

Magnitude and Frequency of Floods in the United States

Part 7. Lower Mississippi River Basin

By JAMES L. PATTERSON

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UNITED STATES DEPARTMENT OF THE INTERIOR

STEWART L. UDALL, *Secretary*

GEOLOGICAL SURVEY

Thomas B. Nolan, *Director*

CONTENTS

	Page
Abstract.....	1
Introduction.....	1
Acknowledgments.....	1
Description of the area.....	3
River basins.....	3
Topography.....	3
Climate.....	4
Flood-frequency analysis.....	4
Records available.....	4
Records not used in regional analysis.....	5
Method.....	36
Flood frequency at a gaging station.....	36
Types of flood series.....	36
Flood-frequency curves.....	37
Regional flood frequency.....	37
Mean annual flood.....	38
Adjustment to base period.....	38
Test for homogeneity.....	38
Composite frequency curves.....	38
Mean annual flood relation.....	39
Application of flood-frequency data.....	41
Regional application.....	41
Special application.....	46
Mississippi River.....	48
Limitations.....	52
Gaging-station records.....	54
Mississippi River at St. Louis, Mo.....	56
Meramec River basin.....	57
Green Acre Branch near Rolla, Mo.....	57
Behmke Branch near Rolla, Mo.....	58
Dry Fork near St. James, Mo.....	59
Meramec River near Steelville, Mo.....	59
Meramec River near Sullivan, Mo.....	61
Bourbeuse River near St. James, Mo.....	62
Lanes Fork near Vichy, Mo.....	62
Bourbeuse River near Spring Bluff, Mo.....	63
Bourbeuse River at Union, Mo.....	64
Meramec River at Robertsville, Mo.....	65
Big River near DeSoto, Mo.....	65
Big River at Byrnesville, Mo.....	66
Meramec River near Eureka, Mo.....	67
Mississippi River main stem.....	68
Mississippi River at Chester, Ill.....	68
Headwater diversion channel basin.....	69
Castor River at Zalma, Mo.....	69
Mississippi River at Thebes, Ill.....	70

	Page
Gaging-station records—Continued	
Mayfield Creek basin.....	71
Perry Creek near Mayfield, Ky.....	71
Mayfield Creek at Lovelaceville, Ky.....	72
Mississippi River at Columbus, Ky.....	73
Obion Creek basin.....	74
Obion Creek at Pryorsburg, Ky.....	74
Bayou du Chien basin.....	74
Bayou du Chien near Clinton, Ky.....	74
Mississippi River at Hickman, Ky.....	75
Obion River basin.....	76
South Fork Obion River near Greenfield, Tenn.....	76
South Fork Obion River near Kenton, Tenn.....	77
Rutherford Fork Obion River near Bradford, Tenn.....	77
Rutherford Fork Obion River near Kenton, Tenn.....	78
North Fork Obion River at U.S. Highway 45E near Martin, Tenn.....	79
North Fork Obion River near Union City, Tenn.....	80
North Fork Obion River near Rives, Tenn.....	81
Obion River at Obion, Tenn.....	81
Obion River near Bogota, Tenn.....	83
Reelfoot Creek near Samburg, Tenn.....	84
South Fork Forked Deer River at Jackson, Tenn.....	84
South Fork Forked Deer River at Chestnut Bluff, Tenn.....	85
South Fork Forked Deer River near Halls, Tenn.....	86
South Fork Forked Deer River at Yellow Bluff near Fowlkes, Tenn.....	87
North Fork Forked Deer River at Trenton, Tenn.....	88
Middle Fork Forked Deer River near Alamo, Tenn.....	89
North Fork Forked Deer River at Dyersburg, Tenn.....	90
Mississippi River at Fulton, Tenn.....	91
Hatchie River basin.....	92
Hatchie River near Walnut, Miss.....	92
Hatchie River near Pocahontas, Tenn.....	92
Tuscumbia River Canal near Corinth, Miss.....	93
Hatchie River at Pocahontas, Tenn.....	93
Hatchie River at Serles, Tenn.....	94
Hatchie River at Bolivar, Tenn.....	95
Hatchie River near Stanton, Tenn.....	96
Hatchie River at Rialto, Tenn.....	97
Loosahatchie River basin.....	98
Loosahatchie River at Brunswick, Tenn.....	98
Wolf River basin.....	99
Wolf River at Rossville, Tenn.....	99
Wolf River at Raleigh, Tenn.....	100
Mississippi River main stem.....	101
Mississippi River at Memphis, Tenn.....	101
St. Francis River basin.....	102
St. Francis River near Patterson, Mo.....	102
St. Francis River at Wappapello, Mo.....	103
St. Francis River at St. Francis, Ark.....	104
St. Francis River at Lake City, Ark.....	105
Little River ditch 81 near Kennett, Mo.....	105

Gaging-station records—Continued

	Page
St. Francis River basin—Continued	
Little River ditch 1 near Kennett, Mo.....	106
Little River ditch 251 near Lilbourn, Mo.....	107
Castor River at Aquilla, Mo.....	107
Little River ditch 1 near Morehouse, Mo.....	108
Little River ditch 251 near Kennett, Mo.....	108
Little River ditch 259 near Kennett, Mo.....	109
Big Lake Outlet near Manila, Ark.....	109
Right Hand Chute of Little River at Rivervale, Ark.....	110
St. Francis River floodway near Marked Tree, Ark.....	110
St. Francis River at Marked Tree, Ark.....	111
Tyronza River near Tyronza, Ark.....	111
St. Francis River at Parkin, Ark.....	112
St. Francis Bay at Riverfront, Ark.....	112
L'Anguille River at Palestine, Ark.....	113
Mississippi River main stem.....	113
Mississippi River at Helena, Ark.....	113
White River basin.....	115
West Fork White River at Greenland, Ark.....	115
West Fork White River near Fayetteville, Ark.....	115
War Eagle Creek near Hindsville, Ark.....	116
White River near Rogers, Ark.....	116
White River at Beaver, Ark.....	117
Kings River near Berryville, Ark.....	118
James River below Battlefield, Mo.....	119
Wilson Creek near Springfield, Mo.....	119
James River at Galena, Mo.....	120
White River near Reeds Spring, Mo.....	121
White River near Branson, Mo.....	122
White River near Flippin, Ark.....	123
Buffalo River near St. Joe, Ark.....	124
Buffalo River near Rush, Ark.....	125
North Fork River near Tecumseh, Mo.....	126
Bryant Creek near Tecumseh, Mo.....	127
North Fork River at Tecumseh, Mo.....	127
North Fork River near Henderson, Ark.....	128
North Fork River at Norfork Dam near Norfork, Ark.....	129
White River at Calico Rock, Ark.....	130
White River at Batesville, Ark.....	131
Black River near Annapolis, Mo.....	132
Black River at Leeper, Mo.....	133
Black River at Poplar Bluff, Mo.....	134
Black River near Corning, Ark.....	135
Big Creek near Yukon, Mo.....	137
Jacks Fork at Eminence, Mo.....	137
Current River near Eminence, Mo.....	139
Current River at Van Buren, Mo.....	140
Current River at Doniphan, Mo.....	141
Little Black River near Fairdealing, Mo.....	143
Black River at Pocahontas, Ark.....	143
Spring River at Imboden, Ark.....	144
Eleven Point River near Thomasville, Mo.....	145

Gaging-station records—Continued

White River basin—Continued

	Page
Eleven Point River near Bardley, Mo.....	146
Eleven Point River near Ravenden Springs, Ark.....	147
Black River at Black Rock, Ark.....	148
Strawberry River near Evening Shade, Ark.....	149
Piney Fork Strawberry River at Evening Shade, Ark.....	150
Strawberry River near Poughkeepsie, Ark.....	151
White River at Newport, Ark.....	152
White River near Augusta, Ark.....	153
Middle Fork Little Red River at Shirley, Ark.....	153
South Fork Little Red River near Clinton, Ark.....	155
Little Red River near Heber Springs, Ark.....	156
White River at Georgetown, Ark.....	157
White River at Des Arc, Ark.....	157
White River at DeValls Bluff, Ark.....	158
Cache River at Patterson, Ark.....	159
Bayou DeView at Morton, Ark.....	159
White River at Clarendon, Ark.....	160
Lagrué Bayou near Stuttgart, Ark.....	161
Arkansas River basin.....	162
East Fork Arkansas River near Leadville, Colo.....	162
Tennessee Fork near Leadville, Colo.....	162
Lake Fork above Sugar Loaf Reservoir, Colo.....	163
Lake Fork below Sugar Loaf Reservoir, Colo.....	163
Halfmoon Creek near Malta, Colo.....	164
Lake Creek above Twin Lakes Reservoir, Colo.....	164
Lake Creek below Twin Lakes Reservoir, Colo.....	165
Arkansas River at Granite, Colo.....	165
Clear Creek above Clear Creek Reservoir, Colo.....	166
Clear Creek below Clear Creek Reservoir, Colo.....	167
Cottonwood Creek below Hot Springs, near Buena Vista, Colo.....	167
Chalk Creek (upper station) near St. Elmo, Colo.....	168
Chalk Creek near St. Elmo, Colo.....	168
Chalk Creek near Nathrop, Colo.....	168
Arkansas River at Salida, Colo.....	169
South Arkansas River at Poncha, Colo.....	170
Poncha Creek at Poncha, Colo.....	170
South Arkansas River near Salida, Colo.....	170
Arkansas River at Parkdale, Colo.....	171
Grape Creek near Westcliffe, Colo.....	171
Arkansas River at Canon City, Colo.....	172
Oil Creek near Canon City, Colo.....	173
Arkansas River at Portland, Colo.....	173
Little Beaver Creek near Pikes Peak, Colo.....	174
Sackett Creek near Pikes Peak, Colo.....	174
Arkansas River near Pueblo, Colo.....	175
North Catamount Creek near Green Mountain Falls, Colo.....	176
South Cascade Creek at Cascade, Colo.....	176
Lion Creek near Halfway, Colo.....	177
Sheep Creek near Halfway, Colo.....	177
Monument Creek at Pikeview, Colo.....	178

Gaging-station records—Continued

Arkansas River basin—Continued

Page

Fountain Creek near Fountain, Colo.....	178
Fountain Creek at Pueblo, Colo.....	179
St. Charles River at San Isabel, Colo.....	180
St. Charles River near Pueblo, Colo.....	180
Arkansas River near Avondale, Colo.....	181
Chico Creek near North Avondale, Colo.....	181
Huerfano River at Manzanares Crossing, near Redwing, Colo....	181
Huerfano River near Badito, Colo.....	182
Huerfano River at Badito, Colo.....	183
Huerfano River near Mustang, Colo.....	183
Cucharas River at Boyd Ranch near La Veta, Colo.....	184
Cucharas River near La Veta, Colo.....	184
Huerfano River below Huerfano Valley Dam, near Undercliffe, Colo.....	185
Arkansas River near Nepesta, Colo.....	186
Arkansas River at Nepesta, Colo.....	187
Apishapa River near Aguilar, Colo.....	187
Apishapa River near White Rock, Colo.....	188
Apishapa River near Fowler, Colo.....	189
Arkansas River near Rocky Ford, Colo.....	190
Timpas Creek near Rocky Ford, Colo.....	190
Arkansas River at La Junta, Colo.....	191
Horse Creek near Sugar City, Colo.....	191
Arkansas River at Las Animas, Colo.....	192
Purgatoire River at Trinidad, Colo.....	192
Purgatoire River near Alfalfa, Colo.....	194
Purgatoire River at Ninemile Dam near Higbee, Colo.....	195
Purgatoire River at Highland Dam near Las Animas, Colo.....	196
Purgatoire River near Las Animas, Colo.....	197
Rule Creek near Caddoa, Colo.....	198
Arkansas River below John Martin Reservoir, Colo.....	198
Caddoa Creek at Caddoa, Colo.....	199
Arkansas River at Lamar, Colo.....	199
Arkansas River at Holly, Colo.....	200
Wild Horse Creek at Holly, Colo.....	201
Arkansas River near Coolidge, Kans.....	202
Arkansas River at Syracuse, Kans.....	202
Arkansas River at Garden City, Kans.....	204
Arkansas River at Dodge City, Kans.....	206
Arkansas River near Kinsley, Kans.....	207
Arkansas River at Larned, Kans.....	208
Pawnee River near Larned, Kans.....	209
Arkansas River at Great Bend, Kans.....	210
Arkansas River at Hutchinson, Kans.....	212
Cow Creek near Lyons, Kans.....	213
Arkansas River near Wichita, Kans.....	213
Little Arkansas River at Valley Center, Kans.....	214
Arkansas River at Wichita, Kans.....	216
North Fork Ninnescah River near Cheney, Kans.....	218
South Fork Ninnescah River near Murdock, Kans.....	219

Gaging-station records—Continued

Arkansas River basin—Continued

	Page
Ninnescah River near Peck, Kans.....	219
Arkansas River at Arkansas City, Kans.....	221
Whitewater River at Augusta, Kans.....	223
Walnut River at Winfield, Kans.....	223
Salt Fork Arkansas River near Alva, Okla.....	225
Medicine Lodge River near Kiowa, Kans.....	225
Salt Fork Arkansas River near Cherokee, Okla.....	226
Salt Fork Arkansas River near Jet, Okla.....	227
Salt Fork Arkansas River at Tonkawa, Okla.....	228
Chikaskia River near Corbin, Kans.....	229
Chikaskia River near Blackwell, Okla.....	229
Arkansas River at Ralston, Okla.....	230
Black Bear Creek at Pawnee, Okla.....	232
Cimarron River near Guy, N. Mex.....	233
Cimarron River near Folsom, N. Mex.....	234
Carrizozo Creek near Kenton, Okla.....	234
Cimarron River near Kenton, Okla.....	232
Cimarron River above Ute Creek, near Boise City, Okla.....	235
Cimarron River near Boise City, Okla.....	236
Cimarron River near Satanta, Kans.....	236
Cimarron River near Liberal, Kans.....	237
Cimarron River near Mocane, Okla.....	237
Crooked Creek near Nye, Kans.....	238
Cimarron River near Waynoka, Okla.....	239
Preacher Creek near Dover, Okla.....	240
Turkey Creek near Drummond, Okla.....	241
Bluff Creek above Lake Hefner, near Oklahoma City, Okla.....	241
Cottonwood Creek at Guthrie, Okla.....	242
Cimarron River near Guthrie, Okla.....	242
Skeleton Creek near Lovell, Okla.....	243
Cimarron River at Perkins, Okla.....	244
Council Creek near Stillwater, Okla.....	245
Cimarron River at Oilton, Okla.....	246
Cimarron River at Mannford, Okla.....	247
Arkansas River at Tulsa, Okla.....	248
Polecat Creek below Heyburn Reservoir, near Heyburn, Okla.....	249
Verdigris River near Coyville, Kans.....	250
Verdigris River near Altoona, Kans.....	251
Fall River near Eureka, Kans.....	252
Otter Creek at Climax, Kans.....	252
Fall River near Fall River, Kans.....	253
Fall River at Fredonia, Kans.....	255
Elk River near Elk City, Kans.....	256
Verdigris River at Independence, Kans.....	257
Verdigris River near Liberty, Kans.....	259
Verdigris River near Lenapah, Okla.....	259
Verdigris River near Segeeyah, Okla.....	260
Caney River near Elgin, Kans.....	261
Caney River near Hulah, Okla.....	262
Caney River near Copan, Okla.....	263

Gaging-station records—Continued

Arkansas River basin—Continued

	Page
Caney River at Bartlesville, Okla.....	264
Caney River near Ramona, Okla.....	265
Verdigris River near Claremore, Okla.....	266
Bird Creek at Avant, Okla.....	267
Hominy Creek near Skiatook, Okla.....	267
Bird Creek near Sperry, Okla.....	268
Bird Creek near Owasso, Okla.....	269
Verdigris River near Inola, Okla.....	270
Neosho River at Council Grove, Kans.....	271
Cottonwood River near Marion, Kans.....	272
Cedar Creek near Cedar Point, Kans.....	273
Cottonwood River at Elmdale, Kans.....	274
Middle Creek near Elmdale, Kans.....	274
Cottonwood River at Cottonwood Falls, Kans.....	275
Neosho River at Strawn, Kans.....	277
Neosho River near Iola, Kans.....	278
Neosho River near Parsons, Kans.....	281
Lightning Creek near McCune, Kans.....	282
Labette Creek near Oswego, Kans.....	283
Neosho River near Commerce, Okla.....	284
Stahl Creek near Miller, Mo.....	285
Spring River near Waco, Mo.....	285
Turkey Creek at Joplin, Mo.....	286
Shoal Creek above Joplin, Mo.....	287
Spring River near Quapaw, Okla.....	288
Lost Creek at Seneca, Mo.....	289
Neosho River near Wyandotte, Okla.....	290
Elk River near Tiff City, Mo.....	290
Neosho River near Grove, Okla.....	291
Neosho River near Langley, Okla.....	292
Big Cabin Creek near Big Cabin, Okla.....	293
Neosho River near Chouteau, Okla.....	294
Pryor Creek near Pryor, Okla.....	295
Neosho River near Wagoner, Okla.....	296
Neosho River below Fort Gibson Reservoir, near Fort Gibson, Okla.....	297
Arkansas River near Muskogee, Okla.....	297
Arkansas River at Webbers Falls, Okla.....	299
Osage Creek near Elm Springs, Ark.....	299
Illinois River near Tahlequah, Okla.....	300
Barren Fork at Eldon, Okla.....	301
Illinois River near Gore, Okla.....	302
Dirty Creek near Warner, Okla.....	302
Canadian River near Hebron, N. Mex.....	303
Raton Creek at Raton, N. Mex.....	304
Chicorica Creek near Hebron, N. Mex.....	304
Vermejo River near Dawson, N. Mex.....	305
Moreno Creek at Eagle Nest, N. Mex.....	306
Cieneguilla Creek near Eagle Nest, N. Mex.....	307
Six Mile Creek near Eagle Nest, N. Mex.....	308

Gaging-station records—Continued

Arkansas River basin—Continued

	Page
Cimarron Creek below Eagle Nest Dam, N. Mex.....	309
Cimarron Creek at Ute Park, N. Mex.....	309
Cimarron Creek near Cimarron, N. Mex.....	310
Ponil Creek near Cimarron, N. Mex.....	310
Rayado Creek at Sauble Ranch near Cimarron, N. Mex.....	311
Cimarron Creek at Springer, N. Mex.....	313
Canadian River near Taylor Springs, N. Mex.....	314
Canadian River tributary near Mills, N. Mex.....	315
Canadian River near Roy, N. Mex.....	315
Rio Agua Negra near Holman, N. Mex.....	316
Mora River at La Cueva, N. Mex.....	317
Mora River near Golondrinas, N. Mex.....	318
Coyote Creek below Black Lake, N. Mex.....	319
Coyote Creek near Golondrinas, N. Mex.....	320
Dog Creek near Shoemaker, N. Mex.....	321
Mora River near Shoemaker, N. Mex.....	322
Canadian River near Sanchez, N. Mex.....	323
Canadian River near Bell Ranch, N. Mex.....	324
Conchas River at Variadero, N. Mex.....	325
Canadian River below Conchas Dam, N. Mex.....	326
Ute Creek near Bueyeros, N. Mex.....	327
Ute Creek near Logan, N. Mex.....	327
Canadian River at Logan, N. Mex.....	328
Plaza Larga Creek tributary near Ragland, N. Mex.....	329
Canadian River near Amarillo, Tex.....	330
Canadian River near Canadian, Tex.....	331
Canadian River at Bridgeport, Okla.....	333
Canadian River near Newcastle, Okla.....	333
Little River below Hog Creek, near Norman, Okla.....	334
Little River near Tecumseh, Okla.....	334
Little River near Sasakwa, Okla.....	335
Canadian River at Calvin, Okla.....	336
Gaines Creek near Krebs, Okla.....	338
North Canadian River near Guymon, Okla.....	339
Coldwater Creek near Hardesty, Okla.....	340
Palo Duro Creek near Spearman, Tex.....	340
North Canadian River at Beaver, Okla.....	341
North Canadian River near Fort Supply, Okla.....	342
Wolf Creek at Lipscomb, Tex.....	343
Wolf Creek near Shattuck, Okla.....	344
Wolf Creek near Fargo, Okla.....	345
Wolf Creek near Fort Supply, Okla.....	346
North Canadian River at Woodward, Okla.....	347
North Canadian River near Seiling, Okla.....	348
North Canadian River at Canton, Okla.....	349
North Canadian River near El Reno, Okla.....	350
North Canadian River below Lake Overholser, near Oklahoma City, Okla.....	351
North Canadian River near Oklahoma City, Okla.....	352
North Canadian River near Wetumka, Okla.....	353

Gaging-station records—Continued

	Page
Arkansas River basin—Continued	
Bellcow Creek at Chandler, Okla.....	354
Deep Fork near Beggs, Okla.....	354
Deep Fork near Dewar, Okla.....	355
Canadian River near Whitefield, Okla.....	356
Sallisaw Creek near Sallisaw, Okla.....	357
San Bois Creek near Keota, Okla.....	358
Arkansas River near Sallisaw, Okla.....	359
Poteau River at Cauthron, Ark.....	360
Fourche Maline near Red Oak, Okla.....	361
Poteau River near Wister, Okla.....	362
Poteau River at Poteau, Okla.....	363
Arkansas River at Fort Smith, Ark.....	364
Cove Creek near Lee Creek, Ark.....	365
Lee Creek near Van Buren, Ark.....	365
Arkansas River at Van Buren, Ark.....	366
Frog Bayou near Mountainburg, Ark.....	367
Frog Bayou at Rudy, Ark.....	368
Mulberry River near Mulberry, Ark.....	369
Arkansas River at Ozark, Ark.....	369
Spadra Creek at Clarksville, Ark.....	370
Piney Creek near Dover, Ark.....	370
Illinois Bayou near Scottsville, Ark.....	371
Arkansas River at Dardanelle, Ark.....	372
Petit Jean Creek near Booneville, Ark.....	373
Petit Jean Creek near Waveland, Ark.....	375
Dutch Creek at Waltreak, Ark.....	376
Petit Jean Creek at Danville, Ark.....	376
Arkansas River near Morrilton, Ark.....	377
Fourche La Fave River near Gravelly, Ark.....	378
Fourche La Fave River near Nimrod, Ark.....	379
South Fourche La Fave River near Hollis, Ark.....	380
Arkansas River at Little Rock, Ark.....	381
Arkansas River at Pine Bluff, Ark.....	383
Bayou Meto near North Little Rock, Ark.....	383
Bayou Meto near Lonoke, Ark.....	384
Bayou Meto near Stuttgart, Ark.....	384
Crooked Creek near Humphrey, Ark.....	385
Mississippi River main stem.....	385
Mississippi River at Arkansas City, Ark.....	385
Yazoo River basin.....	386
Cane Creek near New Albany, Miss.....	386
Hell Creek near New Albany, Miss.....	387
Tallahatchie River at Etta, Miss.....	387
Fice Creek near Etta, Miss.....	388
Cypress Creek near Etta, Miss.....	389
North Tippah Creek near Ripley, Miss.....	389
Tippah Creek near Potts Camp, Miss.....	390
Clear Creek near Oxford, Miss.....	390
Tallahatchie River at Sardis Dam near Sardis, Miss.....	391
Tallahatchie River near Sardis, Miss.....	392
Tallahatchie River at Batesville, Miss.....	392

Gaging-station records—Continued

Yazoo River basin—Continued

	Page
Tallahatchie River (Panola-Quitman floodway) near Batesville, Miss.....	393
Tallahatchie River (Panola-Quitman floodway) near Crowder, Miss.....	393
Yocona River near Oxford, Miss.....	394
Otuckalofa Creek at Water Valley, Miss.....	394
Yocona River at Enid Dam near Enid, Miss.....	395
Long Creek at Courtland, Miss.....	395
Coldwater River near Lewisburg, Miss.....	396
Pigeonroost Creek near Byhalia, Miss.....	396
Pigeonroost Creek near Lewisburg, Miss.....	397
Coldwater River near Coldwater, Miss.....	397
Hickahala Creek near Senatobia, Miss.....	398
Senatobia Creek near Senatobia, Miss.....	399
Coldwater River at Arkabutla Dam, near Arkabutla, Miss.....	399
Coldwater River at Prichard, Miss.....	400
Coldwater River at Savage, Miss.....	400
Arkabutla Creek near Arkabutla, Miss.....	401
Arkabutla Creek near Sarah, Miss.....	402
Coldwater River (Pompey ditch) near Sledge, Miss.....	402
Coldwater River (old channel) near Birdie, Miss.....	403
Yazoo Pass near Lula, Miss.....	403
Coldwater River near Darling, Miss.....	404
David Bayou near Sledge, Miss.....	404
Coldwater River at Marks, Miss.....	405
Bobo Bayou at Bobo, Miss.....	405
Tallahatchie River near Lambert, Miss.....	406
Tallahatchie River at Shine Turner Bridge, near Lambert, Miss.....	406
Cassidy Bayou near Marks, Miss.....	407
Cassidy Bayou at Webb, Miss.....	407
Tallahatchie River at Swan Lake, Miss.....	408
Tallahatchie River (cutoff) near Glendora, Miss.....	409
Tallahatchie River at Phillip, Miss.....	409
Tallahatchie River near Minter City, Miss.....	409
Tallahatchie River at Money, Miss.....	410
Yalobusha River at Calhoun City, Miss.....	410
Yalobusha River at Graysport, Miss.....	411
Skuna River at Bruce, Miss.....	412
Skuna River near Coffeenville, Miss.....	412
Yalobusha River at Grenada Dam, near Grenada, Miss.....	413
Yalobusha River at Grenada, Miss.....	414
Askalmore Creek near Charleston, Miss.....	414
Yalobusha River at Whaley, Miss.....	415
Thompson Creek at McCarley, Miss.....	415
Big Sand Creek at Carrollton, Miss.....	416
Big Sand Creek at Valley Hill, Miss.....	416
Yazoo River at Greenwood, Miss.....	417
Yazoo River at Belzoni, Miss.....	418
Fannegusha Creek near Howard, Miss.....	419
Piney Creek near Yazoo City, Miss.....	419

Gaging-station records—Continued

Yazoo River basin—Continued

Page

Yazoo River near Yazoo City, Miss.....	420
Yazoo River at Sartartia, Miss.....	421
Sunflower River at Clarksdale, Miss.....	421
Sunflower River at Harvey's Chapel, Miss.....	422
Hushpuckena River at Hushpuckena, Miss.....	422
Sunflower River near Lombardy, Miss.....	423
Sunflower River at Sunflower, Miss.....	423
Quiver River near Doddsville, Miss.....	424
Sunflower River near Moorhead, Miss.....	425
Bogue Phalia near Leland, Miss.....	425
Bogue Phalia cutoff near Leland, Miss.....	426
Sunflower River at Little Callao Landing, Miss.....	426
Sunflower River near Anguilla, Miss.....	427
Sunflower River at Holly Bluff, Miss.....	427
Deer Creek near Hollandale, Miss.....	428
Yazoo River at Redwood, Miss.....	428
Steele Bayou near Rolling Fork, Miss.....	429
Muddy Bayou at Eagle Lake, Miss.....	429
Mississippi River main stem.....	430
Mississippi River near Vicksburg, Miss.....	430
Four Mile Bayou basin.....	431
Durden Creek near Vicksburg, Miss.....	431
Big Black River basin.....	432
Mulberry Creek at Kilmichael, Miss.....	432
Big Black River near Kilmichael, Miss.....	432
Zilpha Creek near Kosciusko, Miss.....	433
Big Black River at West, Miss.....	433
Big Black River at Pickens, Miss.....	434
Doaks Creek near Canton, Miss.....	435
Bear Creek near Madison, Miss.....	435
Bear Creek at Highway 51, near Canton, Miss.....	436
Tilda Bogue near Canton, Miss.....	436
Bachelor Creek at Canton, Miss.....	437
Bear Creek near Canton, Miss.....	437
Big Black River near Bentonia, Miss.....	437
Bogue Chitto near Flora, Miss.....	438
Big Black River near Bovina, Miss.....	438
Clear Creek near Bovina, Miss.....	439
Big Black River near Hankinson, Miss.....	440
Bayou Pierre basin.....	440
Bayou Pierre near Carpenter, Miss.....	440
Bayou Pierre near Port Gibson, Miss.....	441
St. Catherine Creek basin.....	441
St. Catherine Creek near Natchez, Miss.....	441
Homochitto River basin.....	442
Homochitto River at Eddiceton, Miss.....	442
McCall Creek near Lucien, Miss.....	443
Homochitto River near Bude, Miss.....	443
Homochitto River at Rosetta, Miss.....	444
Second Creek at Sibley, Miss.....	444
Homochitto River near Doloroso, Miss.....	445

Gaging-station records—Continued	Page
Buffalo River basin.....	445
Buffalo River near Woodville, Miss.....	445
Red River basin.....	446
Tierra Blanca Creek at reservoir near Umbarger, Tex.....	446
Prairie Dog Town Fork Red River near Canyon, Tex.....	447
North Tule Draw at reservoir, near Tulia, Tex.....	447
Prairie Dog Town Fork Red River near Brice, Tex.....	448
Prairie Dog Town Fork Red River near Estelline, Tex.....	449
Salt Fork Red River near Wellington, Tex.....	449
Salt Fork Red River at Mangum, Okla.....	450
North Fork Red River near Carter, Okla.....	451
North Fork Red River near Granite, Okla.....	452
North Fork Red River below Altus Dam, near Lugert, Okla.....	453
Elm Fork of North Fork Red River near Mangum, Okla.....	453
Elk Creek near Hobart, Okla.....	454
North Fork Red River near Headrick, Okla.....	455
Otter Creek at Snyder Lake near Mountain Park, Okla.....	456
Otter Creek at Mountain Park, Okla.....	456
Quitaque Creek near Quitaque, Tex.....	457
Pease River near Crowell, Tex.....	457
Cache Creek near Walters, Okla.....	458
Deep Red Run near Randlett, Okla.....	459
Wichita River at Wichita Falls, Tex.....	460
Little Beaver Creek near Duncan, Okla.....	460
Beaver Creek near Waurika, Okla.....	461
Little Wichita River near Archer City, Tex.....	462
Little Wichita River near Henrietta, Tex.....	462
Red River near Terral, Okla.....	463
Red River near Gainesville, Tex.....	464
Washita River near Cheyenne, Okla.....	465
Barnitz Creek near Arapaho, Okla.....	466
Washita River near Clinton, Okla.....	467
Washita River at Carnegie, Okla.....	468
Pond Creek near Fort Cobb, Okla.....	469
Washita River at Anadarko, Okla.....	470
Little Washita River at Ninnekah, Okla.....	470
Washita River near Tabler, Okla.....	471
Washita River near Pauls Valley, Okla.....	472
Rush Creek at Purdy, Okla.....	473
Rush Creek near Maysville, Okla.....	474
Caddo Creek near Ardmore, Okla.....	474
Washita River near Durwood, Okla.....	475
Red River near Colbert, Okla.....	477
Blue River near Blue, Okla.....	478
Muddy Boggy Creek near Farris, Okla.....	479
Clear Boggy Creek near Caney, Okla.....	480
Red River at Arthur City, Tex.....	481
Kiamichi River near Belzoni, Okla.....	483
Red River at Index, Ark.....	484
Little River near Wright City, Okla.....	486
Little River near Idabel, Okla.....	487

Gaging-station records—Continued

Red River basin—Continued

	Page
Little River below Lukfata Creek, near Idabel, Okla.....	488
Mountain Fork River near Eagletown, Okla.....	488
Rolling Fork near DeQueen, Ark.....	489
Little River near Horatio, Ark.....	490
Cossatot River near DeQueen, Ark.....	491
Little River near White Cliffs, Ark.....	492
Saline River near Dierks, Ark.....	493
Red River at Fulton, Ark.....	494
Red River at Garland, Ark.....	495
McKinney Bayou near Garland, Ark.....	496
South Sulphur River near Cooper, Tex.....	497
North Sulphur River near Cooper, Tex.....	497
Whiteoak Creek near Talco, Tex.....	498
Whiteoak Creek below Talco, Tex.....	499
Sulphur River near Darden, Tex.....	499
Red River at Springbank, Ark.....	500
Cypress Creek near Pittsburg, Tex.....	501
Boggy Creek near Daingerfield, Tex.....	502
Cypress Creek near Jefferson, Tex.....	503
Black Bayou at Rodessa, La.....	504
Black Bayou near Hosston, La.....	505
Kelly Bayou near Hosston, La.....	505
Black Bayou near Gilliam, La.....	506
Twelvemile Bayou near Dixie, La.....	507
McCain Creek near Shreveport, La.....	507
Red River at Shreveport, La.....	508
Bayou Dorcheat near Sarepta, La.....	510
Bayou Dorcheat near Cotton Valley, La.....	510
Black Bayou at Leton, La.....	510
Flat Lick Bayou near Leton, La.....	511
Brushy Creek near Hortman, La.....	511
Bayou Dorcheat near Minden, La.....	512
Clark Bayou near Haughton, La.....	513
Shell Bayou (Flat River) near Shreveport, La.....	513
Alligator Bayou near Shreveport, La.....	514
Bayou Bodcau near Sarepta, La.....	514
Bayou Bodcau near Bellevue, La.....	515
Bayou Bodcau at Hodges Camp, near Bellevue, La.....	515
Cypress Bayou near Benton, La.....	516
Red Chute Bayou near Shreveport, La.....	516
Loggy Bayou near Ninock, La.....	517
Red River at Coushatta, La.....	518
Bayou Pierre at Ochley Drive, Shreveport, La.....	518
Bayou Pierre at 70th Street, Shreveport, La.....	519
Bayou Pierre near Gayles, La.....	519
Boggy Bayou near Keithville, La.....	520
Cypress Bayou near Keithville, La.....	521
Cypress (Wallace) Bayou near Frierson, La.....	521
Bayou Pierre near Grand Bayou, La.....	522
Bayou Pierre at Evelyn, La.....	522

Gaging-station records—Continued

Red River basin—Continued

	Page
Bayou Pierre near Hanna, La.....	523
Bayou Pierre near Lake End, La.....	523
Bayou Pierre at Powhatan, La.....	524
Bayou Pierre near Natchitoches, La.....	524
Red River at Grand Ecore, La.....	524
Saline Bayou near Lucky, La.....	525
Black Lake Bayou near Minden, La.....	526
Black Lake Creek near Gibsland, La.....	526
Leatherman's Creek near Gibsland, La.....	527
Kepler Creek near Sparta, La.....	527
Black Lake Bayou near Castor, La.....	528
Castor Creek at Castor, La.....	528
Saline Bayou near Clarence, La.....	529
Nantachie Creek near Montgomery, La.....	529
Little Sandy Creek at Kisatchie, La.....	530
Kisatchie Bayou at Cypress, La.....	531
Cane River near Galbraith, La.....	531
Cane River, Lena Station, near Galbraith, La.....	532
Red River at Colfax, La.....	532
Hemphill Creek near Hot Wells, La.....	533
Bayou Jean de Jean at Hot Wells, La.....	533
Bayou Rapides near McNutt, La.....	534
Bayou Rapides at Alexandria, La.....	534
Red River at Alexandria, La.....	534
Red River at Moncla, La.....	536
Red River at Barbin Landing, La.....	537
Ouachita River near Mount Ida, Ark.....	537
South Fork Ouachita River at Mount Ida, Ark.....	538
Ouachita River near Mountain Pine, Ark.....	538
Ouachita River near Hot Springs, Ark.....	539
Ouachita River near Malvern, Ark.....	540
Caddo River at Glenwood, Ark.....	540
Caddo River near Alpine, Ark.....	541
Ouachita River at Arkadelphia, Ark.....	541
Muddy Fork Creek near Murfreesboro, Ark.....	542
Little Missouri River near Murfreesboro, Ark.....	543
Ozan Creek near McCaskill, Ark.....	543
Antoine River at Antoine, Ark.....	544
Little Missouri River near Boughton, Ark.....	545
Terre Noire Creek east of Gurdon, Ark.....	545
Ouachita River at Camden, Ark.....	546
Smackover Creek near Smackover, Ark.....	547
Ouachita River at lock and dam No. 8, Champagnolle Landing, Ark.....	547
Moro Creek near Fordyce, Ark.....	548
Saline River at Benton, Ark.....	548
Saline River and Gamble Creek near Sheridan, Ark.....	549
Hurricane Creek near Sheridan, Ark.....	550
Saline River near Rye, Ark.....	550
Saline River near Warren, Ark.....	551

Gaging-station records—Continued

Red River basin—Continued

	Page
Ouachita River at lock and dam No. 6 near Felsenthal, Ark.....	551
Bayou Bartholomew near Star City, Ark.....	552
Bayou Bartholomew near McGehee, Ark.....	553
Bayou Bartholomew at Wilmot, Ark.....	553
Bayou Bartholomew near Beekman, La.....	554
Ouachita River at lock and dam No. 5, at Sterlington, La.....	555
Bayou DeLoutre at DeLoutre, La.....	555
Bayou D'Arbonne at Homer, La.....	556
Big Creek near Vienna, La.....	556
Bayou D'Arbonne near Dubach, La.....	556
Cypress Creek near Unionville, La.....	557
Middle Fork Bayou D'Arbonne near Colquitt, La.....	558
Middle Fork Bayou D'Arbonne near Bernice, La.....	558
Corney Bayou near Lillie, La.....	559
Bayou D'Arbonne near Farmerville, La.....	559
Stowe Creek near Farmerville, La.....	560
Ouachita River at Monroe, La.....	560
Ouachita River at lock and dam No. 4, at Monroe, La.....	562
North Cheniere Creek at Cheniere, La.....	563
Cypress Creek near Vixen, La.....	563
Ouachita River at lock and dam No. 3, near Riverton, La.....	563
Boeuf River near Eudora, Ark.....	564
Boeuf River near Kilbourne, La.....	565
Boeuf River near Oak Grove, La.....	565
Boeuf River near Oak Ridge, La.....	566
Boeuf River near Girard, La.....	566
Boeuf River near Alto, La.....	567
Lyon Bayou at Forest, La.....	568
Big Colewa Bayou near Oak Grove, La.....	568
Big Creek at Holly Ridge, La.....	569
Big Creek near Mangham, La.....	569
Big Creek near Sligo, La.....	570
Bayou LaFourche cutoff near Oak Ridge, La.....	570
Bayou Galion north of Oak Ridge, La.....	571
Little Bayou Boeuf near Collinston, La.....	571
Bayou LaFourche near Crew Lake, La.....	572
Bayou LaFourche near Alto, La.....	573
Bayou LaFourche cutoff near Columbia, La.....	573
Ouachita River at Stafford Point Landing, La.....	574
Black Bayou near Sicily Island, La.....	574
Ouachita River at lock and dam No. 2, at Harrisonburg, La.....	575
Tensas Bayou near Transylvania, La.....	575
Tensas Bayou near Alsatia, La.....	576
Tensas River at Tendal, La.....	576
Tensas River near Tendal, La.....	577
Alligator Bayou near Tallulah, La.....	578
Bayou Vidal at Quimby, La.....	578
Tensas River at Newlight, La.....	578
Bayou Macon at Eudora, Ark.....	579
Bayou Macon near Oak Grove, La.....	579

Gaging-station records—Continued

Red River basin—Continued

	Page
Bayou Macon near Floyd, La.....	580
Bayou Macon near Delhi, La.....	580
Bayou Macon at Warsaw Bridge, near Delhi, La.....	581
Tensas River at Kirks Ferry Landing, La.....	582
Tensas River at Clayton, La.....	582
Castor Creek at Chatham, La.....	583
Edwards Branch at Chatham, La.....	583
Castor Creek near Grayson, La.....	584
Beaucoup Creek near Cotton Plant, La.....	585
Flat Creek near Sikes, La.....	585
Beech Creek near Olla, La.....	585
Big Chickasaw Creek near Olla, La.....	586
Castor Creek at Tullos, La.....	586
Garrett Creek at Jonesboro, La.....	586
Dugdemona River near Jonesboro, La.....	587
Big Creek near Dodson, La.....	588
Dugdemona River near Winnfield, La.....	588
Port de Luce Creek at Winnfield, La.....	589
Little River at Rochelle, La.....	589
Bear Creek near Packton, La.....	590
Bayou Funny Louis near Trout, La.....	590
Big Creek at Pollock, La.....	591
Big Creek at Fishville, La.....	592
Black River at Jonesville, La.....	592
Black River near Acme, La.....	593
Little Bayou Sara basin.....	593
Little Bayou Sara near Turnbull, La.....	593
Thompson Creek basin.....	594
Thompson Creek at Jackson, La.....	594
Thompson Creek near Starhill, La.....	594
Alexander Creek near St. Francisville, La.....	594
Bayou Baton Rouge basin.....	595
Bayou Baton Rouge above Baker, La.....	595
Mississippi River Delta.....	595
Tchefuncta River near Franklinton, La.....	595
Tchefuncta River near Folsom, La.....	596
Tchefuncta River near Covington, La.....	596
Tangipahoa River near Kentwood, La.....	597
Tangipahoa River near Amite, La.....	597
Tangipahoa River at Robert, La.....	598
Washley Creek near Robert, La.....	599
Tickfaw River near Greensburg, La.....	599
Tickfaw River at Montpelier, La.....	599
Tickfaw River at Holden, La.....	600
Hog Branch near Doyle, La.....	601
Tickfaw River near Springfield, La.....	601
Natalbany River at Baptist, La.....	601
Ponchatoula Creek at Natalbany, La.....	602
Ponchatoula Creek east of Hammond, La.....	603
Ponchatoula Creek south of Hammond, La.....	603

Gaging-station records—Continued

	Page
Mississippi River Delta—Continued	
Yellow Water River Canal near Hammond, La.....	603
Yellow Water River Canal near Baptist, La.....	604
Amite River near Darlington, La.....	604
Amite River at Grangeville, La.....	605
Amite River at Magnolia, La.....	605
Comite River near Clinton, La.....	606
Comite River near Olive Branch, La.....	606
Comite River near Zachary, La.....	607
Comite River near Comite, La.....	607
Amite River near Denham Springs, La.....	608
Ward Creek at Siegen Lane, near Baton Rouge, La.....	609
Colyell Creek at Livingston, La.....	609
Middle Colyell Creek near Walker, La.....	610
West Colyell Creek near Walker, La.....	610
Bayou Cocodrie near Glenmora, La.....	610
Bayou Cocodrie near Clearwater, La.....	611
Bayou Cocodrie at Dossman, La.....	611
Bayou Cocodrie at St. Landry, La.....	612
Bayou Cocodrie near Whiteville, La.....	612
Bayou Boeuf at Twin Bridges, La.....	613
Bayou Boeuf near Lamourie, La.....	613
Bayou Boeuf near LeCompte, La.....	614
Bayou Boeuf at Lyles, La.....	614
Bayou Courtableau at Washington, La.....	615
Bayou Lamourie at Lamourie, La.....	615
Chatlin Lake Canal near LeCompte, La.....	616
Coulie des Grues near Marksville, La.....	616
Three Prong Lake at Belledeau, La.....	617
Bayou du Lac near Hessmer, La.....	617
Bayou des Glaises diversion channel at Moreauville, La.....	618
West Protection Levee borrow pit channel near Palmetto, La.....	619
Bayou Courtableau at Port Barre, La.....	619
West Protection Levee borrow pit channel at New Henderson Landing, La.....	620
Bayou Teche at Arnaudville, La.....	620
Bayou Teche at Keystone lock, near St. Martinsville, La.....	621
Bayou Carencro near Sunset, La.....	621
Bayou Bourbeau at Shuteston, La.....	622
Vermilion River at Tontons Bridge, La.....	623
Vermilion River at Long Bridge, La.....	623
Vermilion River at Ruth Canal, La.....	624
Vermilion River at Lafayette, near Long Bridge, La.....	624
Bayou Ile des Cannes near Lafayette, La.....	625
Vermilion River at Landry Bridge, near Milton, La.....	625
Vermilion River at Abbeville pumping plant, near Abbeville, La.....	626
Selected bibliography.....	627
Index.....	629

ILLUSTRATIONS

	Page
PLATE 1. Map showing gaging stations, hydrologic areas, and flood-frequency regions.....	In pocket
FIGURE 1. Map of conterminous United States.....	2
2. Frequency of annual floods.....	39
3. Adjustment to ratio to mean annual flood.....	40
4. Variation of mean annual flood with contributing drainage area in hydrologic areas 1-10.....	42
5. Variation of mean annual flood with contributing drainage area in hydrologic areas 11-16.....	43
6. Variation of mean annual flood with contributing drainage area in hydrologic areas 17-22.....	44
7. Variation of mean annual flood with contributing drainage area in hydrologic areas 23-27.....	45
8. Elevation-adjustment curve.....	46
9. Shape adjustment curve.....	46
10. Variation of mean annual flood with contributing drainage area on the main stems of Black River, Neosho River, Cypress Creek and Twelvemile Bayou, and North Canadian River.....	47
11. Variation of mean annual flood with contributing drainage area on main stems of Big Black River and Homochitto River.....	47
12. Relation of selected flood frequencies to drainage area, White River main stem.....	48
13. Relation of selected flood frequencies to distances above mouth, Arkansas River main stem.....	49
14. Relation of selected flood frequencies to contributing drainage area, Red River main stem.....	50
15. Relation of selected flood frequencies to contributing drainage area, Washita River main stem.....	50
16. Relation of selected flood frequencies to distance above mouth, Canadian River main stem.....	51
17. Relation of selected flood frequencies to contributing drainage area, Ouachita River main stem.....	52
18. Relation of selected flood frequencies to contributing drainage area, Yalobusha River main stem.....	52
19. Frequency of annual floods, Mississippi River main stem.....	53
20. Variation of mean annual flood with distance above Head of Passes, La., Mississippi River.....	53

TABLES

	Page
TABLE 1. Inventory of data for gaging stations used to define regional flood-frequency relations.....	6
2. Maximum stages and discharges at gaging stations not used to define regional flood-frequency relations.....	20
3. Peak discharges at miscellaneous sites and unusual floods at short-term gaging stations.....	32

MAGNITUDE AND FREQUENCY OF FLOODS IN THE UNITED STATES

PART 7. LOWER MISSISSIPPI RIVER BASIN

By JAMES L. PATTERSON

ABSTRACT

This report describes methods by which the magnitude and frequency of expected floods for most streams in the lower Mississippi River basin may be determined. Flood data were used to define flood-frequency curves applicable to the area. Composite frequency curves were drawn showing the relation of mean annual floods to floods having recurrence intervals from 1.2 to 50 years. In some areas, it was found that the slope of the composite frequency curve varies with drainage area. An adjustment curve was defined for use in conjunction with the composite curve for these areas. Other curves express the relation of the mean annual flood to drainage-basin characteristics. By combining data from the composite and mean-annual-flood curves, flood-frequency curves may be drawn for streams in the lower Mississippi River basin not materially affected by the works of man. Neither of the two types of curves just mentioned should be extrapolated beyond the range defined by base data. Frequency curves, described in this report, were based on analysis of flood records collected at gaging stations having 5 or more years of record not materially affected by regulation or diversion.

INTRODUCTION

This report describes methods by which the magnitude and frequency of floods at most sites in the lower Mississippi River basin may be determined. In addition to flood-frequency analysis, the accumulation of flood data in the report area is presented.

Flood-frequency reports have been published for several States that are partly within the area covered by this report. These States are Kansas, Kentucky, Louisiana, Missouri, and Tennessee. A list of publications for these States is included in the selected bibliography.

ACKNOWLEDGMENTS

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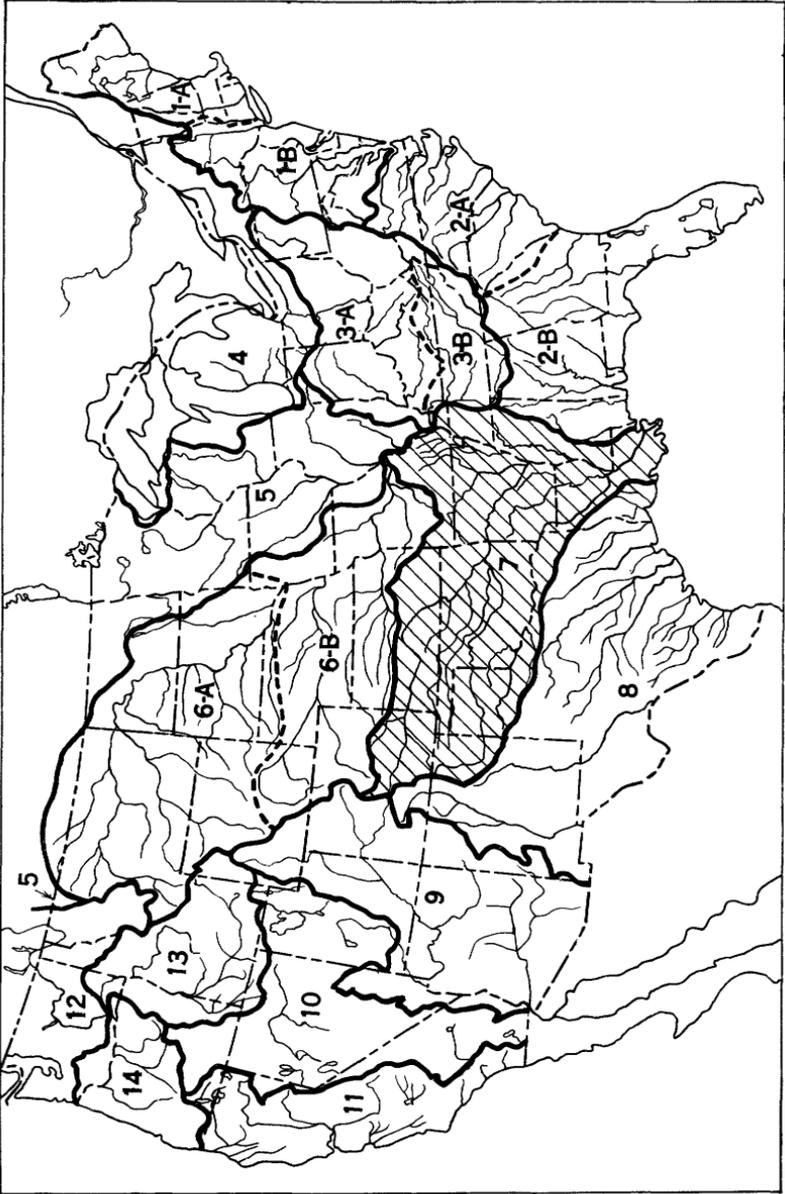


FIGURE 1.—Map of contiguous United States showing area covered by this report.

Unless otherwise noted, the data were collected by the U.S. Geological Survey with the assistance of many Federal and State agencies, municipalities, corporations, and private individuals. Credit has been given for this cooperation in the annual reports of the Geological Survey entitled, "Surface Water Supply of the United States". This report is not included in the cooperative program.

DESCRIPTION OF THE AREA

RIVER BASINS

The area covered by the lower Mississippi River basin is in the south-central part of the United States (fig. 1). Included in this area are the main stem of the Mississippi River, all its western tributaries downstream from the Missouri River, and all its eastern tributaries downstream from the Ohio River. The principal river basins to the east of the Mississippi River are the Obion, Hatchie, Yazoo, and Big Black basins. To the west are the Meramec, St. Francis, White, Arkansas, and Red River basins, which are all tributary to the Mississippi River. Two groups of streams are not Mississippi River tributaries: (1) the group of rivers heading in southern Mississippi and flowing into Lake Pontchartrain, and (2) the group that includes streams west of the Mississippi River and south of the Red River. These two groups are included under "Mississippi River Delta" streams.

TOPOGRAPHY

The topography of the area covered by this report is diverse. The lower Mississippi River basin extends into four major physiographic divisions: (1) the Rocky Mountain System in south-central Colorado and north-central New Mexico, (2) the Interior Plains consisting of the Great Plains province in eastern Colorado and New Mexico, Oklahoma and Texas Panhandles, and southwestern Kansas; and the Central Lowland province in southeastern Kansas, most of Oklahoma, and north-central Texas, (3) the Interior Highlands consisting of the Ozark Plateaus and Ouachita province in southern Missouri, the northwest half of Arkansas, and eastern Oklahoma, and (4) the Atlantic Plain, consisting of the Coastal Plain province in northeast Texas, southeast Arkansas, Louisiana, and all the lower Mississippi River basin east of the Mississippi River.

Elevations range from gulf level, at the mouth of the Mississippi River, to 14,000 feet or higher for some peaks in Colorado. Eastward from the high mountains in the western part of the area, the elevation ranges from about 5,000 feet in eastern Colorado and New Mexico to 1,000 feet in eastern Kansas, Oklahoma, and Texas, which is the eastern boundary of the Interior Plains area. Minor relief in the

Lowland Plains is provided by the Flint Hills in southeastern Kansas, the Sandstone Hills in eastern Oklahoma, and the Arbuckle and Wichita Mountains in south-central and southwestern Oklahoma.

The Ouachita and Ozark Mountains are rugged in the Interior Highlands in Missouri, Arkansas, and eastern Oklahoma. Some peaks rise to an elevation of more than 2,800 feet.

Elevations in the Coastal Plains area range from sea level at the mouth of the Mississippi River to about 500 feet at Crowley's Ridge, a low narrow ridge in northeastern Arkansas and southeastern Missouri.

CLIMATE

Climate, like topography, varies greatly. Conditions range from humid in the eastern part of the area to semiarid in the western part. Precipitation ranges along the eastern edge of the area from about 45 inches in southwestern Kentucky to about 60 inches in southeastern Louisiana. West of the Mississippi River, precipitation decreases fairly uniformly from about 50 inches in eastern Arkansas to less than 15 inches in the western Great Plains and then increases to about 30 inches in the high mountains of Colorado and New Mexico.

Floods in the eastern part of the area are generally caused by rainstorms lasting several days and moving northeastward. Although these storms may occur during any month of the year, they occur more frequently from January to May. Great floods have occurred during late summer or early fall as a result of hurricanes originating in the Gulf of Mexico.

In the central and western part of the area, floods are caused more frequently by intense rainstorms of short duration and occur most frequently during the summer. On the eastern slope of the high mountains in Colorado and New Mexico, flood peaks are generally due to snowmelt and occur in late spring or early summer. Except in the extreme western part of the area, snowmelt seldom contributes to peak flows.

FLOOD-FREQUENCY ANALYSIS

RECORDS AVAILABLE

Data on peak flow at 783 points (gaging stations) having 5 or more years of record on streams in the lower Mississippi River basin are included in this report. The locations of the 783 gaging stations are shown on plate 1.

Steamflow records for only 393 of the gaging stations were used in defining regional flood-frequency relations. In general, only those stations having 5 or more years of peak discharge record not materially affected by unnatural conditions were used in the analysis. An inventory of pertinent data for the 393 gaging stations is given in table 1.

RECORDS NOT USED IN REGIONAL ANALYSIS

Gaging-station records not used in the regional analysis fall in one of the following categories:

1. Peak discharge materially affected by regulation or diversion.
2. Peak discharge materially affected by channel rectification.
3. Drainage area indeterminate.
4. Only peak stages available.
5. Less than 25 percent difference between drainage areas for gaging stations on the same stream.
6. Large streams such as the Arkansas and Red Rivers whose peak-flow characteristics differ greatly from those of adjacent tributary streams.

Maximum stages and discharges, if known, are listed in table 2 for each of the remaining 390 gaging stations not used to define regional flood-frequency relations. Similar data for miscellaneous sites and for gaging stations having less than 5 years of record are listed in table 3.

FLOODS IN LOWER MISSISSIPPI RIVER BASIN

Table 1.--Inventory of data for gaging stations used to define regional flood-frequency relations

No.	Gaging station	Flood region and hydro-logic area	Contributing drainage area (sq mi)	Elevation (feet)	Period of known floods (water years)	Station Q _{2.33} (cfs)	Areal Q _{2.33} (cfs)	Date	Maximum stage and discharge			
									Stage height (feet)	Discharge Cfs	Ratio to areal Q _{2.33}	
Meramec River basin												
115	Green Acre Branch near Rolla, Mo.....	B1	0.622	-	1949-58	480	-	June 9, 1950	6.85	1,900	3,050	-
120	Bemke Branch near Rolla, Mo.....	B1	1.05	-	1949-58	500	-	June 9, 1950	3.36	1,190	1,130	-
120.5	Dry Fork near St. James, Mo.....	B1	370	-	1944-50	9,200	9,400	Aug. 15, 1948	21.7	28,000	78.7	3.0
130	Meramec River near Steelville, Mo..	B1	791	-	1915-58	18,700	15,200	Aug. 20, 1945	26.5	60,000	76.8	3.9
145	Meramec River near Sullivan, Mo....	B1	1,475	-	1915-58	22,500	22,700	August 1945	35.5	90,000	81.0	4.0
150	Bourbeuse River near St. James, Mo..	B3	21.3	-	1948-58	4,580	2,770	Oct. 11, 1949	11.08	8,250	387	2.6
155	Lanes Fork near Vicksy, Mo.....	B5	24.1	-	1948-58	4,100	3,450	June 7, 1945	12.0	9,400	390	3.4
160	Bourbeuse River near Spring Bluff, Mo.	B3	608	-	1915-58	18,000	17,400	August 1915	35.7	60,000	98.7	3.0
165	Bourbeuse River at Union, Mo.....	B1	808	-	1897-1958	13,800	15,500	Aug. 22, 1915	28.5	50,000	61.9	3.2
170	Meramec River at Robertsville, Mo..	B1	2,673	-	1915-58	35,100	33,100	August 1915	36.1	125,000	46.8	3.8
185	Big River at Byrnesville, Mo.....	B1	917	-	1915-58	16,100	16,700	Aug. 21, 1915	30.2	80,000	87.2	4.8
190	Meramec River near Eureka, Mo.....	B1	3,788	-	1904-5, 1915-48	39,000	41,500	Aug. 22, 1915	39.2	175,000	46.2	4.2
Headwater diversion channel basin												
210	Castor River at Zalma, Mo.....	B1	423	-	1920-58	12,700	10,200	Jan. 14, 1937	27.67	40,400	95.5	4.0
Mayfield Creek basin												
225	Perry Creek near Mayfield, Ky.....	G4	1.72	-	1952-58	886	-	March 1952	10.3	-	492	-
230	Mayfield Creek at Lovelaceville, Ky.	G4	211	-	1953-58	7,560	7,650	Mar. 20, 1955	7.12	846	19,800	2.6
Obion Creek basin												
235	Obion Creek at Pryorsburg, Ky.....	G4	36.3	-	1949-58	3,130	2,560	Feb. 14, 1949	13.0	-	147	2.1
Bayou du Chien basin												
240	Bayou du Chien near Clinton, Ky....	G4	68.5	-	1952-58	3,520	3,800	Nov. 18, 1957	12.60	5,330	100	1.8
Obion River basin												
245	South Fork Obion River near Greenfield, Tenn.	F8	431	-	1930-58	9,200	9,200	Jan. 22, 1937	17.82	25,600	59.4	2.8
250	Rutherford Fork Obion River near Bradford, Tenn.	F8	203	-	1930-58	5,300	5,600	Jan. 22, 1937	20.06	9,730	47.9	1.7
254	North Fork Obion River at U.S. Highway 45E near Martin, Tenn.	F8	375	-	1939-58	8,100	8,400	Nov. 19, 1957	23.05	30,300	80.8	3.6
255	North Fork Obion River near Union City, Tenn.	F8	490	-	1930-58	11,200	10,000	Jan. 22, 1937	22.0	49,200	100	4.9
260	Obion River at Obion, Tenn.....	F8	1,880	-	1930-58	25,400	24,000	Jan. 24, 1937	25.4	99,500	52.9	4.1

FLOOD-FREQUENCY ANALYSIS

265	Reelfoot Creek near Samburg, Tenn.	F8	110	-	1951-58	3,590	3,900	Nov. 18, 1957	14.83	6,690	1.7
275	South Fork Forked Deer River at Jackson, Tenn.	F4	574	-	1930-58	12,000	14,300	Jan. 21, 1935	24.00	43,600	3.0
280	South Fork Forked Deer River at Chestnut Bluff, Tenn.	F8	1,100	-	1950-58	14,500	17,000	Jan. 22, 1935	22.5	45,000	2.6
285	North Fork Forked Deer River at Trenton, Tenn.	F4	71.3	-	1951-58	4,780	3,900	Jan. 30, 1956	13.39	11,800	3.0
290	Middle Fork Forked Deer River near Alamo, Tenn.	F4	410	-	1950-58	9,800	11,700	Jan. 30, 1956	16.70	34,300	2.9
291	North Fork Forked Deer River at Dyersburg, Tenn.	F8	867	-	1939-40, 1944-58	10,600	14,500	Nov. 20, 1957	27.82	22,400	1.5
Hatchie River basin											
292.75	Hatchie River near Pocahontas, Tenn.	F4	300	-	1941-58	8,420	9,600	Feb. 14, 1948	29.4	21,900	2.3
293	Tusculum River Canal near Corinth, Miss.	F4	277	-	1950-58	11,400	9,100	Mar. 22, 1955	15.70	27,100	3.0
294	Hatchie River at Pocahontas, Tenn.	F4	820	-	1942-58	18,700	18,000	Feb. 14, 1948	29.40	47,600	2.6
295	Hatchie River at Bolivar, Tenn.	F4	1,430	-	1950-58	22,600	25,500	Feb. 15, 1948	21.53	56,300	39.4
300	Hatchie River near Stanton, Tenn.	F8	1,940	-	1950-58	24,500	24,500	Jan. 22, 1935	20.35	59,000	2.4
300.5	Hatchie River at Rialto, Tenn.	F8	2,253	-	1959-58	28,300	26,800	Jan. 13, 1946	26262.9	55,700	24.9
Loosahatchie River basin											
302.8	Loosahatchie River at Brunswick, Tenn.	F4	506	-	1955-58 1939-58	20,100	13,300	January 1935 Jan. 9, 1946	28.5 25.92	39,700	78.5 3.0
Wolf River basin											
305	Wolf River at Rossville, Tenn.	F4	503	-	1950-58	12,500	13,200	Jan. 20, 1935	13.75	40,000	79.5
317	Wolf River at Raleigh, Tenn.	F4	765	-	1955-58 1937-58	16,100	17,200	Jan. 9, 1946	23.72 20.40	41,400	54.1 2.4
St. Francis River basin											
375	St. Francis River near Patterson, Mo.	B2	956	-	1915-58	36,000	31,000	August 1915	35.8	100,000	3.2
401	St. Francis River at St. Francis, Ark.	D5	1,781	-	1916-58	18,600	13,900	Mar. 15, 1935	28.2	39,200	2.8
404.5	St. Francis River at Lake City, Ark.	D5	2,385	-	1917-58	16,500	17,100	Jan. 22-24, 1937	13.3	36,700	15.4
410	Little River ditch 81 near Kennett, Mo.	C5	111	-	1927-58	1,920	1,910	Apr. 21, 1927	15.11	2,760	24.9
420	Little River ditch 1 near Kennett, Mo.	C5	235	-	1927-58	4,510	3,280	Apr. 25, 1927	16.56	7,520	32.0
425	Little River ditch 251 near Lil-bourn, Mo.	C5	235	-	1945-58	2,290	3,280	June 1945 Feb. 15, 1950	15.6 13.7	3,210	1.0
430	Castor River at Aquilla, Mo.	C5	175	-	1945-58	2,270	2,640	June 1945 May 23, 1957	14.2 1.6	4,100	23.4
435	Little River ditch 1 near More-house, Mo.	C5	450	-	1945-58	5,460	5,200	June 1945 Mar. 25, 1958	19.85 1.4	7,020	15.6
440	Little River ditch 251 near Kennett, Mo.	C5	883	-	1927-58	9,490	8,400	May 24, 1957 Nov. 27, 1957	21.70 1.6	13,100	14.8
460	Little River ditch 259 near Kennett, Mo.	C5	89.0	-	1927-58	1,750	1,640	Apr. 29, 1927	15.57	4,140	46.5

See footnotes at end of table.

FLOODS IN LOWER MISSISSIPPI RIVER BASIN

Table 1.--Inventory of data for gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydro-logic area	Contributing drainage area (sq mi.)	Elevation (feet)	Period of floods (water years)	Station Q _{2.33} (cfs)	Area Q _{2.33} (cfs)	Maximum stage and discharge			Ratio to areal Q _{2.33}	
								Date	Gage height (feet)	Discharge Cfs		Cfs per sq mi.
St. Francis River basin--Continued												
466	Right Hand Chute of Little River at Rivervale, Ark.	D5	2,113	-	1939-58	15,400	15,700	13.57	-	31,400	14.9	2.0
470	St. Francis River floodway near Marked Tree, Ark.	D5	5,258	-	1935-58	24,700	30,000	-	-	58,000	11.0	1.9
475	St. Francis River at Marked Tree, Ark.											
478	St. Francis River at Parkin, Ark.	D5	6,475	-	1928-58	28,000	35,100	-	-	74,100	11.4	2.1
479	St. Francis Bay at Riverfront, Ark.	D5	807	-	1933-58	9,790	7,900	39.7	-	-	-	-
479.5	L'Anguille River at Palestine, Ark.	D5		-	1949-58			-	-	15,600	19.3	2.0
White River basin												
485	West Fork White River near Fayetteville, Ark.	A9	118	-	1938-45	13,100	12,200	21.50	Apr. 14, 1945	53,000	449	4.5
490	War Eagle Creek near Handsville, Ark.	A9	262	-	1943-58	17,200	20,500	28.1	May 10, 1943	50,000	191	2.4
505	Kings River near Berryville, Ark.	A2	532	-	1927-58	17,600	21,500	38.0	Apr. 14, 1927	62,000	117	2.9
510	James River below Battlefield, Mo.	A7	328	-	1926-31	9,400	10,000	16.1	June 28, 1928	16,800	51.2	1.7
520	Wilson Creek near Springfield, Mo.	A7	19.4	-	1932-38	1,050	1,050	7.62	June 27, 1937	2,440	126	2.5
525	James River at Galena, Mo.	A7	997	-	1922-58	21,500	20,000	45.82	May 20, 1945	82,000	138.4	5.6
570	Buffalo River near Run, Ark.	A9	1,551	-	1918-58	12,700	13,400	18.05	Aug. 13, 1950	17,400	18	2.1
575	North Fork River near Tamm, Mo.	A7	570	-	1945-58	13,900	13,400	19.05	Mar. 15, 1956	27,400	47.0	2.0
585	Berwick Creek near Tecumseh, Mo.	A7	1,157	-	1905-44	24,600	23,000	31.64	Jan. 15, 1905	26,800	41.0	2.0
590	North Fork River near Henderson, Ark.	A7	1,612	-	1910, 1915-43	33,500	29,000	29.5	July, 1915	65,000	75.5	3.7
615	Black River near Annapolis, Mo.	B2	484	-	1929-43	24,400	20,200	20.1	May 11, 1943	61,000	37.8	2.1
625	Black River at Leeser, Mo.	B2	957	-	1904-58	27,000	31,000	22.5	June 8, 1945	45,400	93.8	2.2
630	Black River at Poplar Bluff, Mo.	B	1,245	-	1904-58	20,000	20,000	22.5	March 1904	100,000	131.1	4.0
640	Black River near Corning, Ark.	B	1,749	-	1915-58	13,500	15,500	16.92	June 13, 1945	48,600	80.3	5.0
645	Big Creek near Yukon, Mo.	A3	8.36	-	1950-58	1,470	-	5.20	May 15, 1956	4,860	27.8	3.6
660	Jacks Fork at Eminence, Mo.	A5	398	-	1922-58	11,000	15,600	16.24	June 13, 1928	40,000	101	2.9
665	Current River near Eminence, Mo.	A5	1,272	-	1922-58	27,100	27,200	21.49	May 11, 1943	21,490	38.4	1.8
670	Current River at Van Buren, Mo.	A3	1,667	-	1904-58	28,000	30,900	29.0	Mar. 26, 1904	-	-	-
680	Current River at Doniphan, Mo.	A3	2,058	-	1904-58	32,500	34,800	23.4	Aug. 21, 1915	125,000	75.0	4.0
685	Little Black River near Fair-dealing, Mo.	B2	187	-	1936-42	10,600	11,000	22.5	March 1904	130,000	63.8	3.7
690	Black River at Pochontas, Ark.	B	4,843	-	1927-58	26,200	25,500	25.9	Apr. 17, 1927	60,000	16.5	3.1
695	Spring River at Imboden, Ark.	A5	1,162	-	1915-58	5,900	5,950	32.1	August 1915	125,000	108	4.9
705	Eleven Point River near Thomasville, Mo.	A6	361	-	1951-58			17.95	Apr. 3, 1957	16,900	46.8	2.8
715	Eleven Point River near Bardley, Mo.	A6	793	-	1915-58	10,500	9,850	19.7	Aug. 20, 1915	44,000	55.5	4.5

FLOOD-FREQUENCY ANALYSIS

720	Eleven Point River near Ravenden Springs, Ark.	A6	1,123	-	1830-33, 1935, 1939-58	12,400	Jan. 25, 1949	20.21	34,000	30.3	2.7
725	Black River at Black Rock, Ark.....	B	7,323	-	1905-58	43,500	Aug. 21, 1915	31.9	160,000	21.8	3.7
730	Strawberry River near Evening Shade Ark.	B3	225	-	1939-58	9,700	Jan. 24, 1949	26.59	31,000	138	3.1
735	Piney Fork Strawberry River at Evening Shade, Ark.	B3	99	-	1939-58	5,500	Jan. 24, 1949	23.42	17,500	177	2.8
740	Strawberry River near Poughkeepsie, Ark.	B3	476	-	1937-58	17,900	Jan. 24, 1949	29.30	52,500	110	3.5
750	Middle Fork Little Red River at Shilley Ark.	B9	294	-	1935-58	25,000	Jan. 24, 1949	31.0	101,000	344	4.6
755	South Fork Little Red River near Clinton, Ark.	B9	316	-	1939-58	23,400	Aug. 13, 1957	28.16	59,500	188	2.6
760	Little Red River near Heber Springs, Ark.	D9	1,141	-	1927-58	52,500	Jan. 25, 1949	46.53	117,000	103	2.2
775	Cache River at Patterson, Ark.....	D5	1,041	-	1916-58	7,600	Apr. 19, 1927	16.1	24,500	23.5	2.6
777	Bayou DeVew at Morton, Ark.....	D5	422	-	1933-58	3,900	Jan. 26, 1937	18.57	6,700	15.9	1.3
780	Lagru Bayou near Stuttgart, Ark...	D5	175	-	1936-54	2,850	Jan. 24, 1937	16.9	6,580	37.6	2.5
Arkansas River basin											
795	East Fork Arkansas River near Leadville, Colo.	G24	50	9,700	1890, 1912, 1914-24	400	June 15, 1921	2.03	794	15.9	2.2
810	Tennessee Fork near Leadville, Colo.	G24	48	9,760	1890, 1911-24	299	June 14, 1918	2.05	450	9.38	1.3
830	Halfmoon Creek near Malta, Colo....	G24	23	9,740	1947-58	230	June 30, 1957	3.48	450	19.6	2.1
865	Clear Creek above Clear Creek Reservoir, Colo.	G24	59	8,900	1946-58	660	June 29, 1957	-	1,300	22.0	2.8
890	Cottonwood Creek below Hot Springs near Buena Vista, Colo.	G24	65	8,530	1912-23, 1950-58	357	July 1, 1957	4.52	1,180	18.2	2.1
910	Chalk Creek near Nathrop, Colo.....	G25	97	8,110	1950-58	465	June 10, 1952	2.70	1,050	10.8	2.7
960	Little Beaver Creek near Pikes Peak, Colo.	A23	1.00	11,000	1917-50	3.3	Aug. 4-6, 1929	-	10.3	10.3	3.8
985	Sackett Creek near Pikes Peak, Colo.	A23	.65	10,900	1917-50	2.9	June 23-30, 1947	-	7.41	11.4	3.7
1000	North Catamount Creek near Green Mountain Falls, Colo.	A23	5.80	9,190	1935-50	10.6	May 21, 1947	-	30.5	5.26	3.0
1005	South Cascade Creek at Cascade, Colo.	A23	3.41	8,400	1935-50	8.3	Aug. 7, 1936	-	28.2	8.27	3.4
1010	Lion Creek near Halfway, Colo.....	A23	2.00	9,250	1917-50	2.8	June 4, 1921	-	11.6	5.80	2.4
1015	Sheep Creek near Halfway, Colo.....	A25	.73	9,100	1917-50	2.2	June 5, 1921	-	12.8	17.5	4.4
1060	Fountain Creek near Fountain, Colo.	A24	676	5,340	1933-52, 1935	5,340	May 28, 1940	9.19	22,100	52.7	4.4
1065	Fountain Creek at Pueblo, Colo.....	A24	926	4,680	1921-22, 1924-25, 1935, 1941-58	8,000	May 30, 1955	-	35,000	37.8	5.7
1085	St. Charles River near Pueblo, Colo.	E24	468	4,690	1935, 1941-58	6,720	May 19, 1955	7.53	20,600	44.0	5.4
1110	Huerfano River at Manzanares Crossing, near Redwing, Colo.	E25	73	8,150	1924-58	340	Aug. 2, 1951	8.14	10,200	140	32.5
1140	Cucharas River at Boyd Ranch near La Vega, Colo.	E25	56	7,800	1935-58	199	May 23, 1955	4.05	444	7.92	1.6
1160	Huerfano River below Huerfano Valley Dam, near Undercliffe, Colo.	E25	1,673	4,890	1900-58	5,340	July 5, 1958	14.5	16,800	10.0	2.8
1180	Apishapa River near Aguilar, Colo..	E27	126	6,410	1940-50, 1955	2,110	July 14, 1948	7.84	4,500	35.7	2.1

See footnotes at end of table.

Table 1.--Inventory of data for gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydro-logic area	Contributing drainage area (sq mi.)	Elevation (feet)	Period of known floods (water years)	Station Q _{2.33} (cfs)	Areal Q _{2.33} (cfs)	Maximum stage and discharge				
								Date	Gage height (feet)	Discharge cfs	Ratio to areal Q _{2.33}	
Arkansas River basin--Continued												
1190	Apishapa River near White Rock, Colo.	E24	737	4,790	1942-47	4,320	5,130	July 25, 1945	4.52	8,280	11.2	1.6
1195	Apishapa River near Fowler, Colo....	E24	1,125	4,320	1922-25, 1939-58	6,070	7,200	Aug. 22, 1923	-	85,000	73.8	11.5
1210	Timpas Creek near Rocky Ford, Colo.	E24	451	4,220	1923, 1927-58	3,860	3,980	July 5, 1958	19.0	23,000	51.0	5.8
1225	Horse Creek near Sugar City, Colo..	E22	1,080	4,270	1940-47	4,270	4,270	Oct. 23, 1941	6.20	5,400	5.00	5.0
1245	Purgatoire River at Trinidad, Colo.	E27	795	5,980	1853-1958	9,200	7,650	Sept. 30, 1904	16.6	45,400	57.1	5.9
1260	Purgatoire River near Alfalfa, Colo.	E27	1,320	5,280	1905-7, 1925, 1927, 1952-58	11,200	12,100	May 19, 1955	31.9	41,900	31.7	3.5
1265	Purgatoire River at Minemile Dam near Higbee, Colo.	E24	2,900	4,240	1924-58	14,000	13,500	May 19, 1955	17.7	80,000	27.6	5.9
1280	Purgatoire River at Highland Dam near Las Animas, Colo.	E24	3,376	3,980	1932-55	15,100	15,400	May 20, 1955	13.30	75,400	21.7	4.8
1295	Rule Creek near Caddoa, Colo.....	E24	455	3,890	1941-46, 1949, 1951, 1955, 1956	1,980	4,100	June 5, 1949	20.05	11,600	26.7	2.8
1310	Caddoa Creek at Caddoa, Colo.....	E24	131	3,740	1942-46, 1949, 1956	1,890	1,860	Aug. 19, 1956	10.7	11,800	90.1	6.3
1412	Pawnee River near Larned, Kans.....	E22	2,010	-	1935-58	3,400	4,430	July 28, 1958	28.22	16,300	9.11	3.7
1435	Cow Creek near Lyons, Kans.....	E22	1,849	-	1929-58	6,700	1,760	July 12, 1929	22.52	26,000	57.3	13.9
1442	Little Arkansas River at Valley	E21	1,250	-	1877-1958	6,700	7,600	Apr. 10, 1945	22.05	35,000	25.6	4.1
1448	North Fork Neosho River near Cheney, Kans.	E21	693	-	1923-58	5,010	5,300	May 16, 1957	15.09	23,700	34.2	4.5
1452	South Fork Neosho River near Murdock, Kans.	E21	543	-	1950-58	3,600	4,600	June 26, 1957	11.87	25,900	47.7	5.6
1455	Neosho River near Peck, Kans....	E21	1,785	-	1923-58	10,400	9,900	June 9, 1923	26.4	70,000	39.2	7.1
1471	Whitewater River at Augusta, Kans..	E20	456	-	1951-55	5,600	7,250	May 27, 1953	26.52	27,200	59.6	3.8
1478	Walnut River at Winfield, Kans....	E20	1,840	-	1907-1958	20,200	20,500	Apr. 23, 1944	38.30	105,000	57.1	5.1
1484	Salt Fork Arkansas River near Alva, Okla.	E21	1,009	-	1904-58	11,000	6,850	May 8, 1922	10.3	16,000	26.8	2.5
1490	Medicine Lodge River near Kiowa, Kans.	E21	914	-	1938-51	7,000	6,450	Oct. 23, 1941	9.08	17,000	17.5	3.9
1495	Salt Fork Arkansas River near Cherokee, Okla.	E21	2,439	-	1941-50	11,200	12,200	Oct. 23, 1941	11.7	35,000	14.4	2.9
1510	Salt Fork Arkansas River at Tonkawa, Okla.	E21	4,520	-	1904-58	17,700	18,200	June 10, 1923	26.8	40,800	9.03	2.2
1515	Chikaskia River near Corbin, Kans..	E20	794	-	1904, 1936-58	8,000	11,500	June 9, 1923	22.82	60,000	73.6	5.2
1520	Chikaskia River near Blackwell, Okla.	E20	1,659	-	1923-58	18,500	20,900	June 10, 1923	34	100,000	55.8	4.9
1530	Black Bear Creek at Pawnee, Okla....	E21	576	-	1908, 1943, 58	5,060	4,800	May 19, 1943	28.19	17,800	30.9	3.7
1535	Cimarron River near Quay, N. Mex....	E21	545	-	1940-58	3,700	4,600	July 6, 1954	20.5	16,500	15.6	1.8
1538	Cimarron River near Antonco, Okla....	E21	1,038	-	1951-58	8,100	7,200	July 6, 1954	13.67	26,300	25.3	3.7
1550	Cimarron River above Ute Creek near Boise City, Okla.	E21	1,879	-	1906, 1942-54	17,500	10,600	Apr. 20, 1942	20.1	80,000	42.6	7.5

FLOOD-FREQUENCY ANALYSIS

1568	Location	b4,107	1895-96,1905,1938-42	8,280	7,200	Apr. 21, 1942	12.1	69,000	16.8	9.6
	Cimarron River near Liberal, Kans. E22									
1575	Crooked Creek near Nye, Kans. E22	b813	1913-58	3,100	2,450	May 20, 1955	8.01	13,600	16.7	5.6
1580	Cimarron River near Waynoka, Okla. E21	b8,504	1914-58	28,500	28,000	May 16, 1957	15.10	94,500	11.1	3.4
1585	Preacher Creek near Dover, Okla. E21	14.5	1918-57	920	-	May 15, 1957	9.1	6,420	44.3	-
1590	Turkey Creek near Drummond, Okla. E21	248	1914-58	2,780	2,750	May 16, 1957	21.61	18,800	75.8	6.8
1600	Cimarron River near Guthrie, Okla. E21	b11,966	1914-57	34,000	34,800	May 17, 1957	18.58	158,000	13.2	4.5
1605	Skeleton Creek near Lovell, Okla. E21	410	1912-58	3,960	3,800	May 16, 1957	34.58	75,200	183	19.8
1610	Cimarron River at Perkins, Okla. E21	b12,926	1912-58	36,800	36,500	May 17, 1957	19.53	149,000	11.5	4.1
1630	Council Creek near Stallwater, Okla. E17	31	1912-58	2,290	2,050	Aug. 14, 1942	17.54	18,000	581	8.8
1640	Cimarron River at Mamford, Okla. E21	b13,923	1908-58	45,500	38,200	October, 1908	25.7	-	-	-
1655	Polecat Creek below Heyburn Reservoir, near Heyburn, Okla. E17	123	1940-58	7,080	4,650	Sept. 4, 1940	25.2	103,000	7.40	2.6
1660	Verdigris River near Coyville, Kans. E19	747	1940-58	15,000	18,200	July 12, 1951	41.25	130,000	174	7.1
1665	Verdigris River near Altoona, Kans. E19	1,139	1939-58	16,000	22,300	July 12, 1951	31.09	71,000	62.4	3.2
1670	Verdigris River near Baska, Kans. E19	336	1923-58	16,000	12,500	June 29, 1951	29.80	91,800	273	7.3
1675	Otter Creek near Climax, Kans. E19	129	1947-58	8,000	7,950	June 30, 1951	23.73	15,400	119	1.9
1685	Fall River near Fall River, Kans. E19	585	1869-1958	14,200	16,400	June 1904	59.0	-	-	-
1695	Fall River at Fredonia, Kans. E19	827	1923-58	13,500	19,100	June 1923	32.57	48,000	82.1	2.9
1700	Elk River near Elk City, Kans. E19	575	1867-1958	17,700	16,000	Apr. 16, 1945	36.17	49,000	59.2	2.6
1705	Verdigris River at Independence, Kans. E19	2,892	1895-1958	32,500	34,600	May 19, 1945	30.65	81,500	142	5.1
1710	Verdigris River near Lenapah, Okla. E19	5,639	1939-58	34,500	39,000	Apr. 20, 1945	40.44	117,000	40.5	3.4
1720	Caney River near Elgin, Kans. E19	445	1939-58	16,000	14,300	Apr. 10, 1944	29.80	35,500	79.8	2.5
1730	Caney River near Hulah, Okla. E19	736	1926-58	20,000	18,000	Apr. 10, 1944	40.2	-	-	-
1740	Caney Creek near Cotan, Okla. E19	424	1944-58	11,800	13,900	Apr. 10, 1944	39.45	51,000	69.3	2.8
1755	Caney River near Ramona, Okla. E19	1,955	1927-58	16,000	28,500	May 21, 1945	30.58	36,400	85.8	2.6
			1931,1935-38,1945-58			Oct. 3, 1945	39.8	-	-	-
1760	Verdigris River near Claremore, Okla. E19	6,534	1935-58	44,000	53,000	May 21, 1945	55.05	182,000	27.9	3.4
1765	Bird Creek at Avant, Okla. E17	364	1943-58	11,700	8,900	May 12, 1948	28.6	-	-	-
1770	Honley Creek near Slatook, Okla. E17	340	1943-58	8,560	8,500	July 10, 1948	29.0	25,400	69.8	2.9
1775	Bird Creek near Sparta, Okla. E17	905	1915-58	15,100	15,500	May 18, 1943	35.06	14,200	41.8	1.7
1786	Verdigris River near Iola, Okla. E19	7,911	1915-58	47,500	56,000	May 21, 1943	31.68	86,500	95.6	5.6
1795	Neosho River at Council Grove, Kans. E19	250	1903-58	12,500	11,600	July 11, 1951	54.33	224,000	28.3	4.0
1800	Cottonwood River near Marion, Kans. E18	329	1939-58	6,900	7,350	July 11, 1951	35.50	121,000	484	10.4
1805	Cedar Creek near Cedar Point, Kans. E18	110	1856-1958	4,500	4,350	June 29, 1951	23.70	52,400	476	12.0
1810	Cottonwood River at Elmdale, Kans. E18	1,045	1904-44	10,500	13,000	Apr. 23, 1944	37.5	40,000	38.3	3.1
1815	Middle Creek near Elmdale, Kans. E18	92	1917-51	4,500	3,900	June 23, 1938	21.0	20,000	217	5.1
1820	Cottonwood River at Cottonwood Falls, Kans. E18	1,402	1858-1958	11,500	15,000	July 11, 1951	27.06	196,000	140	13.1
1824	Neosho River at Strawn, Kans. E18	2,933	1895-1958	26,000	21,500	July 11, 1951	30.54	400,000	136	18.6
1830	Neosho River near Iola, Kans. E18	5,818	1855-1958	26,500	24,700	July 13, 1951	43.0	436,000	114	17.7
1835	Neosho River near Parsons, Kans. E18	4,905	1922-58	30,000	28,000	July 14, 1951	40.20	410,000	83.6	14.6
1840	Lightning Creek near McCune, Kans. E18	197	1938-46	5,400	6,100	May 19, 1943	17.81	117,000	117	3.8
1845	Labette Creek near Oswego, Kans. E18	211	1935-48	5,700	6,450	June 22, 1948	23.2	30,000	142	4.7

See footnotes at end of table.

Table 1.--Inventory of data for gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydro-logic area	Contributing drainage area (sq mi)	Elevation (feet)	Period of known floods (water years)	Station No. 33 (cfs)	Areal No. 33 (cfs)	Maximum stage and discharge				
								Date	Gage height (feet)	Discharge		Ratio to areal height
										Cfs	sq mi	
Arkansas River basin--Continued												
1850	Nescho River near Commerce, Okla.	E18	5,876	-	1904-58	33,000	30,500	434.03	July 15, 1951	267,000	45.4	8.8
1860	Spring River near Waco, Mo.	E7	1,164	-	1925-58	19,800	23,000	30.94	May 19, 1943	103,000	88.5	4.5
1865	Tunkey Creek at Joplin, Mo.	E7	33	-	1933-59	1,370	1,600	9.86	Oct. 6, 1956	1,980	60.0	4.2
1870	Shoal Creek above Joplin, Mo.	E7	410	-	1924-58	10,600	10,500	16.8	May 18, 1943	62,100	151	5.9
1880	Spring River near Quapaw, Okla.	A7	2,510	-	1895-1958	35,500	40,800	43.4	May 19, 1943	190,000	75.7	4.7
1885	Lost Creek at Seneca, Mo.	A7	42	-	1943-58	1,750	1,860	11.7	1943, 1945	190,000	151	5.9
1890	Elk River near Tiff City, Mo.	A7	872	-	1949-58	19,500	18,500	8.21	May 25, 1957	5,760	137	3.1
1895	Nescho River near Grove, Okla.	A	9,969	-	1940-58	76,000	-	28.4	Apr. 19, 1941	137,000	157	7.4
1910	Big Cabin Creek near Big Cabin, Okla.	E7	466	-	1925-59	76,000	-	34.58	Apr. 15, 1927	333,000	13.3	1.8
1920	Fryor Creek near Fryor, Okla.	E7	229	-	1893-1958	14,700	11,500	34.96	May 18, 1943	63,000	135	5.5
1925	Nescho River near Wagener, Okla.	A	12,307	-	1915-58	6,300	6,800	20.4	May 10, 1943	17,500	76.4	2.6
1930	Osage Creek near Elm Springs, Ark.	A10	29	-	1844-58	100,000	-	19.5	Apr. 34, 1943	40,500	29.4	4.0
1965	Illinois River near Tahlequah, Okla.	A10	959	-	1886-1899	8,150	5,600	18.7	May 11, 1950	22,500	124.5	4.0
1970	Barren Fork at Eldon, Okla.	A10	307	-	1918-58	26,000	25,800	27.94	May 16, 1950	150,000	156	5.9
1980	Illinois River near Gore, Okla.	A10	1,626	-	1945-58	19,700	10,800	23.8	Apr. 15, 1945	-	-	-
1985	Dirty Creek near Warner, Okla.	E10	227	-	1925, 1940-58	36,000	38,200	30.2	Apr. 3, 1957	37,600	122	3.5
1990	Canadian River near Hebron, N. Mex.	E24	229	6,250	1939-46	9,200	8,600	26.00	May 11, 1958	180,000	111	4.7
2020	Chicoicra Creek near Hebron, N. Mex.	E24	381	6,200	1947-58	2,580	1,900	26.0	May 10, 1943	42,000	185	4.9
2030	Vermejo River near Dawson, N. Mex.	E24	301	6,540	1929-58	3,230	2,660	10.40	May 9, 1955	6,860	30.0	3.6
2040	Moreno Creek at Eagle Nest, N. Mex.	E26	82	8,200	1929-55	2,370	2,180	11.88	Aug. 6, 1940	9,000	29.9	4.1
2045	Cieneguilla Creek near Eagle Nest, N. Mex.	E26	56	8,190	1929-55	159	134	3.16	Aug. 19, 1940	5,16	-	-
2050	Six Mile Creek near Eagle Nest, N. Mex.	E26	11	8,200	1931-55	40	48	-	Sept. 1, 1946	240	2.93	1.4
2075	Fonil Creek near Cimarron, N. Mex.	E24	171	6,670	1916-18, 1924, 1928-29, 1946	1,370	1,450	3.58	Apr. 23, 1942	500	8.93	3.7
2085	Rayado Creek at Sauble Ranch near Cimarron, N. Mex.	E26	65	6,880	1931-55	227	205	4.94	Apr. 2, 1937	(e)	-	-
2110	Cimarron Creek at Springer, N. Mex.	E26	1,082	5,770	1914, 1924-26	1,510	1,500	22	Aug. 8, 1929	5,200	30.4	3.6
2155	Mora River at La Chueva, N. Mex.	E25	173	6,890	1930-1958	747	896	10.55	Sept. 29, 1904	6,250	-	4.2
2165	Mora River near Golondrinas, N. Mex.	E25	267	6,730	1916-20, 1929-58	1,110	1,100	7.58	Sept. 23, 1941	1,530	8.94	1.7
2180	Coyote Creek near Golondrinas, N. Mex.	E25	215	6,820	1929-58	747	928	8.60	Aug. 22, 1952	13,800	51.7	12.5
									July 11, 1955	3,200	14.9	3.4

FLOOD-FREQUENCY ANALYSIS

13

2210	2210	6,170	1915-22, 1924, 1927-58	bl,033	6,170	1915-22, 1924, 1927-58	3,940	3,460	June 3, 1948	12.79	15,200	14.7	4.4
2225	Mora River near Shoemaker, N. Mex.	4,430	1937-58	b393	4,430	1937-58	6,060	6,020	Sept. 1, 1942	19.5	44,000	112	7.3
2265	Conchas River at Vandiervo, N. Mex.	3,760	1909-58	bl,456	3,760	1909-58	14,700	15,200	May 1, 1914	22.95	44,000	-	4.6
2300	Ute Creek near Logan, N. Mex.	-	1941-58	-	-	1941-58	8,000	7,250	May 25, 1957	17.0	70,000	48.1	4.8
2305	Little River below Hog Creek, near Norman, Okla.	-	1953-58	257	-	1953-58	8,000	-	-	28.85	34,600	135	4.8
2305	Little River near Tecumseh, Okla.	-	1932-58	456	-	1932-58	11,400	10,200	June 1952	25.58	60,000	132	5.9
2310	Little River near Sasakwa, Okla.	-	1939-58	865	-	1939-58	18,100	15,100	May 11, 1950	33.48	44,600	51.6	5.0
2320	Gaines Creek near Krebs, Okla.	-	1912-58	588	-	1912-58	11,000	12,000	Feb. 18, 1938	31.9	70,000	119	5.8
2325	North Canadian River near Quymon, Okla.	-	1937-58	bl,175	-	1937-58	11,400	-	Sept. 23, 1941	13.82	44,000	37.4	3.9
2330	Coldwater Creek near Hardesty, Okla.	-	1939-58	b767	-	1939-58	4,780	5,750	June 25, 1947	9.07	24,600	32.1	4.5
2335	Palo Duro Creek near Spearman, Tex.	-	1935-58	b440	-	1935-58	3,400	4,000	Sept. 4, 1938	22.5	34,000	77.3	8.5
2340	North Canadian River at Beaver, Okla.	-	1923-43	b3,685	-	1923-43	11,800	-	Oct. 6, 1946	14.55	70,000	19.0	5.9
2345	North Canadian River near Fort Supply, Okla.	-	1937-58	b5,068	-	1937-58	9,480	-	Oct. 9, 1946	11.83	50,000	9.87	5.3
2350	Wolf Creek at Lipscomb, Tex.	-	1938-44	b475	-	1938-44	5,700	4,200	Oct. 21, 1941	5.80	20,000	42.1	4.8
2355	Wolf Creek near Shattuck, Okla.	-	1938-46	b1,961	-	1938-46	7,500	6,700	Oct. 22, 1941	6.87	24,000	23.0	3.6
2360	North Canadian River at Woodward, Okla.	-	1920-58	b6,775	-	1920-58	9,200	8,500	June 22, 1937	10.0	84,000	58.9	9.6
2375	North Canadian River at Woodward, Okla.	-	1938-58	-	-	1938-58	-	-	Oct. 12, 1923	10.9	-	-	4.7
2380	North Canadian River near Sealing, Okla.	-	1923-58	b7,414	-	1923-58	8,740	-	May 19, 1953	16.4	43,000	6.34	4.7
2390	North Canadian River at Canton, Okla.	-	1947-58	b7,601	-	1947-58	6,900	-	May 19, 1951	10.61	40,100	5.41	4.6
2395	North Canadian River near El Reno, Okla.	-	1938-58	b8,143	-	1938-58	6,900	-	Oct. 13, 1923	16.8	-	-	3.6
2420	North Canadian River near Wetumka, Okla.	-	1903-7, 1934-58	b9,391	-	1903-7, 1934-58	4,780	-	Oct. 28, 1941	15.98	15,000	1.84	3.1
2425	Bellecow Creek at Chandler, Okla.	-	1923-58	46	-	1923-58	16,100	-	October 1923	26.9	-	-	4.1
2435	Deep Fork near Beegs, Okla.	-	1943, 1949-55	2,018	-	1943, 1949-55	2,300	2,540	Apr. 15, 1945	26.40	66,000	7.03	4.1
2450	Sallisaw Creek near Sallisaw, Okla.	-	1939-58	182	-	1939-58	16,700	25,000	June 24, 1948	15.20	-	-	1.1
2470	Poteau River at Cauthron, Ark.	-	1935-58	200	-	1935-58	15,900	16,000	May 23, 1952	11.80	2,910	63.3	2.7
2475	Fourche Maline near Red Oak, Okla.	-	1935-58	122	-	1935-58	12,700	11,500	May 11, 1943	34.55	66,800	33.1	6.9
2485	Poteau River near Wister, Okla.	-	1915-58	993	-	1915-58	33,100	31,800	Apr. 15, 1945	11.25	110,000	604	2.7
2490	Cove Creek near Lee Creek, Ark.	-	1920-58	36.9	-	1920-58	5,720	8,400	Jan. 24, 1949	23.34	31,000	155	2.7
2500	Lee Creek near Van Buren, Ark.	-	1930-58	427	-	1930-58	5,760	31,800	Apr. 25, 1942	22.34	26,500	216	5.1
2510	Four Bayou at Rudy, Ark.	-	1945-58	217	-	1945-58	9,150	5,780	Apr. 16, 1957	17.16	70,500	79.2	2.5
2515	Mulberry River near Mulberry, Ark.	-	1927-58	372	-	1927-58	13,800	26,000	Apr. 15, 1945	35.0	50,500	55.2	4.0
2520	Spadra Creek at Clarksville, Ark.	-	1949-58	274	-	1949-58	24,200	17,000	Apr. 15, 1945	31.06	112,000	262	2.8
2525	Piney Creek near Dover, Ark.	-	1943-58	242	-	1943-58	20,200	19,000	Apr. 15, 1945	18.5	17,300	234	2.9
2530	Piney Creek near Booneville, Ark.	-	1939-58	517	-	1939-58	18,200	21,000	Decem. 1927	22.0	59,000	182	3.3
2535	Petit Jean Creek near Waveiland, Ark.	-	1939-58	247	-	1939-58	13,000	13,200	Apr. 3, 1957	14.58	15,300	159	3.5
2540	Petit Jean Creek near Waveiland, Ark.	-	1939-58	517	-	1939-58	18,200	21,000	Jan. 24, 1949	25.6	80,000	292	3.8
2545	Petit Jean Creek near Waveiland, Ark.	-	1939-58	247	-	1939-58	13,000	15,600	Jan. 10, 1943	24.6	77,000	318	3.9
2550	Petit Jean Creek near Waveiland, Ark.	-	1939-58	517	-	1939-58	18,200	21,000	Jan. 24, 1949	23.42	43,200	175	3.3
2555	Petit Jean Creek near Waveiland, Ark.	-	1939-58	247	-	1939-58	13,000	15,600	Apr. 16, 1939	29.95	62,600	121	3.0

See footnotes at end of table.

Table 1.--Inventory of data for gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydro-logic area	Contributing drainage area (sq mi)	Elevation (feet)	Period of known floods (water years)	Station Q _{2.33} (cfs)	Maximum stage and discharge				
							Date	Gage height (feet)	Discharge		Ratio to areal Q _{2.33}
									Cfs	Cfs per sq mi	
Arkansas River basin--Continued											
2600	Dutch Creek at Waltham, Ark.....	B2	74	-	1937-58	6,810	19.5	-	-	-	
2605	Petit Jean Creek at Danville, Ark....	B2	741	-	1946-58	6,100	18.45	13,700	185	2.2	
2615	Fourche La Pave River near Gravelly Ark.	D9	415	-	1917-58 1939-58	22,000 23,700	31.82 28.86	70,800 54,000	95.5 131	2.7 2.0	
2625	Fourche La Pave River near Nimrod, Ark.	D2	680	-	1927-58	23,800	30.9	39,000	57.4	1.6	
2630	South Fourche La Pave River near Hollis, Ark.	D9	211	-	1945-58	22,400	19.47	54,400	258	3.0	
2645	Bayou Meto near Stuttgart, Ark.....	D11*	647	-	1936-58	3,950	25.50	9,350	14.5	2.0	
2650	Crooked Creek near Humphrey, Ark....	D11*	647	-	1936-58	3,950	25.50	9,350	14.5	2.0	
Yazoo River basin											
2660	Cane Creek near New Albany, Miss....	F13	22.2	-	1939-41, 1950-58	3,240	9.08	8,680	391	2.7	
2670	Hell Creek near New Albany, Miss....	F4	27.3	-	1839, 1942, 1952-58	2,140	-	3,600	132	1.7	
2680	Tallahatchie River at Etta, Miss....	F13	526	-	1937-58	26,100	17.32	79,000	150	3.4	
2685	Cypress Creek near Etta, Miss.....	F13	28.5	-	1939-42, 1952-58	3,450	29.32	8,800	309	2.4	
2690	North Tippah Creek near Ripley, Miss.	F4	20.0	-	1939-42, 1948, 1952-58	1,960	13.63	6,180	309	3.4	
2699.9	Tippah Creek near Potts Camp, Miss.	F4	359	-	1943-58	10,800	20.78	24,000	66.9	2.2	
2710	Clear Creek near Oxford, Miss.....	F13	10.3	-	1939-41, 1950-58	2,560	11.66	5,980	386	2.0	
2730	Tallahatchie River near Sardis, Miss.	F13	1,595	-	1929-58	39,000	26.36	65,300	40.9	1.4	
2740	Yocoma River near Oxford, Miss.....	B16	282	-	1905-58	10,000	23.72	44,100	168	4.5	
2742.5	Onuchalofa Creek at Water Valley, Miss.	B16	84.1	-	1952-58	4,400	27.56	21,000	250	4.4	
2750	Yocoma River at Enid Dam near Enid, Miss.	B16	560	-	1929-58	19,500	21.61	36,300	64.8	2.3	
2755	Long Creek near Courtland, Miss....	D14	66.2	-	1940-43, 1952-58	14,900	25.02	38,300	579	2.8	
2760	Coldwater River near Lewisburg, Miss.	F13	218	-	1940-58	11,500	15.60	25,900	119	1.9	
2775	Coldwater River near Coldwater, Miss.	F13	617	-	1929-42	22,700	21.00	79,500	129	3.1	
2777	Hickabala Creek near Senatobia, Miss.	F13	121	-	1900-58	9,000	20.6	30,000	248	3.3	
2777.3	Senatobia Creek near Senatobia, Miss.	C15	82	-	1945-58	13,300	17.90	19,400	237	1.9	
2796	Arkabutla Creek near Arkabutla, Miss.	C15	97	-	1947-58	11,000	22.26	16,500	170	1.4	

FLOOD-FREQUENCY ANALYSIS

2855	Yalobusha River at Graysport, Miss.	B16	607	-	1940-49	17,700	17,000	Feb. 15, 1948	28.25	46,800	77.1	2.8
2856	Skuna River at Bruce, Miss.....	B16	254	-	1948-58	9,700	9,700	Mar. 2, 1955	24.11	61,400	242	6.3
2857	Skuna River near Coffeeville, Miss.	B16	435	-	1928-49	14,600	13,600	Mar. 29, 1944	23.22	41,000	101	3.2
2860	Askamore Creek near Charleston, Miss.	D14	31.0	-	1941-42, 1947-48, 1952-58	9,900	8,200	Apr. 4, 1957	16.10	12,200	394	1.5
2865	Thompson Creek at McCarley, Miss...	B16	14.4	-	1950-58	2,660	1,520	Apr. 12, 1955	14.05	3,980	276	2.6
2867	Big Sand Creek at Carrollton, Miss.	D14	74.1	-	1934-58	15,900	14,700	Apr. 11, 1957	25	22,500	304	1.5
2868	Big Sand Creek at Valley Hill, Miss.	D14	110	-	1937-58	16,200	19,100	Apr. 11, 1947	21.91	35,000	300	1.7
2885	Sunflower River at Sunflower, Miss.	C11*	767	-	1935-58	5,850	5,100	May 5, 1958	28.31	9,300	12.1	1.8
2885.7	Quiver River near Daddsville, Miss.	C11*	292	-	1938-58	2,770	2,580	Mar. 30, 1944	26.2	6,730	25.3	2.9
2887.7	Deer Creek near Hollandale, Miss....	C11*	98	-	1946-58	2,590	794	May 6, 1958	18.18	1,000	10.2	1.3

Four Mile Bayou basin

2890.1	Durden Creek near Vicksburg, Miss..	D14	5.50	-	1935, 1941-46, 1947-58, 1953-58	1,620	-	Nov. 18, 1948	1136.55	4,570	851	-
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Big Black River basin

2891.8	Big Black River near Kilmichael, Miss.	B16	549	-	1937-58	16,000	15,800	Mar. 29, 1951	17.23	37,300	67.9	2.4
2893.3	Zilpina Creek near Kosciusko, Miss..	B16	90.0	-	1953-58	5,490	5,000	Apr. 13, 1955	27.49	16,000	178	3.2
2893.5	Big Black River at West, Miss.....	B	985	-	1937-58	21,000	-	Mar. 30, 1951	24.09	47,000	47.7	2.2
2895	Big Black River at Pickens, Miss...	B	1,460	-	1952-1958	19,500	-	Dec. 28, 1926	25.70	49,400	33.8	2.5
2895.3	Doaks Creek near Canton, Miss.....	B16	161	-	1937-58	5,360	7,200	Mar. 29, 1951	16.40	12,600	78.3	1.8
2895.6	Big Creek near Madison, Miss.....	B16	24.2	-	1948-58	3,660	2,180	Jan. 29, 1953	16.04	17,300	302.3	3.4
2896.2	Big Bogie near Canton, Miss.....	B16	154	-	1948-58	2,250	2,180	Apr. 20, 1953	19.0	8,800	361	4.0
2897.3	Big Black River near Bentonia, Miss.	B	2,340	-	1950-58	5,300	7,000	Apr. 30, 1953	19.49	9,400	81.0	1.3
2898.5	Bogue Chitto near Flora, Miss.....	B13	127	-	1929-58	27,000	-	Mar. 30, 1951	34.7	66,500	28.4	2.5
2900	Big Black River near Bovina, Miss....	B	2,810	-	1936-58	25,600	9,500	Apr. 30, 1953	20.88	165,000	165	2.2

Bayou Pierre basin

2905	Bayou Pierre near Carpenter, Miss..	D13	371	-	1858-1958	21,000	18,600	June 3, 1953	31	24,400	65.8	1.3
2906.6	Bayou Pierre near Fort Gibson, Miss.	D13	678	-	1945-58	23,300	27,000	May 19, 1953	25.95	25,600	37.8	1.9

St. Catherine Creek basin

2909	St. Catherine Creek near Natchez, Miss.	D14	53	-	1950-58	14,700	11,700	May 17, 1953	33.80	31,000	585	2.6
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Homochitto River basin

2910	Homochitto River at Eddiceton, Miss.	D15	180	-	1949-58	18,500	17,700	Mar. 29, 1959	-	30,900	172	1.7
2912-5	McCall Creek near Zucien, Miss.....	D15	60	-	1952-58	7,800	8,600	May 2, 1950	15.74	8,450	141	1.0
2915	Homochitto River near Bude, Miss....	D15	399	-	1942-50	30,200	30,000	Jan. 6, 1950	16.60	49,400	124	1.6

See footnote at end of table.

Table 1.--Inventory of data for gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydro-logic area	Contributing drainage area (sq mi.)	Elevation (feet)	Period of known floods (water years)	Station Q _{2.33} (cfs)	Areal Q _{2.33} (cfs)	Maximum stage and discharge					
								Date	Gage height (feet)	Discharge Cfs	Ratio to areal Q _{2.33}		
Homochitto River basin--Continued													
2925	Homochitto River at Rosetta, Miss.	D	750	-	1949-58	30,800	-	37.80	59,100	Mar. 31, 1949	-	-	-
2940	Second Creek at Sibley, Miss.	D14	55.3	-	1942-52	12,700	12,000	33.03	25,500	May 3, 1953	79.2	1.9	
2945	Homochitto River near Dolores, Miss.	D	1,120	-	1948, 1940-46, 1949-58	34,000	-	33.0	75,000	May 19, 1953	70.5	2.3	
Buffalo River basin													
2950	Buffalo River near Woodville, Miss.	D14	182	-	1942-58	23,000	27,000	16.2	59,900	Mar. 2, 1948	219	1.5	
Red River basin													
2955	Tierra Blanca Creek at reservoir, near Umbarger, Tex.	A21	b575	-	1937-54	2,700	4,750	-	11,300	June 6, 1941	19.7	2.4	
2980	North Tule Draw at reservoir, near Tulla, Tex.	A21	b65	-	1941-58	1,290	1,140	-	5,430	May 15, 1951	83.5	4.8	
2985	Prairie Dog Town Fork Red River near Brice, Tex.	A20	b1,493	-	1906-51 1939-44, 1950-51	19,800	17,500	14.8	42,100	Oct. 4, 1941	28.2	2.4	
2995	Prairie Dog Town Fork Red River near Estelline, Tex.	A20	b2,524	-	1908-47 1938-47, 1958-58	21,500	26,100	14	56,000	June 9, 1941	22.2	2.1	
3005	Salt Fork Red River at Mangum, Okla.	A20	b1,357	-	1945-58	17,500	16,000	14.7	72,000	June 16, 1938	-	4.5	
3015	Elm Fork Red River near Carter, Okla.	A21	b1,938	-	1905-47 1905-8, 1930-31, 1938-47	10,200	11,000	11.95	25,300	May 19, 1957	53.1	2.3	
3035	Elm Fork of North Fork Red River near Mangum, Okla.	A20	838	-	1905-47 1905-7, 1935, 1938-58	11,800	12,500	16.4	30,600	May 12, 1947	36.5	2.4	
3045	Elk Creek near Hobart, Okla.	A21	549	-	1905-58	4,420	4,600	30.75	22,400	Oct. 4, 1955	40.8	4.9	
3050	North Fork Red River near Headrick, Okla.	A21	b3,845	-	1905-7, 1935, 1938-58	14,400	16,500	16.1	85,000	(6)	22.1	5.2	
3055	Otter Creek at Snyder Lake near, Mountain Park, Okla.	A20	132	-	1903-7, 1952-58	3,860	2,760	19.50	14,200	June 6, 1953	108	5.1	
3075	Quitaque Creek near Quitaque, Tex.	A20	b35	-	1946-58	1,070	1,030	8.62	6,060	June 28, 1955	-	-	
3080	Pease River near Crowell, Tex.	A20	b2,478	-	1891-1947 1924-47	39,100	25,500	19.6	173	Aug. 4, 1957	173	5.9	
3110	Cache Creek near Walter, Okla.	A20	875	-	1906-58	8,920	9,500	11.88	108,000	June 6, 1941	42.8	4.2	
3115	Deep Red Run near Randlett, Okla.	A20	617	-	1950-58	7,180	8,800	28.72	28,200	May 18, 1951	41.8	4.0	
3130	Little Beaver Creek near Duncan, Okla.	E7	158	-	1949-58	12,000	5,150	h27.10	20,500	May 18, 1951	32.9	2.3	
3135	Beaver Creek near Waurika, Okla.	E7	563	-	1889-1958	12,000	13,300	-	47,500	May 25, 1957	501	9.3	
3145	Little Wichita River near Archer City, Tex.	E21	481	-	1850-56 1932-56	3,500	4,240	28	65,300	June 18, 1951	116	4.9	
								26.18	17,900	Oct. 31, 1940	37.2	4.2	

FLOOD-FREQUENCY ANALYSIS

3260	Fond Creek near Fort Cobb, Okla....	E20	-	1937-50	5,400	4,320	19.3	35,000	110	-
3280	Rush Creek at Purdy, Okla.....	B7	145	1940-58	9,570	9,570	18.72	207,000	297	6.2
3305	Caddo Creek near Ardmore, Okla.....	E7	298	1940-58	8,190	8,190	h27.0	26,300	74.8	2.7
3325	Blue River near Blue, Okla.....	B7	476	1937-50	39,500	39,500	26.60	34,400	72.9	2.9
3340	Muddy Boggy Creek near Farris, Okla.	B7	1,067	1938-58	23,700	23,700	31.81	61,900	56.9	2.9
3350	Clear Boggy Creek near Caney, Okla.	D2	720	1938-58	17,900	17,900	26.91	54,600	75.8	3.4
3365	Whiteoak River near Reizel, Okla....	D2	1,423	1915-58	58,900	58,900	44.2	72,000	50.8	1.8
3375	Lattie River near Wright City, Okla.	D9	1,645	1930-31	37,900	37,900	45.77	75,400	117	2.1
3380	Lattie River near Idabel, Okla.....	D2	1,173	1930-46	34,300	34,300	39.3	86,000	73.3	2.2
3390	Mountain Fork River near Eagletown, Okla.	D9	1,787	1915-58	47,000	47,000	26.4	92,500	118	2.2
3395	Rolling Fork near De Queen, Ark....	D9	181	1947-58	17,200	17,200	25.6	110,000	608	6.8
3400	Little River near Horatio, Ark.....	D2	2,674	1915-58	57,100	57,100	38.0	124,000	46.4	2.1
3405	Cossatot River near De Queen, Ark..	D2	361	1938-58	28,700	28,700	20.47	46,900	130	1.9
3410	Saline River near Merks, Ark.....	D9	124	1920-58	11,100	11,100	21.9	12,600	-	-
3425	South Sulphur River near Cooper, Tex.	B7	527	1943-58	10,900	12,600	19.83	31,200	252	2.5
3438	Whiteoak Creek below Talcoo, Tex....	B7	579	1870-1950	17,000	13,500	23.00	23,800	45.2	1.9
3440	Sulphur River near Darden, Tex....	B7	2,774	1865-1954	38,000	44,000	24.1	85,100	144	6.2
3445	Cypress Creek near Pittsburg, Tex..	E7	566	1910-58	9,000	9,000	37.56	157,000	56.6	3.6
3450	Boggy Creek near Daingerfield, Tex.	E7	672	1900-1958	2,900	2,960	27.82	58,500	160	6.1
3460	Cypress Creek near Jefferson, Tex..	E	650	1913-58	3,500	3,500	17.60	26,300	467	16
3464.5	Black Bayou near Rodessa, La.....	E2	176	1945-51	1,470	2,200	76.6	6,100	21.5	0
3475	Belly Bayou near Ouston, La.....	E2	164	1945-51	1,470	2,200	22.72	6,100	38.4	2.7
3476	Black Bayou near D'Iberville, La....	E2	164	1943-58	3,500	3,520	12.72	17,700	48.6	5.0
3480	Bayou Dorcheat near Sarepta, La....	E6	3,187	1939-51	12,800	12,800	35.65	38,400	12.2	3.0
3487.2	Bayou Dorcheat near Sarepta, La....	E6	66.9	1939-51	10,600	9,200	18.5	13,000	18.1	1.4
3488	Flat Lick Bayou near Laton, La.....	B6	1,097	1929-58	11,980	11,980	12.95	10,200	152.1	5.2
3490	Bayou Dorcheat near Minden, La....	B6	1,546	1905-58	6,160	12,200	24.90	44,800	40.8	3.7
3495	Bayou Bodou near Sarepta, La.....	B6	133	1939-58	2,580	3,100	25.14	18,600	34.1	2.4
3498	Cypress Bayou near Benton, La.....	B6	79	1939-52, 1956-58	2,580	3,100	15.4	9,000	67.7	2.9
3510	Boggy Bayou near Keithville, La....	B16	66	1933-58	5,060	4,610	26.70	14,800	187	5.2
3515	Cypress Bayou near Keithville, La..	B16	66	1939-57	6,720	4,110	18.0	23,700	359	5.8
3520	Saline Bayou near Luckey, La.....	B6	154	1939-57	3,500	3,400	12.90	15,500	87.7	4.0
3525	Black Lake Bayou near Castor, La..	B6	423	1941-58	5,700	6,600	15.20	14,100	33.3	2.1
3535	Natchitche Creek near Montgomery, La.	B8	47	1940-58	2,820	2,170	14.63	10,500	25.0	4.8
3540	Little Sandy Creek at Kistachle, La.	B16	21.4	1950-58	2,390	2,010	15.36	5,980	275	1.9
3550	Hemphill Creek near Hot Wells, La..	B16	18.0	1949-58	1,750	1,750	15.51	8,390	482	4.6
3560	Ouachita River near Mount Ida, Ark.	D9	410	1942-58	24,800	27,400	30.80	54,800	153	2.0
3565	South Fork Ouachita River at Mount Ida, Ark.	D9	64	1950-58	6,460	8,100	13.24	10,180	169	1.3
3570	Ouachita River near Mountain Pine, Ark.	D9	1,100	1923-58	52,500	52,000	38.55	123,000	112	2.4

See footnotes at end of table.

Table 1.--Inventory of data for gaging stations used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydro-logic area	Contributing and drainage area (sq mi.)	Elevation (feet)	Period of known floods (water years)	Station Q _{2.33} (cfs)	Areal Q _{2.33} (cfs)	Date	Maximum stage and discharge			
									Gage height (feet)	Discharge cfs	Ratio to areal per sq mi	
Red River basin--Continued												
3595	Ouachita River near Malvern, Ark...	D9	1,562	-	1903-4, 1923-58	62,200	65,000	May 15, 1923	30.3	140,000	89.6	2.2
3598	Caddo River near Alpine, Ark.....	D9	312	-	1923-58	30,300	25,000	Mar. 30, 1945	30.2	64,200	206	2.8
3600	Ouachita River at Arkadelphia, Ark.	D9	2,511	-	1906,1914-58	73,000	84,000	Mar. 30, 1945	30.3	170,000	73.6	2.0
3608	Muddy Fork Creek near Murfreesboro, Ark.	D9	121	-	1940-58	13,000	12,400	Mar. 30, 1945	29.7	47,100	389	3.8
3610	Little Missouri River near Murfreesboro, Ark.	D9	380	-	1927-58	36,400	26,000	Apr. 1, 1927	21.0	-	-	-
3615	Antoine River at Antioch, Ark.....	D9	181	-	1908-58	16,200	16,100	Mar. 30, 1945	31.94	120,000	316	4.6
3616	Little Missouri River near Boughn, Ark.	D2	1,068	-	1903-58	36,400	35,100	Mar. 31, 1945	27.2	740,000	221	2.5
3620	Ouachita River at Camden, Ark.....	D2	5,391	-	1882-58	92,000	93,000	May 12, 1882	46.0	-	-	-
3621	Smackover Creek near Smackover, Ark.	B6	377	-	1886-58	7,360	6,100	Apr. 3, 1945	44.82	243,000	45.1	2.6
3625	Mcro Creek near Fordyce, Ark.....	D7	216	-	1939-58	5,980	5,980	Apr. 27, 1958	21.21	25,000	66.3	4.1
3630	Saline River near Benton, Ark.....	D9	569	-	1927-58	34,300	33,800	May 2, 1958	16.47	26,800	124	4.2
3632	Saline River and Gambles Creek near Sheridan, Ark.	D2	1,129	-	1938-58	37,100	34,600	Apr. 17, 1939	27.5	67,000	118	2.0
3635	Saline River near Rye, Ark.....	D7	2,062	-	1948-58	33,000	35,100	Jan. 24, 1938	21.0	61,000	54.0	1.8
3641.2	Bayou Bartholomew near Star City, Ark.	C11*	215	-	1927-58	1,980	1,660	Jan. 28, 1949	20.1	73,000	35.4	2.1
3641.5	Bayou Bartholomew near McGehee, Ark.	C11*	592	-	1942-58	3,470	3,460	May 2, 1958	26.29	4,000	18.6	2.4
3641.9	Bayou Bartholomew at Wilnot, Ark...	C11*	1,170	-	1950-58	5,100	5,750	May 11, 1958	24.49	6,870	11.6	2.0
3645	Bayou Bartholomew near Beekman, La.	C11*	1,645	-	1926-58	7,600	7,980	May 23, 1958	26.18	9,000	6.84	1.4
3650	Bayou d'Arbonne near Dubach, La....	B8	355	-	1933-58	8,000	8,100	May 2, 1958	28.50	14,700	8.94	1.9
3655	Middle Fork Bayou d'Arbonne near Berwick, La.....	B6	178	-	1941-58	3,660	3,740	July 1933	24	23,400	65.9	2.9
3660	Carver Bayou near Lillie, La.....	B6	462	-	1941-58	7,180	6,950	Apr. 2, 1943	52.83	29,000	157	7.5
3705	Castor Creek near Lillie, La.....	B8	271	-	1858-1958	6,260	6,800	Apr. 27, 1958	25.20	46,300	100	6.7
3710	Garrett Creek at Jonesboro, La.....	B8	2,14	-	1941-58	7,791	6,800	Apr. 11, 1947	16.25	21,200	78.2	3.1
3715	Duglemona River near Jonesboro, La.	B8	347	-	1953-58	7,360	8,000	Apr. 24, 1953	9.87	1,670	780	3.8
3720	Duglemona River near Minfield, La.	B8	654	-	1939-57	9,940	12,100	Jan. 1, 1945	19.87	30,600	88.2	3.6
3725	Bayou Fanny Louis near Trout, La....	B8	92	-	1940-58	3,220	3,370	May 19, 1955	23.78	27,100	41.4	2.2
3730	Big Creek at Pollock, La.....	B8	51	-	1942-58	5,040	2,280	May 17, 1955	23.26	32,700	355	9.7
Mississippi River Delta												
3750	Tchoufuncta River near Folsom, La....	B16	95.5	-	1844-58	5,700	5,200	May 3, 1953	22.26	18,300	192	3.5
3755	Tangipahoa River at Robert, La.....	B8	646	-	1921-58	14,100	12,000	May 1921	27.10	50,500	78.2	4.2
					1939-58			May 3, 1953	23.13			

No	Gaging station	Channel length (miles)	1949-58	3,830	4,350	May 3, 1953	4,950	36.4	1.1
3758.5	Tickfaw River near Greenburg, La....	-	136	8,800	11,500	Apr. 15, 1955	14,400	96.8	2.1
3760	Tickfaw River at Holden, La.....	-	242	5,100	6,300	Mar. 25, 1943	20,500	61.7	1.8
3762	Hog Branch near Doyle, La.....	-	110	3,410	3,800	May 4, 1953	15,100	40.0	1.5
3765	Natabany River at Baptist, La.....	-	79.5	3,450	3,060	May 3, 1953	9,550	137	4.0
3770	Amite River near Darlington, La....	-	580	23,700	16,300	Apr. 13, 1955	55,700	120	3.1
3775	Comite River near Olive Branch, La.	-	149	7,700	6,900	Feb. 6, 1943	-	96.0	3.4
3780	Comite River near Comite, La.....	-	332	8,800	11,500	Apr. 15, 1955	14,400	96.8	2.1
3785	Amite River near Denham Springs, La.	-	1,350	25,300	27,700	Mar. 15, 1921	20,500	61.7	1.8
3800	Ward Creek at Siegen Lane, near Baton Rouge, La.	-	41.1	2,170	1,990	May 20, 1953	67,000	50.4	2.4
3820	Bayou Cocodrie near Clearwater, La.	-	240	1,360	2,700	Sept. 21, 1957	4,750	116	2.4
3835	Bayou des Glaises diversion channel	-	270	3,050	2,910	May 18, 1953	28,200	118	10.4
3860	Bayou Carentoro near Sunset, La....	-	37.1	2,540	2,860	August 1940	-	-	-
3865	Bayou Bourbeau at Shuteston, La....	-	19.0	1,410	1,870	Mar. 13, 1947	4,220	114	1.5
						Jan. 13, 1947	2,840	149	1.5

* Shape of drainage area used as a factor in hydrologic area 11. Length of channel above gaging stations in this area is given below:

No	Gaging station	Channel length (miles)
2845	Bayou Meto near Stuttgart, Ark.....	75
2885	St. Louis River at Safflower, Miss.....	101
2885	Quiver River near Dadds ville, Miss.....	59
2887	Deer Creek near Hollandsdale, Miss.....	67
3641.2	Bayou Bartholomew near Star City, Ark.....	72
3641.5	Bayou Bartholomew near McGehee, Ark.....	157
3641.9	Bayou Bartholomew at Wilmot, Ark.....	259
3645	Bayou Bartholomew near Beekman, La.....	308

a Elevation above mean gulf level.
 b Does not include noncontributing drainage area.
 c At site and datum used prior to Feb. 28, 1939.
 d Occurred July 18, 1951.
 e Probably exceeded 125 cfs.
 f Elevation above mean sea level.
 g Some time prior to 1927.
 h Highest since 1908 when stage was higher.
 i Occurred on following day.
 j Prior to dredging channel in 1943.

Table 2.-Maximum stages and discharges at gaging stations not used to define regional flood-frequency relations

No.	Gaging station	Flood region and hydrologic area	Contributing drainage area (sq mi)	Period of known floods (water years)	Date	Maximum stage and discharge			
						Gage height (feet)	Discharge Cfs		
100	Mississippi River at St. Louis, Mo.	-	701,000	1844-1958	June 27, 1844	41.32	1,300,000	1.85	
180	Big River near De Soto, Mo.	El	718	1915-58	August 1915	29.4	70,500	98.2	
Mississippi River main stem									
205	Mississippi River at Chester, Ill.	-	712,800	1844-1958	June 30, 1844	39.6	1,350,000	1.89	
220	Mississippi River at Thebes, Ill.	-	717,200	1844-1958	July 4, 1844	42.53	1,375,000	1.92	
232	Mississippi River at Columbus, Ky.	-	921,900	1844-1958	Jan. 25, 1937	54.54	-	-	
242	Mississippi River at Hickman, Ky.	-	922,500	1927-58	Feb. 1, 1937	51.5	2,010,000	2.18	
Obion River basin									
248	South Fork Obion River near Kenton, Tenn.	F8	760	1939-58	Feb. 3, 1956	22.5	-	-	
251	Rutherford Fork Obion River near Kenton, Tenn.	F8	271	1939-58	Feb. 1, 1956	17.5	-	-	
256	North Fork Obion River near Rivers, Tenn.	F8	520	1939-58	Nov. 19, 1937	16.5	-	-	
263	Obion River near Bogota, Tenn.	F8	2,020	1937-58	Feb. 4-9, 1937	31.15	-	-	
281	South Fork Forked Deer River near Halls, Tenn.	F8	1,112	1939-58	Nov. 22, 1937	25.40	47,700	23.6	
282	South Fork Forked Deer River at Yellow Bluff near Fowlkes, Tenn.	F8	1,144	1939-58	Jan. 12-13, 1946	14.20	26,900	24.2	
					Jan. 13, 1946	26.60	-	-	
Mississippi River main stem									
292.2	Mississippi River at Fulton, Tenn.	-	928,600	1880-1958	Feb. 9, 1937	47.25	-	-	
Hatchie River basin									
292.7	Hatchie River near Walnut, Miss.	F4	270	1947-58	Mar. 22, 1955	30.7	23,200	85.9	
294.3	Hatchie River at Serles, Tenn.	F4	1,160	1941-58	Feb. 14, 1948	30.2	-	-	
Mississippi River main stem									
320	Mississippi River at Memphis, Tenn.	-	932,800	1872-1958	Feb. 8, 1937	44.69	bl. 980,000	2.12	
St. Francis River basin									
395	St. Francis River at Wappello, Mo.	D2	1,311	1941-58	Apr. 16, 1945	25.60	22,300	17.0	
465	Big Lake Outlet near Manila, Ark.	D5	2,000	1927-33	April 1927	20.3	16,900	8.45	
476	Tyronza River near Tyronza, Ark.	D5	301	1937-58	Feb. 16, 1950	31.61	5,660	18.8	

FLOOD-FREQUENCY ANALYSIS

479.7	Mississippi River at Helena, Ark.	941,800	1828-1958	Apr. 23, 1912 Feb. 12, 1937	2,041,000	2.17
White River basin						
480	West Fork White River at Greenland, Ark.	A9	1946-58	May 24, 1946	13,71	-
495	White River near Rogers, Ark.	-	1892-1958	Apr. 3, 1957	52.9	334
500	White River at Beaver, Ark.	-	1898-1958	May 3, 1943	42.33	100,000
530	White River near Reeds Spring, Mo.	-	1927-52	May 12, 1945	47.00	195,000
535	White River near Branson, Mo.	-	1927-52	Apr. 16, 1945	45.36	106,000
550	White River near Flippin, Ark.	-	1927-1958	Apr. 16, 1937	41	212,000
560	Buffalo River near St. Joe, Ark.	A9	1915-58	August	50.5	240,000
			1940-58	Apr. 15, 1945	41.00	100,000
			1945-58	Apr. 16, 1945	-	21,000
600	North Fork River at Norfork Dam, near Norfork, Ark.	A7	1,806	Jan. 31, 1916	35.1	350,000
605	White River at Calico Rock, Ark.	-	1905-58	Feb. 1, 1916	31.9	382,000
610	White River at Batesville, Ark.	-	1904-58	Apr. 17, 1927	-	387,000
745	White River at Newport, Ark.	-	1886-1958	Apr. 17, 1945	35.9	-
748.5	White River near Augusta, Ark.	-	1935-58	Apr. 19, 1945	40.83	-
767.5	White River at Georgetown, Ark.	-	1915-58	Feb. 1, 1949	32.8	-
769	White River at Des Arc, Ark.	-	1935-58	Feb. 2, 1949	37.5	-
770	White River at De Vallis Bluff, Ark.	-	1927-58	Apr. 23, 1927	34.6	-
			1949-58	Feb. 3, 1949	31.35	220,000
778	White River at Clarendon, Ark.	-	1885-1958	Apr. 23, 1927	43.3	395,000

Arkansas River basin

820	Lake Fork above Sugar Loaf Reservoir, Colo.	G24	1946-58	June 28, 1957	5.22	610
825	Lake Fork below Sugar Loaf Reservoir, Colo.	G24	1946-52	May 22, 1948	2.66	35.9
845	Lake Creek above Twin Lakes Reservoir, Colo.	G24	1946-58	June 8, 1947	-	13.6
855	Lake Creek below Twin Lakes Reservoir, Colo.	G24	1946-53	June 22, 1947	-	34.4
				June 17, 1950	5.85	1,420
860	Arkansas River at Granite, Colo.	-	1897,1910-58	June 17, 1950	5.85	-
970	Clear Creek below Clear Creek Reservoir, Colo.	G24	1946-53	June 28, 1957	7.20	5,360
900	Chalk Creek (upper station) near St. Elmo, Colo.	G25	1914-19	June 21, 1947	3.95	12.6
905	Chalk Creek near St. Elmo, Colo.	G25	1911-15	June 10, 1918	3.40	7.32
915	Arkansas River at Salida, Colo.	-	1895-1903, 1910-58	June 6-7, 1912	2.30	12.0
920	South Arkansas River at Poncha, Colo.	G25	1911-17	June 29, 1957	6.82	7.57
930	Poncha Creek at Poncha, Colo.	G25	1912-17	July 5, 1911	4.2	1,110
935	South Arkansas River near Salida, Colo.	G25	1922-23, 1929-40	May 27, 1912	3.2	5.48
945	Arkansas River at Parkdale, Colo.	-	1946-55	July 17, 1923	3.90	5.87
950	Grape Creek near Westcliffe, Colo.	A23	1925-58	June 22, 1947	9.02	5,880
960	Arkansas River at Canon City, Colo.	-	1889-1958	Apr. 23, 1942	5.26	2,30
965	Old Creek near Canon City, Colo.	A23	1949-53, 1955	Aug. 2, 1921	10.7	1,960
970	Arkansas River at Portland, Colo.	-	1939-52	July 11, 1951	9.25	19,000
995	Arkansas River near Pueblo, Colo.	-	1864-1958	June 5, 1949	12.18	4,260
				June 3, 1921	24.66	21,100
						103,000

See footnote at end of table.

Table 2.--Maximum stages and discharges at gaging stations not used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydro-logic area	Contributing drainage area (sq mi.)	Period of known floods (water years)	Date	Maximum stage and discharge	
						Gage height (feet)	Discharge Cfs per sq mi.
Arkansas River basin--Continued							
1040	Monument Creek at Pikeview, Colo.....	A23	203	1939-49	Apr. 23, 1942	3.86	-
1070	St. Charles River at San Isabel, Colo.....	E24	18.8	1937-41	May 11, 1947	-	1,190
1095	Arkansas River near Avondale, Colo.....	-	6,327	1939-51	May 27, 1941	-	189
1105	Chico Creek near North Avondale, Colo.....	E24	864	1941-46	Apr. 24, 1942	8.83	13,900
1120	Ruerfano River near Badito, Colo.....	E25	499	1942-46	June 13, 1948	7.55	-
1125	Ruerfano River at Badito, Colo.....	E25	532	1923, 1938-41, 1947-55	Aug. 27, 1941	9.89	13,000
1135	Ruerfano River near Mustang, Colo.....	E25	803	1942-47	Aug. 14, 1942	9.20	8,480
1145	Cucharas River near La Veta, Colo.....	E25	75	1923-34	July 15, Aug. 1, 1923	9.60	5,510
1170	Arkansas River near Nepesta, Colo.....	-	69,291	1824-34	Aug. 22, 1923	3.10	26,000
1175	Arkansas River at Nepesta, Colo.....	-	69,406	1903-58	May 22, 1926	5.10	-
1205	Arkansas River near Rocky Ford, Colo.....	-	11,032	1888-1936	June 4, 1921	-	180,000
1230	Arkansas River at La Junta, Colo.....	-	12,095	1884-1903, 1912-58	June 4, 1921	-	180,000
1240	Arkansas River at Las Animas, Colo.....	-	13,976	1839-58	June 10, 1903	8.00	27,500
1285	Purgatoire River near Las Animas, Colo.....	E24	3,503	1922-31, 1949-58	June 4, 1921	8.4	200,000
1305	Arkansas River below John Martin Reservoir, Colo.....	-	18,132	1938-58	May 20, 1955	15.03	44,000
1330	Arkansas River at Lamar, Colo.....	-	18,830	1913-58	May 20, 1955	15.00	70,000
1355	Arkansas River at Holly, Colo.....	-	23,425	1908-53	Apr. 24, 1942	10.46	40,000
1360	Wild Horses Creek at Holly, Colo.....	E22	272	1923-34, 1939-50	June 5, 1921	-	130,000
1375	Arkansas River near Coolidge, Kans.....	-	23,702	1903-58	Oct. 20, 1908	8.0	110,000
1380	Arkansas River at Syracuse, Kans.....	-	23,906	1903-58	June 5, 1949	8.0	1,690
1390	Arkansas River at Garden City, Kans.....	-	24,703	1903-6, 1909-58	May 15, 1951	10.67	60,000
1395	Arkansas River at Dodge City, Kans.....	-	25,017	1903-6, 1909-58	Oct. 20, 1908	11.7	130,000
1400	Arkansas River near Kingsley, Kans.....	-	25,406	1942-58	May 16, 1951	9.57	5,444
1405	Arkansas River at Larned, Kans.....	-	26,017	1923-40	Oct. 21, 1908	13.35	33,500
1413	Arkansas River at Great Bend, Kans.....	-	28,354	1941-58	Apr. 28, 1942	-	21,000
1428	Arkansas River at Hutchinson, Kans.....	-	33,635	1895-1905, 1921-58	May 19, 1951	11.20	11,700
1434	Arkansas River near Wichita, Kans.....	-	33,886	1821-34	Aug. 25, 1923	9.5	14,300
1443	Arkansas River at Wichita, Kans.....	-	33,157	1877-1958, 1898-1958	May 1, 1942	11.47	20,200
					July 30, 1958	11.47	-
					July 29, 1895	6.25	20,000
					June 16, 1921	16.52	-
					Aug. 18, 1927	-	12,000
					May 18, 1877	18.0	-
					July 8, 1904	17.3	39,000

FLOOD-FREQUENCY ANALYSIS

Station No.	Location	Year	Discharge (cfs)	Peak Stage (ft)	Frequency (1/T)	Return Period (T)
1465	Arkansas River at Arkansas City, Kans.	1877-1958	103,000	28.43	1/100	100
1505	Salt Fork Arkansas River near Jet, Okla.	1938-58	25,900	8.80	1/100	100
1520	Arkansas River at Ralston, Okla.	1915-58	200,000	23.0	1/100	100
1540	Cimarron River near Folsom, N. Mex.	1928-33	4,300	-	1/100	100
1544	Carrizozo Creek near Kenton, Okla.	1953-58	15,600	14.1	1/100	100
1555	Cimarron River near Boise City, Okla.	1914-42	-	17.23	1/100	100
1565	Cimarron River near Satanta, Kans.	1938-42	80,000	11.90	1/100	100
1570	Cimarron River near Mokane, Okla.	1914-58	69,000	22.0	1/100	100
1595	Bluff Creek above Lake Hefner, near Oklahoma City, Okla.	1943-58	53,400	9.94	1/100	100
1598	Cottonwood Creek at Guthrie, Okla.	1951-58	1,070	4.95	1/100	100
1635	Cimarron River at Oilton, Okla.	1889-1958	-	d929.29	1/100	100
1645	Arkansas River at Tulsa, Okla.	1908-45	72,300	16.8	1/100	100
1707	Verdigris River near Liberty, Kans.	1935-45	244,000	19.8	1/100	100
1715	Verdigris River near Segeyeh, Okla.	1905-58	48,000	37.5	1/100	100
1745	Caney River at Bartlesville, Okla.	1895-1903	189,000	51.54	1/100	100
1780	Bird Creek near Owasso, Okla.	1904-45	26,400	41.80	1/100	100
1855	Stahl Creek near Miller, Mo.	1916-58	19,700	34.0	1/100	100
1886	Neosho River near Wyandotte, Okla.	1929-32	1,010	e26.2	1/100	100
1902	Neosho River near Langley, Okla.	1935-38	34.0	6.40	1/100	100
1915	Neosho River near Chouteau, Okla.	1951-58	300,000	34.0	1/100	100
1935	Neosho River below Fort Gibson Reservoir, near Fort Gibson, Okla.	1895-1958	400,000	45.0	1/100	100
1945	Arkansas River near Muskogee, Okla.	1927-58	400,000	45.0	1/100	100
1946	Arkansas River at Webers Falls, Okla.	1943-58	700,000	48.20	1/100	100
2010	Raton Creek at Raton, N. Mex.	1833-1958	-	39.0	1/100	100
2080	Cimarron Creek below Eagle Nest Dam, N. Mex.	1853-58	1,850	6.5	1/100	100
2085	Cimarron Creek at Ute Park, N. Mex.	1950-58	205	2.79	1/100	100
2070	Cimarron Creek near Cimarron, N. Mex.	1910-18, 1922, 1924-50	700	-	1/100	100
2115	Canadian River near Taylor Springs, N. Mex.	1950-58	580	3.10	1/100	100
2137	Canadian River tributary near Mills, N. Mex.	1940-58	37,400	24.17	1/100	100
2140	Canadian River near Roy, N. Mex.	1958-58	918	3.99	1/100	100
2145	Rio Agua Negra near Holman, N. Mex.	1934-58	65,800	14.22	1/100	100
2170	Coyote Creek below Black Lake, N. Mex.	1954-58	4,700	82.0	1/100	100
2209	Dog Creek near Shoemaker, N. Mex.	1904-58	913	4.70	1/100	100
2215	Canadian River near Sanchez, N. Mex.	1954-58	1,530	9.92	1/100	100
2220	Canadian River near Bell Ranch, N. Mex.	1936-58	87,800	19.3	1/100	100
2245	Canadian River below Conchas Dam, N. Mex.	1916, 1928-39, 1943-58	47,800	15.8	1/100	100
2260	Ute Creek near Bueyeros, N. Mex.	1949-54	39,000	11.07	1/100	100
2270	Canadian River at Logan, N. Mex.	1904-58	278,000	36.5	1/100	100
2270.5	Plaza Larga Creek tributary near Ragland, N. Mex.	1952-58	1,170	12.70	1/100	100

See footnotes at end of table.

Table 2.-Maximum stages and discharges at gaging stations not used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydro-logic area	Contributing drainage area (sq mi)	Period of known floods (water years)	Maximum stage and discharge			
					Date	Gage height (feet)	Discharge Cfs per sq mi	
Arkansas River basin--Continued								
2275	Canadian River near Amarillo, Tex.....	-	c15,376	1914-58 1924-25, 1938-58	May 1914 July 25, 1941	24.0 15.70	- 135,000	- 8.78
2280	Canadian River near Canadian, Tex.....	-	c18,178	1904-58	Oct. 2, 1904	20.0	-	6.71
2285	Canadian River at Bridgeport, Okla.....	-	c20,428	1938-58 1914-58	Sept. 23, 1941 May 3, 1914	9.80 19.4	122,000	-
2290	Canadian River near Newcastle, Okla.....	-	c20,962	1945-58 1904-58	June 23, 1948 Oct. 3, 1904	14.60 18.5	150,000	7.34
2315	Canadian River at Calvin, Okla.....	-	c23,151	1939-45 1904-58	May 4, 1941 Aug. 7, 1906	9.2 21.0	200,000	9.54
2370	Wolf Creek near Fort Supply, Okla.....	E21	c1,498	1938-58	May 11, 1950 June 24, 1939	- -	174,000 14,200	7.52 9.48
2410	North Canadian River below Lake Overholser, near Oklahoma City, Okla.....	E	c8,323	1921-58	Aug. 8, 1940 October, 1923	5.80 30.9	-	-
2415	Deep Fork near Dewar, Okla.....	E	c8,455	1932-53	Oct. 5, 1955 June 3, 1932	12.44	5,790	11.8
2440	Canadian River near Whitefield, Okla.....	E17	c2,307	1908-55	October, 1908	29.0	100,000	36.8
2450	Sans Bois Creek near Keota, Okla.....	A2	c37,876	1898-1958	May 10, 1943	25.5	281,000	7.42
2460	Arkansas River near Sallisaw, Okla.....	-	c125,516	1938-43	Feb. 18, 1938 May 11, 1943	26.1 27.9	30,000	86.7
2490	Poteau River at Poteau, Okla.....	B2	1,240	1948-58	May 11, 1943 May 27, 1957	37.90 34.80	-	4.33
2494.5	Arkansas River at Fort Smith, Ark.....	-	c127,731	1923-45	June 12, 1943 May 18, 1945	39.0 41.7	100,000	80.6
2505	Arkansas River at Van Buren, Ark.....	-	c128,182	1833-1958 1833-1958	May 12, 1943 Apr. 16, 1945	- 38.10	850,000	6.63
2524	Arkansas River at Ozark, Ark.....	-	c129,556	1927-58	Apr. 14, 1943	39.4	-	-
2560	Arkansas River at Dardanelle, Ark.....	-	c131,466	1887-1958	May 13, 1943	833.60	683,000	5.20
2608	Arkansas River near Morrilton, Ark.....	-	c133,239	1927-58	Apr. 19, 1927	42.0	-	-
2635	Arkansas River at Little Rock, Ark.....	-	c135,980	1835-1958 1925-58	June 27, 1833 May 27, 1943	34.6 30.05	-	3.94
2639.2	Bayou Meto near North Little Rock, Ark.....	D7	c136,524	1892-1958	May 26, 1943	33.78	536,000	3.94
2640	Bayou Meto near Lonoke, Ark.....	D11	688 195	1846-37 1937-58	May 2, 1934 January, 1937	27.1 22.9	b555,000	4.05
Mississippi River main stem								
2655	Mississippi River at Arkansas City, Ark.....	-	1,130,700	1880-1958	Apr. 20, 1927 May 1927	60.4	-	2.19
Yazoo River basin								
2682	Floe Creek near Etta, Miss.....	F13	9.08	1952-58	Nov. 15, 1957	12.62	5,220	574

FLOOD-FREQUENCY ANALYSIS

2725	Tallahatchie River at Sardis Dam near Sardis, Miss.	F13	1,545	1940-58	June 24, 1946	5,780	3.74
2735	Tallahatchie River at Batesville, Miss.	F13	1,750	1906-11	Apr. 20, 1911	14,200	8.11
2735.5	Tallahatchie River (Pancola-Quitman floodway) near Batesville, Miss.	-	1,602	1937-58	Apr. 9, 1942	27,500	15.3
2736	Tallahatchie River (Pancola-Quitman floodway) near Crowder, Miss.	-	1,626	1941-58	Mar. 13, 1950	-	-
2765	Pigeonroost Creek near Bynahia, Miss.	F13	117	1940-42 1957-58	Apr. 9, 1942	24,500	209
2770	Pigeonroost Creek near Lewisburg, Miss.	F13	228	1940-58	Apr. 9, 1942	34,900	153
2785	Coldwater River at Arkabutla Dam near Arkabutla, Miss.	F13	1,000	1936-58	Jan. 22, 1938	28,700	28.7
2793	Coldwater River near Prichard, Miss.	-	1,214	1946-58	Jan. 12, 1946	8,000	6.59
2795	Coldwater River at Savage, Miss.	-	1,225	1909-12, 1936-42	Jan. 25, 1937	45,800	37.4
2796.5	Arkabutla Creek near Sara, Miss.	C15	160	1940-58	Feb. 13, 1950	-	-
2798	Coldwater River (Pompey ditch) near Sledge, Miss.	-	(h)	1951-58	May 20, 1953	-	-
2798.5	Coldwater River (old channel) near Birdie, Miss.	-	(h)	1940-58	May 20, 1953	-	-
2798.7	Yazoo Pass near Lala, Miss.	-	(h)	1940-58	May 24, 1953	-	-
2799	Coldwater River near Darling, Miss.	-	1,620	1946-58	Feb. 15, 1948	-	-
2799.2	David Bayou near Sledge, Miss.	C11	28	1946-58	Feb. 15, 1948	-	-
2799.5	Coldwater River at Marks, Miss.	-	(h)	1946-58	Jan. 17, 1950	-	-
2799.7	Bobo Bayou at Bobo, Miss.	-	92	1946-58	Feb. 19, 1948	-	-
2800	Tallahatchie River near Lambert, Miss.	-	1,980	1932-58	January, 1932	1,900	-
2800.5	Tallahatchie River at Shine Turner Bridge near Lambert, Miss.	-	1,985	1932-58	Jan. 30, 1937	32,800	16.6
2808	Cassidy Bayou near Marks, Miss.	-	(h)	1946-58	May 19, 1953	-	-
2809	Cassidy Bayou at Webb, Miss.	-	(h)	1946-58	Feb. 17, 1948	-	-
2810	Tallahatchie River at Swan Lake, Miss.	-	5,130	1907-58	Jan. 15, 1932	-	-
2811	Tallahatchie River (cut-off) near Glendora, Miss.	-	5,135	1940-58	Apr. 9, 1933	49,200	9.59
2815.5	Tallahatchie River near Minter City, Miss.	-	(h)	1932-52	Feb. 17, 1948	-	-
2816	Tallahatchie River at Money, Miss.	-	(h)	1946-58	Jan. 16, 1932	dl40.0	-
2820	Yalobusha River at Calhoun City, Miss.	BL6	305	1943-58	Feb. 19, 1948	-	-
2850	Yalobusha River at Grenada Dam near Grenada, Miss.	BL6	1,320	1933-53	Mar. 29, 1951	23,000	75.4
2855	Yalobusha River at Grenada, Miss.	-	1,550	1954-58	Feb. 14, 1948	-	-
2862	Yalobusha River at Whaley, Miss.	-	1,960	1909-11, 1929-46	Jan. 3, 1953	4,880	3.70
2870	Yazoo River at Greenwood, Miss.	-	7,450	1882-1958	Feb. 14, 1948	78,900	50.9
2873	Yazoo River at Belzoni, Miss.	-	7,830	1932-58	Feb. 18, 1948	72,600	37.0
2873.55	Panegusha Creek near Howard, Miss.	D14	103	1906-1958	Jan. 19, 1932	41.2	-
2874.8	Piney Creek near Yazoo City, Miss.	D14	70	1932-58	Jan. 27, 20, 1932	37.0	-
2875	Yazoo River at Yazoo City, Miss.	-	8,000	1853-58	Apr. 22, 1955	dl42.0	359
2876	Yazoo River at Searcy, Miss.	-	8,920	1853-58	Apr. 22, 1955	dl44.52	186
2880	Snufflower River at Clarksdale, Miss.	C11	106	1828-58	Feb. 21, 1881	-	-
2880.8	Snufflower River at Harvey's Chapel, Miss.	C11	257	1938-58	Jan. 12, 1946	-	-
2881.5	Hushpuckena River at Hushpuckena, Miss.	C11	102	1946-58	May 2, 1958	-	-

See footnotes at end of table.

Table 2.--Maximum stages and discharges at gaging stations not used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydro-logic area	Contributing drainage area (sq mi)	Period of known floods (water years)	Date	Maximum stage and discharge	
						Gage height (feet)	Discharge Cfs per sq mi
Yazoo River basin--Continued							
2882	Sunflower River near Lombardy, Miss.	C11	492	1947-58	May 3, 1958	41.30	-
2886.1	Sunflower River near Moorhead, Miss.	-	(h)	1949-58	May 11-12, 1958	36.52	-
2886.5	Bogue Phalia near Leland, Miss.	-	(h)	1946-58	Jan. 12, 1946	28.0	8,500
2886.6	Bogue Phalia cut-off near Leland, Miss.	-	(h)	1946-58	Jan. 12, 1946	27.7	-
2886.8	Sunflower River at Little Galiao Landing, Miss.	-	2,287	1948-58	May 11, 1958	36.87	23,000
2887	Sunflower River near Anguilla, Miss.	-	(h)	1949-58	May 11, 1958	48.16	-
2887.2	Sunflower River at Holly Bluff, Miss.	-	(h)	1912-58	May 5-6, 1927	110.5	-
2888	Yazoo River at Redwood, Miss.	-	12,603	1911-58	May 4, 1927	107.9	-
2888.8	Steele Bayou near Rolling Fork, Miss.	-	(h)	1947-53	Feb. 22-25, 1948	24.20	-
2889.3	Muddy Bayou at Eagle Lake, Miss.	-	(h)	1947-53	Mar. 1, 1950	30.98	-
Mississippi River main stem							
2890	Mississippi River near Vicksburg, Miss.	-	1,144,500	1828-1958	May 1, 1927	458.4	2,278,000
Big Black River basin							
2891.7	Mulberry Creek at Kilmichael, Miss.	-	(h)	1946-58	May 29, 1951	16.45	15,000
2895.8	Bear Creek at Highway 51 near Canton, Miss.	R16	86	1951-58	Apr. 30, 1953	d222.22	7,500
2896.1	Bachelor Creek at Canton, Miss.	R16	3,111	1953-58	Apr. 29, 1955	17.78	991
2900.05	Clear Creek near Bovine, Miss.	R13	36	1927-58	Feb. 17, 1927	32.0	-
2902	Big Black River near Hankinson, Miss.	D	3,319	1953-58	Apr. 29, 1955	27.24	9,530
				1937-46	Feb. 21-22, 1937	47.2	-
Red River basin							
2975	Prairie Dog Town Fork Red River near Canyon, Tex.	A21	c711	1904-51	May 16, 1951	20.31	15,200
3000	Salt Fork Red River near Wellington, Tex.	A20	c1,013	1939-58	May 16, 1957	19.00	146,000
3020	North Fork Red River near Granite, Okla.	A21	c2,095	1904-7, 1928-32, 1935-44	May 18, 1935	9.8	28,000
3030	North Fork Red River below Altus Dam, near Lugert, Okla.	A21	c2,116	1928-32, 1951-58	May 18, 1951	12.70	16,100
3085	Other Creek at Mountain Park, Okla.	A20	164	1946-51	June 3, 1949	18.50	4,800
3125	Wichita River at Wichita Falls, Tex.	A20	3,140	1900-58	June 8, 1915	21	50,000
3150	Little Wichita River near Henrietta, Tex.	E21	1,037	1908-58	1908	-	-
3155	Red River near Terral, Okla.	-	c22,787	1953-58	May 2, 1957	18.36	6,390
3160	Red River near Gainsville, Tex.	-	c24,846	1891-1958	June 8, 1941	28.12	197,000
3165	Washita River near Cheyenne, Okla.	-	794	1936-58	May 21, 1951	26.53	-
3245	Barnitz Creek near Arapaho, Okla.	E21	243	1894-1958	June 9, 1941	-	168,000
				1946-58	Apr. 29, 1954	15.24	69,800
					Apr. 8, 1947	20.8	7,700
					May 16, 1951	-	31.7

Table 2.--Maximum stages and discharges at gaging stations not used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region and hydro-logic area	Contributing drainage area (sq mi)	Period of known floods (water years)	Maximum stage and discharge				
					Date	Gage height (feet)			
		Discharge		Cfs per sq mi					
Red River basin--Continued									
3515.6	Cypress (Wallace) Bayou near Friserson, La.....	B12	268	1935-55	1933	55.7	-	-	-
3516	Bayou Pierre near Grand Bayou, La.....	B12	674	1935-57	Apr. 9, 1938	45.4	4,360	16.3	-
3517.4	Bayou Pierre at Evelyn, La.....	B12	707	1930-58	August	35.4	-	-	-
3517.45	Bayou Pierre near Hanna, La.....	B12	729	1933-52	May 20, 1953	46.11	-	-	-
3517.5	Bayou Pierre near Lake End, La.....	B12	739	1933-58	Apr. 13, 1945	36.4	-	-	-
3517.55	Bayou Pierre at Powhatan, La.....	B12	879	1947-51	Apr. 13, 1945	47.2	-	-	-
3519.2	Bayou Pierre near Natchitoches, La.....	B12	1,122	1947-58	Feb. 22-25, 1950	33.3	-	-	-
3519.3	Red River at Grand Ecure, La.....	B12	c58,639	1914-58	May 7, 1957	46.59	-	-	-
3522	Black Lake Bayou near Minden, La.....	B6	38.6	1951-58	Apr. 10, 1945	44.7	280,000	4.77	-
3523	Black Lake Bayou near Gibsland, La.....	B6	46.1	1950-58	Apr. 28, 1957	17.74	-	-	-
3523.5	Leathermans Creek near Gibsland, La.....	B6	57	1950-58	Sept. 21, 1958	46.74	-	-	-
3524	Keplers Creek near Sparta, La.....	B6	21.1	1954-58	June 3, 1950	47.70	-	-	-
3527	Castor Creek at Castor, La.....	B6	27.9	1954-58	Apr. 6, 1956	44.45	-	-	-
3530	Saline Bayou near Clarence, La.....	B6	1,382	1945-58	May 24, 1955	48.70	-	-	-
3547	Kisatchie Bayou at Cypress, La.....	B16	360	1950-58	Apr. 11, 1945	43.60	-	-	10.3
3549	Cane River near Galbraith, La.....	B16	687	1948-52	Apr. 17, 1945	34.9	-	-	-
3549.1	Red River at Colfax, La.....	B16	729	1948-58	Apr. 17, 1945	105	-	-	-
3549.5	Bayou Jean de Jean at Hot Wells, La.....	B16	(h) 41.0	1946-58	Apr. 16-18, 1945	49.9	-	-	-
3554.7	Bayou Rapides near McNitt, La.....	B16	(h)	1947-52	May 23, 1953	51.4	-	-	-
3554.8	Red River at Alexandria, La.....	B16	c61,564	1950-58	May 18, 1953	495.4	-	-	-
3555	Red River at Moncla, La.....	B16	c61,689	1938-42	Feb. 14, 1950	482.4	-	-	-
3556	Red River at Barbun Landing, La.....	B16	c61,794	1923-42	May 21, 1953	478.32	-	-	-
3556.1	Ouachita River near Hot Springs, Ark.....	D9	1,405	1933-30	Apr. 17, 1945	45.25	233,000	3.78	-
3597	Ozark River at Osceola, Ark.....	D9	1,192	1939-58	June 2, 1935	47.0	168,000	2.72	-
3597.2	Ozark River near McCaskill, Ark.....	D2	148	1940-58	Feb. 1, 1932	66.9	-	-	-
3618	Terre Noire Creek east of Gordon, Ark.....	D2	250	1940-58	May 16, 1925	43.9	143,000	1.02	-
3624	Ouachita River at lock and dam No. 8, Champagnolle Landing, Ark.....	D2	6,569	1910-58	Mar. 30, 1945	27.0	65,000	3.89	-
3634	Hurricane Creek near Sheridan, Ark.....	D2	270	1947-58	May 3, 1958	22.85	-	-	-
3640	Saline River near Warren, Ark.....	D7	2,476	1927-40	May 6, 1958	40.4	-	-	-
3640.8	Ouachita River at lock and dam No. 6, near Felsen- thal, Ark.....	-	10,787	1929-51	Feb. 13, 1950	15.4	-	-	-
3645.5	Ouachita River at lock and dam No. 5, at Sterling- ton, La.....	-	12,954	1919-58	Apr. 27, 1927	28.0	-	-	-
					June 28, 1938	25.90	61,500	24.8	-
					Apr. 11-12, 1945	44.2	-	-	-
					Apr. 12-13, 1945	48.2	-	-	-

3647.5	Bayou DeLoutre near DeLoutre, La.....	B6	302	1946-58	Apr. 28, 1958	498.55	-	-
3648	Bayou D'Arbonne at Homer, La.....	B8	30.0	1954-58	Apr. 29, 1958	47.75	-	-
3649	Big Creek near Vienna, La.....	B8	68.9	1954-58	May 14, 1954	47.74	-	-
3651	Cypress Creek near Unionville, La.....	B8	63.3	1954-58	June 1, 1957	-	3,280	47.6
3653	Middle Fork Bayou D'Arbonne near Colquitt, La.....	B6	43.9	1954-58	July 3, 1955	43.52	-	4,200
3663	Bayou D'Arbonne near Farmerville, La.....	B6	1,470	1926-58	Apr. 26, 1958	49.68	-	-
3663.5	Stowe Creek near Farmerville, La.....	B8	29.0	1954-58	Apr. 29, 1958	e45.71	67,000	45.6
3670	Ouachita River at Monroe, La.....	-	15,298	1874-1958	Apr. 6, 1956	46.38	-	-
3670.5	Ouachita River at lock and dam No. 4, at Monroe, La.....	-	15,319	1912-58	Feb. 2-4, 1932	-	101,000	-
3673	North Cheniere Creek at Cheniere, La.....	B8	38.0	1954-58	May 23, 1958	50.45	-	-
3675	Cypress Creek near Vixen, La.....	B8	16	1954-58	May 23-24, 1958	51.18	-	-
3676.5	Ouachita River at lock and dam No. 3, near Riverton, La.....	-	15,632	1913-58	Mar. 21, 1955	45.89	-	-
3676.8	Boeuf River near Eudora, Ark.....	-	(h)	1939-58	Apr. 30, 1958	46.91	-	-
3677	Boeuf River near Kilbourne, La.....	-	(h)	1947-58	May 15-17, 1927	57.0	-	-
3678	Boeuf River near Oak Grove, La.....	-	(h)	1947-58	Mar. 22, 1955	21.52	-	-
3679.5	Boeuf River near Oak Ridge, La.....	-	(h)	1931-58	Sept. 22, 1958	22.8	14,600	-
3680	Boeuf River near Girard, La.....	-	(h)	1926-58	Feb. 14-15, 1948	22.8	-	-
3681	Boeuf River near Alto, La.....	-	(h)	1932-58	Feb. 21, 1948	d89.6	-	-
3681.5	Lyon Bayou at Forest, La.....	C11	43.9	1954-58	May 5, 1958	-	21,500	-
3685	Big Colewa Bayou near Oak Grove, La.....	-	(h)	1950-58	December 1931	d81.4	-	-
3685.2	Big Creek at Holly Ridge, La.....	C11	171	1926-58	May 5, 1958	23,300	-	-
3685.4	Big Creek near Mangham, La.....	C11	345	1941-58	May 7, 1927	129.5	-	-
3685.8	Big Creek near Sligo, La.....	C11	437	1941-58	Dec. 26, 1931	19.6	-	-
3686	Bayou Lafourche cut-off near Oak Ridge, La.....	-	(h)	1946-58	May 6-7, 1958	28.14	-	-
3688	Bayou Gallon north of Oak Ridge, La.....	-	(h)	1942-58	Mar. 21, 1955	47.30	-	-
3689	Little Bayou Boeuf near Collinston, La.....	-	(h)	1950-58	Apr. 12, 1947	8.2	-	-
3690	Bayou Lafourche near Crew Lake, La.....	-	(h)	1932-58	Mar. 22, 1955	d94.13	-	-
3690.5	Bayou Lafourche near Alto, La.....	-	(h)	1946-58	Apr. 12-13, 1947	10.6	-	-
3691	Bayou Lafourche cut-off near Columbia, La.....	-	(h)	1951-58	Apr. 12-13, 1947	10.6	-	-
3693.3	Ouachita River at Stafford Point Landing, La.....	-	18,610	1946-58	Apr. 26, 1945	24.5	-	-
3693.4	Black Bayou near Sicily Island, La.....	C11	6.5	1954-58	Jan. 24, 1946	25.5	-	-
3693.4	Ouachita River at lock and dam No. 2, at Harrisonburg, La.....	-	18,793	1909-58	May 2, 1958	25.5	-	-
3693.8	Tensas Bayou near Transylvania, La.....	-	(h)	1941-58	Apr. 12, 1947	79.5	22,200	-
3694	Tensas Bayou near Alsatis, La.....	-	(h)	1947-58	May 5, 1958	13.8	-	-
3695	Tensas River at Tendaal, La.....	-	(h)	1927-58	Apr. 15, 1955	45.01	-	-
3696	Tensas River near Tendaal, La.....	-	(h)	1936-58	May 2, 1958	a27.50	26,800	-
3696.2	Alligator Bayou near Tallulah, La.....	-	(h)	1947-58	Apr. 23, 1947	d63.8	-	-
3696.4	Bayou Vidal near Quimby, La.....	C11	28	1954-58	May 30, 1958	d59.62	-	-
3696.4	Bayou Vidal near Quimby, La.....	C11	160	1954-58	Mar. 8, 1950	d59.2	-	-
					Apr. 13, 1955	43.83	-	-
					May 17-19, 1927	67.2	-	-
					Feb. 11, 1946	17.5	1,600	-
					May 2, 1958	-	-	-
					Nov. 20, 1948	d80.4	-	-
					May 15, 1927	134.02	-	-
					Nov. 19, 1948	e24.78	4,610	-
					Mar. 30, 1951	d68.2	-	-
					Nov. 19, 1957	43.07	-	-
					Feb. 11, 1956	45.53	-	-

See footnotes at end of table.

Table 2.--Maximum stages and discharges at gaging stations not used to define regional flood-frequency relations--Continued

No.	Gaging station	Flood region using hydro-logic area	Contributing drainage area (sq mi)	Period of known floods (water years)	Date	Maximum stage and discharge	
						Gage height (feet)	Discharge Cfs per sq mi
Red River basin--Continued							
3696.45	Tensas River at Newlight, La.....	-	(h)	1942-58	Apr. 28, May 2, 1945	36.3	-
3696.8	Bayou Macon at Eudora, Ark.....	-	(h)	1951-58	May 22, 1958	27.43	5,100
3697.2	Bayou Macon near Oak Grove, La.....	-	(h)	1947-58	Apr. 11, 1947	24.7	-
3698.5	Bayou Macon near Floyd, La.....	-	(h)	1951-58	Apr. 30, 1958	21.88	-
3700	Bayou Macon near Delhi, La.....	-	(h)	1982-95, 1926-58	1982	137.5	-
3701	Bayou Macon at Marzac Bridge, near Delhi, La.....	-	(h)	1939-42, 1947-58	May 19, 1958	d69.76	-
3701.5	Tensas River at Kinks Ferry Landing, La.....	-	(h)	1947-58	Mar. 6-8, 1950	d58.1	-
3701.8	Tensas River at Clayton, La.....	-	(h)	1917-58	May 17-18, 1927	167.3	-
3702	Castor Creek at Chatham, La.....	P8	60.0	1950-58	May 17, 1953	46.09	-
3703	Edwards Branch at Chatham, La.....	P8	11.3	1950-58	July 23, 1958	45.30	-
3706	Beaucoup Creek near Cotton Plant, La.....	P8	127	1951-58	May 17, 1953	13.18	-
3706.5	Fiat Creek near Sikes, La.....	P8	41.5	1951-58	May 17, 1953	12.56	-
3707	Beech Creek near Olla, La.....	P8	58.0	1954-58	Sept. 21, 1958	44.46	-
3707.5	Big Chickasaw Creek near Olla, La.....	P8	86.0	1954-58	May 1, 1954	41.08	-
3708	Castor Creek at Tullios, La.....	P8	923	1951-58	May 28, 1951	27.20	-
3718	Big Creek near Dodson, La.....	P8	81.0	1954-58	July 23, 1958	47.97	7,800
3721.9	Port de Luce Creek at Winnfield, La.....	P8	31.0	1951-58	July 22, 1958	17.29	273
3723	Little River at Rochelle, La.....	P8	1,871	1939-58	May 19, 1953	50.9	-
3723	Bear Creek near Packton, La.....	P8	11	1954-58	July 22, 1958	48.33	-
3731	Big Creek at Fishville, La.....	P8	665	1886-1958	Apr. 29, 1953	16.45	-
3732.6	Black River at Jonesville, La.....	P8	(h)	1927-58	May 17-18, 1927	64.1	-
3732.7	Black River near Acme, La.....	-	(h)	1924-58	May 14-17, 1927	62.7	-
Little Bayou Sara basin							
3733	Little Bayou Sara near Turnbull, La.....	Bl6	22.3	1949-58	Apr. 12, 1955	16.96	-
Thompson Creek basin							
3736	Thompson Creek at Jackson, La.....	Bl6	166	1949-58	Apr. 13, 1955	43.03	-
3737	Thompson Creek near Starnill, La.....	Bl6	249	1949-58	May 18, 1953	46.10	-
3738	Alexander Creek near St. Francisville, La.....	Bl6	23.9	1953-58	May 18, 1953	14.18	-
Bayou Baton Rouge basin							
3739	Bayou Baton Rouge above Baker, La.....	Bl6	14.2	1953-58	May 18, 1953	22.64	-
Mississippi River Delta							
3747	Tohefuncta River near Franklinton, La.....	Bl6	53.1	1949-58	May 3, 1953	45.48	-
3750.5	Tohefuncta River near Covington, La.....	Bl6	145	1951-58	May 3, 1953	20.47	-
3753	Tangipahoa River near Kentwood, La.....	P8	237	1951-58	Mar. 28, 1951	14.08	-
3754.3	Tangipahoa River near Amite, La.....	P8	482	1949-58	May 4, 1949	45.26	-
3756	Washley Creek near Robert, La.....	P8	25.3	1951-58	May 3, 1953	13.25	-
3759.6	Tickfaw River at Montpelier, La.....	P8	220	1951-58	May 3, 1953	d103.93	-

FLOOD-FREQUENCY ANALYSIS

3765	Tickfaw River near Springfield, La.....	B8	487	1948-58	Mar. 6, 1948	4.2	-
3766	Ponchatoula Creek at Natabary, La.....	B8	13.8	1951-58	Mar. 19, 1951	11.63	-
3766.1	Ponchatoula Creek east of Hammond, La.....	B8	(h)	1948-58	May 3, 1953	d37.86	-
3766.2	Ponchatoula Creek south of Hammond, La.....	B8	(h)	1948-58	June 7, 1950	d17.37	-
3767	Yellow Water River Canal near Hammond, La.....	-	(h)	1948-58	June 7, 1950	d45.82	-
3767.1	Yellow Water River Canal near Baptist, La.....	-	(h)	1948-53	June 7, 1950	d36.10	-
3771.5	Amite River at Orangeville, La.....	B16	741	1949-58	Apr. 14, 1955	16.71	-
3773	Amite River near Grangeville, La.....	B16	884	1949-58	Apr. 15, 1955	d48.26	-
3774	Comite River near Clinton, La.....	B16	88.0	1949-58	Apr. 13-14, 1955	14.88	-
3774.5	Comite River near Zachary, La.....	B16	228	1951-58	May 18, 1953	24.52	-
3801.3	Colyell Creek at Livingston, La.....	B8	20.7	1951-58	Jan. 16, 1953	11.86	-
3801.6	Middle Colyell Creek near Walker, La.....	B8	22.4	1951-58	May 20, 1953	10.00	-
3801.8	West Colyell Creek near Walker, La.....	B8	29.5	1951-58	May 20, 1953	12.50	-
3819	Bayou Cocodrie near Glemora, La.....	B16	72.1	1958-53	May 18, 1953	d50.7	7,000
3821	Bayou Cocodrie near Doxman, La.....	-	(h)	1947-58	May 20, 1953	d48.8	-
3821.2	Bayou Cocodrie at St. Landry, La.....	-	(h)	1940-42, 1946-58	May 20, 1953	d42.3	-
3822.4	Bayou Beauf at Twin Bridge, La.....	-	(h)	1941, 1946-58	May 18, 1953	d74.6	-
3822.5	Bayou Beauf near Lamourie, La.....	-	(h)	1950-58	May 18-19, 1953	d72.4	-
3822.6	Bayou Beauf near Lamourie, La.....	-	(h)	1950-58	May 18-19, 1953	d71.8	-
3822.8	Bayou Beauf near Lecompte, La.....	-	(h)	1940-42, 1946-54	May 18, 1953	d68.9	800
3822.9	Bayou Beauf at Lyles, La.....	-	(h)	1940, 1947-58	Apr. 5, 1952	d44.83	9,490
3823	Bayou Courtableau at Washington, La.....	-	715	1938-49	May 22, 1953	168.8	-
3829	Bayou Lamourie at Lamourie, La.....	-	(h)	1938-49	Apr. 9, 1949	34.3	-
3830	Chatlin Lake Canal near Lecompte, La.....	B12	75.9	1943-53	May 18, 1953	19.51	-
3833.8	Coulee des Grues near Marksville, La.....	-	(h)	1945-58	May 1, 1954	21.04	-
3833.9	Three Prong Lake at Belledeau, La.....	-	(h)	1945-58	May 25, 1945	d59.7	-
3834	Bayou du Lac near Hesser, La.....	-	(h)	1947-58	May 20-21, 1953	d56.2	-
3840	West Protection Levee borrow pit channel near Falmotto, La.....	-	(h)	1937-58	May 21-22, 1953	d54.4	-
3844.5	Bayou Courtableau at Port Barre, La.....	-	(h)	1938-49	Aug. 10, 1940	J26.4	-
3852	West Protection Levee borrow pit at Henderson Landing, La.....	-	(h)	1932-58	Mar. 11, 1952	K18.4	-
3855	Bayou Teche at Armandville, La.....	-	1,531	1944-58	May 24, 1953	a d24.27	4,650
3857	Bayou Teche at Keystone lock, near St. Martins-Villie, La.....	-	(h)	1914-58	May 27, 1927	J25.5	-
3866.5	Vermilion River at Tontons Bridge, La.....	-	(h)	1948-58	May 19, 1953	J21.1	-
3866.6	Vermilion River at Long Bridge, La.....	-	(h)	1938-58	Aug. 15, 1940	J19.6	-
3868	Vermilion River at Ruth Canal, La.....	-	(h)	1938-49, 1952-58	August 1940	J20.2	-
3869	Vermilion River at Lafayette, La.....	-	(h)	1942-58	Mar. 13, 1947	14.7	-
3869.5	Bayou Ile des Cannes near Lafayette, La.....	-	(h)	1953-58	Apr. 15, 1955	11.46	-
3869.6	Vermilion River at Landry Bridge near Milton, La.....	-	30	1942-51	Mar. 13, 1947	14.5	-
3869.7	Vermilion River at Abbeville Pumping plant, near Abbeville, La.....	-	(h)	1932-58	Aug. 9, 1940	13.5	-

a Occurred on different day than peak discharge.

b Not necessarily maximum during the period.

c Does not include noncontributing drainage area.

d Elevation above mean sea level.

e Occurred on following day.

f Probably exceeded 100,000 cfs.

g If flow had been confined between levees.

h Indeterminate.

i Affected by overflow from Mississippi River.

j Elevation above mean Gulf level.

k Affected by overflow through levee crevasse.

