4,220
Calendar year 1936	75,710	6,470	0	207	150,200
January	16,266	7,440	46	525	32,260
February	73,077	8,860	424	2,610	144,900
March	63,212	12,900	294	2,039	125,400
April	28,277	3,340	347	943	56,090
May	60,926	11,000	128	1,965	120,800
June	73,146	15,600	35	2,438	145,100
July	1,307	222	13	42.2	2,590
August	3,483	975	6	112	6,910
September	933	270	2	31.1	1,850
Water year 1936-37	324,924	15,600	2	890	644,400

Osage River at Osceola, Mo.

Location.- Water-stage recorder, lat. 38°03'44", long. 93°41'37", in NE¼NE¼ sec. 17, T. 38 N., R. 25 W., 1 mile northeast of Osceola. Zero of gage is 679.05 feet above mean sea level (general adjustment of 1929).

Drainage area.- 8,220 square miles.

Records available.- November 1930 to September 1937. July 1921 to September 1928, at site 1 mile upstream.

Average discharge.- 13 years (1921-28, 1931-37), 5,305 second-feet.

Extremes.- Maximum discharge during year, 49,500 second-feet June 17 (gage height, 25.90 feet); minimum, 12 second-feet Sept. 26, 27 (gage height, 0.44 foot); minimum daily discharge, 21 second-feet Sept. 26.
1921-28, 1930-37: Maximum discharge, 70,900 second-feet Apr. 11, 1927 (gage height, 30.4 feet, former site and datum); minimum discharge, 4.0 second-feet July 13, 1936 (gage height, 0.38 foot); minimum daily discharge, 5 second-feet July 20, 1936.

Remarks.- Records good. Flow regulated by operation of hydroelectric plant of West Missouri Power Co. 1 mile upstream.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,700	*1,140	443	4,200	29,900	3,240	3,840	11,300	4,000	1,140	*426	62
2	7,080	14,900	519	5,420	26,100	3,240	3,600	*10,300	2,920	894	394	168
3	3,830	29,900	411	*6,800	18,500	3,240	3,240	6,750	3,050	908	225	89
4	*2,390	34,800	411	4,550	12,500	3,360	*3,000	6,480	9,910	*359	1,680	179
5	1,910	21,400	976	3,370	7,770	3,480	2,890	5,410	14,400	1,030	3,680	*1,700
6	5,900	10,600	*516	2,900	7,890	3,360	3,000	4,880	*15,300	671	2,790	2,840
7	14,800	7,930	600	2,670	*10,900	*3,240	3,600	4,440	12,900	811	1,210	2,190
8	17,000	*4,500	668	3,010	15,900	3,360	4,080	3,610	6,890	822	*614	1,190
9	15,000	2,930	868	6,090	18,400	3,000	3,840	*3,130	16,900	750	602	274
10	16,200	2,420	868	*6,940	19,100	2,560	3,720	2,850	33,900	1,040	495	750
11	*17,400	2,110	703	5,040	18,000	2,340	*3,720	2,500	42,400	*620	243	949
12	15,600	1,930	571	3,870	17,100	2,120	3,480	3,320	45,000	1,170	243	*653
13	13,600	1,860	*549	4,110	14,900	4,460	3,000	4,810	*31,400	938	231	476
14	12,800	1,570	493	16,400	*11,200	*11,000	5,600	5,070	27,300	683	213	360
15	10.900	*1,340	479	24,200	8,480	14,000	5,300	3,660	36,800	712	*192	447
16	6,110	1,140	480	26,400	7,000	12,200	3,720	*2,790	47,000	432	184	168
17	2,910	1,220	467	*23,000	5,660	11,800	3,120	3,280	47,900	454	183	137
18	*2,060	853	384	12,200	4,580	10,800	*2,890	3,670	36,300	*414	171	191
19	1,830	868	562	8,010	3,890	9,620	3,240	2,890	27,600	1,800	62	*22
20	1,420	868	*451	11,200	6,140	9,050	4,080	2,260	*25,000	3,160	391	153
21	857	868	484	15,800	*17,800	*7,560	11,500	2,530	22,500	4,700	1,090	181
22	976	*623	432	14,300	16,900	5,600	18,900	23,400	16,500	2,790	*57	61
23	1,050	672	524	11,400	15,000	4,330	14,800	*30,600	6,310	1,770	403	124
24	826	646	354	*8,670	12,400	13,400	8,480	28,100	3,110	848	1,320	134
25	*1,190	588	493	6,370	9,340	19,100	*6,690	24,700	2,470	*1,300	1,180	130
26	1,490	611	359	4,670	5,840	19,400	5,900	24,400	2,130	715	272	*21
27	2,030	517	*1,210	6,210	4,180	19,600	4,330	24,400	*1,880	490	384	54
28	2,550	500	2,010	5,800	*3,550	*19,600	3,600	24,000	1,680	356	236	56
29	2,230	*429	2,690	5,310	-	18,900	3,720	22,000	1,550	637	*144	64
30	1,860	505	3,340	13,100	-	12,900	5,150	*16,600	978	525	189	59
31	1,790	-	4,660	*25,100	-	5,750	-	6,900	-	392	182	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	196,289	17,400	826	6,332	0.770	0.89	389,300
November	150,238	34,800	429	5,008	.609	.68	298,000
December	28,175	4,660	354	909	.111	.13	55,880
Calendar year 1936	644,464	34,800	5	1,761	.214	2.93	1,278,000
January	297,310	26,400	2,670	9,591	1.17	1.35	589,700
February	350,920	29,900	3,550	12,530	1.52	1.58	696,000
March	265,810	19,800	2,120	8,575	1.04	1.20	527,200
April	156,030	18,900	2,890	5,200	.633	.71	309,500
May	321,030	30,600	2,260	10,360	1.26	1.45	636,600
June	543,978	47,900	978	18,130	2.21	2.47	1,079,000
July	33,931	4,700	356	1,095	.133	.15	67,300
August	19,626	3,680	57	633	.077	.09	38,930
September	13,882	2,840	21	463	.056	.06	27,530
Water year 1936-37	2,377,219	47,900	21	6,513	.792	10.76	4,715,000

*Sunday.

Osage River near Bagnell, Mo.

Location.- Water-stage recorder, lat. 38°12'26", long. 92°35'23", in N½SE¼ sec. 21, T. 40 N., R. 15 W., 1⅛ miles above Bagnell. Zero of gage is 548.92 feet above mean sea level (general adjustment of 1929).

Drainage area.- 14,000 square miles.

Records available.- May 1925 to September 1937.

Average discharge.- 12 years, 9,367 second-feet.

Extremes.- Maximum discharge during year, 86,200 second-feet June 11 (gage height, 30.11 feet); minimum, 333 second-feet Sept. 19 (gage height, 2.42 feet); minimum daily discharge, 517 second-feet July 25, Aug. 8.

1925-37: Maximum discharge, 115,000 second-feet June 3, 1935; maximum gage height, 36.61 feet April 17, 1927; minimum discharge, 220 second-feet June 12, 1932; minimum gage height, 2.10 feet July 15, 1934; minimum daily discharge, 290 second-feet Feb. 21, 1931.

Maximum stage known, 43.1 feet in June 1844 (discharge, about 150,000 second-feet, from rating curve extended above 115,000 second-feet).

Remarks.- Records excellent. Flow regulated by operation of hydroelectric plant of Union Electric Light & Power Co. 3 miles upstream (storage capacity, 1,300,000 acre-feet).

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,980	*717	5,910	631	24,300	14,300	17,200	13,100	17,100	3,930	*566	4,860
2	2,520	15,000	7,030	816	32,100	15,700	16,300	*10,800	16,300	2,770	3,490	4,700
3	1,030	22,500	9,340	*779	33,100	16,000	14,600	15,800	16,200	620	2,560	4,070
4	*612	44,900	6,170	1,320	23,700	16,200	*9,330	17,600	17,700	*539	1,810	990
5	3,150	42,900	3,980	2,140	19,200	16,200	14,800	17,500	16,900	628	2,290	*585
6	4,480	25,000	*895	3,750	19,300	13,800	16,200	17,000	*10,400	3,620	1,930	565
7	5,100	18,300	6,150	6,070	*16,600	*7,660	16,000	17,000	15,400	5,580	544	3,250
8	4,150	*13,300	6,390	15,000	19,100	15,100	15,900	15,400	17,500	6,090	*517	3,620
9	3,490	13,800	6,380	16,500	27,400	16,500	14,700	*6,840	41,300	6,030	2,620	3,190
10	1,950	11,600	7,550	*13,000	27,000	9,900	9,730	13,800	78,000	2,630	2,730	3,740
11	*1,130	9,150	6,300	16,400	27,800	9,190	*1,890	10,700	85,000	*670	2,060	935
12	5,640	7,270	4,370	18,000	26,300	8,960	8,980	11,400	73,600	4,510	1,670	*606
13	11,300	8,710	*1,460	18,200	27,100	13,000	10,600	14,100	*63,400	5,790	1,170	1,420
14	15,000	5,130	6,360	17,500	*19,700	*11,700	11,600	13,700	56,300	4,860	526	1,500
15	17,000	*1,110	7,180	18,900	17,500	16,500	11,600	8,170	52,900	2,030	*778	1,040
16	18,100	5,630	5,750	23,600	18,500	18,100	12,400	*4,130	54,500	1,660	3,130	609
17	14,300	6,220	7,610	*29,100	16,700	17,600	8,650	14,000	55,400	519	4,900	536
18	*9,830	6,160	6,130	24,900	17,600	17,600	*2,690	10,800	52,800	*556	2,820	559
19	10,200	6,250	2,950	19,700	17,000	17,000	7,690	9,550	45,500	2,140	2,260	*553
20	7,340	5,270	*929	19,600	17,000	16,000	10,400	7,830	*33,100	3,990	1,920	698
21	9,300	4,690	3,230	22,400	*11,200	*8,730	15,100	7,950	27,500	3,250	574	1,310
22	9,610	*1,230	3,960	23,300	17,800	15,100	15,100	13,700	22,600	3,390	*917	1,450
23	9,160	5,310	2,940	20,800	22,300	17,000	15,200	*35,900	18,900	2,700	2,070	1,950
24	5,380	5,280	900	*18,900	25,200	17,300	14,700	45,700	17,700	663	2,750	2,340
25	*2,070	4,800	540	19,200	19,500	17,300	*9,060	47,100	17,400	*517	3,570	625
26	8,260	716	777	19,600	16,800	17,000	15,000	44,300	12,700	2,970	3,430	*629
27	6,190	3,300	*822	19,600	16,200	16,200	15,400	32,800	*4,300	2,750	3,000	1,120
28	5,330	1,500	1,510	19,600	*9,580	*8,500	15,200	22,200	6,090	2,880	712	1,170
29	4,240	*532	2,140	19,100	-	14,900	11,600	23,500	6,760	3,060	*535	582
30	4,840	4,430	737	18,200	-	16,500	11,100	*23,400	5,780	2,480	4,300	667
31	2,510	-	672	*17,300	-	16,500	-	17,100	-	520	5,480	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	205,192	18,100	612	6,619	407,000
November	300,705	44,900	532	10,020	596,400
December	127,062	9,340	540	4,099	252,000
Calendar year 1936	1,241,658	44,900	435	3,393	2,463,000
January	483,906	29,100	631	15,610	959,800
February	585,580	33,100	9,580	20,910	1,161,000
March	452,040	18,100	7,660	14,580	896,600
April	368,720	17,200	1,890	12,290	731,300
May	562,670	47,100	4,130	18,150	1,116,000
June	959,030	85,000	4,300	31,970	1,902,000
July	84,342	6,090	517	2,721	167,300
August	67,629	5,480	517	2,182	134,100
September	49,869	4,860	536	1,662	98,910
Water year 1936-37	4,246,745	85,000	517	11,630	8,422,000

*Sunday.

Osage River near St. Thomas, Mo.

Location.- Water-stage recorder, lat. 38°20'25", long. 92°13'25", in SE¼SW¼ sec. 35, T. 42 N., R. 12 W., 0.5 mile below Sugar Creek and 2⅝ miles south of St. Thomas. Zero of gage is 527.85 feet above mean sea level (general adjustment of 1929).

Drainage area.- 14,500 square miles.

Records available.- August 1931 to September 1937.

Extremes.- Maximum discharge during year, 88,200 second-feet June 11 (gage height, 27.45 feet); minimum, 611 second-feet Sept. 20 (gage height, 1.59 feet); minimum daily discharge, 649 second-feet Sept. 20.
1931-37: Maximum discharge, 113,000 second-feet June 4, 1935 (gage height, 33.00 feet); minimum, 420 second-feet Aug. 27, 1931 (gage height, 1.30 feet); minimum daily discharge, 420 second-feet Aug. 27, 1931.
Maximum stage known, about 39.4 feet in June 1844.

Remarks.- Records excellent. Flow regulated by operation of hydroelectric plant of Union Electric Light & Power Co. near Bagnell.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,340	*2,910	4,980	1,630	20,500	11,400	16,300	13,900	15,300	5,570	*884	5,300
2	2,700	21,600	6,400	1,690	34,600	15,700	16,100	*17,000	15,900	3,860	927	4,820
3	3,180	38,100	8,260	*1,880	35,600	16,000	15,400	21,000	19,800	3,040	3,490	4,660
4	*1,650	38,000	9,040	1,420	30,000	16,300	*11,900	20,800	20,200	*1,030	2,770	4,040
5	1,100	49,900	4,810	1,860	20,800	16,200	11,800	20,100	21,000	803	2,100	*1,280
6	3,400	35,400	*5,060	2,930	20,200	15,100	16,100	18,200	*14,900	1,130	2,450	852
7	4,920	20,100	2,420	4,800	*16,400	*9,980	15,900	17,700	12,300	4,210	2,160	748
8	5,640	*15,900	6,850	13,600	19,600	11,000	16,200	16,900	16,700	5,890	*915	3,380
9	4,730	13,300	6,780	21,400	26,800	17,000	15,000	*11,400	48,100	6,130	910	3,580
10	4,120	13,400	7,400	*15,000	29,000	12,100	12,800	10,200	79,700	5,080	2,820	3,560
11	*2,610	10,100	7,480	15,500	28,600	9,730	*7,420	12,900	87,400	*2,520	2,960	3,570
12	1,730	8,130	6,310	18,400	27,500	9,220	3,970	10,900	85,200	1,650	2,380	*1,160
13	7,380	7,780	*4,560	19,600	27,500	10,700	10,300	13,300	*74,700	5,350	1,870	822
14	13,900	8,040	2,650	27,500	*24,900	*14,200	11,600	14,200	64,800	5,790	1,380	1,510
15	16,700	*5,000	7,110	31,200	16,900	14,300	11,400	11,600	56,900	3,940	*734	1,710
16	18,000	1,910	7,120	22,800	18,400	17,900	12,200	*7,350	57,100	2,290	1,020	1,250
17	17,100	5,850	7,020	*31,200	16,700	18,000	10,700	6,690	58,600	1,860	3,860	782
18	*13,000	6,280	7,370	29,700	17,200	18,500	*7,320	10,300	57,900	*844	4,020	660
19	9,640	6,250	5,760	21,500	16,900	18,000	4,420	10,300	51,500	1,580	2,870	*656
20	9,230	6,070	*3,310	20,800	17,200	17,500	9,380	8,630	*39,300	4,370	2,530	649
21	7,690	5,320	1,330	21,500	*13,400	*12,400	16,200	7,890	30,000	4,120	2,320	803
22	9,990	*4,560	3,730	25,400	15,200	11,800	16,700	9,970	24,100	3,580	*1,060	1,310
23	9,520	1,760	4,200	23,100	19,400	16,900	15,700	*27,200	19,100	3,600	1,130	1,630
24	8,660	5,450	3,240	*19,900	26,100	17,600	16,000	42,800	17,300	2,810	2,250	2,220
25	*5,320	5,270	1,310	19,600	20,800	17,800	*12,200	47,000	17,100	*1,060	3,000	2,600
26	3,710	4,880	846	20,200	16,600	17,300	12,400	47,200	14,200	943	3,700	*927
27	8,220	1,210	*2,050	20,200	16,000	16,800	15,600	39,400	*8,880	3,080	3,790	739
28	6,360	3,490	2,990	20 200	*12,500	*12,500	15,700	24,600	4,410	2,970	3,220	1,160
29	5,470	*1,950	2,870	19,900	-	11,200	13,600	22,000	6,400	3,070	*1,080	1,370
30	4,600	1,130	3,490	20,800	-	16,200	14,500	*22,800	6,420	3,090	942	802
31	4,920	-	2,670	*24,800	-	16,400	-	18,600	-	2,620	4,430	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	217,550	18,000	1,100	7,018	431,500
November	349,060	49,900	1,130	11,640	692,400
December	149,416	9,040	846	4,820	296,400
Calendar year 1936	1,415,338	49,900	582	3,867	2,807,000
January	540,010	31,200	1,420	17,420	1,071,000
February	607,500	35,800	12,500	21,700	1,205,000
March	455,730	18,500	9,220	14,700	903,900
April	364,810	16,700	3,970	12,830	763,300
May	582,830	47,200	6,690	18,800	1,156,000
June	1,045,210	87,400	4,410	34,840	2,073,000
July	97,880	6,130	803	3,157	194,100
August	69,992	4,430	754	2,258	138,800
September	58,550	5,300	649	1,952	116,100
Water year 1936-37	4,558,538	87,400	649	12,490	9,042,000

*Sunday.

Marmaton River near Fort Scott, Kans.

Location.- Water-stage recorder, lat. 37°52', long. 94°40', in NW¼ sec. 21, T. 25 S., R. 25 E., at old military highway bridge, 2 miles northeast of Fort Scott, 2½ miles below Mill Creek, and 2½ miles west of Kansas-Missouri State line.

Drainage area.- 411 square miles.

Records available.- August 1921 to June 1925, April 1929 to September 1937.

Average discharge.- 11 years, 252 second-feet.

Extremes.- Maximum discharge during year, 14,600 second-feet, June 14 (gage height, 33.97 feet); minimum, 1 second-foot Aug. 15 (gage height, 2.34 feet).
1921-25, 1929-37: Maximum discharge, 25,800 second-feet May 28, 1935 (gage height, 37.30 feet), from rating curve extended above 15,000 second-feet; no flow June 30 and for several days during July to September 1934, June to September 1936.
Maximum stage known, 42.34 feet in 1915. Bank-full stage, 34 feet.

Remarks.- Records good except those for days of rapidly changing stage, and those above 1,000 and below 10 second-feet, which are poor. Inlet from river to recorder well sluggish at times. Discharge for many days during inefficient recorder operation computed on basis of twice-daily chain-gage readings or on basis of partly constructed graph based on chain-gage readings.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

2.3	0.8	5.0	236	9.0	732	16.0	1,720	24.0	3,820	32.0	10,600
2.6	7.4	6.0	356	10.0	862	18.0	2,100	26.0	4,850	34.0	14,600
3.0	36	7.0	476	12.0	1,130	20.0	2,560	28.0	6,200		
4.0	126	8.0	602	14.0	1,410	22.0	3,080	30.0	7,980		

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

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	186	53	23	70	602	186	202	158	67	26	2	2
2	120	348	18	56	380	236	174	110	77	24	1	1
3	82	732	17	49	196	230	158	96	1,240	24	1	1
4	57	500	16	43	152	218	138	202	914	22	1	58
5	49	208	28	39	143	202	260	344	550	20	1	260
6	5,920	104	77	38	416	180	224	164	208	21	1	138
7	6,130	94	106	41	332	147	164	106	122	20	1	140
8	2,080	81	67	57	836	128	152	93	92	22	1	128
9	2,340	70	52	49	500	102	180	82	1,650	21	1	476
10	11,800	57	44	36	308	90	152	63	1,680	18	1	189
11	4,250	57	38	32	368	81	128	51	732	15	1	64
12	1,230	57	36	29	706	81	121	137	356	14	1	39
13	356	47	33	32	537	1,560	138	308	308	14	1	30
14	180	42	30	310	404	1,910	147	126	9,470	12	1	22
15	174	38	26	719	356	888	136	66	12,100	14	1	14
16	152	35	28	380	266	641	100	49	6,700	58	1	9
17	124	33	27	248	202	524	75	45	1,660	29	1	6
18	106	42	25	302	186	416	686	36	550	16	1	3
19	84	30	24	224	169	344	613	30	272	644	1	2
20	75	26	24	1,070	828	308	814	26	166	332	1	1
21	67	25	24	1,860	2,070	236	1,140	98	145	82	119	1
22	57	24	24	706	914	180	464	2,860	102	40	127	1
23	53	21	23	464	524	355	272	1,940	83	26	41	1
24	48	18	22	380	368	5,520	849	589	65	18	22	1
25	81	16	22	208	296	2,490	356	308	55	14	14	2
26	284	18	22	152	218	563	180	392	45	12	10	1
27	152	17	24	128	186	320	147	563	41	7	6	1
28	110	17	26	164	174	272	133	356	36	6	3	1
29	83	16	28	230	-	248	202	174	33	5	2	2
30	71	20	38	1,040	-	242	296	119	30	3	2	2
31	60	-	76	1,400	-	236	-	89	-	2	2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	36,561	11,800	48	1,179	72,520
November	2,846	732	16	94.9	5,640
December	1,070	106	16	34.5	2,120
Calendar year 1936	59,806	11,800	0	163	118,600
January	10,556	1,860	29	341	20,940
February	12,637	2,070	143	451	25,070
March	19,134	5,520	81	617	37,950
April	8,801	1,140	75	293	17,460
May	9,780	2,860	26	315	19,400
June	39,569	12,100	30	1,319	78,480
July	1,581	644	2	51.0	3,140
August	369	127	1	11.9	732
September	1,596	476	1	53.2	3,170
Water year 1936-37	144,500	12,100	1	396	286,600

Sac River near Stockton, Mo.

Location.- Wire-weight gage, lat. 37°42'30", long. 93°45'20", in W½ sec. 11, T. 34 N., R. 26 W., at bridge on State Highway 64, 2 miles east of Stockton. Zero of gage is 763.29 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,160 square miles.

Records available.- July 1921 to September 1937.

Average discharge.- 16 years, 1,149 second-feet.

Extremes.- Maximum discharge during year, 34,300 second-feet June 14 (gage height, 23.15 feet); minimum discharge, 73 second-feet Sept. 26, 30; minimum gage height observed, 2.94 feet Sept. 30.
1921-37: Maximum discharge observed, 36,200 second-feet Mar. 12, 1935; maximum gage height, 24.95 feet Apr. 1, 1927; minimum discharge, 0.8 second-foot Aug. 30, 1936; minimum gage height, 1.62 feet Sept. 10, 1925.
Maximum stage known, 29.3 feet July 1909.

Remarks.- Records good. Gage read once daily below 8.0 feet and twice daily above.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,970	609	254	1,100	7,890	920	662	8,480	1,350	635	237	105
2	1,470	9,080	250	4,240	4,500	861	609	4,180	745	609	246	102
3	1,160	8,770	263	2,720	3,470	802	583	5,390	1,100	583	212	99
4	980	3,100	250	1,840	2,970	802	558	3,470	1,290	558	1,100	96
5	802	2,280	241	1,530	2,660	802	583	3,100	1,470	533	1,720	3,100
6	1,160	1,780	298	1,350	2,910	745	533	2,840	2,150	484	508	2,150
7	5,380	1,470	298	1,160	2,910	717	508	2,280	1,160	460	343	460
8	4,640	1,220	298	2,590	3,220	662	508	1,840	1,350	436	233	285
9	3,470	1,040	285	5,530	3,540	635	802	1,780	16,300	609	258	225
10	2,720	920	276	3,410	2,720	609	861	1,470	20,100	484	233	241
11	2,090	861	258	2,590	2,400	583	745	1,290	9,090	861	216	208
12	1,660	745	241	2,150	2,150	558	689	1,220	3,730	609	200	188
13	1,410	689	233	2,590	1,970	1,530	3,010	3,350	2,720	460	216	142
14	1,160	635	220	8,410	1,780	2,280	3,730	1,840	17,700	412	204	139
15	980	583	212	14,200	1,600	1,600	2,150	1,470	25,800	366	188	128
16	960	535	204	8,770	1,470	1,220	1,600	1,290	11,900	343	172	122
17	802	508	200	4,830	1,350	1,100	1,350	1,100	4,770	320	165	112
18	717	484	212	4,180	1,220	1,040	1,100	1,040	3,350	294	168	102
19	635	460	216	3,100	1,160	920	1,040	920	2,590	1,840	161	99
20	583	412	212	2,970	1,160	861	2,360	861	2,150	3,470	157	99
21	535	389	200	2,720	2,470	802	8,350	1,040	1,780	802	172	96
22	609	366	184	2,340	1,780	717	5,820	4,490	1,530	558	168	93
23	583	366	180	1,840	1,470	689	3,410	3,860	1,290	460	168	79
24	508	343	176	1,780	1,350	1,100	3,600	2,470	1,160	389	172	79
25	460	320	172	1,600	1,220	1,290	3,050	1,660	1,040	366	165	76
26	1,040	320	176	1,410	1,100	980	2,280	1,410	920	343	154	73
27	1,290	298	412	1,290	662	861	1,910	1,160	861	389	146	76
28	1,040	285	1,600	1,220	980	802	1,660	1,040	802	320	154	79
29	861	276	920	1,220	-	745	3,470	920	745	294	135	85
30	745	265	802	4,800	-	717	8,570	802	689	272	109	73
31	662	-	1,600	12,100	-	689	-	1,530		250	99	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	43,100	5,380	460	1,390	1.20	1.38	85,490
November	39,405	9,080	263	1,314	1.13	1.26	78,160
December	11,343	1,600	172	366	.316	.36	22,500
Calendar year 1936	153,815.9	11,300	.8	420	.362	4.93	305,100
January	111,580	14,200	1,100	3,599	3.10	3.57	221,300
February	64,082	7,890	662	2,289	1.97	2.05	127,100
March	28,639	2,280	558	924	.797	.92	56,800
April	66,081	8,570	508	2,203	1.90	2.12	131,100
May	69,593	8,480	802	2,246	1.94	2.24	138,000
June	141,632	25,800	689	4,721	4.07	4.54	280,900
July	18,809	5,470	250	607	.523	.60	37,310
August	8,579	1,720	99	277	.239	.28	17,020
September	9,011	5,100	73	300	.259	.29	17,870
Water year 1936-37	611,854	25,800	73	1,676	1.44	19.61	1,214,000

Pomme de Terre River at Hermitage, Mo.

Location.- Water-stage recorder, lat. 37°56'25", long. 93°18'15", in NW¼SW¼ sec. 24 T. 37 N., R. 22 W., at bridge on U. S. Highway 54, a quarter of a mile east of Hermitage. Prior to July 28, 1937, wire-weight gage at same site and datum. Zero of gage is 726.95 feet (revised) above mean sea level (general adjustment of 1929).

Drainage area.- 655 square miles.

Records available.- July 1921 to September 1937.

Average discharge.- 16 years, 648 second-feet.

Extremes.- Maximum discharge during year, 29,900 second-feet June 10 (gage height, 25.97 feet); minimum, 1.7 second-feet Sept. 30 (gage height, 1.58 feet).
1921-37: Maximum discharge, about 70,000 second-feet Aug. 8, 1927 (gage height, 36.45 feet, from floodmark); no flow on many days during 1936; minimum gage height, 1.11 feet Aug. 4, 1936.

Remarks.- Records good. Prior to July 28, gage read once daily below 8.0 feet and twice daily above.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet). (Shifting-control method used Oct. 1-18, Sept. 13-30)

Oct. 1 to Jan. 14						Jan. 15 to Sept. 30					
2.0	33	9.0	2,940	17.0	9,600	1.4	0.6	3.0	282	14.0	7,180
2.5	131	11.0	4,180	18.0	11,000	1.6	5	5.0	1,060	16.0	9,480
3.0	273	13.0	5,610	19.0	12,600	1.8	16	7.0	2,030	18.0	12,300
5.0	980	15.0	7,340	20.0	14,400	2.0	38	10.0	3,820	22.0	19,300
7.0	1,870	16.0	8,390			2.5	137	12.0	5,310		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	647	130	53	980	3,130	346	298	3,860	410	130	48	10
2	423	13,200	51	2,070	1,580	330	267	2,380	237	118	48	9
3	289	13,600	49	1,580	1,240	314	252	5,280	745	106	67	12
4	197	1,960	47	832	1,020	298	237	2,140	1,150	98	79	9
5	156	1,140	46	647	880	298	252	1,780	582	89	394	8
6	159	795	83	542	925	282	252	1,240	2,250	83	181	7
7	273	612	91	474	1,200	282	237	970	835	77	113	7
8	1,770	508	241	2,730	1,630	252	237	745	442	69	71	6
9	869	406	159	4,680	2,360	237	330	620	11,600	116	53	7
10	796	355	122	1,870	1,240	207	362	582	18,900	330	50	6
11	542	305	108	1,100	880	192	314	476	3,610	812	44	10
12	406	257	100	832	745	177	267	835	1,630	378	32	8
13	289	226	87	980	700	1,730	237	2,880	1,100	208	27	6
14	211	197	79	7,970	620	1,830	1,060	1,060	4,240	123	25	6
15	170	169	73	13,100	510	1,480	660	660	8,760	95	22	6
16	129	156	69	3,100	476	1,060	442	510	10,100	77	19	6
17	115	136	67	1,680	410	880	346	442	2,180	66	16	5
18	91	115	65	1,480	378	835	298	394	1,240	58	15	5
19	83	108	63	1,200	362	620	267	362	970	2,640	15	4.7
20	77	102	65	1,020	362	582	1,780	298	745	3,060	13	4.4
21	76	98	63	1,150	1,780	510	5,150	282	582	601	12	3.5
22	73	91	62	925	1,380	410	2,930	7,790	442	282	13	3.8
23	67	86	54	620	790	378	1,530	4,620	362	190	12	3.5
24	65	77	56	660	620	700	1,580	1,530	314	124	18	3.5
25	67	73	62	546	510	1,150	1,830	880	282	298	21	3.2
26	120	67	60	394	410	620	925	660	237	91	20	2.9
27	647	65	241	442	378	476	660	476	207	73	19	2.9
28	406	62	1,400	410	346	410	546	410	182	64	16	2.9
29	273	60	832	410	-	362	660	362	164	62	14	2.3
30	197	54	684	2,660	-	330	5,550	346	145	67	12	2.0
31	151	-	2,070	11,700	-	314	-	267	-	48	11	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off Inches	Run-off Acre-feet
October	9,832	1,770	65	317	0.484	0.56	19,500
November	35,199	13,600	54	1,173	1.79	2.00	69,820
December	7,302	2,070	46	236	.360	.42	14,480
Calendar year 1936	89,256.8	13,600	0	244	.373	5.08	177,000
January	38,784	13,100	394	2,219	3.39	3.91	136,400
February	26,862	3,130	346	959	1.46	1.52	53,280
March	17,892	1,830	177	577	.881	1.02	35,490
April	29,756	5,550	237	992	1.51	1.68	59,020
May	45,137	7,790	267	1,456	2.22	2.56	89,530
June	74,643	18,900	145	2,488	3.80	4.24	148,100
July	10,635	3,060	48	343	.524	.60	21,090
August	1,500	394	11	48.4	.074	.09	2,980
September	174.6	12	2.0	5.82	.0089	.01	346
Water year 1936-37	327,716.6	18,900	2.0	898	1.37	18.61	650,000

South Grand River near Brownington, Mo.