FLOODS IN LOWER MISSISSIPPI RIVER BASIN

Table 3.--Peak discharge at miscellaneous sites and unusual floods at short-term gaging stations

Flood region, hydro-logic area	Stream and place of determination	Drainage area (sq mi)	Peak discharge		
			Date	Cfs	Cfs per sq mi
Meramec River basin					
B1	Flat Creek at Union, Mo.....	6.68	July 25-26, 1948	6,680	1,000
B1	Brush Creek at Pacific, Mo.....	7.84	June 15, 1957	8,220	1,048
B1	Clear Creek tributary near Pacific, Mo..	.131	June 15, 1957	206	1,573
B1	Fox Creek near Pacific, Mo.....	1.65	June 15, 1957	1,420	861
B1	Fox Creek at Allenton, Mo.....	15.8	June 15, 1957	21,200	1,342
B1	Fountain Farm Branch near Potosi, Mo....	2.14	June 30, 1957	1,890	883
Plattin Creek basin					
B1	Marphy Branch near Crystal City, Mo.....	0.45	June 8, 1957	947	2,104
Apple Creek basin					
B1	Hoehs Branch near Uniontown, Mo.....	1.66	Jan. 21, 1958	1,400	843
Headwater diversion channel basin					
B1	Sunnybrook Creek at Lutesville, Mo.....	0.52	June 30, 1957	440	846
St. Francis River basin					
B2	Wolf Creek near Farmington, Mo.....	40.3	June 30, 1957	9,870	245
B2	Barnes Creek near Fredericktown, Mo.....	4.03	May 21, 1957	5,550	1,377
B2	Clark Creek at Patterson, Mo.....	37.5	Mar. 20, 1955	11,200	299
D5	Delaware Creek tributary near Bloomfield, Mo.	.42	June 29, 1957	628	1,495
White River basin					
A2	Osage Creek at Osage, Ark.....	45.4	May 7, 1961	34,100	751
A2	Osage Creek near Berryville, Ark.....	164	May 7, 1961	40,000	244
A2	Long Creek at Alpena, Ark.....	67.3	May 7, 1961	30,000	446
A7	Ingenthron Hollow near Forsyth, Mo.....	.646	May 6, 1960	1,190	1,842
A7	Cedar Hollow at Bradleyville, Mo.....	.83	May 6, 1960	1,160	1,398
A2	Yandell Branch near Kirbyville, Mo.....	.327	May 6, 1960	291	890
A7	Gray Branch at Lutie, Mo.....	.27	May 14, 1956	246	911
A2	West Fork Crooked Creek near Harrison, Ark.	20.1	May 7, 1961	22,900	1,140
A2	Crooked Creek at Harrison, Ark.....	73	May 7, 1961	54,100	741
A2	Hussar Creek at Bellefonte, Ark.....	5.7	May 7, 1961	4,460	782
B2	Pike Creek tributary near Poplar Bluff, Mo.	.28	Nov. 7, 1957	211	754
A3	Sycamore Creek near Winona, Mo.....	.88	May 11, 1957	360	409
B2	North Frong Little Black River at Hunter, Mo.	1.23	Nov. 16, 1958	626	509
A3	Adams Branch near West Plains, Mo.....	2.27	July 12, 1958	1,040	458
A6	Williams Spring Branch near Alton, Mo...	4.24	Nov. 16, 1958	1,350	318
Arkansas River basin					
G24	Cottonwood Creek near Buena Vista, Colo.	37	May 30, 1890	164	4.43
A25	Texas Creek at Texas Creek, Colo.....	144	July 10, 1923	2,800	19.4
A25	Grape Creek near Canon City, Colo.....	481	July 21, 1925	14,500	30.1
A25	Wilson Creek near Canon City, Colo.....	61.3	July 4, 1944	16,800	274
A25	Wilson Creek near mouth, near Canon City, Colo.	68.0	July 4, 1944	20,600	303
A25	Chandler Creek near Florence, Colo.....	13.6	June 3, 1921	1,610	118
A25	Coal Creek at Florence, Colo.....	22.3	June 3, 1921	3,720	167
A25	Eightmile Creek near Florence, Colo.....	65	June 3, 1921	10,000	154
A25	Brush Hollow Creek near Portland, Colo..	21.9	June 3, 1921	5,320	243
A25	Beaver Creek near Hobson, Colo.....	205	June 5, 1912	153,000	746
A24	Rush Creek near Swallows, Colo.....	19.6	June 3, 1921	4,870	238
A24	Turkey Creek near Swallows, Colo.....	125	June 3, 1921	9,000	72.0
A24	Osteen Arroyo near Swallows, Colo.....	7.8	June 3, 1921	9,060	1,160
A24	Cameron Arroyo near Livesey, Colo.....	7.3	June 3, 1921	13,900	1,900
A24	Pecks Creek near Livesey, Colo.....	34.4	June 3, 1921	19,400	564
A24	Rock Creek near Livesey, Colo.....	59	June 3, 1921	53,900	914
A24	Unnamed Arroyo No. 1 near Livesey, Colo.	15.2	June 3, 1921	9,400	618
A24	Boggs Creek near Livesey, Colo.....	24.9	June 3, 1921	14,500	582
A24	Unnamed Arroyo No. 2 near Pueblo, Colo..	.6	June 3, 1921	633	1,060
A24	Blue Ribbon Creek near Pueblo, Colo.....	6.7	June 3, 1921	9,130	1,360
A24	Dry Creek at Pueblo, Colo.....	86	June 3, 1921	24,400	284
A24	Fountain Creek near Colorado Springs, Colo.	102	July 5, 1958	752	7.37
A24	Templeton Gap near Colorado Springs, Colo.	7.1	May 27, 1922	6,120	862
A24	Monument Creek at Colorado Springs, Colo.	238	May 30, 1935	50,000	210
A24	Fountain Creek above Cheyenne Creek, at Colorado Springs, Colo.	385	May 30, 1935	55,000	143
A24	Hogans Gulch near Eden, Colo.....	6.1	Aug. 7, 1904	9,640	1,580
E24	Salt Creek near Pueblo, Colo.....	45	June 4, 1921	32,100	713
E24	St. Charles River at Burnt Mill, Colo....	166	July 22, 1925	21,800	131
E24	Muddy Creek near Pueblo, Colo.....	42.5	May 19, 1955	3,650	85.9
E24	St. Charles River at mouth, near Pueblo, Colo.	482	June 4, 1921	56,000	116

FLOOD-FREQUENCY ANALYSIS

Table 3.--Peak discharge at miscellaneous sites and unusual floods at short-term gaging stations--Continued

Flood region, hydrologic area	Stream and place of determination	Drainage area (sq mi)	Peak discharge		
			Date	Cfs	Cfs per sq mi
Arkansas River basin--Continued					
E24	Sixmile Creek near Avondale, Colo.....	45	June 25, 1945	1,180	26.2
E25	Huerfano River near Nepesta, Colo.....	1,875	Aug. 1, 1923	19,400	10.3
E27	Apishapa River at Aguilar, Colo.....	149	Aug. 10, 1938	5,200	34.9
E24	Crooked Arroyo near La Junta, Colo.....	87	July 12, 1953	24,300	279
E27	Purgatoire River above Lorencito canyon, near Weston, Colo.	381	May 19, 1955	1,790	4.70
E27	Zarcillo Canyon near Segundo, Colo.....	36.4	May 19, 1955	1,460	40.1
E27	Burro Canyon at Madrid, Colo.....	28.3	July 22, 1925	23,600	834
E27	Reilly Canyon at Cokedale, Colo.....	36.7	May 19, 1955	2,800	76.3
E27	Long Canyon near Sopris, Colo.....	104	May 19, 1955	9,650	92.8
E27	Purgatoire River at Lopez Diversion Dam, Colo.	691	May 19, 1955	19,800	28.7
E27	Raton Creek at upper U.S. Highways 85 and 87, Colo.	5.27	May 19, 1955	402	76.3
E27	Joe Creek near Morley, Colo.....	4.54	May 19, 1955	642	141
E27	Raton Creek at Starkville, Colo.....	60.5	May 19, 1955	9,400	155
E27	Purgatoire River at Jansen, Colo.....	766	May 19, 1955	26,400	34.5
E27	Colorado Canyon near Jansen, Colo.....	9.68	July or August 1954	3,100	314
E27	Grasmack Arroyo near Trinidad, Colo.....	3.6	May 19, 1955	820	228
E27	Gray Creek near Trinidad, Colo.....	16.0	May 19, 1955	1,960	122
E27	Purgatoire River near Hoehne, Colo.....	857	May 19, 1955	35,000	40.8
E27	Purgatoire River at U.S. Highway 350 Bridge, Colo.	1,015	May 19, 1955	37,900	37.3
E27	Frijole Creek near Alfalfa, Colo.....	80	July 22, 1954	13,500	169
E27	Unnamed draw No. 1 near Alfalfa, Colo.....	.84	July 22, 1954	447	532
E27	Unnamed draw No. 2 near Alfalfa, Colo.....	1.49	July 22, 1954	1,130	758
E27	San Francisco Creek near Alfalfa, Colo.....	160	July 22, 1954	26,300	164
E27	Trinchera Creek near Trinchera, Colo.....	129	July 22, 1954	25,100	195
E27	Alkali Arroyo near Trinchera, Colo.....	34.5	July 22, 1954	15,500	449
E24	Mud Creek near Caddo, Colo.....	200	Aug. 19, 1956	33,800	169
-	Arkansas River at Amity Canal headgate, near Prowers, Colo.	19,050	June 5, 1921	170,000	8.92
E22	Clay Creek near Lamar, Colo.....	228	May 15, 1951	27,500	121
E22	Hg Sandy at Raman, Colo.....	82.7	Aug. 5, 1954	44,500	538
E22	Wolf Creek near Granada, Colo.....	116	May 15, 1958	17,100	147
E22	Granada Creek near Granada, Colo.....	52.6	July 11, 1955	31,000	589
E22	Two Buttes Creek near Holly, Colo.....	817	October 1, 1908	35,000	42.8
E22	Walnut Creek at Albert, Kans.....	1,410	Sept. 22, 1959	12,700	9.0
E22	Rattlesnake Creek tributary near Bucklin, Kans.	1.2	May 3, 1958	703	586
E20	West Branch Walnut River at El Dorado, Kans.	75	May 27, 1953	52,400	699
E20	Walnut River near El Dorado, Kans.....	364	May 27, 1953	60,000	165
E17	Ranch Creek near Hallett, Okla.....	17.1	Sept. 4, 1940	32,400	1,890
E21	Dry Cimarron River at Folsom, N. Mex.....	73	May 19, 1955	4,500	61.6
E21	Cimarron River tributary (No. 3) near Kenton, Okla.	4.9	July 6, 1958	2,410	492
E21	Carrizozo Creek tributary near Kenton, Okla.	.15	July 6, 1958	307	2,047
E21	Long Creek near Freedom, Okla.....	42	May 16, 1957	17,300	412
E21	Eagle Chief Creek near Carmen, Okla.....	306	May 16, 1957	31,800	104
E21	Kingfisher Creek near Kingfisher, Okla.....	322	June 23, 1948	55,000	171
E21	South Boggy Creek at Enid, Okla.....	3.66	May 16, 1957	3,750	1,020
E17	Lagoon Creek near Jennings, Okla.....	47	Sept. 4, 1940	45,600	928
E17	Polecat Creek near Sapulpa, Okla.....	325	May 9, 1943	61,000	188
E19	Panther Creek near Bartlesville, Okla.....	7.5	May 19, 1943	5,500	733
E19	Verdigris River near Madison, Kans.....	181	July 11, 1951	128,000	707
E18	Cottonwood River at Emporia, Kans.....	1,840	July 11, 1951	337,000	183
E18	Rock Creek at Burlington, Kans.....	8.8	July 1951	9,560	1,090
E18	Neosho River near Oswego, Kans.....	5,190	July 14, 1951	395,000	76.1
E18	Hudson Creek near Narcissa, Okla.....	13.4	May 18, 1943	15,000	1,120
A7	Buffalo Creek near Tiff City, Mo.....	82	May 18, 1943	23,000	280
A7	Spavinaw Creek near Spavinaw, Okla.....	400	Apr. 19, 1941	86,400	216
A7	Spring Creek near Locust Grove, Okla.....	116	May 17, 1943	26,000	224
A9	Illinois River near Prairie Grove, Ark.....	53	May 6, 1960	39,800	751
A10	Wild Cat Creek near Tontitown, Ark.....	13.2	July 25, 1960	10,500	795
E24	Chicorica Creek above Maloya Dam, N. Mex.	9.3	May 18, 1955	2,450	263
E26	Cimarron Creek tributary near Cimarron, N. Mex.	.05	June 5, 1958	337	6,740
E26	Cimarron Creek tributary in Cimarron, N. Mex.	1.44	June 5, 1958	1,870	1,300
E25	Ocate Creek at Colmor, N. Mex.....	-	July 4, 1951	25,000	-
E27	Trementina Creek at Trementina, N. Mex.....	65	Aug. 24, 1959	2,770	42.6
E27	Pajarito Creek at Newkirk, N. Mex.....	35	July 5, 1960	2,670	76.3
E27	Arroyo Laguna tributary near Montoya, N. Mex.	3.4	July 5, 1960	2,660	782
E27	Blanco Creek tributary at Palomas, N. Mex.	2.90	July 5, 1960	1,540	531
E27	Wynn Creek near Gallegos, N. Mex.....	3	July 8, 1960	3,060	1,020
E27	Carros Creek near Gallegos, N. Mex.....	9.4	July 8, 1960	2,590	276
E27	Ute Creek near Gladstone, N. Mex.....	256	Aug. 16, 1953	10,600	41.4
E27	Arroyo del Alamo near Mosquero, N. Mex.....	27.4	May 16, 1954	3,440	126

FLOODS IN LOWER MISSISSIPPI RIVER BASIN

Table 3.--Peak discharge at miscellaneous sites and unusual floods at short-term gaging stations--Continued

Flood region, hydro-logic area	Stream and place of determination	Drainage area (sq mi)	Peak discharge		
			Date	Cfs	Cfs per sq mi
Arkansas River basin--Continued					
E27	Ute Creek tributary near Gallegos, N. Mex.	0.6	Aug. 9, 1960	668	1,113
E21	Rana Canyon near Porter, N. Mex.....	10	July 16, 1958	2,910	291
E21	Mustang Creek near Perico, Tex.....	396	May 31, 1937	39,800	101
E21	Red Deer Creek near Pampa, Tex.....	3.4	May 16, 1961	3,430	1,010
E21	Bluff Creek near Miami, Tex.....	24.7	June 5, 1951	10,900	441
E21	Red Deer Creek tributary near Miami, Tex.	1.0	June 5, 1951	1,610	1,610
E21	Deer Creek near Custer, Okla.....	90.2	May 16, 1951	46,400	514
E21	Deer Creek tributary No. 1 near Custer City, Okla.	6.74	May 16, 1951	7,030	1,040
E21	Little Deer Creek near Thomas, Okla....	4.96	May 16, 1951	6,230	1,230
E21	Deer Creek at Hydro, Okla.....	280	June 22, 1948	31,000	111
E21	Deer Creek tributary near Hydro, Okla....	4.46	June 22, 1948	8,500	1,910
E21	Lariat Creek tributary near Geary, Okla....	.84	June 22, 1948	2,100	2,500
E21	Lariat Creek near Geary, Okla.....	14.0	June 22, 1948	19,000	1,360
E21	Carrizo Creek near Clayton, N. Mex.....	305	May 28, 1957	29,500	96.7
E21	Perico Creek tributary at Clayton, N. Mex.	4.9	Sept. 9, 1960	1,600	327
E21	Sandy Arroyo near Clayton, N. Mex.....	42	June 1953	10,300	245
E21	Palo Duro Creek at Hansford, Tex.....	440	June 4, 1936	18,100	41.1
E21	Hackberry Creek near Hardesty, Okla.....	116	May 16, 1955	22,100	191
E21	Four Mile Creek near El Reno, Okla.....	8.51	Nov. 19, 1953	6,390	751
E17	East Fork Big Creek (Tiger Creek) near Bowlegs, Okla.	.89	Apr. 14, 1945	3,000	3,370
E17	Wewoka Creek at Lima, Okla.....	75	Apr. 14, 1945	88,000	1,170
E17	Coon Creek near Wewoka, Okla.....	10	Apr. 14, 1945	11,000	1,100
E17	Dry Creek near Davenport, Okla.....	144	May 1943	20,000	139
E17	Deep Fork near Stroud, Okla.....	1,093	May 18, 1943	42,000	38.4
B2	Mill Creek at Fort Smith, Ark.....	10.4	Oct. 27, 1951	3,630	349
B9	Lee Creek at Natural Dam, Ark.....	168	May 6, 1960	86,700	516
D9	Mill Creek near Boles, Ark.....	55.0	May 20, 1960	16,700	304
D7	Tarr Creek near Redfield, Ark.....	3.4	June 27, 1960	2,930	862
Yazoo River basin					
B16	Red Rock Branch near Pontotoc, Miss....	0.487	Mar. 21, 1955	360	739
B16	Cracker ditch near Pontotoc, Miss.....	.234	Mar. 21, 1955	209	893
F13	Dry Traywick Branch near Oxford, Miss....	.27	May 27, 1954	403	1,490
D14	Flowers Creek near Eureka Springs, Miss..	2.59	May 27, 1954	3,280	1,270
D14	Rowsey Creek near Eureka Springs, Miss....	1.00	May 27, 1954	1,390	1,390
D14	Long Creek near Eureka Springs, Miss.....	12.8	May 27, 1954	19,500	1,520
D14	Caney Creek near Eureka Springs, Miss....	4.85	May 27, 1954	14,700	3,030
D14	Anthony ditch near Eureka Springs, Miss..	.27	May 27, 1954	500	1,850
D14	Long Creek near Pope, Miss.....	30.8	May 27, 1954	31,900	1,040
D14	Woodruff Creek near Eureka Springs, Miss.	.79	May 28, 1954	800	1,010
B16	Snake Creek near Coffeewille, Miss.....	.398	July 1, 1957	372	935
B16	Golden ditch near Coffeewille, Miss.....	.197	July 1, 1957	165	838
B16	Caney Creek near Coffeewille, Miss.....	1.97	July 1, 1957	1,580	792
B16	Tributary to Moreland Creek near Coffeewille, Miss.	.515	June 11, 1959	1,370	2,660
B16	Turkey Creek near Coffeewille, Miss.....	70.2	July 1, 1957	27,300	389
B16	Cypress Creek near Coffeewille, Miss.....	22.3	July 1, 1957	10,900	489
B16	Perry Creek near Torrance, Miss.....	21.2	Mar. 21, 1955	15,000	708
D14	Lost Dog Branch near Grenada, Miss.....	.032	Mar. 21, 1955	34.4	1,080
D14	Cane Creek near Holcomb, Miss.....	25.6	Sept. 20, 1958	16,000	625
Homochitto River basin					
D14	Foster Creek at Crosby, Miss.....	31.2	Sept. 22, 1958	27,000	865
D14	Observers Draw near Doloroso, Miss.....	.222	Apr. 12, 1955	387	1,740
Buffalo River basin					
D14	Browns Creek near Wilkinson, Miss.....	0.895	Apr. 12, 1955	1,030	1,150
Thompson Creek basin					
D14	Moores Branch near Woodville, Miss.....	0.214	Apr. 12, 1955	416	1,940
Red River basin					
A21	Prairie Dog Town Fork River near Canyon, Tex.	743	May 16, 1951	18,500	24.9
A20	Lake Creek near Lelia Lake, Tex.....	48.6	June 15, 1938	40,800	840
A20	Lake Creek near Headly, Tex.....	68.5	June 15, 1938	64,700	945
A21	McClellan Creek near Alanreed, Tex.....	62.4	May 16, 1951	8,720	140
A21	McClellan Creek at reservoir near Alanreed, Tex.	86	May 16, 1951	10,100	117
A21	McClellan Creek at Beaver Dam bridge, near Alanreed, Tex.	90	June 8, 1937	11,900	132
A21	Hackberry Creek tributary No. 1 at Wheeler, Tex.	2.0	June 5, 1951	1,460	730
A21	Hackberry Creek tributary No. 2 at Wheeler, Tex.	1.2	June 5, 1951	2,340	1,950

Table 3.--Peak discharge at miscellaneous sites and unusual floods at short-term gaging stations--Continued

Flood region, hydro-logic area	Stream and place of determination	Drainage area (sq mi)	Peak discharge		
			Date	Cfs	Cfs per sq mi.
Red River basin--Continued					
A21	Hackberry Creek tributary No. 3 near Wheeler, Tex.	2.4	June 5, 1951	2,920	1,220
A21	Hackberry Creek near Wheeler, Tex.....	12.1	June 5, 1951	5,560	460
E7	Willow Creek at Duncan, Okla.....	3.87	May 10, 1950	5,890	1,520
E7	Cow Creek near Comanche, Okla.....	64.8	May 10, 1950	43,200	667
E7	Cow Creek at Waurika, Okla.....	191	May 19, 1955	29,500	154
E21	North Fork Little Wichita River near Archer City, Tex.	222	Sept. 10, 1929	4,950	22.3
E7	Walnut Creek near Lone Grove, Okla.....	133	May 17, 1957	63,000	474
E21	Rush Creek near Reydon, Okla.....	69.6	Apr. 29, 1954	53,700	772
E21	Dry Creek near Clinton, Okla.....	10.3	Oct. 4, 1955	8,170	793
E21	Beaver Creek tributary near Arapaho, Okla.	.81	May 16, 1951	1,590	1,960
E20	Rainy Mountain Creek near Mountain View, Okla.	316	May 18, 1949	38,000	120
D9	Hot Springs Creek at Hot Springs, Ark...	5.81	Feb. 15, 1956	4,350	749
D9	Gulpa Creek near Hot Springs, Ark.....	50	Feb. 15, 1956	21,100	422
D9	South Fork Saline River near Hot Springs, Ark.	12.9	Dec. 3, 1952	11,100	860
D2	Lost Creek near Sheridan, Ark.....	82	June 27, 1960	16,000	195
D2	West Fork Big Creek at Sheridan, Ark....	5.8	June 27, 1960	3,720	641
D2	Hurricane Creek near Sheridan, Ark.....	205	June 27, 1960	52,300	255
B6	Corney Bayou near Three Creeks, Ark.....	180	Apr. 27, 1958	35,800	199
B6	Three Creek near Three Creeks, Ark.....	46	Apr. 26, 1958	11,300	246
Mississippi River Delta					
B16	Sandy Draw near Centerville, Miss.....	0.285	Apr. 12, 1955	467	1,640

METHOD

Methods used in the preparation of this report have been developed by engineers of the U.S. Geological Survey and are based on a continuing study over a period of years. Procedures used in computing flood-frequency data are outlined by Dalrymple (1960).

These procedures serve to define flood-frequency relations at a point on a stream (a gaging station), and by combining a number of these point relations they are used to define a regional frequency relation which may be applied over a broad area. By use of data collected on streams with drainage areas of various sizes in the lower Mississippi River basin, two basic relations were defined: (1) a curve showing the relation between the ratio of a given flood to the mean annual flood and the frequency of the given flood, and (2) a curve showing the relation between the mean annual flood and drainage area.

FLOOD FREQUENCY AT A GAGING STATION

A flood-frequency curve based on records collected at one gaging station represents what has happened at that site during a specific period in the past. It might be a poor basis for predicting flood events in the future if the past record is not typical. A frequency curve based on regional characteristics is considered more reliable than one based on flood experiences at a particular site. Exceptions would be stations on large streams with floodflow characteristics radically different from those of smaller tributary streams. However, in order to derive a regional frequency curve, it is first necessary to draw frequency curves for individual gaging stations.

TYPES OF FLOOD SERIES

Flood data for a gaging station may be analyzed either as an annual-flood series or as a partial-duration series. In the annual-flood series only the highest peak discharge in each water year (October 1 to September 30) is used. The partial-duration series includes all peaks above a selected base.

The annual-flood series was used in this analysis. Langbein (1949) has shown that the two methods give practically the same results for recurrence intervals of 10 years or more. The following table shows comparative values of recurrence intervals by the two methods.

Recurrence interval, in years

<i>Annual-flood series</i>	<i>Partial-duration series</i>	<i>Annual-flood series</i>	<i>Partial-duration series</i>
1.16 -----	0.5	10.5 -----	10
1.58 -----	1.0	20.5 -----	20
2.00 -----	1.45	50.5 -----	50
2.54 -----	2.0	100.5 -----	100
5.52 -----	5.0		

Recurrence intervals for partial-duration series may be computed from curves based on annual series by use of the relation expressed in the foregoing table. There is a distinction in meaning of "recurrence interval" between the two series. In the annual-flood series, recurrence interval is the average interval of time within which a flood equal to or greater than a given magnitude will occur once as an annual maximum. In the partial-duration series, the recurrence interval is the average interval of time between floods of a given magnitude without regard to their relationship to the year or any other period of time.

FLOOD-FREQUENCY CURVES

Methods of plotting data and fitting frequency graphs at a gaging station have been explained in other publications, notably Dalrymple (1960) and Searcy (1955), and will not be covered in detail in this report.

Recurrence interval for each annual flood is computed by the formula $T = (n + 1) / m$, where T is the recurrence interval in years, n is the number of years of record, and m is the order number, beginning with the largest flood as 1.

Annual-flood data are plotted on a special form based on the theory of extreme values (Powell, 1943). This form has the advantage of tending to make the frequency curve for many sites plot as a straight line. After plotting the data, a curve is fitted to the points by inspection. As most streamflow records are relatively short, this method is preferable to analytic curve fitting. Reliable historical data are used as an aid in defining the upper end of the curve.

REGIONAL FLOOD FREQUENCY

A flood-frequency curve for a single site for a specific period of time cannot be used as a reliable means of defining frequency relations on nearby ungaged streams or other points on the same stream. The use of such a frequency curve is questionable, even for the site for which it was drawn, because the period of peak-flow records may not be typical of a long-term period.

The disadvantages of areal application of individual flood-frequency curves led to the development of methods of combining flood data for individual sites and relating flood-frequency functions to measurable characteristics of drainage basins. In order to combine flood records at different sites, the records should be taken from a region having homogeneous floodflow characteristics and should represent the same period of time.

Flood-frequency curves are combined in two ways. First, the records are combined on the basis of similarity of slope of the individual frequency graphs. This step defines a composite dimensionless fre-

quency curve representing the ratio of the flood of any frequency to an index flood (the mean annual flood). The second step is to define a curve of relation between the drainage-basin characteristics and the mean annual flood to enable the mean annual flood to be predicted at any point in the area. A flood-frequency curve for any site, gaged or ungaged, can be drawn by use of these curves.

MEAN ANNUAL FLOOD

The mean annual flood for a gaging station is, by definition, a flood having a recurrence interval of 2.33 years in the annual-flood series. The mean annual flood has been found to be a good index of the geographical variation of floodflow.

ADJUSTMENT TO BASE PERIOD

In order that the mean annual floods at the various gaging stations be comparable, records should be adjusted to the same time period.

On the basis of records available, the following base periods were selected: 1939-58, 1929-58, and 1921-58. When records for a given station did not extend over the respective base period, annual peaks for that station were correlated with annual peaks for nearby long-period stations in order to assign order numbers to the actual peaks of record. Mean annual floods were adjusted to the long-term period (1921-58) on basis of geographical correlation between long- and short-term records.

TEST FOR HOMOGENEITY

Before combining a group of station records, a homogeneity test was made to insure that all stations selected for a region have similar flood-frequency characteristics. The test is used to determine whether the slopes of the individual curves differ more than might be expected in random sampling.

The slope of the frequency curve used in the homogeneity test is expressed by the ratio of the 10-year flood to the mean annual flood. This ratio is used because both the 10-year and the mean annual flood may be determined with reasonable accuracy for gaging stations with relatively short periods of record.

COMPOSITE FREQUENCY CURVES

The lower Mississippi River basin was divided into seven homogeneous regions (A-G) on the basis of the homogeneity test. Station records were combined within each region to define dimensionless composite frequency curves. These curves represent the ratio of the flood of any frequency to the mean annual flood and are shown on figure 2. Curves for all regions were adjusted to the period 1921-58 except for region C where there were no stations for the long-term period. The composite curve in region C was adjusted to the period 1929-58.

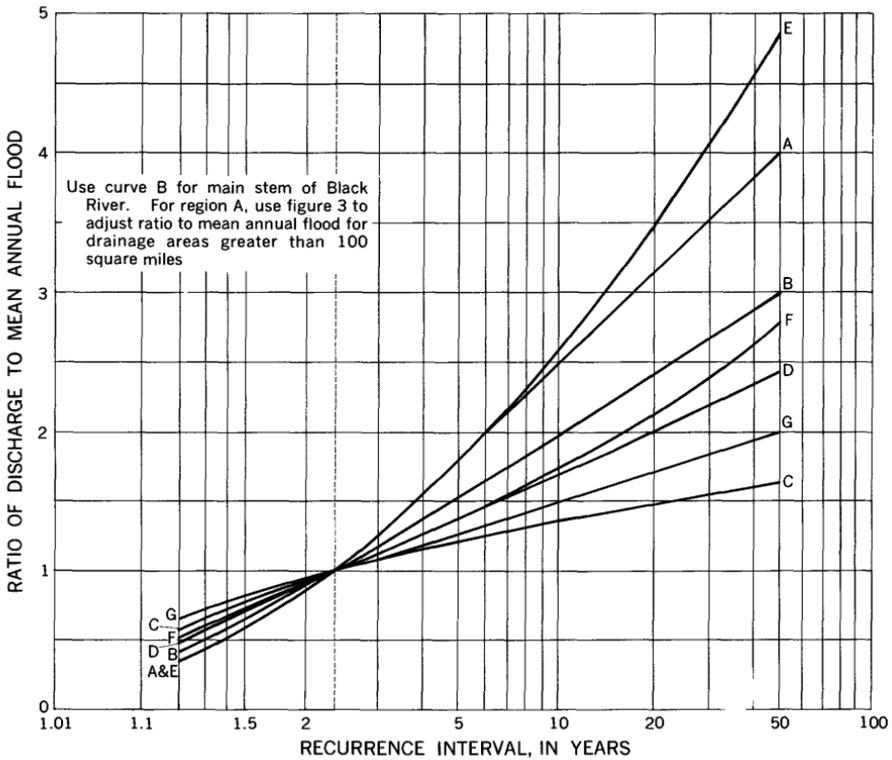


FIGURE 2.—Frequency of annual floods.

Flood-frequency studies by some investigators indicate that the slope of a frequency curve is affected by the size of the drainage area, with curves for smaller drainage areas having steeper slopes than those for larger areas. This effect was investigated for each of the seven frequency regions. The flood ratios for the various flood levels were plotted against the drainage area. The effect of drainage area on slope of the frequency curve proved to be significant only in region A.

A family of curves was drawn for region A to show the adjustment which is applicable at the various flood levels for drainage areas greater than 100 square miles. These curves are shown on figure 3.

MEAN ANNUAL FLOOD RELATION

After having derived composite frequency curves which define dimensionless ratios to the mean annual flood for floods of other recurrence intervals, the next step is to relate the mean annual flood to measurable characteristics of the drainage basin.

The important physical characteristics of a drainage basin that affect the magnitude of the mean annual flood, excluding climatic fac-

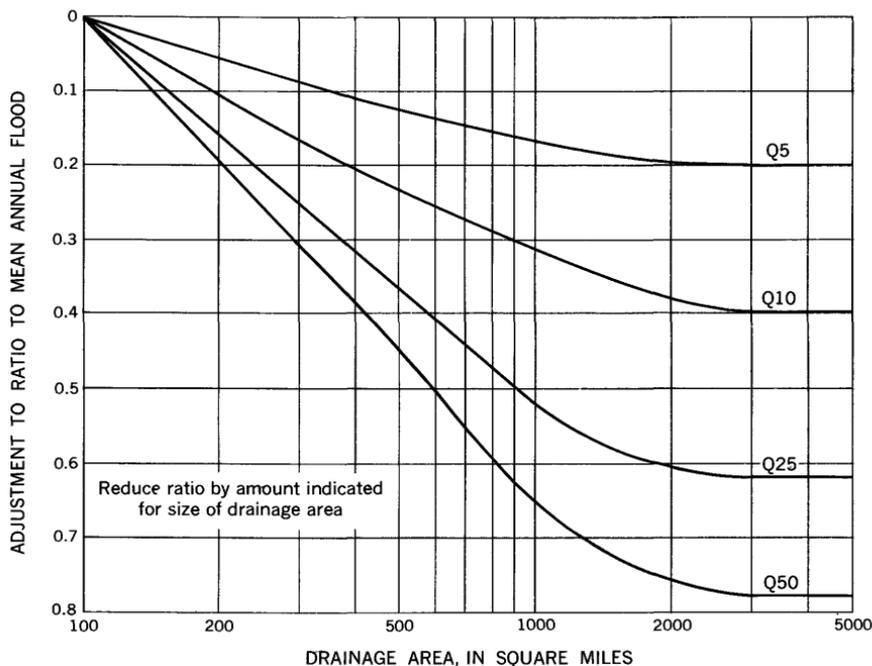


FIGURE 3.—Adjustment to ratio to mean annual flood for region A on basis of drainage area.

tors, are size, topography, shape, and floodwater storage. The most important and most readily measurable of these factors is size of drainage area. The effect of topography may be measured in terms of land and stream slope and elevation. Slopes cannot be accurately determined because a large part of the area is inadequately covered by reliable topographic maps. Storage undoubtedly has an important effect but cannot be measured directly.

Initially, the mean annual flood was correlated graphically with drainage area. On the basis of this correlation many hydrologic areas were defined. It was found that by introducing elevation as a factor in the high mountainous areas of Colorado and New Mexico, better correlation was obtained and some of the hydrologic areas could be combined. A total of 27 hydrologic areas were defined and are outlined on plate 1.

An attempt was made to improve the correlation in the various hydrologic areas by using shape as a factor. Shape is represented as a ratio of drainage-basin length to width. A slight trend was noted in several areas, but a material improvement was made only in area 11. This area lies along the lower Mississippi River and is characterized by an extremely wide range in basin shapes, from long sinuous basins paralleling the Mississippi River to relatively short, wide tribu-

tary basins. The drainage-basin length is defined as the distance, in miles, from the point of determination to the drainage-basin divide. This distance is measured along the meander of the stream channel. The width is computed by dividing the drainage area, in square miles, by the length, in miles.

Mean-annual-flood relation curves for each of the 27 hydrologic areas are shown in figures 4-7.

An elevation adjustment curve (fig. 8) is applicable in areas 23-27 if the elevation at the point of determination is greater than 4,000 feet.

In area 11, values of mean annual floods must be corrected by use of a shape adjustment curve (fig. 9).

APPLICATION OF FLOOD-FREQUENCY DATA

Procedures for determining the magnitude of floods having recurrence intervals 1.2 to 50 years are outlined in this section. Mean-annual-flood curves shown in figures 4-7 indicate the range of drainage-area sizes for which the mean annual flood is defined in each hydrologic area. For example, in figure 4, the mean annual flood is defined between 10 and 3,000 square miles in hydrologic area 4, whereas it is defined between 100 and 5,000 square miles in area 1. Neither the mean-annual-flood curves nor the ratio curves should be extrapolated beyond the limits shown.

REGIONAL APPLICATION

The magnitude of floods for selected recurrence intervals may be determined for most streams in the lower Mississippi River basin by the following procedure:

1. Determine the size of the contributing drainage area above the site. Noncontributing areas must be deducted from the total area.
2. Determine the flood-frequency region and hydrologic area in which the site is located (pl. 1).
3. Determine the mean annual flood for the site from the appropriate hydrologic-area curve, figures 4-7. If the site is in hydrologic areas 23-27, determine the elevation of the site; if more than 4,000 feet, adjust the mean-annual-flood figures as determined previously by use of the elevation-adjustment curve (fig. 8). If the site is in hydrologic area 11, compute the L/W ratio and adjust the mean-annual-flood figure by use of the shape adjustment curve (fig. 9).
4. Determine the ratio to mean annual flood for the selected recurrence interval (fig. 2). If the point of determination lies within region A and the drainage area is more than 100 square miles, adjust the ratio by use of figure 3.
5. Multiply the ratio to mean annual flood (step 4) by the mean annual flood (step 3).

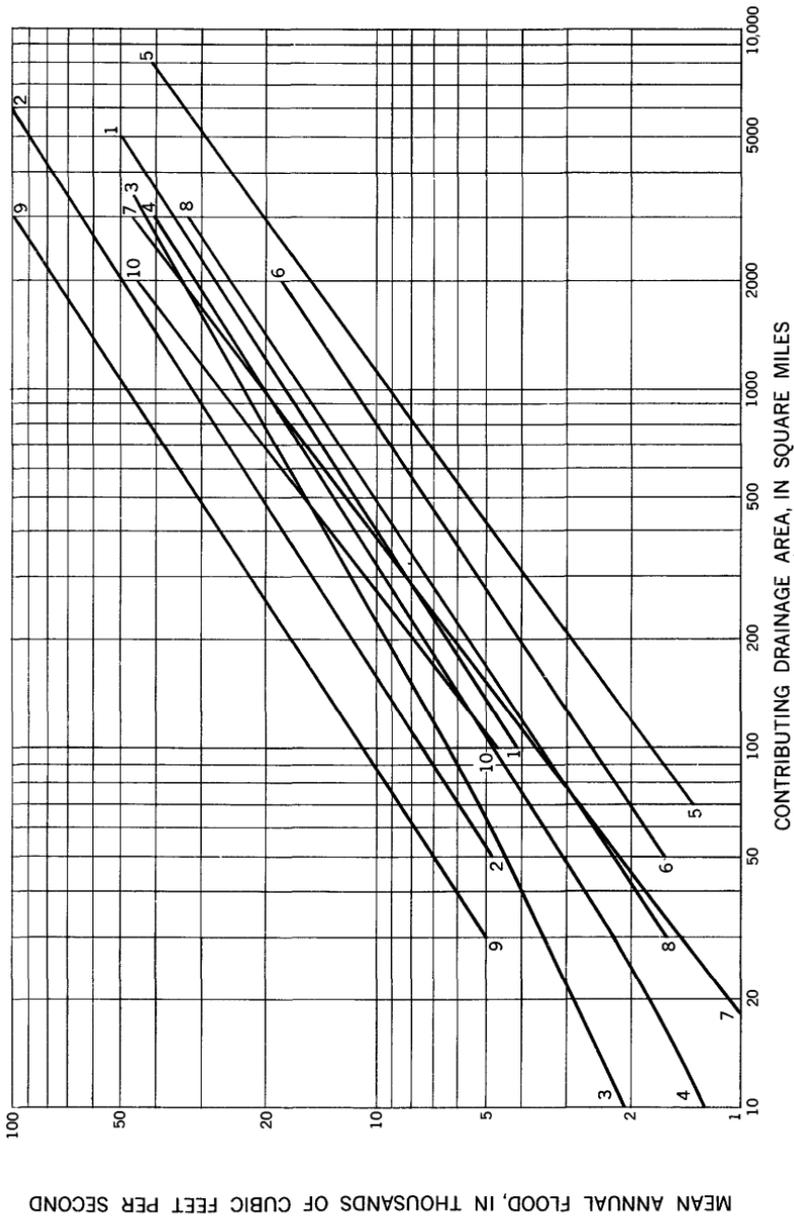


FIGURE 4.—Variation of mean annual flood with contributing drainage area in hydrologic areas 1-10. Use figure 10 for main stem of Black River below Mckenzie Creek and Neesho River below Spring River. Use figure 17 for main stem of Ouachita River below Snackover Creek. Use figure 12 for main stem of White River below War Eagle Creek. Use figure 18 for main stem of Washita River. Use figure 10 for main stem of Cypress Creek and Twelvemile Bayou below Boggy Creek.

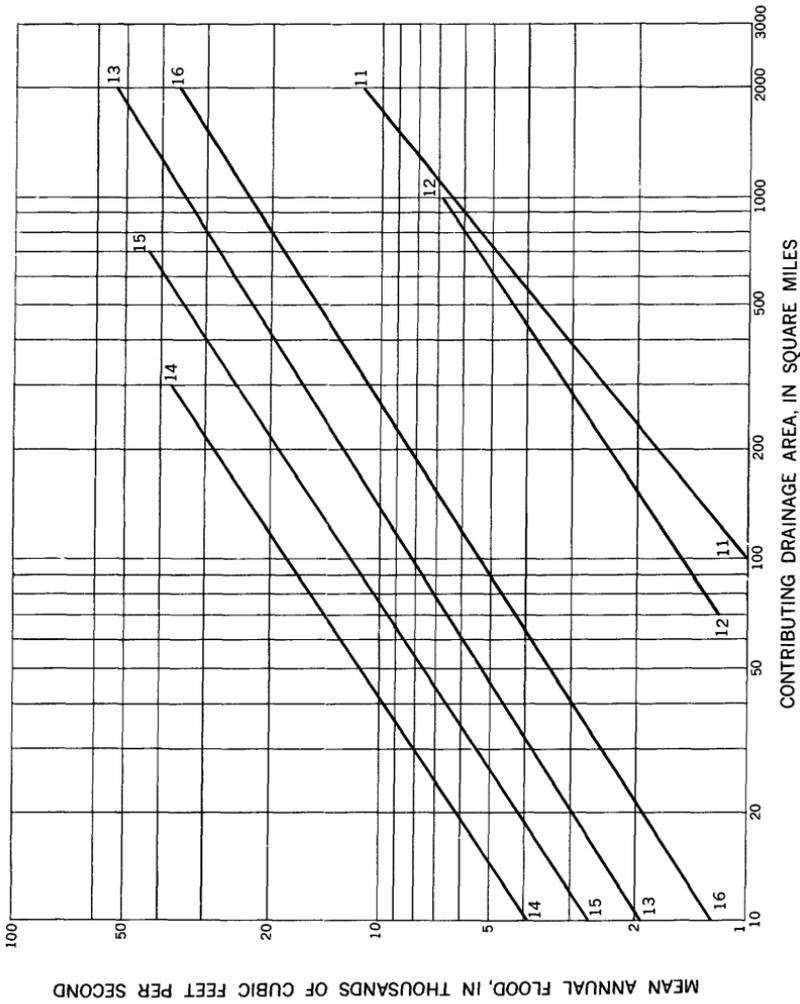


FIGURE 6.—Variation of mean annual flood with contributing drainage area in hydrologic areas 11-16. Use figure 11 for main stem of Big Black River below Jordan Creek and Homolillo River below Middle Fork. Use figure 18 for main stem of Yalobusha River below Cane Creek. Use shape-adjustment coefficient in area 11 (see fig. 9).

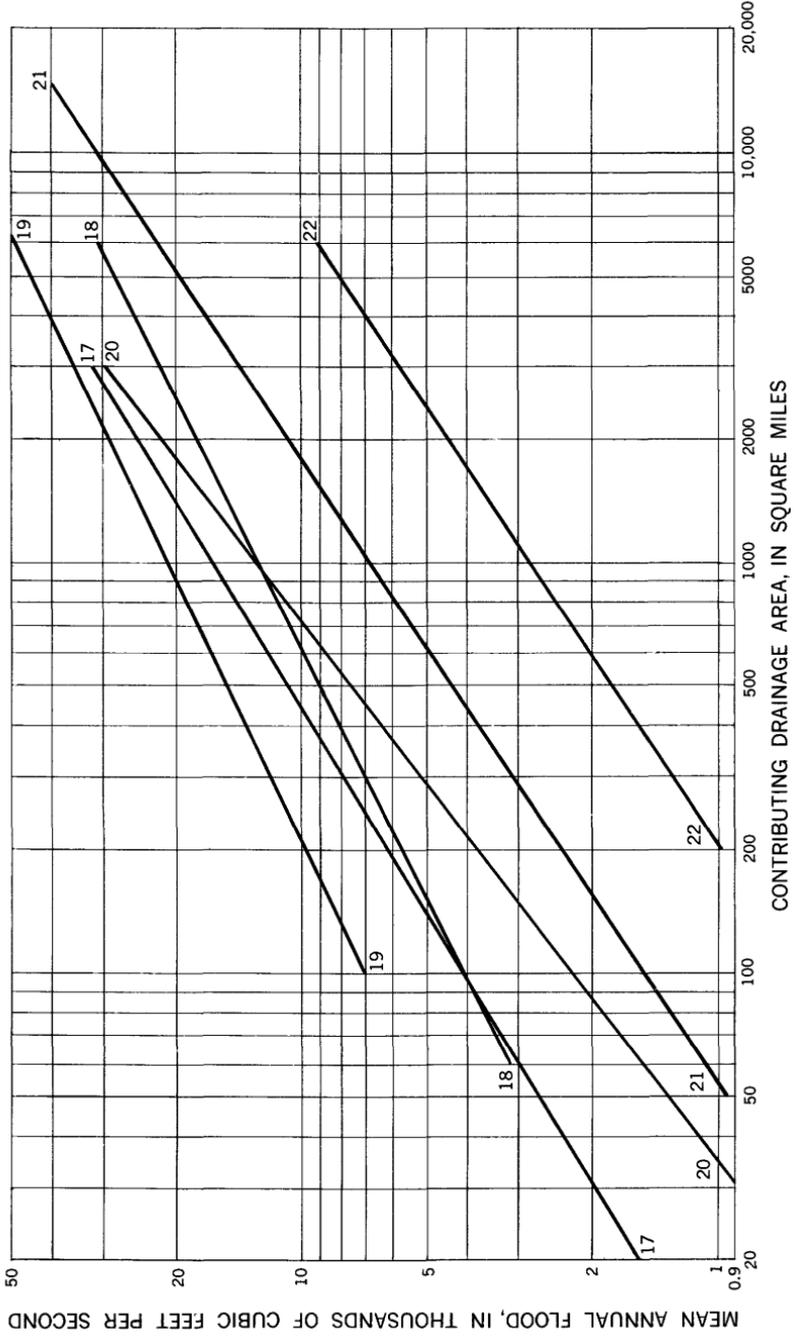


FIGURE 6.—Variation of mean annual flood with contributing drainage area in hydrologic areas 17-22. Use figure 10 for main stem of North Canadian River. Use figure 16 for main stem of Canadian River below Cimarron Creek. Curve for area 21 is also applicable for Cimarron River below Stillwater Creek.

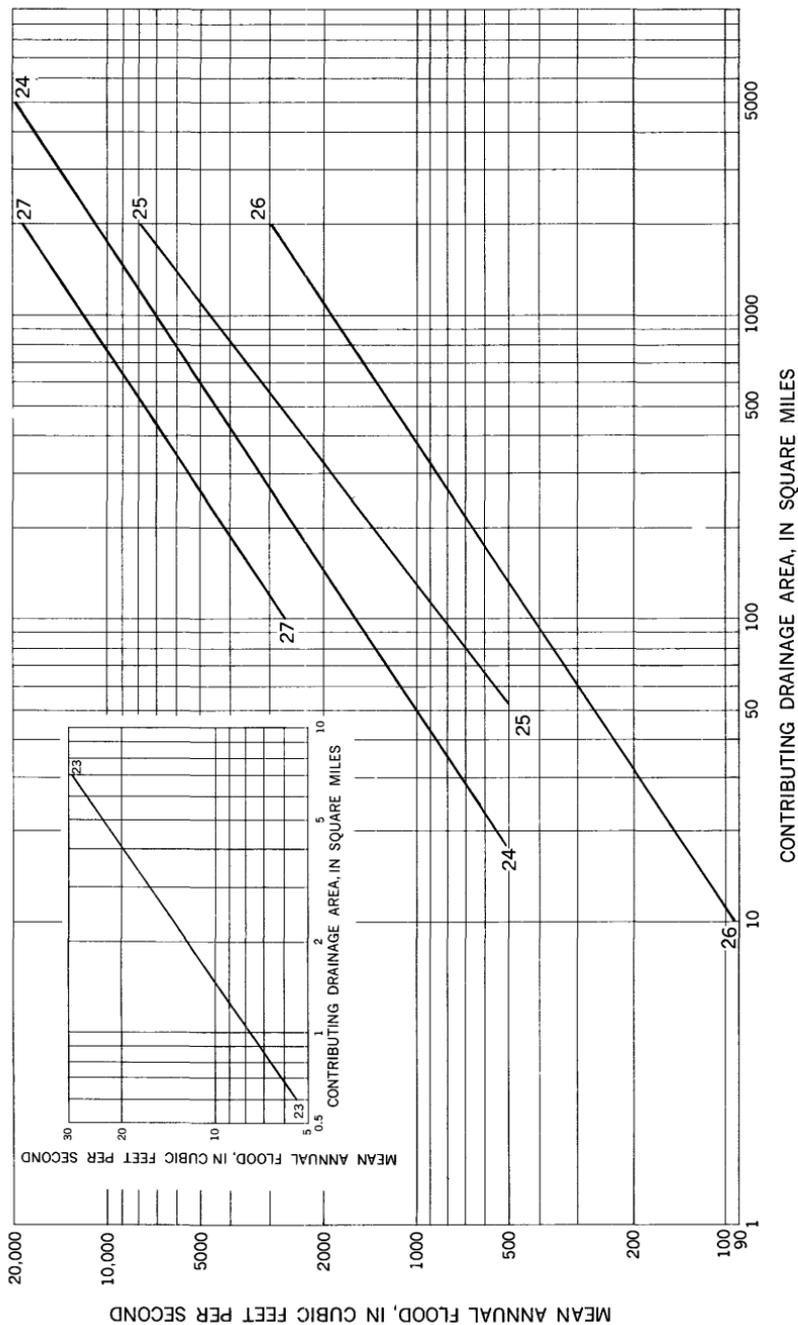


Figure 7.—Variation of mean annual flood with contributing drainage area in hydrologic areas 23-27. Use elevation coefficient in areas 23-27, if elevation is above 4,000 feet. See figure 8. Use figure 16 for main stem of Canadian River below Cimarron Creek.

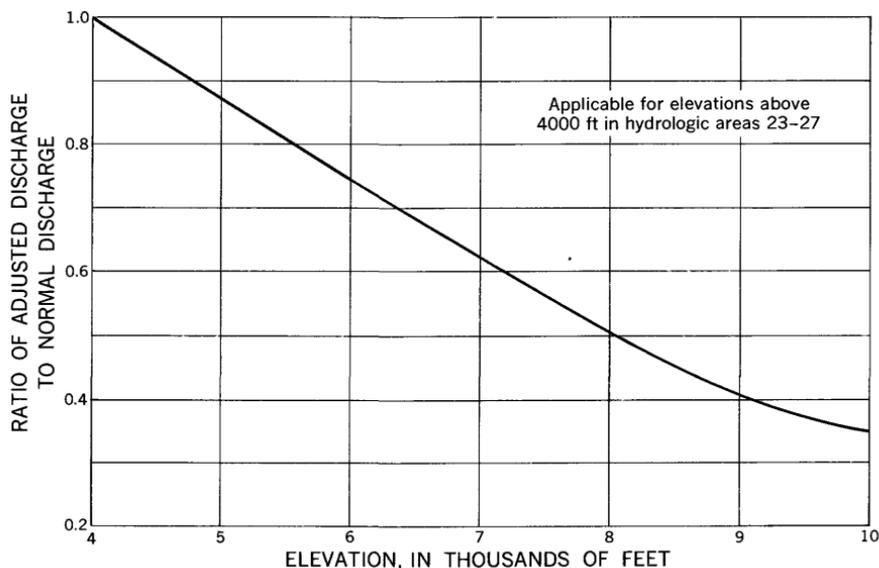


FIGURE 8.—Elevation adjustment curve for hydrologic areas 23-27.

SPECIAL APPLICATION

Some streams do not lend themselves readily to regional analysis. These are generally large streams that traverse more than one hydrologic area or flood-frequency region. They may be placed in two categories: (1) those streams for which a composite frequency curve (fig. 2) is applicable but for which mean-annual-flood curves are not, and (2) those for which neither composite frequency curves nor mean-annual-flood curves are applicable.

For the first group, individual curves showing the variation of mean annual flood with drainage area were drawn for each stream and are shown in figures 10 and 11.

Streams in the first group given special treatment are main stems of: Black River below McKenzie Creek, Neosho River below Spring River, Cypress Creek and Twelvemile Bayou below Boggy Creek, Big Black River below Jordan Creek and Homochitto River below Middle Fork.

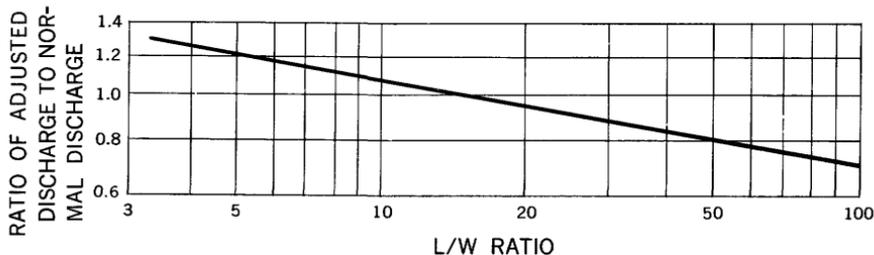


FIGURE 9.—Shape adjustment curve for hydrologic area 11.

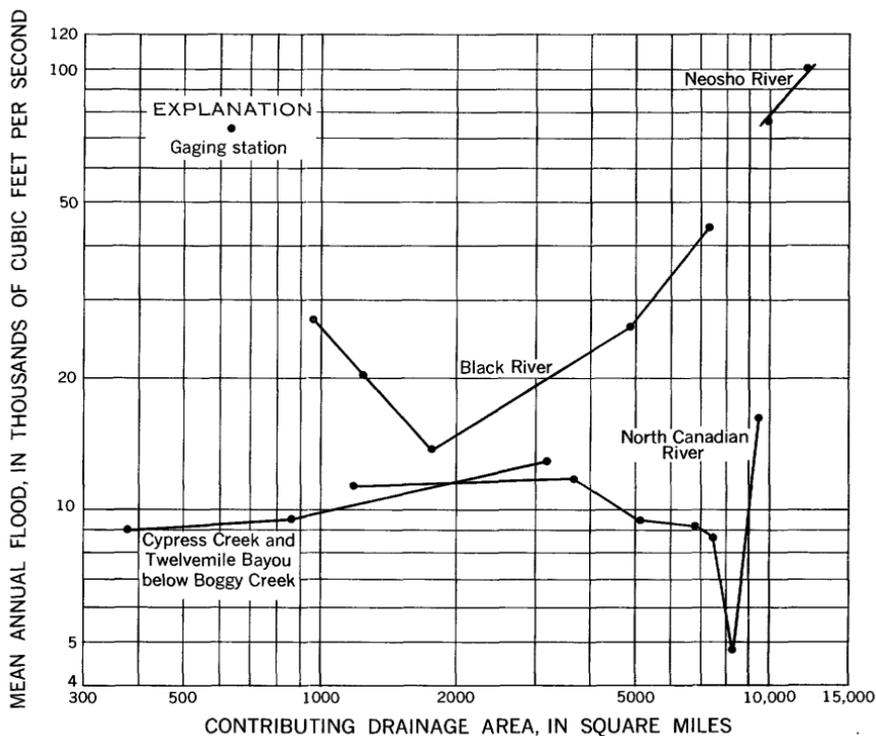


FIGURE 10.—Variation of mean annual flood with contributing drainage area on the main stems of Black River below McKenzie Creek, Neosho River below Spring River, Cypress Creek and Twelvemile Bayou below Bogy Creek, and North Canadian River.

Flood magnitudes at sites below points indicated on these streams may be determined as outlined under "regional application" except that the value of the mean annual flood is determined from figures 10 or 11.

For the second group, families of curves were drawn showing the relation of selected flood frequencies to drainage area or, for the

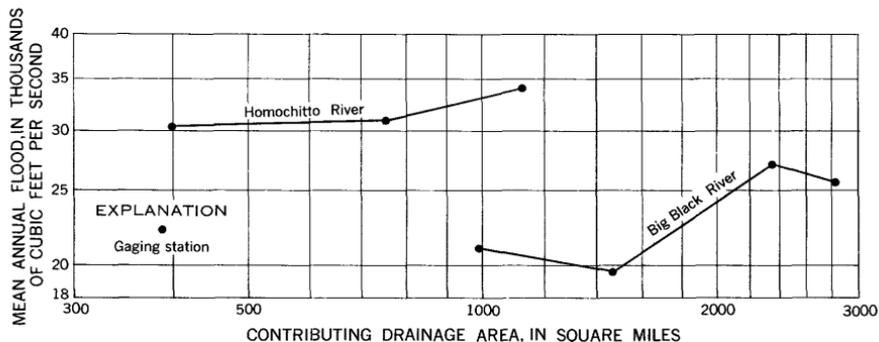


FIGURE 11.—Variation of mean annual flood with contributing drainage area on main stems of Big Black River below Jordan Creek and Homochitto River below Middle Fork.

Arkansas and the Canadian Rivers, distance above mouth. The curves are shown in figures 12-18.

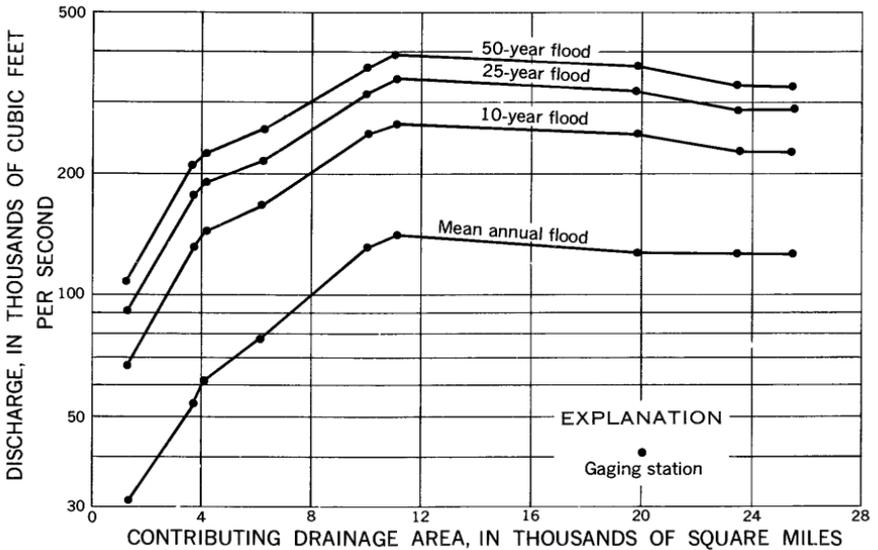


FIGURE 12.—Relation of selected flood frequencies to contributing drainage area, White River main stem below War Eagle Creek.

Streams in the second group given special treatment are main stems of: White River below War Eagle Creek, Arkansas River, Red River, Washita River, Canadian River below Cimarron Creek, Ouachita River below Smackover Creek, and Yalobusha River below Cane Creek.

Flood magnitudes for selected recurrence intervals at sites on these rivers may be taken directly from the family of curves after first determining the drainage area above the site or the distance upstream from the mouth.

MISSISSIPPI RIVER

A separate analysis was made for the Mississippi River below St. Louis, Mo. Two composite flood-frequency curves defining the ratio to mean annual flood for selected recurrence intervals from 1.1 to 100 years were defined. These curves are shown in figure 19. One curve is applicable above the mouth of the Ohio River and the other below. Another curve (fig. 20) was drawn showing the variation of mean annual flood with distance above Head of Passes, La. The magnitude of floods of selected recurrence intervals may be determined by using the curves in figures 19 and 20.

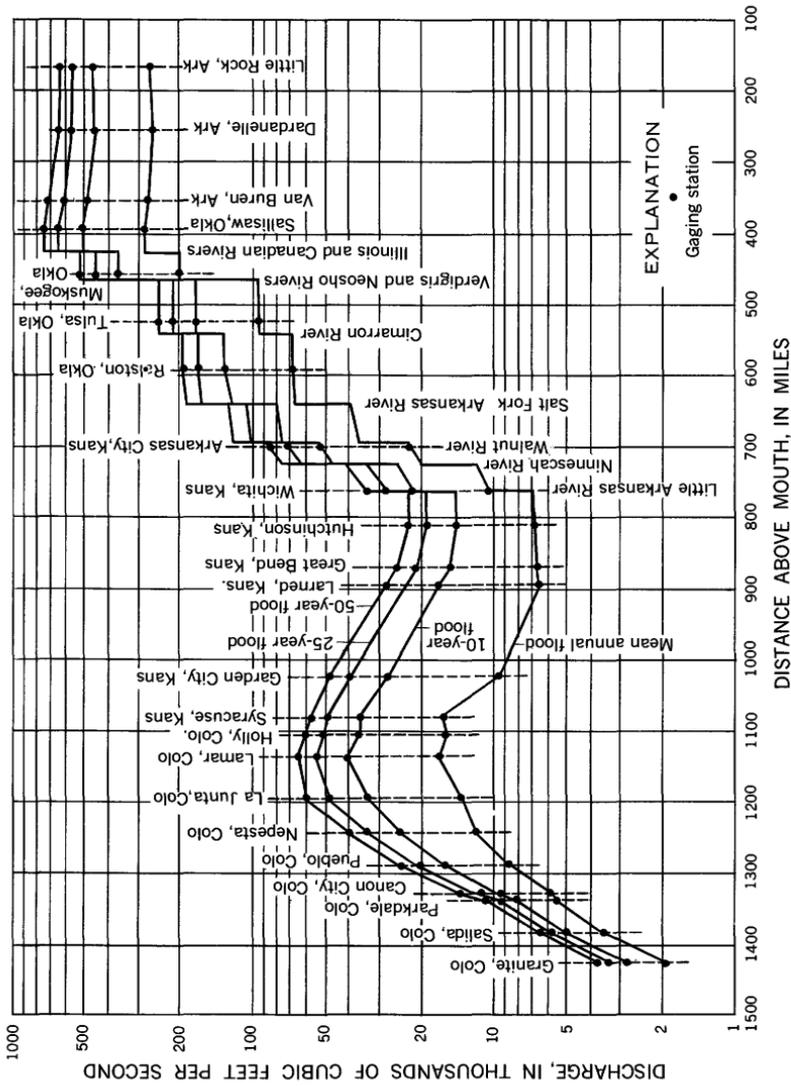


FIGURE 13.—Relation of selected flood frequencies to distances above mouth, Arkansas River main stem.

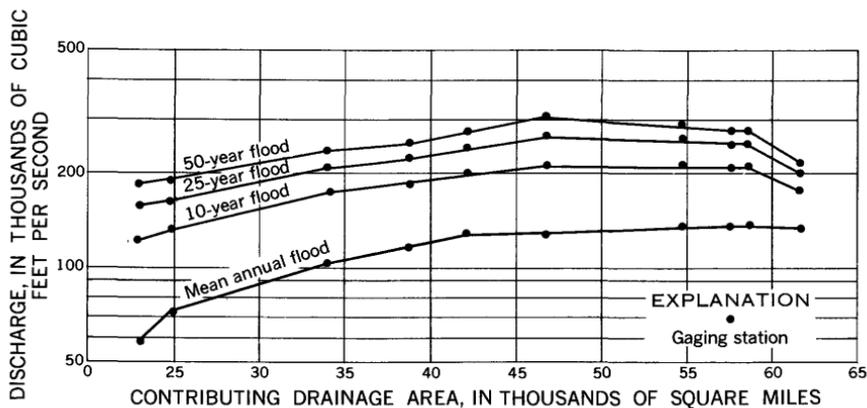


FIGURE 14.—Relation of selected flood frequencies to contributing drainage area, Red River main stem.

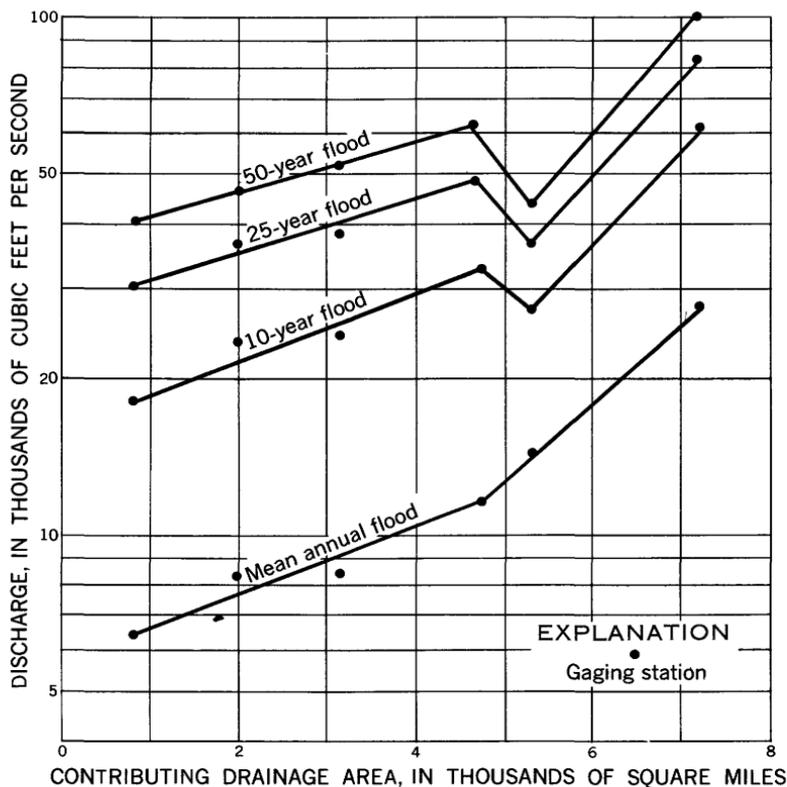


FIGURE 15.—Relation of selected frequencies to contributing drainage area, Washita River main stem.

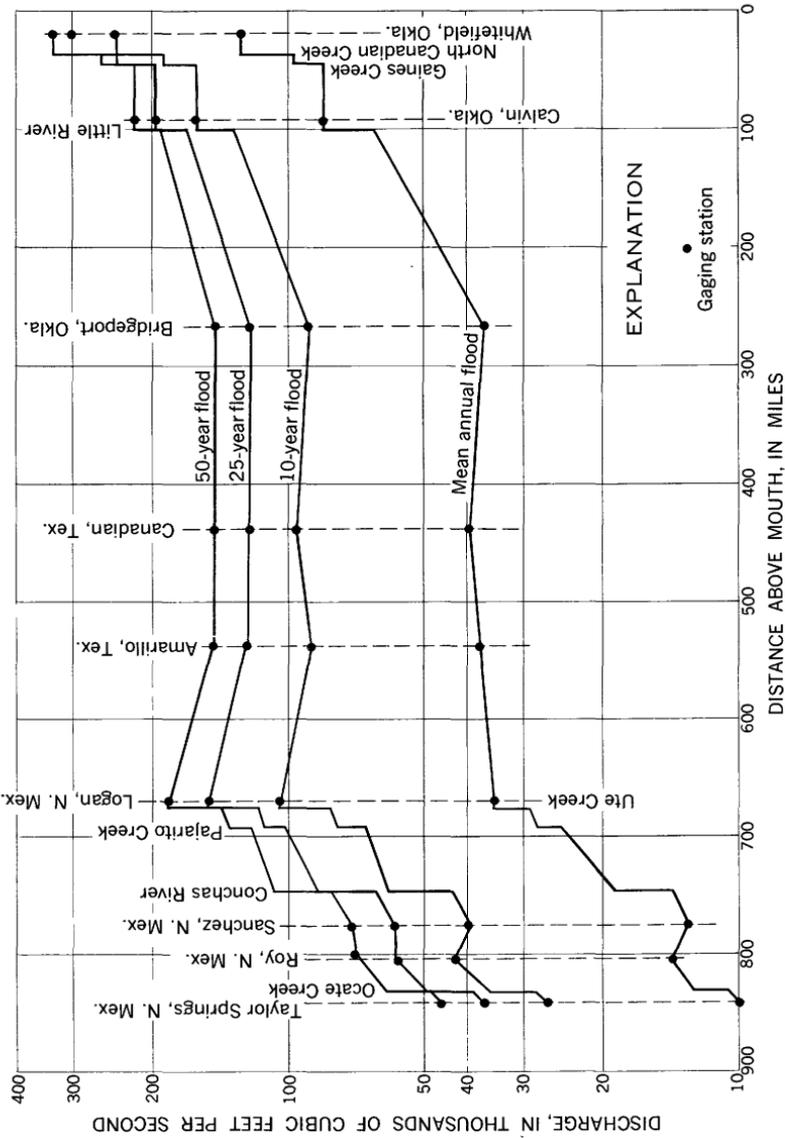


FIGURE 16.—Relation of selected flood frequencies to distance above mouth, Canadian River, main stem below Cimarron Creek.

LIMITATIONS

Methods outlined in this report can be used to predict the most probable value of flood magnitudes for selected recurrence intervals expected to occur on the average over a long period of time. This study does

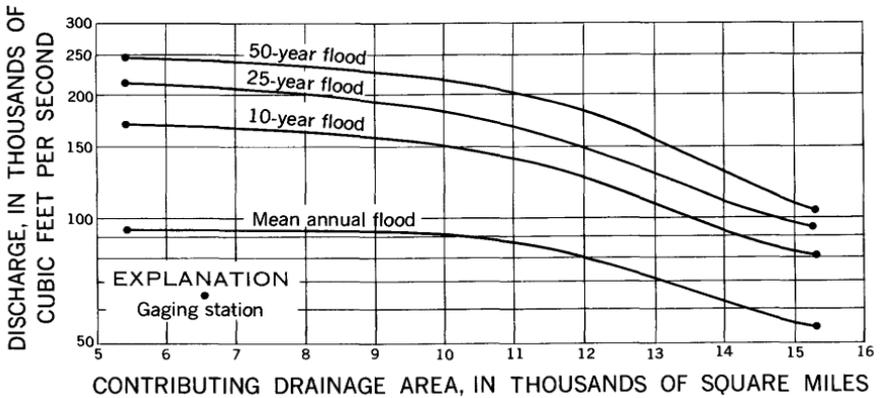


FIGURE 17.—Relation of selected flood frequencies to contributing drainage area, Ouachita River, main stem below Smackover Creek.

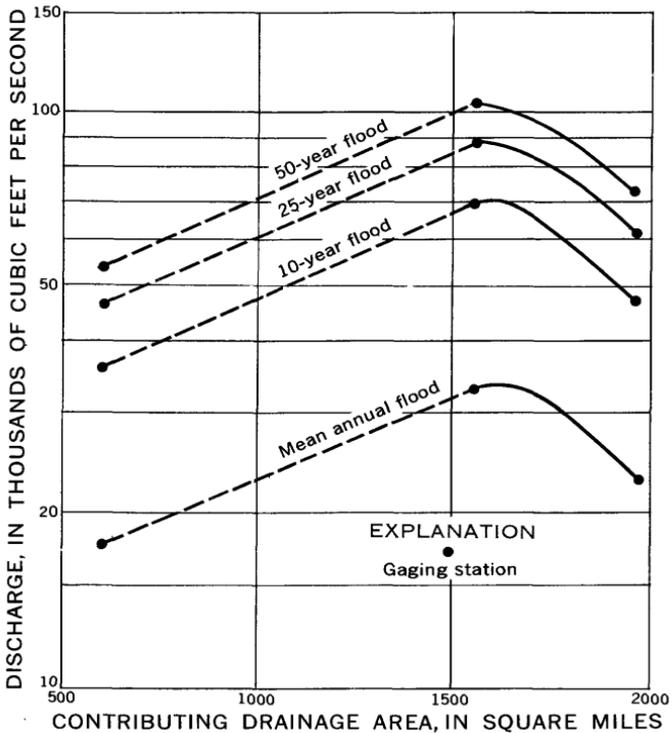


FIGURE 18.—Relation of selected flood frequencies to contributing drainage area, Yalobusha River, main stem below Cane Creek.

not indicate that a flood having a specific recurrence interval will occur on schedule at regular time intervals and cannot be used to predict the date of occurrence. It is possible that several major floods may occur within a period of a few years. On the other hand, several years may pass without experiencing a major flood.

Flood-frequency relations defined in this report are based on the natural flow of streams in the report area, except for the main stems of the Mississippi and the Arkansas Rivers, and are not applicable to streams whose floodflows are materially altered by manmade changes. Curves presented are based on all available flood data through the 1958 water year. Extrapolation beyond the limits indicated by these curves is not advised. Composite frequency curves (fig. 2) should not be used for recurrence intervals greater than 50 years nor should curves

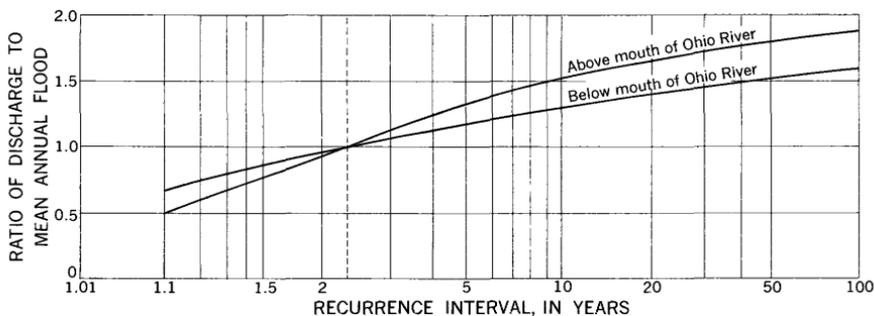


FIGURE 19.—Frequency of annual floods, Mississippi River main stem below St. Louis, Mo., period 1900-58.

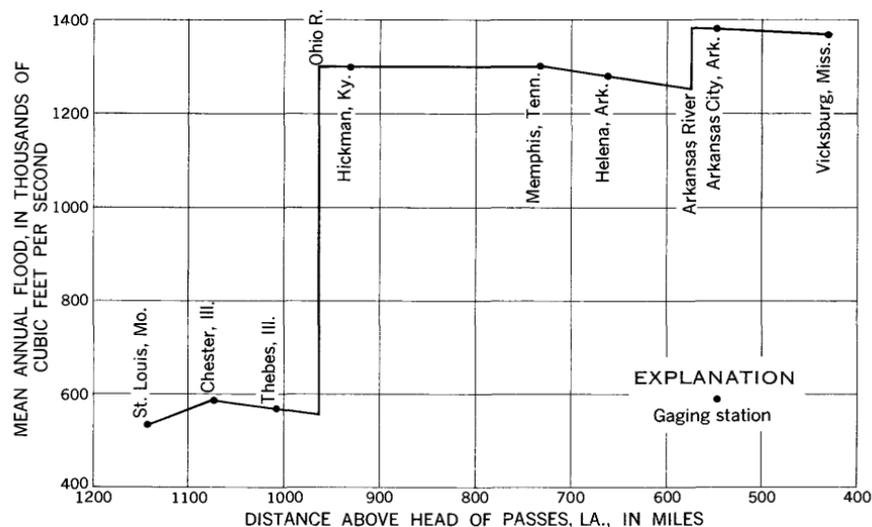


FIGURE 20.—Variation of mean annual flood with distance above Head of Passes, La., Mississippi River.

showing relation of drainage area to mean annual flood be extended above or below the limits shown.

Floodflows for the main stem of the Mississippi River have been affected by many manmade changes during a long period of years. It is not feasible to evaluate the effect of these changes, and relations have been developed on the basis of existing flows with no attempt made to adjust to natural flows. Composite frequency curves for this river are extended to show a recurrence interval of 100 years.

Frequency relations for the main stem of the Arkansas River are for natural conditions except that no attempt was made to adjust for the effects of diversions for irrigation and storage in small reservoirs in Colorado. These effects changed very little during the report period (1921-58). Frequency relations were adjusted for the effect of storage in John Martin Reservoir on Arkansas River at Caddo, Colo. (storage began in 1943), and for major reservoirs on tributary streams below the mouth of Verdigris River near Muskogee, Okla.

There is a great need for better definition of frequency relations for small drainage areas. Many gaging stations have been installed on small streams in the lower Mississippi River basin in recent years. These gages, with a few exceptions, have not been in operation long enough to be of much use in this study. Data collected at these sites can be used at a later date in order to define frequency relations more adequately for small areas.

GAGING-STATION RECORDS

This section contains a description of all gaging stations for which flood data are given in this report. A tabulation of all floods above a selected base is shown for most stations. Only the annual floods are listed for some stations.

Station records are presented in downstream order corresponding to the system used in other U.S. Geological Survey Water-Supply Papers since 1951. Reference numbers used are the same as those used since 1958 in U.S. Geological Survey Water-Supply Papers. The prefix 7 has been omitted from the station numbers.

The peaks are arranged by water year unless otherwise noted. The water year begins October 1 and ends September 30 and is identified by the calendar year in which it ends. Thus, a peak which occurred in December 1942 would be listed in the 1943 water year.

Both peak stages and peak discharges are usually listed, but rarely only peak discharges are given. Only peak stages are shown for stations where the stage-discharge relation has not been defined. In the flat delta country in the eastern part of the report area, peak stages are often as important as peak discharges. The date indicates the day

on which the peak discharge occurred. If the peak stage occurred on a different date, this fact is indicated by a footnote.

Peak discharges, unless otherwise noted, are the instantaneous peaks in cubic feet per second (cfs). Some records, usually those furnished by other agencies, consist of only maximum daily discharges which are listed in lieu of instantaneous peaks, with appropriate explanation in the footnotes.

Underlines in the tables of peak stages and discharges have the following significance:

1. Line in "water year" column means a discontinuous record.
2. Line beginning at "date" column and continuing through "discharge" column means a change in site and datum.
3. Line in "date" and "discharge" column means a change in site without a change in datum.
4. Line in "gage height" column means a change in datum only.
5. No underlines are used for changes in site or datum if records have been adjusted to present conditions.

Depressions or closed basins in some parts of the Interior Plains region do not permit direct surface runoff to defined streams. Such areas have been deducted from the total drainage area above a gaging station to determine the area which contributes directly to surface runoff. Both total and contributing areas are given under "drainage area" in the station description. The contributing drainage area is used in flood-frequency analysis. The bankfull stage has been noted in most station descriptions. This is the stage at which one or both banks are overtopped in the vicinity of the gage and is sometimes referred to as flood stage.

Gaging-station records of less than 5 years in length or records on irrigation or diversion ditches are not included in this report.

An explanation of methods used in computation of streamflow data is given in each water-supply paper of the annual series of reports of the U.S. Geological Survey entitled "Surface Water Supply of the United States." Additional information may be found in standard texts and in Corbett and others (1943).

100. Mississippi River at St. Louis, Mo.

Location.--Lat 38°37'44", long 90°10'47", on downstream side of center pier of Eads Bridge at St. Louis, 15 miles downstream from Missouri River, 19.2 miles upstream from Meramec River, and at mile 180.0 above Ohio River.

Drainage area.--701,000 sq mi, approximately.

Gage.--Nonrecording Corps of Engineers gages prior to May 5, 1934; recording thereafter. Prior to 1934, at site 0.4 mile downstream at present datum. Datum of gage is 379.94 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Continually shifting, defined by frequent current-meter measurements.

Bankfull stage.--30 ft.

Historical data.--Flood in April 1785 may have reached a stage of 42.0 ft.

Remarks.--Records prior to January 1928 furnished by Corps of Engineers; January 1928 to March 1933 furnished by Mississippi River Commission. Natural flow of stream affected by many reservoirs and navigation dams in upper Mississippi River basin and by many reservoirs and diversions for irrigation in Missouri River basin. Discharges prior to the 1933 water year are maximum daily discharges. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 27, 1844	41.32	21,300,000	1900	Mar. 16, 1900	23.53	366,500
1861	May 15, 1861	25.47	466,000	1901	Apr. 18, 1901	22.58	343,400
1862	Apr. 26, 1862	31.45	712,200	1902	July 26, 1902	26.89	475,300
1863	Mar. 4, 9, 1863	18.02	252,000	1903	June 10, 11, 1903	b38.00	1,019,000
1864	May 14, 1864	20.33	309,500	1904	Apr. 29, 1904	33.60	777,600
1865	July 28, 1865	26.81	512,800	1905	Sept. 21, 1905	30.20	613,200
1866	Apr. 25, 1866	26.77	512,800	1906	Apr. 15, 1906	26.20	449,400
1867	May 1, 1867	28.21	568,400	1907	July 25, 26, 1907	28.00	a519,000
1868	May 14, 15, 1868	24.19	420,800	1908	June 20, 1908	34.95	850,000
1869	July 24, 1869	29.31	615,200	1909	July 15, 16, 1909	35.25	a860,600
1870	Apr. 16, 1870	26.21	491,200	1910	Jan. 13, 1910	25.2	416,400
1871	Mar. 17, 1871	21.82	347,800	1911	Feb. 23, 1911	19.90	283,000
1872	June 12, 14, 1872	23.00	383,000	1912	Apr. 5, 6, 1912	b50.80	640,800
1873	Apr. 11, 1873	25.45	462,400	1913	Apr. 16, 17, 1913	27.20	487,000
1874	June 19, 20, 1874	18.40	261,200	1914	June 21, 1914	20.40	293,800
1875	Aug. 3, 1875	29.80	657,200	1915	June 24, 1915	31.60	678,200
1876	May 10, 12, 1876	b32.00	741,000	1916	Jan. 31, Feb. 1	31.40	676,100
1877	June 14, 1877	26.60	505,600	1917	June 14, 1917	32.90	743,400
1878	June 15, 1878	25.75	476,800	1918	June 12, 1918	20.80	324,100
1879	July 3, 1879	21.15	332,200	1919	May 11, 1919	26.90	514,700
1880	July 12, 1880	25.50	466,000	1920	Apr. 24, May 22	28.0	554,000
1881	May 5, 6, 1881	b33.65	822,000	1921	May 14, 1921	23.0	397,000
1882	July 5, 1882	32.39	739,200	1922	Apr. 20, 1922	33.95	785,900
1883	June 25, 26, 1883	b34.80	862,800	1923	June 17, 1923	20.7	341,200
1884	Apr. 9, 10, 1884	28.10	543,600	1924	July 2, 3, 1924	26.3	494,900
1885	June 17, 1885	27.10	503,500	1925	June 25, 1925	19.9	325,800
1886	May 13, 1886	27.00	499,500	1926	Sept. 29, 1926	24.5	438,000
1887	Apr. 3, 1887	20.65	307,600	1927	Apr. 26, 1927	36.1	889,300
1888	June 4, 1888	29.38	598,600	1928	June 22, 1928	27.6	552,000
1889	June 1, 1889	24.62	416,200	1929	Apr. 25, 1929	b54.6	739,000
1890	July 1, 1890	20.60	307,600	1930	June 21, 1930	19.6	310,000
1891	July 4, 1891	23.7	368,300	1931	June 15, 1931	13.3	200,000
1892	May 19, 1892	36.0	926,500	1932	Dec. 1, 1931	22.11	356,000
1893	May 3, 1893	31.60	700,000	1933	May 17, 1933	27.0	434,000
1894	May 11, 1894	23.4	379,600	1934	Apr. 24, 1934	9.0	138,000
1895	July 8, 1895	17.0	229,000	1935	June 7, 1935	b33.52	649,000
1896	May 26, 28, 1896	27.70	507,000	1936	Mar. 1, 1936	21.18	336,000
1897	May 2, 1897	30.9	645,400	1937	May 5, 1937	23.76	374,000
1898	May 23, 1898	27.20	487,000	1938	May 27, 1938	26.57	434,000
1899	Apr. 27, 1899	25.68	432,400	1939	Apr. 20, 1939	30.13	529,000

a Computed by Corps of Engineers.

b Occurred at different time than peak discharge.

Peak stages and discharges of Mississippi River at St. Louis, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	June 14, 1940	13.37	188,000	1950	May 14, 1950	27.02	466,000
1941	Apr. 22, 1941	26.15	451,000	1951	July 21, 1951	b40.28	782,000
1942	June 30, 1942	34.48	666,000	1952	Apr. 29, 30, 1952	b33.83	684,000
1943	May 24, 1943	38.94	840,000	1953	Apr. 4, 1953	22.57	369,000
1944	Apr. 30, 1944	39.14	844,000	1954	June 6, 1954	18.65	292,000
1945	Apr. 21-23, 1945	c35.30	610,000	1955	Feb. 23, 1955	18.62	312,000
1946	Jan. 13, 1946	28.00	502,000	1956	Oct. 8, 1955	14.68	230,000
1947	July 1, 2, 1947	b40.26	783,000	1957	May 27, 1957	22.91	342,000
1948	Mar. 27, 1948	34.63	633,000	1958	July 24, 1958	29.40	504,000
1949	Mar. 11, 1949	24.41	425,000				

b Occurred at different time than peak discharge.

c Occurred June 13, 1945.

MERAMEC RIVER BASIN

115. Green Acre Branch near Rolla, Mo.

Location.--Lat 37°54'50", long 91°43'35", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 20, T.37 N., R.7 W., on left bank 35 ft upstream from double concrete-box culvert under State Highway 72, 0.4 mile upstream from mouth, and 3 miles southeast of Rolla.

Drainage area.--0.622 sq mi.

Gage.--Recording gage and concrete control. Datum of gage is 958.82 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 290 cfs, and by slope-area measurements at 426 and 1,900 cfs.

Bankfull stage.--3 ft.

Remarks.--Base for partial-duration series, 50 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Jan. 23, 1949	2.02	53	1954	May 28, 1954	2.49	100
	Feb. 3, 1949	1.98	50		May 31, 1954	2.30	78
	Feb. 14, 1949	2.48	99		June 2, 1954	3.36	247
	July 16, 1949	3.23	210		June 9, 1954	4.96	821
	Sept. 12, 1949	2.28	76		July 24, 1954	2.83	144
	Sept. 18, 1949	2.24	72		Aug. 7, 1954	2.22	70
1950	Oct. 5, 1949	2.27	76	1955	Oct. 11, 1954	3.06	183
	Oct. 11, 1949	3.06	183		Mar. 15, 1955	2.81	142
	Oct. 20, 1949	2.44	94		Mar. 20, 1955	2.59	112
	Oct. 21, 1949	2.62	116		May 12, 1955	3.70	337
	Jan. 2, 1950	2.12	61		May 28, 1955	2.51	102
	Jan. 3, 1950	3.22	215	June 5, 1955	2.24	72	
	Jan. 13, 1950	2.96	165	Sept. 22, 1955	2.93	160	
	Feb. 12, 1950	2.06	56	1956	May 26, 1956	3.19	209
	Apr. 3, 1950	2.67	122		May 30, 1956	4.03	444
	May 19, 1950	2.86	149		June 24, 1956	3.02	176
	May 29, 1950	3.98	426		July 5, 1956	3.72	343
	June 9, 1950	6.85	1,900		1957	May 17, 1957	3.18
	Aug. 13, 1950	2.12	61	May 21, 1957		3.44	267
Aug. 28, 1950	2.07	57	May 22, 1957	3.18		207	
1951	Nov. 7, 1950	2.04	55	May 25, 1957	3.59	306	
	May 22, 1950	2.64	118	May 29, 1957	2.87	150	
	June 12, 1951	2.40	90	May 29, 1957	2.85	148	
	June 30, 1951	3.65	323	June 24, 1957	2.95	164	
	July 9, 1951	2.95	164	July 27, 1957	2.98	169	
	July 12, 1951	2.92	158	Aug. 16, 1957	2.6	113	
Aug. 9, 1951	3.94	413	1958	June 10, 1958	3.54	293	
1952	Mar. 10, 1952	1.94		46.9	July 16, 1958	2.80	140
	1953	Apr. 23, 1953		4.39	577	July 17, 1958	4.22
June 26, 1953		2.18		67	July 30, 1958	2.83	144
1954	May 22, 1954	2.97		167	July 31, 1958	2.69	125
			Aug. 1, 1958		2.61	114	

MERAMEC RIVER BASIN

120. Behmke Branch near Rolla, Mo.

Location.--Lat 37°56'05", long 91°42'35", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.17, T.37 N., R.7 W., on right bank 300 ft upstream from county highway bridge, a quarter of a mile upstream from mouth, and 3 $\frac{1}{2}$ miles southeast of Rolla.

Drainage area.--1.05 sq mi.

Gage.--Recording. Datum of gage is 928.73 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 250 cfs and by slope-area measurements at 389 and 1,190 cfs.

Bankfull stage.--3 ft.

Remarks.--Base for partial-duration series, 90 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Feb. 14, 1949	1.95	182	1955	Feb. 19, 1955	1.72	94
	July 16, 1949	1.80	119		Mar. 15, 1955	2.03	222
1950	Oct. 5, 1949	1.75	104		Mar. 20, 1955	1.99	201
	Oct. 11, 1949	2.18	304		May 12, 1955	2.31	389
	Oct. 21, 1949	1.93	173		May 28, 1955	1.92	168
	Jan. 3, 1950	2.22	229		June 5, 1955	1.87	147
	Jan. 13, 1950	2.08	248		June 11, 1955	1.94	178
	Apr. 3, 1950	1.83	131		July 7, 1955	1.92	168
	May 19, 1950	2.10	258		Sept. 22, 1955	2.10	258
	May 29, 1950	2.31	389	1956	May 26, 1956	2.13	275
	June 9, 1950	3.36	1,190		May 30, 1956	2.28	369
	Aug. 14, 1950	2.08	248		June 24, 1956	2.24	342
1951	May 22, 1951	1.72	94		July 3, 1956	2.22	329
	June 30, 1951	2.16	293	1957	May 17, 1957	2.20	316
	July 9, 1951	2.02	216		May 21, 1957	2.24	342
	July 12, 1951	2.04	227		May 22, 1957	2.15	287
	Aug. 9, 1951	2.28	369		May 25, 1957	2.16	293
1952	Mar. 10, 1952	1.70	88		May 29, 1957	2.08	248
1953	Apr. 23, 1953	2.11	264		May 31, 1957	2.03	222
1954	June 2, 1954	2.12	270		June 29, 1957	2.01	211
	June 9, 1954	2.94	847	1958	June 10, 1958	2.29	375
1955	Oct. 11, 1954	2.11	264		July 16, 1958	2.00	206
					July 17, 1958	2.94	847
					July 30, 1958	1.92	168
					July 31, 1958	1.92	168

120.5. Dry Fork near St. James, Mo.

Location.--Lat 37°57'55", long 91°34'55", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.34, T.38 N., R.6 W., on upstream side of bridge on State Highway 68, 2 miles southeast of St. James and 5.5 miles upstream from Meramec River.

Drainage area.--370 sq mi.

Gage.--Nonrecording. Prior to Dec. 9, 1948, at site 300 ft upstream at same datum. Datum of gage is 787.24 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 18,000 cfs and extended above by logarithmic plotting.

Bankfull stage.--15 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	May 9, 1944	11.55	3,890	1947	Apr. 25, 1947	17.14	12,200
1945	June 8, 1945	19.37	18,800	1948	July 7, 1948	16.1	10,600
				1949	Feb. 15, 1949	13.0	6,300
1946	Aug. 15, 1946	21.7	28,000	1950	Jan. 3, 1950	17.0	12,300

130. Meramec River near Steelville, Mo.

Location.--Lat 37°59'55", long 91°21'40", in NE $\frac{1}{4}$ sec.21, T.38 N., R.4 W., on downstream side of first pier from left end of St. Louis-San Francisco Railway bridge, 400 ft upstream from highway bridge, 0.8 mile upstream from Whittenburg Creek, and 1 $\frac{1}{2}$ miles north of Steelville.

Drainage area.--781 sq mi.

Gage.--Nonrecording prior to May 23, 1934; recording thereafter. Prior to Dec. 21, 1922, at site 1 mile upstream at datum 5.8 ft higher. Datum of present gage is 681.68 ft above mean sea level, datum of 1929. Peak gage heights for period prior to Dec. 21, 1922, computed from plotted U. S. Weather Bureau readings and transferred to present site by comparative gage readings.

Stage-discharge relation.--Defined by current-meter measurements below 46,000 cfs; shifts in relation occur.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 9,200 cfs.

MERAMEC RIVER BASIN

Peak stages and discharges of Meramec River near Steelville, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 20, 1915	26.5	a60,000	1938	May 24, 1938	14.14	14,700
1917	Apr. 8, 1917	6.65	5,180	1939	Mar. 11, 1939	10.94	9,500
1918	Apr. 25, 1918	18.7	33,400	1939	Apr. 17, 1939	17.67	25,100
	Apr. 28, 1918	10.7	9,480		1940	May 2, 1940	10.53
	May 12, 1918	16.3	24,600	1941	Apr. 20, 1941	16.92	22,600
1919	June 4, 1919	10.9	9,790	1942	June 14, 1942	14.28	15,800
1920	Oct. 27, 1919	24.1	55,000	1942	June 21, 1942	13.04	13,000
	Nov. 1, 1919	11.5	10,700		June 26, 1942	11.19	9,970
	Mar. 26, 1920	15.9	23,200		1943	Dec. 28, 1942	22.00
	May 13, 1920	12.1	12,000	1943	May 12, 1943	14.64	14,500
	May 20, 1920	11.0	9,790		May 20, 1943	17.56	21,500
1921	Sept. 11, 1920	12.5	12,900	1944	May 10, 1944	10.02	7,190
	Mar. 28, 1921	16.7	26,000	1945	Mar. 3, 1945	13.23	11,900
	Apr. 23, 1921	11.8	11,300		Mar. 7, 1945	15.47	16,500
Apr. 26, 1921	15.6	22,200	Mar. 31, 1945		14.70	14,800	
1922	Nov. 19, 1921	14.4	18,300	1945	Apr. 3, 1945	13.47	12,500
	Mar. 15, 1922	12.5	12,900		Apr. 15, 1945	21.96	36,200
	Mar. 31, 1922	15.4	21,600	May 30, 1945	12.08	10,000	
	Apr. 17, 1922	17.5	29,000	June 9, 1945	24.30	47,000	
	Apr. 28, 1922	12.4	12,700	1946	Feb. 14, 1946	17.10	20,300
1923	June 16, 1923	12.26	11,800	1946	Aug. 15, 1946	16.77	19,500
	1924	May 29, 1924	12.43		11,900	1947	Nov. 11, 1946
1924	Aug. 12, 1924	12.40	11,900	1947	Apr. 25, 1947	20.35	30,100
	1925	Dec. 19, 1924	10.00		9,120	1948	July 7, 1948
1926	Nov. 8, 1925	8.50	7,270	1949	Jan. 19, 1949	13.01	11,600
1927	Apr. 1, 1927	19.40	36,000	1949	Feb. 16, 1949	16.68	19,300
	Apr. 8, 1927	12.20	12,100		1950	Oct. 7, 1949	13.74
	Apr. 15, 1927	13.25	14,800	Oct. 12, 1949		13.21	11,900
	May 25, 1927	18.95	34,400	Oct. 22, 1949		15.17	15,800
	June 2, 1927	18.80	33,600	Jan. 4, 1950		18.74	24,900
	June 4, 1927	13.01	14,200	Jan. 14, 1950	14.48	14,600	
1928	Dec. 14, 1927	10.96	9,900	May 11, 1950	15.90	17,700	
	Apr. 6, 1928	15.97	23,600	1951	Feb. 19, 1951	13.59	12,700
	June 10, 1928	17.90	30,300	July 1, 1951	15.57	17,000	
1929	May 7, 1929	14.25	17,600	1951	July 11, 1951	13.46	12,500
1930	Jan. 15, 1930	14.34	18,000	1951	July 14, 1951	20.43	30,100
	Feb. 26, 1930	13.60	15,900	1952	Apr. 13, 1952	11.59	9,210
1931	June 10, 1931	3.53	1,930	1953	May 4, 1953	8.39	5,160
1932	Jan. 23, 1932	4.00	2,460	1954	June 10, 1954	9.40	6,210
1933	Apr. 16, 1933	15.60	18,000	1955	Mar. 21, 1955	12.60	10,800
	May 14, 1933	17.50	23,800	1956	May 31, 1956	9.76	6,640
1934	Sept. 14, 1934	14.34	15,100	1957	Apr. 5, 1957	13.12	12,100
1935	Mar. 12, 1935	19.53	31,500	1957	Apr. 28, 1957	12.76	11,600
	June 21, 1935	20.31	34,600		May 18, 1957	12.70	11,400
	June 26, 1935	23.39	47,800		May 24, 1957	17.36	21,400
	1936	Nov. 11, 1935	9.96		8,160	May 26, 1957	12.62
1937	May 3, 1937	14.15	14,900		1958	Dec. 18, 1957	14.60
	1938	Feb. 18, 1938	13.84	14,100		Mar. 25, 1958	15.88
						July 17, 1958	13.37

a Annual peak only.

145. Meramec River near Sullivan, Mo.

Location.--Lat 38°09'30", long 91°06'30", in SE¹NE¹ sec.35, T.40 N., R.2 W., on right bank at upstream side of Sappington Bridge, 3¹/₂ miles downstream from Brazil Creek and 4 miles southeast of Sullivan.

Drainage area.--1,475 sq mi.

Gage.--Nonrecording prior to Oct. 20, 1952; recording thereafter. Datum of gage is 581.82 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 71,000 cfs; shifts in relation occur.

Bankfull stage.--19 ft.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1915	August 1915	33.5	a90,000	1945	Apr. 3, 1945	17.40	20,000	
1922	Nov. 19, 1921	16.05	16,500	Apr. 15, 1945	26.15	45,000		
	Mar. 16, 1922	14.20	12,600	Apr. 30, 1945	14.28	12,800		
	Mar. 31, 1922	16.60	18,000	June 9, 1945	32.00	77,300		
	Apr. 17, 1922	16.80	18,400	1946	Feb. 14, 1946	19.08	23,900	
	Apr. 29, 1922	13.90	12,000		Aug. 16, 1946	16.40	17,500	
1923	Mar. 13, 1923	14.00	12,200	1947	Nov. 10, 1946	16.00	16,500	
	Mar. 16, 1923	14.15	12,600		Apr. 26, 1947	24.80	40,500	
	May 17, 1923	13.80	11,800	1948	Jan. 2, 1948	14.60	13,200	
	June 17, 1923	13.90	12,000		July 8, 1948	13.00	10,100	
1924	Apr. 9, 1924	17.25	19,400	1949	Jan. 19, 1949	15.60	15,300	
	May 30, 1924	17.10	19,200		Jan. 25, 1949	15.30	14,700	
1925	Dec. 20, 1924	16.00	16,500	Jan. 28, 1949	13.80	11,600		
1926	Nov. 8, 1925	14.60	13,400	Feb. 15, 1949	20.30	27,000		
	Mar. 20, 1927	13.70	11,600	Mar. 19, 1949	13.30	10,600		
1927	Apr. 2, 1927	22.80	35,000	1950	Oct. 7, 1949	15.05	14,000	
	Apr. 9, 1927	15.30	14,900		Oct. 13, 1949	14.40	12,800	
	Apr. 16, 1927	18.80	23,700		Oct. 23, 1949	16.54	17,400	
	May 26, 1927	21.90	32,400		Dec. 22, 1949	13.63	11,200	
	June 2, 1927	22.89	35,300		Jan. 4, 1950	25.50	42,800	
	June 5, 1927	14.60	13,400		Jan. 14, 1950	17.05	18,600	
	Nov. 8, 1927	15.20	14,700		May 11, 1950	16.64	22,600	
	Dec. 1, 1927	14.70	13,600		1951	Feb. 19, 1951	17.22	19,100
Dec. 14, 1927	17.30	19,700	Mar. 12, 1951	13.94		11,800		
Apr. 6, 1928	19.80	26,400	July 2, 1951	16.73		17,900		
1928	Apr. 23, 1928	13.20	10,600	July 14, 1951	21.30	29,800		
	June 11, 1928	20.30	27,800	1952	Apr. 5, 1952	13.90	11,800	
	June 14, 1928	14.30	12,800		Apr. 13, 1952	15.00	14,000	
	June 21, 1928	13.80	11,800	1953	Mar. 4, 1953	12.05	8,590	
	June 29, 1928	13.60	11,400		1954	June 10, 1954	11.70	8,190
	Apr. 10, 1929	16.50	17,700	1955		Feb. 21, 1955	13.14	11,200
	May 3, 1929	13.80	11,800			Mar. 21, 1955	15.58	16,100
May 7, 1929	18.20	22,000	1956			May 16, 1956	11.00	8,060
May 15, 1929	15.20	14,700		1957	Feb. 27, 1957	14.70	14,300	
Jan. 14, 1930	18.20	22,000			Mar. 25, 1957	13.58	12,100	
Feb. 27, 1930	16.70	18,200	Apr. 4, 1957		18.85	23,600		
1930	Mar. 8, 1930	15.20	14,700	Apr. 22, 1957	17.22	19,800		
	Apr. 27, 1931	5.56	2,300	Apr. 27, 1957	17.42	20,300		
1931	Nov. 20, 1931	7.75	3,800	May 18, 1957	17.22	19,800		
	Apr. 16, 1933	19.60	25,900	May 23, 1957	21.73	31,200		
1933	May 14, 1933	22.00	32,700	June 30, 1957	22.61	33,700		
	May 4, 1944	17.0	19,000	1958	Dec. 18, 1957	16.95	19,400	
1945	Mar. 3, 1945	15.80	16,000		Mar. 10, 1958	12.40	10,000	
	Mar. 7, 1945	18.35	22,600		Mar. 25, 1958	18.86	23,900	
	Mar. 31, 1945	21.30	30,700		July 18, 1958	16.57	18,500	

a Annual peak only.

MERAMEC RIVER BASIN

150. Bourbeuse River near St. James, Mo.

Location.--Lat 38°02'00", long 91°38'45", in NW $\frac{1}{4}$ sec.12, T.38 N., R.7 W., on left bank 735 ft upstream from bridge on State Highway 68 and 3 miles north-west of St. James.

Drainage area.--21.3 sq mi.

Gage.--Recording. Datum of gage is 899.46 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 6,200 cfs.

Bankfull stage.--8 ft.

Remarks.--Base for partial-duration series, 1,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	June 20, 1948	8.80	a4,100	1951	July 11, 1951	7.43	1,880
					Aug. 9, 1951	8.04	2,780
1949	Feb. 14, 1949	8.35	3,260	1952	Dec. 14, 1951	7.53	2,020
	Aug. 19, 1949	7.76	2,300				
	Sept. 12, 1949	9.28	4,890	1953	Apr. 23, 1953	9.12	4,540
	Sept. 12, 1949	9.01	4,370				
1950	Oct. 4, 1949	10.07	6,240	1954	May 22, 1954	7.43	1,880
	Oct. 5, 1949	8.68	3,860		June 9, 1954	9.82	5,790
	Oct. 11, 1949	10.73	7,580				
	Oct. 11, 1949	11.08	8,250	1955	Mar. 20, 1955	7.86	2,460
	Oct. 20, 1949	8.95	4,280				
	Oct. 21, 1949	8.25	3,100	1956	July 3, 1956	6.74	1,130
	Jan. 3, 1950	9.25	4,800				
	Jan. 13, 1950	8.80	4,030	1957	Mar. 24, 1957	8.15	2,940
	Apr. 3, 1950	7.65	2,160		May 17, 1957	9.38	5,070
	Apr. 4, 1950	7.68	2,230		May 18, 1957	9.23	4,800
	May 10, 1950	7.61	2,080		May 21, 1957	10.09	6,330
	May 19, 1950	9.16	4,620		May 22, 1957	8.50	3,520
	May 29, 1950	8.40	3,350		May 25, 1957	8.40	3,350
1951	Mar. 10, 1951	7.27	1,640	1958	Dec. 16, 1957	8.12	2,860
	Apr. 21, 1951	7.92	2,540		July 17, 1958	7.85	2,460
	June 30, 1951	8.37	3,260		July 31, 1958	8.39	3,350
					Aug. 1, 1958	7.67	2,160

a Annual peak only.

155. Lanes Fork near Vichy, Mo.

Location.--Lat 36°06'15", long 91°42'45", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.17, T.39 N., R.7 W., at bridge on State Highway 68, 1 $\frac{1}{4}$ miles downstream from Bailey Creek, 2 $\frac{1}{2}$ miles east of Vichy, and 9 miles upstream from mouth.

Drainage area.--24.1 sq mi.

Gage.--Nonrecording prior to Jan. 12, 1950; recording thereafter.

Stage-discharge relation.--Defined by current-meter measurements below 7,100 cfs.

Bankfull stage.--8 ft.

Remarks.--Base for partial duration series, 1,500 cfs. Only annual peaks are shown prior to 1951.

Peak stages and discharges of Lanes Fork near Vichy, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	May 9, 1944	8.3	3,700	1953	Apr. 23, 1953	4.82	1,290
1945	June 7, 1945	12.0	9,400	1954	May 22, 1954	6.55	2,660
1948	July 12, 1948	8.5	4,490	1955	Mar. 20, 1955	5.79	2,010
1949	Feb. 16, 1949	6.6	2,660		June 11, 1955	5.95	2,170
1950	Oct. 4, 1949	10.5	7,120		July 24, 1955	5.13	1,520
1951	Mar 10, 1951	5.32	1,630	1956	July 3, 1956	5.67	1,890
	May 22, 1951	6.02	2,170	1957	Mar. 24, 1957	6.75	2,840
	June 30, 1951	6.57	2,660		Apr. 3, 1957	5.30	1,630
	July 11, 1951	5.30	1,630		May 17, 1957	11.70	8,920
	July 13, 1951	5.97	2,170		May 21, 1957	8.65	4,600
	Aug. 9, 1951	7.97	3,960		May 23, 1957	10.10	6,530
	Aug. 27, 1951	6.67	2,750		June 28, 1957	6.86	2,920
	Aug. 28, 1951	5.49	1,780	1958	Mar. 8, 1958	5.05	1,460
1952	Oct. 22, 1951	5.57	1,820		July 31, 1958	7.70	3,660
					Aug. 1, 1958	7.78	3,760

160. Bourbeuse River near Spring Bluff, Mo.

Location.--Lat 38°18'40", long 91°16'45", in NE $\frac{1}{4}$ sec.8, T.41 N., R.3 W., on downstream side of highway bridge, 1 mile downstream from Boone Creek, 3.5 miles northwest of Spring Bluff, and 9.5 miles northwest of Sullivan.

Drainage area.--608 sq mi.

Gage.--Nonrecording. Datum of gage is 626.34 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 31,000 cfs.

Bankfull stage.--27.5 ft.

Remarks.--Station operated to obtain flows above 1,000 cfs only. Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	35.7	a60,000	1950	May 11, 1950	22.3	11,600
1944	Apr. 11, 1944	21.3	10,200		May 20, 1950	25.65	17,300
	Apr. 23, 1944	21.4	10,400		May 27, 1950	21.28	10,200
	May 10, 1944	23.63	13,700	1951	Mar. 12, 1951	22.57	12,100
					July 14, 1951	29.49	25,800
1945	Mar. 3, 1945	23.6	13,700		Aug. 28, 1951	22.98	12,700
	Mar. 7, 1945	22.1	11,300	1952	Apr. 5, 1952	20.48	9,200
	Mar. 31, 1945	25.1	16,400	1953	Mar. 4, 1953	18.79	7,300
	Apr. 3, 1945	24.9	16,000	1954	June 10, 1954	18.47	7,000
	Apr. 15, 1945	22.5	11,900	1955	Feb. 21, 1955	20.10	9,100
	June 9, 1945	31.0	31,500	1956	May 31, 1956	20.75	9,800
1946	Feb. 14, 1946	22.87	12,500	1957	Feb. 27, 1957	25.53	17,100
1947	Apr. 26, 1947	31.40	33,300		Mar. 26, 1957	24.07	14,600
					May 18, 1957	27.99	22,000
					May 23, 1957	30.26	28,600
1948	Jan. 2, 1948	21.91	11,100		June 15, 1957	31.79	35,100
	July 20, 1948	22.16	11,500		June 28, 1957	24.62	15,500
	July 26, 1948	24.35	15,100		June 30, 1957	34.71	50,700
1949	Feb. 16, 1949	21.91	11,100	1958	Mar. 9, 1958	21.21	10,200
					Mar. 25, 1958	21.91	11,100
	Oct. 7, 1949	24.8	15,800				
	Oct. 12, 1949	30.34	28,600				
	Oct. 21, 1949	23.05	12,900				
	Jan. 4, 1950	28.0	22,000				
Jan. 14, 1950	23.3	15,200					
Apr. 5, 1950	22.55	12,100					

a Annual peak only.

165. Bourbeuse River at Union, Mo.

Location.--Lat 38°26'45", long 90°59'30", in SW $\frac{1}{4}$ sec.26, T.43 N., R.1 W., on right bank on downstream side of bridge pier on U. S. Highway 50, 800 ft upstream from Flat Creek, half a mile east of Union, and 7 miles upstream from Birch Creek. Records include flow of Flat Creek.

Drainage area.--808 sq mi, including that of Flat Creek.

Gage.--Nonrecording prior to June 12, 1944, at various sites nearby; recording thereafter. Prior to Oct. 1, 1948, at datum 3.00 ft higher. Datum of present gage is 488.58 ft above mean sea level, datum of 1929. Gage heights given herein converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation due largely to gravel removal from control occur frequently. Discharges of the 1897 and 1915 floods determined from extension of rating curve for main channel based on measurements made since 1921 and study of overflow areas in vicinity of gaging station.

Bankfull stage.--15 ft.

Remarks.--Peaks for period prior to June 7, 1921, computed from plotted U. S. Weather Bureau readings. Base for partial-duration series, 12,000 cfs.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1897	-	27.15	a44,500	1938	June 13, 1938	23.23	28,200
1915	Aug. 22, 1915	28.5	a50,000	1939	Apr. 19, 1939	16.58	12,200
1916	February 1916	21.0	a21,100	1940	Feb. 29, 1940	9.45	3,700
1917	Apr. 30, 1917	14.0	8,840	1941	Apr. 21, 1941	20.09	18,700
1918	Apr. 30, 1918	18.7	15,700	1942	June 23, 1942	17.60	13,700
1919	Mar. 18, 1919	14.2	9,090	1942	June 28, 1942	21.0	21,100
1920	Oct. 30, 1919	22.3	25,100	1943	Dec. 29, 1942	22.0	24,100
	Nov. 2, 1919	16.5	12,100		May 13, 1943	17.04	12,800
	May 22, 1920	18.7	15,700		May 20, 1943	19.60	17,600
1921	Mar. 29, 1921	17.3	13,200	1944	May 11, 1944	16.0	11,400
	Apr. 28, 1921	18.1	14,600	1945	Apr. 2, 1945	17.80	14,700
1922	Apr. 2, 1922	17.70	14,600		Apr. 4, 1945	17.10	13,600
	Apr. 19, 1922	16.94	13,100		Apr. 16, 1945	16.20	12,100
1923	Mar. 17, 1923	14.10	8,930	1946	Feb. 16, 1946	15.46	11,100
1924	Dec. 15, 1923	16.64	12,600	1947	Apr. 27, 1947	22.1	25,100
	May 31, 1924	17.16	13,700	1948	July 28, 1948	14.89	10,500
1925	Dec. 21, 1924	15.40	10,700	1949	Feb. 17, 1949	14.82	10,400
1926	Nov. 10, 1925	16.14	11,800	1950	Oct. 8, 1949	15.85	12,500
1927	Mar. 22, 1927	17.65	13,300		Oct. 14, 1949	20.05	20,200
	Apr. 3, 1927	22.10	22,500		Oct. 23, 1949	15.82	12,500
1928	Dec. 3, 1927	17.27	12,900		Jan. 6, 1950	19.39	18,900
	Apr. 7, 1928	20.00	17,100		Jan. 15, 1950	15.62	12,200
1929	Mar. 18, 1929	16.78	12,200		Apr. 6, 1950	15.35	12,000
	May 21, 1929	16.90	12,400		May 22, 1950	16.08	12,900
1930	Jan. 16, 1930	17.00	12,500	1951	July 15, 1951	19.79	19,800
1931	May 21, 1931	12.20	6,650	1952	Apr. 6, 1952	13.20	8,970
1932	Jan. 3, 1932	13.80	8,540	1953	Mar. 5, 1953	11.85	7,330
1933	May 16, 1933	20.55	18,300	1954	June 11, 1954	10.76	6,250
1934	Sept. 16, 1934	17.10	12,600	1955	Feb. 22, 1955	12.14	7,670
1935	Mar. 13, 1935	17.90	13,800	1956	June 2, 1956	12.98	8,730
	June 23, 1935	19.00	15,400	1957	Mar. 1, 1957	17.16	15,100
	June 29, 1935	16.60	12,000		Mar. 27, 1957	15.97	13,000
1936	Apr. 7, 1936	11.90	6,290		May 20, 1957	17.72	16,000
1937	May 5, 1937	17.78	13,600		May 24, 1957	20.46	22,100
	June 12, 1937	18.42	14,500		June 15, 1957	21.28	24,100
					July 1, 1957	24.44	33,100
1938	Feb. 20, 1938	17.00	12,800	1958	Mar. 26, 1958	14.96	11,000

a Annual peak only.

170. Meramec River at Robertsville, Mo.

Location.--Lat 38°25'40", long 90°49'35", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.32, T.43 N., R.2 E., at county highway bridge, 1 mile northwest of Robertsville and $1\frac{1}{4}$ miles upstream from Calvey Creek.

Drainage area.--2,673 sq mi.

Gage.--Recording gage to Sept. 30, 1951 (discontinued). Datum of gage is 448.24 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 97,000 cfs.

Bankfull stage.--17 ft.

Remarks.--Base for partial-duration series, 20,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	36.1	125,000	1945	June 10, 1945	34.0	102,000
1940	May 3, 1940	12.49	11,100	1946	Feb. 16, 1946	23.22	33,600
1941	Apr. 22, 1941	25.20	39,400	1947	Nov. 12, 1946 Apr. 27, 1947	18.36 28.95	21,700 59,100
1942	June 1, 1942 June 16, 1942 June 28, 1942	19.68 19.21 24.20	24,500 23,400 34,600	1948	Jan. 3, 1948	16.30	17,700
1943	Dec. 30, 1942 May 13, 1943 May 20, 1943 June 9, 1943	30.12 22.70 26.50 19.20	65,600 32,100 45,600 23,400	1949	Feb. 17, 1949	22.80	32,400
1944	May 11, 1944	17.10	19,200	1950	Oct. 14, 1949 Oct. 24, 1949 Jan. 6, 1950 Jan. 16, 1950 Apr. 4, 1950 May 13, 1950	20.50 20.36 29.17 21.80 17.48 22.68	26,400 26,200 60,400 29,700 20,000 32,400
1945	Mar. 5, 1945 Mar. 9, 1945 Apr. 2, 1945 Apr. 4, 1945 Apr. 16, 1945	20.08 21.78 26.12 22.62 29.22	25,400 29,700 43,800 31,900 60,200	1951	Feb. 21, 1951 Mar. 14, 1951 July 3, 1951 July 16, 1951	21.00 18.22 18.23 26.38	27,600 21,300 21,300 45,200

a Annual peak only.

180. Big River near DeSoto, Mo.

Location.--Lat 38°07'20", long 90°40'30", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.11, T.39 N., R.3 E., near right bank on downstream side of pier of Mammoth Bridge, 300 ft upstream from Mammoth Creek, $1\frac{1}{2}$ miles downstream from Mineral Fork, and $6\frac{1}{2}$ miles west of DeSoto. Records include flow of Mammoth Creek.

Drainage area.--718 sq mi, including that of Mammoth Creek.

Gage.--Recording. Datum of gage is 538.79 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Discharge of the flood in August 1915 determined from extension of rating curve above 37,000 cfs.

Bankfull stage.--17 ft.

Remarks.--Base for partial-duration series, 10,000 cfs.

MERAMEC RIVER BASIN

Peak stages and discharges of Big River near DeSoto, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	29.4	a70,500	1954	June 9, 1954	15.20	10,700
1949	Feb. 15, 1949	19.9	a21,300	1955	Mar. 21, 1955	17.03	13,300
1950	Oct. 6, 1949	15.37	11,000	1956	May 16, 1956	12.20	7,200
	Jan. 4, 1950	23.91	36,600		1957	Feb. 27, 1957	16.74
	Jan. 13, 1950	16.77	13,400	Mar. 25, 1957		15.15	16,900
	Feb. 13, 1950	14.40	10,000	Apr. 3, 1957		21.46	27,400
	May 10, 1950	16.32	12,800	Apr. 22, 1957		14.92	10,200
	Aug. 13, 1950	15.61	11,700	Apr. 28, 1957		16.82	13,500
	Aug. 15, 1950	16.16	12,600	May 17, 1957		16.60	13,100
	Sept. 2, 1950	16.17	12,600	May 20, 1957	15.87	11,700	
1951	Feb. 18, 1951	17.76	15,100	May 23, 1957	19.04	19,200	
	Feb. 21, 1951	15.73	11,100	June 30, 1957	27.15	55,800	
	July 13, 1951	23.78	36,200	July 29, 1957	18.79	18,600	
1952	Apr. 4, 1952	15.40	10,600	1958	Dec. 18, 1957	17.56	15,400
	Apr. 13, 1952	15.17	10,300		Mar. 24, 1958	17.48	15,100
1953	Mar. 4, 1953	15.71	11,100		July 19, 1958	15.18	10,600

a Annual peak only.

185. Big River at Byrnesville, Mo.

Location.--Lat 38°21'45", long 90°39'05", in SE $\frac{1}{4}$ sec.12, T.42 N., R.3 E., at county highway bridge at Byrnesville, 4 miles upstream from Head Creek.

Drainage area.--917 sq mi.

Gage.--Nonrecording prior to Mar. 9, 1940; recording thereafter. Datum of gage is 433.69 ft above mean sea level, datum of 1929. Since Aug. 22, 1945, auxiliary wire-weight gage 4 miles downstream.

Stage-discharge relation.--Defined by current-meter measurements. Occasional backwater from Meramec River; slope used as a factor since 1945. Discharge for flood of Aug. 21, 1915, from slope-area measurement.

Bankfull stage.--16 ft.

Remarks.--Base for partial-duration series, 11,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 21, 1915	30.2	a80,000	1931	Apr. 21, 1931	10.10	3,940
1923	Mar. 13, 1923	17.30	11,000	1932	Aug. 13, 1932	13.35	7,000
	May 17, 1923	17.40	11,100		1933	Apr. 17, 1933	21.57
1924	Apr. 10, 1924	17.10	10,800	May 15, 1933		21.70	19,200
1925	Dec. 20, 1924	12.58	6,200	1934	May 16, 1934	13.70	7,080
1926	Nov. 9, 1925	18.97	13,100	1935	Mar. 12, 1935	24.65	28,800
1927	Apr. 2, 1927	22.63	21,900		June 12, 1935	18.62	12,700
	Apr. 16, 1927	19.82	14,800		June 22, 1935	20.35	15,800
	May 26, 1927	18.47	12,400	1936	Nov. 11, 1935	15.97	9,600
	June 3, 1927	17.98	11,800		1937	Jan. 16, 1937	20.06
1928	Dec. 2, 1927	17.41	11,100	Mar. 4, 1937		19.00	14,400
	Dec. 15, 1927	17.60	11,400	1938	Feb. 19, 1938	22.53	24,600
	Apr. 7, 1928	17.38	11,100		Mar. 17, 1938	19.05	14,400
	June 11, 1928	18.84	12,800		Mar. 31, 1938	19.70	16,200
	June 22, 1928	18.65	12,600		May 24, 1938	20.70	19,000
	June 30, 1928	17.66	11,500		June 11, 1938	20.15	17,600
1929	May 7, 1929	18.62	12,700		1939	Apr. 18, 1939	22.30
	May 15, 1929	20.00	15,200	1940		May 2, 1940	14.81
1930	Jan. 15, 1930	21.00	17,400				

a Annual peak only.

Peak stages and discharges of Big River at Byrnesville, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Apr. 19, 1941	16.15	9,150	1950	Jan. 14, 1950	18.54	13,400
1942	June 26, 1942	18.42	13,000		Apr. 4, 1950	18.09	12,500
					May 12, 1950	18.34	12,600
1943	Dec. 28, 1942	22.27	24,000	1951	Feb. 20, 1951	18.82	14,100
	May 12, 1943	22.57	25,000		July 14, 1951	23.48	30,500
	May 19, 1943	18.43	13,000				
1944	Apr. 24, 1944	18.30	12,800	1952	Apr. 14, 1952	17.37	10,500
1945	Mar. 4, 1945	18.57	13,500	1953	Mar. 5, 1953	16.97	10,200
	Mar. 7, 1945	20.84	19,300	1954	June 10, 1954	16.95	10,000
	Apr. 1, 1945	23.4	28,300	1955	Mar. 22, 1955	18.20	12,700
	Apr. 16, 1945	22.17	23,600	1956	May 17, 1956	13.59	6,640
	June 10, 1945	22.12	17,500				
1946	Feb. 15, 1946	21.57	21,800	1957	Feb. 28, 1957	18.00	12,300
	May 2, 1946	19.02	14,200		Mar. 26, 1957	19.76	17,600
	May 18, 1946	17.91	11,300		Apr. 5, 1957	22.85	30,100
1947	Apr. 26, 1947	23.5	28,000		Apr. 29, 1957	18.95	14,000
	July 2, 1947	19.56	15,800		May 24, 1957	20.29	20,000
1948	Jan. 3, 1948	18.6	13,100		June 15, 1957	20.50	13,100
	May 18, 1948	18.83	13,700		July 1, 1957	26.41	42,100
1949	Jan. 20, 1949	18.82	13,300	1958	July 30, 1957	19.29	16,800
	Jan. 26, 1949	20.31	18,600		Dec. 19, 1957	18.55	13,300
	Feb. 16, 1949	20.39	18,700		Mar. 26, 1958	19.18	15,500
1950	Jan. 5, 1950	25.23	36,900		July 19, 1958	19.06	12,900

190. Meramec River near Eureka, Mo.

Location.--Lat 38°30'20", long 90°35'30", in SE $\frac{1}{4}$ sec.32, T.44 N., R.4 E., at bridge on U. S. Highway 66, 2 miles east of Eureka and 3 miles downstream from Big River.

Drainage area.--3,788 sq mi.

Gage.--Nonrecording prior to Sept. 22, 1937; recording thereafter. Prior to July 22, 1906, at site 200 ft upstream at different datum; Oct. 6, 1921, to Jan. 16, 1933, at site 200 ft upstream at datum 1.04 ft higher. Datum of present gage is 406.18 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 116,000 cfs and by slope-area measurement at 175,000 cfs.

Bankfull stage.--22 ft.

Remarks.--Base for partial-duration series, 32,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Mar. 28, 1904	36.2	68,100	1927	Apr. 3, 1927	29.47	64,000
	Apr. 27, 1904	28.7	48,600		Apr. 11, 1927	21.54	34,400
1905	Sept. 20, 1905	29.7	51,200		Apr. 17, 1927	25.21	44,200
					May 27, 1927	21.12	33,400
1915	Aug. 22, 1915	39.2	175,000		June 4, 1927	22.80	37,400
1916	Feb. 1, 1916	36.0	113,000	1928	Apr. 8, 9, 1928	23.80	39,800
					June 11, 1928	20.78	32,700
1922	Apr. 19, 1922	24.45	38,600		June 21, 1928	21.07	35,400
1923	Mar. 17, 1923	16.95	24,800	1929	May 15, 1929	21.10	33,400
1924	May 30, 1924	20.50	31,000	1930	Jan. 16, 1930	24.41	42,200
1925	Dec. 22, 1924	14.60	20,100	1931	May 22, 1931	6.10	6,420
1926	Nov. 10, 1925	17.18	24,800	1932	Jan. 3, 1932	8.35	9,540
					Aug. 14, 1932	8.35	9,540

a Annual peak only.

MERAMEC RIVER BASIN

Peak stages and discharges of Meramec River near Eureka, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Apr. 16, 1933	21.82	35,700	1946	Feb. 16, 1946	23.52	40,300
	May 17, 1933	30.72	63,400		1947	Apr. 27, 1947	31.15
1934	Sept. 18, 1934	17.91	27,100	1948		Jan. 3, 1948	17.00
1935	Mar. 14, 1935	30.89	62,200	1949	Jan. 27, 1949	20.30	32,200
	June 24, 1935	26.32	48,400		Feb. 17, 1949	21.80	35,900
	June 29, 1935	23.04	39,400	1950	Jan. 6, 1950	33.01	79,700
1936	Nov. 12, 1935	13.22	17,400		Jan. 16, 1950	20.53	32,500
	1937	May 6, 1937	21.56		35,700	May 13, 1950	21.28
1938		Feb. 20, 1938	25.10	45,000	1951	Feb. 21, 1951	21.33
	May 25, 1938	23.11	39,700	July 15, 1951		27.08	50,700
	June 12, 1938	25.47	46,100	1952	Apr. 14, 1952	16.99	25,500
1939	Apr. 19, 1939	26.95	61,600		1953	Mar. 6, 1953	15.00
	1940	June 29, 1940	11.41	14,800	1954	June 10, 1954	11.54
1941		Apr. 22, 1941	22.07	38,000		1955	Mar. 23, 1955
	1942	June 28, 1942	21.90	37,400	1956	June 2, 1956	11.50
1943		Dec. 30, 1942	31.78	69,600		1957	Mar. 27, 1957
	May 13, 1943	24.29	42,800	Apr. 6, 1957	24.19		44,400
	May 21, 1943	27.70	52,400	Apr. 30, 1957	21.88		38,000
1944	Apr. 25, 1944	17.26	26,100	May 25, 1957	29.45		59,600
	1945	Mar. 8, 1945	22.38	37,400	June 15, 1957		31.19
Apr. 2, 1945		28.98	57,100	July 2, 1957	35.77	99,500	
Apr. 17, 1945		32.13	72,500	1958	Mar. 26, 1958	20.26	35,800
June 11, 1945		36.94	120,000		July 19, 1958	19.13	32,800

MISSISSIPPI RIVER MAIN STEM

205. Mississippi River at Chester, Ill.

Location.--Lat 37°54'00", long 89°49'50", in SW $\frac{1}{4}$ sec.24, T.7 S., R.7 W., third principal meridian, on left bank 0.4 mile downstream from highway bridge at Chester, 8.3 miles downstream from Kaskaskia River, and at mile 109.5 above Ohio River.

Drainage area.--712,600 sq mi, approximately.

Gage.--Nonrecording. Datum of gage is 341.05 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Continually shifting, defined by frequent current-meter measurements.

Bankfull stage.--27 ft.

Remarks.--Records prior to July 1942 furnished by Mississippi River Commission. Natural flow of stream affected by many reservoirs and navigation dams in upper Mississippi River basin, and by many reservoirs and diversions for irrigation in Missouri River basin. Discharges prior to the 1942 water year are maximum daily discharges. Only annual peaks are shown.

Peak stages and discharges of Mississippi River at Chester, Ill.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	June 30, 1844	39.8	al,350,000	1942	July 1, 1942	34.0	603,000
1926	Sept. 30, 1926	23.8	501,000	1943	May 24, 1943	38.08	e873,000
1927	Apr. 27, 1927	34.4	1,060,000	1944	May 2, 1944	37.4	842,000
1928	June 23, 1928	28.0	626,000	1945	Apr. 2, 1945	f34.4	716,000
1929	Apr. 29, 1929	b53.3	878,000	1946	Jan. 13, 14, 1946	27.5	502,000
1930	June 21, 22, 1930	19.7	342,000	1947	July 3, 1947	b58.17	886,000
1931	June 16, 1931	14.4	221,000	1948	Mar. 28, 1948	32.8	668,000
1932	Dec. 1, 1931	23.3	451,000	1949	Apr. 3, 4, 1949	24.7	426,000
1933	May 18, 1933	28.9	500,000	1950	May 15, 1950	27.6	476,000
1934	Apr. 25, 1934	10.2	137,000	1951	July 22, 1951	b39.3	795,000
1935	June 10, 1935	b33.4	665,000	1952	Apr. 30, 1952	b34.4	685,000
1936	Mar. 1, 1936	20.8	326,000	1953	Apr. 5, 1953	22.2	378,000
1937	May 6, 7, 1937	24.6	422,000	1954	June 7, 1954	18.8	289,000
1938	May 28, 1938	27.1	540,000	1955	Feb. 23, 1955	19.5	332,000
1939	Apr. 21, 1939	30.6	618,000	1956	Oct. 9, 1955	14.9	221,000
1940	Apr. 21, 1940	c13.6	d193,000	1957	May 28, 1957	25.6	426,000
1941	Apr. 24, 1941	b26.9	d455,000	1958	July 25, 1958	29.3	510,000

a Computed by Corps of Engineers, date approximate.

b Occurred at different time than peak discharge.

c Occurred June 15, 1940.

d Computed on basis of records for stations at St. Louis, Mo., and Thebes, Ill.

e Does not include flow bypassing gage through levee breaks upstream.

f Occurred June 14, 1945.

HEADWATER DIVERSION CHANNEL BASIN

(CASTOR AND WHITEWATER RIVERS)

210. Castor River at Zalma, Mo.

Location.--Lat 37°08'45", long 90°04'30", in SE $\frac{1}{4}$ sec. 29, T. 29 N., R. 9 E., at bridge on State Highway 51 in Zalma, $2\frac{1}{2}$ miles downstream from Perkins Creek.

Drainage area.--423 sq mi.

Gage.--Nonrecording prior to June 9, 1953; recording thereafter. Prior to Oct. 1, 1925, at site 500 ft upstream at datum 49.82 ft lower; Oct. 1, 1925, to Nov. 12, 1930, at site 500 ft upstream at datum 0.18 ft higher. Datum of present gage is 350.38 ft above mean sea level, datum of 1929. Since Dec. 18, 1949, auxiliary staff gage 6 miles downstream. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements below 25,000 cfs. Slope used as a factor since 1949.

Bankfull stage.--19 ft.

Remarks.--Peaks for period prior to Sept. 12, 1921, computed from plotted Little River Drainage District gage readings. Work on Headwater Diversion Channel completed about March 1919. Base for partial-duration series, 8,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1920	May 17, 1920	26.1	17,400	1926	Feb. 26, 1926	20.3	5,920
1921	Apr. 27, 1921	22.4	7,660	1927	Apr. 1, 1927	24.0	10,600
1922	Nov. 20, 1921	24.0	10,600		Apr. 16, 1927	24.6	12,100
	Apr. 1, 1922	23.6	9,720		June 2, 1927	23.6	9,720
1923	Feb. 2, 1923	24.0	10,600	1928	Dec. 14, 1927	26.5	19,400
					June 14, 1928	23.6	9,720
1924	May 30, 1924	24.6	3,160		June 21, 1928	24.9	13,000
1925	June 14, 1925	23.3	2,670	1929	June 14, 1929	22.0	7,250

HEADWATER DIVERSION CHANNEL BASIN

Peak stages and discharges of Castor River at Zalma, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Jan. 14, 1930	23.7	9,940	1945	Apr. 15, 1945	25.20	18,550
1931	Mar. 8, 1931	16.10	3,800		June 9, 1945	26.04	24,100
1932	Jan. 17, 1932	20.22	5,920		June 18, 1945	23.40	9,600
1933	Dec. 25, 1932	22.82	8,180	1946	Feb. 14, 1946	24.30	13,550
	Jan. 23, 1933	23.63	9,720		May 2, 1946	23.98	12,050
	Apr. 16, 1933	24.30	11,400		May 17, 1946	24.5	14,600
	May 12, 1933	23.45	9,300	1947	Apr. 26, 1947	18.8	4,990
	May 14, 1933	25.86	16,600	1948	Jan. 1, 1948	27.8	38,400
1934	Mar. 27, 1934	12.78	2,560	1949	Jan. 19, 1949	22.6	8,530
1935	Mar. 11, 1935	28.20	40,000		Jan. 24, 1949	28.1	40,100
1936	Nov. 16, 1935	9.64	1,610		Mar. 27, 1949	24.0	13,100
1937	Jan. 14, 1937	27.67	40,400	1950	Jan. 4, 1950	26.4	27,400
1938	Feb. 19, 1938	23.72	14,900		Feb. 13, 1950	26.6	28,800
1939	Mar. 6, 1939	23.35	10,950		Apr. 4, 1950	24.8	17,100
	Apr. 17, 1939	24.17	14,600	1951	Feb. 21, 1951	23.20	9,950
1940	Apr. 20, 1940	22.10	7,730	1952	Nov. 25, 1951	23.50	11,000
1941	Jan. 2, 1941	12.3	2,480		Mar. 12, 1952	23.50	11,000
1942	Apr. 9, 1942	23.20	10,200	1953	Mar. 4, 1953	18.3	4,900
1943	Dec. 28, 1942	22.45	8,150	1954	May 3, 1954	20.44	6,290
	May 11, 1943	26.60	31,600	1955	Mar. 21, 1955	25.10	18,800
1944	Apr. 24, 1944	23.60	11,700	1956	Feb. 19, 1956	19.79	5,490
1945	Feb. 27, 1945	25.85	22,600	1957	Apr. 4, 1957	26.53	28,100
	Mar. 7, 1945	25.00	17,350		May 20, 1957	23.30	10,300
	Mar. 20, 1945	22.80	8,150		May 23, 1957	26.27	26,700
	Mar. 26, 1945	22.95	8,550		July 1, 1957	26.07	25,300
	Mar. 31, 1945	24.30	13,550	1958	Nov. 19, 1957	23.17	9,950
					Dec. 20, 1957	23.78	12,200
					Mar. 25, 1958	24.90	17,600

MISSISSIPPI RIVER MAIN STEM

220. Mississippi River at Thebes, Ill.
(Published as "at Cape Girardeau, Mo." prior to 1941)

Location.--Lat 37°13'00", long 89°27'50", in NW $\frac{1}{4}$ sec.17, T.15 S., R.3 W., on downstream side of railroad bridge at Thebes, 5.0 miles downstream from head-water diversion channel and at mile 43.7 above Ohio River.

Drainage area.--717,200 sq mi, approximately.

Gage.--Nonrecording prior to Dec. 21, 1934, and Apr. 5, 1941, to Sept. 30, 1943; recording Dec. 22, 1934, to Apr. 4, 1941, and since Oct. 1, 1943. Prior to Apr. 5, 1941, at site 8.2 miles upstream at datum 304.65 ft higher than present gage; Apr. 5, 1941, to Sept. 30, 1944, at present site and at datum 300.00 ft higher than present datum. Gage heights given herein beginning with 1941 converted to present datum which is at mean sea level, datum of 1929. Since Oct. 1, 1943, former gage at Cape Girardeau used as auxiliary gage; previously, various auxiliary gages used.

Stage-discharge relation.--Affected by backwater from Ohio River. Fall between auxiliary and reference gage used as a factor in computing discharge. Frequent current-meter measurements necessary to define relationship.

Bankfull stage.--333 ft.

Remarks.--Natural flow of stream affected by many reservoirs and navigation dams in Upper Mississippi River basin, and by many reservoirs and diversions for irrigation in Missouri River basin. Only annual peaks are shown.

Peak stages and discharges of Mississippi River at Thebes, Ill.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	July 4, 1844	a42.53	a1,375,000	1946	Jan. 14, 1946	b333.68	506,000
1933	May 18, 19, 1933	b34.4	525,000	1947	July 6, 1947	b340.08	837,000
1934	Apr. 27, 1934	14.4	140,000	1948	Mar. 28, 1948	b336.97	676,000
1935	June 10, 1935	b36.26	623,000	1949	Apr. 4, 1949	b331.35	447,000
1936	Mar. 2, 1936	25.19	318,000	1950	May 15, 1950	b332.29	491,000
1937	May 7, 1937	30.36	420,000	1951	July 24, 1951	b339.91	805,000
1938	May 28, 1938	31.0	c552,000	1952	May 2, 1952	337.36	685,000
1939	Apr. 21, 1939	35.8	c637,000	1953	Apr. 6, 1953	326.66	382,000
1940	Apr. 21, 1940	19.64	199,000	1954	June 7, 1954	322.25	292,000
1941	Apr. 24, 1941	329.11	469,000	1955	Feb. 25, 1955	324.39	329,000
1942	June 30, 1942	b335.65	615,000	1956	Oct. 9, 1955	318.48	220,000
1943	May 27, 1943	340.28	895,000	1957	May 23, 1957	b331.62	463,000
1944	May 6, 1944	339.05	812,000	1958	July 25, 1958	b333.87	534,000
1945	Apr. 2, 1945	b337.90	702,000				

a Computed by Corps of Engineers.

b Occurred at different time than peak discharge.

c Computed on basis of records at Chester, Ill.

MAYFIELD CREEK BASIN

225. Perry Creek near Mayfield, Ky.

Location.--Lat 36°40'45", long 88°37'57", on right bank at downstream side of bridge on State Highway 303, 1.8 miles upstream from mouth and 3.5 miles south of city limits of Mayfield, Graves County.

Drainage area.--1.72 sq mi.

Gage.--Recording. Datum of gage is 478.22 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 420 cfs for periods Nov. 7, 1952, to Sept. 30, 1955, and since Jan. 23, 1957; below 660 cfs for period Oct. 1, 1955, to Jan. 22, 1957.

Remarks.--Base for partial-duration series, 400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	March 1952	a10.3	-	1956	Feb. 1, 1956	4.86	283
1953	Dec. 4, 1952	5.17	436	1956	Feb. 2, 1956	6.00	440
	Mar. 3, 1953	6.82	780	1956	May 15, 1956	4.75	270
	Mar. 14, 1953	6.11	624	1957	Jan. 22, 1957	7.66	707
	May 14, 1953	5.40	480		Apr. 4, 1957	6.02	602
	May 18, 1953	5.63	526		May 22, 1957	6.42	692
1954	Jan. 20, 1954	5.60	520		June 1, 1957	5.41	482
1955	Feb. 27, 1955	5.32	464		June 9, 1957	5.51	502
	Feb. 28, 1955	5.40	480		Aug. 14, 1957	5.09	421
	Mar. 20, 1955	7.12	846	1958	Nov. 13, 1957	5.38	476
	July 20, 1955	6.83	783		Nov. 18, 1957	6.74	763
	July 23, 1955	5.11	425				

a Annual peak only.

MAYFIELD CREEK BASIN

230. Mayfield Creek at Lovelaceville, Ky.

Location.--Lat 36°57'09" long 88°49'30", near right bank on downstream side of pier of bridge on U. S. Highway 62, 400 ft south of Ballard-Carlisle County line, 1.2 miles south of Lovelaceville, and 4 miles upstream from Wilson Creek.

Drainage area.--211 sq mi.

Gage.--Nonrecording prior to July 6, 1937; recording thereafter. Datum of gage is 326.22 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 9,300 cfs and extended above on basis of slope-area measurement at 19,800 cfs.

Bankfull stage.--16 ft.

Historical data.--1937 flood is highest flood known since 1926, from information by local residents.

Remarks.--Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	January 1937	21.1	a19,800	1949	Feb. 15, 1949	19.37	10,900
				Mar. 27, 1949	17.35	6,000	
1938	Aug. 1, 1938	17.9	7,140	1950	Dec. 13, 1949	16.55	4,580
1939	Jan. 31, 1939	17.1	5,420		Jan. 4, 1950	18.19	7,780
	Feb. 3, 1939	17.35	6,080		Jan. 11, 1950	16.48	4,470
	Feb. 10, 1939	16.2	4,090		Jan. 13, 1950	17.34	5,980
	Mar. 5, 1939	17.2	5,670		Feb. 13, 1950	19.11	10,000
Apr. 6, 1939	16.6	4,520	Mar. 27, 1950		17.03	5,380	
Apr. 18, 1939	17.6	6,630	Sept. 1, 1950		16.48	4,470	
1940	Feb. 19, 1940	16.8	4,800		1951	Nov. 20, 1950	16.98
	Apr. 19, 1940	16.58	4,500	Jan. 4, 1951		16.88	4,070
	May 1, 1940	16.15	4,040	Jan. 15, 1951		18.50	8,300
1941	Jan. 24, 1941	11.29	2,060	Feb. 20, 1951		17.15	4,420
	1942	Feb. 17, 1942	16.13	4,030	Mar. 19, 1951	16.92	4,110
		Apr. 10, 1942	17.31	5,940	1952	Jan. 2, 1952	17.93
1943	Mar. 20, 1943	16.64	4,520	Jan. 4, 1952		17.64	5,720
	May 11, 1943	18.34	8,160	Mar. 10, 1952		18.20	7,400
1944	Apr. 11, 1944	17.0	5,190	Mar. 22, 1952		17.34	4,830
				1945	Mar. 5, 1953	17.79	6,170
May 19, 1953	17.14	4,400					
1945	Feb. 21, 1945	16.56	4,290	1954	May 7, 1954	16.10	3,480
	Mar. 31, 1945	16.90	4,650		1955	Mar. 22, 1955	17.75
	Apr. 2, 1945	17.9	7,160	Apr. 24, 1955		16.95	4,050
	Apr. 15, 1945	17.62	6,220	1956		Feb. 3, 1956	17.27
	June 11, 1945	17.36	4,980		Feb. 19, 1956	17.43	5,090
1946	Jan. 9, 1946	17.74	7,160		1957	Apr. 5, 1957	17.43
	Feb. 14, 1946	17.43	6,220	May 23, 1957		18.13	6,060
	May 25, 1946	17.52	6,220	1958	Nov. 15, 1957	18.33	6,490
1947	Jan. 3, 1947	17.0	5,190		Nov. 19, 1947	19.64	11,200
	1948	Mar. 27, 1948	17.00		5,190	Dec. 8, 1957	17.13
Apr. 13, 1948		16.20	4,090		Dec. 20, 1957	17.02	4,470
1949	Dec. 17, 1948	17.53	6,360	Jan. 21, 1958	17.08	4,520	
	Jan. 24, 1949	17.77	6,870	Mar. 24, 1958	18.05	5,900	
	Jan. 28, 1949	16.40	4,320				

a Annual peak only.

232. Mississippi River at Columbus, Ky.

Location.--Lat 36°45'55", long 89°06'47", on left bank about 1,400 ft upstream from Ferry Landing at Columbus, Hickman County, 13 miles downstream from Mayfield Creek, and at mile 947.3.

Drainage area.--921,900 sq mi, approximately.

Gage.--Nonrecording. Datum of gage is 266.59 ft above mean sea level, datum of 1929. 1885-1902 gage at Belmont, Mo., opposite Columbus, at same datum.

Stage-discharge relation.--Defined by current-meter measurements. Water-surface slope is a factor. Shifts have occurred.

Bankfull stage.--40 ft.

Remarks.--Records furnished by Mississippi River Commission. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1844	July 1844	42.0	-	1918	Feb. 25, 1918	37.7	1,001,000
1858	June 17, 18, 1858	a42.9	1,403,000	1919	Mar. 24, 1919	44.68	1,488,000
1880	-	39.47	-	1920	Mar. 31, Apr. 1,	47.05	1,408,000
1882	Feb. 22, 1882	a45.10	b1,603,000	1921	Apr. 3, 1921	36.1	935,000
1883	Feb. 26, 1883	45.58	-	1922	Apr. 26, 1922	49.0	1,508,000
1884	Feb. 23, 24, 1884	45.37	-	1923	Mar. 22, 1923	43.1	1,255,000
1885	Jan. 26, 1885	36.40	-	1924	Jan. 14, 1924	40.55	1,122,000
1886	Apr. 19, 1886	44.88	-	1925	Feb. 26, 1925	35.1	896,000
1887	Mar. 10, 11, 1887	43.30	-	1926	Dec. 31, 1925	41.0	1,001,000
1888	Apr. 6, 1888	41.35	-	1927	Apr. 16, 1927	51.0	-
1889	June 24, 1889	31.71	-	1928	July 5, 6, 1928	42.9	1,236,000
1890	Apr. 6, 1890	43.33	-	1929	May 19, 1929	49.3	1,642,000
1891	Mar. 1, 1891	a41.30	1,381,000	1930	Jan. 19, 1930	41.73	-
1892	Apr. 30, 1892	a43.14	1,401,000	1931	Apr. 12, 1931	32.9	-
1893	May 8, 1893	a43.80	1,537,000	1932	Feb. 15, 1932	46.38	-
1894	Feb. 16, 1894	34.15	-	1933	May 21, 1933	48.7	-
1895	Jan. 22, 1895	30.40	-	1934	Mar. 15, 1934	39.1	-
1896	Apr. 14, 1896	a35.85	944,000	1935	Mar. 22, 23, 1935	47.3	-
1897	Mar. 28-30, 1897	45.08	-	1936	Apr. 15-17, 1936	49.6	-
1898	Apr. 2, 1898	a43.98	b1,511,000	1937	Jan. 25, 1937	54.54	-
1899	Apr. 4, 1899	42.0	-	1938	Apr. 16, 1938	42.9	-
1900	Mar. 17, 1900	36.93	996,000	1939	Mar. 18, 19, 1939	48.4	-
1901	May 1, 1901	39.83	1,183,000	1940	May 3, 1940	42.34	-
1902	Mar. 17, 1902	38.6	1,099,000	1941	Apr. 26, 1941	29.7	-
1903	Mar. 16, 17, 1903	a44.5	1,483,000	1942	Mar. 25, 1942	41.15	-
1904	Apr. 5, 1904	43.91	1,502,000	1943	May 30, 1943	50.14	-
1905	May 24, 1905	35.8	935,000	1944	Apr. 29, 1944	48.51	-
1906	Apr. 10, 1906	42.39	1,366,000	1945	Mar. 11, 1945	50.72	-
1907	Jan. 27, 1907	44.68	1,531,000	1946	Jan. 17, 1946	49.3	-
1908	Mar. 18, 19, 1908	41.9	1,331,000	1947	Apr. 20, 1947	45.0	-
1909	Mar. 17, 1909	43.7	1,465,000	1948	Apr. 2, 3, 1948	48.95	-
1910	Mar. 15, 1910	39.52	1,161,000	1949	Jan. 31, 1949	47.55	-
1911	Apr. 21, 1911	41.87	1,329,000	1950	Feb. 15, 1950	52.73	-
1912	Apr. 2, 1912	a49.0	2,015,000	1951	Feb. 26, 1951	46.5	-
1913	Apr. 9, 1913	a49.3	2,015,000	1952	Mar. 27, 28, 1952	48.0	-
1914	Apr. 10, 1914	38.6	1,099,000	1953	May 21, 1953	35.75	-
1915	Feb. 12, 1915	42.05	1,542,000	1954	Jan. 27, 28, 1954	28.96	-
1916	Feb. 3, 1916	a48.55	1,775,000	1955	Mar. 28, 29, 1955	47.05	-
1917	Apr. 5, 1917	45.75	1,428,000	1956	Feb. 27, 28, 1956	40.96	-
				1957	Feb. 12, 13, 1957	43.0	-
				1958	July 26, 1958	42.15	-

a Occurred on different day than peak discharge.

b Might have been higher during period of no record.

235. Obion Creek at Pryorsburg, Ky.

Location.--Lat 36°41'10", long 88°43'35", on right bank at downstream side of bridge on U. S. Highway 45, 0.5 mile southwest of Pryorsburg, Graves County, and 3.1 miles upstream from Cane Creek.

Drainage area.--36.3 sq mi.

Gage.--Recording. Prior to Dec. 2, 1954, at about same site but upstream from former bridge at same datum. Datum at gage is 393.55 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,100 cfs.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Feb. 14, 1949	a13.0	-	1956	Feb. 2, 1956	9.78	2,170
1952	Dec. 3, 1951	10.43	2,240	Feb. 18, 1956	10.08	2,440	
	Dec. 25, 1951	9.85	2,010	Mar. 14, 1956	9.82	2,210	
	Mar. 10, 1952	11.05	2,520	1957	Jan. 22, 1957	10.67	3,030
	Mar. 22, 1952	11.50	2,750		Apr. 4, 1957	10.61	2,970
			May 23, 1957		10.63	2,990	
1953	Mar. 3, 1953	10.73	2,360	June 10, 1957	11.46	3,900	
	Mar. 18, 1953	10.06	2,090	1958	Nov. 13, 1957	10.88	3,260
1954	July 23, 1954	9.60	1,910		Nov. 18, 1957	12.60	5,330
					Dec. 7, 1957	10.65	3,010
1955	Mar. 21, 1955	10.11	2,110		Dec. 16, 1957	9.79	2,180
1956	Jan. 29, 1956	9.56	2,000	Mar. 23, 1958	9.56	2,000	

a Annual peak only.

BAYOU DU CHIEN BASIN

240. Bayou du Chien near Clinton, Ky.

(Published as "Bayou de Chien" prior to October 1954)

Location.--Lat 36°37'43", long 88°57'50", on left bank at upstream side of bridge on U. S. Highway 51, 1.1 miles upstream from Cane Creek, 3½ miles southeast of Clinton, Hickman County, and 13½ miles upstream from mouth.

Drainage area.--68.5 sq mi.

Gage.--Nonrecording prior to Aug. 2, 1951; recording thereafter. Datum of gage is 307.71 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 4,100 cfs, extended above by logarithmic plotting.

Bankfull stage.--11 ft.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Mar. 13, 1940	13.4	3,000	1945	Feb. 21, 1945	12.8	2,180
	Apr. 17, 1940	13.0	2,500		Mar. 30, 1945	12.7	2,000
	June 28, 1940	12.6	2,130		Apr. 2, 1945	13.8	2,500
1941	Jan. 24, 1941	10.1	1,010		May 8, 1945	12.7	2,080
					June 9, 1945	13.9	3,840
1942	Feb. 17, 1942	12.6	2,130	1946	Jan. 9, 1946	13.1	2,540
	Mar. 13, 1942	12.5	2,050		Feb. 14, 1946	12.8	2,180
	Apr. 9, 1942	13.2	2,730		May 25, 1946	13.2	2,680
1943	May 11, 1943	12.9	2,400	1947	Nov. 26, 1946	12.85	2,240
1944	Feb. 28, 1944	13.3	2,860		Jan. 3, 1947	13.2	2,680
	May 24, 1944	13.0	2,500		Apr. 11, 1947	13.1	2,540

Peak stages and discharges of Bayou du Chien near Clinton, Ky.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Mar. 27, 1948	12.7	1,800	1953	Mar. 4, 1953	13.75	2,990
1949	Dec. 16, 1948	13.2	2,440	1954	Mar. 24, 1954	12.34	1,160
	Feb. 14, 1949	14.16	4,360	1955	Mar. 21, 1955	13.00	1,800
	Mar. 27, 1949	12.9	2,020				
1950	Dec. 12, 1949	12.9	2,020	1956	Feb. 2, 1956	13.42	2,340
	Jan. 3, 1950	13.3	2,600		Feb. 18, 1956	14.01	3,630
	Feb. 13, 1950	13.5	2,500	1957	Jan. 23, 1957	13.31	2,080
	Mar. 28, 1950	13.1	2,290				
	Aug. 31, 1950	14.3	4,760				
1951	Jan. 11, 1951	14.06	4,490	1958	Nov. 14, 1957	13.88	3,290
	Jan. 15, 1951	15.00	6,880		Nov. 18, 1957	14.89	6,470
	Mar. 18, 1951	13.45	3,070		Dec. 7, 1957	13.44	2,350
1952	Mar. 11, 1952	13.92	3,390		Mar. 24, 1958	13.47	2,390
	Mar. 22, 1952	14.02	3,650				

MISSISSIPPI RIVER MAIN STEM

242. Mississippi River at Hickman, Ky.

Location.--Lat 36°34'22", long 89°11'56", on left bank near upstream end of sea wall at Hickman, Fulton County, half a mile downstream from Bayou du Chien and Obion Creek and at mile 932.1.

Drainage area.--922,500 sq mi, approximately.

Gage.--Nonrecording. Datum of gage is 264.92 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements throughout. Slope is a factor. Shifts have occurred.

Bankfull stage.--35 ft.

Remarks.--Records furnished by Mississippi River Commission. Only annual peaks are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 6, 1927	48.3	a1,626,000	1944	Apr. 28, 1944	45.15	1,383,000
1930	Jan. 19, 1930	38.4	1,130,000	1945	Mar. 11, Apr4	47.33	1,470,000
	Dec. 21, 1930	33.9	934,000	1946	Jan. 17, 1946	45.8	1,449,000
1932	Feb. 14, 1932	43.2	1,209,000	1947	Apr. 17, 1947	41.65	1,136,000
1933	Apr. 5, 1933	45.6	1,353,000	1948	Apr. 3, 1948	45.6	1,342,000
1934	Mar. 15, 16, 1934	35.9	902,000	1949	Jan. 31, 1949	44.45	1,296,000
1935	Mar. 21, 1935	44.06	1,173,000	1950	Feb. 14, 1950	49.0	1,578,000
1936	Apr. 16, 17, 1936	46.3	1,407,000	1951	Feb. 26, 1951	43.1	1,175,000
1937	Feb. 1, 1937	51.5	b2,010,000	1952	Mar. 26, 1952	44.9	1,222,000
1938	Apr. 16, 1938	39.3	1,023,000	1953	May 21, 1953	32.55	786,000
1939	Mar. 18, 1939	44.8	1,323,000	1954	Jan. 27, 28, 1954	25.33	592,000
1940	May 4, 1940	38.84	1,034,000	1955	Mar. 27, 1955	43.90	1,270,000
1941	Apr. 26, 1941	26.15	630,000	1956	Feb. 26, 1956	37.61	968,000
1942	Mar. 27, 1942	37.85	997,000	1957	Feb. 12, 1957	39.55	1,052,000
1943	May 29, 1943	46.7	1,486,000	1958	July 26, 1958	38.5	1,013,000

a Possibly exceeded Apr. 21, 22, 1927.

b Includes discharge through New Madrid floodway.

Note.--Peak gage height frequently occurs on different day than peak discharge.

245. South Fork Obion River near Greenfield, Tenn.

Location.--Lat 36°07'05", long 88°48'39", on left bank 75 ft downstream from bridge on U. S. Highway 45E, 1.1 miles downstream from Mosley Branch, 2.5 miles south of Greenfield, Weakley County, and 9.7 miles upstream from Middle Fork.

Drainage area.--431 sq mi.

Gage.--Nonrecording prior to June 22, 1939; recording thereafter. Datum of gage is 300.37 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 14,000 cfs for flood of Jan. 22, 1937. Channel changes have caused progressive decrease in conveyance at high stages resulting in lower discharges for equivalent stages. Stage-discharge relation from 1950-55 defined by current-meter measurements below 8,600 cfs and extended above.

Bankfull-stage.--13 ft.

Remarks.--Channel is a dredged canal. Base for partial-duration series, 2,600 cfs. Only annual peaks are shown prior to 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Jan. 10, 1930	15.52	12,800	1949	Nov. 8, 1948	15.03	4,630
1931	Mar. 28, 1931	12.16	2,470	Nov. 22, 1948	15.16	5,520	
1932	Jan. 15, 1932	15.3	11,900	Jan. 29, 1949	15.30	6,550	
1933	Jan. 22, 1933	13.95	6,400	Mar. 21, 1949	14.70	2,830	
1934	Dec. 20, 1933	13.54	4,480	Mar. 26, 1949	14.90	3,800	
1935	Jan. 21, 1935	17.1	21,100	1950	Dec. 13, 1949	17.00	20,000
1936	Mar. 28, 1936	14.40	8,040	Jan. 6 or 7, 1950	-	6,000	
1937	Jan. 22, 1937	17.82	25,600	Jan. 13, 1950	14.82	4,000	
1938	June 2, 1938	14.40	7,060	Feb. 2, 1950	15.98	11,000	
1939	Feb. 5, 1939	14.80	7,940	Mar. 15, 1950	14.75	3,650	
	Mar. 7, 1939	13.70	3,290	May 9, 1950	14.79	3,850	
	Apr. 1, 1939	14.00	4,120	1951	Nov. 23, 1950	14.87	3,280
	Apr. 17, 1939	13.60	3,060	Dec. 7, 1950	15.01	4,260	
	June 17, 1939	13.50	2,860	Jan. 5, 1951	15.68	8,860	
1940	Mar. 4, 1940	13.20	2,280	Jan. 14, 1951	16.13	12,200	
1941	Apr. 20, 1941	11.40	1,220	Feb. 10, 1951	14.84	3,220	
1942	Mar. 17, 1942	13.78	2,920	Feb. 20, 1951	14.90	3,550	
	Apr. 11, 1942	15.65	12,600	Apr. 24, 1951	14.91	3,620	
1943	Dec. 31, 1942	13.95	3,500	1952	Nov. 27, 1951	15.06	4,520
	Mar. 16, 1943	14.19	4,580	Dec. 11, 1951	15.15	5,150	
	Mar. 21, 1943	15.13	9,670	Dec. 20, 1951	14.93	3,610	
	May 24, 1943	14.70	7,160	Dec. 25, 1951	14.87	3,220	
1944	Feb. 29, 1944	13.92	3,200	Feb. 17, 1952	14.82	2,920	
	Mar. 23, 1944	14.12	4,050	Mar. 13, 1952	15.12	4,940	
	Apr. 13, 1944	14.31	5,000	Mar. 25, 1952	15.02	4,240	
1945	Dec. 28, 1944	14.49	4,400	1953	Mar. 5, 1953	15.32	6,340
	Jan. 2, 1945	14.95	6,720	Mar. 22, 1953	14.99	4,030	
	Feb. 21, 1945	13.97	2,600	Mar. 25, 1953	15.00	4,100	
	Apr. 5, 1945	14.05	2,820	Apr. 4, 1953	14.90	3,400	
	June 11, 1945	14.94	6,670	May 19, 1953	15.88	10,300	
1946	Nov. 13, 1945	14.34	3,760	1954	Jan. 16, 1954	15.26	5,920
	Jan. 10, 1946	15.53	10,900	Jan. 23, 1954	15.28	6,060	
	Mar. 28, 1946	15.30	9,600	1955	Mar. 23, 1955	15.73	8,640
	July 11, 1946	14.05	2,820	Apr. 15, 1955	14.97	3,480	
1947	Jan. 4, 1947	15.16	8,320	1956	Jan. 31, 1956	16.98	17,500
	Jan. 20, 1947	14.21	2,740	Feb. 18, 1956	16.00	8,700	
	May 20, 1947	14.24	2,840	Mar. 17, 1956	14.79	3,070	
1948	Feb. 15, 1948	15.23	6,020	Apr. 14, 1956	14.75	2,950	
				1957	Feb. 1, 1957	15.75	6,550
				Apr. 7, 1957	15.22	3,600	
				May 26, 1957	-	3,000	
				June 5, 1957	15.01	2,640	
				July 4, 1957	15.32	4,100	
				1958	Nov. 18, 1957	16.74	14,900
				Dec. 10, 1957	15.27	3,850	
				Dec. 22, 1957	15.14	3,200	
				Mar. 26, 1958	15.18	3,400	
				May 5, 1958	15.23	3,650	

248. South Fork Obion River near Kenton, Tenn.

Location.--Lat 36°14'45", long 88°58'28", at highway bridge 4.5 miles northeast of Kenton, Obion County, and 10 miles west of Sharon, Weakley County, Tenn.

Drainage area.--760 sq mi.

Gage.--Nonrecording. Datum of gage is 271.84 ft above mean Gulf level.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	January 1937	26.2	-	1949	Dec. 19, 1948	18.8	-
1939	Feb. 6, 1939	19.6	-	1950	Feb. 3, 1950	20.0	-
1940	Apr. 21, 1940	17.4	-	1951	Jan.16-17, 1951	20.2	-
1941	Jan. 27, 1941	15.1	-	1952	Nov.27-28, 1951	18.9	-
1942	Apr. 12, 1942	20.0	-	1953	May 19-20, 1953	20.4	-
1943	Mar. 22, 1943	19.6	-	1954	Jan.16,Jan. 23-25	18.6	-
1944	Apr. 13, 1944	18.0	-	1955	Mar.23-24, 1955	19.8	-
1945	June 10, 1945	20.5	-	1956	Feb. 3, 1956	22.5	-
1946	Jan. 11, 1946	20.1	-	1957	Oct. 4, 1956	17.4	-
1948	Feb. 16-17, 1948	18.6	-	1958	Mar.26, 27, 1958	19.2	-

250. Rutherford Fork Obion River near Bradford, Tenn.

Location.--Lat 36°03'10", long 88°52'42", on left bank 10 ft downstream from bridge on Stage Highway 54, 2.0 miles upstream from Camp Creek, 4 miles south-west of Bradford, Gibson County, and 17½ miles upstream from mouth.

Drainage area.--203 sq mi.

Gage.--Nonrecording prior to May 1, 1939; recording thereafter. Prior to May 1, 1939, at site 0.8 mile downstream at different datum. Datum of present gage is 316.54 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 4,700 cfs at former site and below 4,500 cfs at present site.

Bankfull stage.--15 ft.

Remarks.--Channel is a dredged canal. Base for partial-duration series, 2,800 cfs. Only annual peaks are shown prior to 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Jan. 9, 1930	15.10	7,650	1939	Apr. 17, 1939	16.8	4,260
1931	Mar. 27, 1931	8.98	1,770		May 22, 1939	14.82	3,310
1932	Jan. 30, 1932	17.8	6,240		May 27, 1939	15.16	3,460
1933	Mar. 19, 1933	15.70	5,870		June 11, 1939	15.92	3,730
1934	Mar. 24, 1934	15.86	5,800		June 18, 1939	16.00	3,770
1935	Jan. 21, 1935	19.12	8,460	1940	Mar. 3, 1940	14.82	3,040
1936	Mar. 27, 1936	15.68	5,800		May 1, 1940	14.40	2,890
1937	Jan. 22, 1937	20.06	9,730	1941	Apr. 20, 1941	8.73	1,190
1938	Feb. 19, 1938	17.02	4,690	1942	Apr. 10, 1942	17.74	5,780
1939	Jan. 29, 1939	16.6	4,110	1943	Dec. 27, 1942	15.56	4,160
	Feb. 3, 1939	17.26	4,680		Mar. 13, 1943	15.66	4,220
	Feb. 15, 1939	15.10	3,290		Mar. 19, 1943	17.40	5,560
	Mar. 5, 1939	16.9	4,340		Apr. 23, 1943	14.17	3,360
	Mar. 30, 1939	16.25	3,840		May 25, 1943	17.00	5,200
	Apr. 6, 1939	15.3	3,380	1944	Feb. 17, 1944	15.43	3,790
					Feb. 29, 1944	14.40	3,200
					Apr. 11, 1944	16.60	4,680
					Apr. 26, 1944	14.21	3,100
					Sept.29, 1944	15.06	3,610

OBION RIVER BASIN

Peak stages and discharges of Rutherford Fork Obion River
near Bradford, Tenn.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Dec. 27, 1944	14.06	2,920	1950	July 26, 1950	17.00	3,400
	Jan. 1, 1945	16.42	4,380	1951	Jan. 5, 1951	17.36	3,760
	Jan. 6, 1945	15.34	3,640		Jan. 14, 1951	18.4	4,800
	Jan. 7, 1945	15.58	3,830		July 12, 1951	16.61	3,040
	Feb. 17, 1945	16.60	4,530	1952	Nov. 24, 1951	16.44	2,900
	Mar. 20, 1945	15.78	3,760		Mar. 11, 1952	17.11	3,510
	Apr. 2, 1945	16.16	4,040	1953	Mar. 5, 1953	16.85	3,260
	June 6, 1945	14.58	3,010		Mar. 18, 1953	-	-
	June 10, 1945	17.50	5,100		Mar. 23, 1953	16.64	3,070
	1946	June 17, 1945	17.00	4,680	Apr. 1, 1953	16.35	2,840
Nov. 11, 1945		15.72	2,880	May 18, 1953	18.15	4,550	
Jan. 9, 1946		18.47	4,900	1954	Jan. 22, 1954	16.80	3,210
Feb. 6, 1946		15.82	2,940		Mar. 23, 1955	17.62	4,530
Feb. 13, 1946		15.65	2,830	Apr. 13, 1955	16.20	2,810	
May 27, 1946	18.47	4,900	1956	Jan. 30, 1956	20.47	8,860	
1947	Jan. 3, 1947	17.05		3,760	Feb. 18, 1956	18.07	4,970
	1948	Feb. 15, 1948	17.24	3,820	1957	Jan. 29, 1957	16.78
1949	Jan. 29, 1949	17.49	4,040	Apr. 4, 1957		16.60	3,200
	June 17, 1949	16.63	3,270	May 23, 1957	16.64	3,240	
1950	Dec. 13, 1949	18.5	4,900	June 5, 1957	16.79	3,410	
	Jan. 5, 1950	16.5	3,000				
	Jan. 10 or 11, 1950	17.2	3,600				
	Feb. 1, 1950	18.36	4,760				

251. Rutherford Fork Obion River near Kenton, Tenn.

Location.--Lat 36°12'14", long 88°59'55", on right bank 0.7 mile east of Kenton, Obion County.Drainage area.--271 sq mi.Gage.--Nonrecording. Datum of gage is 284.73 ft above mean Gulf level.Bankfull stage.--14 ft.Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Apr. 17, 1939	14.1	-	1949	Jan. 28, 1950	14.4	-
1940	Feb. 18, 1940	14.0	-	1950	Feb. 2, 1950	16.4	-
1941	July 4, 1941	13.8	-	1951	Jan. 15, 1951	16.2	-
1942	Apr. 11, 1942	14.1	-	1952	Mar. 22, 1952	14.65	-
1943	Dec. 28, 1942	13.9	-	1953	Mar. 25, 1953	14.8	-
1944	Apr. 12, 1944	14.3	-	1954	June 3, 1954	13.25	-
1945	June 8, 1945	13.8	-	1955	Apr. 14, 1955	15.5	-
1946	Jan. 10, 11, 1946	14.3	-	1956	Feb. 1, 1956	17.5	-
1947	Jan. 4, 1947	14.2	-	1957	Jan. 29, 1957	14.7	-
1948	Feb. 3, 1948	14.3	-	1958	Nov. 18, 1957	15.6	-

254. North Fork Obion River at U. S. Highway 45E, near Martin, Tenn.

Location.--Lat 36°24'20", long 88°51'20", on left bank at bridge on U. S. Highway 45E, 1.3 miles south of McConnell and 4 miles north of Martin, Weakley County.

Drainage area.--375 sq mi.

Gage.--Nonrecording prior to 1949; recording thereafter. Datum of gage is 303.35 ft above mean Gulf level.

Stage-discharge relation.--Defined by current-meter measurements below 14,000 cfs.

Bankfull stage.--18 ft.

Remarks.--Records furnished by Corps of Engineers. Base for partial-duration series, 4,400 cfs. Prior to 1949, mean daily discharges are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Jan. 30, 1939	-	5,860	1949	Nov. 19, 1948	-	6,650
	Feb. 10, 1939	-	5,530		Dec. 17, 1948	-	7,380
	Feb. 15, 1939	-	4,880		Dec. 26, 1948	-	6,560
	Feb. 20, 1939	-	4,550		Dec. 29, 1948	-	6,070
	Feb. 28, 1939	-	4,880		Jan. 17, 1949	-	5,030
	Mar. 5, 1939	-	6,260		Jan. 19, 1949	-	6,240
	Mar. 30, 1939	-	5,600		Jan. 22, 1949	-	5,500
	Apr. 6, 1939	-	6,320		Jan. 28, 1949	-	6,730
1940	Apr. 17, 1939	-	6,730	Feb. 15, 1949	-	7,880	
	Jan. 14, 1940	-	4,680	Mar. 10, 1949	-	4,420	
	Feb. 18, 1940	-	5,730	Mar. 28, 1949	-	7,140	
	Mar. 3, 1940	-	5,460	Apr. 13, 1949	-	6,650	
	Apr. 19, 1940	-	5,460	July 17, 1949	-	6,650	
	May 1, 1940	-	5,140	1950	Oct. 7, 1949	18.70	6,970
1941	July 4, 1941	-	2,270		Dec. 13, 1949	19.40	7,550
	1942	Feb. 17, 1942	-		5,380	Jan. 13, 1950	18.88
Mar. 9, 1942		-	5,310		Jan. 27, 1950	18.56	6,860
Mar. 14, 1942		-	5,310		Feb. 2, 1950	19.50	7,630
Apr. 9, 1942		-	6,720		Feb. 14, 1950	19.25	7,420
1943	Dec. 28, 1942	-	5,440		Feb. 22, 1950	17.90	6,320
	Mar. 13, 1943	-	6,290		Mar. 1, 1950	16.1	4,880
	Mar. 20, 1943	-	6,570		Mar. 13, 1950	18.25	6,600
1944	Feb. 29, 1944	-	6,400		Mar. 28, 1950	18.40	6,730
	Apr. 11, 1944	-	6,560		Apr. 4, 1950	18.50	6,810
	May 6, 1944	-	6,730		May 2, 1950	15.6	4,500
	1945	Dec. 31, 1944	-		4,420	May 8, 1950	18.3
		Feb. 22, 1945	-	6,240	June 21, 1950	16.8	5,420
Feb. 27, 1945		-	6,240	July 4, 1950	18.50	6,810	
May 17, 1945		-	6,070	July 24, 1950	18.95	7,180	
May 20, 1945		-	6,890	Aug. 15, 1950	17.20	5,740	
Apr. 2, 1945		-	6,890	Aug. 25, 1950	16.55	5,230	
May 10, 1945	-	5,740	Sept. 4, 1950	18.80	7,060		
June 8, 1945	-	6,890	1951	Nov. 2, 1950	18.75	7,020	
1946	Nov. 13, 1945	-		6,890	Dec. 3, 1950	18.05	6,440
	Jan. 7, 1946	-		6,070	Dec. 6, 1950	17.6	6,070
	Jan. 11, 1946	-	6,240	Jan. 15, 1951	20.75	10,400	
	Mar. 18, 1946	-	5,680	1952	Dec. 27, 1951	18.9	4,500
	Mar. 27, 1946	-	6,240		Mar. 12, 1952	19.90	6,780
1947	Dec. 13, 1946	-	5,350	Mar. 22, 1952	22.20	21,900	
	Dec. 29, 1946	-	5,030	1953	Mar. 16, 1953	19.25	5,140
	Jan. 3, 1947	-	9,440		May 18, 1953	20.18	7,710
	May 21, 1947	-	5,350	1954	Mar. 25, 1954	19.20	4,940
1948	Feb. 14, 1948	-	6,650		Mar. 22, 1955	19.07	4,670
	Feb. 26, 1948	-	4,800	1956	Feb. 2, 1956	19.88	7,190
	Mar. 2, 1948	-	6,400		Feb. 18, 1956	21.40	12,300
	Mar. 16, 1948	-	6,730	1957	Jan. 30, 1957	19.52	5,780
	Mar. 23, 1948	-	4,960		Apr. 5, 1957	19.42	5,660
	Mar. 31, 1948	-	5,190		May 24, 1957	20.20	6,800
Apr. 13, 1948	-	6,400	1958	Nov. 19, 1957	23.05	30,300	
1949	Nov. 6, 1948	-		6,810	Dec. 21, 1957	19.51	5,090
				Mar. 25, 1958	19.50	5,870	

255. North Fork Obion River near Union City, Tenn.

Location.--Lat 36°24'00", long 88°59'45", on downstream side of right pier of bridge on State Highway 22, 4 miles southeast of Union City, Obion County, 4½ miles upstream from Hoosier Creek, and 11 miles upstream from confluence with South Fork.

Drainage area.--490 sq mi, approximately.

Gage.--Nonrecording prior to May 20, 1939; recording thereafter. Datum of gage is 286.88 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 31,000 cfs and extended above.

Bankfull stage.--17 ft.

Remarks.--Base for partial-duration series, 4,000 cfs. Only annual peaks are shown prior to 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Jan. 10, 1930	19.70	20,300	1945	Mar. 18, 1945	17.33	5,320
1931	Mar. 28, 1931	10.2	1,770		Apr. 2, 1945	18.72	11,000
1932	Jan. 17, 1932	17.6	9,870		May 10, 1945	17.72	6,600
1933	Dec. 31, 1932	18.10	11,300		June 8, 1945	19.07	13,000
1934	Dec. 19, 1933	16.40	6,920	1946	Jan. 9, 1946	18.30	9,150
1935	Jan. 22, 1935	19.20	20,300		Feb. 12, 13	17.83	7,200
1936	Apr. 6, 1936	12.20	2,160		Mar. 27, 1946	17.37	5,320
1937	Jan. 22, 1937	22.0	49,200		May 25, 1946	17.70	6,600
1938	Feb. 19, 1938	17.4	8,480	1947	Jan. 3, 1947	17.85	7,200
1939	Jan. 5, 1939	16.4	5,600		Apr. 11, 1947	17.37	5,400
	Jan. 30, 1939	17.3	7,250	1948	Feb. 14, 1948	17.28	5,080
	Feb. 3, 1939	16.8	5,600		Mar. 16, 1948	17.65	6,400
	Feb. 10, 1939	16.4	4,550		Apr. 14, 1948	17.03	4,290
	Feb. 15, 1939	16.6	5,020	1949	Nov. 7, 1948	17.28	5,080
	Feb. 20, 1939	16.8	5,600		Nov. 21, 1948	18.26	6,500
	Feb. 27, 1939	16.9	5,900		Dec. 16, 1948	18.13	8,380
	Mar. 30, 1939	16.85	5,750		Dec. 25, 1948	17.46	5,710
	Apr. 7, 1939	16.80	5,600		Dec. 29, 1948	17.00	4,200
	Apr. 17, 1939	18.10	10,400		Jan. 28, 1949	17.64	6,360
	June 18, 1939	16.92	5,900		Feb. 15, 1949	18.67	10,800
1940	Feb. 18, 1940	17.16	6,720		Mar. 27, 1949	18.15	8,480
	Mar. 3, 1940	16.44	4,450		Apr. 13, 1949	17.31	5,180
	Apr. 12, 1940	16.87	5,480		July 17, 1949	17.18	4,320
	Apr. 19, 1940	17.08	6,350	1950	Oct. 6, 1949	17.86	6,440
	May 1, 1940	16.42	4,350		Dec. 13, 1949	18.10	7,400
1941	July 4, 1941	15.00	2,720		Jan. 5, 1950	18.50	9,150
1942	Jan. 1, 1942	16.38	4,350		Jan. 14, 1950	18.18	7,720
	Jan. 28, 1942	16.35	4,200		Jan. 27, 1950	17.57	5,400
	Feb. 17, 1942	17.63	8,550		Feb. 1, 1950	18.06	7,240
	Mar. 9, 1942	17.06	6,180		Feb. 13, 1950	18.58	9,510
	Mar. 14, 1942	16.78	5,300		Mar. 28, 1950	17.46	5,010
	Apr. 9, 1942	18.27	11,200		Apr. 4, 1950	17.31	4,530
1943	Dec. 28, 1942	17.00	6,000		July 5, 1950	17.46	5,010
	Mar. 13, 1943	17.42	7,550	1951	July 26, 1950	17.55	5,320
	Mar. 20, 1943	18.06	10,400		Sept. 1, 1950	17.48	5,080
1944	Feb. 29, 1944	17.40	7,550		Nov. 21, 1950	17.90	6,600
	Mar. 20, 1944	16.48	4,500		Jan. 4, 1951	17.46	5,010
	Apr. 11, 1944	17.77	8,950		Jan. 11, 1951	17.15	4,050
	May 7, 1944	17.48	7,950		Jan. 15, 1951	19.37	13,800
1945	Feb. 22, 1945	17.60	6,200	1952	Feb. 8, 1951	17.42	4,870
					Feb. 21, 1951	17.59	5,460
					Mar. 20, 1951	17.31	4,530
					Dec. 9, 1951	17.31	4,080
					Dec. 22, 1952	17.39	4,320
					Dec. 26, 1952	17.50	4,700
					Jan. 5, 1952	17.47	4,600
					Mar. 11, 1952	18.40	8,200
					Mar. 23, 1952	20.59	24,900

Peak stages and discharges of North Fork Obion River near Union City, Tenn.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Feb. 13, 1953	17.4	4,350	1957	Feb. 2, 1957	18.38	6,420
	Mar. 4, 1953	17.66	5,260		Apr. 4, 1957	18.29	6,060
	Mar. 18, 1953	18.09	6,860		May 23, 1957	19.10	9,900
	May 19, 1953	18.67	9,500		June 5, 1957	17.74	4,320
1954	Mar. 26, 1954	17.77	5,100	1958	July 1, 1957	17.76	4,380
					Nov. 19, 1957	21.59	40,000
1955	Mar. 22, 1955	17.95	5,650	Dec. 7, 1957	18.41	6,540	
	Apr. 14, 1955	17.37	4,240	Dec. 22, 1957	18.13	5,500	
1956	Feb. 2, 1956	19.06	11,000	Jan. 21, 1958	17.64	4,020	
	Feb. 19, 1956	19.71	14,900	Mar. 24, 1958	18.55	7,120	
				May 5, 1958	17.83	4,590	

256. North Fork Obion River near Rives, Tenn.

Location--Lat 36°22'05", long 89°02'08", on right bank at highway bridge, 1 mile east of Rives, Obion County.

Drainage area--520 sq mi.

Gage--Nonrecording. Datum of gage is 283.63 ft above mean Gulf level.

Remarks--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Apr. 17, 1939	13.7		1949	Mar. 27, 1949	13.7	
1940	Apr. 19, 20, 1940	13.6		1950	Jan. 3, Feb. 14	13.8	
1941	July 13, 1941	12.5		1951	Jan. 16, 1951	14.55	
1942	Apr. 10, 1942	13.70		1952	Mar. 23, 1952	15.6	
1943	Mar. 20, 1943	12.90		1953	Mar. 19, 1953	14.90	
1944	Apr. 12, 1944	13.40		1954	Mar. 26, 1954	14.15	
1945	Apr. 2, 1945	13.80		1955	Mar. 22, 1955	13.8	
1946	Feb. 14, 1946	14.00		1956	Feb. 19, 1956	14.75	
1947	Jan. 3, 1947	13.00		1957	May 24, 1957	14.3	
1948	Mar. 18, 1948	13.3		1958	Nov. 19, 1957	16.5	

260. Obion River at Obion, Tenn.

Location--Lat 36°15'05", long 89°11'33", on right bank 20 ft downstream from bridge on U. S. Highway 51, upstream from Richland Creek, 0.6 mile south of Obion County, and 14½ miles downstream from confluence of North and South Forks.

Drainage area--1,880 sq mi, approximately.

Gage--Nonrecording prior to Aug. 3, 1939; recording thereafter. Prior to Oct. 1, 1932, at datum 10 ft lower. Datum of present gage is 261.23 ft above mean Gulf level.

Stage-discharge relation--Defined by current-meter measurements below 90,000 cfs and extended above. Affected by backwater from return of over-bank storage on rises above 14 ft and by high stages on the Mississippi River.

Bankfull stage--14 ft.

Remarks--Base for partial-duration series, 10,000 cfs. Only annual peaks are shown prior to 1939.

OBION RIVER BASIN

Peak stages and discharges of Obion River at Obion, Tenn.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Jan. 11, 1930	31.9	47,000	1949	Nov. 10, 1948	16.14	12,600
1931	Apr. 2, 1931	22.4	2,570	Nov. 24, 1948	15.75	10,900	
1932	Jan. 18, 1932	29.80	33,900	Dec. 19, 1948	16.68	15,200	
1933	May 15, 1933	18.27	25,700	Dec. 29, 1948	15.74	10,800	
1934	Dec. 21, 1933	17.02	20,700	Jan. 29, 1949	17.12	17,400	
1935	Jan. 23, 1935	21.96	46,500	Feb. 17, 1949	16.88	16,200	
1936	Apr. 1, 1936	14.10	6,250	Mar. 29, 1949	16.82	15,900	
1937	Jan. 24, 1937	25.4	99,500	1950	Dec. 16, 1949	18.50	25,800
1938	Feb. 21, 1938	17.04	17,200	Jan. 6, 1950	a18.05	23,100	
1939	Feb. 7, 1939	18.00	24,400	Feb. 4, 1950	18.63	26,700	
Feb. 17, 1939	15.7	12,500	51	Feb. 14, 1950	a18.03	20,400	
Feb. 23, 1939	15.4	11,000	52	Mar. 16, 1950	15.53	11,000	
Mar. 7, 1939	16.4	15,600	53	Mar. 30, 1950	15.28	10,800	
Apr. 2, 1939	15.4	11,000	54	Apr. 5, 1950	15.55	11,100	
Apr. 8, 1939	15.85	11,800	55	May 11, 1950	15.45	10,600	
Apr. 19, 1939	16.85	16,600	56	July 26, 1950	15.56	11,100	
June 21, 1939	15.3	10,600	57	Sept. 6, 1950	a16.25	12,500	
1940	Feb. 21, 1940	15.72	11,100	1951	Nov. 24, 1950	15.88	12,500
Apr. 21, 1940	15.72	11,100	58	Dec. 7, 1950	15.24	10,000	
1941	July 14, 1941	9.84	2,370	Jan. 8, 1951	16.56	15,500	
1942	Apr. 13, 1942	17.70	22,600	Jan. 17, 1951	20.20	37,100	
1943	Mar. 22, 1943	17.68	22,600	Feb. 10, 1951	15.52	11,000	
1944	Mar. 3, 1944	15.77	13,200	Feb. 22, 1951	16.30	14,700	
Apr. 13, 1944	16.57	16,900	59	1952	Nov. 28, 1951	15.84	13,300
1945	Jan. 4-5, 1945	16.00	12,000	Dec. 12, 1951	16.05	14,300	
Jan. 10, 1945	15.75	11,100	60	Dec. 28, 1951	16.17	14,800	
Feb. 24, 1945	16.20	12,900	61	Jan. 7, 1952	15.87	13,400	
Apr. 3, 1945	17.83	21,100	62	Mar. 14, 1952	16.70	17,600	
May 12, 1945	15.82	11,100	63	Mar. 24, 1952	18.57	27,800	
June 11, 1945	19.14	29,000	64	1953	Mar. 8, 1953	16.18	12,800
1946	Jan. 13, 1946	18.57	25,200	Mar. 19, 1953	16.68	15,200	
Feb. 9, 1946	16.25	12,900	65	Mar. 25, 1953	16.36	13,600	
Feb. 15, 1946	16.40	13,800	66	Mar. 21, 1953	16.85	26,100	
Mar. 30, 1946	16.85	15,800	67	1954	Jan. 25, 1954	15.73	9,880
1947	Jan. 7, 1947	17.11	17,400	1955	Mar. 25, 1955	17.53	19,000
1948	Feb. 17, 1948	16.74	17,600	Apr. 17, 1955	15.83	10,300	
Mar. 5, 1948	15.41	11,400	68	1956	Feb. 3, 1956	20.56	40,100
Mar. 20, 1948	15.23	10,600	69	Feb. 20, 1956	20.16	36,900	
Mar. 25, 1948	15.29	10,900	70	1957	Feb. 3, 1957	18.54	25,000
				Apr. 8, 1957	16.24	15,100	
				May 25, 1957	18.55	25,100	
				June 8, 1957	15.90	10,900	
				July 2, 1957	16.81	15,400	
				1958	Nov. 20, 1957	22.25	53,600
				Dec. 11, 1957	16.89	17,300	
				Mar. 26, 1958	16.84	17,000	
				May 7, 1957	16.54	15,200	

a Occurred on following day.

263. Obion River near Bogota, Tenn.

Location--Lat 36°08'12", long 89°25'44", on downstream side of bridge on State Highway 78, 2½ miles south of Bogota, Dyer County, and at mile 36.7.

Drainage area--2,020 sq mi, approximately.

Gage--Nonrecording prior to Nov. 8, 1948 at site a quarter of a mile upstream; recording thereafter at present site. Prior to 1953 datum of gage was mean Gulf level. Present datum of gage is 248.87 ft above mean Gulf level. Stages adjusted to present datum.

Stage-discharge relation--Defined by current-meter measurements below 43,000 cfs and is fairly stable except when affected by backwater from the Mississippi River.

Bankfull-stage--13 ft.

Historical data--Maximum stage of 31.15 ft Feb. 4-9, 1937, caused principally by backwater from the Mississippi River. An outstanding flood occurred in late January 1937.

Remarks--Records furnished by Corps of Engineers. Base for partial-duration series, 9,700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	Feb. 4-9, 1937	31.15	-	1949	Dec. 22, 1948	19.18	14,100
					Feb. 1, 1949	21.88	21,200
1939	Feb. 9, 1939	22.1	25,000		Feb. 20, 1949	21.0	11,500
	Feb. 24, 1939	-	23,100		Mar. 31, 1949	20.9	21,200
	Mar. 10, 1939	-	21,500	1950	Dec. 19, 1949	22.36	25,400
	Mar. 20, 1939	-	21,100		Jan. 9, 1950	22.6	26,600
	Apr. 11, 1939	-	13,300		Feb. 4, 1950	a23.45	31,700
	Apr. 28, 1939	-	19,700		Feb. 17, 1950	23.4	26,600
1940	Feb. 24, 1940	-	10,200		Mar. 19, 1950	17.7	11,400
	Apr. 25, 1940	17.0	10,600		July 30, 1950	17.2	11,300
1941	July 14, 1941	7.7	2,610		Sept. 10, 1950	18.9	15,300
1942	Apr. 15, 1942	21.0	21,400	1951	Jan. 18, 1951	-	37,900
1943	Mar. 23, 1943	a21.8	24,200		Feb. 25, 1951	20.5	17,700
	June 2, 1943	-	16,400	1952	Dec. 14, 1951	18.88	12,900
1944	Mar. 5, 1944	-	12,200		Jan. 9, 1952	19.08	11,800
	Apr. 16, 1944	19.58	16,500		Mar. 16, 1952	20.8	18,900
	May 11, 1944	-	12,800		Mar. 25, 1952	23.07	21,600
1945	Jan. 8, 1945	-	12,400	1953	Mar. 11, 1953	-	11,500
	Jan. 11, 1945	-	12,400		Mar. 23, 1953	-	15,900
	Feb. 27, 1945	-	13,300		May 22, 1953	22.8	25,500
	Apr. 4, 1945	-	25,700	1954	Jan. 28, 1954	16.5	9,330
	May 15, 1945	-	12,200	1955	Mar. 26, 1955	a21.53	22,800
	June 13, 1945	23.2	30,800	1956	Feb. 5, 1956	b24.00	33,100
1946	Nov. 22, 1945	-	12,200	1957	Feb. 4, 1957	22.30	22,600
	Jan. 15, 1946	22.7	23,900		Apr. 11, 1957	19.22	12,800
	Feb. 17, 1946	-	15,100		May 26, 1957	22.55	24,400
	Apr. 2, 1946	-	15,800		July 5, 1957	19.42	10,900
1947	Jan. 9, 1947	20.6	18,500	1958	Nov. 22, 1957	25.40	47,700
1948	Feb. 19, 1948	19.7	15,100		Dec. 13, 1957	19.78	15,300
1949	Nov. 14, 1948	16.71	10,300		Dec. 26, 1957	20.10	14,600

a Occurred on following day.

b Occurred Feb. 22, 1956.

265. Reelfoot Creek near Samburg, Tenn.

Location.--Lat 36°26'32", long 89°17'50", on left bank 80 ft downstream from bridge on State Highway 22, 1.1 miles downstream from North Reelfoot Creek, 4 miles upstream from mouth, 5 miles northeast of Samburg, Obion County, and 14 miles west of Union City.

Drainage area.--110 sq mi, approximately.

Gage.--Nonrecording prior to Dec. 6, 1951; recording thereafter. Datum of gage is 286.29 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 1,800 cfs and extended above.

Bankfull stage.--10 ft.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Jan. 3, 1951	11.4	2,200	1956	Feb. 18, 1956	13.31	4,740
	Jan. 14, 1951	12.90	4,130		Mar. 14, 1956	11.60	2,330
	Feb. 7, 1951	11.43	2,230	1957	Jan. 22, 1957	12.31	2,710
	Feb. 20, 1951	11.42	2,220		Jan. 28, 1957	11.84	2,100
	June 30, 1951	11.55	2,360		Apr. 4, 1957	12.67	3,220
1952	Dec. 25, 1951	11.45	2,250		May 14, 1957	11.84	2,100
	Jan. 4, 1952	11.32	2,120		May 19, 1957	11.94	2,200
	Mar. 10, 1952	12.36	3,350	May 22, 1957	14.42	5,970	
	Mar. 22, 1952	12.0	2,880	June 30, 1957	12.58	3,090	
1953	Mar. 18, 1953	12.10	3,010	1958	Nov. 8, 1957	12.12	2,460
	May 14, 1953	11.23	2,030		Nov. 13, 1957	13.58	4,590
1954	Mar. 24, 1954	11.77	2,600		Nov. 18, 1957	14.83	6,690
	1955	Mar. 21, 1955	11.21		2,010	Dec. 7, 1957	13.20
Apr. 13, 1955		11.71	2,530		Dec. 17, 1957	12.29	2,690
1956		Jan. 29, 1956	12.41		3,420	Jan. 21, 1958	12.22
	Feb. 2, 1956	12.60	3,690		Mar. 24, 1958	13.09	3,840
					May 2, 1958	12.06	2,380
				May 5, 1958	11.99	2,230	

275. South Fork Forked Deer River at Jackson, Tenn.

Location.--Lat 35°35'38", long 88°48'52", on right bank 20 ft downstream from bridge on U. S. Highway 45, 0.3 mile south of city limits of Jackson, Madison County, and half a mile downstream from Meridian Creek.

Drainage area.--574 sq mi.

Gage.--Nonrecording prior to Feb. 3, 1939; recording thereafter. Datum of gage is 330.86 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 16,000 cfs and extended above.

Bankfull stage.--13 ft.

Remarks.--The channel is a dredged canal. Base for partial-duration series, 5,000 cfs. Only annual peaks are shown prior to 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Jan. 9, 10, 1930	19.10	16,500	1936	July 5, 1936	15.90	7,110
1931	Aug. 8, 1931	15.00	4,930	1937	Jan. 23, 1937	19.02	14,800
1932	Jan. 14, 1932	19.8	19,800	1938	Jan. 24, 1938	17.48	9,670
1933	Apr. 2, 1933	16.76	8,570	1939	Jan. 30, 1939	15.2	5,230
1934	Dec. 19, 1933	16.90	9,050		Feb. 4, 1939	17.36	9,410
					Feb. 10, 1939	15.22	5,230
1935	Jan. 21, 1935	24.00	43,600		Feb. 16, 1939	15.20	5,230
				June 18, 1939	17.14	8,690	

Peak stages and discharges of South Fork Forked Deer River
at Jackson, Tenn.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Feb. 19, 1940	14.75	4,630	1950	Jan. 7, 1950	17.79	8,470
1941	Dec. 16, 1940	11.63	2,440	Jan. 11, 1950	18.09	9,520	
1942	Mar. 14, 1942	15.90	5,920	Feb. 1, 1950	19.73	16,100	
	Mar. 17, 1942	16.00	6,140	Feb. 15, 1950	18.44	5,340	
	Apr. 10, 1942	18.65	12,800	Mar. 14, 1950	16.71	5,850	
1943	Mar. 14, 1943	15.80	5,700	1951	Jan. 4, 1951	17.73	8,390
1944	Feb. 10, 1944	16.50	6,000	Jan. 16, 1951	16.96	6,150	
	Feb. 18, 1944	16.60	6,260	Apr. 23, 1951	17.52	7,760	
	Apr. 25, 1944	16.49	6,000	1952	Dec. 15, 1951	17.87	8,740
1945	Jan. 1, 1945	18.20	9,900	Mar. 4, 1952	16.36	5,020	
	Mar. 1, 1945	16.98	6,250	Mar. 11, 1952	16.39	5,060	
1946	Nov. 4, 1945	16.82	5,800	1953	Feb. 12, 1953	17.23	6,500
	Jan. 9, 1946	22.83	33,500	May 20, 1953	17.30	7,100	
	Mar. 27, 1946	16.86	5,880	1954	Jan. 17, 1954	17.04	5,640
1947	Dec. 30, 1946	16.45	5,140	Jan. 22, 1954	18.81	10,800	
	Jan. 4, 1947	17.86	8,780	1955	Mar. 23, 1955	18.54	9,840
1948	Feb. 14, 1948	20.42	19,500	1956	Jan. 30, 1956	17.40	6,220
1949	Nov. 20, 1948	17.79	8,570	Feb. 5, 1956	17.80	7,420	
	Dec. 17, 1948	17.38	7,340	Feb. 19, 1956	18.63	10,100	
	June 16, 1949	17.14	6,620	1957	Jan. 25, 1957	17.22	5,580
	June 22, 1949	17.48	7,640	Jan. 30, 1957	17.93	7,270	
1950	Dec. 14, 1949	17.78	8,430	Apr. 6, 1957	17.95	7,240	
				1958	Nov. 19, 1957	18.06	7,480

280. South Fork Forked Deer River at Chestnut Bluff, Tenn.

Location--Lat 35°51'43", long 89°20'52", on left bank 20 ft downstream from county highway bridge, 0.8 mile west of Chestnut Bluff, Crockett County, 1.1 miles upstream from Halls Creek, 1.2 miles downstream from Black Creek, 2.9 miles east of Halls, 3.1 miles downstream from bridge on Stage Highway 88, and 16 miles upstream from confluence with North Fork.

Drainage area--1,100 sq mi, approximately, including Halls Creek. Prior to Oct. 1, 1949, 1,080 sq mi, excluding Halls Creek.

Gage--Nonrecording prior to July 20, 1939; recording thereafter. Datum of gage, 256.71 ft above mean Gulf level.

Stage-discharge relation--Defined by current-meter measurements below 21,000 cfs and extended above.

Bankfull stage--16 ft.

Remarks--Base for partial-duration series, 4,200. Only annual peaks are shown prior to 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Jan. 11, 1930	20.20	24,700	1939	Feb. 4, 1939	18.84	12,500
1931	Mar. 3, 1931	15.20	4,230	Mar. 5, 1939	17.05	5,260	
1932	Jan. 17, 1932	19.90	21,500	Apr. 1, 1939	17.00	5,760	
1933	Apr. 6, 1933	17.40	7,950	Apr. 8, 1939	16.50	4,620	
1934	Dec. 21-22, 1934	17.90	8,440	Apr. 19, 1939	17.5	7,220	
1935	Jan. 22, 1935	22.3	45,000	May 24, 1939	16.6	4,430	
1936	Mar. 30-31, 1936	16.21	5,020	June 23, 1939	17.75	8,250	
1937	Jan. 24-25, 1937	21.33	31,600	1940	Feb. 22, 1940	16.35	4,000
1938	Jan. 24, 1938	18.75	12,500	1941	Jan. 26, 1941	13.80	1,530
				1942	Mar. 20, 1942	16.93	5,200
				Apr. 13, 1942	18.34	11,400	
				1943	Jan. 1, 1943	16.53	6,070
				Mar. 16, 1943	17.3	8,100	

Peak stages and discharges of South Fork Forked Deer River
at Chestnut Bluff, Tenn.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Mar. 20, 1943	18.59	13,600	1950	Feb. 2, 1950	20.96	28,000
1944	Feb. 17, 1944	18.01	10,400		Feb. 15, 1950	18.14	8,470
	Feb. 28, 1944	17.10	6,050		Mar. 15, 1950	17.84	7,380
	Mar. 23, 1944	16.81	5,150		Aug. 28, 1950	18.50	7,300
	Apr. 5, 1944	16.68	4,900		Aug. 31, 1950	17.90	5,600
	Apr. 12, 1944	17.88	9,900	1951	Dec. 9, 1950	17.43	4,560
Apr. 30, 1944	17.25	6,680	Jan. 15, 1951		20.57	17,200	
1945	Jan. 3, 1945	19.00	13,400		Feb. 13, 1951	17.76	6,230
	Feb. 22, 1945	17.18	5,730	Feb. 20, 1951	17.83	6,440	
	Mar. 5, 1945	18.08	9,050	Apr. 27, 1951	17.99	6,960	
	Mar. 26, 1945	16.84	4,770	1952	Nov. 24, 1951	17.44	5,130
	Mar. 31, 1945	17.15	5,580		Dec. 18, 1951	18.95	11,000
Apr. 3, 1945	17.74	7,600	Feb. 4, 1952		17.30	6,250	
1946	June 20, 1945	16.94	5,020	Mar. 10, 1952	18.56	9,140	
	Nov. 6, 1945	17.96	7,400	1953	Feb. 20, 1953	17.82	6,320
	Nov. 13, 1945	18.20	8,600		Mar. 6, 1953	17.83	6,350
	Jan. 12, 1946	21.22	30,400		Mar. 18, 1953	18.04	7,100
	Feb. 15, 1946	18.05	8,820		Mar. 22, 1953	17.81	6,280
Mar. 31, 1946	18.22	9,500	Mar. 31, 1953		17.83	6,350	
1947	Jan. 4, 1947	19.16	11,200	May 6, 1953	18.13	7,440	
	Jan. 22, 1947	17.96	6,380	May 11, 1953	18.13	7,440	
	Apr. 18, 1947	16.82	4,450	May 18, 1953	21.34	30,600	
	1948	Feb. 8, 1948	16.92	4,200	1954	Jan. 22, 1954	19.68
Feb. 18, 1948		20.08	17,000	Jan. 26, 1954		19.37	11,800
Mar. 2, 1948		17.94	6,790	1955	Mar. 23, 1955	19.42	12,100
Mar. 22, 1948		17.53	5,580		Apr. 13, 1955	18.33	6,890
Apr. 13, 1948		17.18	4,710		1956	Jan. 31, 1956	21.27
1949	Nov. 25, 1948	18.28	7,560	Feb. 20, 1956		19.24	10,400
	Dec. 19, 1948	17.96	6,500	Apr. 12, 1956		17.59	5,200
	Jan. 7, 1949	18.10	7,280	1957	Feb. 1, 1957	19.90	14,200
	Jan. 29, 1949	19.51	13,500		Feb. 19, 1957	17.33	4,300
	Apr. 2, 1949	17.79	5,680		Apr. 11, 1957	18.03	6,030
June 18, 1949	18.14	7,350	May 25, 1957		17.80	5,430	
1950	Dec. 14, 1949	19.67	15,600	June 2, 1957	17.73	5,250	
	Jan. 7, 1950	18.85	11,400	July 2, 1957	18.30	6,800	
	Jan. 13, 1950	19.98	17,400				

281. South Fork Forked Deer River near Halls, Tenn.

Location.--Lat 35°55'45", long 89°23'25", on downstream side of right bank pier of Illinois Central Railroad bridge, 4 miles north of Halls, Lauderdale County, and at mile 11.3.

Drainage area.--1,112 sq mi.

Gage.--Nonrecording prior to Aug. 19, 1948; recording thereafter. Datum of gage is 259.54 ft above mean Gulf level.

Stage-discharge relation.--Defined by current-meter measurements below 19,000 cfs and extended above. Stage-discharge relation is fairly stable except during periods of backwater from the Mississippi River.

Bankfull stage.--8 ft.

Remarks.--Records furnished by Corps of Engineers. Base for partial-duration series, 2,500 cfs. Only annual peaks are shown prior to 1946.

Peak stages and discharges of South Fork Forked Deer River near Halls, Tenn.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	-	14.0	-	1950	Mar. 27, 1950	9.55	4,010
1939	Feb. 10, 1939	-	10,000		May 7, 1950	9.77	4,490
1940	Apr. 2, 1940	-	2,500		July 26, 1950	9.48	4,730
1942	Apr. 13, 1942	11.2	-	1951	Aug. 29, 1950	10.67	9,180
1943	Sept. 9, 1943	-	1,780		Nov. 24, 1950	9.88	4,080
1944	Feb. 22, 1944	-	9,040		Dec. 11, 1950	10.04	4,930
1945	Jan. 3, 1945	11.80	-		Jan. 16, 1951	12.2	16,500
1946	Jan. 12, 13, 1946	14.20	26,900		Feb. 14, 1951	10.36	5,890
	Feb. 16, 1946	10.90	9,470		Mar. 24, 1951	9.45	3,610
	Mar. 20, 1946	9.30	3,430		Apr. 3, 1951	9.64	3,870
	Mar. 31, 1946	11.00	9,900		Apr. 28, 1951	10.58	8,050
	July 15, 16, 1946	9.00	2,500		June 9, 1951	9.41	3,450
1947	Nov. 15, 16, 1946	9.50	4,050	1952	Dec. 21, 1951	11.36	9,930
	Jan. 5, 1947	11.50	12,400		Jan. 7, 1952	9.74	3,520
	Jan. 23, 1947	10.70	8,180		Feb. 4, 1952	10.42	5,850
	Feb. 5, 1947	8.80	2,500		Feb. 20, 1952	10.05	4,540
	Mar. 11-14, 1947	9.20	3,430		Mar. 12, 1952	10.85	8,590
	Apr. 17, 18, 1947	9.80	3,740		Apr. 6, 1952	9.46	3,710
	May 26, 1947	9.60	3,740		Sept. 2, 1952	9.15	3,070
1948	Nov. 6, 1947	9.10	2,810	1953	Feb. 18, 1953	10.50	5,250
	Nov. 19, 20, 1947	8.90	2,420		Mar. 7, 1953	10.46	5,070
	Jan. 7-9, 1948	12.0	14,600		Mar. 20, 1953	10.53	6,520
	Mar. 21, 1948	9.5	3,070		May 19, 1953	12.92	18,700
	Mar. 23, 24, 1948	10.0	4,200	1954	Dec. 6, 1953	9.95	3,700
	Apr. 15, 16, 1948	9.7	3,960		Jan. 24, 1954	11.88	12,200
1949	Nov. 5, 1948	9.27	2,710		Feb. 27, 1954	9.93	3,740
	Nov. 10, 1948	9.62	3,270		May 5, 1954	9.47	3,300
	Nov. 26, 1948	10.60	7,260	1955	Feb. 5, 1955	9.94	4,210
	Dec. 20, 1948	10.32	5,930		Feb. 21, 1955	9.73	2,890
	Jan. 8, 1949	10.38	6,270		Mar. 1, 1955	10.00	2,920
	Jan. 29, 30, 1949	11.40	10,300		Mar. 24, 1955	11.70	12,300
	Apr. 2, 1949	10.26	5,860	1956	June 1, 1955	10.00	3,820
	June 19, 1949	10.60	7,380		Feb. 2, 1956	13.10	16,500
1950	Dec. 15, 1949	11.58	10,600		Mar. 21, 1956	10.07	3,040
	Jan. 13, 1950	11.90	13,500		Apr. 15, 1956	10.65	5,640
	Feb. 4, 1950	12.66	19,400	1957	Feb. 1, 1957	12.22	12,800
	Mar. 16, 1950	10.52	7,280		Apr. 12, 1957	10.84	5,900
					June 2, 1957	10.84	5,520
				1958	Nov. 18, 1957	12.95	16,400
					May 3, 1958	11.02	5,380

282. South Fork Forked Deer River at Yellow Bluff, near Fowlkes, Tenn.

Location.--Lat 35°58'32", long 89°24'08", at bridge on county highway, 1 mile northwest of Fowlkes, Dyer County.

Drainage area.--1,144 sq mi.

Gage.--Nonrecording. Datum of gage is 243.44 ft above mean Gulf level.

Stage-discharge relation.--Not defined.

Bankfull stage.--17 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges of South Fork Forked Deer River at Yellow Bluff, near Fowlkes, Tenn.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	-	29.8	-	1948	Feb. 19, 1948	23.9	-
1939	Feb. 6, 1939	23.8	-	1949	Jan. 31, 1949	23.1	-
1940	Feb. 24, 1940	19.2	-	1950	Feb. 4, 1950	24.9	-
1941	Aug. 19, 1941	17.6	-	1951	Jan. 16, 1951	24.0	-
1942	Apr. 14, 1942	23.1	-	1952	Dec. 23, 1951	23.4	-
1943	Mar. 21, 1943	23.50	-	1953	May 19, 1953	24.9	-
1944	Apr. 14, 1944	22.50	-	1954	Jan. 24, 1954	23.1	-
1945	Jan. 4, 1945	23.80	-	1955	Apr. 16, 1955	21.7	-
1946	Jan. 13, 1946	26.60	-	1956	Feb. 2, 1956	25.20	-
1947	Jan. 6, 1947	22.8	-	1957	Nov. 21, 1956	13.2	-
				1958	Nov. 19, 1957	24.7	-

285. North Fork Forked Deer River at Trenton, Tenn.

Location.--Lat 35°58'49", long 88°55'35", on downstream side of right bank pier of bridge on State Highways 77 and 104, 0.8 mile east of Trenton, Gibson County 1 mile downstream from Thompson Levee Creek, and 16.5 miles upstream from Middle Fork.

Drainage area.--71.3 sq mi.

Gage.--Nonrecording. Datum of gage is 303.51 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,600 cfs and extended above.

Bankfull stage.--9 ft.

Historical data.--Maximum stage known, 14 ft, from information by local residents.

Remarks.--Base for partial-duration series, 1,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Jan. 3, 1951	11.48	4,240	1955	Mar. 21, 1955	11.25	3,400
	Jan. 14, 1951	12.16	6,540		Apr. 6, 1955	10.63	1,700
	Feb. 7, 1951	10.56	1,980		Apr. 13, 1955	10.65	1,740
	Apr. 22, 1951	10.31	1,580	1956	Jan. 30, 1956	13.39	11,800
1952	Nov. 24, 1952	10.90	2,700		Feb. 2, 1956	10.83	2,180
	Dec. 9, 1952	10.26	1,500		Feb. 18, 1956	11.30	3,550
	Dec. 21, 1952	10.28	1,530		Mar. 14, 1956	10.58	1,610
	Mar. 11, 1952	11.36	3,880	1957	Jan. 29, 1957	11.08	2,900
1953	Feb. 11, 1953	10.55	1,960		Feb. 1, 1957	10.53	1,530
	Mar. 4, 1953	10.62	2,090		Apr. 4, 1957	10.80	2,100
	Mar. 18, 1953	10.68	2,210		May 23, 1957	10.8	2,000
	Mar. 23, 1953	10.61	2,070		June 5, 1957	11.1	3,000
	Apr. 1, 1953	10.45	1,790	1958	Nov. 8, 1957	11.44	2,260
May 5, 1953	10.38	1,680	Nov. 14, 1957		11.15	1,640	
May 17, 1953	11.62	4,660	Nov. 18, 1957		11.95	3,760	
1954	Jan. 15, 1954	10.66	2,100		Dec. 8, 1957	11.43	2,240
	Jan. 21, 1954	11.14	3,220		Dec. 20, 1957	11.21	1,750
	June 3, 1954	10.25	1,540	Mar. 24, 1958	11.20	1,730	
1955	Mar. 18, 1955	10.68	1,680	May 3, 1958	11.17	1,680	

290. Middle Fork Forked Deer River near Alamo, Tenn.

Location.--Lat 35°51'00", long 89°04'00", on right bank 30 ft downstream from bridge on State Highway 54, 3 miles upstream from Buck Creek, 5 miles north of Alamo, Crockett County, and 13 miles upstream from mouth.

Drainage area.--410 sq mi, approximately.

Gage.--Nonrecording prior to June 12, 1939; recording thereafter. Datum of gage is 288.34 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--The high-water relation is subject to considerable shifting. Extended above 8,000 cfs on basis of contracted-opening measurement at 34,300 cfs.

Bankfull stage.--13 ft.

Remarks.--Base for partial-duration series, 5,500 cfs. Only annual peaks are shown prior to 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Jan. 8, 1930	13.94	10,000	1946	Nov. 4, 1945	13.98	6,960
1931	Aug. 8, 9, 1931	11.80	3,500	Nov. 11, 1945	14.06	7,520	
1932	Jan. 29, 1932	14.00	10,500	Jan. 9, 1946	14.55	11,300	
1933	Mar. 19, 1933	13.80	9,530	Feb. 14, 1946	13.80	5,800	
1934	Dec. 20, 1933	13.34	7,430	Mar. 26, 1946	14.20	8,500	
1935	Jan. 21, 1935	15.46	19,500	1947	Jan. 3, 1947	14.10	7,800
1936	Mar. 27, 1936	13.10	6,710	Jan. 16, 1947	13.80	5,800	
1937	Jan. 23, 1937	15.00	15,000	Apr. 12, 1947	13.80	5,800	
1938	Jan. 22, 1938	14.00	9,000	1948	Feb. 14, 1948	14.18	6,620
1939	Jan. 4, 1939	13.90	8,400	1949	Jan. 28, 1949	14.27	7,430
	Jan. 30, 1939	14.00	9,000	June 16, 1949	15.04	14,400	
	Feb. 3, 1939	14.00	9,000	1950	Dec. 13, 1949	14.87	12,800
	Feb. 15, 1939	14.00	9,000	Feb. 1, 1950	14.83	12,500	
	Feb. 20, 1939	13.50	6,400	1951	Jan. 4, 1951	14.33	7,270
	Mar. 29, 1939	14.47	12,000	Jan. 15, 1951	14.58	9,520	
	Apr. 6, 1939	13.45	6,150	1952	Mar. 11, 1952	14.27	6,730
	Apr. 17, 1939	13.65	7,150	1953	Feb. 12, 1953	14.18	5,940
	May 22, 1939	14.00	9,000	Mar. 5, 1953	14.20	6,100	
	June 18, 1939	13.92	8,400	Mar. 19, 1953	14.16	5,780	
				Mar. 23, 1953	14.19	6,020	
				May 18, 1953	14.63	9,970	
1940	Mar. 30, 1940	12.41	3,460	1954	Jan. 15, 1954	14.5	6,500
1941	Apr. 20, 1941	8.56	1,530	Jan. 22, 1954	14.40	5,830	
1942	Apr. 10, 1942	14.44	10,300	1955	Mar. 22, 1955	14.61	7,340
1943	Dec. 28, 1942	13.73	6,550	1956	Jan. 30, 1956	16.70	34,300
	Mar. 13, 1943	13.67	6,060	Feb. 19, 1956	14.40	7,000	
	Mar. 19, 1943	14.27	9,180	1957	Feb. 2, 1957	14.47	7,520
1944	Feb. 18, 1944	13.93	6,600	Feb. 17, 1957	14.25	6,000	
	Mar. 20, 1944	13.87	6,120	1958	Nov. 8, 1957	-	(a)
1945	Jan. 2, 1945	14.10	7,000	Nov. 19, 1957	b14.67	5,980	
				Dec. 7, 1957	-	(a)	
				Dec. 20, 1957	-	(a)	

a Gage height and discharge unknown; above base.
b Observed.

291. North Fork Forked Deer River at Dyersburg, Tenn.

Location.--Lat 36°01'49", long 89°23'13", attached to platform handrail of electric powerplant gatehouse near downstream side of bridge on U. S. Highway 51, at mile 6.4.

Drainage area.--867 sq mi.

Gage.--Nonrecording prior to Jan. 1, 1948; recording thereafter. Prior to Dec. 18, 1941, datum of gage was mean Gulf level. Present datum of gage is 245.00 ft above mean Gulf level. All stages have been adjusted to present datum.

Stage-discharge relation.--Practically permanent channel. Stage-discharge relation varies with backwater effect from the Obion and Mississippi Rivers and is defined by many high-stage current-meter measurements, the greatest being 21,800 cfs.

Bankfull stage.--14 ft.

Remarks.--Records furnished by Corps of Engineers. Base for partial-duration series, 6,900 cfs. Only annual peak stages are shown prior to 1944.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1913	April 1913	29.6	-	1950	Dec. 15, 1949	b24.83	13,600
					Jan. 7, 1950	24.12	12,800
1937	January 1937	30.9	-		Feb. 3, 1950	25.52	15,300
					Feb. 15, 1950	25.97	9,390
1939	Feb. 6, 1939	24.6	-		Mar. 17, 1950	22.19	7,040
					July 29, 1950	21.64	6,460
1940	Feb. 24, 1940	18.4	-		Sept. 6, 1950	22.32	8,480
1941	Jan. 25, 1941	12.9	-	1951	Jan. 8, 1951	22.63	9,020
					Jan. 16, 1951	26.52	20,400
1942	Apr. 13, 1942	23.35	-				
				1952	Mar. 14, 1952	22.82	7,020
1943	Mar. 21, 22, 1943	24.7	-		Mar. 23, 1952	22.30	7,070
1944	Apr. 12, 1944	a23.00	8,760	1953	Mar. 23, 1953	23.01	8,350
					May 20, 1953	26.30	20,200
1945	Jan. 4, 1945	24.2	-	1954	Jan. 25, 1954	23.35	8,960
	June 12, 1945	23.75	8,670				
				1955	Mar. 24, 1955	24.00	11,500
1946	Jan. 13, 1946	25.15	-				
	Feb. 14, 1946	22.30	6,900	1956	Feb. 3, 1956	27.77	21,600
					Feb. 19, 1956	26.00	12,500
1947	Jan. 6, 1947	23.6	10,400				
				1957	Feb. 3, 1957	24.50	11,200
1948	Feb. 16, 1948	b23.56	9,270		Apr. 8, 1957	22.73	7,120
					May 26, 1957	23.55	11,700
1949	Jan. 30, 1949	23.79	8,850		July 6, 1957	22.22	6,400
	Mar. 29, 1949	22.44	7,550				
	June 20, 1949	22.98	8,850	1958	Nov. 20, 1957	27.82	22,400

a Occurred on Apr. 14, 1944.

b Occurred on following day.

292.2. Mississippi River at Fulton, Tenn.

Location--Lat 35°37'01", long 89°53'11", on left bank at end of road and ferry landing at Fulton, Tipton County, at mile 780.9.

Drainage area--928,600 sq mi.

Gage--Nonrecording. Datum of gage is 208.57 ft above mean sea level, datum of 1929, or 208.74 ft above mean Gulf level.

Stage-discharge relation--Not defined.

Bankfull stage--34 ft.

Remarks--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1880	Mar. 26, 1880	34.18	-	1920	Apr. 5, 1920	37.23	-
1881	Apr. 26, 1881	34.29	-	1921	Apr. 6, 1921	26.53	-
1882	Mar. 1, 2, 1882	36.69	-	1922	Mar. 31, 1922	39.1	-
1883	Mar. 2, 1883	36.29	-	1923	Mar. 27, 1923	32.7	-
1884	Feb. 24, 1884	35.70	-	1924	Jan.19,20, 1924	30.23	-
1885	Jan. 22, 1885	29.92	-	1925	Mar. 2, 1925	25.3	-
1886	Apr. 22, 1886	35.37	-	1926	Apr.17-21, 1926	26.8	-
1887	Mar. 12, 1887	34.61	-	1927	Apr. 24, 1927	42.25	-
1888	Apr. 10, 1888	33.61	-	1928	July 9, 1928	31.74	-
1889	June 26, 1889	25.68	-	1929	May 23-27, 1929	38.0	-
1890	Mar. 22, 1890	34.9	-	1930	Jan.21,22, 1930	30.9	-
1891	Mar.13,14, 1891	33.9	-	1931	Apr.14,15, 1931	22.1	-
1892	Apr. 30, 1892	34.27	-	1932	Feb. 19, 1932	34.72	-
1893	May 15, 1893	34.63	-	1933	Apr. 9, 1933	36.56	-
1894	Feb.18,19, 1894	27.75	-	1934	Mar. 18, 1934	27.22	-
1895	Jan. 24, 1895	23.08	-	1935	Mar. 27, 1935	34.83	-
1896	Apr. 15, 1896	28.07	-	1936	Apr. 19, 1936	37.16	-
1897	Mar. 23, 1897	37.47	-	1937	Feb. 9, 1937	47.25	-
1898	Apr. 10, 1898	38.3	-	1938	Apr. 19, 1938	30.7	-
1899	Apr. 7, 1899	34.9	-	1939	Mar. 23, 1939	35.7	-
1900	Mar. 19, 1900	28.15	-	1940	May 6, 1940	29.47	-
1901	May 6, 1901	30.6	-	1941	Apr.27,28, 1941	19.2	-
1902	Mar. 20, 1902	28.55	-	1942	Mar. 27, 1942	28.66	-
1903	Mar. 19, 1903	40.15	-	1943	June 3, 1943	36.24	-
1904	Apr. 10, 1904	37.4	-	1944	May 4, 1944	35.5	-
1905	Mar. 20, 1905	27.41	-	1945	Apr. 7, 1945	37.85	-
1906	Apr. 15, 1906	35.3	-	1946	Jan. 22, 1946	35.35	-
1907	Feb. 2, 1907	38.35	-	1947	Apr.23,24, 1947	31.2	-
1908	Mar. 23, 1908	33.25	-	1948	Apr. 6, 7, 1948	34.48	-
1909	Mar.21,22, 1909	35.5	-	1949	Feb. 5, 1949	33.18	-
1910	Mar. 17, 1910	30.0	-	1950	Feb. 19, 1950	38.37	-
1911	Apr. 25, 1911	32.94	-	1951	Mar. 2, 3, 1951	31.6	-
1912	Apr. 9, 1912	43.32	-	1952	Mar.30,31, 1952	33.7	-
1913	Apr. 9, 1913	44.07	-	1953	May 23, 1953	23.5	-
1914	Apr.13,14, 1914	28.9	-	1954	Jan. 29, 1954	17.6	-
1915	Feb.16,17, 1915	32.58	-	1955	Mar.31, Apr.2	32.75	-
1916	Feb. 7, 8, 1916	40.2	-	1956	Feb. 29, 1956	27.35	-
1917	Apr. 9, 1917	37.1	-	1957	Feb. 16, 1957	28.67	-
1918	Feb. 4, 1918	34.14	-	1958	May 15,16, July 30	26.85	-
1919	Mar. 28, 1919	34.8	-				

HATCHIE RIVER BASIN

292.7. Hatchie River near Walnut, Miss.

Location.--Lat 34°56'36", long 88°47'10", at U. S. Highway 72, 6½ miles east of Walnut, Tippah County, and at mile 185.

Drainage area.--270 sq mi.

Gage.--Nonrecording prior to 1949, recording thereafter. Datum of gage is 372.79 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 22,000 cfs.

Bankfull stage.--20 ft.

Remarks.--Records furnished by Corps of Engineers. Base for partial-duration series, 3,200 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Jan. 4, 1947	a23.4	3,940	1952	Dec. 16, 1951 Jan. 29, 1952	23.37 23.85	3,900 4,430
1948	Feb. 13-14, 1948	a29.0	12,450	1953	Feb. 12, 1953 July 23, 1953	25.85 30.40	6,360 21,700
1949	Nov. 20, 1948 Nov. 27, 1948 Dec. 4, 1948 Jan. 5, 1949 Mar. 28, 1949 Apr. 14, 1949	a50.0 a25.2 a26.8 24.5 24.6 23.2	14,000 6,550 9,080 5,450 5,610 3,690	1954	Jan. 23, 1954	22.48	2,550
1950	Jan. 7, 1950 Jan. 14, 1950 Feb. 15, 1950 Mar. 14, 1950 Sept. 2, 1950	23.8 23.05 23.05 23.98 22.85	4,430 3,510 3,510 4,650 3,300	1955	Mar. 22, 1955 Apr. 14, 1955	30.7 24.20	23,200 4,850
1951	Jan. 5, 1951 Feb. 1, 1951 Mar. 29, 1951	24.95 23.0 26.75	6,140 3,450 9,000	1956	Jan. 30, 1956 Feb. 5, 1956	23.52 24.93	4,320 6,120
				1957	Feb. 2, 1957 Apr. 5, 1957	27.10 26.63	10,100 8,400
				1958	Nov. 15, 1957	25.86	6,810

a 8 a.m. readings.

292.75. Hatchie River near Pocahontas, Tenn.

Location.--35°02'27", long 88°47'14", at McNairy County highway bridge, 1.3 miles southeast of Pocahontas, Hardeman County, and at mile 178.

Drainage area.--300 sq mi.

Gage.--Nonrecording. Datum of gage is 354.37 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 4,800 cfs and extended above.

Bankfull stage.--18 ft.

Remarks.--Records furnished by Corps of Engineers. Base for partial-duration series, 3,000 cfs. Only annual peak stages are shown subsequent to 1952.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Jan. 3, 1941	15.3	1,340	1946	Nov. 23, 1945 Jan. 9, 1946	23.90 26.7	9,260 14,440
1942	Feb. 26, 1942 Apr. 11, 1942	19.10 19.50	3,340 3,760	1947	Feb. 11, 1946 Mar. 30, 1946	23.50 18.90	8,700 3,150
1943	Dec. 30, 1942 Mar. 15, 1943	20.20 19.70	4,510 3,970	1947	Jan. 4, 1947 Apr. 14, 1947	21.0 19.5	5,430 3,760
1944	Feb. 11-12, 1944 Feb. 29, 1944 Mar. 30, 1944	19.20 19.40 23.80	3,450 3,660 9,120	1948	Feb. 14, 1948 Feb. 29, 1948	29.4 18.9	21,860 3,150
1945	Jan. 2, 1945 Mar. 6, 1945	24.70 19.90	10,450 4,180	1949	Nov. 21, 1948 Dec. 1, 1948 Jan. 6, 1949	25.0 19.6 22.3	10,900 3,860 7,090

Peak stages and discharges of Hatchie River near Pocahtontas, Tenn.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1949	Jan. 24-25, 1949	19.1	3,340	1952	Dec. 17, 1951	20.5	4,860	
	Mar. 29, 1949	21.5	6,060		Jan. 30, 1952	20.4	4,740	
1950	Jan. 8, 1950	21.2	5,680		Mar. 13, 1952	19.1	3,340	
	Jan. 15, 1950	20.8	5,200	1953	Feb. 13, 1953	25.40	-	
	Feb. 4, 1950	19.3	3,550		1954	Feb. 22, 1954	19.7	-
	Feb. 16, 1950	20.7	5,080	1955		Mar. 23, 1955	27.2	-
	Mar. 15, 1950	20.7	5,080		1956	Feb. 5, 1956	23.6	-
	Sept. 5, 1950	19.8	4,070	Feb. 2, 1957		25.7	-	
1951	Jan. 6, 1951	21.8	6,450	1958		May 3, 1958	19.8	-
	Feb. 9, 1951	20.0	4,280					
	Feb. 23, 1951	19.7	5,970					
	Mar. 30, 1951	22.9	7,870					

293. Tuscumbia River Canal near Corinth, Miss.

Location.--Lat 34°55'51", long 88°35'58", 4 miles west of Corinth, Alcorn County.

Drainage area.--277 sq mi.

Gage.--Recording. Datum of gage is 380.91 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 25,000 cfs and extended above.

Bankfull stage.--12 ft.

Remarks.--Records furnished by Corps of Engineers.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1950	Jan. 6, 1950	12.9	8,760	1953	May 17, 1953	11.9	4,730	
	Feb. 15, 1950	12.7	7,810		1954	Jan. 23, 1954	12.15	4,640
	Mar. 13-14, 1950	12.3	5,930	1955		Mar. 22, 1955	15.70	27,100
	Sept. 3, 1950	12.95	9,230		Apr. 14, 1955	12.40	6,380	
1951	Jan. 4, 1951	13.7	12,660	1956	Jan. 30, 1956	13.00	8,650	
	Feb. 8, 1951	12.2	5,470		Feb. 4, 1956	13.02	9,170	
	Feb. 21, 1951	12.4	6,400	Feb. 19, 1956	12.58	6,720		
	Mar. 29, 1951	14.2	15,190	1957	Feb. 1, 1957	14.10	13,300	
1952	Dec. 16, 1951	12.45	6,630		Apr. 4, 1957	12.60	4,840	
	Jan. 28, 1952	12.65	7,570	1958	Nov. 15, 1957	13.60	10,800	
1953	Feb. 12, 1953	13.05	10,400		May 1, 1958	12.55	5,990	
	Feb. 22, 1953	12.00	4,920					
	Mar. 4, 1953	12.0	5,740					
	Apr. 7, 1953	11.94	4,640					

294. Hatchie River at Pocahtontas, Tenn.

Location.--Lat 35°03'24", long 88°48'05", at bridge on State Highway 57, half a mile northeast of Pocahtontas, Hardeman County, and at mile 176.

Drainage area.--820 sq mi.

Gage.--Nonrecording prior to 1948; recording thereafter. Datum of gage is 348.50 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by discharge measurements below 34,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Records furnished by Corps of Engineers. Base for partial-duration series, 8,000 cfs.

HATCHIE RIVER BASIN

Peak stages and discharges of Hatchie River at Pocahontas, Tenn.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Apr. 11, 1942	-	9,020	1950	Sept. 5, 1950	-	11,500
1943	Dec. 30, 1942	-	10,500	1951	Sept. 6, 1950	23.80	9,510
	Mar. 15, 1943	-	9,650		Jan. 6, 1951	25.80	15,640
1944	Feb. 12, 1944	-	8,600	Feb. 10, 1951	23.84	9,600	
	Feb. 29, Mar. 1, 1944	-	9,230	Feb. 23, 1951	23.30	8,410	
	Mar. 30, 1944	-	22,900	Mar. 31, 1951	26.16	16,900	
1945	Jan. 1, 1945	-	26,100	1952	Dec. 17, 1951	24.27	10,800
	Mar. 6, 1945	-	9,650	1953	Jan. 30, 1953	24.05	10,100
1946	Nov. 23, 1945	-	24,100	Feb. 14, 1953	26.50	18,100	
	Jan. 9, 1946	-	34,400	May 20, 1953	24.85	9,620	
	Feb. 11, 1946	-	13,800	1954	Jan. 25, 1954	22.83	7,110
1947	Jan. 5, 1947	-	12,100	1955	Mar. 23, 1955	30.42	33,700
1948	Feb. 14, 1948	-	47,600	Apr. 15, 1955	24.32	11,300	
	Nov. 21, 1948	-	25,300	1956	Feb. 5, 1956	27.38	17,800
1949	Jan. 6, 1949	-	17,000	Feb. 7, 1956	-	15,600	
	Mar. 29, 1949	-	11,780	1957	Feb. 2, 1957	29.37	25,500
	Jan. 15, 1950	24.80	12,390	Apr. 6, 1957	26.86	18,300	
1950	Feb. 4, 1950	23.30	8,410	1958	Nov. 17, 1957	25.60	12,400
	Feb. 16, 1950	24.48	11,170	May 3, 1958	23.73	8,630	
	Mar. 15, 1950	24.35	11,170				

Note.--Prior to 1950, mean daily discharges are shown.

294.3. Hatchie River at Serles, Tenn.

Location.--Lat 35°10'42", long 88°51'16", at Gulf, Mobile & Ohio Railway bridge at Serles, Hardeman County, at mile 158.

Drainage area.--1,161 sq mi.

Gage.--Nonrecording. Datum of gage is 334.55 ft above mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Jan. 5, 1941	21.1	-	1951	Jan. 7, Apr. 1, 1951	25.8	-
1942	Feb. 28, 1942	23.90	-	1952	Dec. 26, 1951	26.6	-
1943	Dec. 31, 1942	25.10	-	1953	Feb. 14, 1953	26.00	-
1944	Mar. 30, 1944	27.30	-	1954	Jan. 26, 27, 1954	23.90	-
1945	Jan. 2, 1945	27.60	-	1955	Mar. 24, 1955	27.7	-
1946	Jan. 9, 1946	28.90	-	1956	Feb. 6, 1956	26.60	-
1947	Jan. 5, 1947	25.50	-	1957	Feb. 3, 1957	27.50	-
1948	Feb. 14, 1948	30.2	-	1958	May 3, 1958	25.0	-
1949	Nov. 22, 1948	27.0	-				
1950	Jan. 15, 16, 1950	25.7	-				

295. Hatchie River at Bolivar, Tenn.

Location.--Lat 35°16'40", long 88°58'30", on right bank at downstream side of bridge on State Highway 18, 250 ft upstream from Illinois Central Railroad bridge, 2,000 ft downstream from Spring Creek, and 1.5 miles northeast of Bolivar, Hardeman County.

Drainage area.--1,430 sq mi, approximately.

Gage.--Nonrecording prior to Feb. 6, 1939; recording thereafter. Datum of gage is 323.86 ft above mean Gulf level (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 32,000 cfs and extended above.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 8,500 cfs. Only annual peaks are shown prior to 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Jan. 9, 1930	16.18	16,800	1948	Feb. 15, 1948	21.53	56,300
1931	Aug. 8, 11, 12, 1931	14.9	8,860		Feb. 26, 1948	16.01	13,700
1932	Jan. 14, 1932	19.65	39,700		Mar. 3, 1948	16.02	13,800
1933	Feb. 20, 1933	17.98	27,800		Apr. 8, 1948	14.99	8,760
1934	Mar. 6, 1934	15.78	13,600	1949	Nov. 19, 1948	16.02	14,100
1935	Jan. 20, 1935	20.00	43,400		Nov. 23, 1948	17.91	27,100
1936	Apr. 13, 1936	14.92	8,900		Jan. 7, 1949	17.35	23,000
1937	Jan. 4, 1937	18.00	27,300		Jan. 28, 1949	15.81	13,000
1938	Jan. 27, 1938	15.95	12,900		Mar. 31, 1949	16.39	16,300
1939	Feb. 9, 1939	15.73	12,100		June 15, 1949	14.94	9,070
	Feb. 15, 1939	15.40	10,100	1950	Dec. 13, 1949	14.83	8,670
	Feb. 20, 1939	15.88	13,400		Jan. 10, 1950	16.83	19,300
	May 28, 1939	15.41	10,100		Feb. 2, 1950	16.07	14,400
	June 12, 1939	15.17	8,870		Feb. 18, 1950	15.81	13,000
	June 18, 1939	16.10	14,700		Mar. 17, 1950	15.79	12,800
1940	Apr. 24, 1940	14.69	7,600		Sept. 8, 1950	14.96	9,150
1941	Dec. 23, 1940	12.76	4,340	1951	Jan. 8, 1951	16.32	15,900
1942	Apr. 9, 1942	15.78	12,700		Jan. 14, 1951	16.18	15,100
1943	Jan. 1, 1943	15.47	10,400		Feb. 8, or 10, 1951	15.91	13,500
	Mar. 17, 1943	15.66	11,700		Feb. 25, 1951	15.00	9,300
1944	Feb. 20, 1944	15.15	8,700		Apr. 2, 1951	16.53	17,200
	Feb. 24, 1944	15.57	11,100	1952	Dec. 17, 1951	16.07	14,400
	Mar. 2, 1944	15.80	12,700		Feb. 3, 1952	15.50	11,400
	Mar. 31, 1944	18.20	29,400		Mar. 5, 1952	14.86	8,780
	Apr. 9, 1944	15.58	11,400	1953	Feb. 15, 1953	17.01	20,500
	Apr. 23, 1944	15.38	10,100		Feb. 21, 1953	15.55	10,900
1945	Jan. 3, 1945	18.54	31,200		Mar. 7, 1953	15.45	10,500
	Feb. 23, 1945	15.35	9,360		May 5, 1953	16.99	20,300
	Feb. 28, 1945	15.81	12,200		May 19, 1953	17.30	22,600
	Mar. 5, 1945	15.59	10,900		July 26, 1953	15.21	9,560
1946	Nov. 29, 1945	18.23	29,300	1954	Jan. 20, 1954	15.36	10,400
	Jan. 9, 1946	20.76	50,000		Feb. 17, 1954	15.07	9,250
	Feb. 12, 1946	17.83	26,300	1955	Mar. 25, 1955	18.98	33,100
	Mar. 29, 1946	16.16	14,700		Apr. 17, 1955	15.74	11,500
1947	Jan. 6, 1947	16.23	15,200	1956	Feb. 6, 1956	18.17	24,700
	Apr. 16, 1947	15.36	9,680		Feb. 18, 1956	15.66	11,200
				1957	Feb. 3, 1957	19.19	33,900
					Apr. 7, 1957	17.40	19,800
				1958	Nov. 19, 1957	17.37	19,400
					May 4, 1958	15.84	11,000
					May 10, 1958	15.75	10,600
					Sept. 21, 1958	15.61	10,000

HATCHIE RIVER BASIN

300. Hatchie River near Stanton, Tenn.

Location.--Lat 35°31'22", long 89°20'57", near right bank on downstream end of pier of bridge on U. S. Highways 70 and 79, 2.9 miles downstream from Louisville and Nashville Railroad bridge, 4.6 miles northeast of Stanton, Haywood County, and 7 miles upstream from Big Muddy Creek.

Drainage area.--1,940 sq mi, approximately.

Gage.--Nonrecording prior to Aug. 7, 1939; recording thereafter. Datum of gage is 267.34 ft above mean Gulf level (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 45,000 cfs and extended above.

Bankfull stage.--15 ft.

Remarks.--The stream channel in this reach is a broad swamp. Base for partial-duration series, 12,000 cfs. Only annual peaks are shown prior to 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Jan. 9, 1930	18.85	36,400	1946	Jan. 11, 1946	19.72	48,500
1931	Aug. 16, 1931	15.6	10,800		Feb. 14, 1946	18.02	27,000
					Mar. 31, 1946	16.11	12,000
1932	Jan. 17, 1932	19.40	46,200	1947	Jan. 9, 1947	16.32	13,500
1933	Feb. 21, 1933	17.96	30,100	1948	Feb. 17, 1948	19.83	51,700
1934	Mar. 9, 1934	16.20	12,900		Feb. 28, 29, 1948	16.32	13,700
					Mar. 3, 1948	16.45	14,600
1935	Jan. 22, 1935	20.35	59,000	1949	Nov. 25, 1948	17.51	22,900
1936	Mar. 28, 1936	16.02	11,700		Jan. 9, 10, 1949	16.97	18,700
					Jan. 27, 1949	16.78	17,300
1937	Jan. 25, 1937	19.50	46,800		Apr. 2, 1949	16.38	14,500
1938	Jan. 31, 1938	16.30	13,000	1950	Jan. 12, 1950	17.78	25,600
					Feb. 1, 1950	18.07	28,800
					Feb. 14, 1950	16.20	12,800
1939	Feb. 3, 1939	17.10	22,000	1951	Jan. 11, 1951	16.54	15,200
	Feb. 10, 1939	16.9	20,300		Jan. 15, 1951	17.56	23,400
	Feb. 15, 1939	16.2	14,700		(b)	16.45	14,600
	Feb. 21, 1939	16.3	15,500		Apr. 4, 1951	16.51	15,000
	Apr. 17, 1939	16.05	13,200	1952	Dec. 15, 1951	17.00	18,700
	June 20, 1939	16.40	16,300		Feb. 4, 1952	16.27	13,800
1940	Apr. 29, 1940	15.32	8,500		Mar. 11, 1952	16.30	14,000
1941	Dec. 30, 1940	12.86	3,220	1953	Feb. 18, 1953	16.62	16,000
1942	Apr. 11, 1942	16.78	19,500		Mar. 4, 1953	16.10	12,800
1943	Jan. 5, 1943	15.85	12,200		May 6-14, 1953	-	(c)
	Mar. 19, 1943	16.59	17,900		May 21, 1953	17.01	18,800
1944	Feb. 18, 1944	16.54	15,500	1954	Jan. 23, 1954	16.74	16,900
	Feb. 27, 1944	16.22	12,700	1955	Mar. 27, 1955	18.05	28,600
	Apr. 3, 1944	17.94	28,900	1956	Feb. 9, 1956	17.67	26,200
	Apr. 11, 1944	16.70	16,800	1957	Feb. 6, 1957	18.46	34,200
1945	Jan. 5, 1945	18.06	28,000	1958	Nov. 20, 1957	17.35	21,800
	Feb. 28, 1945	16.90	17,700				
1946	Nov. 27, 1945	18.03	27,000				

a Occurred Mar. 7-8, 1931.

b Occurred sometime between Jan. 29 and Feb. 15, 1951.

c Peak discharge above base probably occurred during this period.

300.5. Hatchie River at Rialto, Tenn.

Location.--Lat 35°38'14", long 89°36'34", on downstream side of bridge on U. S. Highway 51, at mile 34.0

Drainage area.--2,233 sq mi.

Gage.--Nonrecording at site 1 mile upstream prior to Aug. 2, 1949; recording at present site thereafter. Prior to 1953, datum of gage was mean Gulf level or 0.3 ft below mean sea level, datum of 1929. Datum of present gage is 239.96 ft above mean Gulf level.

Stage-discharge relation.--Defined by current-meter measurements below 55,000 cfs. Affected by backwater from the Mississippi River at times.

Bankfull stage.--12 ft.

Remarks.--Records furnished by Corps of Engineers. Base for partial-duration series, 11,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	Jan. 22-23, 25	a23.54	-	1949	Apr. 4, 1949	256.15	14,600
1939	Feb. 5, 1939	258.2	33,200	1949	Apr. 11, 1949	256.15	14,600
	Feb. 12, 1939	257.3	23,600		1950	Jan. 13, 1950	257.70
	Feb. 28, 1939	254.8	11,100	Feb. 2, 1950		258.7	38,500
	Mar. 2, 1939	255.0	11,700	Feb. 15, 1950		255.29	17,800
	Apr. 19, 1939	256.2	17,000	Mar. 15, 1950		254.28	11,900
	June 20, 1939	256.6	19,400	Mar. 21, 1950	254.10	12,300	
1940	Feb. 22, 1940	253.9	9,420	Sept. 9, 1950	253.12	11,300	
	1941	Jan. 2, 1941	250.1	3,240	1951	Jan. 15, 1951	257.5
Jan. 17-18, 1941		250.1	3,240	Feb. 10, 1951		255.13	17,800
1942		Mar. 15-16, 1942	254.40	10,400		Apr. 6, 1951	254.74
	Apr. 12, 1942	256.90	b19,900	1952	Dec. 18, 1951	255.76	16,600
1943	Mar. 20-21, 1943	257.3	21,400		Feb. 5, 6, 1952	254.76	15,200
		257.3	21,400		Mar. 13, 1952	254.9	15,800
1944	Feb. 20, 1944	256.3	16,800	1953	Feb. 20, 1953	15.14	17,200
	Feb. 29, 1944	255.8	14,900		Mar. 5, 1953	14.76	14,800
	Apr. 3, 1944	258.18	b28,300		May 9, 1953	15.15	16,800
	May 4, 1944	254.90	11,900		May 18, 1953	16.9	26,300
	1945	Jan. 7, 1945	259.9	34,700	1954	Jan. 24, 1954	15.73
Mar. 2, 1945		257.2	20,500	Feb. 24, 1954		13.90	11,900
Apr. 3, 1945		256.4	17,200	1955	Mar. 29, 1955	17.00	28,600
1946		Nov. 29, 1945	258.4		26,200	Apr. 8, 1955	13.47
	Jan. 13, 1946	262.9	55,700		Apr. 15, 1955	14.25	13,300
	Mar. 28, 1946	255.9	15,300		Apr. 23, 1955	14.43	14,100
1947	Jan. 11, 1947	255.8	12,900	1956	Jan. 30, 1956	14.50	14,400
	Jan. 18, 1947	255.8	11,000		Feb. 10, 1956	16.65	24,500
1948	Feb. 19, 1948	262.8	b52,300	1957	Feb. 1, 1957	16.50	21,600
	Mar. 4, 1948	256.75	19,600		Feb. 8, 1957	17.93	30,200
1949	Nov. 27, 1948	257.85	23,000		Apr. 12, 1957	15.45	18,800
	Dec. 18, 1948	255.35	11,100	1958	Nov. 22, 1957	16.50	22,800
	Jan. 11, 1949	257.10	20,400		Dec. 9, 1957	14.35	13,100
	Jan. 29, 1949	257.8	25,000		May 11, 1958	14.80	14,800

a At present datum.

b Instantaneous maximum.

Note.--Mean daily discharges and gage heights are shown prior to 1950 unless noted.

LOOSAHATCHIE RIVER BASIN

302.8. Loosahatchie River at Brunswick, Tenn.

Location.--Lat 35°16'53", long 89°45'56", at Brunswick-Bolton bridge over dredged channel, 1 mile north of Brunswick, Shelby County, and at mile 26.8.

Drainage area.--506 sq mi.

Gage.--Nonrecording prior to Dec. 20, 1941; recording thereafter. Prior to Oct. 15, 1955, at site 500 ft upstream at present datum. Datum of gage is 227.63 ft above mean Gulf level or 227.25 ft above mean sea level, datum of 1929, adjustment of 1958.

Stage-discharge relation.--Defined by current-meter measurements below 40,000 cfs and extended above.

Bankfull stage.--21 ft.

Remarks.--Records furnished by Corps of Engineers. Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	January 1935	28.5	-	1948	Feb. 5-6, 1948	21.90	10,600
1939	Jan. 30, 1939	-	11,000		Feb. 13, 1948	24.88	31,200
	Feb. 4, 1939	23.7	21,300		Mar. 3, 1948	22.72	13,200
	Feb. 10, 1939	-	11,200		Mar. 23, 1948	22.25	11,400
	Apr. 17, 1939	-	13,800		Apr. 1, 1948	22.30	10,600
1940	Feb. 18, 1940	21.8	7,190	1949	Nov. 20, 1948	22.90	18,100
	Jan. 24, 1941	13.5	2,240		Dec. 17, 1948	22.65	15,400
1942	Apr. 10, 1942	24.40	29,900		Jan. 6, 1949	22.98	12,200
					Jan. 28, 1949	23.35	14,600
1943	Dec. 28, 1942	22.60	14,200	1950	Dec. 13, 1949	24.02	17,300
	Mar. 13, 1943	23.18	15,500		Jan. 4, 1950	22.68	10,100
1944	Feb. 10, 1944	23.32	18,200		Jan. 6, 1950	23.00	11,400
	Feb. 18, 1944	22.73	14,800		Jan. 11, 1950	24.20	19,900
	Mar. 29, 1944	22.50	13,200		Feb. 1, 1950	25.00	26,600
	Apr. 9, 1944	23.42	19,400		Feb. 14, 1950	23.58	14,800
	May 5, 1944	22.02	11,100		Mar. 14, 1950	23.02	11,500
1945	Dec. 26, 1944	23.16	18,200	1951	Jan. 15, 1951	24.70	23,300
	Jan. 1, 1945	24.04	23,100		Feb. 8, 1951	22.98	14,700
	Feb. 18, 1945	22.00	12,600	1952	Mar. 12, 1952	23.08	10,800
	Feb. 21, 1945	22.48	13,700	1953	Feb. 12, 1953	23.42	12,200
	Feb. 28, 1945	22.87	15,200		May 18, 1953	23.70	17,500
	Mar. 4, 1945	22.32	12,400	1954	Jan. 16, 1954	23.30	11,600
	Apr. 3, 1945	23.58	20,600		Jan. 22, 1954	23.4	12,100
1946	Nov. 11, 1945	22.78	15,400	1955	Mar. 22, 1955	24.20	17,400
	Jan. 9, 1946	25.92	39,700	1956	Feb. 18, 1956	23.55	13,000
	Feb. 11, 1946	22.30	10,600	1957	Jan. 29, 1957	24.00	14,600
	Mar. 17, 1946	22.25	11,200		Apr. 5, 1957	22.80	10,700
	Mar. 27, 1946	23.03	14,400	1958	Nov. 20, 1957	23.62	12,800
1947	Dec. 30, 1946	22.80	13,200		Dec. 8, 1957	23.12	10,000
	Jan. 3, 1947	23.42	17,100				
	Jan. 16, 1947	22.26	10,400				
	June 23, 1947	24.15	21,200				

a Occurred on following day.

305. Wolf River at Rossville, Tenn.

Location.--Lat 35°03'15", long 89°32'30". on left bank 40 ft downstream from county highway bridge, 0.4 mile upstream from Hurricane Creek, half a mile north of Rossville, Fayette County, 3½ miles downstream from Grissum Creek, and at mile 60.

Drainage area.--503 sq mi. Mostly river bottom swamp land.

Gage.--Nonrecording prior to June 13, 1939; recording thereafter. Datum of gage is 300.74 ft above mean sea level, datum of 1929, supplementary adjustments of 1941 and 1944.

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs, and extended above on basis of records for Corps of Engineer station at Raleigh.

Bankfull stage.--9 ft.

Remarks.--Base for partial-duration series, 2,600 cfs. Only annual peaks are shown prior to 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Jan. 9, 1930	11.32	16,400	1946	Nov. 21, 1945	11.22	11,400
1931	Aug. 11, 1931	8.4	2,950	Nov. 24, 1945	10.15	6,260	
1932	Jan. 14, 1932	11.24	15,200	Dec. 25, 1945	9.18	2,630	
1933	Mar. 20, 1933	10.60	12,100	Jan. 8, 1946	13.38	31,000	
1934	Dec. 19, 1933	10.84	13,200	Feb. 10, 1946	10.83	9,550	
1935	Jan. 20, 1935	13.75	40,000	Mar. 7, 1946	9.32	3,100	
1936	Mar. 28, 1936	8.90	2,850	Mar. 27, 1946	10.52	7,810	
1937	Jan. 23, 1937	10.78	12,000	Mar. 29, 1946	11.16	11,200	
1938	Jan. 24, 1938	10.20	7,590	1947	Jan. 5, 1947	9.68	4,410
1939	Jan. 31, 1939	9.7	5,030	Apr. 14, 1947	9.35	3,210	
	Feb. 3, 1939	10.70	10,400	May 25, 1947	9.36	3,250	
	Feb. 16, 1939	9.66	4,870	June 21, 1947	9.38	3,320	
	Mar. 1, 1939	9.22	3,220	June 23, 1947	10.09	6,010	
	Mar. 30, 1939	9.48	4,150	1948	Jan. 3, 1948	10.33	7,040
	Apr. 18, 1939	9.80	5,460	Feb. 14, 1948	12.43	19,100	
	May 22, 1939	9.50	4,230	Feb. 26, 1948	11.24	11,700	
	May 30, 1939	9.45	3,850	Mar. 2, 1948	9.79	4,810	
	June 18, 1939	10.53	9,230	Apr. 15, 1948	9.81	4,890	
1940	Apr. 30, 1940	8.79	2,070	1949	Nov. 6, 1948	10.00	5,650
1941	Aug. 29, 1941	8.58	1,740	Nov. 20, 1948	10.73	14,600	
1942	Feb. 25, 1942	9.12	2,890	Jan. 6, 1949	10.67	8,640	
	Mar. 18, 1942	9.12	2,950	Jan. 22, 1949	9.64	4,210	
	Apr. 9, 1942	12.23	19,900	Jan. 28, 1949	9.50	3,650	
1943	Dec. 28-30, 1942	9.54	4,390	Mar. 27, 1949	10.47	7,670	
	Mar. 13, 1943	10.80	11,000	Apr. 14, 1949	9.71	4,490	
	Mar. 29, 1943	9.10	3,180	June 15, 1949	11.64	14,000	
1944	Feb. 9, 1944	10.32	7,810	June 24, 1949	9.65	4,250	
	Feb. 20, 1944	9.30	3,720	1950	Dec. 13, 1949	10.66	7,720
	Feb. 23, 1944	9.46	4,320	Jan. 6, 1950	10.96	9,200	
	Feb. 27, 1944	9.35	3,900	Jan. 11, 1950	10.08	5,320	
	Feb. 29, 1944	9.07	2,910	Jan. 15, 1950	10.35	6,400	
	Mar. 29, 1944	11.10	11,900	Feb. 1, 1950	10.69	7,860	
	Apr. 9, 1944	10.21	7,350	Feb. 14, 1950	10.09	5,360	
	Apr. 12, 1944	9.48	4,390	Mar. 3, 1950	9.32	2,660	
	Apr. 24, 1944	10.05	6,700	Mar. 14, 1950	10.52	7,090	
	Apr. 27, 1944	9.13	3,120	Aug. 27, 1950	9.65	3,680	
1945	Dec. 28, 1944	9.38	3,820	1951	Nov. 10, 1950	9.40	2,900
	Jan. 2, 1945	11.05	11,600	Dec. 6, 1950	10.39	6,560	
	Feb. 18, 1945	9.24	3,300	Jan. 4, 1951	11.09	9,850	
	Feb. 21, 1945	9.72	5,220	Jan. 14, 1951	11.39	11,400	
	Feb. 27, 1945	10.94	11,100	Feb. 8, 1951	9.88	4,520	
	Mar. 4, 1945	9.57	4,590	Mar. 31, 1951	9.63	3,600	
	Mar. 21, 1945	9.38	3,920	Apr. 22, 1951	9.61	3,540	
	Apr. 2, 1945	9.77	5,430	1952	Nov. 14, 1951	10.20	5,140
				Dec. 9, 1951	9.73	3,690	
				Dec. 15, 1951	10.17	5,040	
				Jan. 29, 1952	10.46	6,010	
				Feb. 5, 1952	9.91	4,230	
				Mar. 4, 1952	10.15	4,980	
				Mar. 11, 1952	10.34	5,600	
				Mar. 23, 1952	9.53	3,090	
				1953	Feb. 12, 1953	10.62	6,940

Peak stages and discharges of Wolf River at Rossville, Tenn.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1953	Feb. 23, 1953	9.54	3,220	1955	Mar. 22, 1955	11.89	12,300		
	Mar. 6, 1953	9.49	3,070		Apr. 7, 1955	10.51	5,940		
	Mar. 24, 1953	9.73	3,770		Apr. 14, 1955	11.33	9,530		
	Apr. 9, 1953	9.59	3,360		1956	Feb. 4, 1956	11.75	11,600	
	May 1, 1953	9.50	3,100	1957		Jan. 22, 1957	10.91	7,040	
	May 6, 1953	11.65	12,300			Feb. 2, 1957	11.8	11,800	
	May 12, 1953	9.87	4,170			Apr. 6, 1957	10.53	5,700	
	May 15, 1953	10.17	5,100			June 5, 1957	9.88	3,640	
	May 17, 1953	10.96	8,600			1958	Nov. 16, 1957	11.08	7,610
	May 19, 1953	11.74	12,800				Nov. 19, 1957	10.62	5,680
	July 24, 1953	9.88	4,230	Dec. 8, 1957	10.03		3,640		
1954	Jan. 16, 1954	10.09	4,450	May 2, 1958	9.91		3,280		
	Jan. 22, 1954	10.50	6,000	May 10, 1958	11.24	8,400			
	Feb. 17, 1954	11.58	11,800	Sept. 22, 1958	11.05	7,480			
	Feb. 26, 1954	10.28	5,130						

317. Wolf River at Raleigh, Tenn.

Location.--Lat 35°12'08", long 89°55'24", on downstream side of Austin Peay Highway bridge at Raleigh, Shelby County, at mile 16.9.

Drainage area.--765 sq mi.

Gage.--Nonrecording in present vicinity prior to July 22, 1949; recording thereafter. Datum of gage is 217.51 ft above mean Gulf level, or 217.22 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 37,000 cfs. Affected by backwater from extremely high Mississippi River stages.

Bankfull stage.--12 ft.

Remarks.--Records furnished by Corps of Engineers. Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	Jan. 20, 1935	23.72	-	1946	Nov. 23, 1945	15.35	11,600
1937	Jan. 22-23, 1937	-	27,000	Jan. 9, 1946	20.40	41,400	
	Feb. 9-10, 1937	18.2	-	Feb. 12, 1946	15.50	12,300	
1938	Jan. 26, 1938	14.6	9,970	Mar. 31, 1946	15.35	11,800	
	Feb. 19, 1938	-	9,970	1947	Dec. 30, 1946	14.15	7,140
	Apr. 22, 1938	-	7,880		Jan. 3, 1947	14.55	8,290
1939	Jan. 30-31, 1939	-	5,360	1948	Feb. 15, 1948	18.0	27,000
	Feb. 4, 1939	15.9	15,700		Feb. 28, 1948	15.85	14,600
	Feb. 10, 1939	-	10,000		Mar. 3, 1948	14.72	8,930
	Feb. 16, 1939	-	5,540	1949	Jan. 8, 1949	14.60	12,000
	Apr. 18, 1939	-	6,530		Jan. 27, 1949	14.35	9,810
	June 21, 1939	-	6,240		Mar. 28, 1949	14.82	12,800
1940	Feb. 19, 1940	11.7	2,430		Apr. 13, 1949	14.15	9,280
				June 17, 1949	16.0	15,100	
1941	Apr. 24, 1941	9.86	1,920	1950	Dec. 15, 1949	14.52	8,100
1942	Mar. 14, 1942	13.76	5,830		Jan. 11, 1950	16.20	13,000
	Apr. 11, 1942	17.8	24,300		Feb. 2, 1950	16.54	15,200
1943	Mar. 15, 1943	15.65	12,900		Feb. 13, 1950	15.08	9,030
					Mar. 15, 1950	14.85	8,250
				Aug. 26, 1950	13.45	5,460	
1944	Feb. 11, 1944	14.15	7,330	Sept. 1, 1950	13.37	5,550	
	Mar. 31, 1944	15.60	13,900	1951	Dec. 7, 1950	15.47	9,290
	Apr. 9, 1944	14.60	8,905		Jan. 6, 1951	15.17	9,050
	Apr. 26, 1944	13.70	5,945		Jan. 15, 1951	16.50	14,200
1945	Jan. 1, 1945	-	17,300	Feb. 9, 1951	14.08	5,940	
	Jan. 2, 1945	16.2	-	1952	Nov. 18, 1951	13.70	5,050
	Feb. 22, 1945	13.62	5,435		Dec. 15, 1951	14.60	7,330
	Mar. 1, 1945	15.32	12,100		Feb. 5, 1952	14.35	6,650
	Apr. 2, 1945	14.38	8,100		Mar. 6, 1952	13.76	5,640

Peak stages and discharges of Wolf River at Raleigh, Tenn.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Mar. 12, 1952	14.45	6,880	1955	Apr. 6, 1955	14.6	7,620
1953	Feb. 12, 1953	13.95	5,460	Apr. 16, 1955	14.9	9,910	
	Mar. 23, 1953	14.15	5,660	Apr. 21, 1955	13.5	5,410	
	Apr. 30, 1953	13.95	5,760	1956	Feb. 5, 1956	15.75	14,000
	May 8, 1953	15.80	13,500		Feb. 18, 1956	13.85	5,780
May 18, 1953	16.3	15,000	1957		Feb. 3, 1957	15.70	12,500
1954	Jan. 16, 1954	14.50		6,550	Apr. 8, 1957	13.70	5,520
	Jan. 22, 1954	15.10		8,180	1958	Nov. 19, 1957	15.80
	Feb. 19, 1954	15.15	10,900	Dec. 8, 1957		13.42	5,490
1955	Mar. 23, 1955	16.3	14,100	May 11, 1958		15.15	10,700

MISSISSIPPI RIVER MAIN STEM

320. Mississippi River at Memphis, Tenn.

Location.--Lat 35°07'37", long 90°04'25", on left bank 50 ft downstream from Harahan bridge at Memphis, Shelby County, 1½ miles downstream from Wolf River, 1.3 miles downstream from Beale Street gage, 70 miles upstream from St. Francis River and at mile 731.5.

Drainage area.--932,800 sq mi, approximately.

Gage.--Nonrecording prior to Apr. 16, 1934, at site 1.3 miles upstream (Beale Street gage) and Apr. 16 to Dec. 21, 1934, in present vicinity; recording thereafter. All gages at datum 183.91 ft above mean sea level, datum of 1929, 184.21 ft above mean Gulf level (1912 Mississippi River Commission), and 190.86 ft on Memphis datum (1881 Mississippi River Commission). To adjust gage heights obtained at present site to those obtained at Beale Street, add 0.3 ft for each 10-foot increment of stage.

Stage-discharge relation.--Defined by current-meter measurements below 2,000,000 cfs. (Frequent measurements since 1932 and occasional measurements from 1882-1904).

Bankfull stage.--34 ft.

Remarks.--Natural flow of stream affected by many reservoirs and navigation dams. Records of peaks prior to 1935 from reports of Mississippi River Commission. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1872	Apr. 24, 1872	31.5	-	1894	Feb.19,20, 1894	29.0	-
1873	Mar. 3, 1873	32.5	-	1895	Jan.23,24, 1895	24.05	-
1874	Mar. 2, 1874	34.0	-	1896	Apr.15,16, 1896	29.4	-
1875	Aug.15-17, 1875	33.05	-		Mar. 20, 1897	37.66	-
1876	Apr. 8, 9, 1876	34.08	-		Apr. 10, 1898	37.22	-
	Apr. 29, 1877	32.05	-	1899	Apr. 1-11, 1899	35.2	-
1878	May 2, 1878	29.1	-	1900	Mar. 19, 1900	29.47	-
1879	Jan. 29, 1879	28.1	-	1901	May 6, 1901	32.12	-
1880	Mar.24-29, 1880	33.4	-		Mar. 21, 1902	30.9	-
1881	Apr.27,28, 1881	33.3	-		1903	Mar. 20, 1903	40.1
	1882	Mar. 6, 9, 1882	35.15	-	1904	Apr. 11, 1904	39.2
1883	Mar. 6-8, 1883	34.75	-	1905	Mar. 21, 1905	28.93	-
1884	Mar. 1-3, 1884	34.15	-	1906	Apr. 15, 1906	37.07	-
1885	Jan. 28, 1885	29.25	-		Feb. 3, 1907	40.3	-
1886	Apr. 28, 1886	34.8	-		1908	Mar.24,25, 1908	35.55
	1887	Mar. 9, 10, 1887	35.3	-	1909	Mar. 22, 1909	38.6
1888	Apr.11,12, 1888	34.2	-	1910	Mar. 19, 1910	33.12	-
1889	June 26,27, 1889	26.6	-	1911	Apr.25,26, 1911	36.42	-
1890	Mar. 20, 1890	a35.6	1,345,000		Apr. 6, 1912	45.23	-
1891	Mar. 10, 1891	34.9	1,289,000		1913	Apr. 9, 1913	46.55
1892	May 2, 3, 1892	34.6	-	1914	Apr. 15, 1914	32.63	-
1893	May 15,16, 1893	35.2	-	1915	Feb.17,18, 1915	36.08	-

a Occurred on different day than peak discharge.

MISSISSIPPI RIVER MAIN STEM

Peak stages and discharges of Mississippi River
at Memphis, Tenn.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1916	Feb. 9, 1916	43.4	-	1938	Apr. 20, 1938	32.97	971,000
1917	Apr. 10, 1917	40.38	-	1939	Feb. 28, Mar. 1	a37.76	1,280,000
1918	Mar. 1, 2, 1918	30.0	-	1940	May 6, 1940	a31.7	962,000
1919	Mar. 29, 1919	37.3	-				
1920	Apr. 5, 1920	40.3	-	1941	Apr. 28, 1941	20.64	595,000
				1942	Mar. 27, 28, 1942	30.20	987,000
1921	Apr. 8, 1921	29.9	-	1943	June 3, 4, 1943	a37.75	1,384,000
1922	Apr. 1, 2, 1922	42.5	-	1944	May 5, 1944	37.11	1,289,000
1923	Mar. 27, 1923	36.3	-	1945	Mar. 24, 1945	a39.26	1,446,000
1924	Jan. 18-20, 1924	34.1	-				
1925	Mar. 3, 1925	29.0	-	1946	Jan. 20, 1946	a36.14	1,410,000
				1947	Apr. 23, 24, 1947	a32.12	1,128,000
1926	Apr. 19, 20, 1926	31.0	-	1948	Apr. 8, 1948	36.49	1,310,000
1927	Apr. 23-25, 1927	45.8	bl,744,000	1949	Feb. 4, 1949	a35.20	1,271,000
1928	July 10, 1928	35.8	-	1950	Jan. 24, 1950	a40.50	1,568,000
1929	May 22-28, 1929	41.5	-				
1930	Jan. 22, 23, 1930	34.7	-	1951	Mar. 3, 1951	35.32	1,217,000
				1952	Apr. 1, 1952	37.12	1,323,000
1931	Apr. 15, 1931	24.4	-	1953	May 24, 1953	25.93	843,000
1932	Feb. 19, 1932	38.7	1,308,000	1954	Jan. 29, 30, 1954	a19.17	630,000
1933	Apr. 9, 1933	a40.4	1,416,000	1955	Apr. 1, 2, 1955	a35.47	1,247,000
1934	Mar. 19, 1934	29.98	839,000				
1935	Mar. 28, 1935	37.2	1,190,000	1956	Feb. 28, 29, 1956	a29.37	1,012,000
				1957	Feb. 16, 1957	31.16	1,060,000
1936	Apr. 21, 1936	39.33	1,340,000	1958	July 31, 1958	a29.88	967,000
	Feb. 8, 1937	a48.69	1,980,000				

a Occurred on different day than peak discharge.

b Does not include flow around levees.

ST. FRANCIS RIVER BASIN

375. St. Francis River near Patterson, Mo.

Location.--Lat 37°11'40", long 90°30'10", in NE $\frac{1}{4}$ sec. 16, T. 29 N., R. 5 E., at bridge on State Highway 34, 1 mile upstream from Clark Creek and 3 miles east of Patterson.

Drainage area.--956 sq mi.

Gage.--Nonrecording prior to Apr. 12, 1939, and Sept. 6, 1956, to Sept. 26, 1958. Recording Apr. 13, 1939, to Sept. 5, 1956, and since Sept. 27, 1958. Prior to Oct. 1, 1938, at datum 2.00 ft higher. Datum of present gage is 370.45 ft above mean sea level, datum of 1929. Gage heights given herein converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements below 55,000 cfs; shifts in relation occur.

Bankfull stage.--16 ft.

Remarks.--Occasional backwater from Wappapello Reservoir since Apr. 1, 1941. Base for partial-duration series, 21,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	33.8	a100,000	1925	Apr. 18, 1925	10.85	6,890
1921	-	22.0	a36,600	1926	Nov. 8, 1925	22.50	38,200
					Feb. 25, 1926	17.90	23,300
1922	Nov. 19, 1921	22.0	36,600	1927	Apr. 1, 1927	26.70	50,000
	Mar. 31, 1922	18.95	26,700		Apr. 14, 1927	27.00	51,000
1923	Feb. 1, 1923	21.20	34,000		May 25, 1927	21.60	33,000
	Mar. 16, 1923	21.38	34,600		June 1, 1927	20.60	30,200
	May 16, 1923	19.40	28,000	1928	Dec. 14, 1927	27.20	51,700
1924	May 29, 1924	15.50	16,600		Apr. 6, 1928	21.98	34,300

a Annual peak only.

Peak stages and discharges of St. Francis River near Patterson, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1928	June 9, 1928	22.25	34,900	1944	Apr. 23, 1944	19.05	20,600
	June 13, 1928	22.80	36,900	1945	Feb. 26, 1945	24.60	(b)
	June 21, 1928	25.60	46,100		Mar. 6, 1945	21.79	(b)
1929	Jan. 25, 1929	20.80	30,500		Mar. 20, 1945	20.10	(b)
	Apr. 9, 1929	19.30	26,000	Mar. 26, 1945	21.17	(b)	
	May 6, 1929	20.80	30,500	Mar. 31, 1945	27.26	(b)	
	May 13, 1929	21.60	33,000	Apr. 14, 1945	31.00	(b)	
				June 9, 1945	29.20	a64,900	
1930	Jan. 13, 1930	21.70	33,200	1946	Oct. 22, 1945	22.30	31,100
1931	Mar. 7, 1931	15.52	15,300		Feb. 14, 1946	25.00	42,300
	1932	Dec. 30, 1931	15.86		16,300	May 1, 1946	23.80
1933		Dec. 24, 1932	19.75	27,500	May 16, 1946	23.40	35,300
		Jan. 22, 1933	17.80	21,500	May 25, 1946	22.80	32,900
	Apr. 16, 1933	25.07	44,400	1947	Apr. 25, 1947	23.30	34,900
	May 14, 1933	28.80	57,400		1948	Jan. 1, 1948	24.86
1934	Apr. 7, 1934	13.2	10,200	1949	Jan. 25, 1949	28.20	59,000
1935	Mar. 11, 1935	30.70	79,200	Feb. 15, 1949	20.20	24,100	
	May 5, 1935	20.70	30,200	1950	Oct. 22, 1949	21.76	29,300
	May 20, 1935	21.40	32,400		Jan. 4, 1950	26.37	53,400
	June 21, 1935	21.50	32,700		Jan. 14, 1950	18.28	21,300
1936	Nov. 10, 1935	12.75	9,600		Feb. 13, 1950	24.00	41,700
	1937	Nov. 3, 1936	19.45	26,300	Apr. 3, 1950	19.25	23,800
		Dec. 31, 1936	19.50	26,600	May 10, 1950	23.80	40,900
		Jan. 8, 1937	20.00	29,100	1951	Feb. 7, 1951	19.40
Jan. 15, 1937		26.50	55,200	Feb. 21, 1951		19.46	24,800
1938	Feb. 18, 1938	22.65	37,300	1952	Nov. 23, 1951	19.29	24,100
	Mar. 29, 1938	18.70	24,100	Mar. 11, 1952	19.20	23,800	
	Mar. 31, 1938	20.00	28,100	1953	Mar. 4, 1953	17.87	20,300
1939	Jan. 30, 1939	19.01	25,000	1954	May 2, 1954	20.1	26,700
	Feb. 28, 1939	17.97	22,000	June 8, 1954	19.85	25,700	
	Mar. 5, 1939	21.90	34,600	1955	Mar. 21, 1955	21.3	30,900
	Apr. 6, 1939	20.80	30,700		1956	May 16, 1956	16.56
	Apr. 17, 1939	21.48	33,200	1957	Apr. 4, 1957	27.05	57,500
1940	Apr. 19, 1940	17.92	21,700		May 23, 1957	23.00	36,500
	1941	Jan. 2, 1941	14.40		12,600	June 30, 1957	28.50
1942	Nov. 1, 1941	20.40	25,800	1958	Dec. 18, 1957	20.00	25,000
1943	Dec. 28, 1942	22.87	33,300		Mar. 24, 1958	22.14	36,500
	May 11, 1943	29.70	68,100		July 19, 1958	18.80	23,700

a Annual peak only.

b Peak discharge indeterminate, affected by backwater from Wappapello Reservoir.

395. St. Francis River at Wappapello, Mo.

Location.--Lat 36°55'41", long 90°15'55", in NW $\frac{1}{4}$ sec. 2, T.26 N., R.7 E., on right bank at downstream side of highway bridge, 0.5 mile southeast of Wappapello and 1.25 miles downstream from Wappapello Dam.

Drainage area.--1,311 sq mi.

Gage.--Nonrecording prior to Oct. 14, 1940; recording thereafter. Datum of gage is 325.15 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--22 ft.

Remarks.--Records furnished by Corps of Engineers. Flow regulated by Wappapello Reservoir (capacity at spillway crest, 625,000 acre-ft). Only annual peaks are shown.

ST. FRANCIS RIVER BASIN

Peak stages and discharges of St. Francis River at Wappapello, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Jan. 5, 1941	10.76	3,320	1950	Jan. 18, 1950	22.42	10,500
1942	Nov. 2, 1941	19.65	7,640				
1943	Dec. 30, 1942	21.81	9,270	1951	Feb. 23, 1951	21.75	9,990
1944	Mar. 3, 1944	11.21	3,320	1952	Nov. 26, 1951	21.49	9,410
1945	Apr. 16, 1945	25.60	22,300	1953	Mar. 6, 1953	17.22	6,060
				1954	June 11, 1954	18.67	7,190
1946	Feb. 15-17, May 18	a22.60	10,600	1955	Mar. 22, 1955	21.04	9,850
1947	Apr. 26, 1947	b21.98	10,000				
1948	Jan. 3, 1948	21.35	10,000	1956	Feb. 19, 1956	17.00	6,130
1949	Feb. 4, 1949	22.46	10,900	1957	Apr. 11, 1957	22.15	10,300
				1958	Mar. 27, 1958	c21.37	10,200

a Occurred Feb. 16, 1946.

b Occurred on following day.

c Occurred Mar. 30, 1958.

401. St. Francis River at St. Francis, Ark.

Location.--Lat 36°27'21", long 90°08'13", in sec.18, T.21 N., R.9 E., at bridge on U. S. Highway 62 at St. Francis, 229 miles above mouth.

Drainage area.--1,781 sq mi.

Gage.--Nonrecording prior to Aug. 1, 1946; recording thereafter. Datum of gage is 270.57 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--19 ft.

Remarks.--Records furnished by Corps of Engineers. Flow regulated by Wappapello Reservoir since Apr. 1, 1941 (capacity at spillway crest, 625,000 acre-ft); flood records affected since that date. Only annual peaks are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1916	February 1916	23.16	-	1938	Apr. 4, 1938	b23.6	18,600
1917	Apr. 9, 1917	20.5	-	1939	Apr. 23, 1939	22.7	14,900
1918	May 18, 1918	22.1	-	1940	Apr. 24, 1940	c21.0	9,720
1919	Nov. 11, 1919	20.6	-				
1920	May 25, 1920	22.6	-	1941	Nov. 13, 1941	17.9	4,820
				1942	Apr. 15, 1942	20.2	8,930
1921	Nov. 27, 1921	23.3	-	1943	Jan. 5, 1943	19.6	7,460
1922	Apr. 6, 1922	23.6	-	1944	Apr. 12, 1944	19.6	7,600
1923	May 21, 1923	25.1	-	1945	Apr. 20, 1945	23.5	20,500
1924	June 6, 1924	18.3	-				
1925	Nov. 14, 1925	22.9	-	1946	May 27-29, 1946	21.65	13,000
				1947	May 3, 1947	c20.53	8,950
1926	Mar. 5, 1926	20.3	-	1948	Jan. 12, 1948	d20.31	9,560
1927	Apr. 18, 1927	26.6	-	1949	Feb. 15, 1949	22.82	17,000
1928	June 26, 1928	26.7	-	1950	Jan. 14, 1950	23.42	20,000
1929	May 19, 1929	25.2	-				
1930	Jan. 18, 1930	26.5	33,100	1951	Feb. 25, 1951	-	12,000
				1952	Mar. 19, 1952	20.7	10,500
1931	Mar. 15, 1931	19.4	6,540	1953	Mar. 23, 1953	19.1	6,250
1932	Jan. 23, 1932	a21.6	11,200	1954	June 19, 1954	17.25	5,210
1933	May 18, 1933	27.1	31,000	1955	Mar. 29, 1955	20.6	8,700
1934	Apr. 3, 1934	18.5	5,350				
1935	Mar. 15, 1935	28.2	39,200	1956	Feb. 26, 1956	18.65	6,330
				1957	May 27, 1957	23.00	17,300
1936	Nov. 12, 1936	19.2	6,190	1958	Mar. 29, 1958	21.85	12,900
1937	Jan. 19, 1937	26.7	28,600				

a Maximum crest stage. Maximum stage occurred Dec. 31 on rise that crested Jan. 3, 1933.

b Occurred Feb. 24, 1938.

c Occurred on following day.

d Occurred Jan. 10, 1948.

404.5. St. Francis River at Lake City, Ark.

Location.--Lat 35°49'10", long 90°25'48", in SE $\frac{1}{4}$ sec.22, T.14 N., R.6 E., at bridge on State Highway 18 at Lake City, at mile 173.6.

Drainage area.--2,385 sq mi.

Gage.--Nonrecording prior to Sept. 1, 1948; recording thereafter. Datum of gage is 217.69 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--9 ft.

Remarks.--Records furnished by Corps of Engineers. Flow regulated by Wappapello Reservoir since Apr. 1, 1941 (capacity below spillway crest, 625,000 acre-ft). Only annual peaks are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1917	Apr. 13-17, 1917	8.9	-	1938	Apr. 9, 10, 1938	10.7	16,100
1918	May 14, 15, 1918	9.2	-	1939	Mar. 15, 16, 1939	10.1	14,000
1919	Jan. 3, 1919	9.8	-	1940	Apr. 30, May 2	8.7	9,470
1920	June 2-4, 1920	9.1	-	1941	Nov. 20, 21, 1941	6.5	4,440
1921	May 12, 1921	9.3	-	1942	Feb. 20, 1942	8.7	10,300
1922	Apr. 12-14, 1922	9.6	-	1943	May 17, 18, 1943	7.5	7,080
1923	May 17, 1923	10.1	-	1944	Apr. 13, 1944	8.9	10,900
1924	Jan. 1, 1924	7.7	-	1945	Apr. 24, 25, 1945	11.9	21,300
1925	Oct. 27-29, 1925	9.1	-	1946	May 27, 28, 1946	10.0	18,000
1926	Mar. 12, 15, 1926	8.2	-	1947	May 10, 11, 1947	8.1	9,260
1927	Apr. 16, 1927	10.5	-	1948	Jan. 16, 17, 1948	8.6	10,100
1928	June 24, 1928	10.7	-	1949	Jan. 31, 1949	11.24	19,400
1929	May 18, 19, 1929	10.0	-	1950	Jan. 14, 1950	112.98	25,700
1930	Jan. 15, 1930	11.1	-	1951	Dec. 9, 1951	10.85	17,800
1931	Mar. 22, 1931	7.0	5,280	1952	Jan. 5, 1952	10.9	18,600
1932	Jan. 19, 1932	10.5	15,400	1953	Mar. 19, 1953	9.9	15,200
1933	May 25, 1933	10.9	16,800	1954	May 4, 1954	6.95	5,730
1934	Mar. 28, 1934	9.4	11,900	1955	Apr. 6, 1955	8.76	10,600
1935	Mar. 23, 1935	12.0	20,900	1956	Feb. 19, 1956	10.25	15,500
1936	Nov. 6, 7, 1936	7.0	5,380	1957	Nov. 20, 1957	12.95	24,200
1937	Jan. 22-24, 1937	13.3	36,700	1958	Apr. 4, 1958	10.15	15,900

a Occurred on Jan. 17, 1950.

410. Little River ditch 81 near Kennett, Mo.

Location.--Lat 36°14'10", long 89°58'55", in NE $\frac{1}{4}$ sec.4, T.18 N., R.10 E., at bridge on State Highway 84, about 4 miles east of Kennett.

Drainage area.--111 sq mi.

Gage.--Nonrecording. Datum of gage is 241.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--10 ft.

Remarks.--Records not comparable with those of station at Kirk, 1921-26, because of additional ditch construction. Only annual peaks are shown.

Peak stages and discharges of Little River ditch 81 near Kennett, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 21, 1927	15.11	a2,760	1943	May 12, 1943	9.3	1,380
1928	June 30, 1928	13.06	2,710	1944	Apr. 15, 1944	10.36	1,950
1929	Feb. 27, 1929	10.88	2,000	1945	June 18, 1945	12.18	2,620
1930	Jan. 10, 14, 1930	11.38	1,770	1946	Jan. 9, 1946	10.15	1,890
1931	Mar. 8, 1931	4.48	303	1947	Apr. 12, 1947	6.3	805
1932	Jan. 18, 1932	9.80	1,370	1948	Mar. 27, 1948	8.5	1,400
1933	Jan. 1, 1933	10.34	1,380	1949	Jan. 28, 1949	11.26	2,300
1934	Mar. 27, 1934	10.28	1,490	1950	Feb. 16, 1950	11.90	2,440
1935	Mar. 15, 1935	12.11	2,610	1951	Feb. 21, 1951	11.21	2,200
1936	Apr. 7, 1936	5.27	386	1952	Jan. 5, 1952	11.44	2,230
1937	Jan. 26, 1937	12.53	2,310	1953	Mar. 18, 1953	8.38	1,310
1938	Feb. 18, 1938	11.46	1,960	1954	Jan. 21, 1954	b5.45	548
1939	Apr. 18, 1939	10.36	1,600	1955	Mar. 21, 1955	9.2	1,550
1940	Apr. 20, 1940	7.10	837	1956	Feb. 18, 1956	10.84	2,060
1941	Jan. 25, 1941	4.57	330	1957	July 2, 1957	11.50	2,300
1942	Apr. 9, 1942	10.1	1,850	1958	Nov. 19, 1957	11.86	2,440

a Includes some flow from levee break on St. Francis River.

b Observed.

420. Little River ditch 1 near Kennett, Mo.

Location.--Lat 36°14'10", long 89°58'50", in NE $\frac{1}{4}$ sec.4, T.18 N., R.10 E., at bridge on State Highway 84, about 4 miles east of Kennett.

Drainage area.--235 sq mi.

Gage.--Nonrecording. Datum of gage is 241.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements; large shifts occur frequently.

Bankfull stage.--13 ft.

Remarks.--Records not comparable with those of station at Kirk, 1921-26, because of additional ditch construction. A spillway 6.3 miles upstream diverted water at high stages from ditches 66, 66-A, and 251 to ditch 1. This spillway was washed out and closed April 1951. Crests have been adjusted where necessary for spillway diversion with data supplied by the Little River Drainage District. Ditch 1 near Kennett has no connection with ditch 1 near Morehouse. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 25, 1927	16.56	a7,520	1943	May 12, 1943	11.6	3,550
1928	June 24, 1928	10.34	2,990	1944	Apr. 14, 1944	12.8	5,010
1929	Feb. 27, 1929	11.63	4,010	1945	June 15, 1945	16.41	b6,730
1930	Jan. 15, 1930	13.24	5,040	1946	Jan. 10, 1946	12.26	b4,460
1931	Mar. 9, 1931	5.05	545	1947	Apr. 12, 1947	7.4	2,250
1932	Jan. 18, 1932	10.95	3,510	1948	Mar. 27, 1948	11.10	4,130
1933	May 16, 1933	11.16	3,040	1949	Feb. 16-18, 1949	15.68	b5,740
1934	Mar. 27, 1934	12.37	2,810	1950	Jan. 14, 1950	16.57	b7,360
1935	Mar. 17, 1935	16.22	4,800	1951	Jan. 16, 1951	14.60	b5,840
1936	Apr. 7, 1936	8.32	1,180	1952	Jan. 5, 1952	14.50	5,900
1937	Jan. 25, 1937	16.80	7,280	1953	Mar. 19, 1953	9.70	3,020
1938	Feb. 19, 1938	12.65	3,940	1954	Jan. 21, 1954	7.12	1,860
1939	Apr. 18, 1939	12.22	b3,700	1955	Mar. 21, 1955	11.1	3,840
1940	Apr. 21, 1940	7.08	2,310	1956	Feb. 18, 1956	11.97	4,330
1941	Jan. 25, 1941	3.7	582	1957	May 25, 1957	14.77	5,200
1942	Apr. 10, 1942	10.8	4,080	1958	Mar. 25, 1958	16.65	6,250

a Includes some inflow from levee breaks on St. Francis River.

b Adjusted for inflow from ditches 66, 66-A, and 251.

425. Little River ditch 251 near Lilbourn, Mo.

Location.--Lat 36°33'20", long 89°40'10", on line between secs.8 and 17, T.22 N., R.13 E., at bridge on U. S. Highway 62, 3.7 miles southwest of Lilbourn and 4 miles northwest of Marston.

Drainage area.--235 sq mi.

Gage.--Nonrecording. Datum of gage is 263.46 ft above mean sea level, datum of 1929 (levels by State Highway Department).

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--14 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	June 1945	15.6	3,200	1952	Jan. 4, 1952	13.37	2,780
1946	May 27, 1946	13.35	2,500	1953	Mar. 17, 1953	10.6	1,950
1947	Apr. 11, 1947	9.10	1,300	1954	Jan. 20, 1954	7.20	994
1948	Mar. 27, 1948	12.0	2,100	1955	Mar. 21, 1955	11.6	2,240
1949	Jan. 28, 1949	14.68	3,120	1956	Feb. 18, 1956	12.06	2,390
1950	Feb. 15, 1950	15.16	3,210	1957	May 23, 1957	14.15	2,970
1951	Feb. 21, 1951	13.55	2,700	1958	Nov. 18, 19, 1957	14.72	3,150

430. Castor River at Aquilla, Mo.

Location.--Lat 36°57'10", long 89°54'25", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.25, T.27 N., R.10 E., at bridge on State Highway 25, half a mile north of Aquilla and 4 miles north of Bloomfield.

Drainage area.--175 sq mi.

Gage.--Nonrecording. Datum of gage is 317.11 ft above mean sea level (levels by State Highway Department).

Stage-discharge relation.--Defined by current-meter measurements; large shifts in relation occur frequently.

Bankfull stage.--13 ft.

Remarks.--Entire flow from headwaters of Castor River is diverted 22 miles above station to Headwater diversion channel. See Castor River at Zalma for records of flow above diversion. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	June 1, 1945	14.2	3,600	1952	Mar. 11, 1952	12.20	1,980
1946	May 3, 1946	11.02	2,000	1953	Mar. 22, 1953	10.69	1,500
1947	Apr. 11, 1947	8.65	1,560	1954	May 3, 1954	8.0	810
1948	Jan. 1, 1948	10.95	2,220	1955	Mar. 22, 1955	11.46	1,730
1949	Jan. 25, 1949	12.75	3,000	1956	Feb. 18, 1956	10.97	1,580
1950	Jan. 4, 1950	13.45	3,430	1957	May 23, 1957	14.00	4,100
1951	Jan. 15, 1951	11.56	1,760	1958	Mar. 24, 1958	13.25	2,980

435. Little River ditch 1 near Morehouse, Mo.

Location.--Lat 36°50'05", long 89°43'50", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.2, T.25 N., R.12 E., at bridge on U. S. Highway 60, $\frac{1}{2}$ miles downstream from Little River ditch 39 and $\frac{2}{2}$ miles west of Morehouse.

Drainage area.--450 sq mi.

Gage.--Nonrecording. Datum of gage is 280.76 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; large shift in relation occurred during summer of 1947 due to channel enlargement.

Bankfull stage.--13 ft.

Remarks.--This ditch has no connection with ditch 1 near Kennett. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	June 1945	19.85	5,830	1952	Mar. 11, 1952	16.50	7,020
1946	May 3, 1946	17.2	4,600	1953	Mar. 23, 1953	13.15	4,540
1947	Apr. 12, 1947	13.92	3,230	1954	May 3, 1954	7.60	1,300
1948	Jan. 2, 1948	13.6	4,760	1955	Mar. 21, 1955	15.6	6,170
1949	Jan. 25, 1949	15.35	6,270	1956	Feb. 18, 1956	14.27	5,340
1950	Jan.13,16, 1950	16.30	6,920	1957	May 26, 1957	16.35	6,250
1951	Jan. 15, 1951	14.60	5,570	1958	Mar. 25, 1958	18.26	7,660

440. Little River ditch 251 near Kennett, Mo.

(Includes records for ditches 66 and 66-A published separately in annual water-supply papers)

Location.--Lat 36°14'10", long 89°58'40", in NW $\frac{1}{4}$ sec.3, T.18 N., R.10 E., at bridge on State Highway 84, about 4 miles east of Kennett.

Drainage area.--883 sq mi, including that of Little River ditches 66 and 66-A.

Gage.--Nonrecording. Datum of gage is 241.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--15 ft.

Remarks.--Ditch 251 completed after November 1926. At high stages a spillway 6.3 miles upstream diverted water from ditches 66, 66-A, and 251 into ditch 1. This spillway was washed out and closed April 1951. Crests have been corrected where necessary for spillway diversion with data supplied by the Little River Drainage District. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 25, 1927	17.67	12,500	1943	May 14, 1943	14.9	6,830
1928	June 24, 1928	14.95	9,040	1944	Apr. 13, 1944	15.6	8,470
1929	Feb. 28, 1929	15.37	9,500	1945	June 13, 1945	17.71	a11,000
1930	Jan.14,15, 1930	16.41	11,000	1946	Jan. 11, 1946	17.0	a10,200
1931	Mar. 9, 1931	10.12	4,110	1947	Apr. 12, 1947	13.7	6,110
1932	Jan. 18, 1932	14.50	8,250	1948	Mar. 28, 1948	15.36	a7,900
1933	May 16, 1933	15.18	8,190	1949	Jan. 28, 1949	18.75	a12,700
1934	Mar. 28, 1934	13.66	6,260	1950	Jan. 16, 1950	18.17	a11,700
1935	Mar. 16, 1935	16.40	8,960	1951	Feb. 22, 1951	18.80	a12,100
1936	Apr. 8, 1936	11.28	4,190	1952	Jan. 6, 1952	19.60	11,000
1937	Jan. 25, 1937	18.20	12,700	1953	Mar. 24, 1953	13.07	4,990
1938	Feb. 20, 1938	15.76	9,280	1954	June 11, 1954	9.10	2,500
1939	Mar. 7, 1939	15.59	a9,130	1955	Mar. 23, 1955	17.1	8,350
1940	Apr. 21, 1940	13.35	6,980	1956	Feb. 19, 1956	17.00	8,290
1941	Jan. 26, 1941	7.75	2,240	1957	May 26, 1957	b21.70	11,700
1942	Apr. 10, 1942	15.3	8,480	1958	Nov. 20, 1957	21.18	13,100

a Corrected for diversion into ditch 1.

b Occurred May 24, 1957.

460. Little River ditch 259 near Kennett, Mo.

Location.--Lat 36°14'10", long 89°58'35", in NW $\frac{1}{4}$ sec.3, T.18 N., R.10 E., at bridge on State Highway 84, about 4 miles east of Kennett.

Drainage area.--89.0 sq mi.

Gage.--Nonrecording. Datum of gage is 241.00 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements, large shifts in relation occur frequently.

Bankfull stage.--10 ft.

Remarks.--Ditch completed after November 1926. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 29, 1927	15.57	4,140	1943	Mar. 20, 1943	9.3	962
1928	June 24, 1928	8.15	966	1944	Apr. 12, 1944	11.27	1,540
1929	Feb. 26, 1929	9.43	1,330	1945	June 12-15, 1945	11.6	1,890
1930	Jan. 14, 1930	11.04	1,820				
				1946	Jan. 11, 1946	10.98	1,730
1931	Apr. 27, 1931	4.50	212	1947	Apr. 11, 1947	8.95	1,200
1932	Jan. 17, 1932	9.82	1,350	1948	Mar. 23, 1948	9.45	1,360
1933	Apr. 23, 1933	10.72	1,360	1949	Mar. 27, 1949	10.78	1,470
1934	Mar. 29, 1934	11.38	1,160	1950	Feb. 15, 16, 1950	11.73	2,370
1935	Mar. 15, 1935	11.30	1,150				
				1951	Feb. 22, 23, 1951	11.37	2,110
1936	July 3, 1936	7.72	454	1952	Mar. 11, 1952	11.95	2,670
1937	Jan. 23, 1937	12.23	3,420	1953	Mar. 18, 1953	6.37	1,080
1938	Feb. 19, 1938	11.10	1,940	1954	May 29, 1954	7.0	1,120
1939	Feb. 3, 1939	10.63	1,780	1955	May 29, 1955	9.1	2,000
1940	Apr. 20, 1940	7.84	1,110				
				1956	Feb. 18, 1956	10.95	3,080
1941	Jan. 24, 1941	4.3	355	1957	July 4, 1957	11.81	2,920
1942	Apr. 10, 1942	10.69	1,720	1958	Nov. 20, 1957	11.40	2,720

a Includes some overflow from levee breaks on Mississippi River.

465. Big Lake Outlet near Manila, Ark.

Location.--Lat 35°51'00", long 90°07'40", in SE $\frac{1}{4}$ sec.9, T.14 N., R.9 E., at bridge on State Highway 18, 3 miles southeast of Manila.

Drainage area.--2,000 sq mi, approximately.

Gage.--Nonrecording. Datum of gage is 223.44 ft above mean sea level (unadjusted).

Stage-discharge relation.--Defined by current-meter measurements below 14,000 cfs.

Bankfull stage.--10 ft.

Remarks.--Flow is affected by natural regulation by Big Lake just upstream from gage. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	April 1927	20.3	16,900	1931	Mar. 14, 15, 1931	8.60	2,650
1928	July 4, 5, 1928	19.7	15,700	1932	Jan. 26, 27, 1932	18.0	12,600
1929	Mar. 6, 1929	16.90	10,600	1933	May 21, 22, 1933	16.8	12,800
1930	Jan. 16, 1930	19.85	15,900				

a Occurred July 5, 1928.

ST. FRANCIS RIVER BASIN

466. Right Hand Chute Little River at Rivervale, Ark.

Location.--Lat 35°40'20", long 90°20'12", in SW $\frac{1}{4}$ sec.10, T.12 N., R.7 E., at floodway bridge at Rivervale.

Drainage area.--2,113 sq mi.

Gage.--Nonrecording prior to Oct. 6, 1949; recording thereafter. Datum of gage is 213.15 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--8 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1939	Mar. 12, 13, 1939	11.2	-	1949	Feb. 2, 1949	12.6	23,100
1940	Apr. 28, 29, 1940	7.85	-	1950	Feb. 20, 1950	b13.57	29,200
1941	Feb. 1, 2, 1941	a4.85	-	1951	Jan. 22, 1951	10.6	14,900
1942	Apr. 18, 19, 1942	8.45	-	1952	Jan. 10, 1952	11.82	20,600
1943	May 21-24, 1943	8.4	-	1953	Mar. 27, 1953	c9.27	8,540
1944	Apr. 20, 21, 1944	10.0	-	1954	May 8, 1954	5.0	2,680
1945	June 22, 23, 1945	12.9	23,000	1955	Mar. 29, 30, 1955	8.7	6,340
1946	Jan. 18, 1946	9.65	11,000	1956	Feb. 24, 1956	10.7	9,340
1947	Apr. 19, 20, 1947	7.8	5,800	1957	Nov. 23, 1957	13.55	31,400
1948	Apr. 5, 1948	9.45	8,030	1958	Mar. 30, 1958	11.20	18,700

a Maximum crest stage; maximum stage occurred Dec. 31 on a rise that crested in January 1942.

b Occurred Jan. 19, 1950.

c Occurred on the following day.

470. St. Francis River floodway near Marked Tree, Ark.

Location.--Lat 35°36', long 90°27', in SE $\frac{1}{4}$ sec.10, T.11 N., R.6 E., at dam of Poinsett County Drainage District 7, 3 miles north of Marked Tree.

Drainage area.--Indeterminate. Total drainage area of St. Francis River and St. Francis River floodway, 5,258 sq mi.

Gage.--Nonrecording. Datum of gage is 198.71 ft above Memphis datum or 192.08 ft above mean sea level (Morgan Engineering Co. bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 47,000 cfs.

Remarks.--Flow diverted from St. Francis River bypasses Marked Tree and returns to St. Francis River immediately below Parkin. Some regulation by Wappapello Reservoir since 1941 (capacity, 625,000 acre-ft). Discharges tabulated below are combined flows of St. Francis River floodway near Marked Tree and St. Francis River at Marked Tree. Only annual maximum daily discharges are shown.

Maximum daily discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	Mar. 26, 1935	-	40,400	1947	Apr. 21, 1947	-	11,500
1936	Apr. 20, 1936	-	4,980	1948	Apr. 4, 1948	-	15,600
1937	Jan. 27, 1937	-	a58,000	1949	Feb. 4, 1949	-	36,700
1938	Mar. 2, 3, 1938	-	24,000	1950	Jan. 19, 1950	-	51,800
1939	Mar. 16, 1939	-	23,400	1951	Mar. 1, 1951	-	23,700
1940	May 3, 1940	-	15,400	1952	Jan. 11, 1952	-	29,200
1941	Feb. 6, 1941	-	4,870	1953	Mar. 23, 1953	-	19,000
1942	Apr. 21, 22, 1942	-	14,300	1954	May 8, 1954	-	6,460
1943	May 25, 1943	-	11,700	1955	Apr. 7, 1955	-	16,400
1944	Apr. 22, 1944	-	19,700	1956	Feb. 25, 1956	-	20,100
1945	June 22, 1945	-	40,400	1957	June 2, 1957	-	39,900
1946	June 4, 1946	-	19,100	1958	Nov. 24, 1957	-	49,600

a Includes 4,700 cfs through 2 levee breaks above station estimated on basis of records for St. Francis Bay at Riverfront.

475. St. Francis River at Marked Tree, Ark.

Location.--Lat 35°31'58", long 90°25'25", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.35, T.11 N., R.6 E., near left bank on downstream side of pier of bridge on U. S. Highway 63 at Marked Tree, 4.8 miles downstream from Little River and 7 miles downstream from dam of Poinsett County Drainage District 7.

Drainage area.--Indeterminate. Total drainage area of St. Francis River and St. Francis River floodway, 5,258 sq mi.

Gages.--Nonrecording prior to Jan. 18, 1935; recording thereafter. Auxiliary nonrecording gage Dec. 23, 1934, to Feb. 18, 1941, and recording gage thereafter at site 3 miles upstream. All gages at datum 196.44 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 7,100 cfs. Affected by variable slope.

Bankfull stage.--17 ft.

Remarks.--Floodflow diverted through St. Francis River floodway at dam of Poinsett County Drainage District 7 and bypassed to vicinity of Parkin. Flow partly regulated by Wappapello Reservoir since April 1941 and by siphons at dam of Poinsett County Drainage District 7. See table given on preceding page for combined annual maximum daily discharges of river and floodway.

476. Tyronza River near Tyronza, Ark.

Location.--Lat 35°30'18", long 90°22'48", in SE $\frac{1}{4}$ sec.7, T.10 N., R.7 E., at bridge on U. S. Highway 63, 2 miles northwest of Tyronza.

Drainage area.--301 sq mi.

Gage.--Nonrecording prior to Aug. 16, 1948; recording thereafter. Prior to Jan. 1, 1953, datum of gage was at mean Gulf level or 0.30 ft below mean sea level. Present datum of gage is 183.87 ft above mean sea level, datum of 1929. All stages adjusted to present datum.

Stage-discharge relation.--Defined by current-meter measurements. Affected by backwater from St. Francis River at times.

Bankfull stage.--27 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1937	-	28.2	-	1948	Mar. 3, 1948	25.7	-
1939	Feb. 5, 1939	29.9	-	1949	Jan. 28, 1949	a29.2	4,040
1940	Apr. 20, 1940	18.0	-	1950	Feb. 16, 1950	31.61	5,660
1941	Jan. 25, 1941	13.7	-	1951	July 6, 1951	b31.2	4,080
1942	Apr. 10, 1942	25.9	-	1952	Mar. 12, 1952	28.68	3,860
1943	Mar. 22, 1943	23.5	-	1953	May 20, 1953	31.45	5,240
1944	Feb. 19, 1944	25.88	-	1954	Jan. 17, 1954	28.5	3,370
1945	Apr. 3, 1945	29.6	-	1955	Apr. 14, 1955	29.1	4,470
1946	Jan. 12, 1946	29.6	-	1956	Jan. 31, 1956	c29.42	4,040
1947	June 24, 1947	24.8	-	1957	Nov. 20, 1957	b30.80	4,080
				1958	May 4, 1958	b29.10	4,510

a Occurred Jan. 17, 1949.

b Occurred on following day.

c Occurred Feb. 20, 1956.

ST..FRANCIS RIVER BASIN

478. St. Francis River at Parkin, Ark.

Location.--Lat 35°16'12", long 90°35'00", in SE $\frac{1}{4}$ sec.32, T.8 N., R.5 E., at Missouri Pacific Railroad bridge $1\frac{1}{2}$ miles west of Parkin and 2.9 miles downstream from Tyrnza River.

Drainage area.--Indeterminate. Total drainage area of St. Francis River and St. Francis Bay, 6,475 sq mi.

Gage.--Nonrecording prior to Sept. 10, 1948; recording thereafter. Datum of gage is 175.26 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Affected by backwater from St. Francis Bay.

Bankfull stage.--30 ft.

Historical data.--Gage-height records date back to 1893, but, due to levee construction, are not comparable to stages experienced since 1928.

Remarks.--The greater portion of St. Francis River floodflow is diverted through St. Francis River floodway and St. Francis Bay and returns to St. Francis River below Parkin.

Discharges tabulated below are combined flows of St. Francis River at Parkin and St. Francis Bay at Riverfront (see station below) and are published by Corps of Engineers as "St. Francis River near Wittsburg." Records furnished by Corps of Engineers. Only annual maximum daily discharges are shown.

Maximum daily discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1928	July 15, 1928	-	28,900	1944	Apr. 24, 1944	-	22,700
1929	May 30, 1929	-	22,900	1945	June 27, 1945	-	44,500
1930	Feb. 8, 1930	-	36,300				
				1946	Jan. 17, 1946	-	26,600
1931	Dec. 17, 1931	-	12,700	1947	May 22, 1947	-	14,300
1932	Feb. 3, 1932	-	32,600	1948	Apr. 15, 1948	-	23,200
1933	June 2, 1933	-	26,500	1949	Feb. 8, 1949	-	37,600
1934	Apr. 4, 1934	-	21,100	1950	Jan. 21, 1950	-	53,400
1935	Mar. 30, 1935	-	37,300				
				1951	Dec. 15, 1951	-	28,500
1936	Dec. 9, 1936	-	8,070	1952	Jan. 16, 1952	-	31,100
1937	Feb. 2, 1937	-	74,100	1953	Mar. 24, 1953	-	28,000
1938	Mar. 7, 1938	-	26,100	1954	Jan. 22, 1954	-	10,900
1939	Feb. 21, 1939	-	26,400	1955	Apr. 15, 1955	-	24,900
1940	May 6, 1940	-	14,700				
				1956	Feb. 24, 1956	-	27,900
1941	Jan. 26, 1941	-	5,340	1957	Nov. 27, 1957	-	45,200
1942	Apr. 12, 1942	-	17,800	1958	Apr. 7, 1958	-	31,500
1943	June 1-2, 1943	-	11,700				

479. St. Francis Bay at Riverfront, Ark.

Location.--Lat 35°15'34", long 90°40'46", in W $\frac{1}{2}$ sec.4, T.7 N., R.4 E., at bridge on U. S. Highway 64 at Riverfront, 0.8 mile upstream from mouth and 7 miles west of Parkin.

Drainage area.--Indeterminate. Total drainage area of St. Francis River and St. Francis Bay, 6,475 sq mi.

Gage.--Nonrecording prior to Aug. 20, 1948; recording thereafter. Datum of gage is 171.22 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Affected by backwater from St. Francis River.

Bankfull stage.--30 ft.

Remarks.--See St. Francis River at Parkin.

479.5. L'Anguille River at Palestine, Ark.

Location.--Lat 34°58'20", long 90°53'10", in NW $\frac{1}{4}$ sec.10, T.4 N., R.2 E., at bridge on U. S. Highway 70, 1 mile east of Palestine.

Drainage area.--807 sq mi.

Gage.--Nonrecording prior to Nov. 1, 1949; recording thereafter. Prior to Jan. 1, 1952, datum of gage was at mean Gulf level, or 0.32 ft below mean sea level. Present datum of gage is 166.68 ft above mean sea level, datum of 1929. All stages adjusted to present datum.

Stage-discharge relation.--Defined below 13,700 cfs and extended above by logarithmic plotting. Affected by backwater from the Mississippi River at times.

Bankfull stage.--22 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date.	Gage height (feet)	Discharge (cfs)
1953	Apr. 13, 14, 1953	28.8	-	1947	May 26, 27, 1947	22.9	-
1955	Apr. 1, 2, 1955	27.45	-	1948	Mar. 3, Apr. 13	25.4	-
				1949	Jan. 29, 1949	26.6	13,500
				1950	Jan. 14, 1950	a30.92	12,400
1956	Apr. 23, 24, 1956	28.87	-				
1957	Feb. 13, 1957	39.7	-	1951	Jan. 18, 1951	24.7	9,000
1959	Mar. 3, 4, 1959	26.8	-	1952	Mar. 14, 1952	b24.65	6,430
				1953	May 20, 1953	27.55	15,600
				1954	Jan. 24, 1954	23.9	5,800
1942	Dec. 31, 1942	20.9	-	1955	May 29, 1955	24.55	8,150
1943	June 8, 1943	26.08	-				
1944	May 7, 8, 1944	25.2	-	1956	Feb. 20, 1956	25.7	11,000
1945	Apr. 3, 1945	29.6	-	1957	Nov. 20, 1957	27.65	15,300
1946	Jan. 12, 1946	26.75	-	1958	May 11, 1958	26.35	12,500

a Occurred Feb. 3, 1950.

b Occurred Apr. 4, 1952.

MISSISSIPPI RIVER MAIN STEM

479.7. Mississippi River at Helena, Ark.

Location.--Lat 34°31'26", long 90°35'02", on right bank at Helena, Phillips County, 10 miles downstream from St. Francis River and at mile 659.9.

Drainage area.--941,800 sq mi, approximately.

Gage.--Nonrecording. Datum of gage is 141.88 ft above mean sea level, datum of 1929, or 141.81 ft above mean Gulf level.

Stage-discharge relation.--Defined by current-meter measurements below 2,014,000 cfs. Occasional measurements since 1882 and frequent measurements since 1928.

Bankfull stage.--41 ft.

Remarks.--Natural flow of stream affected by many reservoirs and navigation dams. Records from publications of Mississippi River Commission and Memphis District, Corps of Engineers. Only annual peaks are shown.

MISSISSIPPI RIVER MAIN STEM

Peak stages and discharges of Mississippi River at Helena, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1828	-	43.11	-	1908	Mar. 23, 1908	a45.2	1,356,000
1844	-	42.21	-	1909	Mar. 23, 1909	a47.65	1,429,000
1849	-	42.81	-	1910	Mar. 21, 1910	40.7	-
1850	May 1, 1850	42.81	-	1911	Apr. 28, 29, 1911	44.56	-
1851	-	39.81	-	1912	Apr. 23, 1912	a54.3	2,041,000
1858	July 2-6, 1858	44.61	-	1913	Apr. 22, 1913	55.2	1,805,000
1859	Mar. 22, 1859	43.61	-	1914	Apr. 17, 1914	39.43	-
1862	-	46.4	-	1915	Feb. 20, 1915	43.55	-
1865	-	44.4	-	1916	Feb. 10, 1916	a53.4	1,565,000
1867	-	45.82	-	1917	Apr. 13, 1917	a49.9	1,474,000
1872	Apr. 26, 1872	39.03	-	1918	Mar. 2, 3, 1918	37.49	-
1873	Mar. 6, 1873	40.0	-	1919	Apr. 1, 1919	46.2	-
1874	May 11, 1874	45.82	-	1920	Apr. 5, 1920	a50.1	1,535,000
1875	Apr. 12-14, 1875	42.4	-	1921	Apr. 9, 10, 1921	38.65	-
1876	Apr. 18, 19, 1876	44.85	-	1922	Apr. 3, 4, 1922	a53.1	1,612,000
1877	Apr. 30, May 1	41.8	-	1923	Mar. 30, Apr. 1	45.5	-
1878	May 3, 4, 1878	38.75	-	1924	Jan. 21, 22, 1924	42.2	-
1879	Jan. 31, 1879	37.25	-	1925	Mar. 4, 1925	35.1	-
1880	Mar. 31, 1880	43.7	-	1926	Apr. 23, 24, 1926	38.3	-
1881	May 14, 1881	43.74	-	1927	Apr. 29, 1927	a56.75	b1,756,000
1882	Mar. 8, 1882	a47.2	1,558,000	1928	July 12, 13, 1928	45.7	1,242,000
1883	Mar. 8, 9, 1883	46.9	-	1929	May 27, 1929	a52.62	1,584,000
1884	Mar. 6, 1884	47.0	-	1930	Jan. 25, 1930	43.86	1,133,000
1885	Jan. 28, 1885	a40.7	1,021,000	1931	Apr. 16, 1931	a30.3	685,000
1886	Apr. 30, 1886	48.1	-	1932	Feb. 20, 1932	a49.2	1,287,000
1887	Mar. 21, 22, 1887	46.4	-	1933	Apr. 12, 1933	a50.62	1,264,000
1888	Apr. 14, 15, 1888	42.8	-	1934	Mar. 18, 1934	a36.77	866,000
1889	June 28, 1889	34.1	-	1935	Mar. 28, Apr. 1	a48.94	1,192,000
1890	Mar. 29, 30, 1890	47.72	-	1936	Apr. 23, 1936	a50.64	1,369,000
1891	Mar. 21, 1891	a44.7	1,455,000	1937	Feb. 12, 1937	a60.21	1,968,000
1892	May 11, 1892	45.73	1,326,000	1938	Apr. 23, 1938	43.55	1,028,000
1893	May 23, 1893	a47.92	1,594,000	1939	Mar. 27, 1939	a48.2	1,309,000
1894	Feb. 21, 1894	38.07	-	1940	May 9, 1940	40.51	993,000
1895	Mar. 30, 31, 1895	31.3	-	1941	Apr. 29, 1941	27.0	587,000
1896	Apr. 17, 1896	38.42	-	1942	Mar. 30, 1942	a38.22	990,000
1897	Apr. 4, 1897	51.75	-	1943	June 7, 8, 1943	a46.89	1,298,000
1898	Apr. 14, 15, 1898	a49.11	1,405,000	1944	May 10, 1944	a45.95	1,361,000
1899	Apr. 12-15, 1899	46.75	-	1945	Apr. 12, 1945	a49.27	1,442,000
1900	Mar. 21, 1900	38.25	-	1946	Jan. 23, 1946	a44.2	1,333,000
1901	May 8, 9, 1901	41.45	-	1947	Apr. 25, 1947	a40.38	1,103,000
1902	Mar. 23, 24, 1902	39.58	-	1948	Apr. 6, 1948	a45.3	1,296,000
1903	Mar. 25, 1903	a51.0	1,558,000	1949	Feb. 6, 7, 1949	a43.9	1,284,000
1904	Apr. 14, 1904	a47.62	1,412,000	1950	Feb. 23, 1950	a50.28	1,643,000
1905	May 29, 1905	37.77	-	1951	Mar. 5, 1951	a43.35	1,176,000
1906	Apr. 18, 1906	a47.05	1,259,000	1952	Apr. 3, 1952	45.46	1,366,000
1907	Feb. 3, 1907	a50.39	1,691,000	1953	May 25, 1953	34.97	866,000
				1954	Jan. 30, 31, 1954	26.25	622,000
				1955	Apr. 4, 1955	44.12	1,298,000
				1956	Mar. 2, 1956	38.1	1,019,000
				1957	Feb. 17, 1957	a39.05	1,027,000
				1958	May 16, 1958	a39.02	1,021,000

a Occurred on different day than peak discharge.

b Does not include flow around levees.

Note.--Daily discharges computed from 1928 to date. Peaks prior to this date are results of discharge measurements made during periods of maximum stage.

480. West Fork White River at Greenland, Ark.

Location.--Lat 35°59', long 94°10', in NW $\frac{1}{4}$ sec.16, T.15 N., R.30 W., near left bank on downstream side of pier of bridge on U. S. Highway 71, 1 mile south of Greenland, 5 $\frac{1}{2}$ miles upstream from small tributary, and 10.5 miles upstream from mouth.

Drainage area.--83 sq mi.

Gage.--Recording. Datum of gage is 1,233.00 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs and extended above on basis of an area-velocity study.

Bankfull stage.--9 ft.

Remarks.--Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Feb. 13, 1946	9.66	6,410	1953	Mar. 14, 1953	9.50	9,800
	May 24, 1946	13.71	23,400		Mar 17, 1953	6.95	4,750
					May 12, 1953	7.50	5,560
1947	Nov. 6, 1946	9.09	5,080	1954	May 2, 1954	5.98	3,270
	Nov. 9, 1946	9.28	5,500				
	Dec. 10, 1946	8.65	4,150	1955	Dec. 27, 1954	6.56	4,140
	Apr. 10, 1947	7.86	3,170		Feb. 19, 1955	8.20	6,790
	June 1, 1947	9.76	6,660		Mar. 20, 1955	7.40	5,390
1948	Aug. 11, 1948	10.60	11,800	Apr. 21, 1955	8.35	7,180	
	Aug. 14, 1948	12.10	18,600	May 21, 1955	6.38	3,840	
1949	Jan. 24, 1949	9.16	8,050	May 26, 1955	6.43	3,840	
	Jan. 27, 1949	6.58	3,390	June 15, 1955	8.03	6,420	
	Feb. 14, 1949	9.05	7,570	1956	Apr. 29, 1956	7.70	5,530
	June 13, 1949	10.64	12,100		May 15, 1956	10.00	10,800
1950	Jan. 4, 1950	6.62	3,540	1957	Feb. 5, 1957	7.32	4,430
	Jan. 13, 1950	8.54	6,920		Apr. 3, 1957	13.54	27,700
	Feb. 12, 1950	7.06	4,290		Apr. 26, 1957	6.59	3,360
	May 11, 1950	9.71	9,900		May 17, 1957	9.52	8,700
	July 18, 1950	6.60	3,750		May 22, 1957	13.47	27,700
	July 22, 1950	6.98	4,380		May 25, 1957	7.62	4,940
1951	Feb. 20, 1951	8.72	7,410	1958	July 12, 1958	9.75	9,420
1952	Apr. 12, 1952	6.08	3,600		July 26, 1958	6.66	3,430
	May 23, 1952	7.60	5,700				

485. West Fork White River near Fayetteville, Ark.

Location.--Lat 36°03', long 94°07', in NE $\frac{1}{4}$ sec.24, T.16 N., R.30 W., at bridge on State Highway 16, 3 miles southeast of Fayetteville and 3 $\frac{1}{2}$ miles upstream from mouth.

Drainage area.--118 sq mi.

Gage.--Recording. Datum of gage is 1,158.06 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 6,600 cfs and extended above by slope-area and contracted-opening measurements at 26,500, 36,000, and 53,000 cfs.

Bankfull stage.--13 ft.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges of West Fork White River near Fayetteville, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Feb. 15, 1938	13.62	5,780	1943	Nov. 7, 1942	14.34	6,050
	Feb. 18, 1938	16.18	9,010		Dec. 27, 1942	19.03	25,500
	May 23, 1938	15.20	7,550		May 10, 1943	19.71	36,000
1939	Feb. 19, 1939	12.75	5,080	1944	Apr. 8, 1944	16.33	9,210
1940	Sept. 24, 1940	11.61	4,100		Apr. 10, 1944	15.11	7,150
					June 14, 1944	18.16	17,000
1941	Jan. 1, 1941	15.83	8,900	1945	Feb. 21, 1945	15.78	8,290
	Apr. 19, 1941	19.10	26,500		Feb. 26, 1945	14.06	5,870
1942	Oct. 16, 1941	13.60	5,780		Mar. 19, 1945	17.05	10,900
	Oct. 31, 1941	12.80	5,080		Mar. 30, 1945	14.43	6,230
	Apr. 8, 1942	13.12	5,340		Apr. 14, 1945	21.50	53,000
					June 10, 1945	17.66	13,700

490. War Eagle Creek near Hindsville, Ark.

Location.--Lat 36°12'10", long 93°51'30", in NE $\frac{1}{4}$ sec.28, T.18 N., R.27 W., on right bank at downstream side of bridge on State Highway 45, 4 miles downstream from Poyner Hollow Creek and 4 miles north of Hindsville.

Drainage area.--262 sq mi.

Gage.--Recording. Datum of gage is 1,172.66 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 28,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	May 10, 1943	28.1	a50,000	1957	Feb. 5, 1957	10.51	6,500
1953	Mar. 14, 1953	12.98	9,260		Mar. 24, 1957	9.86	5,940
	Mar. 18, 1953	11.98	8,020		Apr. 3, 1957	23.86	34,600
	May 13, 1953	12.91	9,770		Apr. 26, 1957	14.38	11,200
1954	May 2, 1954	7.47	3,810		May 14, 1957	11.10	7,080
					May 17, 1957	19.65	21,200
				May 23, 1957	23.30	32,300	
1955	Dec. 28, 1954	11.38	7,380	May 25, 1957	12.39	8,480	
	Feb. 20, 1955	10.00	6,030	May 30, 1957	9.16	5,310	
	Mar. 21, 1955	14.56	11,900	June 2, 1957	11.06	7,080	
1956	Apr. 29, 1956	14.16	11,100	June 18, 1957	10.13	6,120	
	May 15, 1956	14.84	12,300	1958	Mar. 9, 1958	9.80	5,140
			July 25, 1958		10.14	5,450	
			Aug. 2, 1958		15.04	12,200	

a Annual peak only, approximately.

495. White River near Rogers, Ark.

Location.--Lat 36°20', long 94°01', in E $\frac{1}{2}$ sec.12, T.19 N., R.29 W., on right bank at downstream side of pier of bridge on State Highway 12, 2.2 miles upstream from Prairie Creek, 6 miles east of Rogers, and at mile 643.2.

Drainage area.--1,020 sq mi.

Gage.--Recording. Datum of gage is 1,006.47 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 67,000 cfs.

Bankfull stage.--31 ft.

Historical data.--Flood in May 1943 was highest known since at least 1892, from information by local residents.

Remarks.--Base for partial-duration series, 18,000 cfs.

Peak stages and discharges of White River near Rogers, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	May 1943	52.9	a100,000	1955	Mar. 21, 1955	25.42	24,500
1945	April 1945	50.4	a89,000	1956	Apr. 30, 1956 May 16, 1956	21.85 29.58	19,600 32,200
1953	Mar. 15, 1953	27.04	27,800	1957	Apr. 4, 1957	43.73	65,700
	Mar. 18, 1953	23.77	22,700		Apr. 27, 1957	23.42	22,000
	May 13, 1953	27.34	28,300		May 18, 1957	30.70	34,300
1954	May 3, 1954	16.58	11,600	May 24, 1957	42.66	62,700	
1955	Dec. 29, 1954	21.72	18,600	May 26, 1957	25.61	25,600	
	Feb. 21, 1955	22.93	20,400	1958	Aug. 3, 1958	22.08	20,100

a Annual peak only.

500. White River at Beaver, Ark.

Location.--Lat 36°28'20", long 93°45'55", in NE $\frac{1}{4}$ sec.20, T.21 N., R.26 W., on upstream side of Missouri & North Arkansas Railway bridge, a quarter of a mile east of Beaver, 2 $\frac{3}{4}$ miles upstream from Leatherwood Creek, and at mile 595.5.

Drainage area.--1,238 sq mi.

Gage.--Nonrecording. Datum of gage is 883.04 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 90,000 cfs.

Bankfull stage.--30 ft.

Remarks.--Peaks for period 1921-23 computed from plotted Empire District Electric Co. gage readings at site 1,500 ft upstream revised to read same as present gage. Base for partial-duration series, 22,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1898	-	40	a94,000	1933	Dec. 25, 1932 May 15, 1933 Sept. 5, 1933	20.46 27.70 18.89	27,200 42,200 25,700	
1910	May 17, 1910	17.35	a21,500	1934	Oct. 23, 1933	14.83	16,500	
1922	Apr. 6, 1922	10.50	9,400	1935	Mar. 13, 1935 June 4, 1935 June 9, 1935 June 19, 1935	22.74 25.73 21.70 27.55	32,300 34,800 29,900 41,100	
1923	Feb. 2, 1923	21.08	28,200	1936	Dec. 8, 1935	12.32	12,000	
1924	May 1, 1924	18.35	23,500	1937	Jan. 16, 1937	18.58	23,400	
1925	Dec. 20, 1924	18.12	22,900	1938	Feb. 19, 1938 May 24, 1938	26.80 19.82	40,300 25,700	
1926	Oct. 11, 1925	12.3	b12,300	1939	Apr. 18, 1939	16.70	19,700	
1927	Jan. 25, 1927	21.70	29,400	1940	Apr. 13, 1940	16.00	18,400	
	Apr. 16, 1927	37.0	80,200		1941	Jan. 3, 1941 Apr. 20, 1941	19.44 26.3	24,800 39,500
	Apr. 20, 1927	25.10	36,300			1942	Nov. 1, 1941 Apr. 10, 1942	20.5 20.35
1928	Oct. 2, 1927	25.65	39,700	1943	Dec. 29, 1942 May 12, 1943	31.95 42.53	59,500 105,000	
	Oct. 4, 1927	26.85	43,000		1944	June 16, 1944	22.3	31,300
	Dec. 15, 1927	30.60	48,900	1945		Feb. 23, 1945 Feb. 28, 1945 Mar. 4, 1945	23.00 21.40 19.96	33,000 29,200 26,100
	Apr. 7, 1928	22.10	30,800					
	Apr. 22, 1928	26.50	42,200					
June 14, 1928	23.73	34,800						
June 22, 1928	18.78	23,500						
1929	Jan. 26, 1929	23.85	33,900					
	Apr. 10, 1929	19.01	23,900					
	May 10, 1929	20.99	28,300					
	July 9, 1929	22.00	30,600					
1930	May 12, 1930	19.15	24,500					
1931	Feb. 10, 1931	19.69	25,100					
1932	Jan. 18, 1932	16.15	19,100					

a Annual peak only.

b Maximum crest discharge; maximum discharge, 19,300 cfs at 12 p.m. Sept. 30, 1926, rising stage.

Peak stages and discharges of White River at Beaver, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1945	Mar. 20, 1945	28.25	47,100	1950	Aug. 7, 1950	20.1	26,300	
	Apr. 1, 1945	22.65	32,000		1951	Feb. 20, 1951	27.75	45,900
	Apr. 16, 1945	40.9	98,200	1952		Mar. 12, 1952	18.58	23,100
	May 17, 1945	18.38	22,600			Apr. 14, 1952	19.10	24,100
	June 12, 1945	29.75	52,000	1953	Mar. 16, 1953	21.10	25,900	
1946	Feb. 15, 1946	22.55	32,000		May 14, 1953	21.65	27,100	
	May 26, 1946	32.50	61,400	1954	May 4, 1954	13.8	12,100	
1947	Nov. 11, 1946	20.60	27,400		1955	Mar. 22, 1955	20.20	23,900
	Dec. 12, 1946	20.97	28,300	1956		May 17, 1956	23.7	31,800
1948	Aug. 16, 1948	24.52	36,800		1957	Apr. 5, 1957	33.50	61,600
	1949	Jan. 26, 1949	26.3	41,600		Apr. 28, 1957	19.3	22,000
Feb. 16, 1949		28.5	48,000	May 19, 1957	24.5	34,400		
1950	Jan. 6, 1950	19.9	25,900	May 25, 1957	33.0	59,700		
	Jan. 15, 1950	21.0	28,300	1958	Aug. 3, 1958	16.72	17,700	
	Feb. 14, 1950	20.1	26,300					
	May 12, 1950	31.95	59,500					
	July 20, 1950	21.3	29,000					

505. Kings River near Berryville, Ark.

Location.--Lat 36°25'30", long 93°37'20", in E $\frac{1}{2}$ sec.3, T.20 N., R.25 W., on right bank at downstream side of highway bridge, 1 $\frac{1}{4}$ miles downstream from Bee Creek, 2 $\frac{1}{4}$ miles upstream from Clabber Creek, and 5 $\frac{1}{4}$ miles northwest of Berryville.

Drainage area.--532 sq mi.

Gage.--Nonrecording Apr. 4 to July 11, 1939, and Oct. 1, 1951, to Oct. 22, 1952; recording July 12, 1939, to Sept. 30, 1951, and since Oct. 23, 1952. Prior to Oct. 1, 1951, at site 5 miles upstream at datum 27.71 ft higher. Present datum is 963.10 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 45,000 cfs.

Bankfull stage.--28 ft; 16 ft at former site and datum.

Remarks.--Base for partial-duration series, 8,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 14, 1927	a38.0	b62,000	1945	June 11, 1945	17.98	19,400
1939	Apr. 17, 1939	17.0	19,000	1946	Jan. 9, 1946	15.44	14,300
	May 12, 1939	13.3	11,300		Feb. 13, 1946	17.53	18,300
1940	Apr. 11, 1940	13.93	12,400		May 25, 1946	17.82	18,900
	1941	Jan. 1, 1941	13.01	10,100	1947	Nov. 10, 1946	13.25
Apr. 19, 1941		20.18	25,600	Dec. 12, 1946		15.64	15,500
1942	Oct. 31, 1941	15.30	14,000	May 14, 1947		10.60	8,000
	Apr. 9, 1942	13.16	10,400	1948	Jan. 1, 1948	9.55	6,210
1943	Dec. 27, 1942	24.48	39,900		1949	Jan. 25, 1949	18.24
	May 10, 1943	30.20	59,000	Jan. 28, 1949		12.40	9,980
1944	Feb. 29, 1944	12.22	8,840	Feb. 14, 1949	20.65	26,200	
	June 15, 1944	13.23	10,400	1950	Jan. 4, 1950	17.48	19,100
1945	Feb. 21, 1945	18.68	20,500		Jan. 13, 1950	a16.1	11,200
	Feb. 26, 1945	16.40	15,300		Feb. 13, 1950	16.00	16,200
	Mar. 3, 1945	13.88	11,000		May 10, 1950	24.32	39,400
	Mar. 19, 1945	22.35	32,100		May 21, 1950	a13.2	8,180
	Mar. 31, 1945	16.74	15,900		July 19, 1950	15.60	15,500
	Apr. 2, 1945	21.16	27,800		1951	Feb. 18, 1951	20.40
	Apr. 14, 1945	26.90	50,000	1952		Mar. 11, 1952	18.24
May 16, 1945	12.75	10,000	Apr. 12, 1952		17.43	12,700	

a Present site and datum.

b Annual peak only.

Peak stages and discharges of Kings River near Berryville, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Mar. 15, 1953	13.68	8,680	1957	Feb. 26, 1957	13.68	8,180
	Mar. 18, 1953	14.99	9,980		Apr. 4, 1957	33.28	46,300
	May 13, 1953	17.50	12,800		Apr. 27, 1957	17.53	13,000
1954	May 3, 1954	7.01	2,760		May 18, 1957	22.40	21,300
					May 23, 1957	29.85	36,800
1955	Mar. 21, 1955	16.80	12,000		May 25, 1957	20.99	18,800
	May 21, 1955	17.07	12,300		June 2, 1957	15.35	10,400
1956	Apr. 29, 1956	20.32	17,500		June 9, 1957	19.05	15,300
	May 15, 1956	20.50	17,900		1958	Mar. 9, 1958	13.66
			Mar. 24, 1958			13.83	8,780
			Aug. 2, 1958	13.44		8,380	

510. James River below Battlefield, Mo.
(Published as "near Battlefield" prior to June 1929)

Location.--Lat 37°05'30", long 93°12'25", in NE $\frac{1}{4}$ sec.32, T.28 N., R.22 W., at Blue Spring Highway bridge, 1.6 miles southwest of Battlefield and 3 miles upstream from Wilson Creek.

Drainage area.--328 sq mi; 303 sq mi prior to May 13, 1929.

Gage.--Nonrecording. Feb. 17, 1926, to May 13, 1929, at site 3 miles upstream at datum about 10 ft higher. May 13, 1929, to Jan. 7, 1932, at last used site and datum. Altitude of gage at last used site is 1,090 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 8,800 cfs.

Remarks.--Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	Sept. 30, 1926	6.30	1,920	1928	Apr. 22, 1928	11.3	8,010
1927	Mar. 31, 1927	14.3	13,300		June 9, 1928	15.80	16,200
	Apr. 9, 1927	10.70	7,020		June 13, 1928	9.00	4,450
	Apr. 15, 1927	15.00	14,600		June 28, 1928	16.10	16,800
	Apr. 19, 1927	10.50	6,700	1929	Apr. 9, 1929	11.20	8,010
	June 21, 1927	9.40	5,010		May 13, 1929	9.60	5,450
	Aug. 8, 1927	12.0	9,200		May 28, 1929	10.04	5,450
1928	Aug. 17, 1927	10.7	7,020	1930	Jan. 14, 1930	9.82	4,630
	Nov. 15, 1927	11.5	8,350	1931	Aug. 6, 1931	10.50	5,350
	Dec. 14, 1927	11.6	8,520				
	Apr. 6, 1928	14.3	13,300				

520. Wilson Creek near Springfield, Mo.

Location.--Lat 37°11'35", long 93°20'20", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.28, T.29 N., R.22 W., three-quarters of a mile downstream from Jordan Creek and 2 miles southwest of Springfield.

Drainage area.--19.4 sq mi.

Gage.--Recording. Datum of gage is 1,196.16 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 900 cfs and extended to 2,440 cfs on basis of area-velocity studies.

Bankfull stage.--5 ft.

Remarks.--Base for partial-duration series, 400 cfs.

WHITE RIVER BASIN

Peak stages and discharges of Wilson Creek near Springfield, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	June 27, 1932	7.62	a2,440	1936	Sept. 28, 1936	3.77	398
1933	Dec. 23, 1932	4.12	520	1937	Oct. 6, 1936	4.00	480
	Apr. 15, 1933	4.12	520		Oct. 25, 1936	4.30	580
	May 13, 1933	4.69	732		Nov. 2, 1936	4.60	692
	July 8, 1933	5.07	922		Jan. 8, 1937	3.90	452
	Sept. 2, 1933	3.98	488		Jan. 14, 1937	4.55	692
1934	June 15, 1934	3.82	424		Jan. 30, 1937	4.10	512
					Apr. 29, 1937	4.64	692
1935	Mar. 11, 1935	4.58	692		May 21, 1937	4.10	512
	Mar. 15, 1935	4.50	654		June 2, 1937	5.04	858
	May 29, 1935	4.46	654		June 9, 1937	4.90	806
	June 2, 1935	4.27	580		June 14, 1937	6.87	1,880
	June 7, 1935	5.13	882	July 19, 1937	3.95	480	
	June 14, 1935	5.40	1,000	Sept. 5, 1937	4.20	544	
	June 16, 1935	5.57	1,080	1938	Jan. 20, 1938	3.80	424
	July 2, 1935	4.12	512		Feb. 18, 1938	3.90	452
	Aug. 12, 1935	3.85	424		May 6, 1938	4.10	512
	Aug. 27, 1935	4.65	692		May 23, 1938	3.95	480
			June 16, 1938		5.35	980	

a Annual peak only.

525. James River at Galena, Mo.

Location.--Lat 36°48'20", long 93°27'50", in NW $\frac{1}{4}$ sec.7, T.24 N., R.23 W., at bridge on State Highways 13 and 44 in Galena, half a mile upstream from Bailey Creek and 42.3 miles above mouth.

Drainage area.--987 sq mi.

Gage.--Nonrecording prior to July 22, 1939; recording thereafter. Prior to Dec. 11, 1927, at site 500 ft downstream at datum 1.48 ft higher; Dec. 11, 1927, to Sept. 30, 1953, at present site at datum 2.00 ft higher. Datum of present gage is 921.37 ft above mean sea level, datum of 1929. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Remarks.--Base for partial-duration series, 12,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1922	Apr. 1, 1922	10.3	7,220	1930	Jan. 14, 1930	10.68	9,760	
1923	Mar. 12, 1923	11.9	9,940	1931	Aug. 6, 1931	14.55	17,500	
1924	July 12, 1924	15.5	15,600	1932	June 28, 1932	11.50	11,000	
	Aug. 11, 1924	15.2	15,000		1933	Dec. 24, 1932	15.20	18,700
1925	Dec. 19, 1924	16.7	18,000	Apr. 16, 1933		13.20	14,600	
				May 14, 1933		22.08	34,200	
1926	Sept. 30, 1926	9.8	5,700	1934	Apr. 6, 1934	4.77	2,130	
1927	Apr. 1, 1927	20.4	25,500		1935	Mar. 11, 1935	27.05	50,200
	Apr. 10, 1927	18.6	21,700	June 3, 1935		14.83	17,900	
	Apr. 15, 1927	27.1	41,900	June 7, 1935		14.81	17,900	
	Apr. 19, 1927	17.1	18,700	June 18, 1935		17.00	22,800	
	May 9, 1927	14.4	13,000	1936		Sept. 23, 1936	10.85	10,300
	Aug. 9, 1927	18.1	20,600			1937	Jan. 9, 1937	14.54
	Aug. 16, 1927	17.9	20,400	Jan. 15, 1937	16.80		17,900	
1928	Nov. 15, 1927	15.2	14,800	Jan. 31, 1937	14.90		14,000	
	Apr. 7, 1928	19.78	24,200	June 14, 1937	15.40		15,000	
	June 10, 1928	21.94	28,900	1938	Feb. 19, 1938		16.08	16,400
	June 21, 1928	16.68	17,700		1939		Feb. 20, 1939	13.0
	June 29, 1928	20.72	26,100					
1929	Apr. 9, 1929	14.30	16,800					
	May 13, 1929	12.74	13,600					

Peak stages and discharges of James River at Galena, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1940	Apr. 12, 1940	14.44	13,100	1950	Oct. 22, 1949	20.65	31,600	
1941	Apr. 17, 1941	15.50	14,300		Jan. 4, 1950	12.8	13,200	
	Apr. 20, 1941	28.87	49,900		Jan. 14, 1950	15.0	17,500	
					May 11, 1950	18.4	25,600	
1942	Oct. 31, 1941	17.54	18,100	1951	Feb. 19, 1951	14.59	16,700	
	Apr. 9, 1942	14.20	12,000			June 23, 1951	14.86	17,400
	June 18, 1942	15.10	13,600			July 1, 1951	18.90	26,900
					July 5, 1951	19.95	29,900	
1943	Dec. 28, 1942	23.26	33,500	1952	Feb. 2, 1952	16.62	16,800	
	May 11, 1943	25.39	39,600					
	May 20, 1943	29.82	52,700	1953	Mar. 15, 1953	8.87	4,900	
1944	Apr. 11, 1944	15.48	14,400	1954	May 3, 1954	8.87	4,900	
1945	Feb. 22, 1945	14.70	16,800	1955	Feb. 20, 1955	16.40	16,400	
	Mar. 3, 1945	17.80	24,100					
	Mar. 7, 1945	17.29	22,800	1956	May 15, 1956	20.98	27,200	
	Apr. 3, 1945	19.55	28,900					
	Apr. 15, 1945	23.87	41,000					
1946	Feb. 14, 1946	15.07	17,600	1957	Apr. 4, 1957	19.20	22,600	
						May 24, 1957	20.36	25,600
						May 26, 1957	18.90	21,900
					June 3, 1957	15.00	13,800	
1947	Apr. 25, 1947	23.65	40,100	1958	Dec. 18, 1957	21.46	28,600	
1948	June 19, 1948	15.30	18,100			Mar. 24, 1958	17.37	19,500
						July 8, 1958	14.96	13,800
1949	Feb. 16, 1949	13.6	14,700			July 18, 1958	16.80	17,200

530. White River near Reeds Spring, Mo.

Location.--Lat 36°37'20", long 93°25'20", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 9, T.22 N., R.23 W., at bridge on State Highway 13, 5 $\frac{1}{2}$ miles downstream from James River, 12 miles south of Reeds Spring, and at mile 543.8.

Drainage area.--3,617 sq mi.

Gage.--Nonrecording prior to Dec. 17, 1938, May 11 to Oct. 1, 1943, and Mar. 11, 1945, to Feb. 14, 1947; recording Dec. 18, 1938, to May 10, 1943 (destroyed by flood), Oct. 2, 1943, to Mar. 10, 1945 (destroyed by flood), and Feb. 15, 1947, to Sept. 30, 1952. Datum of gage is 739.00 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 175,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Base for partial-duration series, 30,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1927	Apr. 15, 1927	46.8	a195,000	1944	Apr. 11, 1944	15.33	30,100	
1938	Feb. 18, 1938	31.0	95,100	1945	Feb. 23, 1945	20.09	46,500	
	Mar. 30, 1938	15.3	31,300			Feb. 28, 1945	17.57	38,000
	May 24, 1938	19.9	47,400			Mar. 4, 1945	23.52	58,200
					Mar. 21, 1945	26.25	68,400	
1939	Feb. 21, 1939	15.03	30,300		Apr. 2, 1945	25.60	66,000	
	Apr. 18, 1939	18.55	42,700		Apr. 16, 1945	47.00	196,000	
	May 13, 1939	19.74	46,700		May 17, 1945	17.8	38,700	
1940	Apr. 13, 1940	15.57	32,300		June 12, 1945	27.75	75,000	
				1946	Feb. 15, 1946	20.95	49,600	
1941	Apr. 16, 1941	19.2	44,800			May 27, 1946	26.94	71,200
	Apr. 20, 1941	34.8	107,000	1947	Dec. 12, 1946	21.2	50,300	
1942	Nov. 1, 1941	22.35	53,900			Apr. 26, 1947	20.9	49,300
	Apr. 10, 1942	19.1	42,200	1948	Aug. 17, 1948	16.57	34,800	
1943	Oct. 31, 1942	15.50	30,800		1949	Jan. 27, 1949	21.5	51,300
	Dec. 28, 1942	32.15	94,300			Feb. 16, 1949	26.56	70,000
	May 11, 1943	44.9	183,000					
	May 20, 1943	30.05	84,200					

a Annual peak only.

WHITE RIVER BASIN

Peak stages and discharges of White River near
Reeds Spring, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Jan. 5, 1950	17.62	38,000	1951	Feb. 21, 1951	27.80	75,000
	Jan. 15, 1950	20.00	46,200		July 2, 1951	18.76	42,100
	Feb. 14, 1950	19.04	39,400		July 5, 1951	18.71	41,800
	May 12, 1950	38.65	135,000	1952	Mar. 12, 1952	15.90	32,600
	July 20, 1950	15.56	31,700		Apr. 14, 1952	17.09	36,400

535. White River near Branson, Mo.
(Published as "at Forsyth" prior to 1953)

Location.--Lat 36°36', long 93°17', in NE $\frac{1}{4}$ sec.22, T.22 N., R.22 W., on left bank 1.4 miles downstream from Long Creek, 5 miles southwest of Branson, 7.4 miles upstream from Missouri Pacific Railroad Co. bridge, and at mile 527.8.

Drainage area.--4,022 sq mi; 4,544 sq miles prior to Oct. 1, 1952.

Gage.--Recording. Prior to Oct. 1, 1952, at site 24 miles downstream at datum 55.36 ft lower. Datum of present gage is 696.00 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur.

Bankfull stage.--35 ft.

Remarks.--Flow completely regulated by Table Rock Reservoir since Sept. 9, 1956. Base for partial-duration series, 36,000 cfs "at Forsyth", 33,000 cfs "near Branson."

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1898	-	38.60	a160,000	1945	Feb. 22, 1945	18.83	51,300	
1927	Apr. 16, 1927	45.36	a212,000		Mar. 1, 1945	16.38	41,200	
					Mar. 4, 1945	21.05	61,300	
1930	May 12, 1930	14.50	31,100	Mar. 21, 1945	23.36	71,600		
1931	Feb. 11, 1931	14.50	31,100	Apr. 2, 1945	26.92	88,600		
				Apr. 16, 1945	43.77	209,000		
1932	Jan. 17, 1932	15.70	35,500	May 18, 1945	16.00	39,500		
				June 13, 1945	23.83	73,800		
1933	Dec. 25, 1932	19.18	47,400	1946	Feb. 15, 1946	18.63	50,500	
	May 15, 1933	29.3	84,600		May 27, 1946	22.90	69,800	
1934	Apr. 7, 1934	11.25	21,300	1947	Nov. 6, 1946	17.80	47,500	
					Nov. 10, 1946	16.50	42,400	
1935	Mar. 11, 1935	35.23	127,000		Dec. 12, 1946	20.46	59,200	
	Mar. 25, 1935	18.57	50,700	Apr. 26, 1947	18.40	50,100		
	June 4, 1935	23.10	68,700	1948	June 19, 1948	17.43	46,100	
	June 8, 1935	23.68	71,100		1949	Jan. 27, 1949	22.0	65,700
	June 19, 1935	26.31	81,600	Feb. 17, 1949		23.37	72,000	
1936	Sept. 29, 1936	12.53	28,100	1950	Jan. 5, 1950	16.28	41,500	
1937	Jan. 16, 1937	18.49	50,600		Jan. 15, 1950	18.17	49,400	
	Feb. 1, 1937	15.18	37,900		Feb. 14, 1950	16.66	43,200	
					May 12, 1950	38.75	161,000	
1938	Feb. 18, 1938	29.84	110,000	1951	Feb. 20, 1951	25.64	82,400	
	Mar. 29, 1938	15.22	37,600		July 2, 1951	16.88	44,000	
	May 24, 1938	17.93	49,800		July 4, 1951	17.10	44,800	
1939	Apr. 19, 1939	16.19	42,000	1952	Mar. 12, 1952	14.22	36,100	
	May 13, 1939	18.63	54,100		Apr. 14, 1952	15.07	40,100	
1940	Apr. 12, 1940	16.32	42,500	1953	Mar. 16, 1953	21.22	32,600	
	1941	Apr. 16, 1941	20.17	56,900	1954	May 4, 1954	15.18	17,800
Apr. 20, 1941		30.57	106,000	1955		Dec. 30, 1954	21.91	35,500
1942	Nov. 1, 1941	20.00	56,000		Feb. 21, 1955	22.24	36,400	
	Apr. 11, 1942	17.15	44,000	1956	May 16, 1956	36.9	89,100	
1943	Dec. 29, 1942	28.45	96,000		1957	June 10-11, 1957	18.53	25,900
	May 12, 1943	42.0	193,000			1958	May 16, 1958	12.50
	May 20, 1943	26.68	97,500					
1944	Mar. 22, 1944	14.76	34,600					

a Annual peak only.

550. White River near Flippin, Ark.

Location.--Lat 36°18'50", long 92°33'20", in NE $\frac{1}{4}$ sec.10, T.19 N., R.15 W., on right bank 1.3 miles upstream from Hightower Creek, 3 miles northeast of Flippin, 11.5 miles downstream from Bull Shoals Dam, 11.8 miles upstream from Crooked Creek, and at mile 406.7.

Drainage area.--6,067 sq mi.

Gage.--Nonrecording prior to Dec. 21, 1938, at site 1.1 miles upstream at datum 1.52 ft higher; recording thereafter at present site and datum. Datum of present gage is 419.66 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 217,000 cfs.

Bankfull stage.--36 ft.

Remarks.--Flow completely regulated since July 23, 1951, by Bull Shoals Reservoir (capacity, 5,408,000 acre-ft). Base for partial-duration series, 34,000 cfs. Only annual peaks are shown since 1950.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 16, 1927	41	a240,000	1942	Oct. 18, 1941	16.74	42,400
1929	Jan. 27, 1929	20.2	52,500		Nov. 1, 1941	21.54	65,300
	Apr. 11, 1929	22.6	64,400		Apr. 11, 1942	18.30	49,300
	Apr. 17, 1929	17.0	37,300	1943	Dec. 27, 1942	23.91	79,200
	Apr. 22, 1929	17.2	38,200		Dec. 30, 1942	28.72	110,000
	May 9, 1929	23.8	70,400		May 12, 1943	39.06	201,000
	May 14, 1929	20.2	52,500		May 21, 1943	29.89	118,000
	May 28, 1929	18.4	45,800	1944	Mar. 2, 1944	14.71	34,200
June 8, 1929	17.0	37,300	Mar. 23, 1944		15.58	37,900	
			Apr. 12, 1944		14.75	34,600	
1930	Jan. 15, 1930	19.69	50,100	1945	Feb. 21, 1945	22.75	73,500
	May 13, 1930	16.9	36,900		Feb. 26, 1945	24.13	80,500
1931	Feb. 12, 1931	16.3	34,600		Mar. 22, 1945	24.03	80,000
	Aug. 7, 1931	17.3	38,800		Apr. 3, 1945	28.56	108,000
1932	Jan. 17, 1932	18.9	46,100		Apr. 17, 1945	39.82	215,000
	Jan. 25, 1932	18.2	42,800	June 14, 1945	24.68	83,900	
1933	Dec. 26, 1932	21.5	58,900	1946	Jan. 9, 1946	16.75	43,900
	Jan. 22, 1933	17.0	37,500		Feb. 16, 1946	19.62	57,200
	Apr. 18, 1933	19.0	46,500		May 16, 1946	21.83	68,300
	May 16, 1933	32.3	116,000		May 28, 1946	22.90	74,000
1934	Mar. 29, 1934	13.52	23,500	1947	Nov. 7, 1946	18.10	50,000
1935	Mar. 12, 1935	38.1	164,000		Nov. 10, 1946	22.82	73,500
	Mar. 25, 1935	22.7	64,900	Dec. 13, 1946	22.13	69,800	
	June 5, 1935	25.2	78,000	Apr. 12, 1947	15.58	38,500	
	June 9, 1935	26.8	86,900	Apr. 27, 1947	19.01	54,300	
	June 19, 1935	29.3	102,000	1948	Mar. 2, 1948	15.58	38,500
					Mar. 27, 1948	14.82	35,000
			June 19, 1948		20.57	62,200	
1936	Sept. 29, 30, 1936	14.73	27,500	1949	Jan. 25, 1949	21.10	64,700
1937	Jan. 10, 1937	17.3	38,700		Jan. 28, 1949	24.89	85,000
	Jan. 17, 1937	21.54	58,900		Feb. 18, 1949	23.79	78,900
	Feb. 2, 1937	18.7	45,300		1950	Jan. 4, 1950	22.23
	June 11, 1937	17.0	37,300	Jan. 16, 1950		18.98	54,300
1938	Jan. 27, 1938	17.4	37,200	Feb. 15, 1950		17.63	47,800
	Feb. 19, 1938	34.1	134,000	May 13, 1950		36.82	178,000
	Mar. 30, 1938	19.3	46,300	1951		Feb. 23, 24, 1951	16.54
	May 13, 1938	19.0	44,800		1952	Apr. 25, 1952	11.70
	May 24, 1938	22.2	61,000	1953		May 3, 1953	13.52
1939	Nov. 7, 1938	16.8	34,500	1954	Apr. 22, 1954	8.06	10,500
	Apr. 19, 1939	17.44	44,200		1955	July 1, 1955	12.68
	May 14, 1939	20.12	54,700	1956		Sept. 12, 1956	8.32
	May 27, 1939	20.14	54,700		1957	July 25, 1957	13.30
July 3, 1939	20.61	56,600	1958	Oct. 3, 1957		12.30	24,400
1940	Apr. 11, 1940	20.33	57,800				
1941	Jan. 4, 1941	14.70	34,200				
	Apr. 17, 1941	22.20	69,200				
	Apr. 21, 1941	29.60	115,000				

a Annual peak only, furnished by Corps of Engineers.

WHITE RIVER BASIN

560. Buffalo River near St. Joe, Ark.

Location.--Lat 35°59', long 92°45', in SW $\frac{1}{4}$ sec.36, T.16 N., R.17 W., near right bank on downstream side of pier of bridge on U. S. Highway 65, $1\frac{1}{4}$ miles downstream from Mill Creek, 4 miles upstream from Bear Creek, and $4\frac{1}{2}$ miles south-east of St. Joe.

Drainage area.--825 sq mi.

Gage.--Nonrecording prior to Mar. 1, 1940; recording thereafter. Prior to Oct. 1, 1939, at site 4.5 miles downstream at datum 15.27 ft lower (stages published by U. S. Weather Bureau as "at Gilbert"). Datum of present gage is 560.35 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 69,000 cfs and extended above by logarithmic plotting. Not defined at Gilbert site.

Bankfull stage.--25 ft.

Historical data.--Maximum stage known, 50.5 ft in August 1915 (present site and datum), from information by Corps of Engineers; 54.0 ft (former site and datum), from information by U. S. Weather Bureau.

Remarks.--Gage-height records prior to October 1939 furnished by U. S. Weather Bureau. Base for partial-duration series, 13,000 cfs. Only annual peak stages prior to 1940.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	54.0	-	1947	Nov. 10, 1946	18.57	25,600
					Dec. 12, 1946	22.92	37,500
1927	Apr. 14, 1927	40.0	-		Apr. 11, 1947	15.00	17,200
1928	Dec. 13, 1927	39.0	-	1948	Jan. 1, 1948	19.34	27,300
1929	Jan. 25, 1929	23.5	-	1949	Jan. 24, 1949	38.80	91,100
1930	May 10, 1930	24.4	-		Jan. 27, 1949	16.65	20,300
1931	Feb. 9, 1931	18.8	-		Feb. 14, 1949	24.75	43,500
1932	July 6, 1932	13.5	-	1950	Jan. 4, 1950	25.58	46,200
1933	May 14, 1933	28.8	-		Jan. 13, 1950	15.45	18,000
1936	Dec. 7, 1935	11.6	-		Feb. 12, 1950	24.06	41,300
1937	Jan. 4, 1937	17.0	-		May 12, 1950	22.40	36,000
1938	Feb. 18, 1938	28.0	-		June 3, 1950	14.50	16,000
1939	Apr. 17, 1939	29.0	-		July 19, 1950	16.03	19,400
1940	Apr. 11, 1940	13.79	13,000	1951	Feb. 20, 1951	27.57	50,900
1941	Jan. 1, 1941	13.70	12,800	1952	Nov. 24, 1951	18.80	26,000
1942	Oct. 16, 1941	17.08	22,100		Mar. 11, 1952	21.87	34,300
	Oct. 31, 1941	20.80	32,000		Apr. 12, 1952	22.30	35,400
	Apr. 8, 1942	17.58	23,400		May 23, 1952	17.57	23,000
1943	Dec. 27, 1942	31.0	64,800	1953	Nov. 25, 1952	19.60	28,100
	May 10, 1943	39.7	96,900		Mar. 14, 1953	16.67	19,900
1944	Feb. 28, 1944	15.95	19,300		Mar. 18, 1953	20.63	29,400
1945	Feb. 21, 1945	25.60	42,500		Apr. 24, 1953	14.35	15,100
	Feb. 26, 1945	19.04	26,400		May 13, 1953	20.18	28,300
	Mar. 3, 1945	20.00	29,100	1954	Apr. 16, 1954	14.50	15,300
	Mar. 6, 1945	14.08	14,600		May 2, 1954	22.70	35,200
	Mar. 19, 1945	25.70	46,500	1955	Feb. 20, 1955	15.72	17,800
	Mar. 25, 1945	17.00	20,900		Mar. 21, 1955	25.11	42,200
	Mar. 30, 1945	30.30	63,300		Apr. 21, 1955	14.92	16,100
	Apr. 2, 1945	24.00	41,000		May 21, 1955	19.02	25,300
	Apr. 15, 1945	41.00	100,000	1956	Feb. 2, 1956	16.10	18,700
	May 15, 1945	16.08	18,600		Feb. 18, 1956	15.82	18,000
	June 11, 1945	32.80	73,100		May 15, 1956	15.00	15,900
1946	Jan. 9, 1946	19.42	27,900	1957	Apr. 4, 1957	31.30	62,600
	Feb. 13, 1946	23.90	40,600		Apr. 30, 1957	18.10	23,100
	May 16, 1946	16.90	21,700		May 14, 1957	16.80	20,200
	May 25, 1946	25.65	46,200		May 17, 1957	16.92	20,400
					May 23, 1957	27.40	49,500
				1958	Mar. 9, 1958	16.70	19,900
					Mar. 23, 1958	14.56	15,500
					May 9, 1958	15.50	17,400
					Aug. 2, 1958	16.35	19,300

570. Buffalo River near Rush, Ark.

Location.--Lat 36°07', long 92°33', in NE¹ sec.15, T.17 N., R.15 W., 0.8 mile upstream from Rush Creek, 1.5 miles southeast of Rush, and 24.3 miles upstream from mouth.

Drainage area.--1,091 sq mi.

Gage.--Nonrecording prior to Jan. 27, 1939, at site 0.6 mile downstream at present datum; recording thereafter at present site and datum. Datum of present gage is 451.98 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 120,000 cfs and extended above on basis of slope-area measurement at 164,000 cfs.

Bankfull stage.--24 ft.

Remarks.--Base for partial-duration series, 14,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1915	Aug. 19, 1951	45.5	164,000	1942	Apr. 9, 1942	14.86	23,100	
1927	Apr. 14, 1927	35.9	110,000	1943	Dec. 27, 1942	27.24	62,200	
1929	Jan. 25, 1929	22.2	50,100	May 11, 1943	37.38	120,000		
	Feb. 26, 1929	14.4	26,300	1944	Feb. 29, 1944	12.96	20,200	
	Apr. 9, 1929	14.5	26,600		1945	Feb. 21, 1945	21.82	45,400
	Apr. 21, 1929	15.0	28,000			Feb. 27, 1945	17.28	30,800
	May 9, 1929	15.0	28,000			Mar. 3, 1945	16.98	29,900
July 8, 1929	15.0	28,000	Mar. 19, 1945			22.66	48,400	
1930	Jan. 13, 1930	13.7	24,400	Mar. 30, 1945		27.68	66,700	
	Feb. 4, 1930	10.2	15,100	Apr. 2, 1945	20.86	42,400		
	May 11, 1930	22.7	51,800	Apr. 15, 1945	38.86	121,000		
1931	Feb. 9, 1931	15.2	28,600	May 16, 1945	12.74	18,800		
	May 26, 1931	11.5	18,500	June 11, 1945	31.10	81,800		
1932	Feb. 17, 1932	10.0	15,200	June 17, 1945	10.47	14,100		
	July 6, 1932	9.9	14,900	1946	Jan. 9, 1946	17.72	33,700	
1933	Dec. 24, 1932	10.5	16,700		Feb. 14, 1946	20.90	44,000	
	May 14, 1933	23.9	56,000		May 16, 1946	13.98	22,800	
1934	Mar. 26, 1934	12.38	22,600	May 25, 1946	20.80	43,600		
		1935	Mar. 11, 1935	24.5	58,300	1947	Nov. 10, 1946	13.49
Mar. 22, 1935	12.6		21,200	Dec. 12, 1946	19.23		38,400	
May 5, 1935	22.0		53,900	Apr. 11, 1947	11.90		17,600	
May 15, 1935	10.2		14,700	1948	Jan. 1, 1948	15.00	25,600	
June 3, 1935	12.8		21,800		1949	Jan. 24, 1949	37.06	114,000
June 7, 1935	11.7	18,700	Jan. 28, 1949			14.36	23,700	
June 17, 1935	21.3	51,100	Feb. 14, 1949			21.74	46,700	
1936	Dec. 7, 1935	9.7	13,500			1950	Jan. 4, 1950	21.66
	1937	Oct. 26, 1936	10.9	16,500			Jan. 14, 1950	12.06
		Jan. 15, 1937	16.9	35,000	Feb. 13, 1950		20.32	42,000
1938	May 2, 1937	14.8	28,000	Apr. 4, 1950	10.35		14,000	
	Jan. 24, 1938	14.0	25,400	May 12, 1950	18.67		36,800	
	Feb. 15, 1938	17.6	37,400	June 3, 1950	12.07	18,000		
	Feb. 18, 1938	26.4	65,800	July 19, 1950	11.32	16,100		
	Mar. 29, 1938	14.4	26,700	1951	Feb. 20, 1951	24.35	56,000	
Apr. 16, 1938	12.5	21,000	Apr. 22, 1951		10.61	14,500		
1939	May 23, 1938	11.2	17,300	1952	Nov. 24, 1951	16.13	28,800	
	Jan. 30, 1939	11.34	17,300		Mar. 11, 1952	20.08	41,300	
	Feb. 20, 1939	12.08	19,300		Apr. 12, 1952	19.40	39,100	
	Mar. 5, 1939	12.41	20,100		May 24, 1952	14.06	23,100	
	Apr. 17, 1939	26.46	58,900		1953	Nov. 25, 1952	16.52	30,000
May 27, 1939	19.05	37,700	Mar. 15, 1953	13.60		21,700		
1940	Apr. 12, 1940	9.98	14,000	Mar. 18, 1953		17.41	32,800	
		1941	Jan. 2, 1941	9.97		14,000	Apr. 25, 1953	10.86
1942	Oct. 17, 1941		14.13	21,200		May 13, 1953	16.36	29,700
	Oct. 31, 1941		18.33	32,300	1954	Apr. 16, 1954	10.48	14,300
1942	Feb. 20, 1955		12.22	18,200		May 2, 1954	18.83	37,200

a Annual peaks only, furnished by Corps of Engineers.

WHITE RIVER BASIN

Peak stages and discharges of Buffalo River near Rush, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 21, 1955	21.23	45,000	1957	Apr. 30, 1957	14.60	24,400
	Apr. 21, 1955	11.62	16,800		May 14, 1957	12.78	20,900
	May 21, 1955	16.48	30,000		May 18, 1957	12.98	20,200
1956	Feb. 2, 1956	12.87	19,900	1958	May 23, 1957	23.66	53,600
	Feb. 18, 1956	13.70	22,000		June 9, 1957	12.40	18,700
	May 16, 1956	11.01	15,400		Mar. 9, 1958	13.14	21,300
1957	Apr. 4, 1957	28.30	67,000	Mar. 24, 1958	11.93	18,300	
	Apr. 28, 1957	13.10	20,400	May 10, 1958	12.84	20,500	
				Aug. 2, 1958	11.93	18,300	

575. North Fork River near Tecumseh, Mo.

Location.--Lat 36°37'22", long 92°14'53", in NE 1/4 sec. 35, T. 23 N., R. 12 W., on right bank 3.2 miles downstream from Spring Creek and 3½ miles northeast of Tecumseh.

Drainage area.--561 sq mi.

Gage.--Nonrecording prior to May 11, 1945, at datum 0.22 ft lower; recording since May 12, 1945, at present datum. Datum of present gage is 584.67 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Gage heights given herein converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements below 22,000 cfs.

Bankfull stage.--14 ft.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1945	Feb. 21, 1945	9.0	9,590	1950	Jan. 13, 1950	9.30	9,590		
	Feb. 26, 1945	13.2	17,700		Feb. 13, 1950	7.69	6,790		
	Mar. 6, 1945	6.6	5,400		Apr. 4, 1950	6.91	5,500		
	Mar. 19, 1945	8.0	7,610		May 10, 1950	12.80	16,300		
	Mar. 30, 1945	10.7	12,800		June 10, 1950	6.64	5,050		
	Apr. 2, 1945	8.1	7,790		1951	Feb. 11, 1951	7.47	6,450	
	Apr. 15, 1945	16.7	25,100	July 11, 1951		7.30	6,130		
	May 10, 1945	7.2	6,400	1952		Nov. 24, 1951	7.94	7,130	
	June 9, 1945	6.38	5,400			Mar. 11, 1952	9.17	9,410	
	June 11, 1945	8.75	9,590			Apr. 12, 1952	9.74	10,300	
	June 17, 1945	10.60	12,900			1953	Apr. 18, 1953	5.83	3,920
	1946	Feb. 14, 1946	12.22		15,100		1954	Mar. 24, 1954	5.67
Mar. 6, 1946		7.60	6,620		1955			Mar. 21, 1955	16.95
May 16, 1946		11.23	13,100	1956		May 15, 1956		15.65	22,100
May 25, 1946	9.81	10,500	1957			Apr. 4, 1957	13.10	16,900	
1947	Nov. 10, 1946	9.94			10,700	Apr. 27, 1957	8.13	7,470	
	Dec. 12, 1946	7.79		6,790	May 19, 1957	6.83	5,350		
	Apr. 25, 1947	8.22	7,640	May 23, 1957	13.60	17,900			
1948	Jan. 1, 1948	7.25	5,970	May 25, 1957	8.48	8,150			
	June 18, 1948	7.46	6,450	1958	Dec. 18, 1957	6.60	5,050		
1949	Jan. 19, 1949	7.4	6,290		Mar. 24, 1958	9.45	9,770		
	Jan. 24, 1949	14.9	20,600		July 12, 1958	10.15	11,200		
	Jan. 28, 1949	8.76	8,690		July 17, 1958	9.66	10,300		
	Feb. 15, 1949	11.9	14,500						
	June 11, 1949	8.44	7,980						
	July 7, 1949	8.83	8,690						
1950	Jan. 4, 1950	18.05	27,400						

580. Bryant Creek near Tecumseh, Mo.

Location.--Lat 36°37'35", long 92°18'25", in E $\frac{1}{2}$ sec.32, T.23 N., R.12 W., three-quarters of a mile downstream from Pine Creek, 3 miles northwest of Tecumseh, and 5 miles upstream from mouth.