Location.- Wire-weight gage, lat. 38°15'45", long. 93°42'50", in NW¼ sec. 17, T. 40 N., R. 25 W., at county highway bridge, 150 feet below St. Louis-San Francisco Railway bridge, 200 feet below Deepwater Creek, and 1 mile north of Brownington. Zero of gage is 676.70 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,660 square miles.

Records available.- June 1921 to September 1937.

Average discharge.- 16 years, 693 second-feet.

Extremes.- Maximum discharge during year, 12,800 second-feet May 24 (gage height, 23.83 feet); no flow Sept. 18-24; minimum gage height, 1.57 foot Sept. 22, 23.
1921-37: Maximum discharge, about 60,000 second-feet Nov. 19, 1928 (gage height, 39.9 feet, from floodmarks), from rating curve extended above 30,000 second-feet; no flow on many days in 1934 and 1936 and during Sept. 18-24, 1937.

Remarks.- Records good. Gage read once daily below 15.0 feet and twice daily above.

Rating tables, water year 1936-37 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Aug. 27 to Sept. 30)

Oct. 1 to Feb. 23				Feb. 24 to Sept. 30					
2.0	19	3.5	265	1.5	0	2.6	46	14.0	5,660
2.2	33	4.0	445	1.6	.05	2.8	73	18.0	8,170
2.4	52	4.5	670	1.8	.6	3.0	105	22.0	11,100
2.6	75	5.0	935	2.0	4.2	3.5	218	23.0	11,900
2.8	105	10.0	3,700	2.2	11	4.0	378	24.0	13,000
3.0	142	17.0	7,900	2.4	24	5.0	870		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,180	71	24	935	3,410	422	595	1,480	180	45	12	1.7
2	2,040	49	24	825	3,360	545	520	1,020	144	31	116	1.4
3	445	1,870	23	330	3,880	645	446	470	124	26	10	.6
4	184	1,430	27	280	4,300	1,180	400	1,640	1,430	18	446	.5
5	118	365	28	222	2,800	2,420	400	1,800	1,020	14	32	.4
6	142	173	89	152	1,260	1,480	470	1,180	495	11	19	.4
7	1,260	123	118	132	2,580	921	446	645	358	11	21	.2
8	250	97	110	196	4,420	670	378	339	1,410	10	21	.2
9	330	82	102	235	3,820	545	358	260	6,860	9	12	.2
10	2,920	68	73	196	4,360	400	339	246	7,840	8	9	.1
11	5,800	62	64	162	6,340	322	305	192	10,000	7	16	.1
12	5,440	53	46	119	6,760	275	260	232	9,020	7	22	.1
13	5,080	49	46	103	5,140	260	246	1,640	5,320	31	20	.1
14	2,920	45	43	1,700	4,180	2,260	290	339	1,230	120	12	.1
15	385	42	38	1,600	3,940	2,680	260	205	670	62	9	.1
16	184	38	37	670	3,460	2,420	246	156	620	30	6	.1
17	132	34	34	465	1,820	1,800	192	126	378	18	4.0	.1
18	107	29	34	445	1,210	3,590	218	205	1,020	38	3.2	0
19	91	26	36	405	1,160	3,640	870	132	3,060	972	2.6	0
20	75	24	34	1,160	1,320	6,020	378	95	3,480	1,900	2.2	0
21	62	38	36	4,060	7,120	6,380	2,370	463	2,000	1,070	2.8	0
22	51	40	35	3,240	7,540	5,320	3,110	6,680	378	322	3.0	0
23	46	41	35	2,700	7,480	1,480	3,320	10,800	192	140	6	0
24	50	33	36	2,260	5,490	4,280	2,160	12,200	136	88	6	0
25	47	31	36	1,600	2,210	7,700	670	9,820	100	38	5	.1
26	59	31	34	880	1,120	9,750	339	5,440	84	25	4.5	.1
27	990	30	41	508	670	7,770	260	2,790	60	16	3.2	.1
28	348	28	51	312	470	3,800	232	1,480	82	12	3.0	.1
29	184	25	1,380	280	-	870	305	670	142	9	3.0	.1
30	142	24	670	935	-	670	378	322	72	8	2.6	.1
31	86	-	385	4,180	-	620	-	246	-	51	1.7	.1

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	34,148	5,800	46	1,102	0.663	0.76	67,730
November	5,051	1,870	24	168	.101	.11	10,020
December	3,769	1,380	23	122	.073	.08	7,480
Calendar year 1936	118,939.4	6,760	0	325	.196	2.66	235,900
January	31,287	4,180	103	1,009	.608	.70	62,060
February	101,620	7,540	470	3,629	2.19	2.28	201,600
March	81,135	9,750	260	2,617	1.58	1.82	160,900
April	20,761	3,320	192	692	.417	.47	41,180
May	63,313	12,200	95	2,042	1.23	1.42	125,600
June	57,907	10,000	60	1,930	1.16	1.29	114,900
July	5,147	1,900	7	166	.100	.12	10,210
August	835.8	446	1.7	27.0	.016	.02	1,660
September	7.0	1.7	0	.23	.00014	.0002	14
Water year 1936-37	404,980.8	12,200	0	1,110	.669	9.07	803,400

Niangua River near Decaturville, Mo.

Location.- Water-stage recorder, lat. 37°56'20", long. 92°50'30", in NW¼NE¼ sec. 19 T. 37 N., R. 17 W., 8 miles northwest of Decaturville. Zero of gage is about 665.9 feet above mean sea level (general adjustment of 1929).

Drainage area.- About 627 square miles.

Records available.- April 1930 to September 1937.

Extremes.- Maximum discharge during year, 11,100 second-feet Jan. 16 (gage height, 13.45 feet); minimum, 18 second-feet Nov. 17, 23; minimum gage height, 1.88 feet Sept. 30; minimum daily discharge, 86 second-feet Sept. 5.
1930-37: Maximum discharge, 22,400 second-feet Mar. 13, 1935 (gage height, 17.12 feet); minimum, 9 second-feet Nov. 28, 1932; minimum gage height, 1.77 feet Sept. 18, 20, 22, 1936; minimum daily discharge, 18 second-feet Oct. 4-6, 1930.
Maximum stage known, about 28.0 feet sometime during 1914.

Remarks.- Records excellent except those computed from plant records, Oct. 1-19, Jan. 24 to Feb. 1, Aug. 28 to Sept. 13, which are fair. Flow regulated by operation of hydroelectric plant of Missouri Electric Power Co. 0.3 mile upstream.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,130	288	172	895	6,380	518	422	6,190	572	383	198	222
2	705	4,510	396	811	2,450	245	438	3,050	381	387	225	122
3	665	6,620	226	717	1,700	359	421	6,020	477	382	233	99
4	438	5,930	99	852	1,300	449	400	4,150	691	346	217	186
5	445	1,800	239	673	1,130	325	405	2,340	1,010	316	223	86
6	607	1,120	104	604	1,050	329	350	1,780	3,100	313	205	133
7	436	849	195	563	938	311	346	1,420	1,900	306	226	117
8	497	666	482	593	1,110	273	377	1,200	1,170	306	151	122
9	579	604	280	2,420	1,240	355	356	996	7,450	315	246	106
10	817	533	291	4,430	1,700	320	357	976	7,580	282	201	124
11	791	429	281	1,700	1,180	311	343	884	6,560	260	216	161
12	670	404	276	1,400	989	349	343	962	2,980	400	218	147
13	564	334	227	1,090	885	653	410	1,670	1,760	391	210	107
14	362	317	233	3,030	730	513	495	1,480	1,430	374	232	99
15	233	305	206	7,940	811	933	319	1,090	3,570	301	270	174
16	280	312	221	8,230	654	1,020	576	827	5,160	275	111	152
17	418	241	227	2,440	681	907	538	823	3,450	292	115	136
18	391	248	251	1,720	552	705	399	744	1,740	241	177	164
19	218	253	188	1,420	550	757	378	649	1,220	581	187	117
20	181	239	171	1,180	523	671	532	637	1,310	998	194	139
21	361	246	167	1,090	337	547	1,540	621	1,280	1,230	194	142
22	280	211	193	1,020	645	693	4,740	2,560	1,030	596	174	130
23	160	218	185	930	755	620	2,250	4,390	798	372	188	123
24	187	222	173	595	708	597	1,520	2,500	702	356	234	172
25	436	219	178	760	576	625	1,580	1,480	550	334	232	191
26	185	181	219	650	547	635	1,290	1,140	557	336	186	132
27	175	202	325	545	394	627	957	908	388	320	143	132
28	520	232	605	545	429	459	870	765	390	265	139	135
29	291	131	752	495	-	552	735	768	450	513	112	134
30	374	209	828	880	-	482	3,480	701	345	371	163	51
31	318	-	846	4,680	-	322	-	707	-	277	234	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	13,714	1,130	160	442	0.705	0.81	27,200
November	28,073	6,620	131	936	1.49	1.66	55,680
December	9,236	846	99	298	.475	.55	18,320
Calendar year 1936	120,550	6,700	48	329	.525	7.15	239,100
January	54,898	8,230	495	1,771	2.82	3.25	108,900
February	30,944	6,380	337	1,105	1.76	1.83	61,380
March	16,462	1,020	245	531	.847	.98	32,650
April	27,167	4,740	319	906	1.44	1.61	53,880
May	54,428	6,190	621	1,756	2.80	3.23	108,000
June	60,001	7,580	345	2,000	3.19	3.66	119,000
July	12,219	1,230	241	394	.628	.72	24,240
August	6,053	270	111	195	.311	.36	12,010
September	4,155	222	86	138	.220	.25	8,240
Water year 1936-37	317,350	8,230	86	869	1.39	18.81	629,500

Bennett Spring at Brice, Mo.

Location.- Water-stage recorder, lat. 37°43'05", long. 92°51'25", in NW¼ sec. 1, T. 34 N., R. 18 W., at Brice.

Records available.- October 1928 to September 1937.

Extremes.- Maximum discharge during year, 5,030 second-feet Apr. 29 (gage height, 5.97 feet), from rating curve extended above 800 second-feet; minimum, 59 second-feet Sept. 15; minimum gage height, 0.32 feet Mar. 12.
1928-37: Maximum discharge, 5,800 second-feet (estimated) June 20, 1935 (gage height, 6.08 feet); minimum, about 55 second-feet Nov. 13, 1934.

Remarks.- Records poor. Discharge for periods of no gage-height record, Oct. 6, 7, Apr. 3-20, computed on basis of weather records and records for Alley Spring at Alley, Mo. Occasional run-off from area of 42.4 square miles above spring included in records.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	155	121	121	152	411	140	106	436	194	137	113	89
2	135	382	125	165	344	137	106	861	189	133	1[illegible]	97
3	116	340	125	155	305	133	105	655	196	130	1	99
4	106	274	123	140	280	128	105	518	226	128	1	94
5	97	223	128	128	260	125	105	446	327	125	11[illegible]	82
6	135	191	166	123	248	121	105	391	308	125	111	80
7	155	168	160	142	246	121	111	347	280	130	106	70
8	152	150	147	286	268	113	108	308	260	128	111	68
9	194	137	140	369	305	111	106	292	533	128	113	68
10	178	130	135	286	283	111	105	274	598	133	113	66
11	160	123	133	246	260	109	104	254	478	133	137	70
12	133	118	128	215	248	106	104	286	395	135	147	64
13	116	113	123	210	243	116	106	295	344	135	133	66
14	104	113	118	861	232	168	107	271	314	133	130	68
15	99	111	118	662	218	173	140	248	302	128	128	64
16	99	106	121	446	202	160	115	237	302	123	121	64
17	89	109	118	383	189	157	106	223	280	123	99	68
18	89	109	116	327	178	152	104	215	257	128	101	68
19	89	109	113	292	176	152	101	202	248	194	104	70
20	87	111	109	268	176	173	440	196	248	181	104	73
21	87	106	109	254	186	152	563	194	226	155	111	68
22	89	109	99	237	186	142	376	274	207	145	116	68
23	89	111	99	218	178	142	308	321	191	135	113	66
24	92	113	99	204	170	147	292	298	176	128	109	68
25	106	113	101	191	160	145	263	274	170	128	106	70
26	145	116	99	176	150	128	248	257	157	125	101	70
27	142	116	165	168	147	125	229	243	152	118	104	77
28	133	116	183	163	145	118	234	229	147	118	104	77
29	125	116	168	160	-	111	911	215	142	118	94	77
30	121	118	165	469	-	111	904	207	142	116	97	80
31	121	-	165	574	-	113	-	199	-	113	94	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	3,728	194	87	120	7,390
November	4,372	382	106	146	8,670
December	4,018	183	99	130	7,970
Calendar year 1936	36,323	407	67	99.2	72,060
January	8,670	861	123	280	17,200
February	6,394	411	145	228	12,680
March	4,140	173	106	134	8,210
April	6,817	911	101	227	13,520
May	9,666	861	194	312	19,170
June	7,989	598	142	266	15,850
July	4,109	194	113	133	8,150
August	3,488	147	94	113	6,920
September	2,209	99	64	73.6	4,380
Water year 1936-37	65,600	911	64	180	130,100

94296 O—38——24

Gasconade River near Hazlegreen, Mo.

Location.- Wire-weight gage, lat. 37°45', long. 92°27', in SE¼SE¼ sec. 15, T. 35 N., R. 14 W., at bridge on U. S. Highway 66, 1 mile below Osage Fork and 1½ miles west of Hazlegreen. Zero of gage is 845.25 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,250 square miles.

Records available.- April 1929 to September 1937.

Extremes.- Maximum discharge during year, 20,600 second-feet May 3 (gage height, 17.10 feet), minimum, 42 second-feet Sept. 24 (gage height, 1.16 feet).
1929-37: Maximum discharge, 68,700 second-feet Mar. 12, 1935 (gage height, 27.50 feet); minimum, 18 second-feet Aug. 1, 1936 (gage height, 0.85 foot).
Maximum stage known, 31.8 feet sometime in January 1916.

Remarks.- Records good except those for days of rapidly changing stage, which are poor. Gage read twice daily.

Rating table, water year 1936-37 (gage height, in feet, and discharge in second-feet)
(Shifting-control method used Nov. 14 to Jan. 7, Mar. 16 to Apr. 29)

1.1	37	5.0	2,090
1.2	47	7.0	3,810
1.3	61	9.0	6,040
1.4	88	11.0	8,900
1.6	160	13.0	12,500
2.0	329	16.0	18,300
3.0	833		

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,110	542	208	888	12,700	833	468	5,680	492	352	176	51
2	833	1,730	204	1,230	4,650	778	444	9,750	468	329	172	52
3	644	5,440	208	1,110	2,980	723	421	18,300	444	307	160	51
4	542	7,100	200	999	2,240	670	421	9,410	468	285	153	51
5	421	2,640	217	888	1,870	644	421	4,650	542	276	142	49
6	398	1,660	285	778	1,600	618	421	3,340	833	264	127	51
7	468	1,230	329	833	1,410	592	444	2,560	778	259	123	55
8	592	943	352	4,980	2,320	567	468	2,020	670	238	128	54
9	1,060	778	329	12,100	3,520	542	492	1,660	2,400	217	116	51
10	2,720	670	307	6,820	3,820	517	517	1,410	3,420	217	106	55
11	1,800	592	307	3,240	2,320	492	542	1,170	5,680	229	116	54
12	943	542	285	2,160	1,800	468	517	1,350	3,520	225	188	52
13	723	492	272	1,800	1,530	888	618	1,600	1,940	272	153	51
14	618	468	264	4,120	1,350	1,170	723	1,530	1,410	285	130	48
15	517	421	251	12,500	1,170	1,730	999	1,230	1,470	251	109	48
16	444	398	242	14,800	999	1,530	999	1,060	2,240	229	88	47
17	398	375	234	4,650	888	1,290	943	943	1,940	200	88	47
18	352	352	234	3,060	833	1,110	833	833	1,530	184	82	47
19	329	329	225	2,320	778	999	723	778	1,230	421	73	47
20	285	307	221	1,870	778	999	1,060	723	1,600	567	65	47
21	255	285	213	1,600	1,870	888	1,800	644	1,230	778	73	47
22	251	281	208	1,410	3,520	778	1,660	1,800	943	618	76	47
23	246	272	200	1,230	2,480	723	1,730	2,400	778	468	76	47
24	255	259	192	1,060	1,800	670	1,470	1,530	670	375	82	42
25	234	259	188	943	1,470	670	1,230	1,170	592	329	82	47
26	833	246	192	888	1,230	670	999	943	542	285	70	47
27	1,170	242	468	833	1,060	618	833	778	492	255	65	47
28	1,290	234	567	778	888	567	833	723	444	225	63	48
29	943	217	618	778	-	542	943	644	398	208	57	73
30	778	208	644	1,940	-	517	2,640	567	375	188	54	76
31	618	-	888	8,740	-	492	-	517	-	172	54	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	22,070	2,720	234	712	0.570	0.66	43,780
November	29,512	7,100	208	984	.787	.88	58,540
December	9,552	888	188	308	.246	.28	18,950
Calendar year 1936	111,111	7,100	21	304	.243	3.30	220,400
January	101,346	14,800	778	3,269	2.62	3.02	201,000
February	63,674	12,700	778	2,274	1.82	1.90	126,300
March	24,295	1,730	468	784	.627	.72	48,190
April	26,612	2,640	421	887	.710	.79	52,780
May	81,713	18,300	517	2,636	2.11	2.43	162,100
June	39,539	5,680	375	1,318	1.05	1.17	78,420
July	9,508	778	172	307	.246	.28	18,860
August	3,242	188	54	105	.084	.10	6,430
September	1,529	76	42	51.0	.041	.05	3,030
Water year 1936-37	412,592	18,300	42	1,130	.904	12.28	818,400

Gasconade River near Waynesville, Mo.

Location.- Wire-weight gage, lat. 37°52', long. 92°13', in SE¼ sec. 3, T. 36 N., R. 12 W., at county highway bridge, 2½ miles below Roubidoux Creek and 4 miles north of Waynesville. Zero of gage is 738.995 feet above mean sea level (general adjustment of 1929).

Drainage area.- 1,680 square miles.

Records available.- June 1921 to September 1937 in reports of Geological Survey; August 1914 to June 1921 in reports of University of Missouri and of Missouri Geological Survey.

Average discharge.- 16 years (1921-37), 1,380 second-feet.

Extremes.- Maximum discharge observed during year, 19,400 second-feet May 4 (gage height, 14.42 feet); minimum discharge, 78 second-feet Sept. 20, 21; minimum gage height, 1.99 feet Sept. 16-18.

1921-37: Maximum discharge. 69,000 second-feet Mar. 13, 1935 (gage height, 21.62 feet); minimum, 50 second-feet Aug. 30, 31, 1936 (gage height, 1.84 feet).

Maximum stage known, about 24.3 feet Aug. 22, 1915.

Remarks.- Records good except those for days of rapidly-changing stage, which are fair. Gage read twice daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,560	738	237	1,020	13,800	1,140	678	4,910	648	464	232	100
2	1,140	1,480	232	1,140	11,200	1,060	678	13,800	592	439	289	100
3	837	5,720	228	1,480	5,230	982	648	15,900	566	415	258	100
4	678	7,450	224	1,300	4,010	945	620	19,400	566	391	272	98
5	566	6,570	228	1,220	2,900	872	620	10,000	770	368	228	98
6	488	2,900	272	1,060	2,380	837	592	4,160	770	344	203	95
7	464	1,930	294	1,020	2,030	804	620	4,160	982	321	188	95
8	439	1,480	321	3,300	3,030	770	648	3,160	872	321	181	110
9	620	1,220	368	12,600	4,750	738	678	2,510	2,900	298	166	110
10	908	982	368	13,600	5,550	678	678	2,030	3,440	280	159	119
11	2,260	837	344	6,740	4,160	648	707	1,840	4,750	280	153	116
12	1,480	738	344	3,860	3,030	620	738	1,650	7,090	298	149	116
13	1,060	648	321	2,900	2,380	770	738	1,930	3,440	289	146	110
14	804	592	298	3,580	2,030	1,020	1,300	2,030	2,140	289	200	92
15	678	539	289	14,000	1,740	1,650	1,140	1,930	1,840	298	166	85
16	592	488	285	16,100	1,560	2,260	1,390	1,560	2,260	298	156	85
17	514	464	269	13,400	1,390	2,030	1,390	1,390	2,510	276	146	83
18	464	439	276	5,230	1,220	1,840	1,300	1,220	2,640	254	133	83
19	415	391	258	3,860	1,140	1,650	1,140	1,060	1,930	1,060	127	83
20	391	368	254	3,030	1,140	1,560	1,140	982	1,840	539	119	81
21	368	368	245	2,380	1,220	1,480	3,030	908	1,930	488	173	81
22	344	344	237	2,030	2,640	1,300	2,380	1,060	1,390	678	136	81
23	321	321	241	1,840	3,860	1,140	2,640	3,300	1,140	592	122	83
24	321	298	237	1,650	2,640	1,060	2,380	2,510	945	514	122	85
25	321	298	237	1,390	2,140	1,020	2,030	1,840	1,804	439	119	95
26	344	289	237	1,300	1,740	1,020	1,650	1,390	707	391	122	119
27	837	276	344	1,220	1,560	945	1,480	1,220	620	344	122	116
28	1,300	267	566	1,140	1,390	872	1,390	982	566	298	119	116
29	1,300	254	707	1,060	-	804	1,480	872	514	280	116	113
30	1,020	245	770	1,300	-	770	5,390	770	488	254	110	122
31	837	-	837	4,600	-	707	-	707	-	245	105	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	23,671	2,260	321	764	0.455	0.52	46,950
November	38,934	7,450	245	1,298	.773	.86	77,220
December	10,388	837	224	335	.199	.23	20,600
Calendar year 1936	141,391	7,450	50	386	.230	3.13	280,400
January	130,350	16,100	1,020	4,205	2.50	2.88	258,500
February	91,860	13,800	1,140	3,281	1.95	2.03	182,200
March	33,992	2,260	620	1,097	.653	.75	67,420
April	41,293	5,390	592	1,376	.819	.91	81,900
May	111,181	19,400	707	3,586	2.13	2.46	220,500
June	51,550	7,090	488	1,722	1.02	1.14	102,400
July	12,045	1,060	245	389	.232	.27	23,890
August	5,037	289	105	162	.098	.11	9,990
September	2,970	122	81	99.0	.059	.07	5,890
Water year 1936-37	553,371	19,400	81	1,516	.902	12.23	1,097,000

Gasconade River at Jerome, Mo.

Location.- Staff gage, lat. 37°55'35", long. 91°58'40", in S½ sec. 13, T. 37 N., R. 10 W., at Jerome, 0.5 mile below Little Piney Creek. Zero of gage is 657.70 feet above mean sea level (general adjustment of 1929).

Drainage area.- 2,840 square miles.

Records available.- January 1923 to September 1937. April 1903 to July 1906, at Arlington, 0.5 mile upstream.

Average discharge.- 14 years (1923-37), 2,487 second-feet.

Extremes.- Maximum discharge observed during year, 27,000 second-feet May 3 (gage height, 15.10 feet); minimum discharge, 379 second-feet Sept. 30; minimum gage height, 1.41 feet Sept. 23, 24.
1903-06, 1923-37: Maximum discharge, 76,800 second-feet Mar. 13, 1935 (gage height, 25.80 feet); minimum discharge, 294 second-feet Sept. 1, 1936; minimum gage height, 1.28 feet Aug. 7-11, 1934.
Maximum stage known, about 29.0 feet Jan. 6, 1897.

Remarks.- Records good. Gage read twice daily.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,550	1,340	588	1,510	15,800	2,070	1,290	11,200	1,400	985	588	420
2	2,070	2,430	588	1,950	16,700	1,840	1,240	17,700	1,340	938	588	420
3	1,620	5,430	588	2,070	9,680	1,730	1,240	25,700	1,240	890	625	420
4	1,400	11,200	588	1,950	5,950	1,620	1,180	22,900	1,180	890	625	450
5	1,180	8,880	588	1,950	4,650	1,620	1,240	19,400	1,290	845	588	420
6	1,080	4,800	668	1,730	3,960	1,510	1,180	9,690	1,620	800	588	420
7	1,040	3,310	668	2,550	3,570	1,510	1,180	7,280	1,510	800	550	414
8	938	2,550	668	5,770	4,650	1,400	1,240	5,270	1,620	755	550	414
9	1,620	2,070	710	12,400	6,130	1,340	1,240	4,510	4,230	755	516	414
10	1,620	1,840	710	15,600	6,690	1,340	1,240	3,830	6,310	710	481	420
11	2,310	1,620	710	11,200	6,500	1,290	1,290	3,310	7,680	710	450	414
12	2,550	1,400	668	5,950	4,800	1,240	1,290	3,310	8,080	710	755	414
13	1,840	1,290	668	4,370	3,960	1,400	1,290	3,180	5,950	710	668	408
14	1,510	1,180	625	5,950	3,440	1,620	1,620	3,310	3,830	710	550	408
15	1,290	1,040	625	16,100	3,050	2,790	1,950	3,180	3,050	668	550	402
16	1,130	985	625	22,900	2,670	3,180	1,950	2,790	3,570	710	516	402
17	985	938	588	19,600	2,430	3,310	2,070	2,550	3,700	668	516	390
18	890	890	588	9,080	2,190	3,180	2,070	2,310	3,310	668	516	390
19	845	845	588	6,130	2,070	2,920	1,840	2,070	3,310	12,200	481	390
20	800	800	588	4,600	1,950	2,790	1,840	1,840	3,180	1,510	481	390
21	755	755	588	4,230	1,950	2,550	3,310	1,840	2,790	1,130	516	390
22	755	755	550	3,700	3,050	2,310	4,230	2,190	2,550	1,130	516	390
23	710	710	550	3,310	4,650	2,070	3,830	2,920	2,070	1,180	481	390
24	668	710	550	3,050	4,090	1,950	3,960	3,830	1,730	1,040	481	385
25	710	668	550	2,670	3,310	1,840	3,440	2,920	1,510	890	450	408
26	845	668	550	2,550	2,790	1,730	3,050	2,430	1,400	800	450	420
27	938	668	1,180	2,310	2,550	1,620	2,550	2,070	1,290	755	450	420
28	1,840	625	1,040	2,190	3,190	1,620	2,670	1,840	1,180	710	450	408
29	1,950	625	1,180	2,190	-	1,510	2,550	1,620	1,080	668	450	402
30	1,730	588	1,290	2,920	-	1,400	9,480	1,510	1,040	625	450	385
31	1,510	-	1,400	9,080	-	1,340	-	1,400	-	625	450	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off: Inches	Run-off: Acre-feet
October	41,679	2,550	668	1,344	0.473	0.55	82,670
November	61,610	11,200	588	2,054	.723	.81	122,200
December	22,065	1,400	550	712	.251	.29	43,770
Calendar year 1936	321,084	11,200	303	877	.309	4.22	636,900
January	191,760	22,900	1,510	6,186	2.18	2.51	380,400
February	134,420	16,700	1,950	4,801	1.69	1.76	266,600
March	59,640	3,310	1,240	1,924	.677	.78	118,300
April	68,550	9,480	1,180	2,285	.805	.90	136,000
May	179,900	25,700	1,400	5,803	2.04	2.35	356,800
June	84,040	8,080	1,040	2,801	.986	1.10	166,700
July	37,185	12,200	625	1,200	.423	.49	73,760
August	16,326	755	450	527	.186	.21	32,380
September	12,218	450	385	407	.143	.16	24,230
Water year 1936-37	909,393	25,700	385	2,491	.877	11.91	1,804,000

Gasconade River near Rich Fountain, Mo.

Location.- Water-stage recorder, lat. 38°23'20", long. 91°49'15", in SE¼ sec. 16, T. 42 N., R. 8 W., at bridge on State Highway 89, 800 feet above Swan Creek and 4 miles east of Village of Rich Fountain. Zero of gage is 553.93 feet above mean sea level (general adjustment of 1929).

Drainage area.- 3,180 square miles.

Records available.- October 1921 to September 1937.

Average discharge.- 16 years, 2,828 second-feet.

Extremes.- Maximum discharge during year, 30,600 second-feet June 9 (gage height, 18.17 feet); minimum, 376 second-feet Sept. 23 (gage height, 0.83 foot.
1921-37: Maximum discharge, 86,000 second-feet Mar. 14, 1935 (gage height, 26.85 feet); minimum, 276 second-feet Aug. 12, 13, 1934; minimum gage height, 0.69 foot Aug. 27, 1936.