Drainage area.--570 sq mi.

Gage.--Nonrecording prior to July 30, 1945; recording thereafter. Datum of gage is 573.15 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 27,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1945	Feb. 21, 1945	15.50	16,200	1950	May 12, 1950	14.99	15,000	
	Feb. 26, 1945	15.80	17,000		Aug. 8, 1950	12.9	9,960	
	Mar. 6, 1945	10.85	6,230		Aug. 28, 1950	10.96	6,500	
	Mar. 19, 1945	11.45	7,110	1951	Feb. 19, 1951	10.99	6,500	
	Mar. 31, 1945	11.00	6,500		July 1, 1951	13.22	10,700	
	Apr. 2, 1945	11.40	7,110		July 4, 1951	11.66	7,590	
	Apr. 14, 15, 1945	18.00	22,600		July 11, 1951	11.45	7,110	
	May 10, 1945	10.75	6,100		1952	Mar. 11, 1952	12.45	8,840
	June 11, 1945	11.20	6,800			Apr. 12, 1952	12.10	8,280
	June 17, 1945	14.50	15,000	1953		Mar. 18, 1953	7.89	3,490
	1946	Feb. 14, 1946	15.86		17,200	1954	Mar. 24, 1954	8.72
		May 16, 1946	14.21	13,900	1955		Mar. 21, 1955	16.71
1947		Nov. 10, 1946	16.17	18,000			1956	May 15, 1956
	Dec. 12, 1946	10.76	6,230	1957		Apr. 4, 1957		14.20
	Apr. 25, 1947	11.19	6,800		May 23, 1957	15.65		16,500
1948	June 19, 1948	11.00	6,500		May 25, 1957	14.30	13,300	
	1949	Jan. 25, 1949	14.3	14,200	June 2, 1957	10.70	6,310	
		Jan. 28, 1949	12.55	9,260	June 5, 1957	10.80	6,420	
		Feb. 15, 1949	14.75	16,000	1958	Mar. 24, 1958	12.95	10,200
		July 8, 1949	11.2	6,800		May 30, 1958	13.75	12,100
July 10, 1949		10.88	6,360	July 12, 1958		12.78	9,760	
1950	Jan. 4, 1950	19.50	26,500	July 17, 1958	12.26	8,700		
	Jan. 13, 1950	12.87	9,960					
	Feb. 13, 1950	12.29	8,640					
	Apr. 4, 1950	10.80	6,230					

585. North Fork River at Tecumseh, Mo.

(Published as "North Fork of White River" prior to 1940)

Location.--Lat 36°36'16", long 92°17'19", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.16, T.22 N., R.12 W., at bridge on U. S. Highway 160 at Tecumseh, half a mile downstream from Bryant Creek, 3 miles upstream from Lick Creek, and 9 miles upstream from Missouri-Arkansas border.

Drainage area.--1,157 sq mi.

Gage.--Nonrecording prior to May 31, 1940; recording June 1, 1940, to Feb. 28, 1945. Prior to June 29, 1924, at site 200 ft downstream at different datum. Datum of present gage is 547.75 ft above mean sea level, datum of 1929. Gage heights given herein converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements below 48,000 cfs and extended above by logarithmic plotting. Shifts in relation occur.

Bankfull stage.--24 ft.

Remarks.--Station discontinued because of backwater from Norfolk Dam. Base for partial-duration series, 10,000 cfs.

Peak stages and discharges of North Fork River at Tecumseh, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1905	July 1905	31.6	a85,000	1933	May 14, 1933	15.70	25,200	
1915	August 1915	31.0	a80,000	1934	Mar. 28, 1934	2.44	1,850	
1922	Mar. 31, 1922	7.1	8,180	1935	Mar. 11, 1935	20.53	39,900	
1923	Feb. 1, 1923	18.6	34,400	1935	June 3, 1935	10.99	15,300	
	Mar. 16, 1923	8.4	10,500		June 18, 1935	8.95	12,000	
1924	June 11, 1924	20.0	38,300	1936	Sept. 24, 1936	4.75	5,300	
1925	Dec. 19, 1924	10.50	14,600	1937	Jan. 15, 1937	10.33	14,100	
		5.70	5,980		May 2, 1937	9.06	12,200	
1926	Oct. 17, 1925	8.97	12,000	1937	June 10, 1937	10.60	14,600	
		16.20	26,600		1938	Feb. 18, 1938	16.80	28,600
8.70	11,500	Mar. 29, 1938	8.86	11,600				
10.50	14,100	May 23, 1938	14.00	21,400				
1927	Apr. 1, 1927	10.36	14,300	1939	Apr. 17, 1939	12.6	19,200	
		20.80	41,300					
		15.31	24,200					
		8.73	11,500					
		12.90	18,800					
11.39	16,000	1940	Apr. 11, 1940	8.9	13,800			
8.97	12,000			1941	Apr. 16, 1941	10.95	18,700	
16.20	26,600	1942	Oct. 18, 1941			9.25	15,000	
8.70	11,500			Oct. 31, 1941	12.4	22,500		
10.50	14,100	1942	June 18, 1942	9.37	15,300			
11.48	16,200							
24.00	53,000							
1929	Jan. 25, 1929	9.10	12,200	1943	Dec. 27, 1942	22.28	51,000	
		8.50	11,200			Dec. 29, 1942	11.90	21,300
		4.30	4,550			May 11, 1943	22.86	52,900
1930	Jan. 14, 1930	8.50	11,200	1943	May 18, 1943	21.67	48,700	
		4.30	4,550			May 20, 1943	13.23	24,800
		4.18	4,250			June 23, 1943	8.50	15,200
1932	Jan. 17, 23, 1932	4.18	4,250	1944	Apr. 11, 1944	3.82	3,830	

a Annual peak only.

590. North Fork River near Henderson, Ark.
(Published as "North Fork of White River" prior to 1940)

Location.--Lat 36°22', long 92°14', in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 26, T.20 N., R.12 W., half a mile downstream from Bennetts Bayou, half a mile east of Henderson, 8 $\frac{1}{4}$ miles northeast of Mountain Home, and 15 miles upstream from Norfork Dam.

Drainage area.--1,612 sq mi.

Gage.--Nonrecording prior to Jan. 14, 1939; recording Jan. 14, 1939, to June 25, 1943. Nonrecording gage was at site a quarter of a mile downstream at datum 2.00 ft lower. Datum of last used gage was 432.67 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 36,000 cfs. Maximum discharge for flood of May 11, 1943, furnished by Corps of Engineers, computed on basis of records for station at Tecumseh, Mo., and unit hydrograph method for ungaged area.

Remarks.--Station discontinued as a result of backwater from Norfork Dam. Base for partial-duration series, 10,000 cfs.

Peak stages and discharges of North Fork River near Henderson, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1910	July 10, 1919	7.2	-	1937	Apr. 24, 1937	10.5	16,200		
1915	August 1915	29.5	-	May 2, 1937	11.8	19,500			
				June 10, 1937	10.8	17,000			
1929	Jan. 24, 1929	17.0	33,700	1938	Jan. 24, 1938	7.6	10,300		
	Feb. 25, 1929	9.7	14,200		Feb. 18, 1938	19.0	39,800		
	Apr. 8, 1929	12.0	20,000		Mar. 29, 1938	13.85	24,800		
	Apr. 14, 1929	7.9	10,100		Apr. 16, 1938	9.8	14,500		
	May 8, 1929	13.0	22,600		May 13, 1938	8.5	11,400		
	May 28, 1929	8.0	10,300		May 24, 1938	14.8	27,500		
1930	Oct. 31, 1929	10.0	15,000	1939	May 29, 1938	7.6	10,300		
	Jan. 13, 1930	12.2	20,600		Nov. 8, 1938	8.5	11,400		
1931	Oct. 7, 1930	10.4	16,000	Jan. 30, 1939	9.27	16,200			
	Nov. 19, 1930	7.7	10,500	Feb. 20, 1939	7.42	11,800			
	Feb. 7, 1931	9.3	13,300	Mar. 4, 1939	10.97	20,300			
1932	Jan. 23, 1932	6.72	7,930	Apr. 17, 1939	18.20	38,300			
				July 3, 1939	9.62	16,900			
1933	Dec. 30, 1932	8.5	11,400	Apr. 11, 1940	15.22	30,600			
				Apr. 16, 1933	8.5	11,400			
				May 14, 1933	14.6	26,900			
1934	Apr. 6, 1934	5.70	6,000	1941	Apr. 4, 1941	8.43	14,100		
				Apr. 17, 1941	9.66	17,200			
1935	Mar. 11, 1935	22.2	50,400	1942	Oct. 17, 1941	9.36	16,200		
				June 2, 1935	13.5	24,000	Oct. 31, 1941	13.64	26,500
				June 7, 1935	11.2	18,000	Nov. 4, 1941	6.92	10,500
				June 17, 1935	11.4	18,500	Apr. 8, 1942	12.36	23,500
				May 19, 1942	7.92	12,700	June 18, 1942	8.57	14,400
1936	Dec. 7, 1935	7.56	10,300	1943	Nov. 17, 1942	7.89	12,700		
				Nov. 21, 1942	7.89	12,700			
1937	Nov. 3, 1936	7.5	10,000	Dec. 27, 1942	22.36	50,200			
				Jan. 14, 1937	18.7	38,900	May 11, 1943	-	61,000

600. North Fork River at Norfork Dam, near Norfork, Ark.

Location.--Lat 36°15', long 92°14' in SE $\frac{1}{4}$ sec.2, T.18 N., R.12 W., at Norfork Dam 4.3 miles northeast of Norfork.

Drainage area.--1,806 sq mi.

Gage.--Recording. Datum of gage is at mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Discharge computed from powerplant records, flow through flood-control conduits, and flow over spillway.

Remarks.--Flood flow regulated by Norfork Dam (capacity, 1,983,000 acre-ft). Records furnished by Corps of Engineers and reviewed by Geological Survey. Only annual maximum daily discharges are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Apr. 16, 1945		21,000	1952	Mar. 18, 1952		10,400
1946	Mar. 17, 1946		8,400	1953	May 28, 1953		8,780
				1954	Apr. 30, 1954		2,980
1947	May 18, 20, 1947		4,260	1955	Sept. 16, 1955		2,600
1948	Mar. 23, 1948		4,730				
1949	February 1949		11,200	1956	Mar. 23, 1956		2,660
1950	Apr. 10, 1950		10,200	1957	Aug. 15, 1957		5,900
				1958	July 19, 1958		7,590
1951	July 31, 1951		5,450				

605. White River at Calico Rock, Ark.

Location.--Lat 36°07', long 92°09', in SW $\frac{1}{4}$ sec.23, T.17 N., R.11 W., on left bank at Calico Rock, just upstream from Calico Creek, $\frac{3}{4}$ miles downstream from Cataract Creek, 6 miles upstream from Piney Creek, and at mile 359.1.

Drainage area.--9,965 sq mi.

Gage.--Nonrecording prior to Aug. 14, 1940, at datum 1.07 ft higher; recording thereafter at present datum. Jan. 27 to Aug. 13, 1940, at site 500 ft downstream. Datum of present gage is 317.38 ft above mean sea level, datum of 1929. All stages have been adjusted to present datum.

Stage-discharge relation.--Defined by current-meter measurements below 290,000 cfs and extended above by logarithmic plotting.

Bankfull stage.--37 ft.

Remarks.--Peak gage heights for 1904-39 computed from plotted U. S. Weather Bureau readings adjusted to present datum. Floodflow regulated to some extent since June 1943 by Norfolk Reservoir on North Fork River (capacity, 1,983,000 acre-ft) and severely regulated since July 1951 by Bull Shoals Reservoir on White River (capacity, 5,408,000 acre-ft). Base for partial-duration series, 60,000 cfs. Only annual peaks are shown prior to 1940 and subsequent to 1950.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	Aug. 1, 1905	31.0	146,000	1932	Jan. 23, 1932	17.8	64,700
1906	Mar. 27, 1906	34.0	166,000	1933	May 16, 1933	37.4	193,000
1907	May 7, 1907	42.5	239,000	1934	Mar. 27, 1934	14.2	45,300
1908	May 15, 1908	30.6	143,000	1935	Mar. 12, 1935	42.8	242,000
1909	Mar. 9, 1909	22.0	89,000	1936	Sept. 29, 1936	14.5	46,800
1910	June 10, 1910	14.3	45,800	1937	Jan. 15, 1937	28.4	128,000
1911	Aug. 15, 1911	26.6	117,000	1938	Feb. 19, 1938	43.5	250,000
1912	Apr. 27, 1912	27.7	123,000	1939	Apr. 17, 1939	31.5	149,000
1913	Jan. 24, 1913	15.6	52,600	1940	Apr. 12, 1940	23.05	95,000
1914	Apr. 29, 1914	19.6	74,600	1941	Apr. 22, 1941	26.85	118,000
1915	Aug. 21, 1915	49.5	318,000	1942	Oct. 18, 1941	21.78	88,500
1916	Jan. 31, 1916	51.9	350,000		Nov. 1, 1941	27.40	122,000
1917	Apr. 2, 1917	24.2	102,000		Apr. 10, 1942	19.30	74,300
1918	May 12, 1918	36.0	182,000	1943	Dec. 28, 1942	28.64	125,000
1919	June 3, 1919	19.0	71,300		May 12, 1943	46.50	269,000
1920	Mar. 26, 1920	31.6	150,000		May 21, 1943	29.52	131,000
1921	Apr. 27, 1921	36.2	183,000	1944	Feb. 29, 1944	15.23	48,900
1922	Apr. 11, 1922	15.6	52,600	1945	Feb. 22, 1945	27.21	120,000
1923	Feb. 2, 1923	28.3	127,000		Feb. 27, 1945	26.85	119,000
1924	June 12, 1924	27.0	119,000		Mar. 20, 1945	27.97	125,000
1925	Apr. 28, 1925	21.5	86,000		Mar. 31, 1945	29.46	135,000
1926	Oct. 9, 1925	18.0	65,800		Apr. 3, 1945	32.97	160,000
1927	Apr. 15, 1927	50.5	332,000		Apr. 16, 1945	48.84	310,000
1928	Dec. 14, 1927	40.5	220,000		June 12, 1945	33.43	162,000
1929	Jan. 25, 1929	28.2	126,000	1946	Jan. 9, 1946	21.77	91,800
1930	May 11, 1930	23.2	96,200		Feb. 14, 1946	24.05	106,000
1931	Feb. 9, 1931	18.0	65,800		May 16, 1946	24.61	110,000
					May 26, 1946	22.06	93,700
				1947	Nov. 11, 1946	21.41	89,200
					Dec. 13, 1946	24.94	112,000
					Apr. 28, 1947	16.80	61,400
				1948	June 20, 1948	17.49	65,400
				1949	Jan. 25, 1949	37.14	190,000
					Jan. 28, 1949	27.86	124,000
					Feb. 16, 1949	24.14	102,000

Peak stages and discharges of White River at Calico Rock, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Jan. 5, 1950	26.29	121,000	1954	May 3, 1954	13.25	42,400
	Jan. 16, 1950	18.56	71,900		1955	Mar. 21, 1955	14.90
	Feb. 13, 1950	22.63	96,900	1956		Feb. 18, 1956	11.27
	May 13, 1950	38.25	211,000		1957	Apr. 4, 1957	24.05
1951	Feb. 21, 1951	24.56	110,000	1958		May 10, 1958	12.73
1952	Mar. 11, 1952	17.66	66,600				
1953	Mar. 18, 1953	14.07	46,900				

610. White River at Batesville, Ark.

Location.--Lat 35°45'37", long 91°38'28", in NE $\frac{1}{4}$ sec.21, T.13 N., R.6 W., on left bank at downstream side of bridge on State Highway 11 at Batesville, 0.3 mile upstream from lock and dam 1, 0.6 mile downstream from Polk Bayou, and at mile 300.1.

Drainage area.--11,062 sq mi.

Gage.--Nonrecording prior to Jan. 28, 1939, at site 0.3 mile downstream at present datum; recording thereafter at present site. Datum of gage is 237.72 ft above mean sea level, datum of 1929. All gage heights adjusted to present site.

Stage-discharge relation.--Defined by current-meter measurements below 290,000 cfs and extended above by logarithmic plotting.

Bankfull stage.--16 ft.

Remarks.--Peak gage heights for 1904-38 computed from plotted Corps of Engineers readings. For regulation, see remarks for station at Calico Rock. Base for partial-duration series, 75,000 cfs. Only annual peaks are shown prior to 1938 and subsequent to 1950.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Mar. 27, 1904	24.9	220,000	1922	Mar. 31, 1922	15.7	74,900
1905	Aug. 2, 1905	20.8	141,000	1923	Feb. 3, 1923	21.5	153,000
1906	Mar. 28, 1906	23.9	199,000	1924	June 13, 1924	19.5	120,000
1907	May 8, 1907	26.7	259,000	1925	Apr. 29, 1925	16.8	87,200
1908	May 16, 1908	22.1	164,000	1926	Oct. 17, 1925	16.6	85,200
1909	Mar. 10, 1909	17.5	94,600	1927	Apr. 15, 1927	31.4	369,000
1910	June 10, 1910	13.7	51,500	1928	Dec. 15, 1927	26.0	244,000
1911	Aug. 15, 1911	20.2	130,000	1929	Jan. 26, 1929	20.4	134,000
1912	Apr. 27, 1912	20.1	129,000	1930	May 12, 1930	18.4	105,000
1913	Jan. 12, 1913	15.1	67,600	1931	Feb. 9, 1931	16.2	81,100
1914	Apr. 29, 1914	16.3	82,200	1932	Jan. 24, 1932	15.9	77,500
1915	Aug. 22, 1915	31.6	373,000	1933	May 17, 1933	24.9	220,000
1916	Feb. 1, 1916	31.9	382,000	1934	Mar. 26, 1934	15.0	66,400
1917	Apr. 2, 1917	18.7	108,000	1935	Mar. 13, 1935	27.0	266,000
1918	May 13, 1918	24.9	220,000	1936	Dec. 8, 1935	13.7	51,500
1919	June 3, 1919	16.5	84,200	1937	Jan. 16, 1937	20.4	134,000
1920	Mar. 27, 1920	22.7	175,000	1938	Feb. 19, 1938	27.4	260,000
1921	Apr. 27, 1921	25.1	224,000		Mar. 30, 1938	20.2	130,000
				May 24, 1938	18.6	107,000	

WHITE RIVER BASIN

Peak stages and discharges of White River at Batesville, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1939	Mar. 5, 1939	15.81	76,200	1947	Nov. 11, 1946	16.81	89,800		
	Apr. 18, 1939	21.65	165,000		Dec. 13, 1946	19.12	114,000		
	May 28, 1939	17.95	100,000	1948	June 20, 1948	15.27	73,900		
1940	Apr. 12, 1940	16.66	93,600		1949	Jan. 26, 1949	25.72	236,000	
	1941	Apr. 22, 1941	19.24	114,000		Feb. 16, 1949	18.79	107,000	
1942		Oct. 18, 1941	16.65	85,200	1950	Jan. 5, 1950	19.50	119,000	
	Nov. 2, 1941	20.00	122,000	Jan. 17, 1950		15.70	78,800		
	Apr. 10, 1942	16.34	82,200	Feb. 14, 1950		17.92	99,000		
1943	Dec. 29, 1942	25.81	213,000	May 13, 14, 1950		24.77	216,000		
	May 21, 1943	28.01	281,000	June 3, 1950		16.06	82,300		
	May 22, 1943	21.04	131,000	1951	Feb. 21, 1951	18.80	107,000		
1944	Mar. 1, 1944	13.96	54,800		1952	Mar. 12, 1952	15.62	77,700	
	1945	Feb. 22, 1945	a19.69	121,000		1953	Mar. 18, 1953	14.48	63,500
Feb. 27, 1945		20.41	131,000	1954	May 2, 1954		13.20	47,900	
Mar. 21, 1945		20.58	134,000		1955	Mar. 22, 1955	14.14	58,500	
Mar. 30, 1945		a22.07	160,000			1956	Feb. 18, 1956	12.95	45,700
Apr. 4, 1945		23.06	177,000		1957		Apr. 4, 1957	19.82	124,000
Apr. 16, 1945		29.43	324,000				1958	May 9, 1958	13.87
June 12, 1945		23.63	189,000	1946	Jan. 10, 1946	17.24		93,000	
June 17, 1945	21.40	148,000	Feb. 14, 1946		a18.52	106,000			
Jan. 10, 1946	17.24	93,000	May 17, 1946		18.06	101,000			
Feb. 14, 1946	a18.52	106,000	May 26, 1946		17.54	95,000			

a Occurred on following day.

Note.--Peak stage frequently occurs at different time than peak discharge.

615. Black River near Annapolis, Mo.

Location.--Lat 37°20'10", long 90°47'15", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.25, T.31 N., R.2 E., 0.4 mile downstream from Mayberry Branch, 7 miles southwest of Annapolis, 11 miles downstream from East Fork, and at mile 278.5.

Drainage area.--484 sq mi.

Gage.--Recording. Datum of gage is 569.72 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Prior to Aug. 21, 1942, at site 415 ft upstream at same datum.

Stage-discharge relation.--Defined by current-meter measurements below 33,000 cfs.

Remarks.--Gage-height record prior to Oct. 1, 1939, furnished by Corps of Engineers. Base for partial-duration series, 7,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Apr. 17, 1939	17.4	a32,500	1945	Apr. 14, 1945	17.7	35,600
	1940	Apr. 19, 1940	8.51		6,920	June 8, 1945	20.1
June 10, 1945		20.1	45,400		1946	Jan. 9, 1946	9.40
1941	Apr. 17, 1941	10.14	9,330	Feb. 13, 1946		16.67	31,700
	1942	Oct. 31, 1941	9.60	8,240		Mar. 6, 1946	9.90
Jan. 31, 1942		10.27	9,560	May 1, 1946		10.4	11,200
May 16, 1946		12.6	17,700				
1943	Oct. 30, 1942	9.15	7,740	May 25, 1946	15.6	27,600	
	Dec. 27, 1942	17.60	33,400	1947	Apr. 25, 1947	15.22	26,200
	May 11, 1943	18.9	37,900		June 27, 1947	12.30	16,700
	May 18, 1943	10.1	9,520	1948	Jan. 1, 1948	13.72	21,200
1944	Apr. 23, 1944	10.13	9,520		1949	Jan. 19, 1949	11.6
	May 3, 1944	11.58	13,400	Jan. 24, 1949		17.15	33,600
1945	Mar. 31, 1945	16.6	31,300				

a Annual peak only.

Peak stages and discharges of Black River near Annapolis, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1949	Jan. 28, 1949	9.03	7,820	1953	Mar. 4, 1953	9.20	8,240	
	Feb. 15, 1949	12.66	18,000		1954	June 8, 1954	9.15	8,240
1950	Oct. 21, 1949	9.55	9,160	1955		Mar. 21, 1955	11.56	14,600
	Jan. 4, 1950	17.63	35,200		1956	May 15, 1956	12.76	18,300
	Jan. 12, 1950	9.66	9,400	1957		Mar. 25, 1957	8.60	7,010
	Feb. 13, 1950	9.61	9,160			Apr. 4, 1957	19.30	42,100
	May 10, 1950	12.38	17,000	Apr. 22, 1957		11.94	15,500	
	June 10, 1950	8.57	7,080	Apr. 27, 1957	12.70	18,000		
1951	Feb. 7, 1951	8.95	7,820	May 19, 1957	11.62	14,600		
	Feb. 19, 1951	11.22	13,400	May 23, 1957	15.75	28,300		
	June 24, 1951	9.57	9,160	May 25, 1957	9.69	9,400		
	June 30, 1951	11.82	15,200	June 30, 1957	11.45	14,000		
	July 10, 1951	11.22	13,400	July 2, 1957	12.47	17,400		
	July 13, 1951	12.99	19,000	1958	Dec. 17, 1957	17.45	34,400	
	1952	Nov. 12, 1951	9.13		8,020	Mar. 24, 1958	13.36	20,200
Mar. 11, 1952		10.84	12,300		July 17, 1958	8.87	7,600	
Apr. 4, 1952		9.13	8,020					
Apr. 13, 1952		9.34	8,460					

625. Black River at Leeper, Mo.

Location.--Lat 37°04'45", long 90°42'50", in SE¹SW¹ sec.22, T.28 N., R.3 E., at bridge on State Highway 34, half a mile northwest of Leeper, 2 miles downstream from McKenzie Creek, 6 miles downstream from Clearwater Dam, and at mile 251.0.

Drainage area.--957 sq mi.

Gage.--Nonrecording prior to Oct. 21, 1937, and Jan. 22 to Apr. 6, 1942; recording Oct. 22, 1937, to Jan. 21, 1942, and since Apr. 7, 1942. Prior to Apr. 7, 1942, gages at site 1,900 ft downstream at datum 3.85 ft lower. Datum of present gage is 428.51 ft above mean sea level, datum of 1929. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements below 55,000 cfs.

Bankfull stage.--11 ft.

Remarks.--Flow regulated since June 3, 1948, by Clearwater Reservoir (capacity, 413,700 acre-ft). Base for partial-duration series, 9,000 cfs. Only annual peaks are shown subsequent to 1947.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	March 1904	22.3	a125,000	1928	Dec. 14, 1927	13.10	36,900
1915	August 1915	18.8	a90,000		Apr. 6, 1928	8.64	13,500
					Apr. 22, 1928	7.33	9,050
1922	Nov. 19, 1921	11.1	24,000		June 10, 1928	13.00	36,200
	Mar. 31, 1922	10.0	20,700		June 13, 1928	13.20	37,700
	Apr. 18, 1922	7.74	10,400		June 17, 1928	7.68	10,200
	Apr. 28, 1922	7.46	9,460	June 21, 1928	11.90	29,000	
1923	Feb. 1, 1923	9.90	19,600	1929	Jan. 25, 1929	9.50	18,100
	Mar. 12, 1923	8.22	12,030		Apr. 10, 1929	9.20	15,640
	Mar. 16, 1923	10.50	21,900		May 7, 1929	10.30	21,000
	May 16, 1923	10.48	21,870		May 13, 1929	13.10	36,900
					June 13, 1929	7.95	11,200
1924	June 12, 1924	6.72	7,250	1930	Jan. 14, 1930	9.10	18,500
1925	Dec. 20, 1924	4.63	2,520	1931	Mar. 8, 1931	6.10	6,000
1926	Nov. 8, 1925	8.90	14,600	1932	Jan. 23, 1932	5.90	5,600
1927	Apr. 1, 1927	13.75	42,400	1933	Apr. 16, 1933	14.55	49,200
	Apr. 15, 1927	13.90	44,100		May 14, 1933	17.5	78,400
	Apr. 20, 1927	9.00	14,900	1934	Aug. 22, 1934	5.50	4,280
	May 25, 1927	12.65	33,400				
	June 1, 1927	13.45	40,000				

a Annual peak only.

Peak stages and discharges of Black River at Leeper, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	Mar. 11, 1935	16.9	72,300	1945	June 10, 1945	16.08	52,200
	June 21, 1935	9.65	17,900		June 17, 1945	8.16	11,200
1936	Nov. 5, 1935	7.15	8,660	1946	Jan. 9, 1946	8.45	11,900
1937	Oct. 9, 1936	8.00	10,800	Feb. 14, 1946	14.35	40,400	
	Jan. 8, 1937	7.75	9,820	Mar. 7, 1946	8.10	11,900	
	Jan. 15, 1937	11.85	28,400	May 1, 1946	8.95	14,700	
1938	Feb. 18, 1938	13.0	36,200	May 17, 1946	11.10	23,300	
	May 24, 1938	8.25	11,500	May 25, 1946	14.7	42,400	
1939	Mar. 6, 1939	8.54	12,500	1947	Apr. 11, 1947	7.8	10,200
	Apr. 17, 1939	12.60	35,400		Apr. 25, 1947	13.27	34,000
1940	Apr. 20, 1940	8.05	10,800		June 28, 1947	11.45	25,200
	Apr. 18, 1941	7.10	8,000	1948	Jan. 2, 1948	8.65	12,600
1941	Apr. 18, 1941	7.10	8,000	1949	Jan. 24, 1949	6.90	7,470
	Nov. 1, 1941	8.37	12,000	1950	Apr. 3, 1950	7.22	8,250
1942	Jan. 31, 1942	7.98	10,300	1951	Feb. 20, 1951	6.09	5,560
	Dec. 28, 1942	14.32	47,200	1952	Dec. 6, 1951	5.64	4,200
1943	May 11, 1943	16.36	54,400		Mar. 10, 1953	5.51	3,950
	May 19, 1943	8.76	13,600	1954	Feb. 18, 1954	5.31	3,630
1944	Apr. 23, 1944	9.04	14,400		1955	Mar. 20, 1955	8.40
	May 4, 1944	8.40	12,100	1956	May 22,23, 1956	5.53	3,200
1945	Feb. 22, 1945	9.08	14,300		1957	May 23, 1957	8.10
	Feb. 26, 1945	12.16	28,200	1958	Dec. 19, 1957	5.91	4,470
	Mar. 7, 1945	10.85	21,500				
	Mar. 31, 1945	13.86	37,400				
	Apr. 14, 1945	15.10	45,100				
	June 8, 1945	17.08	59,700				

630. Black River at Poplar Bluff, Mo.

Location.--Lat 36°45'35", long 90°23'15", in SW¼NW¼ sec.2, T.24 N., R.6 E., 1,500 ft upstream from bridge on U. S. Highway 60 in Poplar Bluff, ¾ miles downstream from Indian Creek, and at mile 211.2.

Drainage area.--1,245 sq mi.

Gage.--Nonrecording prior to June 8, 1955; recording thereafter. Prior to July 17, 1935, at site 300 ft downstream at datum 1.89 ft higher. July 17, 1935, to Sept. 30, 1940, at present site at datum 2.00 ft higher. Datum of present gage is 317.88 ft above mean sea level, datum of 1929. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements below 44,000 cfs; shifts in relation occur. Stage-discharge relation affected by right-bank levee constructed 1906-10 and left-bank levee constructed 1918-22.

Bankfull stage.--16 ft.

Remarks.--Flow regulated since June 3, 1948, by Clearwater Reservoir (capacity, 413,700 acre-ft). Peaks prior to Oct. 1, 1936, and Oct. 1, 1937, to Sept. 30, 1939, computed from plotted U. S. Weather Bureau gage readings. Base for partial-duration series, 6,000 cfs. Only annual peaks are shown subsequent to 1948.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	March 1904	-	a100,000	1924	May 31, 1924	14.8	5,000
1915	August 1915	a21.1	-	1925	June 14, 1925	15.9	6,420
1923	Jan. 21, 1923	16.3	7,260	1926	Oct. 18, 1925	15.8	6,250
	Feb. 3, 1923	19.3	23,900		Nov. 10, 1925	17.5	11,700
	Mar. 17, 1923	18.5	17,700	1927	Jan. 23, 1927	16.0	14,500
	May 6, 1923	17.1	9,900		Mar. 19, 1927	17.2	10,300
	May 17, 1923	19.2	23,100				

a Annual peak only, estimated.

Peak stages and discharges of Black River at Poplar Bluff, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1927	Apr. 2, 1927	19.8	28,100	1942	Nov. 3, 1941	17.58	8,520	
	Apr. 16, 1927	20.3	32,500		Feb. 2, 1942	16.26	6,770	
	May 10, 1927	16.7	8,420		Apr. 10, 1942	17.3	8,290	
	May 27, 1927	19.3	23,900	1943	Dec. 29, 1942	19.56	21,500	
	June 3, 1927	20.0	29,800		May 12, 1943	20.77	52,600	
1928	Dec. 15, 1927	20.1	30,700	May 21, 1943	17.53	8,770		
	Apr. 8, 1928	18.5	17,700	1944	Apr. 25, 1944	17.40	8,520	
	Apr. 23, 1928	17.9	13,900		May 5, 1944	15.68	6,190	
	June 15, 1928	19.9	29,000		1945	Feb. 24, 1945	16.00	6,260
	June 23, 1928	19.8	28,100	Feb. 28, 1945		19.70	27,000	
1929	Jan. 27, 1929	18.5	17,700	Mar. 8, 1945	18.82	14,800		
	Apr. 11, 1929	18.0	14,500	Mar. 21, 1945	17.18	8,080		
	May 15, 1929	20.2	31,600	Apr. 1, 1945	19.85	28,800		
	June 15, 1929	17.2	10,300	Apr. 16, 1945	20.54	43,400		
	1930	Jan. 16, 1930	19.3	23,900	June 10, 1945	20.80	50,800	
1931		Mar. 9, 1931	14.6	4,820	June 19, 1945	17.78	9,670	
	1932	Jan. 24, 1932	14.6	4,820	1946	Jan. 11, 1946	16.73	7,210
		1933	Dec. 31, 1932	16.6		8,100	Feb. 15, 1946	19.53
	Jan. 23, 1933		16.8	8,760		May 3, 1946	17.77	9,670
	Apr. 17, 1933		19.5	25,600		May 18, 1946	18.21	11,200
May 16, 1933	20.6	35,300	May 26, 1946	20.02		32,600		
1934	Mar. 27, 1934	10.0	2,880	1947	Apr. 13, 1947	16.29	6,620	
1935	Mar. 12, 1935	21.1	40,200		Apr. 27, 1947	18.81	14,800	
	May 6, 1935	15.7	6,090	June 29, 1947	16.25	6,490		
	June 23, 1935	17.7	12,700	1948	Jan. 3, 1948	18.09	10,800	
1936	Apr. 6, 1936	12.6	3,796		1949	Jan. 25, 1949	18.85	14,800
	1937	Oct. 11, 1936	16.2	7,020		1950	Feb. 14, June 5	17.9
Jan. 10, 1937		17.2	10,300	1951	Feb. 21, 1951		16.81	6,060
Jan. 16, 1937		19.66	27,300		1952	Nov. 25, 1951	16.66	7,210
May 4, 1937		16.51	7,800			1953	Mar. 29, 1953	11.50
1938		Feb. 20, 1938	19.42	24,800	1954		May 9, 1954	9.49
	Mar. 31, 1938	17.81	13,300	1955		Mar. 22, 1955	16.85	7,370
	May 26, 1938	15.9	6,420		1956	Feb. 18, 1956	12.92	4,400
1939	Feb. 1, 1939	16.3	7,260	1957		Apr. 5, 1957	18.59	14,300
	Mar. 7, 1939	17.9	13,900			1958	Mar. 25, 1958	17.81
	Apr. 19, 1939	19.4	24,800	1940	Apr. 21, 1940		17.8	10,300
1941	Apr. 19, 1941	13.6	4,880					

640. Black River near Corning, Ark.

Location.--Lat 36°24'05", long 90°32'30", near center of sec.4, T.20 N., R.5 E., on left bank at downstream side of bridge on U. S. Highway 62, 2½ miles east of Corning, 13.9 miles downstream from Cane Creek, and at mile 152.2.

Drainage area.--1,749 sq mi.

Gage.--Nonrecording prior to Nov. 5, 1953; recording thereafter. Datum of gage is 272.90 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 32,000 cfs. Affected by variable slope.

Bankfull stage.--10 ft.

Remarks.--Flow partly regulated since June 3, 1948, by Clearwater Reservoir 105 miles upstream. Peak stages prior to 1939 furnished by Corps of Engineers. Base for partial-duration series, 5,000 cfs. Only annual peaks are shown prior to 1939.

Peak stages and discharges of Black River near Corning, Ark.

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	-	13.3	18,900	1945	Mar. 4, 1945	13.70	21,800
1916	-	13.9	23,400		Apr. 5, 1945	14.12	24,900
					Apr. 19, 1945	15.02	31,900
1919	Dec. 6, 1919	11.7	7,750		May 12, 1945	11.61	7,210
1920	May 20, 1920	11.6	7,210		June 13, 1945	16.92	48,600
1921	May 1, 1921	12.4	12,300	1946	Jan. 15, 1946	11.72	7,750
1922	Apr. 5, 1922	12.5	13,000		Feb. 19, 1946	12.82	15,200
					May 7, 1946	12.20	11,600
					May 30, 1946	13.08	17,400
1923	May 21, 1923	12.5	13,000	1947	Apr. 14, 1947	11.38	7,000
1924	June 4, 1924	10.8	4,430		May 1, 1947	12.03	10,500
1925	Nov. 10, 1925	11.5	6,710	1948	Jan. 8-9, 1948	12.19	11,200
1926	Jan. 16, 1926	10.8	4,430		Apr. 2, 1948	11.27	6,590
					Apr. 16, 1948	11.63	7,910
1927	Apr. 18, 1927	14.4	27,200	1949	Jan. 29, 1949	13.78	22,800
1928	June 18, 1928	13.1	17,400		Feb. 17, 1949	12.45	12,500
					Mar. 12, 13, 1949	11.47	6,710
1929	May 19, 1929	12.7	14,400		Mar. 29-30, 1949	11.83	8,500
1930	Jan. 20, 1930	13.0	16,600	1950	Oct. 15, 1949	11.30	6,200
					Jan. 8, 1950	13.15	18,600
1931	Mar. 10, 1931	11.2	5,480		Jan. 29, 1950	11.94	9,550
					Feb. 17, 1950	12.65	14,100
1932	Jan. 20, 1932	11.8	8,350		Feb. 25, 1950	11.31	6,200
					Mar. 30, 1950	11.92	9,550
1933	May 19, 1933	13.8	22,600		Apr. 7, 1950	11.74	8,350
					May 3, 1950	11.09	5,340
					May 15, 1950	11.95	10,200
1934	Mar. 30, 1934	11.1	5,160	1951	Jan. 18, 1951	11.79	8,330
1935	Mar. 15, 1935	14.2	25,600		Feb. 24, 1951	12.02	10,200
					Mar. 14, 1951	11.56	7,800
1936	Apr. 9, 1936	11.1	5,160		July 3, 1951	11.66	8,350
1937	Jan. 19, 1937	14.1	24,900	1952	Nov. 28, 1951	12.27	12,000
1938	Feb. 23, 1938	13.6	21,200		Jan. 8, 1952	11.80	8,950
					Feb. 6, 1952	11.12	5,340
					Mar. 14, 1952	12.20	11,400
					Mar. 25, 1952	11.71	8,350
Water year					Apr. 18, 1952	11.66	8,350
				1953	Mar. 20, 1953	11.07	5,340
1939	Feb. 5, 1939	12.06	9,900	1954	Mar. 28, 1954	8.76	2,630
	Mar. 10, 1939	12.48	12,600	1955	Mar. 25, 1955	11.98	8,950
	Apr. 22, 1939	13.15	18,000	1956	Feb. 21, 1956	11.60	7,210
1940	Apr. 22-26, 1940	11.62	6,900	1957	Apr. 8, 1957	13.54	18,700
1941	Jan. 7, 1941	9.00	2,800		May 27, 1957	13.34	17,200
					July 4, 1957	12.27	10,100
1942	Feb. 6-8, 1942	11.24	5,120	1958	Nov. 18, 1957	12.37	10,600
	Apr. 12-14, 1942	12.09	9,900		Dec. 23, 1957	11.65	7,010
1943	Jan. 3, 1943	12.56	13,200		Jan. 24, 1958	11.20	5,220
	May 15-16, 1943	15.2	30,800		Mar. 28, 1958	13.03	15,000
1944	Apr. 14-15, 1944	11.88	8,620		May 7-8, 1958	12.50	13,000
	Apr. 29, 1944	11.44	6,030				

a Occurred on following day.

Note.--Peak stage frequently occurs at different time than peak discharge. Calendar year basis prior to 1939; water year thereafter.

645. Big Creek near Yukon, Mo.

Location.--Lat 37°14'00", long 91°51'00", in SW $\frac{1}{4}$ sec.5, T.29 N., R.8 W., on downstream side of right pier of bridge on State Highway 137, 3 miles south of Yukon.

Drainage area.--8.36 sq mi.

Gage.--Recording. Datum of gage is 1,194.81 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,900 cfs, and extended above on basis of contracted-opening measurement at 4,860 cfs.

Bankfull stage.--5 ft.

Remarks.--Base for partial-duration series, 500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1950	Jan. 4, 1950	3.36	1,120	1954	Mar. 25, 1954	2.68	462	
	Jan. 13, 1950	3.84	1,980		1955	Feb. 20, 1955	2.99	672
	Apr. 2, 1950	3.14	820	Mar. 20, 1955		3.20	895	
	May 7, 1950	3.27	990	1956		May 15, 1956	6.15	4,860
	May 10, 1950	4.35	3,120			1957	Apr. 3, 1957	3.32
	May 11, 1950	3.32	1,060		Apr. 20, 1957		3.28	1,030
June 10, 1950	2.90	565	Apr. 26, 1957	3.15	883			
1951	Feb. 18, 1951	2.90	620	May 18, 1957	3.60		1,430	
	Feb. 20, 1951	2.87	600	May 22, 1957	3.40	1,120		
	Apr. 6, 1951	3.28	1,000	May 25, 1957	3.40	1,120		
	June 29, 1951	3.70	1,170	May 31, 1957	3.12	802		
	June 30, 1951	4.28	2,950	1958	Dec. 17, 1957	4.07	2,480	
	July 10, 1951	3.60	1,530		Mar. 22, 1958	2.70	540	
1952	Oct. 22, 1951	3.00	690		July 17, 1958	3.38	1,150	
	Oct. 27, 1951	3.37	1,140		July 31, 1958	3.13	811	
	Mar. 10, 1952	3.07	699		Sept. 10, 1958	3.05	728	
	Apr. 12, 1952	2.82	568		Sept. 16, 1958	3.24	1,090	
1953	Mar. 3, 1953	2.70	475					

660. Jacks Fork at Eminence, Mo.

Location.--Lat 37°09'15", long 91°21'30", in W $\frac{1}{2}$ sec.26, T.29 N., R.4 W., at bridge on State Highway 19 at Eminence, $1\frac{1}{2}$ miles downstream from Mahans Creek and 8.0 miles upstream from mouth.

Drainage area.--398 sq mi.

Gage.--Nonrecording. Prior to July 27, 1934, at site 1,400 ft upstream at datum 2.11 ft higher. Datum of present gage is 617.91 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 21,000 cfs; shifts in relation occur.

Bankfull stage.--28 ft.

Remarks.--Base for partial-duration series, 3,900 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Nov. 19, 1921	7.65	7,240	1925	Apr. 28, 1925	6.10	5,070
	Mar. 31, 1922	7.07	6,500		1926	Oct. 17, 1925	5.65
	Apr. 11, 1922	5.90	4,240	1927		Apr. 1, 1927	6.63
1923	Jan. 21, 1923	6.30	4,890		Apr. 14, 1927	8.46	9,350
	Feb. 1, 1923	10.00	12,200		Apr. 19, 1927	9.69	9,730
	Mar. 12, 1923	6.12	5,070		May 6, 1927	7.40	7,320
	Mar. 16, 1923	7.83	8,040		May 25, 1927	6.69	6,090
	May 16, 1923	7.10	6,780		June 2, 1927	8.80	10,900
	June 13, 1923	6.75	6,260		Aug. 15, 1927	5.50	4,110
1924	June 21, 1924	4.69	2,970				

Peak stages and discharges of Jacks Fork at Eminence, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1928	Dec. 14, 1927	11.00	14,200	1945	June 17, 1945	10.60	13,600
	Apr. 6, 1928	8.81	9,920				
	June 9, 1928	8.98	10,300	1946	Feb. 13, 1946	11.7	16,700
	June 13, 1928	16.24	40,000		Mar. 6, 1946	7.93	7,050
	June 21, 1928	6.50	4,700		May 16, 1946	7.03	5,310
1929	Jan. 25, 1929	8.60	8,360	May 25, 1946	10.20	12,460	
	May 9, 1929	6.12	4,060	Aug. 14, 1946	11.50	16,400	
	May 14, 1929	7.30	5,980	1947	Nov. 10, 1946	9.1	9,640
	June 13, 1929	7.30	5,980		Apr. 25, 1947	9.0	9,400
	1930	Jan. 14, 1930	7.70	7,420	1948	Jan. 1, 1948	8.25
Feb. 26, 1930		6.05	3,920	June 19, 1948		8.85	8,960
1931	Oct. 8, 1930	4.80	2,740	1949	Jan. 19, 1949	9.1	9,640
1932	Jan. 18, 1932	4.70	2,610		Jan. 24, 1949	13.85	24,600
		9.70	12,700		Jan. 28, 1949	7.5	6,250
1933	Apr. 15, 1933	9.70	12,700		Feb. 15, 1949	10.85	14,200
	May 14, 1933	11.50	17,000		Mar. 27, 1949	6.5	4,490
1934	Sept. 15, 1934	4.60	1,270	May 24, 1949	7.8	6,850	
		14.26	26,700	June 13, 1949	9.55	10,900	
1935	Mar. 11, 1935	14.26	26,700	July 8, 1949	8.5	9,300	
	June 3, 1935	9.98	11,800	1950	Dec 22, 1949	6.1	3,900
1936	Nov. 10, 1935	5.67	2,620		Jan. 4, 1950	13.2	22,300
		7.22	5,220		Jan. 13, 1950	7.0	5,800
1937	Jan. 15, 1937	8.34	7,590		Feb. 13, 1950	7.0	5,800
	May 2, 1937	8.37	7,820		Apr. 3, 1950	8.8	9,340
	10.56	13,600	May 10, 1950	14.5	27,500		
1938	Mar. 29, 1938	8.00	7,100	May 20, 1950	5.9	4,000	
	May 23, 1938	11.03	14,800	June 10, 1950	5.9	4,000	
	7.39	6,060	1951	Feb. 19, 1951	8.5	8,650	
Apr. 6, 1939	6.75	4,960		Feb. 21, 1951	7.15	6,160	
Apr. 17, 1939	11.1	15,100		Mar. 12, 1951	6.6	5,120	
1939	Jan. 30, 1939	7.39		6,060	July 1, 1951	7.0	5,800
		11.1		15,100	July 10, 1951	9.0	9,860
1940	Apr. 12, 1940	6.5	4,450	1952	Nov. 13, 1951	6.28	4,630
		4.6	1,860		Nov. 24, 1951	6.46	4,950
1941	Jan. 2, 1941	4.6	1,860		Mar. 11, 1952	8.59	8,870
		6.53	4,450		Apr. 5, 1952	6.36	4,790
		8.6	8,050	Apr. 13, 1952	8.17	8,050	
		7.59	5,970	1953	Mar 4, 1953	6.00	4,150
		6.70	4,480		1954	May 28, 1954	5.5
6.60	4,330	1955	Feb. 20, 1955	6.8		5,460	
1943	Dec. 27, 1942		14.50	27,500	Mar. 21, 1955	12.60	20,500
	May 11, 1943	12.60	20,000	1956	May 15, 1956	13.85	24,800
	May 20, 1943	8.09	6,960		1957	Apr. 4, 1957	12.70
5.26	2,570	Apr. 22, 1957	6.95			5,900	
1944	May 3, 1944	5.26	2,570		Apr. 27, 1957	8.58	9,340
	1945	Feb. 22, 1945	6.92		4,790	May 19, 1957	7.12
			11.36	16,100	May 23, 1957	12.00	19,200
	Mar. 6, 1945	7.02	5,310	1958	Mar. 24, 1958	10.00	13,000
	Mar. 31, 1945	10.95	14,800		May 5, 1958	5.92	4,000
	Apr. 2, 1945	7.56	6,450		July 17, 1958	9.60	11,900
	Apr. 14, 1945	11.5	16,400				
June 10, 1945	7.47	6,250					

665. Current River near Eminence, Mo.

Location.--Lat 37°11'00", long 91°15'30", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.15, T.29 N., R.3 W., 1 mile downstream from Jacks Fork, 8 miles northeast of Eminence, and at mile 123.0.

Drainage area.--1,272 sq mi.

Gage.--Nonrecording prior to Dec. 8, 1934; recording thereafter. Prior to Oct. 20, 1921, at site 1,200 ft upstream at different datum. Datum of present gage is 568.82 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 48,000 cfs.

Historical data.--Floodmark for flood in March 1904 was 36 ft above water surface at a point 1 mile upstream from present gage at the time gage in use prior to Oct. 20, 1921, read 1.65 ft.

Remarks.--Base for partial-duration series, 12,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Nov. 19, 1921	14.2	25,800	1941	Apr. 17, 1941	5.11	4,210
	Mar. 31, 1922	11.5	17,800				
	Apr. 17, 1922	11.0	16,400	1942	Nov. 1, 1941	9.70	11,100
1923	Feb. 1, 1923	13.4	23,700				
	Mar. 16, 1923	13.5	24,000	May 11, 1943	21.49	48,800	
	May 16, 1923	12.5	21,200	May 19, 1943	14.56	23,400	
1924	June 21, 1924	6.4	6,920	1944	Apr. 23, 1944	9.97	11,400
1925	Apr. 28, 1925	7.0	8,000	1945	Feb. 22, 1945	13.20	19,800
1926	Oct. 17, 1925	8.3	10,700		Feb. 26, 1945	14.59	23,700
					Mar. 7, 1945	12.40	17,700
					Mar. 31, 1945	16.25	28,800
1927	Apr. 1, 1927	14.1	25,100		Apr. 2, 1945	12.35	17,700
	Apr. 15, 1927	16.0	39,000	Apr. 14, 1945	21.23	47,600	
	Apr. 19, 1927	12.1	19,500	June 10, 1945	14.30	22,800	
	May 25, 1927	12.0	19,000	June 17, 1945	13.46	20,600	
	June 2, 1927	20.0	43,800	1946	Feb. 14, 1946	18.96	39,800
1928	Dec. 14, 1927	15.5	27,900		Mar. 6, 1946	11.67	16,300
	June 9, 1928	24.3	59,400		May 16, 1946	10.89	14,300
	June 13, 1928	21.0	46,900		May 25, 1946	20.20	44,300
1929	Jan. 25, 1929	10.3	13,600		Aug. 14, 1946	23.95	60,200
	May 13, 1929	13.8	21,200	1947	Nov. 10, 1946	12.00	17,000
	June 13, 1929	9.8	12,500		Apr. 25, 1947	14.7	25,300
1930	Jan. 14, 1930	10.2	13,600	1948	June 19, 1948	10.52	13,400
1931	Mar. 8, 1931	6.6	6,250	1949	Jan. 19, 1949	12.6	18,800
1932	Jan. 23, 1932	5.7	4,850		Jan. 25, 1949	20.40	45,000
					Feb. 15, 1949	15.77	28,900
1933	Apr. 16, 1933	17.9	35,900	June 13, 1949	10.6	13,800	
	May 14, 1933	21.4	48,300	July 8, 1949	11.10	15,000	
1934	Sept. 15, 1934	5.47	4,760	1950	Jan. 4, 1950	22.35	53,000
1935	Mar. 11, 1935	24.35	59,600		Jan. 14, 1950	12.95	20,700
	June 3, 1935	12.62	19,500		Apr. 3, 1950	13.23	21,300
	June 26, 1935	11.50	16,700		May 10, 1950	20.6	47,300
1936	Nov. 10, 1935	7.27	7,860		May 12, 1950	12.80	20,100
1937	Jan. 15, 1937	13.05	20,500	June 10, 1950	13.00	20,700	
	May 3, 1937	13.35	21,600	1951	Feb. 19, 1951	13.20	21,300
	1938	Feb. 18, 1938	16.48		31,200	July 1, 1951	13.47
Mar. 29, 1938		10.16	13,700		July 11, 1951	12.90	20,400
May 23, 1938	14.84	25,700	July 13, 1951	14.50	25,300		
July 17, 1938	10.75	15,000	1952	Nov. 24, 1951	9.70	12,500	
1939	Apr. 17, 1939	19.43		41,100	Mar. 11, 1952	12.37	19,000
	Apr. 17, 1940	8.64		9,790	Apr. 15, 1952	12.92	20,400
1940	Apr. 17, 1940	8.64	9,790	1953	Mar. 4, 1953	7.29	7,790
				1954	May 28, 1954	7.00	7,250

Peak stages and discharges of Current River near Eminence, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Mar. 21, 1955	17.30	35,000	1957	May 11, 1957	9.62	12,300
					May 19, 1957	10.55	14,500
1956	May 15, 1956	23.27	58,400		May 23, 1957	17.32	35,000
					May 26, 1957	12.70	19,900
1957	Apr. 4, 1957	20.97	48,900				
	Apr. 22, 1957	15.47	22,200	1958	Dec. 17, 1957	13.30	21,600
	Apr. 27, 1957	13.05	20,700		Mar. 24, 1958	15.91	30,100

670. Current River at Van Buren, Mo.

Location.--Lat 36°59'30", long 91°00'55", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 25, T. 27 N., R. 1 W., at downstream side of bridge on U. S. Highway 60 in Van Buren, 0.4 mile downstream from Pike Creek, 4.7 miles upstream from Big Spring, and at mile 90.4.

Drainage area.--1,667 sq mi.

Gage.--Nonrecording prior to Oct. 19, 1934; recording thereafter. Prior to Sept. 1, 1926, at site 100 ft downstream at different datum; Sept. 1, 1926, to Oct. 1, 1939, at present site at datum 3.00 ft higher. Datum of present gage is 442.78 ft above mean sea level, datum of 1929. Gage heights given herein converted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements below 62,000 cfs; shifts in relation occur.

Bankfull stage.--20 ft.

Historical data.--Flood of Mar. 26, 1904, reached a stage of 29.0 ft and that of Aug. 21, 1915, a stage of 25.9 ft as determined by State Highway Commission from several reliable high-water marks in vicinity of gage. Investigations by J. C. Lester, Project Engineer, State Highway Commission, led to the conclusion that the discharge of the flood in 1904 was less than that in 1915. At points upstream and downstream from the gage, the 1904 flood crest was the lower of the two floods.

Remarks.--Peak discharges prior to June 1, 1921, from records of Prof. T. J. Rodhouse, University of Missouri (based on stages measured from a reference point). Base for partial-duration series, 14,000 cfs. Only annual peaks are shown prior to 1922.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Mar. 26, 1904	29.0	-	1925	Apr. 29, 1925	8.2	5,800
1913	Mar. 26, 1913	-	11,500	1926	Oct. 17, 1925	9.67	9,500
1914	Apr. 29, 1914	-	36,000	1927	Apr. 1, 1927	14.48	27,400
1915	Aug. 21, 1915	25.9	125,000		Apr. 15, 1927	16.10	34,500
1916	Jan. 31, 1916	-	85,000		May 26, 1927	13.02	21,200
1917	Apr. 8, 1917	-	11,800		June 2, 1927	16.22	35,000
1918	May 12, 1918	-	29,000	1928	Dec. 14, 1927	15.34	31,000
1919	June 4, 1919	-	16,000		Apr. 7, 1928	12.56	19,400
1920	Mar. 26, 1920	-	22,900		Apr. 22, 1928	12.25	18,300
1921	Apr. 28, 1921	-	22,200		June 10, 1928	19.45	49,300
1922	Nov. 20, 1921	13.2	22,100		June 13, 1928	18.59	45,700
	Apr. 1, 1922	12.0	17,600		June 22, 1928	12.40	18,800
	Apr. 18, 1922	11.5	15,600	1929	Jan. 25, 1929	11.12	14,100
1923	Feb. 2, 1923	13.2	21,800		Apr. 10, 1929	11.29	14,800
	Mar. 17, 1923	13.0	21,000		May 7, 1929	12.20	18,100
	May 17, 1923	12.8	20,200		May 9, 1929	11.08	14,100
1924	May 31, 1924	9.7	9,500	1930	Jan. 15, 1930	13.32	22,300
				1931	Mar. 8, 1931	9.80	11,000
				1932	Jan. 23, 1932	8.76	7,560

Peak stages and discharges of Current River at Van Buren, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Apr. 16, 1933	17.01	40,900	1947	Nov. 11, 1946	14.42	29,000
	May 14, 1933	19.7	56,000		Apr. 26, 1947	14.53	29,500
1934	Sept. 15, 1934	8.12	5,720	1948	Jan. 2, 1948	12.52	19,900
1935	Mar. 11, 1935	22.84	86,600	1949	Jan. 19, 1949	12.6	20,700
	June 3, 1935	12.53	19,200		Jan. 25, 1949	19.26	59,200
	June 27, 1935	11.50	15,500		Jan. 28, 1949	11.7	17,300
			Feb. 16, 1949		14.9	31,600	
1936	Nov. 11, 1935	8.23	6,800	1950	Jan. 5, 1950	19.90	61,500
1937	Jan. 15, 1937	13.00	25,100		Jan. 14, 1950	12.75	21,600
	May 3, 1937	12.86	24,500		Feb. 13, 1950	10.79	15,600
					Apr. 4, 1950	13.95	26,800
1938	Feb. 19, 1938	15.66	37,700	May 11, 1950	19.26	56,900	
	May 24, 1938	13.38	26,820	June 11, 1950	13.31	23,900	
	July 18, 1938	11.36	17,900	1951	Feb. 19, 1951	12.95	22,700
1939	Apr. 18, 1939	17.09	45,400		July 1, 1951	11.92	18,600
	Apr. 19, 1940	9.57	12,000		July 11, 1951	13.42	24,300
1941	Apr. 18, 1941	6.47	4,700		July 14, 1951	13.17	23,500
1942	Nov. 1, 1941	10.38	14,800	1952	Nov. 24, 1951	11.28	16,600
					Mar. 12, 1952	12.44	20,400
1943	Dec. 28, 1942	21.66	77,000		Apr. 13, 1952	12.44	20,400
	May 11, 1943	19.01	57,100	1953	Mar. 4, 1953	8.34	8,240
	May 19, 1943	13.57	25,100		May 2, 1954	9.28	10,600
1944	Apr. 23, 1944	13.11	22,800	1955	Mar. 21, 1955	15.56	34,300
1945	Feb. 22, 1945	12.72	21,200	1956	May 16, 1956	19.34	56,900
	Feb. 26, 1945	14.82	31,100		1957	Apr. 4, 1957	19.12
	Mar. 7, 1945	12.69	21,100	Apr. 22, 1957		13.30	23,100
	Mar. 31, 1945	16.30	39,500	Apr. 28, 1957		13.15	22,700
	Apr. 15, 1945	19.5	60,600	May 11, 1957		11.86	18,000
	June 10, 1945	13.73	25,600	May 20, 1957		10.70	14,200
	June 18, 1945	13.56	25,100	May 24, 1957		16.45	36,600
1946	Feb. 14, 1946	17.14	44,400	1958	Dec. 18, 1957	12.97	21,900
	Mar. 7, 1946	11.66	17,300		Mar. 24, 1958	16.40	36,600
	May 17, 1946	11.16	15,300				
	May 26, 1946	18.26	52,300				
	Aug. 15, 1946	20.74	69,400				

680. Current River at Doniphan, Mo.

Location.--Lat 36°37'25", long 90°50'55", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 27, T. 23 N., R. 2 E., half a mile upstream from U. S. Highway 160, 1 mile west of Doniphan, $\frac{1}{2}$ miles upstream from Briar Creek, and at mile 51.3.

Drainage area.--2,038 sq mi.

Gage.--Nonrecording prior to July 2, 1936; recording thereafter. Prior to May 22, 1928, at site 2,700 ft downstream at datum 0.06 ft higher; May 22, 1928, to Sept. 30, 1929, at site 2,800 ft downstream at datum 0.07 ft lower; Oct. 1, 1929, to Sept. 30, 1932, at site 2,800 ft downstream at datum 1.07 ft lower; Oct. 1, 1932, to July 2, 1936, at site 2,800 ft downstream at datum 3.07 ft lower. Datum of present gage is 322.21 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 60,000 cfs.

Bankfull stage.--12 ft.

Remarks.--Peaks for 1919-21 computed from plotted Corps of Engineer gage readings. Base for partial-duration series, 14,000 cfs.

WHITE RIVER BASIN

Peak stages and discharges of Current River at Doniphan, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	March 1904	23.4	130,000	1940	Apr. 20, 1940	9.02	12,500
1915	August 1915	22.2	105,000	1941	Jan. 3, 1941	5.00	5,110
1919	June 5, 1919	10.0	19,400	1942	Nov. 2, 1941	9.89	15,400
1920	Mar. 27, 1920	10.1	19,700	Apr. 9, 1942	9.80	15,100	
1921	Mar. 26, 1921	9.8	18,800	1943	Dec. 29, 1942	19.13	63,600
	Apr. 27, 1921	14.3	35,400	May 12, 1943	18.06	55,400	
1922	Nov. 21, 1921	11.10	21,000	May 20, 1943	12.65	24,100	
	Apr. 1, 1922	11.50	22,000	1944	Apr. 24, 1944	11.70	20,300
1923	Feb. 3, 1923	13.00	29,600	1945	Feb. 27, 1945	15.11	35,200
	Mar. 17, 1923	11.02	20,800	Mar. 8, 1945	11.92	21,000	
	May 17, 1923	11.22	21,300	Apr. 1, 1945	15.65	38,000	
1924	May 31, 1924	5.48	8,300	Apr. 16, 1945	19.05	62,800	
1925	June 13, 1925	4.50	6,540	June 11, 1945	14.10	30,200	
1926	Oct. 18, 1925	6.50	10,300	June 19, 1945	13.40	27,000	
1927	Apr. 7, 1927	12.55	28,600	1946	Feb. 15, 1946	15.70	38,600
	Apr. 15, 1927	17.30	48,800	Mar. 8, 1946	9.75	15,600	
	Apr. 20, 1927	12.58	28,600	May 19, 1946	9.3	14,300	
	May 27, 1927	9.45	17,600	May 26, 1946	16.71	44,900	
	June 2, 1927	15.98	43,000	Aug. 16, 1946	17.46	50,600	
1928	Dec. 15, 1927	14.80	37,600	1947	Nov. 12, 1946	11.80	20,600
	Apr. 7, 1928	9.35	17,600	Apr. 27, 1947	13.2	26,800	
	Apr. 23, 1928	10.33	20,400	1948	Jan. 2, 1948	11.50	20,600
	June 10, 1928	15.94	42,600	1949	Jan. 20, 1949	10.8	18,400
	June 14, 1928	15.98	43,000	Jan. 26, 1949	18.3	57,000	
	June 23, 1928	10.42	20,700	Jan. 29, 1949	10.8	18,400	
1929	Jan. 26, 1929	9.55	18,200	Feb. 16, 1949	13.5	28,000	
	Apr. 11, 1929	8.84	16,000	Mar. 27, 1949	9.3	14,700	
	May 8, 1929	9.60	18,200	1950	Jan. 5, 1950	18.0	54,600
	May 14, 1929	12.40	27,800	Jan. 15, 1950	10.82	18,400	
	June 14, 1929	8.60	15,500	Feb. 15, 1950	9.2	14,500	
1930	Jan. 15, 1930	12.10	25,500	Apr. 5, 1950	14.7	33,500	
1931	Mar. 9, 1931	6.95	9,500	May 11, 1950	18.2	56,200	
1932	Jan. 24, 1932	6.41	8,300	June 12, 1950	11.3	20,000	
1933	Jan. 22, 1933	11.20	14,500	1951	Feb. 20, 1951	12.11	23,700
	Apr. 17, 1933	17.65	35,200	July 2, 1951	10.20	17,700	
	May 15, 1933	19.93	49,000	July 11, 1951	12.26	24,400	
1934	Sept. 16, 1934	6.63	6,210	July 15, 1951	10.90	19,700	
1935	Mar. 12, 1935	23.89	94,400	1952	Nov. 25, 1951	10.46	18,600
	June 4, 1935	13.47	20,200	Mar. 12, 1952	11.73	22,200	
1936	Nov. 11, 1936	7.45	7,400	Apr. 14, 1952	11.22	20,600	
1937	Jan. 14, 1937	16.28	48,400	1953	Mar. 5, 1953	6.23	8,530
	May 4, 1937	12.28	22,400	1954	May 3, 1954	6.68	9,530
1938	Feb. 19, 1938	15.72	43,100	1955	Mar. 22, 1955	13.88	30,900
	Mar. 31, 1938	10.26	15,500	1956	May 16, 1956	17.17	49,000
	May 25, 1938	11.74	20,100	1957	Apr. 5, 1957	17.98	54,600
1939	Mar. 5, 1939	10.10	14,900	Apr. 23, 1957	12.20	24,000	
	Apr. 18, 1939	16.41	49,300	Apr. 29, 1957	12.55	25,500	
				May 12, 1957	9.50	15,900	
				May 24, 1957	15.20	37,000	
				1958	Dec. 19, 1957	10.80	19,400
					Mar. 25, 1958	15.72	39,600
					May 5, 1958	10.66	19,100

a Annual peak only.

685. Little Black River near Fairdealing, Mo.

Location.--Lat 36°39'40", long 90°34'25", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.7, T.23 N., R.5 E., at bridge on State Highway 14, 2 $\frac{1}{2}$ miles downstream from Beaverdam Creek and 2 $\frac{1}{2}$ miles east of Fairdealing.

Drainage area.--187 sq mi.

Gage.--Nonrecording Feb. 27, 1936, to Sept. 30, 1942. Prior to Oct. 1, 1939, at site 100 ft upstream at datum 1.5 ft higher. Datum of last used gage is 297.15 ft above mean sea level, datum of 1929. Gage heights given herein converted to last used gage.

Stage-discharge relation.--Defined by current-meter measurements below 5,000 cfs.

Bankfull stage.--13 ft.

Remarks.--Peaks for period prior to Oct. 1, 1939, computed from plotted Corps of Engineers gage readings. Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Apr. 6, 1936	18.6	5,230	1939	Jan. 30, 1939	19.5	6,750
	Sept. 2, 1936	19.5	6,750		Mar. 5, 1939	19.1	6,070
1937	Nov. 3, 1936	19.3	6,410	1940	Apr. 17, 1939	19.9	7,470
	Dec. 31, 1936	18.9	5,730		Apr. 12, 1940	18.12	4,220
	Jan. 15, 1937	22.5	13,600		Jan. 25, 1941	9.7	825
1938	Feb. 18, 1938	21.4	10,400	1942	Apr. 9, 1942	20.0	6,270
	Mar. 29, 1938	20.3	8,190				

690. Black River at Pocahontas, Ark.

Location.--Lat 36°15', long 90°58', in SW $\frac{1}{4}$ sec.27, T.19 N., R.1 E., at bridge on U. S. Highway 67 at Pocahontas, 1.6 miles downstream from Fourche Creek, 6.1 miles downstream from Current River, 18.1 miles upstream from Spring River, and at mile 90.1.

Drainage area.--4,843 sq mi.

Gage.--Nonrecording prior to July 29, 1940; recording thereafter. Prior to July 15, 1937, at site 0.3 mile upstream at present datum. Datum of gage is 242.43 ft above mean Gulf level.

Stage-discharge relation.--Defined by current-meter measurements below 56,000 cfs.

Bankfull stage.--18 ft.

Remarks.--Records for Jan. 1, 1936, to July 14, 1937, computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 12,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 17, 1927	25.9	a80,000	1941	Jan. 25, 1941	b8.92	7,270
1937	Jan.21,22, 1937	24.0	31,600	1942	Nov. 5, 1941	15.86	12,800
	May 8, 1937	16.6	13,800		Apr. 16, 1942	19.60	18,600
1938	Feb. 25, 1938	21.92	30,100	1943	Jan. 2, 1943	20.36	21,600
	Apr. 5, 6, 1938	21.54	27,300		May 18, 1943	22.46	39,500
1939	Feb. 11, 1939	17.87	15,200	1944	Apr.26,27, 1944	19.07	17,300
	Mar. 12, 1939	20.63	22,200		Mar. 7, 1945	22.45	38,500
	Apr. 24, 1939	21.15	28,000		Apr. 6, 1945	23.04	44,700
1940	Apr. 24, 1940	17.85	15,000	Apr. 20, 1945	23.60	51,400	

a Annual peak only.

b Occurred at different time than peak discharge.

Peak stages and discharges of Black River at Pocahtontas, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	June 17, 1945	24.32	59,600	1952	Dec. 1, 1951	20.78	23,600
1946	Jan. 12, 1946	16.90	13,100	Jan. 6, 1952	18.00	15,500	
	Feb. 23, 1946	20.40	22,500	Mar. 18, 1952	20.27	21,100	
	May 29, 1946	21.66	30,300	Apr. 18, 1952	19.04	17,400	
1947	May 1, 1947	17.16	14,700	1953	Mar. 24, 1953	17.37	14,500
1948	Jan. 5, 1948	c17.51	15,800	1954	May 4, 1954	12.68	10,200
	Apr. 14, 1948	c16.34	14,800	1955	Mar. 26, 1955	18.38	16,200
1949	Jan. 29, 1949	24.07	53,800	1956	May 20, 1956	16.68	13,700
	Feb. 19, 1949	21.88	31,800	1957	Apr. 9, 1957	22.42	34,800
	Apr. 1, 1949	19.66	19,800		May 1, 1957	21.25	25,900
1950	Jan. 11, 1950	22.92	39,100	May 29, 1957	23.34	42,800	
	Feb. 18, 1950	21.58	28,600	July 8, 1957	15.55	12,500	
	Apr. 8, 1950	20.43	21,600	1958	Nov. 22, 1957	19.38	18,300
	May 15, 1950	21.46	27,900		Dec. 21, 1957	c15.70	12,800
1951	Jan. 17, 1951	15.20	12,100		Mar. 29, 30, 1958	22.13	32,400
	Feb. 25, 1951	20.83	23,600	May 10, 11, 1958	21.33	26,600	
	Mar. 18, 1951	17.88	15,300				
	July 17, 1951	19.52	18,600				

^c Occurred on following day.

695. Spring River at Imboden, Ark.

Location.--Lat 36°12', long 91°10', in NE $\frac{1}{4}$ sec.15, T.18 N., R.2 W., at bridge on U. S. Highway 62 at Imboden, 3.9 miles downstream from Janes Creek, 8.5 miles upstream from Eleven Point River, and 12.1 miles upstream from mouth.

Drainage area.--1,162 sq mi.

Gage.--Nonrecording prior to Feb. 9, 1939; recording thereafter. Datum of gage is 254.07 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 45,000 cfs and extended above by logarithmic plotting and area-velocity study.

Bankfull stage.--16 ft.

Remarks.--Records for Feb. 21, 1936, to July 17, 1937, furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	a32.1	125,000	1944	Apr. 11, 1944	19.13	16,100
1937	Jan. 15, 1937	22.3	b31,800	Apr. 23, 1944	19.12	16,100	
				May 3, 1944	19.08	16,100	
1938	Feb. 15, 1938	16.60	10,500	1945	Feb. 22, 1945	20.02	19,600
	Feb. 18, 1938	23.97	42,200	Feb. 27, 1945	23.05	36,000	
	Mar. 29, 1938	23.7	40,200	Mar. 3, 1945	17.32	11,500	
	Apr. 16, 1938	19.9	19,200	Mar. 19, 1945	20.98	24,600	
1939	Jan. 30, 1939	18.5	14,200	Mar. 31, 1945	24.87	48,300	
	Mar. 5, 1939	22.40	32,400	Apr. 15, 1945	23.70	40,200	
	Apr. 6, 1939	15.70	9,440	May 10, 1945	21.38	26,800	
	Apr. 17, 1939	22.25	31,200	June 9, 1945	19.06	16,100	
				June 11, 1945	23.21	37,200	
1940	Apr. 12, 1940	17.86	13,100	June 18, 1945	19.04	15,800	
				Sept. 25, 1945	17.46	11,900	
1941	Jan. 24, 1941	9.87	4,680	1946	Jan. 9, 1946	20.95	24,600
1942	Oct. 31, 1941	19.09	17,800	Feb. 14, 1946	22.16	31,600	
	Apr. 8, 1942	23.10	36,600	Mar. 6, 1946	22.16	31,600	
	May 4, 1942	18.60	15,500	May 1, 1946	17.38	11,700	
	Aug. 23, 1942	15.89	9,690	May 16, 1946	16.00	9,750	
				May 25, 1946	19.46	17,500	
1943	Dec. 27, 1942	24.10	42,800	June 1, 1946	16.81	10,800	
	May 11, 1943	26.10	57,300	1947	Dec. 10, 1946	14.54	8,290

a Annual peak only; computed from information furnished by Corps of Engineers.

b Annual peak only.

Peak stages and discharges of Spring River at Imboden, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Jan. 1, 1948	19.10	16,100	1952	Nov. 24, 1951	22.43	32,400
	June 19, 1948	17.87	12,700		Jan. 4, 1952	19.30	16,800
1949	Jan. 19, 1949	20.21	20,500	Mar. 11, 1952	22.24	31,200	
	Jan. 24, 1949	28.42	78,500	Apr. 13, 1952	15.79	9,860	
	Jan. 28, 1949	18.20	13,400	1953	Mar. 18, 1953	18.16	13,400
	Feb. 14, 1949	24.68	46,900		1954	May 3, 1954	17.82
	Mar. 27, 1949	19.54	17,500	1955		Mar. 21, 1955	18.49
	July 8, 1949	21.85	29,000		1956	Feb. 18, 1956	16.50
1950	Dec. 12, 1949	15.52	9,240	1957		Jan. 22, 1957	15.96
	Jan. 4, 1950	25.08	49,800		Apr. 4, 1957	25.74	54,200
	Jan. 10, 1950	17.84	12,500	Apr. 22, 1957	16.45	10,500	
	Jan. 13, 1950	19.28	16,800	Apr. 28, 1957	19.07	16,100	
	Jan. 16, 1950	17.59	12,100	May 23, 1957	24.18	43,500	
	Jan. 26, 1950	16.27	10,100	1958	Nov. 13, 1957	17.44	11,800
	Feb. 13, 1950	22.48	33,000		Nov. 18, 1957	17.70	12,300
	May 12, 1950	18.85	15,100		Mar. 24, 1958	19.04	15,800
	June 4, 1950	18.10	13,100		May 3, 1958	16.12	10,200
	1951	Jan. 14, 1951	16.57		10,500	May 5, 1958	22.10
Feb. 20, 1951		21.27	26,200				
Apr. 21, 1951		16.95	12,300				
July 4, 1951		16.00	10,600				
July 11, 1951		15.34	9,860				

705. Eleven Point River near Thomasville, Mo.

Location.--Lat 36°47'05", long 91°29'30", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.3, T.24 N., R.5 W., on left bank attached to bluff at end of Grandpappy Ridge, 500 ft upstream from Posy Spring, $\frac{1}{2}$ miles downstream from Barren Fork, and $\frac{1}{2}$ miles east of Thomasville.

Drainage area.--361 sq mi.

Gage.--Recording. Altitude of gage is 610 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 2,400 cfs, and by slope-area measurements at 6,850 and 16,900 cfs.

Bankfull stage.--7 ft.

Remarks.--Base for partial-duration series, 1,800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Feb. 18, 1951	9.93	3,790	1955	Mar. 21, 1955	13.8	6,850
	Feb. 20, 1951	8.33	2,740		1956	May 15, 1956	11.10
	July 10, 1951	10.60	4,280	1957		Apr. 3, 1957	17.95
1952	Oct. 23, 1951	7.68	2,370		Apr. 22, 1957	8.96	3,110
	Nov. 24, 1951	11.75	5,170		Apr. 25, 1957	7.70	2,260
	Mar. 10, 1952	9.63	3,580		Apr. 27, 1957	7.78	2,320
	Apr. 13, 1952	7.30	2,130		May 22, 1957	8.25	2,580
1953	Apr. 18, 1953	6.30	1,660		May 23, 1957	11.26	4,800
				May 25, 1957	7.68	2,260	
1954	Mar. 24, 1954	8.36	2,800	1958	Mar. 24, 1958	10.42	4,140
	Apr. 15, 1954	11.85	5,170		May 5, 1958	12.32	5,560
	May 2, 1954	12.15	5,480		July 12, 1958	7.26	2,130
1955	Feb. 20, 1955	7.10	2,010		July 17, 1958	7.85	2,430

WHITE RIVER BASIN

715. Eleven Point River near Bardley, Mo.

Location.--Lat 36°38'55", long 91°12'03", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.17, T.23 N., R.2 W., at bridge on U. S. Highway 160, 7 miles southwest of Bardley and 7 $\frac{1}{2}$ miles upstream from Fredericks Fork.

Drainage area.--793 sq mi.

Gage.--Nonrecording prior to Oct. 20, 1939; recording thereafter. Datum of gage is 410.84 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 25,000 cfs.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 20, 1915	19.7	a44,000	1942	Oct. 31, 1941	10.1	9,830
1922	Mar. 31, 1922	10.0	7,560		Apr. 8, 1942	7.7	5,750
					May 31, 1942	15.7	28,300
1923	Feb. 2, 1923	10.1	7,600	1943	Nov. 18, 1942	6.86	4,620
	Mar. 12, 1923	7.2	4,400		Nov. 22, 1942	6.56	4,230
	Mar. 16, 1923	10.6	9,450	Dec. 29, 1942	14.10	22,200	
	May 15, 1923	8.8	6,120	May 11, 1943	15.18	25,800	
	June 11, 1923	8.1	5,350	1944	Apr. 23, 1944	8.36	6,840
1924	Aug. 10, 1924	3.9	1,680		May 3, 1944	8.12	6,360
	1925	June 13, 1925	7.2	4,400	1945	Feb. 27, 1945	-
1926		Nov. 8, 1925	5.1	2,490		Mar. 3, 1945	-
	1927	Apr. 14, 1927	18.7	40,000	Mar. 7, 1945	-	17,200
Apr. 19, 1927		11.6	11,400	Mar. 20, 1945	-	16,900	
May 5, 1927		10.0	8,640	Mar. 31, 1945	15.5	27,200	
June 1, 1927		10.2	8,960	Apr. 15, 1945	13.6	20,360	
June 21, 1927		8.2	6,040	June 11, 1945	10.01	9,600	
1928		Dec. 14, 1927	15.0	18,700	June 18, 1945	8.32	6,680
	Apr. 6, 1928	11.6	11,400	1946	Jan. 9, 1946	7.30	5,280
	Apr. 21, 1928	9.3	7,560		Feb. 14, 1946	10.88	11,400
	June 13, 1928	15.6	27,200		Mar. 6, 1946	8.21	6,570
	June 21, 1928	7.8	5,560		May 17, 1946	7.07	5,010
	1929	Jan. 25, 1929	9.5		8,000	May 25, 1946	9.30
Feb. 26, 1929		6.9	4,480		Aug. 14, 1946	7.42	5,420
Apr. 9, 1929		7.3	4,960	1947	Dec. 12, 1946	5.50	3,100
1930	Jan. 13, 1930	8.0	5,800		1948	Jan. 1, 1948	7.75
	1931	Aug. 6, 1931	5.2	2,640	June 19, 1948	9.54	8,680
1932		Jan. 23, 24, 1932	3.6	1,280	1949	Jan. 18, 1949	6.9
	1933	Apr. 16, 1933	10.9	10,100		Jan. 24, 1949	16.7
May 14, 1933		9.5	8,000	Jan. 28, 1949		8.3	6,700
1934	Sept. 15, 1934	3.5	1,190	Feb. 14, 1949		7.1	5,010
	1935	Mar. 12, 1935	13.7	20,200	Feb. 16, 1949	8.6	7,180
June 3, 1935		9.5	7,840	1950	Jan. 4, 1950	12.80	16,200
June 17, 1935		7.8	5,560		Feb. 13, 1950	8.67	7,340
1936	Dec. 8, 1935	3.1	900		May 11, 1950	9.55	8,860
	1937	Jan. 14, 1937	13.9		20,900	May 30, 1950	7.22
1938		Feb. 19, 1938	10.0	9,100	June 3, 1950	8.20	6,570
	Mar. 29, 1938	9.3	7,640	1951	Feb. 21, 1951	8.50	7,020
	May 24, 1938	8.1	5,860		July 11, 1951	8.00	6,270
1939	Mar. 5, 1939	8.4	6,670	1952	Nov. 24, 1951	9.66	9,040
	Apr. 17, 1939	13.9	20,900		Mar. 11, 1952	9.16	8,160
1940	Apr. 12, 1940	8.3	6,530		Apr. 13, 1952	6.41	4,120
	1941	Apr. 4, 1941	3.4	976	1953	Apr. 18, 1953	4.90
1942		Oct. 31, 1941	10.1	9,830		1954	Apr. 16, 1954
	Apr. 8, 1942	7.7	5,750	May 2, 1954	10.60		10,800
1922	Mar. 31, 1922	10.0	7,560				

a Annual peak only.

b Estimated on basis of records for station near Ravendon Springs, Ark.

Peak stages and discharges of Eleven Point River near Bardley, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1957	Apr. 4, 1957	15.76	28,600	1957	May 25, 1957	8.60	7,180	
	Apr. 22, 1957	8.64	4,360					
	Apr. 28, 1957	8.25	6,570		1958	Mar. 24, 1958	10.15	9,980
	May 11, 1957	7.80	5,980			May 3, 1958	6.64	4,360
	May 23, 1957	10.38	10,400			May 5, 1958	10.35	10,400

720. Eleven Point River near Ravenden Springs, Ark.
(Published as "near Eleven Point" prior to Oct. 1949)

Location.--Lat 36°21', long 91°07', in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.30, T.20 N., R.1 W., on left bank at downstream side of bridge on State Highway 90, 4 $\frac{1}{2}$ miles downstream from small tributary, 6 $\frac{1}{4}$ miles northeast of Ravenden Springs, and 21 miles upstream from mouth.

Drainage area.--1,123 sq mi.

Gage.--Nonrecording prior to Dec. 11, 1938; recording thereafter. Prior to Nov. 21, 1938, at datum 0.04 ft higher. Datum of present gage is 291.98 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 23,000 cfs and extended above on basis of velocity-area studies for the main channel and slope-area measurements of overbank flow.

Bankfull stage.--14 ft.

Remarks.--Records for period 1929-33 and 1935-38 collected and computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1930	Jan. 14, 1930	13.01	9,460	1945	May 10, 1945	14.78	12,600	
1931	Mar. 7, 1931	10.0	5,680		June 9, 1945	15.70	14,900	
					June 11, 1945	17.10	19,500	
1932	Jan. 17, 1932	11.65	7,160		June 17, 1945	12.90	8,860	
					1946	Jan. 9, 1946	12.70	8,550
Feb. 14, 1946	15.81	15,200						
Mar. 7, 1946	12.78	8,700						
May 26, 1946	12.74	8,550						
Apr. 11, 1947	8.65	4,340						
1933	Dec. 24, 1932	12.0	7,540	1947	Apr. 11, 1947	8.65	4,340	
	Dec. 30, 1932	13.0	9,020		1948	Jan. 1, 1948	12.30	7,960
Jan. 22, 1933	12.7	8,550	June 19, 1948	12.20		7,820		
Apr. 16, 1933	14.3	11,400	1949	Jan. 19, 1949	12.94	8,860		
May 15, 1933	14.92	12,800		Jan. 25, 1949	20.21	34,000		
1936	Apr. 6, 1936	11.6		7,160	Feb. 14, 1949	16.69	18,100	
			Mar. 27, 1949		13.81	10,400		
			1939		Jan. 30, 1939	11.70	7,270	1950
Mar. 5, 1939	16.12	16,100		Jan. 10, 1950	12.12	7,680		
Apr. 18, 1939	16.55	17,800		Jan. 15, 1950	12.60	8,400		
1940	Apr. 12, 1940	11.38	6,770	Jan. 16, 1950	12.44	8,100		
				Feb. 13, 1950	16.10	16,100		
				May 12, 1950	14.00	10,800		
1941	Sept. 3, 1941	9.63	5,120	May 31, 1950	12.41	8,100		
				June 4, 1950	14.20	11,200		
				1942	Nov. 1, 1941	13.40	10,500	1951
Apr. 8, 1942	16.31	16,700	Feb. 20, 1951		13.92	10,600		
May 4, 1942	11.12	6,440	July 11, 1951		11.35	6,660		
June 1, 1942	16.04	23,000	1952	Nov. 25, 1951	13.56	10,000		
1943	Dec 28, 1942	17.63		21,400	Jan. 4, 1952	11.84	7,280	
	May 11, 1943	16.97		26,900	Mar. 12, 1952	14.43	11,600	
	1944	Apr. 11, 1944	11.62	6,550	1953	Mar. 18, 1953	9.87	5,340
Apr. 23, 1944		14.03	10,800	1954		Apr. 8, 1954	10.95	6,330
May 4, 1944		11.02	6,330			May 3, 1954	12.30	7,960
1945	Feb. 22, 1945	11.18	6,550		1955	Mar. 22, 1955	14.58	12,000
	Feb. 27, 1945	16.60	25,400					
	Mar. 3, 1945	11.36	6,780					
	Mar. 7, 1945	12.86	8,860					
	Mar. 19, 1945	14.38	11,600					
	Mar. 31, 1945	18.84	26,200					
	Apr. 2, 1945	14.90	12,800					
Apr. 16, 1945	17.56	21,400						

Peak stages and discharges of Eleven Point River near Ravenden Springs, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	Feb. 18, 1956	8.99	4,640	1957	May 26, 1957	12.69	8,550
1957	Apr. 5, 1957	18.80	26,400	1958	Mar. 24, 1958	14.46	11,800
	Apr. 28, 1957	13.10	9,180		May 3, 1958	11.10	6,440
	May 12, 1957	10.86	6,230		May 5, 1958	16.24	16,400
	May 23, 1957	18.19	23,800				

725. Black River at Black Rock, Ark.

Location.--Lat 36°06'15", long 91°05'50", in NW $\frac{1}{4}$ sec.21, T.17 N., R.1 W., on right bank 900 ft downstream from St. Louis-San Francisco Railway Co. bridge at Black Rock and 3.7 miles downstream from Spring River.

Drainage area.--7,323 sq mi.

Gage.--Nonrecording. Prior to Aug. 1, 1946, at site 900 ft upstream at same datum. Datum of gage is 229.56 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 100,000 cfs and extended above by logarithmic plotting.

Bankfull stage.--20 ft.

Remarks.--Peak gage heights for 1904-29, 1932-39 computed from plotted U. S. Weather Bureau gage readings. Discharge records for 1940-55 furnished by Corps of Engineers and reviewed by Geological Survey. Some regulation since June 3, 1948, by Clearwater Reservoir (effect on peak discharge slight). Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	May 8, 1905	22.9	37,500	1932	Jan. 18, 1932	19.6	23,300
1906	Jan. 23, 1906	24.5	51,700	1935	May 22, 1935	23.1	38,900
1907	Jan. 4, 1907	26.0	69,000	1934	Mar. 27, 1934	19.3	22,800
1908	May 7, 1908	23.4	41,400	1935	Mar. 12, 1935	26.7	78,300
1909	Mar. 10, 1909	25.0	56,900	1936	Apr. 6, 1936	16.4	18,500
1910	Apr. 18, 1910	17.0	19,300	1937	Jan. 16, 1937	26.2	71,700
1911	Aug. 16, 1911	19.1	22,500	1938	Feb. 19, 1938	25.5	63,000
1912	Apr. 28, 1912	23.5	42,200	1939	Apr. 18, 1939	24.8	54,800
1913	Jan. 12, 1913	24.4	50,700	1940	May 1, 1940	18.2	22,800
1914	Apr. 30, 1914	21.6	28,800	1941	Jan. 25, 1941	10.0	11,800
1915	Aug. 21, 1915	31.9	160,000	1942	Apr. 10, 1942	23.0	37,300
1916	Jan. 31, 1916	26.5	75,600	1943	May 12, 1943	26.2	68,200
1917	Apr. 3, 1917	24.6	52,700	1944	Apr. 24, 1944	22.0	31,200
1918	May 14, 1918	25.9	67,800	1945	Mar. 31, 1945	27.2	87,400
1919	Dec. 14, 1918	19.9	23,800	1946	June 1, 1946	23.6	42,000
1920	Mar. 27, 1920	21.1	26,800	1947	Apr. 11, 1947	a16.0	21,200
1921	Apr. 28, 1921	25.7	65,300	1948	Jan. 2, 1948	b19.8	29,500
1922	Apr. 9, 1922	23.4	41,400	1949	Jan. 25, 1949	28.5	103,000
1923	May 16, 1923	24.3	49,600	1950	Jan. 5, 1950	25.9	67,800
1924	May 30, 1924	14.3	15,800	1951	Feb. 22, 1951	23.1	38,800
1925	June 15, 1925	12.1	13,300	1952	(c)	23.3	40,600
1926	Oct. 18, 1925	20.8	26,000	1953	Mar. 18, 1953	d20.0	30,100
1927	Apr. 15, 1927	30.3	132,000	1954	May 3, 1954	d17.6	24,900
1928	June 14, 1928	26.2	71,700	1955	Mar. 21, 1955	e19.5	26,200
1929	Jan. 26, 1929	24.7	53,800	1956	Feb. 18, 1956	d17.6	25,700
1930	Jan. 15, 1930	23.6	43,000	1957	Apr. 5, 1957	26.9	77,800
1931	Mar. 8, 1931	18.0	20,600	1958	May 6, 1958	24.5	50,200

a Occurred Dec. 13, 1946.

b Occurred at different time than peak discharge.

c Nov. 27, 1951, Mar. 12, 1952.

d Occurred on following day.

e Occurred Mar. 23, 1955.

730. Strawberry River near Evening Shade, Ark.

Location.--Lat 36°06', long 91°36', in NE¹ sec.27, T.17 N., R.6 W., at bridge on State Highway 11, 2 miles north of Evening Shade and 6.3 miles upstream from Piney Fork.

Drainage area.--225 sq mi.

Gage.--Nonrecording prior to July 23, 1939, recording thereafter. Datum of gage is 406.56 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 16,000 cfs and extended above by logarithmic plotting.

Bankfull stage.--9 ft.

Remarks.--Records furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Apr. 17, 1939	19.78	8,750	1950	Jan. 4, 1950	21.82	13,800
1940	Apr. 11, 1940	15.42	4,650		Jan. 13, 1950	17.40	6,480
					Jan. 26, 1950	15.35	4,700
1941	Jan. 24, 1941	13.43	3,080		Feb. 13, 1950	17.93	6,980
					May 30, 1950	14.93	4,300
1942	Oct. 31, 1941	17.21	6,100		June 30, 1950	18.85	8,090
	Mar. 8, 1942	16.89	5,810	1951	Jan. 14, 1951	15.19	4,540
	Apr. 8, 1942	19.18	8,120		Feb. 20, 1951	18.44	7,570
	Apr. 23, 1942	15.74	4,750		Apr. 21, 1951	14.80	4,220
1943	Dec. 27, 1942	20.84	11,300		June 20, 1951	15.01	4,380
	May 11, 1943	24.55	22,700		July 4, 1951	18.77	8,090
1944	Feb. 28, 1944	15.56	4,520		July 10, 1951	15.62	4,860
	Apr. 11, 1944	16.90	5,580		Aug. 18, 1951	16.65	5,720
	Apr. 23, 1944	15.82	4,670	1952	Nov. 6, 1951	14.36	4,060
	May 3, 1944	18.50	7,290		Nov. 24, 1951	20.36	10,900
1945	Feb. 21, 1945	18.67	7,540		Jan. 4, 1952	17.36	6,920
	Feb. 27, 1945	19.23	8,240		Mar. 11, 1952	18.52	8,200
	Mar. 31, 1945	22.46	15,900		Apr. 12, 1952	14.67	4,310
	Apr. 2, 1945	19.17	8,240	1953	Nov. 25, 1952	15.48	5,030
	Apr. 15, 1945	20.72	11,100		Dec. 4, 1952	14.70	4,310
	June 11, 1945	20.44	10,400		Mar. 14, 1953	15.95	5,480
1946	Jan. 9, 1946	18.32	7,040		Mar. 18, 1953	17.04	6,480
	Feb. 14, 1946	20.18	9,970		Mar. 22, 1953	15.86	5,390
	Mar. 6, 1946	21.07	12,000	1954	Jan. 20, 1954	14.40	4,060
	Apr. 30, 1946	19.26	8,400		May 3, 1954	15.38	4,940
	May 25, 1946	16.60	5,320	1955	Mar. 20, 1955	16.82	6,280
1947	Dec. 10, 1946	17.63	6,260		May 20, 1955	18.16	7,840
	May 20, 1947	16.38	5,160	1956	Feb. 18, 1956	15.62	5,120
1948	Jan. 1, 1948	16.91	5,580		June 25, 1956	15.86	5,410
	Feb. 25, 1948	15.09	4,140	1957	Jan. 22, 1957	14.38	4,120
	June 18, 1948	17.33	5,960		Apr. 4, 1957	21.80	14,700
	June 27, 1948	14.98	4,060		Apr. 22, 1957	16.34	5,800
1949	Jan. 18, 1949	18.17	7,310		Apr. 28, 1957	16.82	6,300
	Jan. 24, 1949	26.59	31,000		May 23, 1957	19.03	9,000
	Jan. 27, 1949	15.77	5,020	1958	Nov. 13, 1957	15.56	5,380
	Feb. 14, 1949	19.94	9,760		Nov. 18, 1957	16.72	6,570
	Mar. 26, 1949	18.64	7,830		Mar. 24, 1958	16.25	6,020
	July 7, 1949	20.49	10,800		Apr. 3, 1958	14.95	4,780
1950	Dec. 11, 1949	15.76	5,020		May 5, 1958	22.02	15,200

WHITE RIVER BASIN

735. Piney Fork Strawberry River at Evening Shade, Ark.

Location.--Lat 36°05', long 91°37', in NE $\frac{1}{4}$ sec.34, T.17 N., R.6 W., 20 ft upstream from bridge on State Highway 11, three-quarters of a mile north of Evening Shade and 5.8 miles upstream from mouth.

Drainage area.--99 sq mi.

Gage.--Nonrecording prior to Oct. 5, 1945; recording thereafter. Datum of gage is 420.62 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 11,000 cfs and extended above by logarithmic plotting.

Bankfull stage.--12 ft.

Remarks.--Records furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Apr. 16, 1939	14.4	5,740	1949	July 8, 1949	14.80	5,810
1940	Apr. 19, 1940	8.5	1,900	1950	Jan. 4, 1950	15.45	6,310
1941	Nov. 11, 1940	7.26	1,220	Jan. 10, 1950	9.67	2,640	
1942	Jan. 1, 1942	9.60	2,490	Jan. 13, 1950	11.14	3,420	
	Apr. 8, 1942	14.74	6,000	Jan. 15, 1950	8.58	2,040	
	Apr. 28, 1942	12.86	4,540	Jan. 26, 1950	9.64	2,590	
1943	Dec. 27, 1942	16.60	7,720	Feb. 1, 1950	9.21	2,370	
	May 11, 1943	19.96	11,300	Feb. 13, 1950	13.34	4,740	
1944	Feb. 28, 1944	9.86	2,650	June 3, 1950	17.77	8,700	
	Apr. 11, 1944	11.68	3,680	1951	Jan. 14, 1951	9.70	2,640
	Apr. 23, 1944	10.95	3,230	Feb. 20, 1951	12.90	4,480	
	May 3, 1944	10.88	3,180	Apr. 21, 1951	10.10	2,860	
1945	Feb. 21, 1945	12.16	4,020	June 20, 1951	8.58	2,040	
	Feb. 27, 1945	10.02	2,700	July 4, 1951	8.99	2,260	
	Mar. 3, 1945	9.27	2,330	Aug. 18, 1951	8.57	2,040	
	Mar. 6, 1945	10.18	2,810	Sept. 13, 1951	8.76	2,150	
	Mar. 19, 1945	10.74	3,070	1952	Nov. 6, 1951	9.17	2,370
	Mar. 30, 1945	18.00	9,100	Nov. 24, 1951	12.40	4,170	
	Apr. 2, 1945	15.56	6,790	Jan. 4, 1952	12.10	3,980	
	Apr. 15, 1945	18.50	9,650	Mar. 10, 1952	10.98	3,360	
	Apr. 11, 1945	16.87	8,000	Apr. 12, 1952	9.56	2,590	
	June 11, 1945	16.87	8,000	1953	Dec. 4, 1952	9.82	2,700
	June 17, 1945	16.64	7,720	Mar. 14, 1953	9.37	2,480	
	Sept. 25, 1945	11.63	3,610	Mar. 18, 1953	11.70	3,750	
1946	Jan. 9, 1946	12.64	4,320	1954	Sept. 30, 1954	8.27	1,720
	Feb. 14, 1946	12.89	4,540	1955	Mar. 21, 1955	9.92	2,760
	Mar. 6, 1946	17.84	8,900	May 20, 1955	9.64	2,590	
	Mar. 16, 1946	9.32	2,330	1956	Feb. 18, 1956	10.69	2,950
	Apr. 30, 1946	13.98	5,410	June 25, 1956	9.99	2,530	
	May 25, 1946	11.79	3,740	1957	Jan. 22, 1957	9.89	2,470
1947	Dec. 10, 1946	11.39	3,490	Apr. 4, 1957	18.64	9,620	
	May 21, 1947	14.00	5,200	Apr. 22, 1957	12.59	4,200	
1948	Jan. 1, 1948	9.52	2,540	Apr. 27, 1957	11.00	3,140	
	June 18, 1948	11.60	3,700	May 23, 1957	13.88	5,140	
	June 27, 1948	9.48	2,540	1958	Nov. 13, 1957	10.24	2,650
	July 7, 1948	8.92	2,210	Nov. 18, 1957	13.95	5,220	
1949	Jan. 18, 1949	11.49	3,640	Mar. 24, 1958	9.02	2,020	
	Jan. 24, 1949	23.42	17,500	Apr. 3, 1958	10.09	2,640	
	Jan. 27, 1949	10.07	2,860	May 3, 1958	9.54	2,300	
	Feb. 14, 1949	10.39	3,030	May 5, 1958	14.60	5,680	
	Mar. 26, 1949	12.47	4,230	May 9, 1958	9.70	2,400	

740. Strawberry River near Poughkeepsie, Ark.

Location.--Lat 36°07', long 91°27', in NW $\frac{1}{4}$ sec.19, T.17 N., R.4 W., on right bank at downstream side of bridge on State Highway 58, half a mile downstream from Hurricane Creek and $2\frac{1}{2}$ miles northeast of Poughkeepsie.

Drainage area.--476 sq mi.

Gage.--Nonrecording prior to Dec. 11, 1938; recording thereafter. Datum of gage is 298.07 ft above mean sea level (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 27,000 cfs and by slope-area measurement at 52,000 cfs.

Bankfull stage.--20 ft.

Remarks.--Records furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 7,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	Oct. 25, 1936	18.3	14,600	1948	Jan. 1, 1948	16.67	9,820
	Dec. 30, 1936	16.5	10,900		June 18, 1948	17.79	12,100
	Jan. 14, 1937	16.8	11,500		June 27, 1948	15.06	7,530
	Jan. 22, 1937	15.8	9,670	1949	Jan. 18, 1949	18.27	13,500
	June 15, 1937	14.3	7,450		Jan. 24, 1949	29.30	52,500
1938	Oct. 4, 1937	21.4	26,900		Feb. 15, 1949	17.84	12,600
	Feb. 15, 1938	17.6	13,000		Mar. 26, 1949	18.72	14,700
	Feb. 18, 1938	23.6	31,600		July 8, 1949	22.88	27,500
	Mar. 29, 1938	22.0	25,300	1950	Jan. 4, 1950	21.41	22,800
	Apr. 16, 1938	18.1	14,100		Jan. 10, 1950	16.68	9,820
June 19, 1938	21.9	28,800	Jan. 13, 1950		18.55	14,400	
1939	Jan. 29, 1939	16.73	11,300		Jan. 26, 1950	14.73	7,080
	Mar. 5, 1939	18.36	14,800		Feb. 1, 1950	15.40	7,920
	Apr. 16, 1939	19.5	17,600	Feb. 13, 1950	20.53	20,100	
	July 3, 1939	15.96	10,000	June 4, 1950	19.23	16,200	
1940	Apr. 19, 1940	12.43	5,230	1951	Jan. 14, 1951	16.40	9,340
1941	Jan. 24, 1941	10.9	3,850		Feb. 20, 1951	19.56	17,400
	1942	Oct. 31, 1941	15.30		8,100	Apr. 21, 1951	15.80
Mar. 8, 1942		14.84	7,350		July 4, 1951	16.77	9,980
Apr. 8, 1942		21.25	22,700	1952	Nov. 25, 1951	19.64	17,400
Apr. 28, 1942	16.17	9,600	Jan. 4, 1952		19.04	15,600	
1943	Dec. 27, 1942	18.10	13,800		Mar. 11, 1952	19.33	16,500
	May 11, 1943	24.60	32,900		Apr. 12, 1952	15.87	8,570
	1944	Feb. 28, 1944	16.14	9,400	1953	Dec. 4, 1952	16.23
Apr. 11, 1944		17.40	12,200	Mar. 18, 1953		18.07	12,900
Apr. 23, 1944		16.98	11,300	1954	May 2, 1954	13.83	6,200
May 3, 1944		16.99	11,300		1955	Mar. 21, 1955	16.16
1945		Feb. 27, 1945	18.33	13,500		May 20, 1955	17.77
	Mar. 19, 1945	17.99	12,600	1956	Feb. 18, 1956	17.15	10,800
	Mar. 30, 1945	21.34	22,500		June 25, 1956	15.30	7,790
	Apr. 1, 1945	19.46	17,100	1957	Jan. 22, 1957	15.63	8,180
	Apr. 15, 1945	22.24	25,200		Apr. 4, 1957	24.36	32,700
	June 11, 1945	22.62	26,500		Apr. 22, 1957	16.49	9,500
1946	Jan. 8, 1946	19.06	15,900		Apr. 28, 1957	18.72	14,700
	Feb. 13, 1946	18.88	15,300		May 23, 1957	18.82	15,000
	Mar. 6, 1946	20.25	19,200	1958	Nov. 13, 1957	17.92	12,400
	May 1, 1946	19.20	16,200		Nov. 18, 1957	18.80	15,000
	May 25, 1946	18.19	13,200		Mar. 24, 1958	15.06	7,530
1947	Dec. 10, 1946	16.94	10,100		May 3, 1958	14.71	7,100
	May 21, 1947	16.64	9,680		May 5, 1958	20.44	19,800

745. White River at Newport, Ark.
(Published as "near Newport" 1927-31)

Location.--Lat 35°36'20", long 91°17'20", in NE $\frac{1}{4}$ sec.10, T.11 N., R.3 W., at bridge on U. S. Highway 67 at Newport, 7.2 miles downstream from Black River, and at mile 257.6.

Drainage area.--19,812 sq mi.

Gage.--Nonrecording prior to Aug. 14, 1953; recording thereafter. October 1927 to September 1931, 2.8 miles upstream at datum 2.30 ft lower. Datum of present gage is 194.09 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 341,000 cfs at present site and below 162,000 cfs at former site.

Bankfull stage.--26 ft.

Remarks.--Records of peak stage 1885-1927 and 1932-37 furnished by U. S. Weather Bureau. Discharge records 1938-58 furnished by Corps of Engineers and reviewed by Geological Survey. Floodflow regulated to some extent since June 1943 by Norfolk Reservoir on North Fork River, since 1948 by Clearwater Reservoir on Black River, and since July 1951 by Bull Shoals Reservoir on White River. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1886	May 12, 1886	24.0	66,500	1923	Feb. 5, 1923	29.5	130,000
1887	May 8, 1887	24.5	69,500	1924	June 14, 1924	25.4	75,500
1888	May 23, 1888	26.1	80,900	1925	May 1, 1925	21.8	55,100
1889	Mar. 28, 1889	23.0	61,000				
1890	Mar. 14, 1890	33.0	235,000	1926	Oct. 19, 1925	26.1	80,900
				1927	Apr. 17, 1927	35.6	367,000
1891	Apr. 26, 1891	23.8	65,400	1928	June 15, 1928	33.1	172,000
1892	May 21, 1892	29.6	132,000	1929	May 12, 13, 1929	30.0	108,000
1893	May 5, 1893	30.7	153,000	1930	Jan. 17, 1930	30.3	112,000
1894	May 11, 1894	28.0	102,000				
1895	July 11, 1895	19.6	45,900	1931	Feb. 13, 1931	23.6	64,200
				1932	Jan. 26, 1932	26.7	86,300
1896	Dec. 24, 1895	28.8	116,000	1933	May 19, 1933	32.1	199,000
1897	Jan. 7, Mar. 22	27.9	101,000	1934	Mar. 29, 1934	25.7	77,800
1898	May 8, 1898	32.1	199,000	1935	Mar. 14, 1935	33.7	270,000
1899	May 13, 1899	28.0	102,000				
1900	Mar. 3, 1900	18.5	41,800	1936	Dec. 9, 1935	18.0	40,000
				1937	Jan. 18, 19, 1937	30.7	158,000
1901	Mar. 15, 1901	23.5	63,800	1938	Feb. 20, 1938	33.4	259,000
1902	Mar. 2, 1902	18.1	40,400	1939	Apr. 20, 1939	30.3	144,000
1903	Mar. 12, 13, 1903	28.7	114,000	1940	Apr. 14, 1940	a24.4	75,200
1904	Mar. 29, 1904	28.9	117,000				
1905	May 26, 1905	28.2	105,000	1941	Apr. 23, 1941	a27.25	106,000
				1942	Nov. 5, 1941	28.1	102,000
1906	Mar. 29, 1906	30.5	152,000	1943	May 14, 1943	34.68	304,000
1907	May 11, 1907	30.7	158,000	1944	Mar. 3, 1944	b23.0	60,700
1908	May 1908	29.4	127,000	1945	Apr. 17, 1945	a35.9	343,000
1909	Mar. 14, 1909	26.0	80,000				
1910	June 13, 1910	20.5	49,500	1946	May 30, 1946	30.0	125,000
				1947	Dec. 16, 1946	28.2	100,000
1911	Aug. 17, 1911	24.8	71,300	1948	June 21, 1948	a23.3	66,200
1912	May 2, 1912	29.4	127,000	1949	Jan. 28, 1949	c34.0	260,000
1913	Jan. 26, 1913	26.0	80,000	1950	May 15, 1950	32.1	194,000
1914	May 1, 1914	23.1	61,600				
1915	Aug. 24, 1915	33.9	280,000	1951	Feb. 23, 1951	28.5	104,000
				1952	Apr. 15, 1952	25.6	75,200
1916	Feb. 1, 1916	34.3	303,000	1953	Mar. 20, 1953	24.4	66,300
1917	Apr. 6, 1917	24.9	71,900	1954	May 3, 1954	a19.49	48,000
1918	May 15, 1918	32.3	207,000	1955	Mar. 22, 1955	a21.70	54,800
1919	June 5, 1919	23.4	63,200				
1920	Mar. 29, 1920	29.3	125,000	1956	Feb. 19, 1956	a22.10	55,300
				1957	Apr. 6, 1957	d28.25	101,000
1921	Apr. 30, 1921	31.3	174,000	1958	May 11, 1958	27.54	92,800
1922	Apr. 14, 1922	26.2	81,800				

a Occurred on following day.

b Occurred Apr. 15, 1944.

c Occurred Jan. 24, 1949.

d Occurred Apr. 6-7, 1957.

Note.--Discharges 1886-1927 and 1932-37 computed on basis of measurements made prior to construction of levees in 1940.

748.5. White River near Augusta, Ark.

Location.--Lat 35°17'23", long 91°23'38", in sec.26, T.8 N., R.4 W., at bridge on U. S. Highway 64, 2 miles northwest of Augusta and at mile 206.2.

Drainage area.--20,473 sq mi.

Gage.--Nonrecording. Datum of gage is 169.85 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Bankfull stage.--32 ft.

Remarks.--Records furnished by Corps of Engineers. For regulation, see Remarks for station at Newport. Only annual peak stages are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1933	May 21, 1933	36.5	-	1946	May 31, 1946	34.89	-
1935	Mar. 16, 1935	38.9	-	1947	Apr. 17, 1947	31.84	-
1937	Jan.23-25, 1937	36.6	-	1948	Mar. 7, 1948	32.22	-
1938	Feb. 23, 1938	39.27	-	1949	Jan. 30, 1949	39.33	-
1939	Apr. 22, 1939	34.9	-	1950	May 17,18, 1950	36.5	-
1940	Apr. 18, 1940	32.23	-	1951	Feb. 26, 1951	34.02	-
1941	Nov. 7, 1941	33.37	-	1952	Apr. 17, 1952	32.58	-
1942	Apr. 18, 1942	33.66	-	1953	Mar.22,23, 1953	32.5	-
1943	May 16, 1943	39.84	-	1954	May 6, 1954	29.98	-
1944	Apr. 17, 1944	31.93	-	1955	Mar. 25, 1955	31.33	-
1945	Apr. 19, 1945	40.83	-	1956	Feb. 21, 1956	31.99	-
				1957	May 3, 1957	34.05	-
				1958	May 13, 1958	33.4	-

750. Middle Fork Little Red River at Shirley, Ark.

Location.--Lat 35°39', long 92°18', in SW $\frac{1}{4}$ sec.20, T.12 N., R.12 W., on right bank half a mile downstream from Sugar Camp (or Weavers) Creek and 1 mile east of Shirley.

Drainage area.--294 sq mi.

Gage.--Nonrecording prior to June 6, 1939; recording thereafter. Prior to July 16, 1952, 70 ft upstream at same datum. Datum of present gage is 483.12 ft above mean sea level, datum of 1929. Recording gage at former site located on downstream side of railroad pier and subject to considerable drawdown. All crest stages subject to drawdown adjusted to nonrecording gage by stage-relation curve.

Stage-discharge relation.--Defined by current-meter measurements below 59,000 cfs and extended above by logarithmic plotting.

Bankfull stage.--19 ft.

Remarks.--Records furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 6,000 cfs.

WHITE RIVER BASIN

Peak stages and discharges of Middle Fork Little Red River at Shirley, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	Mar. 10, 1935	27.3	a61,000	1950	Feb. 1, 1950	13.94	6,920
					Feb. 13, 1950	15.90	10,400
1939	Apr. 17, 1939	19.5	16,800		May 12, 1950	13.43	6,120
					June 5, 1950	21.73	27,900
1940	Apr. 19, 1940	11.40	3,480		July 18, 1950	13.97	6,920
					Aug. 28, 1950	18.56	16,500
1941	Jan. 1, 1941	14.22	7,770	1951	Jan. 3, 1951	15.20	9,060
	Sept. 25, 1941	13.76	7,140		Feb. 20, 1951	19.73	20,000
1942	Oct. 17, 1941	17.36	13,200		Apr. 21, 1951	16.43	11,400
	Oct. 31, 1941	19.95	18,900		July 4, 1951	14.23	7,440
	Dec. 23, 1941	13.09	6,050	1952	Nov. 1, 1951	14.89	8,520
	Mar. 8, 1942	14.53	8,250		Nov. 6, 1951	15.00	8,700
	Apr. 8, 1942	19.55	17,900		Nov. 24, 1951	18.62	16,500
	May 20, 1942	14.32	7,930		Jan. 4, 1952	15.12	8,880
1943	Nov. 7, 1942	14.98	9,080		Mar. 10, 1952	18.38	15,900
	Dec. 27, 1942	23.08	34,000		Apr. 12, 1952	18.16	15,300
	Apr. 11, 1943	15.68	10,200		Apr. 22, 1952	16.30	11,200
	May 11, 1943	27.15	60,700		May 23, 1952	14.57	7,980
1944	Feb. 28, 1944	16.28	11,300	1953	Nov. 25, 1952	21.26	27,900
	Apr. 11, 1944	13.74	6,970		Dec. 4, 1952	14.55	8,160
	Apr. 23, 1944	21.28	24,700		Jan. 23, 1953	14.84	8,520
	May 3, 1944	13.73	6,970		Mar. 4, 1953	13.44	6,120
					Mar. 14, 1953	16.88	12,600
1945	Feb. 21, 1945	22.10	28,500		Mar. 18, 1953	19.17	18,900
	Mar. 3, 1945	19.27	17,500		Apr. 24, 1953	15.00	8,880
	Mar. 30, 1945	24.60	43,200		May 15, 1953	15.03	8,880
	Apr. 15, 1945	19.91	19,200	1954	Jan. 20, 1954	14.40	7,260
	June 10, 1945	23.40	35,800		May 2, 1954	21.13	29,000
1946	Jan. 5, 1946	14.04	7,350	1955	Feb. 20, 1955	16.4	11,600
	Jan. 9, 1946	20.26	21,300		Mar. 18, 1955	13.76	6,760
	Feb. 13, 1946	21.45	25,500		Mar. 21, 1955	20.25	22,800
	Mar. 6, 1946	17.48	13,700		Apr. 21, 1955	20.04	22,000
	May 2, 1946	14.74	8,400		May 21, 1955	18.16	15,900
	May 23, 1946	15.37	9,550		June 6, 1955	13.42	6,120
1947	Dec. 10, 1946	19.58	19,000		July 18, 1955	15.33	9,420
	Apr. 8, 1947	13.14	6,000	1956	Feb. 2, 1956	17.95	15,300
	Apr. 11, 1947	17.12	12,800		Feb. 8, 1956	14.53	7,980
	May 13, 1947	14.01	7,350		Feb. 18, 1956	17.82	14,800
1948	Jan. 1, 1948	19.47	18,800	1957	Jan. 22, 1957	18.97	18,200
	Mar. 2, 1948	14.59	8,250		Feb. 25, 1957	17.38	13,600
1949	Dec. 15, 1948	14.95	8,700		Apr. 3, 1957	23.49	37,800
	Jan. 4, 1949	13.44	6,120		Apr. 21, 1957	17.12	15,000
	Jan. 18, 1949	17.67	14,000		Apr. 25, 1957	14.34	7,620
	Jan. 24, 1949	31.0	101,000		May 23, 1957	15.76	10,400
	Jan. 27, 1949	16.49	11,600		Aug. 13, 1957	26.03	51,700
	Feb. 14, 1949	17.03	12,600	1958	Nov. 13, 1957	17.20	13,300
	Mar. 26, 1949	14.97	8,700		Nov. 18, 1957	17.39	13,600
1950	Oct. 22, 1949	15.91	10,400		Mar. 9, 1958	15.62	10,000
	Jan. 4, 1950	21.73	27,900		Mar. 23, 1958	15.85	10,400
	Jan. 13, 1950	16.27	11,200		May 3, 1958	14.98	8,880
	Jan. 26, 1950	13.55	6,280		May 9, 1958	17.89	15,000

a Annual peak only.

755. South Fork Little Red River near Clinton, Ark.

Location.--Lat 35°34', long 92°23', in NE $\frac{1}{4}$ sec.29, T.11 N., R.13 W., on left bank $\frac{1}{4}$ miles downstream from Pedee Creek, $4\frac{1}{2}$ miles southeast of Clinton, and 6 miles downstream from Archey Fork.

Drainage area.--316 sq mi.

Gage.--Nonrecording prior to July 14, 1939; recording thereafter. Datum of gage is 430.02 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 42,000 cfs.

Bankfull stage.--20 ft.

Historical data.--Maximum stage known prior to Jan. 24, 1949, 25.2 ft, date unknown, from information by local residents.

Remarks.--Records furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 7,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Apr. 17, 1939	21.1	a31,300	1950	Jan. 13, 1950	16.66	16,500
1940	May 1, 1940	10.67	5,770	Feb. 1, 1950	12.70	8,790	
1941	May 7, 1941	11.4	6,820	Feb. 13, 1950	13.51	10,200	
1942	Oct. 17, 1941	16.30	16,200	May 12, 1950	11.87	7,700	
Oct. 31, 1941	18.40	20,800	Aug. 25, 1950	12.00	7,700		
Dec. 23, 1941	11.37	7,350	Aug. 29, 1950	12.73	8,790		
Apr. 8, 1942	17.66	19,200	1951	Jan. 3, 1951	13.86	10,800	
Apr. 26, 1942	12.65	9,220	Feb. 20, 1951	14.25	11,400		
1943	Dec. 27, 1942	20.58	29,300	1952	Nov. 1, 1951	12.55	8,620
Apr. 12, 1943	16.25	16,600	Nov. 6, 1951	14.14	11,200		
May 11, 1943	24.27	43,800	Nov. 24, 1951	14.40	11,800		
1944	Feb. 9, 1944	11.60	7,130	Jan. 4, 1952	14.10	11,200	
Feb. 28, 1944	13.84	10,200	Mar. 11, 1952	16.27	16,800		
Apr. 8, 1944	19.20	24,200	Apr. 12, 1952	15.62	15,300		
Apr. 23, 1944	21.01	30,900	Apr. 22, 1952	16.03	16,100		
May 3, 1944	11.61	7,130	1953	Nov. 25, 1952	19.55	25,500	
1945	Feb. 17, 1945	14.00	12,000	Dec. 4, 1952	14.01	12,000	
Feb. 21, 1945	20.28	28,100	Jan. 23, 1953	12.09	8,480		
Mar. 3, 1945	17.97	20,700	Mar. 14, 1953	14.34	12,600		
Mar. 19, 1945	13.29	10,700	Mar. 18, 1953	17.70	20,000		
Mar. 30, 1945	23.36	43,100	Apr. 24, 1953	12.99	10,200		
Apr. 2, 1945	16.42	17,000	May 13, 1953	11.49	7,520		
Apr. 15, 1945	13.89	11,800	1954	May 2, 1954	18.43	19,800	
June 11, 1945	20.43	28,500	1955	Feb. 20, 1955	13.99	12,000	
June 17, 1945	11.34	7,220	Mar. 18, 1955	11.46	7,520		
1946	Jan. 9, 1946	18.04	20,700	Mar. 21, 1955	17.44	19,300	
Feb. 13, 1946	20.1	27,300	Apr. 21, 1955	15.30	14,700		
Mar. 6, 1946	14.62	13,200	May 21, 1955	13.27	10,700		
May 2, 1946	12.72	9,600	1956	Feb. 2, 1956	16.06	16,300	
May 23, 1946	14.00	12,000	Feb. 8, 1956	12.34	8,860		
1947	Dec. 12, 1946	18.00	20,700	Feb. 18, 1956	15.08	14,300	
1948	Jan. 1, 1948	16.24	16,600	1957	Jan. 22, 1957	19.44	21,000
Mar. 2, 1948	13.48	11,100	Feb. 25, 1957	14.76	12,800		
1949	Dec. 15, 1948	13.80	11,600	Apr. 3, 1957	24.26	41,300	
Jan. 18, 1949	16.15	15,400	Apr. 21, 1957	14.90	13,000		
Jan. 24, 1949	26.55	54,900	May 23, 1957	15.36	14,000		
Jan. 27, 1949	13.96	11,000	Aug. 13, 1957	28.16	59,500		
Feb. 14, 1949	12.25	8,000	Sept. 1, 1957	14.39	11,900		
Mar. 26, 1949	12.97	9,300	1958	Oct. 23, 1957	12.07	7,760	
1950	Oct. 5, 1949	14.96	12,900	Nov. 13, 1957	17.48	18,800	
Oct. 22, 1949	14.40	11,800	Nov. 18, 1957	17.84	19,500		
Dec. 11, 1949	12.26	8,150	Mar. 8, 1958	12.76	8,880		
Jan. 4, 1950	17.83	19,400	Mar. 24, 1958	13.87	10,900		
			May 2, 1958	14.37	13,000		
			May 5, 1958	12.78	9,960		
			May 9, 1958	12.09	8,720		

a Not a complete year, annual peak only.

WHITE RIVER BASIN

760. Little Red River near Heber Springs, Ark.

Location.--Lat 35°32', long 92°00', in NE $\frac{1}{4}$ sec.6, T.10 N., R.9 W., on left bank $\frac{2\frac{1}{2}}$ miles downstream from Peter Creek and 3 miles northeast of town of Heber Springs.

Drainage area.--1,141 sq mi.

Gage.--Nonrecording prior to Dec. 15, 1938, at site half a mile upstream at datum 1.06 ft lower; recording thereafter at present site and datum. Datum of present gage is 271.81 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Remarks.--Records since July 1935 furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 26,000 cfs. Only annual peaks are shown prior to 1937.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	April 1927	44.00	78,900	1946	Feb. 14, 1946	33.90	58,800
1928	Apr. 6, 1928	42.35	74,400	Mar. 6, 1946	30.95	48,500	
1929	Feb. 26, 1929	29.10	41,100	May 3, 1946	26.97	37,800	
1930	May 11, 1930	38.90	65,200	May 24, 1946	25.22	35,300	
1931	Oct. 8, 1930	24.45	28,500	1947	Dec. 12, 1946	29.30	43,800
1932	Jan. 6, 1932	31.3	47,400	1948	Jan. 1, 1948	27.66	39,600
1933	May 16, 1933	38.0	62,900	Mar. 12, 1948	22.33	26,300	
1934	Mar. 26, 1934	31.86	49,100	1949	Dec. 16, 1948	24.34	31,100
1935	May 5, 1935	42.0	73,300	Jan. 19, 1949	27.80	39,800	
1937	Jan. 15, 1937	29.9	41,800	Jan. 25, 1949	46.53	117,000	
	Jan. 22, 1937	24.5	27,600	Jan. 28, 1949	24.76	32,300	
	May 2, 1937	25.3	29,500	Feb. 14, 1949	25.68	29,700	
1938	Jan. 24, 1938	26.4	32,300	Mar. 27, 1949	27.53	39,100	
	Feb. 18, 1938	41.9	73,100	1950	Oct. 6, 1949	24.82	30,500
	Mar. 30, 1938	39.0	70,200	Jan. 5, 1950	32.51	53,700	
	Apr. 16, 1938	28.5	37,800	Jan. 14, 1950	26.76	41,900	
1939	Jan. 30, 1939	25.19	36,100	Feb. 13, 1950	26.98	36,200	
	Apr. 17, 1939	36.83	72,800	June 4, 1950	24.18	29,000	
	May 27, 1939	25.40	36,600	1951	Jan. 14, 1951	25.06	31,300
1940	May 1, 1940	17.55	17,300	Feb. 21, 1951	27.67	38,600	
1941	Jan. 2, 1941	16.60	15,300	1952	Nov. 6, 1951	23.08	26,400
1942	Oct. 18, 1941	24.38	33,800	Nov. 24, 1951	27.37	37,700	
	Nov. 1, 1941	29.00	46,700	Jan. 4, 1952	26.24	34,200	
	Apr. 9, 1942	32.37	57,900	Mar. 11, 1952	28.18	40,100	
1943	Dec. 28, 1942	32.32	51,000	Apr. 13, 1952	26.55	35,400	
	Apr. 12, 1943	24.53	31,400	Apr. 23, 1952	24.85	30,500	
	May 11, 1943	43.95	99,100	1953	Nov. 26, 1952	30.56	47,500
1944	Feb. 29, 1944	23.31	28,800	Dec. 4, 1952	25.43	32,100	
	Apr. 11, 1944	25.93	34,500	Mar. 15, 1953	23.16	26,600	
	Apr. 23, 1944	33.08	53,600	Mar. 18, 1953	31.15	49,400	
	May 3, 1944	22.86	28,000	1954	May 3, 1954	29.76	45,000
1945	Feb. 22, 1945	35.09	65,900	1955	Mar. 21, 1955	28.37	40,700
	Feb. 27, 1945	26.58	37,500	Apr. 21, 1955	27.37	37,700	
	Mar. 3, 1945	28.33	42,500	1956	Feb. 2, 1956	27.70	38,600
	Mar. 20, 1945	25.83	35,200	Feb. 18, 1956	28.37	40,700	
	Mar. 31, 1945	42.47	96,200	1957	Jan. 23, 1957	30.29	46,600
	Apr. 2, 1945	30.37	49,200	Apr. 4, 1957	44.23	96,500	
	Apr. 16, 1945	27.90	41,300	Apr. 22, 1957	23.26	27,300	
	June 11, 1945	40.77	88,900	Apr. 28, 1957	23.62	28,000	
	June 18, 1945	24.39	31,400	May 24, 1957	29.11	42,800	
1946	Jan. 9, 1946	31.17	49,400	Aug. 14, 1957	40.84	87,500	
				1958	Nov. 14, 1957	29.49	44,000
					Nov. 18, 1957	30.30	46,600
					Mar. 24, 1958	24.70	30,400
					May 3, 1958	30.85	48,200
					May 10, 1958	23.72	26,200

767.5. White River at Georgetown, Ark.

Location.--Lat 35°07'45", long 91°27'00", in sec.20, T.6 N., R.4 W., on right bank at Georgetown, 9.2 miles downstream from Little Red River and at mile 173.2.

Drainage area.--22,330 sq mi.

Gage.--Nonrecording. Prior to August 1949, at site 1.0 miles downstream at present datum. Datum of gage is 170.17 ft above mean sea level.

Stage-discharge relation.--Not defined.

Bankfull stage.--21 ft.

Remarks.--Records furnished by U. S. Weather Bureau. For regulation see Remarks for station at Newport. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1913	Jan. 19, 1913	24.1	-	1936	Dec. 10, 1935	19.5	-
1914	May 8-11, 1914	22.3	-	1937	Jan. 24, 25, 1937	30.3	-
1915	Aug. 27, 28, 1915	26.2	-	1938	Feb. 24, 1938	31.5	-
				1939	Apr. 24, 1939	27.0	-
1916	Feb. 3, 4, 1916	27.5	-	1940	Apr. 22, 1940	22.7	-
1917	Apr. 12, 1917	22.2	-				
1918	May 20, 1918	28.2	-	1941	Apr. 28, 1941	22.6	-
1919	Jan. 3, 4, 1919	22.3	-	1942	Apr. 17, 1942	24.8	-
1920	Apr. 2, 1920	25.5	-	1943	May 18, 1943	31.4	-
				1944	Apr. 27, 1944	22.7	-
1921	May 3, 1921	28.0	-	1945	Apr. 4, 1945	32.0	-
1922	Apr. 6-9, 11, 15	23.9	-				
1923	May 31, 1923	25.9	-	1946	June 1, 2, 1946	27.4	-
1924	June 18-20, 1924	22.0	-	1947	Dec. 19, 20, 1946	24.5	-
1925	May 5, 6, 1925	18.2	-	1948	Mar. 8, 9, 1948	22.9	-
				1949	Feb. 1, 1949	32.8	-
1926	Oct. 23, 24, 1925	23.3	-	1950	Jan. 19, 1950	29.1	-
1927	Apr. 17, 1927	30.4	-				
1928	June 27, 1928	29.9	-	1951	Feb. 28, Mar. 2	24.7	-
1929	May 16, 1929	26.6	-	1952	Apr. 26, 1952	23.2	-
1930	Jan. 20, 21, 1930	26.8	-	1953	Mar. 24, 1953	23.3	-
				1954	May 6, 1954	20.0	-
1931	Feb. 19-21, 1931	21.7	-	1955	Mar. 25, 1955	21.0	-
1932	Jan. 29, 30, 1932	25.0	-				
1933	May 23, 1933	28.4	-	1956	Feb. 22, 1956	22.8	-
1934	Mar. 31, 1934	24.5	-	1957	May 4, 1957	27.0	-
1935	Mar. 18, 1935	31.3	-	1958	May 13, 1958	25.1	-

769. White River at Des Arc, Ark.

Location.--Lat 34°58'36", long 91°29'33", in SE $\frac{1}{4}$ sec.11, T.4 N., R.5 W., on right bank at Des Arc, 2.0 miles downstream from Bayou Des Arc and at mile 147.3.

Drainage area.--23,111 sq mi.

Gage.--Nonrecording. Datum of gage is 159.87 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Bankfull stage.--24 ft.

Remarks.--Records furnished by Corps of Engineers. For regulation see Remarks for station at Newport. Only annual peak stages are shown.

WHITE RIVER BASIN

Peak stages and discharges of White River at Des Arc, Ark.

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1933	May 24, 25, 1933	32.0	-	1946	June 2, 3, 1946	30.0	-
1935	Mar. 19, 1935	35.0	-	1947	Apr. 22, 1947	22.8	-
1937	Jan. 24, 1937	35.15	-	1948	Mar. 7, 1948	25.15	-
1938	Feb. 24, 1938	34.7	-	1949	Feb. 2, 1949	37.3	-
1939	Apr. 25, 26, 1939	30.2	-	1950	Jan. 20, 1950	32.9	-
1940	Apr. 25, 1940	24.8	-	1951	Mar. 2, 1951	27.9	-
1941	Nov. 12, 1941	26.2	-	1952	Apr. 27, 28, 1952	25.9	-
1942	Apr. 19, 1942	27.8	-	1953	Mar. 25, 1953	26.6	-
1943	May 20, 1943	34.9	-	1954	May 7, 1954	22.55	-
1944	May 8, 1944	24.9	-	1955	Mar. 27, 28, 1955	22.9	-
1945	Apr. 4, 1945	35.6	-	1956	Feb. 23, 1956	25.46	-
				1957	May 3-5, 1957	30.20	-
				1958	May 14, 1958	28.3	-

770. White River at DeValls Bluff, Ark.

Location.--Lat 34°47', long 91°27', in SW $\frac{1}{4}$ sec. 17, T. 2 N., R. 4 W., on downstream side of bridge on U. S. Highway 70, 1 mile northeast of DeValls Bluff, 7.5 miles downstream from Wattensaw Bayou, 24.1 miles upstream from Cache River and at mile 125.3.

Drainage area.--23,431 sq mi.

Gage.--Recording. Datum of gage is 152.93 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 220,000 cfs.

Bankfull stage.--20 ft.

Historical data.--Maximum stage known, 34.6 ft Apr. 23, 1927, from information by U. S. Weather Bureau.

Remarks.--Records prior to 1945 not listed because a large portion of flood-flow above station overflowed into Cache River. Station was not operated 1945-49. For regulation, see Remarks for station at Newport. Base for partial-duration series, 53,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Feb. 3, 1949	31.35	a220,000	1954	May 7, 8, 1954	22.08	58,100
1950	Jan. 20, 21, 1950	28.42	154,000	1955	Mar. 27-29, 1955	22.42	58,000
	Feb. 21, 1950	27.06	129,000	1956	Feb. 24, 1956	24.17	77,400
	May 22, 1950	27.28	135,000	1957	May 4, 5, 1957	27.47	117,000
1951	Mar. 3, 1951	25.07	94,900		May 31, 1957	26.79	107,000
	July 19-24, 1951	21.80	54,900		Aug. 20, 1957	23.35	63,400
1952	Dec. 8-10, 1952	24.02	82,000	1958	Nov. 23, 1957	25.67	91,500
	Jan. 10-12, 1952	23.64	76,400		Apr. 10, 1958	23.37	68,400
	Apr. 27-29, 1952	23.65	82,000		May 15, 1958	26.06	101,000
1953	Mar. 25, 26, 1953	24.02	82,000				
	May 19, 1953	23.27	72,500				

a Annual peak only, furnished by Corps of Engineers.

775. Cache River at Patterson, Ark.
(Prior to 1920, published by Weather Bureau as "at Jelks")

Location.--Lat 35°15'30", long 91°14'40", in S½ sec.6, T.7 N., R.2 W., at bridge on U. S. Highway 64 at Patterson, 9.5 miles upstream from Maple Slough.

Drainage area.--1,041 sq mi.

Gage.--Nonrecording prior to Oct. 6, 1949; recording thereafter. January 1937 to Dec. 31, 1950, datum of gage at mean Gulf level, or 0.24 ft below mean sea level, datum of 1929. Datum of present gage is 182.96 ft above mean sea level, datum of 1929. All stages adjusted to present datum.

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs.

Bankfull stage.--9 ft.

Remarks.--Records since January 1937 furnished by Corps of Engineers. Gage-height records July 1916 to December 1931 from publications of U. S. Weather Bureau. Maximum stage of Apr. 19, 1927, caused by break in White River levee. Only annual peaks are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1916	January 1916	13.0		1940	Apr. 21, 1940	9.95	5,380
1917	Apr. 20-22, 1917	9.5	-				
1918	May 24, 25, 1918	9.8	-	1941	Feb. 3, 1941	8.7	a2,820
1919	Jan. 2, 3, 1919	11.1	-	1942	Apr. 14, 1942	b10.15	6,200
1920	Jan. 25, 1920	10.3	-	1943	May 16, 1943	10.3	6,060
				1944	Apr. 13, 16, 17	9.7	4,760
1921	Apr. 18, May 12-15	9.7	5,100	1945	Apr. 21, 1945	12.1	10,200
1922	Apr. 1, 1922	10.3	6,600				
1923	Feb. 3, 4, 1923	10.8	8,000	1946	May 27, 28, 1946	10.3	6,020
1924	June 6, 1924	9.7	5,100	1947	Apr. 17, 18, 1947	9.5	4,360
1925	Oct. 22, 1925	10.5	7,200	1948	Mar. 6, 1948	9.85	5,560
				1949	Jan. 31, 1949	11.3	10,400
1926	Feb. 1, 2, 1926	9.9	a5,600	1950	Feb. 15, 1950	11.65	11,600
1927	Apr. 19, 1927	16.1	24,500				
1928	June 27, 28, 1928	11.8	12,100	1951	Dec. 11, 1951	10.0	7,550
1929	May 16, 1929	10.3	6,340	1952	Jan. 8, 1952	10.4	8,550
1930	Jan. 15, 1930	11.5	10,800	1953	Mar. 24, 1953	10.65	8,640
				1954	May 4, 1954	c8.85	3,880
1931	Feb. 19-22, 1931	8.7	2,400	1955	Mar. 24, 1955	9.76	5,720
1937	Jan. 24, 1937	13.2	13,200	1956	Feb. 19, 20, 1956	10.98	9,250
1938	Feb. 24, 1938	11.9	10,100	1957	May 25, 1957	d12.00	11,200
1939	Feb. 7, 1939	10.9	7,320	1958	May 11, 1958	10.60	8,590

a Maximum peak discharge. Maximum discharge occurred Dec. 31 on a rise that crested in the following calendar year.
b Occurred Apr. 15, 16, 1942.
c Occurred Jan. 28, 1954.
d Occurred Nov. 22, 1957.

777. Bayou DeView at Morton, Ark.

Location.--Lat 35°15'07", long 91°06'37", near corner of secs.4, 5, 8 and 9, T.7 N., R.1 W., at bridge on U. S. Highway 64, 1 mile west of Morton.

Drainage area.--422 sq mi.

Gage.--Nonrecording prior to Nov. 8, 1949; recording thereafter. Prior to Jan. 1, 1952, at datum 0.26 ft below mean sea level. Datum of present gage is 187.71 ft above mean sea level. All gage heights adjusted to present datum.

Stage-discharge relation.--Defined by current-meter measurements below 4,900 cfs and extended above by logarithmic plotting.

Bankfull stage.--16 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

WHITE RIVER BASIN

Peak stages and discharges of Bayou DeVieu at Morton, Ark.

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1933	Apr. 5, 1933	16.0	-	1946	Jan.15-20, 1946	16.5	3,780
				1947	Apr.13-15, 1947	16.2	2,800
1935	Mar. 24, 1935	15.88	-	1948	Mar. 4-8, 1948	16.5	3,510
				1949	Mar. 30, 1949	a16.8	4,430
1937	Jan. 26, 1937	18.57	-	1950	Jan. 17, 1950	17.16	5,300
1939	Feb. 10, 1939	16.8	4,150	1951	Jan. 17, 1951	a17.18	3,010
1940	Apr. 21, 1940	16.0	2,870	1952	Jan. 13, 1952	17.53	4,100
				1953	May 20, 1953	17.68	3,940
1941	Dec. 29, 1941	15.5	2,040	1954	Jan. 21, 1954	a17.33	2,700
1942	Apr. 14, 1942	a16.2	3,480	1955	Mar. 28, 1955	17.49	2,820
1943	Mar.20-22, 1943	16.0	2,790				
1944	Apr. 13, 1944	16.7	3,710	1956	Feb. 25, 1956	17.92	6,340
1945	June 21,22,1945	16.6	3,800	1957	Nov. 23, 1957	18.23	6,700
				1958	May 13, 1958	17.55	4,350

a Peak stage occurred on different date than peak discharge.

778. White River at Clarendon, Ark.

Location.--Lat 34°41'08", long 91°18'55", in W $\frac{1}{2}$ sec.22, T.1 N., R.3 W., on St. Louis Southwestern Railroad bridge at Clarendon, 1.1 miles downstream from Cache River and at mile 100.1.

Drainage area.--25,497 sq ml.

Gage.--Nonrecording. Datum of gage is 139.91 ft above mean sea level or 140.02 ft above mean Gulf level.

Stage-discharge relation.--Defined by current-meter measurements below 297,000 cfs.

Bankfull stage.--23 ft.

Remarks.--Records furnished by Corps of Engineers. Floodflows regulated to some extent since June 1943. See Remarks for station at Newport. Only annual peaks are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1885	Jan. 8, 1885	33.58	-	1911	Apr. 27, 1911	29.02	-
1886	May 4, 1886	29.2	-	1912	Apr. 14, 1912	32.6	-
1887	Mar. 22, 1887	27.9	-	1913	Apr. 15, 1913	30.35	-
1888	Apr. 8, 9, 1888	25.7	-	1914	May 15, 1914	27.0	-
1889	Apr. 11, 1889	29.1	-	1915	Sept. 2, 1915	33.02	-
1890	Mar. 20, 1890	36.63	-	1916	Feb. 7, 1916	38.43	-
				1917	Apr. 20, 1917	27.57	-
1891	Mar. 19, 1891	29.1	-	1918	May 27,28, 1918	30.4	-
1892	May 27,28, 1892	32.65	-	1919	Jan. 8, 9, 1919	28.5	-
1893	May 11, 1893	33.95	-	1920	Apr. 9, 1920	29.6	-
1894	Feb. 20, 1894	30.8	-				
1895	July 24-26, 1895	24.2	-	1921	May 10, 1921	30.75	-
				1922	Apr. 18, 1922	30.72	-
1896	Jan. 5, 6, 1896	28.2	-	1923	June 3, 4, 1923	30.36	-
1897	Apr. 14, 1897	32.4	-	1924	June 23,24, 1924	26.95	-
1898	Apr. 5, 1898	35.47	-				
1899	May 21, 1899	29.55	-	Water year			
1900	Mar. 16, 1900	25.45	-	1925	Mar. 3-5, 1925	22.5	-
1901	Mar. 26, 1901	26.75	-				
1902	Dec 30, 1902	28.3	-	1926	Oct. 28, 1925	28.35	-
1903	Mar. 20, 1903	32.63	-	1927	Apr. 23, 1927	43.3	395,000
1904	Apr. 8, 1904	29.6	-	1928	June 30, 1928	a34.9	230,000
1905	June 3, 1905	29.9	-	1929	May 24,25, 1929	b31.3	156,000
				1930	Jan.23,24, 1930	30.98	135,000
1906	Apr. 6, 1906	33.1	-				
1907	May 18, 1907	34.2	-	1931	Feb. 26, 1931	26.95	56,900
1908	May 25, 1908	30.7	-	1932	Jan.30 to Feb.1	b50.38	105,000
1909	Mar.21,22, 1909	28.9	-	1933	May 27,28, 1933	b50.97	124,000
1910	Oct. 18, 1910	25.77	-	1934	Apr. 5, 1934	b29.78	106,000

a Occurred on following day.

b Occurred on different date than peak discharge.

Note.--Calendar year basis prior to 1925; water year thereafter.

Peak stages and discharges of White River at Clarendon, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	Mar.25,26, 1935	33.7	179,000	1947	Dec.24,25, 1946	28.6	89,200
1936	Dec. 18, 1935	23.0	34,200	1948	Mar. 10, 1948	a28.55	75,400
1937	Jan. 27, 1937	b35.75	215,000	1949	Feb.4,5, 1949	b35.32	211,000
1938	Feb. 28, 1938	a35.05	203,000	1950	Jan. 21, 1950	b33.55	157,000
1939	Apr.28,29, 1939	b30.75	119,000	1951	Mar.4-6, 1951	b29.95	104,000
1940	Apr.28-30, 1940	27.75	67,800	1952	Jan. 15, 1952	b28.85	83,500
1941	May 3,4, 1941	b26.10	50,400	1953	Mar. 28, 1953	29.31	92,100
1942	Apr. 22, 1942	b29.28	94,200	1954	May 11, 1954	26.07	54,700
1943	May 27-29, 1943	b33.25	147,000	1955	Apr. 2, 1955	27.0	62,200
1944	May 9-10, 1944	b27.80	69,800	1956	Feb. 26, 1956	29.05	80,700
1945	Apr. 23, 1945	a39.10	299,000	1957	May 6,7, 1957	31.20	120,000
1946	June 4-6, 1946	31.40	132,000	1958	May 16, 1958	30.50	115,400

a Occurred on following day.

b Occurred on different date than peak discharge.

780. Lagrue Bayou near Stuttgart, Ark.

Location.--Lat 34°31'55", long 91°21'20", in NW¼ sec.17, T.2 S., R.3 W., on downstream side of bridge on State Highway 146, 7½ miles downstream from small tributary, 11 miles east of Stuttgart, and 24 miles upstream from Little Lagrue Bayou.

Drainage area.--175 sq mi.

Gage.--Nonrecording prior to Sept. 13, 1940; recording thereafter. Datum of gage is 175.14 ft above mean Gulf level (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 3,000 cfs and extended above on basis of velocity-area studies.

Bankfull stage.--10 ft.

Remarks.--Flow affected by diversions for irrigation of rice fields and return flow from irrigated areas. Peak discharge not seriously affected. Gage was discontinued Sept. 30, 1954, due to backwater from local dam. Base for partial-duration series, 900 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	July 5, 1936	11.40	1,210	1946	Oct. 3, 1945	13.36	2,390
1937	Jan. 24, 1937	16.9	6,580	Nov. 12, 1945	14.01	3,090	
1938	Jan. 25, 1938	14.74	3,860	Jan. 9, 1946	14.66	3,860	
1939	Feb. 21, 1938	14.10	3,200	Feb. 12, 1946	12.59	1,790	
1940	Apr. 11, 1938	10.78	1,030	Mar. 30, 1946	13.34	2,390	
1941	Feb. 4, 1939	14.95	4,210	May 5, 1946	11.44	1,140	
1942	Apr. 21, 1939	12.35	1,460	May 26, 1946	14.01	3,090	
1943	Feb. 22, 1940	10.71	850	1947	Jan.21,22, 1947	10.97	960
1944	Apr.25,26, 1941	9.44	592	1948	Nov. 16, 1947	11.42	1,110
1945	Apr. 13, 1942	13.28	2,340	Jan. 4, 1948	10.90	925	
1946	Apr. 29, 1942	11.73	1,180	Feb. 14, 1948	14.83	3,970	
1947	Jan. 1, 1943	11.71	1,180	Mar. 3, 1948	13.85	2,870	
1948	Mar. 16, 1943	12.94	1,930	Mar. 25, 1948	13.90	2,980	
1949	Mar. 31, 1944	12.63	1,740	Apr. 16, 1948	11.69	1,260	
1950	Apr. 13, 1944	12.02	1,410	June 20, 1948	12.68	1,860	
1951	May 7, 1944	11.11	995	1949	Nov. 25, 1948	11.20	1,030
1952	Jan. 1, 1945	14.22	3,310	Jan. 8, 1949	12.23	1,560	
1953	Feb. 23, 1945	12.41	1,650	Jan.28,29, 1949	14.45	3,530	
1954	Mar. 3, 1945	12.94	2,000	Mar. 12, 1949	11.42	1,240	
1955	Mar. 27, 1945	11.18	1,030	Mar. 29, 1949	12.86	2,120	
1956	Apr. 4, 1945	13.87	2,980	1950	Oct. 8, 1949	12.52	1,410
1957	May 19, 1945	11.36	1,110	Oct. 27, 1949	11.08	1,020	
1958	June 20, 1945	12.24	1,530	Dec. 19, 1949	12.25	1,530	
				Jan. 6, 1950	12.91	2,000	
				Jan. 14, 1950	14.00	3,090	
				Feb. 4, 1950	13.53	2,540	
				Feb. 16, 1950	13.03	2,080	

Peak stages and discharges of Lagrue Bayou near Stuttgart, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Mar. 15, 1950	12.32	1,590	1952	Mar. 14, 1952	11.12	1,000
	Mar. 31, 1950	11.32	1,090		1953	Feb. 4, 1953	11.88
	May 10, 1950	13.64	2,650	Feb. 14, 1953		12.35	1,620
	Aug. 28, 1950	12.66	1,860	Mar. 24, 1953		12.24	1,560
1951	Jan. 15, 1951	14.36	3,530	Apr. 9, 1953		10.88	925
	Feb. 10, 1951	11.69	1,260	May 17, 1953		14.17	3,310
	Feb. 23, 1951	11.08	1,020	1954		Jan. 17, 1954	12.33
1952	Dec. 14, 1951	12.10	1,410		Jan. 27, 1954	12.11	1,470
	Feb. 24, 1952	11.75	1,240		Feb. 22, 1954	12.31	1,590

ARKANSAS RIVER BASIN

795. East Fork Arkansas River near Leadville, Colo.

Location.--Lat 39°15'50", long 106°20'10", in sec.16, T.9 S., R.80 W., at highway bridge 600 ft upstream from confluence with Tennessee Fork and 3 miles northwest of Leadville.

Drainage area.--50 sq mi.

Gage.--Nonrecording. Prior to June 5, 1911, staff gages at different datums. Altitude of last used gage was 9,700 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 300 cfs.

Remarks.--Continuous diversion of 2 cfs (which may be increased to 3 cfs during winter) above the station by the Leadville Water Co. Diversion would not substantially affect maximum flows. Peaks are principally due to snowmelt. Only annual observed peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1890	June 2, 1890	-	505	1918	June 12, 1918	1.95	772
				1919	June 1,2,3, 1919	0.90	155
1912	June 7, 1912	-	290	1920	May 31, 1920	1.63	521
				1914	June 1,2, 1914	1.5	430
1915	June 11, 1915	1.2	235	1921	June 15, 1921	2.03	794
				1922	May 28,30, 1922	1.46	409
1916	June 12, 1916	1.3	328	1923	June 21, 1923	1.60	460
				1917	June 18,20, 1917	1.45	448
1924	June 14, 1924	1.64	287	1924	June 14, 1924	1.64	287

810. Tennessee Fork near Leadville, Colo.

Location.--Lat 39°15'50", long 106°20'20", in SW $\frac{1}{4}$ sec.16, T.9 S., R.80 W., at highway bridge about a quarter of a mile upstream from confluence with East Fork Arkansas River and 3 miles northwest of Leadville.

Drainage area.--48 sq mi.

Gage.--Nonrecording. Feb. 8, 1911, to Oct. 5, 1914, staff gage at datum 0.40 ft higher than last used gage. Altitude of last used gage was 9,760 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 340 cfs.

Remarks.--Small diversions do not substantially affect maximum flows. Peaks are principally due to snowmelt. Only annual observed peaks are shown.

Peak stages and discharges of Tennessee Fork near Leadville, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1890	May 27, 1890	-	345	1917	June 23, 1917	1.52	263
				1918	June 14, 1918	2.05	450
1911	June 9, 1911	-	255	1919	Aug. 1, 1919	1.10	149
1912	June 5, 6, 1912	-	425	1920	May 26, 27, 1920	2.0	430
1913	May 25, 1913	1.5	440				
1914	May 24, 1914	1.6	448	1921	June 14, 1921	2.3	395
1915	June 1, 2, 22, 1915	1.2	177	1922	May 30, 1922	1.56	300
				1923	June 21, 1923	1.90	399
1916	Apr. 27, 1916	1.4	224	1924	June 14, 1924	1.80	327

820. Lake Fork above Sugar Loaf Reservoir, Colo.

Location.--Lat 39°16'10", long 106°23'40", in sec.13, T.9 S., R.81 W., 1,000 ft upstream from high-water line of Sugar Loaf Reservoir and 6 miles west of Leadville.

Drainage area.--18 sq mi.

Gage.--Recording. Altitude of gage is 9,800 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 320 cfs.

Remarks.--No diversion above station. Records include inflow from Fryingspan Creek in Colorado River basin through Busk-Ivanhoe tunnel. Inflow should not substantially affect maximum flows. Base for partial-duration series, 320 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	June 7, 1946	4.15	402	1952	June 11, 1952	4.91	534
1947	June 9, 1947	4.35	436	1954	May 21, 1954	2.87	223
	June 20, 1947	4.22	413				
				1955	June 9, 1955	3.39	296
1948	June 3, 1948	4.13	413	1956	May 25, 1956	4.12	404
	June 9, 1948	3.64	a334		June 2, 1956	4.33	441
1949	May 29, 1949	3.82	365				
	June 13, 1949	4.45	a473	1957	June 9, 1957	-	450
	June 18, 1949	4.50	482		June 21, 1957	3.98	380
					June 28, 1957	5.22	610
1950	June 7, 1950	3.84	368		July 18, 1957	3.61	330
	June 12, 1950	3.64	336				
	June 18, 1950	3.60	a330	1958	June 2, 1958	3.76	383
					June 6, 1958	4.76	559
1951	May 28, 1951	4.04	400				
	June 21, 1951	4.46	473				

a Mean daily.

825. Lake Fork below Sugar Loaf Reservoir, Colo.

Location.--Lat 39°15'15", long 106°22'15", in NE $\frac{1}{4}$ sec.19, T.9 S., R.80 W., 600 ft downstream from Sugar Loaf Reservoir Dam and 4 miles west of Leadville.

Drainage area.--26 sq mi.

Gage.--Recording gage and sharp-crested weir. Altitude of gage is 9,760 ft (from topographic map).

Stage-discharge relation.--Discharge computed on basis of weir formula.

Remarks.--Flow regulated by Sugar Loaf Reservoir (capacity, 17,400 acre-ft). Water imported above station from Fryingspan Creek in Colorado River basin through Busk-Ivanhoe tunnel. Regulation should substantially affect maximum flows. Only annual peaks are shown.

Peak stages and discharges of Lake Fork below Sugar Loaf Reservoir, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	June 19, 1946	2.05	240	1950	Sept. 6, 1950	2.06	242
1947	June 21, 1947	2.78	379				
1948	May 22, 1948	2.66	354	1951	May 29, 1951	2.33	291
1949	June 22, 1949	2.60	342	1952	June 9, 1952	2.52	327

830. Halfmoon Creek near Malta, Colo.

Location.--Lat 39°11'10", long 106°22'55", in sec.18, T.10 S., R.80 W., 8 ft downstream from bridge, 2 miles upstream from mouth, and 3.5 miles southwest of Malta.

Drainage area.--23 sq mi.

Gage.--Recording. Prior to May 13, 1948, at datum 0.18 ft lower than present datum. Altitude of present gage is 9,740 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 210 cfs.

Remarks.--No regulation or diversion above station. Base for partial-duration series, 150 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	June 9, 1947	3.19	240	1953	May 28, 1953	2.76	164
	June 21, 1947	3.46	375		June 14, 1953	3.13	330
	July 2, 1947	3.31	300		June 18, 1953	3.07	284
1948	May 22, 1948	2.87	171	1954	June 23, 1953	2.90	189
	June 3, 1948	2.98	a211		May 21, 1954	2.87	223
	June 10, 1948	3.06	242				
1949	June 16, 1949	3.26	350	1955	June 11, 1955	2.82	169
	June 22, 1949	3.19	305		June 22, 1955	2.80	160
	July 9, 1949	2.97	a203	1956	May 25, 1956	2.85	182
1950	June 6, 1950	2.88	a179		June 2, 1956	2.92	241
	June 17, 1950	3.00	220		June 11, 1956	2.82	196
1951	May 28, 1951	2.80	150	1957	June 8, 1957	3.13	288
	June 20, 1951	2.97	218		June 20, 1957	2.93	207
	June 28, 1951	2.94	a214		June 30, 1957	3.48	450
	July 4, 1951	2.91	a210		July 18, 1957	3.13	284
1952	June 11, 1952	3.07	345	1958	May 29, 1958	2.97	220
	July 5, 1952	2.85	183		June 7, 1958	3.13	329

a Mean daily.

845. Lake Creek above Twin Lakes Reservoir, Colo.

Location.--Lat 39°03'45", long 106°24'20", sec.26, T.11 S., R.81 W., 1.5 miles upstream from high-water line of Twin Lakes Reservoir and 2 miles southwest of village of Twin Lakes.

Drainage area.--75 sq mi.

Gage.--Recording. Prior to May 20, 1950, at site 200 ft downstream at different datum. Altitude of present gage is 9,300 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,400 cfs

Remarks.--No diversion above station. Records include inflow from Roaring Fork in Colorado River basin through Twin Lakes Tunnel. Inflow should substantially affect maximum flows. Only annual peaks are shown.

Peak stages and discharges of Lake Creek above Twin Lakes Reservoir, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)				
1946	June 10, 1946	5.40	2,490	1952	June 10, 1952	5.74	2,330				
1947	June 8, 1947	5.35	2,580								
1948	June 15, 1948	4.78	1,740	1954	May 21, 1954	4.22	966				
1949	June 22, 1949	4.22	1,110	1955	June 8, 1955	4.58	1,120				
1950	June 17, 1950	4.02	932	1956	June 1, 1956	5.19	1,900				
1951	June 18, 1951	4.90	1,670					1957	June 28, 1957	5.30	2,190
								1958	May 27, 1958	4.80	1,590

855. Lake Creek below Twin Lakes Reservoir, Colo.

Location.--Lat 39°04'50", long 106°18'40", in NE $\frac{1}{4}$ sec.22, T.11 S., R.80 W., 100 ft downstream from Twin Lakes Reservoir Dam and 3 $\frac{1}{2}$ miles northwest of Granite.

Drainage area.--107 sq mi.

Gage.--Recording gage and Parshall flume. Altitude of gage is 9,160 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,200 cfs.

Remarks.--No diversion above station. Flow regulated by Twin Lakes Reservoir (capacity, 53,260 acre-ft). Records include inflow from Roaring Fork in Colorado River basin through Twin Lakes Tunnel. Regulation should substantially affect maximum flows. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	June 18, 1946	5.26	1,340	1950	June 17, 1950	5.65	1,340
1947	June 22, 1947	5.42	1,420				
1948	June 4, 1948	5.29	1,220	1951	July 4, 1951	5.30	1,220
1949	June 30, 1949	4.81	1,070	1952	June 27, 1952	5.37	1,250
				1953	June 13, 1953	4.53	976

860. Arkansas River at Granite, Colo.

Location.--Lat 39°02'35", long 106°15'55", in SW $\frac{1}{4}$ sec.31, T.11 S., R.79 W., at Granite, a short distance from U. S. Highway 24 just upstream from Cache Creek.

Drainage area.--427 sq mi.

Gage.--Nonrecording prior to Apr. 6, 1910, near present site at different datums; recording thereafter. Apr. 6, 1910, to Oct. 25, 1917, at site about 1,000 ft upstream at different datum. Datum of present gage is 8,914.86 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,300 cfs.

Remarks.--Diversion above station for irrigation of about 5,150 acres. Sugar Loaf and Twin Lakes Reservoirs (combined capacity, 70,680 acre-ft) are located on tributaries above station. Water imported from Colorado River basin above station by several transmountain diversions. Regulation, diversion, and importation should substantially affect maximum flows.

Records for 1910-12, 1918-33 furnished by State engineer of Colorado. Only annual peaks are shown.

ARKANSAS RIVER BASIN

Peak stages and discharges of Arkansas River at Granite, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1897	June 4, 1897	6.5	2,410	1934	May 31, 1934	3.33	1,020
1910	May 30,31, June 1	3.70	1,810	1935	June 14, 1935	4.53	1,700
1911	June 15, 1911	3.98	1,870	1936	June 26, 1936	4.42	1,830
1912	June 6,7,9, 1912	-	2,100	1937	May 30, 1937	3.94	1,820
1913	June 1, 1913	3.80	1,700	1938	June 6, 1938	5.45	2,320
1914	June 15, 1914	4.10	2,040	1939	May 20, 1939	4.62	1,700
1915	June 12, 21, 23	3.68	1,630	1940	June 2, 1940	3.81	1,180
1916	(a)	3.80	1,660	1941	June 21, 1941	5.98	2,060
1917	June 19, 1917	4.30	2,540	1942	June 7, 1942	5.94	2,050
1918	June 11, 1918	4.67	2,630	1943	July 1, 1943	5.50	1,930
1919	June 30, 1919	3.44	1,230	1944	June 26, 1944	5.38	1,770
1920	June 10, 1920	4.10	1,770	1945	July 25, 1945	5.11	1,510
1921	July 1, 1921	3.80	1,340	1946	June 18, 1946	5.87	2,230
1922	June 14, 1922	3.77	1,680	1947	June 24, 1947	6.24	2,900
1923	June 5, 1923	3.74	1,530	1948	June 6, 1948	5.78	2,300
1924	June 16, 1924	4.57	2,900	1949	June 23, 1949	5.76	2,360
1925	June 21, 1925	3.32	1,160	1950	June 16, 1950	5.60	2,290
1926	June 13, 1926	3.75	1,690	1951	July 5, 1951	5.51	2,000
1927	June 29, 1927	3.99	1,880	1952	June 8, 1952	6.45	2,910
1928	May 31, 1928	3.60	1,470	1953	June 12, 1953	-	2,700
1929	June 10, 1929	3.80	1,650	1954	May 22, 1954	4.97	1,510
1930	June 14, 1930	3.90	1,500	1955	June 25, 1955	4.65	1,250
1931	June 8, 1931	2.97	875	1956	June 3, 1956	6.04	2,490
1932	June 26, 1932	3.93	1,610	1957	June 28, 1957	7.20	5,360
1933	June 5, 1933	4.12	2,110	1958	June 8, 1958	5.73	1,590

a June 11, 12, 14, 15, 16, 17, 1916.

865. Clear Creek above Clear Creek Reservoir, Colo.

Location.--Lat 39°01'05", long 106°16'55", in S $\frac{1}{2}$ sec.12, T.12 S., R.80 W., on left bank 0.5 mile upstream from high-water line of Clear Creek Reservoir and 2 miles southwest of Granite.

Drainage area.--59 sq mi.

Gage.--Recording. Altitude of gage is 8,900 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 530 cfs.

Remarks.--Diversions above station for irrigation of about 250 acres. Diversions should not substantially affect maximum flows. Base for partial-duration series, 400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	June 17, 1946	3.61	686	1951	June 19, 1951	4.00	910
1947	June 8, 1947	3.59	684	1952	June 10, 1952	4.26	1,130
	June 20, 1947	4.10	1,000		June 16, 1952	4.34	1,070
	July 2, 1947	3.62	702		July 6, 1952	3.62	551
	July 15, 1947	3.17	456	1954	May 20, 1954	1.98	333
1948	May 24, 1948	3.05	432	1955	June 8, 1955	2.25	521
	June 3, 1948	3.75	a786		June 11, 1955	2.03	425
	June 9, 1948	3.85	846		June 22, 1955	2.17	487
	June 12, 1948	3.83	a828	1956	May 25, 1956	2.00	415
1949	June 18, 1949	4.07	1,040		June 2, 1956	2.79	760
	June 26, 1949	3.30	a504		June 14, 1956	2.26	522
	July 7, 1949	3.26	482	1957	June 29, 1957	-	a1,300
1950	June 6, 1950	3.18	406	1958	May 28, 1958	3.19	556
	June 15, 1950	3.58	622		June 6, 1958	3.24	576
1951	May 29, 1951	3.28	456				

a Mean daily.

870. Clear Creek below Clear Creek Reservoir, Colo.

Location.--Lat 39°01'10", long 106°14'30", in SE $\frac{1}{4}$ sec.8, T.12 S., R.79 W., 100 ft downstream from Clear Creek Reservoir Dam, 1,500 ft upstream from mouth, and 2 miles southeast of Granite.

Drainage area.--62 sq mi.

Gage.--Recording gage and wooden control. Altitude of gage is 8,800 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 440 cfs.

Remarks.--Diversion above station for irrigation of about 350 acres. Flow regulated by Clear Creek Reservoir (capacity, 11,210 acre-ft). Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	June 18, 1946	3.70	394	1950	June 2, 1950	3.48	341
1947	June 21, 1947	3.95	454				
1948	May 22, 1948	3.60	370	1951	June 24, 1951	3.79	416
1949	June 20, 1949	3.30	298	1952	July 7, 1952	3.92	447
				1953	June 20, 1953	3.65	382

890. Cottonwood Creek below Hot Springs, near Buena Vista, Colo.

Location.--Lat 38°48'46", long 106°13'18", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.21, T.14 S., R.79 W., a quarter of a mile downstream from Cottonwood hot springs, 1 mile downstream from confluence of Middle Cottonwood and South Cottonwood Creeks, 3 miles upstream from North Cottonwood Creek, and 5 $\frac{1}{2}$ miles southwest of Buena Vista.

Drainage area.--65 sq mi.

Gage.--Nonrecording prior to Oct. 1, 1923, near present site at different datum; recording thereafter. Datum of gage is 8,532 ft (river-profile survey).

Stage-discharge relation.--Defined by current-meter measurements below 690 cfs.

Remarks.--Several small diversions above station for irrigation. Diversions should not substantially affect maximum flows. Peaks are principally due to snowmelt. Base for partial-duration series, 300 cfs. Only annual observed peaks are shown prior to 1950.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1912	June 3, 4, 5	2.30	300	1950	June 12, 1950	1.97	243
1913	May 31, June 20, 21	1.90	220	1951	June 19, 1951	2.20	335
1914	June 1, 1914	2.70	380	1952	June 11, 1952	2.84	496
1915	June 23, 1915	2.00	398	1953	June 13, 1953	2.68	378
1916	June 20, 1916	2.10	437	1954	May 22, 1954	1.83	150
1917	June 18, 1917	2.2	467	1955	June 9, 1955	2.41	314
1918	June 9, 10, 1918	2.0	467	1956	June 3, 1956	2.7	370
1919	May 27, 28, 29, 30	1.65	240	1957	June 9, 1957	3.04	460
1920	June 12, 1920	1.9	342		June 13, 1957	2.90	395
					June 20, 1957	3.16	520
1921	June 12, 1921	2.1	495		July 1, 1957	4.52	1,180
					July 27, 1957	2.92	404
1922	June 10, 11, 1922	1.75	328	1958	May 29, 1958	2.84	328
1923	June 16, 21, 1923	1.85	372		June 6, 1958	2.95	373

900. Chalk Creek (upper station) near St. Elmo, Colo.

Location.--Lat 38°42'50", long 106°19'00", in sec.27, T.15 S., R.80 W., a quarter of a mile downstream from powerplant of the Tin Cup Gold Dredging Co., a quarter of a mile upstream from Coal Creek, 1 mile downstream from Grizzly Gulch, and $1\frac{1}{4}$ miles east of St. Elmo.

Drainage area.--48 sq mi, approximately.

Gage.--Recording. Altitude of gage is 9,670 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 300 cfs.

Remarks.--No diversions above station for irrigation. Low flow partially regulated by a small reservoir above diversion dam for the powerhouse of the Tin Cup Gold Dredging Co. Regulation should not substantially affect maximum flows. Peaks are principally due to snowmelt. Base for partial-duration series, 350 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	June 1, 1914	3.15	448	1917	June 16, 1917	3.30	545
	June 12, 1914	2.93	370		1918	June 10, 1918	3.40
1915	June 19, 1915	2.80	325	1919		May 29, 1919	2.65
	1916	June 10, 1916	2.96		393		

905. Chalk Creek near St. Elmo, Colo.

Location.--Lat 38°43', long 106°14', in SW $\frac{1}{4}$ sec.28, T.15 S., R.79 W., at highway bridge just downstream from the cascades of Chalk Creek downstream from intermittent stream entering from the north, 6 miles east of St. Elmo.

Drainage area.--83 sq mi, approximately.

Gage.--Nonrecording. Altitude of gage is 9,000 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 460 cfs.

Remarks.--No diversion above station. Peaks are principally due to snowmelt. Only annual observed peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1911	June 9, 1911	2.20	585	1914	June 2, 15, 1914	2.20	515
1912	June 6, 7, 1912	2.30	635	1915	June 23, 24, 25	2.0	415
1913	June 20, 1913	2.20	500				

910. Chalk Creek near Nathrop, Colo.

Location.--Lat 38°44', long 106°09', in NW $\frac{1}{4}$ sec.19, T.15 S., R.78 W., 200 ft upstream from county highway bridge at Mount Princeton Hot Springs, 4 miles west of Nathrop, and $5\frac{1}{2}$ miles upstream from mouth.

Drainage area.--97 sq mi.

Gage.--Recording. Datum of gage is 8,113 ft (river-profile survey).

Stage-discharge relation.--Defined by current-meter measurements below 620 cfs.

Remarks.--Several small diversions above station for irrigation. Diversions should not substantially affect maximum flows. Base for partial-duration series, 350 cfs.

Peak stages and discharges of Chalk Creek near Nathrop, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	June 2, 1950	1.96	370	1953	June 13, 1953	2.40	720
	June 12, 1950	1.93	354		1954	May 22, 1954	1.53
1951	May 28, 1951	2.10	448	1955		June 9, 1955	2.02
	June 20, 1951	2.09	442		1956	June 3, 1956	2.35
1952	June 10, 1952	2.70	1,050				
	July 6, 1952	1.97	362				

915. Arkansas River at Salida, Colo.

Location.--Lat 38°32'45", long 106°00'36", in NE $\frac{1}{4}$ sec.31, T.50 N., R.9 E., 1,500 ft upstream from bridge on State Highway 291 and 2.7 miles upstream from South Arkansas River.

Drainage area.--1,218 sq mi.

Gage.--Nonrecording prior to Nov. 18, 1903; recording thereafter. Prior to Dec. 3, 1936, at site $1\frac{1}{2}$ miles downstream at different datum; Dec. 3, 1936, to Dec. 5, 1957, at present site at datum 1.00 ft higher. Datum of present gage is 7,050.45 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 6,700 cfs.

Remarks.--Diversions above station for irrigation of about 16,000 acres and return flow from irrigated areas. Natural flow of stream also affected by transmountain diversions and Clear Creek, Sugar Loaf, and Twin Lakes Reservoirs (combined capacity, 81,890 acre-ft). Regulation and diversions should substantially affect maximum flows.

Records for 1928-33 furnished by State engineer of Colorado. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1895	June 15, 1895	3.5	2,370	1950	Aug. 13, 1950	6.68	3,470
1897	May 31, 1897	4.33	3,060	1931	July 17, 1931	5.68	3,300
1899	June 19, 1899	5.9	4,700	1932	Aug. 16, 1932	5.37	2,500
1900	May 31, June 1	5.0	3,630	1933	June 12, 1933	5.88	2,990
1901	May 21, 1901	3.8	4,900	1934	May 11, 1934	4.10	1,600
1902	May 12, 1902	2.20	1,800	1935	July 12, 1935	7.15	4,050
1903	June 18, 1903	4.9	2,640	1936	June 22, 1936	6.90	3,900
1910	June 6, 1910	4.2	2,770	1937	June 26, 1937	3.56	2,400
1911	July 5, 1911	5.15	3,400	1938	July 14, 1938	4.62	3,930
1912	June 7, 1912	5.3	3,580	1939	Aug. 1, 1939	3.60	2,500
1913	June 1, 1913	3.7	1,930	1940	June 3, 1940	2.73	1,510
1914	June 15, 16, 1914	5.6	4,010	1941	June 21, 1941	4.33	3,530
1915	June 23, 1915	4.53	2,750	1942	June 19, 1942	4.60	3,600
1916	June 14, 1916	4.75	3,080	1943	July 1, 1943	4.11	2,920
1917	June 18, 19, 1917	6.1	4,730	1944	June 22, 1944	4.15	2,980
1918	June 13, 14, 1918	6.0	4,840	1945	July 25, 1945	3.88	2,580
1919	May 29, 30, 1919	3.9	2,460	1946	June 17, 1946	4.41	3,160
1920	June 9, 1920	3.65	3,430	1947	June 21, 1947	5.45	4,890
1921	June 12, 1921	5.13	4,000	1948	June 4, 1948	4.91	4,110
1922	June 14, 1922	5.42	2,870	1949	June 19, 1949	4.98	4,390
1923	July 18, 1923	7.1	4,900	1950	June 18, 1950	4.09	2,910
1924	June 16, 1924	7.20	5,100	1951	July 5, 1951	4.02	2,800
1925	June 22, 1925	4.40	1,920	1952	June 8, 1952	5.44	4,760
1926	July 4, 1926	5.60	3,060	1953	June 13, 1953	-	4,400
1927	June 29, 1927	6.51	3,780	1954	May 22, 1954	3.56	1,950
1928	May 31, 1928	5.83	3,070	1955	June 25, 1955	3.57	1,980
1929	Aug. 27, 1929	7.00	3,850	1956	June 3, 1956	4.78	3,740
				1957	June 29, 1957	6.82	9,220
				1958	June 6, 1958	3.77	5,300

920. South Arkansas River at Poncha, Colo.
(Published as "South Fork of Arkansas River" prior to Aug. 17, 1914)

Location.--Lat 38°31', long 106°04', in sec.10, T.49 N., R.8 E., a quarter of a mile upstream from Poncha Creek and half a mile south of Poncha.

Drainage area.--140 sq mi, approximately.

Gage.--Nonrecording. Prior to Aug. 17, 1914, at datum 1.00 ft higher. Altitude of last used gage was 7,470 ft (from nearby line of levels).

Stage-discharge relation.--Defined by current-meter measurements below 500 cfs.

Remarks.--Court decrees for diversion of 136 cfs above station for irrigation. Diversions substantially affect maximum flows. Peaks are principally due to snowmelt. Only annual observed peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1911	July 5, 1911	4.2	1,110	1915	June 12, 1915	3.6	485
1912	June 8, 1912	3.2	755				
1913	June 22,24, 1913	2.1	419	1916	June 14,15, 1916	3.2	365
1914	June 1,2, 1914	3.2	665	1917	June 19, 1917	3.7	449

930. Poncha Creek at Poncha, Colo.

Location.--Lat 38°30', long 106°04', in sec.10, T.49 N., R.8 E., at highway bridge at Poncha, a quarter of a mile upstream from mouth.

Drainage area.--56 sq mi, approximately.

Gage.--Nonrecording. Prior to May 6, 1914, at site 20 ft upstream at datum 1.00 ft higher. Altitude of last used gage was 7,000 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 150 cfs.

Remarks.--Small diversions should not affect maximum flows. Peaks are principally due to snowmelt. Only annual observed peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1912	May 27, 1912	3.2	307	1915	May 18, June 11	3.1	274
1913	May 27, 1913	2.4	200				
1914	June 2, 1914	3.2	298	1916	June 4, 1916	2.9	247
				1917	June 14,15, 1917	2.9	233

935. South Arkansas River near Salida, Colo.
(Published as "at mouth" prior to 1929)

Location.--Lat 38°31', long 106°00', in sec.5, T.49 N., R.9 E., three-quarters of a mile upstream from mouth and $1\frac{1}{4}$ miles southwest of Salida.

Drainage area.--208 sq mi.

Gage.--Nonrecording prior to June 9, 1929, at site half a mile downstream at different datum; recording thereafter. Altitude of last used gage was 7,040 ft (from nearby line of levels).

Stage-discharge relation.--Defined by current-meter measurements below 180 cfs.

Remarks.--Diversions above station for irrigation of about 8,000 acres. Diversions should substantially affect maximum flows. Records for 1922-23 furnished by State engineer of Colorado. Only annual peaks are shown.

Peak stages and discharges of South Arkansas River near Salida, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	May 29, 1922	2.25	a315	1934	May 11, 1934	2.62	192
1923	July 17, 1923	3.90	1,220	1935	June 14, 1935	3.88	673
1929	Aug. 31, 1929	3.25	462	1936	May 18, 1936	3.27	393
1930	July 31, 1930	3.08	418	1937	May 16, 1937	2.87	269
				1938	May 29, 1938	3.27	316
1931	July 17, 1931	2.1	93	1939	May 10, 1939	2.50	120
1932	Aug. 16, 1932	2.95	332	1940	Aug. 22, 1940	2.52	205
1933	June 5, 1933	3.08	294				

a Mean daily.

945. Arkansas River at Parkdale, Colo.

Location.--Lat 38°29'30", long 105°22'10", in NE $\frac{1}{4}$ sec.18, T.18 S., R.71 W., at Parkdale, 300 ft downstream from bridge on U. S. Highway 50 and half a mile upstream from Copper Gulch.

Drainage area.--2,556 sq mi.

Gage.--Recording. Altitude of gage is 5,650 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 5,000 cfs.

Remarks.--Diversions above station for irrigation of about 32,000 acres. Regulation by Twin Lakes, Sugar Loaf, and Clear Creek Reservoirs (combined capacity, 81,890 acre-ft). Diversion and regulation should substantially affect maximum flows. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	July 15, 1946	8.12	4,580	1951	June 19, 1951	6.65	3,150
1947	June 22, 1947	9.02	5,880	1952	June 8, 1952	8.94	5,720
1948	June 12, 1948	8.33	4,870	1953	June 13, 1953	8.35	4,970
1949	June 19, 1949	8.80	5,530	1954	July 14, 1954	6.90	3,230
1950	June 18, 1950	6.86	3,010	1955	Aug. 4, 1955	6.43	2,670

950. Grape Creek near Westcliffe, Colo.

Location.--Lat 38°11', long 105°30', in sec.36, T.21 S., R.73 W., three-quarters of a mile downstream from Taylor Creek and $\frac{3}{4}$ miles northwest of Westcliffe.

Drainage area.--320 sq mi.

Gage.--Recording gage and concrete control. Prior to Aug. 19, 1938, at site 10 ft upstream at same datum. Altitude of gage is 7,720 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 840 cfs.

Remarks.--Diversions above station for irrigation of about 15,000 acres. Diversions should substantially affect maximum flows. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1925	Aug. 5, 1925	3.1	422	1939	Mar. 25, 1939	1.84	196
				1940	Sept.10, 1940	1.52	123
1926	June 8, 1926	2.78	425				
1927	Mar. 29, 1927	3.24	553	1941	June 25, 1941	3.57	658
1928	June 4, 1928	2.58	437	1942	Apr. 23, 1942	5.26	1,960
				1943	Mar. 9, 1943	1.21	182
1950	July 22, 1950	4.60	1,400	1944	Apr. 13, 1944	4.01	1,280
				1945	Aug. 7, 1945	3.95	1,250
1932	June 28, 1932	1.81	171				
1933	Apr. 28, 1933	3.12	637	1946	Apr. 15, 1946	1.33	142
1934	Apr. 7, 1934	0.96	75	1947	June 19, 1947	3.72	1,100
1935	June 16, 1935	2.87	328	1948	May 25, 1948	2.35	465
				1949	July 11, 1949	2.62	562
1936	Aug. 7, 1936	3.35	710	1950	June 3, 1950	0.87	70
1937	May 30, 1937	2.35	339				
1938	June 8, 1938	1.97	236	1951	July 23, 1951	1.58	217

Peak stages and discharges of Grape Creek near Westcliffe, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	June 9, 1952	1.70	271	1956	Apr. 19, 1956	1.53	21f
1953	July 18, 1953	1.21	138	1957	June 12, 1957	3.98	1,26c
1954	Aug. 23, 1954	1.15	119	1958	June 6, 1958	1.46	214
1955	May 20, 1955	2.98	735				

960. Arkansas River at Canon City, Colo.
(Published as "near Canyon" 1900-1906)

Location.--Lat 38°26', long 105°15', in sec.32, T.18 S., R.70 W., in Canon City, just upstream from Sand Creek.