Remarks.- Records excellent.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 2				Nov. 3 to Sept. 30			
0.8	335	8.0	8,050	0.8	360	3.0	2,080
1.0	425	10.0	11,600	1.0	475	4.0	3,060
1.5	715	12.0	15,800	1.5	825	6.0	5,200
2.0	1,070	16.0	25,000	2.0	1,210	8.0	8,050
4.0	2,900	19.0	32,800				
6.0	5,150						

Note.- Above 8.0 feet same as preceding table.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,900	1,670	736	2,030	10,700	2,560	1,620	10,900	1,670	1,210	772	457
2	2,800	7,490	722	2,460	15,300	2,370	1,540	16,100	1,670	1,130	701	445
3	2,500	9,110	715	2,860	15,300	2,180	1,500	24,200	2,410	1,090	701	445
4	1,940	7,080	708	2,660	8,140	2,080	1,460	26,000	2,590	1,050	960	451
5	1,580	9,750	750	2,560	5,800	1,940	1,460	24,500	1,850	1,130	736	451
6	1,400	8,050	1,010	2,320	4,860	1,850	1,420	18,200	1,940	960	701	439
7	1,230	4,980	960	3,240	4,340	1,760	1,380	9,210	1,890	930	666	439
8	1,150	3,690	900	6,400	5,360	1,670	1,380	6,950	1,800	855	631	433
9	1,400	3,060	870	10,500	7,250	1,820	1,420	5,670	19,400	818	631	433
10	1,940	2,560	892	13,300	6,800	1,540	1,420	4,770	12,500	848	596	433
11	1,940	2,270	900	15,000	6,950	1,500	1,460	4,230	7,200	795	575	427
12	2,600	1,980	885	10,400	6,220	1,460	1,460	4,120	8,790	832	561	427
13	2,700	1,800	848	6,220	4,980	1,500	1,540	4,010	7,890	780	736	421
14	2,030	1,820	825	9,250	4,340	1,760	2,030	3,690	5,430	780	772	410
15	1,670	1,500	788	14,100	3,800	2,220	2,030	3,800	4,230	802	631	404
16	1,400	1,380	772	17,700	3,480	3,160	2,270	3,580	3,900	750	617	398
17	1,230	1,250	750	21,700	3,160	3,800	2,270	3,160	4,440	750	575	393
18	1,070	1,210	750	18,500	2,860	4,230	2,320	2,860	4,120	715	575	388
19	995	1,130	750	8,730	2,660	3,900	2,270	2,660	3,900	3,020	534	382
20	920	1,050	736	6,080	2,460	3,800	2,560	2,420	4,120	5,910	508	382
21	850	1,010	722	5,090	2,420	3,370	4,440	2,270	3,480	1,850	501	382
22	815	975	701	4,440	2,460	3,060	4,440	2,420	3,160	1,380	575	382
23	815	938	694	3,900	3,690	2,760	4,660	2,660	2,860	1,330	561	382
24	748	900	680	3,480	4,770	2,660	4,550	3,480	2,370	1,860	540	388
25	715	862	680	3,270	4,230	2,460	4,340	3,800	2,030	3,850	494	393
26	815	840	680	2,960	3,580	2,270	3,900	3,160	1,800	1,250	482	398
27	920	825	2,610	2,660	3,160	2,130	3,370	2,660	1,620	1,010	486	410
28	995	810	2,460	2,560	2,860	1,980	3,060	2,370	1,500	930	469	421
29	1,760	780	1,800	2,460	-	1,890	3,480	2,130	1,380	855	463	427
30	2,030	758	2,080	3,690	-	1,760	6,010	1,940	1,290	818	457	421
31	1,850	-	2,460	5,800	-	1,670	-	1,760	-	772	463	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	47,708	2,900	715	1,539	0.484	0.56	94,630
November	81,328	9,750	758	2,711	.853	.95	161,300
December	31,834	2,610	680	1,027	.323	.37	63,140
Calendar year 1936	393,824	9,750	295	1,079	.339	4.60	781,100
January	216,320	21,700	2,030	6,978	2.19	2.53	429,100
February	152,450	15,800	2,420	5,445	1.71	1.78	302,400
March	72,910	4,230	1,460	2,352	.740	.85	144,600
April	76,960	6,010	1,380	2,565	.807	.90	152,600
May	209,680	26,000	1,760	6,764	2.13	2.46	415,900
June	123,230	19,400	1,290	4,108	1.29	1.44	244,400
July	41,060	5,910	715	1,325	.417	.48	81,440
August	18,672	960	457	602	.189	.22	37,040
September	12,462	457	382	415	.131	.15	24,720
Water year 1936-37	1,084,614	26,000	382	2,972	.935	12.69	2,151,000

Piney Creek near Big Piney, Mo.

Location.- Wire-weight gage, lat. 37°40', long. 92°03', in NE¼ sec. 8, T. 34 N., R. 10 W., at Ross Highway bridge 3 miles east of Big Piney. Zero of gage is 800.74 feet above mean sea level (general adjustment of 1929).
Drainage area.- 560 square miles.
Records available.- October 1921 to September 1937.
Average discharge.- 16 years, 527 second-feet.
Extremes.- Maximum discharge observed during year, 10,600 second-feet Jan. 15 (gage height, 12.83 feet); minimum, 88 second-feet Sept. 20 (gage height, 1.68 feet).
1921-37: Maximum discharge, 20,400 second-feet Mar. 11, 1935 (gage height, 19.62 feet), from rating curve extended above 9,000 second-feet; minimum, 75 second-feet Aug. 6, 7, 1934; minimum gage height, 1.60 feet July 30, 31, 1926.
Remarks.- Records good except those for days of rapidly changing stage, which are fair. Gage read once daily below 8.0 feet and twice daily above.

Rating table, water year 1936-37 (gage height, in feet, and discharge, in second-feet)

1.6	74	2.0	169	3.0	544	5.0	1,850	9.0	5,900	13.0	10,800
1.8	114	2.5	334	4.0	1,120	7.0	3,700	11.0	8,300		

Revision of discharge, March 1935

Corrected figure of daily discharge for Mar. 14, 1935, is 2,320 second-feet. Revised figures of discharge for March 1935, for water year 1934-35, and for calendar year 1935, superseding those published in Water-Supply Papers 786 and 806, respectively, are given in the following table:

	Second-foot-days	Discharge in second-feet				Run-off	
		Maximum	Minimum	Mean	Per square mile	Inches	Acre-feet
March 1935	66,797	16,900	251	2,155	3.85	4.44	132,500
Water year 1934-35	262,258	16,900	122	719	1.28	17.41	520,100
Calendar year 1935	275,397	16,900	136	755	1.35	18.29	546,200

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	520	265	157	334	3,100	411	265	2,350	232	178	137	99
2	391	299	154	334	1,540	334	265	5,190	248	178	140	99
3	334	6,740	152	391	933	371	248	7,220	232	178	149	105
4	265	1,850	152	391	934	352	265	2,350	265	163	124	105
5	265	994	152	352	814	334	265	1,770	334	163	114	105
6	248	646	172	316	728	334	265	1,470	282	146	114	105
7	994	544	169	391	700	316	265	1,120	282	149	114	101
8	994	453	169	4,640	873	316	265	933	248	149	107	101
9	569	391	169	3,700	1,250	282	265	756	316	143	107	103
10	520	352	175	1,700	1,120	282	282	700	814	157	107	107
11	432	316	166	1,120	873	282	282	620	6,380	157	101	103
12	352	299	163	873	756	265	282	646	1,060	157	265	103
13	316	282	157	728	673	299	299	673	620	160	169	103
14	265	248	157	1,850	594	1,250	391	594	544	146	137	96
15	248	248	152	10,600	544	814	391	520	432	130	119	92
16	219	229	152	2,900	453	620	371	453	411	135	119	90
17	210	229	149	1,540	453	544	371	432	371	140	122	92
18	194	213	146	1,190	432	497	334	391	334	132	114	90
19	188	206	140	994	411	475	316	371	352	181	110	92
20	178	203	149	756	391	432	316	371	411	282	110	88
21	178	191	143	700	569	411	352	352	352	232	101	92
22	172	191	135	646	1,250	371	1,400	411	299	194	110	90
23	166	181	130	569	873	352	933	391	265	169	110	94
24	166	178	122	520	700	352	728	352	248	157	107	103
25	203	178	146	497	594	334	700	334	229	160	105	172
26	282	181	143	497	497	316	544	316	222	143	103	114
27	544	175	137	432	453	299	497	299	203	140	105	132
28	453	175	140	432	432	282	453	316	203	135	101	119
29	371	166	149	453	-	282	432	299	191	127	99	103
30	334	157	154	646	-	265	6,140	265	181	130	103	101
31	299	-	175	7,340	-	265	-	248	-	132	101	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	10,870	994	166	351	0.627	0.72	21,560
November	16,780	6,740	157	559	.998	1.11	33,280
December	4,726	175	122	152	.271	.31	9,370
Calendar year 1936	87,323	6,740	83	239	.427	5.80	173,200
January	47,832	10,600	316	1,543	2.76	3.18	94,870
February	23,000	3,100	391	821	1.47	1.53	45,620
March	12,339	1,250	265	398	.711	.82	24,470
April	18,162	6,140	248	606	1.08	1.20	36,060
May	32,513	7,220	248	1,049	1.87	2.16	64,490
June	16,561	6,380	181	552	.986	1.10	32,850
July	4,943	282	127	159	.284	.33	9,800
August	3,722	265	99	120	.214	.25	7,380
September	3,099	172	88	103	.184	.21	6,150
Water year 1936-37	194,567	10,600	88	533	.952	12.92	385,900

Little Piney Creek at Newburg, Mo.

Location.- Wire-weight gage, lat. 37°54'40", long. 91°54'10", in SE¼ sec. 22, T. 37 N., R. 9 W., at bridge on State Highways P and T at Newburg. Zero of gage is 696.565 feet above mean sea level (general adjustment of 1929).

Drainage area.- 200 square miles.

Records available.- October 1928 to September 1937.

Extremes.- Maximum discharge during year, 20,500 second-feet July 19 (gage height, 11.35 feet, from floodmarks); minimum discharge, 33 second-feet Sept. 29; minimum gage height, 0.59 foot Sept. 18, 19.

1928-37: Maximum discharge, about 28,000 second-feet June 26, 1935 (gage height, 13.26 feet, from floodmarks); minimum, 24 second-feet Aug. 22-31, 1936; minimum gage height, that of Sept. 18, 19, 1937.

Maximum stage known, 13.7 feet Aug. 20, 1915.

Remarks.- Records good except those for days of rapidly changing stage, which are poor. Discharge for Nov. 28 interpolated. Gage read once daily below 3.0 feet and twice daily above.

Rating tables, water year 1936-37 (gage height, in feet, and discharge in second-feet)
(Shifting-control method used Oct. 1 to Jan. 13, Aug. 28 to Sept. 30)

Oct. 1 to July 18								July 19 to Sept. 30			
0.6	28	1.6	264	4.0	1,990	7.5	7,190	0.4	24	1.4	208
0.8	50	1.8	368	5.0	2,970	8.0	8,550	0.6	41	1.8	362
1.0	81	2.0	478	6.0	4,250	9.0	11,700	0.8	65	2.2	601
1.2	122	2.5	797	6.5	5,230	10.0	15,200	1.0	97		
1.4	180	3.0	1,160	7.0	6,050	12.0	22,800				

Note.- Same as preceding table above 2.3 feet.

Discharge, in second-feet, water year October 1936 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	64	49	39	76	352	89	79	478	368	72	66	43
2	57	3,970	39	136	259	83	76	3,200	210	67	64	41
3	51	696	39	115	210	83	78	832	94	69	53	49
4	48	177	37	90	188	85	79	599	90	67	51	44
5	44	130	40	81	174	81	79	478	94	63	51	39
6	49	104	57	72	164	81	74	395	104	60	50	39
7	51	89	50	797	152	79	74	315	87	58	52	39
8	63	79	48	1,090	537	78	67	259	78	58	50	40
9	57	72	44	395	310	72	67	214	279	56	49	40
10	57	67	43	241	236	72	66	180	368	56	49	42
11	49	61	42	177	199	71	64	164	214	60	49	41
12	48	57	40	158	177	71	61	246	141	56	48	39
13	46	54	39	171	164	146	61	184	115	54	46	37
14	45	51	38	2,860	149	120	78	158	111	53	49	36
15	43	49	38	696	141	109	74	144	144	53	44	36
16	42	46	38	422	122	125	72	133	214	51	45	36
17	42	45	38	352	115	168	69	125	174	50	48	36
18	40	45	38	259	109	199	71	120	133	49	44	35
19	40	43	38	199	111	218	63	113	138	2,170	44	35
20	40	44	38	191	111	180	67	109	290	178	44	36
21	48	43	36	174	111	146	144	120	171	119	57	34
22	48	42	38	146	115	125	113	184	125	99	51	34
23	45	40	36	136	111	120	102	144	109	88	46	34
24	43	40	36	141	111	122	161	122	96	83	45	35
25	58	40	36	127	104	104	127	109	89	82	44	37
26	94	40	37	115	96	98	118	100	85	77	43	36
27	66	39	177	111	98	92	122	94	83	71	42	34
28	61	39	102	115	87	90	537	94	81	71	40	35
29	57	39	79	138	-	87	195	87	78	68	41	33
30	50	39	98	1,010	-	85	1,400	81	74	68	41	34
31	49	-	83	568	-	81	-	79	-	68	39	-

Month	Second-foot-days	Maximum	Minimum	Mean	Per square mile	Run-off	
						Inches	Acre-feet
October	1,595	94	40	51.5	0.258	0.30	3,160
November	6,329	3,970	39	211	1.06	1.18	12,550
December	1,581	177	36	51.0	.255	.29	3,140
Calendar year 1936	28,785	3,970	24	78.6	.393	5.35	57,080
January	11,359	2,860	72	366	1.83	2.11	22,530
February	4,813	537	87	172	.860	.90	9,550
March	3,360	218	71	108	.540	.62	6,660
April	4,438	1,400	61	148	.740	.83	8,800
May	9,660	3,200	79	312	1.56	1.80	19,160
June	4,437	368	74	148	.740	.83	8,800
July	4,294	2,170	49	139	.695	.80	8,520
August	1,485	66	39	47.9	.240	.28	2,950
September	1,129	49	33	37.6	.188	.21	2,240
Water year 1936-37	54,480	3,970	33	149	.745	10.15	108,100

In addition to the records of stream flow obtained at gaging stations and reported in the preceding pages, measurements of flow were made at a number of other points as shown by the following table:

Miscellaneous discharge measurements in Missouri River Basin during the water year October 1936 to September 1937

Date	Stream	Tributary to-	Locality	Discharge
				Sec.-ft.
Aug. 14	Bazille Creek....	Missouri River.....	Sec. 33, T. 32 N., R. 5 W., near Niobrara, Nebr.	7.2
Sept.14	....do.....	....do.....	....do.....	8.5
Sept.15	Rock River.....	Big Sioux River.....	At Rock Rapids, Lyon County, Iowa.....	.94
Oct. 15	Little Papillion Creek.	....do.....	Sec. 1, T. 14 N., R. 12 E., near Omaha, Nebr.	1.0
Nov. 19	....do.....	....do.....	....do.....	4.9
Jan. 10	....do.....	....do.....	....do.....	2.0
Feb. 14	....do.....	....do.....	....do.....	12.2
Mar. 7	....do.....	....do.....	....do.....	9.9
Apr. 2	....do.....	....do.....	....do.....	4.2
May 13	....do.....	....do.....	....do.....	2.5
June 14	....do.....	....do.....	....do.....	4.8
July. 8	....do.....	....do.....	....do.....	2.0
Aug. 13	....do.....	....do.....	....do.....	2.8
Sept.11	....do.....	....do.....	....do.....	1.5
Oct. 17	Dismal River.....	Middle Loup River...	Sec. 4, T. 21 N., R. 24 W., near Dunning, Nebr.	296
Nov. 15	....do.....	....do.....	....do.....	315
Jan. 16	....do.....	....do.....	....do.....	315
Feb. 22	....do.....	....do.....	....do.....	316
Mar. 16	....do.....	....do.....	....do.....	333
Apr. 5	....do.....	....do.....	....do.....	335
23	....do.....	....do.....	....do.....	350
May 9	....do.....	....do.....	....do.....	301
June 18	....do.....	....do.....	....do.....	283
July 13	....do.....	....do.....	....do.....	349
Aug. 16	....do.....	....do.....	....do.....	283
Sept.15	....do.....	....do.....	....do.....	274
May 9	South Loup River.	Middle Loup River...	Sec. 2, T. 15 N., R. 23 W., at Callaway, Nebr.	116
June 18	....do.....	....do.....	....do.....	43.6
July 13	....do.....	....do.....	....do.....	67
Aug. 17	....do.....	....do.....	....do.....	34.3
Sept.16	....do.....	....do.....	....do.....	54
Oct. 18	Mud Creek.....	Loup River.....	Sec. 22, T. 13 N., R. 15 W., near Hazard, Nebr.	11.0
Nov. 28	....do.....	....do.....	....do.....	10.6
Jan. 18	....do.....	....do.....	....do.....	13.6
Feb. 21	....do.....	....do.....	....do.....	25.6
Mar. 18	....do.....	....do.....	....do.....	24.9
Apr. 9	....do.....	....do.....	....do.....	21.7
26	....do.....	....do.....	....do.....	20.7
May 9	....do.....	....do.....	....do.....	22.3
June 22	....do.....	....do.....	....do.....	17.6
July 13	....do.....	....do.....	....do.....	14.4
Aug. 17	....do.....	....do.....	....do.....	11.1
Sept.16	....do.....	....do.....	....do.....	19.0
Oct. 17	Calamus River....	North Loup River....	Sec. 24, T. 23 N., R. 18 W., near Harrop, Nebr.	170
Nov. 15	....do.....	....do.....	....do.....	176
Jan. 16	....do.....	....do.....	....do.....	173
Feb. 22	....do.....	....do.....	....do.....	195
Mar. 16	....do.....	....do.....	....do.....	192
Apr. 6	....do.....	....do.....	....do.....	205
23	....do.....	....do.....	....do.....	184
May 10	....do.....	....do.....	....do.....	186
June 18	....do.....	....do.....	....do.....	170
July 12	....do.....	....do.....	....do.....	160
Aug. 16	....do.....	....do.....	....do.....	163
Sept.15	....do.....	....do.....	....do.....	171
Oct. 15	Cedar River.....	Loup River.....	Sec. 32, T. 17 N., R. 6 W., near Fullerton, Nebr.	153
Nov. 17	....do.....	....do.....	....do.....	156
Jan. 12	....do.....	....do.....	....do.....	134
Feb. 15	....do.....	....do.....	....do.....	195
Mar. 13	....do.....	....do.....	....do.....	216
Apr. 3	....do.....	....do.....	....do.....	220
21	....do.....	....do.....	....do.....	173
May 11	....do.....	....do.....	....do.....	193
June 16	....do.....	....do.....	....do.....	305
July 11	....do.....	....do.....	....do.....	106
Aug. 14	....do.....	....do.....	....do.....	116
Sept.13	....do.....	....do.....	....do.....	134
13	....do.....	....do.....	....do.....	140
Oct. 15	Timber Creek.....	Cedar River.....	Sec. 17, T. 17 N., R. 7 W., near Belgrade, Nebr.	1.0
Nov. 17	....do.....	....do.....	....do.....	1.3
Jan. 12	....do.....	....do.....	....do.....	1.1
Feb. 15	....do.....	....do.....	....do.....	2.6
Mar. 13	....do.....	....do.....	....do.....	5.0
Apr. 3	....do.....	....do.....	....do.....	3.5
21	....do.....	....do.....	....do.....	2.4
May 11	....do.....	....do.....	....do.....	4.2
June 16	....do.....	....do.....	....do.....	1.8
July 11	....do.....	....do.....	....do.....	.7
Aug. 14	....do.....	....do.....	....do.....	1.0
Sept.13	....do.....	....do.....	....do.....	1.3

Miscellaneous discharge measurements in Missouri River Basin during the water year October 1936 to September 1937--Continued

Date	Stream	Tributary to-	Locality	Discharge
				Sec.-ft.
Oct. 15	Beaver Creek.....	Loup River.....	Sec. 15, T. 20 N., R. 6 W., at Albion, Nebr.	37.2
Nov. 16	....do.....	....do.....	....do.....	44.4
Jan. 12	....do.....	....do.....	....do.....	34.5
Feb. 16	....do.....	....do.....	....do.....	55.0
Mar. 13	....do.....	....do.....	....do.....	64
Apr. 3	....do.....	....do.....	....do.....	69
21	....do.....	....do.....	....do.....	48.6
May 11	....do.....	....do.....	....do.....	52
June 16	....do.....	....do.....	....do.....	51
July 11	....do.....	....do.....	....do.....	25.3
Aug. 14	....do.....	....do.....	....do.....	25.5
Sept.13	....do.....	....do.....	....do.....	24.4
Oct. 16	Elkhorn River....	Platte River.....	Sec. 31, T. 29 N., R. 11 W., at O'Neill, Nebr.	17.8
Nov. 15	....do.....	....do.....	....do.....	22.2
Jan. 15	....do.....	....do.....	....do.....	0
Feb. 18	....do.....	....do.....	....do.....	19.6
Mar. 16	....do.....	....do.....	....do.....	45.7
Apr. 6	....do.....	....do.....	....do.....	40.8
22	....do.....	....do.....	....do.....	36.3
May 11	....do.....	....do.....	....do.....	45.1
June 17	....do.....	....do.....	....do.....	27.2
July 12	....do.....	....do.....	....do.....	13.1
Aug. 16	....do.....	....do.....	....do.....	9.2
Sept.15	....do.....	....do.....	....do.....	12.2
Oct. 21	Oak Creek.....	Salt Creek.....	Sec. 15, T. 10 N., R. 6 E., near Lincoln, Nebr.	.4
Nov. 20	....do.....	....do.....	....do.....	2.3
Jan. 18	....do.....	....do.....	....do.....	.8
Feb. 25	....do.....	....do.....	....do.....	3.4
Mar. 22	....do.....	....do.....	....do.....	8.1
Apr. 3	....do.....	....do.....	....do.....	6.5
May 14	....do.....	....do.....	....do.....	2.4
June 11	....do.....	....do.....	....do.....	24.2
July 9	....do.....	....do.....	....do.....	1.4
Aug. 13	....do.....	....do.....	....do.....	1.9
Sept.21	....do.....	....do.....	....do.....	1.2
Oct. 10	Wahoo Creek.....	Salt Creek.....	Sec. 36, T. 13 N., R. 9 E., near Ashland, Nebr.	14.1
Nov. 20	....do.....	....do.....	....do.....	15.4
Jan. 11	....do.....	....do.....	....do.....	9.8
Feb. 24	....do.....	....do.....	....do.....	18.4
Mar. 8	....do.....	....do.....	....do.....	27.8
Apr. 2	....do.....	....do.....	....do.....	21.8
May 14	....do.....	....do.....	....do.....	16.7
June 12	....do.....	....do.....	....do.....	16.6
July 9	....do.....	....do.....	....do.....	9.7
Aug. 13	....do.....	....do.....	....do.....	9.1
Sept.11	....do.....	....do.....	....do.....	10.0
Oct. 10	Upper Clear Creek	Wahoo Creek.....	Sec. 36, T. 13 N., R. 9 E., near Ashland, Nebr.	2.7
Nov. 20	....do.....	....do.....	....do.....	3.3
Jan. 11	....do.....	....do.....	....do.....	2.1
Feb. 12	....do.....	....do.....	....do.....	9.6
24	....do.....	....do.....	....do.....	3.8
Mar. 8	....do.....	....do.....	....do.....	7.7
Apr. 2	....do.....	....do.....	....do.....	11.6
May 14	....do.....	....do.....	....do.....	4.3
June 12	....do.....	....do.....	....do.....	2.9
July 9	....do.....	....do.....	....do.....	2.6
Aug. 13	....do.....	....do.....	....do.....	1.8
Sept.11	....do.....	....do.....	....do.....	1.4
Oct. 22	Little Blue River	Big Blue River.....	Sec. 20, T. 3 N., R. 4 W., near Deshler, Nebr.	88
Nov. 21	....do.....	....do.....	....do.....	47
Jan. 21	....do.....	....do.....	....do.....	51
Feb. 28	....do.....	....do.....	....do.....	65
Mar. 24	....do.....	....do.....	....do.....	105
Apr. 14	....do.....	....do.....	....do.....	64
May 15	....do.....	....do.....	....do.....	21.4
June 24	....do.....	....do.....	....do.....	36.8
July 20	....do.....	....do.....	....do.....	1,670
Aug. 24	....do.....	....do.....	....do.....	21.9
Sept.22	....do.....	....do.....	....do.....	35.3
Mar. 6	Grand River.....	Missouri River.....	NE¼ sec. 14, T. 57 N., R. 24 W., at bridge on State Highway 36, 2⅛ miles south of Chillicothe, Mo.	26,600
Mar. 8	....do.....	....do.....	....do.....	7,680
11	....do.....	....do.....	....do.....	1,650
July 15	....do.....	....do.....	....do.....	14,200
Mar. 7	Weldon River.....	Thompson River.....	SE¼ sec. 28, T. 65 N., R. 24 W., at bridge on State Highway 4 at Princeton, Mo.	787
May 27	....do.....	....do.....	....do.....	942
Mar. 7	....do.....	....do.....	Sec. 8, T. 62 N., R. 24 W., 2½ miles north of Tindall, Mo.	1,110
May 27	....do.....	....do.....	....do.....	1,100
May 7	Sante Fe Spring..	Missouri River.....	Sec. 36, T. 50 N., R. 19 W., in Arrow Rock State Park at Arrow Rock, Mo.	.09
June 12	Osage River.....	Missouri River.....	SW¼ sec. 17, T. 40 N., R. 22 W., at Warsaw, Mo.	60,500
Aug. 6	Paxton Spring....	Brush Creek.....	Sec. 16, T. 35 N., R. 24 W., in Humansville, Mo.	.69
Oct. 2	Roulfs.....	Little Piney Creek..	Sec. 25, T. 37 N., R. 10 W., 1½ miles southwest of Arlington, Mo.	.55

INDEX

Page

Absarokee, Mont., Rosebud Creek near... 105
  Stillwater River near..... 104
Accuracy of data and computed results.. 2-3
Acre-foot, definition of..... 1
Agency, Mo., Platte River near..... 297
Akron, Iowa, Big Sioux River at..... 153
Alcova, Wyo., Bates Creek near..... 198
  North Platte River at..... 167
Alder, Mont., Ruby River near..... 34
Alzada, Mont., Little Missouri River near..... 136
Arcadia, Nebr., Middle Loup River at... 275
Arikaree River at Haigler, Nebr..... 299
Arnolds Park, Iowa, Okoboji Lake at.... 160
Arvada, Wyo., Powder River at..... 134
Ashland, Nebr., Platte River near..... 185
Augusta, Mont., North Fork of Sun River near..... 46
Bad River near Fort Pierre, S. Dak..... 147
Bagnell, Mo., Osage River near..... 354
Balzac, Colo., South Platte River at... 243
Barnston, Nebr., Big Blue River at..... 330
Barratts, Mont., Beaverhead River at... 13
Basin, Wyo., Greybull River near.....125-126
Bates Creek near Alcova, Wyo..... 198
Battle Creek at international boundary. 70
  East Fork of, near international boundary..... 72
Bayard, Nebr., Bayard Sugar Factory Drain near..... 227
  Red Willow Creek near..... 228
Bazille Creek, Nebr., discharge measurements of..... 368
Bear Creek at Morrison, Colo..... 249
  at mouth, at Sheridan Junction, Colo. 250
Beaver City, Nebr., Beaver Creek near.. 317
  Sappa Creek near..... 318
Beaver Creek, Nebr., discharge measurements of..... 369
  near Beaver City, Nebr..... 317
Beaverhead River at Barratts, Mont..... 13
  at Blaine, Mont..... 14
Belle Fourche River near Belle Fourche, S. Dak..... 144
  near Elm Springs, S. Dak..... 145
Belcit, Kans., Solomon River at..... 326
Bench Canal near Burlington, Wyo..... 128
Bennett Spring at Brice, Mo..... 361
Bethany, Mo., East Fork of Big Creek near..... 342
Beulah, Wyo., Redwater Creek near..... 146
Big Bend, S. Dak., Rapid Creek at..... 143
Big Blue River at Barnston, Nebr..... 330
  at Hull, Kans..... 331
  at Randolph, Kans..... 332
Big Creek, East Fork of, near Bethany, Mo..... 342
Big Hole River near Melrose, Mont..... 35
Big Horn River at Kane, Wyo..... 117
  at Thermopolis, Wyo..... 116
  near St. Xavier, Mont..... 118
Big Piney, Mo., Piney Creek near..... 366
Big Sandy Creek near Box Elder, Mont... 66
Big Sioux River at Akron, Iowa..... 153
Big Spring Creek near Lewistown, Mont.. 53
Billings, Mont., Yellowstone River at.. 93
Birdwood Creek near Hershey, Nebr..... 232
Bismarck, N. Dak., Missouri River at... 23
Blaine, Mont., Beaverhead River at..... 14
Blanchard, Iowa, East Tarkio Creek at.. 290
Bloomington, Nebr., Republican River near..... 302
Blue Creek near Lewellen, Nebr..... 230
Boelus, Nebr., Middle Loup River at.... 277
Bonner Springs, Kans., Kansas River at. 310
Boonville, Mo., Missouri River at..... 32
Boulder, Mont., Boulder River near..... 37
Boulder Creek at mouth, near Longmont, Colo..... 259
  near Orodell, Colo..... 258