Drainage area.--3,117 sq mi.

Gage.--Nonrecording and recording gages prior to Mar. 27, 1922, at various sites and datums about a quarter of a mile upstream; recording thereafter at present site and datum. Datum of present gage is 5,343.87 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 5,000 cfs.

Bankfull stage.--6 ft.

Remarks.--Natural flow affected by transmountain diversions, storage reservoirs, power development, diversions above station for irrigation of about 53,000 acres, and return flow from irrigated areas. Records for 1927-33, furnished by State engineer of Colorado. Only annual peaks are shown; maximums observed prior to 1912.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1889	Aug. 9, 1889	4.6	2,620	1924	June 16, 1924	4.55	5,580
1890	May 27, 1890	5.35	3,500	1925	July 21, 1925	5.70	7,800
1891	June 13, 1891	5.7	4,230	1926	July 21, 1926	4.80	6,460
1892	June 25, 1892	6.0	4,750	1927	June 25, 1927	6.00	7,940
1893	June 18, 1893	6.0	4,750	1928	June 1, 1928	4.58	4,210
1894	June 6, 1894	5.8	4,400	1929	July 17, 1929	5.18	4,800
1895	June 13, 1895	4.7	2,970	1930	Sept. 2, 1930	6.25	9,920
1896	May 30, 1896	4.7	2,970	1931	July 18, 1931	2.56	1,710
1897	June 4, 1897	5.55	3,450	1932	June 26, 1932	3.75	3,850
1898	June 19, 20, 1898	5.2	3,300	1933	Aug. 3, 1933	7.52	12,760
1899	June 19, 1899	6.2	4,500	1934	Aug. 2, 1934	3.05	2,380
1900	May 29, June 1, 2	6.7	4,600	1935	July 11, 1935	5.25	5,990
1901	June 30, 1901	8.0	6,000	1936	July 30, 1936	5.07	6,120
1902	July 17, Aug. 27	4.5	2,300	1937	Aug. 29, 1937	6.35	9,850
1903	June 18, 1903	6.9	5,180	1938	Aug. 11, 1938	5.58	4,810
1904	Aug. 16, 1904	6.9	3,600	1939	May 21, 1939	3.41	2,250
1905	June 10, 1905	7.7	6,700	1940	Sept. 3, 1940	4.78	3,870
1906	June 13, 1906	7.0	5,250	1941	July 13, 1941	8.66	11,800
1907	July 28, 1907	8.0	5,300	1942	Aug. 13, 1942	7.80	8,720
1908	July 31, 1908	6.8	3,750	1943	Aug. 18, 1943	4.62	3,340
1909	Aug. 18, 1909	11.2	12,300	1944	July 4, 1944	8.12	9,020
1910	July 29, 1910	7.2	4,100	1945	July 10, 1945	6.99	7,030
1911	July 6, 1911	7.15	3,490	1946	July 15, 1946	4.51	3,440
1912	June 6, 1912	-	a5,000	1947	June 22, 1947	5.35	5,080
1913	June 19, 1913	-	a3,000	1948	June 12, 1948	5.12	4,960
1914	Aug. 2, 1914	-	a6,500	1949	June 22, 1949	5.15	5,400
1915	June 24, 1915	-	a3,600	1950	July 10, 1950	6.18	7,730
1916	July 31, 1916	8.2	4,030	1951	June 19, July 6	3.81	2,660
1917	July 9, 1917	8.8	5,330	1952	June 8, 1952	5.56	5,330
1918	June 23, 1918	9.2	6,110	1953	June 13, 1953	4.75	4,540
1919	May 29, 1919	-	a3,630	1954	July 15, 1954	3.93	3,050
1920	June 10, 1920	-	a4,700	1955	Aug. 4, 1955	3.54	2,700
1921	Aug. 2, 1921	10.7	19,000	1956	June 3, 1956	4.41	3,960
1922	June 14, 1922	3.35	3,180	1957	June 29, 1957	6.80	10,300
1923	July 13, 1923	5.1	7,200	1958	May 30, 1958	4.86	5,040

a Estimated.

965. Oil Creek near Canon City, Colo.

Location.--Lat 38°27'00", long 105°10'30", in sec.26, T.18 S., R.70 W., 600 ft upstream from bridge on U. S. Highway 50, 1½ miles upstream from mouth, 1.8 miles east of city limits of Canon City, and 5 miles downstream from Wilson Creek.

Drainage area.- 432 sq mi.

Gage.--Recording. Altitude of gage is 5,330 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 140 cfs and by slope-area measurements at 778, 1,440, and 4,260 cfs.

Remarks.--Diversions above station for irrigation. Diversions should not substantially affect maximum flows. Base for partial-duration series, 300 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	June 6, 1949	-	-	1951	July 30, 1951	3.51	303
	July 7, 1949	3.42	310		1952	Apr. 28, 1952	3.15
1950	July 12, 1950	4.60	778	1953		July 9, 1953	3.87
	July 23, 1950	3.76	408		Aug. 2, 1953	4.73	732
1951	July 11, 1951	9.25	4,260	1955	May 19, 1955	5.80	1,440

970. Arkansas River at Portland, Colo.

Location.--Lat 38°23'40", long 105°00'40", in sec.21, T.19 S., R.68 W., at Portland, 400 ft downstream from bridge on State Highway 120 and 1 mile downstream from Hardscrabble Creek.

Drainage area.--4,024 sq mi.

Gage.--Recording. Datum of gage is 5,021.56 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 5,300 cfs.

Bankfull stage.--10 ft.

Remarks.--Natural flow affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 60,000 acres, and return flow from irrigated areas. Diversions and regulation should substantially affect most maximum flows. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Aug. 19, 1939	5.68	4,290	1946	July 15, 1946	9.57	13,200
1940	Aug. 19, 1940	5.46	3,970		July 8, 1947	9.72	13,500
	1941	July 1, 1941	7.25	7,580	1948	May 30, 1948	7.14
Aug. 13, 1942		10.40	16,000	1949	June 5, 1949	12.18	21,100
1943	July 24, 1943	5.33	4,560	1950	July 23, 1950	6.02	5,340
1944	July 5, 1944	8.12	9,720	1951	July 12, 1951	6.19	5,720
1945	Aug. 7, 1945	6.86	7,710		June 16, 1952	5.69	5,080

a Records incomplete but probably maximum for year.

980. Little Beaver Creek near Pikes Peak, Colo.

Location.--Lat 38°47'40", long 105°01'40", in NW $\frac{1}{4}$ sec.32, T.14 S., R.68 W., 200 ft upstream from mouth, and 3 $\frac{1}{2}$ miles southeast of Pikes Peak.

Drainage area.--1.00 sq mi.

Gage.--Nonrecording. Sharp-crested weir prior to 1931 and Parshall flume there-after. Altitude of gage is 11,000 ft (from topographic map).

Stage-discharge relation.--Discharge computed by weir formula.

Remarks.--No regulation or diversion above station. Records furnished by Colorado Springs Water Department. Only annual observed peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1917	June 9, 1917	-	3.29	1934	May 29,30, 1934	-	0.92
1918	July 25, 1918	-	2.81	1935	June 12,16, 1935	-	4.62
1919	May 26, 27, 1919	-	5.05				
1920	Aug. 22, 1920	-	2.34	1936	Aug. 6, 1936	-	4.68
				1937	June 1, 1937	-	1.48
1921	June 14, 1921	-	5.83	1938	May 29,30, 1938	-	4.37
1922	June 18-20, 1922	-	1.04	1939	June 2-5, 1939	-	1.66
1923	June 3-14, 1923	-	2.50	1940	May 16, 1940	-	.79
1924	June 14, 1924	-	4.15				
1925	(a)	-	.82	1941	June 10, 1941	-	6.03
1926	June 11,12, 1926	-	3.96	1943	June 11, 1943	-	1.57
1927	May 18-30, June 26	-	1.28	1944	June 11, 1944	-	4.50
1928	May 31, 1928	-	2.64	1945	Aug.15,21, 1945	-	4.12
1929	Aug. 4-6, 1929	-	10.3				
1930	July 30,31, 1930	-	1.65	1946	Sept. 9, 1946	-	1.70
				1947	June 6-29, 1947	-	7.41
1931	June 16-18, 30	-	2.06	1948	June 1-6, 1948	-	4.75
1932	June 10,11, 1932	-	1.17	1949	June 26, 1949	-	1.80
1933	June 1-4, 1933	-	6.66	1950	May 29, 1950	-	.61

a Aug. 12, 13, 21, 22, 26-30, 1925.

985. Sackett Creek near Pikes Peak, Colo.

Location.--Lat 38°47'30", long 105°01'20", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.32, T.14 S., R.68 W., 200 ft upstream from mouth and 3 $\frac{1}{2}$ miles southeast of Pikes Peak.

Drainage area.--0.65 sq mi.

Gage.--Nonrecording. Sharp-crested weir prior to 1931 and Parshall flume there-after. Altitude of gage is 10,900 ft (from topographic map).

Stage-discharge relation.--Discharge determined by weir formula.

Remarks.--No regulation or diversion above station. Records furnished by Colorado Springs Water Department. Only annual observed peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1917	June 8, 1917	-	2.96	1929	Aug. 4-6, 1929	-	6.60
1918	June 20, 1918	-	2.34	1930	July 31, 1930	-	1.65
1919	May 17, 1919	-	6.64				
1920	Aug. 21, 1920	-	2.96	1931	June 16, 1931	-	2.00
				1932	(d)	-	.71
1921	June 6, 1921	-	6.64	1933	June 1-7, 1933	-	4.25
1922	(a)	-	.63	1934	May 10-14, 1934	-	1.62
1923	June 3-14, 1923	-	1.53	1935	June 3-5, 1935	-	3.41
1924	(b)	-	3.62				
1925	Aug.26,27, 1925	-	.45	1936	Aug. 7, 1936	-	7.41
				1937	May 23-30, 1937	-	.54
1926	(c)	-	4.32	1938	May 29,30, 1938	-	3.29
1927	May 21-31, 1927	-	.82	1939	June 1, 1939	-	1.03
1928	May 31, June 1-6	-	2.96	1940	May 6-10, 1940	-	1.75

a May 24, 25, 31, June 1-3, 1922.

b May 21-24, 31, June 1, 2, 7-10, 1924.

c May 28-31, June 1-10, 1926.

d June 2, 3, 7-9, 14-17, 29, 1932.

Peak stages and discharges of Sackett Creek near Pikes Peak, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	June 8, 1941	-	3.41	1946	Aug. 26, 1946	-	1.66
1942	June 19-23, 1942	-	3.46	1947	June 21-30, 1947	-	7.41
1943	Apr. 26, 27, 1943	-	1.57	1948	May 22, 23, 1948	-	2.33
1944	May 31, June 1	-	5.15	1949	June 14, 24, 25	-	.99
1945	May 29, 30, 1945	-	2.03	1950	May 2-4, 16-17	-	.16

995. Arkansas River near Pueblo, Colo.
(Published as "at Pueblo" 1911-33)

Location.--Lat 38°16'00", long 104°39'00", in sec.34, T.20 S., R.65 W., at intake of south-side waterworks, 1 mile upstream from Dry Creek and 2½ miles west of city hall in Pueblo.

Drainage area.--4,686 sq mi.

Gage.--Recording or nonrecording gages prior to May 25, 1925, at various sites and datums about 2½ miles downstream. May 26, 1925, to Mar. 24, 1935, recording gage at present site and datum and since May 25, 1935, recording gages on river and on Parshall flume at north-side waterworks intake. Datum of present gage is 4,689.82 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 13,000 cfs and extended on basis of slope-area measurement at 103,000 cfs.

Historical data.--Flood of about June 11, 1864, reached a point near Third and Santa Fe Avenues in Pueblo nearly as high as the 1921 flood, according to information from local residents. Flood of July 26, 1893, reached a stage about 10 ft lower than the 1921 flood (discharge, 20,000 to 25,000 cfs). Flood of May 29-31, 1894, reached a stage 7 ft lower than the 1921 flood (discharge, 39,100 cfs, on basis of slope-area measurement by City engineer of Pueblo).

Remarks.--Records include diversions to north-side waterworks since June 1, 1921. Records prior to this date are comparable to those at present site, as the diversion was considered negligible. Natural flow affected by transmountain diversions, storage reservoirs, power developments, diversions above and below station for irrigation of about 88,000 acres, and return flow from irrigated areas. Diversions and regulation should substantially affect maximum flows. Records for 1911-33 furnished by State engineer of Colorado. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1895	July 31, 1895	5.1	6,100	1921	June 3, 1921	24.66	103,000
1896	Aug. 18, 1896	10	16,500	1922	Aug. 6, 1922	7.95	8,850
1897	June 2, 1897	-	4,300	1923	July 12, 1923	12.55	25,600
1898	July 13, 1898	-	7,500	1924	June 15, 1924	7.86	6,510
1899	Aug. 14, 1899	7.0	8,800	1925	July 3, 1925	4.05	4,930
1900	May 20, June 2	7.0	7,600	1926	June 14, 1926	3.86	4,520
1901	May 21, 1901	9.0	11,100	1927	July 22, 1927	6.40	12,400
1902	Aug. 5, 1902	14.5	30,000	1928	July 21, 1928	5.00	7,800
1903	June 9, 1903	9.0	10,500	1929	July 28, 1929	6.30	10,500
1904	Aug. 15, 1904	7.5	8,500	1930	Aug. 28, 1930	4.61	6,050
1905	Aug. 6, 1905	7.4	8,000	1931	Sept. 1, 1931	3.65	3,560
1906	June 13, 1906	9.0	11,000	1932	June 26, 1932	4.52	4,380
1907	July 28, 1907	6.7	6,600	1933	Aug. 2, 1933	5.65	6,630
1908	Aug. 1, 1908	7.4	7,600	1934	Aug. 3, 1934	4.22	2,580
1909	Aug. 18, 1909	6.6	5,800	1935	May 18, 1935	7.28	9,880
1910	July 29, 1910	8.0	8,400	1936	May 24, 1936	6.46	11,200
1911	May 28, 1911	4.70	3,700	1937	Aug. 29, 1937	6.27	9,300
1912	July 31, 1912	-	10,500	1938	Aug. 26, 1938	6.80	11,200
1913	July 23, 1913	7.30	7,800	1939	June 1, 1939	3.53	2,910
1914	Aug. 3, 1914	7.40	7,500	1940	Aug. 19, 1940	4.46	3,860
1915	June 24, 1915	11.0	17,000	1941	July 19, 1941	5.90	7,560
1916	June 17, 1916	7.9	8,900	1942	June 8, 1942	6.80	10,300
1917	June 19, 1917	7.1	6,800	1943	Aug. 18, 1943	3.82	3,320
1918	June 23, 1918	8.2	9,600	1944	July 5, 1944	5.33	5,980
1919	Sept. 4, 1919	6.8	6,300	1945	Aug. 14, 1945	6.86	9,290
1920	July 18, 1920	8.0	8,500	1946	Aug. 27, 1946	6.00	7,050

ARKANSAS RIVER BASIN

Peak stages and discharges of Arkansas River near Pueblo, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	July 9, 1947	6.05	7,280	1953	July 21, 1953	-	6,770
1948	June 13, 1948	7.25	10,900	1954	June 30, 1954	-	10,200
1949	June 6, 1949	7.65	12,800	1955	May 19, 1955	-	11,100
1950	July 26, 1950	6.35	8,700	1956	Aug. 1, 1956	-	8,010
1951	Aug. 3, 1951	6.65	9,300	1957	June 29, 1957	-	9,070
1952	June 8, 1952	4.83	4,740	1958	June 5, 1959	-	4,540

1000. North Catamount Creek near Green Mountain Falls, Colo.

Location.--Lat 38°56', long 105°03', in sec.12, T.13 S., R.68 W., a quarter of a mile upstream from confluence with South Catamount Creek and 2 miles west of Green Mountain Falls.

Drainage area.--5.80 sq mi.

Gage.--Nonrecording gage and rectangular weir. Altitude of gage is 9,190 ft (from topographic map).

Stage-discharge relation.--Discharge computed by weir formula.

Remarks.--No regulation or diversion above station. Records furnished by Colorado Springs Water Department. Only annual observed peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	May 24-27, 1935	-	15.0	1943	May 4,5, 1943	-	11.3
1936	Aug. 6, 1936	-	10.5	1944	June 2, 1944	-	18.3
1937	Oct. 1, 1936	-	3.51	1945	Aug. 8, 1945	-	7.56
1938	May 16, 1938	-	15.2	1946	May 13, 1946	-	2.50
1939	May 6, 1939	-	4.74	1947	May 21, 1947	-	30.5
1940	June 2, 1940	-	3.41	1948	May 10, 1948	-	7.81
1941	June 2, 1941	-	14.0	1949	May 15, 1949	-	6.57
1942	May 1-31, 1942	-	23.1	1950	Apr.21-22, 1950	-	1.31

1005. South Cascade Creek at Cascade, Colo.

Location.--Lat 38°53'50", long 104°59'20", in NW $\frac{1}{4}$ sec.27, T.13 S., R.68 W., 1,000 ft upstream from mouth and three-quarters of a mile west of Cascade.

Drainage area.--3.41 sq mi.

Gage.--Nonrecording gage and Parshall flume. Altitude of gage is 8,400 ft (from topographic map).

Stage-discharge relation.--Discharge computed on basis of weir formula.

Remarks.--No diversion or regulation above station. Records furnished by Colorado Springs Water Department. Only annual observed peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	May 26,27, 1935	-	13.5	1943	June 1,2,1943	-	4.40
1936	Aug. 7, 1936	-	28.2	1944	May 17, 1944	-	16.1
1937	June 2, 1937	-	2.99	1945	Aug. 12, 1945	-	10.9
1938	May 17,18, 1938	-	8.25	1946	Aug. 23, 1946	-	7.03
1939	June 1, 1939	-	3.81	1947	May 13, 1947	-	14.1
1940	May 30, 1940	-	5.44	1948	May 24, 1948	-	8.12
1941	May 27, 1941	-	20.3	1949	June 8, 1949	-	7.39
1942	May 28, 1942	-	20.1	1950	Sept.11, 1950	-	2.34

1010. Lion Creek near Halfway, Colo.

Location.--Lat 38°50'10", long 104°58'40", in NE $\frac{1}{4}$ sec.15, T.14 S., R.68 W., 500 ft upstream from mouth, half a mile southwest of Halfway, and 3 miles west of Manitou.

Drainage area.--2.00 sq mi.

Gage.--Nonrecording gage and sharp-crested weir prior to 1931; Parshall flume thereafter. Altitude of gage is 9,250 ft (from topographic map).

Stage-discharge relation.--Discharge computed on basis of weir formula.

Remarks.--No regulation or diversion above station. Records furnished by Colorado Springs Water Department. Only annual observed peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1917	May 20, June 2	-	1.98	1934	Oct. 6-21, 1933	-	1.23
1918	Sept.10, 1918	-	1.90	1935	May 25, 1935	-	5.28
1919	May 6, 1919	-	2.78				
1920	Sept. 20, 1920	-	2.75	1936	May 11, 1936	-	2.38
				1937	Oct.1,2, 1936	-	1.70
1921	June 4, 1921	-	11.6	1938	May 14, 1938	-	3.46
1922	Aug. 19, 1922	-	2.75	1939	Oct. 8, 1938	-	2.96
1923	Sept.19, 1923	-	2.93	1940	Sept.10, 1940	-	1.57
1924	May 4, 1924	-	2.57				
1925	Sept.23, 1925	-	1.52	1941	May 24, 1941	-	4.12
				1942	May 13, 1942	-	10.9
1926	May 26, 1926	-	2.93	1943	Oct. 22, 1942	-	1.75
1927	Sept.18, 1927	-	2.10	1944	May 14, 1944	-	3.76
1928	May 25, 1928	-	3.50	1945	Aug. 14, 1945	-	1.84
1929	Aug. 26, 1929	-	5.31				
1930	Oct. 1, 1930	-	2.75	1946	Oct. 1, 1945	-	1.44
				1947	May 11, 1947	-	5.89
1931	May 23,24, 1931	-	2.57	1948	Oct. 1, 1947	-	2.63
1932	May 4, 1932	-	1.17	1949	May 14, 1949	-	1.39
1933	May 21, 1933	-	4.74	1950	July 11, 1950	-	.99

1015. Sheep Creek near Halfway, Colo.

Location.--Lat 38°50'30", long 104°58'30", in SW $\frac{1}{4}$ sec.11, T.14 S., R.68 W., 500 ft upstream from mouth, a quarter of a mile west of Halfway, and 3 miles west of Manitou.

Drainage area.--0.73 sq mi.

Gage.--Nonrecording gage and sharp-crested weir prior to 1931; Parshall flume thereafter. Altitude of gage is 9,100 ft (from topographic map).

Stage-discharge relation.--Discharge computed on basis of weir formula.

Remarks.--No regulation or diversion above station. Records furnished by Colorado Springs Water Department. Only annual observed peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1917	May 14,15, June 2	-	1.45	1934	June 1, 1934	-	1.84
1918	July 19-21, 1918	-	1.24	1935	May 31, 1935	-	2.53
1919	May 8, 1919	-	2.75				
1920	Aug. 20, 1920	-	2.07	1936	Aug. 7, 1936	-	3.18
				1937	Apr.15,16, 1937	-	1.23
1921	June 5, 1921	-	12.8	1938	Sept. 3, 1938	-	2.43
1922	Aug. 18, 1922	-	2.49	1939	Apr.30, May 2, 10	-	1.15
1923	Sept.21, 1923	-	1.75	1940	Sept.10, 1940	-	1.07
1924	May 4, 1924	-	2.07				
1925	Aug. 10, 1925	-	0.79	1941	May 25, 1941	-	3.94
				1942	May 12, 1942	-	11.8
1926	May 26, 1926	-	2.92	1943	Aug.15,16, 1943	-	1.11
1927	Aug. 9-11, 1927	-	1.90	1944	May 13, 1944	-	4.50
1928	May 25, 1928	-	3.31	1945	Aug. 14, 1945	-	1.39
1929	Aug. 8, 1929	-	5.17				
1930	July 22, 1930	-	1.75	1946	Aug. 23, 1946	-	.84
				1947	May 21, 1947	-	4.62
1931	May 25,30, 1931	-	1.60	1948	May 25, 1948	-	1.44
1932	May 21, 22, 1932	-	0.64	1949	May 15, 1949	-	1.23
1933	May 22, 1933	-	5.18	1950	July 11, 1950	-	.58

1040. Monument Creek at Pikeview, Colo.

Location.--Lat 38°55'05", long 104°49'05", in sec.18, T.13 S., R.66 W., at Pikeview, 1 mile downstream from Cottonwood Creek.

Drainage area.--203 sq mi.

Gage.--Nonrecording. Datum of gage is 6,203.31 ft above mean sea level, adjustment of 1912.

Stage-discharge relation.--Defined by current-meter measurements below 930 cfs.

Remarks.--Diversions above station for irrigation. Flow regulated by several small reservoirs (total capacity, about 2,700 acre-ft). Diversions and regulation should substantially affect maximum flows. Only annual observed peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	May 30, 1935	14	-	1944	May 14, 1944	3.12	366
1939	Apr. 12, 1939	2.96	262	1945	Aug. 5, 1945	3.49	560
1940	June 5, 1940	2.85	215	1946	Aug. 27, 1946	2.50	319
1941	May 2, 1941	2.09	190	1947	May 11, 1947	3.70	1,190
1942	Apr. 23, 1942	3.86	734	1948	Oct. 19, 1947	2.99	446
1943	July 24, 1943	3.65	466	1949	June 4, 1949	2.38	290

1060. Fountain Creek near Fountain, Colo.

Location.--Lat 38°36'08", long 104°40'13", in NE $\frac{1}{4}$ sec.4, T.17 S., R.65 W., 250 ft upstream from bridge on county road, $1\frac{1}{4}$ miles downstream from Little Fountain Creek, and $5\frac{1}{4}$ miles southeast of Fountain.

Drainage area.--676 sq mi.

Gage.--Nonrecording prior to Mar. 2, 1940, at highway bridge 250 ft downstream at same datum; recording thereafter at present site. Datum of gage is 5,341.74 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,000 cfs and extended on basis of slope-area measurement at 22,100 cfs.

Remarks.--Diversions above station for irrigation of about 18,000 acres. Diversions should not substantially affect maximum flows. Base for partial-duration series, 8,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Aug. 2, 1939	3.65	1,300	1946	Aug. 26, 1946	6.65	9,550
1940	May 28, 1940	9.19	22,100	1947	July 7, 1947	7.30	7,560
	July 29, 1940	7.93	15,600	1948	May 31, 1948	7.82	9,190
1941	May 22, 1941	6.62	9,940		Aug. 4, 1948	7.65	8,420
1942	July 19, 1942	5.44	4,430	1949	June 4, 1949	6.84	5,160
1943	Aug. 5, 1943	5.25	3,400	1950	Sept.10, 1950	6.25	3,380
1944	July 15, 1944	5.22	3,120	1951	Aug. 23, 1951	6.66	4,580
1945	July 10, 1945	6.34	9,100	1952	Aug. 21, 1952	6.88	5,240
	Aug. 5, 1945	7.38	13,900	1955	May 18, 1955	6.35	3,480

1065. Fountain Creek at Pueblo, Colo.

Location.--Lat 38°16'20", long 104°35'40", in SW $\frac{1}{4}$ sec.30, T.20 S., R.64 W., at Eighth Street bridge in Pueblo, 2 miles upstream from mouth.

Drainage area.--926 sq mi.

Gage.--Recording or nonrecording prior to Oct. 1, 1925, at several sites within half a mile of present site and at different datums; recording thereafter at present site and datum. Datum of present gage is 4.663.45 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,500 cfs and by slope-area measurements at 34,000 and 35,000 cfs.

Remarks.--Diversions above station for irrigation of about 22,500 acres. Diversions should not substantially affect maximum flows. Records for 1922-25 furnished by State engineer of Colorado. Base for partial-duration series, 1,700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1921	June 4, 1921	-	34,000	1948	June 12, 1948	7.72	9,290
1922	May 28, 1922	5.35	2,600	Aug. 4, 1948	6.28	3,480	
	Aug. 7, 1922	6.10	5,140	Aug. 5, 1948	7.37	7,720	
1924	Oct. 3, 1923	5.80	12,000	Aug. 14, 1948	6.26	3,440	
				1949	June 5, 1949	5.73	1,590
1925	July 19, 1925	2.90	2,500	1950	July 27, 1950	6.07	2,740
	July 22, 1925	2.50	1,910	July 28, 1950	7.80	9,600	
1935	May 30, 1935	-	35,000	Sept.15, 1950	6.32	4,270	
1941	Apr. 29, 1941	4.18	al,150	1951	July 30, 1951	7.95	11,600
				Aug. 9, 1951	4.51	1,780	
1942	Oct. 23, 1941	5.40	2,780	Aug. 23, 1951	4.50	1,750	
	Apr. 19, 1942	5.45	2,390	1952	Apr. 21, 1952	5.08	2,950
	Apr. 24, 1942	5.18	1,830	Aug. 28, 1952	5.89	5,170	
	Apr. 26, 1942	5.25	1,760	1953	Aug. 16, 1953	4.97	3,730
	Aug. 14, 1942	8.05	11,000	1954	May 23, 1954	5.64	5,350
1943	May 22, 1943	4.78	324	June 30, 1954	4.37	2,370	
1944	July 10, 1944	5.83	2,690	Aug. 6, 1954	5.82	5,800	
	July 18, 1944	7.20	7,280	1955	May 18, 1955	5.53	4,950
	Aug. 4, 1944	8.51	12,900	May 19, 1955	4.94	4,180	
	Aug. 26, 1944	5.62	2,060	July 26, 1955	4.19	1,980	
	Sept. 4, 1944	5.98	3,020	Aug. 6, 1955	7.90	11,500	
1945	July 10, 1945	9.50	17,800	1956	Aug. 1, 1956	5.23	3,560
	Aug. 6, 1945	6.37	4,980	Aug. 3, 1956	5.11	3,280	
	Aug. 7, 1945	6.93	6,680	Aug. 18, 1956	5.60	5,250	
	Aug. 21, 1945	5.93	2,090	1957	May 8, 1957	4.08	2,330
1946	June 30, 1946	5.80	2,220	May 11, 1957	4.02	1,820	
	Aug. 23, 1946	8.00	11,800	May 15, 1957	5.97	6,180	
	Aug. 26, 1946	9.00	16,500	June 11, 1957	4.65	1,860	
	Aug. 27, 1946	6.00	4,050	1958	Oct. 8, 1957	5.11	3,230
1947	May 11, 1947	5.69	2,470	May 9, 1958	4.77	2,350	
	May 16, 1947	5.87	2,040	May 16, 1958	4.71	1,820	
	July 8, 1947	6.38	5,880	May 24, 1958	4.88	1,990	
	July 17, 1947	6.44	4,040	Aug. 5, 1958	5.75	3,750	
1948	May 31, 1948	7.18	6,920	Aug. 16, 1958	5.66	3,300	

a Maximum daily.

1070. St. Charles River at San Isabel, Colo.

Location.--Lat 37°58'40", long 105°04'00", in sec.12, T.24 S., R.69 W., half a mile downstream from Beaver Creek, a short distance upstream from Lake Isabel, and three-quarters of a mile southwest of San Isabel.

Drainage area.--18.8 sq mi.

Gage.--Recording gage and sharp-crested weir prior to Oct. 1, 1938, and since May 12, 1941; nonrecording gage Oct. 1, 1938, to May 11, 1941. Altitude of gage is 7,800 ft (from topographic map).

Stage-discharge relation.--Discharge computed on basis of weir formula.

Remarks.--No diversion above station. Records furnished by U. S. Forest Service. Base for partial-duration series, 40 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1937	Apr. 16, 1937	2.58	136	1938	Apr. 20, 1938	2.6	a138	
	Apr. 22, 1937	1.95	90		1939	Apr. 28, 1939	1.53	a63
	Apr. 26, 1937	1.64	69	1940		Apr. 26, 1940	1.00	a33
	May 9, 1937	1.55	64			1941	May 27, 1941	-
	May 30, 1937	1.70	73					
	July 1, 1937	1.55	64					

a Annual maximum daily.

1085. St. Charles River near Pueblo, Colo.

Location.--Lat 38°12'20", long 104°31'40", in sec.23, T.21 S., R.64 W., at highway bridge 500 ft downstream from Bessemer ditch siphon, 5 miles upstream from mouth, and 6 miles southeast of city hall in Pueblo.

Drainage area.--468 sq mi.

Gage.--Recording prior to Aug. 21, 1941, and since Dec. 3, 1942; nonrecording Aug. 21, 1941, to Dec. 2, 1942. Prior to Apr. 1, 1942, at site 2 miles downstream at different datum. Altitude of last used gage was 4,690 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 2,000 cfs and extended to 16,100 cfs on basis of slope-area measurements at gage heights 6.50, 7.53 and 9.2 ft, and float measurement at gage height 8.52 ft.

Remarks.--Diversion above station for irrigation of about 8,500 acres. Diversions above station to reservoirs for industrial use. Diversions should not substantially affect maximum flows. Records for January 1941 to May 1942, furnished by Bureau of Reclamation. Base for partial-duration series, 3,200 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Apr. 19, 1942	6.46	6,670	1948	June 13, 1948	5.20	4,500
					Aug. 13, 1948	8.52	12,300
1943	Aug. 18, 1943	4.53	3,150	1949	May 15, 1949	4.35	3,320
1944	July 8, 1944	4.72	3,520		1950	July 4, 1950	4.82
	July 18, 1944	5.58	4,830	July 26, 1950		9.20	16,100
1945	July 10, 1945	6.50	7,000	Sept. 10, 1950		5.15	4,400
	Aug. 3, 1945	6.05	6,150	1951	May 21, 1951	4.58	3,300
	Aug. 5, 1945	6.84	7,720		Aug. 3, 1951	6.48	7,350
	Aug. 7, 1945	6.30	6,890	1952	July 30, 1952	4.44	3,430
	Aug. 8, 1945	6.25	6,870		Aug. 29, 1952	4.35	3,270
	Aug. 14, 1945	4.35	3,610	1953	Aug. 2, 1953	5.58	5,280
1946	Aug. 23, 1946	4.67	3,770		Aug. 16, 1953	6.46	7,300
	Aug. 26, 1946	4.78	4,610	1955	May 19, 1955	7.53	a20,600
1947	June 19, 1947	7.10	10,800				

a Annual peak only.

1095. Arkansas River near Avondale, Colo.

Location.--Lat 38°15'00", long 104°24'00", in NW $\frac{1}{4}$ sec.1, T.21 S., R.63 W., half a mile upstream from Sixmile Creek and 2 $\frac{1}{2}$ miles west of Avondale.

Drainage area.--6,327 sq mi.

Gage.--Recording. Datum of gage is 4,508.16 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 7,100 cfs.

Bankfull stage.--7 ft.

Remarks.--Natural flow substantially affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of about 123,000 acres, and return flow from irrigated areas. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	May 26, 1939	3.01	3,190	1946	Aug. 27, 1946	6.17	6,720
1940	May 29, 1940	4.61	7,180	1947	June 19, 1947	7.96	11,300
				1948	June 13, 1948	6.83	13,100
1941	July 19, 1941	4.35	6,850	1949	June 6, 1949	7.30	9,770
1942	Apr. 24, 1942	7.79	13,900	1950	July 26, 1950	6.26	11,600
1943	Aug. 18, 1943	3.68	3,520				
1944	July 19, 1944	5.32	5,360	1951	Aug. 3, 1951	7.93	10,300
1945	Aug. 15, 1945	6.47	8,050				

1105. Chico Creek near North Avondale, Colo.

Location.--Lat 38°15'50", long 104°22'30", in SE $\frac{1}{4}$ sec.31, T.20 S., R.62 W., 1 mile upstream from mouth and 1 $\frac{1}{2}$ miles west of North Avondale.

Drainage area.--864 sq mi.

Gage.--Recording. Altitude of gage is 4,520 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,900 cfs.

Remarks.--Base for partial-duration series, 500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Aug. 27, 1941	7.55	13,000	1944	Aug. 4, 1944	1.60	70
1942	Apr. 19, 1942	1.98	690	1945	July 11, 1945	2.59	550
	Apr. 24, 1942	2.42	852		July 25, 1945	3.20	880
	Aug. 14, 1942	2.33	760		Aug. 6, 1945	5.35	3,700
	Sept. 1, 1942	4.11	3,320	1946	July 1, 1946	2.32	640
1943	Mar. 2, 1943	1.15	36		Aug. 24, 1946	5.77	6,820
					Aug. 27, 1946	5.56	6,620

1110. Huerfano River at Manzanares Crossing, near Redwing, Colo.

Location.--Lat 37°43'40", long 105°21'10", in sec.5, T.27 S., R.71 W., at Manzanares Crossing, a quarter of a mile downstream from Manzanares Creek and 3 $\frac{1}{2}$ miles southwest of Redwing.

Drainage area.--73 sq mi.

Gage.--Recording. Prior to Sept. 8, 1934, at sites about 500 ft upstream at different datums. Sept. 8, 1934, to Mar. 15, 1937, Mar. 16, 1937, to Sept.30, 1945, and Oct. 1, 1945, to Apr. 25, 1946, at present site at datums 1.36, 0.86, and 0.36 ft higher, respectively, than present datum. Altitude of present gage is 8,150 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 270 cfs and extended on basis of slope-area measurements at 10,200 cfs.

Remarks.--Diversions above station for irrigation of about 1,800 acres. Diversions should not substantially affect maximum flows. Records for 1923-33 furnished by State engineer of Colorado. Base for partial-duration series, 200 cfs.

Peak stages and discharges of Huerfano River at Manzanares Crossing, near Redwing, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1924	May 19, 1924	1.91	242	1939	Aug. 25, 1939	1.23	153	
	June 15, 1924	1.97	245		1940	Aug. 21, 1940	1.64	291
1925	July 4, 1925	2.27	295	1941		May 12, 1941	2.00	455
1926	May 24, 1926	2.29	267		May 28, 1941	1.57	265	
	June 1, 1926	2.50	270		June 20, 1941	1.68	308	
	July 15, 1926	2.11	207		June 25, 1941	1.72	330	
1927	Sept. 13, 1927	2.25	192		July 30, 1941	2.42	792	
1928	May 29, 1928	2.36	236	1942	May 9, 1942	1.66	495	
	July 18, 1928	2.50	780		May 11, 1942	1.56	495	
1929	Aug. 7, 1929	1.80	323		May 22, 1942	1.48	470	
	Aug. 21, 1929	1.72	351		May 26, 1942	1.65	511	
	Sept. 23, 1929	1.69	336	1943	Dec. 9, 1943	1.70	(a)	
	1930	July 22, 1930	2.10		238	June 30, 1943	1.02	200
1931	Sept. 15, 1931	1.55	209	1944	May 15, 1944	1.39	336	
	Sept. 24, 1931	1.60	230		May 24, 1944	1.18	247	
1932	May 22, 1932	1.72	251		May 31, 1944	1.30	331	
	July 24, 1932	1.60	207		June 10, 1944	1.05	271	
	Aug. 11, 1932	1.61	210		July 4, 1944	1.30	304	
	Aug. 12, 1932	1.97	327	1945	July 18, 1945	2.03	780	
	Aug. 21, 1932	2.01	330		1946	July 19, 1946	3.00	700
1933	June 1, 1933	1.94	292	Aug. 25, 1946		2.00	230	
	June 13, 1933	1.78	223	1947	June 19, 1947	1.93	226	
	July 5, 1933	2.50	480		July 16, 1947	2.35	380	
	Aug. 5, 1933	1.67	210	1948	June 3, 1948	1.99	232	
1934	June 30, 1934	2.97	712		June 19, 1948	2.09	261	
	July 27, 1934	4.30	1,650	1949	June 18, 1949	1.92	222	
	Sept. 23, 1934	1.60	197		July 23, 1949	1.90	216	
1935	June 9, 1935	1.52	206	1950	July 10, 1950	1.54	114	
	June 14, 1935	1.52	267		1951	Aug. 2, 1951	8.14	10,200
	July 22, 1935	3.00	1,100	1952		Aug. 21, 1952	3.79	778
	July 28, 1935	3.30	1,400			1953	May 29, 1953	-
	Aug. 1, 1935	1.9	435	1954	Aug. 5, 1954		2.09	98
1936	June 23, 1936	2.83	830		1955	Aug. 19, 1955	2.28	148
	July 28, 1936	1.97	484	1956		June 3, 1956	-	58
	Aug. 2, 1936	2.72	869		1957	June 6, 1957	2.52	234
	Aug. 3, 1936	2.80	920	Aug. 15, 1957		3.45	480	
	Aug. 5, 1936	1.69	376	Aug. 17, 1957		3.30	525	
1937	Apr. 15, 1937	1.70	320	1958	May 24, 1958	1.52	160	
	May 16, 1937	1.49	216					
	May 29, 1937	1.52	226					
	Aug. 17, 1937	1.90	428					
1938	May 29, 1938	1.49	265					
	June 13, 1938	1.57	272					

a Backwater from ice.

1120. Huerfano River near Badito, Colo.

Location.--Lat 37°43'45", long 105°01'20", in sec.5, T.27 S., R.68 W., 250 ft upstream from South Oak Creek and 0.4 mile west of Badito.

Drainage area.--499 sq mi.

Gage.--Recording. Prior to June 30, 1942, at site 0.2 mile upstream at different datum. Altitude of gage is 6,500 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 890 cfs and extended on basis of slope-area measurement at 8,480 cfs.

Bankfull stage.--7 ft.

Remarks.--Diversions above station for irrigation of about 15,400 acres. Diversions should substantially affect maximum flows. Only annual peaks are shown.

Peak stages and discharges of Huerfano River near Badito, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	May 11, 12, 1942	6.60	1,440	1945	Aug. 14, 1945	9.89	8,480
1943	July 25, 1943	5.65	365	1946	Aug. 28, 1946	7.6	4,080
1944	July 5, 1944	7.90	2,200				

1125. Huerfano River at Badito, Colo.

Location.--Lat 37°43'40", long 105°00'45", in sec.4, T.27 S., R.68 W., at Badito, 300 ft downstream from bridge on State Highway 69 and half a mile downstream from South Oak Creek.

Drainage area.--532 sq mi.

Gage.--Recording Apr. 19, 1923, to Sept. 30, 1925, Dec. 23, 1938, to Aug. 6, 1941, and since Sept. 10, 1946; nonrecording Mar. 6, to Dec. 22, 1938. Apr. 19, 1923, to Aug. 6, 1924, at site 300 ft upstream at different datum. Aug. 7, 1924, to Sept. 30, 1925, at site 500 ft upstream at different datum. Mar. 6, 1938, to Aug. 6, 1941, and Sept. 10, 1946, to Oct. 8, 1948, at site 300 ft upstream at datum 1.90 ft higher. Datum of last used gage was 6,415.20 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 510 cfs and extended above on basis of slope-area measurement at 5,510 cfs.

Historical data.--Flood of July 31, 1945, reached a discharge of 7,400 cfs determined by slope-area measurement, and flood of Aug. 14, 1945, reached a discharge of 8,480 cfs, from records for station near Badito.

Bankfull stage.--13 ft.

Remarks.--Diversion above station for irrigation of about 15,800 acres. Diversions should substantially affect maximum flows. Records for 1923-25 furnished by State engineer of Colorado. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	July 15, Aug. 1	9.20	5,510	1948	May 31, 1948	8.62	467
1938	Aug. 11, 1938	4.83	689	1949	July 25, 1949	6.62	430
	Aug. 2, 1939	9.01	3,150	1950	July 20, 1950	7.66	620
	Sept. 21, 1940	7.10	1,310	1951	Aug. 3, 1951	8.78	1,280
1941	May 14, 1941	4.70	745	1952	July 9, 1952	6.22	288
				1953	Aug. 16, 1953	10.32	2,050
1947	July 9, 1947	11.20	1,620	1954	Aug. 6, 1954	9.56	1,520
				1955	May 19, 1955	8.12	670

1135. Huerfano River near Mustang, Colo.

Location.--Lat 37°51', long 104°42', in SW $\frac{1}{4}$ sec.20, T.25 S., R.65 W., 2 $\frac{1}{4}$ miles downstream from Apache Creek and 2 $\frac{1}{2}$ miles southwest of Mustang.

Drainage area.--803 sq mi.

Gage.--Recording. Altitude of gage is 5,500 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 800 cfs and extended on basis of slope-area measurement at 26,000 cfs.

Remarks.--Diversions above station for irrigation of about 20,000 acres. Diversions should substantially affect most maximum flows. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Aug. 14, 1942	9.60	26,000	1945	Aug. 14, 1945	7.85	19,400
1943	Aug. 16, 1943	3.80	3,200	1946	Aug. 28, 1946	6.61	15,000
1944	July 13, 1944	3.33	1,530				

1140. Cucharas River at Boyd Ranch near La Veta, Colo.

Location.--Lat 37°25', long 105°03', in sec.24, T.30 S., R.69 W., at Boyd Ranch, 6 miles south of La Veta.

Drainage area.--56 sq mi.

Gage.--Recording. Altitude of gage is about 7,800 ft (from base map).

Stage-discharge relation.--Defined by current-meter measurements below 190 cfs.

Remarks.--Diversions above station for irrigation of about 500 acres. Diversion should not substantially affect peak flows. Base for partial-duration series, 150 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1935	May 25, 1935	1.85	189	1947	May 10, 1947	3.30	313	
	July 12, 1935	1.80	172		June 18, 1947	3.80	417	
1936	May 16, 1936	2.40	275	1948	May 25, 1948	2.87	289	
1937	Apr. 15, 1937	2.08	198		May 28, 1948	2.50	c207	
	May 17, 1937	2.25	219	June 4, 1948	2.30	c173		
	June 3, 1937	2.43	291	1949	July 9, 1949	2.40	188	
1938	May 29, 1938	-	a170		1950	July 12, 1950	1.28	25
	July 14, 1938	2.03	185	1951		July 30, 1951	1.62	64
1939	June 2, 1939	1.52	92		1952	May 27, 1952	2.24	249
1940	May 21, 1940	1.60	102			June 3, 1952	2.14	c229
	1941	May 13, 1941	3.04	315		June 11, 1952	2.35	305
May 28, 1941		3.0	309	1954	May 23, 1954	1.59	70	
June 18, 1941		2.29	178		1955	May 23, 1955	4.05	444
1942	Apr. 14, 1942	2.19	162	May 31, 1955		3.79	400	
	Apr. 23, 1942	3.28	345	June 9, 1955		2.49	188	
	May 10, 1942	3.47	394	1956		May 27, 1956	1.58	49
	May 26, 1942	3.20	342		1957	May 20, 1957	2.46	159
1943	May 9, 1943	1.30	57	June 1, 1957		3.65	365	
	1944	May 15, 1944	3.05	317		June 8, 1957	3.25	288
May 31, 1944		3.08	322	June 29, 1957	2.65	184		
Sept. 5, 1944		3.77	405	July 9, 1957	2.48	159		
1945	Dec. 29, 1944	b3.02	-	July 13, 1957	2.75	200		
	May 7, 1944	2.01	131	July 17, 1957	2.49	161		
	1946	Aug. 22, 1946	2.20	142	Aug. 9, 1957	3.24	281	
				1958	May 23, 1958	2.07	202	

a Mean daily estimated.

b Backwater from ice.

c Mean daily.

1145. Cucharas River near La Veta, Colo.

Location.--Lat 37°27', long 105°02', in sec.7, T.30 S., R.68 W., 4½ miles south of La Veta.

Drainage area.--75 sq mi, approximately.

Gage.--Nonrecording prior to July 15, 1929; recording thereafter. Prior to May 8, 1923, at site half a mile downstream at different datum; May 9, 1923, to May 18, 1926, at present site at datum 0.33 ft lower. Altitude of present gage is 7,500 ft (estimated from nearby line of levels).

Stage-discharge relation.--Defined by current-meter measurements below 260 cfs.

Remarks.--Diversions above station for irrigation of about 2,000 acres. Diversions should substantially affect maximum flows. Records for 1923-33 furnished by State engineer of Colorado. Only annual peaks are shown.

Peak stages and discharges of Cucharas River near La Veta, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	Aug. 22, 1923	3.10	-	1929	May 23, 1929	2.70	202
1924	May 21, 1924	2.45	481	1930	July 28, 1930	2.47	150
1925	May 12, 1925	0.75	26	1931	May 26, 1931	2.55	188
1926	May 22, 1926	2.60	698	1932	May 23, 1932	2.30	116
1927	June 17-19, 1927	1.90	37	1933	June 13, 1933	2.55	144
1928	May 29, 1928	2.88	280	1934	July 23, 1934	1.95	60

1160. Huerfano River below Huerfano Valley Dam, near Undercliffe, Colo.

Location.--Lat 38°00', long 104°28', in S $\frac{1}{2}$ sec.32, T.23 S., R.63 W., at left end of diversion dam for Huerfano Valley ditch, 8 miles southwest of Undercliffe.

Drainage area.--1,673 sq mi.

Gage.--Recording. Prior to July 26, 1950, at site 0.3 mile downstream at datum 14.27 ft lower; July 26, 1950, to Dec. 15, 1954, at site 0.3 mile downstream at datum 16.27 ft lower. Datum of present gage is 4,886.29 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,000 cfs at former site. Defined by current-meter measurements below 190 cfs at present site. Maximum discharges determined on basis of computation of peak flow over dam.

Historical data.--Flood of July 5, 1958, is greatest known since at least 1900.

Bankfull stage.--9.1 ft (top of headgate for Huerfano Valley ditch).

Remarks.--Diversions above station for irrigation of about 43,000 acres. Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Aug. 22, 1940	4.65	3,400	1948	Aug. 13, 1948	5.81	4,770
	Sept. 9, 1940	6.06	6,810	1949	July 30, 1949	5.64	900
1941	June 1, 1941	4.70	2,400	1950	July 26, 1950	13.96	16,700
1942	Apr. 19, 1942	5.43	4,200	1951	July 22, 1951	7.70	6,640
	Apr. 24, 1942	6.57	6,000		Aug. 3, 1951	6.93	5,720
	Apr. 30, 1942	4.58	3,000	1952	Apr. 21, 1952	3.20	3,150
	Aug. 14, 1942	7.00	10,000		Aug. 22, 1952	4.96	4,100
1943	Aug. 16, 1943	3.05	2,400	1953	July 11, 1953	4.87	3,340
1944	June 29, 1944	3.06	1,440		Aug. 16, 1953	5.94	4,530
1945	Aug. 14, 1945	-	(a)		Aug. 17, 1953	6.52	6,000
1946	Oct. 13, 1945	3.68	3,000	1954	June 30, 1954	4.83	2,610
	July 19, 1946	4.99	5,500	1955	May 18, 1955	6.65	4,960
	Aug. 13, 1946	4.38	6,000		May 19, 1955	11.04	11,300
	Aug. 23, 1946	3.67	4,100	1956	July 22, 1956	3.30	1,320
	Aug. 28, 1946	4.91	5,000	1957	May 15, 1957	5.40	3,690
1947	July 21, 1947	4.90	3,800	1958	July 5, 1958	14.5	16,800
1948	June 13, 1948	7.00	5,900				
	Aug. 3, 1948	5.86	4,800				

a Peak discharge was probably between 10,000 and 15,000 cfs.

1170. Arkansas River near Nepesta, Colo.
(Published as "near Boone" July 1 to Oct. 27, 1916, and as "at Nepesta" 1919-20)

Location.--Lat 38°11', long 104°10', in NW¼ sec.31, T.21 S., R.60 W., 100 ft downstream from diversion dam of Oxford Farmers Co. canal and 1¼ miles west of Nepesta.

Drainage area.--9,345 sq mi, of which about 9,291 sq mi contributes directly to surface runoff.

Gage.--Recording or nonrecording prior to June 5, 1921, at various sites within 5 miles upstream and 2 miles downstream from at different datums than present gage. Recording June 5, 1921, to Oct. 1, 1952, at sites on river or river and canal within 300 ft of and at approximately same datum as present gage. Recording since Oct. 1, 1952, on river and on Oxford Farmers Co. canal at described site. Datum of present river gage is 4,378.68 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs and extended to 180,000 cfs on basis of a slope-area measurement of peak flow 9 miles upstream.

Remarks.--Figures herein represent combined discharge of the river below the canal and the Oxford Farmers Co. canal since 1936. Discharge in Oxford Farmers Co. canal was not included prior to this date. Peak flow of stream substantially affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation of about 230,000 acres, and return flow from irrigated areas. Records for 1914-33 furnished by State engineer of Colorado. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	June 10, 1903	6.50	19,000	1935	May 31, 1935	6.00	14,700
1912	July 31, Aug. 1	3.80	a5,240	1936	July 28, 1936	6.50	17,200
1914	May 22, 1914	4.10	a7,890	1937	Aug. 31, 1937	5.37	8,060
1915	Aug. 18, 1915	4.35	9,000	1938	Sept. 4, 1938	5.72	9,380
1916	Aug. 13, 1916	-	9,500	1939	May 25, 1939	4.71	5,740
1917	June 21, 1917	3.09	a3,220	1940	May 29, 1940	5.25	8,100
1918	July 12, 1918	4.00	a4,600	1941	Aug. 27, 1941	5.85	9,470
1919	Aug. 9, 1919	a5.60	5,470	1942	Apr. 24, 1942	6.29	12,000
1920	Aug. 2, 1920	3.30	a3,720	1943	Aug. 18, 1943	4.55	2,860
1921	June 4, 1921	-	180,000	1944	July 19, 1944	5.80	8,680
1922	Aug. 4, 1922	4.34	8,100	1945	Aug. 8, 1945	6.20	16,100
1923	Aug. 22, 1923	6.87	23,000	1946	Aug. 27, 1946	6.00	15,800
1924	June 15, 1924	3.92	5,740	1947	June 20, 1947	6.70	14,600
1925	July 23, 1925	5.80	17,700	1948	June 13, 1948	6.37	12,200
1926	June 14, 1926	3.38	5,360	1949	June 6, 1949	6.12	10,500
1927	Aug. 8, 1927	5.10	11,000	1950	July 26, 1950	7.35	12,400
1928	June 30, 1928	4.25	8,200	1951	Aug. 3, 1951	7.10	14,700
1929	July 25, 1929	4.80	8,950	1952	Aug. 29, 1952	6.17	6,180
1930	Aug. 28, 1930	4.90	9,510	1953	Aug. 16, 1953	-	11,900
1931	Sept. 2, 1931	3.20	3,000	1954	June 30, 1954	-	12,200
1932	July 30, 1932	5.3	11,200	1955	May 19, 1955	-	40,200
1933	July 16, 1933	5.9	12,600	1956	Aug. 1, 1956	-	3,560
1934	July 29, 1934	3.50	4,700	1957	May 16, 1957	-	38,200
				1958	July 5, 1958	7.00	14,800

a Maximum daily.

1175. Arkansas River at Nepesta, Colo.
 (Published as "near Nepesta" 1902, 1915-16, 1934-36)

Location.--Lat 38°11'00", long 104°08'30", in sec.32, T.21 S., R.60 W., at highway bridge just downstream from The Atchison, Topeka and Santa Fe Railway Co. bridge at Nepesta.

Drainage area.--9,460 sq mi, approximately, of which about 9,406 sq mi contributes directly to surface runoff.

Gage.--Recording and slope gage at described site Oct. 1, 1919, to June 4, 1921. Altitude of gage is 4,370 ft (from topographic map). Nonrecording gage Sept. 8, 1897, to Dec. 1, 1900, at same site at different datum. May 1, 1901, to Oct. 31, 1902, May 1906 to Nov. 30, 1912, Jan. 1, 1914, to June 30, 1916, Oct. 28, 1916, to Sept. 30, 1919, and June 5, 1921, to Sept. 30, 1936, non-recording or recording gages about 1½ miles upstream at dam and headgate of Oxford Farmers Co. canal at different datum.

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs and extended to 180,000 cfs on basis of a slope-area measurement of peak flow 9 miles upstream.

Remarks.--Transmountain diversion, storage reservoirs, diversions for irrigation of about 235,000 acres above station which should substantially affect maximum flows. Records for 1904-9 and 1914-33 furnished by State engineer of Colorado. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1898	July 14, 1898	6.1	4,120	1920	Aug. 2, 1920	3.30	a3,720
1899	Aug. 14, 1899	7.5	6,970				
1900	May 21, 1900	9.0	9,600	1921	June 4, 1921	-	180,000
1901	June 1, 1901	5.0	9,800	1922	Aug. 4, 1922	4.34	8,100
1902	Aug. 6, 1902	6.5	13,500	1923	Aug. 22, 1923	6.87	23,000
1904	Aug. 17, 1904	3.0	7,500	1924	June 15, 1924	3.92	5,740
1907	July 28, 1907	-	8,200	1925	July 23, 1925	5.80	17,700
1910	Aug. 5, 1910	-	7,200	1926	June 14, 1926	3.38	5,360
1912	July 31, 1912	3.80	a5,240	1927	Aug. 8, 1927	5.10	11,000
1914	May 22, 1914	4.10	a7,890	1928	June 30, 1928	4.25	8,200
1915	Aug. 18, 1915	4.35	9,000	1929	July 25, 1929	4.80	8,950
1916	Aug. 13, 1916	-	9,500	1930	Aug. 28, 1930	4.90	9,510
1917	June 21, 1917	3.09	a3,220	1931	Sept. 2, 1931	3.20	3,000
1918	July 12, 1918	4.00	a4,600	1932	July 30, 1932	5.30	11,200
1919	Aug. 9, 1919	5.60	5,470	1933	July 16, 1933	5.90	12,600
				1934	July 29, 1934	3.50	4,700
				1935	May 31, 1935	6.00	14,700
				1936	July 28, 1936	6.50	17,200

a Maximum daily.

1180. Apishapa River near Aguilar, Colo.

Location.--Lat 37°22'50", long 104°39'50", in sec.4, T.31 S., R.65 W., 1.4 miles downstream from Mauricio Canyon Creek and 1½ miles southwest of Aguilar.

Drainage area.--126 sq mi.

Gage.--Recording. Prior to Aug. 29, 1943, at site 0.4 mile upstream at datum 28.08 ft higher; Aug. 29, 1943, to July 6, 1944, at site 0.6 mile upstream at datum 42.06 ft higher. Datum of last used gage was 6,408.11 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 500 cfs and extended on basis of float measurement at 1,580 cfs.

Remarks.--Diversions above station for irrigation of about 1,600 acres. Diversions should not substantially affect maximum flows. Base for partial-duration series, 200 cfs.

Peak stages and discharges of Apishapa River near Aguilar, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1940	Sept. 23, 1940	3.23	112	1947	July 16, 1947	2.54	530	
1941	May 5, 1941	3.48	270		July 22, 1947	2.85	68F	
	June 17, 1941	7.50	3,870		July 23, 1947	3.11	83F	
	July 12, 1941	4.15	360		Aug. 15, 1947	3.73	1,250	
	Aug. 27, 1941	4.70	380		Aug. 18, 1947	4.25	1,620	
1942	Apr. 23, 1942	7.05	2,300		Aug. 19, 1947	3.48	1,080	
	May 5, 1942	5.76	356		Aug. 24, 1947	3.95	1,400	
	July 1, 1942	5.56	230		Aug. 25, 1947	3.08	81F	
	July 31, 1942	5.48	219		Aug. 30, 1947	4.27	1,630	
1943	Aug. 16, 1943	13.78	1,600	1948	May 25, 1948	3.14	287	
	Aug. 28, 1943	9.76	1,810			July 14, 1948	7.84	4,500
1944	May 31, 1944	3.21	219		Aug. 14, 1948	2.74	371	
	July 12, 1944	5.02	2,190	1949	June 4, 1949	3.34	441	
	July 15, 1944	4.75	1,990			June 9, 1949	3.20	371
	Aug. 26, 1944	4.03	1,460			July 7, 1949	3.02	210
	Sept. 5, 1944	6.30	3,200			July 8, 1949	3.55	39F
					July 14, 1949	3.30	323	
1945	Aug. 2, 1945	5.37	2,460		Aug. 12, 1949	3.35	33F	
	Aug. 15, 1945	6.20	3,120		Sept. 4, 1949	6.64	3,470	
1946	Sept. 15, 1946	4.05	1,480	1950	Sept. 8, 1949	3.66	1,200	
						Sept. 9, 1949	7.03	3,810
1947	June 18, 1947	2.88	704			July 4, 1950	3.22	323
	July 1, 1947	2.79	655		July 12, 1950	3.53	44F	
	July 7, 1947	4.29	1,640		July 27, 1950	3.28	347	
				1955	May 19, 1955	7.64	4,300	

1190. Apishapa River near White Rock, Colo.

Location.--Lat 37°46'10", long 104°07'10", in SE $\frac{1}{4}$ sec.20, T.26 S., R.60 W., about 3 miles upstream from Buffalo Arroyo and 6 miles south of White Rock.

Drainage area.--737 sq mi.

Gage.--Recording. Altitude of gage is 4,790 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 350 cfs and extended above on basis of slope-area measurement at gage height 3.90 ft.

Remarks.--Diversions above station for irrigation of about 4,000 acres. Diversions should substantially affect maximum flows. Base for partial-duration series, 3,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Aug. 14, 1942	4.25	6,500	1945	July 25, 1945	4.52	8,280
	Sept. 1, 1942	4.01	5,780			Aug. 14, 1945	3.53
1943	Aug. 17, 1943	3.46	4,180	1946	Sept. 12, 1946	3.62	4,870
	Aug. 25, 1943	3.33	3,840				
1944	July 19, 1944	3.28	3,350	1947	Aug. 25, 1947	3.46	3,920

1195. Apishapa River near Fowler, Colo.

Location.--Lat 38°05'28", long 103°58'52", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.35, T.22 S., R.59 W., at county highway bridge 4 miles southeast of Fowler and 5.4 miles upstream from mouth.

Drainage area.--1,125 sq mi.

Gage.--Recording. Prior to Aug. 28, 1923, at site about 3 miles downstream at different datum; Aug. 29, 1923, to Sept. 30, 1925, at present site at different datum. Datum of present gage is 4,317.05 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 6,200 cfs and extended to 83,000 cfs on basis of slope-area measurement about 2 miles upstream from present station.

Remarks.--Waste water from Oxford Farmers and Rocky Fork Highline Canals enters river above station. Diversions above station for irrigation of about 4,700 acres. Records for 1922-25 furnished by State engineer of Colorado. Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	Aug. 2, 1922	13.78	6,430	1947	Aug. 25, 1947	9.69	5,550
1923	Aug. 22, 1923	-	83,000	1948	June 13, 1948	7.55	3,840
					June 20, 1948	9.22	5,900
1924	Oct. 6, 1923	5.69	1,100	1949	June 5, 1949	9.80	5,700
1925	July 4, 1925	7.10	3,500	1950	July 24, 1950	11.60	4,640
	July 23, 1925	7.30	3,900		July 26, 1950	13.75	6,750
	July 28, 1925	7.30	3,880				
	July 30, 1925	8.30	5,030	1951	June 28, 1951	14.0	7,000
1939	Aug. 20, 1939	8.50	4,700		July 31, 1951	17.70	11,100
1940	July 27, 1940	8.00	4,930		Aug. 3, 1951	14.50	7,330
	Aug. 18, 1940	6.30	3,330	1952	Aug. 5, 1952	8.43	2,520
	Sept.10, 1940	8.30	5,320	1953	Aug. 17, 1953	12.15	5,310
1941	Aug. 27, 1941	7.85	4,060	1954	Aug. 6, 1954	16.90	14,800
1942	Apr. 23, 1942	8.65	4,850	1955	May 19, 1955	16.70	17,000
	Aug. 14, 1942	9.30	4,800		Aug. 7, 1955	11.60	8,560
	Aug. 15, 1942	16.23	14,700		Aug. 9, 1955	8.33	5,060
	Sept. 1, 1942	10.40	6,880	1956	July 23, 1956	10.40	7,160
1943	Aug. 17, 1943	7.43	2,840		Aug. 19, 1956	7.72	3,770
1944	July 19, 1944	7.65	3,180	1957	June 12, 1957	8.95	5,320
1945	July 11, 1945	9.78	6,080	1958	May 16, 1958	9.50	5,300
	July 26, 1945	9.31	5,370		May 25, 1958	11.05	6,800
	Aug. 9, 1945	7.94	3,750		July 6, 1958	15.55	12,100
	Aug. 15, 1945	13.95	12,000		July 12, 1958	11.55	8,210
1946	July 1, 1946	9.79	5,960		July 22, 1958	6.50	3,140
	Aug. 29, 1946	10.51	6,910		July 25, 1958	11.65	7,850
	Sept.13, 1946	9.62	5,760		Aug. 21, 1958	8.00	4,200

a Slope-area measurement 2 miles upstream from present site.

1205. Arkansas River near Rocky Ford, Colo.
(Published as "at Rocky Ford" 1897-1900)

Location.--Lat 38°06'10", long 103°44'00", in sec.25, T.22 S., R.57 W., at old ford near site of bridge on State Highway 71, 3½ miles northwest of Rocky Ford.

Drainage area.--11,086 sq mi, of which about 11,032 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. Altitude of the gage was 4,200 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 6,700 cfs.

Remarks.--Natural flow substantially affected by transmountain diversions, storage reservoirs, and diversions for irrigation. Records for February 1898, March 1900, and April to December 1901, furnished by State engineer of Colorado. Only annual observed peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1898	July 14, 1898	3.70	4,600	1901	June 1, 2, 1901	4.90	6,220
1899	Aug. 5, 1899	4.80	4,000	1902	Feb. 13, 1902	2.70	1,850
				1903	June 10, 1903	8.00	27,500

1210. Timpas Creek near Rocky Ford, Colo.

Location.--Lat 37°57'20", long 103°43'20", in SW¼ sec.18, T.24 S., R.56 W., at Catline ditch crossing, 7 miles south of Rocky Ford and 9 miles upstream from mouth.

Drainage area.--451 sq mi.

Gage.--Nonrecording prior to Oct. 1, 1925; recording thereafter. Prior to Sept. 30, 1927, at different datum. Altitude of present gage is 4,220 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 300 cfs and extended to 11,200 cfs on basis of slope-area measurements at gage heights 14.25, 14.6, and 16.0 ft.

Bankfull stage.--12 ft.

Historical data.--Flood of July 5, 1958, was highest known since at least 1928.

Remarks.--Small diversions above station for irrigation. Diversions should not substantially affect maximum flows. Records for 1923-27 furnished by State engineer of Colorado. Base for partial-duration series, 1,100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1923	June 8, 1903	16.0	11,200	1945	Aug. 15, 1945	8.80	4,580	
1927	June 11, 1927	8.20	3,490	1946	Sept. 13, 1946	4.34	1,510	
	July 21, 1927	8.10	3,410	1947	July 8, 1947	3.49	1,060	
	July 23, 1927	13.0	7,700					
	July 29, 1927	13.0	7,700					
		Aug. 3, 1927	7.60	3,060	1948	June 20, 1948	6.32	2,710
		Aug. 11, 1927	4.70	1,320	1949	June 4, 1949	4.24	1,300
1942	Apr. 23, 1942	5.34	2,150	July 15, 1949		6.90	3,100	
	Aug. 14, 1942	8.42	4,300	1950	July 6, 1950	5.80	2,310	
1943	Aug. 20, 1943	3.58	1,110		July 20, 1950	4.15	1,250	
					July 24, 1950	14.25	9,510	
1944	May 29, 1944	5.77	2,450	1953	July 12, 1953	14.65	10,000	
1945	July 11, 1945	5.35	2,150					
	July 26, 1945	7.00	3,230	1956	July 23, 1956	16.73	15,500	
	Aug. 3, 1945	-	4,000					
	Aug. 8, 1945	7.51	3,560	1958	July 5, 1958	19.0	23,000	

1230. Arkansas River at La Junta, Colo.
(Published as "near La Junta" 1903)

Location.--Lat 37°59', long 103°31', in sec.2, T.24 S., R.55 W., on downstream side near middle of East Bridge in La Junta, just upstream from King Arroyo.

Drainage area.--12,210 sq mi, of which about 12,095 sq mi contributes directly to surface runoff.

Gage.--Nonrecording Sept. 27, 1893, to Dec. 31, 1895, and Apr. 7, 1903, to Apr. 10, 1912 at several sites within 2 miles of present site at different datums. Recording and nonrecording Apr. 11, 1912, to June 12, 1940 at several sites within 1 mile of present site at different datums. Recording since June 12, 1940, at present site and datum. Datum of present gage is 4,039.60 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 15,000 cfs and extended on basis of slope-area measurement at 200,000 cfs.

Remarks.--Natural flow affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of about 400,000 acres, and return flow from irrigated areas. Diversions for irrigation should substantially affect maximum flows. Records for 1914-33 furnished by State engineer of Colorado. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1894	May 31, 1894	-	30,000	1934	Sept. 15, 1934	8.90	12,600
1903	June 11, 1903	7.00	10,300	1935	May 19, 1935	7.32	18,400
1912	July 31, 1912	8.00	21,000	1936	Aug. 8, 1936	-	35,000
1913	June 6, 1913	2.58	704	1937	June 1, 1937	-	21,800
1914	June 16, 1914	7.40	14,200	1938	Sept. 4, 1938	-	13,400
1915	June 4, 1915	4.80	6,940	1939	Aug. 19, 1939	-	6,410
1916	Aug. 22, 1916	5.25	3,930	1940	Sept. 10, 1940	6.70	4,420
1917	June 21, 1917	3.95	1,210	1941	July 19, 1941	6.35	4,080
1918	June 24, 1918	4.30	4,300	1942	Apr. 25, 1942	9.96	34,800
1919	Aug. 9, 1919	4.40	5,000	1943	Oct. 18, 1942	5.50	2,890
1920	July 8, 1920	3.95	1,870	1944	May 28, 1944	7.05	7,730
1921	June 4, 1921	18.4	200,000	1945	Aug. 15, 1945	8.17	12,900
1922	July 2, 1922	4.25	1,670	1946	Aug. 24, 1946	5.79	6,520
1923	Aug. 23, 1923	10.9	60,000	1947	June 21, 1947	7.93	12,800
1924	June 16, 1924	4.0	2,940	1948	June 14, 1948	8.44	15,800
1925	July 23, 1925	5.51	13,200	1949	June 6, 1949	6.63	7,300
1926	June 18, 1926	3.80	2,600	1950	July 26, 1950	8.95	19,500
1927	Aug. 3, 1927	6.35	11,600	1951	July 23, 1951	10.0	27,900
1928	June 2, 1928	6.00	14,500	1952	Apr. 22, 1952	6.47	5,060
1929	Aug. 7, 1929	7.30	17,300	1953	July 12, 1953	10.70	17,700
1930	Aug. 29, 1930	4.86	4,940	1954	Aug. 7, 1954	9.20	9,720
1931	May 29, 1931	3.00	900	1955	May 20, 1955	14.2	50,000
1932	July 31, 1932	5.70	6,200	1956	July 23, 1956	7.50	5,000
1933	May 5, 1933	7.00	18,300	1957	May 16, 1957	10.2	17,500
				1958	July 6, 1958	11.0	20,400

1235. Horse Creek near Sugar City, Colo.

Location.--Lat 38°14'10", long 103°37'40", in sec.12, T.21 S., R.56 W., at bridge on State Highway 96, a quarter of a mile upstream from unnamed tributary and 1.3 miles east of Sugar City.

Drainage area.--1,080 sq mi.

Gage.--Recording. Datum of gage is 4,271.40 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 5,000 cfs.

Remarks.--A few small diversions above station for irrigation. Diversions should not substantially affect maximum flows. Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 1,500 cfs.

Peak stages and discharges of Horse Creek near Sugar City, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	May 27, 1940	4.28	1,460	1944	July 19, 1944	4.43	1,780
1941	July 26, 1941	4.73	1,950	1945	Aug. 8, 1945	4.92	2,500
	Sept. 22, 1941	4.25	1,550		1946	Aug. 28, 1946	5.37
1942	Oct. 23, 1941	6.20	5,400	1947		May 16, 1947	5.15
	Sept. 2, 1942	4.88	1,730				
1943	Aug. 15, 1943	3.25	438				

1240. Arkansas River at Las Animas, Colo.

Location.--Lat 38°05'08", long 103°12'50", in SW $\frac{1}{4}$ sec. 35, T. 22 S., R. 52 W., 0.4 mile downstream from bridge on U. S. Highway 50, 1 mile north of Las Animas, and 3 $\frac{1}{2}$ miles upstream from Purgatoire River.

Drainage area.--14,417 sq mi, of which about 13,976 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 3,874.97 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Remarks.--Natural flow affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, irrigation of about 412,000 acres, and return flow from irrigated areas. Diversion should substantially affect maximum flows. Records for 1939-49 computed by Corps of Engineers and reviewed by Geological Survey. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	May 26, 1939	5.63	4,320	1949	June 5, 1949	7.54	5,380
1940	Sept. 11, 1940	5.61	3,070	1950	July 27, 1950	9.06	8,170
1941	Aug. 27, 1941	7.00	4,010	1951	Aug. 1, 1951	7.89	6,370
1942	Apr. 25, 1942	12.58	23,600	1952	Apr. 22, 1952	5.72	3,060
1943	Oct. 18, 1942	5.50	2,740	1953	July 12, 1953	7.85	6,260
1944	May 28, 1944	8.65	9,280	1954	Aug. 7, 1954	7.48	5,880
1945	Aug. 16, 1945	9.82	8,840	1955	May 20, 1955	15.03	44,000
1946	Aug. 28, 1946	6.72	4,670	1956	July 23, 1956	6.29	3,150
1947	June 21, 1947	10.23	9,580	1957	May 17, 1957	11.78	21,500
1948	June 14, 1948	9.97	8,780	1958	July 6, 1958	11.77	6,280

1245. Purgatoire River at Trinidad, Colo.

(Published as "Purgatory River" 1898-99, 1905-12)

Location.--Lat 37°10'15", long 104°30'31", in NW $\frac{1}{4}$ sec. 13, T. 33 S., R. 64 W., on railroad bridge at foot of College Street, 590 ft downstream from Animas Street Bridge in Trinidad.

Drainage area.--795 sq mi.

Gage.--Nonrecording prior to Nov. 11, 1921, and since May 29, 1955; recording Nov. 11, 1921, to May 29, 1955. May 1, 1896, to July 31, 1899, at Animas Street Bridge 590 ft upstream at datum 4.7 ft higher. Aug. 25, 1905, to Nov. 30, 1912, at Animas Street Bridge at datum 3.0 ft higher. Apr. 1, 1916, to Nov. 10, 1921, at site 500 ft downstream at datum 2.01 ft higher. Nov. 11, 1921, to Nov. 30, 1922, at site about three-quarters of a mile upstream and Dec. 1, 1922, to Mar. 19, 1934, at site about half a mile upstream at different datums. Mar. 20, 1934, to Dec. 10, 1950, at site 1,400 ft upstream at foot of State Street Bridge at datum 10.00 ft higher. Dec. 11, 1950, to May 29, 1955, at site 90 ft upstream at datum 5.00 ft higher. Datum of present gage is 5,976.76 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,800 cfs and extended on basis of several indirect measurements above and below station.

Historical data.--Flood of Sept. 30, 1904, was greatest known since at least 1859.

Remarks.--Diversions above station for irrigation of about 6,500 acres. Diversions should not substantially affect maximum flows. Records for 1916-33, furnished by State engineer of Colorado. Base for partial-duration series, 2,000 cfs.

Peak stages and discharges of Purgatoire River at Trinidad, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1896	Sept.17, 1896	8.2	10,500	1932	July 23, 1932	5.35	7,600	
1897	Aug. 15, 1897	6.0	5,400		Aug. 7, 1932	5.2	7,200	
1898	Aug. 6, 1898	7.7	9,500		Aug. 14, 1932	3.7	3,660	
					Aug. 21, 1932	4.9	6,400	
1899	July 29, 1899	5.6	4,300	1933	June 12, 1933	4.75	5,020	
1904	Sept.30, 1904	16.6	45,400		June 18, 1933	4.19	3,620	
					June 20, 1933	4.87	5,320	
1908	July 24, 1908	8.7	5,500		July 15, 1933	4.64	4,750	
					July 16, 1933	6.01	8,740	
					Aug. 1, 1933	7.00	12,200	
1909	Sept. 6, 1909	12.3	13,300		Aug. 6, 1933	6.61	10,800	
					Aug. 7, 1933	6.56	10,700	
1910	Aug. 16, 1910	8.8	5,700		Sept.11, 1933	6.30	9,750	
1911	July 18, 1911	10.6	9,400		1934	July 26,27, 1934	3.80	1,800
1912	Oct. 5, 1911	7.6	1,750	1935	July 14, 1935	4.00	2,560	
					Aug. 30, 1935	3.95	2,450	
1917	Sept. 8, 1917	4.0	2,260	1936	July 28, 1936	6.4	8,660	
1922	June 12, 1922	5.35	7,400		July 30, 1936	7.03	10,900	
					Aug. 2, 1936	4.10	2,620	
				Aug. 3, 1936	4.28	2,960		
1923	July 1, 1922	3.37	2,140	1937	June 14, 1937	4.40	2,550	
	July 23, 1922	4.90	5,800		Aug. 30, 1937	9.48	15,000	
	July 31, 1922	5.05	6,250		Sept. 7, 1937	7.20	7,490	
	Sept. 3, 1922	4.75	5,380	1938	June 1, 1938	5.95	5,310	
	June 7, 1923	3.93	5,910		June 4, 1938	9.50	14,800	
	June 20, 1923	4.95	11,400		July 17, 1938	9.40	14,450	
	July 10, 1923	4.50	8,410		July 27, 1938	6.10	5,610	
	July 16, 1923	4.40	7,920		Aug. 31, 1938	5.00	3,540	
	July 17, 1923	3.70	5,030		1939	Oct. 8, 1938	3.61	1,620
	July 18, 1923	3.50	4,330			1940	Sept.10, 1940	4.49
Aug. 7, 1923	3.50	4,740	1941		May 2, 1941		7.43	9,320
Aug. 8, 1923	4.75	9,650		June 14, 1941	5.10	3,850		
Aug. 12, 1923	5.50	14,100		June 24, 1941	4.30	2,510		
Aug. 17, 1923	3.20	3,460		July 24, 1941	5.60	4,500		
Aug. 21, 1923	3.13	3,260		Sept.23, 1941	6.13	5,430		
Aug. 23, 1923	4.90	10,500		1942	Apr. 23, 1942	14.03	35,000	
Sept. 1, 1923	3.00	2,540			July 20, 1942	4.95	4,650	
Sept.14, 1923	3.30	3,260			Aug. 12, 1942	8.56	12,100	
Sept.18, 1923	3.70	5,030	1943	Aug. 14, 1942	4.00	3,510		
Oct. 1, 1923	6.30	19,800		Aug. 18, 1942	5.52	5,720		
Oct. 5, 1923	3.51	3,670		Sept. 1, 1942	4.56	4,290		
1924	Oct. 14, 1924	3.80	4,460	1944	Aug. 4, 1943	3.01	2,160	
	Aug. 13, 1924	3.90	5,260		Aug. 17, 1943	5.15	5,180	
	July 21, 1925	4.50	7,600	1945	May 27, 1944	3.24	2,540	
July 22, 1925	10.3	33,000	June 10, 1944		4.02	3,560		
July 26, 1926	3.76	5,290	July 10, 1944		3.18	2,250		
1925	July 29, 1927	8.61	20,000	1946	July 13, 1945	6.30	7,100	
	Aug. 17, 1927	3.50	3,130		Aug. 2, 1945	3.60	2,690	
	Aug. 23, 1927	8.00	19,600		Aug. 6, 1945	4.10	3,580	
1926	May 10, 1928	4.35	5,750	Aug. 25, 1945	3.45	2,330		
	Aug. 15, 1928	4.38	5,990	Sept. 5, 1945	4.85	4,730		
	Aug. 17, 1928	5.70	9,600	1947	Aug. 28, 1946	3.54	2,740	
May 30, 1929	5.50	13,200	Sept. 7, 1946		3.60	2,690		
1927	June 24, 1929	3.60	3,990	1948	July 7, 1947	3.25	2,060	
	July 24, 1929	3.48	3,900		Aug. 24, 1947	5.95	6,620	
	Aug. 6, 1929	4.18	6,420		June 19, 1948	7.16	8,450	
	Aug. 25, 1929	4.10	6,500	July 14, 1948	4.97	3,780		
	Aug. 28, 1929	3.70	5,090	Aug. 14, 1948	4.35	2,540		
	July 25, 1930	2.70	2,300	Aug. 21, 1948	6.00	5,150		
1928	July 28, 1930	3.07	3,250	1949	June 10, 1949	4.08	2,080	
	July 30, 1930	5.30	12,000		June 19, 1949	4.60	3,520	
	July 31, 1930	5.50	13,200		June 21, 1949	5.50	4,930	
	Aug. 13, 1930	3.50	4,370	July 1, 1949	4.14	2,560		
	Sept. 5, 1930	4.00	5,750	July 8, 1949	4.59	3,280		
	1929	July 3, 1931	5.40	9,520				
Aug. 9, 1931		3.10	3,080					
1930	June 26, 1932	4.70	6,000					
	June 29, 1932	4.90	6,400					
	July 2, 1932	3.50	3,320					

Peak stages and discharges of Purgatoire River at Trinidad, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	July 10, 1949	4.70	3,470	1955	Aug. 11, 1955	6.10	2,040
	July 14, 1949	4.28	2,560		Aug. 15, 1955	10.10	8,600
	July 22, 1949	4.30	2,410		Aug. 21, 1955	9.00	5,610
1950	July 26, 1950	5.69	4,830	Aug. 26, 1955	8.30	3,910	
	Aug. 2, 1950	11.64	23,900	Aug. 28, 1955	7.44	2,360	
1951	July 22, 1951	4.38	3,530	1956	June 28, 1956	8.38	4,050
	July 24, 1951	4.40	3,570		July 19, 1956	9.50	5,950
1952	Aug. 21, 1952	6.40	9,090		July 31, 1956	8.60	4,420
	Aug. 27, 1952	3.40	2,160		Aug. 2, 1956	9.70	6,290
	Aug. 29, 1952	3.98	3,150	Aug. 19, 1956	8.00	3,400	
1953	Aug. 4, 1953	5.25	5,330	1957	June 1, 1957	7.32	2,020
	Sept. 1, 1953	6.10	7,440		July 14, 1957	7.77	2,750
1954	July 22, 1954	6.70	9,300		July 15, 1957	8.20	3,570
	July 23, 1954	4.13	2,860		July 19, 1957	7.43	2,350
	July 25, 1954	3.82	2,290		July 20, 1957	7.37	2,260
	Aug. 5, 1954	6.05	7,350		July 25, 1957	7.44	2,380
	Aug. 6, 1954	4.30	2,630		July 31, 1957	8.60	4,690
	Aug. 7, 1954	5.20	5,220		Aug. 12, 1957	8.30	3,720
Aug. 16, 1954	5.80	6,700	Aug. 28, 1957	9.41	5,520		
1955	May 19, 1955	14.35	28,000	Sept. 2, 1957	8.17	3,260	
	July 27, 1955	5.54	2,020	1958	June 5, 1958	8.90	4,400
	Aug. 8, 1955	6.62	3,350		July 7, 1958	8.96	4,340
			July 31, 1958		9.55	5,290	
				Aug. 17, 1958	8.05	2,690	

1260. Purgatoire River near Alfalfa, Colo.
(Published as "Purgatory River" 1905-7)

Location.--Lat 37°11'30", long 104°07'30", in NW¹/₄ sec.9, T.33 S., R.60 W., 700 ft downstream from San Francisco Creek, 1¹/₂ miles southeast of Alfalfa, and 20 miles east of Trinidad.

Drainage area.--1,320 sq mi.

Gage.--Nonrecording prior to Sept. 30, 1907, at site 650 ft downstream at different datum; recording thereafter. Feb. 27, 1924, to Sept. 30, 1928, at site 1 mile downstream at different datum. Oct. 1, 1951, to July 5, 1955, at site 150 ft upstream at datum 3.0 ft higher. Altitude of present gage is 5,280 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 2,700 cfs and extended to 14,900 cfs on basis of five slope-area measurements.

Remarks.--Diversions above station for irrigation of about 29,000 acres. Divisions should not substantially affect maximum flows. Records for 1924-28, furnished by State engineer of Colorado. Base for partial-duration series, 2,000 cfs. Only annual peaks prior to 1952.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	Aug. 25, 1905	19.0	15,000	1956	May 23, 1956	19.30	13,000
1906	July 16, 1906	13.1	6,000		July 16, 1956	8.03	2,320
					July 19, 1956	8.00	2,300
1907	June 6, 1907	13.0	5,800		July 22, 1956	7.52	2,010
1925	July 23, 1925	17.25	17,000	July 31, 1956	8.50	2,600	
				Aug. 2, 1956	8.92	2,870	
				Aug. 18, 1956	10.98	4,400	
1927	Aug. 7, 1927	18.0	19,100	Aug. 19, 1956	8.72	2,730	
1952	Aug. 19, 1952	6.68	3,320	1957	May 15, 1957	8.49	2,590
	Sept. 13, 1952	6.79	3,440		May 18, 1957	8.92	2,870
1953	May 28, 1953	7.32	3,660		June 1, 1957	12.60	5,790
	June 16, 1953	12.75	8,740		July 18, 1957	8.10	2,360
	July 11, 1953	10.35	6,320		July 21, 1957	7.72	2,130
	Aug. 4, 1953	6.56	3,290	1958	May 24, 1958	9.65	3,420
1954	May 23, 1954	5.70	2,700		June 6, 1958	9.15	3,040
	July 22, 1954	27.60	37,800		June 8, 1958	8.10	2,360
1955	May 19, 1955	31.9	41,900		June 21, 1958	8.72	2,730
					Aug. 1, 1958	11.95	5,260
				Aug. 21, 1958	12.20	5,460	

1265. Purgatoire River at Ninemile Dam, near Higbee, Colo.

Location.--Lat 37°44', long 103°29', in NW $\frac{1}{4}$ sec.7, T.27 S., R.54 W., 850 ft upstream from Ninemile Dam, 4 miles southwest of Higbee, and 5 $\frac{1}{2}$ miles upstream from Smith Canyon.

Drainage area.--2,900 sq mi.

Gage.--Recording. Prior to Oct. 28, 1934, at site 550 ft downstream at datum 0.60 ft higher. Datum of present gage is 4,240.59 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 7,000 cfs and extended to 45,000 cfs on basis of slope-area measurement at gage height about 14.3 ft, present datum.

Remarks.--Diversions above station for irrigation of about 32,000 acres. Diversions should not substantially affect maximum flows. Records for 1924-33 furnished by State engineer of Colorado. Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1924	May 21, 1924	3.35	1,850	1937	July 18, 1937	6.00	10,000	
1925	June 7, 1925	4.90	7,800	Aug. 31, 1937	4.80	3,920		
	July 21, 1925	5.05	9,650	Sept. 5, 1937	5.83	8,830		
	July 23, 1925	5.55	12,000	Sept. 8, 1937	5.70	7,450		
	July 30, 1925	4.50	5,610	1938	May 22, 1938	5.0	4,710	
	Aug. 4, 1925	6.00	14,000		June 16, 1938	4.8	3,920	
1926	June 26, 1926	4.00	3,560		July 17, 1938	5.2	5,530	
	July 11, 1926	4.82	7,320	July 20, 1938	5.5	7,250		
1927	July 22, 1927	3.75	3,080	Aug. 11, 1938	5.7	8,050		
	July 23, 1927	4.10	4,890	Sept. 1, 1938	4.67	3,430		
	July 29, 1927	4.00	4,490	Sept.13, 1938	4.70	3,540		
	July 30, 1927	5.50	11,800	1939	Aug. 20, 1939	4.67	3,430	
	July 31, 1927	5.60	12,200		1940	June 10, 1940	5.30	6,750
	Aug. 1, 1927	6.30	15,300	Sept.10, 1940		5.67	8,570	
	Aug. 2, 1927	4.30	5,750	1941	May 2, 1941	7.10	14,400	
	Aug. 3, 1927	7.30	19,300		July 4, 1941	4.66	4,510	
	Aug. 8, 1927	5.30	10,900		Aug. 12, 1941	4.43	3,470	
	Aug. 19, 1927	4.50	6,690		Aug. 28, 1941	4.80	4,510	
1929	June 24, 1929	5.00	9,400		Sept.24, 1941	4.85	4,710	
	Aug. 7, 1929	10.4	33,700	1942	Apr. 20, 1942	7.40	15,400	
1930	May 15, 1930	4.52	5,470		Apr. 23, 1942	14.03	43,500	
	1931	Oct. 3, 1930	4.25		4,900	June 23, 1942	5.65	6,830
1932		July 22, 1932	4.25	4,800	Aug. 15, 1942	6.70	12,000	
		1933	May 4, 1933	3.83	3,860	Sept. 2, 1942	9.04	23,400
			July 17, 1933	4.10	4,940	1943	Oct. 18, 1942	7.48
Aug. 1, 1933	3.80		3,750	June 28, 1943	5.60		6,830	
Aug. 29, 1933	4.83		8,560	Aug. 17, 1943	4.70	3,660		
1934	Sept.12, 1933	4.48	6,750	1944	May 28, 1944	7.12	14,100	
	Sept.13, 1933	4.00	4,530		July 19, 1944	5.38	5,720	
	1945	July 27, 1934	5.30	10,880	July 14, 1945	4.55	3,140	
		Sept.15, 1934	12.00	45,000	Aug. 21, 1945	5.28	5,090	
1935	May 19, 1935	5.89	6,570	1946	June 19, 1946	4.59	1,970	
	June 26, 1935	5.17	4,410		1947	July 10, 1947	5.90	7,910
	July 22, 1935	7.86	16,200	1948		June 1, 1948	8.00	18,000
	Aug. 18, 1935	5.68	5,940			1949	June 5, 1949	10.19
	Aug. 28, 1935	7.32	13,000	July 15, 1949	4.52		3,390	
1936	Sept. 7, 1935	5.53	5,490	1950	July 23, 1950	5.36	6,850	
	May 24, 1936	6.30	11,200		July 26, 1950	5.43	6,320	
	July 29, 1936	5.10	5,110		Sept.13, 1950	5.38	5,790	
1937	Aug. 7, 1936	6.78	13,100	1951	June 15, 1951	4.68	3,650	
	June 1, 1937	5.40	6,450		July 12, 1951	6.22	10,800	
	June 3, 1937	5.00	4,710					
	June 12, 1937	5.15	5,320					

Peak stages and discharges of Purgatoire River at Ninemile Dam,
near Higbee, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	July 23, 1951	8.51	19,900	1954	Aug. 13, 1954	5.82	9,050
	Aug. 2, 1951	4.79	4,770				
	Aug. 21, 1951	5.90	8,650	1955	May 19, 1955	17.7	80,000
	Aug. 23, 1951	4.52	3,390		May 21, 1955	4.78	5,650
1952	July 2, 1952	4.99	4,830	May 23, 1955		6,600	
1953	May 29, 1953	-	-	1956	May 24, 1956	9.20	7,920
	June 17, 1953	-	-				
	July 3, 1953	-	-	1957	May 18, 1957	6.00	6,650
	July 12, 1953	8.93	24,200		June 2, 1957	5.35	4,430
July 19, 1953	4.90	5,400	1958	May 25, 1958	5.81	5,550	
Aug. 5, 1953	4.33	3,420		June 19, 1958	6.18	7,280	
Aug. 17, 1953	4.43	3,740		July 6, 1958	7.23	11,400	
July 23, 1954	14.30	45,000		July 12, 1958	6.10	7,000	
1954	Aug. 7, 1954	6.28	11,100	Aug. 21, 1958	5.50	4,940	

1280. Purgatoire River at Highland Dam, near Las Animas, Colo.

Location.--Lat 37°55', long 103°18', in sec.1, T.25 S., R.53 W., 70 ft upstream from diversion dam for Highland ditch and 11 miles southwest of Las Animas.

Drainage area.--3,376 sq mi.

Gage.--Recording. Altitude of gage is 3,980 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 18,000 cfs and extended to 80,000 cfs on basis of slope-area measurement by the Bureau of Reclamation and office of State Engineer.

Remarks.--Diversions above station for irrigation of about 33,000 acres. Diversions should not substantially affect most maximum flows. Records for 1932-33 furnished by State engineer of Colorado. Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1932	July 22, 1932	5.00	4,360	1938	June 17, 1938	5.11	4,500	
					July 18, 1938	6.12	7,300	
July 21, 1938	5.00	4,270						
Aug. 11, 1938	5.31	5,120						
1933	May 4, 1933	5.60	5,800	1939	Aug. 20, 1939	4.85	3,800	
	July 15, 1933	5.20	4,700					
	July 17, 1933	5.00	4,200	1940	June 10, 1940	5.84	5,900	
	Aug. 27, 1933	8.00	13,500		Aug. 17, 1940	5.25	4,650	
	Aug. 29, 1933	5.30	4,950		Sept. 11, 1940	5.75	5,380	
	Sept. 12, 1933	5.50	5,500		1941	May 3, 1941	9.54	17,000
1934	July 27, 1934	5.40	5,200	July 4, 1941		5.10	4,050	
	Sept. 15, 1934	14.0	43,000	Aug. 27, 1941		6.5	7,950	
	1935	May 19, 1935	6.7	8,200		Sept. 23, 1941	6.23	7,330
		June 27, 1935	6.0	6,320	1942	Apr. 20, 1942	8.5	20,300
		Aug. 18, 1935	6.0	6,320		Apr. 24, 1942	16.8	60,000
		Aug. 29, 1935	6.2	6,820		June 23, 1942	5.44	4,950
Sept. 8, 1935	7.0	9,050	Aug. 15, 1942	6.58		7,780		
1936	May 8, 1936	6.0	6,320	Sept. 2, 1942	10.46	34,000		
	May 24, 1936	5.6	5,310	1943	Oct. 18, 1942	8.08	13,800	
	June 11, 1936	5.8	5,810		June 28, 1943	5.48	5,175	
	July 29, 1936	6.2	6,840		1944	May 28, 1944	8.95	16,900
	Aug. 7, 1936	7.05	9,200			July 20, 1944	5.65	5,520
1937	June 1, 1937	5.3	5,220	Aug. 27, 1944		5.31	4,620	
	July 15, 1937	6.0	7,300					
	July 26, 1937	5.2	4,870					
	Sept. 6, 1937	7.0	10,600					
	Sept. 8, 1937	5.4	5,000					

Peak stages and discharges of Purgatoire River at Highland Dam, near Las Animas, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Aug. 15, 1945	5.55	5,400	1951	July 12, 1951	6.70	8,400
	Aug. 21, 1945	5.78	5,850		July 23, 1951	9.20	17,200
1946	June 19, 1946	5.50	4,800		Aug. 21, 1951	6.20	8,700
		1947	July 10, 1947	5.32	4,950	1952	July 3, 1952
1948	June 1, 1948			8.85	15,100		1953
		July 12, 1953	10.33	21,300			
1949	June 5, 1949	11.5	26,100	1954	July 23, 1954	14.05	40,300
	July 15, 1949	5.42	5,100		Aug. 7, 1954	6.95	10,300
1950	July 19, 1950	6.90	8,850		Aug. 13, 1954	5.85	6,840
	Aug. 29, 1950	6.90	9,000	1955	May 20, 1955	19.30	73,400
	Sept. 14, 1950	5.26	4,500		Aug. 11, 1955	-	-
Sept. 11, 1955	5.80	6,300					
1951	July 4, 1951	6.20	6,900				

1285. Purgatoire River near Las Animas, Colo.

Location.--Lat 38°02'02", long 103°12'00", in sec.23, T.23 S., R.52 W., at bridge on State Highway 101, 2.8 miles southeast of Las Animas and 4.5 miles upstream from mouth.

Drainage area.--3,503 sq mi.

Gage.--Recording. Apr. 1, 1922, to June 30, 1924, at site about 4 miles downstream at different datum; July 1, 1924, to Sept. 30, 1931, at present site at different datum. Datum of present gage is 3,879.94 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs.

Remarks.--Diversions above station for irrigation of about 36,000 acres. Diversions should not substantially affect most maximum flows. Records for 1922-31 furnished by State engineer of Colorado. Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1922	July 30, 1922	4.0	5,650	1928	June 29, 1928	6.00	11,000		
1923	June 8, 1923	5.0	7,170	1929	Aug. 3, 1929	4.80	6,800		
	June 17, 1923	8.0	28,400		Aug. 7, 1929	8.3	32,000		
	Aug. 5, 1923	5.73	8,340	1930	May 16, 1930	2.38	9,780		
	Aug. 13, 1923	7.50	21,500		Aug. 15, 1930	3.00	12,100		
	Aug. 17, 1923	7.70	23,500		1931	Oct. 4, 1930	3.30	11,300	
	Aug. 23, 1923	7.60	22,500			1949	June 6, 1949	9.75	31,500
	Sept. 16, 1923	6.75	12,100				1950	June 20, 1950	5.44
	1924	Oct. 5, 1923	6.35			8,020		July 10, 1950	5.10
Oct. 10, 1923		6.00	6,340	July 19, 1950	5.55	7,950			
1925	June 7, 1925	5.00	8,500	July 24, 1950	5.45	7,650			
	July 21, 1925	5.10	11,400	July 27, 1950	5.65	8,280			
	July 23, 1925	4.95	12,000	Aug. 29, 1950	6.50	11,500			
	Aug. 5, 1925	4.80	10,000	Sept. 14, 1950	5.20	6,900			
1926	July 11, 1926	5.00	13,400	Sept. 16, 1950	6.10	10,300			
1927	July 14, 1927	4.42	8,650	1951	June 18, 1951	5.45	6,990		
	July 21, 1927	8.80	49,000		July 12, 1951	6.33	10,000		
	Aug. 1, 1927	5.30	16,400		July 23, 1951	8.06	17,600		
	Aug. 3, 1927	5.50	18,000		Aug. 10, 1951	6.76	13,000		
	Aug. 8, 1927	5.60	18,800		Aug. 21, 1951	6.00	8,800		
	Aug. 19, 1927	4.40	9,800						
1928	May 11, 1928	7.50	25,000	1952	July 3, 1952	5.00	5,600		
	June 2, 1928	5.50	8,200						

Peak stages and discharges of Purgatoire River near Las Animas, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1953	July 3, 1953	6.18	8,520	1956	June 27, 1956	5.11	10,600	
	July 12, 1953	8.80	20,900		July 23, 1956	6.55	10,900	
	Aug. 18, 1953	4.70	6,120		Aug. 19, 1956	7.50	14,200	
1954	July 23, 1954	11.55	38,800	1957	June 2, 1957	4.75	5,520	
	Aug. 7, 1954	6.38	10,500		1958	May 25, 1958	4.90	6,150
	Aug. 13, 1954	-	8,100			June 20, 1958	5.43	7,520
1955	May 20, 1955	15.00	70,000	July 6, 1958	6.17	9,710		
	May 24, 1955	2.31	6,550	July 12, 1958	5.13	6,990		
	Aug. 7, 1955	2.57	7,850	Sept. 6, 1958	5.05	6,520		
	Aug. 11, 1955	4.79	20,500					

1295. Rule Creek near Caddoa, Colo.

Location.--Lat 38°00', long 103°04', in SE $\frac{1}{4}$ sec.36, T.23 S., R.51 W., 5 miles upstream from mouth and 9 miles southwest of Caddoa.

Drainage area.--435 sq mi.

Gage.--Recording. Altitude of gage is 3,890 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 1,700 cfs and extended on basis of slope-area measurement at 11,600 cfs.

Remarks.--One small diversion above station for irrigation, and one small storage reservoir above station. Regulation and diversion should not substantially affect maximum flows. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1941	Aug. 22, 1941	9.57	1,300	1949	June 5, 1949	20.05	11,600	
1942	June 22, 1942	7.19	738		1951	Aug. 20, 1951	19.20	9,500
1943	June 28, 1943	11.30	1,720	1955		May 19, 1955	17.15	4,810
1944	May 28, 1944	5.08	297			1956	July 19, 1956	12.26
1945	Aug. 15, 1945	9.05	1,110					
1946	Aug. 28, 1946	9.24	1,220					

1305. Arkansas River below John Martin Reservoir, Colo.
(Published as "at Caddoa" 1938-47)

Location.--Lat 38°05'00", long 102°55'10", in NW $\frac{1}{4}$ sec.4, T.23 S., R.49 W., 1 mile upstream from Caddoa Creek, $1\frac{1}{4}$ miles downstream from John Martin Dam, and 3 miles southeast of Hasty.

Drainage area.--18,917 sq mi, of which about 18,132 sq mi contributes directly to surface runoff.

Gage.--Recording. Prior to Feb. 22, 1940, at site 3 miles upstream at datum 22.83 ft higher; Feb. 22, 1940, to Feb. 4, 1943, at site 700 ft upstream at datum 3.64 ft higher. Datum of present gage is 3,737.40 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs and extended on basis of flow over dam and critical-depth measurement at 40,000 cfs.

Remarks.--Flow regulated by John Martin Reservoir since Dec. 10, 1943 (capacity, 645,500 acre-ft). Diversions above station for irrigation of about 438,000 acres of which some are below gage. Diversions and regulation should substantially affect maximum flows. Prior to 1950, records computed by Corps of Engineers and reviewed by Geological Survey. Only annual peaks are shown.

Peak stages and discharges of Arkansas River below John Martin Reservoir, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	July 18, 1938	5.85	11,800	1949	Aug. 11, 1949	3.33	1,390
1939	May 26, 1939	4.06	3,150	1950	Apr. 2, 1950	3.09	1,220
1940	Sept. 11, 1940	5.00	6,200	1951	Aug. 30, 1951	3.85	1,810
1941	May 3, 1941	6.40	12,800	1952	May 31, 1952	4.40	2,510
1942	Apr. 24, 1942	10.46	40,000	1953	July 13, 1953	4.03	2,300
1943	Oct. 19, 1942	3.66	5,270	1954	May 24, 1954	3.46	1,630
1944	May 31, 1944	6.17	4,640	1955	July 2, 1955	3.32	1,370
1945	Aug. 9, 1945	3.70	1,920	1956	Aug. 19, 1956	4.35	3,000
1946	Aug. 25, 1946	4.08	2,600	1957	May 16, 1957	3.78	1,860
1947	June 27, 1947	5.91	5,100	1958	Sept. 8, 1958	3.67	1,350
1948	July 14, 1948	3.42	1,440				

1310. Caddoa Creek at Caddoa, Colo.

Location.--Lat 38°03'40", long 102°55'05", in sec.9, T.23 S., R.49 W., 0.3 mile east of Caddoa, 1 mile east of John Martin Dam, and 2 miles upstream from mouth.

Drainage area.--131 sq mi.

Gage.--Recording. Altitude of gage is 3,740 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 110 cfs and extended above on basis of contracted-opening measurements at 6,840 cfs.

Remarks.--No important diversion above station. Base for partial-duration series, 320 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Aug. 14, 1942	4.45	751	1946	Aug. 23, 1946	5.34	1,050
1943	Aug. 15, 1943	2.98	317		Aug. 28, 1946	6.20	1,540
1944	May 28, 1944	3.42	436	1949	June 1949	9.42	a6,840
	Aug. 20, 1944	3.19	340	1956	July 19, 1956	-	b2,090
1945	July 10, 1945	8.20	4,200		Aug. 19, 1956	10.7	b11,800

a Annual peak only.

b By slope-area measurements; supplementary peaks not determined.

1330. Arkansas River at Lamar, Colo.

Location.--Lat 38°06'17", long 102°37'01", in SE $\frac{1}{4}$ sec.30, T.22 S., R.46 W., 150 ft downstream from bridge on U. S. Highways 50 and 287 and 1 mile north of Lamar.

Drainage area.--19,780 sq mi, of which about 18,830 sq mi contributes directly to surface runoff.

Gage.--Recording. Prior to June 4, 1941, at site 150 ft upstream at datum 1.00 ft higher; June 4, 1941, to Apr. 3, 1946, at site 650 ft downstream at same datum. Datum of last used gage was 3,603.88 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 10,000 cfs.

Remarks.--Natural flow affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversion for irrigation of about 487,000 acres, and return flow from irrigated areas. Storage and diversion should substantially affect maximum flows. Records for 1914-33 furnished by State engineer of Colorado. Only annual peaks are shown.

ARKANSAS RIVER BASIN

Peak stages and discharges of Arkansas River at Lamar, Colo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1913	June 7, 1913	4.15	3,200	1936	May 30, 1936	8.90	36,300
				1937	June 1, 1937	6.00	12,100
1915	Aug. 25, 1915	9.0	25,000	1938	Sept. 5, 1938	5.48	8,900
				1939	Feb. 21, 1939	3.63	956
1919	Aug. 2, 1919	6.2	7,500	1940	June 11, 1940	4.40	4,080
1920	July 8, 1920	8.0	25,000				
				1941	May 3, 1941	5.90	12,200
1921	June 5, 1921	-	130,000	1942	Apr. 24, 1942	8.77	40,000
1922	July 31, 1922	4.60	3,250	1943	Oct. 19, 1942	4.31	5,200
1923	June 17, 1923	8.40	30,000	1944	May 31, 1944	4.17	4,680
1924	Oct. 11, 1923	5.75	6,680	1945	July 10, 1945	4.75	4,780
1925	July 24, 1925	7.30	15,800				
				1946	May 11, 1946	2.82	1,580
1926	July 11, 1926	5.40	5,080	1947	June 27, 1947	4.48	5,240
1927	July 22, 1927	7.92	22,000	1948	June 20, 1948	2.20	910
1928	June 4, 1928	6.75	15,300	1949	June 5, 1949	7.26	24,900
1929	Aug. 8, 1929	8.90	45,300	1950	June 20, 1950	3.66	2,890
1930	Aug. 16, 1930	4.76	6,290				
				1951	July 22, 1951	2.74	1,920
1931	Oct. 4, 1930	5.55	10,000	1952	Aug. 29, 1952	1.54	611
1932	July 31, 1932	4.85	3,800	1953	Aug. 2, 1953	3.19	2,450
1933	May 5, 1933	6.65	16,800	1954	July 26, 1954	4.40	4,790
1934	Sept. 16, 1934	8.00	34,700	1955	Aug. 8, 1955	4.67	3,140
1935	May 20, 1935	6.40	15,500				

1355. Arkansas River at Holly, Colo.

Location.--Lat 38°02'37", long 102°07'09", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.15, T.23 S., R.42 W., 300 ft upstream from bridge on State Highway 89, half a mile upstream from Wild Horse Creek, and half a mile south of Holly.

Drainage area.--25,073 sq mi, of which about 23,425 sq mi contributes directly to surface runoff.

Gage.--Recording or nonrecording prior to Sept. 1, 1921, at site 300 ft downstream; recording thereafter at various sites within 900 ft. Prior to June 7, 1921, at different datum; June 7, 1921, to Apr. 25, 1942, at datum 0.86 ft higher; since Apr. 26, 1942, at datum of last used gage. Datum of last used gage is 3,377.95 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 1,100 cfs and extended above by logarithmic plotting.

Remarks.--Natural flow affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 500,000 acres, and return flow from irrigated areas. Regulation and diversions should substantially affect most maximum flows. Records for 1911-33 furnished by State engineer of Colorado. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1908	June 16, 1908	4.7	6,000	1923	Aug. 24, 1923	7.05	27,200
1909	Oct. 20, 1908	11.0	110,000	1924	Oct. 10, 1924	5.30	8,940
1910	Aug. 1, 1910	6.4	17,500	1925	July 21, 1925	7.00	23,000
				1926	July 12, 1926	3.63	2,200
1911	July 23, 1911	4.5	5,700	1927	July 14, 1927	6.64	19,900
				1928	June 4, 1928	5.80	13,000
1917	Aug. 14, 1917	5.2	8,500	1929	Aug. 8, 1929	5.58	30,300
1918	May 31, 1918	4.33	3,900	1930	Aug. 16, 1930	3.34	3,390
1919	Apr. 29, 1919	5.8	12,000				
1920	Aug. 4, 1920	5.4	9,500	1931	Oct. 6, 1930	3.92	6,060
				1932	June 5, 1932	4.48	9,500
1921	June 5, 1921	10.3	90,000	1933	Aug. 3, 1933	4.90	8,670
1922	Apr. 29, 1922	3.60	2,300				

Peak stages and discharges of Arkansas River at Holly, Colo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1934	Sept. 16, 1934	4.50	6,330	1944	June 4, 1944	5.64	5,170
1935	May 27, 1935	5.42	13,200	1945	Aug. 15, 1945	4.46	1,570
1936	May 30, 1936	6.80	22,700	1946	Aug. 29, 1946	4.66	2,100
1937	Sept. 8, 1937	6.26	17,300	1947	June 27, 1947	5.95	4,800
1938	July 19, 1938	5.80	13,100	1948	May 29, 1948	5.03	2,380
1939	May 28, 1939	3.78	750	1949	June 5, 1949	9.39	34,500
1940	Sept. 12, 1940	4.58	1,680	1949	June 21, 1950	5.40	7,420
1941	May 4, 1941	6.58	5,540	1951	May 15, 1951	11.08	59,900
1942	Apr. 25, 1942	11.05	35,800	1952	Aug. 21, 1952	4.00	1,480
1943	Oct. 20, 1942	6.69	5,430	1953	Aug. 20, 1953	5.35	3,070

1360. Wild Horse Creek at Holly, Colo.

(Published as "near Holly" prior to 1928 and as "at mouth near Holly" 1928-33)

Location.--Lat 38°02'45", long 102°07'05", in sec.14, T.23 S., R.42 W., at bridge on State Highway 89, a quarter of a mile southeast of Holly and half a mile upstream from mouth.

Drainage area.--272 sq mi.

Gage.--Recording or nonrecording prior to Apr. 9, 1931, at site 60 ft upstream at different datum; recording thereafter at last used site. Apr. 9, 1931, to Sept. 30, 1935, at datum 1.0 ft higher. Datum of last used gage was 3,380.36 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 220 cfs.

Remarks.--Flow is largely waste water from irrigation ditches. Diversions above station for irrigation of about 60 acres. Flow from waste water should substantially affect most maximum flows. Records for October 1927 to September 1933 furnished by State engineer of Colorado. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	Aug. 8, 1923	3.50	a201	1939	June 12, 1939	3.80	520
1924	Oct. 10, 1923	3.80	a216	1940	May 8, 1940	4.21	624
1925	Nov. 27, 1924	2.66	a108				
1926	June 15, 1926	5.00	450	1941	June 25, 1941	6.30	1,410
1927	July 10, 28, 1927	3.30	a150	1942	Oct. 23, 1941	5.31	720
1928	May 15, 17, Aug. 5	2.80	a125	1943	Oct. 13, 1942	4.49	266
1929	Aug. 11, 1929	2.97	170	1944	July 25, 1944	5.90	725
1930	May 18, 1930	2.00	a195	1945	June 26, 1945	5.01	360
1931	Oct. 11, 1930	5.80	600	1946	Aug. 27, 1946	4.80	251
1932	June 19, 1932	4.40	150	1947	May 18, 1947	5.17	314
1933	Aug. 27, 1933	7.0	300	1948	July 28, 1948	4.06	247
1934	July 7, 1934	4.30	82	1949	June 5, 1949	8.0	1,690
1935	Aug. 28, 1935	-	c22,000	1950	Sept. 17, 1950	2.9	395

a Maximum daily discharge.

c Determined at point 11 miles upstream.

1375. Arkansas River near Coolidge, Kans.

Location.--Lat 38°01'33", long 102°01'00", in NW $\frac{1}{4}$ sec.26, T.23 S., R.43 W., on right bank 1,560 ft upstream from county highway bridge, 1 mile south of Coolidge, 1 $\frac{1}{2}$ miles downstream from Colorado-Kansas State line, and at mile 1,099.5.

Drainage area.--25,410 sq mi, of which about 23,702 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Oct. 31, 1903; recording Mar. 1 to May 31, 1921, and since Oct. 1, 1950. Prior to Oct. 31, 1903, and Mar. 1 to May 31, 1921, at site 1,560 ft downstream at different datum. Datum of present gage is 3,333.84 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 11,000 cfs and extended to 60,000 cfs by logarithmic plotting. Shifts in relation occur.

Remarks.--Peak discharges affected by diversions for irrigation and since Jan.1, 1943, by storage in John Martin Reservoir. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	June 11, 1903	4.5	45,400	1955	May 20, 1955	8.08	13,200
1951	May 15, 1951	10.67	60,000	1956	Aug. 20, 1956	7.40	8,510
1952	Aug. 21, 1952	4.41	2,020	1957	May 16, 1957	8.35	13,400
1953	Aug. 20, 1953	5.39	3,510	1958	May 14, 1958	6.07	4,680
1954	Aug. 7, 1954	7.67	10,900				

1380. Arkansas River at Syracuse, Kans.
(Published as "near Syracuse" 1902-6)

Location.--Lat 37°58', long 101°45', in SW $\frac{1}{4}$ sec.18, T.24 S., R.40 W., at bridge on U. S. Highway 270, half a mile south of Syracuse and at mile 1,080.9.

Drainage area.--25,763 sq mi, of which about 23,906 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to July 31, 1906; recording thereafter. Prior to July 31, 1906, at different datum; June 20, 1921, to Sept. 30, 1929, at datum 2.0 ft higher; converted to present datum. Datum of gage is 3,212.32 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 53,000 cfs; shifts in relation occur.

Bankfull stage.--7 ft.

Historical data.--Flood of Oct. 20, 1908, was the greatest known according to the Syracuse Journal of Oct. 23, 1908, which states, "The Arkansas River flood of Oct. 19-20, 1908, has broken all records, and the oldest inhabitant is unable to recall anything equal to it in height--It had reached a depth of 12 feet in the channel, which was 3 feet above the highest record."

Remarks.--Peak discharges affected by diversions for irrigation and since Jan.1, 1943, by storage in John Martin Reservoir. Base for partial-duration series, 800 cfs.

Peak stages and discharges of Arkansas River at Syracuse, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1903	May 26, 1903	4.2	2,700	1929	Aug. 8, 1929	8.04	37,000	
	June 12, 1903	8.3	41,000	1930	Nov. 27, 1929	3.4	840	
	June 16, 1903	5.8	10,900		Feb. 6, 1930	3.5	820	
	Aug. 11, 1903	3.7	1,480		May 18, 1930	3.8	1,020	
1904	May 4, 1904	8.0	32,500		Aug. 16, 1930	5.04	4,030	
	May 22, 1904	5.6	9,150		Aug. 30, 1930	4.53	2,580	
	June 10, 1904	7.6	27,700		Sept. 11, 1930	3.48	988	
	June 22, 1904	8.1	33,800	1931	Oct. 4, 1930	5.44	5,650	
	July 12, 1904	4.8	4,950		Oct. 11, 1930	5.09	4,500	
	July 26, 1904	5.2	6,800		Nov. 27, 1930	3.60	1,020	
	Aug. 2, 1904	5.75	10,100		Mar. 30, 1931	5.50	5,600	
	Aug. 7, 1904	4.5	3,750		June 2, 1931	3.70	1,040	
		Aug. 18, 1904	6.15	12,900	1932	June 4, 1932	6.44	12,400
		Sept. 4, 1904	5.2	6,800		June 13, 1932	3.71	928
	1905	Oct. 1, 1904	8.7	43,700		June 22, 1932	3.93	1,230
Feb. 24, 1905		4.0	2,500	Aug. 1, 1932		4.18	1,960	
Apr. 3, 1905		5.7	9,800	1933	May 5, 1933	6.46	12,500	
Apr. 25, 1905		8.2	35,400		June 15, 1933	5.12	4,040	
Apr. 28, 1905		7.0	21,500		July 18, 1933	3.84	1,310	
May 13, 1905		4.6	4,150		Aug. 3, 1933	5.70	7,790	
May 25, 1905		6.6	17,200		Aug. 12, 1933	4.22	1,490	
June 8, 1905		5.4	7,900		Aug. 24, 1933	3.93	1,120	
June 29, 1905		5.0	5,800	Aug. 28, 1933	6.56	14,000		
Aug. 2, 1905		6.7	18,200	Sept. 13, 1933	5.71	6,260		
Aug. 28, 1905	3.5	1,500	1934	June 17, 1934	4.10	1,460		
Sept. 8, 1905	3.5	1,500		July 8, 1934	4.48	2,240		
1906	July 12, 1906	5.6		a9,600	July 27, 1934	4.43	2,070	
	Oct. 20, 1908	11.7		b130,000	Sept. 16, 1934	6.52	13,600	
1921	June 6, 1921	11.75	b62,000	1935	May 20, 1935	6.62	11,800	
1922	Apr. 30, 1922	4.7	700		May 28, 1935	7.30	17,400	
1923	May 23, 1923	6.9	10,400		June 1, 1935	6.60	11,600	
	June 10, 1923	6.36	8,250	June 20, 1935	3.60	1,380		
	June 18, 1923	7.4	14,300	June 28, 1935	4.70	3,300		
	July 13, 1923	3.95	980	July 8, 1935	3.87	1,900		
	July 18, 1923	4.6	2,090	July 12, 1935	7.38	18,300		
	July 28, 1923	5.4	4,010	July 23, 1935	6.06	10,500		
	Aug. 3, 1923	5.8	5,520	Aug. 28, 1935	6.55	14,600		
	Aug. 14, 1923	5.6	4,750	Sept. 8, 1935	4.21	2,380		
	Aug. 19, 1923	6.45	8,690	1936	May 10, 1936	7.11	13,200	
	Aug. 23, 1923	7.8	17,400		May 25, 1936	6.50	13,300	
	Sept. 20, 1923	5.7	4,570		May 31, 1936	8.58	19,400	
1924	Oct. 3, 1923	4.6	1,300		June 14, 1936	3.84	1,290	
	Oct. 10, 1923	6.57	8,860	July 31, 1936	7.72	18,900		
	Mar. 24, 1924	4.75	1,420	Aug. 9, 1936	8.01	18,400		
	Apr. 19, 1924	4.75	1,780	1937	June 2, 1937	6.68	8,700	
	June 11, 1924	4.85	2,060		June 9, 1937	3.87	2,020	
June 17, 1924	4.70	1,600	Sept. 8, 1937		7.68	17,000		
1925	June 7, 1925	6.50	12,700	1938	Apr. 27, 1938	4.11	2,230	
	July 5, 1925	5.24	3,550		May 7, 1938	3.50	1,420	
	July 24, 1925	6.70	15,400		May 24, 1938	3.96	1,050	
	July 28, 1925	6.60	10,400		May 31, 1938	5.35	5,140	
	Aug. 6, 1925	5.70	6,200		June 9, 1938	3.95	2,030	
	Aug. 15, 1925	4.15	1,000	June 18, 1938	4.95	3,660		
1926	June 19, 1926	4.64	1,600	June 20, 1938	5.56	6,010		
	July 12, 1926	4.67	1,480	July 19, 1938	6.70	10,500		
1927	July 14, 1927	7.50	13,500	Sept. 5, 1938	7.55	16,000		
	July 23, 1927	7.1	12,600	Sept. 13, 1938	5.06	3,980		
	Aug. 4, 1927	7.25	11,200	1939	May 3, 1939	3.92	1,160	
	Aug. 11, 1927	6.75	9,050		May 25, 1939	3.78	982	
1928	May 12, 1928	6.00	7,720	1940	May 29, 1940	3.70	810	
	June 4, 1928	6.65	10,400		June 7, 1940	3.87	1,080	
	June 12, 1928	6.45	9,280		June 12, 1940	4.70	2,230	
	June 30, 1928	5.85	6,240		Sept. 13, 1940	4.2	1,680	

a Maximum Oct. 1 to Nov. 30, 1905, Apr. 1 to July 31, 1906; probably maximum for year.
 b Annual peak only.

Peak stages and discharges of Arkansas River at Syracuse, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1941	Apr. 13, 1941	5.36	2,470	1948	July 28, 1948	4.05	980	
	May 4, 1941	7.44	7,610		Aug. 14, 1948	3.80	818	
	May 25, 1941	4.85	1,840		Sept. 7, 1948	4.62	1,480	
	June 2, 1941	4.91	1,910	1949	Apr. 27, 1949	4.10	1,090	
	June 9, 1941	5.00	2,020		May 6, 1949	3.94	890	
	June 26, 1941	4.48	1,380		June 5, 1949	11.2	38,000	
	July 6, 1941	4.56	1,530		June 9, 1949	4.58	2,600	
	July 16, 1941	5.08	1,830		Aug. 14, 1949	3.43	1,180	
	July 21, 1941	4.86	1,850		Aug. 19, 1949	4.28	2,120	
	Aug. 23, 1941	5.00	2,020		1950	Feb. 3, 1950	4.48	2,620
Aug. 26, 1941	6.02	3,740	June 12, 1950			3.51	1,220	
Sept. 25, 1941	6.22	4,180	June 21, 1950	5.35		4,420		
1942	Oct. 25, 1941	7.3	7,130	July 12, 1950		3.99	1,610	
	Jan. 22, 1942	4.30	1,320	July 21, 1950		4.02	1,870	
	Feb. 23, 1942	3.59	803	Aug. 3, 1950		3.26	1,030	
	Mar. 15, 1942	5.22	2,180	Aug. 18, 1950		4.18	2,140	
	Apr. 27, 1942	10.46	35,500	Sept. 17, 1950		3.91	1,690	
	June 1, 1942	5.58	4,080	1951		May 15, 1951	12.63	54,300
	June 10, 1942	6.76	6,760			May 22, 1951	2.50	1,180
	June 25, 1942	7.20	7,780		May 25, 1951	2.71	1,430	
	Aug. 18, 1942	6.60	7,080		June 11, 1951	2.88	1,630	
	Sept. 5, 1942	6.20	5,340		June 21, 1951	4.63	5,010	
1943	Oct. 19, 1942	5.89	4,170		June 25, 1951	2.90	1,650	
	Oct. 28, 1942	4.37	1,450		June 28, 1951	5.11	6,310	
	Dec. 21, 1942	4.08	1,110		July 23, 1951	2.56	1,250	
	Jan. 1, 1943	4.56	1,700		Aug. 8, 1951	3.60	2,490	
	Jan. 6, 1943	4.56	1,700		Aug. 13, 1951	2.49	999	
1944	May 2, 1944	4.91	2,050	Sept. 5, 1951	3.34	1,920		
	May 31, 1944	6.40	5,280	1952	Aug. 21, 1952	5.25	3,510	
	July 20, 1944	5.51	3,100		1953	July 23, 1953	3.82	1,560
	Aug. 18, 1944	3.98	900	Aug. 3, 1953		3.38	1,130	
	Sept. 3, 1944	4.09	990	Aug. 6, 1953		4.00	1,750	
1945	June 27, 1945	3.88	900	Aug. 21, 1953	5.01	3,160		
	July 12, 1945	4.70	1,760	1954	July 27, 1954	5.56	4,320	
	Aug. 16, 1945	4.76	1,760		Aug. 7, 1954	7.32	8,200	
1946	May 15, 1946	4.15	1,010		Aug. 16, 1954	2.75	898	
	May 29, 1946	4.39	1,340	1955	May 20, 1955	7.60	8,930	
	Aug. 29, 1946	4.98	1,890		July 4, 1955	3.18	1,200	
1947	May 30, 1947	5.61	3,220		Aug. 9, 1955	5.55	4,300	
	June 16, 1947	4.09	941		Aug. 13, 1955	3.58	1,580	
	June 27, 1947	6.39	4,980		1956	July 4, 1956	3.74	1,840
	July 14, 1947	6.56	4,980	July 7, 1956		3.07	1,190	
	July 26, 1947	4.85	1,670	July 20, 1956		4.87	3,360	
Aug. 14, 1947	4.49	1,340	Aug. 20, 1956	6.90	7,700			
Aug. 25, 1947	3.94	1,040	1948	May 24, 1948	5.32	2,400		
1948	May 29, 1948	5.13		2,310	May 29, 1948	12.19	13,800	
	June 21, 1948	4.05		1,050	1957	May 29, 1948	4.05	1,050
	July 18, 1948	4.82		1,890		May 15, 1958	6.84	5,240

c Occurred July 6, 1958.

1390. Arkansas River at Garden City, Kans.

Location.--Lat 37°57', long 100°52', in NW $\frac{1}{4}$ sec.19, T.24 S., R.32 W., at bridge on U. S. Highway 83, half a mile south of Garden City and at mile 1,024.2.

Drainage area.--27,071 sq mi, of which about 24,703 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 2,824.43 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 33,000 cfs; shifts in relation occur.

Flood stage.--6 ft.

Remarks.--Peak discharges affected by diversions for irrigation and since Jan. 1, 1943, by storage in John Martin Reservoir. Base for partial-duration series, 550 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Arkansas River at Garden City, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1923	May 24, 1923	7.15	15,400	1936	May 10, 1936	7.07	8,080		
	June 10, 1923	5.76	7,260		May 26, 1936	6.00	4,650		
	June 18, 1923	7.86	19,500		May 31, 1936	8.56	16,600		
	June 22, 1923	6.56	11,300		June 4, 1936	5.45	3,440		
	July 16, 1923	4.00	1,090		July 31, 1936	6.82	7,800		
	July 20, 1923	5.84	7,790		Aug. 9, 1936	7.73	11,300		
	July 28, 1923	5.12	4,100		1937	June 2, 1937	5.90	5,160	
	Aug. 4, 1923	5.30	4,910			Sept. 8, 1937	6.15	5,440	
	Aug. 7, 1923	4.55	2,040			1938	June 19, 1938	4.09	1,030
	Aug. 10, 1923	5.65	6,630				June 21, 1938	4.40	1,440
	Aug. 14, 1923	5.70	6,840		July 20, 1938		6.27	4,970	
	Aug. 19, 1923	7.43	16,700		Sept. 6, 1938		7.31	9,060	
	Aug. 24, 1923	7.82	19,200		Sept. 16, 1938		3.70	620	
	Sept. 20, 1923	5.25	4,480		1939	Mar. 13, 1939	3.58	548	
1924	Oct. 13, 1923	5.70	6,570	1940		July 1, 1940	2.89	77	
	Dec. 19, 1923	4.55	1,320		1941	May 4, 1941	6.30	4,820	
	Mar. 29, 1924	5.03	2,260	May 28, 1941		4.00	920		
	Apr. 19, 1924	4.90	1,970	June 8, 1941		4.89	2,680		
	Apr. 30, 1924	4.50	1,170	June 27, 1941		4.02	1,110		
June 22, 1924	4.30	800	July 17, 1941	4.5	1,670				
1925	July 24, 1925	6.60	11,600	Aug. 30, 1941	4.3	1,340			
	July 29, 1925	5.90	6,700	Sept. 26, 1941	4.2	1,190			
	July 31, 1925	5.75	5,620	1942	Oct. 26, 1941	6.20	6,700		
	Aug. 7, 1925	5.47	4,380		Jan. 25, 1942	4.5	1,790		
1926	Feb. 20, 1926	3.73	164		Feb. 24, 1942	5.74	4,850		
	1927	July 15, 1927	6.57		7,090	Mar. 16, 1942	4.80	2,220	
		July 23, 1927	7.71		12,600	Apr. 28, 1942	8.87	31,400	
		Aug. 1, 1927	6.58		8,210	May 23, 1942	4.4	1,790	
		Aug. 4, 1927	7.60		13,200	June 2, 1942	4.79	2,770	
		Aug. 11, 1927	6.50		7,850	June 10, 1942	6.35	6,880	
Aug. 15, 1927		6.75	8,980		June 26, 1942	6.65	8,200		
Aug. 21, 1927	4.88	2,130	Aug. 17, 1942		5.97	5,730			
1928	May 13, 1928	5.73	6,820	Sept. 5, 1942	5.43	4,040			
	June 4, 1928	7.30	15,000	1943	Oct. 20, 1942	5.53	4,300		
	June 12, 1928	6.60	12,300		Jan. 2, 1943	4.67	1,860		
	June 23, 1928	4.3	1,510	1944	May 3, 1944	4.75	1,740		
	July 1, 1928	5.05	3,770		June 1, 1944	6.40	7,530		
1929	Dec. 29, 1928	3.77	742		July 25, 1944	4.93	2,370		
	Jan. 2, 1929	3.81	793	1945	July 13, 1945	4.23	686		
	Mar. 3, 1929	4.00	910		1946	Jan. 2, 1946	4.08	468	
	Aug. 9, 1929	7.74	21,200	1947		Oct. 8, 1946	4.87	758	
1930	Nov. 29, 1929	3.60	880		Nov. 11, 1946	4.55	670		
	1931	Oct. 7, 1930	5.06		4,140	Mar. 16, 1947	4.57	686	
		Oct. 12, 1930	5.50		5,410	May 31, 1947	5.78	3,640	
		Dec. 1, 1930	3.85		845	June 26, 1947	6.16	4,870	
		Dec. 3, 1930	3.83		819	July 15, 1947	6.22	5,200	
Apr. 2, 1931		4.58	2,200	July 27, 1947	4.7	1,950			
1932	June 5, 1932	6.03	4,750	1948	Mar. 16, 1948	4.49	835		
	1933	May 6, 1933	6.32		7,700	May 31, 1948	4.26	620	
		Aug. 4, 1933	3.90		1,110	June 28, 1948	4.00	575	
		Aug. 29, 1933	7.10		7,700	July 20, 1948	4.52	688	
Sept. 14, 1933		5.08	2,830		Aug. 15, 1948	4.66	885		
1934	Sept. 17, 1934	5.35	2,660		Sept. 9, 1948	3.93	575		
	1935	May 21, 1935	7.1		8,200	1949	Feb. 21, 1949	4.35	725
May 28, 1935		6.7	6,700	May 8, 1949	4.22		645		
June 2, 1935		7.3	9,060	June 7, 1949	9.42		29,200		
June 29, 1935		3.7	1,130	June 13, 1949	4.92		1,970		
July 12, 1935		6.95	7,610	Aug. 20, 1949	4.41		1,380		
July 24, 1935		5.4	3,590						
Aug. 29, 1935		5.2	2,680						

ARKANSAS RIVER BASIN

Peak stages and discharges of Arkansas River at Garden City, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1950	June 22, 1950	4.40	1,290	1954	July 29, 1954	4.56	1,190	
	July 13, 1950	3.55	370		Aug. 8, 1954	7.26	7,840	
	July 31, 1950	4.16	1,100	1955	Apr. 13, 1955	4.72	1,400	
	Aug. 5, 1950	5.03	2,170		May 21, 1955	7.64	9,500	
	Aug. 7, 1950	4.23	1,190		Aug. 11, 1955	4.58	1,220	
	Aug. 13, 1950	3.73	732		1956	May 28, 1956	5.88	3,500
	Aug. 19, 1950	4.40	1,370	Aug. 22, 1956		4.60	1,160	
	Sept. 19, 1950	4.18	1,200	1957		May 18, 1957	5.96	4,220
	1951	May 16, 1951	9.57		33,500	May 31, 1957	5.76	3,520
May 21, 1951		5.33	4,040		June 14, 1957	3.94	812	
June 7, 1951		2.85	740		June 24, 1957	5.81	3,620	
June 13, 1951		3.95	1,640		1958	May 16, 1958	5.48	2,700
June 22, 1951		5.20	3,700			May 18, 1958	4.31	1,300
June 29, 1951		5.69	5,020	May 24, 1958		4.66	1,610	
Aug. 9, 1951		3.72	1,100	June 2, 1958		3.35	560	
Sept. 7, 1951		4.09	1,260	July 7, 1958		5.54	2,800	
1952		Jan. 1, 1952	2.98	616		Aug. 2, 1958	3.96	1,050
1953	Aug. 22, 1953	4.99	3,090					

1395. Arkansas River at Dodge City, Kans.
(Published as "near Dodge" 1904-6)

Location.--Lat 37°45', long 100°01', in NE¹ sec.35, T.26 S., R.25 W., at Second Street bridge in Dodge City, at mile 970.2.

Drainage area.--30,600 sq mi, of which about 25,017 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to December 1932 and Sept. 1 to Nov. 5, 1944; recording thereafter. Prior to 1932 at datum about 5 ft higher; gage readings increased 5.0 ft to correspond approximately with those of present gage. Datum of present gage is 2,467.71 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur. Discharge for 1942 is based on subsequent stage-discharge relation and is approximate.

Bankfull stage.--10 ft.

Remarks.--Peak discharges affected somewhat by diversions for irrigation and since Jan. 1, 1943, by storage in John Martin Reservoir. Only annual peak stages for 1909-1932 furnished by U. S. Weather Bureau. Base for partial-duration series, 500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1903	Mar. 20, 1903	7.35	1,300	1905	June 20, 1905	8.8	4,680		
	June 13, 1903	11.25	17,300		July 31, 1905	7.7	1,370		
	June 22, 1903	8.70	4,150		Aug. 4, 1905	8.9	4,990		
1904	May 5, 1904	8.5	2,650	1906	Apr. 1, 1906	-	750		
	May 24, 1904	8.65	4,300		Apr. 24, 1906	7.1	1,130		
	June 11, 1904	10.0	9,950		May 2, 1906	7.6	2,000		
	June 15, 1904	9.8	8,900		July 18, 1906	10.5	12,700		
	June 23, 1904	10.3	11,500		1909	Oct. 21, 1908	13.35	-	
	Aug. 22, 1904	8.3	3,250	1910		Aug. 2, 1910	10.5	-	
	1905	Oct. 2, 1904	12.0		16,400	1911	May 28, 1911	6.2	-
Feb. 27, 1905		7.85	2,530		1912		Aug. 1, 1912	10.5	-
Apr. 4, 1905		9.1	6,150			1913	Mar. 6, 1913	6.2	-
Apr. 26, 1905		11.5	19,000						
May 13, 1905		8.8	5,150						
May 22, 1905		10.5	12,700						
May 29, 1905		11.6	19,600						
June 9, 1905		9.2	6,500						

Peak stages and discharges of Arkansas River at Dodge City, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	May 3, 1914	11.7	-	1949	May 16, 1949	4.16	565
1915	Aug. 26, 1915	10.8	-	May 23, 1949	4.91	630	
1916	Feb. 16, 1916	8.2	-	June 8, 1949	13.29	16,200	
1917	At times	5.0	-	Aug. 21, 1949	4.62	920	
1918	At times	5.6	-	1950	Oct. 10, 1949	5.63	1,950
1919	Apr. 30, 1919	7.8	-	July 24, 1950	4.59	828	
1920	Jan. 8, 1920	7.6	-	July 27, 1950	9.73	8,060	
1921	June 7, 1921	12.0	-	Aug. 2, 1950	4.52	828	
1922	Mar. 11, 1922	6.3	-	Aug. 8, 1950	4.94	1,240	
1923	Aug. 24, 1923	10.8	-	Aug. 20, 1950	4.87	1,170	
1924	Feb. 8, 1924	11.3	-	Aug. 27, 1950	6.73	3,270	
1925	July 25, 1925	8.6	-	Aug. 30, 1950	4.72	1,020	
1926	Jan. 18-20, 1926	4.9	-	Sept. 16, 1950	4.63	930	
1927	Aug. 5, 1927	10.3	-	Sept. 20, 1950	4.60	900	
1928	June 5, 1928	9.5	-	1951	Oct. 2, 1950	6.84	3,230
1929	Aug. 9, 1929	9.9	-	Apr. 27, 1951	4.78	906	
1930	Dec. 3, 1929	8.5	-	May 16, 1951	7.32	3,710	
1931	Oct. 13, 1930	7.3	-	May 18, 1951	12.54	19,700	
1932	June 6, 1932	7.3	-	May 22, 1951	9.87	8,620	
1942	Apr. 28, 1942	12.75	b21,000	June 9, 1951	5.67	1,550	
1945	Feb. 6, 1945	4.87	690	June 13, 1951	5.81	1,690	
1946	May 28, 1946	4.56	422	June 21, 1951	5.67	1,550	
1947	Oct. 6, 1946	5.69	1,290	June 23, 1951	6.88	3,010	
Nov. 12, 1946	4.93	693	1956	June 30, 1951	7.82	4,450	
Mar. 18, 1947	4.71	590	May 31, 1956	July 11, 1951	7.10	3,320	
Apr. 9, 1947	4.83	664	1957	July 23, 1951	4.62	600	
May 27, 1947	6.78	2,350	May 20, 1955	Aug. 10, 1951	4.95	865	
June 5, 1947	9.31	7,200	May 22, 1955	Sept. 8, 1951	5.36	1,240	
June 29, 1947	7.62	4,050	June 16, 1955	1952	Jan. 14, 1952	-	a700
July 16, 1947	7.83	4,630	1958	1953	Aug. 26, 1953	4.05	440
July 29, 1947	5.10	800	May 20, 1955	1954	Aug. 10, 1954	5.83	948
1948	Mar. 18, 1948	4.73	610	May 20, 1955	6.74	1,870	
1949	Feb. 12, 1949	4.76	630	May 22, 1955	8.43	4,340	
Feb. 18, 1949	4.93	698	June 16, 1955	June 16, 1955	5.93	1,020	
				1956	May 31, 1956	3.74	191
				1957	May 20, 1957	6.82	2,040
				June 1, 1957	5.91	1,070	
				June 12, 1957	5.44	730	
				June 25, 1957	6.64	1,830	
				July 24, 1957	5.25	650	
				Sept. 14, 1957	5.23	642	
				1958	May 14, 1958	5.62	942
				May 18, 1958	6.42	1,460	
				May 25, 1958	5.65	985	
				June 24, 1958	4.77	576	
				July 5, 1958	4.80	590	
				July 9, 1958	6.51	1,530	
				July 13, 1958	5.05	702	

a Backwater from ice.

b Annual peak only.

1400. Arkansas River near Kinsley, Kans.

Location--Lat 37°56', long 99°22', on south line sec.26, T.24 S., R.19 W., at bridge on U. S. Highway 50, 2 miles east of Kinsley and at mile 920.3.

Drainage area--31,066 sq mi, of which about 25,406 sq mi contributes directly to surface runoff.

Gage--Nonrecording prior to Nov. 9, 1944; recording thereafter. Datum of gage is 2,144.64 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements; shifts in relation occur.

Remarks--Peak discharges affected somewhat by diversions for irrigation and since Jan. 1, 1943, by storage in John Martin Reservoir. Base for partial-duration series, 500 cfs.

Peak stages and discharges of Arkansas River near Kinsley, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Feb. 8, 1945	4.20	350	1951	June 21, 1951	6.78	2,220
1946	Jan. 5, 1946	4.20	352		June 24, 1951	7.13	2,620
1947	Oct. 8, 1946	5.71	1,310		July 1, 1951	9.33	6,310
	Apr. 11, 1947	7.62	3,560		July 11, 1951	8.07	3,930
	May 29, 1947	6.19	1,770		July 26, 1951	4.48	540
	June 6, 1947	8.17	4,490		Aug. 14, 1951	4.55	575
	June 30, 1947	7.52	3,410	1952	Sept. 10, 1951	5.82	1,360
	July 17, 1947	7.97	4,170		Apr. 19, 1952	6.52	al,960
1948	Feb. 28, 1948	6.34	1,850	1953	Jan. 9, 1953	4.30	460
	Mar. 19, 1948	5.01	689	1954	Aug. 14, 1954	4.08	320
	June 28, 1948	4.72	531	1955	May 20, 1955	8.43	4,210
	Aug. 13, 1948	4.74	553		May 22, 1955	8.16	3,760
1949	Feb. 10, 1949	5.44	1,060		May 27, 1955	6.31	1,490
	May 18, 1949	5.17	878		June 3, 1955	6.66	1,920
	May 25, 1949	5.24	920		June 17, 1955	5.10	860
	June 10, 1949	11.09	11,300		June 20, 1955	5.38	1,000
	Sept. 4, 1949	7.14	2,580	1956	Mar. 5, 1956	-	206
	1950	Oct. 10, 1949	8.86	5,050	1957	May 21, 1957	5.86
	July 28, 1950	6.94	2,380		June 3, 1957	4.80	607
	Aug. 3, 1950	4.90	765		June 25, 1957	5.29	810
	Aug. 7, 1950	6.18	1,720		June 27, 1957	6.05	1,280
	Aug. 12, 1950	5.50	1,000		Sept. 15, 1957	5.67	1,100
	Aug. 21, 1950	4.77	715	1958	May 20, 1958	5.42	840
	Aug. 28, 1950	5.87	1,640		May 27, 1958	5.15	730
	Sept. 18, 1950	5.40	1,350		June 18, 1958	5.55	905
	Sept. 21, 1950	4.56	765		June 26, 1958	6.72	1,630
1951	Oct. 3, 1950	5.80	1,500		July 8, 1958	5.47	860
	Feb. 11, 1951	4.62	672		July 11, 1958	5.73	970
	Apr. 28, 1951	5.13	991		July 17, 1958	5.26	754
	May 19, 1951	11.20	11,700		July 22, 1958	4.91	616
	May 23, 1951	11.05	11,100				
	June 11, 1951	5.88	1,400				

a Annual peak only.

1405. Arkansas River at Larned, Kans.

Location.--Lat 38°10', long 99°06', in NE $\frac{1}{4}$ sec. 5, T.22 S., R.16 W., at bridge on State Highway 19 at Larned, about 800 ft upstream from mouth of Pawnee River and at mile 897.4.

Drainage area.--31,750 sq mi, of which about 26,017 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 1,990.12 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 9,800 cfs and extended to 14,300 cfs by logarithmic plotting. Relation affected at times by backwater from Pawnee River. Shifts in relation occur.

Remarks.--Peak discharges affected somewhat by diversions for irrigation. Base for partial-duration series, 500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1923	May 25, 1923	6.25	3,020	1924	Oct. 11, 1923	8.16	8,910	
	June 12, 1923	6.98	5,070		Dec. 24, 1923	5.13	970	
	June 19, 1923	8.19	9,020		Mar. 27, 1924	6.06	2,510	
	June 23, 1923	7.70	7,330		Apr. 29, 1924	6.56	3,240	
	July 21, 1923	6.54	4,610	1925	July 26, 1925	6.56	3,920	
	Aug. 6, 1923	6.16	3,140		Aug. 2, 1925	6.31	3,320	
	Aug. 12, 1923	6.40	3,670		Aug. 10, 1925	5.63	2,060	
	Aug. 17, 1923	8.95	12,200		1926	Jan. 31, 1926	4.41	544
	Aug. 20, 1923	8.40	9,800			1927	Apr. 8, 1927	6.75
	Aug. 25, 1923	9.5	14,300	July 26, 1927			6.95	4,800
	Sept. 21, 1923	7.35	6,220					
	1924	Oct. 8, 1923	7.13	5,840				

Peak stages and discharges of Arkansas River at Larned, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Aug. 5, 1927	9.20	13,000	1935	July 16, 1935 Aug. 31, 1935	3.47 -	1,130 1,200
1928	May 16, 1928 June 5, 1928 June 13, 1928 July 4, 1928	5.58 8.45 7.47 5.30	2,820 11,200 7,960 1,870	1936	May 12, 1936 May 29, 1936 June 3, 1936 Aug. 2, 1936 Aug. 12, 1936	5.45 4.0 7.92 5.83 7.74	2,690 1,430 5,980 3,320 6,040
1929	Aug. 9, 1929	8.47	11,400	1937	June 5, 1937 July 10, 1937 July 19, 1937 Sept. 12, 1937	3.64 3.37 3.14 3.62	1,430 886 702 1,480
1930	Dec. 2, 1929 Feb. 8, 1930	3.59 3.59	760 760	1938	May 24, 1938 July 22, 1938 Sept. 8, 1938	2.69 2.43 4.15	624 558 1,690
1931	Oct. 14, 1930 Apr. 4, 1931	5.29 4.20	2,450 1,400	1939	July 3, 1939	4.76	1,530
1932	June 8, 1932 June 28, 1932 July 6, 1932	3.85 3.25 7.02	1,220 571 5,600	1940	Mar. 4, 1940 Apr. 18, 1940 May 9, 1940 May 20, 1940 June 9, 1940	2.60 3.0 5.73 4.12 6.07	617 810 3,370 990 2,430
1933	May 8, 1933 Sept. 3, 1933	5.74 4.80	3,580 2,680				
1934	Sept. 1, 1934	3.27	326				
1935	May 22, 1935 May 29, 1935	7.5 8.5	a5,430 9,000				

a Backwater from Pawnee River.

1412. Pawnee River near Larned, Kans.

Location.--Lat 38°11', long 99°20', on south line of sec.29, T.21 S., R.18 W., in pool of Moffet Dam, at bridge on U. S. Highway 156, 1 mile west of Sanford, 13 miles west of Larned, and 23.3 miles upstream from mouth.

Drainage area.--2,148 sq mi, of which 2,010 sq mi contributes directly to surface runoff. Drainage area 38 sq mi greater at previous sites.

Gage.--Recording. Prior to May 15, 1933, at site about 1.3 miles downstream at datum 8.33 ft lower; May 16, 1933, to Feb. 17, 1949, at site about 1.4 miles downstream at datum 11.43 ft lower. Datum of present gage is 2,032.73 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Relation affected by rate of change in stage. Shifts in relation occur.

Remarks.--Figures shown for flood of May 28, 1935, include flow bypassed in Saw Mill Creek. Peak discharges not appreciably affected by diversions above station. Base for partial-duration series, 900 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1925	Apr. 4, 1925	17.94	2,140	1934	May 26, 1934 June 19, 1934 Aug. 26, 1934 Aug. 31, 1934	14.55 15.19 13.07 17.44	1,200 1,330 942 1,820
1926	Sept. 16, 1926	9.08	688	1935	May 15, 1935 May 21, 1935 May 28, 1935 June 17, 1935 Aug. 24, 1935 Aug. 31, 1935 Sept. 3, 1935	15.92 20.55 31.96 22.37 15.65 16.26 14.2	1,480 2,740 14,000 3,310 1,420 1,570 1,140
1927	June 4, 1927	-	2,000	1936	May 11, 1936 May 31, 1936	19.00 19.64	2,060 2,010
1928	July 2, 1928	-	1,770	1937	July 20, 1937	13.93	1,080
1929	May 13, 1929	21.70	3,880	1938	May 25, 1938 June 1, 1938 June 18, 1938 June 22, 1938	13.14 20.0 16.60 15.62	945 2,570 1,660 1,450
1930	June 11, 1930	12.2	1,140				
1931	Oct. 7, 1930 Oct. 16, 1930 Apr. 15, 1931	13.25 13.32 16.9	1,230 1,240 2,040				
1932	July 6, 1932	14.5	1,520				
1933	Apr. 23, 1933 May 22, 1933 May 26, 1933 Aug. 20, 1933	21.7 21.76 23.37 14.30	3,880 3,150 3,640 1,210				

ARKANSAS RIVER BASIN

Peak stages and discharges of Pawnee River near Larned, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Sept. 6, 1938	13.10	938	1949	June 6, 1949	11.78	1,130
					June 14, 1949	22.09	4,800
1939	July 2, 1939	21.70	3,080	1950	Oct. 11, 1949	19.03	3,430
1940	Apr. 17, 1940	16.50	1,190		Aug. 2, 1950	24.15	5,850
	May 20, 1940	21.06	2,480		Aug. 9, 1950	22.08	4,800
	June 9, 1940	29.83	6,960		Aug. 13, 1950	26.86	8,230
	July 5, 1940	14.88	958		Aug. 31, 1950	26.63	7,630
1941	Nov. 1, 1940	15.40	1,060	1951	Oct. 3, 1950	26.17	6,930
	June 11, 1941	15.75	1,230		Apr. 30, 1951	12.62	1,260
	June 30, 1941	16.59	1,380		May 18, 1951	20.11	3,900
1942	Aug. 4, 1942	16.14	1,320		May 23, 1951	26.68	7,790
	Aug. 22, 1942	24.53	4,010		June 3, 1951	16.16	2,340
1943	June 9, 1943	18.08	1,770		June 9, 1951	14.60	1,850
	Sept. 5, 1943	29.07	6,390		June 13, 1951	26.06	6,820
1944	Oct. 25, 1943	15.52	1,240		June 23, 1951	27.54	9,510
	Apr. 12, 1944	18.32	1,830		July 1, 1951	26.98	8,390
	Apr. 24, 1944	16.40	1,410		July 11, 1951	27.52	9,470
	May 4, 1944	20.28	2,350	1952	July 25, 1951	11.57	992
	May 15, 1944	19.41	2,100		Sept. 10, 1951	11.70	1,020
	May 30, 1944	24.62	4,060	1953	Apr. 21, 1952	15.35	2,110
	Aug. 23, 1944	15.82	1,290		Aug. 3, 1953	25.89	6,700
	Aug. 25, 1944	19.79	2,210	1953	Aug. 7, 1953	14.23	1,740
1945	Sept. 30, 1945	13.37	884	1954	Apr. 25, 1954	11.40	950
1946	Sept. 8, 1946	22.56	3,140	1955	May 22, 1955	15.01	2,200
	Sept. 30, 1946	19.09	2,030		May 28, 1955	10.78	998
1947	Oct. 10, 1946	30.91	8,610	1956	June 18, 1955	19.12	3,670
	Oct. 17, 1946	13.85	908		July 7, 1956	13.00	1,100
	Nov. 5, 1946	14.56	1,040	1957	June 15, 1957	12.34	955
	Apr. 10, 1947	18.62	1,850		June 24, 1957	14.95	1,610
	May 19, 1947	17.84	1,660		June 28, 1957	22.82	4,710
	June 7, 1947	17.53	1,590		July 28, 1957	15.07	1,640
1948	June 29, 1948	24.00	3,300		Sept. 16, 1957	18.77	2,910
	July 20, 1948	29.13	5,520	1958	May 17, 1958	15.95	2,330
	Aug. 8, 1948	15.96	1,300		June 27, 1958	16.39	2,490
	Aug. 12, 1948	29.43	5,660		July 7, 1958	20.15	4,080
1949	Feb. 19, 1949	11.55	1,090		July 20, 1958	19.56	3,800
	May 19, 1949	10.96	960		July 28, 1958	28.22	16,300
	May 27, 1949	11.34	1,020		Aug. 2, 1958	13.85	1,600
	May 30, 1949	14.33	1,760		Aug. 22, 1958	12.50	1,200

1413. Arkansas River at Great Bend, Kans.

Location.--Lat 38°21', long 98°46', in SE¹ sec. 33, T.19 S., R.13 W., at bridge on U. S. Highway 281, half a mile south of Great Bend, 4½ miles upstream from Walnut Creek, and at mile 873.2.

Drainage area.--34,356 sq mi, of which about 28,354 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 1,839.82 ft above mean sea level (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements. Relation affected by breaks in levees at high stages; shifts in relation occur.

Bankfull stage.--9 ft prior to 1923; 8 ft thereafter.

Historical data.--The flood of June 10, 1921, was "2.7 ft above flood stage and about 1.5 ft above the highest previously known in the past 50 years," according to U. S. Weather Bureau Climatological Data of July 1921.

Remarks.--Peak discharges not appreciably affected by diversions for irrigation or by storage in John Martin Reservoir, which began January 1943. Base for partial-duration series, 800 cfs.

Peak stages and discharges of Arkansas River at Great Bend, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1895	July 26, 1895	a9.8	-	1948	Aug. 9, 1948	5.78	2,000
1912	May 4, 1912	a8.5	-	Aug. 15, 1948	9.60	7,120	
1921	June 10, 1921	a11.7	-	1949	Feb. 12, 1949	6.18	2,000
1923	Aug. 26, 1923	a10.8	-	Feb. 20, 1949	5.92	1,910	
1924	Oct. 12, 1923	a10.2	-	May 20, 1949	5.77	1,780	
1927	Aug. 6, 1927	a9.4	-	May 31, 1949	6.38	2,380	
1928	June 6, 1928	a5.7	-	June 6, 1949	7.06	3,080	
1929	Aug. 10, 1929	a8.8	-	June 13, 1949	10.14	7,850	
1932	July 7, 1932	a8.2	-	Sept. 5, 1949	5.62	1,640	
1933	May 28, 1933	a7.3	-	1950	Oct. 11, 1949	8.80	4,720
1935	May 30, 1935	a10.1	-	July 29, 1950	6.78	2,420	
1936	June 2, 1936	a9.2	-	Aug. 1, 1950	9.56	6,050	
1941	June 11, 1941	7.05	3,120	Aug. 11, 1950	8.65	4,430	
	June 29, 1941	8.30	4,720	Aug. 17, 1950	9.96	7,630	
	July 27, 1941	4.39	918	Sept. 2, 1950	9.75	7,500	
1942	Oct. 29, 1941	6.35	2,400	Sept. 19, 1950	5.13	1,320	
	Nov. 19, 1941	4.96	1,150	1951	Oct. 5, 1950	9.53	6,160
	Jan. 28, 1942	4.76	967	Feb. 19, 1951	4.94	1,240	
	Mar. 6, 1942	4.7	925	Apr. 29, 1951	5.60	1,770	
	Mar. 19, 1942	5.05	1,180	May 22, 1951	10.63	10,400	
	May 1, 1942	10.34	20,200	May 25, 1951	11.06	13,900	
	June 29, 1942	8.61	5,860	June 4, 1951	6.75	3,280	
	Aug. 5, 1942	4.63	1,290	June 9, 1951	6.89	3,460	
	Aug. 24, 1942	7.93	4,910	June 15, 1951	9.37	7,540	
	Sept. 8, 1942	6.08	2,690	June 25, 1951	10.64	10,600	
1943	Oct. 24, 1942	5.76	2,390	July 2, 1951	10.76	11,000	
	Nov. 1, 1942	4.60	1,050	July 14, 1951	10.67	12,800	
	Dec. 26, 1942	4.56	1,020	July 26, 1951	5.30	1,730	
	Jan. 6, 1943	4.90	1,300	Aug. 13, 1951	4.68	1,280	
	June 11, 1943	5.00	1,480	Sept. 11, 1951	5.76	2,160	
	Sept. 6, 1943	8.28	5,260	1952	Apr. 11, 1952	4.63	934
1944	Oct. 26, 1943	4.38	829	Apr. 20, 1952	6.18	1,940	
	Apr. 13, 1944	6.50	2,710	Apr. 21, 1952	6.29	2,030	
	Apr. 25, 1944	6.15	2,350	Apr. 22, 1952	6.29	2,030	
	May 4, 1944	9.60	7,120	May 4, 1952	4.65	906	
	May 16, 1944	6.62	2,840	May 25, 1952	5.08	1,170	
	June 3, 1944	7.96	4,530	1953	July 13, 1953	5.01	970
	July 18, 1944	4.74	1,120	Aug. 5, 1953	8.23	4,630	
	July 26, 1944	8.10	4,720	Aug. 9, 1953	5.89	1,710	
	Aug. 26, 1944	6.82	3,070	1954	Apr. 26, 1954	4.12	622
1945	Oct. 6, 1944	4.26	735	1955	May 21, 1955	6.23	3,040
1946	Sept. 10, 1946	6.85	2,990	May 23, 1955	7.67	5,190	
1947	Oct. 2, 1946	5.57	1,770	June 5, 1955	5.11	1,690	
	Oct. 11, 1946	9.06	4,800	June 20, 1955	7.02	4,130	
	Oct. 19, 1946	5.12	1,480	1956	July 9, 1956	4.56	642
	Nov. 7, 1946	5.08	1,440	1957	May 20, 1957	4.50	872
	Mar. 2, 1947	4.57	1,040	May 22, 1957	4.50	872	
	Apr. 11, 1947	8.49	5,310	June 16, 1957	5.04	1,340	
	May 19, 1947	6.02	1,820	June 25-26, 1957	5.99	2,430	
	June 6, 1947	8.91	5,940	July 1, 1957	8.34	6,920	
	June 22, 1947	4.88	1,240	July 24, 1957	4.51	839	
	July 1, 1947	7.11	3,170	July 29, 1957	5.62	1,980	
	July 17, 1947	7.40	3,410	Sept. 17, 1957	7.63	5,070	
1948	Feb. 29, 1948	6.00	2,140	1958	Mar. 31, 1958	5.25	1,420
	Mar. 20, 1948	5.51	1,600	Apr. 4, 1958	4.62	866	
	June 30, 1948	8.33	5,010	May 6, 1958	4.69	974	
	July 20, 1948	8.95	6,100	May 10, 1958	4.79	1,060	
				May 18, 1958	6.24	2,720	
				June 20, 1958	4.62	938	
				June 25, 1958	4.74	1,060	
				June 28, 1958	6.70	3,360	
				July 9, 1958	8.23	5,800	
				July 21, 1958	7.17	4,180	
				July 24, 1958	6.14	2,590	
				July 28, 1958	10.00	10,500	
				July 30, 1958	11.47	15,800	
				Aug. 23, 1958	4.93	1,240	

a From information by U. S. Weather Bureau; adjusted to present datum.

1428. Arkansas River at Hutchinson, Kans.

Location.--Lat 38°02', long 97°56', in NW¼ sec.24, T.23 S., R.6 W., at highway bridge on South Main Street in Hutchinson, at mile 812.0.

Drainage area.--Prior to July 1929: 37,869 sq mi, of which about 30,930 sq mi contributes directly to surface runoff. Since July 1929: about 38,821 sq mi, of which about 31,635 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. Datum of gage was 1,521.7 ft (unadjusted) above mean sea level (levels by U. S. Weather Bureau). Since Jan. 1, 1927, at datum 3.85 ft lower. Gage heights shown for 1914 and 1921 converted to last used datum.

Stage-discharge relation.--Defined by current-meter measurements below 13,000 cfs and extended to 20,000 cfs by logarithmic plotting. Shifts in relation occur. Discharges after 1905 based on 9 current-meter measurements by Corps of Engineers and records for stations upstream and downstream.

Bankfull stage.--6 ft, last used datum.

Historical data.--Flood of May 3, 1942, "reached 8.7 feet----0.3 feet higher than previous highwater mark established in 1927," according to the U. S. Weather Bureau Climatological Data of May 1942.

Flood of June 15, 1949, was "8.2 feet---half a foot under the record peak of May 3, 1942," according to U. S. Weather Bureau Climatological Data of June 1949.

Flood of May 27, 1951, "rose to 9.2 feet---, half a foot higher than in May 3, 1942," according to U. S. Weather Bureau Climatological Data of May 1951.

Remarks.--Peak discharges not appreciably affected by diversions for irrigation or by storage in John Martin Reservoir, which began January 1943. Cow Creek entered Arkansas River 7 miles downstream prior to July 1929 and three-quarters of a mile upstream thereafter. Base for partial-duration series, 1,600 cfs. Only annual peaks are shown since 1914, furnished by U. S. Weather Bureau.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1895	June 19, 1895	3.65	2,400	1905	Oct. 5, 1904	4.95	9,420	
	July 8, 1895	4.00	3,300		Apr. 7, 1905	3.9	4,400	
	July 18, 1895	4.1	3,600		May 1, 1905	5.65	8,500	
	July 29, 1895	6.25	20,000		May 24, 1905	5.6	8,100	
	Aug. 8, 1895	5.45	11,000		May 31, 1905	5.65	8,300	
1896	July 19, 1896	3.3	1,700		June 11, 1905	4.8	5,500	
	July 25, 1896	3.3	1,700		June 16, 1905	4.7	5,300	
1897	Aug. 24, 1897	3.1	1,600		1914	May 1914	7.0	-
						1921	June 13, 1921	7.7
1898	June 2, 1898	3.7	2,450		1927		Aug. 17, 1927	8.4
	June 14, 1898	3.9	3,100	1942		May 3, 1942	8.7	14,000
1899	Mar. 8, 1899	3.3	1,740		1945	Apr. 27, 28, 1945	3.9	-
	June 12, 1899	4.5	4,560	1946		Sept. 12, 1946	3.8	-
	July 22, 1899	4.7	5,450		1947	June 7, 1947	6.3	8,800
1900	Aug. 11, 1899	4.25	4,100	1948		July 22, 1948	8.25	13,000
	Apr. 11, 1900	4.9	7,160		1949	June 15, 1949	8.2	13,000
	Apr. 21, 1900	5.3	9,700	1950		Aug. 2, 1950	9.0	17,000
	May 5, 1900	5.5	13,200		1951	July 16, 1951	10.1	18,000
	May 18, 1900	4.75	6,340	1952		Apr. 22, 1952	4.8	-
May 26, 1900	5.35	10,000	1953		Aug. 6, 1953	6.8	9,900	
June 7, 1900	5.6	12,100		1954	June 18, 1954	2.5	-	
1901	June 7, 1901	3.8	2,820		1955	May 24, 1955	5.0	-
	1902	June 2, 1902	4.6	6,160				
1903		May 30, 1903	3.0	2,000				
	June 14, 1903	5.3	10,000					
	June 21, 1903	4.6	6,160					
1904	June 4, 1904	4.0	3,800					
	June 13, 1904	4.40	5,800					
	June 16, 1904	4.60	6,300					
	June 25, 1904	4.3	5,400					
	July 6, 1904	5.0	8,800					
Aug. 24, 1904	3.15	2,350						

1433. Cow Creek near Lyons, Kans.

Location.--Lat 38°18', long 98°11', in SW¹/₄ sec.15, T.20 S., R.8 W., 60 ft upstream from Missouri Pacific Railroad Co. bridge, 400 ft downstream from Little Cow Creek, 3 miles south of Lyons, and 33.0 miles upstream from mouth.

Drainage area.--728 sq mi, of which about 489 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to July 2, 1938; recording thereafter. Datum of gage is 1,628.16 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 6,000 cfs and extended to 28,000 cfs on basis of velocity-area studies. Shifts in relation occur.

Bankfull stage.--18 ft.

Historical data.--Maximum stage known, that of July 12, 1929, from information by Missouri Pacific Railroad Co.

Remarks.--Channel improved during 1943-44. Base for partial-duration series, 1,200 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	July 12, 1929	22.75	28,000	1946	June 19, 1946	6.71	184
1938	June 1, 1938	16.3	1,240	1947	May 28, 1947	16.15	1,220
1939	Aug. 14, 1939	15.83	1,200		June 5, 1947	16.16	1,220
1940	July 4, 1940	18.30	3,000	1948	June 28, 1948	16.92	1,460
1941	Sept. 3, 1941	19.27	6,500		July 12, 1948	16.03	1,250
1942	Oct. 20, 1941	20.49	12,400		July 16, 1948	18.80	5,720
	Apr. 26, 1942	17.28	1,660		July 23, 1948	16.22	1,290
	May 12, 1942	16.28	1,290		Aug. 5, 1948	15.92	1,230
	June 19, 1942	17.48	1,820	1949	June 16, 1949	15.20	1,090
1943	Oct. 5, 1942	16.97	1,430	1950	July 21, 1950	16.96	1,450
1944	Apr. 22, 1944	17.60	1,880		Aug. 1, 1950	19.52	8,200
	May 4, 1944	17.18	1,540		Aug. 6, 1950	16.76	1,380
	Aug. 27, 1944	17.16	1,540		Aug. 16, 1950	17.38	1,680
1945	Apr. 16, 1945	17.62	1,880		Aug. 26, 1950	16.82	1,380
				1951	June 9, 1951	16.36	1,260
					July 13, 1951	19.05	6,300

1434. Arkansas River near Wichita, Kans.

Location.--Lat 37°42'30", long 97°21'50", on line between secs.7 and 18, T.27 S., R.1 E., at Thirteenth Street Bridge in northwest Wichita, 1¹/₂ miles above mouth of Little Arkansas River and at mile 764.9.

Drainage area.--39,072 sq mi, of which about 31,886 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Jan. 13, 1922, and Oct. 1, 1927, to Mar. 15, 1935; recording Jan. 14, 1922, to Sept. 30, 1927. Datum of gage is 1,288.10 ft above mean sea level, datum of 1929 (levels by city of Wichita).

Stage-discharge relation.--Defined by current-meter measurements. Shifts in relation occur.

Remarks.--Peak discharges not appreciably affected by diversions for irrigation. Base for partial-duration series, 2,000 cfs.

Peak stages and discharges of Arkansas River near Wichita, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1921	June 16, 1921	16.52	7,510	1927	Apr. 11, 1927	11.0	3,120	
	July 24, 1921	14.8	5,050		June 24, 1927	11.25	3,440	
	July 29, 1921	14.53	4,610		Aug. 8, 1927	12.7	6,050	
	Aug. 8, 1921	14.65	4,960		Aug. 18, 1927	14.77	12,000	
	Aug. 21, 1921	13.7	3,450		Aug. 27, 1927	11.7	4,070	
1922	Mar. 15, 1922	13.88	3,920	1928	Apr. 6, 1928	10.2	2,130	
	Apr. 9, 1922	13.98	4,210		June 7, 1928	11.96	5,460	
	Apr. 28, 1922	14.56	5,390		June 17, 1928	12.0	5,550	
	May 9, 1922	13.5	3,600		July 1, 1928	10.48	2,550	
1923	May 27, 1923	13.56	3,300	1929	Aug. 8, 1928	10.8	3,100	
	June 4, 1923	14.10	4,720		May 16, 1929	11.71	5,870	
	June 10, 1923	15.65	8,510		June 5, 1929	9.90	2,620	
	June 22, 1923	13.4	3,920		July 14, 1929	12.48	7,530	
	June 25, 1923	13.8	4,560	Aug. 12, 1929	10.8	4,150		
	Aug. 14, 1923	11.9	2,290	1930	June 16, 1930	9.92	2,840	
	Aug. 18, 1923	12.25	2,820		1931	Apr. 18, 1931	8.60	2,300
	Aug. 21, 1923	13.4	4,640			1932	June 30, 1932	8.01
	Aug. 28, 1923	14.1	5,840	July 9, 1932	8.15		2,600	
	Sept. 2, 1923	14.07	5,750	1933	May 29, 1933	7.8	3,600	
	Sept. 23, 1923	13.3	4,240		Aug. 27, 1933	8.56	4,880	
1924	Oct. 13, 1923	14.16	5,440		Sept. 2, 1933	7.33	2,180	
	Feb. 12, 1924	13.90	4,970	1934	Sept. 7, 1934	4.87	547	
	Mar. 29, 1924	12.50	2,850		1926	Mar. 30, 1926	10.35	885
	May 1, 1924	13.95	5,120					

1442. Little Arkansas River at Valley Center, Kans.

Location.--Lat 37°50', long 97°23', in SW $\frac{1}{4}$ sec.36, T.25 S., R.1 W., at county highway bridge half a mile west of Valley Center and at mile 15.6.

Drainage area.--1,327 sq mi, of which about 1,250 sq mi contributes directly to surface runoff.

Gage.--Nonrecording June 10, 1922, to Feb. 12, 1935, and July 2, 1951, to Feb. 15, 1952; recording Feb. 13, 1935, to July 1, 1951, and since Feb. 16, 1952. June 10, 1922, to Feb. 12, 1935, at site 2 miles downstream at different datum. Datum of gage is 1,327.66 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 22,000 cfs and by slope-area measurement at 32,000 cfs. Shifts in relation occur.

Historical data.--Flood in 1877, 9 miles upstream, was described by Sedgewick Pantograph newspaper of July 7, 1904, as follows: "Andy Coffman who lives on the other (west) side of river and lived there in 1877 says that the 1904 flood was within 6 inches of the highwater mark of 27 years ago." Annual maximum stages shown for Sedgewick, 9 miles upstream, for 1904, 1916-22, from records of U. S. Weather Bureau, indicate that the flood in 1904 was highest for period 1904-22; discharges defined from subsequent gage height and stage-discharge relations at Valley Center.

Remarks.--Base for partial-duration series, 800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	July 6, 1904	25.5	-	1920	July 7, 1920	7.0	-
1916	June 21, 1916	24.0	9,000	1921	June 20, 1921	18.7	5,000
1917	June 2, 1917	17.4	4,000	1922	Apr. 9, 1922	23.5	8,000
1918	June 1, 1918	11.1	-	1923	Nov. 13, 1922	6.3	956
1919	Mar. 16, 1919	23.6	8,000		May 25, 1923	7.6	1,410
					June 10, 1923	18.02	10,500

Peak stages and discharges of Little Arkansas River at Valley Center, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1923	June 17, 1923	13.85	5,550	1939	Nov. 4, 1938	12.17	2,520	
	Sept. 28, 1923	16.45	7,970		June 29, 1939	13.56	3,220	
1924	Oct. 13, 1923	12.5	4,470	1939	Aug. 16, 1939	13.37	3,100	
	Mar. 26, 1924	6.1	866		1940	Apr. 18, 1940	7.52	815
	Apr. 30, 1924	16.5	8,100	May 9, 1940		10.46	1,760	
	July 15, 1924	7.0	1,250	May 19, 1940		10.02	1,560	
	1925	May 24, 1925	4.5	516	Sept. 5, 1940	12.15	2,520	
1926		Sept. 13, 1926	5.5	745	1941	June 10, 1941	18.94	9,300
	1927	Oct. 4, 1926	15.3	7,380		July 3, 1941	17.17	6,840
Oct. 13, 1926		9.8	2,800	Sept. 3, 1941		14.98	4,420	
Nov. 9, 1926		8.5	1,950	Sept. 7, 1941		12.77	2,820	
Apr. 9, 1927		6.6	1,110	1942	Oct. 7, 1941	11.90	2,490	
Apr. 19, 1927	10.0	2,940	Oct. 10, 1941		9.90	1,560		
June 23, 1927	6.7	1,140	Oct. 15, 1941		8.37	1,060		
Aug. 17, 1927	17.0	9,200	Oct. 23, 1941		14.18	4,140		
Aug. 28, 1927	14.2	6,390	Nov. 1, 1941		9.81	1,310		
Sept. 6, 1927	10.0	2,940	Dec. 23, 1941		8.73	1,120		
1928	Apr. 6, 1928	12.0	4,500		Apr. 20, 1942	14.20	4,900	
	May 5, 1928	5.5	825		Apr. 25, 1942	15.05	4,720	
	June 10, 1928	6.25	1,020		Apr. 28, 1942	13.57	3,600	
	June 17, 1928	8.90	2,260		May 3, 1942	8.42	1,040	
	June 25, 1928	8.0	1,780		May 12, 1942	9.00	1,210	
	July 1, 1928	9.6	2,700		June 13, 1942	7.52	815	
	July 11, 1928	8.25	1,910	June 20, 1942	12.74	3,180		
1929	Nov. 18, 1928	9.6	2,700	June 22, 1942	10.50	1,770		
	Apr. 21, 1929	7.2	1,420	June 25, 1942	10.48	1,770		
	May 15, 1929	7.9	1,740	July 2, 1942	9.37	1,340		
	June 4, 1929	12.60	4,820	Aug. 4, 1942	8.10	955		
	June 25, 1929	6.0	900	Sept. 7, 1942	13.32	3,390		
	July 12, 1929	16.3	8,410	1943	Oct. 7, 1942	14.88	4,630	
	Aug. 13, 1929	11.6	4,260		Oct. 19, 1942	9.56	1,340	
1930	May 8, 1930	10.5	3,280		Dec. 27, 1942	8.20	982	
	May 31, 1930	6.2	995		Feb. 4, 1943	7.93	907	
	1931	June 16, 1931	6.5	832	June 10, 1943	10.24	1,680	
1932		Nov. 15, 1931	9.5	1,810	July 19, 1943	15.50	5,170	
		Nov. 24, 1931	8.8	1,550	Aug. 6, 1943	7.50	815	
May 4, 1932		6.7	1,180	1944	Oct. 24, 1943	9.88	1,620	
May 9, 1932		6.6	1,140		Mar. 16, 1944	13.80	3,950	
June 30, 1932		6.4	1,070		Mar. 22, 1944	16.30	6,200	
July 6, 1932	11.0	3,650	Apr. 12, 1944		19.15	10,900		
1933	May 21, 1933	9.1	1,900		Apr. 23, 1944	21.47	26,300	
	Aug. 27, 1933	9.4	2,040		Apr. 30, 1944	15.28	5,220	
1934	Sept. 29, 1934	5.0	498		May 3, 1944	19.35	11,500	
	1935	May 14, 1935	8.70		1,340	May 14, 1944	9.19	1,330
May 21, 1935		13.92	5,150		May 29, 1944	7.84	904	
May 28, 1935		17.05	8,500		July 10, 1944	12.21	2,820	
June 2, 1935		14.75	5,990	July 12, 1944	19.20	10,900		
June 29, 1935		11.58	2,980	Sept. 29, 1944	10.00	1,660		
1936		Oct. 21, 1935	8.74	1,380	1945	Oct. 3, 1944	12.48	3,020
	1937	Oct. 9, 1936	12.01	2,420		Oct. 5, 1944	9.46	1,440
Feb. 9, 1937		11.90	2,380	Dec. 5, 1944		19.77	13,300	
May 27, 1937		6.80	810	Feb. 26, 1945		7.55	851	
May 30, 1937		7.05	860	Mar. 5, 1945		9.84	1,620	
June 3, 1937		7.02	854	Mar. 18, 1945		11.80	2,570	
July 18, 1937	10.93	1,930	Mar. 23, 1945	8.67		1,260		
Sept. 9, 1937	10.63	1,810	Apr. 13, 1945	12.52		3,020		
1938	May 5, 1938	12.25	2,560	Apr. 16, 1945		22.05	32,000	
	May 20, 1938	14.21	3,690	Apr. 26, 1945		12.54	3,020	
	May 24, 1938	13.02	2,930	July 19, 1945	8.48	1,140		
	May 28, 1938	10.32	1,690	Sept. 25, 1945	11.64	2,450		
	June 3, 1938	9.53	1,390	Sept. 29, 1945	21.32	24,500		
	June 17, 1938	12.20	2,520	1946	Jan. 5, 1946	9.66	1,520	
	June 26, 1938	19.58	10,400		June 20, 1946	10.71	1,980	
	July 17, 1938	8.70	1,120	1947	Nov. 7, 1946	8.29	1,010	
	Aug. 16, 1938	14.22	3,760		Dec. 13, 1946	11.87	2,630	
Sept. 12, 1938	11.85	2,380	Mar. 14, 1947		14.13	4,190		
1939	Nov. 4, 1938	12.17	2,520		Apr. 11, 1947	16.71	6,650	
	June 29, 1939	13.56	3,220		Apr. 14, 1947	19.82	13,300	
	Aug. 16, 1939	13.37	3,100		May 21, 1947	7.01	810	
	1940	Apr. 18, 1940	7.52		815	May 25, 1947	9.28	1,360
		May 9, 1940	10.46		1,760	May 30, 1947	11.20	2,230
		May 19, 1940	10.02	1,560	June 6, 1947	11.73	2,510	
	Sept. 5, 1940	12.15	2,520	June 10, 1947	8.95	1,260		

Peak stages and discharges of Little Arkansas River at Valley Center, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1947	June 20, 1947	12.90	3,280	1951	May 12, 1951	9.81	2,590	
	June 28, 1947	14.17	4,270		May 17, 1951	20.50	22,400	
1948	Dec. 5, 1947	7.89	995	May 23, 1951	16.48	10,200		
	Feb. 28, 1948	14.27	4,950	June 9, 1951	13.40	5,840		
	Mar. 2, 1948	14.72	5,390	June 24, 1951	11.75	4,180		
	Mar. 19, 1948	12.54	3,260	June 30, 1951	18.66	14,800		
	June 17, 1948	8.03	1,020	July 3, 1951	16.80	10,800		
	June 22, 1948	14.10	4,730	July 13, 1951	19.47	16,900		
	June 29, 1948	17.33	8,690	July 24, 1951	10.58	3,290		
	July 13, 1948	9.74	1,630	Aug. 9, 1951	6.32	1,120		
	July 18, 1948	16.12	7,130	Sept. 6, 1951	9.10	2,350		
	July 22, 1948	17.55	9,090	Sept. 13, 1951	8.25	1,900		
	Aug. 15, 1948	9.43	1,510	Sept. 24, 1951	16.60	10,400		
	Sept. 26, 1948	7.86	970	1952	Oct. 6, 1951	9.80	2,750	
	1949	Jan. 16, 1949	12.84		3,500	Mar. 10, 1952	9.44	2,520
		Jan. 24, 1949	13.29		3,930	Apr. 20, 1952	5.63	984
Feb. 13, 1949		13.35	4,020		Apr. 23, 1952	6.71	1,350	
Feb. 18, 1949		12.88	3,800	May 25, 1952	5.32	882		
Feb. 27, 1949		13.02	3,940	June 5, 1952	6.94	1,450		
Apr. 28, 1949		8.51	1,750	1953	July 15, 1953	4.57	643	
May 1, 1949		15.58	7,620		1954	May 3, 1954	6.98	1,440
May 10, 1949		10.77	2,920	1955		Sept. 29, 1955	12.65	3,560
May 17, 1949		12.78	4,080		1956	Oct. 3, 1955	11.27	2,710
May 21, 1949		10.79	2,870	1957		Mar. 27, 1957	-	801
May 24, 1949		10.22	2,540		Apr. 6, 1957	-	1,260	
June 1, 1949		6.39	872		Apr. 26, 1957	-	1,440	
June 7, 1949		8.37	1,660		May 14, 1957	-	7,460	
June 9, 1949		9.80	2,330	May 17, 1957	-	19,800		
June 15, 1949	7.95	1,440	May 27, 1957	-	1,370			
July 11, 1949	7.46	1,270	June 4, 1957	-	3,220			
1950	June 3, 1950	8.00	1,480	June 20, 1957	-	1,240		
	June 12, 1950	8.93	1,880	June 28, 1957	-	8,440		
	July 18, 1950	9.71	2,170	1958	Mar. 10, 1958	-	2,870	
	July 20, 1950	10.42	2,580		Mar. 24, 1958	-	2,000	
	July 28, 1950	10.00	2,460		Apr. 1, 1958	-	2,400	
	July 31, 1950	18.20	13,700		May 6, 1958	-	4,240	
	Aug. 5, 1950	14.90	7,530	May 11, 1958	-	888		
	Aug. 8, 1950	11.85	3,880	July 4, 1958	-	5,060		
	Aug. 17, 1950	9.65	2,280	July 17, 1958	-	11,300		
	Aug. 29, 1950	8.35	1,700	July 31, 1958	-	3,720		
	Sept. 15, 1950	8.79	2,030	Sept. 17, 1958	-	7,570		
	Sept. 18, 1950	6.60	1,080					
	1951	Oct. 4, 1950	6.61	1,000				
		May 1, 1951	14.10	6,630				

1443. Arkansas River at Wichita, Kans.

Location.--Lat 37°41', long 97°21', in SE $\frac{1}{4}$ sec.20, T.27 S., R.1 E., at Douglas Avenue bridge in Wichita, half a mile downstream from Little Arkansas River and at mile 762.9.

Drainage area.--40,420 sq mi, of which about 33,157 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to June 30, 1934; recording thereafter. Datum of gage is 1,280.81 ft above mean sea level, datum of 1929. July 17, 1897, to Dec. 31, 1919, at datum 7.0 ft higher. Gage heights shown herein have been converted to present datum.

Stage-discharge relation.--Defined by current-meter measurements since 1934. Discharges prior to 1934 based on analysis of stage-discharge relation for later periods related to records for nearby stations. Channel degradation of about 10 ft occurred during period 1897-1956. Shifts in relation occur.

Bankfull stage.--9 ft.

Historical data.--"Flood of 1877 was not much worse than the one Wichita is now experiencing," according to Wichita Eagle of July 8, 1904. Flood in 1877 described as "highest water" in Daily River stages published by U. S. Weather Bureau in 1909.

Remarks.--Peak discharges not appreciably affected by diversions for irrigation or by storage in John Martin Reservoir, which began January 1943. Gage heights for period prior to July 1, 1934, furnished by U. S. Weather Bureau. Base for partial-duration series, 3,700 cfs. Only annual peaks are shown prior to 1934.

Peak stages and discharges of Arkansas River at Wichita, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1877	May 18, 1877	18.0	-	1937	(a)	4.2	2,760
1889	June 10, 1889	12.6	-	1938	May 20, 1938	5.50	4,650
1898	June 10, 1898	12.7	6,800		May 24, 1938	5.17	4,160
1899	June 10, 1899	13.3	6,600		June 4, 1938	5.93	5,300
1900	May 28, 1900	14.4	13,000		June 26, 1938	8.20	9,420
1901	Apr. 13, 1901	13.2	8,300		Aug. 17, 1938	5.41	4,520
1902	June 2, 1902	13.4	8,900	1939	June 28, 1939	6.10	5,570
1903	June 1, 1903	14.7	14,500		Aug. 16, 1939	5.70	4,950
1904	July 8, 1904	17.3	39,000	1940	May 12, 1940	5.07	3,690
1905	June 1, 1905	13.1	11,400	1941	June 10, 1941	8.00	9,900
1906	Sept. 20, 1906	11.3	5,800		July 3, 1941	8.20	10,900
1907	Aug. 1, 1907	9.6	2,400	1942	Oct. 24, 1941	7.70	9,820
1908	June 14, 1908	10.9	4,900		Apr. 26, 1942	8.10	10,900
1909	Oct. 24, 1908	11.6	6,700		May 5, 1942	9.60	16,600
1910	Jan. 13, 1910	11.2	10,100		June 20, 1942	8.40	9,570
1911	Feb. 23, 1911	7.5	4,800		Aug. 26, 1942	6.08	4,190
1912	May 7, 1912	8.7	6,700		Sept. 5, 1942	6.60	5,030
1913	Oct. 13, 1912	5.5	2,300	1943	Oct. 5, 1942	7.34	7,460
1914	May 6, 1914	9.7	8,600		July 19, 1943	6.65	6,020
1915	Aug. 29, 1915	10.0	9,200	1944	Mar. 16, 1944	5.98	5,380
1916	June 21, 1916	12.2	14,200		Mar. 22, 1944	6.83	7,310
1917	June 3, 1917	6.3	3,200		Apr. 12, 1944	8.17	10,600
1918	June 9, 1918	4.5	1,400		Apr. 24, 1944	11.70	26,600
1919	Mar. 17, 1919	10.2	9,600		May 4, 1944	9.36	16,700
1920	Feb. 17, 1920	3.0	500		June 2, 1944	5.10	5,460
1921	June 16, 1921	9.4	8,000		July 12, 1944	6.98	8,160
1922	Mar. 15, 1922	10.2	9,600		Aug. 28, 1944	5.34	4,910
1923	June 10, 1923	13.5	18,000	1945	Oct. 3, 1944	4.67	3,900
1924	Apr. 30, 1924	10.9	11,200		Dec. 5, 1944	6.67	7,570
1925	Aug. 3, 1925	4.7	1,600		Mar. 18, 1945	4.80	4,050
1926	Apr. 14, 1926	3.6	800		Apr. 17, 1945	10.32	19,700
1927	Aug. 17, 1927	13.5	21,000		Apr. 27, 1945	5.60	6,320
1928	June 17, 1928	7.9	7,700		Sept. 25, 1945	4.0	3,830
1929	July 15, 1929	9.8	11,700		Sept. 29, 1945	9.15	16,100
1930	May 11, 1930	5.2	3,600	1946	Sept. 12, 1946	2.75	2,200
1931	Apr. 19, 1931	4.4	2,600	1947	Oct. 13, 1946	5.50	5,760
1932	July 9, 1932	5.9	4,500		Mar. 14, 1947	5.05	4,350
1933	Aug. 28, 1933	7.7	7,400		Apr. 11, 1947	6.75	7,780
1934	May 18, 1934	1.72	482		Apr. 14, 1947	8.77	13,200
1935	May 22, 1935	7.62	8,340		May 22, 1947	4.48	4,010
	May 29, 1935	9.24	11,500		May 29, 1947	5.25	5,150
	June 3, 1935	9.67	12,500		June 7, 1947	6.49	8,020
	July 1, 1935	6.13	5,700		June 20, 1947	7.09	9,570
1936	June 4, 1936	5.44	4,350		June 28, 1947	5.49	5,720
				1948	Feb. 28, 1948	5.90	6,350
					Mar. 2, 1948	6.87	8,780
					Mar. 20, 1948	5.62	5,720
					June 23, 1948	6.15	7,280
					June 29, 1948	9.26	14,300
					July 11, 1948	4.05	3,830
					July 23, 1948	11.40	19,200
					Aug. 16, 1948	6.35	7,960
				1949	Jan. 16, 1949	5.36	5,960
					Jan. 24, 1949	6.90	9,150
					Feb. 13, 1949	7.74	11,200
					Feb. 19, 1949	7.43	10,400
					Feb. 27, 1949	7.20	9,910
					May 2, 1949	7.79	11,800
					May 17, 22, 1949	6.82	8,200
					May 24, 1949	6.90	8,420
					May 31, 1949	5.35	5,380
					June 10, 1949	6.84	8,200
					June 18, 1949	8.34	12,500
				1950	Oct. 14, 1949	5.13	4,350
					July 18, 1950	4.87	3,900
					Aug. 1, 1950	10.75	18,200
					Aug. 5, 1950	10.78	18,200
					Aug. 20, 1950	7.98	11,100
					Aug. 30, 1950	6.43	7,360
					Sept. 4, 1950	6.68	7,780

a Occurred Oct. 9, 1936, Feb. 9, July 18, 1937.

ARKANSAS RIVER BASIN

Peak stages and discharges of Arkansas River at Wichita, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Sept. 16, 1950	5.00	4,350	1954	May 3, 1954	2.21	1,470
	Sept. 18, 1950	4.92	4,200				
1951	Oct. 8, 1950	6.65	8,980	1955	Sept. 29, 1955	5.14	4,750
	May 2, 1951	7.64	11,200				
	May 12, 1951	4.58	4,110	1956	Oct. 3, 1955	9.40	12,300
	May 18, 1951	11.86	23,000				
	May 23, 1951	11.57	22,200				
	June 10, 1951	8.64	13,900				
	July 1, 1951	13.38	27,600				
	July 17, 1951	12.60	25,000				
	July 24, 1951	6.12	8,600				
	Aug. 10, 1951	5.50	7,340				
	Aug. 14, 1951	3.48	3,810				
	Sept. 6, 1951	6.35	9,080				
	Sept. 13, 1951	5.29	6,660				
	Sept. 25, 1951	7.90	12,500				
1952	Oct. 7, 1951	4.48	5,100	1958	Mar. 10, 1958	-	4,330
	Mar. 10, 1952	4.10	3,900		Apr. 2, 1958	-	6,950
	Apr. 24, 1952	4.92	5,210		May 6, 1958	-	6,180
					July 5, 1958	-	10,400
1953	Aug. 7, 1953	4.98	5,320	July 17, 1958	-	18,200	
				Aug. 1, 1958	-	13,900	
				Sept. 17, 1958	-	11,700	
				Sept. 24, 1958	-	4,120	

1448. North Fork Minnescah River near Cheney, Kans.

Location.--Lat 37°40', long 97°46', on south line of sec. 28, T. 27 S., R. 4 W., at bridge on U. S. Highway 54, 3 miles northeast of Cheney, 4 miles upstream from Spring Creek, 22 miles west of Wichita, and at mile 8.8.

Drainage area.--930 sq mi, of which about 693 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Nov. 30, 1950; recording thereafter. Datum of gage is 1,336.45 ft above mean sea level (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements.

Historical data.--Flood in June 1923 was about 4 inches lower than that of Oct. 2, 1953, at site about 6 miles upstream from gage, from information obtained by U. S. Bureau of Reclamation from local resident. Discharge estimated from present rating.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	June 1923	13.9	13,000	1955	June 18, 1955	9.20	2,770
1950	Aug. 8, 1950	6.99	11,060	1956	Oct. 2, 1955	14.2	14,200
1951	May 17, 1951	12.51	9,030	1957	May 14, 1957	11.52	5,640
	May 23, 1951	13.23	11,200		May 16, 1957	15.09	23,700
	June 7, 1951	10.60	4,750		June 2, 1957	8.62	2,290
	June 23, 1951	10.41	4,460		June 18, 1957	10.43	4,120
	June 26, 1951	11.25	5,720		June 24, 1957	10.39	4,070
	June 30, 1951	12.55	9,150		June 26, 1957	11.54	5,780
	Sept. 5, 1951	14.38	14,800		July 1, 1957	9.93	3,520
	Sept. 13, 1951	10.14	4,080		1958	Mar. 30, 1958	8.94
1952	Apr. 23, 1952	7.87	1,680	May 4, 1958		8.41	2,300
				Sept. 16, 1958		10.58	4,740
1953	Mar. 14, 1953	5.55	391	Sept. 22, 1958	8.73	2,600	
1954	May 24, 1954	7.56	1,440				

a Maximum Aug. 8 to Sept. 30, 1950; probably was exceeded during period of no record.

1452--South Fork Ninescah River near Murdock, Kans.

Location.--Lat 37°34', long 97°51', on south line of sec.34, T.28 S., R.5 W., at highway bridge 4 miles southeast of Murdock and at mile 68.0.

Drainage area.--650 sq mi, of which about 543 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Mar. 29, 1951; recording thereafter. Datum of gage is 1,357.81 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Aug. 30, 1950	9.60	a6,000	1955	May 26, 1955	7.51	2,270
1951	May 17, 1951	9.76	6,400		June 3, 1955	7.55	2,330
	May 21, 1951	9.20	5,200		June 5, 1955	8.77	4,340
	June 7, 1951	8.16	3,240		June 18, 1955	7.91	2,890
	June 24, 1951	8.01	3,020	1956	Oct. 2, 1955	7.15	1,980
	June 26, 1951	7.77	2,660				
	July 1, 1951	7.82	2,730	1957	May 13, 1957	9.29	6,870
	July 15, 1951	8.15	3,220		May 16, 1957	11.86	23,600
	Sept. 5, 1951	10.03	7,080		June 19, 1957	6.89	2,560
	Sept.13, 1951	7.63	2,440		June 24, 1957	8.99	8,460
1952	Apr. 20, 1952	7.98	2,970		June 26, 1957	11.87	25,900
					July 2, 1957	6.92	2,180
1953	July 13, 1953	6.46	1,080	1958	Sept.16, 1958	8.86	7,040
1954	May 27, 1954	8.13	3,200				

a Maximum Aug. 9 to Sept. 30, 1950; probably was exceeded during period of no record.

1455. Ninescah River near Peck, Kans.

Location.--Lat 37°28', long 97°25', in NW¹ sec.10, T.30 S., R.1 W., at highway bridge 3 miles southwest of Peck and at mile 31.6.

Drainage area.--2,129 sq mi, of which about 1,785 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Feb. 4, 1939; recording thereafter. Datum of gage is 1,222.38 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements. Discharge for flood of June 9, 1923, determined from extension of later stage-discharge relation above 33,000 cfs by logarithmic plotting. Shifts in relation occur.

Historical data.--Flood of June 9, 1923, reached a stage of 26.4 ft, from flood-mark remembered by local resident in 1938.

Remarks.--Base for partial-duration series, 3,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	June 9, 1923	26.4	70,000	1940	May 19, 1940	10.40	5,000
1938	May 6, 1938	12.0	6,610		June 8, 1940	9.25	3,880
	May 20, 1938	15.7	11,100		July 3, 1940	15.77	11,200
	May 24, 1938	12.60	7,270		Sept. 5, 1940	12.80	7,490
	June 26, 1938	11.1	5,700	1941	June 9, 1941	12.28	6,940
	Aug. 16, 1938	12.2	6,830		July 3, 1941	13.70	8,550
1939	Nov. 3, 1938	11.4	6,000	1942	Oct. 24, 1941	13.85	8,910
	June 16, 1939	10.43	5,030		Oct. 26, 1941	13.37	8,310
	June 27, 1939	12.29	6,940		Apr. 26, 1942	14.05	8,910
	Aug. 15, 1939	11.17	5,800		June 19, 1942	14.58	9,680

Peak stages and discharges of Ninesseah River near Peck, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	June 21, 1942	12.89	7,600	1949	May 1, 1949	8.38	3,600
	June 23, 1942	12.7	7,380		May 17, 1949	15.82	13,000
	July 1, 1942	10.9	5,500		May 22, 1949	15.85	13,000
1943	Oct. 6, 1942	11.60	6,200	May 25, 1949	10.36	5,680	
	May 19, 1943	9.67	4,330	May 31, 1949	9.14	4,280	
1944	Mar. 16, 1944	10.95	5,600	June 6, 1949	14.65	11,300	
	Mar. 18, 1944	9.56	4,240	June 11, 1949	9.17	4,380	
	Mar. 22, 1944	9.93	4,510	June 14, 1949	11.66	7,310	
	Apr. 11, 1944	15.60	10,000	June 19, 1949	13.07	9,240	
	Apr. 23, 1944	20.58	24,600	July 13, 1949	8.67	3,880	
	Apr. 26, 1944	10.44	5,680	1950	Jan. 2, 1950	9.32	3,950
	May 1, 1944	14.91	11,800		July 16, 1950	11.47	6,250
	May 4, 1944	13.67	10,100		July 18, 1950	11.67	6,490
			July 31, 1950		14.13	9,590	
1945	Oct. 3, 1944	9.61	4,790	Aug. 31, 1950	10.90	5,580	
	Dec. 5, 1944	12.30	8,120	1951	Apr. 28, 1951	11.80	6,610
	Mar. 19, 1945	8.56	3,600		May 1, 1951	12.88	7,960
	Apr. 11, 1945	9.50	4,580		May 17, 1951	20.73	25,100
	Apr. 16, 1945	19.90	22,600		May 24, 1951	15.30	11,800
	Apr. 26, 1945	8.76	4,280		June 8, 1951	13.10	8,240
	Sept. 26, 1945	14.35	11,100		June 24, 1951	14.13	9,810
	Sept. 29, 1945	16.35	13,800		July 1, 1951	11.85	6,720
			July 13, 1951		14.20	9,920	
1946	Jan. 5, 1946	8.11	3,320	July 23, 1951	10.93	5,820	
1947	Dec. 13, 1946	9.21	4,380	Sept. 6, 1951	19.50	21,400	
	Mar. 13, 1947	11.95	7,700	Sept. 13, 1951	12.51	7,510	
	Apr. 11, 1947	17.14	14,800	1952	Apr. 23, 1952	9.12	3,860
	Apr. 14, 1947	18.40	18,500		June 5, 1952	9.24	3,970
	May 20, 1947	10.08	5,330	1953	Mar. 31, 1953	9.88	4,540
	May 25, 1947	10.33	5,560		1954	May 28, 1954	12.48
	May 28, 1947	12.96	9,100	1955		May 26, 1955	10.46
	June 20, 1947	15.32	12,300		June 6, 1955	12.09	7,010
June 27, 1947	13.84	10,200	June 19, 1955	11.49	6,290		
1948	Feb. 28, 1948	15.82	13,000	1956	Oct. 3, 1955	15.49	12,300
	Mar. 2, 1948	14.20	10,800		1957	Apr. 24, 1957	9.05
	Mar. 19, 1948	12.40	8,260	May 14, 1957		15.20	12,200
	June 23, 1948	13.12	9,240	May 17, 1957		21.85	38,200
	June 29, 1948	18.28	18,200	June 12, 1957		12.05	7,020
	July 10, 1948	11.25	6,660	June 19, 1957		10.36	5,330
	July 16, 1948	16.64	13,900	June 24, 1957		13.91	10,200
	July 23, 1948	17.12	14,800	June 27, 1957		19.56	26,800
Aug. 15, 1948	14.55	10,900	July 2, 1957	10.75		5,800	
1949	Jan. 16, 1949	13.10	9,240	1958	Mar. 31, 1958	8.82	3,720
	Feb. 12, 1949	a17.89	10,400		July 5, 1958	8.82	3,720
	Feb. 18, 1949	ab16.02	7,570		Sept. 17, 1958	16.51	15,000
	Feb. 24, 1948	12.6	8,540		Sept. 22, 1958	9.42	4,320
	Feb. 25, 1949	8.62	3,800				
	Feb. 27, 1949	8.80	3,990				
	Apr. 10, 1949	9.26	4,480				
	Apr. 27, 1949	10.30	5,560				

a Backwater from ice.

b Occurred Feb. 17.

1465. Arkansas River at Arkansas City, Kans.
(Published as "near Arkansas City" 1903-4)

Location.--Lat 37°03'30", long 97°03'24", in NE $\frac{1}{4}$ sec.35, T.34 S., R.3 E., at bridge on U. S. Highway 166, 0.1 mile downstream from St. Louis and San Francisco Railway Co. bridge, 0.5 mile west of Arkansas City, 5.4 miles upstream from Walnut River, and at mile 701.4.

Drainage area.--43,713 sq mi, of which about 36,106 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Sept. 29, 1929; recording thereafter. Prior to July 31, 1906, at site 0.5 mile upstream at different datum. Sept. 10, 1921, to Aug. 28, 1956, at site 0.5 mile upstream at datum 2.97 ft higher (gage heights adjusted to present datum). Datum of present gage is 1,050.04 ft above mean sea level (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 65,000 cfs and extended to 103,000 cfs by logarithmic plotting. Shifts in relation occur.

Historical data.--Flood of June 10, 1923, "according to the recollection of old residents, exceeded the flood of 1877" as reported in U. S. Weather Bureau Climatological Data of June 1923.

Remarks.--Peak discharges not appreciably affected by diversions for irrigation or by storage in John Martin Reservoir, which began January 1943. Base for partial-duration series, 6,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1903	May 25, 1903	9.2	10,100	1929	June 8, 1929	18.4	15,800		
	June 3, 1903	11.3	16,700		June 24, 1929	19.6	20,200		
	June 16, 1903	9.1	9,760		July 10, 1929	16.2	9,200		
	June 23, 1903	8.1	6,920		July 16, 1929	16.8	10,800		
1904	June 5, 1904	13.4	24,800	1930	May 11, 1930	16.84	11,700		
	July 10, 1904	15.2	40,300		1931	June 16, 1931	15.17	7,800	
1905	May 3, 1905	9.4	9,900	1932		June 21, 1932	15.19	7,340	
	May 26, 1905	8.5	7,960			1933	Aug. 21, 1933	17.25	11,700
	June 2, 1905	9.4	9,900				Aug. 29, 1933	18.14	14,600
	July 5, 1905	8.2	7,330		Sept. 3, 4, 1933		18.81	16,800	
1906	Sept. 21, 1906	-	5,000	1934	Apr. 7, 1934		11.74	1,880	
1922	Mar. 17, 1922	19.2	16,400		1935	May 15, 1935	15.48	7,270	
	Apr. 11, 1922	20.8	22,600			May 23, 1935	19.94	21,400	
	May 12, 1922	16.1	7,630			May 31, 1935	21.14	28,300	
	May 22, 1922	16.2	7,800	June 5, 1935		20.42	23,200		
	July 14, 1922	22.1	28,600	June 12, 1935		15.63	7,510		
	July 19, 1922	18.7	14,800	June 17, 1935		16.41	9,170		
1923	May 25, 1923	16.6	8,500	July 1, 1935	18.0	13,200			
	June 3, 1923	16.9	9,030	1936	June 6, 1936	15.12	6,440		
	June 10, 1923	28.43	103,000		1937	May 29, 1937	16.37	9,980	
	Sept. 30, 1923	26.02	8,240			June 1, 1937	16.9	11,400	
1924	Oct. 15, 1923	16.3	12,800			June 11, 1937	16.15	9,420	
	May 2, 1924	21.5	22,400	July 20, 1937		17.03	11,700		
1925	Sept. 23, 1925	12.93	2,710	1938	May 6, 1938	15.89	8,860		
1926	Sept. 5, 1926	16.31	7,760		May 21, 1938	19.50	19,600		
	1927	Oct. 4, 1926	23.94		45,300	May 25, 1938	17.6	13,200	
Apr. 9, 1927		22.8	36,300		June 28, 1938	17.4	12,300		
Apr. 20, 1927		19.2	17,100	Aug. 18, 1938	16.92	11,400			
Aug. 4, 1927		19.29	17,600	1939	Nov. 4, 1938	15.7	7,740		
Aug. 20, 1927		20.29	21,600		June 29, 1939	18.19	14,800		
1928	Oct. 1, 1927	15.7	7,960		Aug. 17, 1939	15.77	8,300		
	Apr. 7, 1928	17.3	12,100	1940	May 20, 1940	15.05	6,760		
	June 9, 1928	18.4	15,800		July 5, 1940	16.5	9,700		
	June 18, 1928	19.46	19,900		Sept. 5, 1940	16.95	11,400		
	June 29, 1928	15.5	7,490		1941	June 11, 1941	18.90	17,200	
1929	Nov. 17, 1928	17.1	11,600	July 4, 1941		18.31	15,400		
	Apr. 20, 1929	17.4	12,400						
	May 17, 1929	15.4	7,260						

ARKANSAS RIVER BASIN

Peak stages and discharges of Arkansas River at Arkansas City, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1942	Oct. 26, 1941	19.45	19,100	1949	June 16, 1949	18.75	17,800		
	Apr. 27, 1942	19.76	20,700		June 21, 1949	19.71	20,800		
	May 7, 1942	18.37	16,400		July 13, 1949	15.89	9,680		
	June 22, 1942	24.83	45,800	1950	June 3, 1950	15.29	8,400		
	July 2, 1942	18.02	14,400		July 17, 1950	19.37	20,900		
	Sept. 5, 1942	16.45	10,000		July 19, 1950	20.47	24,800		
1943	Oct. 6, 1942	17.55	12,800		July 29, 1950	15.23	8,710		
	Dec. 26, 1942	15.46	8,020	Aug. 2, 1950	22.74	36,200			
	May 19, 1943	17.95	14,100	Aug. 21, 1950	16.77	13,200			
1944	Mar. 19, 1944 Mar. 23, 1944 Apr. 13, 1944 Apr. 24, 1944 May 2, 1944 June 6, 1944 June 9, 1944 July 13, 1944 Sept. 28, 1944	16.65	11,000	1951	Sept. 1, 1950	16.63	12,900		
		17.49	13,500		Oct. 9, 1950	15.03	9,080		
		20.07	23,400		Apr. 29, 1951	15.69	9,790		
		28.21	73,500		May 2, 1951	20.57	25,300		
		20.34	24,800		May 19, 1951	26.47	66,000		
		20.19	23,900		May 23, 1951	21.94	31,800		
		15.08	7,170		June 9, 1951	20.17	23,800		
		15.92	9,100		June 25, 1951	21.17	27,900		
		15.21	6,710		July 1, 1951	24.02	44,400		
1945	Oct. 4, 1944 Dec. 7, 1944 Mar. 20, 1945 Apr. 12, 1945 Apr. 18, 1945 Apr. 29, 1945 Sept. 30, 1945	16.57	10,600		July 14, 1951	21.40	29,000		
		19.77	20,700	July 24, 1951	17.31	14,300			
		15.54	6,710	Aug. 11, 1951	15.10	8,330			
		16.03	9,350	Sept. 8, 1951	19.27	20,500			
		24.94	51,600	Sept. 14, 1951	17.43	14,600			
		17.00	11,600	Sept. 26, 1951	18.27	17,200			
		21.99	30,500	1952	Oct. 8, 1951	14.68	7,320		
1946	Jan. 6, 1946	13.28	3,810		Mar. 11, 1952	15.09	8,310		
		1947	Mar. 14, 1947 Apr. 15, 1947 May 15, 1947 May 21, 1947 May 25, 1947 May 29, 1947 June 8, 1947 June 22, 1947 June 29, 1947		17.22	12,200	Apr. 22, 1952	14.95	7,970
					23.07	36,000	Apr. 24, 1952	15.45	9,170
15.28	7,580			June 5, 1952	14.70	7,370			
17.16	11,700			1953	Apr. 1, 1953	15.69	5,360		
17.50	12,400	1954	May 29, 1954		14.10	7,260			
17.07	11,500		1955	May 26, 1955	15.92	11,600			
15.77	8,440	June 7, 1955		13.70	6,550				
17.44	12,900	June 19, 1955		14.54	8,140				
1948	Feb. 29, 1948 Mar. 3, 1948 Mar. 21, 1948 June 24, 1948 July 1, 1948 July 11, 1948 July 16, 1948 July 25, 1948 Aug. 16, 1948	17.69	13,500	1956	Oct. 4, 1955	19.35	21,500		
		17.59	13,200		1957	May 18, 1957	25.55	73,100	
		17.15	12,200	May 25, 1957		13.02	10,000		
		17.71	13,700	May 30, 1957		11.86	7,320		
		21.57	29,600	June 3, 1957		12.93	9,820		
		18.13	15,500	June 12, 1957		15.93	17,400		
		22.07	32,200	June 20, 1957		12.58	8,400		
		22.61	35,000	June 25, 1957		14.75	14,000		
		19.24	19,500	June 29, 1957		22.20	41,800		
		1949	Jan. 17, 1949 Jan. 25, 1949 Feb. 13, 1949 Feb. 19, 1949 Feb. 27, 1949 Apr. 28, 1949 May 2, 1949 May 19, 1949 May 23, 1949 June 1, 1949 June 8, 1949	16.87		12,200	Sept. 21, 1957	13.14	10,400
17.44	13,900			1958		Mar. 11, 1958	12.55	7,110	
19.45	20,100				Mar. 24, 1958	13.42	9,100		
19.23	19,700				Apr. 3, 1958	14.62	12,100		
18.69	17,500				May 7, 1958	13.36	8,950		
16.04	9,940				July 4, 1958	17.70	22,100		
17.37	13,600				July 18, 1958	16.62	18,500		
19.39	19,700				Aug. 2, 1958	15.52	14,700		
18.95	18,400				Sept. 18, 1958	17.32	20,600		
16.84	12,200				Sept. 23, 1958	12.70	7,290		
19.70	20,800								

1471. Whitewater River at Augusta, Kans.

Location.--Lat 37°44'20", long 97°00'30", on north line of sec.4, T.27 S., R.4 E., at highway bridge 4 miles northwest of Augusta and 6.6 miles upstream from mouth.

Drainage area.--456 sq mi; 473 sq mi at former site.

Gage.--Recording prior to Apr. 19, 1954, at site 3 miles downstream at datum 1,202.95 ft above mean sea level, datum of 1929; nonrecording thereafter at last used site and datum. Altitude of gage is 1,220 ft (from topographic map).

Auxiliary nonrecording gage on Walnut River at Augusta, Oct. 1, 1952, to Apr. 18, 1954.

Stage-discharge relation.--Defined by current-meter measurements. Relation affected at times by backwater from Walnut River. Slope used as a factor in determining discharge, 1953-55.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1951	May 1, 1951	25.59	11,800	1952	Oct. 7, 1951	14.71	2,680		
	May 17, 1951	18.39	4,870		Mar. 11, 1952	13.51	2,260		
	May 23, 1951	17.50	4,260		May 22, 1952	13.77	2,340		
	June 23, 1951	23.25	9,180	1953	Mar. 31, 1953	15.60	3,130		
	June 30, 1951	25.78	8,860			May 27, 1953	26.52	27,200	
	July 4, 1951	24.03	10,000		1954	Mar. 25, 1954	5.96	348	
	July 14, 1951	23.66	9,630				June 18, 1955	14.8	900
	July 23, 1951	19.15	5,420			1955		June 18, 1955	14.8
	Sept. 6, 1951	14.84	2,750						
	Sept. 13, 1951	14.19	2,490						
	Sept. 25, 1951	21.02	6,970						

1478. Walnut River at Winfield, Kans.

Location.--Lat 37°14', long 97°00', in NE $\frac{1}{4}$ sec.33, T.32 S., R.4 E., at bridge on U. S. Highway 77, 1 mile south of Winfield, 1 mile upstream from Black Crook Creek, and at mile 24.3.

Drainage area.--1,840 sq mi.

Gage.--Nonrecording prior to Sept. 30, 1934; recording thereafter. Datum of gage is 1,082.86 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Discharge shown for 1898, 1904, and 1915 determined from stage-discharge relation for later periods. Shifts in relation occur.

Bankfull stage.--30 ft.

Historical data.-- Flood in 1877 may have been 2 to 3 ft lower than that in July 1904 based on description in Winfield Tribune of June 10, 1904, which reported June 1904 flood "has broken all previous historical records including that of June 1878 (probably May 1877). At that time water ran 3 ft deep at 9th and Loomis while in last week's flood (34.2, June 5, 1904) the water ran over the same intersection which is 4 or 5 ft higher than it was then."

Flood in 1898 was 25 $\frac{1}{2}$ inches lower than that of July 8, 1904, according to Water-Supply Paper 147.

Flood of July 8, 1904, was "Highest water in city's history," according to the Winfield Daily Free Press of July 8, 1904. This flood reached a stage estimated to be 35.2 ft (1 ft higher than June 5, 1904) according to Congressional documents; 74th Cong. 1st Sess. H. Doc. 308, Arkansas River.

Flood of May 22, 1915, was "--3 $\frac{1}{2}$ ft below the 1904 crest" according to the Winfield Evening Free Press of May 22, 1915.

Remarks.--Base for partial-duration series, 9,600 cfs.

Peak stages and discharges of Walnut River at Winfield, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1877	May 1877	32-33	-	1942	June 26, 1942	16.85	10,600
1898	May 4, 1898	33.1	40,000		July 13, 1942	16.3	10,200
1904	July 8, 1904	35.2	48,000		Sept. 6, 1942	21.28	14,800
1915	May 22, 1915	31.7	35,000	1943	Oct. 5, 1942	17.80	11,500
1922	Apr. 11, 1922	32.2	28,900		Oct. 19, 1942	17.35	11,200
	May 9, 1922	20.5	10,100		Dec. 27, 1942	24.48	18,000
	May 22, 1922	21.0	10,600		May 20, 1943	33.53	37,600
	July 13, 1922	31.63	26,700		June 23, 1943	17.98	11,700
1923	May 26, 1923	25.2	14,900	1944	Mar. 20, 1944	29.10	24,400
	June 10, 1923	38.7	76,000		Mar. 23, 1944	26.00	19,600
	June 18, 1923	28.2	18,500		Apr. 12, 1944	29.40	25,000
1924	May 1, 1924	19.75	9,570		Apr. 23, 1944	38.30	105,000
1925	May 10, 1925	12.20	4,360		Apr. 27, 1944	16.57	10,400
1926	Sept. 5, 1926	27.45	16,800	1945	May 1, 1944	24.25	17,700
1927	Oct. 4, 1926	34.2	38,700		Dec. 7, 1944	31.60	30,900
	Apr. 2, 1927	24.2	14,000		Apr. 17, 1945	35.93	60,600
	Apr. 8, 1927	30.67	24,000		Apr. 27, 1945	17.3	11,100
	Apr. 16, 1927	21.83	11,400		Sept. 25, 1945	22.12	15,600
	Apr. 20, 1927	33.88	36,900		Sept. 30, 1945	34.83	47,400
	June 20, 1927	19.70	9,810	1946	Jan. 10, 1946	9.62	4,140
	Aug. 19, 1927	27.02	17,000	1947	Mar. 14, 1947	19.70	13,200
	Aug. 29, 1927	21.26	10,800		Apr. 14, 1947	30.88	28,700
1928	Oct. 2, 1927	20.77	10,400		May 20, 1947	22.00	14,500
	June 11, 1928	24.85	14,400		May 25, 1947	17.37	10,300
	June 19, 1928	33.1	32,900	1948	June 30, 1948	21.69	15,200
1929	Nov. 18, 1928	41.0	94,400		July 16, 1948	22.96	16,500
	Jan. 11, 1929	21.78	11,800		July 19, 1948	17.73	11,400
	Apr. 21, 1929	28.23	19,500		July 23, 1948	21.46	15,000
	May 12, 1929	20.72	10,700	1949	Jan. 17, 1949	20.00	12,900
	July 11, 1929	27.88	18,900		Jan. 25, 1949	21.79	14,700
1930	May 11, 1930	21.40	11,400		Feb. 13, 1949	19.93	12,800
1931	June 12, 1931	21.82	11,800		Feb. 18, 1949	18.02	10,900
	June 16, 1931	21.84	11,800		Feb. 27, 1949	17.46	10,700
1932	Nov. 25, 1931	20.6	10,600		Apr. 28, 1949	16.43	10,300
	June 21, 1932	26.08	16,400		May 24, 1949	21.33	14,200
1933	Aug. 21, 1933	29.98	22,800	1950	June 4, 1950	17.12	9,950
1934	May 15, 1934	13.40	5,380		July 16, 1950	25.25	18,500
1935	May 15, 1935	26.25	17,000		July 18, 1950	16.83	9,680
	May 20, 1935	25.85	16,100		July 29, 1950	17.16	10,100
	May 30, 1935	29.51	21,800		Aug. 2, 1950	33.48	31,600
	June 3, 1935	20.95	11,000		Aug. 5, 1950	19.79	12,700
	June 17, 1935	23.20	13,200		Aug. 9, 1950	19.75	12,700
1936	Nov. 27, 1935	15.89	7,130	1951	May 3, 1951	29.90	25,000
1937	Oct. 9, 1936	20.96	12,300		May 18, 1951	24.55	18,300
	May 26, 1937	19.00	10,800		May 22, 1951	26.70	20,800
	June 10, 1937	20.05	11,600		June 7, 1951	21.85	15,200
	July 19, 1937	25.2	16,200		June 25, 1951	28.32	22,900
1938	May 20, 1938	29.7	22,200		July 1, 1951	37.80	83,000
	June 17, 1938	20.0	11,600		July 5, 1951	24.88	18,700
1939	Jan. 27, 1939	22.18	13,400		July 10, 1951	20.08	13,400
1940	Apr. 18, 1940	17.87	11,600		July 14, 1951	28.15	22,700
	May 19, 1940	17.10	10,900		July 24, 1951	18.17	11,500
1941	Apr. 15, 1941	18.89	12,500		Sept. 14, 1951	21.15	14,500
	June 2, 1941	17.41	11,200		Sept. 24, 1951	17.78	11,100
	June 10, 1941	23.14	17,400	1952	Mar. 11, 1952	16.44	10,500
	Sept. 5, 1941	19.3	12,900	1953	May 30, 1953	25.20	21,700
1942	Apr. 20, 1942	19.72	13,200	1954	May 28, 1954	4.33	462
	Apr. 29, 1942	25.23	18,700	1955	June 18, 1955	9.18	3,730
	June 21, 1942	21.8	15,300	1956	Oct. 3, 1955	11.56	5,630
				1957	May 19, 1957	30.37	30,100
					May 30, 1957	18.06	12,500
					June 13, 1957	21.94	17,400
					June 29, 1957	23.08	19,000
				1958	Mar. 24, 1958	21.05	16,200
					Mar. 31, 1958	16.72	11,000
					July 4, 1958	28.88	27,700
					Sept. 18, 1958	15.69	9,860

1484. Salt Fork Arkansas River near Alva, Okla.

Location.--Lat 36°48'45", long 98°38'50", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.18, T.27 N., R.13 W., near left bank on downstream side of pier of bridge on State Highway 14, 1 mile northeast of Alva, 19 miles upstream from Medicine Lodge River, and at mile 126.0.

Drainage area.--1,009 sq mi.

Gage.--Recording. Datum of gage is 1,297.04 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--6 ft.

Historical data.--According to the Atchison, Topeka and Santa Fe Railway Co., a notable flood occurred July 7, 1904, which was 0.8 ft lower than the flood of May 8, 1922, at railway bridge three-quarters of a mile upstream.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Peak stage for 1922 furnished by Corps of Engineers. Base for partial-duration series, 8,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1922	May 8, 1922	10.3	-	1946	June 18, 1946	6.60	8,330
1938	Apr. 27, 1938	7.51	17,000	1947	Apr. 10, 1947	6.72	8,660
	May 4, 1938	5.70	8,800		Apr. 13, 1947	6.64	8,330
	May 19, 1938	7.95	19,900		June 4, 1947	6.70	8,660
	May 23, 1938	8.42	22,300		June 21, 1947	7.10	10,100
	May 31, 1938	7.00	14,500		1948	June 28, 1948	8.26
	Aug. 16, 1938	8.90	25,300	Aug. 14, 1948		8.20	15,200
Sept.13, 1938	5.95	10,000	1949	May 16, 1949	9.43	26,200	
1939	June 27, 1939	6.10		9,900	May 19, 1949	7.27	12,300
1940	Aug. 30, 1940	5.98		9,500	June 4, 1949	6.70	9,700
	1941	Sept. 1, 1941		6.43	8,150	June 8, 1949	7.00
1942		Oct. 23, 1941	9.08	27,000	June 13, 1949	7.87	16,000
		Apr. 19, 1942	6.40	8,110	Sept. 4, 1949	7.12	11,500
Apr. 24, 1942	6.70	8,760	Sept.11, 1949	7.77	15,400		
1943	Oct. 3, 1942	7.00	14,000	1950	July 28, 1950	7.65	10,700
	1944	Apr. 10, 1944	6.80		13,000	May 17, 1951	7.84
Apr. 22, 1944		7.60	13,500		May 22, 1951	6.62	11,000
1945	June 26, 1945 July 10, 1945 Sept.28, 1945	7.20	8,900		June 21, 1951	6.52	10,600
		6.57	8,240	June 24, 1951	6.88	12,500	
		8.65	16,200	June 30, 1951	8.52	21,700	
				1957	May 16, 1957	10.6	-

1490. Medicine Lodge River near Kiowa, Kans.
(Published as "Medicine River" 1895-96)

Location.--Lat 37°03', long 98°28', in SW $\frac{1}{4}$ sec.36, T.34 S., R.11 W., at bridge on State Highway 14, 200 ft downstream from The Atchison, Topeka and Santa Fe Railway Co. bridge and 1 $\frac{1}{2}$ miles northeast of Kiowa.

Drainage area.--914 sq mi.

Gage.--Nonrecording prior to Mar. 3, 1938; recording thereafter. May 6, 1895, to Oct. 31, 1896, at site 2 miles upstream at different datum. Feb. 11,1938, to Sept. 30, 1944, at present site at datum 3.00 ft higher; gage heights 1938-44 converted to last used datum. Datum of last used gage is 1,286.99 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements 1938-55.

Bankfull stage.--10 ft.

Remarks.--Records for 1938-50 furnished by Corps of Engineers. Base for partial-duration series, 3,700 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Medicine Lodge River near Kiowa, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1896	June 25, 1896	a7.5	-	1946	Apr. 15, 1946	7.80	5,070
1938	May 5, 1938	a11.05	a13,000	1947	Apr. 10, 1947	8.75	7,210
1939	Nov. 3, 1938	7.87	2,740		Apr. 13, 1947	7.60	4,100
1940	June 7, 1940	8.10	5,020		May 20, 1947	7.42	3,700
1941	May 5, 1941	8.40	5,660	1948	Mar. 1, 1948	8.40	5,000
	June 9, 1941	8.72	6,360		June 22, 1948	8.96	6,670
1942	Oct. 22, 1941	11.75	16,000		June 28, 1948	9.54	8,700
	Apr. 19, 1942	8.75	6,600		Aug. 13, 1948	9.50	8,520
	June 29, 1942	9.30	8,070	1949	May 7, 1949	8.63	5,760
1943	Oct. 4, 1942	9.48	8,190		May 17, 1949	9.90	11,100
1944	Apr. 10, 1944	8.62	5,680		May 19, 1949	9.00	6,190
	Apr. 22, 1944	9.52	7,900		May 21, 1949	8.74	5,380
	May 3, 1944	8.24	4,890		June 5, 1949	9.64	8,360
1945	Apr. 15, 1945	8.90	7,700		June 9, 1949	9.06	8,550
	Apr. 21, 1945	8.10	5,340	1950	June 13, 1949	8.75	7,440
	Sept. 22, 1945	8.00	5,110		Sept. 5, 1949	10.19	13,100
	Sept. 24, 1945	9.70	9,510		Sept. 11, 1949	8.54	6,740
	Sept. 28, 1945	9.82	9,600	1951	Aug. 1, 1950	7.30	2,460
				1955	May 26, 1955	8.07	3,340
				1957	May 16, 1957	a11.72	-

a Annual peak only.

1495. Salt Fork Arkansas River near Cherokee, Okla.

Location.--Lat 36°49', long 98°19', in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.18, T.27 N., R.10 W., near right bank at downstream side of piling of abandoned Atchison, Topeka and Santa Fe Railway Co. bridge, 0.7 miles downstream from Medicine Lodge River, 4 miles northeast of Cherokee, and at mile 106.3.

Drainage area.--2,439 sq mi.

Gage.--Nonrecording prior to May 14, 1941; recording thereafter. Datum of gage is 1,155.94 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 30,000 cfs and extended above on basis of reservoir inflow computations for flood in October 1941.

Bankfull stage.--9 ft.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	May 4, 1941	8.24	4,680	1945	Apr. 16, 1945	9.25	7,700
1942	Oct. 23, 1941	11.7	35,000		Apr. 22, 1945	8.71	5,450
	Apr. 19, 1942	10.50	10,800		June 26, 1945	8.98	8,900
	Apr. 25, 1942	9.60	7,320		July 10, 1945	8.82	7,500
	June 30, 1942	9.30	6,560		Sept. 25, 1945	8.60	5,020
1943	Oct. 4, 1942	10.35	10,300		Sept. 28, 1945	10.66	14,000
1944	Apr. 10, 1944	9.81	13,500	1946	Apr. 15, 1946	8.18	5,760
	Apr. 22, 1944	9.95	14,800	1947	Nov. 6, 1946	8.77	5,050
	May 4, 1944	8.87	7,000		Mar. 13, 1947	9.67	8,850
					Apr. 10, 1947	9.65	8,720

Peak stages and discharges of Salt Fork Arkansas River near Cherokee, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 13, 1947	10.70	13,900	1949	May 17, 1949	11.98	32,300
	May 18, 1947	9.40	7,600		May 19, 1949	11.45	18,900
	May 21, 1947	9.48	7,970		May 24, 1949	10.60	9,380
	May 24, 1947	9.32	7,050		June 5, 1949	11.21	16,300
	June 4, 1947	8.83	5,420		June 9, 1949	10.60	9,380
	June 21, 1947	9.79	9,390		June 14, 1949	11.15	15,600
1948	June 28, 1948	11.26	15,300	Sept. 5, 1949	11.0	13,600	
	July 16, 1948	9.94	5,230	Sept. 11, 1949	11.35	18,600	
	Aug. 15, 1948	11.65	23,300	1950	July 29, 1950	10.60	9,380
1949	Feb. 8, 1949	11.46	7,500		Aug. 1, 1950	10.50	8,580
	May 7, 1949	10.25	6,420	1957	May 17, 1957	13.7	-
	May 14, 1949	9.89	5,070				

a Annual peak only, from floodmark.

1505. Salt Fork Arkansas River near Jet, Okla.

Location.--Lat 36°45', long 98°08', in NE 1/4 sec. 11, T. 26 N., R. 9 W., near center of span on downstream side of county highway bridge, 0.6 mile downstream from Great Salt Plains Dam, 4 miles upstream from Wagon Creek, 6 miles northeast of Jet, and at mile 102.7.

Drainage area.--3,202 sq mi, of which about 3,194 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Mar. 17, 1938; recording thereafter. Prior to Mar. 16, 1938, at site 2 1/2 miles upstream at datum 13.46 ft higher; Mar. 17, 1938, to Sept. 30, 1949, at present site at datum 5.00 ft higher. Datum of present gage is 1,092.20 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--13 ft.

Remarks.--Flow regulated since June 1941 by detention storage in Great Salt Plains Reservoir (capacity, 292,400 acre-ft). Records 1937-50 computed by Corps of Engineers and reviewed by Geological Survey. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	May 19, 1938	8.80	25,900	1949	May 21, 1949	6.82	8,970
1939	Apr. 5, 1939	5.88	4,920	1950	Aug. 3, 1950	4.44	4,410
1940	May 18, 1940	5.09	2,700		1951	July 2, 1951	11.67
1941	May 7, 1941	5.74	4,340	1952		Apr. 23, 1952	8.35
1942	Oct. 25, 1941	7.35	8,300	1953	July 16, 1953	6.21	757
1943	Oct. 6, 1942	4.31	2,670	1954	May 26, 1954	6.99	1,470
1944	Apr. 23, 1944	5.82	4,680	1955	June 20, 1955	9.80	4,700
1945	Sept. 30, 1945	5.15	4,540		1956	Oct. 5, 1955	7.19
1946	Oct. 16, 1945	2.66	999	1957		May 18, 1957	12.13
1947	Apr. 15, 1947	5.62	5,680	1958	June 28, 1958	9.20	4,490
1948	Aug. 16, 1948	6.01	6,820				

1510. Salt Fork Arkansas River at Tonkawa, Okla.

Location.--Lat 36°40'30", long 97°18'40", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.4, T.25 N., R.1 W., near left bank on downstream side of pier of bridge on U. S. Highway 177 in Tonkawa, 4 miles downstream from Thompson Creek, 7.8 miles upstream from Chikaskia River, and at mile 33.8.

Drainage area.--4,528 sq mi, of which about 4,520 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Jan. 23, 1939; recording thereafter. Datum of gage is 930.22 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--17 ft.

Historical data.--Maximum stage for water year 1904 is from records for a staff gage operated by Geological Survey (datum unknown). The discharge was estimated on basis of a few discharge measurements made during 1904-5 and shape of rating curve used in 1938 and has been shown because it is the third highest flood known.

Remarks.--Some regulation since June 1941 by Great Salt Plains Reservoir on Salt Fork Arkansas River 69.5 miles above station (capacity, 292,400 acre-ft). Base for partial-duration series, 11,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	July 11, 1904	14.6	25,000	1947	May 16, 1947	18.35	16,000
1923	June 10, 1923	26.8	-	1948	May 10, 1948	16.58	12,700
1935	June 1935	23.0	-		Aug. 15, 1948	17.22	15,300
1936	June 6, 1936	15.53	11,400	1949	Feb. 13, 1949	17.09	13,300
1937	June 10, 1937	16.62	14,000		Mar. 31, 1949	16.60	12,600
	Sept. 9, 1937	16.76	14,500		May 21, 1949	19.33	19,600
1938	May 20, 1938	22.82	40,800		May 29, 1949	16.85	13,000
	May 24, 1938	21.94	34,500		Sept. 6, 1949	16.29	12,100
	June 1, 1938	17.41	16,300	1950	July 30, 1950	14.71	9,650
	Aug. 17, 1938	16.27	13,900	1951	May 19, 1951	17.36	14,300
1939	Apr. 6, 1939	16.08	14,600		May 22, 1951	18.71	17,200
1940	June 10, 1940	8.21	1,620		June 26, 1951	17.43	13,800
1941	June 10, 1941	15.58	12,500		July 2, 1951	20.14	22,600
1942	Oct. 27, 1941	16.06	12,200		July 4, 1951	19.35	19,200
	Apr. 26, 1942	17.70	15,500	1952	Apr. 22, 1952	12.81	6,620
	June 22, 1942	16.69	13,400	1953	July 12, 1953	10.26	3,370
1943	May 20, 1943	17.86	16,500	1954	May 26, 1954	9.93	2,380
1944	Apr. 23, 1944	19.26	22,500	1955	June 19, 1955	16.10	9,470
1945	Dec. 5, 1944	18.05	16,800	1956	Oct. 3, 1955	17.51	12,100
	Apr. 16, 1945	20.06	23,500	1957	Apr. 23, 1957	16.90	11,100
	Sept. 30, 1945	17.35	14,300		May 17, 1957	20.82	19,600
1946	Oct. 17, 1945	7.80	1,080		May 25, 1957	19.70	18,500
					June 25, 1957	21.14	21,200
					July 3, 1957	19.17	17,200
1947	Apr. 14, 1947	18.53	16,600	1958	July 7, 1958	12.72	5,720

1515. Chikaskia River near Corbin, Kans.

Location.--Lat 37°08', long 97°36', on west line of sec.36, T.33 S., R.3 W., at bridge on State Highway 49, 1 mile upstream from Prairie Creek, 3 miles west of Corbin, and at mile 67.5.

Drainage area.--794 sq mi.

Gage.--Nonrecording prior to Mar. 22, 1951; recording thereafter. Datum of gage is 1,108.00 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Approximate discharge for flood of June 9, 1923, determined from logarithmic extension above 35,000 cfs of subsequent stage-discharge relation. Shifts in relation occur.

Historical data.--Flood of June 9, 1923, which destroyed the bridge then at the gage site, reached a stage of 28.0 ft on the apron of a granary located 300 ft left and 200 ft downstream from the gage, from floodmark remembered by local resident in 1950.

Remarks.--Base for partial-duration series, 1,800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	June 9, 1923	28.0	60,000	1955	May 26, 1955	17.55	18,800
1950	Aug. 30, 1950	11.0	a6,100		June 3, 1955	6.55	1,900
					June 6, 1955	9.71	4,610
1951	May 1, 1951	10.01	4,910		June 16, 1955	9.10	4,000
	May 17, 1951	22.50	35,100		June 18, 1955	11.20	6,340
	May 22, 1951	12.50	8,100	1956	Oct. 2, 1955	11.76	7,060
	June 7, 1951	14.00	10,700		Oct. 4, 1955	9.71	4,610
	June 11, 1951	6.12	1,810	1957	Apr. 23, 1957	10.74	5,610
	June 16, 1951	6.97	2,390		May 14, 1957	11.00	5,900
	June 24, 1951	15.80	14,500		May 17, 1957	22.31	38,100
	June 30, 1951	8.63	3,600		May 25, 1957	9.65	4,570
	July 14, 1951	16.08	15,100		June 12, 1957	14.28	11,700
	Sept. 6, 1951	6.85	2,380		June 23, 1957	8.05	3,160
Sept. 12, 1951	6.79	2,290	June 27, 1957		15.52	14,300	
1952	June 5, 1952	5.83	1,630	July 1, 1957	9.45	4,300	
1953	Mar. 31, 1953	7.50	2,760	1958	Mar. 29, 1958	6.79	2,100
	July 12, 1953	6.89	2,330		June 21, 1958	7.71	2,770
	Aug. 3, 1953	9.70	4,600		June 25, 1958	9.71	4,560
1954	May 24, 1954	6.30	1,920		July 5, 1958	6.60	1,980

a Maximum Aug. 9 to Sept. 30; probably was exceeded during period of no record.

1520. Chikaskia River near Blackwell, Okla.

Location.--Lat 36°49', long 97°17', in NW¹/₄ sec.23, T.27 N., R.1 W., near left bank on downstream side of pier of St. Louis-San Francisco Railway Co. bridge at northeast edge of Blackwell, 0.2 mile downstream from Bitter Creek and at mile 28.2.

Drainage area.--1,859 sq mi; 1,711 sq mi at previous site.

Gage.--Nonrecording prior to Jan. 25, 1939; recording thereafter. Prior to Apr. 29, 1938, at site 2³/₄ miles upstream at unknown datum; Apr. 29, 1938, to Apr. 16, 1952, at site 0.6 mile upstream at datum 8.06 ft higher. Present datum of gage is 967.41 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 85,000 cfs and extended to 100,000 cfs.

Bankfull stage.--Present site, 26 ft; at site 2³/₄ miles upstream, 16 ft; at site 0.6 mile upstream, 20 ft.

Historical data.--Crest stage for flood in 1923 estimated on basis of comparative information during flood in 1942.

Remarks.--Base for partial-duration series, 8,000 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Chikaskia River near Blackwell, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	June 10, 1923	34.0	100,000	1948	Aug. 14, 1948	24.28	23,100
1936	June 6, 1936	24.70	10,800	1949	Nov. 2, 1948	17.45	8,970
1937	May 31, 1937	27.09	12,900	Jan. 25, 1949	20.69	13,300	
	June 10, 1937	22.32	8,600	Feb. 13, 1949	18.16	9,550	
	Sept. 9, 1937	22.30	8,600	Feb. 27, 1949	18.07	9,470	
1938	May 6, 1938	15.42	9,130	May 20, 1949	18.65	9,900	
	May 20, 1938	24.05	26,800	May 25, 1949	19.65	11,100	
	May 24, 1938	17.61	10,800	Sept. 6, 1949	19.58	11,100	
1939	Nov. 4, 1938	14.25	8,340	Sept. 12, 1949	19.88	11,600	
1940	June 9, 1940	10.38	6,040	1950	Aug. 2, 1950	16.88	8,070
1941	Apr. 16, 1941	16.38	8,820	1951	May 1, 1951	16.35	8,250
	June 10, 1941	15.47	8,190	May 18, 1951	26.59	53,000	
1942	Apr. 26, 1942	17.06	10,100	May 23, 1951	21.86	19,100	
	Apr. 28, 1942	14.27	8,190	June 8, 1951	20.79	15,600	
	June 22, 1942	27.48	85,000	June 23, 1951	23.78	27,000	
1943	May 20, 1943	20.18	12,200	June 25, 1951	25.89	40,300	
				July 1, 1951	22.47	22,100	
1944	Apr. 11, 1944	20.31	12,400	July 15, 1951	26.01	43,700	
	Apr. 23, 1944	27.31	82,000	1952	June 5, 1952	20.90	8,130
	Apr. 27, 1944	15.35	8,840	1953	Aug. 4, 1953	19.65	7,280
	Sept. 29, 1944	17.07	8,500	1954	May 25, 1954	12.33	3,120
1945	Oct. 3, 1944	20.00	11,800	1955	May 27, 1955	b25.56	39,300
	Dec. 5, 1944	24.07	25,800	June 19, 1955	b15.30	8,760	
	Apr. 12, 1945	17.15	8,830	1956	Oct. 3, 1955	28.19	14,600
	Apr. 17, 1945	25.13	35,800	1957	Apr. 21, 1957	23.80	10,000
	Sept. 29, 1945	24.12	25,800	Apr. 24, 1957	25.28	12,600	
1946	Apr. 16, 1946	12.74	a6,200	May 15, 1957	21.74	8,690	
1947	Apr. 14, 1947	24.86	31,000	May 18, 1957	32.56	55,000	
	May 21, 1947	17.96	9,390	May 26, 1957	24.97	10,700	
	May 25, 1947	17.28	8,900	June 13, 1957	28.30	14,800	
1948	June 29, 1948	21.24	13,800	June 24, 1957	24.67	11,000	
	July 5, 1948	16.26	8,250	June 28, 1957	30.20	20,500	
	July 16, 1948	23.52	20,200	July 2, 1957	23.73	10,200	
				1958	June 26, 1958	23.15	9,050

a Maximum peak discharge; maximum discharge occurred at 12:01 a.m. Oct. 1, stage falling.

b Gage destroyed by storm; gage heights obtained at site and datum used Apr. 29, 1938, to Apr. 16, 1952.

1525. Arkansas River at Ralston, Okla.

Location.--Lat 36°30'10", long 96°43'30", in NW $\frac{1}{4}$ sec.1, T.23 N., R.5 E., near right bank on downstream side of pier of bridge on State Highway 18 at Ralston, 2 miles downstream from Salt Creek, 2 miles upstream from Grayhorse Creek, and at mile 594.0.

Drainage area.--54,465 sq mi, of which about 46,850 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Feb. 24, 1939; recording thereafter. Prior to Nov. 14, 1935, at site 1,200 ft upstream at same datum. Datum of gage is 776.80 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Prior to April 1938, defined by 26 current-meter measurements made by Corps of Engineers during 1928-32 below 44,000 cfs and extended to 108,000 cfs by logarithmic plotting; subsequently defined by current-meter measurements to maximum discharge for period of record.

Bankfull stage.--16 ft.

Remarks.--Slight regulation since December 1943 by John Martin Reservoir on Arkansas River (capacity, 662,900 acre-ft) and since June 1941 by Great Salt Plains Reservoir on Salt Fork Arkansas River (capacity, 292,400 acre-ft). Records prior to Mar. 27, 1938, computed on basis of once-daily Weather Bureau gage readings. Records 1948-55 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 30,000 cfs.

Peak stages and discharges of Arkansas River at Ralston, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	-	18.0	-	1943	May 20, 1943	18.12	97,200
1923	May 27, 1923	10.4	32,400	1944	Mar. 23, 1944	11.43	37,900
	June 3, 1923	12.6	48,000		Apr. 12, 1944	15.34	68,400
	June 11, 1923	23.0	200,000		Apr. 25, 1944	22.82	179,000
	June 18, 1923	12.0	43,400		Sept. 29, 1944	10.23	31,300
1924	Oct. 16, 1923	11.8	42,000	1945	Oct. 4, 1944	10.74	34,600
	May 2, 1924	11.7	41,300		Dec. 7, 1944	15.55	76,000
1925	Apr. 27, 1925	6.4	11,300		Mar. 25, 1945	10.82	34,000
		11.78	42,700	Apr. 13, 1945	11.78	42,700	
1926	Sept. 5, 1926	10.4	32,400	Apr. 19, 1945	19.55	124,000	
		10.33	34,000	June 29, 1945	10.33	34,000	
1927	Oct. 6, 1926	18.7	108,000	1946	July 1, 1945	13.59	57,800
	Apr. 11, 1927	15.4	73,000		Oct. 2, 1945	19.48	110,000
	Apr. 21, 1927	15.7	77,400	1947	Apr. 16, 1947	18.50	114,000
	Aug. 5, 1927	14.5	68,500		May 17, 1947	11.87	44,500
	Aug. 20, 1927	10.9	39,300		May 22, 1947	11.24	39,600
1928	Oct. 3, 1927	13.2	56,800	May 27, 1947	10.56	35,800	
	June 12, 1928	13.9	63,100	1948	July 1, 1948	13.19	52,800
	June 21, 1928	15.0	73,000		July 18, 1948	14.93	70,200
1929	Nov. 20, 1928	15.3	76,300		July 26, 1948	11.74	43,100
	Apr. 22, 1929	12.3	49,400		Aug. 17, 1948	12.72	51,800
	Apr. 25, 1929	9.9	32,400	1949	Jan. 18, 1949	10.63	32,400
	May 12, 1929	12.0	47,000		Jan. 25, 1949	12.70	45,900
	May 19, 1929	12.2	48,600		Feb. 14, 1949	14.78	65,400
June 3, 1929	9.9	32,400	Feb. 20, 1949		11.60	40,600	
June 24, 1929	11.7	44,900	Mar. 1, 1949		12.57	50,200	
1930	July 12, 1929	11.4	42,800	Apr. 1, 1949	10.47	33,600	
	Apr. 30, 1930	9.8	31,800	May 21, 1949	15.30	70,700	
	May 7, 1930	10.2	34,400	May 26, 1949	13.68	55,500	
1931	May 13, 1930	12.1	47,800	1950	July 18, 1950	15.90	75,300
	June 14, 1931	9.5	28,200		Aug. 4, 1950	17.60	92,800
1932	June 23, 1932	10.6	33,700		Aug. 10, 1950	11.12	37,100
		9.3	25,700	1951	May 3, 1951	14.15	54,200
1933	Aug. 30, 1933	9.3	25,700		May 20, 1951	19.23	106,000
		17.70	95,500		May 24, 1951	17.70	95,500
1934	Apr. 8, 1934	6.4	11,700		June 10, 1951	14.35	61,200
		17.42	91,100		June 27, 1951	17.42	91,100
1935	May 15, 1935	14.7	65,600	July 3, 1951	21.45	135,000	
	May 21, 1935	16.0	77,800	July 16, 1951	20.28	120,000	
	June 1, 1935	14.1	60,300	Sept. 15, 1951	11.57	36,200	
	June 4, 1935	11.4	39,100	1952	June 6, 1952	10.48	25,800
1936	June 7, 1936	9.9	26,600		1953	May 31, 1953	8.80
	June 11, 1937	13.0	47,500	1954		May 2, 1954	9.07
1937	June 11, 1937	13.0	47,500		1955	May 29, 1955	12.71
1938	May 23, 1938	16.44	75,600	1956		Oct. 5, 1956	14.64
1939	June 28, 1939	8.48	19,200		1957	Apr. 25, 1957	11.70
1940	Sept. 5, 1940	10.26	27,800	May 20, 1957		21.41	120,000
1941	Apr. 17, 1941	12.34	41,200	May 23, 1957		14.21	51,000
	June 11, 1941	13.59	51,000	May 26, 1957		15.13	57,900
1942	Oct. 26, 1941	12.89	45,400	June 1, 1957		12.40	37,900
	Apr. 9, 1942	11.21	34,000	June 13, 1957		17.46	77,900
	Apr. 21, 1942	12.94	45,400	June 18, 1957		13.41	42,000
	Apr. 30, 1942	13.04	46,200	June 26, 1957	15.97	67,900	
	June 24, 1942	18.54	94,000	July 1, 1957	19.88	112,000	
1943	Dec. 28, 1942	10.60	32,200	1958	Mar. 25, 1958	11.24	32,300
		14.86	56,800		July 7, 1958	14.86	56,800

1530. Black Bear Creek at Pawnee, Okla.

Location.--Lat 36°20'35", long 96°48'00", on east line of SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.31, T.22 N., R.5 E., on downstream side of left pier of bridge on State Highway 18 in north Pawnee, 50 ft downstream from Skedee Creek and at mile 23.4.

Drainage area.--576 sq mi.

Gage.--Nonrecording prior to Sept. 20, 1944, and Aug. 27, 1953, to Apr. 29, 1954; recording Sept. 21, 1944, to Aug. 26, 1953, and since Apr. 29, 1954. Datum of gage is 802.73 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--17 ft.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1908	May 25, 1908	27.50	15,600	1951	July 3, 1951	14.76	4,280
1943	May 19, 1943	28.19	17,800	1952	June 7, 1952	16.18	4,790
1945	Dec. 7, 1944	17.86	6,500	1953	July 14, 1953	10.56	2,610
	Mar. 26, 1945	16.21	5,390				
	Apr. 13, 1945	16.15	5,460	1954	May 2, 1954	11.16	2,810
	Apr. 17, 1945	20.62	8,750				
	June 22, 1945	16.00	5,580	1955	May 11, 1955	16.37	5,130
	June 29, 1945	15.76	5,460		May 22, 1955	21.74	8,640
Sept. 30, 1945	28.11	17,500	May 28, 1955		21.78	8,720	
1946	June 29, 1946	15.43	4,900	1956	Oct. 5, 1955	16.96	5,430
1947	Apr. 16, 1947	22.55	9,390	1957	Apr. 20, 1957	20.73	7,680
	May 17, 1947	17.31	5,340		Apr. 23, 1957	16.23	4,930
1948	Aug. 8, 1948	16.45	4,890		May 18, 1957	25.26	12,200
					May 22, 1957	18.10	6,090
				May 27, 1957	18.48	6,370	
1949	May 19, 1949	15.37	4,410	June 12, 1957	18.95	6,740	
	May 21, 1949	15.70	4,550	June 25, 1957	22.56	9,720	
	May 27, 1949	16.16	4,790	July 3, 1957	14.28	4,000	
1950	Aug. 3, 1950	13.58	3,830	1958	July 12, 1958	13.97	3,880

1535. Cimarron River near Guy, N. Mex.

Location.--Lat 36°59'15", long 103°25'25", in SE $\frac{1}{4}$ sec.21, T.32 N., R.33 E., 1.5 miles upstream from Baker damsite, 1.7 miles northwest of Valley filling station, 12 miles north of Guy, and 27 miles northwest of Kenton, Okla.

Drainage area.--545 sq mi.

Gage.--Nonrecording prior to May 21, 1942; recording thereafter. Prior to Oct. 1, 1943, at datum 0.44 ft higher. Altitude of present gage is 4,900 ft (from topographic map).

Stage-discharge relation.--Well defined by current-meter measurements below 3,000 cfs; extended above on basis of velocity-area study and logarithmic plotting. Relation subject to moderate shifting.

Bankfull stage.--20 ft.

Remarks.--Peak discharges not appreciably affected by several small diversions above station for irrigation of about 6,500 acres. Base for partial-duration series, 1,000 cfs.

Peak stages and discharges of Cimarron River near Guy, N. Mex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	-	20.0	a8,200	1952	July 12, 1952	7.34	1,640
1942	Sept. 2, 1942	17.68	a7,120		Aug. 22, 1952	8.34	2,060
					Aug. 23, 1952	12.25	3,950
1943	Oct. 18, 1942	6.35	1,440	1953	Aug. 16, 1953	9.87	2,800
1944	May 28, 1944	10.21	2,960		Aug. 17, 1953	8.56	2,190
					1954	July 22, 1954	18.10
1945	Aug. 21, 1945	10.34	3,000		July 27, 1954	6.60	1,360
					Aug. 6, 1954	19.83	8,100
1946	Aug. 19, 1946	5.50	980		Aug. 12, 1954	11.33	3,500
					Sept. 6, 1954	6.12	1,190
1947	July 7, 1947	8.51	2,140	1955	Oct. 5, 1954	20.5	8,500
1948	May 31, 1948	9.25	2,500	May 19, 1955	19.1	7,660	
	June 1, 1948	8.07	1,960	July 4, 1955	7.8	1,840	
	June 13, 1948	11.30	3,500	July 15, 1955	10.0	2,850	
	June 20, 1948	10.80	3,250	Aug. 11, 1955	11.2	3,450	
	Aug. 4, 1948	10.0	2,850	1956	June 27, 1956	14.6	5,200
	Aug. 7, 1948	15.4	5,550		July 3, 1956	5.60	1,190
	Sept. 7, 1948	17.82	6,880		July 16, 1956	6.60	1,590
					Aug. 19, 1956	5.70	1,230
1949	June 5, 1949	12.95	4,350	1957	July 20, 1957	6.30	1,470
	Sept. 5, 1949	8.84	2,280		July 30, 1957	7.19	1,820
1950	June 18, 1950	11.15	3,350		Aug. 22, 1957	5.90	1,270
	July 13, 1950	9.43	2,500	1958	July 6, 1958	6.65	1,610
	July 22, 1950	6.12	1,160				
	July 31, 1950	9.25	2,420				
1951	Aug. 23, 1951	6.63	1,330				

a Annual peak only.

1540. Cimarron River near Folsom, N. Mex.

Location.--Lat 36°56'05", long 103°05'55", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.9, T.31 N., R.36 E., 6 miles upstream from Carrizozo Creek, 8 miles west of Kenton, Okla., and 45 miles east of Folsom, N. Mex.

Drainage area.--895 sq mi, of which about 840 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to July 20, 1928, at different datums; recording thereafter. July 20, 1928, to Apr. 10, 1932, at datum 0.61 ft higher. Altitude of present gage is 4,600 ft (from topographic map).

Stage-discharge relation.--Reasonably stable but poorly defined. No discharge measurements above 1,300 cfs except float-area measurement at 4,300 cfs.

Remarks.--Records for 1928-30 were collected by New Mexico State engineer. Peaks for these years are published in WSP 1311. Diversions above station for irrigation of about 6,500 acres probably does not affect peak discharges. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1928	May 17, 1928	7.5	4,300	1931	Sept. 24, 1931	9.00	3,800
1929	Oct. 15, 1928	7.7	2,600	1932	Aug. 21, 1932	8.65	2,910
1930	July 21, 1930	5.25	950	1933	July 23, 1933	8.12	2,460

ARKANSAS RIVER BASIN

1544. Carrizozo Creek near Kenton, Okla.

Location--Lat 36°52'55", long 103°01'05", in NE $\frac{1}{4}$ sec.31, T.31 N., R.37 E., under bridge on New Mexico State Highway 18, about 4 miles southwest of Kenton, Okla.

Drainage area--111 sq mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined by 2 indirect measurements and 1 current-meter measurement. Poorly defined below 4,000 cfs.

Bankfull stage--11 ft.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	-	-	2,160	1956	Aug. 18, 1956	9.52	6,230
1954	August 1954	7.52	3,600	1957	Aug. 18, 1957	7.64	3,750
1955	May 19, 1955	7.35	3,400	1958	July 6, 1958	12.22	15,600

a Result of indirect measurement made in 1956.

1545. Cimarron River near Kenton, Okla.

Location--Lat 36°56', long 102°57', in SE $\frac{1}{4}$ sec.4, T.5 N., R.1 E., near right bank on downstream side of pier of highway bridge, 1.5 miles upstream from Carrizo Creek, 1.7 miles northeast of Kenton, 2.2 miles downstream from Carrizozo Creek, and at mile 594.0.

Drainage area--1,106 sq mi, of which about 1,038 sq mi contributes directly to surface runoff.

Gage--Recording. Datum of gage is 4,267.08 ft above mean sea level, datum of 1929 (levels by State Highway Commission).

Stage-discharge relation--Defined by current-meter measurements below 6,000 cfs and extended above on basis of logarithmic plotting.

Bankfull stage--13 ft.

Historical data--Corps of Engineers report that a major flood occurred in May 1914.

Remarks--Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Aug. 21, 1951	5.96	2,850	1954	Aug. 13, 1954	10.67	14,100
1952	Aug. 23, 1952	6.12	3,130	1955	Oct. 6, 1954	7.40	5,790
1953	July 3, 1953	6.65	4,000	1955	May 20, 1955	10.02	11,800
	June 29, 1953	7.05	4,630	1956	June 28, 1956	6.32	3,820
	Aug. 17, 1953	8.00	6,610		Aug. 18, 1956	9.35	10,000
1954	July 23, 1954	7.00	4,630	1957	Aug. 18, 1957	7.78	6,780
	Aug. 7, 1954	7.86	6,390	1958	July 6, 1958	13.67	26,500

1550. Cimarron River above Ute Creek, near Boise City, Okla.
(Published as "near Garret" May 1905 to July 1907)

Location--Lat 36°55', long 102°36', in SE $\frac{1}{4}$ sec.10, T.5 N., R.4 E., on right bank 1,000 ft downstream from Kohler's dam, 1 mile upstream from Cold Springs Creek, 5.5 miles upstream from Ute Creek, 14 miles northwest of Boise City, and at mile 560.0.

Drainage area--1,955 sq mi, of which about 1,879 sq mi contributes directly to surface runoff.

Gage--Nonrecording prior to 1942 at site half a mile upstream at unknown datum; recording thereafter. Datum of last used gage, 3,932.85 ft above mean sea level, datum of 1929 (levels by Bureau of Reclamation).

Stage-discharge relation--Defined by current-meter measurements below 4,200 cfs and extended to 17,200 cfs on basis of computation of flow over dam. Peak discharge for flood in 1942 from mean of slope-area measurements and logarithmic extension above 41,000 cfs for station at Boise City.

Bankfull stage--16 ft.

Historical data--Flood in 1914 was 3 or 4 ft higher than in 1942, from information by local resident. Channel capacity has greatly increased due to erosion since 1914.

Remarks--Base for partial-duration series, 1,700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1906	Sept. 27, 1906	12.25	5,000	1950	June 19, 1950	7.23	8,220
					June 22, 1950	3.79	1,950
1942	Apr. 20, 1942	20.1	80,000		July 13, 1950	4.02	2,200
					July 20, 1950	5.05	3,920
1943	Aug. 6, 1943	6.90	5,000		July 28, 1950	9.66	15,000
	Aug. 26, 1943	5.68	3,920		Aug. 1, 1950	9.49	14,300
1944	May 29, 1944	4.77	1,800		Aug. 14, 1950	4.06	2,310
					Aug. 26, 1950	7.80	9,580
1945	May 30, 1945	8.0	8,660		Aug. 29, 1950	7.26	8,460
	Aug. 21, 1945	7.8	7,930	1951	May 15, 1951	10.22	17,200
1946	May 28, 1946	8.29	9,130		May 21, 1951	4.77	3,480
	Aug. 15, 1946	8.31	9,150		June 5, 1951	3.58	1,760
1947	July 3, 1947	5.00	2,910		June 12, 1951	3.73	1,980
	July 7, 1947	4.82	2,640		July 12, 1951	5.03	4,190
	Aug. 15, 1947	7.09	6,500		Aug. 21, 1951	7.67	9,350
1948	June 1, 1948	5.76	4,060	1952	Aug. 24, 1952	4.30	2,720
	June 21, 1948	5.27	3,260	1953	June 29, 1953	4.60	3,140
	Aug. 4, 1948	4.48	1,760		July 3, 1953	10.16	17,200
	Aug. 7, 1948	7.00	6,040		July 11, 1953	6.03	5,720
	Sept. 8, 1948	9.68	13,000		Aug. 6, 1953	3.50	1,710
1949	June 5, 1949	8.70	10,200		Aug. 17, 1953	8.14	10,300
	July 12, 1949	4.49	2,290	1954	July 23, 1954	8.25	10,600
1950	June 17, 1950	4.23	2,580		July 28, 1954	4.97	3,780
					Aug. 7, 1954	6.8	7,350
					Aug. 13, 1954	9.61	14,700

1555. Cimarron River near Boise City, Okla.

Location--Lat 36°55'15", long 102°31'15", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.9, T.5 N., R.5 E., on downstream side of central pier of bridge on U. S. Highway 287, 2 miles downstream from Ute Creek, 13 miles north of Boise City, and at mile 551.5.

Drainage area--2,214 sq mi, of which about 2,023 sq mi contributes directly to surface runoff.

Gage--Recording. Datum of gage is 3,859.86 ft above mean sea level (State Highway Commission bench mark).

Stage-discharge relation--Defined by current-meter measurements below 41,000 cfs and extended above on basis of logarithmic plotting and of slope-area measurement of peak flow in 1942 at site 8.5 miles above station.

Bankfull stage--7 ft.

Remarks--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 1,700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	May 1914	a17.23	-	1941	May 2, 1941	7.75	30,600
					May 23, 1941	7.80	29,600
1938	Sept. 4, 1938	8.0	a39,200		June 2, 1941	5.06	8,990
					June 7, 1941	4.44	4,480
1939	Oct. 9, 1938	4.04	5,490		June 17, 1941	5.20	4,700
	Jan. 8, 1939	3.16	2,220		June 26, 1941	6.10	8,250
	May 4, 1939	7.10	29,100		July 4, 1941	6.50	11,900
	May 26, 1939	3.28	2,360		July 13, 1941	4.82	3,840
	June 28, 1939	3.50	2,800		July 16, 1941	6.06	8,250
	July 1, 1939	3.55	2,760		July 25, 1941	5.18	5,320
	July 17, 1939	4.35	6,750		Aug. 20, 1941	5.82	6,810
	Aug. 4, 1939	3.91	3,960		Sept. 22, 1941	10.00	60,200
	Aug. 20, 1939	6.00	18,800				
1940	June 10, 1940	6.25	21,000	1942	Oct. 22, 1941	5.80	17,100
	July 5, 1940	4.85	8,760		Apr. 20, 1942	11.90	80,000
	Aug. 8, 1940	4.94	9,950		Apr. 24, 1942	4.39	4,990
	Sept. 4, 1940	6.20	20,500		June 22, 1942	6.62	18,000
					July 10, 1942	5.64	3,330
1941	Oct. 1, 1940	6.30	17,900		July 19, 1942	5.90	6,100
					Sept. 2, 1942	6.00	7,750

a Annual peak only.

1565. Cimarron River near Satanta, Kans.

Location--Lat 37°23'30", long 101°02'50", in SW $\frac{1}{4}$ sec.33, T.30 S., R.34 W., at bridge on State Highway 45, 5 miles southwest of Satanta, 6.1 miles downstream from North Fork, and at mile 431.2.

Drainage area--7,345 sq mi, of which about 3,922 sq mi contributes directly to surface runoff.

Gage--Recording. Datum of gage is 2,788.35 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 8,200 cfs and extended to 69,000 cfs on basis of velocity-area studies and current-meter measurements below 18,000 cfs for station near Liberal 31 miles downstream. Shifts in relation occur.

Historical data--Flood in May 1914 was the "highest water ever experienced--in the Cimarron Valley", according to the U. S. Weather Bureau Climatological Data of May 1914.

Flood of Sept. 5, 1938, reached a stage of about 16.1 ft, on basis of comparison with flood of Sept. 24, 1941, at The Atchison, Topeka and Santa Fe Railway Co. bridge about half a mile upstream from gage.

Remarks--Only annual peaks are shown.

Peak stages and discharges of Cimarron River near Satanta, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Sept. 5, 1938	16.1	25,000	1944	May 30, 1944	9.40	2,400
				1945	Aug. 23, 1945	9.50	2,560
1941	Sept. 24, 1941	20.0	47,000				
1942	Apr. 21, 1942	22.0	69,000	1946	May 29, 1946	11.39	6,360
1943	Oct. 20, 1942	7.21	625	1947	Oct. 7, 1946	9.75	a2,960

a Maximum Oct. 1 to Dec. 31; probably maximum for year.

1568. Cimarron River near Liberal, Kans.

(Published as "at Arkalon" 1895-96, 1905. and "near Arkalon" 1903-4)

Location.--Lat 37°09', long 100°45', in sec. 25, T. 33 S., R. 32 W., at bridge on U. S. Highway 54, 13 miles northeast of Liberal and at mile 400.0.

Drainage area.--8,254 sq mi, of which about 4,107 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Feb. 29, 1939, and since May 25, 1941; recording Mar. 1, 1939, to May 24, 1941. Datum of gage is 2,533.69 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Prior to Nov. 1, 1905, at site a quarter of a mile upstream at different datum.

Stage-discharge relation.--Defined by current-meter measurements below 18,000 cfs and extended to 69,000 cfs on basis of velocity-area studies. Shifts in relation occur.

Historical data.--Flood in May 1914 was the "highest water ever experienced---in the Cimarron Valley," according to the U. S. Weather Bureau Climatological Data of May 1914.

Remarks.--Supplemental peak discharges are shown only during the period when recording gage was operated. Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1895	July 28, 1895	8.7	-	1939	July 23, 1939	7.3	2,070
1896	Apr. 12, 1896	5.0	90	1940	May 8, 1940	7.08	2,500
				1941	Oct. 3, 1940	7.45	2,740
1938	Sept. 5, 1938	11.0	23,000		May 3, 1941	9.7	25,000
1939	May 5, 1939	8.0	3,650		May 24, 1941	9.0	25,000
					July 2, 1939	8.7	5,350

1570. Cimarron River near Mocane, Okla.

Location.--Lat 36°59', long 100°19' in SW¹/₄ NW¹/₄ sec. 24, T. 6 N., R. 25 E., near right bank on downstream side of county highway bridge, 6½ miles northeast of Mocane, 14.7 miles upstream from Crooked Creek, and at mile 364.1.

Drainage area.--8,670 sq mi, of which about 4,305 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Nov. 9, 1942; recording thereafter. Datum of gage is 2,206.12 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 6,300 cfs and extended above on basis of slope-area measurement at 53,400 cfs.

Bankfull stage.--3 ft.

Historical data.--Local resident stated that flood in 1914 was 2 or 3 ft higher than that in April 1942 which exceeded by half a foot the flood in May 1951.

Remarks.--Diversion above station for irrigation of about 11,000 acres. Base for partial-duration series, 3,000 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Cimarron River near Mocane, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	-	13.0	-	1951	June 7, 1951	2.71	3,440
1942	April 1942	10.5	-		June 23, 1951	3.25	6,150
					Aug. 23, 1951	2.88	3,780
1943	Oct. 14, 1942	-	3,000	1952	Aug. 23, 1952	2.18	1,080
1944	May 31, 1944	3.69	2,970	1953	Aug. 20, 1953	3.60	4,650
1945	June 26, 1945	5.12	9,600	1954	Aug. 9, 1954	3.60	3,010
1946	May 30, 1946	3.95	4,050		Aug. 15, 1954	3.81	4,300
1947	Oct. 6, 1946	4.38	5,520	1955	Aug. 14, 1955	4.85	6,920
	Oct. 8, 1946	5.03	8,150		May 18, 1955	5.00	7,610
1948	Aug. 14, 1948	4.60	4,300		May 22, 1955	5.45	11,200
	Sept. 11, 1948	4.69	5,330		May 26, 1955	4.24	5,790
1949	June 4, 1949	5.30	8,200	1956	Aug. 21, 1956	3.40	2,630
	June 7, 1949	5.50	10,500	1957	May 16, 1957	5.06	9,300
	June 13, 1949	4.20	4,440		May 29, 1957	4.06	4,520
1950	July 30, 1950	4.32	3,690		June 1, 1957	3.73	3,130
	Aug. 3, 1950	4.83	6,320		June 24, 1957	4.17	5,020
	Aug. 29, 1950	3.96	4,090		July 25, 1957	4.82	8,100
	Aug. 31, 1950	4.04	4,440		Aug. 3, 1957	3.78	3,330
1951	Oct. 2, 1950	4.22	3,200	1958	Aug. 30, 1957	3.90	3,830
	May 14, 1951	5.07	7,720		Sept. 11, 1957	3.93	3,960
	May 17, 1951	9.94	53,400		June 21, 1958	4.15	4,920
	May 22, 1951	2.75	3,640		June 23, 1958	4.73	7,660
					July 8, 1958	6.75	21,300
					Aug. 19, 1958	4.87	8,460

1575. Crooked Creek near Nye, Kans.

Location.--Lat 37°02', long 100°12', at southeast corner of sec.1, T.35 S., R.27 W., at bridge on county road, 6½ miles east of Nye and 14.0 miles upstream from mouth.

Drainage area.--1,157 sq mi, of which about 813 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 2,163.79 ft above mean sea level (unadjusted).

Stage-discharge relation.--Defined by current-meter measurements below 2,400 cfs and extended to 13,600 cfs on basis of mean of slope-area measurement and of current-meter measurement of 10,000 cfs at site 10 miles above station.

Bankfull stage.--5 ft.

Historical data.--In 1943, resident supplied information to indicate stage had not exceeded 5.5 ft in past 10 years. Flood of May 23, 1951, was reported by resident in 1951 to be maximum known and to exceed that in 1913.

Remarks.--Base for partial-duration series, 1,400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Aug. 5, 1943	2.03	118	1948	Aug. 9, 1948	3.89	1,610
1944	Apr. 29, 1944	3.68	1,360		Aug. 14, 1948	5.12	3,330
1945	June 26, Aug. 15	4.65	2,310	1949	Apr. 26, 1949	6.93	7,100
1946	Aug. 27, 1946	4.78	2,530		May 16, 1949	5.28	3,490
1947	Oct. 10, 1946	5.66	3,970		June 4, 1949	6.82	5,970
	Apr. 12, 1947	6.13	4,950		June 9, 1949	4.65	2,150
1948	June 28, 1948	4.18	2,080	1950	June 13, 1949	5.00	3,570
	Aug. 1, 1948	3.72	1,400		Sept. 11, 1949	4.89	1,820
					Oct. 10, 1949	6.20	3,930
					Oct. 12, 1949	6.50	4,660
					July 27, 1950	7.15	6,360

ARKANSAS RIVER BASIN

Peak stages and discharges of Crooked Creek near Nye, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1950	July 29, 1950	6.70	4,910	1954	July 23, 1954	4.47	1,320	
	Aug. 22, 1950	6.08	2,980		1955	May 20, 1955	8.01	13,600
	Aug. 29, 1950	6.28	2,880			May 23, 1955	4.25	2,140
1951	May 14, 1951	6.72	4,370	May 26, 1955		4.07	1,840	
	May 18, 1951	7.40	7,400	June 16, 1955		4.21	1,840	
	May 23, 1951	7.59	10,000	June 20, 1955		4.56	2,290	
	July 2, 1951	5.47	3,070	1956	July 3, 1956	4.38	1,640	
	Sept. 5, 1951	4.49	1,550		1957	May 16, 1957	6.24	4,220
1952	Apr. 29, 1952	5.98	3,730	May 31, 1957		4.92	2,220	
	1953	July 11, 1953	5.68	3,210	1958	July 5, 1958	5.01	1,860
July 23, 1953		5.10	2,370	Aug. 20, 1958		7.94	13,200	

1580. Cimarron River near Waynoka, Okla.

Location.--Lat 36°30'55", long 98°52'45", near center of sec.35, T.24 N., R.16 W., near right bank on downstream side of bridge on U. S. Highway 281, three-quarters of a mile downstream from Maine Creek, 5 miles south of Waynoka, and at mile 247.0.

Drainage area.--13,334 sq mi, of which about 8,504 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 1,367.50 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 45,000 cfs and extended above on basis of contracted-opening measurement at 94,500 cfs.

Bankfull stage.--8 ft.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1914	May 1914	14.0	-	1942	Apr. 22, 1942	10.50	55,000	
1935	May 19, 1935	14.5	-		1943	Oct. 3, 1942	9.10	31,700
	1938	Apr. 27, 1938	9.26	44,400		May 19, 1943	6.40	10,000
May 2, 1938		6.02	11,100	July 18, 1943		7.73	24,400	
May 19, 1938		9.49	46,600	1944	Apr. 22, 1944	9.80	47,000	
May 23, 1938		10.70	60,000		July 10, 1944	7.33	14,400	
May 31, 1938		7.17	22,300		July 25, 1944	9.00	30,600	
1939	June 20, 1938	7.00	20,300	1945	Oct. 2, 1944	7.20	13,100	
	Aug. 16, 1938	8.40	34,500		June 27, 1945	7.32	13,900	
	Sept. 7, 1938	7.2	22,300		Sept. 28, 1945	8.00	20,400	
	1940	Apr. 5, 1939	7.17	22,200	1946	June 29, 1946	6.64	8,570
		Apr. 15, 1939	5.85	12,100		1947	Oct. 6, 1946	7.23
June 12, 1939		6.44	15,200	Nov. 6, 1946	7.19		11,500	
1941	May 19, 1940	7.50	19,500	Apr. 13, 1947	8.13	20,800		
	July 2, 1940	7.05	15,100	May 15, 1947	7.27	10,100		
	Aug. 9, 1940	6.95	14,100	1948	June 28, 1948	9.35	34,600	
1942	Apr. 15, 1941	7.80	22,600		1949	May 7, 1949	7.25	10,500
	May 4, 1941	7.35	18,000	May 16, 1949		10.00	42,900	
	May 20, 1941	7.70	19,500	May 21, 1949		8.90	28,200	
	May 26, 1941	7.34	16,500	June 5, 1949		8.55	24,000	
	June 9, 1941	8.10	26,100	June 8, 1949		7.77	15,300	
Sept. 25, 1941	8.35	29,700	June 13, 1949	8.60	24,600			
1942	Oct. 23, 1941	9.70	45,100	July 27, 1949	7.80	15,800		
	Apr. 18, 1942	7.26	17,000					

Peak stages and discharges of Cimarron River near Waynoka, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1949	Sept. 12, 1949	7.68	14,800	1955	May 23, 1955	7.71	17,400	
1950	July 19, 1950	8.03	18,400		May 26, 1955	9.10	34,000	
	July 25, 1950	8.45	22,800		June 18, 1955	8.56	27,100	
	July 28, 1950	11.40	70,000		June 20, 1955	8.37	24,700	
	Aug. 2, 1950	8.90	32,600	1956	Aug. 19, 1956	6.31	6,290	
	Aug. 4, 1950	6.90	12,300					
		Aug. 30, 1950	6.72	10,700	1957	Apr. 17, 1957	7.72	17,400
		Sept. 16, 1950	6.83	11,900			Apr. 23, 1957	7.40
1951	May 18, 1951	9.54	37,700		May 2, 1957	7.83	19,000	
	May 23, 1951	8.69	28,300		May 10, 1957	9.06	34,000	
	June 22, 1951	8.18	17,900		May 13, 1957	8.28	22,900	
	June 24, 1951	9.58	33,900		May 16, 1957	15.10	94,500	
	June 30, 1951	9.43	28,700		May 24, 1957	8.44	27,700	
	July 4, 1951	6.65	10,200		May 30, 1957	10.56	48,400	
						June 10, 1957	8.31	26,500
1952	May 1, 1952	6.87	7,640		June 18, 1957	6.79	11,900	
1953	July 12, 1953	6.30	6,010		June 23, 1957	11.78	60,200	
1954	May 24, 1954	7.11	9,540	1958	July 1, 1957	9.71	41,800	
1955	May 19, 1955	9.73	41,800			Sept. 14, 1957	6.65	10,700
					June 26, 1958	8.34	16,400	
					July 9, 1958	7.85	13,000	

1585. Preacher Creek near Dover, Okla.

Location.--Lat 36°03', long 98°01', in NW¹ NW¹ sec. 13, T. 18 N., R. 8 W., on right bank 75 ft downstream from county highway bridge, 1.4 miles upstream from mouth, and 7 miles northwest of Dover.

Drainage area.--14.5 sq mi.

Gage.--Recording gage and Parshall flume. Altitude of gage is 1,073 ft.

Stage-discharge relation.--Defined by current-meter measurements below 70 cfs and extended above on basis of slope-area measurement at 6,420 cfs.

Bankfull stage.--3 ft.

Historical data.--In 1951, local residents stated that a stage of about 4 ft occurred "several years ago." The stage of 4.73 ft, occurring July 24, 1953, was reported to be the highest since at least 1918.

Remarks.--Base for partial-duration series, 50 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1952	Apr. 22, 1952	2.31	9.2	1955	May 26, 1955	4.87	512	
1953	July 19, 1953	4.02	155			June 16, 1955	4.41	275
	July 24, 1953	4.73	431			June 17, 1955	3.74	100
1954	May 24, 1954	3.08	32	1956	Oct. 4, 1955	3.84	118	
				1957	May 15, 1957	9.1	6,420	

1590. Turkey Creek near Drummond, Okla.

Location.--Lat 36°19', long 98°00', in NE $\frac{1}{4}$ sec.12, T.21 N., R.8 W., near right bank on downstream side of pile bent of county highway bridge, $2\frac{1}{4}$ miles northeast of Drummond, $2\frac{1}{2}$ miles downstream from Clear Creek, and 9 miles southwest of Enid.

Drainage area.--248 sq mi.

Gage.--Recording. Datum of gage is 1,148.22 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 7,300 cfs and extended above by logarithmic plotting.

Bankfull stage.--18 ft.

Remarks.--Base for partial-duration series, 1,800 cfs.

Peak stages and discharges .

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1948	May 10, 1948	5.92	1,620	1953	June 5, 1953	4.94	1,230	
1949	Mar. 30, 1949	8.46	2,800	1954	May 25, 1954	4.25	908	
	May 19, 1949	7.26	2,240		1955	May 9, 1955	7.88	2,520
	May 21, 1949	6.69	1,970			May 19, 1955	8.10	2,620
	May 23, 1949	7.85	2,480	June 18, 1955		13.30	5,320	
		May 28, 1949	11.69	4,390	1956	Oct. 2, 1955	6.23	1,750
		June 4, 1949	6.79	2,020				
1950	May 8, 1950	17.36	10,200	1957	Apr. 23, 1957	6.67	1,850	
	May 10, 1950	8.29	2,710		May 3, 1957	6.58	1,840	
	July 20, 1950	6.59	1,930	May 16, 1957	21.61	18,800		
	July 29, 1950	20.44	16,300	May 25, 1957	8.58	2,660		
	Aug. 1, 1950	8.12	2,620	June 10, 1957	12.38	4,550		
1951	May 22, 1951	7.61	2,380	June 18, 1957	7.70	2,240		
	May 27, 1951	7.17	2,200	June 23, 1957	11.55	3,620		
	June 21, 1951	8.31	2,710	June 26, 1957	10.32	3,090		
	June 30, 1951	8.17	2,660	July 1, 1957	7.15	1,840		
	July 4, 1951	7.46	2,340	1958	Nov. 17, 1957	3.93	695	
	1952	Apr. 22, 1952	2.35					254

1595. Bluff Creek above Lake Hefner, near Oklahoma City, Okla.

Location.--Lat 35°32'33", long 97°35'46", in SW $\frac{1}{4}$ sec.2, T.12 N., R.4 W., on left bank at upstream side of weir at bridge in Lake Hefner recreational area, just upstream from Lake Hefner, $6\frac{1}{4}$ miles northwest of the State Capitol in Oklahoma City.

Drainage area.--1.62 sq mi.

Gage.--Recording. Datum of gage is 1,199.86 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 80 cfs and extended above on basis of weir determination at 1,070 cfs.

Bankfull stage.--6 ft.

Remarks.--About 9.5 percent of drainage is in urban area of Warr Acres. Some regulation by ponds in basin. Base for partial-duration series, 70 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	May 9, 1951	2.55	192	1955	June 16, 1955	4.95	1,070
	May 18, 1951	2.20	120		June 17, 1955	2.76	240
	May 27, 1951	3.49	452	1956	Oct. 2, 1955	2.58	199
	July 24, 1951	2.44	168				
1952	May 23, 1952	1.78	47	1957	Apr. 22, 1957	2.15	110
1953	Apr. 5, 1953	2.06	94		May 24, 1957	2.21	122
	July 20, 1953	2.28	136	June 22, 1957	2.37	154	
				Sept. 14, 1957	1.97	78	
1954	May 1, 1954	2.45	170	1958	Apr. 19, 1958	2.82	255
1955	May 19, 1955	3.46	441		June 21, 1958	2.36	152
					June 25, 1958	2.47	175

1598. Cottonwood Creek at Guthrie, Okla.

Location--Lat 35°53', long 97°26', in NE $\frac{1}{4}$ sec.8, T.16 N., R.2 W., near upstream side of bridge on State Highway 33 in northwest Guthrie, 2 $\frac{1}{2}$ miles upstream from mouth.

Drainage area--370 sq mi.

Gage--Reference point at tree and at street curb. Datum is at mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Not defined.

Bankfull elevation--923 ft.

Remarks--Data furnished by Ed Nelson, local resident, who has recorded all peaks above 924 ft since at least 1889.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1889	April 1889	927.1	-	1927	Apr. 12, 1927	927.85	-
1908	May 28, 1908	927.4	-	1941	May 4,5, 1941	925.2	-
1910	Nov. 28, 1909	927.1	-	1945	Apr. 16, 1945	925.6	-
1912	May 1912	927.4	-	1947	Apr. 14, 1947	925.3	-
1916	April 1916	927.5	-	1949	May 19, 1949	929.6	-
1921	March 1921	927.1	-	1956	Oct. 3, 1955	924.7	-
					Oct. 5, 1955	925.2	-

1600. Cimarron River near Guthrie, Okla.

Location--Lat 35°55'10", long 97°25'35", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.29, T.17 N., R.2 W., on left bank 125 ft upstream from The Atchison, Topeka and Santa Fe Railway Co. bridge, 1.2 miles downstream from Cottonwood Creek, 2 $\frac{1}{2}$ miles north of Guthrie, 6.5 miles upstream from Skeleton Creek (Ephraim Creek), and at mile 121.8.

Drainage area--16,892 sq mi, of which 11,966 sq mi contributes directly to surface runoff.

Gage--Nonrecording prior to Mar. 10, 1939 at railway bridge; recording thereafter. Datum of gage is 900.50 ft above mean sea level (Corps of Engineers bench mark).

Stage-discharge relation--Defined by current-meter measurements.

Bankfull stage--10 ft.

Historical data--Flood in May 1935 is greatest known prior to flood of May 17, 1957, from information by Corps of Engineers. Other major floods are reported to have occurred in May 1914 and October 1926.

Remarks--Base for partial-duration series, 13,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	May 1935	16.5	90,000	1941	Apr. 16, 1941	8.13	23,600
					May 5, 1941	9.31	32,000
1938	Apr. 28, 1938	7.92	25,400		May 22, 1941	7.66	15,000
	May 5, 1938	6.86	15,700		May 24, 1941	8.02	13,900
	May 20, 1938	10.7	46,300		June 10, 1941	9.87	21,400
	May 24, 1938	10.10	42,100				
	June 1, 1938	7.85	24,500	1942	Oct. 16, 1941	7.84	15,000
	June 21, 1938	7.56	22,800		Oct. 25, 1941	11.40	41,400
	Aug. 17, 1938	6.85	16,200		Apr. 10, 1942	9.22	26,200
1939	Apr. 6, 1939	7.16	22,000		Apr. 20, 1942	11.90	45,400
					Apr. 23, 1942	10.19	34,400
1940	July 3, 1940	7.15	10,600		Apr. 26, 1942	10.59	38,200

Peak stages and discharges of Cimarron River near Guthrie, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	May 20, 1943	11.57	42,900	1950	Aug. 2, 1950	11.10	32,300
1944	Apr. 11, 1944	11.01	43,000	1951	May 20, 1951	11.80	42,500
	Apr. 23, 1944	9.15	27,800		May 23, 1951	9.42	20,800
	June 14, 1944	8.65	16,700		May 26, 1951	8.78	17,400
			June 23, 1951		8.30	14,000	
1945	Apr. 16, 1945	10.87	41,500	June 26, 1951	9.82	22,200	
	Sept. 29, 1945	9.77	22,200	July 1, 1951	10.41	27,900	
1946	June 30, 1946	8.37	16,100	July 6, 1951	8.40	14,500	
1947	Apr. 14, 1947	11.27	43,500	1952	May 3, 1952	5.35	4,230
	May 13, 1947	8.35	14,600	1953	July 20, 1953	6.70	5,620
	May 16, 1947	11.15	35,000				
1948	June 24, 1948	11.32	37,700	1954	May 26, 1954	8.66	11,000
	June 29, 1948	9.98	28,800	1955	May 21, 1955	13.70	43,400
	Aug. 10, 1948	8.15	13,400		May 24, 1955	9.48	16,800
	Aug. 15, 1948	8.31	14,300		May 27, 1955	11.89	30,600
1949	Mar. 31, 1949	7.8	16,000	June 19, 1955	11.13	28,200	
	May 20, 1949	12.98	51,500	1956	Oct. 5, 1955	11.90	39,400
	May 22, 1949	12.74	48,500				
	May 25, 1949	9.02	18,000	1957	Apr. 24, 1957	9.67	20,700
	June 7, 1949	8.68	16,700		May 3, 1957	10.67	30,600
	June 11, 1949	8.62	15,400		May 17, 1957	18.58	158,000
	June 15, 1949	9.62	21,500		May 21, 1957	10.94	42,000
			May 26, 1957		9.7	30,300	
			June 1, 1957	10.4	39,000		
			June 11, 1957	11.04	42,000		
1950	May 8, 1950	8.58	18,000				
	July 26, 1950	8.88	22,800				
	July 30, 1950	12.05	44,500				

1605. Skeleton Creek near Lovell, Okla.

Location.--Lat 36°04', long 97°35', in SW $\frac{1}{4}$ sec.1, T.18 N., R.4 W., near right bank on downstream side of pier of bridge on State Highway 74, 2 miles upstream from Otter Creek and $2\frac{3}{4}$ miles east of Lovell.

Drainage area.--410 sq mi.

Gage.--Nonrecording prior to Dec. 5, 1949; recording thereafter. Datum of gage is 914.76 ft above mean sea level, datum of 1929 (State Highway Commission bench mark).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--25 ft.

Historical data.--Local residents reported that flood in August 1932 was the highest known prior to 1957 and was considerably higher than the flood in 1912. The flood of July 30, 1950, was reported to be highest since 1922.

Remarks.--Base for partial-duration series, 1,200 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	Aug. 17, 1932	32.0	-	1951	June 15, 1951	16.73	2,040
1949	May 20, 1949	24.01	-		June 22, 1951	18.28	2,520
					July 2, 1951	18.44	2,550
1950	May 12, 1950	13.71	1,300	1952	Aug. 9, 1952	10.20	638
	July 21, 1950	17.88	2,420	1953	June 7, 1953	13.56	1,400
	July 26, 1950	13.90	1,360				
	July 30, 1950	27.57	8,970	1954	Nov. 20, 1953	14.48	1,290
1951	May 1, 1951	14.57	1,430	Dec. 4, 1953	13.90	1,430	
	May 18, 1951	17.35	2,190	1955	May 9, 1955	26.80	7,650
	May 23, 1951	17.78	2,340		May 20, 1955	26.40	7,070
	May 28, 1951	14.72	1,480				

Peak stages and discharges of Skeleton Creek near Lovell, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May 26, 1955	28.72	11,100	1957	June 11, 1957	23.30	4,090
	June 16, 1955	17.92	2,580		June 19, 1957	19.86	2,740
	June 19, 1955	22.56	4,440		June 24, 1957	26.21	7,370
	June 23, 1955	16.70	2,140		June 27, 1957	23.51	4,620
1956	Oct. 4, 1955	27.10	7,960	July 2, 1957	19.83	2,840	
				Sept. 16, 1957	20.93	3,220	
1957	Apr. 23, 1957	19.40	2,840	1958	Apr. 3, 1958	18.10	2,400
	May 4, 1957	20.66	3,260		May 30, 1958	15.83	1,710
	May 16, 1957	34.58	75,200		June 21, 1958	16.91	1,960
	May 21, 1957	21.57	3,620		June 25, 1958	19.42	2,710
	May 26, 1957	22.61	4,090		Sept. 10, 1958	18.82	2,520
	May 30, 1957	21.00	3,380				

1610. Cimarron River at Perkins, Okla.

Location.--Lat 35°58', long 97°02', in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 7, T.17 N., R.3 E., near right bank on downstream side of pier of bridge on State Highway 40, 1 mile south of Perkins, $\frac{1}{2}$ miles upstream from Dugout Creek, 4 miles downstream from Wildhorse Creek, and at mile 87.3.

Drainage area.--17,852 sq mi, of which about 12,926 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to June 26, 1940; recording thereafter. Datum of gage is 819.88 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 90,000 cfs and extended above by logarithmic plotting.

Bankfull stage.--11 ft.

Remarks.--Records furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 13,000 cfs. Only annual peaks are shown prior to 1940.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1912	-	17.0	-	1941	June 11, 1941	12.70	31,600
1927	Oct. 5, 1926	17.0	-	1942	Oct. 16, 1941	11.70	23,100
					Oct. 25, 1941	14.25	46,900
1928	May 18, 1928	10.6	-	1942	Apr. 10, 1942	12.40	30,600
					Apr. 20, 1942	14.30	48,300
1929	June 1, 1929	10.8	-	1942	Apr. 23, 1942	13.09	34,400
					Apr. 26, 1942	13.17	35,500
1930	May 17, 1930	10.4	-	1942	Aug. 14, 1942	11.75	23,100
1931	Apr. 18, 1931	10.1	-	1943	May 18, 1943	12.74	29,400
					May 20, 1943	14.08	46,600
1932	Aug. 18, 1932	14.6	-	1944	Apr. 11, 1944	14.08	55,700
1933	Sept. 4, 1933	10.5	-		Apr. 23, 1944	12.28	25,000
				June 14, 1944	11.93	17,000	
1934	Sept. 3, 1934	9.5	-	1945	Apr. 12, 1945	11.73	25,500
1935	June 21, 1935	18.0	-		Apr. 17, 1945	13.92	41,900
				Sept. 30, 1945	12.56	34,100	
1936	June 6, 1936	12.8	-	1946	June 30, 1946	11.03	16,000
1937	June 16, 1937	12.1	-		1947	Apr. 14, 1947	13.63
				May 13, 1947		11.33	17,400
1938	May 24, 1938	13.2	-	May 16, 1947	13.50	30,600	
1940	July 4, 1940	10.69	11,300	1947	May 22, 1947	10.55	14,100
1941	Apr. 17, 1941	11.90	24,600	1948	June 24, 1948	13.26	34,500
	May 6, 1941	12.57	29,700		June 29, 1948	12.87	29,400
	May 22, 1941	11.88	20,800	1949	May 19, 1949	15.22	65,300
	May 24, 1941	11.14	17,300		May 22, 1949	14.00	46,400
	June 8, 1941	10.55	14,700				

Peak stages and discharges of Cimarron River at Perkins, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	June 7, 1949	11.07	17,200	1954	May 27, 1954	10.43	11,000
	June 11, 1949	10.93	16,600		1955	May 11, 1955	11.15
	June 15, 1949	11.90	21,000	May 21, 1955		14.80	49,600
1950	May 9, 1950	10.05	17,600	May 27, 1955		13.80	35,400
	July 22, 1950	10.20	13,700	June 19, 1955	13.20	33,500	
	July 26, 1950	10.75	18,900	1956	Oct. 5, 1955	13.39	53,700
	July 31, 1950	13.80	49,000		1957	Apr. 24, 1957	11.62
	Aug. 2, 1950	13.36	39,600	May 3, 1957		11.51	28,300
	1951	May 20, 1951	13.90	50,200		May 17, 1957	19.53
May 23, 1951		11.50	25,000	May 21, 1957		15.75	94,000
May 26, 1951		10.73	18,900	May 26, 1957		12.22	33,000
June 15, 1951		10.73	18,100	June 1, 1957		12.70	34,500
June 23, 1951		10.54	17,700	June 11, 1957		12.61	53,200
June 26, 1951		11.53	27,200	June 19, 1957		9.67	19,000
July 1, 1951		11.40	33,800	June 25, 1957	13.80	76,600	
July 5, 1951		10.67	18,900	1958	June 22, 1958	8.77	15,800
1952	May 3, 1952	7.40	4,120		June 26, 1958	10.98	35,000
	1953	July 21, 1953	8.56	5,470			

1630. Council Creek near Stillwater, Okla.

Location.--Lat 36°07', long 96°52', in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.15, T.19 N., R.4 E., on right bank 200 ft upstream from county highway bridge, 10 miles east of Stillwater, and at mile 10.0.

Drainage area.--31 sq mi.

Gage.--Nonrecording prior to May 4, 1934; recording thereafter. Datum of gage is 838.28 ft above mean sea level, adjustment of 1912.

Stage-discharge relation.--Defined by current-meter measurements below 2,500 cfs and extended above on basis of slope-area measurements at gage heights 13.4 and 17.5 ft.

Bankfull stage.--10 ft.

Remarks.--Base for partial-duration series, 660 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1912	Apr. 27, 1912	16.6	14,400	1941	May 20, 1941	8.14	1,520	
1934	May 3, 1934	7.20	1,260		June 9, 1941	9.60	2,050	
	Sept. 2, 1934	5.32	797	1942	Oct. 15, 1941	8.57	1,700	
	Sept. 10, 1934	7.78	1,410		Oct. 22, 1941	9.79	2,120	
1935	Oct. 17, 1934	7.34	1,290		Oct. 30, 1941	10.62	2,410	
	June 17, 1935	5.00	736	Apr. 9, 1942	9.71	2,080		
	June 21, 1935	11.92	2,900	Apr. 17, 1942	11.75	3,090		
1936	Sept. 20, 1936	4.66	656	Apr. 19, 1942	12.76	4,190		
	1937	June 9, 1937	7.42	1,100	Apr. 24, 1942	10.28	2,300	
		June 15, 1937	5.37	717	June 21, 1942	8.64	1,700	
Sept. 7, 1937		8.79	1,480	June 24, 1942	13.42	5,170		
1938	Mar. 28, 1938	13.34	5,000	Aug. 14, 1942	17.54	18,000		
	May 7, 1938	8.70	1,450	1943	May 10, 1943	10.31	2,300	
	June 11, 1938	9.97	1,940		May 18, 1943	15.31	9,990	
	Aug. 16, 1938	10.10	1,980	Sept. 30, 1943	6.79	1,130		
1939	June 28, 1939	3.9	461	1944	Oct. 23, 1943	9.10	1,880	
	1940	Apr. 11, 1940	6.02		822	Apr. 10, 1944	9.15	1,910
		1941	Nov. 25, 1940		6.53	1,040	Apr. 22, 1944	5.58
May 4, 1941			9.43	1,980	June 6, 1944	7.50	1,340	
May 7, 1941	5.50		762	June 13, 1944	9.30	1,940		
1945	Dec. 4, 1944	7.66	1,400	June 19, 1944	5.95	890		
	Mar. 15, 1945	7.34	1,280	1945	Dec. 4, 1944	7.66	1,400	
	Sept. 25, 1945	9.06	1,880		Mar. 15, 1945	7.34	1,280	

a Annual peak only.

Peak stages and discharges of Council Creek near Stillwater, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Sept. 30, 1945	11.20	2,690	1952	Mar. 9, 1952	5.59	828
1946	Jan. 8, 1946	6.32	1,140		June 5, 1952	8.34	1,600
	May 30, 1946	5.09	727	1953	July 12, 1953	7.43	1,310
	June 26, 1946	8.03	1,490		July 23, 1953	8.07	1,530
	June 29, 1946	8.35	1,630		1954	May 1, 1954	7.89
1947	Apr. 15, 1947	7.14	1,220	1955		May 19, 1955	8.18
	Apr. 24, 1947	6.83	1,140		May 20, 1955	7.89	1,470
	May 16, 1947	11.01	2,590	1956	Oct. 4, 1955	4.17	524
	June 26, 1947	7.83	1,430		1957	Apr. 19, 1957	5.51
1948	June 23, 1948	7.44	1,310	Apr. 23, 1957		6.07	948
	June 28, 1948	10.07	2,220	May 8, 1957		5.85	875
	July 10, 1948	12.67	4,050	May 17, 1957		4.88	680
	July 16, 1948	6.19	976	May 20, 1957		17.01	16,400
1949	May 19, 1949	12.69	4,050	June 10, 1957	10.68	2,450	
	May 24, 1949	9.75	2,120	June 12, 1957	9.82	2,110	
1950	June 3, 1950	5.39	783	June 19, 1957	8.49	1,660	
	July 10, 1950	10.93	2,540	June 23, 1957	9.54	2,000	
	July 21, 1950	11.22	2,690	June 28, 1957	9.03	1,830	
	July 29, 1950	9.27	1,930	July 1, 1957	8.16	1,560	
	July 31, 1950	6.60	1,080	Sept. 14, 1957	6.26	999	
	1951	May 1, 1951	9.44	1,970	1958	Mar. 29, 1958	8.20
July 4, 1951		6.62	1,080	June 25, 1958		8.03	1,500
Sept. 9, 1951		8.19	1,560	July 5, 1958		7.64	1,370
				July 29, 1958		5.24	740
1952	Oct. 6, 1951	4.86	680		Aug. 20, 1958	6.92	1,160

1635. Cimarron River at Oilton, Okla.

Location.--Lat 36°06', long 96°35', in SW $\frac{1}{4}$ sec. 28, T.19 N., R.7 E., near center of span on downstream side of pier of bridge on State Highway 51, half a mile north of Oilton, $4\frac{1}{4}$ miles upstream from Buckeye Creek, and at mile 35.1.

Drainage area.--18,669 sq mi, of which about 13,743 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Sept. 30, 1938; recording thereafter. Datum of gage is 718.99 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 56,000 cfs and extended above.

Bankfull stage.--18 ft.

Remarks.--Base for partial-duration series, 15,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	October 1908	21.3	-	1942	Oct. 16, 1941	10.53	19,700
1935	Mar. 24, 1935	10.26	17,200		Oct. 25, 1941	13.52	42,500
	May 15, 1935	11.09	22,600	Oct. 30, 1941	15.08	56,100	
	May 20, 1935	13.96	45,800	Apr. 9, 1942	12.20	33,500	
	June 21, 1935	16.8	72,300	Apr. 17, 1942	11.24	24,300	
				Apr. 21, 1942	14.90	54,600	
1936	June 6, 1936	12.07	30,900	Apr. 23, 1942	12.59	35,000	
				June 21, 1942	10.83	21,100	
1937	June 16, 1937	11.63	26,500	June 24, 1942	13.68	43,900	
				Aug. 14, 1942	15.37	59,100	
1938	Mar. 28, 1938	12.85	38,400	1943	May 10, 1943	11.94	30,600
	May 20, 1938	12.0	31,000		May 19, 1943	14.70	53,700
	May 24, 1938	12.36	34,600	1944	Oct. 23, 1943	10.85	19,400
	Aug. 17, 1938	10.50	18,100		Apr. 11, 1944	13.22	47,500
1939	July 2, 1939	9.15	9,550	Apr. 24, 1944	10.86	22,300	
				June 14, 1944	10.09	15,900	
1940	Sept. 4, 1940	12.11	29,200	1945	Apr. 12, 1945	11.25	27,000
1941	Apr. 17, 1941	10.97	21,400		Apr. 17, 1945	12.17	37,500
	May 6, 1941	11.30	23,600		Sept. 30, 1945	14.56	52,800
	June 11, 1941	11.48	25,200				

1640. Cimarron River at Mannford, Okla.

Location.--Lat 36°09', long 96°23', in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.5, T.19 N., R.9 E., on downstream side of county highway bridge, half a mile north of Mannford, 1 $\frac{1}{2}$ miles downstream from House Creek, and at mile 17.7.

Drainage area.--18,849 sq mi, of which about 13,923 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Oct. 1, 1942, at site 1 1/8 miles upstream at datum 5.00 ft higher; recording gage thereafter at last used site and datum. Datum of last used gage, 682.92 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 85,000 cfs and extended above.

Bankfull stage.--18 ft.

Historical data.--According to local residents, the flood in October 1908 was about 0.5 ft higher than that in 1940.

Remarks.--Records furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 17,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1918	-	20.0	-	1946	July 1, 1946	13.18	15,400
1936	July 1936	18.5	a53,000	1947	Apr. 15, 1947 May 16, 1947	19.22 17.90	53,800 44,800
1939	July 2, 1939	8.10	7,300	1948	June 23, 1948 June 29, 1948 July 11, 1948	18.40 15.00 18.13	48,100 26,700 46,200
1940	Sept. 4, 1940	25.2	103,000	1949	Feb. 7, 1949 May 19, 1949 May 23, 1949 May 26, 1949 June 3, 1949 June 16, 1949	16.12 23.58 18.10 16.60 14.06 13.53	33,400 78,400 45,400 36,400 22,100 19,000
1941	Apr. 17, 1941 May 6, 1941 June 11, 1941	11.70 11.97 12.10	22,100 24,800 23,600	1950	July 21, 1950 July 27, 1950 July 31, 1950 Aug. 2, 1950	14.40 13.06 17.20 16.62	25,900 17,400 43,600 36,400
1942	Oct. 16, 1941 Oct. 24, 1941 Oct. 30, 1941 Apr. 9, 1942 Apr. 17, 1942 Apr. 19, 1942 Apr. 25, 1942 June 21, 1942 June 24, 1942 Aug. 14, 1942	10.60 13.64 18.00 13.10 11.60 17.00 12.70 11.15 15.90 17.53	28,900 45,500 70,000 34,000 27,200 63,000 32,200 25,400 49,200 57,800	1951	May 20, 1951 June 15, 1951 June 26, 1951 July 2, 1951	17.43 13.73 14.58 15.17	45,000 - - -
1943	May 10, 1943 May 19, 1943	17.05 19.40	39,500 56,500	1952	Mar. 11, 1952	11.57	11,000
1944	Oct. 23, 1943 Apr. 11, 1944 Apr. 24, 1944	13.93 17.17 13.69	22,000 46,800 23,900	1953	July 12, 1953	12.40	14,500
1945	Apr. 12, 1945 Apr. 17, 1945 Sept. 30, 1945	15.60 16.05 20.40	32,800 37,200 62,500	1954	May 28, 1954	12.29	14,000
				1955	May 22, 1955	19.20	54,000

a Annual peak only.

ARKANSAS RIVER BASIN

1645. Arkansas River at Tulsa, Okla.

Location.--Lat 36°08'40", long 96°00'10", in NW¼ sec.11, T.19 N., R.12 E., near left bank on downstream side of pier of bridge on U. S. Highway 66 in Tulsa, 10.1 miles upstream from Polecat Creek, 17.1 miles downstream from Cimarron River, and at mile 523.7.

Drainage area.--74,615 sq mi, of which about 62,074 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Feb. 2, 1939; recording thereafter. Prior to Oct. 1, 1952, at datum 3.00 ft higher. Datum of present gage is 615.23 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Prior to 1938, defined by 35 current-meter measurements made by Corps of Engineers during 1926-32 below 60,000 cfs and extended to 114,000 cfs on basis of subsequent ratings defined by current-meter measurements to maximum discharge for period of record. Some rock outcrops in channel probably stabilize high-water rating.

Bankfull stage.--19 ft.

Remarks.--Slight regulation since December 1943 by John Martin Reservoir on Arkansas River (capacity, 662,900 acre-ft) and since June 1941 by Great Salt Plains Reservoir on Salt Fork Arkansas River (capacity, 292,400 acre-ft). Records prior to April 1938 computed on basis of once-daily Weather Bureau gage readings. Records 1939-55 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 50,000 cfs. Only annual peaks are shown prior to 1926.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	June 3, 1905	7.1	-	1928	June 13, 1928	10.5	65,500
1906	Sept. 20, 1906	8.0	-	June 22, 1928	11.5	76,500	
1907	Jan. 22, 1907	12.4	-	1929	Nov. 21, 1928	11.0	71,000
1908	May 25, 1908	18.8	-	Apr. 14, 1929	10.2	62,100	
1909	Oct. 23, 1908	15.7	-	Apr. 25, 1929	10.9	69,500	
1910	Nov. 17, 1909	9.5	-	May 14, 1929	11.1	72,100	
1911	Aug. 7, 1911	14.2	-	May 20, 1929	11.3	74,000	
1912	Apr. 29, 1912	16.4	-	June 8, 1929	9.1	50,600	
1913	May 6, 1913	6.7	-	June 25, 1929	9.8	57,900	
1914	May 5, 1914	10.2	-	July 2, 1929	10.2	62,100	
1915	May 25, 1915	14.8	-	1930	May 13, 1930	9.9	59,000
1916	June 15, 1916	11.6	-	June 15, 1930	9.5	55,000	
1917	June 8, 1917	7.0	-	1931	June 15, 1931	8.9	49,000
1918	May 9, 1918	8.1	-	1932	Aug. 19, 1932	10.5	65,500
1919	June 16, 1919	9.8	-	1933	Sept. 5, 1933	7.4	35,200
1920	Sept. 9, 1920	11.5	-	1934	May 6, 1934	4.6	15,700
1921	June 26, 1921	12.0	-	1935	May 16, 1935	11.2	73,200
1922	Apr. 10, 1922	14.7	-	May 22, 1935	12.3	85,600	
1923	June 13, 1923	19.8	244,000	June 2, 1935	10.7	67,700	
1924	Oct. 16, 1923	12.5	-	June 21, 1935	13.3	98,200	
1925	Apr. 28, 1925	5.9	-	1936	June 7, 1936	9.4	54,000
1926	June 3, 1926	8.3	43,200	1937	June 12, 1937	10.0	60,000
1927	Oct. 7, 1926	14.3	113,000	1938	Mar. 29, 1938	10.5	61,000
	Apr. 13, 1927	14.4	114,000	May 23, 1938	12.62	96,100	
	Apr. 21, 1927	12.4	86,800	May 25, 1938	12.55	94,800	
	Aug. 5, 1927	13.1	95,800	1939	Apr. 8, 1939	6.06	24,700
				1940	Sept. 4, 1940	16.20	143,000
				1941	Apr. 18, 1941	10.25	66,200
				June 11, 1941	11.65	78,100	
				1942	Oct. 26, 1941	12.35	85,400
				Oct. 30, 1941	14.42	116,000	
				Apr. 10, 1942	10.59	76,000	
				Apr. 18, 1942	8.95	53,000	
				Apr. 21, 1942	12.95	96,000	

Peak stages and discharges of Arkansas River at Tulsa, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1942	Apr. 24, 1942	10.22	61,700	1950	July 19, 1950	10.98	75,700	
	Apr. 27, 1942	11.30	76,800		July 21, 1950	10.32	67,100	
	June 25, 1942	15.20	139,000		Aug. 3, 1950	13.02	101,000	
	Aug. 15, 1942	10.46	74,400		1951	May 3, 1951	9.73	57,700
1943	May 10, 1943	10.39	70,500	May 21, 1951		14.73	135,000	
	May 20, 1943	16.50	173,000	May 25, 1951		13.30	111,000	
1944	Apr. 12, 1944	13.12	102,000	June 10, 1951		10.00	61,200	
	Apr. 26, 1944	17.00	172,000	June 27, 1951		12.86	102,000	
	May 4, 1944	10.08	63,500	July 4, 1951		15.70	149,000	
1945	Dec. 8, 1944	11.85	84,900	1952	July 17, 1951	14.18	123,000	
	Apr. 13, 1945	10.69	64,700		June 7, 1952	6.88	32,900	
	Apr. 18, 1945	15.40	140,000	1953	June 1, 1953	7.04	17,000	
	July 2, 1945	10.33	61,300		1954	May 3, 1954	8.88	26,000
1946	Oct. 1, 1945	16.70	165,000	1955		May 22, 1955	12.47	56,300
	Apr. 16, 1947	15.94	151,000			May 29, 1955	12.87	60,700
	May 18, 1947	11.83	87,600		June 21, 1955	11.73	54,500	
1947	May 23, 1947	9.32	55,900	1956	Oct. 6, 1955	14.97	97,600	
	1948	June 23, 1948	10.50		67,100	1957	Apr. 23, 1957	12.06
		June 30, 1948	10.38	65,900	May 19, 1957		20.35	213,000
		July 11, 1948	9.70	58,000	May 21, 1957		21.53	235,000
		July 19, 1948	10.76	70,700	May 25, 1957		15.08	112,000
Aug. 17, 1948	9.66	58,000	June 2, 1957	12.63	74,800			
1949	Feb. 15, 1949	10.63	72,000	June 12, 1957	14.83		107,000	
	Mar. 1, 1949	9.00	50,800	June 26, 1957	15.90	135,000		
	May 20, 1949	14.44	123,000	July 2, 1957	15.88	119,000		
	1958	July 8, 1958			July 8, 1958	11.55	62,200	

1655. Polecat Creek below Heyburn Reservoir, near Heyburn, Okla.
(Published as "at Heyburn" prior to 1957)

Location--Lat 35°57', long 96°18', in SE $\frac{1}{4}$ sec.13, T.17 N., R.9 E., at intake structure at right abutment of Heyburn Dam on Polecat Creek, 2 $\frac{1}{2}$ miles northwest of Heyburn, 3.4 miles upstream from former site at bridge on U. S. Highway 66, 11 miles southwest of Sapulpa, and 48.6 miles upstream from mouth.

Drainage area--123 sq mi.

Gage--Nonrecording prior to Feb. 22, 1949; recording thereafter. Prior to Feb. 17, 1956, at site 3.4 miles downstream at datum 706.47 ft. Feb. 17, 1956, to Apr. 17, 1957, and Oct. 1, 1957 to Mar. 7, 1958, at site 1,100 ft downstream at datum 718.00 ft. Datum of present gage is 760.00 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Defined by current-meter measurements at present site. At former site, rating extended above 9,000 cfs on basis of 1940 estimate derived from slope-area measurement of peak flow at Sapulpa, 26 miles downstream.

Bankfull stage--18 ft at former site.

Remarks--Records furnished by Corps of Engineers and reviewed by Geological Survey. Peak flows regulated since March 1950 by Heyburn Reservoir (capacity, 59,650 acre-ft). Base for partial-duration series, 3,600 cfs. Only annual peaks are shown subsequent to 1949.

Peak stages and discharges of Polecat Creek below Heyburn Reservoir, near Heyburn, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Sept. 4, 1940	31.5	a26,000	1948	June 23, 1948	28.18	17,300
1943	May 9, 1943	27.60	17,000	1949	May 19, 1949	28.53	17,300
	May 17, 1943	23.54	9,290		1950	Feb. 28, 1950	19.74
	May 19, 1943	20.37	5,170	1951		Feb. 20, 1951	11.29
1944	Oct. 23, 1943	21.00	5,810		1952	May 23, 1952	14.94
	Mar. 15, 1944	19.25	4,080	1953		Apr. 23, 1953	16.67
	May 2, 1944	19.00	3,920		1954	May 2, 1954	15.89
1945	Mar. 15, 1945	23.00	8,490	1955		May 24, 1955	11.15
	Apr. 13, 1945	24.39	10,900		1956	Sept. 13, 1956	6.10
	Sept. 25, 1945	20.59	3,840	1957		May 25, 1957	11.08
	Sept. 28, 1945	22.46	6,150		1958	June 25, 1958	11.40
1946	Jan. 5, 1946	21.80	5,170				
	May 7, 1946	21.12	4,340				
1947	Apr. 10, 1947	21.30	4,560				
	May 16, 1947	21.20	4,430				
1948	June 22, 1948	20.70	3,860				

a Annual peak only.

1660. Verdigris River near Coyville, Kans.

Location.--Lat 37°42'20", long 95°54'20", in SW $\frac{1}{4}$ sec.8, T.27 S., R.14 E., at county highway bridge $1\frac{1}{2}$ miles upstream from Meadow Creek, $1\frac{1}{2}$ miles northwest of Coyville, $2\frac{1}{2}$ miles downstream from Pig Creek, and at mile 268.0.

Drainage area.--747 sq mi.

Gage.--Nonrecording prior to Jan. 24, 1952; recording thereafter. Datum of gage is 845.28 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 46,000 cfs and by slope-area measurement at 130,000 cfs. Shifts in relation occur.

Remarks.--Records furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1940	Apr. 17, 1940	27.17	7,580	1948	July 20, 1948	39.39	65,500	
1941	June 1, 1941	38.58	51,800	1949	Mar. 31, 1949	32.64	10,500	
	June 10, 1941	34.45	17,500		July 24, 1949	35.08	13,200	
	Sept. 7, 1941	33.67	15,200	1950	July 11, 1950	32.20	10,300	
1942	Nov. 1, 1941	32.02	10,700		July 17, 1950	34.23	12,000	
	June 25, 1942	34.46	13,600	1951	May 2, 1951	35.10	13,200	
	Sept. 6, 1942	32.90	11,700		June 24, 1951	34.24	12,200	
1943	Oct. 4, 1942	30.44	9,220		July 30, 1951	38.31	46,400	
	Dec. 27, 1942	30.29	9,140		July 4, 1951	32.49	10,500	
	May 19, 1943	37.41	26,700		July 12, 1951	41.25	130,000	
	May 24, 1943	34.53	13,300	Sept. 6, 1951	36.70	22,100		
1944	June 23, 1943	38.10	36,900	1952	Mar. 10, 1952	31.09	9,310	
	Apr. 11, 1944	37.06	30,000		1953	Apr. 1, 1953	16.07	1,870
	Apr. 23, 1944	37.89	40,100	1954		Apr. 27, 1954	28.68	7,700
1945	Dec. 5, 1944	36.33	18,900		1955	May 26, 1955	27.95	6,470
	Mar. 25, 1945	37.23	27,800	1956		May 31, 1956	30.86	7,500
	Apr. 11, 1945	30.88	10,300		1957	May 17, 1957	38.50	43,500
	Apr. 16, 1945	39.45	67,000			May 30, 1957	34.03	11,900
	Apr. 26, 1945	31.10	9,490		1958	June 2, 1957	35.77	14,200
	Sept. 29, 1945	34.20	12,000	June 13, 1957		37.14	22,900	
1946	Oct. 1, 1945	36.00	16,600	1958	Mar. 9, 1958	33.30	10,300	
	Apr. 23, 1946	31.15	10,600		Mar. 24, 1958	33.49	10,500	
1947	Mar. 13, 1947	34.20	12,000	July 17, 1958	38.30	29,000		
	Apr. 5, 1947	33.68	11,500					
	Apr. 11, 1947	31.20	9,270					
	Apr. 13, 1947	36.00	16,600					

1665. Verdigris River near Altoona, Kans.

Location.--Lat 37°29', long 95°41', in SW¹/₄ sec.29, T.29 S., R.16 E., at highway bridge 2¹/₂ miles southwest of Altoona, 2¹/₂ miles downstream from Big Cedar Creek, 6 miles upstream from Chetopa Creek, and at mile 227.9.

Drainage area.--1,138 sq mi.

Gage.--Nonrecording prior to Sept. 8, 1944; recording thereafter. Datum of gage is 780.18 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Shifts in relation occur. Relation affected by rate of change in stage.

Bankfull stage.--23 ft.

Historical data.--Flood in 1904 was a few inches higher than that in June 1923, according to the Altoona Tribune of June 14, 1923.

Remarks.--Records furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1939	May 23, 1939	6.22	1,530	1947	Apr. 6, 1947	24.08	12,400	
1940	Apr. 18, 1940	21.36	10,300		Apr. 15, 1947	25.10	15,800	
	Sept. 5, 1940	21.20	9,970		May 21, 1947	a22.71	9,780	
1941	Apr. 15, 1941	24.81	14,400	1948	July 22, 1948	29.20	34,300	
	June 2, 1941	27.90	35,700	1949	Feb. 13, 1949	22.85	10,000	
	June 11, 1941	24.10	13,400		July 25, 1949	22.75	10,000	
	Sept. 9, 1941	24.46	14,400	1950	July 19, 1950	25.04	14,800	
1942	Oct. 1, 1941	20.70	9,120		1951	May 3, 1951	22.64	9,540
	Oct. 27, 1941	20.5	9,000	June 25, 1951		25.54	16,800	
	Nov. 2, 1941	22.19	10,100	July 1, 1951		29.27	51,600	
	June 27, 1942	22.18	10,100	July 12, 1951		31.09	71,000	
	Sept. 7, 1942	22.33	10,200	Sept. 8, 1951		24.86	13,900	
1943	May 19, 1943	28.35	41,000	Sept.15, 1951	23.50	10,500		
	May 26, 1943	23.77	12,800	1952	Mar. 12, 1952	21.84	8,510	
	June 24, 1943	26.65	26,500		1953	Apr. 2, 1953	6.79	1,520
1944	Mar. 18, 1944	24.56	15,700	Apr. 2, 1954		24.97	14,300	
	Apr. 12, 1944	26.70	27,200	1954		May 2, 1954	19.06	6,050
	Apr. 24, 1944	27.70	34,200			1955	June 1, 1956	17.06
	May 2, 1944	22.59	10,600	1956	May 17, 1957		24.88	13,900
1945	Oct. 4, 1944	22.20	10,200		May 19, 1957	26.56	26,000	
	Dec. 7, 1944	a24.92	16,200		June 1, 1957	26.88	28,700	
	Mar. 26, 1945	25.46	20,000		June 15, 1957	24.90	13,900	
	Apr. 17, 1945	29.50	54,500		1957	Mar. 25, 1958	23.73	10,600
	July 2, 1945	a23.20	9,000	July 19, 1958		25.76	18,900	
	Sept. 25, 1945	a24.01	9,860					
	Sept. 30, 1945	25.32	19,300					
1946	Apr. 24, 1946	21.33	8,440					
1947	Mar. 15, 1947	a22.79	9,000					

a Backwater from return of overbank flow.

1670. Fall River near Eureka, Kans.

Location.--Lat 37°47', long 96°14', on west line sec.17, T.26 S., R.11 E., at bridge on State Highway 99, 3 miles southeast of Eureka, 5 miles downstream from Spring Creek, and at mile 76.3.

Drainage area.--336 sq mi.

Gage.--Recording. Datum of gage is 988.50 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 65,000 cfs and by slope-area measurement at 91,800 cfs. Discharges for 1923 and 1944 are based on subsequent stage-discharge relation.

Bankfull stage.--18 ft.

Historical data.--Flood in April 1944 was 1.4 ft lower than that in 1923 at bridge 6 miles upstream, from information by State Highway Commission; the same relative difference has been estimated at the gage site.

Remarks.--Records furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	1923	27.1	a70,000	1951	June 29, 1951	29.60	91,800
1944	April 1944	25.7	a58,000		July 3, 1951	19.92	20,200
					July 11, 1951	23.43	41,100
					July 23, 1951	15.64	10,400
1947	Apr. 13, 1947	16.80	11,900		Sept. 12, 1951	17.50	13,200
1948	July 17, 1948	17.26	12,800	1952	Mar. 10, 1952	14.65	9,840
	July 19, 1948	17.02	12,300		Apr. 22, 1952	14.32	9,570
	July 22, 1948	16.00	10,800				
1949	Jan. 15, 1949	16.52	11,500	1953	May 16, 1953	2.40	47
	Jan. 23, 1949	14.58	9,350	1954	Apr. 27, 1954	5.90	860
	July 22, 1949	15.92	10,700	1955	May 25, 1955	5.45	1,960
1950	June 3, 1950	14.86	9,640	1956	Oct. 2, 1955	14.35	9,660
	July 16, 1950	14.62	9,350				
	July 31, 1950	19.92	20,200	1957	May 16, 1957	27.10	67,200
1951	May 1, 1951	17.68	13,600		June 13, 1957	20.00	20,700
	May 16, 1951	15.85	10,600				
	June 23, 1951	18.78	16,300	1958	Mar. 29, 1958	11.67	7,230

a Annual peak only.

1675. Otter Creek at Climax, Kans.

Location.--Lat 37°42'30", long 96°13'30", in SW $\frac{1}{4}$ sec.8, T.27 S., R.11 E., at bridge on State Highway 99, half a mile south of Climax, 5 $\frac{1}{4}$ miles upstream from mouth, and 5 $\frac{1}{2}$ miles downstream from South Branch Otter Creek.

Drainage area.--129 sq mi.

Gage.--Recording. Datum of gage is 977.76 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Relation affected at times since Apr. 20, 1949, by backwater from Fall River Reservoir.

Bankfull stage.--20 ft.

Remarks.--Records furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 5,000 cfs.

Peak stages and discharges of Otter Creek at Climax, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Mar. 12, 1947	14.57	5,310	1951	Sept. 12, 1951	17.58	7,290
	Apr. 4, 1947	22.60	11,700				
	Apr. 10, 1947	17.84	7,430	1952	Mar. 10, 1952	12.77	4,200
	Apr. 12, 1947	20.79	9,610				
1948	July 15, 1948	14.20	5,050	1953	May 18, 1953	3.66	148
	July 17, 1948	20.35	9,300				
	July 22, 1948	18.07	7,640	1954	May 24, 1954	6.24	866
1949	Mar. 30, 1949	18.28	7,780				
	1950	June 3, 1950	18.69	8,060	1956	May 31, 1956	5.78
July 28, 1950		15.25	5,700	1957			
July 31, 1950		14.28	5,130		June 1, 1957	20.36	9,300
1951	May 1, 1951	19.02	8,270	1958	Mar. 23, 1958	17.15	6,900
	June 23, 1951	23.15	13,300				
	June 30, 1951	23.73	15,400	1958	Sept. 16, 1958	21.67	10,400
	July 3, 1951	20.88	9,680				
	July 13, 1951	22.00	10,700				
	Sept. 9, 1951	19.85	8,840				

1685. Fall River near Fall River, Kans.
(Published as "at Fall River" 1904-5)

Location.--Lat 37°38', long 96°03', in NW $\frac{1}{4}$ sec.2, T.28 S., R.12 E., at highway bridge 0.3 mile downstream from Fall River Dam, 2.5 miles upstream from Salt Creek, 3 miles northwest of town of Fall River, and at mile 53.9.

Drainage area.--585 sq mi.

Gage.--Nonrecording prior to Aug. 26, 1946; recording thereafter. Prior to Sept. 30, 1906, at site 4.7 miles downstream at datum 21.6 ft lower. May 5, 1939, to June 12, 1946, at present site and datum. June 13, 1946, to Sept. 30, 1957, at site 3.1 miles downstream at datum 12.79 ft lower. Datum of present gage is 898.44 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements since 1939. Discharge for flood in June 1923 based on subsequent relation at 1939-46 site, and is approximate. Relation affected at times by backwater from Salt Creek. Shifts in relation occur.

Bankfull stage.--26 ft.

Historical data.--Flood in 1869 reached a stage of 35.6 ft based on a description in Fall River News, June 17, 1904, which states "Friday (June 10, 1904) the river was higher than ever known before. It was 15 inches higher than a week before (June 4, 1904) when it reached as high a point as had been observed by the oldest inhabitants." Jesse McDaniel, gage reader, reports a river stage of 36.8 ft on June 10, 1904, as being highest since 1869 flood.

Flood in 1898 reached a stage of 35.5 ft according to Jesse McDaniel, when he recorded the same stage on June 4, 1904.

Flood in June 1923 reached a stage of 32.57 ft, from floodmark, from information by Corps of Engineers.

Remarks.--Records after 1906 furnished by Corps of Engineers. Flow completely regulated since Apr. 20, 1949, by Fall River Reservoir, 3.4 miles upstream (capacity 263,000 acre-ft). Only annual peaks are shown after 1949. Base for partial-duration series, 8,000 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Fall River near Fall River, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1869	1869	35.6	-	1945	Dec. 5, 1944	21.05	18,800
1898	1898	35.5	-		Mar. 25, 1945	d25.40	28,200
1904	June 16, 1904	39.0	-		Apr. 16, 1945	31.15	45,600
1905	Sept. 18, 1905	26.5	-		Apr. 26, 1945	16.1	8,870
1906	Aug. 6, 1906	20.0	-	1946	Sept. 30, 1945	d24.05	20,500
1923	June 1923	a32.57	b48,000		Mar. 23, 1946	11.64	4,530
1939	May 25, 1939	10.75	c4,150	1947	Mar. 13, 1947	20.38	10,000
1940	Apr. 17, 1940	16.07	8,960		Apr. 5, 1947	23.80	13,600
1941	June 1, 1941	19.47	13,600		Apr. 10, 1947	20.88	10,500
	June 9, 1941	17.60	11,200		Apr. 13, 1957	27.17	18,300
	Sept. 7, 1941	16.05	9,320	1948	July 11, 1948	21.38	11,000
	Sept. 30, 1941	17.2	10,700		July 17, 1948	24.55	14,600
1942	Oct. 26, 1941	14.75	8,420		July 22, 1948	21.84	11,400
	Oct. 31, 1941	16.45	10,100	1949	Mar. 30, 1949	17.32	7,430
	Apr. 28, 1942	22.00	21,600	1950	Aug. 4, 1950	13.70	6,000
	Sept. 4, 1942	18.75	13,900	1951	July 8, 1951	19.87	10,600
1943	Dec. 27, 1942	18.10	11,800	1952	Apr. 24, 1952	10.62	5,030
	May 19, 1943	28.00	26,900	1953	Aug. 16, 1953	3.10	59
	May 24, 1943	15.25	8,820	1954	May 2, 1954	3.48	96
	June 23, 1943	21.70	16,400	1955	May 26, 1955	5.04	896
1944	May 18, 1944	24.75	28,300	1956	May 31, 1956	4.03	290
	Mar. 22, 1944	18.9	14,000	1957	June 8, 1957	17.94	8,540
	Apr. 10, 1944	25.90	31,200	1958	Mar. 27, 1958	14.23	6,740
	Apr. 23, 1944	29.74	41,500				
	May 1, 1944	19.15	14,600				

a Site and datum of 1939-46.

b Annual peak only.

c Maximum May 5 to Sept. 30, 1939; probably maximum for year.

d Backwater from Salt Creek.

1695. Fall River at Fredonia, Kans.

Location.--Lat 37°30'30", long 95°50'00", in NW¹/₄ sec.24, T.29 S., R.14 E., at bridge on State Highway 96, three-quarters of a mile upstream from Clear Creek, 1 mile downstream from Salt Creek, 1 mile south of Fredonia, and at mile 25.3.

Drainage area.--827 sq mi.

Gage.--Nonrecording prior to Dec. 20, 1949; recording thereafter. Datum of gage is 819.09 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Shifts in relation occur. Peak discharges prior to 1939 are based on a subsequent stage-discharge relation and are approximate.

Historical data.--Flood in 1904 was 8 inches lower than that of June 16-17, 1923, according to the Fredonia Daily Herald June 18, 1923, which states: "Highwater mark of 1904 is passed. Waters highest ever known since county has been settled. (Wilson County was organized in 1867). Jim Delaney, west of town, has kept a flood record by marking the height of the water on the bridge near his home. The water this time was 8 inches higher than ever before."

Flood of June 16-17, 1923, was 1 ft lower than that of Apr. 19, 1927, according to the Fredonia Daily Herald Apr. 20, 1927, which states: "Water levels reached one foot higher than in 1923," and the Independence Daily Reporter Apr. 20, 1927, which states: "Fredonia had the highest water in its history when Fall River went into the city waterworks, being a foot higher than any previous record."

Flood of Apr. 19, 1927, was about 14 inches lower than that of Apr. 16, 1945, according to the Fredonia Daily Herald Apr. 18, 1945, which states: "Mr. Sierman stated that to his knowledge this was the worst flood since 1927."

Flood of Oct. 2, 1927, was about 13 inches lower than that of Apr. 19, 1927, according to the Fredonia Daily Herald Oct. 3, 1927, which states: "Fall River did not reach its record level by a foot or 14 inches."

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Flow regulated by Fall River Reservoir, 29 miles upstream, since Apr. 20, 1949 (capacity, 263,000 acre-ft). Only annual peaks are shown after 1949. Base for partial-duration series, 8,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	July 1904	33.3	a36,000	1945	July 1, 1945 Sept. 25, 1945	20.20 21.44	10,900 12,000
1923	June 16,17, 1923	34.0	a39,500	1946	Oct. 1, 1945 Apr. 23, 1946	27.73 17.60	19,700 8,740
1927	Apr. 19, 1927	35.0	a44,000	1947	Mar. 14, 1947 Apr. 5, 1947	19.56 23.70	10,400 14,200
1928	Oct. 2, 1927	33.9	a39,000	1947	Apr. 11, 1947 Apr. 14, 1947 May 20, 1947	21.42 29.40 18.93	12,000 23,100 9,820
1939	May 26, 1939	10.63	b3,660	1948	July 12, 1948 July 18, 1948 July 23, 1948	19.07 26.50 18.29	9,030 16,500 8,370
1940	Apr. 18, 1940	15.40	6,910	1949	Feb. 13, 1949	19.16	9,120
1941	Apr. 15, 1941 June 2, 1941 June 10, 1941	20.00 17.00 19.10	12,600 8,730 11,200	1950	Aug. 5, 1950	14.72	5,630
1942	Apr. 29, 1942 June 21, 1942 June 24, 1942 Sept. 6, 1942	21.00 18.22 17.39 19.95	12,200 9,440 8,710 11,200	1951	June 30, 1951	27.97	20,200
1943	Dec. 27, 1942 May 20, 1943 June 23, 1943	19.10 33.32 25.04	10,000 34,000 16,100	1952	Mar. 10, 1952	15.13	6,670
1944	Mar. 19, 1944 Mar. 22, 1944 Apr. 11, 1944 Apr. 23, 1944 May 2, 1944	27.68 20.66 30.67 33.29 18.30	20,600 11,900 27,400 38,800 9,600	1953	May 18, 1953	4.56	311
1945	Dec. 6, 1944 Mar. 25, 1945 Apr. 16, 1945 June 17, 1945	24.28 28.46 36.17 16.74	14,800 21,200 49,000 8,020	1954	May 2, 1954	18.04	8,920
				1955	May 26, 1955	13.04	4,500
				1956	May 31, 1956	8.07	1,510
				1957	June 9, 1957	23.70	14,000
				1958	Mar. 23, 1958	19.50	9,780

a Annual peak only.

b Maximum Nov. 18, 1938, to Sept. 30, 1939; probably maximum for year.

1700. Elk River near Elk City, Kans.

Location.--Lat 37°16', long 95°55', in NE $\frac{1}{4}$ sec.18, T.32 S., R.14 E., at county highway bridge, 150 ft downstream from Salt Creek, $\frac{1}{4}$ miles south of Elk City, and at mile 24.7.

Drainage area.--575 sq mi.

Gage.--Nonrecording prior to July 28, 1954; recording thereafter. Datum of gage is 795.80 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 32,000 cfs and by slope-area measurement at 81,500 cfs. Discharges shown prior to 1939 determined from stage-discharge relation for later period and are approximate. Shifts in relation occur.

Historical data.--Flood in 1869 at Elk City was about 1 ft lower than that of May 16, 1885, according to the Elk City Star of May 23, 1885, which states: "The rise of water in this section (May 16, 1885) beat the flood of '69 by a foot."

Flood of May 16, 1885, at Elk City was 1 ft higher than that of Oct. 2, 1926, according to the Independence Daily Reporter of Apr. 20, 1927, which states: "Elk River at Elk City reached a peak last night lacking but 18 inches of the high record of last fall (Oct. 2, 1926) when the peak was one foot less than the all time record made in 1885."

Flood of Oct. 2, 1927, at Elk City was 2 or 3 inches higher than that of May 16, 1885, according to the Elk City Sun of Oct. 7, 1927, which states: "The highmark (Oct. 2, 1927) at the corner of the gas office was 2 or 3 inches above that of any previous record since this county was settled" (Elk City was established in 1869).

Flood of June 30, 1951, at Elk City was the greatest according to the Elk City Sun of July 6, 1951, which states: "Duck Creek and Elk River at highest mark Saturday (June 30, 1951) in history of Elk City.---The former highwater mark at the gas office corner was exceeded by 6 or 7 inches." This former high-water mark is a chiseled mark about 8 inches above the sidewalk on the northeast cornerstone of the Gas Office building. Local residents mention both 1885 and 1927 as dates for this floodmark but it is apparently for flood of Oct. 2, 1927, which was 2 or 3 inches higher than that of May 16, 1885.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Levees constructed in August 1945 become overtopped at about elevation 25.5 ft. Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)			
1869	1869	a28.9	-	1945	Dec. 5, 1944	19.08	13,100			
1885	May 16, 1885	a29.9	-		Mar. 25, 1945	21.47	15,500			
					Apr. 16, 1945	28.27	39,200			
1927	Oct. 2, 1926	a28.9	52,000		July 1, 1945	18.45	12,500			
					Sept. 25, 1945	23.68	17,700			
1928	Oct. 2, 1927	a30.1	71,000	1946	Oct. 1, 1945	24.09	19,100			
1939	May 21, 1939	15.70	b10,200	1947	Apr. 5, 1947	19.21	13,100			
1940	June 24, 1940	5.70	2,060		Apr. 10, 1947	17.65	11,500			
					Apr. 13, 1947	26.05	26,200			
1941	Apr. 15, 1941	22.00	16,000		May 20, 1947	15.05	9,040			
					June 9, 1941	17.50				
1942	Oct. 26, 1941	17.94	12,000	1948	June 22, 1948	26.16	20,100			
					June 25, 1948	15.88	9,380			
					July 18, 1948	23.41	15,900			
1943	May 19, 1943	27.60	35,000		July 23, 1948	21.48	14,200			
				June 4, 1943	18.7	12,700	1949	Jan. 23, 1949	16.50	10,900
								June 22, 1943	19.04	13,000
1944	Mar. 18, 1944	18.93	13,000		Feb. 13, 1949	18.64	13,000			
				Apr. 10, 1944	27.22	32,200				
1944	Apr. 23, 1944	23.40	18,400	1950	Apr. 27, 1949	18.03	12,800			
					Apr. 26, 1944	17.50	11,700			
					May 2, 1944	14.82	9,420			
					May 9, 1949	17.00	11,400			
					Sept. 28, 1944	14.25	9,000			
					June 26, 1949	20.10	14,600			
					July 19, 1950	12.90	7,320			
					May 2, 1951	15.78	10,100			
					May 22, 1951	15.84	10,100			
					June 24, 1951	15.51	9,780			

a Annual peak only.

b Maximum Nov. 9, 1938, to Sept. 30, 1939; probably maximum for year.

Peak stages and discharges of Elk River near Elk City, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	June 30, 1951	30.65	81,500	1956	Oct. 2, 1955	7.78	3,200
	July 10, 1951	15.00	9,310				
	July 14, 1951	16.20	10,400	1957	May 17, 1957	21.70	15,800
1952	Mar. 10, 1952	18.00	12,200		May 29, 1957	17.55	11,800
					June 9, 1957	17.28	11,500
					June 12, 1957	17.62	11,800
1953	May 18, 1953	5.00	1,540	1958	Mar. 23, 1958	21.07	14,600
1954	May 2, 1954	23.45	17,500		Apr. 3, 1958	20.37	15,900
					May 4, 1958	15.75	9,480
1955	May 26, 1955	17.72	11,100				

1705. Verdigris River at Independence, Kans.

Location.--Lat 37°13', long 95°14', in NE¹/₄ sec.32, T.32 S., R.16 E., at bridge on U. S. Highway 160, 2 miles east of Independence, 3.6 miles downstream from Elk River, and at mile 194.3.

Drainage area.--2,892 sq mi.

Gage.--Nonrecording prior to Dec. 25, 1933; recording thereafter. Datum of gage is 716.63 ft above mean sea level, datum of 1929. Apr. 20, 1904, to Sept. 28, 1905, at site three-quarters of a mile upstream at different datum. Nov. 14, 1921, to Sept. 30, 1929, at Myrtle Street bridge three-quarters of a mile upstream at datum 0.87 ft higher. Stages for floods in 1904, 1905, 1907, 1908, 1915, and 1918 adjusted to datum used 1921-29.

Stage-discharge relation.--Defined by current-meter measurements. Shifts in relation occur. Peak discharges shown prior to 1922 are based on a subsequent stage-discharge relation.

Bankfull stage.--36 ft.

Historical data.--Flood in May 1885 reached a stage of about 38.9 ft, on basis of comparison of high-water marks of 1885 and July 8, 1904, in pumphouse of Independence water works, obtained in 1904 from F. N. Gordon, pump engineer. Flood of Jan. 21, 1907, "----reached the highest mark except that of 1904 which was 18 inches higher," and flood of June 7, 1908, "----was 4 feet 9 inches below the highest, that of July 1904," according to the original notes by J. M. Altoffer, observer for U. S. Weather Bureau in Independence at that time.

Floods of Sept. 18, 1915, and May 18, 1918, reached stages of about 39.6 ft and 36.9 ft, respectively, on basis of comparison with stage of flood of July 8, 1904, from records of Independence City Water Department.

Remarks.--Records computed by Corps of Engineers since Oct. 1, 1951, and reviewed by Geological Survey. Flow regulated by Fall River Reservoir, 75 miles upstream, since Apr. 20, 1949 (capacity, 263,000 acre-ft). Records for station near Liberty considered equivalent. Base for partial-duration series, 14,000 cfs. Only annual peaks are shown prior to 1922 and subsequent to 1949.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1885	May 1885	38.9	40,000	1922	May 31, 1922	24.5	15,300
1904	July 8, 1904	44.4	66,500		July 2, 1922	29.5	20,100
					July 13, 1922	39.5	34,100
1905	Sept. 20, 1905	25.4	16,000	1923	May 26, 1923	27.8	18,400
1907	Jan. 21, 1907	42.9	52,000		June 12, 1923	40.11	35,900
					June 18, 1923	38.0	30,600
1908	June 7, 1908	39.6	34,000	1924	Oct. 17, 1923	27.0	17,600
1915	Sept. 18, 1915	39.6	34,000		June 9, 1924	27.0	17,600
					Aug. 7, 1924	23.5	14,400
					Sept. 19, 1924	26.6	17,300
1918	May 18, 1918	36.9	29,000	1925	Nov. 14, 1924	25.3	16,000
1922	Mar. 14, 1922	37.7	30,000		1926	Nov. 8, 1925	27.5
	Apr. 10, 1922	44.41	66,500	Apr. 12, 1926		27.0	17,600
	May 23, 1922	30.58	21,200				

ARKANSAS RIVER BASIN

Peak stages and discharges of Verdigris River at Independence, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	Sept. 6, 1926	27.39	18,000	1942	Apr. 10, 1942	29.65	19,600
1927	Oct. 5, 1926	41.6	42,900	Apr. 21, 1942	29.5	19,500	
	Apr. 10, 1927	43.8	59,600	Apr. 30, 1942	25.5	15,600	
	Apr. 20, 1927	45.24	76,900	June 19, 1942	27.4	17,400	
	June 21, 1927	40.5	37,400	June 22, 1942	35.55	26,600	
	Aug. 18, 1927	28.2	18,800	June 25, 1942	29.8	19,800	
				Sept. 6, 1942	34.5	25,000	
1928	Oct. 3, 1927	46.4	91,000	Sept. 20, 1942	23.75	14,000	
	Mar. 18, 1928	26.3	17,000	Sept. 27, 1942	25.48	15,600	
	June 10, 1928	35.0	25,900	1943	Dec. 28, 1942	28.43	18,400
	June 20, 1928	37.0	28,900	May 7, 1943	31.71	21,700	
1929	Nov. 19, 1928	43.93	60,700	May 11, 1943	36.78	28,600	
	Dec. 18, 1928	30.0	20,600	May 19, 1943	47.6	114,000	
	Jan. 11, 1929	27.3	17,900	May 26, 1943	27.45	17,400	
	Apr. 14, 1929	25.7	16,400	June 5, 1943	29.95	20,000	
	Apr. 21, 1929	42.5	48,800	June 25, 1943	39.50	35,400	
	May 8, 1929	32.4	23,100	1944	Mar. 20, 1944	38.15	31,600
	May 14, 1929	43.3	54,900	Mar. 23, 1944	27.78	17,800	
	May 19, 1929	32.6	23,300	Apr. 11, 1944	43.06	51,400	
	June 3, 1929	24.0	14,800	Apr. 24, 1944	43.7	56,300	
1930	Apr. 30, 1930	29.1	19,900	May 2, 1944	33.7	23,900	
	May 8, 1930	30.29	21,100	Sept. 28, 1944	29.4	19,400	
	May 12, 1930	23.9	14,800	1945	Oct. 4, 1944	33.5	23,000
	June 11, 1930	27.0	17,800	Dec. 6, 1944	35.5	26,000	
1931	May 20, 1931	29.0	17,600	Mar. 26, 1945	36.45	27,900	
	June 13, 1931	29.6	18,200	Apr. 17, 1945	47.28	117,000	
1932	Nov. 18, 1931	24.0	15,600	Apr. 29, 1945	29.1	17,900	
	Nov. 25, 1931	36.18	26,600	June 18, 1945	25.1	14,300	
	June 22, 1932	33.2	25,700	July 2, 1945	33.35	22,800	
1933	May 13, 1933	30.25	18,800	Sept. 26, 1945	40.15	37,700	
				1946	Oct. 1, 2, 1945	41.6	44,800
1934	May 16, 1934	24.1	13,900	Apr. 24, 1946	24.82	14,000	
				1947	Mar. 14, 1947	28.73	17,500
1935	May 15, 1935	28.8	19,600	Apr. 7, 1947	35.05	25,200	
	May 22, 1935	32.76	23,700	Apr. 14, 1947	41.83	51,600	
	May 30, 1935	44.8	68,800	Apr. 26, 1947	30.0	18,800	
	June 3, 1935	33.08	24,100	May 17, 1947	25.92	14,900	
	June 7, 1935	27.07	17,900	May 22, 1947	32.94	22,200	
	June 10, 1935	23.24	14,200	1948	June 23, 1948	38.52	32,500
	June 12, 1935	27.61	18,400	June 26, 1948	33.32	22,700	
	June 17, 1935	39.34	34,600	July 12, 1948	26.28	15,300	
	June 27, 1935	36.46	28,200	July 23, 1948	42.28	49,300	
1936	Nov. 4, 1935	24.72	15,500	1949	Nov. 2, 1948	25.25	14,400
	Nov. 28, 1935	31.53	22,400	Jan. 16, 1949	30.15	19,000	
1937	Oct. 10, 1936	35.35	26,300	Jan. 24, 1949	29.75	18,600	
	June 10, 1937	33.68	23,900	Feb. 14, 1949	35.02	25,200	
	July 20, 1937	29.1	19,100	Feb. 28, 1949	25.83	14,800	
1938	May 21, 1938	38.44	32,300	Apr. 28, 1949	25.9	14,900	
	May 26, 1938	38.4	32,300	June 10, 1949	27.73	16,500	
	June 2, 1938	31.39	21,400	1950	July 19, 1950	37.18	29,400
	June 17, 1938	30.61	20,600	1951	July 1, 1951	46.59	104,000
1939	May 21, 1939	18.90	9,920	1952	May 11, 1952	30.63	21,800
1940	Apr. 19, 1940	24.48	14,700	1953	Sept. 4, 1953	8.60	2,440
1941	Apr. 17, 1941	39.55	35,800	1954	May 3, 1954	36.83	29,100
	June 4, 1941	34.95	25,600	1955	May 28, 1955	27.29	17,500
	June 11, 1941	35.86	27,000	1956	June 2, 1956	13.28	5,140
	Sept. 10, 1941	33.15	23,300	1957	June 3, 1957	35.35	27,500
1942	Oct. 5, 1941	31.8	21,800	1958	Mar. 25, 1958	35.88	27,300
	Oct. 23, 1941	24.0	14,200				
	Oct. 27, 1941	31.2	21,200				
	Nov. 1, 1941	31.85	21,800				

1707. Verdigris River near Liberty, Kans.

Location.--Lat 37°11', long 95°38', in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.11, T.33 S., R.16 E., at bridge on county highway, 250 ft downstream from former mill dam, 1 mile downstream from Drum Creek, 2 $\frac{1}{2}$ miles northwest of Liberty, and 4 $\frac{1}{2}$ miles southeast of Independence.

Drainage area.--3,023 sq mi.

Gage.--Nonrecording. Altitude of gage is 713 ft (from flood-profile survey).

Stage-discharge relation.--Defined by current-meter measurements below 35,000 cfs and extended to 48,000 cfs on basis of records for Independence.

Remarks.--Records for station at Independence considered equivalent. Base for partial-duration series, 14,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1895	Sept. 11, 1895	36.3	a40,600	1900	July 1, 1900	27.7	24,200
					Sept. 30, 1900	-	37,000
1896	Dec. 19, 1895	24.8	20,500	1901	Nov. 2, 1900	28.0	24,600
	Dec. 25, 1895	30.1	27,400		Apr. 13, 1901	21.3	16,300
	May 24, 1896	24.5	20,100				
	June 9, 1896	22.0	17,100				
1897	Mar. 5, 1897	23.0	18,300	1902	May 24, 1902	29.5	26,600
	Apr. 29, 1897	29.6	26,700		June 7, 1902	33.37	33,000
					Sept. 26, 1902	22.0	17,100
1898	May 5, 1898	33.5	32,700	1903	Feb. 28, 1903	26.7	22,900
1899					Mar. 8, 1903	25.0	20,700
	June 12, 1899	25.5	21,400		Apr. 4, 1903	24.5	20,100
	July 5, 1899	26.7	22,900		May 12, 1903	24.7	20,300
	July 9, 1899	30.45	29,900		May 24, 1903	37.5	49,000
1900	May 18, 1900	22.7	17,900		May 31, 1903	29.6	26,700

a Annual peak only. Maximum Aug. 2 to Sept. 30; probably maximum for year.

1710. Verdigris River near Lenapah, Okla.

Location.--Lat 36°51', long 95°35', at center of sec.3, T.27 N., R.16 E., near right bank on downstream side of pier of county highway bridge, 2 $\frac{1}{4}$ miles east of Lenapah, 4 $\frac{1}{2}$ miles upstream from Cedar Creek, and at mile 144.6.

Drainage area.--3,639 sq mi.

Gage.--Recording. Datum of gage is 644.89 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 105,000 cfs and extended above.

Bankfull stage.--30 ft.

Remarks.--Some regulation by Fall River Reservoir since Apr. 20, 1949 (capacity, 263,000 acre-ft). Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 23,000 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Verdigris River near Lenapah, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	May 21, 1939	19.88	17,600	1947	Apr. 8, 1947	25.62	24,100
1940	Apr. 19, 1940	18.25	15,000		Apr. 16, 1947	35.88	51,900
1941	Apr. 19, 1941	33.66	39,300	1948	June 23, 1948	35.97	45,700
	June 5, 1941	26.03	26,700		July 25, 1948	35.23	41,500
	June 10, 1941	32.02	36,400	1949	Jan. 16, 1949	27.53	25,600
	Sept. 10, 1941	29.40	32,100		Jan. 24, 1949	26.00	23,500
1942	Oct. 3, 1941	32.34	35,100		Feb. 15, 1949	27.30	25,300
	Oct. 5, 1941	31.90	34,400	1950	July 21, 1950	31.02	31,200
	Oct. 31, 1941	32.28	35,100	1951	July 3, 1951	38.66	94,800
	Apr. 7, 1942	26.43	25,200		July 15, 1951	37.36	68,900
	Apr. 10, 1942	27.12	26,300	1952	Mar. 12, 1952	23.52	20,300
	Apr. 20, 1942	25.43	23,700	1953	May 13, 1953	10.66	5,660
	Apr. 22, 1942	28.61	28,700	1954	May 4, 1954	27.90	26,100
	Sept. 7, 1942	25.74	24,200	1955	May 29, 1955	24.88	21,800
1943	May 11, 1943	34.40	38,700	1956	Oct. 3, 1955	21.72	16,800
	May 20, 1943	40.44	137,000	1957	May 19, 1957	29.34	28,300
	June 27, 1943	29.92	28,700		May 22, 1957	26.62	24,100
1944	Mar. 22, 1944	28.88	27,600		May 26, 1957	29.60	28,800
	Apr. 12, 1944	36.87	64,300		June 4, 1957	27.38	25,300
	Apr. 26, 1944	36.09	53,500		June 10, 1957	26.14	23,400
	May 2, 1944	27.94	26,000		June 15, 1957	31.22	31,500
	Sept. 29, 1944	26.45	23,900	1958	Mar. 26, 1958	27.80	25,900
1945	Oct. 5, 1944	30.55	30,600				
	Dec. 8, 1944	27.05	24,700				
	Mar. 28, 1945	27.44	26,800				
	Apr. 18, 1945	38.50	91,100				
1946	Oct. 3, 1945	36.03	50,700				
	Jan. 6, 1946	26.38	25,300				

1715. Verdigris River near Sageeyah, Okla.

Location.--Lat 36°23', long 95°40', in SW¹/₄ NW¹/₄ sec. 13, T.22 N., R.15 E., at Missouri Pacific Railroad CO. bridge, 1¹/₂ miles downstream from Sweetwater Creek, 1¹/₂ miles northwest of Sageeyah, 5.4 miles upstream from Caney River, and at mile 83.7.

Drainage area.--4,402 sq mi.

Gage.--Nonrecording prior to Feb. 10, 1939; recording thereafter. Datum of gage is 550.97 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--35 ft.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 24,000 cfs. Only annual peaks are shown prior to 1938.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	July 1904	44.8	-	1932	Nov. 27, 1931	33.3	-
1909	October 1908	43.4	-	1933	May 15, 1933	33.1	-
1922	April 1922	43.2	-	1934	Sept. 15, 1934	22.7	-
1927	April 1927	43.8	-	1935	June 6, 1935	40.0	-
1928	June 24, 1928	37.0	-	1936	Sept. 29, 1936	29.0	-
1929	Apr. 26, 1929	40.4	-	1937	Oct. 11, 1936	35.8	-
1930	May 2, 1930	35.3	-	1938	Mar. 31, 1938	30.4	25,600
1931	June 14, 1931	21.4	-		May 29, 1938	42.1	34,600

Note.--Due to effect of variable slope, peak stage often occurs at different time than peak discharge.

Peak stages and discharges of Verdigris River near Sageeyah, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	May 13, 1939	23.00	17,700	1943	May 11, 1943	42.73	48,300
1940	Apr. 20, 1940	17.90	12,900	1943	May 21, 1943	51.54	138,000
1941	Apr. 21, 1941	40.45	41,700	1943	June 6, 1943	30.18	24,400
	June 12, 1941	39.60	32,800	1943	June 28, 1943	31.53	27,700
	Sept. 11, 1941	34.47	30,000	1944	Mar. 23, 1944	30.95	27,000
1942	Oct. 7, 1941	42.18	40,300	1944	Apr. 15, 1944	43.28	59,100
	Oct. 24, 1941	31.73	24,100	1944	Apr. 30, 1944	38.65	41,000
	Nov. 1, 1941	42.80	46,200	1945	Oct. 7, 1944	36.78	31,300
	Apr. 8, 1942	32.51	26,600	1945	Dec. 9, 1944	32.95	25,000
	Apr. 11, 1942	35.22	25,400	1945	Mar. 16, 1945	31.67	24,300
	Apr. 21, 1942	36.60	29,900	1945	Mar. 29, 1945	33.01	25,700
	June 24, 1942	38.15	31,300	1945	Apr. 20, 1945	44.66	73,000
				1945	July 1, 1945	33.55	31,500

Note.--Due to effect of variable slope, peak stage often occurs at different time than peak discharge.

1720. Caney River near Elgin, Kans.

Location.--Lat 37°00', long 96°19', in SE $\frac{1}{4}$ sec.16, T.35 S., R.10 E., at highway bridge 2 miles west of Elgin and at mile 117.8.

Drainage area.--445 sq mi.

Gage.--Recording. Datum of gage is 763.32 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 33,000 cfs. Shifts in relation occur.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	May 21, 1939	6.39	4,280	1945	Mar. 29, 1945	9.55	7,770
1940	June 10, 1940	4.10	2,020	1945	Apr. 16, 1945	21.32	20,700
1941	Apr. 15, 1941	14.50	13,600	1945	Apr. 24, 1945	9.03	7,110
	June 9, 1941	15.38	14,700	1945	May 9, 1945	9.00	7,110
1942	Oct. 26, 1941	13.40	12,200	1945	July 1, 1945	12.18	10,600
	Oct. 31, 1941	13.82	12,700	1945	Sept. 24, 1945	16.88	15,800
	Apr. 9, 1942	8.83	6,890	1945	Sept. 28, 1945	19.53	18,700
	Apr. 19, 1942	14.77	14,000	1945	Sept. 30, 1945	25.05	26,100
	June 21, 1942	16.02	15,500	1946	Mar. 23, 1946	7.55	5,580
	Sept. 4, 1942	14.54	13,600	1947	Apr. 5, 1947	10.14	7,770
	Sept. 19, 1942	10.11	8,320	1947	Apr. 10, 1947	12.45	10,300
	Sept. 26, 1942	8.98	7,110	1947	Apr. 13, 1947	21.33	20,700
1943	May 10, 1943	14.85	14,000	1947	May 16, 1947	16.68	15,200
	May 19, 1943	24.51	29,000	1947	May 20, 1947	9.97	7,550
1944	Mar. 22, 1944	8.53	6,560	1948	May 10, 1948	12.13	9,000
	Apr. 10, 1944	29.80	35,500	1948	June 22, 1948	12.97	9,990
	Apr. 19, 1944	9.50	7,660	1948	June 26, 1948	15.13	12,500
	Apr. 23, 1944	17.67	17,700	1948	July 11, 1948	9.70	6,600
	Apr. 26, 1944	8.55	6,670	1948	July 16, 1948	14.88	12,300
	Apr. 29, 1944	9.58	7,770	1949	Jan. 16, 1949	10.33	7,220
	Sept. 28, 1944	17.85	17,800	1949	Jan. 23, 1949	12.95	9,990
1945	Oct. 2, 1944	16.05	14,800	1949	Feb. 13, 1949	12.69	9,660
	Dec. 5, 1944	18.96	18,100	1949	Feb. 27, 1949	9.48	6,470
	Mar. 24, 1945	23.52	23,700	1949	Mar. 30, 1949	9.06	6,100
				1949	Apr. 27, 1949	9.14	6,100
				1949	May 8, 1949	11.31	8,190

a Maximum May 5 to Sept. 30, 1939; probably maximum for year.

Peak stages and discharges of Caney River near Elgin, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1949	Sept. 18, 1949	17.10	15,000	1954	May 1, 1954	17.80	16,300	
1950	June 3, 1950	13.54	10,600	1955	Oct. 12, 1954	9.80	6,990	
	July 16, 1950	23.28	23,400		May 26, 1955	17.80	16,300	
	July 31, 1950	17.26	15,300	1956	June 23, 1956	5.30	2,720	
	Aug. 5, 1950	17.84	15,900		1957	Apr. 23, 1957	9.76	7,210
	Aug. 17, 1950	16.33	14,000			May 16, 1957	14.50	12,100
1951	May 1, 1951	19.73	19,000	May 22, 1957	17.02	15,400		
	May 22, 1951	9.60	6,560	May 25, 1957	21.00	22,000		
	June 9, 1951	14.32	11,600	June 12, 1957	26.40	32,500		
	June 24, 1951	14.88	12,400	June 18, 1957	17.63	16,300		
	June 30, 1951	26.22	30,000	June 27, 1957	10.49	7,880		
	July 13, 1951	24.60	27,000	1958	Mar. 23, 1958	13.05	9,880	
	Sept. 24, 1951	17.16	15,500		Apr. 3, 1958	19.29	17,900	
					May 4, 1958	11.32	8,080	
1952	Mar. 10, 1952	15.76	13,500					
1953	May 16, 1953	4.82	2,240					

1730. Caney River near Hulah, Okla.

Location.--Lat 36°56', long 96°05', in NW¹/₄ sec.12, T.28 N., R.11 E., 1,000 ft downstream from The Atchison, Topeka and Santa Fe Railway Co. bridge, 0.9 mile downstream from Hulah Dam, 1¹/₂ miles upstream from Opossum Creek, 2¹/₂ miles west of Hulah, and at mile 95.3.

Drainage area.--736 sq mi.

Gage.--Nonrecording prior to Feb. 18, 1939; recording thereafter. Prior to Oct. 1, 1948, at site 0.8 mile upstream at datum 3.00 ft higher. Datum of present gage is 681.96 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 30,000 cfs and extended above.

Bankfull stage.--34 ft.

Remarks.--Flow completely regulated by Hulah Reservoir since February 1950 (capacity, 295,100 acre-ft). Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 6,000 cfs. Only annual peaks are shown subsequent to 1949.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	-	40.2	-	1942	Sept. 26, 1942	27.70	6,280
1938	Mar. 28, 1938	32.70	10,500	1943	May 10, 1943	37.10	16,800
	May 20, 1938	35.90	15,100		May 20, 1943	38.52	32,600
	May 23, 1938	35.80	14,900		June 10, 1943	28.40	6,580
	June 1, 1938	27.40	6,880		1944	Apr. 10, 1944	39.45
	June 7, 1938	30.60	8,600	Apr. 20, 1944		27.68	6,490
		June 11, 1938	31.50	9,350	Apr. 25, 1944	34.30	11,700
1939	May 22, 1939	21.90	4,700	Apr. 30, 1944	29.50	7,670	
				Sept. 28, 1944	34.68	10,200	
1940	June 10, 1940	32.35	10,200	1945	Oct. 3, 1944	35.10	11,100
1941	Apr. 16, 1941	35.42	13,200		Dec. 5, 1944	37.20	17,500
	Apr. 19, 1941	27.92	6,590		Mar. 15, 1945	27.05	6,030
	June 10, 1941	37.46	19,100		Mar. 25, 1945	37.80	24,500
					Apr. 16, 1945	37.95	24,700
1942	Oct. 23, 1941	31.05	8,530	Apr. 24, 1945	28.07	6,240	
	Oct. 27, 1941	31.50	8,920	July 2, 1945	31.07	7,890	
	Oct. 31, 1941	30.52	8,030	Sept. 25, 1945	36.50	14,200	
	Apr. 10, 1942	32.88	10,600	Sept. 30, 1945	38.58	30,500	
	Apr. 20, 1942	36.73	15,300				
	June 21, 1942	36.48	14,800	1946	Mar. 23, 1946	22.80	3,580
	Sept. 5, 1942	31.58	8,530	1947	Apr. 11, 1947	29.52	6,600
	Sept. 9, 1942	28.25	6,490		Apr. 14, 1947	37.45	22,000
	Sept. 19, 1942	27.77	6,320				

Peak stages and discharges of Caney River near Hulah, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 25, 1947	30.66	7,390	1951	July 9, 1951	33.55	7,930
	May 16, 1947	36.20	14,800				
1948	Apr. 25, 1948	28.52	6,020	1952	Mar. 14, 1952	26.30	4,670
	May 10, 1948	34.04	10,200				
	June 22, 1948	34.52	10,800				
	June 26, 1948	32.06	7,880	1954	May 6, 1954	24.55	4,350
	July 17, 1948	34.90	11,500				
	Aug. 12, 1948	30.03	6,410				
1949	Jan. 16, 1949	31.02	5,860	1956	Oct. 7, 1955	18.55	2,300
	Jan. 24, 1949	36.20	9,890				
	Feb. 13, 1949	33.03	7,040	1957	June 27, 1957	33.92	9,240
	May 19, 1949	31.72	6,240				
	Sept. 19, 1949	34.90	8,640				
1950	July 19, 1950	39.24	17,200	1958	Mar. 28, 1958	28.50	6,400

1740. Caney Creek near Copan, Okla.

Location.--Lat 36°58'15", long 95°56'05", on south line of sec.19, T.29 N., R.13 E., at downstream side of right pier of highway bridge, 500 ft downstream from The Atchison, Topeka, and Santa Fe Railway Co. bridge, 3 1/2 miles upstream from Cotton Creek, 5 miles north of Copan, and at mile 18.9.