Page

Boulder River near Boulder, Mont..... 37
Box Elder, Mont., Big Sandy Creek near. 66
Box Elder Creek (Musselshell River Basin) near Winnett, Mont..... 57
Boxelder Creek (Platte River Basin) near Careyhurst, Wyo..... 201
Boyd, Mont., Red Lodge Creek near.....112,113
  Willow Creek near..... 114
Bozeman, Mont., Hyalite Creek near..... 41
Brackett Creek near Clyde Park, Mont... 101
Bredette, Mont., Poplar River near..... 84
Breien, N. Dak., Cannonball River at... 138
Brice, Mo., Bennett Spring at..... 361
Bridgeport, Nebr., North Platte River at..... 176
  Pumpkin Creek near..... 229
Brinkman, Mont., Marias River near..... 51
Browning, Mont., North Fork of Milk River near..... 64
Brownington, Mo., South Grand River near..... 359
Bull Lake Creek near Lenore, Wyo..... 121
Burlington, Wyo., Bench Canal near..... 128
Burlington Junction, Mo., Nodaway River near..... 296
Burris, Wyo., Dry Creek near..... 119
Burwell, Nebr., North Loup River near.. 281
Bushnell, Nebr., Lodgepole Creek at.... 271
Byron, Wyo., Shoshone River at..... 130
Cache la Poudre River at mouth of canyon, near Fort Collins, Colo.. 264
  near Greeley, Colo..... 265
Calamus River, Nebr., discharge measurements of..... 368
Cambridge, Nebr., Medicine Creek near.. 316
Canadian River at Cowdrey, Colo..... 197
Cannonball River at Breien, N. Dak..... 138
Careless Creek at Wallum, Mont..... 56
Careyhurst, Wyo., Boxelder Creek near.. 201
  Running Dutchman Canal near..... 200
Casper, Wyo., North Platte River below. 168
Cedar River, Nebr., discharge measurements of..... 368
Chadron, Nebr., White River near..... 149
Champion, Nebr., Frenchman Creek below. 313
  Frenchman Creek near..... 312
Chance, Mont., Clarks Fork at..... 106
Chariton River at Novinger, Mo..... 347
  near Keytesville, Mo..... 348
Cherry Creek Drain near Torrington, Wyo..... 220
Cheyenne River near Eagle Butte, S.Dak. 142
  near Wasta, S. Dak..... 141
Cheyenne River Basin, S. Dak.-Wyo., gaging-station records in.....141-146
Chinook, Mont., Matheson Canal near.... 75
Circle, Mont., Redwater Creek at..... 82
Clarinda, Iowa, Nodaway River at.....294-295
Clarks Fork at Chance, Mont..... 106
  at Edgar, Mont..... 107
Clay Center, Kans., Republican River at 305
Clear Creek at mouth, near Derby, Colo. 252
  near Golden, Colo..... 251
Clemons, Mont., Dearborn River near.... 44
Clifton City, Mo., Lamine River at..... 349
Clyde Park, Mont., Brackett Creek near. 101
  Shields River at..... 100
Colorado-Nebraska State line, North Fork of Republican River at..... 311
Columbus, Nebr., Loup River at..... 279
Computations, results of, accuracy of.. 2-3
Comstock, Nebr., Middle Loup River near 274
Control, definition of..... 1
Cooperation, record of..... 8
Correctionville, Iowa, Little Sioux River at.....157-158
Corwin Springs, Mont., Yellowstone River at..... 92
Cottonwood Creek at Wendover, Wyo..... 208
Cowdrey, Colo., Canadian River at..... 197

	Page
Cowdrey, Colo., Michigan River near.....	192
Crawford, Nebr., White River at.....	148
Crow Creek, Middle Fork of, near Hecla, Wyo.....	267
North Fork of, near Hecla, Wyo.....	269
South Fork of, near Hecla, Wyo.....	268
Crowheart, Wyo., Willow Creek near.....	120
Culbertson, Nebr., Frenchman Creek at...	315
Republican River at.....	301
Data, accuracy of.....	2-3
explanation of.....	1-2
Dearborn River near Clemons, Mont.....	44
Decaturville, Mo., Niangua River near...	360
Decker, Mont., Tongue River near.....	132
Deer Creek at Glenrock, Wyo.....	199
Delaware River at Valley Falls, Kans....	337
Denver, Colo., South Platte River at....	238
Derby, Colo., Clear Creek near.....	252
Dismal River, Nebr., discharge measurements of.....	368
Douglas, Wyo., La Prele Creek near.....	202
North Platte River at.....	169
Douglas Canal near Orpha, Wyo.....	204
Drake, Colo., Thompson River near.....	262
Dry Creek near Burris, Wyo.....	119
Duncan, Nebr., Platte River near.....	184
Dunlap, Nebr., Niobrara River at.....	151
Eagle Butte, S. Dak., Cheyenne River near.....	142
East Limestone Creek near Ionia, Kans...	328
East Nishnabotna River at Red Oak, Iowa.....	288-289
East Tarkio Creek at Blanchard, Iowa....	290
Edgar, Mont., Clarks Fork at.....	107
Eldorado Springs, Colo., South Boulder Creek near.....	260
Elkhorn River at Neligh, Nebr.....	285
at Waterloo, Nebr.....	286
discharge measurements of.....	369
Ellsworth, Kans., Smoky Hill River at...	321
Elm Creek near Ionia, Kans.....	329
Elm Springs, S. Dak., Belle Fourche River near.....	145
Endicott, Nebr., Little Blue River near.	333
Enterprise, Kans., Smoky Hill River at..	323
Estes Park, Colo., Thompson River near..	261
Fairfax, Mo., Tarkio River at.....	291
Federal, Wyo., Lodgepole Creek near.....	270
South Fork of Lodgepole Creek near....	272
Filmore, Wyo., Little Laramie River near	217
Floyd River at James, Iowa.....	154
Fort Benton, Mont., Missouri River at...	17
Fort Collins, Colo., Cache la Poudre River near.....	264
Fort Laramie, Wyo., Laramie River near..	216
Fort Lupton, Colo., South Platte River at.....	240
Fort Peck Dam, Mont., Missouri River below.....	20
Fort Pierre, S. Dak., Bad River near....	147
Fort Scott, Kans., Marmaton River near..	356
Fort Washakie, Wyo., Little Wind River near.....	122
North Fork of Little Wind River at....	123
Frenchman Canal near Saco, Mont.....	78
Frenchman Creek at Culbertson, Nebr.....	315
below Champion, Nebr.....	313
near Champion, Nebr.....	312
near Hamlet, Nebr.....	314
Frenchman River at international boundary.....	77
Gallatin, Mo., Grand River near.....	340
Gallatin River at Logan, Mont.....	40
near Gallatin Gateway, Mont.....	39
Gallatin River Basin, Mont., gaging-station records in.....	39-41
Galt, Mo., Medicine Creek near.....	345
Gardiner River at Mammoth Hotel, Yellowstone National Park.....	98
Gasconade River at Jerome, Mo.....	364
near Hazlegreen, Mo.....	362
near Rich Fountain, Mo.....	365
near Waynesville, Mo.....	363
Gasconade River Basin, Mo., gaging-station records in.....	362-367
Gering Drain near Gering, Nebr.....	225
Glendevey, Colo., Laramie River near....	209
Glendo, Wyo., Horseshoe Creek near.....	207
Glenrock, Wyo., Deer Creek at.....	199
Golden, Colo., Clear Creek near.....	251
Goose Creek (Platte River Basin) above Lake Cheesman, Colo.....	247
Goose Creek (Yellowstone River Basin) near Sheridan, Wyo.....	133
Grand Island, Nebr., Platte River near.	183
Grand River Basin, Mo., gaging-station records in.....	340-346
Grand River, Mo., discharge measurements of.....	369
near Gallatin, Mo.....	340
near Sumner, Mo.....	341
Grand River near Wakpala, S. Dak.....	139
Granite Canyon, Wyo., Lonetree Creek near.....	266
Greeley, Colo., Cache la Poudre River near.....	265
Greybull River at Meeteetse, Wyo.....	124
near Basin, Wyo.....	125-126
Grizzly Creek near Walden, Colo.....	161
Guernsey Reservoir, Wyo., North Platte River below.....	170
Haigler, Nebr., Arikaree River at.....	299
Hamburg, Iowa, Nishnabotna River above.	287
Hamlet, Nebr., Frenchman Creek near....	314
Hardy, Nebr., Republican River near....	303
Harlowton, Mont., Musselshell River at.	54
Havre, Mont., North Chinook Canal near.	69
Hazlegreen, Mo., Gasconade River near..	362
Hebron, Colo., Little Grizzly Creek near.....	186
Hecla, Wyo., Middle Fork of Crow Creek near.....	267
North Fork of Crow Creek near.....	269
South Fork of Crow Creek near.....	268
Helena, Mont., Missouri River near.....	16
Tenmile Creek near.....	43
Henderson, Colo., South Platte River at	239
Henry, Nebr., Katzer Drain near.....	221
Hermann, Mo., Missouri River at.....	33
Hermitage, Mo., Pomme de Terre River at	358
Hershey, Nebr., Birdwood Creek near....	232
Horse Creek (Milk River Basin) at international boundary.....	80
Horse Creek (Platte River Basin) near Lyman, Nebr.....	222
Horseshoe Creek near Glendo, Wyo.....	207
Hull, Kans., Big Blue River at.....	331
Hyalite Creek at Hyalite ranger station, near Bozeman, Mont.....	41
Illinois Creek at Walden, Colo.....	195
near Rand, Colo.....	194
International boundary, Battle Creek at	70
East Fork of Battle Creek near.....	72
East Fork of Poplar River at.....	85
Frenchman River at.....	77
Horse Creek at.....	80
Lodge Creek at.....	67
Lyons Coulee at.....	73-74
McEachern Creek at.....	81
McRae Coulee at.....	68
Middle Fork of Poplar River at.....	83
Milk River at.....	61
North Fork of Milk River near.....	65
Rock Creek at.....	79
South Fork of Milk River near.....	59
West Fork of Poplar River at.....	87
Woodpile Coulee near.....	71
Whitewater Creek near.....	76
Ionia, Kans., East Limestone Creek near	328
Elm Creek near.....	329
James, Iowa, Floyd River at.....	154
James River near Scotland, S. Dak.....	152
Jefferson River near Silverstar, Mont..	15
Jelm, Wyo., Laramie River near.....	210
Jerome, Mo., Gasconade River at.....	364
Jewell, Kans., West Buffalo Creek at...	320
West Buffalo Creek near.....	319
Judith River Basin, Mont., gaging-station records in.....	52-53
Judith River near Utica, Mont.....	52
Julesburg, Colo., South Platte River at	244
Kane, Wyo., Big Horn River at.....	117
Kansas City, Mo., Missouri River at....	30
Kansas River at Bonner Springs, Kans...	310

	Page
Kansas River at Lecompton, Kans.	309
at Ogden, Kans.	306
at Topeka, Kans.	308
at Wamego, Kans.	307
Kansas River Basin, Nebr.-Kans., gaging-station records in.	299-339
Katzer Drain near Henry, Nebr.	221
Kersey, Colo., South Platte River near.	241
Keytesville, Mo., Chariton River near..	348
La Bonte, Wyo., La Bonte Creek near....	206
Wagonhound Creek near.	205
La Prele Creek near Douglas, Wyo.	202
near Orpha, Wyo.	203
La Salle, Colo., Thompson River near...	263
Lake Cheesman, Colo., Goose Creek above	247
South Platte River above.	234
South Platte River below.	235
Lake George, Colo., South Platte River near.	233
Tarryall Creek near.	246
Lakeview, Mont., Red Rock River near...	9-11
Lamar River near Tower Falls ranger station, Yellowstone National Park.	97
Lamine River at Clifton City, Mo.	349
Laramie River and Pioneer Canal near Woods, Wyo.	211-212
Laramie River at Laramie, Wyo.	213
at Two Rivers, Wyo.	214
near Fort Laramie, Wyo.	216
near Glendevey, Colo.	209
near Jelm, Wyo.	210
near Lookout, Wyo.	215
Lawrence, Kans., Wakarusa River near...	338
Lecompton, Kans., Kansas River at.	309
Lefthand Creek at mouth, at Longmont, Colo.	256
Lemoyne, Nebr., Otter Creek near.	231
Lenore, Wyo., Bull Lake Creek near.	121
Lewellen, Nebr., Blue Creek near.	230
Lewistown, Mont., Big Spring Creek near	53
Lindland, Colo., Michigan River near..	189,190
Owl Creek near.	193
Lindsborg, Kans., Smoky Hill River at..	322
Lingle, Wyo., Rawhide Creek near.	219
Linneus, Mo., Locust Creek near.	346
Lisco, Nebr., North Platte River at....	177
Little Blue River at Waterville, Kans..	334
discharge measurements of.	369
near Endicott, Nebr.	333
Little Grizzly Creek near Hebron, Colo.	186
Little Laramie River at Two Rivers, Wyo.	218
near Filmore, Wyo.	217
Little Missouri River Basin, Mont.-N. Dak., gaging-station records in.	136-137
Little Missouri River near Alzada, Mont.	136
near Watford City, N. Dak.	137
Little Papillion Creek, Nebr., discharge measurements of.	368
Little Piney Creek at Newburg, Mo.	367
Little Pipestone Creek near Whitehall, Mont.	36
Little Sioux River at Correctionville, Iowa.	157-158
at Spencer, Iowa.	155-156
Little Sioux River Basin, Iowa, gaging-station records in.	155-160
Little Wind River near Fort Washakie, Wyo.	122
North Fork of, at Fort Washakie, Wyo.	123
Locust Creek near Linneus, Mo.	346
Lodge Creek at international boundary..	67
Lodgepole Creek at Bushnell, Nebr.	271
near Federal, Wyo.	270
South Fork of, near Federal, Wyo.	272
Logan, Mont., Gallatin River at.	40
Lohman, Mont., Milk River at.	62
Loma, Mont., Missouri River at.	18
Lonetree Creek near Granite Canyon, Wyo.	266
Longmont, Colo., Boulder Creek near....	259
Lefthand Creek at.	256
Lookout, Wyo., Laramie River near.	215
Loup City, Nebr., Middle Loup River at.	276
Loup River at Columbus, Nebr.	279
Lyman, Nebr., Horse Creek near.	222
Lyons, Colo., North St. Vrain Creek near.	253
St. Vrain Creek at.	254
Lyons Coulee at international boundary.	73-74
McDonald Creek at Winnett, Mont.	58
McEachern Creek at international boundary.	81
McGrew, Nebr., Ninemile Drain near.	226
McRae Coulee at international boundary.	68
Madison River Basin, Mont., gaging-station records in.	38
Madison River near West Yellowstone, Mont.	38
Marais des Cygnes River Basin. See Osage River Basin.	
Marias River near Brinkman, Mont.	51
near Shelby, Mont.	50
Marmaton River near Fort Scott, Kans...	356
Martin, Nebr., North Platte River at...	179
Maryville, Mo., One Hundred and Two River near.	298
Matheson Canal near Chinook, Mont.	75
Max, Nebr., Republican River at.	300
Medicine Creek (Grand River Basin) near Galt, Mo.	345
Medicine Creek (Kansas River Basin) near Cambridge, Nebr.	316
Meeteetse, Wyo., Greybull River at.	124
Wood River near.	127
Melrose, Mont., Big Hole River near....	35
Melville, Mont., Sweetgrass Creek above	102
Sweetgrass Creek below.	103
Michigan River at Haworth School, near Lindland, Colo.	189
at Walden, Colo.	191
near Cowdrey, Colo.	192
near Lindland, Colo.	190
Middle Boulder Creek at Nederland, Colo.	257
Middle Loup River at Arcadia, Nebr.	275
at Boelus, Nebr.	277
at Loup City, Nebr.	276
at St. Paul, Nebr.	278
at Sargent, Nebr.	273
near Comstock, Nebr.	274
Miles City, Mont., Yellowstone River at	94
Milk River, Alberta, Milk River at.	60
Milk River at eastern crossing of international boundary.	61
at Lohman, Mont.	62
at Milk River, Alberta.	60
near Vandalia, Mont.	63
North Fork of, above St. Mary Canal, near Browning, Mont.	64
near international boundary.	65
South Fork of, near international boundary.	59
Milk River Basin, Mont.-Alberta-Saskatchewan, gaging-station records in.	59-81
Mill Grove, Mo., Weldon River at.	344
Minatare, Nebr., North Platte River near.	175
Missouri River at Bismarck, N. Dak.	23
at Boonville, Mo.	32
at Fort Benton, Mont.	17
at Hermann, Mo.	33
at Kansas City, Mo.	30
at Loma, Mont.	18
at Nebraska City, Nebr.	28
at Omaha, Nebr.	27
at Pierre, S. Dak.	25
at power-plant ferry near Zortman, Mont.	19
at St. Joseph, Mo.	29
at Waverly, Mo.	31
at Yankton, S. Dak.	26
below Fort Peck Dam, Mont.	20
below Hauser Lake Dam, near Helena, Mont.	16
near Mobridge, S. Dak.	24
near Williston, N. Dak.	22
near Wolf Point, Mont.	21
Missouri River main stem, gaging-station records on.	9-33

	Page
Mitchell, Nebr., North Platte River at.	174
Mobridge, S. Dak., Missouri River near.	24
Monida, Mont., Red Rock River near.....	12
Moorhead, Mont., Powder River at.....	135
Moreau River at Promise, S. Dak.....	140
Morrill, Nebr., Sheep Creek near.....	223
Morrison, Colo., Bear Creek at.....	249
Mosby, Mont., Musselshell River at.....	55
Mud Creek (Loup River Basin), Nebr., discharge measurements of.....	368
Muddy Creek (Sun River Basin) at Vaughn, Mont.....	49
near Power, Mont.....	48
Musselshell River at Harlowton, Mont...	54
at Mosby, Mont.....	55
Musselshell River Basin, Mont., gaging-station records in.....	54-58
Nebraska City, Nebr., Missouri River at	28
Nederland, Colo., Middle Boulder Creek at.....	257
Neligh, Nebr., Elkhorn River at.....	285
Newburg, Mo., Little Piney Creek at....	367
Niangua River near Decaturville, Mo....	360
Niles, Kans., Solomon River at.....	327
Ninemile Drain near McGrew, Nebr.....	226
Niobrara River at Dunlap, Nebr.....	151
Nishnabotna River above Hamburg, Iowa..	287
Nishnabotna River Basin, Iowa, gaging-station records in.....287-289	
Nodaway River at Clarinda, Iowa.....294-295	
near Burlington Junction, Mo.....	296
North Chinook Canal near Havre, Mont...	69
North Loup River at Scotia, Nebr.....	283
at Taylor, Nebr.....	280
near Burwell, Nebr.....	281
near Ord, Nebr.....	282
near St. Paul, Nebr.....	284
North Platte, Nebr., North Platte River at.....	181
South Platte River at.....	245
North Platte River above Pathfinder Reservoir, Wyo.....	165
at Alcova, Wyo.....	167
at Bridgeport, Nebr.....	176
at Douglas, Wyo.....	169
at Lisco, Nebr.....	177
at Martin, Nebr.....	179
at Mitchell, Nebr.....	174
at North Platte, Nebr.....	181
at Oshkosh, Nebr.....	178
at Saratoga, Wyo.....	164
at Torrington, Wyo.....	172
at Wyoming-Nebraska State line.....	173
below Casper, Wyo.....	168
below Guernsey Reservoir, Wyo.....	170
below Pathfinder Reservoir, Wyo.....	166
below Whalen, Wyo.....	171
near Minatare, Nebr.....	175
near Northgate, Colo.....	163
near Sutherland, Nebr.....	180
near Walden, Colo.....	162
North Fork of, near Walden, Colo.....	188
North St. Vrain Creek at Longmont Dam, near Lyons, Colo.....	253
Northgate, Colo., North Platte River near.....	163
Novinger, Mo., Chariton River at.....	347
Oacoma, S. Dak., White River near.....	150
Oak Creek (tributary to Salt Creek), Nebr., discharge measurements of	369
Ogden, Kans., Kansas River at.....	306
Okaboji Lake at Arnolds Park, Iowa.....	160
Omaha, Nebr., Missouri River at.....	27
One Hundred and Two River near Maryville, Mo.....	298
Ord, Nebr., North Loup River near.....	282
Orleans, Iowa, Spirit Lake at.....	159
Orodell, Colo., Boulder Creek near.....	258
Orpha, Wyo., Douglas Canal near.....	204
La Prele Creek near.....	203
Osage River at Osceola, Mo.....	353
at Trading Post, Kans.....	352
discharge measurement of.....	369
near Bagnell, Mo.....	354
near Ottawa, Kans.....	351
near Quenemo, Kans.....	350
near St. Thomas, Mo.....	355
Osage River Basin, Kans.-Mo., gaging-station records in.....350-361	
Osceola, Mo., Osage River at.....	353
Oshkosh, Nebr., North Platte River at..	178
Ottawa, Kans., Osage River near.....	351
Otter Creek near Lemoyne, Nebr.....	231
Overton, Nebr., Platte River near.....	182
Owl Creek near Lindland, Colo.....	193
Pass Creek near Wyola, Mont.....	131
Pathfinder Reservoir, Wyo., North Platte River above.....	165
North Platte River below.....	166
Paxton Spring, Mo., discharge measurement of.....	369
Pierre, S. Dak., Missouri River at.....	25
Piney Creek near Big Piney, Mo.....	366
Pioneer Canal, Laramie River and, near Woods, Wyo.....211-212	
Pipestone Creek Basin, Mont., gaging-station records in.....	36
Platte River Basin, Colo.-Wyo.-Nebr., gaging-station records in.....161-286	
Platte River near Ashland, Nebr.....	185
near Duncan, Nebr.....	184
near Grand Island, Nebr.....	183
near Overton, Nebr.....	182
Platte River Basin, Iowa-Mo., gaging-station records in.....297-298	
Platte River near Agency, Mo.....	297
Platteville, Colo., St. Vrain Creek near.....	255
Pomme de Terre River at Hermitage, Mo..	358
Poplar River Basin, Mont.-Saskatchewan, gaging-station records in.....	83-88
Poplar River, East Fork of, international boundary.....	85
East Fork of, near Scobey, Mont.....	86
Middle Fork of, at international boundary.....	83
near Bredette, Mont.....	84
West Fork of, at international boundary.....	87
near Richland, Mont.....	88
Powder River at Arvada, Wyo.....	134
at Moorhead, Mont.....	135
Power, Mont., Muddy Creek near.....	48
Prickly Pear Creek Basin, Mont., gaging-station records in.....	42-43
Promise, S. Dak., Moreau River at.....	140
Publications on stream flow by Geological Survey.....	4
by State agencies.....	7
information concerning.....	3-7
Pumpkin Creek near Bridgeport, Nebr....	229
Quenemo, Kans., Osage River near.....	350
Rand, Colo., Illinois Creek near.....	194
Willow Creek near.....	196
Randolph, Kans., Big Blue River at.....	332
Rapid Creek at Big Bend, S. Dak.....	143
Rawhide Creek near Lingle, Wyo.....	219
Red Lodge, Mont., Rock Creek near.....	108
West Fork of Rock Creek near.....110,111	
Red Lodge Creek above Cooney Reservoir, near Boyd, Mont.....	112
near Boyd, Mont.....	113
Red Oak, Iowa, East Nishnabotna River at.....288-289	
Red Rock River at Kennedy ranch, near Lakeview, Mont.....	10-11
below Red Rock Reservoir, near Monida, Mont.....	12
near Lakeview, Mont.....	9
Red Vermillion Creek near Wamego, Kans.	335
Red Willow Creek near Bayard, Nebr.....	228
Redwater Creek (directly tributary to Missouri River) at Circle, Mont..	82
Redwater Creek (tributary to Belle Fourche River) near Beulah, Wyo..	146
Republican River at Clay Center, Kans..	305
at Culbertson, Nebr.....	301
at Max, Nebr.....	300
at Scandia, Kans.....	304
near Bloomington, Nebr.....	302
near Hardy, Nebr.....	303
North Fork of, at Colorado-Nebraska State line.....	311
Rich Fountain, Mo., Gasconade River near.....	365
Richland, Mont., West Fork of Poplar River near.....	88
Rimini, Mont., Tenmile Creek near.....	42

	Page
Riverton, Wyo., Wind River at	115
Roaring Fork near Walden, Colo	187
Rock Creek (Milk River Basin) at international boundary	79
Rock Creek (Yellowstone River Basin) at Rockvale, Mont	109
near Red Lodge, Mont	108
West Fork of, below Basin Creek, near Red Lodge, Mont	110
West Fork of, near Red Lodge, Mont	111
Rock River, Iowa, discharge measurement of	368
Rockvale, Mont., Rock Creek at	109
Rosebud Creek near Absarokee, Mont	105
Roulfs, Mo., discharge measurement of	369
Ruby River near Alder, Mont	34
Running Dutchman Canal near Careyhurst, Wyo	200
Run-off in inches, definition of	1
Sac River near Stockton, Mo	357
Saco, Mont., Frenchman Canal near	78
St. Joseph, Mo., Missouri River at	29
St. Paul, Nebr., Middle Loup River at	278
North Loup River near	284
St. Thomas, Mo., Osage River near	355
St. Vrain Creek at Lyons, Colo	254
at mouth, near Platteville, Colo	255
St. Xavier, Mont., Big Horn River near	118
Saline River at Tescott, Kans	325
near Wilson, Kans	324
Sante Fe Spring, Mo., discharge measurement of	369
Sappa Creek near Beaver City, Nebr	318
Saratoga, Wyo., North Platte River at	164
Sargent, Nebr., Middle Loup River at	273
Scandia, Kans., Republican River at	304
Scobey, Mont., East Fork of Poplar River near	86
Scotia, Nebr., North Loup River at	283
Scotland, S. Dak., James River near	152
Scottsbluff, Nebr., Winter Creek near	224
Second-feet per square mile, definition of	1
Second-foot, definition of	1
Second-foot-day, definition of	1
Sheep Creek near Morrill, Nebr	223
Shelby, Mont., Marias River near	50
Sheridan, Wyo., Goose Creek near	133
Sheridan Junction, Colo., Bear Creek at	250
Shields River at Clyde Park, Mont	100
near Wilsall, Mont	99
Shoshone Reservoir, Wyo., Shoshone River below	129
Shoshone River at Byron, Wyo	130
below Shoshone Reservoir, Wyo	129
Sidney, Mont., Yellowstone River near	95
Silverstar, Mont., Jefferson River near	15
Smith River above Fivemile Creek, near White Sulphur Springs, Mont	45
Smoky Hill River at Ellsworth, Kans	321
at Enterprise, Kans	323
at Lindsborg, Kans	322
Soldier Creek near Topeka, Kans	336
Solomon River at Beloit, Kans	326
at Niles, Kans	327
South Boulder Creek near Eldorado Springs, Colo	260
South Grand River near Brownington, Mo	359
South Loup River, Nebr., discharge measurements of	368
South Platte, Colo., North Fork of South Platte River at	248
South Platte River at	236
South Platte River above Lake Cheesman, Colo	234
at Balzac, Colo	243
at Denver, Colo	238
at Fort Lupton, Colo	240
at Henderson, Colo	239
at Julesburg, Colo	244
at North Platte, Nebr	245
at South Platte, Colo	236
at Sublette, Colo	242
at Waterton, Colo	237
below Lake Cheesman, Colo	235
near Kersey, Colo	241
near Lake George, Colo	233

	Page
South Platte River, North Fork of, at South Platte, Colo	248
Spencer, Iowa, Little Sioux River at	155-156
Spirit Lake at Orleans, Iowa	159
Stage-discharge relation, definition of	1
Stillwater River near Absarokee, Mont	104
Stockton, Mo., Sac River near	357
Stranger Creek near Tonganoxie, Kans	339
Sublette, Colo., South Platte River at	242
Sumner, Mo., Grand River near	341
Sun River Basin, Mont., gaging-station records in	46-49
Sun River near Vaughn, Mont	47
North Fork of, near Augusta, Mont	46
Sutherland, Nebr., North Platte River near	180
Sweetgrass Creek above Melville, Mont	102
below Melville, Mont	103
Tarkio River at Fairfax, Mo	291
Tarkio River Basin, Iowa-Mo., gaging-station records in	290-293
Tarryall Creek near Lake George, Colo	246
Taylor, Nebr., North Loup River at	280
Tenmile Creek near Helena, Mont	43
near Rimini, Mont	42
Terms, definition of	1
Tescott, Kans., Saline River at	325
Thermopolis, Wyo., Big Horn River at	116
Thompson River (Grand River Basin) at Trenton, Mo	343
Thompson River (Platte River Basin) at mouth, near La Salle, Colo	263
below power-house, near Drake, Colo	262
near Estes Park, Colo	261
Timber Creek, Nebr., discharge measurements of	368
Tonganoxie, Kans., Stranger Creek near	339
Tongue River near Decker, Mont	132
Topeka, Kans., Kansas River at	308
Soldier Creek near	336
Torrington, Wyo., Cherry Creek Drain near	220
North Platte River at	172
Tower Creek at Tower Falls, Yellowstone National Park	96
Trading Post, Kans., Osage River at	352
Trenton, Mo., Thompson River at	343
Two Rivers, Wyo., Laramie River at	214
Little Laramie River at	218
Upper Clear Creek, Nebr., discharge measurements of	369
Utica, Mont., Judith River near	52
Valley Falls, Kans., Delaware River at	337
Vandalia, Mont., Milk River near	63
Vaughn, Mont., Muddy Creek at	49
Sun River near	47
Wagonhound Creek near La Bonte, Wyo	205
Wahoo Creek, Nebr., discharge measurements of	369
Wakarusa River near Lawrence, Kans	338
Wakpala, S. Dak., Grand River near	139
Walden, Colo., Grizzly Creek near	161
Illinois Creek at	195
Michigan River at	191
North Fork of North Platte River near	188
North Platte River near	162
Roaring Fork near	187
Wallum, Mont., Careless Creek at	56
Wamego, Kans., Kansas River at	307
Red Vermillion Creek near	335
Wasta, S. Dak., Cheyenne River near	141
Waterloo, Nebr., Elkhorn River at	286
Waterton, Colo., South Platte River at	237
Waterville, Kans., Little Blue River at	334
Watford City, N. Dak., Little Missouri River near	137
Waverly, Mo., Missouri River at	31
Waynesville, Mo., Gasconade River near	363
Weldon River at Mill Grove, Mo	344
discharge measurements of	369
Wendover, Wyo., Cottonwood Creek at	208
West Buffalo Creek at Jewell, Kans	320
near Jewell, Kans	319
West Tarkio Creek near Westboro, Mo	292-293
West Yellowstone, Mont., Madison River near	38
Westboro, Mo., West Tarkio Creek near	292-293