Drainage area.--424 sq mi.

Gage.--Nonrecording prior to Sept. 12, 1947; recording thereafter. Prior to May 26, 1944, at site 500 ft upstream at present datum. Datum of present gage is 690.03 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--20 ft.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	Apr. 10, 1944	30.58	36,400	1950	July 19, 1950	27.58	16,100
	Apr. 20, 1944	23.92	5,960		July 30, 1950	24.65	5,480
	Apr. 30, 1944	23.98	6,140		Sept. 22, 1950	24.30	5,080
	Sept. 29, 1944	24.01	6,140	1951	May 2, 1951	24.97	7,770
1945	Oct. 4, 1944	25.68	11,900		June 30, 1951	29.76	36,300
	Dec. 6, 1944	25.57	11,400		July 14, 1951	25.79	10,700
	Mar. 25, 1945	24.10	6,330	1952	Mar. 11, 1952	25.20	8,410
	Apr. 16, 1945	26.28	14,900				
	July 2, 1945	23.70	5,630	1953	May. 13, 1953	18.26	2,040
	July 11, 1945	23.72	5,630				
	Sept. 26, 1945	25.49	11,000				
	1946	Sept. 29, 1945	25.46	11,000	1954	May 3, 1954	26.19
Oct. 1, 1945		25.94	12,900				
1947	Apr. 14, 1947	25.69	8,350	1956	Oct. 3, 1955	21.09	2,630
	Apr. 26, 1947	24.55	5,480				
	May 17, 1947	25.20	6,800	1957	May 2, 1957	24.10	5,100
1948	June 23, 1948	26.68	12,200		May 18, 1957	25.60	9,000
	June 27, 1948	25.44	7,390		May 23, 1957	25.09	7,200
	July 18, 1948	26.54	11,400		May 26, 1957	25.75	9,900
	Aug. 13, 1948	25.79	8,690		June 2, 1957	24.10	5,100
	June 13, 1957	26.81	15,600				
1949	Jan. 24, 1949	25.30	7,090	June 19, 1957	25.50	8,600	
	Feb. 14, 1949	24.35	5,200	1958	Mar. 10, 1958	24.29	5,360
	May 20, 1949	24.58	5,480				
Mar. 24, 1958	25.64	9,000					
1950	June 4, 1950	24.85	5,840	Apr. 4, 1958	25.75	9,900	

1745. Caney River at Bartlesville, Okla.

Location.--Lat 36°45', long 95°58', in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 7, T.26 N., R.13 E., near right bank on downstream side of pier of bridge on U. S. Highway 60 at Bartlesville, 0.7 mile downstream from Coon Creek, 3.2 miles upstream from Sand Creek, and at mile 67.0.

Drainage area.--1,465 sq mi; at site 2.5 miles upstream, 1,392 sq mi.

Gage.--Nonrecording prior to Oct. 1, 1949, at site 2.5 miles upstream at datum 0.53 ft higher; recording Oct. 1, 1949, to Sept. 30, 1956. Datum of last used gage is 634.80 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined at present site by current-meter measurements throughout range in stage. Defined at upstream site for within-bank flow only.

Bankfull stage.--29 ft; at site 2.5 miles upstream, 13 ft.

Historical data.--Peaks prior to 1937 are from floodmarks noted by water superintendent and tied in by levels by the Corps of Engineers.

Remarks.--Considerable regulation since February 1950 by Hulah Reservoir (capacity, 295,100 acre-ft) 29.2 miles above station. Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 6,000 cfs. Only annual peak stages are shown prior to 1950.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1918	May 7, 1918	23.3	-	1948	July 19, 1948	18.30	-
1927	Oct. 3, 1926	a41.80	-	1949	Jan. 25, 1949	14.20	-
1928	Oct. 3, 1927	22.2	-	1950	June 5, 1950	29.25	10,400
1929	Apr. 21, 1929	21.8	-		June 11, 1950	24.80	8,050
1935	June 19, 1935	18.3	-		July 21, 1950	35.62	26,400
1937	Oct. 11, 1936	17.7	-		Aug. 2, 1950	32.98	16,000
1938	May 25, 1938	15.73	-		Aug. 7, 1950	27.32	9,320
1939	May 22, 1939	7.61	-		Aug. 18, 1950	27.60	9,480
1940	June 11, 1940	8.21	-	1951	May 2, 1951	24.32	7,800
1941	June 11, 1941	17.85	-		May 4, 1951	23.92	7,600
1942	Apr. 21, 1942	18.63	-		May 24, 1951	21.74	6,580
1943	May 19, 1943	23.40	-		July 2, 1951	34.44	21,300
1944	Apr. 11, 1944	a41.07	-		July 16, 1951	21.67	6,580
1945	Apr. 17, 1945	19.18	-		Sept. 24, 1951	23.27	7,300
1946	Oct. 2, 1945	21.32	-	1952	Nov. 12, 1951	22.38	6,900
1947	Apr. 15, 1947	18.65	-		Mar. 18, 1952	20.75	6,180
				1953	June 6, 1953	13.93	3,280
				1954	May 2, 1954	27.20	7,300
					May 4, 1954	20.48	6,040
				1955	May 26, 1955	24.15	6,550
				1956	Oct. 7, 1955	11.76	2,580

a Last used site and datum.

1755. Caney River near Ramona, Okla.
 (Published as "near Collinsville" October 1935 to February 1939)

Location.--Lat 36°30'30", long 95°50'30", in NE $\frac{1}{4}$ sec.5, T.23 N., R.14 E., near right bank on downstream side of pier of county highway bridge, 1 mile upstream from Buck Creek, 2 $\frac{1}{4}$ miles downstream from Double Creek, 4 $\frac{1}{2}$ miles southeast of Ramona, and at mile 32.0.

Drainage area.--1,955 sq mi; at former site, 2,046 sq mi.

Gage.--Nonrecording prior to Feb.16, 1946; recording thereafter. Prior to Feb. 28, 1939, at site 16.2 miles downstream at datum 21.41 ft lower. Datum of present gage is 586.43 ft above mean sea level, datum of 1929.

Stage-discharge relation.--At Collinsville site, defined by current-meter measurements below 13,000 cfs and extended to 18,000 cfs on basis of current-meter measurements made in earlier years. At present site, defined by current-meter measurements to maximum discharge for period of record.

Bankfull stage.--Present site, 27 ft; former site, 28 ft.

Remarks.--Some regulation since February 1950 by Hulah Reservoir 64.2 miles upstream (capacity, 295,100 acre-ft). Data for peaks prior to 1935 and for 1943 and 1945 are from files of the Corps of Engineers. Records since 1948 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 5,000 cfs. Only annual peaks are shown prior to 1937.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	October 1926	39.0	-	1949	Jan. 18, 1949	24.10	7,300
					Jan. 27, 1949	27.79	9,740
1929	Apr. 24, 1929	33.4	-		Feb. 10, 1949	23.40	6,930
					Feb. 16, 1949	26.50	8,690
1930	May 4,5, 1930	32.7	-		May 22, 1949	28.00	10,100
					July 6, 1949	19.61	5,160
1931	July 21, 1931	20.4	5,000		July 13, 1949	19.70	5,210
					Sept.21, 1949	22.77	6,630
1932	Nov. 27, 1931	30.6	-	1950	Apr. 29, 1950	21.35	5,970
					May 11, 1950	27.80	9,300
1935	June 1935	33.5	29,000		May 26, 1950	23.50	6,980
					June 6, 1950	27.37	10,100
1936	June 8, 1936	27.85	10,200		June 12, 1950	23.60	7,040
					July 23, 1950	29.42	21,800
1937	Oct. 13, 1936	32.05	18,000		Aug. 4, 1950	29.10	16,700
	Nov. 4, 1936	22.67	6,460		Aug. 20, 1950	26.85	8,870
	Jan. 30, 1937	21.1	5,500	1951	May 3, 1951	24.14	7,300
	June 12, 1937	26.24	8,800		May 25, 1951	21.27	5,930
	June 17, 1937	22.97	6,640		June 22, 1951	20.23	5,430
	July 22, 1937	22.30	6,220		July 5, 1951	29.02	15,700
1938	Apr. 2, 1938	31.27	13,100		July 17, 1951	21.86	6,200
	May 8, 1938	23.3	6,540		July 22, 1951	20.54	5,560
	May 25, 1938	30.0	11,400	1952	Nov. 12, 1951	26.13	8,810
	June 9, 1938	21.26	5,480		Mar. 11, 1952	24.00	7,610
	June 14, 1938	26.06	8,250		Mar. 19, 1952	21.47	6,350
	Aug. 17, 1938	20.4	5,030		Apr. 23, 1952	19.25	5,280
1943	May 21, 1943	39.8	-	1953	May 12, 1953	22.28	7,050
1945	Oct. 7, 1944	28.88	15,600				
	Mar. 16, 1945	28.14	9,850	1954	May 3, 1954	26.69	9,340
	Mar. 22, 1945	22.10	6,040				
	Mar. 28, 1945	28.45	11,400	1955	May 13, 1955	18.80	5,360
	Apr. 13, 1945	23.26	6,660		May 21, 1955	20.75	6,300
	Apr. 19, 1945	29.28	21,600		May 29, 1955	25.50	8,650
	Apr. 26, 1945	21.87	5,940		June 15, 1955	18.42	5,180
	May 11, 1945	21.25	5,610	1956	Oct. 8, 1955	11.54	2,570
	July 3, 1945	28.50	11,700				
1946	Oct. 3, 1945	30.12	38,500	1957	Apr. 22, 1957	22.90	6,600
	Jan. 6, 1946	27.07	8,850		May 2, 1957	26.70	9,730
	Jan. 11, 1946	20.44	5,260		May 14, 1957	19.85	5,860
	Feb. 20, 1946	22.87	6,450		May 18, 1957	29.20	14,600
1947	Apr. 18, 1947	29.06	17,600		May 27, 1957	29.17	14,400
	Apr. 27, 1947	26.41	8,390		June 3, 1957	28.90	12,600
	May 20, 1947	27.82	9,410		June 12, 1957	29.69	36,700
					June 20, 1957	28.07	11,500
1948	Apr. 27, 1948	26.02	8,150		June 25, 1957	29.11	16,000
	May 13, 1948	24.90	7,520	1958	Mar. 14, 1958	19.25	5,590
	June 26, 1948	29.30	19,900		Mar. 24, 1958	22.13	7,000
	July 13, 1948	26.65	8,520		Apr. 7, 1958	22.65	7,250
	July 21, 1948	28.94	14,800		July 14, 1958	19.06	5,540
	Aug. 17, 1948	28.44	11,300				

ARKANSAS RIVER BASIN

1760. Verdigris River near Claremore, Okla.

Location.--Lat 36°18'30", long 95°41'40", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.10, T.21 N., R.15 E., near left bank on downstream side of pier of bridge on State Highway 20, 2.3 miles downstream from Caney River, 4 $\frac{1}{2}$ miles west of Claremore, 12.4 miles upstream from Bird Creek, and at mile 76.0.

Drainage area.--6,534 sq mi.

Gage.--Nonrecording prior to Feb. 24, 1939; recording thereafter. Datum of gage is 538.62 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--38 ft.

Remarks.--Some regulation since April 1949 by Fall River Reservoir on Fall River (capacity, 263,000 acre-ft) and since February 1950 by Hulah Reservoir on Caney River (capacity, 295,100 acre-ft). Records since 1950 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 24,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	June 1935	46.2	a64,200	1946	Oct. 4, 1945	46.98	73,000
1936	Sept. 28, 1936	33.95	29,500		Jan. 7, 1946	38.90	31,800
1937	Oct. 11, 1936	41.20	38,700	1947	Apr. 20, 1947	44.51	53,000
	Nov. 4, 1936	30.10	24,800		Apr. 26, 1947	38.29	32,300
	June 13, 1937	35.30	31,100		May 24, 1947	35.56	28,800
	July 22, 1937	31.70	26,700	1948	June 27, 1948	46.41	61,000
1938	Mar. 31, 1938	38.12	34,600		July 15, 1948	37.91	30,400
	May 29, 1938	42.10	39,900		July 23, 1948	44.80	50,400
1939	May 13, 1939	28.96	23,600	1949	Aug. 15, 1948	36.15	28,600
1940	Apr. 21, 1940	18.20	12,200		Jan. 18, 1949	34.39	26,700
1941	Apr. 22, 1941	44.46	48,200		Jan. 25, 1949	37.78	30,000
	June 14, 1941	44.30	45,100		Feb. 17, 1949	39.03	31,000
	Sept. 12, 1941	38.58	29,400	1950	May 21, 1949	38.58	30,800
1942	Oct. 8, 1941	45.83	52,800		June 10, 1949	31.91	24,400
	Oct. 18, 1941	39.88	31,600		May 11, 1950	31.15	28,400
	Nov. 2, 1941	46.60	64,200		June 4, 1950	33.30	26,000
	Apr. 12, 1942	41.41	34,900		July 23, 1950	40.00	37,200
	Apr. 23, 1942	42.82	38,300		July 30, 1950	30.30	25,200
	June 26, 1942	43.63	41,300	1951	Aug. 4, 1950	32.58	24,700
	Sept. 9, 1942	34.27	26,400		July 6, 1951	46.95	74,900
1943	May 13, 1943	46.55	68,000		July 20, 1951	44.16	51,900
	May 21, 1943	55.05	182,000	1952	Nov. 13, 1951	32.72	26,200
	June 7, 1943	34.86	28,000		Mar. 12, 1952	34.04	27,600
	June 28, 1943	34.31	27,300	1953	May 12, 1953	21.12	14,500
1944	Mar. 16, 1944	34.26	25,800	1954	May 4, 1954	38.12	32,900
	Mar. 23, 1944	34.43	27,400	1955	May 30, 1955	33.32	26,800
	Apr. 13, 1944	47.23	85,200	1956	Oct. 4, 1955	21.47	14,700
	Apr. 30, 1944	41.47	36,600	1957	May 22, 1957	43.96	47,500
1945	Oct. 1, 1944	35.10	28,200		June 5, 1957	41.98	37,900
	Oct. 7, 1944	41.40	36,400		June 15, 1957	46.51	68,500
	Dec. 10, 1944	38.37	32,200		June 25, 1957	38.36	35,800
	Mar. 16, 1945	37.54	30,400	1958	Mar. 27, 1958	33.82	30,800
	Mar. 29, 1945	38.10	32,800		Apr. 6, 1958	30.10	25,800
	Apr. 21, 1945	47.14	81,400				
	July 1, 1945	37.14	30,100				

a Annual peak only.

1765. Bird Creek at Avant, Okla.

Location.--Lat 36°29', long 96°04', in NW $\frac{1}{4}$ sec.7, T.23 N., R.12 E., near left bank on downstream side of pier of county highway bridge at Avant, $\frac{1}{2}$ miles upstream from Candy Creek and at mile 54.2.

Drainage area.--364 sq mi.

Gage.--Recording. Datum of gage is 651.28 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 17,000 cfs and extended to maximum for period of record.

Bankfull stage.--17 ft.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	May 1943	29.6	-	1951	June 21, 1951	16.17	11,200
1945	Sept. 30, 1945	21.66	a15,600	1951	June 30, 1951	16.14	11,100
1946	May 9, 1946	7.21	6,920	1951	July 13, 1951	13.57	9,650
1947	Oct. 23, 1946	8.09	7,440	1951	Sept. 5, 1951	6.35	6,040
	Nov. 2, 1946	6.85	6,520	1951	Sept. 24, 1951	9.65	7,980
	Apr. 25, 1947	10.32	8,190	1952	Nov. 12, 1951	13.71	9,700
	May 16, 1947	14.97	10,400	1952	Mar. 10, 1952	9.58	7,980
	June 23, 1947	10.18	8,160	1952	May 23, 1952	12.70	9,200
1948	Apr. 25, 1948	17.09	11,800	1953	May 12, 1953	17.15	11,900
	June 22, 1948	11.80	7,890	1954	May 2, 1954	16.72	11,500
	June 26, 1948	20.47	14,500	1955	May 12, 1955	7.80	7,320
	July 11, 1948	12.16	8,950	1955	May 20, 1955	14.24	9,970
	July 15, 1948	13.43	9,550	1955	May 23, 1955	7.70	7,270
	Aug. 14, 1948	9.09	7,830	1955	May 26, 1955	9.66	8,010
1949	Jan. 23, 1949	9.10	7,830	1956	Oct. 5, 1955	3.69	1,320
	May 19, 1949	14.80	10,300	1957	Apr. 21, 1957	11.36	7,630
	May 21, 1949	11.68	8,750	1957	Apr. 23, 1957	8.17	6,810
	July 9, 1949	10.97	8,450	1957	May 17, 1957	23.16	18,700
1950	Apr. 29, 1950	13.57	9,550	1957	May 21, 1957	19.55	15,000
	May 10, 1950	14.84	10,300	1957	May 22, 1957	11.88	8,690
	May 26, 1950	18.77	13,100	1957	May 25, 1957	25.35	21,100
	June 10, 1950	7.82	7,320	1957	June 1, 1957	16.23	11,900
	July 10, 1950	12.10	8,900	1957	June 10, 1957	9.94	7,880
	July 19, 1950	11.98	8,850	1957	June 12, 1957	29.00	25,400
	Aug. 1, 1950	20.28	14,300	1957	June 18, 1957	18.40	14,800
	Aug. 18, 1950	16.44	11,300	1957	June 23, 1957	24.38	21,100
1951	May 1, 1951	13.13	9,400	1958	Mar. 23, 1958	5.25	4,100

a Annual peak only, may have been exceeded in July 1945.

1770. Hominy Creek near Skiatook, Okla.

Location.--Lat 36°21', long 96°07', in SE $\frac{1}{4}$ sec.27, T.22 N., R.11 E., on left bank 50 ft downstream from bridge on State Highway 20, 1 mile upstream from Tall Chief Creek, 6 miles west of Skiatook, and at mile 16.8.

Drainage area.--340 sq mi.

Gage.--Nonrecording prior to May 26, 1945; recording thereafter. Datum of gage is 619.66 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 9,000 cfs and extended above on basis of velocity-area studies.

Bankfull stage.--28 ft.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 5,000 cfs.

Peak stages and discharges of Hominy Creek near Skiatook, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	May 1943	35.0	-	1950	July 11, 1950	31.04	8,800
1944	Apr. 11, 1944	27.41	8,210		Aug. 5, 1950	27.90	5,950
1945	Dec. 5, 1944	26.40	7,430	1951	June 22, 1951	31.30	9,160
	Mar. 15, 1945	28.00	8,690		July 1, 1951	27.28	5,610
	Apr. 15, 1945	26.60	7,220		July 15, 1951	25.95	5,000
	July 2, 1945	25.50	6,240	1952	Nov. 12, 1951	24.35	5,140
1946	Oct. 1, 1945	33.60	12,900	1953	May 3, 1953	24.07	5,000
	Jan. 9, 1946	25.23	5,280	1954	May 2, 1954	25.47	5,640
1947	Apr. 25, 1947	26.65	5,770	1955	May 21, 1955	23.92	4,920
	May 16, 1947	30.64	8,360	1956	Oct. 5, 1955	11.30	1,240
1948	Apr. 26, 1948	26.78	5,360	1957	Apr. 21, 1957	29.80	7,690
	June 22, 1948	32.61	10,800		May 17, 1957	30.48	8,390
	July 16, 1948	31.98	9,400		May 21, 1957	34.42	13,200
1949	May 19, 1949	31.63	9,520		May 25, 1957	32.43	10,600
	May 22, 1949	27.30	5,610		June 2, 1957	30.20	8,090
	May 24, 1949	27.27	5,610		June 13, 1957	31.94	9,970
	July 10, 1949	35.06	14,200		June 24, 1957	33.14	11,500
1950	May 11, 1950	30.26	8,030	1958	Mar. 24, 1958	22.60	3,630
	May 26, 1950	29.93	7,610				

a Maximum peak discharge; maximum discharge during year, 12,800 cfs at 12 p.m. Sept. 30, 1945, stage rising.

1775. Bird Creek near Sperry, Okla.

Location.--Lat 36°17', long 95°57', on south line of sec.20, T.21 N., R.13 E., on downstream side of right pier of county highway bridge, 1½ miles upstream from Delaware Creek, 2.4 miles downstream from Hominy Creek, 2½ miles south-east of Sperry, and at mile 25.0.

Drainage area.--905 sq mi.

Gage.--Recording. Datum of gage is 579.43 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 43,000 cfs and extended above on basis of current-meter measurement in main-channel during maximum flow and computation of overflow discharge.

Bankfull stage.--21 ft.

Historical data.--According to local residents, flood in 1915 reached a stage similar to that of Oct. 31, 1941.

Remarks.--Records since 1948 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 11,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	May 13, 1939	17.48	10,100	1943	May 10, 1943	30.25	52,100
1940	Sept. 5, 1940	19.53	11,300		May 18, 1943	31.68	86,500
					June 5, 1943	26.68	17,700
1941	Apr. 16, 1941	19.86	11,500	1944	Mar. 16, 1944	23.49	13,500
	June 11, 1941	28.46	23,000		Apr. 11, 1944	28.22	22,000
1942	Oct. 5, 1941	22.79	12,800	1945	Dec. 6, 1944	23.16	13,200
	Oct. 17, 1941	25.77	16,200		Mar. 16, 1945	25.17	15,200
	Oct. 25, 1941	24.19	14,200		Apr. 16, 1945	26.74	17,500
	Oct. 27, 1941	23.08	13,100		July 2, 1945	28.73	25,200
	Oct. 31, 1941	30.14	45,700		Sept. 26, 1945	22.65	11,900
	Apr. 8, 1942	28.56	24,000	1946	Oct. 1, 1945	28.84	24,300
	Apr. 10, 1942	27.22	18,600	1947	Apr. 26, 1947	22.32	11,000
	Apr. 20, 1942	28.93	27,500		May 17, 1947	25.48	14,200
	June 22, 1942	29.31	31,900				
	Sept. 19, 1942	23.28	13,300				

Peak stages and discharges of Bird Creek near Sperry, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1948	June 23, 1948	27.29	16,600	1954	May 3, 1954	23.10	11,800	
	June 27, 1948	23.62	11,400		1955	May 21, 1955	20.40	10,600
	July 17, 1948	24.77	12,400			1956	Oct. 5, 1955	4.70
1949	May 20, 1949	26.55	15,000	1957	Apr. 22, 1957		21.90	11,200
1950	May 11, 1950	26.65	15,000		May 18, 1957	26.89	15,500	
	May 27, 1950	26.10	14,100		May 22, 1957	27.20	17,100	
1951	June 23, 1951	25.58	13,400		May 26, 1957	28.46	24,700	
	July 1, 1951	23.50	11,300		June 2, 1957	24.83	13,600	
1952	Mar. 11, 1952	19.33	8,790	June 13, 1957	29.03	31,400		
	1953	May 13, 1953	20.90	9,640	June 19, 1957	22.72	11,800	
1958		Mar. 24, 1958	15.84	7,180	June 24, 1957	26.35	23,800	

1780. Bird Creek near Owasso, Okla.

Location--Lat 36°14'50", long 95°52'00", on east line NE $\frac{1}{4}$ sec.1, T.20 N., R.13 E., on upstream handrail near center of bridge on U. S. Highway 75, half a mile upstream from Ranch Creek, $\frac{1}{2}$ miles southwest of Owasso, and 14 miles upstream from mouth.

Drainage area--1,022 sq mi.

Gage--Nonrecording. Datum of gage is 559.03 ft above mean sea level (Corps of Engineers bench mark).

Stage-discharge relation--Defined by occasional current-meter measurements but backwater effect from Verdigris River makes high-water record uncertain.

Bankfull stage--21 ft.

Remarks--Peak-stage data prior to 1935 furnished by Corps of Engineers. Base for partial-duration series, 11,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	Oct. 25, 1908	34.0	-	1932	Nov. 24, 1931	21.0	12,000
1927	Apr. 15, 1927	28.5	-	1935	June 1935	26.2	16,900
1929	Apr. 15, 1929	26.3	17,000	1936	Sept. 27, 1936	17.14	8,490
1930	May 1, 1930	23.7	14,400	1937	Oct. 8, 1936	24.76	15,500
1931	May 4, 1931	19.2	12,200	1938	Mar. 29, 1938	26.2	19,700
					Aug. 17, 1938	21.0	14,500

1786. Verdigris River near Inola, Okla.

Location.--Lat 36°10', long 95°37', near northwest corner of sec.4, T.19 N., R.16 E., near right bank on downstream side of pier of bridge on State Highway 33, 6 miles downstream from Dog Creek, 6 miles west of Inola, and at mile 48.8.

Drainage area.--7,911 sq mi.

Gage.--Nonrecording prior to Oct. 1, 1946; recording thereafter. Datum of gage is 506.87 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements. Peaks prior to 1945 obtained from rating defined by several discharge measurements in 1943.

Bankfull stage.--42 ft.

Remarks.--Some regulation since April 1949 by Fall River Reservoir (capacity, 253,000 acre-ft) on Fall River and since February 1950 by Hulah Reservoir (capacity, 295,100 acre-ft) on Caney River. Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 23,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1940	Sept. 5, 1940	30.8	16,300	1947	May 25, 1947	42.39	31,700	
1941	Nov. 27, 1940	39.76	27,600	1948	June 27, 1948	52.40	77,000	
	Apr. 23, 1941	49.79	49,800		July 25, 1948	49.02	49,000	
	June 15, 1941	49.33	47,600		Aug. 16, 1948	42.86	32,500	
	Sept. 12, 1941	44.06	34,800	1949	Jan. 19, 1949	39.00	26,700	
1942	Oct. 8, 1941	50.83	63,000		Jan. 26, 1949	42.92	32,500	
	Oct. 19, 1941	47.32	41,400		Feb. 18, 1949	43.55	33,600	
	Nov. 1, 1941	52.00	105,000		May 23, 1949	46.46	39,900	
	Apr. 13, 1942	48.18	43,700		June 11, 1949	38.28	25,800	
	Apr. 23, 1942	49.22	46,700		1950	May 12, 1950	43.31	32,400
	June 26, 1942	48.82	45,400	May 28, 1950		39.41	26,700	
Sept. 8, 1942	40.27	28,300	June 5, 1950	39.18		28,300		
Sept. 20, 1942	37.41	24,100	July 23, 1950	43.55		34,300		
1943	Dec. 30, 1942	37.73	24,500	Aug. 3, 1950		40.72	29,800	
	May 12, 1943	51.80	98,000	1951	Feb. 21, 1951	34.43	23,500	
	May 21, 1943	54.93	224,000		June 24, 1951	37.97	29,000	
	June 7, 1943	41.10	29,600		July 8, 1951	52.32	69,200	
	1944	Mar. 17, 1944	43.25	33,200	1952	Nov. 14, 1951	39.28	30,200
Mar. 23, 1944		41.00	29,400	Mar. 12, 1952		40.78	32,400	
Apr. 14, 1944		50.64	57,700	1953	Apr. 24, 1953	32.20	23,000	
May 4, 1944		46.60	39,800		1954	May 5, 1954	43.03	37,100
1945	Oct. 1, 1944	40.77	29,100			1955	May 30, 1955	37.68
	Oct. 8, 1944	45.40	37,300	1956	Oct. 6, 1955		a25.90	13,600
	Dec. 11, 1944	43.30	33,300		1957	Apr. 24, 1957	39.33	29,800
	Mar. 18, 1945	44.50	35,600			May 2, 1957	35.47	25,900
	Mar. 30, 1945	42.70	32,300			May 25, 1957	51.50	67,000
	Apr. 22, 1945	51.70	94,500		June 16, 1957	52.75	85,900	
	July 5, 1945	44.30	35,200	1958	Mar. 15, 1958	33.83	24,900	
1946	Oct. 4, 1945	51.65	86,100		Mar. 28, 1958	38.28	31,200	
	Jan. 8, 1946	43.94	33,800		Apr. 6, 1958	34.70	26,100	
	Feb. 20, 1946	37.10	23,400					
1947	Apr. 11, 1947	43.05	32,800					
	Apr. 22, 1947	48.74	44,400					
	Apr. 28, 1947	45.38	36,800					

a Occurred Oct. 4, affected by backwater.

1795. Neosho River at Council Grove, Kans.

Location.--Lat 38°40', long 96°30', in NW $\frac{1}{4}$ sec.14, T.16 S., R.8 E., at highway Bridge just downstream from city waterplant in north part of Council Grove, 300 ft downstream from Mozier Creek, 1 mile upstream from Elm Creek, and at mile 448.0.

Drainage area.--250 sq mi.

Gage.--Nonrecording prior to June 6, 1940; recording thereafter. Datum of gage is 1,205.63 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 36,000 cfs and by slope-area measurement at 121,000 cfs. Shifts in relation occur.

Bankfull stage.--29 ft.

Historical data.--Floods in 1903 and 1938 reached stages 0.7 and 2.7 ft, respectively, lower than that of July 11, 1951, which reached a stage of 37.97 ft at waterplant, from information by Corps of Engineers. Channel has changed since 1903. Flood in 1938 had a discharge of about 50,000 cfs on basis of subsequent rating. Flood of July 5, 1932, reached a stage of 30.9 ft at site of recording gage (discharge, about 28,500 cfs), from information by Kansas State Board of Agriculture.

Remarks.--Peak discharges not appreciably affected by Channing Creek Reservoir (capacity, 10,000 acre-ft). Records prior to Oct. 1, 1950, computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	-	37.3	-	1947	Mar. 12, 1947	19.04	8,210
1932	July 5, 1932	30.9	a28,500		Apr. 10, 1947	17.95	6,810
					June 6, 1947	18.74	7,790
1938	June 11, 1938	35.3	a50,000	1948	May 2, 1948	23.48	16,500
1939	May 22, 1939	20.10	4,330		July 20, 1948	28.70	29,900
1940	Sept. 5, 1940	21.15	6,330	1949	Jan. 15, 1949	18.46	7,590
1941	June 1, 1941	23.90	11,900		Jan. 23, 1949	b20.96	11,400
					Feb. 12, 1949	b22.30	7,000
					Feb. 18, 1949	b22.45	7,000
1942	Oct. 20, 1941	37.13	65,900		May 1, 1949	19.15	8,510
					May 21, 1949	18.75	7,980
1943	June 10, 1943	20.35	7,340	1950	June 2, 1950	20.31	10,200
					July 19, 1950	19.82	9,360
					Aug. 1, 1950	20.14	9,830
1944	June 16, 1943	21.43	9,050		Aug. 14, 1950	19.01	8,240
1944	July 2, 1943	19.60	6,080	1951	May 1, 1951	26.55	18,600
					June 7, 1951	28.27	23,000
					June 15, 1951	18.82	7,250
1944	Apr. 10, 1944	20.35	7,340		July 11, 1951	35.50	121,000
					Sept. 4, 1951	27.00	19,700
1944	Apr. 22, 1944	24.37	17,600	1952	Mar. 10, 1952	16.35	4,850
1944	Apr. 26, 1944	21.70	10,700	1953	May 27, 1953	9.09	202
1944	May 3, 1944	30.00	35,800	1954	June 16, 1954	13.96	2,720
1944	June 14, 1944	20.42	7,910	1955	May 26, 1955	17.94	6,480
1944	Aug. 26, 1944	23.12	12,300	1956	Aug. 9, 1956	17.13	5,250
1945	Dec. 4, 1944	25.10	19,500	1957	May 16, 1957	22.70	12,300
					June 28, 1957	18.71	7,350
1945	Apr. 16, 1945	26.15	22,600				
1945	June 30, 1945	17.87	6,560				
1945	July 26, 1945	19.97	9,700				
1945	Aug. 10, 1945	21.39	12,100				
1946	Sept. 28, 1945	18.56	7,550				
1946	Jan. 5, 1946	18.06	6,840	1958	July 11, 1958	18.38	5,360
					June 19, 1946	19.18	8,450

a Annual peak only.
b Backwater from ice.

ARKANSAS RIVER BASIN

1800. Cottonwood River near Marion, Kans.

Location.--Lat 38°21', long 97°04', in SW $\frac{1}{4}$ sec.36, T.19 S., R.3 E., at highway bridge 1.1 miles downstream from South Cottonwood River, 2 miles west of Marion, and at mile 123.9.

Drainage area.--329 sq mi.

Gage.--Nonrecording prior to May 2, 1945; recording thereafter. Datum of gage is 1,289.85 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 13,000 cfs and by slope-area measurement at 66,000 cfs.

Bankfull stage.--16 ft.

Remarks.--Records prior to Oct. 1, 1950, computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	June 28, 1939	8.20	1,820	1949	Jan. 16, 1949	13.32	5,080
					Jan. 23, 1949	14.31	5,620
1940	Sept. 25, 1940	10.30	2,960		Feb. 18, 1949	13.64	5,240
					May 1, 1949	23.40	12,600
1941	June 9, 1941	22.00	11,300		May 8, 1949	10.48	3,620
	July 2, 1941	11.83	3,700		May 17, 1949	10.79	3,770
	Sept. 2, 1941	23.48	12,700		May 21, 1949	10.22	3,470
	Sept. 6, 1941	25.38	14,800				
1942	Oct. 7, 1941	12.28	4,000	1950	June 9, 1950	10.50	3,620
	Oct. 20, 1941	25.68	15,200		July 19, 1950	16.55	7,020
	Dec. 23, 1941	10.70	3,060		Aug. 1, 1950	16.26	6,820
	Apr. 25, 1942	13.65	4,860	1951	May 1, 1951	15.18	6,130
	June 25, 1942	12.17	3,940		May 10, 1951	11.48	4,110
	Sept. 4, 1942	14.28	5,260		May 17, 1951	22.70	11,900
1943	Oct. 4, 1942	13.70	4,880		May 23, 1951	10.44	3,590
					June 7, 1951	24.85	14,700
1944	Mar. 15, 1944	10.55	3,720		June 24, 1951	10.70	3,720
	Mar. 22, 1944	11.78	4,440		June 29, 1951	25.53	16,700
	Apr. 10, 1944	17.14	7,750		July 3, 1951	17.00	7,300
	Apr. 22, 1944	25.14	14,400		July 11, 1951	28.57	66,000
	Apr. 26, 1944	11.74	4,140		July 23, 1951	11.78	4,260
	Apr. 30, 1944	10.80	3,600		Sept. 5, 1951	-	6,000
	May 3, 1944	24.25	13,400	1952	Apr. 19, 1952	12.72	4,150
1945	Dec. 5, 1944	17.00	7,360	1953	May 27, 1953	15.10	5,620
	Apr. 16, 1945	25.7	15,200	1954	June 12, 1954	10.60	3,040
	Sept. 28, 1945	16.23	6,760	1955	Apr. 13, 1955	9.70	2,640
1946	Sept. 7, 1946	8.45	2,470	1956	July 6, 1956	3.69	366
1947	Dec. 12, 1946	9.48	3,020	1957	May 17, 1957	23.91	12,900
	Mar. 13, 1947	11.62	4,100		July 28, 1957	13.41	4,560
	Apr. 10, 1947	18.53	9,250	1958	May 4, 1958	18.90	8,640
1948	May 2, 1948	10.51	3,520		Sept. 17, 1958	10.18	3,030
	June 28, 1948	14.22	5,530				
	July 19, 1948	17.81	7,870				

1805. Cedar Creek near Cedar Point, Kans.

Location--Lat 38°12', long 96°50', in NE¼ sec.25, T.21 S., R.5 E., at highway bridge 4 miles south of Cedar Point and at mile 9.4.

Drainage area--110 sq mi.

Gage--Nonrecording prior to Sept. 27, 1944; recording thereafter. Datum of gage is 1,262.50 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Defined by current-meter measurements below 7,500 cfs and by a combined contracted-opening and flow-over-road measurement at 52,400 cfs.

Bankfull stage--22 ft.

Historical data--Flood of July 10, 1929, reached a stage of 24.63 ft from floodmark, in house on left bank 500 ft from gage where flood of June 29, 1951, reached a stage of 25.7 ft, from information obtained by Corps of Engineers in 1938 and from floodmarks in 1951.

Flood of June 29, 1951, about 2 miles downstream from gage, was maximum stage known since 1856, according to Pat Sauble, who settled there in 1856. He reported in 1951 that the flood of July 10, 1929, which was about the same as that in 1951, was about 1 ft higher than the flood in 1876 or 1877, which had been the highest between 1856 and 1929. Flood of June 29, 1951, about 2 miles upstream from the gage was about 0.5 ft higher than that of July 10, 1929, from floodmarks.

Remarks--Records prior to Oct. 1, 1950, computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 3,600 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Aug. 11, 1939	7.90	1,020	1948	June 23, 1948	16.45	6,940
1940	Apr. 17, 1940	12.60	4,050	1949	July 17, 1948	15.32	6,080
					July 19, 1948	16.63	7,100
1941	June 1, 1941	13.54	4,720		Jan. 15, 1949	14.63	5,550
	June 9, 1941	13.83	4,800	Jan. 23, 1949	12.91	4,280	
	Sept. 2, 1941	21.50	13,000	1950	June 2, 1950	12.13	3,690
	Sept. 6, 1941	18.05	8,280		July 31, 1950	17.46	7,850
1942	June 24, 1942	12.05	3,620	1951	May 1, 1951	18.20	8,270
1943	Dec. 26, 1942	13.81	4,950		June 29, 1951	23.70	52,400
					July 3, 1951	16.77	7,120
1944	Mar. 15, 1944	15.65	6,480		July 11, 1951	21.20	11,200
	Mar. 21, 1944	15.10	6,060	Sept. 5, 1951	12.44	3,930	
	Apr. 10, 1944	14.46	5,480	1952	Oct. 6, 1951	15.55	6,160
	Apr. 22, 1944	22.50	22,500				
1945	Dec. 4, 1944	17.78	8,100	1953	May 27, 1953	10.63	2,700
	Apr. 15, 1945	19.58	9,760	1954	Mar. 25, 1954	5.95	290
	Sept. 28, 1945	18.41	8,680				
	Sept. 30, 1945	12.66	4,130				
1946	May 17, 1946	11.33	3,120	1955	Sept. 27, 1955	7.08	746
				1956	Oct. 2, 1955	8.49	1,400
1947	Apr. 10, 1947	15.62	6,580	1957	May 16, 1957	19.42	9,280
	Apr. 13, 1947	13.88	5,060	1958	Mar. 29, 1958	16.21	6,210
	June 18, 1947	14.44	5,500				
	June 25, 1947	12.93	4,260				
	June 27, 1947	18.29	9,170				
					July 16, 1958	14.45	4,500

ARKANSAS RIVER BASIN

1810. Cottonwood River at Elmdale, Kans.

Location.--Lat 38°22', long 96°38', in NW $\frac{1}{4}$ sec.26, T.19 S., R.7 E., at highway bridge 1 mile east of Elmdale, 1.2 miles upstream from Middle Creek, and at mile 70.8.

Drainage area.--1,045 sq mi.

Gage.--Nonrecording. Datum of gage is 1,165.11 ft above mean sea level, datum of 1929 (levels by Kansas State Board of Agriculture).

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs. Stage-discharge relation affected at times by backwater from Diamond and Middle Creeks.

Bankfull stage.--32 ft.

Remarks.--Base for partial-duration series, 3,300 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1904	June 1904	36.7	-	1928	Apr. 6, 1928	21.1	5,790		
1923	Nov. 12, 1922	17.8	4,500		Apr. 27, 1928	16.4	5,970		
	May 24, 1923	19.0	4,960		June 9, 1928	20.3	5,470		
	June 11, 1923	35.5	20,000		June 17, 1928	25.51	7,650		
	June 16, 1923	29.2	9,520		July 1, 1928	18.4	4,750		
	July 4, 1923	20.5	5,550		Aug. 8, 1928	22.6	4,770		
1924	Mar. 29, 1924	14.7	3,350	1929	Nov. 17, 1928	34.17	15,100		
	Apr. 30, 1924	29.5	9,700			Apr. 10, 1929	16.3	5,870	
1925	June 3, 1925	18.95	4,940			Apr. 21, 1929	19.43	5,090	
						May 13, 1929	29.0	9,400	
						June 8, 1929	15.6	3,640	
1926	Sept. 12, 1926	32.0	11,500		July 12, 1929	36.4	26,000		
					Aug. 10, 1929	22.2	6,240		
1927	Oct. 4, 1926	32.2	11,700	1930	May 7, 1930	24.85	7,330		
	Oct. 15, 1926	15.3	3,570			Sept. 15, 1930	15.3	3,570	
	Apr. 1, 1927	21.5	5,960	1931	June 7, 1931	16.4	3,970		
	Apr. 8, 1927	26.0	7,880		1932	Nov. 17, 1931	22.7	6,450	
	Apr. 15, 1927	30.5	10,300			Nov. 25, 1931	21.9	6,120	
	Apr. 19, 1927	31.5	11,100			June 29, 1932	17.58	4,430	
	May 6, 1927	26.2	7,980	1944		Apr. 23, 1944	37.5	440,000	
	June 20, 1927	34.46	16,000						
	Aug. 18, 1927	32.5	12,000						
	Aug. 29, 1927	21.4	5,910						
	Sept. 6, 1927	20.4	5,510						

a Annual peak only; determined by Kansas State Board of Agriculture.

1815. Middle Creek near Elmdale, Kans.

Location.--Lat 38°24', long 96°43', in SW $\frac{1}{4}$ sec.13, T.19 S., R.6 E., at highway bridge 4 miles northwest of Elmdale and at mile 8.2.

Drainage area.--92 sq mi.

Gage.--Nonrecording. Datum of gage is 1,220.55 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 7,000 cfs. Shifts in relation occur. Peak discharges for 1917, 1938, and 1951 are based on stage-discharge relation of 1939-50 and are approximate.

Bankfull stage.--16 ft.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 1,700 cfs.

Peak stages and discharges of Middle Creek near Elmdale, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1917	Apr. 17, 1917	a20.0	17,000	1945	Apr. 15, 1945	17.32	8,570
1938	June 1938	a21.0	20,000	May 2, 1945	10.3	1,850	
				July 17, 1945	10.7	2,020	
				Sept. 28, 1945	14.32	3,810	
1939	Aug. 15, 1939	6.85	790	1946	June 19, 1946	18.03	10,600
1940	Sept. 5, 1940	5.00	338		June 25, 1946	10.10	1,760
1941	June 1, 1941	13.10	3,230	1947	Dec. 12, 1946	11.00	2,160
	June 9, 1941	16.00	5,220		Mar. 13, 1947	12.50	2,890
	Sept. 6, 1941	16.80	7,150		Apr. 10, 1947	15.50	4,460
1942	Oct. 14, 1941	18.50	12,100		Apr. 13, 1947	13.04	3,110
	Oct. 20, 1941	17.90	10,300	1948	July 20, 1948	17.82	10,000
	June 24, 1942	11.75	2,600		1949	Jan. 15, 1949	14.95
1943	Dec. 26, 1942	10.70	2,110	Jan. 23, 1949		14.52	3,900
	1944	Mar. 15, 1944 Mar. 22, 1944 Apr. 10, 1944 Apr. 22, 1944 Apr. 26, 1944 May 3, 1944	11.1	2,440		May 7, 1949	10.57
11.0			2,400	1950	July 9, 1950	17.88	10,300
12.1			2,850		July 16, 1950	9.95	1,750
17.70			9,730		July 19, 1950	13.20	3,210
14.30			3,980		July 23, 1950	11.66	2,480
14.90			4,340		Aug. 1, 1950	18.90	15,300
Aug. 29, 1950	10.58	1,990					
1945	Oct. 2, 1944	11.20	2,260	1951	July 1951	a20.6	18,000
	Dec. 4, 1944	17.00	7,700				
	Apr. 13, 1945	16.30	5,780				

a From floodmark, furnished by Corps of Engineers; annual peak only.

1820. Cottonwood River at Cottonwood Falls, Kans.

Location.--Lat 38°22', long 96°31', in NE¼ sec.28, T.19 S., R.8 E., at county highway bridge 1 mile east of Cottonwood Falls, 4.1 miles upstream from South Fork Cottonwood River, and at mile 52.8.

Drainage area.--1,402 sq mi; 1,390 sq mi prior to Feb. 12, 1935.

Gage.--Nonrecording Apr. 8, 1932, to Feb. 11, 1935, at The Atchison, Topeka and Santa Fe Railway Co. bridge 2.3 miles upstream at datum 0.64 ft higher; recording thereafter at present site. Datum of present gage is 1,147.28 ft above mean sea level, datum of 1929. U. S. Weather Bureau gage since 1939 at site 2.5 miles upstream at datum 14.35 ft higher than present gage.

Stage-discharge relation.--Defined by current-meter measurements below 48,000 cfs and by combination of contracted-opening and slope-area measurements at 68,000 and 196,000 cfs. Peak discharges prior to 1932 are based on subsequent relation developed for the U. S. Weather Bureau gage 2.5 miles upstream

Bankfull stage.--19 ft.

Historical data.--Flood stages for 1902-4 and 1916 were determined from information published in the Chase County Leader June 5, 1902, June 4, 1903, June 9, 1904, and June 13, 1916, respectively.

Flood stages for 1926 and 1929 were determined from information furnished by The Atchison, Topeka and Santa Fe Railway Co.

Flood of July 11, 1951, is the greatest known since the Valley was settled in 1858, from information by local residents in 1957.

Remarks.--Base for partial-duration series, 3,600 cfs. Only annual peaks are shown prior to 1932.

ARKANSAS RIVER BASIN

Peak stages and discharges of Cottonwood River at Cottonwood Falls, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1902	June 5, 1902	a10.1	b13,000	1945	Dec. 5, 1944	21.60	40,200
1903	May 29, 30, 1903	a13.7	b31,000	1945	Apr. 13, 1945	13.42	9,160
1904	June 3, 1904	a16.2	b70,000	1945	Apr. 16, 1945	22.13	54,200
1916	June 11, 1916	a11.6	b16,000	1945	Apr. 26, 1945	8.13	5,110
1926	Sept. 12, 1926	a10.2	b14,000	1945	July 18, 1945	9.10	6,090
1929	July 13, 1929	a13.3	b28,000	1945	July 26, 1945	7.6	4,640
1932	July 6, 1932	21.0	c11,800	1945	Sept. 20, 1945	20.30	20,500
1933	May 19, 1933	11.36	5,700	1946	June 19, 1946	19.72	15,900
1934	Apr. 5, 1934	6.57	1,860	1947	Dec. 14, 1946	7.75	4,740
1935	May 15, 1935	7.31	4,400	1947	Mar. 14, 1947	16.39	11,300
1935	May 20, 1935	13.3	7,770	1947	Apr. 14, 1947	16.44	11,300
1935	May 28, 1935	15.24	10,600	1947	May 25, 1947	6.72	3,610
1935	June 3, 1935	13.65	9,830	1947	June 28, 1947	8.37	5,330
1935	June 12, 1935	8.14	5,290	1948	May 2, 1948	8.32	4,990
1936	Oct. 21, 1935	6.58	3,620	1948	June 23, 1948	7.56	3,880
1937	Feb. 8, 1937	9.58	6,570	1948	June 30, 1948	9.62	5,740
1938	May 5, 1938	16.15	11,000	1948	July 20, 1948	23.30	78,000
1938	May 12, 1938	12.0	7,820	1949	Jan. 16, 1949	16.53	8,700
1938	May 19, 1938	15.3	10,400	1949	Jan. 24, 1949	19.49	11,200
1938	May 23, 1938	17.24	12,000	1949	Feb. 12, 1949	17.29	7,500
1938	May 27, 1938	7.63	4,820	1949	Feb. 19, 1949	10.20	6,890
1938	May 29, 1938	9.60	5,630	1949	May 3, 1949	12.26	8,370
1938	June 16, 1938	7.97	4,290	1949	May 8, 1949	10.71	7,210
1938	June 27, 1938	11.80	7,470	1949	May 18, 1949	7.00	3,820
1938	Aug. 17, 1938	9.05	5,220	1949	May 23, 1949	7.78	4,260
1939	Aug. 16, 1939	7.21	4,050	1949	May 29, 1949	7.31	4,580
1940	Sept. 25, 1940	6.74	3,610	1950	June 3, 1950	13.8	8,550
1941	June 1, 1941	17.88	12,800	1950	July 10, 1950	18.33	12,500
1941	June 10, 1941	19.13	14,700	1950	July 17, 1950	13.13	8,080
1941	July 4, 1941	7.23	4,220	1950	July 19, 1950	14.14	8,760
1941	Aug. 25, 1941	8.38	5,340	1950	July 26, 1950	11.07	6,770
1941	Sept. 4, 1941	15.48	10,600	1950	Aug. 1, 1950	19.73	15,700
1941	Sept. 8, 1941	21.08	21,600	1950	Aug. 11, 1950	7.02	3,620
1942	Oct. 9, 1941	7.70	4,690	1950	Aug. 27, 1950	9.19	5,410
1942	Oct. 14, 1941	17.38	12,300	1950	Aug. 30, 1950	10.5	6,350
1942	Oct. 20, 1941	21.35	35,800	1951	May 1, 1951	20.35	18,400
1942	Oct. 22, 1941	20.57	19,000	1951	May 11, 1951	7.14	3,960
1942	Nov. 2, 1941	10.22	6,910	1951	May 19, 1951	16.58	11,300
1942	Apr. 21, 1942	6.94	3,690	1951	May 23, 1951	9.62	5,970
1942	Apr. 27, 1942	9.65	6,450	1951	June 9, 1951	19.12	14,700
1942	May 4, 1942	7.37	4,360	1951	June 15, 1951	6.92	3,720
1942	June 19, 1942	6.82	3,780	1951	June 25, 1951	8.35	5,130
1942	June 24, 1942	15.70	10,700	1951	June 30, 1951	22.68	65,200
1942	Sept. 6, 1942	14.02	9,540	1951	July 5, 1951	14.82	9,900
1943	Oct. 5, 1942	7.75	4,740	1951	July 11, 1951	27.06	196,000
1943	Dec. 27, 1942	9.16	6,090	1951	July 25, 1951	8.63	5,340
1943	June 10, 1943	6.75	3,700	1952	July 27, 1951	7.91	4,760
1944	Mar. 16, 1944	15.26	10,400	1952	Sept. 3, 1951	11.32	7,160
1944	Mar. 23, 1944	16.87	11,800	1952	Sept. 5, 1951	17.32	12,000
1944	Apr. 9, 1944	7.13	4,080	1952	Oct. 7, 1951	7.05	3,860
1944	Apr. 11, 1944	17.78	12,800	1952	Mar. 10, 1952	10.73	6,450
1944	Apr. 20, 1944	7.80	4,790	1952	Apr. 20, 1952	8.25	4,670
1944	Apr. 23, 1944	22.50	61,200	1952	Apr. 23, 1952	7.55	4,110
1944	Apr. 27, 1944	15.36	10,500	1953	May 29, 1953	7.68	4,210
1944	Apr. 30, 1944	10.19	6,880	1954	June 14, 1954	6.40	3,080
1944	May 5, 1944	17.02	11,900	1955	Sept. 29, 1955	6.4	3,080
1945	Oct. 2, 1944	8.35	5,370	1956	May 8, 1956	4.36	1,140
				1957	May 14, 1957	9.13	5,280
				1957	May 17, 1957	19.73	15,600
				1957	June 29, 1957	7.70	4,230
				1958	Mar. 9, 1958	9.42	5,460
				1958	Mar. 29, 1958	9.75	5,700
				1958	May 6, 1958	10.3	6,080
				1958	July 17, 1958	9.05	5,230
				1958	Sept. 19, 1958	7.70	4,230

a Site and datum of U. S. Weather Bureau gage; approximate.

b Annual peak only.

c Maximum Apr. 8 to Sept. 30, 1932; probably maximum for year.

1824. Neosho River at Strawn, Kans.

Location.--Lat 38°16', long 95°52', SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.33, T.20 S., R.14 E., at highway bridge at Strawn, $1\frac{1}{2}$ miles downstream from Eagle Creek and at mile 356.5.

Drainage area.--2,933 sq mi.

Gage.--Nonrecording June 8 to Sept. 26, 1948; recording thereafter. Datum of gage is 1,018.78 ft above mean sea level, datum of 1929, Kansas City supplementary adjustment of 1943 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 97,000 cfs and by rainfall-runoff studies and flood-routing from station near Iola, at 400,000 cfs. Annual peaks shown for water years 1885, 1902-47 are based on subsequent stage-discharge relation and are approximate. Shifts in relation occur.

Historical data.--Stages shown for water years 1885, 1902-47 are based on gage-height relations with stages for stations at Neosho Rapids 17.7 miles upstream and at Burlington 18 miles downstream, and are approximate only.

Flood of July 4, 1885, at Burlington, was the greatest prior to 1904, according to the Burlington Republican of June 9 and July 14, 1904, which states "Flood of July 8, 1904, was the greatest yet.--The highest record heretofore was that of July 4, 1885."

Floods of June 8, 1902, and June 1, 1903, at Burlington were 24 inches and 22 inches lower, respectively, than that of July 8, 1904, according to the Burlington Republican July 14, 1904.

Flood of May 31, 1903, at Neosho Rapids was about $2\frac{1}{2}$ ft less than the stage on July 7, 1904, according to Water-Supply Paper 147 page 90 (1904).

Flood of July 7, 1904, at Neosho Rapids was "The greatest flood that ever visited this community," according to the Neosho Valley Times of June 10 and July 8, 1904.

Remarks.--Gage heights for stations at Neosho Rapids and Burlington 1885 and 1904-47, furnished by U. S. Weather Bureau. Records June 8, 1948, to Sept. 30, 1950, computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 10,000 cfs. Only annual peaks are shown prior to 1949.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1885	July 1885	26.0	75,000	1920	Sept. 9, 1920	11.5	9,000
1902	June 1902	24.5	43,000	1921	May 12, 1921	10.0	7,000
1903	May 31, 1903	24.5	43,000	1922	Apr. 11, 1922	22.5	25,000
1904	July 7, 1904	26.5	90,000	1923	June 11, 1923	24.5	43,000
1905	July 6, 1905	20.0	18,000	1924	May 3, 1924	16.5	13,000
1906	June 9, 1906	20.5	19,000	1925	June 4, 1925	18.5	16,000
1907	Jan. 22, 1907	18.0	15,000	1926	Sept. 13, 1926	24.0	38,000
1908	June 15, 1908	24.5	43,000	1927	Apr. 21, 1927	25.0	51,000
1909	July 11, 1909	26.0	75,000	1928	June 3, 1928	22.0	23,000
1910	Jan. 15, 1910	21.0	20,000	1929	Nov. 18, 1928	25.5	62,000
1911	Feb. 20, 1911	18.0	15,000	1930	May 9, 1930	19.5	17,000
1912	Mar. 31, 1912	16.5	13,000	1931	June 9, 1931	6.5	5,000
1913	Oct. 14, 1912	17.0	14,000	1932	July 6, 1932	25.5	62,000
1914	Apr. 1, 1914	13.0	10,000	1933	Apr. 22, 1933	16.5	13,000
1915	May 23, 1915	21.5	21,000	1934	May 14, 1934	4.5	4,000
1916	June 22, 1916	21.5	21,000	1935	June 5, 1935	23.5	33,000
1917	June 5, 1917	19.5	17,000	1936	Oct. 21, 1935	19.0	16,000
1918	Mar. 31, 1918	14.0	11,000	1937	Feb. 8, 1937	16.0	13,000
1919	Mar. 18, 1919	23.5	33,000	1938	May 21, 1938	23.0	29,000

Peak stages and discharges of Neosho River at Strawn, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	June 29, 1939	8.5	6,000	1951	May 3, 1951	23.67	34,500
1940	September 1940	5.5	4,000	May 21, 1951	14.20	10,900	
1941	June 12, 1941	24.0	38,000	June 10, 1951	21.28	20,300	
1942	Oct. 21, 1941	25.5	62,000	June 17, 1951	14.11	10,900	
1943	June 18, 1943	21.5	21,000	June 24, 1951	19.03	16,200	
1944	Apr. 24, 1944	26.0	75,000	July 1, 1951	25.19	55,000	
1945	Apr. 17, 1945	26.0	75,000	July 7, 1951	20.15	17,900	
1946	June 21, 1946	23.0	29,000	July 11, 1951	30.54	400,000	
1947	Apr. 13, 1947	22.5	25,000	July 23, 1951	19.78	16,800	
1948	July 21, 1948	27.48	99,200	Aug. 26, 1951	14.86	10,400	
1949	Jan. 18, 1949	-	12,500	Sept. 6, 1951	23.48	32,800	
	Jan. 26, 1949	17.73	14,800	1952	Mar. 12, 1952	17.45	14,300
	Feb. 14, 1949	17.85	15,000	Apr. 22, 1952	15.88	12,600	
	Feb. 19, 1949	14.34	11,400	1953	May 31, 1953	5.80	4,340
	Apr. 12, 1949	16.61	13,600	1954	June 16, 1954	5.64	4,020
	May 23, 1949	13.62	10,700	1955	May 28, 1955	5.25	3,960
1950	June 5, 1950	18.40	15,600	1956	May 8, 1956	8.22	5,340
	July 12, 1950	15.53	12,600	1957	May 17, 1957	22.45	24,900
	July 21, 1950	17.74	14,800	May 20, 1957	21.32	20,300	
	Aug. 4, 1950	20.24	17,700	May 29, 1957	16.45	12,000	
	Aug. 12, 1950	15.80	12,800	June 12, 1957	19.05	15,400	
	Aug. 30, 1950	14.24	11,300	June 30, 1957	14.82	10,300	
				1958	Mar. 9, 1958	16.55	11,800
					June 25, 1958	16.00	11,300
					July 17, 1958	18.40	13,900

1830. Neosho River near Iola, Kans.
(Published as "at Iola" prior to 1917)

Location.--Lat 37°53', long 95°26', in NE $\frac{1}{4}$ sec. 9, T.25 S., R.18 E., 1 mile downstream from Elm Creek, 3 miles southwest of Iola, and at mile 284.4.

Drainage area.--3,818 sq mi; 3,720 sq mi prior to Oct. 12, 1917.

Gage.--Nonrecording prior to Nov. 30, 1903, at tailgate of flume at milldam 4.8 miles upstream at datum 12.2 ft higher; recording thereafter at present site and datum. Datum of present gage is 914.77 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 84,000 cfs and by slope-area measurement at 436,000 cfs. Peak discharges for 1885 and 1904 based on the interim rating. Shifts in relation occur.

Bankfull stage.--27 ft.

Historical data.--Flood in July 1885 overflowed land on the Lawyer farm that had not been inundated in 30 years, according to the Iola Register of July 10, 1885.

Floods in July 1885 and June 6, 1904: "Observer Howard at the river power house says his best information is to the effect that the flood of 1885 recorded 14 feet 3 inches ---(as compared with the previous high mark of this year)--on June 6 when the stage of the river, as shown by the official gage, was 14 feet 1 $\frac{1}{4}$ inches," according to the Iola Register of July 9, 1904.

Flood of July 10, 1904, "reached a height of 15 feet 6 inches at 2 pm yesterday" (on the gage at Iola powerhouse), according to the Iola Register July 11, 1904.

Flood in 1885, which was about 1 ft lower than that of July 10, 1904, at Humbolt, 7 miles downstream, was the highest known prior to 1904 (Water-Supply Paper 147, p. 89).

Flood of Sept. 7, 1915, rose within 0.5 ft of that of July 10, 1904, at Iola and was the highest since that time, according to U. S. Weather Bureau Climatological Data September 1915.

The six greatest floods in the period 1855-1956 occurred in 1951, 1948, 1926, 1944, 1945, and 1904, respectively.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges of Neosho River near Iola, Kans.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1885	July 1885	22.7	a50,000	1926	Nov. 7, 1925	15.2	12,000
1895	Sept. 12, 1895	21.0	b38,300		Sept. 5, 1926	18.35	16,000
1896	Dec. 25, 1895	14.0	19,000		Sept. 13, 1926	33.2	73,100
	Apr. 9, 1896	10.7	12,400	1927	Oct. 6, 1926	26.1	27,100
	Apr. 25, 1896	10.0	11,000		Mar. 20, 1927	19.5	18,000
	May 16, 1896	12.2	15,400		Apr. 1, 1927	19.7	18,300
	May 24, 1896	21.1	36,800		Apr. 9, 1927	21.3	20,500
1897	Mar. 5, 1897	6.7	4,940		Apr. 19, 1927	29.8	49,600
1898	May 3, 1898	19.6	32,800		May 7, 1927	18.3	16,400
	May 16, 1898	19.0	31,000		June 21, 1927	24.1	24,600
	May 22, 1898	12.85	16,700	1928	Aug. 15, 1927	19.4	17,900
	June 27, 1898	22.2	46,100		Oct. 3, 1927	30.0	47,400
1899	Dec. 20, 1898	14.3	19,600		June 4, 1928	22.8	22,600
	Mar. 12, 1899	11.8	14,600		June 9, 1928	18.3	16,400
	June 9, 1899	18.5	29,500		June 18, 1928	21.8	21,200
	July 8, 1899	17.8	27,500	1929	Nov. 20, 1928	30.42	50,400
1900	Mar. 12, 1900	9.7	10,400		Dec. 14, 1928	14.06	10,800
	Apr. 16, 1900	10.7	12,400		Dec. 17, 1928	16.1	13,500
	Apr. 24, 1900	10.2	11,400		Apr. 21, 1929	16.7	14,300
	May 19, 1900	16.1	23,200		Apr. 24, 1929	17.9	15,900
	Sept. 29, 1900	12.2	15,400		May 12, 1929	20.65	19,600
1901	Nov. 2, 1900	19.5	32,500		May 16, 1929	20.1	18,800
	Apr. 8, 1901	12.2	15,400		May 18, 1929	19.7	18,300
	Apr. 17, 1901	13.4	17,800	1930	July 17, 1929	20.6	19,500
1902	Apr. 28, 1902	10.0	11,000	1930	May 11, 1930	18.9	17,200
	May 26, 1902	14.0	19,000	1931	May 19, 1931	10.2	6,130
	June 11, 1902	21.5	41,200	1932	Nov. 18, 1931	17.32	15,100
	June 21, 1902	16.0	23,000		Nov. 24, 1931	21.54	20,800
	Aug. 24, 1902	17.1	25,800		June 23, 1932	15.05	12,100
	Sept. 1, 1902	14.3	19,600		July 11, 1932	21.2	20,400
	Sept. 25, 1902	12.8	16,600	1933	Apr. 23, 1933	13.7	10,400
1903	Oct. 4, 1902	14.7	20,400		May 29, 1933	13.8	10,500
	Feb. 27, 1903	11.0	13,000	1934	May 15, 1934	18.27	16,400
	Mar. 7, 1903	10.0	11,000	1935	May 19, 1935	20.97	20,100
	Apr. 4, 1903	11.1	13,200		May 28, 1935	26.92	30,600
	May 15, 1903	12.1	15,200		June 12, 1935	14.06	10,800
	May 22, 1903	13.5	18,000		June 16, 1935	20.87	20,000
	June 3, 1903	22.5	48,500	1936	Oct. 23, 1935	16.7	14,300
	Aug. 6, 1903	13.1	17,200		Nov. 2, 1935	17.95	15,900
	Aug. 8, 1903	12.1	15,200		Nov. 27, 1935	19.88	18,600
	Aug. 16, 1903	15.1	21,200	1937	May 23, 1937	15.1	11,800
	Sept. 11, 1903	12.0	15,000		May 26, 1937	14.48	11,000
1904	July 10, 1904	24.0	a63,600		June 10, 1937	16.04	13,000
1918	June 1, 1918	16.6	14,100		June 15, 1937	13.7	10,000
1919	Nov. 10, 1918	14.65	11,600	1938	May 8, 1938	15.66	12,600
	Mar. 21, 1919	19.4	17,900		May 14, 1938	20.07	18,600
	May 3, 1919	16.25	13,700		May 24, 1938	28.26	40,200
	May 20, 1919	16.0	14,000		June 7, 1938	14.5	11,000
1920	Sept. 9, 1920	13.1	9,580		June 14, 1938	16.87	14,100
1921	May 9, 1921	15.0	12,000	1939	June 30, 1939	7.80	3,450
	June 9, 1921	14.86	11,900	1940	Apr. 17, 1940	13.60	9,920
1922	Mar. 14, 1922	15.1	12,200	1941	Jan. 17, 1941	19.20	17,400
	Mar. 18, 1922	15.0	12,000		Jan. 26, 1941	14.8	11,400
	Mar. 26, 1922	25.6	26,900		June 3, 1941	27.7	32,800
	Apr. 4, 1922	17.55	15,400		June 11, 1941	23.0	22,700
	Apr. 10, 1922	27.32	33,000		Aug. 27, 1941	22.35	21,800
	July 13, 1922	15.05	12,100		Sept. 6, 1941	29.70	42,200
					Sept. 30, 1941	17.47	15,000
1923	May 26, 1923	15.83	13,100	1942	Oct. 5, 1941	20.8	19,600
	June 15, 1923	27.33	32,200		Oct. 8, 1941	15.45	12,300
	July 8, 1923	17.0	14,600		Oct. 18, 1941	21.4	20,500
1924	July 15, 1924	13.2	9,710		Oct. 26, 1941	28.44	38,000
1925	June 5, 1925	14.4	11,600		Nov. 1, 1941	21.82	21,000
					Mar. 16, 1942	14.4	10,900

a Annual peak only.

b Maximum Aug. 1 to Sept. 30, 1895; probably maximum for year.

Peak stages and discharges of Neosho River near Iola, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1942	Apr. 7, 1942	14.8	11,400	1949	Jan. 24, 1949	17.3	14,200	
	Apr. 10, 1942	18.9	17,000		Feb. 15, 1949	22.97	21,800	
	Apr. 20, 1942	14.1	10,500		Feb. 19, 1949	16.54	13,200	
	Apr. 28, 1942	18.5	16,400		Feb. 27, 1949	14.49	10,800	
	June 21, 1942	24.55	24,600		Mar. 31, 1949	17.22	14,000	
	June 25, 1942	19.29	16,700		Apr. 12, 1949	14.9	11,300	
	Aug. 27, 1942	18.4	16,100		May 24, 1949	14.99	11,400	
	Sept. 7, 1942	21.12	19,900		1950	June 6, 1950	16.22	13,800
	Sept. 19, 1942	14.4	10,800			July 10, 1950	16.39	16,600
Sept. 26, 1942	17.3	14,600	July 13, 1950	20.45		19,200		
1943	Oct. 4, 1942	17.14	14,500	July 19, 1950		20.43	19,200	
	Dec. 27, 1942	18.56	16,500	July 26, 1950		16.56	14,300	
	May 10, 1943	15.18	12,000	Aug. 6, 1950		18.55	16,900	
	May 16, 1943	15.18	12,000	Aug. 8, 1950		16.77	14,500	
	May 19, 1943	29.41	40,700	Aug. 16, 1950		17.50	15,400	
	June 11, 1943	16.4	13,500	Aug. 27, 1950		14.34	11,300	
	June 20, 1943	17.75	15,300	Aug. 30, 1950	20.94	19,900		
	June 24, 1943	22.74	22,300	1951	May 6, 1951	23.89	23,300	
1944	Mar. 19, 1944	23.4	22,400		May 10, 1951	13.68	10,300	
	Mar. 22, 1944	15.22	11,700		May 23, 1951	16.66	14,300	
	Mar. 26, 1944	16.94	13,700		June 12, 1951	22.16	21,200	
	Apr. 10, 1944	25.98	28,000		June 18, 1951	13.9	10,600	
	Apr. 25, 1944	32.31	72,300		June 25, 1951	-	c20,200	
	May 7, 1944	17.38	14,300		June 30, 1951	-	c32,200	
	June 14, 1944	14.40	10,700		July 4, 1951	30.0	46,000	
	Aug. 27, 1944	17.57	14,500		July 13, 1951	43.0	436,000	
1945	Oct. 5, 1944	18.3	15,400		July 25, 1951	19.81	18,400	
	Dec. 8, 1944	29.97	51,300		Aug. 28, 1951	21.02	19,800	
	Mar. 16, 1945	17.3	14,200		Sept. 9, 1951	28.69	37,600	
	Mar. 20, 1945	15.8	12,400	Sept. 13, 1951	24.25	23,700		
	Mar. 26, 1945	22.6	21,200	1952	Mar. 10, 1952	19.8	18,400	
	Mar. 29, 1945	14.87	11,200		Mar. 19, 1952	13.87	10,500	
	Apr. 12, 1945	16.62	13,300		Apr. 23, 1952	16.67	14,300	
	Apr. 16, 1945	31.95	69,400		1953	Apr. 1, 1953	9.93	5,590
	Apr. 27, 1945	18.6	15,800	1954		May 2, 1954	19.16	17,600
	May 27, 1945	17.3	14,200			1955	May 26, 1955	15.65
	July 1, 1945	25.9	27,700	1956	May 31, 1956		11.33	7,230
	Aug. 11, 1945	18.3	15,400		1957		May 19, 1957	21.78
Sept. 30, 1945	23.8	23,100	May 23, 1957	19.80		18,000		
1946	Jan. 5, 1946	18.02	15,000	May 30, 1957		20.42	18,700	
	Apr. 23, 1946	16.8	13,600	June 2, 1957		19.58	17,700	
	June 24, 1946	19.06	17,600	June 13, 1957		20.14	18,400	
	1947	Mar. 14, 1947	19.77	17,300	July 1, 1957	16.55	13,900	
		Apr. 5, 1947	25.57	26,900	1958	Mar. 9, 1958	19.55	17,700
Apr. 15, 1947		28.21	28,700	Mar. 24, 1958		14.85	11,600	
Apr. 25, 1947		15.61	12,100	Apr. 3, 1958		14.14	10,700	
June 9, 1947		20.46	18,200	June 26, 1958		20.45	18,800	
1948		Mar. 19, 1948	16.32	13,000		July 5, 1958	14.39	11,000
	Mar. 23, 1948	16.68	13,400	July 12, 1958		21.86	20,600	
	May 10, 1948	17.25	14,000	July 18, 1958		23.90	23,300	
	June 26, 1948	14.68	11,000	July 26, 1958		13.72	10,100	
July 23, 1948	34.63	83,100	Sept. 18, 1958	17.69		15,400		
Sept. 8, 1948	16.18	12,800	1949	Jan. 19, 1949	16.11	12,700		

c Based on U. S. Weather Bureau gage 4.8 miles upstream.

1835. Neosho River near Parsons, Kans.

Location.--Lat 37°20'25", long 95°06'32", on north line of sec.21, T.31 S., R.21 E., at bridge on U. S. Highway 160, 0.4 mile upstream from Hickory Creek, 2.7 miles upstream from dam of Kansas Ordnance Plant, 8 miles east of Parsons, and at mile 204.1. Records include flow of Hickory Creek.

Drainage area.--4,905 sq mi (includes that of Hickory Creek).

Gage.--Nonrecording prior to Feb. 7, 1935; recording thereafter. Prior to Oct. 1, 1929, at railroad bridge half a mile downstream at datum 0.04 ft lower. Datum of present gage is 810.25 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--24 ft.

Remarks.--Base for partial-duration series, 15,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1922	Mar. 15, 1922	22.86	25,100	1937	Mar. 25, 1937	17.80	15,200	
	Mar. 28, 1922	23.16	25,800		May 23, 1937	18.27	15,900	
	Apr. 13, 14, 1922	24.86	31,600		June 10, 1937	21.50	20,100	
	July 13, 1922	21.56	22,100		June 15, 1937	24.45	26,500	
1923	June 18, 1923	24.46	29,700	1938	May 16, 1938	20.00	18,100	
1924	Oct. 17, 1923	19.90	18,800		May 29, 1938	26.20	33,400	
	Dec. 13, 1923	19.26	17,800		June 8, 1938	22.95	22,900	
	Feb. 17, 1924	17.96	15,800	June 17, 1938	23.96	25,300		
	Aug. 7, 1924	18.96	17,300	1939	Apr. 5, 1939	9.21	4,980	
1925	Apr. 10, 1925	14.56	11,400		1940	Apr. 18, 1940	17.23	14,500
1926	Nov. 9, 1925	19.16	18,000	1941	Jan. 19, 1941	18.97	16,800	
	Sept. 17, 1926	27.03	45,100		Apr. 17, 1941	24.78	27,600	
1927	Oct. 8, 1926	25.31	34,100		Apr. 19, 1941	17.68	15,100	
	Mar. 21, 1927	20.76	20,700		June 7, 1941	24.97	28,300	
	Apr. 3, 1927	21.32	21,700		June 11, 1941	23.20	23,400	
	Apr. 9, 1927	26.08	38,800	Aug. 31, 1941	20.44	18,600		
	Apr. 22, 1927	27.41	47,800	Sept. 11, 1941	26.09	32,900		
	May 9, 1927	20.21	19,700	1942	Oct. 6, 1941	25.83	31,500	
	June 20, 1927	23.52	26,800		Oct. 17, 1941	22.48	22,000	
	Aug. 9, 1927	20.26	19,800		Oct. 21, 1941	27.29	40,200	
Aug. 17, 1927	23.76	27,400	Apr. 10, 1942		22.16	21,400		
1928	Oct. 6, 1927	26.22	39,700		Apr. 30, 1942	17.55	15,000	
	June 2, 1928	22.46	24,100		June 24, 1942	25.40	29,800	
	June 20, 1928	23.96	28,000	Sept. 9, 1942	20.28	18,500		
	1929	Nov. 24, 1928	27.49	48,100	1943	Dec. 29, 1942	19.54	17,200
Jan. 11, 1929		17.48	15,500	May 11, 1943		23.94	23,600	
Apr. 11, 1929		17.49	15,500	May 20, 1943		29.25	67,200	
Apr. 21, 1929		23.75	27,400	June 13, 1943		18.08	15,200	
May 7, 1929		19.56	18,700	June 22, 1943	20.45	18,300		
May 15, 1929		24.36	29,300	1944	Mar. 20, 1944	25.01	27,300	
July 20, 1929		19.76	19,000		Apr. 12, 1944	25.68	30,800	
1930		May 13, 1930	20.02		18,700	Apr. 27, 1944	29.70	83,500
	June 12, 1930	20.92	20,100		June 21, 1944	21.42	19,400	
	June 16, 1930	17.75	15,300	Sept. 29, 1944	22.21	20,400		
1931	May 20, 1931	13.53	9,500	1945	Oct. 3, 1944	21.87	20,000	
1932	Nov. 28, 1931	22.96	23,000		Dec. 13, 1944	26.22	33,600	
	July 13, 1932	20.46	18,200		Mar. 16, 1945	18.48	15,800	
	1933	Apr. 22, 1933	19.0		17,200	Mar. 20, 1945	20.85	18,800
May 13, 1933		23.62	18,900		Mar. 28, 1945	21.12	19,100	
1934		May 17, 1934	18.03		15,700	Apr. 21, 1945	29.02	63,200
		1935	May 21, 1935	24.57	27,000	May 31, 1945	18.40	15,700
			June 1, 1935	27.46	41,700	July 5, 1945	24.10	24,200
June 17, 1935	22.50	21,900	Sept. 25, 1945	20.00	17,800			
1936	Nov. 5, 1935	21.65	20,200	1946	Oct. 3, 1945	24.49	25,600	
		20,200	21,900		Jan. 6, 1946	23.66	23,200	
					June 25, 1946	18.71	16,100	
				1947	Mar. 16, 1947	19.72	17,400	
					Apr. 8, 1947	23.12	21,900	

Peak stages and discharges of Neosho River near Parsons, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 18, 1947	25.04	27,300	1951	July 14, 1951	40.20	410,000
	Apr. 26, 1947	21.20	19,200		July 26, 1951	19.73	17,900
	May 21, 1947	19.82	17,500		Aug. 29, 1951	23.09	24,200
	June 10, 1947	19.22	16,800		Sept. 13, 1951	27.25	43,800
1948	Mar. 24, 1948	20.05	17,800	1952	Feb. 2, 1952	18.14	15,300
	May 12, 1948	18.54	15,800		Mar. 12, 1952	21.16	20,500
	June 22, 1948	25.54	29,800	1953	Apr. 2, 1953	10.65	4,110
	June 26, 1948	19.49	17,200				
	July 12, 1948	18.20	15,400				
	July 27, 1948	30.74	87,800				
1949	Jan. 16, 1949	21.98	20,100	1954	May 4, 1954	24.97	27,900
	Jan. 24, 1949	21.27	19,300				
	Feb. 16, 1949	23.51	22,800	1955	May 28, 1955	19.94	18,600
	May 25, 1949	20.21	18,000				
	July 7, 1949	20.37	18,300				
1950	July 11, 1950	20.20	18,000	1956	June 1, 1956	12.18	6,170
	July 15, 1950	20.64	18,500				
	July 20, 1950	24.90	27,000				
	Aug. 7, 1950	18.90	16,400				
	Sept. 1, 1950	20.73	18,600	1957	May 19, 1957	22.80	23,600
1951	May 8, 1951	22.01	22,100	1958	Mar. 11, 1958	21.18	20,500
	May 23, 1951	22.61	23,500				
	June 14, 1951	21.49	21,100	Apr. 4, 1958	20.54	19,500	
	June 27, 1951	23.52	25,000	May 5, 1958	18.73	16,900	
				June 28, 1958	19.56	18,100	
				July 13, 1958	24.58	27,200	
			July 18, 1958	23.64	25,300		

1840. Lightning Creek near McCune, Kans.

Location.--Lat 37°17', long 95°02', in NE $\frac{1}{4}$ sec. 7, T.32 S., R.22 E., at highway bridge 4 miles south of McCune, 5 miles southeast of Straus, 13 $\frac{1}{2}$ miles south-east of Parsons, and at mile 14.6.

Drainage area.--197 sq mi.

Gage.--Nonrecording prior to Mar. 9, 1945; recording thereafter. Datum of gage is 818.10 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 10,000 cfs and extended to 18,700 cfs on basis of rainfall-runoff studies. Shifts in relation occur. Peak discharge for 1938 based on subsequent rating.

Bankfull stage.--15 ft.

Historical data.--Flood in 1935 overflowed existing highway on each side of bridge, from information by Corps of Engineers.

Remarks.--Records collected by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	-	16.24	a5,800	1941	June 10, 1941	16.45	6,950
					Sept. 10, 1941	16.00	4,500
1939	Apr. 6, 1939	13.11	2,080	1942	Oct. 5, 1941	17.55	18,700
	May 22, 1939	13.16	2,110		Oct. 17, 1941	15.86	4,020
1940	Apr. 18, 1940	12.50	1,900		Oct. 31, 1941	17.04	12,200
					Apr. 7, 1942	15.22	2,980
1941	Apr. 16, 1941	16.80	10,300		Apr. 10, 1942	15.74	3,490
	Apr. 19, 1941	16.40	6,950		June 19, 1942	13.79	2,320
	June 2, 1941	14.89	2,820	June 22, 1942	16.14	5,050	

a Annual peak only.

Peak stages and discharges of Lightning Creek near McCune, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Dec. 27, 1942	16.33	6,420	1945	Oct. 4, 1944	15.93	4,370
	May 10, 1943	16.71	9,350		Mar. 20, 1945	16.10	5,300
	May 19, 1943	17.81	23,000		Apr. 16, 1945	16.12	5,300
	May 25, 1943	16.01	5,090		Apr. 22, 1945	16.25	5,820
	June 5, 1943	15.17	3,110		June 18, 1945	15.58	3,500
	June 9, 1943	14.95	2,900		July 2, 1945	13.41	2,150
June 23, 1943	16.62	8,570	Aug. 7, 1945	14.39	2,460		
1944	Mar. 19, 1944	16.25	5,650	Sept. 25, 1945	16.76	10,200	
	Apr. 11, 1944	16.63	8,550	1946	Oct. 1, 1945	14.95	2,820
	May 2, 1944	13.83	2,540		Jan. 6, 1946	16.19	5,820
	June 21, 1944	16.08	5,050		Feb. 19, 1946	13.64	2,180
	Aug. 27, 1944	16.12	5,120				

1845. Labette Creek near Oswego, Kans.

Location--Lat 37°12', long 95°11', in NW¹/₄ sec.11, T.33 S., R.20 E., at bridge on State Highway 96, 1 mile upstream from St. Louis-San Francisco Railway Co. bridge, 5 miles northwest of Oswego, and at mile 18.8.

Drainage area--211 sq mi.

Gage--Nonrecording. Datum of gage is 809.34 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Defined by current-meter measurements below 9,000 cfs and extended to 30,000 cfs on basis of velocity-area studies. Shifts in relation occur. Peak discharges for May 1935 and June 22, 1948, based on subsequent rating.

Bankfull stage--15 ft.

Historical data--Flood of June 22, 1948, "near the southern edge of Parsons, was reported the highest ever known--" according to the U. S. Weather Bureau Climatological Data of June 1948.

Remarks--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 1,200 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	May 1935	21.44	a21,000	1942	Apr. 7, 1942	13.0	4,870
1939	Apr. 6, 1939	7.75	2,730		Apr. 10, 1942	15.48	6,100
	May 12, 1939	6.40	2,090		Apr. 17, 1942	8.39	2,850
	May 23, 1939	11.45	4,390		Apr. 20, 1942	8.18	2,770
	May 26, 1939	4.70	1,310		May 6, 1942	6.07	1,860
	June 9, 1939	5.60	1,720		June 13, 1942	7.96	2,820
	June 28, 1939	7.84	2,730		June 18, 1942	11.86	4,620
1940	Aug. 18, 1940	4.34	1,170		June 21, 1942	16.12	6,640
					July 10, 1942	8.24	2,920
1941	Nov. 26, 1940	4.72	1,310		July 21, 1942	9.20	3,200
	Jan. 17, 1941	4.60	1,260		Sept. 3, 1942	10.14	3,580
	Jan. 26, 1941	5.00	1,440		Sept. 19, 1942	9.48	3,330
	Feb. 1, 1941	5.00	1,440	Sept. 26, 1942	10.16	3,630	
	Apr. 16, 1941	16.33	6,640	1943	Oct. 19, 1942	10.63	3,700
	Apr. 19, 1941	15.46	6,280		Oct. 30, 1942	4.62	1,240
	June 2, 1941	6.41	2,090		Nov. 5, 1942	5.02	1,420
	June 10, 1941	15.80	6,410		Dec. 22, 1942	5.10	1,470
	Sept. 5, 1941	8.85	3,190		Dec. 27, 1942	13.47	4,980
Sept. 9, 1941	15.75	6,410	Mar. 19, 1943		4.78	1,340	
			May 8, 1943		14.01	5,220	
			May 11, 1943		18.05	8,760	
1942	Oct. 5, 1941	18.94	11,900		May 19, 1943	20.50	19,000
	Oct. 17, 1941	14.69	5,910		May 25, 1943	12.90	4,700
	Oct. 27, 1941	4.75	1,350		June 5, 1943	13.37	4,930
	Oct. 31, 1941	17.27	8,190		June 8, 1943	5.50	1,650
	Nov. 3, 1941	5.60	1,720	June 23, 1943	18.99	10,700	
	Nov. 23, 1941	5.29	1,580	June 29, 1943	9.36	3,250	
	Dec. 25, 1941	5.08	1,490	July 18, 1943	5.23	1,520	
	Mar. 16, 1942	11.93	4,380	Sept. 29, 1943	7.92	2,640	

a Annual peak only.

Peak stages and discharges of Labette Creek near Oswego, Kans.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1944	Oct. 13, 1943	4.73	1,290	1945	Mar. 20, 1945	14.30	5,380		
	Oct. 23, 1943	5.28	1,560		Mar. 30, 1945	4.50	1,290		
	Feb. 28, 1944	4.91	1,380		Apr. 16, 1945	15.22	5,900		
	Mar. 16, 1944	7.02	2,280		Apr. 21, 1945	12.40	4,480		
	Mar. 19, 1944	14.40	5,450		Apr. 25, 1945	7.00	2,320		
	Apr. 11, 1944	16.19	8,980		Apr. 28, 1945	4.93	1,470		
	Apr. 20, 1944	5.66	1,740		May 27, 1945	6.60	2,120		
	Apr. 23, 1944	12.59	4,560		May 31, 1945	7.87	2,640		
	Apr. 27, 1944	5.38	1,600		June 5, 1945	5.13	1,470		
	May 1, 1944	8.61	2,920		June 17, 1945	5.97	1,880		
	June 9, 1944	4.97	1,420		July 2, 1945	11.79	4,210		
	July 11, 1944	5.08	1,470		July 9, 1945	4.92	1,380		
	Aug. 26, 1944	15.73	6,240		Sept. 22, 1945	8.03	2,680		
	Sept. 29, 1944	14.73	5,600		Sept. 25, 1945	18.06	9,700		
					Sept. 29, 1945	11.40	4,040		
	1945	Oct. 3, 1944	15.58		5,810	1948	June 22, 1948	23.2	a30,000
		Dec. 5, 1944	10.49		3,510				
Mar. 15, 1945		12.42	4,300						

a Annual peak only.

1850. Neosho River near Commerce, Okla.

Location--Lat 36°56', long 94°57', in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.5, T.28 N., R.22 E., on downstream side of left pier of county highway bridge, $1\frac{1}{4}$ miles upstream from Mud Creek, $1\frac{1}{4}$ miles downstream from Four Mile Creek, $4\frac{1}{2}$ miles west of Commerce, and at mile 153.4.

Drainage area--5,876 sq mi.

Gage--Recording. Datum of gage is 748.97 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation--Defined by current-meter measurements.

Bankfull stage--15 ft.

Remarks--Base for partial-duration series, 18,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	June 1904	a21.5	a55,000	1944	Sept. 30, 1944	17.00	23,400
1927	April 1927	a21.1	a50,000	1945	Oct. 5, 1944	18.50	29,200
1935	May 1935	20.8	a46,000		Dec. 16, 1944	18.72	30,400
					Mar. 16, 1945	15.70	20,800
1938	May 1938	19.8	a36,400		Mar. 21, 1945	17.90	25,600
				Mar. 29, 1945	14.49	18,700	
1940	Apr. 19, 1940	12.28	14,900	Apr. 23, 1945	22.17	73,300	
				July 3, 1945	17.34	23,800	
				Sept. 27, 1945	20.22	39,800	
1941	Apr. 19, 1941	20.08	36,800	1946	Oct. 2, 1945	19.22	32,200
					June 11, 1941	20.26	38,400
					Sept. 11, 1941	19.44	31,900
1942	Oct. 7, 1941	21.08	49,100	1947	Apr. 21, 1947	18.43	27,600
					Oct. 18, 1941	19.02	31,000
					Nov. 1, 1941	22.06	64,800
					Apr. 11, 1942	18.78	29,800
					June 23, 1942	19.31	32,800
1943	Dec. 28, 1942	17.86	25,000	1948	Mar. 24, 1948	16.30	23,100
					May 12, 1943	20.63	44,200
					May 20, 1943	25.12	105,000
					June 5, 1943	15.06	20,200
					June 25, 1943	18.57	27,200
1944	Mar. 22, 1944	18.93	31,600	1949	Jan. 17, 1949	17.78	26,500
					Apr. 12, 1944	20.00	41,300
					Apr. 29, 1944	21.85	70,000
					June 22, 1944	16.10	22,100
					Aug. 27, 1944	15.56	21,100
					Jan. 25, 1949	17.95	27,000
Feb. 17, 1949	18.23	28,500					
May 20, 1949	15.54	21,400					
May 26, 1949	14.17	18,900					
July 8, 1949	16.35	23,300					
Sept. 19, 1949	13.6	18,200					

a Annual peak only.

Peak stages and discharges of Neosho River near Commerce, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1950	June 3, 1950	15.49	20,800	1954	May 4, 1954	18.04	27,000	
	July 12, 1950	14.92	19,600		1955	Oct. 12, 1954	14.36	19,300
	July 15, 1950	14.79	19,400	May 29, 1955		17.11	24,800	
	July 21, 1950	20.08	37,500	June 28, 1955		16.16	22,800	
	Sept. 2, 1950	14.38	18,700	1956	Oct. 5, 1955	10.98	13,300	
1951	May 9, 1951	15.20	20,800		1957	May 25, 1957	19.71	36,200
	May 24, 1951	15.84	22,000			June 3, 1957	18.82	29,700
	June 13, 1951	15.01	20,400			June 16, 1957	20.22	41,000
	July 3, 1951	20.51	42,000		1958	Mar. 10, 1958	15.97	22,400
	July 15, 1951	34.03	267,000	Mar. 25, 1958		17.74	26,300	
	Aug. 30, 1951	15.59	21,600	Apr. 5, 1958		17.05	24,600	
Sept. 14, 1951	20.68	48,400	May 6, 1958	14.58		19,800		
1952	Nov. 13, 1951	15.98	22,400	July 14, 1958	20.05	39,000		
	Mar. 11, 1952	16.04	22,400	July 18, 1958	17.86	26,800		
1953	May 13, 1953	5.57	4,500	July 28, 1958	14.76	20,000		

1855. Stahl Creek near Miller, Mo.

Location.--Lat 37°11'40", long 93°50'40", in SE $\frac{1}{4}$ sec.26, T.29 N., R.27 W., on downstream side of left abutment of bridge on State Highway 39, 1 $\frac{1}{2}$ miles south of Miller and 6.4 miles upstream from mouth.

Drainage area.--3.86 sq mi.

Gage.--Recording. Datum of gage is 1,184.49 ft above mean sea level, datum of 1929 (State Highway Commission bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 730 cfs.

Bankfull stage.--4 ft.

Remarks.--Base for partial-duration series, 150 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Oct. 3, 1950	3.78	195	1955	Feb. 19, 1955	4.56	341
	Feb. 20, 1951	3.94	224		Feb. 26, 1955	3.68	176
	June 22, 1951	3.85	206		Mar. 20, 1955	3.71	184
	July 4, 1951	6.18	904		June 5, 1955	4.27	278
1952	Nov. 15, 1951	4.00	232	1956	May 31, 1956	3.54	157
	Feb. 1, 1952	4.66	363		June 7, 1956	5.87	745
1953	Mar. 14, 1953	3.38	133	1957	May 22, 1957	5.36	560
1954	Sept. 29, 1954	4.08	250		May 30, 1957	4.60	344
					June 13, 1957	4.91	424
1955	Oct. 11, 1954	4.41	308		July 1, 1957	6.24	929
	Oct. 21, 1954	4.18	269	1958	July 7, 1958	6.40	1,010
	Oct. 25, 1954	5.15	497		July 17, 1958	4.80	396

1860. Spring River near Waco, Mo.

Location.--Lat 37°14'45", long 94°33'55", on line between SE $\frac{1}{4}$ sec.7 and NE $\frac{1}{4}$ sec.18, T.29 N., R.33 W., at county highway bridge three-quarters of a mile downstream from Blackberry Creek, 1 $\frac{1}{2}$ miles east of Waco, and 47.6 miles above mouth.

Drainage area.--1,164 sq mi.

Gage.--Nonrecording prior to Feb. 23, 1935; recording thereafter. Datum of gage is 833.23 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 87,000 cfs.

Bankfull stage.--19 ft.

Remarks.--Base for partial-duration series, 13,000 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Spring River near Waco, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	-	22	a21,000	1942	Oct. 5, 1941	24.4	37,300
					Oct. 31, 1941	23.66	33,500
1924	May 29, 1924	20.12	18,200	1943	Dec. 27, 1942	18.08	16,400
	June 11, 1924	19.63	17,500		May 11, 1943	22.75	29,900
1925	Sept. 22, 1925	10.37	6,550		May 19, 1943	30.94	103,000
					June 4, 1943	15.97	13,200
1926	Sept. 5, 1926	16.40	13,400	1944	Apr. 11, 1944	16.30	13,700
					June 20, 1944	16.60	14,200
1927	Oct. 4, 1926	16.20	13,100	1945	Mar. 20, 1945	16.18	13,600
	Apr. 1, 1927	23.58	28,100		Apr. 14, 1945	23.61	33,400
	Apr. 10, 1927	21.78	22,100		Apr. 16, 1945	24.65	38,300
	Apr. 15, 1927	20.13	18,400		Apr. 22, 1945	17.38	15,600
	Apr. 19, 1927	20.05	18,200		May 27, 1945	17.33	15,400
	July 23, 1927	18.10	15,500		June 6, 1945	18.00	16,500
	Aug. 9, 1927	20.14	18,400		June 17, 1945	16.36	13,900
	Aug. 17, 1927	28.6	57,400		Sept. 26, 1945	21.98	26,800
1928	Oct. 2, 1927	17.26	14,500	1946	June 1, 1946	19.1	18,400
	June 10, 1928	20.80	19,800				
	June 18, 1928	16.30	13,300	1947	Apr. 11, 1947	16.16	13,700
	June 22, 1928	20.54	19,200		Apr. 25, 1947	24.6	38,300
1929	Apr. 9, 1929	20.57	19,400	1948	June 22, 1948	24.63	38,300
	Apr. 20, 1929	21.15	20,600		June 26, 1948	17.62	15,900
	May 13, 1929	22.65	25,000		July 26, 1948	18.79	17,800
	May 19, 1929	19.78	17,900	1949	Jan. 24, 1949	15.50	13,000
1930	June 16, 1930	12.96	9,350	1950	Aug. 28, 1950	24.50	37,800
1931	May 19, 1931	11.92	8,140	1951	Feb. 21, 1951	19.52	19,200
1932	June 28, 1932	20.88	19,800		July 1, 1951	15.95	13,700
1933	Dec. 25, 1932	17.84	15,100		July 4, 1951	16.20	13,900
	May 14, 1933	16.64	13,600		Sept. 10, 1951	16.43	14,200
1934	Apr. 15, 1934	7.70	3,950		Sept. 13, 1951	17.74	16,000
1935	Mar. 12, 1935	20.23	18,700	1952	Nov. 12, 1951	16.28	14,000
	June 7, 1935	18.00	15,300		Feb. 2, 1952	20.08	20,700
1936	Sept. 28, 1936	15.70	12,500	1953	Apr. 24, 1953	7.63	3,710
1937	Nov. 3, 1936	17.57	14,800	1954	Sept. 30, 1954	8.14	4,160
	Jan. 14, 1937	16.59	13,500	1955	June 28, 1955	17.70	16,000
	June 10, 1937	19.42	17,200	1956	May 31, 1956	7.91	3,680
1938	May 31, 1938	18.50	16,000				
	June 16, 1938	17.23	14,300	1957	May 23, 1957	19.12	16,400
1939	May 22, 1939	15.34	11,900		May 25, 1957	20.34	19,100
1940	July 23, 1940	11.46	7,700		June 2, 1957	19.20	16,600
1941	Apr. 16, 1941	17.50	15,400		June 9, 1957	24.20	34,500
	Apr. 20, 1941	24.66	38,800	1958	June 14, 1957	18.52	15,400
					July 12, 1958	17.20	13,800

a Annual peak only.

1865. Turkey Creek at Joplin, Mo.

Location.--Lat 37°06'46", long 94°31'34", in NW¹/₄NW¹/₄ sec. 24, T. 28 N., R. 33 W., 80 ft downstream from bridge on Lone Elm Road, a quarter of a mile downstream from Joplin Creek, and about 1 mile northwest of Joplin.

Drainage area.--33 sq mi, approximately.

Gage.--Recording. Datum of gage is 903.98 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 700 cfs.

Bankfull stage.--6 ft.

Historical data.--Highest stage known in over 36 years (1932), 10.0 ft, date unknown, from information by road district employee.

Remarks.--Base for partial-duration series, 510 cfs.

Peak stages and discharges of Turkey Creek at Joplin, Mo.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	Dec. 24, 1932	7.38	1,090	1936	July 1, 1936	6.65	890
	Apr. 20, 1933	7.57	1,150		Sept. 27, 1936	7.15	890
	May 13, 1933	6.58	876	1937	Oct. 6, 1936	9.86	1,980
	May 15, 1933	5.70	658		Oct. 8, 1936	6.43	838
	May 24, 1933	5.51	610		Jan. 14, 1937	5.81	696
Aug. 3, 1933	6.50	850	Jan. 30, 1937		5.53	630	
1934	Sept. 29, 1934	5.01	500	1938	Mar. 30, 1938	6.48	864
1935	Mar. 11, 1935	7.30	1,090		1939	May 12, 1939	5.04
1936	May 1, 1936	5.44	610	May 22, 1939		5.12	550

1870. Shoal Creek above Joplin, Mo.
(Published as "near Joplin" prior to 1942)

Location.--Lat 37°00'45", long 94°28'45", in NE $\frac{1}{4}$ sec. 1, T. 26 N., R. 33 W., at bridge on U. S. Highway 71, 4 miles southeast of Joplin, 6 miles downstream from Baynham Branch, and 15.0 miles above mouth.

Drainage area.--410 sq mi; 439 sq mi prior to Oct. 1, 1941.

Gage.--Nonrecording prior to Apr. 25, 1934; recording thereafter. At site 5.0 miles downstream prior to Oct. 1, 1941. At datum 44.21 ft lower prior to Apr. 25, 1934. At datum 45.21 ft lower Apr. 25, 1934, to Sept. 30, 1941. Datum of present gage is 902.37 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 41,000 cfs at former site. Defined by current-meter measurements at present site. Shifts in relation occur.

Bankfull stage.--10 ft.

Remarks.--Records for sites "near" and "above" Joplin considered equivalent for flood-frequency study. Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1924	July 13, 1924	13.08	14,200	1933	Dec. 25, 1932	12.33	9,930	
					May 14, 1933	13.0	11,900	
1925	Apr. 9, 1925	4.83	2,580	1934	Oct. 23, 1933	3.16	1,260	
1926	Sept. 6, 1926	8.33	6,230		1935	Mar. 12, 1935	18.25	20,100
1927	Apr. 15, 1927	12.33	12,700	June 8, 1935		16.24	15,100	
	Apr. 19, 1927	12.42	12,900	1936	Sept. 27, 1936	8.88	5,220	
	Aug. 8, 1927	10.50	9,550		1937	June 10, 1937	8.92	5,330
	Aug. 18, 1927	8.70	6,780	1938		June 8, 1938	10.10	6,610
1928	June 2, 1928	8.70	6,430		1939	May 13, 1939	8.35	4,420
	June 10, 1928	13.83	15,100	1940		Aug. 18, 1940	4.78	1,630
	June 19, 1928	13.83	15,100		1941	Apr. 19, 1941	28.0	54,000
	June 21, 1928	12.75	13,200			1942	Oct. 5, 1941	11.86
	June 28, 1928	9.00	6,850		1943		May 10, 1943	12.16
	Aug. 5, 1928	11.50	11,000	May 18, 1943		16.8	62,100	
1929	Apr. 9, 1929	9.42	7,450	1944	June 20, 1944	10.0	7,260	
	Apr. 21, 1929	11.50	11,000		1945	Apr. 13, 1945	13.3	24,800
	May 9, 1929	9.08	7,000	Apr. 15, 1945		12.8	21,000	
	May 13, 1929	12.92	13,400	May 10, 1945		11.57	14,000	
	May 18, 1929	9.17	7,150	May 17, 1945	10.35	8,650		
June 3, 1929	8.42	6,020	Sept. 24, 1945	12.84	20,400			
1930	Sept. 10, 1930	13.92	15,200					
	Sept. 16, 1930	10.92	9,930					
1931	July 26, 1931	6.33	3,760					
1932	June 2, 1932	9.00	6,850					
	June 27, 1932	15.00	17,200					

a Annual peak only.

Peak stages and discharges of Shoal Creek above Joplin, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	May 31, 1946	10.56	9,840	1952	Aug. 22, 1952	7.68	3,110
1947	Apr. 10, 1947	10.80	10,300	1953	Mar. 15, 1953	6.10	1,300
	Apr. 25, 1947	12.73	20,400		1954	Sept. 30, 1954	8.36
1948	June 23, 1948	9.36	6,070	1955	Mar. 21, 1955	9.96	7,740
	July 26, 1948	9.90	7,440		1956	May 16, 1956	10.00
1949	June 14, 15, 1949	8.07	3,620	1957	May 22, 1957	11.85	15,000
	Jan. 14, 1950	9.57	6,570		May 25, 1957	12.03	16,100
1950	Aug. 5, 1950	10.75	10,500	June 10, 1957	12.04	16,100	
	Aug. 27, 1950	13.6	27,300	1958	July 26, 1958	10.34	8,100
	June 30, 1951	10.87	10,900				

1880. Spring River near Quapaw, Okla.

Location.--Lat 36°56', long 94°45', in center SW¹/₄ sec. 5, T.28 N., R.24 E., near center of span on downstream side of pier of county highway bridge, an eighth of a mile upstream from Rock Creek, 3 miles southeast of Quapaw, and at mile 13.9.

Drainage area.--2,510 sq mi, includes that of Rock Creek.

Gage.--Recording. Datum of gage is 746.25 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 54,000 cfs and extended above on basis of slope-area measurement at 190,000 cfs.

Bankfull stage.--20 ft.

Historical data.--A flood in December 1895 reached a stage similar to that in 1943, from information by local Indian Chief.

Remarks.--Low and medium flow regulated by Riverton hydroelectric plant 15 miles upstream from station. Effect of regulation probably small for peaks above the base. Base for partial-duration series, 14,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	Mar. 13, 1935	a30.0	-	1944	June 21, 1944	22.77	36,100
					Aug. 27, 1944	15.85	16,200
1940	July 24, 1940	11.60	8,480	1945	Mar. 2, 1945	15.94	16,400
1941	Apr. 16, 1941	20.40	26,300		Mar. 20, 1945	19.37	25,600
	Apr. 20, 1941	29.66	63,200		Mar. 26, 1945	16.28	17,700
	June 11, 1941	16.83	17,300		Apr. 16, 1945	29.60	67,900
	Sept. 9, 1941	19.11	22,600		Apr. 22, 1945	19.56	28,000
1942	Oct. 6, 1941	27.92	50,300		May 10, 1945	15.59	16,400
	Oct. 17, 1941	20.36	25,900		May 17, 1945	18.52	24,600
	Oct. 26, 1941	18.56	21,400		May 25, 1945	17.77	22,600
	Nov. 1, 1941	29.31	56,200		May 28, 1945	20.26	30,200
	Apr. 9, 1942	20.27	25,700		June 7, 1945	22.20	36,600
	June 19, 1942	17.58	19,100	June 18, 1945	19.17	26,800	
	Sept. 7, 1942	17.90	19,600	Sept. 25, 1945	26.81	54,300	
	Sept. 19, 1942	19.22	23,300	1946	Oct. 22, 1945	15.56	16,700
1943	Dec. 27, 1942	22.18	30,800		Feb. 19, 1946	15.20	15,700
	May 11, 1943	28.2	54,500		May 31, 1946	22.26	37,000
	May 19, 1943	43.4	190,000	1947	Apr. 11, 1947	19.78	28,600
	May 24, 1943	19.6	24,300		Apr. 26, 1947	26.46	53,000
	June 5, 1943	18.7	21,800		May 21, 1947	14.53	14,100
1944	Mar. 19, 1944	17.27	20,000	1948	Mar. 23, 1948	15.89	17,600
	Apr. 11, 1944	19.62	26,200		June 23, 1948	30.20	74,600
	May 2, 1944	15.55	15,700		July 18, 1948	14.75	14,800
					July 27, 1948	21.85	35,600

a Annual peak only.

Peak stages and discharges of Spring River near Quapaw, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1949	Jan. 24, 1949	16.83	20,100	1954	Sept. 30, 1954	12.34	9,400	
	Feb. 16, 1949	17.16	21,300		1955	Oct. 12, 1954	15.54	17,000
	May 21, 1949	16.61	19,600			Oct. 27, 1954	15.85	17,700
1950	Oct. 22, 1949	14.40	14,100	Feb. 20, 1955		15.17	16,200	
	Jan. 14, 1950	16.19	18,200	June 28, 1955	20.20	29,800		
	July 10, 1950	17.22	20,600	1956	Sept. 30, 1956	14.10	12,700	
	July 19, 1950	18.50	24,000		1957	Apr. 4, 1957	15.82	17,600
	Aug. 6, 1950	16.88	19,900			Apr. 18, 1957	15.93	17,800
	Aug. 29, 1950	27.59	54,800	May 17, 1957		15.70	17,300	
1951	Feb. 21, 1951	21.52	33,800	May 23, 1957	21.37	34,900		
	June 22, 1951	17.97	23,500	May 25, 1957	25.40	49,700		
	June 30, 1951	20.80	31,600	June 3, 1957	20.59	32,100		
	July 5, 1951	18.62	25,200	June 11, 1957	27.00	56,000		
	July 11, 1951	16.83	20,300	June 15, 1957	21.8	36,300		
	Sept. 10, 1951	17.27	21,600	1958	Mar. 24, 1958	16.87	20,400	
	Sept. 13, 1951	18.23	24,100		July 7, 1958	15.56	16,800	
	1952	Nov. 10, 1951	14.58		15,000	July 12, 1958	20.2	30,800
		Nov. 12, 1951	18.09		24,100	July 18, 1958	16.28	18,700
Nov. 16, 1951		16.56	20,000		July 25, 1958	21.70	36,000	
Feb. 3, 1952		19.72	28,900		July 28, 1958	17.2	21,300	
1953	Apr. 24, 1953	12.90	11,500					

1885. Lost Creek at Seneca, Mo.

Location--Lat 36°50', long 94°36', in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 36, T.25 N., R.34 W., on left bank on downstream side of Seneca Street Bridge in Seneca, half a mile upstream from Little Lost Creek and 9 $\frac{1}{2}$ miles upstream from mouth.

Drainage area--42 sq mi.

Gage--Recording. Datum of gage is 839.96 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 1,400 cfs and extended above by logarithmic plotting.

Remarks--Base for partial-duration series, 175 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1943	May 16, 1943	11.7	-	1955	Mar. 20, 1955	1.80	187	
					June 27, 1955	1.96	218	
1945	September 1945	11.7	-		July 6, 1955	2.29	287	
					July 17, 1955	1.90	206	
1949	Feb. 15, 1949	2.79	361	1956	May 31, 1956	1.49	132	
	Apr. 27, 1949	2.39	252		1957	Mar. 31, 1957	2.95	596
	Sept. 13, 1949	2.08	178			Apr. 3, 1957	1.98	281
	Sept. 18, 1949	2.38	252			Apr. 16, 1957	2.79	539
	1950	Jan. 13, 1950	2.37			249	Apr. 20, 1957	3.59
May 11, 1950		2.15	207	May 16, 1957		1.72	213	
July 10, 1950		2.33	241	May 21, 1957	7.54	4,690		
Aug. 27, 1950		6.78	3,280	May 25, 1957	8.21	5,760		
Sept. 15, 1950		2.89	377	May 29, 1957	2.82	539		
1951	Oct. 3, 1950	2.67	301	June 2, 1957	2.65	486		
	Feb. 20, 1951	3.22	488	June 9, 1957	7.20	4,270		
	June 30, 1951	8.05	4,600	July 1, 1957	1.72	208		
	July 10, 1951	2.48	267	1958	Mar. 23, 1958	2.25	361	
	1952	May 23, 1952	3.18		472	Mar. 30, 1958	1.70	210
					June 21, 1958	1.77	230	
1953	Apr. 24, 1953	1.77	107		July 7, 1958	2.48	337	
					July 25, 1958	4.46	1,420	
1954	Sept. 30, 1954	2.04	274		July 28, 1958	1.71	231	
1955	Oct. 26, 1954	2.33	296					

1886. Neosho River near Wyandotte, Okla.
(Below Spring River, known locally as Grand River)

Location.--Lat 36°48', long 94°45', in NE $\frac{1}{4}$ sec.30, T.27 N., R.24 E., at left pier of St. Louis-San Francisco Railway Co. bridge, 0.2 mile downstream from Lost Creek, $\frac{1}{2}$ miles west of Wyandotte, and at mile 130.3.

Drainage area.--8,792 sq mi.

Gage.--Nonrecording. Datum of gage is 717.56 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Bankfull stage.--23 ft.

Remarks.--Records furnished by U. S. Weather Bureau. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1896	December 1895	34.0	-	1926	Sept. 5, 1926	19.0	-
1912	Apr. 30, 1912	30.0	-	1927	Apr. 15, 1927	29.5	-
1913	Mar. 26, 1913	17.0	-	1928	June 22, 1928	25.5	-
1914	Feb. 20, 1914	11.4	-	1929	Apr. 22, 1929	26.8	-
1915	May 28, 1915	21.2	-	1930	June 16, 1930	18.0	-
1916	Jan. 29, 1916	25.6	-	1931	May 20, 1931	12.2	-
1917	June 6, 1917	9.5	-	1932	June 28, 1932	14.4	-
1918	Apr. 29, 1918	11.0	-	1933	May 15, 1933	21.6	-
1919	Nov. 8, 1918	20.0	-	1934	Sept.30, 1934	8.8	-
1920	Mar. 26, 1920	18.5	-	1935	June 8, 1935	27.7	-
1921	Apr. 27, 1921	15.2	-	1936	Sept.28, 1936	14.8	-
1922	Apr. 10, 1922	23.5	-	1937	June 11, 1937	18.5	-
1923	June 15, 1923	24.5	-	1938	May 1,30,1938	20.0	-
1924	May 30, 1924	21.0	-	1939	May 23, 1939	11.2	-
1925	Nov. 16, 1924	8.6	-				

1890. Elk River near Tiff City, Mo.

Location.--Lat 36°38', long 94°35', in NE $\frac{1}{4}$ sec.22, T.22 N., R.34 W., on downstream side of right pier of bridge on State Highway 43, three-quarters of a mile downstream from Blackfoot Branch, $2\frac{1}{4}$ miles upstream from Buffalo Creek, 3 miles southeast of Tiff City, and at mile 15.8.

Drainage area.--872 sq mi.

Gage.--Recording. Datum of gage is 750.61 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 60,000 cfs and extended on basis of slope-area measurement at 137,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Apr. 12, 1940	11.62	9,480	1943	Dec. 28, 1942	14.35	15,600
1941	Apr. 16, 1941	21.46	48,000		Apr. 12, 1943	12.26	11,000
	Apr. 19, 1941	28.4	137,000		May 10, 1943	23.55	62,400
					May 18, 1943	23.60	62,900
1942	Oct. 5, 1941	11.60	9,480	1944	Apr. 11, 1944	15.36	18,500
	Oct. 31, 1941	19.69	36,400		June 21, 1944	14.46	16,600
	Apr. 9, 1942	12.66	11,700	1945	Feb. 22, 1945	14.90	18,000
1943	Oct. 31, 1942	16.70	23,000		Mar. 3, 1945	17.54	26,200
	Nov. 6, 1942	12.99	12,400		Mar. 7, 1945	13.57	14,900

Peak stages and discharges of Elk River near Tiff City, Mo.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1945	Mar. 19, 1945	16.16	21,700	1951	Feb. 19, 1951	17.00	22,000	
	Mar. 25, 1945	13.46	14,700		1952	Aug. 22, 1952	11.85	10,300
	Apr. 15, 1945	23.5	63,200	Mar. 15, 1953		10.06	7,270	
	May 10, 1945	12.46	12,200	May 3, 1954		11.06	9,030	
	May 17, 1945	15.83	20,500	1955		Feb. 20, 1955	14.69	16,100
	May 27, 1945	11.20	10,400			Mar. 21, 1955	11.47	9,750
	June 18, 1945	10.61	9,320	1956	May 15, 1956	23.14	49,900	
Sept. 25, 1945	12.84	13,300	1957		Apr. 4, 1957	18.37	23,900	
1946	Feb. 14, 1946	13.79		15,200	May 19, 1957	12.13	10,900	
	May 25, 1946	11.22		10,400	May 21, 1957	24.72	70,800	
1947	Dec. 10, 1946	15.94		20,800	May 25, 1957	21.12	38,000	
	Apr. 11, 1947	14.29		16,500	June 3, 1957	12.85	12,200	
	Apr. 25, 1947	16.10		21,400	June 10, 1957	12.51	11,600	
1948	Aug. 15, 1948	10.50		8,410	June 13, 1957	11.66	10,200	
	May 20, 1949	11.29	9,860	1958	Mar. 24, 1958	12.75	12,200	
1950	Jan. 14, 1950	15.13	18,500		May 3, 1958	13.53	13,500	
	May 11, 1950	21.72	45,900		May 9, 1958	11.20	9,340	
	July 20, 1950	17.52	24,000		July 12, 1958	11.40	9,680	
	Aug. 6, 1950	19.60	33,000		July 26, 1958	18.53	26,000	
	Aug. 27, 1950	11.83	10,500					

1895. Neosho River near Grove, Okla.
(Below Spring River, known locally as Grand River)

Location.--Lat 36°36'45", long 94°49'25", in SE¹/₄ sec.27, T.25 N., R.23 E., near left bank on downstream side of former bridge on State Highway 25, 3 miles downstream from Spring Branch, at 3¹/₂ miles northwest of Grove, 8.2 miles downstream from Elk River, and at mile 105.4.

Drainage area.--9,969 sq mi.

Gage.--Nonrecording. Datum of gage is 666.94 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 100,000 cfs and extended above.

Bankfull stage.--24 ft.

Remarks.--Base for partial-duration series, 23,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
-	-	a33.0	125,000	1928	Oct. 3, 1927	22.00	70,600
1925	Mar. 20, 1925	10.0	19,400		Feb. 7, 1928	13.43	32,000
	1926	Nov. 9, 1925	12.05	26,200	Mar. 17, 1928	12.51	28,600
Sept. 5, 1926		23.0	72,100	Apr. 6, 1928	12.46	28,600	
Sept. 22, 1926		14.50	35,600	Apr. 23, 1928	18.70	55,000	
1927		Oct. 1, 1926	14.04	34,300	Apr. 27, 1928	11.22	24,100
	Oct. 5, 1926	24.64	83,100	June 2, 1928	22.62	73,500	
	Nov. 15, 1926	12.22	27,500	June 11, 1928	19.98	61,100	
	Jan. 29, 1927	13.48	32,300	June 22, 1928	25.87	89,500	
	Mar. 21, 1927	16.95	47,200	June 29, 1928	13.28	31,600	
	Apr. 1, 1927	23.00	75,400	July 1, 1928	12.38	28,200	
	Apr. 15, 1927	b34.58	133,000	Aug. 4, 1928	20.98	65,800	
	Apr. 19, 1927	25.58	88,000	1929	Nov. 28, 1928	15.86	42,300
	Apr. 25, 1927	18.26	53,200		Dec. 18, 1928	14.45	35,900
	May 8, 1927	12.54	28,600		Jan. 11, 1929	11.70	25,800
	June 22, 1927	21.56	68,700		Apr. 9, 1929	20.80	64,900
	July 23, 1927	10.98	23,400		Apr. 15, 1929	18.00	51,800
	Aug. 4, 1927	11.30	24,400		Apr. 21, 1929	29.60	108,000
Aug. 10, 1927	20.10	61,600	May 9, 1929		21.38	67,700	
Aug. 19, 1927	25.10	85,500	May 13, 1929		29.50	107,000	
			May 19, 1929		25.40	87,000	
			June 4, 1929		19.20	57,300	

a Floodmark found in 1925; date unknown but may have occurred in April 1912, according to Weather Bureau records at Pensacola.

b This flood probably lower than that in December 1895.

Peak stages and discharges of Neosho River near Grove, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1929	June 8, 1929	16.10	43,100	1935	June 18, 1935	20.9	65,300	
	June 13, 1929	13.30	31,600		June 22, 1935	20.0	61,100	
	June 20, 1929	13.80	33,500		June 27, 1935	14.7	37,100	
	June 25, 1929	11.4	24,800					
	July 8, 1929	11.5	25,100	1936	Nov. 6, 1935	12.50	25,800	
					Sept. 28, 1936	19.3	57,800	
1930	Feb. 5, 1930	13.10	30,800	1937	Oct. 8, 1936	17.0	47,200	
	Feb. 8, 1930	12.36	28,200		Nov. 3, 1936	20.0	61,100	
	May 1, 1930	18.75	55,500		Jan. 15, 1937	18.20	52,700	
	May 12, 1930	13.75	33,500		Jan. 31, 1937	18.45	53,600	
	May 18, 1930	12.05	26,800		Mar. 25, 1937	11.05	23,400	
	June 13, 1930	12.15	27,500		Apr. 22, 1937	11.88	26,500	
	June 16, 1930	19.7	59,700		May 24, 1937	11.49	25,100	
					June 11, 1937	21.88	70,100	
1931	May 30, 1931	13.30	31,600	June 16, 1937	21.0	65,800		
				July 20, 1937	11.20	24,100		
1932	Nov. 25, 1931	13.08	30,800	1938	Sept. 10, 1937	18.0	51,800	
	June 22, 1932	11.80	26,100		Feb. 18, 1938	15.0	38,400	
	June 28, 1932	15.20	39,200		Mar. 31, 1938	18.46	54,100	
1933	Dec. 25, 1932	23.28	76,300	Apr. 11, 1938	12.09	27,200		
	Apr. 22, 1933	14.50	36,300	May 8, 1938	13.75	33,500		
	May 15, 1933	25.9	89,500	May 30, 1938	23.85	79,200		
1934	Sept. 30, 1934	10.4	21,300	June 1, 1938	20.45	63,000		
				June 17, 1938	17.40	49,000		
1935	Nov. 23, 1934	14.20	35,100	1939	May 14, 1939	15.6	40,900	
	Mar. 12, 1935	26.10	90,500		May 23, 1939	13.99	34,300	
	Mar. 25, 1935	12.32	27,900		May 27, 1939	12.31	27,900	
	May 20, 1935	16.55	45,400					
	June 8, 1935	34.0	130,000					

1905. Neosho River near Langley, Okla.
(Below Spring River, known locally as Grand River)

Location.--Lat 36°26', long 95°03', in SW 1/4 sec. 27, T.23 N., R.21 E., near left bank on downstream side of pier of bridge on State Highway 82, 1 1/2 miles southwest of Langley, 4.1 miles downstream from Pensacola Dam, 5.8 miles upstream from Big Cabin Creek, and at mile 73.4.

Drainage area.--10,335 sq mi.

Gage.--Nonrecording prior to Feb. 16, 1940; recording thereafter. Prior to Feb. 10, 1954, at site half a mile upstream. Datum of gage is 607.65 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements to 133,000 cfs and extended on basis of computation of peak outflow from Lake O' The Cherokees during 1943 flood.

Bankfull stage.--27 ft.

Historical data.--Flood of Oct. 31, 1941, was reported by local resident as being higher than that in December 1895.

Remarks.--Flow completely regulated since March 1940 by Lake O' The Cherokees (capacity, 2,197,000 acre-ft). Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	June 1935	35.4	150,000	1949	Feb. 18, 1949	19.66	48,100
1940	Mar. 10, 1940	5.20	1,280	1950	Aug. 30, 1950	20.10	50,400
1941	Apr. 20, 1941	35.43	150,000	1951	July 18, 1951	36.25	158,000
1942	Oct. 31, 1941	36.20	158,000	1952	Nov. 13, 1951	22.11	58,700
1943	May 20, 1943	45.5	300,000	1953	Apr. 22, 1953	11.00	10,200
1944	Apr. 17, 1944	24.92	73,300	1954	July 7, 1954	9.50	10,700
1945	Apr. 16, 1945	34.24	143,000	1955	June 30, 1955	15.30	33,900
1946	Oct. 5, 1945	22.20	60,800	1956	Dec. 7, 1955	9.50	10,700
1947	Apr. 27, 1947	24.73	73,200	1957	May 25, 1957	37.6	180,000
1948	June 27, 1948	26.23	80,000	1958	July 13, 1958	21.60	62,800

1910. Big Cabin Creek near Big Cabin, Okla.

Location.--Lat 36°31', long 95°08', in NW 1/4 sec.35, T.24 N., R.20 E., on downstream side of right pier of county highway bridge, 2 1/3 miles upstream from Mustang Creek, 5 miles southeast of Big Cabin, and 8.5 miles upstream from mouth.

Drainage area.--466 sq mi.

Gage.--Nonrecording prior to Oct. 29, 1947; recording thereafter. Datum of gage is 622.00 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 32,000 cfs and extended on basis of slope-area measurement at 63,000 cfs.

Bankfull stage.--17 ft.

Historical data.--In 1941, local residents reported that the flood in 1935 was the highest in 48 years. Peak stage data prior to 1948 furnished by Corps of Engineers.

Remarks.--Records for 1948 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1935	June 6, 1935	30.9	41,000	1948	Aug. 15, 1948	22.40	13,400	
1941	Apr. 19, 1941	27.5	27,300	1949	May 20, 1949	21.43	12,000	
	June 10, 1941	27.7	28,000		June 14, 1949	20.75	11,100	
1942	Oct. 5, 1941	31.1	42,000	1950	May 11, 1950	19.27	9,150	
	Sept. 20, 1942	23.5	15,600		May 26, 1950	20.62	10,800	
					May 30, 1950	20.95	11,400	
1943	May 10, 1943	32.0	46,500	1951	Oct. 3, 1950	19.98	10,100	
	May 18, 1943	34.96	63,000		Feb. 21, 1951	20.33	10,400	
					June 30, 1951	30.76	40,700	
1944	Mar. 16, 1944	22.4	13,400	1952	Mar. 11, 1952	17.50	6,920	
	Apr. 9, 1944	25.0	19,300					
	Apr. 11, 1944	19.8	9,800	1953	Apr. 24, 1953	19.84	9,670	
1945	Mar. 19, 1945	19.8	9,800	1954	May 1, 1954	14.13	3,930	
	Apr. 13, 1945	24.1	17,000					
	Apr. 16, 1945	23.0	14,500	1955	Mar. 21, 1955	18.30	7,880	
	May 10, 1945	19.3	9,150					
	Sept. 25, 1945	25.5	20,800		1956	Apr. 15, 1956	14.74	4,350
1946	May 31, 1946	19.5	9,410	1957	May 1, 1957	19.66	9,860	
1947	Apr. 11, 1947	24.4	17,700		May 17, 1957	19.40	9,470	
	Apr. 25, 1947	28.25	29,900		May 21, 1957	25.65	18,900	
	Apr. 27, 1947	19.8	9,800		May 25, 1957	27.81	25,500	
	June 23, 1947	20.9	11,300		June 2, 1957	19.10	9,090	
1948	June 23, 1948	28.78	33,800	June 10, 1957	21.38	12,200		
	June 27, 1948	21.80	12,500	June 13, 1957	23.05	14,500		
	July 19, 1948	19.73	9,670	1958	Mar. 24, 1958	19.90	10,100	
	Aug. 13, 1948	24.87	19,800		July 13, 1958	30.58	33,900	

Note.--Stages for 1935 and 1941-43 are not complete as a partial-duration series.

ARKANSAS RIVER BASIN

1915. Neosho River near Chouteau, Okla.
(Below Spring River, known locally as Grand River)

Location.--Lat 36°14', long 95°14', in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.1, T.20 N., R.19 E., on downstream side of right pier of county highway bridge, 5.0 miles upstream from Pryor Creek, 7 $\frac{1}{2}$ miles northeast of Chouteau, and at mile 44.7.

Drainage area.--11,546 sq mi; at former site below Pryor Creek, 11,915 sq mi.

Gage.--Nonrecording prior to Apr. 4, 1941, at site 5.7 miles downstream at datum 15.46 ft lower; recording thereafter at present site and datum. Datum of present gage is 551.83 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 140,000 cfs and extended on basis of slope-area measurement at 400,000 cfs. Peak discharges since 1950 computed from 1950 rating curve.

Bankfull stage.--25 ft.

Remarks.--Flow regulated since 1940 by Lake O' The Cherokees (capacity, 2,197,000 acre-ft) 32.3 miles upstream. Records for 1937-39 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 30,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 19, 1927	44.5	165,000	1943	June 25, 1943	16.96	47,700
					June 29, 1943	14.42	33,800
1938	Feb. 18, 1938	23.40	66,800	1944	Mar. 23, 1944	14.43	33,800
	Mar. 31, 1938	24.07	71,000		Mar. 29, 1944	13.88	31,000
	May 9, 1938	16.85	34,900		Apr. 11, 1944	20.30	68,000
	May 31, 1938	26.18	83,600		Apr. 18, 1944	21.09	72,500
	June 10, 1938	20.63	52,700		Apr. 23, 1944	15.62	43,100
	June 18, 1938	20.80	53,700		May 2, 1944	20.89	71,500
1939	May 14, 1939	21.00	54,700	May 6, 1944	20.79	71,000	
	May 21, 1939	15.76	30,900	June 22, 1944	15.60	43,100	
	May 23, 1939	17.35	37,300	1945	Mar. 8, 1945	13.80	31,700
1940	Apr. 29, 1940	8.6	6,100		Mar. 19, 1945	18.12	57,000
					Mar. 25, 1945	17.47	53,800
1941	Apr. 20, 1941	35.10	188,000		Apr. 16, 1945	35.00	164,000
	June 11, 1941	23.92	82,300		Apr. 25, 1945	22.36	79,500
	Sept. 10, 1941	18.60	57,500		May 10, 1945	14.47	36,800
	Sept. 17, 1941	13.79	36,000	May 20, 1945	13.91	32,900	
1942	Oct. 6, 1941	30.70	115,000	May 30, 1945	16.4	46,800	
	Oct. 16, 1941	20.51	66,200	June 8, 1945	13.74	33,600	
	Nov. 1, 1941	36.45	205,000	June 19, 1945	14.86	40,700	
	Apr. 10, 1942	22.00	73,100	Sept. 26, 1945	22.90	81,000	
	Apr. 28, 1942	17.60	52,900	1946	Oct. 6, 1945	18.52	59,000
	June 13, 1942	14.22	37,800		Oct. 24, 1945	13.73	32,700
	June 22, 1942	18.94	59,800		Jan. 12, 1946	15.09	40,300
	June 27, 1942	17.10	50,600		Feb. 22, 1946	14.73	38,500
	July 12, 1942	12.75	31,600		June 4, 1946	14.61	37,900
	Sept. 7, 1942	16.63	48,300		1947	Apr. 8, 1947	14.25
	Sept. 20, 1942	20.22	64,800	Apr. 11, 1947		22.53	79,000
	1943	Oct. 4, 1942	14.62	39,500		Apr. 20, 1947	16.43
Oct. 31, 1942		13.70	34,300	Apr. 26, 1947		24.89	91,000
Dec. 28, 1942		20.34	64,200	May 23, 1947	14.04	34,400	
May 11, 1943		38.35	214,000	1948	June 23, 1948	21.80	73,500
May 20, 1943		45.00	400,000		June 27, 1948	25.32	92,500
June 7, 1943		20.18	63,700				

a Annual peak only.

Peak stages and discharges of Neosho River near Chouteau, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	July 13, 1948	13.65	33,200	1952	Nov. 26, 1951	13.52	33,000
	July 23, 1948	18.50	60,500		Feb. 4, 1952	14.23	37,100
	July 31, 1948	19.05	63,500		Mar. 11, 1952	15.52	44,800
	Aug. 14, 1948	16.09	47,500	1953	Apr. 24, 1953	11.21	20,700
1949	Feb. 18, 1949	16.58	50,400		1954	June 23, 1954	8.42
	May 20, 1949	14.58	40,100	1955		June 30, 1955	13.66
	May 29, 1949	15.88	47,700		1956	May 15, 1956	9.75
	June 16, 1949	13.47	33,500	1957		May 1, 1957	18.21
1950	May 11, 1950	21.58	76,500		June 16, 1957	30.80	127,000
	June 11, 1950	13.05	31,200		July 4, 1957	25.32	96,200
	July 28, 1950	15.84	47,100		1958	Mar. 25, 1958	17.00
	Aug. 11, 1950	15.42	44,800	Mar. 30, 1958		15.10	42,500
Aug. 30, 1950	16.62	51,500	Apr. 4, 1958	16.18		48,800	
1951	Oct. 4, 1950	13.15	31,200	July 13, 1958		24.80	93,600
	June 23, 1951	13.40	32,400	July 27, 1958	18.15	59,200	
	July 1, 1951	21.30	74,600	July 29, 1958	14.85	41,000	
	July 18, 1951	31.8	133,000				
Sept. 18, 1951	15.88	47,100					
1952	Nov. 14, 1951	17.88	57,700				

1920. Pryor Creek near Pryor, Okla.

Location.--Lat 36°17', long 95°20', in SW $\frac{1}{4}$ sec.19, T.21 N., R.19 E., on right bank at downstream side of bridge on U. S. Highway 69, $1\frac{1}{4}$ miles south of Pryor, 2 miles downstream from Seminole Creek, and 10.5 miles upstream from mouth.

Drainage area.--229 sq mi.

Gage.--Nonrecording prior to Nov. 1, 1947; recording thereafter. Datum of gage is 578.06 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs and extended by logarithmic plotting.

Bankfull stage.--16 ft.

Historical data.--Local residents reported that the flood of Oct. 5, 1941, was somewhat lower than that in 1943 and highest previously known for at least 28 years.

Remarks.--Records for 1947-48 computed by Corps of Engineers and reviewed by Geological Survey. Peak stages prior to 1947 from files of Corps of Engineers. Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	May 10, 1943	20.4	-	1952	Oct. 27, 1951	13.85	2,580
	May 18, 1943	18.85	11,000		Mar. 11, 1952	13.94	2,610
1944	Mar. 16, 1944	17.10	4,400	1953	Apr. 24, 1953	17.15	4,400
1945	Apr. 14, 1945	19.6	17,500	1954	May 1, 1954	7.99	1,000
1946	Feb. 19, 1946	13.8	2,540	1955	Sept. 30, 1955	11.93	2,120
1947	Apr. 25, 1947	18.4	8,800	1956	Oct. 5, 1955	11.67	2,060
1948	Mar. 23, 1948	15.30	2,960		May 15, 1956	13.82	2,580
	June 23, 1948	18.95	11,600	1957	Apr. 3, 1957	11.35	2,030
	July 16, 1948	17.41	5,120		Apr. 23, 1957	15.63	3,620
	Aug. 15, 1948	17.60	5,700		May 2, 1957	15.87	3,760
1949	Jan. 23, 1949	12.66	2,240		May 17, 1957	11.87	2,200
	Feb. 15, 1949	16.12	3,240	May 21, 1957	18.84	11,400	
	May 19, 1949	18.32	8,300	May 25, 1957	19.41	15,700	
	May 24, 1949	16.51	3,500	May 30, 1957	11.35	2,030	
1950	May 11, 1950	18.21	7,900	June 1, 1957	17.28	4,920	
				June 15, 1957	18.26	7,850	
1951	Feb. 20, 1951	12.12	2,100	June 23, 1957	15.09	3,400	
	July 2, 1951	16.60	3,890	1958	Mar. 24, 1958	11.77	2,100

ARKANSAS RIVER BASIN

1925. Neosho River near Wagoner, Okla.
(Below Spring River, known locally as Grand River)

Location.--Lat 35°56', long 95°16', on south line of sec.22, T.17 N., R.19 E., on downstream side of left pier of bridge on State Highway 51, 2¼ miles downstream from Nigger Creek, 5 miles southeast of Wagoner, 6 miles upstream from Fourteen Mile Creek, and at mile 13.7.

Drainage area.--12,307 sq mi.

Gage.--Nonrecording prior to Oct. 1, 1939, at site 1¼ miles downstream; recording thereafter at last used site. Prior to Dec. 20, 1925, at datum 0.17 ft higher. Oct. 6, 1937, to Sept. 30, 1939, at datum 4.03 ft lower. Datum of last used gage is 495.35 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark). Gage heights after Mar. 14, 1949, computed from stage-relation curve and gage-height record at Fort Gibson damsite.

Stage-discharge relation.--Defined by current-meter measurements to 210,000 cfs and extended on basis of slope-area measurement at 400,000 cfs.

Bankfull stage.--34 ft.

Historical data.--Flood in December 1896 was reported by local residents as being similar to that of Nov. 2, 1941, and flood in June 1935 as similar to that of Apr. 20, 1941. Flood of Apr. 30, 1912, was 0.1 ft lower than in 1927 at Wagoner Water Works.

Remarks.--Flow regulated since March 1940 by Lake O' The Cherokees 63.3 miles above station. Records for 1937-39 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 35,000 cfs. Only annual peaks are shown prior to 1938.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1925	Apr. 28, 1925	11.27	24,100	1943	June 7, 1943	-	70,000
					June 25, 1943	-	48,500
1927	Apr. 16, 1927	a39.0	170,000	1944	Mar. 23, 1944	17.12	35,000
1929	May 14, 1929	a34.2	122,000		Apr. 11, 1944	22.34	66,500
				Apr. 18, 1944	23.68	74,400	
1938	Feb. 19, 1938	23.40	63,200	Apr. 23, 1944	18.48	45,400	
	Apr. 1, 1938	24.70	70,000	May 2, 1944	24.28	77,700	
	May 9, 1938	17.70	37,400	June 23, 1944	18.02	42,700	
	May 31, 1938	26.41	79,400	1945	Mar. 19, 1945	22.58	66,500
	June 11, 1938	21.56	54,500		Mar. 25, 1945	20.19	53,600
	June 18, 1938	20.70	50,200		Apr. 17, 1945	36.42	167,000
1939	May 14, 1939	21.10	52,100	Apr. 25, 1945	25.0	81,700	
	May 23, 1939	17.53	36,600	May 11, 1945	16.77	37,300	
1940	June 28, 1940	10.49	10,500	May 30, 1945	18.74	48,700	
				June 19, 1945	17.44	41,100	
1941	Apr. 16, 1941	17.21	37,000	Sept. 27, 1945	24.97	85,200	
	Apr. 20, 1941	37.65	183,000	1946	Oct. 6, 1945	20.78	58,100
	June 11, 1941	27.24	88,400		Jan. 12, 1946	17.76	42,200
	Sept. 11, 1941	21.61	58,000		Feb. 19, 1946	17.10	38,600
1942	Oct. 7, 1941	33.38	126,000	June 4, 1946	16.81	37,600	
	Oct. 17, 1941	25.26	80,000	1947	Apr. 8, 1947	17.15	39,600
	Oct. 22, 1941	20.63	54,000		Apr. 12, 1947	25.70	87,900
	Nov. 2, 1941	38.78	190,000		Apr. 20, 1947	18.84	48,100
	Apr. 10, 1942	25.19	79,400	Apr. 26, 1947	28.17	103,000	
	Apr. 25, 1942	20.00	49,800	May 23, 1947	17.60	41,700	
	Apr. 28, 1942	23.40	68,100	1948	June 28, 1948	32.26	99,800
	June 16, 1942	17.77	39,600		July 23, 1948	23.72	59,400
	June 22, 1942	22.31	63,200		Aug. 1, 1948	24.64	63,600
	June 27, 1942	20.00	50,800		Aug. 14, 1948	22.89	55,800
	Sept. 7, 1942	19.16	47,700		1949	Feb. 19, 1949	22.06
	Sept. 20, 1942	23.06	68,700	May 19, 1949		23.9	60,600
1943	Dec. 28, 1942	23.53	72,000	May 29, 1949		17.88	47,200
	May 11, 1943	39.35	215,000	June 11, 1949	15.54	36,400	
	May 21, 1943	45.2	400,000				

a At site and datum used 1937-39.

1935. Neosho River below Fort Gibson Reservoir, near Fort Gibson, Okla.
(Below Spring River, known locally as Grand River)

Location.--Lat 35°51'15", long 95°13'45", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.19, T.16 N., R.19 E., on left bank 1.1 miles downstream from Fort Gibson Dam, 4.5 miles north of Fort Gibson, and at mile 6.6.

Drainage area.--12,495 sq mi.

Gage.--Nonrecording prior to Aug. 21, 1951; recording thereafter. Prior to June 12, 1952, at site 4.4 miles downstream at datum 8.00 ft lower. Datum of present gage is 483.75 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--23 ft.

Remarks.--Flow regulated by Lake O' The Cherokees (capacity, 2,197,000 acre-ft) and, since May 1950, by Fort Gibson Reservoir (capacity, 1,284,000 acre-ft). Records computed by Corps of Engineers and reviewed by Geological Survey. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	May 1943	a43.0	400,000	1954	May 3, 1954	10.23	12,100
1950	May 11, 1950	22.10	57,000	1955	July 1, 1955	14.10	33,500
	Aug. 3, 1950	b22.73	-		1956	Oct. 6, 1955	12.01
1951	July 18, 1951	b30.96	-	1957	May 26, 1957	37.60	223,000
	July 20, 1951	b28.40	133,000		1958	July 13, 1958	20.96
1952	Nov. 17, 1951	17.57	46,800				
1953	Apr. 24,25, 1953	12.84	25,700				

a From high-water profile.
b Affected by backwater.

1945. Arkansas River near Muskogee, Okla.

Location.--Lat 35°46', long 95°18', in NW $\frac{1}{4}$ sec.21, T.15 N., R.19 E., on downstream side of left pier of bridge on U. S. Highways 62 and 64, 1.7 miles downstream from Neosho River, 3 $\frac{1}{2}$ miles northeast of Muskogee, and at mile 457.8.

Drainage area.--96,674 sq mi, of which about 84,133 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Feb. 22, 1939; recording thereafter. Peak stages prior to March 1935 are adjusted to present site and datum from gage-relation curve and gage-height graphs based on once-daily readings at Oklahoma Gas & Electric Co. gage 1,600 ft downstream. Datum of gage is 471.38 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--35 ft.

Historical data.--Flood in 1833 was probably similar to that in 1943. It was 0.8 ft lower than 1943 flood at Webbers Falls 29 miles downstream.

Remarks.--Increasing regulation since 1940 by the following reservoirs, listed chronologically by completion: Lake O' The Cherokees on Neosho River, Salt Plains Reservoir on Salt Fork Arkansas River, John Martin Reservoir on Arkansas River in Colorado, Fall River Reservoir on Fall River in Kansas, Fort Gibson Reservoir on Neosho River, and Hulah Reservoir (1950) on Caney River. Base for partial-duration series, 100,000 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Arkansas River near Muskogee, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1898	May 1898	a39.5	b584,000	1942	Oct. 17, 1941	25.85	151,000
1923	June 1923	34.7	b295,000	1942	Oct. 27, 1941	26.00	153,000
1926	Sept. 7, 1926	23.4	142,000	1942	Oct. 31, 1941	37.23	304,000
1927	Oct. 6, 1926	31.4	248,000	1942	Apr. 10, 1942	27.42	176,000
1927	Apr. 3, 1927	23.8	145,000	1942	Apr. 22, 1942	24.13	138,000
1927	Apr. 15, 1927	36.5	325,000	1942	Apr. 25, 1942	25.78	158,000
1927	June 21, 1927	24.8	157,000	1942	Apr. 28, 1942	29.56	211,000
1927	Aug. 5, 1927	24.9	160,000	1942	June 25, 1942	28.97	198,000
1927	Aug. 20, 1927	23.2	139,000	1943	Dec. 30, 1942	21.28	115,000
1928	Oct. 4, 1927	25.3	163,000	1943	May 11, 1943	38.32	340,000
1928	Apr. 24, 1928	20.0	103,000	1943	May 21, 1943	48.20	700,000
1928	June 14, 1928	23.0	137,000	1943	June 6, 1943	22.35	122,000
1928	June 22, 1928	27.9	197,000	1944	Mar. 24, 1944	20.91	111,000
1928	Aug. 5, 1928	26.0	172,000	1944	Apr. 12, 1944	27.44	187,000
1929	Nov. 21, 1928	20.0	103,000	1944	Apr. 17, 1944	26.06	171,000
1929	Apr. 10, 1929	21.0	114,000	1944	Apr. 27, 1944	27.64	189,000
1929	Apr. 15, 1929	25.1	162,000	1945	Oct. 7, 1944	19.68	103,000
1929	Apr. 23, 1929	29.8	222,000	1945	Dec. 8, 1944	21.08	116,000
1929	May 10, 1929	23.0	137,000	1945	Mar. 20, 1945	22.99	131,000
1929	May 15, 1929	31.5	249,000	1945	Mar. 27, 1945	21.29	113,000
1929	May 20, 1929	31.4	248,000	1945	Apr. 18, 1945	36.65	326,000
1929	June 5, 1929	22.1	128,000	1945	July 3, 1945	20.89	115,000
1929	June 9, 1929	22.9	138,000	1946	Oct. 1, 1945	30.67	231,000
1929	June 26, 1929	20.1	105,000	1947	Apr. 16, 1947	27.31	196,000
1930	May 14, 1930	20.9	114,000	1947	Apr. 26, 1947	25.19	156,000
1930	June 17, 1930	22.7	136,000	1947	May 18, 1947	22.39	128,000
1931	June 16, 1931	16.0	63,000	1947	May 23, 1947	22.36	128,000
1932	Nov. 25, 1931	19.2	95,300	1948	June 24, 1948	30.25	224,000
1933	Dec. 26, 1932	21.5	121,000	1948	June 30, 1948	28.62	203,000
1933	May 16, 1933	25.1	165,000	1948	July 19, 1948	24.10	145,000
1934	Apr. 9, 1934	14.9	b57,200	1948	Aug. 15, 1948	21.04	112,000
1935	Nov. 23, 1934	19.9	103,000	1949	Feb. 16, 1949	22.62	137,000
1935	Mar. 13, 1935	23.2	141,000	1949	May 20, 1949	28.27	208,000
1935	May 22, 1935	23.6	146,000	1949	June 11, 1949	22.07	121,000
1935	June 9, 1935	30.8	243,000	1950	May 11, 1950	23.15	141,000
1935	June 17, 1935	29.8	229,000	1950	July 22, 1950	23.46	138,000
1935	June 22, 1935	28.0	204,000	1950	Aug. 3, 1950	25.10	157,000
1935	July 1, 1935	21.4	120,000	1950	Aug. 8, 1950	20.68	107,000
1936	Sept. 29, 1936	19.54	98,000	1951	May 22, 1951	23.20	144,000
1937	Oct. 9, 1936	21.55	122,000	1951	May 26, 1951	22.68	138,000
1937	Jan. 16, 1937	19.67	100,000	1951	July 5, 1951	30.83	242,000
1937	Feb. 1, 1937	20.46	109,000	1951	July 17, 1951	31.40	240,000
1937	June 13, 1937	23.25	141,000	1951	Sept. 16, 1951	21.23	111,000
1937	June 18, 1937	22.47	133,000	1952	Nov. 17, 1951	17.71	83,000
1938	Mar. 30, 1938	21.39	108,000	1953	Apr. 25, 1953	15.99	66,600
1938	May 26, 1938	24.79	149,000	1954	May 3, 1954	15.83	63,000
1938	May 31, 1938	23.78	135,000	1955	May 29, 1955	18.16	87,200
1938	June 12, 1938	21.11	105,000	1956	Oct. 6, 1955	20.28	110,000
1939	May 14, 1939	18.20	77,800	1957	May 3, 1957	19.86	104,000
1940	Sept. 5, 1940	24.68	161,000	1957	May 20, 1957	29.50	248,000
1941	Apr. 21, 1941	32.72	248,000	1957	May 22, 1957	31.85	259,000
1941	June 12, 1941	29.09	195,000	1957	May 26, 1957	39.03	366,000
1941	Sept. 11, 1941	20.99	100,000	1958	Mar. 27, 1958	20.54	110,000
1942	Oct. 7, 1941	27.39	173,000	1958	July 14, 1958	22.66	138,000

a Based on comparative elevations of floods in 1898 and 1927 at site 4 miles downstream.

b Annual peak only.

1946. Arkansas River at Webbers Falls, Okla.

Location.--Lat 35°31', long 95°07', in SW $\frac{1}{4}$ sec.18, T.12 N., R.21 E., near right bank at downstream side of pier of bridge on U. S. Highway 64 at east edge of Webbers Falls, 1.7 miles upstream from Illinois River and at mile 428.4.

Drainage area.--97,049 sq mi, of which about 84,508 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to July 7, 1934, and after Sept. 16, 1948; recording July 7, 1934, to Sept. 16, 1948. Datum of gage is 442.2 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 270,000 cfs during 1929. Backwater occurs from high inflows of Illinois River. Large shifts occur.

Bankfull stage.--23 ft.

Remarks.--Flow partly regulated since 1940 (see references for station near Muskogee). Stage records obtained from publications of U. S. Weather Bureau. Results of several discharge measurements during 1928-32 furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1833	June 1833	38.2	-	1935	June 18, 1935	29.9	-
1905	June 1, 1905	17.4	-	1936	June 9, 1936	16.4	-
1906	June 7, 1906	18.0	-	1937	June 13, 1937	22.3	-
1907	May 17, 1907	19.4	-	1938	Feb. 18, 1938	26.8	-
1908	May 26, 1908	31.0	-	1939	May 15, 1939	17.9	-
1909	Dec. 1, 1908	26.5	-	1940	Sept. 6, 1940	21.3	-
1910	Nov. 19, 1909	13.2	-	1941	Apr. 21, 1941	31.1	-
1911	Aug. 8, 1911	21.1	-	1942	Nov. 1, 1941	35.8	-
				1943	May 22, 1943	39.0	-
				1944	May 3, 1944	25.9	-
				1945	Apr. 16, 1945	37.2	-
1923	June 14, 1923	29.5	-	1946	Oct. 2, 1945	29.0	-
1924	Oct. 17, 1923	23.6	-	1947	Apr. 16, 1947	26.4	-
1925	Apr. 29, 1925	14.5	-	1948	June 24, 1948	30.1	-
1926	Sept. 10, 1926	21.1	-	1949	May 20, 1949	29.3	-
1927	Apr. 15, 1927	33.6	-	1950	May 12, 1950	31.8	-
1928	June 23, 1928	25.7	-				
1929	May 15, 1929	29.0	273,000				
1930	June 17, 1930	21.6	-	1951	July 5, 1951	28.9	-
				1952	Mar. 13, 1952	18.2	-
1931	June 17, 1931	15.0	-	1953	Apr. 25, 1953	17.2	-
1932	Nov. 25, 1931	19.4	-	1954	May 3, 1954	20.9	-
1933	May 16, 1933	26.4	-	1955	May 30, 1955	19.5	-
1934	Apr. 10, 1934	14.4	57,200				

1950. Osage Creek near Elm Springs, Ark.

Location.--Lat 36°13', long 94°17', in sec.21, T.18 N., R.31 W., on left bank 1 mile downstream from Little Osage Creek and $\frac{3}{4}$ miles northwest of Elm Springs.

Drainage area.--129 sq mi.

Gage.--Recording. Altitude of gage is 1,052 ft (by barometer).

Stage-discharge relation.--Defined by current-meter measurements below 11,000 cfs.

Historical data.--Flood of May 10, 1950, was greatest known by local residents.

Remarks.--Base for partial-duration series, 3,000 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Osage Creek near Elm Springs, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	May 10, 1950	16.7	-	1956	May 15, 1956	5.79	1,160
1951	Feb. 20, 1951	11.72	6,770	1957	Jan. 22, 1957	8.96	3,760
	June 9, 1951	9.32	4,230		Apr. 3, 1957	14.36	10,800
1952	Aug. 22, 1952	6.99	2,210		May 21, 1957	10.78	5,760
					May 22, 1957	12.50	8,000
1953	Mar. 17, 1953	6.40	1,820		May 25, 1957	14.09	10,300
				June 2, 1957	10.00	4,870	
1954	May 2, 1954	9.44	4,050	Aug. 17, 1957	8.11	3,050	
1955	Feb. 19, 1955	10.58	5,280	1958	July 25, 1958	7.05	2,200

1965. Illinois River near Tahlequah, Okla.

Location.--Lat 35°55', long 94°55', in SE $\frac{1}{4}$ sec.26, T.17 N., R.22 E., near center of span on downstream side of pier of bridge on U. S. Highway 62, $2\frac{1}{4}$ miles northeast of Tahlequah, 6.5 miles upstream from Barren Fork, and at mile 55.8.

Drainage area.--959 sq mi.

Gage.--Nonrecording prior to Feb. 23, 1939; recording thereafter. Datum of gage is 664.14 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 77,000 cfs and extended on basis of slope-area measurement at 150,000 cfs.

Bankfull stage.--11 ft.

Remarks.--Peak stage data for 1916 and 1927 furnished by Corps of Engineers. Base for partial-duration series, 7,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1916	January 1916	26	a112,000	1943	May 21, 1943	14.53	18,400	
1927	April 1927	22.3	a60,000	1944	Mar. 17, 1944	12.72	12,400	
1935	-	15	a18,500		Mar. 21, 1944	15.82	23,200	
					Apr. 12, 1944	11.06	8,300	
1936	Dec. 7, 1935	-	9,000	May 3, 1944	10.86	7,820		
1937	Jan. 10, 1937	11.98	9,580	1945	Feb. 22, 1945	14.85	19,800	
	Jan. 16, 1937	13.65	14,500		Feb. 27, 1945	13.26	14,200	
	Apr. 22, 1937	11.42	7,960		Mar. 4, 1945	15.14	20,800	
	Sept. 11, 1937	11.49	8,220		Mar. 7, 1945	12.54	12,100	
	1938	Feb. 18, 1938	19.67		39,400	Mar. 16, 1945	11.58	9,290
Mar. 29, 1938		13.19	12,600		Mar. 20, 1945	21.12	51,000	
May 24, 1938		13.14	12,300		Mar. 25, 1945	11.58	9,040	
1939		Feb. 21, 1939	10.8		6,400	Mar. 31, 1945	11.12	8,540
	1940	Apr. 12, 1940	10.39		5,600	Apr. 15, 1945	23.60	68,800
		1941	Jan. 2, 1941		15.22	20,500	May 17, 1945	12.44
Apr. 16, 1941	13.10		13,300	June 12, 1945	12.88	14,600		
Apr. 20, 1941	19.56		41,400	1946	Feb. 15, 1946	12.81	14,000	
1942	Oct. 17, 1941	12.57	11,200		May 26, 1946	15.99	25,800	
	Nov. 1, 1941	17.71	30,000	1947	Nov. 8, 1946	12.23	12,200	
	Apr. 10, 1942	11.83	9,200		Nov. 11, 1946	12.03	11,600	
	Apr. 26, 1942	12.13	10,000		Dec. 11, 1946	13.95	18,000	
	Apr. 29, 1942	15.41	20,600		Dec. 13, 1946	14.36	19,800	
1943	Oct. 31, 1942	16.66	25,800		Apr. 12, 1947	10.97	9,160	
	Nov. 6, 1942	13.60	14,200	May 17, 1947	12.87	14,700		
	Nov. 9, 1942	13.64	14,200	June 3, 1947	11.49	10,500		
	Dec. 28, 1942	17.33	29,400	1948	Mar. 3, 1948	10.45	7,770	
	May 11, 1943	25.37	93,200		Aug. 10, 1948	10.24	7,300	
	1949	Jan. 26, 1949				Aug. 13, 1948	14.16	19,100
Aug. 15, 1948				19.21		41,400		

a Annual peak only.

Peak stages and discharges of Illinois River near Tahlequah, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Jan. 29, 1949	10.58	8,250	1953	May 14, 1953	11.21	10,100
	Feb. 16, 1949	13.29	16,000	1954	May 3, 1954	13.13	16,000
	Mar. 28, 1949	10.44	8,010				
	May 20, 1949	13.36	16,700	1955	Feb. 21, 1955	13.02	13,000
1950	Jan. 5, 1950	10.80	9,240	1955	Mar 22, 1955	13.55	14,800
	Jan. 15, 1950	12.70	14,800		1956	May 16, 1956	11.40
	Feb. 14, 1950	11.46	11,200				
	May 10, 1950	27.94	150,000				
	July 24, 1950	10.1	7,980				
	Aug. 7, 1950	9.87	7,500	1957	Apr. 4, 1957	21.60	55,400
1951	Feb. 21, 1951	18.22	38,000	Apr. 24, 1957	10.92	8,140	
	Mar. 12, 1951	10.37	8,470	May 19, 1957	16.16	23,800	
				May 24, 1957	17.48	31,500	
1952	Mar. 12, 1952	10.10	7,740	May 26, 1957	18.17	35,100	
	Apr. 13, 1952	10.24	7,980	June 3, 1957	13.10	13,500	
1953				June 11, 1957	12.34	11,400	
	Mar. 15, 1953	10.58	8,470	1958	Mar. 25, 1958	11.59	8,180
	Mar. 19, 1953	10.83	8,470		May 4, 1958	12.20	9,440
				July 13, 1958	16.89	25,800	

1970. Barren Fork at Eldon, Okla.

Location--Lat 35°55', long 94°50', in SE $\frac{1}{4}$ sec.27, T.17 N., R.23 E., at bridge on State Highway 51, three-eighths of a mile southeast of Eldon, 6 miles downstream from Tyner Creek, and 8.8 miles upstream from mouth.

Drainage area--307 sq mi.

Gage--Nonrecording prior to Dec. 14, 1948; recording thereafter. Datum of gage is 701.14 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Defined by current-meter measurements below 28,000 cfs and extended above.

Bankfull stage--18 ft.

Remarks--Peak-stage data for 1945 and 1948 furnished by Corps of Engineers. Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Apr. 15, 1945	23.8	-	1953	Mar. 18, 1953	10.82	6,660
1948	Aug. 14, 1948	19.8	a34,400	1953	May 12, 1953	12.03	9,240
				1954	May 2, 1954	16.78	21,600
1949	Jan. 24, 1949	11.21	7,220	1955	Feb. 20, 1955	12.42	9,680
	Feb. 14, 1949	12.85	10,600		Mar. 20, 1955	14.47	14,800
	Mar. 26, 1949	10.62	6,480		June 6, 1955	11.53	7,800
	May 19, 1949	11.63	8,400		June 15, 1955	14.96	16,200
	June 14, 1949	10.76	6,660				
1950	Jan. 4, 1950	11.70	8,200	1956	May 15, 1956	10.70	6,300
	Jan. 13, 1950	12.27	9,240	1957	Apr. 3, 1957	20.33	37,600
	Feb. 12, 1950	11.62	8,000		May 17, 1957	18.89	31,600
	May 10, 1950	18.51	31,000		May 23, 1957	18.79	31,100
			May 25, 1957		17.48	25,600	
1951	Feb. 20, 1951	18.65	27,800	June 1, 1957	11.98	8,400	
	July 2, 1951	11.77	8,400	June 9, 1957	15.5	18,000	
1952	Apr. 13, 1952	10.76	6,480	1958	July 13, 1958	14.75	15,700
	May 23, 1952	11.03	6,840				

a Annual peak only.

1980. Illinois River near Gore, Okla.

Location--Lat 35°34', long 95°04', in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.27, T.13 N., R.21 E., on right bank 4.3 miles downstream from Tenkiller Ferry Dam, 4 $\frac{1}{2}$ miles north-east of Gore, and 8.5 miles upstream from mouth.

Drainage area--1,626 sq mi; at site used 1939-51, 1,622 sq mi.

Gage--Nonrecording prior to Apr. 2, 1926, and May 21, 1949, to Feb. 19, 1952; recording Apr. 15, 1939, to May 20, 1949, and since Feb. 20, 1952. Mar. 25, 1924, to Apr. 1, 1926, at site 2.4 miles downstream at altitude 467 ft. Apr. 15, 1939, to Feb. 19, 1952, at site 1.6 miles upstream at datum 9.60 ft higher than present gage. Datum of present gage is 473.00 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Defined by current-meter measurements below 42,000 cfs and extended on basis of logarithmic plotting and velocity-area studies.

Bankfull stage--13 ft; at previous site, 10 ft.

Remarks--Flow regulated since July 1952 by Tenkiller Ferry Reservoir, with some attenuation of peaks in 1951 during construction operations (capacity, 791,900 acre-ft). Base for partial-duration series, 17,000 cfs. Only annual peaks are shown subsequent to 1950.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1925	Dec. 21, 1924	5.10	6,990	1947	May 17, 1947	10.13	17,800
					June 11, 1947	10.53	19,400
1940	Aug. 17, 1940	10.20	17,600	1948	Aug. 16, 1948	15.09	40,200
1941	Apr. 20, 1941	16.18	43,900	1949	Feb. 17, 1949	10.18	19,300
1942	Nov. 1, 1941	14.95	38,900		May 21, 1949	11.7	24,900
	Apr. 28, 1942	14.26	35,900	1950	Jan. 15, 1950	10.24	17,300
1943	Nov. 1, 1942	12.20	27,100		May 11, 1950	30.2	180,000
	Nov. 8, 1942	11.17	22,900	1951	Feb. 22, 1951	12.50	27,200
	Dec. 29, 1942	13.37	32,200	1952	Apr. 14, 1952	11.29	10,500
	May 11, 1943	24.50	110,000	1953	May 12, 1953	6.41	1,160
	May 21, 1943	11.62	21,800	1954	May 2, 1954	10.90	9,280
1944	Mar. 20, 1944	12.81	29,200	1955	June 18, 1955	9.89	5,880
1945	Feb. 23, 1945	11.06	22,500	1956	Aug. 14, 1956	8.93	3,610
	Mar. 4, 1945	11.71	25,000	1957	June 9, 1957	13.70	18,100
	Mar. 20, 1945	18.30	58,800	1958	May 4, 1958	12.50	13,700
	Apr. 15, 1945	25.38	118,000				
	June 10, 1945	16.28	45,900				
1946	May 27, 1946	11.83	22,000				
	June 30, 1946	10.46	17,100				
1947	Dec. 12, 1946	13.16	30,900				

1985. Dirty Creek near Warner, Okla.

Location--Lat 35°33', long 95°18', in SE $\frac{1}{4}$ sec.32, T.13 N., R.19 E., near center of bridge on U. S. Highway 64, 4 miles north of Warner, 6 $\frac{1}{2}$ miles upstream from Georges Fork, and 6 $\frac{1}{2}$ miles downstream from Butter Creek.

Drainage area--227 sq mi.

Gage--Nonrecording. Datum of gage is 485.51 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Defined by current-meter measurements below 29,000 cfs and extended on basis of contracted-opening measurement at 42,000 cfs.

Bankfull stage--17 ft.

Remarks--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 2,400 cfs.

Peak stages and discharges of Dirty Creek near Warner, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	February 1938	23.0	a19,300	1943	June 7, 1943	20.65	9,030
1940	Aug. 19, 1940	18.42	2,360	1944	Mar. 16, 1944	18.60	2,820
1941	Jan. 2, 1941	18.42	2,360		Mar. 20, 1944	19.41	4,220
1942	Oct. 16, 1941	21.20	11,900	1945	May 3, 1944	18.17	2,460
	Oct. 31, 1941	22.9	17,800		Feb. 22, 1945	19.78	5,490
	Apr. 9, 1942	18.84	3,620		Mar. 3, 1945	20.22	6,910
	Apr. 25, 1942	20.75	10,500		Mar. 7, 1945	18.70	3,030
	Apr. 28, 1942	19.43	5,600		Mar. 16, 1945	20.40	7,680
	May 3, 1942	19.50	5,950		Mar. 19, 1945	21.47	12,600
	May 5, 1942	19.50	5,950		Apr. 2, 1945	18.48	2,710
	May 20, 1942	20.26	8,750		Apr. 14, 1945	24.17	30,800
1943	Nov. 6, 1942	19.50	4,300		June 11, 1945	22.00	15,300
	Dec. 27, 1942	20.90	10,100	1946	June 23, 1945	18.33	2,570
	May 10, 1943	26.00	42,000		Feb. 19, 1946	19.10	3,660
	May 17, 1943	18.58	2,590		Apr. 30, 1946	18.60	2,900
	May 20, 1943	19.53	4,300		May 24, 1946	20.78	9,340
	May 28, 1943	19.07	3,300		June 1, 1946	19.48	4,580
					June 27, 1946	18.80	3,170

a Annual peak only.

1990. Canadian River near Hebron, N. Mex.

Location.--Lat 36°47'10" long 104°27'45", in Maxwell Grant, at bridge on U. S. Highways 64 and 85, 3¼ miles north of Hebron, 5 miles upstream from Chicorica Creek, and 8 miles south of Raton.

Drainage area.--229 sq mi.

Gage.--Recording. Prior to July 14, 1955, at sites 150 and 200 ft upstream at datum 1 ft higher. Altitude of present gage is 6,250 ft (from topographic map).

Stage-discharge relation.--1946-55: Fairly well defined by current-meter measurements below 3,200 cfs and extended by logarithmic plotting.

1956-58: Defined by current-meter measurements below 100 cfs and extended by comparison with rating developed at sites 150 to 200 ft upstream. Relation subject to shifting.

Remarks.--Peak discharges not appreciably affected by small diversions for irrigation above station. Base for partial-duration series, 1,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	-	a26.0	-	1953	May 27, 1953	5.95	1,340
1947	Aug. 11, 1947	4.63	728		Aug. 16, 1953	10.49	5,250
1948	May 31, 1948	8.20	4,020	1954	July 30, 1954	6.50	1,480
1949	Sept. 7, 1949	5.35	1,020		Aug. 25, 1954	5.98	1,000
1950	May 31, 1950	5.90	1,560	1955	May 19, 1955	10.40	6,860
	June 17, 1950	6.43	2,080		May 21, 1955	5.35	1,440
	July 4, 1950	6.43	1,890		July 16, 1955	4.05	1,060
	July 26, 1950	6.68	2,040	1956	July 26, 1955	4.65	1,480
	July 30, 1950	6.04	1,470		July 16, 1956	8.6	5,610
	Aug. 2, 1950	5.52	1,180		July 19, 1956	7.7	4,480
	Sept. 18, 1950	5.84	1,390	1957	July 22, 1957	4.44	1,120
1951	July 22, 1951	5.10	1,010		Aug. 24, 1957	4.75	1,580
	Aug. 24, 1951	b11.6	1,300	1958	Oct. 19, 1957	4.60	1,440
1952	June 28, 1952	7.26	2,800		May 24, 1958	3.92	1,010
	July 11, 1952	8.58	4,270		June 6, 1958	6.90	3,700
	Aug. 3, 1952	5.52	1,270		July 7, 1958	4.02	1,050
	Sept. 13, 1952	8.76	4,490		July 11, 1958	6.05	2,860

a At site and datum used prior to July 14, 1955.

b Backwater from temporary dam.

2010. Raton Creek at Raton, N. Mex.

Location--Lat 36°54', long 104°26', 60 ft upstream from bridge on State Highway 72 at Raton.

Drainage area--14.4 sq mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined by 2 indirect measurements and 1 current-meter measurement.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	-	2.88	470	1956	Aug. 19, 1956	6.5	1,850
1954	August 1954	1.32	165	1957	-	2.25	330
1955	-	5.82	1,500	1958	July 1958	5.00	1,060

2020. Chicorica Creek near Hebron, N. Mex.

Location--Lat 36°46'10", long 104°23'45", in S $\frac{1}{2}$ sec.4, T.29 N., R.24 E., at highway bridge near east boundary of Maxwell Grant, 300 ft downstream from Una de Gato Creek, $4\frac{1}{4}$ miles northeast of Hebron, and 9 miles south of Raton.

Drainage area--381 sq mi.

Gage--Recording. Altitude of gage is 6,200 ft (from topographic map).

Stage-discharge relation--Fairly well defined by current-meter measurements below 600 cfs and extended on basis of contracted-opening measurement at 7,530 cfs. Relation subject to slight shifting.

Historical data--Maximum stage known, 20 ft, from floodmarks (discharge, about 15,000 cfs), date unknown.

Remarks--Peak discharges not appreciably affected by diversions above station for irrigation of about 1,000 acres. Base for partial-duration series, 800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Aug. 18, 1946	7.50	2,770	1949	Aug. 25, 1949	4.85	1,100
	Aug. 27, 1946	5.35	1,360		Sept. 7, 1949	4.60	980
	Aug. 28, 1946	8.23	3,300	1950	June 17, 1950	6.74	2,210
1947	May 11, 1947	5.30	1,330		June 29, 1950	4.40	852
	1948	May 31, 1948	13.00		7,530	July 21, 1950	4.57
June 8, 1948		5.30	1,330		July 26, 1950	8.75	3,780
Aug. 7, 1948		5.12	1,220		Aug. 2, 1950	5.86	1,660
1949	June 5, 1949	5.90	1,690	1951	Aug. 19, 1950	4.82	1,020
	June 7, 1949	4.95	1,140		July 12, 1951	5.50	1,420
	June 21, 1949	5.07	1,200		July 14, 1951	5.10	1,240
	July 7, 1949	4.65	995		July 22, 1951	5.05	1,240
	July 9, 1949	5.45	1,420		Aug. 10, 1951	4.85	1,140
					Aug. 24, 1951	4.66	1,070

2030. Vermejo River near Dawson, N. Mex.

Location.--Lat 36°40'50", long 104°47'05", T.28 N., R.20 E., in Maxwell Grant, $\frac{1}{2}$ miles north of Dawson.

Drainage area.--301 sq mi.

Gage.--Recording. Prior to Sept. 23, 1953, at several sites about three-quarters of a mile upstream at datum 8 to 12 ft higher. Altitude of present gage is 6,540 ft (from topographic map).

Stage-discharge relation.--1929-53: Defined by current-meter measurements below 360 cfs and extended on basis of slope-area measurements at 3,250 cfs and 5,000 cfs at later site. Correlation between various sites and datums by rating study for Compilation Report.

1953-58: Defined by current-meter measurements below 290 cfs and extended by logarithmic plotting and comparison with curves at former sites. Relations subject to moderate shifting.

Bankfull stage.--16 ft, approximately, on right bank.

Historical data.--A major flood occurred Aug. 2, 1921, when discharge probably exceeded 10,000 cfs.

Remarks.--Records prior to December 1931 published in reports of State engineer. Peak discharges not appreciably affected by small diversions for irrigation above station. Base for partial-duration series, 800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	May 20, 1929	5.2	1,100	1943	Aug. 16, 1943	4.88	931
	July 18, 1929	6.5	2,100	1944	July 5, 1944	5.42	1,200
	July 23, 1929	5.4	1,200				
	Aug. 2, 1929	5.7	1,400	1945	Aug. 20, 1945	5.46	1,250
	Aug. 4, 1929	5.35	1,180				
Aug. 11, 1929	4.85	840					
1930	Aug. 27, 1930	6.35	2,000	1946	July 15, 1946	4.80	840
				Aug. 24, 1946	5.68	1,540	
1931	Aug. 23, 1931	4.53	588	Aug. 27, 1946	5.97	1,860	
				Aug. 29, 1946	6.25	1,900	
1932	July 10, 1932	6.42	a2,100	1947	Aug. 11, 1947	5.49	900
1933	July 21, 1933	5.05	752	Aug. 24, 1947	5.29	800	
				1948	May 31, 1948	11.00	5,100
1934	June 30, 1934	5.6	1,200	July 27, 1948	7.10	1,780	
	July 27, 1934	5.3	900	1949	Sept. 9, 1949	9.20	3,320
1935	Aug. 29, 1935	2.9	1,200	1950	July 3, 1950	7.34	1,970
	Sept. 24, 1935	4.28	3,720		July 5, 1950	5.18	900
1936	Aug. 3, 1936	5.1	980	July 21, 1950	7.90	2,320	
	Aug. 6, 1936	5.3	1,100	1951	July 18, 1951	4.12	317
	Aug. 7, 1936	7.99	3,700				
1937	Aug. 4, 1937	6.89	2,500	1952	Aug. 4, 1952	6.40	1,360
	Sept. 6, 1937	5.4	1,200		Sept. 13, 1952	5.78	1,050
	Sept. 7, 1937	6.0	1,700	1953	May 27, 1953	8.80	3,160
1938	July 18, 1938	4.95	840		July 11, 1953	6.40	1,480
	July 20, 1938	5.05	890	1954	July 24, 1954	4.80	755
	Aug. 3, 1938	7.81	3,600				
	Sept. 7, 1938	6.15	2,040	1955	May 19, 1955	6.62	1,770
	1939	Oct. 8, 1938	5.46		1,360	July 20, 1955	5.11
1940	July 28, 1939	5.0	950	Aug. 8, 1955	7.90	2,540	
	July 15, 1940	5.1	980	Aug. 15, 1955	6.55	1,730	
	Aug. 6, 1940	11.88	9,000	Aug. 18, 1955	5.50	1,160	
	Aug. 18, 1940	5.7	1,400	Aug. 20, 1955	4.88	850	
	Sept. 10, 1940	6.8	2,500	Aug. 21, 1955	6.13	1,500	
1941	May 2, 1941	7.96	3,700	1956	Aug. 2, 1956	4.14	486
	July 13, 1941	4.96	1,050	1957	Aug. 4, 1957	11.25	5,000
	July 15, 1941	5.45	1,440		Aug. 10, 1957	5.10	955
	July 21, 1941	5.58	1,540		Aug. 16, 1957	4.85	825
	July 26, 1941	4.75	828	1958	May 23, 1958	5.93	1,380
	Sept. 21, 1941	5.52	1,390		July 16, 1958	5.70	1,230
	Sept. 23, 1941	7.57	3,200		July 25, 1958	5.90	1,340
	1942	Apr. 23, 1942	8.03	3,800			
Sept. 1, 1942		6.20	1,900				

a Annual maximum only.

2040. Moreno Creek at Eagle Nest, N. Mex.
(Published as "near Therma" 1928-34)

Location.--Lat 36°33'10", long 105°15'55", in Maxwell Grant, at left upstream wingwall of bridge on U. S. Highway 64, 1,000 ft west of Eagle Nest, Colfax County, and half a mile upstream from high-water line of Eagle Nest Reservoir.

Drainage area.--82 sq mi, approximately.

Gage.--Recording. Prior to June 10, 1952, at site about 75 to 100 ft downstream at various datums within 1 ft of present gage. Datum of present gage is 8,195.71 ft above mean sea level, datum of 1929. A concrete control has been in effect since Sept. 8, 1934.

Stage-discharge relation.--1928-52: Fairly well defined by current-meter measurements below 170 cfs and extended by logarithmic plotting. Correlation between various ratings used to obtain peaks. Relation subject to slight shifting.

1952-55: Defined by current-meter measurements below 9 cfs and extended by logarithmic plotting. Relation subject to slight shifting.

Remarks.--Records prior to July 1931 collected by State engineer of New Mexico. Winter records not collected; peak discharges above base unlikely during winter. Peak discharges not appreciably affected by diversions above station for irrigation of about 1,200 acres. Base for partial-duration series, 50 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1929	July 28, 1929	1.26	60	1942	Apr. 14, 1942	2.38	159	
	Aug. 23, 1929	1.19	55		Apr. 23, 1942	2.83	223	
1930	Apr. 7, 1930	1.15	58	1943	July 19, 1943	1.70	92	
	Apr. 25, 1930	1.05	50		July 24, 1943	1.29	57	
	Aug. 10, 1930	1.90	110	1944	Apr. 19, 1944	1.20	53	
1931	Apr. 19, 1931	1.04	38		May 2, 1944	1.41	69	
	1932	May 20, 1932	1.65		a80	May 14, 1944	2.33	161
July 3, 1944				1.50		75		
1933				May 4, 1933		1.28	a51	Apr. 22, 1945
	May 6, 1945	1.76	109					
1934	Aug. 13, 1934	1.11	34	1946	Sept. 1, 1946	3.10	240	
1935	May 19, 1935	2.10	56	1947	May 5, 1947	1.24	69	
1936	Mar. 31, 1936	2.75	115		May 10, 1947	1.67	105	
	May 8, 1936	2.17	62	1948	Apr. 11, 1948	-	(b)	
1937	Apr. 15, 1937	3.23	146		Apr. 19, 1948	1.06	54	
	May 10, 1937	2.37	64		May 19, 1948	1.18	66	
	May 29, 1937	2.25	55		May 25, 1948	1.50	93	
	June 3, 1937	2.42	70	1949	May 11, 1949	1.46	48	
July 20, 1937	2.97	133	1950		July 9, 1950	1.44	48	
Aug. 26, 1937	2.38	78			1951	May 18, 1951	0.87	23
Aug. 31, 1937	2.30	70				1952	Apr. 7, 1952	-
1938	May 3, 1938	2.25		65	Apr. 20, 1952		1.78	90
	May 16, 1938	2.37	77	Apr. 28, 1952	1.70		83	
1939	Mar. 23, 1939	1.46	56	May 6, 1952	2.05	117		
1940	Aug. 19, 1940	3.16	200	1953	May 28, 1953	1.77	94	
1941	May 14, 1941	2.59	145		1954	July 21, 1954	1.55	5.5
	May 22, 1941	2.44	135			1955	May 24, 1955	2.23
	July 15, 1941	1.85	75					
	Aug. 11, 1941	1.79	73					
1942	Apr. 2, 1942	1.48	73					

a Annual peak only.

b May have exceeded 95 cfs.

2045. Cieneguilla Creek near Eagle Nest, N. Mex.
(Published as "near Therma" 1928-34)

Location.--Lat 36°29'00", long 105°15'40", in Maxwell Grant, a quarter of a mile downstream from Schoolhouse Draw, 3,500 ft upstream from high-water line of Eagle Nest Reservoir, and 6 miles south of Eagle Nest, Colfax County.

Drainage area.--56 sq mi, approximately.

Gage.--Recording. Prior to Sept. 16, 1934, at site a quarter of a mile downstream at different datum. Altitude of last used gage was 8,190 ft (from topographic map). Concrete control since Sept. 25, 1947.

Stage-discharge relation.--1928-34: Fairly well defined by current-meter measurements below 90 cfs.

1935-47: Fairly well defined by current-meter measurements below 380 cfs.

1948-55: Fairly well defined by current-meter measurements below 120 cfs.

All ratings extended above highest current-meter measurement by logarithmic plotting.

Remarks.--Records prior to July 1931 collected by State engineer. Winter records not collected except in 1931 and 1948 water years; peak discharges above base unlikely during winter. Peak discharges not appreciably affected by diversions above station for irrigation of about 1,000 acres. Base for partial-duration series, 70 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1929	Apr. 17, 1929	3.02	125	1941	July 14, 1941	3.45	124	
	May 19, 1929	2.70	70		July 16, 1941	3.82	197	
	June 1, 1929	2.77	80		July 18, 1941	3.50	133	
	Aug. 2, 1929	2.85	90		Aug. 12, 1941	3.64	162	
1930	Apr. 7, 1930	2.92	85	1942	Apr. 23, 1942	-	500	
	Apr. 10, 1930	3.36	160		Aug. 15, 1942	3.64	84	
	Apr. 25, 1930	2.78	75	1943	Mar. 30, 1943	3.86	127	
	July 24, 1930	2.75	70		Apr. 3, 1943	3.80	117	
1931	May 3, 1931	2.57	66	1944	Apr. 25, 1944	3.57	80	
1932	June 30, 1932	3.26	a216		May 1, 1944	3.63	89	
	May 21, 1934	1.97	57		May 11, 1944	4.75	354	
1935	May 20, 1935	3.17	100	1945	Apr. 20, 1945	4.19	159	
	June 13, 1935	3.02	80		May 3, 1945	4.58	219	
	Aug. 2, 1935	4.38	360		Aug. 14, 1945	3.51	80	
	Aug. 23, 1935	4.65	470	1946	Aug. 29, 1946	3.37	89	
	Aug. 26, 1935	3.55	150		Sept. 1, 1946	3.47	98	
1936	Apr. 11, 1936	2.85	65	1947	Mar. 21, 1947	b4.06	-	
	1937	Apr. 13, 1937	4.10		265	Mar. 27, 1947	3.87	158
Apr. 16, 1937		3.88	196		Apr. 20, 1947	3.50	102	
Apr. 22, 1937		3.87	194		May 9, 1947	4.04	178	
May 30, 1937		3.08	77		July 5, 1947	5.01	364	
June 2, 1937		3.71	168		July 18, 1947	3.80	142	
July 20, 1937		3.13	82	1948	Apr. 11, 1948	4.30	144	
1938	Apr. 20, 1938	3.11	95		Apr. 20, 1948	3.99	107	
	Apr. 27, 1938	2.99	80		May 25, 1948	3.68	77	
	June 26, 1938	3.52	140	1949	July 22, 1949	3.51	57	
1939	Mar. 27, 1939	3.15	90		1950	Apr. 9, 1950	3.03	21
	Apr. 5, 1939	3.41	125	1951		Apr. 21, 1951	3.20	29
1940	July 30, 1940	2.97	73		1952	Apr. 5, 7, 1952	5.30	340
	Aug. 19, 1940	3.14	90			Apr. 16, 1952	3.93	110
	Aug. 21, 1940	3.73	174	Apr. 20, 1952		4.02	118	
1941	Apr. 12, 1941	3.20	98	1953	May 17, 1953	3.17	29	
	Apr. 24, 1941	3.37	120		1954	Apr. 6, 1954	3.19	40
	May 2, 1941	4.34	346	1955		May 27, 1955	4.00	113
	May 8, 1941	4.50	402					
	May 22, 1941	3.80	197					
	July 11, 1941	4.55	412					

a Annual peak only.

b Result of ice jam; discharge estimated not to exceed that of Mar. 27, 1947.

2050. Six Mile Creek near Eagle Nest, N. Mex.
(Published as "near Therma" 1928-34)

Location.--Lat 36°31'10", long 105°16'15", in Maxwell Grant, 600 ft downstream from bridge on U. S. Highway 64, a quarter of a mile upstream from high-water line of Eagle Nest Reservoir, and 3 miles southwest of Eagle Nest, Colfax County.

Drainage area.--11 sq mi, approximately.

Gage.--Recording gage and concrete control. Prior to Sept. 12, 1938, at site 88 ft upstream at datum 0.43 ft higher. Datum of last used gage was 8,195.0 ft above mean sea level, datum of 1929.

Stage-discharge relation.--1931-38: Fairly well defined by current-meter measurements below 27 cfs and extended by logarithmic plotting.

1939-54: Well defined by current-meter measurements below 56 cfs and extended by logarithmic plotting.

Remarks.--Records prior to July 1931 collected by State engineer. Winter records not collected; peak discharges above base unlikely during winter. Peak discharges not appreciably affected by diversions above station for irrigation of about 300 acres. Base for partial-duration series, 15 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1931	Sept. 20, 1931	2.06	13	1943	Aug. 17, 1943	1.55	46
1932	Mar. 8, 1932	2.03	a23	1944	Apr. 12, 1944	2.14	82
	Apr. 10, 1932	2.03	a23		Apr. 24, 1944	.97	25
1933	May 4, 1933	2.06	a26		May 16, 1944	1.89	64
				1945	Apr. 19, 1945	1.33	40
1934	Not determined	-	10	May 5, 1945	1.58	49	
1935	May 24, 1935	1.74	17	1946	Sept. 1, 1946	.90	22
1936	Apr. 5, 18, 25, 27	1.60	11	1947	Apr. 24, 1947	.73	16
1937	Apr. 2, 1937	b3.38	-	May 9, 1947	1.34	40	
	Apr. 11, 1937	2.77	120	1948	Apr. 11, 1948	-	25
	May 12, 1937	1.92	39		Apr. 24, 1948	.87	21
	June 3, 1937	1.74	22		Apr. 30, 1948	.91	22
1938	Apr. 25, 1938	1.84	36		May 19, 1948	.86	22
	May 1, 1938	1.81	34	May 25, 1948	.89	23	
	May 15, 1938	1.70	22	1949	Apr. 30, 1949	1.19	33
1939	Mar. 21, 1939	.74	17		May 11, 1949	.98	25
	Apr. 4, 1939	.84	20		July 30, 1949	.97	25
	Apr. 17, 1939	.73	17	1950	July 23, 1950	1.12	31
1940	Apr. 17, 1940	1.10	29		1951	Aug. 2, 1951	.52
	Sept. 3, 1940	1.19	33	1952	Apr. 5-7, 1952	-	70
1941	Apr. 9, 1941	1.11	30		Apr. 20, 1952	1.59	47
	Apr. 12, 1941	1.32	38		Apr. 28, 1952	1.65	50
	Apr. 20, 1941	.78	17		May 5, 1952	2.08	68
	Apr. 24, 1941	.90	22		July 23, 1952	1.06	29
	May 1, 1941	1.95	70		July 30, 1952	1.12	30
	May 3, 1941	2.33	91		Aug. 21, 1952	1.87	60
	May 14, 1941	2.85	124		1953	May 22, 1953	.55
	July 14, 1941	1.09	31	1954		June 30, 1954	2.67
1942	Apr. 2, 1942	1.40	40		1955	May 25, 1955	1.09
	Apr. 12, 1942	1.44	42	July 15, 1955		1.17	32
	Apr. 17, 1942	1.85	58	Aug. 8, 1955		1.33	37
	Apr. 23, 1942	2.51	103	Aug. 14, 1955		1.31	37
	May 11, 1942	1.91	60	Aug. 18, 1955		2.05	66
	June 7, 1942	1.20	34	Aug. 22, 1955		.70	16
1943	Mar. 29, 1943	.95	24				
	Apr. 25, 1943	.92	23				

a Annual peak only.
b Result of ice jam.

2060. Cimarron Creek below Eagle Nest Dam, N. Mex.
(Published as Cimarron "River" prior to 1953)

Location.--Lat 36°32'05", long 105°13'55", about sec.26, T.27 N., R.16 E. (projected), in Maxwell Grant, on left bank 300 ft downstream from Eagle Nest Dam, 2 miles southeast of Eagle Nest, and 6¼ miles west of Ute Park.

Drainage area.--167 sq mi.

Gage.--Recording gage and Parshall flume. Prior to May 15, 1951, control was a 12-foot contracted weir; gage at same site at datum 0.81 ft higher. Altitude of present gage is 8,000 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements and theoretical rating for a 10-foot Parshall flume.

Bankfull stage.--Not known; flume depth is 2½ ft.

Remarks.--Flows completely regulated by outlet valves at Eagle Nest Dam. There has been no spillway discharge during period of this record. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	May 28, 1950	1.29	a132	1955	June 14, 1955	2.79	205
1951	Sept. 3, 1951	2.03	139	1956	May 9, 1956	1.29	58
1952	July 24, 1952	1.39	120	1957	June 19, 1957	2.02	125
1953	May 27, 1953	1.83	103	1958	Aug. 17, 1958	1.16	50
1954	May 23-25, 1954	0.97	36				

a Maximum May 10 to Sept. 30, 1950; probably yearly maximum.

2065. Cimarron Creek at Ute Park, N. Mex.
(Formerly published as Cimarron "River")

Location.--Lat 36°33'30", long 105°05'20", in Maxwell Grant, half a mile downstream from Ute Creek and 1 mile east of Ute Park, Colfax County.

Drainage area.--260 sq mi.

Gage.--Recording. Prior to Apr. 4, 1929, at site 300 ft upstream at different datum. Altitude of last used gage was 7,400 ft (estimated from elevation of nearby bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 350 cfs and extended by logarithmic plotting. Subject to moderate shifting.

Historical data.--Flood of Sept. 28 or 29, 1904, may have exceeded recorded maximum.

Remarks.--Records for 1915-30 furnished by State engineer of New Mexico. Storage began in Eagle Nest Reservoir in June 1917. Only controlled release (no spill) since that date. Diversions for irrigation could have some effect on the smaller peaks. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1910	Mar. 6, 1910	1.55	320	1918	Aug. 14, 1918	1.05	140
1911	July 24, 1911	1.43	280	1922	July 12-14, 1919	1.64	150
1912	Mar. 20, 1912	1.95	480				
1913	Apr. 7, 1913	1.24	173	1924	July 6, 1924	1.55	165
1914	May 1, 1914	1.85	480	1925	June 24, 1925	-	230
1915	April or May 1915	1.78	360	1926	May 24, 1926	-	170
1916	May 10, 1916	2.4	700	1927	Apr. 28, 1927	-	98
1917	May 16, 1917	1.35	250	1928	July 13, 1928	0.95	95

Peak stages and discharges of Cimarron Creek at Ute Park, N. Mex.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	May 22, 1929	2.77	125	1940	June 22, 1940	2.91	160
1930	July 13, 1930	-	330	1941	May 23, 1941	3.10	240
1931	Aug. 9, 1931	2.52	130	1942	May 12, 1942	3.43	404
1932	June 24, 1932	2.58	126	1943	Aug. 26, 1943	2.93	211
1933	June 12, 1933	2.72	144	1944	May 17, 18, 1944	3.33	354
1934	July 4, 1934	2.92	175	1945	May 5, 1945	2.89	217
1935	July 22, 1935	2.80	164	1946	Aug. 10, 1946	3.09	284
1936	May 29, 1936	2.77	155	1947	Aug. 11, 1947	2.87	220
1937	July 21, 1937	2.76	162	1948	May 25, 1948	2.66	155
1938	July 18, 1938	3.27	300	1949	June 3, 1949	2.64	150
1939	May 31, 1939	2.86	149	1950	May 17, 1950	2.78	158

2070. Cimarron Creek near Cimarron, N. Mex.
(Published as Cimarron "River" prior to 1953)

Location.--Lat 36°31'00", long 104°58'35", about sec.6, T.26 N., R.19 E. (projected), in Maxwell Grant, on right bank 3.8 miles west of Cimarron.

Drainage area.--294 sq mi.

Gage.--Recording. Datum of gage is 6,599.58 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 140 cfs and extended by logarithmic plotting and slope-area measurement at 540 cfs. Sand and gravel channel subject to moderate shifting.

Remarks.--Flow mostly regulated by Eagle Nest Reservoir. Of the 294 sq mi drainage area, 167 sq mi are above Eagle Nest Dam. Diversions and bypass flow would have some effect on the regulated peaks. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Sept. 8, 1950	3.00	a540	1955	May 19, 1955	1.65	166
1951	July 13, 1951	2.56	383	1956	July 16, 1956	1.66	169
1952	Sept. 12, 1952	2.82	486	1957	Aug. 10, 1957	2.43	325
1953	Aug. 18, 1953	2.47	374	1958	June 6, 1958	3.10	580
1954	July 29, 1954	2.86	524				

a Maximum recorded; record began May 26, 1950.

2075. Ponil Creek near Cimarron, N. Mex.

Location.--Lat 36°34'35", long 104°56'55", about sec.8, T.27 N., R.19 E. (projected), on left bank $1\frac{1}{2}$ miles downstream from confluence of Middle and North Ponil Creeks and 5 miles northwest of Cimarron.

Drainage area.--171 sq mi.

Gage.--Recording. Prior to May 8, 1922, at site about an eighth of a mile downstream at different datum; May 8, 1922, to Aug. 8, 1929, at site about three-eighths of a mile upstream at different datum. Altitude of present gage is 6,670 ft (from topographic map).

Stage-discharge relation.--1916-29: Not reliable.

1951-58: Defined by current-meter measurements below 115 cfs and extended on basis of slope-area measurements and by logarithmic plotting. Relation subject to moderate shifting.

Remarks.--Peak discharges probably not appreciably affected by diversions above station for irrigation of 200 to 300 acres. Records for 1916-29 furnished by State engineer of New Mexico. Base for partial-duration series, 150 cfs.

Peak stages and discharges of Ponil Creek near Cimarron, N. Mex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1916	Aug. 15, 1916	2.3	170	1955	July 20, 1955	4.90	1,080
1917	Aug. 15, 1917	2.5	200		July 29, 1955	3.84	508
1918	Aug. 14, 1918	2.5	200		Aug. 6, 1955	3.48	357
1924	May 14, 1924	3.4	290		Aug. 15, 1955	4.52	852
1928	July 19, 1928	4.3	270	1956	May 31, 1956	4.28	725
1929	Aug. 8, 1929	-	5,200		July 31, 1956	3.00	189
1948	September 1948	7.0	-		Aug. 19, 1956	4.99	1,140
1951	Aug. 21, 1951	2.93	166	1957	July 13, 1957	3.47	334
	Aug. 24, 1951	3.44	318		July 15, 1957	2.93	165
1952	Aug. 22, 1952	3.13	226		July 21, 1957	3.25	254
1953	May 28, 1953	3.56	388		July 26, 1957	3.60	395
1954	July 11, 1954	4.30	752		Aug. 3, 1957	3.05	198
	July 22, 1954	3.80	512		Aug. 9, 1957	5.51	1,530
	July 24, 1954	3.29	314		Aug. 11, 1957	3.50	350
	July 31, 1954	3.56	433		Aug. 15, 1957	2.88	155
	Aug. 7, 1954	3.07	276	1958	Apr. 22, 1958	3.30	194
1955	May 23, 1955	3.35	289		May 8, 1958	3.47	224
					May 28, 1958	3.05	150
					June 5, 1958	4.55	540
					Aug. 5, 1958	4.25	430
					Aug. 16, 1958	5.80	1,160
					Aug. 17, 1958	4.30	466
					Sept. 6, 1958	3.65	274

2085. Rayado Creek at Sauble Ranch, near Cimarron, N. Mex.

(Published as "Rayado River at Abreu's ranch" 1909-10, "near Abreu's ranch" 1911, 1913-14, 1916-24, "above Abreu's ranch" 1912, 1915, and as "Rayado River" prior to October 1953)

Location.--Lat 36°22', long 104°58', in sec.30, T.25 N., R.19 E. (projected), in Maxwell Grant, on left bank at Sauble Ranch, 10 miles southwest of Cimarron and 16 miles upstream from mouth.

Drainage area.--65 sq mi, approximately.

Gage.--Recording. Aug. 4, 1911, to Sept. 8, 1925, at two sites about 3 miles upstream at three different datums. Sept. 9, 1925, to July 16, 1934, at site 700 ft upstream at different datum. Altitude of present gage is 6,880 ft (from topographic map).

Stage-discharge relation.--1913-25: Well defined by current-meter measurements. 1925-34: Well defined by current-meter measurements below 80 cfs and extended by logarithmic plotting. 1935-58: Well defined by current-meter measurements below 270 cfs and extended on basis of one slope-area measurement and by logarithmic plotting. Relations subject to slight shifting.

Historical data.--A major flood occurred June 10, 1913 (maximum stage or discharge not determined). By comparison with other nearby streams and discharges at the mouth of the river, it appears that the maximum discharge for this flood exceeded that of all other floods during period of record. Another major flood probably occurred Sept. 29 or 30, 1904.

Remarks.--Station operated by Territory of New Mexico prior to October 1909. Base for partial-duration series, 100 cfs.

Peak stages and discharges of Rayado Creek at Sauble Ranch, near Cimarron, N. Mex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	Apr. 14, 1914	2.24	105	1941	May 22, 1941	3.70	440
	Apr. 30, 1914	3.30	240		June 3, 1941	3.04	220
	May 3, 1914	3.25	230		June 17, 1941	2.59	110
	May 16, 1914	2.46	125		Aug. 9, 1941	2.99	210
1917	Aug. 15, 1917	1.88	65	Aug. 12, 1941	2.60	115	
1918	May 9, 1918	2.65	95	Sept. 23, 1941	2.90	185	
1919	Apr. 18, 1919	3.56	205	1942	Apr. 14, 1942	3.84	450
	Apr. 23, 24, 1919	3.60	210		Apr. 23, 1942	4.94	850
	May 24, 1919	3.20	160		May 9, 1942	3.65	330
	May 27, 1919	3.05	145		June 7, 1942	3.29	228
	July 3, 1919	2.85	120		July 20, 1942	3.19	190
1920	May 21, 1920	3.2	160	1943	May 10, 1943	2.51	63
1924	Apr. 14, 1924	3.6	250	1944	May 11, 1944	3.65	350
	Apr. 21, 1924	3.0	175		May 29, 1944	3.00	150
	May 6, 1924	2.5	115	1945	May 4, 1945	3.04	160
1928	Apr. 27, 1928	2.70	212	1946	Aug. 20, 1945	3.05	162
	May 13, 1928	2.45	145		Sept. 2, 1946	3.00	132
1929	May 19, 1929	2.50	120	1947	May 10, 1947	3.11	135
	June 1, 1929	2.38	105	1948	Apr. 21, 1948	3.07	127
	Aug. 25, 1929	2.28	100		May 26, 1948	3.15	144
1930	Apr. 6, 1930	2.48	170	1949	June 30, 1949	3.47	216
	May 31, 1930	2.1	100		July 22, 1949	3.03	113
	July 13, 1930	2.70	235		July 29, 1949	2.99	104
1931	Oct. 1, 1930	2.20	120	1950	June 29, 1950	2.56	45
	Oct. 2, 1930	2.25	130	1951	July 30, 1951	2.70	55
	Oct. 11, 1930	2.50	180		1952	May 6, 1952	3.48
	Apr. 12, 1931	2.20	116	Aug. 1, 1952		3.21	113
	May 3, 1931	2.88	290	Sept. 13, 1952		3.91	295
	July 20, 1931	2.55	192	1953		May 28, 1953	3.53
Aug. 8, 1931	2.45	168	Aug. 3, 1953		3.45	172	
1932	May 12, 1932	2.95	a316		Aug. 16, 1953	3.20	119
1934	Aug. 18, 1934	2.90	230	1954	July 20, 1954	3.12	100
	1935	May 7, 1935	2.53		130	July 29, 1954	3.65
	May 17, 1935	3.24	340	1955	May 26, 1955	3.42	268
1936	July 8, 1936	2.40	105	Aug. 18, 1955	3.02	159	
1937	Apr. 13, 1937	3.56	a450	1956	Aug. 18, 1956	2.38	38
1938	June 1, 1938	2.25	85	1957	May 12, 1957	2.97	128
1939	Oct. 8, 1938	2.65	172		July 13, 1957	3.15	171
	Mar. 24, 1939	2.44	114		Aug. 5, 1957	2.97	126
	Apr. 5, 1939	2.65	165	1958	Apr. 5, 1958	3.03	148
1940	July 11, 1940	2.47	117		Apr. 22, 1958	3.85	319
	1941	May 6, 1941	4.10		600	June 6, 1958	3.87
					June 17, 1958	2.87	113

a Annual peak only.

2110. Cimarron Creek at Springer, N. Mex.
(Published as Cimarron "River" prior to 1953)

Location--Lat 36°21'30", long 104°35'50", in southeast corner of Maxwell Grant on left bank at Springer, Colfax County, 270 ft downstream from highway bridge, 6 miles downstream from Rayado Creek, and 6 miles upstream from mouth.

Drainage area--1,032 sq mi.

Gage--Nonrecording prior to Feb. 9, 1930; recording thereafter. Prior to July 13, 1934, and May 8 to July 16, 1942, at site 270 ft upstream from present gage at datums as follows: Prior to Nov. 20, 1924, at various datums; Nov. 20, 1924, to Feb. 8, 1930, at datum 3.34 ft higher than present gage; Feb. 9, 1930, to July 12, 1934, at datum 3.66 ft higher than present gage; May 8 to July 16, 1942, at datum 3.33 ft lower than present gage. July 13, 1934, to Apr. 13, 1942, at site 30 ft downstream at different datum. Altitude of present gage is 5,770 ft (from nearby level line).

Stage-discharge relation--1930-34: Fairly well defined by current-meter measurements below 810 cfs.

1935-42: Well defined by current-meter measurements below 1,300 cfs.

1943-58: Well defined by current-meter measurements below 1,700 cfs.

All ratings extended by logarithmic plotting. Relation subject to shifting.

Historical data--Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 10,000 cfs; largest floods known to local residents since 1893. Large flood on July 29, 1927, was reported by observer.

Remarks--Station operated by State engineer of New Mexico from Dec. 20, 1919, to July 1, 1931. Flow partly regulated by Eagle Nest Reservoir since June 1917. Diversion for irrigation of about 23,000 acres; peak discharges not appreciably affected. Base for partial-duration series, 500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Sept. 29, 1904	22.0	-	1938	Aug. 10, 1938	6.00	1,380
					Sept. 4, 1938	5.83	1,290
1930	July 14, 1930	3.50	835	1939	Oct. 8, 1938	5.86	1,250
1931	Oct. 11, 1930	4.00	a1,130		Aug. 20, 1939	4.40	595
1932	May 21, 1932	3.44	802	1940	May 7, 1940	4.15	460
1933	June 14, 1933	4.02	a1,130	1941	May 2, 1941	6.37	1,620
1934	July 23, 1934	4.55	590		May 24, 1941	5.80	1,310
1935	May 23, 1935	4.70	650		July 24, 1941	5.11	965
	June 26, 1935	8.28	3,000		Sept. 23, 1941	4.95	898
	Aug. 27, 1935	8.70	3,420	1942	Apr. 23, 1942	b10.11	5,000
	Aug. 29, 1935	5.28	1,000		May 12, 1942	10.3	1,030
1936	June 9, 1936	5.12	920		May 22, 1942	10.5	1,130
1937	June 1, 1937	7.70	2,410		July 1, 1942	9.1	500
	June 3, 1937	9.15	3,690		Sept. 1, 1942	7.35	2,510
	Sept. 7, 1937	5.48	1,020		Sept. 4, 1942	5.26	956
1938	June 25, 1938	5.28	945	1943	Aug. 14, 1943	4.16	363
	June 27, 1938	7.34	2,330	1944	May 17, 1944	4.58	505
				1945	Aug. 8, 1945	4.54	500

a Annual maximum only.

b Referred to present datum.

Peak stages and discharges of Cimarron Creek at Springer, N. Mex.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1945	Aug. 21, 1945	5.80	1,300	1951	Aug. 21, 1951	8.11	2,900	
1946	July 20, 1946	5.20	740	1952	Sept. 13, 1952	7.11	1,830	
	Aug. 9, 1946	7.70	2,700		1953	Aug. 17, 1953	5.36	505
	Aug. 29, 1946	4.81	630	Aug. 19, 1953		7.5	2,200	
	Sept. 7, 1946	6.33	1,690	1954	May 24, 1954	6.00	1,030	
1947	June 24, 1947	5.58	840		1955	Oct. 6, 1954	5.56	656
	July 2, 1947	5.54	810			May 19, 1955	7.25	1,170
	Aug. 15, 1947	5.04	520	Aug. 15, 1955		7.94	1,600	
1948	Feb. 23, 1948	5.92	1,040	Aug. 19, 1955	6.33	690		
	May 31, 1948	9.25	4,090	1956	Aug. 20, 1956	5.43	394	
1949	May 15, 1949	5.89	1,040		1957	July 30, 1957	5.28	316
	June 7, 1949	5.14	580			1958	Oct. 19, 1957	6.63
	June 18, 1949	5.87	1,000	Apr. 24, 1958			6.05	600
1950	July 12, 1950	4.72	293	May 15, 1958	6.89	1,020		
	1951	May 16, 1951	5.81	1,040	May 25, 1958	6.08	612	
June 15, 1951		5.16	602	June 6, 1958	10.55	6,250		
July 30, 1951		7.59	2,450					
Aug. 19, 1951		6.02	1,040					

2115. Canadian River near Taylor Springs, N. Mex.

Location--Lat 36°17'20", long 104°29'10", in NW $\frac{1}{4}$ sec. 27, T. 24 N., R. 23 E., on left bank 1 mile upstream from Chico Creek, 2 $\frac{1}{2}$ miles downstream from Cimarron Creek, and 2 $\frac{1}{2}$ miles south of Taylor Springs.

Drainage area--2,853 sq mi.

Gage--Recording. Altitude of gage is 5,600 ft (from topographic map).

Stage-discharge relation--Well defined by current-meter measurements below 9,800 cfs and extended on basis of slope-area measurements at 21,700 cfs and 41,000 cfs. Relation subject to shifting.

Historical data--Maximum known flood occurred Sept. 29, 1904 (about 90,000 cfs). Flood of July 22, 1927, is believed to be one of the five highest peaks of record.

Remarks--Peak discharges not appreciably affected by diversions above station for irrigation of about 30,000 acres. Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Aug. 7, 1940	10.20	7,830	1946	Aug. 9, 1946	9.50	6,730
1941	Apr. 28, 1941	8.21	4,450		Aug. 20, 1946	7.98	4,390
	May 2, 1941	18.79	24,800	Aug. 24, 1946	11.25	9,780	
	June 1, 1941	9.47	6,250	Aug. 29, 1946	14.30	15,100	
	July 13, 1941	7.55	3,740	Sept. 7, 1946	8.47	5,110	
	July 14, 1941	7.30	3,410	Sept. 15, 1946	9.30	6,390	
	Sept. 19, 1941	8.70	5,090	1947	July 2, 1947	16.9	22,000
	Sept. 20, 1941	10.26	7,530		July 6, 1947	18.9	25,000
	Sept. 22, 1941	10.09	7,200	1948	Feb. 23, 1948	7.32	3,370
	Sept. 23, 1941	14.33	15,100		May 31, 1948	11.82	9,840
	1942	Apr. 23, 1942	24.17		37,400	June 1, 1948	10.57
Aug. 14, 1942		7.23	3,300	June 3, 1948	7.69	3,990	
Sept. 1, 1942		11.98	10,600	1949	May 15, 1949	9.36	6,100
Sept. 2, 1942		24.00	37,000		June 19, 1949	7.55	3,740
Sept. 4, 1942		7.55	3,740		June 22, 1949	8.45	4,700
1943	July 15, 1943	5.88	2,440	1950	July 4, 1950	9.07	5,090
1944	May 28, 1944	7.20	3,250		July 11, 1950	8.85	4,800
	Aug. 6, 1944	9.76	7,090		July 19, 1950	7.90	3,740
1945	Aug. 21, 1945	5.26	1,400		July 21, 1950	11.00	8,560
				July 26, 1950	7.08	3,000	

Peak stages and discharges of Canadian River near Taylor Springs, N. Mex.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Aug. 2, 1950	13.24	12,900	1955	Apr. 29, 1955	9.45	6,220
	Sept. 18, 1950	7.90	3,500		May 19, 1955	18.68	24,500
1951	Aug. 10, 1951	9.41	5,860		July 12, 1955	12.95	12,400
	Aug. 25, 1951	9.04	5,720	1956	July 17, 1956	6.10	2,100
1952	Aug. 23, 1952	7.08	3,100		1957	July 8, 1957	7.35
	Sept. 13, 1952	11.95	9,950	Aug. 5, 1957		14.05	14,000
1953	July 19, 1953	8.48	4,830	1958	Oct. 19, 1957	11.35	9,650
	Aug. 20, 1953	10.76	8,380		May 15, 1958	12.65	11,800
1954	Aug. 7, 1954	7.15	3,240		June 6, 1958	11.18	9,060
					July 6, 1958	8.25	4,580
1955	Oct. 6, 1954	7.40	3,520		Sept. 15, 1958	7.58	3,580

2137. Canadian River tributary near Mills, N. Mex.

Location--Lat 36°10'00", long 104°15'47", in NE $\frac{1}{4}$ sec. 3, T. 22 N., R. 25 E., on downstream end of left bridge abutment on State Highway 39, 6 miles north of Mills.

Drainage area--4.2 sq mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined by two indirect measurements and one current-meter measurement.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	1954	0.75	4.3	1956	July 1956	1.34	54
1955	May 18, 1955	2.07	190	1957	1957	3.99	918
				1958	1958	3.40	630

2140. Canadian River near Roy, N. Mex.

Location--Lat 35°55'10", long 104°21'10", in E $\frac{1}{2}$ sec. 35, T. 20 N., R. 24 E., on right bank 1,080 ft upstream from bridge on State Highway 120 and 9 miles west of Roy.

Drainage area--4,066 sq mi, of which about 3,959 sq mi contributes directly to surface runoff.

Gage--Recording. Prior to Oct. 9, 1942, Jan. 5, 1943, to Jan. 20, 1945, and Aug. 6, 1945, to Apr. 30, 1946, at site 1,080 ft downstream at datum 0.61 ft lower. Datum of present gage is 4,893.55 ft above mean sea level (levels by Corps of Engineers).

Stage-discharge relation--Downstream gage: Well defined by current-meter measurements below 28,000 cfs and extended on basis of surface-float measurement of 43,800 cfs and logarithmic plotting.

Upstream gage: Fairly well defined by current-meter measurements throughout. Relation subject to shifting.

Historical data--Maximum known flood occurred Sept. 29 or 30, 1904.

Remarks--Records prior to Jan. 1, 1940, furnished by Corps of Engineers. Peak discharges not appreciably affected by diversions above station for irrigation of about 30,000 acres. Base for partial-duration series, 4,000 cfs.

Peak stages and discharges of Canadian River near Roy, N. Mex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	June 10, 1936	3.90	4,200	1948	May 31, 1948	7.28	8,400
	June 12, 1936	4.35	5,900		June 1, 1948	6.72	6,800
1937	June 2, 1937	6.70	13,500		June 20, 1948	5.50	4,300
	June 3, 1937	12.20	48,100	1949	May 16, 1949	5.76	4,800
	June 26, 1937	6.90	14,500		1950	July 4, 1950	5.04
	Sept. 8, 1937	6.55	13,000	July 20, 1950		9.20	15,700
	1938	June 14, 1938	9.60	29,600		July 21, 1950	7.00
June 27, 1938		5.10	7,540	Aug. 2, 1950		9.50	17,000
July 17, 1938		5.10	7,540	Sept. 8, 1950	7.60	9,700	
Sept. 5, 1938		4.10	4,490	1951	July 4, 1951	5.76	4,670
1939	Oct. 9, 1938	5.48	9,200		July 12, 1951	5.82	4,770
	Aug. 7, 1939	4.22	4,780		Aug. 10, 1951	10.78	20,900
1940	Aug. 7, 1940	4.22	4,570		Aug. 25, 1951	5.65	4,480
	1941	May 2, 1941	10.33	34,700	1952	Aug. 5, 1952	8.70
June 1, 1941		4.59	6,020	Aug. 21, 1952		10.50	20,000
Aug. 13, 1941		4.13	4,640	Sept. 13, 1952		7.55	9,700
Sept. 23, 1941		7.20	16,700	1953	Aug. 20, 1953	8.06	11,300
1942	Apr. 23, 1942	14.22	63,800		1954	Aug. 8, 1954	3.73
	Sept. 2, 1942	13.80	60,500	1955		Oct. 5, 1954	7.70
1943	Oct. 17, 1942	4.36	2,320		Apr. 30, 1955	7.62	8,820
	1944	Aug. 6, 1944	4.39		4,640	May 19, 1955	14.60
1945		July 13, 1945	5.35		4,000	July 12, 1955	8.00
	1946	Aug. 10, 1946	5.90	5,100	1956	Aug. 21, 1956	4.58
Aug. 25, 1946		5.98	5,400	1957		July 9, 1957	6.43
Aug. 27, 1946		7.72	10,000		Aug. 5, 1957	6.85	5,720
Aug. 29, 1946		10.51	20,000		1958	Oct. 19, 1957	7.50
Sept. 1, 1946		7.35	8,700	May 15, 1958		9.60	14,800
1947	Oct. 4, 1946	6.65	6,700	June 6, 1958		7.00	6,750
	July 2, 1947	9.95	18,000	June 20, 1958		7.65	8,380
	July 7, 1947	12.00	28,000	Aug. 16, 1958	8.84	11,900	

2145. Rio Agua Negra near Holman, N. Mex.

Location.--Lat 36°07'00", long 105°22'35", on right bank 150 ft upstream from bridge, 2½ miles south of Chacon, 4½ miles downstream from confluence of Luna and Lujan Creeks, 5.0 miles north of Holman, 8½ miles southwest of Guadalupita, Mora County.

Drainage area.--57 sq mi.

Gage.--Recording. Altitude of gage is 7,876 ft (by barometer).

Stage-discharge relation.--Fairly well defined at medium and high stages by current-meter measurements and one slope-area measurement. Relation subject to moderate shift corrections.

Historical data.--Major floods are known to have occurred in this area on Sept. 29, 1904, and June 11, 1913, and probably exceeded recorded maximum.

Remarks.--Diversion for irrigation of about 1,600 acres may have slight effect on peaks near base discharge, but diversion ditches are small in capacity. Base for partial-duration series, 150 cfs.

Peak stages and discharges of Rio Agua Negra near Holman, N. Mex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	June 25, 1954	3.20	231	1957	July 12, 1957	2.57	210
	July 9, 1954	2.83	134		July 14, 1957	4.90	2,080
	July 21, 1954	3.31	258		July 16, 1957	2.14	310
	July 22, 1954	6.10	4,700		July 28, 1957	4.00	1,070
	Aug. 25, 1954	3.25	315		Aug. 4, 1957	2.80	314
1955	Aug. 8, 1955	2.82	314	1958	Aug. 24, 1957	3.28	515
	Aug. 11, 1955	2.43	188		Aug. 31, 1957	3.07	418
	Aug. 16, 1955	2.65	254		Apr. 22, 1958	2.65	254
	Aug. 19, 1955	2.77	295		May 8, 1958	2.72	281
	Aug. 29, 1955	2.35	168		June 6, 1958	5.62	3,880
1956	July 30, 1956	5.40	3,000	Aug. 20, 1958	3.11	414	
	Aug. 18, 1956	2.97	441				

2155. Mora River at La Cueva, N. Mex.

Location.--Lat 35°56'15", long 105°15'05", in Mora Grant, on right downstream wingwall of highway bridge at La Cueva, Mora County, a quarter of a mile downstream from Las Vegas-Mora highway bridge and half a mile downstream from La Cueva damsite.

Drainage area.--173 sq mi.

Gage.--Recording. Altitude of gage is 6,890 ft (from topographic map).

Stage-discharge relation.--Fairly well defined by current-meter measurements below 400 cfs and extended by logarithmic plotting. Relation subject to moderate shifting.

Bankfull stage.--10 to 11 ft.

Historical data.--Flood of Sept. 29, 1904, may have exceeded 20,000 cfs. Another major flood occurred June 11, 1913, which is believed to be less than that in 1904.

Remarks.--Peak discharges not appreciably affected by diversions for irrigation of about 7,000 acres. Base for partial-duration series, 300 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1931	May 2, 1931	3.20	500	1941	May 11, 1941	4.65	740
	Sept. 24, 1931	3.05	460		May 22, 1941	5.10	850
1932	June 28, 1932	3.05	a460		June 4, 1941	3.51	545
					June 25, 1941	2.74	380
1934	July 26, 1934	1.32	70		July 16, 1941	4.07	678
				Aug. 28, 1941	3.33	512	
1935	May 19, 1935	4.60	625	Sept. 23, 1941	7.58	1,530	
				1942	Oct. 24, 1941	2.65	347
					Apr. 17, 1942	3.35	512
1936	Sept. 19, 1936	6.31	1,000	Apr. 23, 1942	6.50	1,260	
				May 11, 1942	2.87	440	
1937	June 1, 1937	4.95	710	May 22, 1942	3.20	506	
				Aug. 14, 1942	4.20	726	
1938	June 26, 1938	7.16	1,210	1943	Aug. 16, 1943	3.33	539
					Aug. 17, 1943	2.39	334
					Aug. 18, 1943	2.65	396
					Aug. 26, 1943	2.47	352
					1944	May 16, 1944	2.65
				July 1, 1944		2.29	315
1939	Oct. 8, 1938	-	b700	July 6, 1944	2.27	310	
				1945	Aug. 20, 1945	2.26	308
1940	Aug. 5, 1940	7.62	1,340		1946	Aug. 9, 1946	4.98
1941	May 2, 1941	5.49	850				

a Annual peak only.

b Estimated on basis of records for Mora River near Golondrinas.

Peak stages and discharges of Mora River at La Cueva, N. Mex.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Sept. 1, 1946	5.93	1,050	1954	Aug. 6, 1954	5.30	817
	Sept. 2, 1946	3.28	440		Aug. 8, 1954	2.55	322
	Sept. 7, 1946	2.82	341				
1947	Aug. 22, 1947	2.26	323	1955	Oct. 5, 1954	2.58	338
1948	May 25, 1948	2.94	449	July 11, 1955	7.07	1,090	
	June 3, 1948	2.44	359	July 30, 1955	3.75	575	
	June 11, 1948	2.53	377	Aug. 6, 1955	4.71	728	
	July 22, 1948	5.02	789	Aug. 15, 1955	2.80	377	
	Aug. 4, 1948	6.05	940	Aug. 21, 1955	3.05	431	
1949	May 11, 1949	3.47	526	1956	July 19, 1956	2.65	338
	July 22, 1949	2.63	395		July 30, 1956	3.05	431
	July 23, 1949	2.20	325	1957	May 30, 1957	3.04	302
	Aug. 17, 1949	3.49	543		July 31, 1957	4.22	504
1950	July 12, 1950	3.72	577	Aug. 5, 1957	5.31	726	
				Aug. 16, 1957	5.85	842	
				Aug. 22, 1957	4.05	489	
1951	Aug. 1, 1951	2.91	405	Aug. 25, 1957	3.52	392	
	Aug. 4, 1951	2.72	355	Aug. 28, 1957	3.51	392	
1952	Aug. 21, 1952	4.48	685	Aug. 30, 1957	3.89	466	
	Aug. 25, 1952	2.82	375	1958	Oct. 12, 1957	3.76	308
1953	July 19, 1953	3.57	565	Oct. 20, 1957	4.85	466	
				Apr. 20, 1958	4.88	797	
1954	July 22, 1954	3.62	549	May 8, 1958	4.20	634	
	July 23, 1954	2.77	379	June 6, 1958	6.52	1,190	
				Aug. 4, 1958	3.02	362	
				Aug. 23, 1958	3.45	448	

2165. Mora River near Golondrinas, N. Mex.

Location.--Lat 35°53'40", long 105°09'30", in Mora Grant, at downstream end of left abutment of highway bridge, 1.2 miles upstream from Coyote Creek, 2 miles east of Golondrinas, Mora County, and 4 miles downstream from Cebolla River.

Drainage area.--267 sq mi.

Gage.--Recording. Prior to June 5, 1921, at site $3\frac{1}{2}$ miles upstream at different datum. Altitude of gage is 6,730 ft (from topographic map).

Stage-discharge relation.--1915-20: Fairly well defined by current-meter measurements below 440 cfs; extended by logarithmic plotting.

1929-58: Well defined by current-meter measurements below 440 cfs; extended on basis of slope-area measurement of 14,000 cfs. Relation subject to shifting.

Historical data.--Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 25,000 cfs.

Remarks.--Station operated by State engineer of New Mexico prior to July 1931. Peak discharges not appreciably affected by diversions for irrigation of about 9,000 acres. Base for partial-duration series, 400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1916	Aug. 1, 1916	3.1	400	1919	July 16, 1919	3.34	895
					July 19, 1919	2.80	600
1917	May 17, 1917	1.97	170	Aug. 1, 1919	2.67	530	
				1920	May 22, 1920	-	250
1918	July 6, 1918	2.3	350	1929	May 21, 1929	8.10	1,750
					May 31, 1929	7.10	1,300
					July 24, 1929	4.25	500
					Aug. 8, 1929	5.3	760
					Aug. 11, 1929	5.6	850
					Sept. 23, 1929	6.90	1,200

Peak stages and discharges of Mora River near Golondrinas, N. Mex.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	July 14, 1930	4.55	550	1942	Sept. 12, 1942	4.20	420
	July 24, 1930	5.00	660				
	Aug. 4, 1930	6.65	1,050	1943	Aug. 18, 1943	4.47	472
	Aug. 10, 1930	5.60	850				
	Sept. 2, 1930	3.93	420				
1931	May 2, 1931	5.05	585	1945	Sept. 1, 1945	4.72	378
	Sept. 10, 1931	4.53	480				
	Sept. 24, 1931	4.52	480	1946	Aug. 9, 1946	5.48	517
			Sept. 1, 1946				
1932	July 2, 1932	4.53	a475	1947	Aug. 25, 1947	4.70	378
1935	May 18, 1935	7.98	1,690				
	Aug. 4, 1935	5.66	660				
	Aug. 21, 1935	4.75	470				
	Aug. 27, 1935	5.71	670				
1936	May 28, 1936	5.60	643	1949	May 12, 1949	5.84	629
	July 13, 1936	5.48	620		June 18, 1949	8.80	2,200
	Sept. 20, 1936	4.74	470		July 23, 1949	5.26	528
1937	June 1, 1937	8.10	1,750	1950	July 13, 1950	5.88	606
1938	June 26, 1938	7.78	1,580	1951	July 31, 1951	7.18	1,100
	Sept. 3, 1938	6.83	957		Aug. 5, 1951	4.90	416
	Sept. 6, 1938	7.08	1,010	1952	Aug. 22, 1952	14.40	14,000
	Sept. 15, 1938	4.64	400				
1939	Oct. 8, 1938	6.29	776	1953	July 17, 1953	5.46	660
	July 30, 1939	5.16	483		July 19, 1953	5.26	600
1940	Aug. 6, 1940	7.83	1,580	1954	Aug. 6, 1954	5.36	633
1941	May 2, 1941	8.37	1,930	1955	July 12, 1955	5.05	562
	May 22, 1941	6.13	940		Aug. 6, 1955	4.68	470
	June 3, 1941	4.98	650	1956	May 23, 1956	6.17	875
	June 16, 1941	4.14	450				
	July 12, 1941	4.30	498	1957	July 8, 1957	5.43	650
	July 16, 1941	4.2	498		Aug. 4, 1957	5.58	707
	Aug. 12, 1941	4.5	533	1958	Oct. 12, 1957	4.79	506
	Sept. 23, 1941	8.88	2,270		Oct. 19, 1957	6.88	2,030
	Sept. 29, 1941	5.40	754		Apr. 17, 1958	5.53	766
					May 8, 1958	5.40	598
1942	Apr. 18, 1942	6.40	980	June 6, 1958	5.47	778	
	Apr. 23, 1942	10.40	3,680				
	Sept. 1, 1942	4.82	585				
	Sept. 4, 1942	5.12	635				

a Annual maximum only.

2170. Coyote Creek below Black Lake, N. Mex.

Location.--Lat 36°16'20", long 105°14'50", in NW¼ sec. 33, T.14 N., R.16 E., on right bank 150 ft downstream from road crossing, a quarter of a mile downstream from Black Lake, 2 miles south of Black Lake Village, and 12 miles south of Agua Fria.

Drainage area.--48 sq mi.

Gage.--Recording. Altitude of gage is 8,450 ft (from topographic map).

Stage-discharge relation.--Only fair definition at upper stages by current-meter measurements and one slope-area measurement. Subject to moderate shift corrections at all stages.

Bankfull stage.--3½ ft.

Historical data.--Peak of 1958 probably is highest since about 1904, on basis of weather records and information on nearby streams.

Remarks.--Some regulation from Black Lake. Diversions for irrigation of several hundred acres would have little effect on medium to high peaks. Base for partial-duration series, 15 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Coyote Creek below Black Lake, N. Mex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Apr. 9, 1953	1.73	a18	1957	Aug. 19, 1957	1.91	15
1954	Feb. 18, 1954	1.05	5.0		Aug. 25, 1957	2.81	59
					Aug. 31, 1957	3.10	73
1955	May 22, 1955	2.73	44	1958	Oct. 21, 1957	2.65	44
	Aug. 20, 1955	1.75	16		Feb. 26, 1958	2.61	42
1956	Mar. 5, 1956	1.57	12		Mar. 28, 1958	2.51	38
1957	Apr. 1, 1957	1.90	19		Apr. 3, 1958	2.44	34
	May 11, 1957	2.65	55		Apr. 8, 1958	2.19	24
	May 16, 1957	2.20	31		Apr. 18, 1958	3.94	295
	June 1, 1957	3.02	76		May 14, 1958	3.37	121
					June 6, 1958	4.70	913

a Record incomplete, but probably annual maximum.

2180. Coyote Creek near Golondrinas, N. Mex.

Location.--Lat 35°54'40", long 105°09'50", in Mora Grant, on left bank a third of a mile downstream from Coyote Creek damsite, 2 miles upstream from mouth, and 2 miles northeast of Golondrinas.

Drainage area.--215 sq mi.

Gage.--Recording. Prior to Apr. 26, 1938, at site 0.4 mile downstream at different datum. Apr. 26, 1938, to Sept. 25, 1946, at site 139 ft downstream at same datum. Altitude of present gage is 6,820 ft (from topographic map).

Stage-discharge relation.--Prior to April 1938, well defined by current-meter measurements below 250 cfs and extended by logarithmic plotting.

April 1938-58: Fairly well defined by current-meter measurements below 250 cfs and extended on basis of slope-area measurements at 990 and 2,320 cfs. Relation subject to moderate shifting.

Remarks.--Peak discharges not appreciably affected by diversions (including off-channel storage) for irrigation of about 4,000 acres. Base for partial-duration series, 175 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	May 21, 1929	3.55	200	1937	July 10, 1937	3.65	220
	Aug. 11, 1929	4.24	400				
	Sept. 22, 1929	9.25	2,700	1938	June 26, 1938	4.52	714
1930	Aug. 9, 1930	4.1	350		July 14, 1938	3.21	175
1931	May 3, 1931	3.60	212		July 17, 1938	3.25	185
1932	May 12, 1932	3.52	a197	1939	Oct. 8, 1938	3.47	244
1933	June 20, 1933	4.91	a685		Sept. 17, 1939	4.00	520
1934	July 7, 1934	3.46	175	1940	Aug. 5, 1940	3.50	293
	July 8, 1934	3.63	219		Sept. 20, 1940	4.35	650
1935	May 18, 1935	5.20	835	1941	Apr. 28, 1941	3.02	295
	May 23, 1935	4.84	650		May 2, 1941	4.92	950
	Aug. 3, 1935	5.00	730		May 22, 1941	2.99	290
	Aug. 10, 1935	3.50	191		June 4, 1941	3.32	380
	Aug. 21, 1935	4.53	508		June 24, 1941	2.60	195
	Aug. 27, 1935	4.35	435		July 12, 1941	4.10	640
1936	May 30, 1936	7.10	1,800		July 14, 1941	3.55	450
	July 13, 1936	4.40	455		July 28, 1941	2.85	250
	Aug. 3, 1936	3.43	175		Sept. 21, 1941	2.76	230
	Aug. 5, 1936	3.55	202		Sept. 23, 1941	4.65	840
	Aug. 30, 1936	10.1	3,020	1942	Oct. 4, 1941	2.54	190
	Sept. 7, 1936	4.14	359		Oct. 24, 1941	2.88	280
	Sept. 22, 1936	4.36	439		Apr. 18, 1942	3.40	410
1937	May 31, 1937	4.70	540		Apr. 23, 1942	6.44	1,700
	June 1, 1937	6.62	1,550		July 20, 1942	2.68	225
	June 3, 1937	6.63	1,550		Aug. 14, 1942	4.16	700
	June 26, 1937	7.19	1,840		Aug. 18, 1942	3.25	390
				1943	Sept. 1, 1942	3.10	350
					Aug. 18, 1943	2.97	321
					Aug. 26, 1943	2.74	255

a Records incomplete; annual peak only.

Peak stages and discharges of Coyote Creek near Golondrinas, N. Mex.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	July 5, 1944	2.62	172	1953	May 29, 1953	3.40	201
					June 17, 1953	3.63	236
1945	Aug. 21, 1945	4.25	550		July 17, 1953	3.50	220
	Aug. 31, 1945	3.79	380		July 19, 1953	3.83	282
1946	July 19, 1946	3.27	230		Aug. 17, 1953	7.70	2,320
	Aug. 9, 1946	4.82	800		Sept. 1, 1953	3.75	240
	Aug. 25, 1946	3.28	230	1954	July 24, 1954	3.76	230
	Sept. 1, 1946	3.33	240		Aug. 6, 1954	4.80	516
1947	May 7, 1947	3.61	260	1955	May 19, 1955	4.25	415
	Aug. 22, 1947	3.40	210		July 11, 1955	8.60	3,200
1948	May 25, 1948	3.68	296		July 13, 1955	3.35	200
	July 6, 1948	4.99	710		July 23, 1955	4.55	512
	Aug. 1, 1948	3.40	237		Aug. 14, 1955	3.35	200
1949	May 12, 1949	4.16	418		Aug. 18, 1955	4.30	430
	July 22, 1949	5.55	1,100	1956	Aug. 30, 1955	3.95	332
	July 29, 1949	3.55	213		May 23, 1956	3.53	228
	Aug. 3, 1949	4.30	404	1957	May 30, 1957	4.87	640
	Aug. 17, 1949	3.83	272		May 31, 1957	3.58	210
1950	July 10, 1950	3.45	191		July 9, 1957	5.32	845
	July 12, 1950	3.49	203		July 12, 1957	3.52	192
	July 21, 1950	4.00	340		Aug. 5, 1957	4.73	548
	Aug. 1, 1950	4.74	610		Aug. 28, 1957	4.16	354
1951	May 17, 1951	3.43	219	1958	Aug. 30, 1957	4.25	382
	July 18, 1951	3.85	305		Oct. 12, 1957	4.30	431
	July 23, 1951	3.59	246		Oct. 19, 1957	6.50	1,540
	July 30, 1951	4.24	442		Apr. 19, 1958	5.04	663
	July 31, 1951	4.78	670		June 6, 1958	4.95	668
1952	Aug. 13, 1952	3.32	184		July 2, 1958	4.15	360
	Aug. 22, 1952	4.00	331		Aug. 16, 1958	3.48	181

2209. Dog Creek near Shoemaker, N. Mex.

Location--Lat 35°49'32", long 104°53'28", 0.5 mile upstream from Valmora-Shoemaker road and 1.8 miles northwest of Shoemaker.

Drainage area--11.2 sq mi.

Gage--Crest-stage gage.

Stage-discharge relation--Poorly defined by two indirect measurements and one current-meter measurement.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	-	9.25	1,160	1956	July 23, 1956	8.21	702
1955	Sept. 25, 1955	9.92	1,530	1957	July 1957	8.21	702
				1958	Aug. 24, 1958	9.26	1,170

2210. Mora River near Shoemaker, N. Mex.

Location.--Lat 35°48', long 104°47', in Mora Grant, on left bank $4\frac{1}{2}$ miles east of Shoemaker, Mora County, and 23 miles upstream from mouth.

Drainage area.--1,104 sq mi, of which about 1,033 sq mi contributes directly to surface runoff.

Gage.--Recording. Prior to Oct. 11, 1934, at site 2,000 ft upstream at different datum. Altitude of present gage is 6,170 ft (from topographic map).

Stage-discharge relation.--1914-34: Fairly well defined by current-meter measurements below 1,300 cfs and extended on basis of rating at site 2,000 ft downstream.

1934-58: Well defined by current-meter measurements below 2,800 cfs and extended on basis of slope-area measurements at 8,200 and 15,300 cfs. Relation subject to shifts.

Historical data.--Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 30,000 cfs.

Remarks.--Records collected by State engineer of New Mexico Jan. 1, 1915, to Sept. 30, 1930. Peak discharges not appreciably affected by diversions for irrigation of about 26,000 acres. Base for partial-duration series, 800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Apr. 16-21, 1915	6.27	a3,100	1931	Oct. 2, 1930	5.24	2,100
1916	Aug. 28, 1916	2.85	640	1931	May 3, 1931	4.55	1,500
1917	May 18, 1917	1.82	175	1931	Sept. 22, 1931	3.75	1,000
1918	Aug. 8, 1918	3.50	900	1932	May 12, 1932	3.30	790
	Aug. 15, 1918	5.40	2,200	1933	June 12, 1933	5.52	a2,300
1919	Apr. 12, 1919	4.65	1,800	1934	May 26, 1934	4.30	1,300
	Apr. 27, 28, 1919	-	b1,600	1934	July 7, 1934	3.73	1,000
	May 10, 1919	3.7	1,100	1934	Sept. 1, 1934	3.48	850
	May 24, 1919	4.78	1,900	1935	May 18, 1935	6.14	3,100
	July 8, 1919	5.1	2,100	1935	Aug. 4, 1935	5.02	1,770
	July 17, 1919	5.65	2,500	1935	Aug. 21, 1935	4.17	1,040
	July 28, 1919	4.45	1,400	1935	Aug. 29, 1935	5.30	2,080
	Aug. 16, 1919	3.50	890	1935	Sept. 2, 1935	3.84	834
1920	May 9, 1920	4.00	1,200	1936	May 30, 1936	3.83	828
1921	June 4, 1921	11.1	11,000	1936	Aug. 31, 1936	4.34	1,200
	June 10, 1921	3.95	1,100	1937	June 3, 1937	10.41	9,260
	June 14, 1921	4.35	1,400	1937	July 11, 1937	3.83	884
	June 18, 1921	3.88	1,100	1937	July 20, 1937	4.80	1,580
	July 4, 1921	6.10	2,900	1938	June 8, 1938	3.96	912
	July 19, 1921	5.10	2,000	1938	June 12, 1938	8.0	5,300
	July 22, 1921	6.35	3,200	1938	June 13, 1938	7.51	4,600
	July 24, 1921	6.17	3,000	1938	June 27, 1938	5.10	1,880
	July 28, 1921	5.37	2,200	1938	July 18, 1938	5.53	2,360
	Aug. 11, 1921	4.38	1,400	1938	July 20, 1938	5.94	2,840
	Aug. 15, 1921	4.66	1,600	1938	Sept. 3, 1938	5.10	1,880
	Aug. 19, 1921	3.88	1,100	1938	Sept. 5, 1938	4.58	1,430
1922	July 1, 1922	2.02	190	1938	Sept. 7, 1938	4.09	1,060
1924	Dec. 27, 1923	5.18	2,000	1939	Oct. 8, 1938	7.15	4,210
1927	Aug. 3, 1927	6.95	3,900	1939	July 28, 1939	5.01	1,830
	Aug. 10, 1927	7.15	4,200	1940	June 21, 1940	7.20	4,210
	Aug. 21, 1927	3.86	1,100	1940	Aug. 6, 1940	4.69	1,510
1928	May 12, 1928	2.17	239	1940	Aug. 8, 1940	4.73	1,560
1929	May 22, 1929	6.8	3,700	1941	Apr. 29, 1941	3.89	1,020
	May 31, 1929	7.75	5,000	1941	May 2, 1941	7.17	4,210
	July 18, 1929	3.80	1,040	1941	May 12, 1941	5.16	1,980
	Aug. 11, 1929	-	b2,000	1941	May 22, 1941	5.90	2,790
	Sept. 23, 1929	6.15	3,000	1941	May 30, 1941	4.93	1,800
1930	July 14, 1930	5.25	2,100	1941	June 4, 1941	5.22	2,110
	July 23, 1930	4.18	1,300	1941	June 16, 1941	4.03	1,120
	Aug. 11, 1930	4.10	1,200	1941	June 24, 1941	3.77	930
				1941	July 13, 1941	7.65	4,730
				1941	July 21, 1941	8.17	5,570

a Records incomplete; annual peak only.

b Estimated on basis of records for station near Golondrinas.

Peak stages and discharges of Mora River near Shoemaker, N. Mex.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1941	July 24, 1941	3.88	1,050	1949	July 22, 1949	4.09	1,090		
	Aug. 12, 1941	3.63	900		July 31, 1949	4.20	1,160		
	Sept. 20, 1941	6.66	3,590		Sept. 10, 1949	7.82	5,250		
	Sept. 23, 1941	8.50	5,720	1950	July 13, 1950	4.72	1,520		
	Sept. 30, 1941	6.83	3,710		Aug. 3, 1950	6.46	3,250		
			Aug. 21, 1950		5.20	1,940			
1942	Oct. 25, 1941	3.62	890	1951	July 31, 1951	10.09	9,200		
	Apr. 18, 1942	5.45	2,360		1952	Aug. 23, 1952	9.25	7,400	
	Apr. 23, 1942	10.20	8,880			Aug. 28, 1952	4.80	1,680	
	May 22, 1942	4.50	1,500	Sept. 13, 1952		5.07	1,900		
	July 20, 1942	7.80	5,010	1953	July 18, 1953	7.25	4,210		
	Aug. 14, 1942	3.94	1,100		Aug. 11, 1953	3.90	960		
	Sept. 1, 1942	6.55	3,470		Aug. 17, 1953	6.68	3,590		
	Sept. 5, 1942	3.83	1,040	Sept. 1, 1953	10.16	8,880			
	Sept. 12, 1942	5.80	2,740	1954	Aug. 7, 1954	3.09	536		
Sept. 14, 1942	4.68	1,660	1955		Oct. 7, 1954	3.72	892		
					July 12, 1955	4.38	1,300		
1943	July 1, 1943	4.40		1,420	Aug. 11, 1955	7.35	4,410		
	1944	Aug. 22, 1944	2.83	510	Aug. 15, 1955	5.58	2,310		
		1945	Aug. 21, 1945	4.70	1,620	1956	May 23, 1956	5.20	1,980
			Aug. 10, 1946	4.06	1,180		Aug. 1, 1956	5.40	2,190
Aug. 18, 1946			4.30	1,350	1957		July 9, 1957	4.80	1,610
Aug. 24, 1946	3.90	1,070	Aug. 5, 1957	7.80		5,070			
Sept. 2, 1946	3.65	920	Aug. 8, 1957	3.85		970			
1947	Oct. 5, 1946	2.41	334	1958		Oct. 13, 1957	3.59	815	
	1948	May 26, 1948	3.53		890	Oct. 20, 1957	6.60	3,510	
		June 3, 1948	12.79		15,200	Apr. 17, 1958	6.23	3,050	
		June 20, 1948	8.52	6,150	June 6, 1958	4.52	1,420		
Aug. 5, 1948		5.31	2,080	Aug. 24, 1958	4.05	1,160			
1949	May 12, 1949	3.93	1,000						
	June 19, 1949	5.50	2,280						
	June 21, 1949	4.09	1,120						

2215. Canadian River near Sanchez, N. Mex.

Location.--Lat 35°39'15", long 104°22'30", in S½ sec. 34, T.17 N., R.24 E., at downstream end of bridge pier on State Highway 65, 1 mile upstream from Lagartija Creek, 3 miles northeast of Sanchez, 10 miles downstream from Mora River, and 24 miles southwest of Mosquero.

Drainage area.--6,015 sq mi, of which about 5,712 sq mi contributes directly to surface runoff.

Gage.--Recording. Prior to Jan. 1, 1915, at two adjacent sites about 3 miles upstream at different datums. Altitude of present gage is 4,500 ft (from topographic map).

Stage-discharge relation.--1912-14: Fairly well defined by current-meter measurements below 2,800 cfs and extended on basis of determinations by Kutter's formula at stages of 10, 15, and 25 ft.

1936-58: Fairly well defined by current-meter measurements below 48,000 cfs and extended on basis of slope-area measurement at 87,800 cfs. Subject to moderate shifting.

Historical data.--Maximum known flood occurred Sept. 29 or 30, 1904. Discharge probably exceeded 100,000 cfs.

Remarks.--Station operated by Corps of Engineers April 1936 to May 1, 1939. Peak discharges not appreciably affected by diversions for irrigation of about 56,000 acres. Base for partial-duration series, 5,000 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Canadian River near Sanchez, N. Mex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1913	June 12, 1913	25.0	a82,700	1948	June 3, 1948	-	(b)
1914	May 1, 1914	11.8	a19,000	1949	Sept. 10, 1949	4.70	4,550
1936	June 12, 1936	4.28	4,340	1950	July 20, 1950	6.10	7,810
1937	June 3, 1937	13.35	a46,300		July 22, 1950	5.41	5,740
1938	June 14, 1938	9.02	a19,900		July 31, 1950	5.25	5,360
1939	Oct. 9, 1938	8.80	19,000		Aug. 3, 1950	6.50	9,050
	Aug. 1, 1939	5.10	5,600		Sept. 9, 1950	5.32	5,480
1940	Aug. 7, 1940	3.80	2,900		Sept. 11, 1950	5.11	5,000
1941	Mar. 25, 1941	5.10	5,610	1951	July 12, 1951	6.50	9,710
	Apr. 28, 1941	5.0	5,360		Aug. 1, 1951	5.86	7,810
	May 2, 1941	12.96	44,900		Aug. 10, 1951	7.40	13,000
	May 11, 1941	11.0	31,000	1952	Aug. 5, 1952	5.77	7,360
	May 29, 1941	7.7	14,200		Aug. 23, 1952	7.35	12,600
	July 26, 1941	5.1	5,740		Sept. 13, 1952	6.15	8,730
	Aug. 12, 1941	6.20	9,050	1953	July 6, 1953	5.71	7,360
	Sept. 22, 1941	10.27	26,900		July 19, 1953	5.23	6,120
1942	Apr. 24, 1942	16.7	70,200		Aug. 20, 1953	6.50	9,710
	Sept. 2, 1942	19.3	87,800	1954	Sept. 1, 1953	6.83	10,700
1943	Oct. 18, 1942	5.30	6,260	1954	Aug. 8, 1954	2.86	1,430
	Aug. 18, 1943	4.80	5,000	1955	Oct. 6, 1954	6.28	8,350
1944	June 29, 1944	5.00	4,660		Apr. 30, 1955	5.54	6,330
1945	Oct. 16, 1944	6.23	8,730		May 19, 1955	12.45	41,200
1946	Aug. 27, 1946	6.28	9,380		July 12, 1955	5.60	7,830
	Aug. 29, 1946	8.98	21,000	1956	Aug. 21, 1956	3.17	2,450
	Sept. 2, 1946	4.95	5,740	1957	July 9, 1957	4.60	5,100
	Sept. 16, 1946	5.10	6,120		Aug. 5, 1957	5.40	6,650
1947	Oct. 4, 1946	8.00	15,400	1958	Oct. 20, 1957	6.50	9,350
	July 2, 1947	6.70	10,400		May 15, 1958	7.23	10,200
	July 7, 1947	9.0	20,000		June 7, 1958	5.20	5,910
					July 24, 1958	6.30	7,950
					Aug. 16, 1958	7.62	11,400

a Record incomplete; annual peak only.

b Annual peak; probably did not exceed 15,000 cfs.

2220. Canadian River near Bell Ranch, N. Mex.

Location.--Lat 35°30', long 104°15', in Pablo Montoya Grant, 1 mile upstream from Perra Creek, about 7 miles north of Conchas Dam, and about 9 miles west of Bell Ranch.

Drainage area.--6,200 sq mi, approximately, of which about 5,900 sq mi contribute directly to surface runoff.

Gage.--Recording. Prior to Aug. 12, 1934, at site 200 ft upstream at datum 0.65 ft higher. Altitude of last used gage was 4,130 ft (estimated from water surface elevation at Conchas Dam on July 30, 1939).

Stage-discharge relation.--Fairly well defined by current-meter measurements below 7,500 cfs and extended on basis of slope-area measurement at 47,800 cfs.

Historical data.--Maximum flood known occurred Sept. 29 or 30, 1904. Flood of July 1927 probably exceeded 40,000 cfs.

Remarks.--Records prior to October 1930 collected by State engineer of New Mexico. Peak discharges not appreciably affected by diversions above station for irrigation of about 56,000 acres. Base for partial-duration series, 5,000 cfs.

Peak stages and discharges of Canadian River near Bell Ranch, N. Mex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1916	Aug. 31, 1916	4.35	5,100	1934	Sept. 1, 1934	6.8	9,600
1928	Sept. 2, 1928	4.23	2,580	1935	May 18, 1935	6.42	7,400
1929	Oct. 14, 1928	6.22	8,000		June 27, 1935	11.7	26,100
	May 22, 1929	5.60	6,090		Aug. 4, 1935	7.30	10,000
	July 10, 1929	8.0	14,500		Aug. 28, 1935	6.70	8,500
					Aug. 30, 1935	6.10	6,500
1930	June 5, 1930	5.40	5,530		Sept. 8, 1935	6.45	7,500
	June 17, 1930	6.95	10,800	1936	June 12, 1936	5.09	4,180
	July 13, 1930	5.30	5,250	1937	June 3, 1937	15.8	47,800
	July 24, 1930	6.00	7,330		June 28, 1937	8.30	12,200
1931	Oct. 1, 1930	8.30	15,600		Sept. 8, 1937	7.70	10,200
	Oct. 2, 1930	7.95	14,500	1938	June 12, 1938	9.00	14,700
	Oct. 5, 1930	8.30	15,600		June 14, 1938	10.35	20,300
	Oct. 11, 1930	7.30	11,900		June 27, 1938	7.1	8,440
1932	June 24, 1932	4.50	3,080		Sept. 4, 1938	8.9	14,300
1933	Aug. 4, 1933	7.95	14,500	1939	Oct. 9, 1938	9.97	18,600

a Record incomplete; annual peak only.

2225. Conchas River at Variadero, N. Mex.

Location.--Lat 35°24'10", long 104°26'35", in NE¼NE¼ sec.36, T.14 N., R.23 E., on left bank 1.5 miles northeast of Variadero and 15 miles west of Conchas Dam.

Drainage area.--523 sq mi, of which about 393 sq mi contributes directly to surface runoff.

Gage.--Recording. Apr. 3, 1936. Prior to Mar. 30, 1942, at site 1½ miles upstream at different datum. Mar. 30, 1942, to May 18, 1950, at present site at datum 0.5 ft higher. Altitude of present gage is 4,430 ft (from topographic map).

Stage-discharge relation.--1936-42: Fairly well defined by current-meter measurements below 2,600 cfs and extended on basis of slope-area measurement at 44,000 cfs.

1942-58: Fairly well defined by current-meter measurements below 760 cfs and extended on basis of slope-area measurement at 8,300 and 44,000 cfs.

Remarks.--Station operated by Corps of Engineers prior to Jan. 1, 1940. Peak discharges not appreciably affected by diversions for irrigation of about 300 acres. Base for partial-duration series, 1,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)			
1937	Apr. 19, 1937	4.40	1,500	1941	July 27, 1941	7.02	3,500			
	May 29, 1937	8.2	5,100			Aug. 10, 1941	5.80	2,300		
	June 3, 1937	21.2	34,000			Aug. 27, 1941	10.26	7,600		
	June 27, 1937	4.9	1,900			Sept. 22, 1941	9.87	7,000		
	Sept. 7, 1937	7.05	3,800			Sept. 29, 1941	13.1	12,000		
1938	June 12, 1938	16.7	20,000	1942	Apr. 17, 1942	5.90	3,100			
	June 26, 1938	7.3	4,100			Apr. 23, 1942	4.10	1,560		
	Sept. 5, 1938	20.75	33,000			Sept. 1, 1942	19.5	44,000		
1939	Oct. 9, 1938	5.55	2,000	1943	July 12, 1943	3.87	1,300			
	May 28, 1939	6.45	2,900		1944	July 16, 1944	4.12	1,500		
	July 14, 1939	8.10	4,700			1945	July 14, 1945	4.36	1,700	
	Aug. 1, 1939	9.42	6,400				1946	Aug. 20, 1946	4.78	2,100
	Aug. 9, 1939	4.80	1,500						Aug. 29, 1946	9.72
1940	Aug. 7, 1940	5.81	2,440			Sept. 15, 1946	12.00	12,500		
1941	May 1, 1941	20.72	32,000	1947	Oct. 4, 1946	7.26	4,700			
	June 5, 1941	6.45	2,900		1948	June 25, 1948	4.19	1,710		
	June 24, 1941	12.0	10,000							
	July 13, 1941	5.10	1,700							
	July 24, 1941	6.39	2,800							

Peak stages and discharges of Conchas River at Variadero, N. Mex.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	July 10, 1949	4.48	2,000	1954	Sept. 27, 1954	5.16	2,170
	July 15, 1949	9.85	8,750				
	July 31, 1949	4.32	1,900	1955	Oct. 6, 1954	7.07	4,190
1950	July 4, 1950	4.68	1,710		May 18, 1955	4.60	1,620
	July 19, 1950	4.91	1,900		July 19, 1955	5.27	2,270
	Aug. 1, 1950	4.82	1,850		July 28, 1955	5.95	2,960
1951	May 15, 1951	5.00	1,950		Aug. 6, 1955	5.40	2,400
	July 14, 1951	5.76	2,700	Aug. 11, 1955	4.90	1,900	
	July 22, 1951	9.98	8,130	1956	July 18, 1956	4.48	1,510
1952	Aug. 3, 1952	4.50	1,530				
	Aug. 22, 1952	5.35	2,400	July 14, 1957	5.30	2,300	
	1953	July 20, 1953	4.72	1,710	July 25, 1957	5.25	2,250
Aug. 11, 1953		5.05	2,050	Aug. 5, 1957	5.80	2,840	
				1958	July 17, 1958	5.28	2,240

2245. Canadian River below Conchas Dam, N. Mex.

Location.--Lat 35°24'30", long 104°10'10", in sec. 27, T.14 N., R.26 E. (projected), in Pablo Montoya Grant, on right bank 2.0 miles east of Conchas Dam Post Office and 2.8 miles downstream from Conchas Dam.

Drainage area.--7,417 sq mi, of which about 6,984 sq mi contributes directly to surface runoff.

Gage.--Recording. Prior to Dec. 13, 1941, at site 0.7 mile downstream at datum 6.2 ft higher. Datum of present gage is 4,021.90 ft above mean sea level, datum of 1929.

Stage-discharge relation.--1936-50: Defined by current-meter measurements below 71,000 cfs.

1951-57: Backwater from La Cinta Creek made ratings very unstable and uncertain.

1958: Defined by current-meter measurements below 10,000 cfs.

Historical data.--Flood of Sept. 30, 1904, has been estimated at 279,000 cfs by Corps of Engineers.

Remarks.--Prior to October 1942, records furnished by Corps of Engineers. Regulated by Conchas Reservoir since Dec. 29, 1938 (capacity, 370,200 acre-ft). Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)				
1936	July 12, 1936	-	a3,780	1948	June 1, 2, 4, 1948	10.20	9,550				
1937	June 3, 1937	12.8	73,000	1949	Aug. 5, 1949	5.18	1,640				
1938	Sept. 4, 1938	10.4	47,400	1950	July 29, 1950	2.48	167				
1939	Oct. 9, 1938	6.45	b21,100	1951	Sept. 12, 1951	3.59	357				
1943	Oct. 8, 1942	9.76	11,700		Sept. 3, 1952	8.70	6,700				
	Nov. 5, 1942	9.80	11,700		Sept. 28, 1953	8.76	6,030				
	July 31, 1943	9.79	11,700		Sept. 26, 1954	2.35	28				
1944	June 10, 1944	10.20	10,200		1955	May 24, 1955	11.60	6,790			
1945	Aug. 8, 1945	2.03	250	1956	Oct. 21, 1955	2.18	1.2				
1946	Sept. 16, 1946	10.28	10,400					1957	-	3.35	-
	Oct. 5, 1946	10.90	11,000					1958	May 21, 1958	14.28	10,600

a Maximum for period Apr. 13 to Sept. 30, 1936.

b Maximum prior to beginning of storage in Conchas Reservoir Dec. 29, 1938.

2260. Ute Creek near Bueyeros, N. Mex.

Location--Lat 36°00'00", long 103°44'35", in NE $\frac{1}{4}$ sec.3, T.20 N., R.30 E., on left bank at ford on State Highway 57, 3 $\frac{1}{2}$ miles northwest of Bueyeros and 19 $\frac{1}{2}$ miles northeast of Mosquero.

Drainage area--620 sq mi, of which about 458 sq mi contributes directly to surface runoff.

Gage--Recording. Altitude of gage is 4,900 ft (from topographic map).

Stage-discharge relation--Fairly well defined by current-meter measurements below 830 cfs and extended on basis of slope-area measurement at 20,400 cfs and by logarithmic plotting.

Remarks--Peak discharges not appreciably affected by diversions for irrigation of about 100 acres. Base for partial-duration series, 1,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	May 15, 1949	4.21	3,630	1951	May 27, 1951	3.95	4,500
	July 11, 1949	3.90	3,070		July 11, 1951	4.70	6,710
	Aug. 9, 1949	5.40	7,540		July 12, 1951	3.85	4,360
	Aug. 15, 1949	7.90	20,400		July 23, 1951	3.65	3,100
	Sept. 7, 1949	2.60	1,530	1952	July 3, 1952	2.73	1,730
1950	July 18, 1950	3.16	1,920		Aug. 22, 1952	7.81	19,900
	July 19, 1950	4.00	3,400		Aug. 24, 1952	3.10	2,490
	July 28, 1950	2.89	1,670	1953	Aug. 16, 1953	11.07	39,000
	July 31, 1950	8.77	27,300		Aug. 31, 1953	2.60	2,070
Sept. 8, 1950	3.14	2,310	1954	May 16, 1954	1.78	710	
1951	May 15, 1951	6.68		14,300			
	May 17, 1951	2.95	2,170				

2265. Ute Creek near Logan, N. Mex.

Location--Lat 35°24', long 103°30', in NE $\frac{1}{4}$ sec.35, T.14 N., R.32 E., on right bank a quarter of a mile downstream from Logan-Trigg Ranch road crossing, 5 $\frac{1}{2}$ miles upstream from mouth, and 6 miles northwest of Logan.

Drainage area--2,073 sq mi, of which about 1,456 sq mi contributes directly to surface runoff.

Gage--Nonrecording prior to Aug. 1, 1911, at site 1 $\frac{1}{2}$ miles downstream at different datum; recording thereafter. Aug. 1, 1911, to May 23, 1914, at site 1 $\frac{1}{4}$ miles downstream at different datum. Jan. 13, 1942, to Dec. 14, 1955, at present site at datum 1.00 ft higher. Datum of present gage is 3,758.50 ft above mean sea level, datum of 1929.

Stage-discharge relation--1909-14: Not reliably defined.

1942-58: Fairly well defined by current-meter measurements below 7,700 cfs and extended on basis of slope-area measurements of 9,700 and 18,000 cfs. Relation subject to slight shifts.

Remarks--Peak discharges not appreciably affected by diversions for irrigation of a few hundred acres. Base for partial-duration series, 6,000 cfs.

Peak stages and discharges of Ute Creek near Logan, N. Mex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	Sept. 6, 1909	12.2	-	1950	July 3, 1950	7.20	18,000
					July 5, 1950	5.50	10,000
1914	May 1, 1914	22.95	-		July 21, 1950	5.75	10,400
					Aug. 1, 1950	7.20	18,000
1941	-	a17.0	70,000	1951	May 15, 1951	6.90	16,500
1942	Apr. 24, 1942	5.95	b11,500		July 12, 1951	8.4	24,500
1943	July 7, 1943	3.8	3,800	1952	Aug. 22, 1952	6.50	13,800
1944	July 4, 1944	5.27	8,600	1953	Aug. 17, 1953	5.63	10,900
1945	Aug. 7, 1945	4.70	6,500	1954	June 29, 1954	3.50	4,100
1946	May 28, 1946	8.40	24,500	1955	Oct. 6, 1954	4.35	6,350
	Aug. 27, 1946	4.80	7,300		May 19, 1955	7.85	21,500
	Sept. 16, 1946	4.70	6,900	1956	July 22, 1956	7.50	14,700
1947	Oct. 9, 1946	5.95	12,000	1957	Aug. 5, 1957	8.85	21,100
	May 15, 1947	4.80	7,300	1958	May 15, 1958	7.35	13,900
1948	June 19, 1948	6.90	16,500		May 25, 1958	5.85	8,710
1949	May 15, 1949	6.09	12,500		July 24, 1958	5.50	6,130
	July 31, 1949	4.80	6,900		Aug. 23, 1958	5.75	6,360
	Aug. 16, 1949	5.20	9,700		Sept. 4, 1958	6.57	10,000
1950	June 11, 1950	6.20	12,000		Sept. 15, 1958	5.60	7,040

a Present site and datum, from information by Bureau of Reclamation.

b Record incomplete; annual peak only.

2270. Canadian River at Logan, N. Mex.
(Published as South Canadian River in 1904)

Location.--Lat 35°21'20", long 103°25'20", in NE $\frac{1}{4}$ sec.15, T.13 N., R.33 E., on left bank half a mile south of Logan, $1\frac{1}{2}$ miles upstream from Chicago, Rock Island and Pacific Railroad Co. bridge, $4\frac{1}{4}$ miles upstream from Tucumcari Creek, and $5\frac{1}{2}$ miles downstream from Ute Creek.

Drainage area.--11,141 sq mi, of which about 10,031 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Aug. 4, 1910, at site $1\frac{1}{2}$ miles downstream at different datums; recording thereafter at present site. Prior to Oct. 21, 1928, at different datums and Oct. 21, 1928, to Sept. 30, 1934, at datum 1.54 ft lower. Altitude of present gage is 3,670 ft (from river-profile study).

Stage-discharge relation.--1904-5, 1908-10: Fairly well defined by current-meter and float measurements below 140,000 cfs and extended by logarithmic plotting.

1910-58: Fairly well defined by current-meter and float measurements below 75,000 cfs and extended by logarithmic plotting.

Historical data.--According to Ninth Biennial Report of State engineer, the flood of Sept. 30, 1904, is the greatest known.

Remarks.--Records for 1922 to Oct. 30, 1930, collected by State engineer of New Mexico. Peak discharges partially regulated by Conchas Reservoir since Dec. 29, 1938; prior to 1938 not appreciably affected by diversions for irrigation of several thousand acres. Base for partial-duration series, 12,000 cfs.

Peak stages and discharges of Canadian River at Logan, N. Mex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	Sept. 30, 1904	36.5	a278,000	1941	June 5, 1941	10.5	28,000
1909	Sept. 6, 1909	-	a150,000		June 18, 1941	8.0	14,000
1910	Aug. 18, 1910	-	a45,000		June 25, 1941	8.8	18,000
1911	May 30, 1911	-	a27,000		July 10, 1941	9.4	21,000
1912	June 11, 1912	10.0	14,000		July 13, 1941	10.6	28,000
	Aug. 21, 1912	11.0	18,000		July 17, 1941	8.3	14,000
1913	June 12, 1913	20.00	97,000		July 22, 1941	29.3	219,000
1914	May 1, 1914	-	207,000		July 23, 1941	8.3	14,000
1926	June 19, 1926	14.0	a40,000	1942	Apr. 24, 1942	13.90	54,400
1927	July 30, 1927	10.8	18,500		May 8, 1942	8.25	15,000
	Aug. 5, 1927	9.9	14,000		May 15, 1942	7.5	12,000
	Aug. 11, 1927	10.0	15,000		July 1, 1942	8.4	12,500
1928	June 10, 1928	10.8	19,000		Aug. 14, 1942	8.3	12,000
1929	Oct. 14, 1928	16.6	60,000		Sept. 3, 1942	12.7	33,000
	July 10, 1929	15.9	59,000		Sept. 11, 1942	7.95	14,000
1930	July 23, 1930	8.9	12,000		Sept. 17, 1942	8.05	14,000
1931	Oct. 3, 1930	14.9	51,000	1943	Oct. 8, 1942	7.9	13,000
	Oct. 11, 1930	19.0	90,000		Oct. 20, 1942	8.10	13,900
	Aug. 4, 1931	9.0	13,000		Nov. 6, 1942	8.05	13,400
1932	June 25, 1932	10.02	a17,000	1944	June 1, 1944	8.74	11,400
1934	Sept. 1, 1934	10.80	21,000	1945	Aug. 15, 1945	8.3	10,000
1935	May 18, 1935	9.4	22,000	1946	May 28, 1946	14.23	50,000
	June 28, 1935	10.9	31,000		Sept. 14, 1946	9.9	17,000
	Aug. 4, 1935	11.95	39,000		Sept. 16, 1946	9.7	16,000
1936	July 13, 1936	13.5	51,600	1947	Oct. 5, 1946	9.0	13,000
	Aug. 28, 1936	8.0	14,000		Oct. 9, 1946	11.70	28,000
1937	May 29, 1937	17.8	94,000		May 15, 1947	9.1	13,000
	June 3, 1937	18.91	110,000	1948	June 2, 1948	9.56	14,200
	June 27, 1937	11.5	33,000		June 19, 1948	12.10	30,000
1938	May 30, 1938	9.7	24,000	1949	May 16, 1949	8.59	11,000
	June 13, 1938	10.2	29,000	1950	June 11, 1950	10.2	16,000
	June 26, 1938	9.25	21,000		July 3, 1950	9.5	13,000
	July 18, 1938	8.4	17,000		July 6, 1950	14.41	41,200
	Sept. 5, 1938	12.57	48,000		July 22, 1950	9.1	12,000
1939	Oct. 10, 1938	10.39	28,000		Aug. 1, 1950	9.8	15,000
	May 3, 1939	8.9	19,000	1951	May 15, 1951	9.48	17,300
	May 28, 1939	9.5	22,000		July 12, 1951	10.80	24,000
	July 29, 1939	7.8	14,000	1952	Aug. 22, 1952	9.00	11,000
	Aug. 3, 1939	9.0	19,000	1953	Aug. 17, 1953	10.3	17,000
1940	June 21, 1940	7.00	10,600	1954	June 30, 1954	7.54	4,540
1941	May 2, 1941	17.5	91,000	1955	Oct. 7, 1954	11.00	18,500
	May 23, 1941	16.2	78,000		May 19, 1955	11.90	24,400
	May 30, 1941	14.8	64,000	1956	July 22, 1956	11.80	26,300
				1957	Aug. 5, 1957	11.25	18,800
				1958	May 25, 1958	10.05	12,900
					Sept. 4, 1958	10.65	13,800

a Record incomplete, annual peak only.

2270.5. Plaza Larga Creek tributary near Ragland, N. Mex.

Location.--NE $\frac{1}{4}$ sec.15, T.7 N., R.30 E., at culvert on State Highway 18, 1.2 miles north of Ragland.

Drainage area.--0.5 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by two indirect measurements and point of zero flow.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Plaza Larga Creek tributary near Ragland, N. Mex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Aug. 12, 1952	6.87	195	1956	July 19, 1956	7.38	270
1953	May 27, 1953	6.61	160	1957	May 29, 1957	7.70	320
1954	May 16, 1954	7.46	285	1958	July 16, 1958	12.70	1,170
1955	July 22, 1955	7.42	280				

2275. Canadian River near Amarillo, Tex.

Location.--Lat 35°28'10", long 101°52'45", near left bank on downstream side of pier of bridge on U. S. Highways 87 and 287, 1,500 ft downstream from Pitcher Creek, 1.7 miles downstream from Panhandle and Santa Fe Railway Co. bridge, 19 miles north of Amarillo, Potter County, and at mile 538.

Drainage area.--19,445 sq mi, of which about 15,376 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Dec. 5, 1938; recording and nonrecording thereafter. Prior to June 2, 1938, at site of old bridge 20 ft upstream at same datum. Datum of present gage is 2,989.16 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Subject to frequent shifts. Defined by current-meter measurements below 100,000 cfs.

Bankfull stage.--21 ft.

Historical data.--Flood in May 1914, reached a stage of about 24.0 ft; a higher stage probably occurred during flood in October 1904, from information by local residents.

Remarks.--Some regulation by Conchas Reservoir since Dec. 28, 1938. Conchas Canal and Bell Ranch Canal divert from Conchas Reservoir for irrigation. Base for partial-duration series, 14,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1924	Aug. 14, 1924	7.95	44,400	1941	July 11, 1941	7.85	24,000
1925	July 29, 1925	7.10	18,800	July 13, 1941	9.60	47,000	
	Aug. 7, 1925	9.15	34,700	July 25, 1941	15.70	135,000	
	Sept. 16, 1925	7.51	18,000	Aug. 20, 1941	8.40	41,200	
1938	May 31, 1938	8.30	29,600	Aug. 23, 1941	7.40	32,900	
	June 8, 1938	7.08	16,000	Sept. 23, 1941	15.00	115,000	
	June 15, 1938	10.50	48,000	Sept. 30, 1941	9.69	60,900	
	June 18, 1938	7.80	23,600	1942	Oct. 23, 1941	9.50	45,500
	June 27, 1938	7.40	17,800	Oct. 26, 1941	6.80	14,000	
	July 19, 1938	9.35	38,300	Apr. 21, 1942	7.08	15,500	
	July 22, 1938	7.32	16,900	Apr. 25, 1942	9.15	38,300	
	Sept. 6, 1938	10.40	46,700	May 17, 1942	7.05	15,000	
	1939	Oct. 10, 1938	9.91	43,000	June 1, 1942	6.97	15,000
Jan. 8, 1939		8.70	29,600	June 23, 1942	8.20	25,600	
Apr. 5, 1939		10.25	46,700	July 2, 1942	7.55	16,800	
June 21, 1939		7.36	18,700	July 21, 1942	7.65	21,900	
Aug. 2, 1939		8.20	23,600	Aug. 15, 1942	7.15	15,500	
Aug. 4, 1939		8.15	24,600	Sept. 3, 1942	8.80	25,600	
Aug. 10, 1939		9.50	38,300	Sept. 6, 1942	8.30	22,400	
1940		May 7, 1940	7.63	25,600	1943	Oct. 14, 1942	7.40
	May 28, 1940	7.20	18,700	Oct. 20, 1942	7.56	15,000	
	Aug. 8, 1940	8.36	26,600	July 9, 1943	8.57	19,800	
	Sept. 5, 1940	7.67	17,800	1944	June 2, 15, Aug. 28	a8.10	12,500
1941	May 3, 1941	11.70	72,300	1945	Aug. 15, 1945	8.67	18,300
	May 20, 1941	7.15	17,200	1946	May 29, 1946	9.80	30,300
	May 23, 1941	9.00	59,300	1947	Oct. 7, 1946	10.00	39,500
	May 25, 1941	7.27	24,000	Oct. 10, 1946	7.90	21,600	
	May 31, 1941	8.98	38,300	May 14, 1947	7.87	14,900	
	June 6, 1941	8.90	37,000	May 20, 1947	7.90	16,800	
	June 9, 1941	7.85	21,400	1948	June 20, 1948	7.70	14,500
	June 25, 1941	8.78	30,400				
	July 3, 1941	8.15	25,600				

a Occurred June 2, 1944.

Peak stages and discharges of Canadian River near Amarillo, Tex.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1948	June 24, 1948	8.30	22,200	1953	Aug. 18, 1953	8.29	17,300	
1949	May 16, 1949	12.63	97,000	1954	May 17, 1954	7.70	19,000	
	May 18, 1949	6.94	15,000		July 23, 1954	10.86	42,900	
	June 3, 1949	8.42	30,400	1955	Oct. 8, 1954	7.87	30,000	
	June 11, 1949	7.20	17,300		Apr. 30, 1955	10.95	47,600	
	July 15, 1949	7.20	14,600		May 19, 1955	8.40	28,200	
	July 27, 1949	7.30	17,300		June 19, 1955	7.16	20,500	
1950	June 22, 1950	7.65	25,600	1956	May 24, 1956	9.46	27,400	
	June 29, 1950	7.77	29,800		1957	May 24, 1957	12.82	66,900
	July 5, 1950	7.18	24,500	Aug. 1, 1957		7.50	14,400	
	July 7, 1950	9.82	63,100	Aug. 4, 1957		7.48	14,300	
	July 21, 1950	7.87	33,600	Aug. 17, 1957		10.12	48,900	
	July 23, 1950	7.15	24,500	1958		June 18, 1958	7.98	18,100
	Aug. 2, 1950	7.18	23,000			July 3, 1958	8.02	18,100
	Sept. 11, 1950	8.95	45,500		July 6, 1958	11.30	48,600	
	Sept. 26, 1950	7.50	20,800		July 16, 1958	8.91	25,200	
	1951	Mar. 16, 1951	9.56	27,700	July 21, 1958	8.00	18,100	
Aug. 23, 1952		7.68	13,000	July 26, 1958	6.95	17,800		
1953	July 19, 1953	9.42	28,100	Sept. 7, 1958	8.80	25,200		

2280. Canadian River near Canadian, Tex.

Location.--Lat 35°55' long 100°22', near left bank on downstream side of pier of bridge on U. S. Highways 60 and 83, 500 ft downstream from Panhandle and Santa Fe Railway Co. bridge, 1.2 miles downstream from Red Deer Creek, 1.6 miles northeast of Canadian, Hemphill County, and at mile 434.

Drainage area.--22,866 sq mi, of which about 18,178 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Dec. 15, 1938; recording and nonrecording thereafter. Prior to Sept. 30, 1953, at site 300 ft upstream at same datum. Datum of present gages is 2,301.50 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Subject to frequent large shifts. Defined by current-meter measurements below 55,000 cfs in two channels.

Bankfull stage.--10 ft.

Historical data.--Maximum stage known, about 20.0 ft Oct. 2, 1904. Other high stages occurred May 2, 1914, and Oct. 5, 1923 (about 12 ft), and May 31, 1937 (11.2 ft). Elevation of 1904 flood determined by levels to point given by Mr. Charles Peet, observer, in 1924. Information on floods in 1914, 1923, and 1927 furnished by Chief Engineer Office of Panhandle and Santa Fe Railroad.

Remarks.--Some regulation by Conchas Reservoir since Dec. 28, 1938. Conchas Canal and Bell Ranch Canal divert from Conchas Reservoir for irrigation. Base for partial-duration series, 8,900 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	May 16, 1938	5.91	9,600	1939	June 22, 1939	7.94	68,600
	May 18, 1938	6.62	16,400		June 29, 1939	7.68	55,600
	June 1, 1938	6.75	20,500		Aug. 3, 1939	6.70	21,300
	June 9, 1938	7.18	34,600		Aug. 5, 1939	7.15	31,600
	June 16, 1938	6.85	25,100		Aug. 12, 1939	6.82	26,700
	June 28, 1938	6.40	17,400	1940	Nov. 26, 1939	6.70	11,400
	July 20, 1938	7.25	34,600		1941	Apr. 30, 1941	7.00
	Sept. 8, 1938	7.50	37,000	May 3, 1941		9.60	110,000
1939	Oct. 11, 1938	7.20	46,600	May 21, 1941		6.60	14,000
	Jan. 9, 1939	7.56	48,300	May 24, 1941		8.25	49,100
	Apr. 6, 1939	7.61	53,700	May 26, 1941		7.17	35,000
	May 7, 1939	6.01	13,100	May 31, 1941		7.62	47,600
	June 13, 1939	7.06	35,800				

Peak stages and discharges of Canadian River near Canadian, Tex.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1941	June 7, 1941	7.54	47,200	1948	Aug. 17, 1948	6.60	11,400	
	June 9, 1941	8.55	85,200		1949	May 7, 1949	7.18	29,900
	June 16, 1941	6.26	9,280	May 17, 1949		8.34	69,600	
	June 27, 1941	8.08	35,200	May 19, 1949		6.77	19,800	
	July 5, 1941	8.15	52,300	June 4, 1949		7.62	20,700	
	July 12, 1941	6.38	9,540	June 8, 1949		6.92	9,970	
	July 15, 1941	7.15	20,600	June 13, 1949		6.40	10,100	
	July 20, 1941	6.80	16,300	July 13, 1949		6.85	11,700	
	July 25, 1941	9.60	114,000	July 16, 1949		6.50	8,91C	
	Aug. 21, 1941	7.60	35,700	1950		July 8, 1950	7.84	24,40C
	Aug. 24, 1941	7.91	43,800			July 19, 1950	7.05	14,80C
	Sept. 23, 1941	9.80	122,000		July 21, 1950	7.65	22,80C	
	1942	Oct. 1, 1941	8.98		91,600	July 24, 1950	6.98	13,00C
Oct. 7, 1941		6.64	25,000		July 29, 1950	7.30	17,70C	
Oct. 12, 1941		5.78	10,300		Aug. 1, 1950	7.46	16,00C	
Oct. 22, 1941		7.93	60,700		Aug. 29, 1950	7.58	19,10C	
Oct. 25, 1941		6.92	20,000		Sept. 4, 1950	6.90	10,40C	
Oct. 29, 1941		6.46	13,400		Sept. 12, 1950	7.20	13,60C	
Apr. 20, 1942		7.35	21,600		Sept. 26, 1950	7.08	11,80C	
Apr. 22, 1942		6.98	14,800	1951	May 17, 1951	8.82	65,90C	
Apr. 24, 1942		6.94	18,200		June 5, 1951	7.75	19,90C	
Apr. 26, 1942		8.08	41,900		June 24, 1951	7.60	15,40C	
May 11, 1942		6.30	19,800		Sept. 7, 1951	7.27	9,32C	
May 19, 1942		6.24	20,500		1952	Aug. 26, 1952	7.50	10,70C
June 2, 1942		6.55	12,200	1953		July 20, 1953	7.73	15,600
June 8, 1942		8.40	44,300		July 23, 1953	7.61	14,700	
June 22, 1942		6.05	14,900		1954	May 24, 1954	7.18	9,050
June 29, 1942		6.89	27,200			July 25, 1954	7.54	12,200
July 4, 1942		6.24	14,200			1955	Oct. 9, 1954	7.35
Aug. 17, 1942		6.97	17,000	May 1, 1955			7.88	34,400
Sept. 4, 1942		7.75	38,600	May 20, 1955			8.43	36,800
Sept. 7, 1942	6.98	25,200	1956	June 8, 1955	7.43	17,800		
Sept. 13, 1942	6.35	10,600		June 28, 1955	9.25	79,000		
Sept. 20, 1942	6.50	9,410		1957	May 26, 1956	7.25	21,200	
1943	July 10, 1943	6.47	9,990		May 25, 1957	9.30	77,600	
	1944	Oct. 16, 1943	6.93		10,500	June 2, 1957	6.86	9,640
		Oct. 22, 1943	6.71		13,900	July 30, 1957	6.78	11,300
June 4, 1944		6.90	11,000		Aug. 8, 1957	7.10	10,400	
1945	Oct. 2, 1944	7.02	8,860	Aug. 18, 1957	7.40	16,400		
	1946	May 30, 1946	7.50	33,000	Sept. 14, 1957	6.85	9,660	
		Sept. 12, 1946	8.12	49,400	1958	June 20, 1958	7.22	11,700
Sept. 18, 1946		6.58	11,900	July 5, 1958		7.16	12,800	
Sept. 21, 1946		6.84	11,200	July 7, 1958		8.42	37,900	
1947	Oct. 5, 1946	7.98	46,500	July 17, 1958		7.47	17,300	
	Oct. 7, 1946	8.26	58,100	July 21, 1958		8.42	37,900	
	Oct. 11, 1946	6.96	23,900	July 28, 1958	7.14	14,500		
1948	May 15, 1947	6.83	14,800	Aug. 1, 1958	7.80	38,100		
	June 5, 1948	6.77	10,700	Sept. 8, 1958	7.48	20,200		
	June 7, 1948	6.75	10,300					
	June 21, 1948	7.14	22,200					
	June 25, 1948	7.01	20,100					
Aug. 15, 1948	6.75	14,000						

2285. Canadian River at Bridgeport, Okla.

Location.--Lat 35°34'00", long 98°22'45", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.28, T.13 N., R.11 W., near right bank on downstream side of pier of Chicago, Rock Island and Pacific Railroad Co. bridge, 1 mile north of Bridgeport, 2 $\frac{3}{4}$ miles upstream from Lumpmouth Creek, and at mile 267.1.

Drainage area.--25,229 sq mi, of which about 20,428 sq mi contributes directly to surface runoff.

Gage.--Recording Oct. 1, 1944, to Sept. 30, 1947, and since Sept. 30, 1948; non-recording Oct. 1, 1947, to Sept. 30, 1948. Prior to Oct. 1, 1947, at site a quarter of a mile downstream at same datum. Datum of present gage is 1,384.25 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 50,000 cfs and extended by logarithmic plotting.

Bankfull stage.--14 ft.

Historical data.--The flood in October 1904 probably exceeded that of 1914, from information by Corps of Engineers.

Remarks.--Some regulation by Conchas Reservoir. Records 1944-48 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 15,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)			
1914	May 3, 1914	a19.4	-	1951	May 17, 1951	11.74	65,000			
1915	April 1915	a15.9	-	May 20, 1951	10.25	42,000				
				June 7, 1951	8.55	20,100				
1945	Sept. 28, 1945	8.16	15,600	June 10, 1951	8.55	15,000				
1946	June 29, 1946	7.40	7,900	1952	May 23, 1952	8.50	9,300			
1947	Oct. 9, 1946	9.52	57,000	1953	Aug. 22, 1953	9.77	9,900			
	Oct. 13, 1946	7.50	20,800	1954	May 24, 1954	10.34	16,100			
	May 12, 1947	8.14	26,700							
	May 16, 1947	8.77	35,000	1955	May 19, 1955	11.04	23,700			
	May 20, 1947	8.26	25,600					May 22, 1955	11.63	31,200
1948	June 23, 1948	14.60	150,000	1956	Oct. 4, 1955	11.35	30,800			
1949	May 7, 1949	8.30	18,600	1957	May 26, 1957	11.30	40,600			
	May 19, 1949	9.93	42,000	Aug. 20, 1957	8.71	12,600				
	June 5, 1949	9.00	21,800	1958	June 21, 1958	10.17	23,400			
1950	July 9, 1950	9.38	21,900					July 8, 1958	10.73	31,400
	July 20, 1950	8.73	18,000					July 19, 1958	9.43	15,600
	July 23, 1950	9.57	28,000					July 23, 1958	10.10	22,800
	Aug. 1, 1950	9.98	27,800							
Aug. 30, 1950	8.91	15,300								

a Furnished by Chicago, Rock Island and Pacific Railroad Co.

2290. Canadian River near Newcastle, Okla.

Location.--Lat 35°18', long 97°36', in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.35, T.10 N., R.4 W., near right bank on downstream side of pier of bridge on U. S. Highways 62 and 277, 4 miles north of Newcastle, 9 miles downstream from Worley Creek, and at mile 213.5.

Drainage area.--25,763 sq mi, of which about 20,962 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Jan. 31, 1939; recording thereafter. Datum of gage is 1,146.75 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 80,000 cfs and extended above.

Bankfull stage.--12 ft.

Remarks.--Some regulation by Conchas Reservoir. Base for partial-duration series, 15,000 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Canadian River near Newcastle, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	Oct. 3, 1904	18.5	-	1942	Oct. 2, 1941	7.10	53,400
1939	Oct. 13, 1938	6.50	35,500		Oct. 6, 1941	5.62	19,900
	Apr. 8, 1939	6.32	35,500		Oct. 15, 1941	5.60	23,400
	June 24, 1939	6.65	39,700		Oct. 24, 1941	7.19	54,500
	July 2, 1939	6.54	56,200		Apr. 19, 1942	5.84	20,800
					Apr. 25, 1942	6.49	37,200
1940	July 3, 1940	4.57	5,300		Apr. 27, 1942	7.57	52,700
1941	May 4, 1941	9.2	200,000		June 10, 1942	7.31	39,400
	May 21, 1941	6.46	42,600		Sept. 6, 1942	6.60	31,000
	May 25, 1941	6.58	57,500	1943	Sept. 9, 1942	6.29	25,200
	May 28, 1941	5.06	16,300		Oct. 19, 1942	6.05	20,000
	June 2, 1941	5.69	33,400	1944	Apr. 10, 1944	8.17	66,000
	June 10, 1941	6.49	42,600		June 13, 1944	7.00	31,500
	June 29, 1941	5.90	16,100	1945	Apr. 15, 1945	6.00	19,500
	July 27, 1941	8.39	142,000		June 10, 1945	6.29	21,600
	Aug. 23, 1941	6.57	52,800		July 10, 1945	6.10	15,400
	Aug. 28, 1941	5.70	24,300		Sept. 29, 1945	6.50	30,000
	Sept. 25, 1941	P. O.	150,000				

2300. Little River below Hog Creek, near Norman, Okla.

Location--Lat 35°13'15", long 97°12'40", in SW¹ sec.28, T.9 N., R.1 E., near center of span on downstream side of bridge on county road, just downstream from Hog Creek, three-quarters of a mile upstream from Prairie Creek, 13 miles east of Norman, and at mile 96.0.

Drainage area--257 sq mi.

Gage--Nonrecording prior to Nov. 28, 1956; recording thereafter. Datum of gage is 965.62 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 15,000 cfs and extended on basis of logarithmic plotting.

Bankfull stage--32 ft.

Remarks--Base for partial-duration series, 2,700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Apr. 5, 1953	8.90	2,640	1957	May 13, 1957	13.92	6,760
1954	Apr. 30, 1954	8.82	2,610		May 18, 1957	12.76	5,690
					May 25, 1957	28.85	34,600
					June 4, 1957	9.28	2,800
					June 15, 1957	21.44	17,800
1955	May 19, 1955	13.45	6,010		June 22, 1957	15.50	8,580
					Sept. 14, 1957	13.28	6,100
				1958	June 20, 1958	13.43	6,730
1956	Oct. 3, 1955	12.6	5,360				
	Oct. 5, 1955	10.55	3,840				
1957	Apr. 23, 1957	13.03	5,930				

2305. Little River near Tecumseh, Okla.

Location--Lat 35°10'25", long 96°55'55", near northwest corner of sec.18, T.8 N., R.4 E., on downstream side of right pier of bridge on State Highway 18, 1½ miles downstream from Dance Creek, 5 miles south of Tecumseh, and at mile 77.2.

Drainage area--456 sq mi.

Gage--Recording. Datum of gage is 898.52 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Defined by current-meter measurements below 26,000 cfs and extended above.

Bankfull stage--11 ft.

Remarks--Records 1944-48 collected by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 5,000 cfs.

Peak stages and discharges of Little River near Tecumseh, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1932	June 1932	a25.58	b60,000	1950	May 11, 1950	17.20	20,600	
1944	May 23, 1944	13.35	6,120	1950	July 20, 1950	10.90	5,790	
	May 27, 1944	14.06	6,720		July 22, 1950	11.04	5,900	
1945	Mar. 11, 1945	12.62	5,860		1951	May 1, 1951	12.93	6,370
	Mar. 15, 1945	13.88	6,670	May 18, 1951		12.09	5,680	
	Mar. 19, 1945	13.87	6,090	1952	May 23, 1952	12.11	6,140	
	Apr. 14, 1945	18.00	25,100		1953	July 20, 1953	12.25	6,280
	May 12, 1945	12.70	6,090	1954		Oct. 23, 1953	11.25	5,060
	June 12, 1945	14.04	8,230			Apr. 30, 1954	12.82	6,310
	July 10, 1945	14.13	7,890	1955		May 19, 1955	14.87	8,700
	Sept. 30, 1945	16.06	15,200		1956	Oct. 5, 1955	12.00	5,640
1946	May 23, 1946	12.54	5,530			1957	Apr. 23, 1957	12.77
	May 29, 1946	13.07	6,080	May 13, 1957	13.87		7,640	
1947	June 29, 1946	13.38	6,380	May 17, 1957	14.74	9,200		
	Dec. 11, 1946	12.57	5,690	May 25, 1957	18.84	32,400		
	Apr. 14, 1947	13.43	6,620	May 31, 1957	12.75	6,010		
	Apr. 24, 1947	11.86	5,040	June 4, 1957	12.62	5,770		
	May 12, 1947	12.78	5,900	June 15, 1957	14.95	9,800		
	May 16, 1947	14.75	10,300	June 23, 1957	13.34	6,700		
	June 1, 1947	14.77	10,300	Sept. 15, 1957	14.68	9,200		
1948	June 23, 1947	14.80	10,300	Sept. 21, 1957	13.05	6,250		
	June 21, 1948	16.43	17,000	1958	June 21, 1958	13.05	7,220	
July 23, 1948	13.14	6,240	1949		May 18, 1949	19.68	32,300	
1949	May 26, 1949	11.86			5,210	May 26, 1949	11.86	5,210
	June 10, 1949	15.10		11,200	June 10, 1949	15.10	11,200	

a From floodmark, furnished by Corps of Engineers.

b From rating extension.

2310. Little River near Sasakwa, Okla.

Location.--Lat 34°59', long 96°33', in NE $\frac{1}{4}$ sec.22, T.6 N., R.7 E., on right bank at downstream side of pier of county highway bridge, 2 $\frac{1}{2}$ miles northwest of Sasakwa, 8.7 miles downstream from Salt Creek, and at mile 24.1.

Drainage area.--865 sq mi.

Gage.--Nonrecording prior to Apr. 11, 1946; recording thereafter. Datum of gage is 749.21 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--21 ft.

Historical data.--Corps of Engineers reports indicate that at site 5 miles downstream the flood of June 6, 1932, was 2.3 ft higher than that in May 1929, and that major floods occurred in May 1898, May 1908, and October 1923.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1939	June 1939	31.2	33,000	1946	Oct. 1, 1945	27.50	16,000	
	1943	May 11, 1943	30.8		27,100	Mar. 28, 1946	23.55	7,460
1944		May 28, 1944	25.54		11,700	June 1, 1946	23.30	7,120
	1945	Mar. 4, 1945	23.00		6,510	July 1, 1946	22.37	5,990
Mar. 16, 1945		27.00	16,000	1947	Dec. 13, 1946	23.56	7,460	
Mar. 20, 1945		25.70	12,300		Apr. 16, 1947	25.39	11,500	
Apr. 15, 1945		32.50	39,000		Apr. 26, 1947	21.62	5,080	
June 13, 1945		25.6	12,000		May 17, 1947	25.67	12,300	
June 18, 1945		22.9	6,260		May 21, 1947	24.36	9,040	
June 23, 1945		23.3	6,900		June 2, 1947	26.60	14,800	
1948		July 11, 1945	23.2		6,730	June 25, 1947	23.93	8,010
		June 24, 1948	30.63		28,000			

Peak stages and discharges of Little River near Sasakwa, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1948	July 4, 1948	23.78	7,300	1954	May 13, 1954	18.55	5,010		
	July 24, 1948	23.15	6,600			24.29	10,200		
1949	May 2, 1949	21.38	5,160	1955	May 21, 1955	24.29	10,200		
	May 19, 1949	30.80	29,800			1956	Oct. 7, 1955	13.51	2,630
	June 12, 1949	24.39	9,040					19.87	6,270
1950	May 11, 1950	33.48	44,600	1957	Apr. 22, 1957	21.59	7,320		
	July 11, 1950	21.03	5,760		May 18, 1957	29.80	26,500		
	July 19, 1950	22.79	7,420		May 22, 1957	22.90	8,360		
	July 23, 1950	25.07	11,000		May 27, 1957	28.71	22,400		
	July 26, 1950	20.64	5,480		June 6, 1957	23.43	8,870		
	Sept. 16, 1950	23.01	7,650		June 10, 1957	20.38	6,570		
	1951	May 20, 1951	19.40		4,770	June 15, 1957	23.10	8,550	
			4,770		8,150	June 17, 1957	21.51	7,250	
8,150			8,650	June 24, 1957	23.21	8,650			
1952	Apr. 23, 1952	22.88	8,150	July 25, 1957	18.27	5,380			
		22.88	8,150	Sept. 16, 1957	19.62	6,090			
1953	July 21, 1953	26.41	15,400	Sept. 22, 1957	19.56	6,090			
		26.41	15,400	1958	June 22, 1958	18.92	6,390		
1954	Oct. 24, 1953	24.31	10,200		June 25, 1958	18.65	6,090		
	Oct. 27, 1953	20.35	6,090		Aug. 21, 1958	28.24	23,100		
1954	May 2, 1954	25.20	12,200						

2315. Canadian River at Calvin, Okla.

Location.--Lat 34°58', long 96°14', in NE 1/4 sec. 22, T.6 N., R.10 E., near left bank on downstream side of pier of bridge on U. S. Highway 75, half a mile northeast of Calvin, 2½ miles upstream from Shawnee Creek, 8.5 miles downstream from Little River, and at mile 93.9.

Drainage area.--27,952 sq mi, of which about 23,151 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Aug. 13, 1944; recording thereafter. Prior to 1935 at site three-quarters of a mile upstream at datum 2 ft higher. Datum of present gage is 684.72 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 140,000 cfs and extended above.

Bankfull stage.--15 ft.

Remarks.--Slight regulation since 1938 by Conchas Reservoir. Gage-height records 1909-38 furnished by U. S. Weather Bureau. Records 1944-55 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 25,000 cfs. Only annual peaks are shown prior to 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	Oct. 4, 1904	20.5	-	1916	Jan. 21, 1916	11.2	-
1906	Aug. 7, 1906	21.0	a128,000	1917	Aug. 18, 1917	7.8	-
1907	Aug. 27, 1907	5.8	-	1918	May 11, 1918	6.2	-
1908	May 24, 1908	17.2	-	1919	Sept. 22, 1919	8.0	-
1909	May 24, 1909	11.0	-	1920	Sept. 10, 1920	8.7	-
1910	Aug. 20, 1910	5.8	-	1921	June 9, 1921	12.0	-
1911	June 2, 1911	7.1	-	1922	May 9, 1922	7.5	-
1912	June 18, 1912	6.5	-	1923	June 10, 1923	13.0	-
1913	June 17, 1913	7.4	-	1924	Oct. 14, 1923	13.2	-
1914	May 3, 1914	18.0	-	1925	May 11, 1925	8.6	-
1915	Apr. 21, 1915	8.8	-	1926	Sept. 30, 1926	8.5	-

a Result of slope-area measurement of peak discharge.

Note.--Gage heights shown for period 1904-38 are generally maximum observed and are often considerably lower than peak stage.

Peak stages and discharges of Canadian River at Calvin, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 13, 1927	9.5	-	1946	Jan. 5, 1946	6.60	29,200
1928	Oct. 2, 1927	8.0	-		May 29, 1946	8.36	39,500
1929	Nov. 20, 1928	8.0	-		May 31, 1946	7.94	34,900
1930	June 16, 1930	8.9	-	1947	Oct. 11, 1946	9.68	49,300
1931	Oct. 15, 1930	12.0	-		Dec. 11, 1946	9.10	48,500
1932	June 6, 1932	8.5	-		Apr. 10, 1947	7.29	28,500
1933	Aug. 30, 1933	10.6	-		Apr. 15, 1947	8.06	36,500
1934	Apr. 5, 1934	7.0	-		May 12, 1947	10.92	70,500
1935	Sept. 1, 1935	9.0	-		May 16, 1947	11.50	78,100
1936	June 7, 1936	8.3	-		May 20, 1947	8.40	46,000
1937	May 31, 1937	15.0	-		May 24, 1947	6.95	25,000
1938	May 20, 1938	8.8	-		June 1, 1947	12.30	88,500
1939	June 25, 1939	7.86	31,700		June 23, 1947	9.47	57,500
	July 3, 1939	8.8	41,900	1948	Mar. 1, 1948	6.95	26,500
1940	July 2, 1940	8.82	28,400		June 24, 1948	15.20	149,000
1941	May 5, 1941	17.0	150,000		July 23, 1948	6.02	28,600
	May 26, 1941	8.18	39,300	1949	Feb. 14, 1949	6.76	29,800
	June 2, 1941	9.50	47,800		May 1, 1949	9.00	61,000
	June 6, 1941	11.00	63,100		May 18, 1949	15.55	146,000
	June 10, 1941	11.44	80,400		May 29, 1949	6.45	35,900
	June 13, 1941	7.68	32,600		June 10, 1949	8.04	49,000
	July 27, 1941	10.60	65,600	1950	May 11, 1950	17.35	174,000
	Sept. 9, 1941	8.66	35,300		July 10, 1950	6.58	31,600
	Sept. 25, 1941	13.85	101,000		July 22, 1950	6.88	30,600
1942	Oct. 4, 1941	11.74	77,400		July 24, 1950	7.05	32,600
	Oct. 15, 1941	9.17	36,300		July 29, 1950	6.80	29,600
	Oct. 24, 1941	10.29	54,700	1951	May 18, 1951	10.55	80,800
	Oct. 30, 1941	13.9	100,000		June 12, 1951	7.94	47,800
	Apr. 9, 1942	8.40	39,300	1952	May 24, 1952	6.49	26,300
	Apr. 20, 1942	8.07	44,300	1953	July 20, 1953	9.60	60,400
	Apr. 25, 1942	8.71	52,400	1954	Oct. 23, 1953	7.26	35,100
	Apr. 28, 1942	9.89	57,100		May 2, 1954	8.52	51,600
	June 11, 1942	9.80	51,100	1955	May 20, 1955	12.60	102,000
	Sept. 7, 1942	8.21	35,200		May 24, 1955	8.10	43,900
1943	May 10, 1943	14.8	b130,000	1956	Oct. 6, 1955	8.76	51,600
1944	June 14, 1944	7.8	b33,000	1957	Apr. 3, 1957	8.25	45,000
1945	Mar. 15, 1945	11.15	71,000		Apr. 21, 1957	7.45	31,800
	Mar. 19, 1945	7.76	33,700		Apr. 23, 1957	8.20	37,300
	Apr. 16, 1945	9.65	56,000		May 14, 1957	8.02	42,800
	June 11, 1945	9.62	52,500		May 18, 1957	14.10	134,000
	June 17, 1945	7.98	38,200		May 22, 1957	10.80	84,200
	June 21, 1945	8.00	38,500		May 25, 1957	13.05	102,000
	July 7, 1945	6.90	27,200		May 28, 1957	8.40	48,400
	July 10, 1945	8.96	49,500		May 31, 1957	6.63	30,000
	Sept. 27, 1945	9.00	45,000		June 4, 1957	6.60	30,000
	Sept. 30, 1945	12.05	91,000		June 15, 1957	10.50	72,100
					Sept. 21, 1957	7.46	39,000
				1958	June 22, 1958	7.61	36,200
					June 25, 1958	7.55	38,400
					Aug. 21, 1958	12.70	104,000

b Estimated on basis of ratings for adjacent years, annual peak only.

Note.--Gage heights shown for period 1904-38 are generally maximum observed and are often considerably lower than peak stage.

2320. Gaines Creek near Krebs, Okla.

Location--Lat 34°59', long 95°37', in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.21, T.6 N., R.16 E., on downstream side of right pier of abandoned bridge on county road, three-quarters of a mile upstream from Nutter Creek and 6 $\frac{1}{2}$ miles northeast of Krebs.

Drainage area--588 sq mi.

Gage--Nonrecording prior to Dec. 5, 1945; recording thereafter. Datum of gage is 551.22 ft above mean sea level (levels by Corps of Engineers).

Stage-discharge relation--Defined by current-meter measurements below 19,000 cfs and extended on basis of contracted-opening measurement at 62,000 cfs.

Bankfull stage--26 ft.

Historical data--In 1942, local residents reported that an outstanding flood occurred in 1909 and a flood almost as high occurred in 1915. The flood in 1938 was reported to be greatest since at least 1912. The flood of Apr. 25, 1942, was reported as outstanding.

Remarks--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Feb. 18, 1938	31.9	70,000	1950	Jan. 15, 1950	23.87	7,950
1943	Dec. 28, 1942	28.85	18,700	Feb. 14, 1950	24.24	8,400	
	May 11, 1943	31.7	62,000	May 13, 1950	23.75	7,300	
1944	Mar. 1, 1944	22.9	7,900	July 7, 1950	24.48	9,500	
	Mar. 21, 1944	19.5	6,310	July 25, 1950	23.54	7,850	
	May 4, 1944	24.8	9,100	July 31, 1950	24.76	9,350	
	June 7, 1944	19.3	5,780	Sept. 17, 1950	30.62	25,200	
1945	Feb. 22, 1945	29.6	24,300	1951	Feb. 21, 1951	24.68	8,720
	Mar. 4, 1945	26.4	11,300	June 14, 1951	24.76	9,460	
	Mar. 20, 1945	29.0	20,300	1952	Apr. 14, 1952	24.73	10,200
	Apr. 1, 1945	26.7	10,700	Apr. 24, 1952	23.30	7,100	
	Apr. 15, 1945	24.9	8,390	1953	Mar. 16, 1953	26.0	11,100
	May 17, 1945	27.2	12,500	Mar. 19, 1953	25.84	10,700	
	June 13, 1945	29.1	20,800	Apr. 7, 1953	18.61	5,210	
	June 19, 1945	23.4	7,840	Apr. 25, 1953	26.24	12,200	
	July 3, 1945	19.5	5,690	Apr. 30, 1953	24.98	9,840	
	Sept. 29, 1945	24.7	6,680	May 14, 1953	27.46	13,400	
	1946	Feb. 7, 1946	18.82	5,280	July 22, 1953	22.16	6,960
Feb. 15, 1946		23.82	8,600	July 26, 1953	20.46	6,160	
Feb. 20, 1946		23.63	7,960	1954	May 4, 1954	23.95	7,720
June 2, 1946		24.72	9,400	1955	Mar. 22, 1955	26.8	10,800
1947	Nov. 8, 1946	28.62	17,200	1956	May 25, 1956	14.76	3,570
	Dec. 12, 13, 1946	29.82	21,600	1957	Apr. 5, 1957	28.49	16,800
	Apr. 12, 1947	23.65	8,540	Apr. 27, 1957	28.72	17,400	
	Apr. 30, 1947	23.89	8,700	May 19, 1957	24.40	8,950	
	May 18, 1947	27.64	13,000	May 27, 1957	27.96	14,500	
1948	June 3, 1947	24.95	9,600	June 4, 1957	26.07	9,900	
	Jan. 2, 1948	18.44	5,550	Sept. 24, 1957	23.05	8,350	
1949	Feb. 28, 1948	24.20	9,140	1958	Nov. 9, 1957	24.3	10,100
	Feb. 16, 1949	22.27	7,250	Mar. 25, 1958	20.96	6,930	
	May 3, 1949	18.78	5,180	May 4, 1958	25.94	12,200	
	June 16, 1949	22.45	7,450				

Note--Due to effect of slope, the peak stage and discharge often occur at different times of day.

2325. North Canadian River near Guymon, Okla.

Location.--Lat 36°43'20", long 101°29'30", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.18, T.3 N., R.15 E., near center of span on downstream side of pier of bridge on U. S. Highway 64 at Dry Sand Draw, 1 $\frac{1}{4}$ miles upstream from Gulf Creek, 2 $\frac{1}{2}$ miles north of Guymon, and at mile 650.7.

Drainage area.--2,139 sq mi (includes that of Dry Sand Draw), of which about 1,175 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 2,970.93 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 26,000 cfs and extended by logarithmic plotting.

Bankfull stage.--7 ft.

Remarks.--Records 1937-46 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 2,400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1937	June 1937	11.4	a28,600	1947	June 25, 1947	6.98	6,240		
1938	May 31, 1938	6.33	4,800	1948	June 1, 1948	8.26	12,100		
	June 17, 1938	7.22	7,550		June 24, 1948	8.70	13,900		
	July 30, 1938	6.57	5,640		Aug. 13, 1948	5.61	3,380		
	Sept. 5, 1938	7.58	9,020		Aug. 27, 1948	7.03	7,290		
1939	Apr. 5, 1939	6.72	5,930	1949	May 17, 1949	5.58	3,380		
	June 23, 1939	9.45	17,100		1950	July 19, 1950	7.96	11,200	
	June 29, 1939	5.50	3,580			July 21, 1950	5.70	3,850	
	July 2, 1939	6.30	5,070			Aug. 27, 1950	7.17	8,400	
Aug. 20, 1939	5.20	2,560	Sept.11, 1950	4.90		2,560			
1940	May 18, 1940	6.55	5,930	1951	May 14, 1951	5.38	2,950		
	May 28, 1940	6.10	5,070		May 17, 1951	7.56	9,970		
	Aug. 7, 1940	8.10	11,000		1952	July 16, 1952	6.95	6,930	
	Sept. 3, 1940	7.20	7,550			1953	July 20, 1953	4.44	1,240
1941	May 3, 1941	9.20	16,100	1954			Oct. 21, 1953	6.31	4,650
	June 7, 1941	6.10	2,950				1955	May 19, 1955	7.42
	July 2, 1941	6.20	4,040		May 25, 1955			10.90	25,300
	July 5, 1941	7.85	9,400		June 16, 1955	5.61		3,380	
Sept.21, 1941	9.50	17,600	June 19, 1955	7.88	10,400				
Sept.23, 1941	13.82	44,000	Aug. 8, 1955	7.13	7,650				
1942	Oct. 21, 1941	5.50	4,380	1956	May 25, 1956	9.50	17,700		
	Apr. 20, 1942	8.00	16,700		June 20, 1956	6.15	4,540		
	June 1, 1942	5.30	3,800		July 6, 1956	5.65	3,320		
	June 8, 1942	6.80	10,700		July 17, 1956	5.43	2,920		
1943	Aug. 6, 1943	5.15	1,470	Aug. 19, 1956	7.03	7,100			
1944	July 20, 1944	5.15	1,470	1957	May 28, 1957	5.78	2,950		
1945	July 7, 1945	6.32	4,800		June 23, 1957	7.45	7,650		
	July 12, 1945	5.95	3,200		Aug. 4, 1957	10.30	21,700		
	July 14, 1945	5.56	2,480		1958	July 6,16, 1958	5.90	2,650	
1946	May 29, 1946	8.40	12,300	Aug. 20, 1958		8.38	11,300		
	Aug. 15, 1946	7.79	9,880	Sept. 5, 1958		11.12	22,600		
	Aug. 19, 1946	8.60	13,200	Sept. 7, 1958		7.68	8,500		
	Aug. 28, 1946	7.15	7,420						
1947	Oct. 7, 1946	6.10	4,100						

a Annual peak only.

2330. Coldwater Creek near Hardesty, Okla.

Location--Lat 36°39', long 101°13', in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.15, T.2 N., R.17 E., on downstream side of piling near center of bridge on State Highway 3, 2 miles northwest of Hardesty and 5.7 miles upstream from mouth.

Drainage area--1,967 sq mi, of which about 767 sq mi contributes directly to surface runoff.

Gage--Recording. Datum of gage is 2,751.32 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Prior to 1950, extended above 1,500 cfs by conveyance studies; defined by current-meter measurements thereafter.

Bankfull stage--7 ft.

Remarks--Records 1939-46 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 1,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	July 2, 1939	6.70	10,600	1950	July 18, 1950	9.12	10,500
1940	May 6, 1940	5.15	3,090	July 21, 1950	5.31	2,680	
	May 18, 1940	7.35	14,500	July 31, 1950	7.70	5,100	
	May 28, 1940	5.22	4,080	Aug. 27, 1950	4.45	1,510	
	June 10, 1940	4.85	2,720	Aug. 29, 1950	6.15	2,510	
	Aug. 12, 1940	4.40	1,160	Sept. 5, 1950	5.25	2,450	
	Sept. 24, 1940	4.81	2,220	Sept. 11, 1950	6.22	4,130	
				Sept. 13, 1950	5.80	3,380	
1941	May 22, 1941	5.95	6,640	Sept. 26, 1950	5.26	1,400	
	July 15, 1941	5.20	3,700	1951	Oct. 1, 1950	5.44	1,480
1942	June 8, 1942	4.87	2,330	May 14, 1951	6.84	4,020	
	July 11, 1942	4.20	1,150	May 16, 1951	7.68	7,250	
				Aug. 22, 1951	5.34	1,360	
1943	July 9, 1943	4.57	1,550	1952	July 17, 1952	5.18	837
1944	May 11, 1944	5.49	3,570	1953	July 23, 1953	5.15	845
1945	June 24, 1945	4.13	501	1954	June 15, 1954	3.98	95
1946	July 4, 1946	6.37	8,720	1955	May 15, 1955	8.45	6,810
1947	Oct. 5, 1946	5.80	5,880	May 19, 1955	7.90	5,110	
	Oct. 7, 1946	8.76	22,800	May 26, 1955	6.80	2,640	
	June 25, 1947	9.07	24,600	June 3, 1955	5.88	1,610	
1948	June 27, 1948	3.80	440	July 18, 1955	8.80	8,670	
				July 14, 1955	6.95	3,490	
1949	May 15, 1949	5.15	3,160	1956	May 2, 1956	6.15	1,460
	July 10, 1949	5.84	6,080	1957	June 23, 1957	8.65	5,860
1950	July 2, 1950	4.88	1,960	Aug. 5, 1957	8.40	5,410	
	July 5, 1950	4.27	1,120	1958	Aug. 20, 1958	7.88	4,810

2335. Palo Duro Creek near Spearman, Tex.

Location--Lat 36°12', long 101°19', near center of span on downstream side of bridge on State Highway 282, at abandoned town of Hansford, 6 miles west of Spearman, Hansford County, about 18 miles upstream from Horse Creek, and at mile 50.0.

Drainage area--960 sq mi, approximately, of which about 440 sq mi contributes directly to surface runoff.

Gage--Recording. Datum of gage is 2,961.63 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 20,000 cfs and extended by logarithmic plotting.

Remarks--Base for partial-duration series, 500 cfs.

Peak stages and discharges of Palo Duro Creek near Spearman, Tex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	June 4, 1936	21	26,100	1953	June 4, 1953	13.12	1,750
1938	Sept. 4, 1938	22.5	34,000		July 12, 1953	12.15	1,060
					July 19, 1953	16.93	8,550
1945	Sept. 28, 1945	11.14	790		July 23, 1953	11.66	844
	Sept. 30, 1945	10.02	530	1954	June 8, 1954	11.91	985
1946	Sept. 12, 1946	13.90	3,430		June 14, 1954	15.92	6,000
1947	Oct. 7, 1946	19.87	21,200		July 23, 1954	12.04	840
	June 25, 1947	12.88	2,090	1955	Oct. 6, 1954	12.82	1,450
1948	Oct. 7, 1947	11.20	820		Apr. 30, 1955	16.25	6,660
1949	May 16, 1949	12.70	1,980		May 18, 1955	14.56	3,700
	May 19, 1949	10.88	730	1956	July 14, 1955	14.53	3,700
1950	June 22, 1950	11.25	820		July 17, 1956	12.10	955
	July 18, 1950	12.98	2,220		July 19, 1956	12.60	1,290
	July 21, 1950	10.62	655		Aug. 20, 1956	12.11	785
	July 29, 1950	11.30	1,110	1957	Apr. 28, 1957	12.43	1,180
	Aug. 1, 1950	13.50	3,580		May 16, 1957	11.38	695
	Sept. 11, 1950	12.45	1,580		May 25, 1957	13.58	1,810
1951	May 14, 1951	13.03	1,770		June 1, 1957	12.12	955
	May 17, 1951	15.32	4,930		July 25, 1957	11.01	616
1952	Apr. 20, 1952	14.12	3,060		July 31, 1957	12.14	982
	Aug. 7, 1952	10.58	578	1958	Aug. 4, 1957	11.10	632
					July 3, 1958	10.00	616
					July 7, 1958	11.40	860
					July 23, 1958	13.01	1,540
					Aug. 1, 1958	12.51	1,210

2340. North Canadian River at Beaver, Okla.
(Published as "Beaver Creek at Beaver" 1904-5)

Location.--Lat 36°49'20", long 100°31'05", in SW $\frac{1}{4}$ sec. 7, T. 4 N., R. 24 E., near right bank on downstream side of pier of bridge on U. S. Highway 270 at Beaver, $\frac{1}{2}$ miles downstream from Home Creek, 5 miles upstream from Clear Creek, and at mile 576.0.

Drainage area.--7,955 sq mi, of which about 3,685 sq mi contributes directly to surface runoff.

Gage.--Nonrecording during 1904-5 at unknown datum; recording since 1938. Prior to Oct. 1, 1946, at datum 3.0 ft higher. Datum of present gage is 2,368.16 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 42,000 cfs and extended to maximum discharge on basis of slope-area measurement of overflow and extension of main-channel curve.

Bankfull stage.--9 ft.

Remarks.--Records 1937-46 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	July 9, 1904	(a)	-	1939	June 27, 1939	3.96	4,650
1923	-	b12.3	-		June 29, 1939	4.90	7,880
					July 2, 1939	6.95	16,500
1938	May 31, 1938	4.72	6,920	1940	May 18, 1940	6.00	11,100
	June 9, 1938	4.19	5,160		May 28, 1940	5.00	6,350
	June 18, 1938	3.97	4,580		June 5, 1940	4.85	5,610
	Sept. 5, 1938	7.25	17,400		June 10, 1940	5.45	8,050
1939	Apr. 5, 1939	5.80	11,300	1941	May 3, 1941	7.00	17,000
	May 5, 1939	4.95	8,060		May 23, 1941	5.05	6,330
	May 25, 1939	4.70	7,000		July 5, 1941	6.93	16,000
	June 24, 1939	6.62	14,700		Sept. 18, 1941	6.05	10,000

a Gage destroyed.

b Present datum, from floodmark, furnished by Corps of Engineers.

Peak stages and discharges of North Canadian River at Beaver, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1941	Sept. 24, 1941	10.65	38,200	1950	July 29, 1950	8.52	7,200	
1942	Oct. 22, 1941	6.14	14,500		Aug. 1, 1950	9.32	10,200	
	Apr. 21, 1942	7.60	20,200		Aug. 29, 1950	8.50	6,800	
	June 1, 1942	5.57	8,840		Sept. 27, 1950	7.66	4,350	
	June 9, 1942	6.42	12,200	1951	May 14, 1951	10.60	22,100	
1943	Oct. 19, 1942	4.26	3,060		May 17, 1951	11.57	32,200	
				1952	July 19, 1952	5.49	1,180	
1344	Apr. 10, 1944	5.63	8,240	1953	July 23, 1953	9.12	11,900	
1945	June 3, 1945	5.10	5,350		Aug. 18, 1953	8.04	8,800	
	June 26, 1945	5.20	5,710	1954	July 23, 1954	7.01	4,100	
	July 6, 1945	5.60	7,500	1955	May 2, 1955	7.01	4,100	
1946	Aug. 27, 1946	4.50	4,400		May 16, 1955	10.25	19,900	
1947	Oct. 8, 1946	14.15	70,000		May 20, 1955	8.74	11,200	
	June 26, 1947	8.90	18,300		May 26, 1955	9.70	17,200	
1948	June 2, 1948	6.72	6,180		June 8, 1955	7.08	6,710	
	June 27, 1948	6.32	4,630		June 17, 1955	10.94	28,100	
1949	June 2, 1948	6.72	6,180		June 19, 1955	9.95	20,800	
	June 4, 1949	8.11	13,200	1956	May 26, 1956	7.04	5,700	
	June 9, 1949	8.54	16,100	1957	Apr. 17, 1957	8.03	8,810	
	June 13, 1949	7.20	7,920			May 16, 1957	7.75	7,960
June 24, 1949	7.33	9,090			June 24, 1957	7.35	6,650	
1950	Oct. 10, 1949	7.18	8,240		July 1, 1957	7.15	5,110	
	July 5, 1950	8.54	7,800		Aug. 5, 1957	7.9	8,470	
	July 12, 1950	7.92	5,250	1958	Aug. 21, 1958	9.31	12,800	
	July 19, 1950	9.75	12,800			Sept. 6, 1958	7.98	9,600
	July 21, 1950	8.53	7,000			Sept. 10, 1958	6.93	5,860
	July 25, 1950	9.92	13,700					

2345. North Canadian River near Fort Supply, Okla.
(Published as "near Supply" prior to 1942)

Location.--Lat 36°35'30", long 99°35'30", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.6, T.24 N., R.22 W., near right bank on downstream side of pier of bridge on State Highway 34, $\frac{1}{2}$ miles northwest of Fort Supply, 8.1 miles upstream from Wolf Creek, and at mile 495.8.

Drainage area.--9,615 sq mi, of which about 5,068 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Feb. 12, 1938; recording thereafter. Prior to June 6, 1951, at datum 6.0 ft higher. Datum of present gage is 1,969.63 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 37,000 cfs and extended above. Not defined since 1950.

Bankfull stage.--13 ft.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 2,500 cfs. Only annual peak stages are shown since 1950.

Peak stages and discharges of North Canadian River near Fort Supply, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1937	June 10, 1937	8.3	10,900	1946	Aug. 30, 1946	6.20	2,100	
1938	May 6, 1938	6.40	4,280	1947	Oct. 9, 1946	11.83	50,000	
	May 23, 1938	6.30	3,960		May 16, 1947	6.95	8,100	
	June 1, 1938	6.45	4,570		May 20, 1947	6.40	3,500	
	June 20, 1938	5.70	2,610		June 27, 1947	7.04	7,400	
	Sept. 7, 1938	8.18	10,400	1948	June 28, 1948	7.82	8,680	
1939	Apr. 7, 1939	7.10	6,090		1949	May 17, 1949	7.91	11,100
	May 6, 1939	6.00	2,830	May 19, 1949		7.08	6,800	
	June 25, 1939	7.75	8,740	May 23, 1949		6.05	2,680	
	June 28, 1939	6.36	3,740	June 5, 1949		7.19	5,620	
	June 30, 1939	6.77	4,940	June 9, 1949		7.33	6,120	
	July 3, 1939	7.85	8,940	June 14, 1949		7.20	7,930	
1940	May 19, 1940	6.77	6,850	June 24, 1949		5.35	3,060	
	May 31, 1940	6.31	4,820	July 10, 1949		5.30	2,960	
	June 6, 1940	6.62	4,180	July 12, 1949	5.62	4,000		
	June 11, 1940	7.01	5,610	1950	Oct. 10, 1949	4.08	3,820	
	Aug. 8, 1940	7.67	9,300		May 24, 1950	3.61	2,750	
1941	May 4, 1941	7.10	6,030		July 6, 1950	4.84	6,350	
	May 23, 1941	8.50	17,300		July 28, 1950	5.15	12,700	
	June 9, 1941	6.50	4,630		Aug. 2, 1950	6.27	24,600	
	July 7, 1941	7.60	8,940		Aug. 30, 1950	3.60	5,330	
	Sept. 25, 1941	7.95	13,900		Sept. 6, 1950	3.12	3,930	
1942	Oct. 23, 1941	8.75	17,400		Sept. 12, 1950	3.69	5,330	
	Apr. 22, 1942	7.80	8,960		Sept. 27, 1950	3.00	3,520	
	Apr. 24, 1942	6.22	3,900		1951	May 17, 1951	7.77	-
	June 10, 1942	7.80	7,280	1953		July 25, 1953	10.14	-
1943	Oct. 20, 1942	5.91	2,510		1954	June 17, 1954	7.73	-
	1944	Apr. 11, 1944	7.26	6,390		1955	June 18, 1955	12.03
Apr. 30, 1944		6.14	3,240	1956	May 27, 1956		10.03	-
1945	June 4, 1945	6.25	2,850		1957	June 23, 1957	12.12	-
	June 27, 1945	6.45	3,340			1958	Aug. 22, 1958	10.05
	July 7, 1945	6.34	4,260					
	Sept. 28, 1945	5.95	2,590					

2350. Wolf Creek at Lipscomb, Tex.

Location.--Lat 36°14', long 100°16', at bridge on State Highway 305 in north-west corner of Lipscomb, 2 miles upstream from Plum Creek and at mile 61.2.

Drainage area.--697 sq mi, of which about 475 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 2,377.06 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 14,000 cfs and extended on basis of velocity-area studies.

Bankfull stage.--4.5 ft.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 2,000 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Wolf Creek at Lipscomb, Tex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1938	May 1, 1938	3.35	3,090	1941	May 11, 1941	3.60	3,900	
	May 16, 1938	3.10	2,350		May 20, 1941	3.10	2,750	
	May 22, 1938	3.47	3,710		May 23, 1941	4.20	6,800	
	June 7, 1938	3.27	2,480		June 9, 1941	4.50	11,000	
	June 9, 1938	3.50	3,680		July 6, 1941	3.40	3,680	
	June 15, 1938	3.80	5,030		Aug. 22, 1941	3.38	2,810	
	Sept. 4, 1938	4.52	9,000		Sept. 29, 1941	3.15	2,090	
1939	Apr. 5, 1939	4.16	6,800	1942	Oct. 21, 1941	5.80	20,000	
	June 12, 1939	3.25	2,620		Oct. 23, 1941	4.08	8,310	
	June 13, 1939	3.23	2,520		June 9, 1942	3.40	3,460	
	June 23, 1939	4.73	12,100		Aug. 12, 1942	2.85	2,360	
	June 24, 1939	3.72	5,250		Sept. 6, 1942	2.68	2,030	
	July 2, 1939	3.85	5,030	1943	Sept. 4, 1943	4.05	-	
	Aug. 7, 1939	4.00	6,070		1944	Aug. 16, 1944	4.00	-
	June 10, 1940	3.80	4,780					
Aug. 8, 1940	3.88	6,070						
Sept. 2, 1940	3.95	6,300						

a Annual peak only.

2355. Wolf Creek near Shattuck, Okla.

Location.--Lat 36°17'10", long 99°54'45", in NE¹/₄ sec.19, T.21 N., R.25 W., at The Atchison, Topeka and Santa Fe Railway Co. bridge, 2 miles northwest of Shattuck, 2½ miles upstream from Rock Creek, 3 miles downstream from Ivanhoe Creek, and at mile 38.2.

Drainage area.--1,183 sq mi, of which about 961 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 2,189.22 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 11,000 cfs and extended on basis of logarithmic plotting.

Bankfull stage.--6 ft.

Historical data.--Flood in October 1923 was reported by railway section foreman as highest known.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 1,800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1938	May 1, 1938	4.11	2,570	1942	Oct. 22, 1941	8.87	24,000	
	May 23, 1938	4.63	3,840		Oct. 26, 1941	3.80	2,690	
	May 31, 1938	4.23	2,880		Apr. 23, 1942	4.00	2,340	
	June 7, 1938	4.07	2,500		June 9, 1942	5.35	5,920	
	June 9, 1938	3.89	2,100		Aug. 12, 1942	5.70	6,900	
	June 15, 1938	4.74	4,100		Aug. 15, 1942	4.17	3,160	
	Sept. 4, 1938	5.55	6,480		1943	Oct. 15, 1942	4.47	3,820
						Sept. 4, 1943	4.15	2,070
1939	Mar. 25, 1939	4.12	2,620	1944	Apr. 10, 1944	4.59	2,840	
	Apr. 5, 1939	6.10	8,020		July 25, 1944	6.60	8,800	
	June 23, 1939	6.30	8,580		Aug. 17, 1944	4.88	3,900	
	July 2, 1939	4.60	3,840	Sept. 19, 1944	4.94	4,060		
	Aug. 8, 1939	4.55	3,710	1945	Oct. 2, 1944	6.18	8,290	
1940	June 10, 1940	6.96	10,700		June 12, 1945	4.72	3,960	
	Aug. 8, 1940	8.42	16,600		Sept. 28, 1945	7.15	11,400	
	Sept. 3, 1940	4.05	2,460	1946	July 1, 1946	4.00	1,970	
1941	May 11, 1941	4.30	3,320		Sept. 2, 1946	3.95	1,850	
	May 23, 1941	7.20	12,100					
	June 9, 1941	7.70	14,600					
	July 6, 1941	3.40	2,940					
	Aug. 21, 1941	4.20	2,810					

2360. Wolf Creek near Fargo, Okla.

Location.--Lat 36°24'00", long 99°37'25", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.11, T.22 N., R.23 W., near right bank on downstream side of county highway bridge, 800 ft downstream from Boggy Creek, 1 $\frac{1}{4}$ miles downstream from Sixteen Mile Creek, 1 $\frac{1}{2}$ miles north of Fargo, and at mile 18.7.

Drainage area.--1,624 sq mi, of which about 1,386 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 2,054.35 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 8,300 cfs and extended on basis of contracted-opening measurement at 81,600 cfs.

Bankfull stage.--7 ft.

Historical data.--Flood of May 16, 1951, reported as maximum known at town of Gage, 12 miles upstream, prior to 1957.

Remarks.--Records 1943-50 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1943	Oct. 15, 1942	-	4,500	1950	Sept. 5, 1950	3.70	3,570	
	May 18, 1943	4.59	3,300					
1944	Mar. 15, 1944	3.96	2,050	1951	May 16, 1951	8.19	23,500	
	Apr. 10, 1944	4.38	3,150		June 15, 1951	4.26	5,160	
	Apr. 22, 1944	6.17	6,950		June 20, 1951	3.50	3,220	
	Apr. 29, 1944	4.65	3,410		June 25, 1951	3.67	3,620	
	July 25, 1944	6.93	8,900	1952	May 24, 1952	3.86	2,910	
	Sept. 19, 1944	4.05	2,200					
1945	Oct. 2, 1944	7.65	10,800	1953	May 16, 1953	3.32	2,170	
	Sept. 28, 1945	5.70	6,050		June 7, 1953	3.86	3,660	
1946	July 1, 1946	3.20	1,150	1954	July 24, 1953	3.67	3,100	
					Oct. 15, 1953	6.00	8,950	
1947	Apr. 10, 1947	4.22	2,350	May 25, 1954	3.34	2,450		
	May 16, 1947	7.18	9,530	1955	May 19, 1955	4.88	5,930	
	May 20, 1947	4.40	2,850		June 9, 1955	4.32	4,560	
	June 20, 1947	4.13	2,230		June 17, 1955	4.96	6,540	
			June 19, 1955		3.85	3,300		
1948	Apr. 22, 1948	5.10	4,400	June 28, 1955	4.64	5,590		
	June 28, 1948	4.52	3,120	July 15, 1955	3.44	2,380		
1949	May 7, 1949	4.30	2,260	Sept. 28, 1955	3.57	2,640		
	May 16, 1949	7.00	8,880	1956	Aug. 19, 1956	3.58	3,100	
	May 19, 1949	6.65	8,070					
	May 23, 1949	5.70	5,750	1957	Mar. 31, 1957	3.98	4,280	
	June 4, 1949	6.27	7,280		Apr. 21, 1957	5.50	9,610	
	June 9, 1949	5.19	4,530		Apr. 23, 1957	3.15	2,400	
	June 13, 1949	4.20	2,340		May 3, 1957	3.72	3,080	
	June 24, 1949	5.05	4,290		May 10, 1957	3.73	3,540	
			May 16, 1957		6.25	11,300		
			May 24, 1957	4.70	6,680			
			June 18, 1957	5.91	10,100			
1950	May 8, 1950	6.38	6,250	June 23, 1957	10.0	81,600		
	May 20, 1950	5.15	4,170	July 1, 1957	4.60	8,600		
	June 12, 1950	4.20	2,050	July 24, 1957	2.32	2,220		
	July 6, 1950	5.85	6,120	Sept. 14, 1957	3.25	3,580		
	July 18, 1950	7.06	9,420	1958	June 19, 1958	2.70	2,000	
	July 22, 1950	6.54	8,450		Aug. 1, 1958	4.10	6,400	
	July 27, 1950	5.40	5,870					
	July 29, 1950	3.82	2,630					
	Aug. 2, 1950	6.65	9,750					
	Aug. 29, 1950	3.95	3,470					

2370. Wolf Creek near Fort Supply, Okla.
(Published as "near Supply" prior to Oct. 1, 1941)

Location.--Lat 36°34'00", long 99°33'05", in SE¹SE¹ sec.9, T.24 N., R.22 W., on left bank on downstream side of pier of bridge on U. S. Highway 270, 1 mile southeast of Fort Supply, 1.6 miles downstream from Fort Supply Dam, and 3.9 miles upstream from mouth.

Drainage area.--1,739 sq mi, of which about 1,498 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Feb. 10, 1938; recording thereafter. At datum 6.00 ft higher prior to Oct. 1, 1944, and 3.00 ft higher Oct. 1, 1944, to Sept. 30, 1950. Datum of present gage is 1,962.38 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 8,000 cfs and extended by logarithmic plotting.

Bankfull stage.--11 ft.

Remarks.--Flow completely regulated since May 1942 by Fort Supply Reservoir (capacity, 106,100 acre-ft). Records 1938-50 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 3,000 cfs. Only annual peaks are shown subsequent to 1941.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1938	Oct. 13, 1937	3.35	3,210	1946	Oct. 8, 1945	4.47	1,230	
	Apr. 27, 1938	4.64	5,340					
	May 19, 1938	4.15	4,110					
	May 23, 1938	4.10	4,110					
	June 15, 1938	4.09	3,850					
1939	Sept. 4, 1938	4.20	4,250	1947	May 23, 1947	5.44	3,290	
	Mar. 25, 1939	4.35	5,400					
	Apr. 5, 1939	5.20	10,700					
	June 24, 1939	5.60	14,200					
	July 2, 1939	4.22	4,700					
1940	June 11, 1940	4.65	6,510	1948	July 1, 1948	3.79	1,500	
	Aug. 6, 1940	4.15	3,320					
	Aug. 8, 1940	5.80	10,400					
1941	May 24, 1941	4.62	3,980	1949	May 25, 1949	4.44	2,230	
	June 10, 1941	4.75	6,050					
1942	Oct. 24, 1941	4.38	6,350	1950	Aug. 23, 1950	3.22	1,410	
	1943	Oct. 15, 1942	1.59					477
		1944	Apr. 24, 1944					3.11
1945	Oct. 4, 1944	5.42	3,200	1951	May 28, 1951	5.90	-	
		1945	Aug. 2, 1958		5.81	2,080		

2375. North Canadian River at Woodward, Okla.

Location.--Lat 36°26', long 99°17', in SE 1/4 sec. 25, T. 23 N., R. 20 W., near left bank on downstream side of pier of bridge on State Highway 15, 200 ft downstream from The Atchison, Topeka and Santa Fe Railway Co. bridge, 6 miles east of Woodward, 7.2 miles upstream from Indian Creek, 27.5 miles downstream from Wolf Creek, and at mile 460.2.

Drainage area.--11,589 sq mi, of which about 6,777 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Oct. 26, 1943; recording thereafter. Prior to July 13, 1951, at site 7.8 miles upstream. Oct. 1, 1938, to July 12, 1951, at datum 37.01 ft higher. Prior to Oct. 1, 1938, datum unknown but is approximately same as for 1938-51. Datum of present gage is 1,830.43 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 29,000 cfs and extended above.

Bankfull stage.--12 ft. At prior site and present Weather Bureau datum, 10 ft.

Remarks.--Some regulation since May 1942 by Fort Supply Reservoir on Wolf Creek (capacity, 106,100 acre-ft). Records 1938-46 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 3,500 cfs. Only annual peaks (furnished by U. S. Weather Bureau) are shown prior to 1939 and are generally maximum observed. Prior to 1931, no records were collected during winter period November to February.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1920	Sept. 8, 1920	7.9	-	1938	Sept. 7, 1938	5.3	11,400
1921	Oct. 22, 1920	9.4	-	1939	Apr. 6, 1939	4.78	9,320
1922	Mar. 15, 1922	7.6	-		June 25, 1939	5.40	10,500
1923	June 10, 1923	9.9	-		June 28, 1939	3.94	4,970
1924	Oct. 12, 1923	10.9	-		June 30, 1939	4.40	5,950
1925	June 14, 1925	4.0	-		July 3, 1939	5.40	10,500
1926	Sept. 6, 1926	4.0	-	1940	May 19, 1940	4.10	4,960
1927	Aug. 4, 1927	5.1	-		June 7, 1940	4.00	4,600
1928	June 16, 1928	4.0	-		June 11, 1940	5.10	8,940
1929	Nov. 17, 1928	4.0	-		Aug. 9, 1940	5.44	10,300
1930	June 7, 1930	4.6	-	1941	May 4, 1941	4.52	7,780
1931	Oct. 13, 1930	4.0	-		May 24, 1941	6.40	18,000
1932	June 17, 1932	6.8	-		June 9, 1941	4.80	8,240
1933	May 7, 1933	7.0	-		July 7, 1941	5.40	12,200
1934	June 17, 1934	5.0	-		Sept. 25, 1941	5.20	8,240
1935	May 18, 1935	10.4	-	1942	Oct. 23, 1941	7.70	31,000
1936	June 6, 1936	7.8	-		Apr. 22, 1942	5.40	8,800
1937	June 16, 1937	6.8	-		Apr. 24, 1942	4.40	6,000
					June 10, 1942	5.15	8,250
				1943	Oct. 3, 1942	4.6	6,000
					Oct. 20, 1942	4.00	3,780
				1944	Apr. 11, 1944	4.82	6,600
					Apr. 22, 1944	4.54	6,030
					Apr. 25, 1944	4.53	5,000
					Apr. 30, 1944	4.24	4,260
					July 26, 1944	4.70	5,530
				1945	Oct. 5, 1944	4.22	4,180
					June 27, 1945	4.31	4,020

Peak stages and discharges of North Canadian River at Woodward, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Sept. 28, 1946	4.10	3,170	1951	May 18, 1951	8.70	43,000
1947	Oct. 10, 1946	9.80	42,000	May 23, 1951	4.08	4,630	
	May 16, 1947	5.76	5,630	June 12, 1951	4.55	5,320	
	May 20, 1947	5.09	5,210	June 17, 1951	4.00	3,940	
	May 23, 1947	4.63	4,280	June 25, 1951	4.58	5,710	
	June 27, 1947	5.48	6,930	1952	Apr. 25, 1952	5.46	912
1948	June 28, 1948	5.55	8,410	1953	July 24, 1953	8.10	4,940
1949	May 17, 1949	5.98	9,790	Aug. 19, 1953	7.73	4,200	
	May 19, 1949	4.90	6,270	1954	Oct. 27, 1953	6.15	1,410
	May 25, 1949	4.25	3,770	1955	May 18, 1955	8.41	6,400
	May 28, 1949	4.24	4,070		May 20, 1955	9.46	12,400
	June 5, 1949	5.60	7,900		May 28, 1955	8.31	6,600
June 10, 1949	5.40	7,250	June 18, 1955		9.01	11,200	
June 14, 1949	5.60	7,900	June 21, 1955		9.08	11,200	
1950	June 25, 1949	4.48	5,190	June 28, 1955	7.58	4,540	
	July 12, 1949	4.98	6,550	1956	May 27, 1956	6.10	1,650
	July 6, 1950	4.67	5,320	1957	May 16, 1957	8.55	6,820
	July 13, 1950	4.73	5,190		May 20, 1957	7.75	4,340
	July 21, 1950	6.25	9,790		May 25, 1957	7.57	4,450
	July 23, 1950	6.50	10,500		June 20, 1957	7.15	3,740
	July 25, 1950	4.60	4,800		June 22, 1957	7.58	4,700
	July 28, 1950	6.68	10,900		June 24, 1957	10.50	14,000
	July 30, 1950	5.44	7,610		July 2, 1957	8.70	7,880
	Aug. 3, 1950	7.06	13,900		1958	June 22, 1958	7.36
	Aug. 30, 1950	5.02	6,410	Aug. 22, 1958		8.00	5,510
	Sept. 6, 1950	4.38	4,930				
	Sept. 12, 1950	4.77	5,850				
Sept. 15, 1950	4.43	5,060					
Sept. 28, 1950	4.38	4,930					

2380. North Canadian River near Seiling, Okla.

Location.--Lat 36°11', long 98°55', in NW $\frac{1}{4}$ sec. 28, T. 20 N., R. 16 W., near center of span on downstream side of pier of bridge on U. S. Highway 60, 2 miles upstream from Seiling Creek, 2 $\frac{1}{4}$ miles north of Seiling, 2 $\frac{3}{4}$ miles downstream from Deep Creek, and at mile 422.6.

Drainage area.--12,261 sq mi, of which about 7,414 sq mi contributes directly to surface runoff.

Gage.--Recording. Prior to Oct. 1, 1954, at datum 5.00 ft higher. Present datum of gage is 1,675.42 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--11 ft.

Remarks.--Some regulation by Fort Supply Reservoir on Wolf Creek. Records 1946-50 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 3,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1924	Oct. 13, 1923	16.4	-	1949	May 29, 1949	5.45	4,640
1947	Oct. 11, 1946	11.00	29,300	June 4, 1949	6.38	6,760	
	May 16, 1947	5.95	7,000	June 8, 1949	6.03	7,130	
	May 21, 1947	5.78	6,550	June 10, 1949	5.71	6,210	
	May 24, 1947	5.15	4,670	June 15, 1949	5.64	6,200	
	June 27, 1947	5.78	5,450	June 25, 1949	5.31	4,320	
1948	June 29, 1948	5.63	5,180	July 12, 1949	5.63	6,580	
	Aug. 9, 1948	7.06	9,550	1950	June 10, 1950	4.75	4,110
	Aug. 14, 1948	5.84	5,680	July 7, 1950	5.19	4,850	
1949	May 7, 1949	5.39	4,530	July 14, 1950	5.35	5,180	
	May 19, 1949	8.71	14,800	July 21, 1950	6.63	8,140	
				July 30, 1950	7.25	9,290	
			Aug. 4, 1950	7.78	8,600		

a Annual peak only.

Peak stages and discharges of North Canadian River near Selling, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Aug. 30, 1950	6.54	6,530	1955	May 26, 1955	9.95	4,060
	Sept. 7, 1950	5.58	4,850		May 28, 1955	11.02	6,490
	Sept. 13, 1950	5.71	5,840		June 21, 1955	11.80	8,770
	Sept. 15, 1950	5.40	5,180		June 24, 1955	9.73	3,770
	Sept. 28, 1950	5.67	5,290		June 29, 1955	10.28	5,370
1951	May 19, 1951	10.61	40,100	1956	May 28, 1956	7.80	1,000
	May 22, 1951	5.81	5,480		1957	May 4, 1957	10.06
	June 12, 1951	5.61	4,680	May 17, 1957		11.10	7,010
	June 17, 1951	5.21	3,980	May 20, 1957		10.24	5,210
	June 25, 1951	5.82	5,390	May 25, 1957		10.51	6,240
June 25, 1951	5.82	5,390	June 22, 1957	10.15		5,070	
1952	Apr. 19, 1952	3.35	1,260	June 25, 1957	12.48	13,100	
	June 25, 1952	5.82	5,390	July 2, 1957	10.97	8,510	
1953	July 25, 1953	6.02	3,840	1958	June 22, 1958	9.64	3,600
	Aug. 19, 1953	5.79	3,780		June 25, 1958	9.63	3,600
1954	Apr. 30, 1954	5.56	3,720		Aug. 4, 1958	10.16	4,800
	May 20, 1955	12.10	8,510		Aug. 23, 1958	10.06	4,540

2390. North Canadian River at Canton, Okla.

Location.--Lat 36°04'45", long 98°35'25", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.33, T.19 N., R.13 W., on right bank 2,700 ft downstream from Canton Dam, 1 $\frac{1}{2}$ miles northwest of Canton, 4 $\frac{3}{4}$ miles upstream from Minnehaha Creek, and at mile 393.8.

Drainage area.--12,484 sq mi, of which about 7,601 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Oct. 1, 1937, at railway bridge 300 ft upstream from State Highway 58; recording Oct. 1, 1937, to Jan. 6, 1955, at State Highway 58, 2 $\frac{1}{2}$ miles downstream. Prior to Oct. 1, 1950, all gage heights adjusted to datum 1.91 ft lower than present datum. Oct. 1, 1950, to Jan. 6, 1955, datum of gage was 6.91 ft lower. Datum of present gage is 1,562.50 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements throughout range of discharges shown.

Bankfull stage.--12 ft. At prior site and present datum, 14 ft.

Remarks.--Some regulation by Fort Supply Reservoir on Wolf Creek during May 1942 to April 1948 and complete regulation thereafter by Canton Reservoir (capacity, 390,800 acre-ft). Records 1937-50 computed by Corps of Engineers and reviewed by Geological Survey. Gage-height records for period 1914-37 furnished by U. S. Weather Bureau are generally annual observed peaks. Prior to 1931, no data were collected in winter period November to February. Base for partial-duration series, 2,000 cfs. Only annual peaks are shown prior to 1938 and subsequent to 1947.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	May 6, 1914	10.0	-	1923	June 10, 1923	13.6	-
1915	June 7, 1915	12.8	-	1924	Oct. 13, 1923	16.8	-
1916	June 7, 1916	13.0	-	1925	June 13, 1925	7.4	-
1917	Aug. 18, 1917	9.0	-	1926	Sept. 12, 1926	5.6	-
1918	May 31, 1918	12.5	-	1927	Aug. 5, 1927	10.6	-
1919	May 27, 1919	8.0	-	1928	May 17, 1928	6.6	-
1920	Sept. 9, 1920	9.6	-	1929	Nov. 18, 1928	7.0	-
1921	Oct. 24, 1920	12.3	-	1930	May 7, 1930	8.6	-
1922	Mar. 16, 1922	9.1	-	1931	Oct. 14, 1930	6.0	-

Peak stages and discharges of North Canadian River at Canton, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	June 28, 1932	9.3	-	1942	June 11, 1942	9.35	5,780
1933	May 8, 1933	9.4	-		Sept. 26, 1942	7.03	2,500
1934	Apr. 4, 1934	11.5	-	1943	Oct. 3, 1942	9.20	6,500
1935	May 20, 1935	13.2	-		Oct. 21, 1942	7.45	3,740
1936	June 7, 1936	11.5	-		May 19, 1943	7.03	2,410
1937	June 17, 1937	11.2	-		June 8, 1943	7.45	2,920
1938	Apr. 28, 1938	7.43	3,690	1944	Apr. 12, 1944	8.54	3,820
	May 7, 1938	7.42	3,610		Apr. 23, 1944	9.63	5,850
	May 19, 1938	10.25	8,750		Apr. 26, 1944	8.78	4,550
	May 24, 1938	8.13	4,770	1945	Apr. 29, 1944	7.74	2,940
	June 2, 1938	7.38	3,530		May 1, 1944	7.89	3,120
	June 16, 1938	6.35	2,060		July 28, 1944	7.75	3,390
	June 20, 1938	7.20	3,290	1945	Oct. 6, 1944	7.56	2,350
	Sept. 8, 1938	8.78	6,010		June 28, 1945	7.16	2,940
	Sept. 13, 1938	6.82	2,690	1946	Sept. 28, 1945	9.02	4,550
1939	Nov. 3, 1938	6.52	2,270	1947	June 29, 1946	7.23	1,620
	Apr. 7, 1939	9.10	6,550		Oct. 12, 1946	12.83	24,800
	June 26, 1939	9.78	7,860		Apr. 13, 1947	9.62	3,980
	July 1, 1939	8.06	4,770		May 17, 1947	10.20	5,350
	July 4, 1939	9.53	7,290		May 21, 1947	9.63	4,450
					May 24, 1947	9.12	3,880
					June 28, 1947	9.73	4,570
1940	May 20, 1940	7.36	3,610	1948	Aug. 15, 1948	7.86	2,020
	June 1, 1940	6.40	2,130	1949	June 11, 1949	9.86	4,020
	June 7, 1940	6.76	2,620	1950	Aug. 15, 24-27	a8.55	3,230
	June 12, 1940	9.00	5,300	1951	June 15, 1951	13.44	3,820
	Aug. 10, 1940	9.04	5,300	1952	Feb. 28, 1952	7.88	1,060
1941	May 5, 1941	8.92	6,910	1953	Sept. 13, 1953	9.42	1,660
	May 21, 1941	8.47	3,650	1954	Mar. 19, 1954	9.32	1,500
	May 25, 1941	11.05	9,980	1955	June 30, 1955	10.62	2,360
	June 4, 1941	7.40	2,500	1956	July 10, 1956	9.84	1,590
	June 7, 1941	7.17	2,720	1957	July 1, 1957	10.79	2,420
	June 10, 1941	10.10	7,200	1958	July 1, 1958	8.82	1,450
	June 23, 1941	7.07	2,610				
	July 8, 1941	9.25	5,420				
	Aug. 27, 1941	8.27	4,050				
	Sept. 26, 1941	9.45	5,780				
1942	Oct. 6, 1941	6.65	2,140				
	Oct. 15, 1941	7.28	2,830				
	Oct. 25, 1941	12.51	21,900				
	Apr. 23, 1942	9.35	5,780				
	Apr. 25, 1942	8.98	5,260				

a Occurred Aug. 18, 1950.

2395. North Canadian River near El Reno, Okla.

Location.--Lat 35°34', long 97°58', on east line of sec. 32, T. 13 N., R. 7 W., near left bank on downstream side of pier of bridge on U. S. Highway 81, 2 miles north of El Reno, 2½ miles downstream from Target Creek, and at mile 307.4.

Drainage area.--13,042 sq mi, of which about 8,143 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Mar. 3, 1938; recording thereafter. 1902-8 at site 50 ft downstream at unknown datum. Datum of present gage is 1,299.02 ft above mean sea level, datum of 1929. U. S. Weather Bureau gage heights for period 1934-37 have been adjusted to present datum.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--15 ft.

Remarks.--Some regulation by Fort Supply Reservoir on Wolf Creek since May 1942 and major regulation by Canton Reservoir since April 1948 (capacity, 390,800 acre-ft), 87 miles upstream. Gage heights for 1934-37 furnished by U. S. Weather Bureau. Base for partial-duration series, 3,100 cfs. Only annual peaks are shown prior to 1938.

Peak stages and discharges of North Canadian River near El Reno, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	May 28, 1903	10.5	4,400	1944	Apr. 10, 1944	13.18	9,540
1904	July 15, 1904	10.4	4,320		Apr. 24, 1944	9.09	3,110
1905	June 1, 1905	6.0	980		Apr. 27, 1944	9.08	3,220
1906	Aug. 12, 1906	10.0	3,600		June 13, 1944	10.70	4,820
1907	June 9, 1907	10.0	3,640	1945	Apr. 11, 1945	9.05	3,140
					Apr. 16, 1945	9.48	3,500
					May 12, 1945	9.40	3,380
					July 10, 1945	9.38	3,380
1924	Oct. 15, 1923	(a)	(b)	1946	June 29, 1946	9.41	3,300
1934	Apr. 6, 1934	11.5	-	1947	Oct. 15, 1946	11.99	5,800
1935	May 21, 1935	16.8	-		Apr. 15, 1947	9.74	3,390
1936	June 10, 1936	12.9	-		May 12, 1947	10.37	3,940
1937	June 19, 1937	11.8	-		May 16, 1947	11.57	5,440
1938	May 8, 1938	9.10	3,390		May 22, 1947	10.02	3,720
	May 21, 1938	11.10	7,950	1948	May 26, 1947	10.08	3,610
	May 25, 1938	10.00	5,290		June 29, 1947	9.34	2,500
	Sept. 9, 1938	9.80	3,590	1949	May 19, 1949	12.23	6,320
1939	Apr. 9, 1939	10.40	4,340		May 21, 1949	11.76	5,680
	June 28, 1939	10.07	4,620		May 29, 1949	10.56	4,050
	July 2, 1939	9.98	4,520		June 13, 1949	10.68	4,050
	July 6, 1939	10.13	4,800	1950	Aug. 1, 1950	10.99	4,280
1940	June 13, 1940	9.32	3,080		Aug. 16, 1950	10.19	3,620
1941	May 6, 1941	9.54	3,190		Sept. 5, 1950	10.23	3,620
	May 23, 1941	9.67	3,300		Sept.17, 1950	9.76	3,290
	May 28, 1941	11.56	5,830	1951	June 11, 1951	10.77	4,280
	June 6, 1941	9.35	3,080		June 15, 1951	10.58	4,280
	June 13, 1941	11.60	6,130	1952	May 23, 1952	8.64	2,250
	July 9, 1941	9.64	3,760	1953	Sept.13, 1953	8.96	1,120
	Sept.27, 1941	9.72	3,760	1954	May 25, 1954	9.95	2,200
1942	Oct. 28, 1941	15.98	15,000	1955	May 27, 1955	11.32	2,970
	Apr. 19, 1942	12.82	8,360	1956	Oct. 4, 1955	12.82	5,240
	Apr. 25, 1942	10.61	5,940	1957	Apr. 24, 1957	10.28	2,540
	Apr. 27, 1942	9.80	4,660	1958	June 22, 1958	10.68	3,090
	June 7, 1942	8.90	3,300				
	June 12, 1942	9.49	4,200				
1943	May 10, 1943	8.88	3,160				
	May 19, 1943	10.00	4,430				

a Flood reached an elevation of 1,326.3 ft above mean sea level at railroad bridge 1 mile upstream.

b A peak inflow figure of 135,000 cfs at Lake Overholser, 25 miles downstream, is used by Oklahoma City Water Department, based on cross-sectional studies.

2410. North Canadian River below Lake Overholser, near Oklahoma City, Okla.

Location.--Lat 35°28'44", long 97°39'47", on north line of sec.31, T.12 N., R.4 W., near left bank on downstream side of pier of bridge on State Highway 4, 0.5 mile downstream from Lake Overholser, 2.4 miles upstream from Mustang Creek, 9.1 miles southwest of State Capitol in Oklahoma City, and at mile 281.0.

Drainage area.--13,222 sq mi, of which about 8,323 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 1,204.66 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 5,310 cfs and extended above.

Bankfull stage.--20 ft.

Remarks.--Flow partly regulated by Lake Overholser (capacity, 17,100 acre-ft), by Fort Supply Reservoir since 1942, and by Canton Reservoir since 1948. Municipal water supply for Oklahoma City obtained from flow diverted to Lake Hefner through Lake Hefner Canal and from Lake Overholser. Base for partial-duration series, 4,000 cfs.

Peak stages and discharges of North Canadian River below Lake Overholser, near Oklahoma City, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1921	October 1920	a20.7	-	1955	July 6, 1955	8.15	1,860
1923	June 1923	a26.0	-	1956	Oct. 5, 1955 Oct. 7, 1955	12.44 10.34	5,790 4,120
1924	October 1923	a30.9	-	1957	June 24, 1957	10.00	3,120
1953	Apr. 5, 1953	4.47	165	1958	June 21, 1958	11.10	4,810
1954	May 2, 1954	3.81	78				

a Annual peak only, from information by State Highway Commission.

2415. North Canadian River near Oklahoma City, Okla.

Location.--Lat 35°29'40", long 97°25'40", on north line of sec.29, T.12 N., R.2 W., near right bank on downstream side of pier of bridge on U. S. Highway 62, 4½ miles east of State Capitol in Oklahoma City, 5 miles upstream from Crutcho Creek, and at mile 261.2.

Drainage area.--13,354 sq mi, of which about 8,455 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Feb. 8, 1940; recording thereafter. Prior to June 27, 1939, at site 1,250 ft downstream at datum 0.66 ft lower. Datum of last used gage is 1,140.79 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--11 ft.

Remarks.--Considerable regulation since April 1948 by Canton Reservoir, 133 miles upstream. Some regulation during period of record by Lake Overholser (capacity, 17,100 acre-ft), 20 miles upstream. Base for partial-duration series, 4,400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	June 3, 1932	-	a100,000	1946	June 29, 1946	7.39	3,330
1939	June 28, 1939	11.47	7,600	1947	Apr. 13, 1947 Apr. 15, 1947 May 16, 1947 May 19, 1947 June 1, 1947	9.84 9.53 10.74 10.30 8.84	6,130 5,450 8,010 6,910 4,610
1940	July 2, 1940	9.80	5,240	1948	Mar. 26, 1948 June 22, 1948 June 24, 1948	9.00 12.01 12.06	5,300 9,060 9,120
1941	May 5, 1941 May 29, 1941 June 6, 1941 June 15, 1941	11.77 10.31 11.79 10.78	8,240 5,420 8,780 6,080	1949	May 23, 1949 May 29, 1949 June 10, 1949 June 21, 1949	8.47 9.82 9.56 9.04	4,870 6,320 6,130 4,870
1942	Oct. 15, 1941 Oct. 30, 1941 Apr. 19, 1942 Apr. 26, 1942	9.81 14.74 10.72 10.11	5,100 16,700 6,550 5,820	1950	Aug. 16, 1950	8.23	4,190
1943	May 10, 1943 May 20, 1943	8.55 10.07	4,420 6,090	1951	May 18, 1951 May 21, 1951 May 27, 1951 June 11, 1951 June 19, 1951	11.35 9.83 9.41 11.88 9.06	7,880 5,660 5,420 8,700 5,060
1944	Mar. 15, 1944 Apr. 11, 1944 June 13, 1944	8.13 9.13 10.96	4,430 4,620 8,730	1952	May 23, 1952	8.20	4,700
1945	Apr. 12, 1945 Apr. 16, 1945 June 11, 1945 July 10, 1945 Sept. 30, 1945	9.20 10.67 10.88 9.17 10.0	5,600 8,200 8,500 5,580 7,000	1953	Apr. 5, 1953	9.54	6,410

a Data determined at Spencer, 5 miles downstream, furnished by Oklahoma City Water Department.

2420. North Canadian River near Wetumka, Okla.

Location.--Lat 35°15'40", long 96°12'40", in center of SW $\frac{1}{4}$ sec.12, T.9 N., R.10 E., near left bank on downstream side of pier of bridge on U. S. Highway 75, 2.3 miles upstream from Wewoka Creek, $2\frac{1}{2}$ miles northeast of Wetumka, and at mile 84.4.

Drainage area.--14,290 sq mi, of which about 9,391 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Jan. 19, 1939; recording thereafter. Datum of gage is 683.28 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 60,000 cfs and extended above.

Bankfull stage.--14 ft.

Remarks.--Some regulation by Lake Overholser (capacity, 17,100 acre-ft) at mile 281.5 and since April 1948 by Canton Reservoir (capacity, 390,800 acre-ft) at mile 394.3. Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1924	October 1923	a26.9	-	1947	Apr. 28, 1947	11.43	6,590
1927	April 1927	a26.5	-	May 12, 1947	11.30	6,790	
1938	Feb. 17, 1938	-	11,000	May 17, 1947	13.23	9,550	
	Mar. 29, 1938	15.64	7,440	May 21, 1947	12.76	8,650	
	Apr. 22, 1938	12.52	5,050	June 1, 1947	12.14	7,770	
	May 23, 1938	13.14	5,470	June 24, 1947	11.75	6,480	
				June 28, 1947	11.72	6,270	
1939	June 29, 1939	12.62	5,950	1948	Mar. 26, 1948	11.35	5,660
1940	Sept. 5, 1940	9.47	3,820	May 6, 1948	12.63	8,210	
				May 25, 1948	11.30	5,460	
1941	Apr. 19, 1941	13.20	7,900	June 24, 1948	20.99	30,000	
	June 2, 1941	11.77	6,260	July 8, 1948	12.99	11,000	
	June 8, 1941	13.94	8,340	1949	Feb. 24, 1949	10.40	5,780
	June 12, 1941	19.18	16,600	May 1, 1949	11.45	7,280	
	Sept. 10, 1941	11.88	6,360	May 18, 1949	17.60	32,200	
1942	Oct. 5, 1941	15.25	8,730	May 24, 1949	10.40	7,450	
	Oct. 16, 1941	15.49	9,020	June 3, 1949	11.10	8,950	
	Oct. 26, 1941	11.37	5,790	June 11, 1949	11.55	9,950	
	Oct. 31, 1941	24.4	25,000	June 24, 1949	10.06	5,700	
	Nov. 4, 1941	18.75	19,800	1950	Apr. 3, 1950	9.83	6,460
	Apr. 10, 1942	15.58	10,200	May 11, 1950	16.49	36,000	
	Apr. 22, 1942	15.18	12,200	July 10, 1950	11.10	8,050	
	Apr. 25, 1942	15.85	10,300	July 22, 1950	11.50	10,800	
	June 11, 1942	11.87	7,290	Aug. 28, 1950	10.29	5,670	
	June 13, 1942	11.03	6,150	Sept. 1, 1950	10.10	5,370	
June 22, 1942	11.79	6,770	Sept. 16, 1950	13.07	23,500		
1943	Oct. 30, 1942	11.00	5,670	Sept. 25, 1950	10.35	5,820	
	May 10, 1943	23.72	28,300	1951	May 24, 1951	9.30	5,230
	May 17, 1943	10.53	6,120	June 15, 1951	10.81	9,210	
	May 20, 1943	11.35	7,090	1952	Apr. 23, 1952	10.10	8,000
1944	Mar. 16, 1944	10.31	6,120	1953	Apr. 24, 1953	10.60	11,300
1945	Mar. 3, 1945	12.34	7,980	1954	May 2, 1954	11.20	16,900
	Mar. 12, 1945	10.98	6,650	1955	May 20, 1955	11.94	14,500
	Mar. 15, 1945	b13.51	9,300	1956	Oct. 6, 1955	9.53	4,970
	Mar. 20, 1945	14.93	10,400	1957	Apr. 3, 1957	11.02	10,900
	Apr. 15, 1945	26.40	66,000	Apr. 23, 1957	10.25	8,710	
	May 12, 1945	12.36	10,100	May 13, 1957	10.54	12,300	
	June 12, 1945	11.98	8,840	May 19, 1957	11.88	18,400	
	June 17, 1945	13.02	11,500	May 23, 1957	11.25	12,900	
1946	Oct. 1, 1945	14.23	13,900	May 25, 1957	15.00	39,400	
	Mar. 28, 1946	9.43	5,210	June 4, 1957	11.00	10,900	
	Apr. 23, 1946	10.25	6,370	June 10, 1957	11.35	14,100	
	Apr. 30, 1946	9.47	5,630	June 15, 1957	10.74	12,500	
	May 8, 1946	10.00	6,070	June 19, 1957	10.96	13,500	
	May 24, 1946	14.10	15,200	June 24, 1957	10.33	9,690	
	May 31, 1946	12.28	10,000	1958	June 25, 1958	10.75	11,800
	June 30, 1946	11.12	6,790	Aug. 22, 1958	10.80	13,500	
	1947	Dec. 12, 1946	11.77	8,770			
		Apr. 16, 1947	11.50	7,850			
Apr. 25, 1947		10.91	5,850				

a Annual peak only, from floodmarks from information furnished by Corps of Engineers.
 b Occurred Mar. 16, 1945.

2425. Belcow Creek at Chandler, Okla.

Location--Lat 35°42', long 96°53', in SW $\frac{1}{4}$ sec.9, T.14 N., R.4 E., on right bank half a mile upstream from bridge on U. S. Highway 66, half a mile west of courthouse in Chandler, and 1.4 miles downstream from Bellcalf Creek.

Drainage area--46 sq mi.

Gage--Recording. Datum of gage is 824.26 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 2,600 cfs and extended above.

Bankfull stage--12 ft.

Remarks--Base for partial-duration series, 1,200 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1943	May 16, 1943	-	a2,600	1951	June 8, 1951	8.34	1,620	
1948	June 24, 1948	15.20	-		June 10, 1951	8.54	1,680	
					June 19, 1951	10.84	2,530	
1949	Jan. 23, 1949	6.9	1,210	1952	May 23, 1952	11.80	2,910	
	May 18, 1949	7.52	1,390		July 17, 1952	10.16	2,300	
	May 19, 1949	11.00	2,540		1953	Apr. 5, 1953	7.00	1,260
	May 21, 1949	7.0	1,240	July 23, 1953		7.14	1,270	
	May 24, 1949	9.0	1,860	1954	May 1, 1954	8.53	1,700	
1950	June 10, 1950	8.46	1,700		1955	May 19, 1955	9.80	2,110
	July 10, 1950	9.04	1,860					
	July 20, 1950	8.34	1,670					
	Aug. 1, 1950	6.97	1,240					
1951	May 1, 1951	7.80	1,450					

a From contracted-opening measurement of peak discharge at site three-quarters of a mile downstream.

2435. Deep Fork near Beggs, Okla.

Location--Lat 35°41', long 96°04', on line between secs. 19 and 20, T.14 N., R.12 E., near left bank on downstream side of pier of county highway bridge, 3 miles upstream from Adams Creek, 4 miles south of Beggs, 8 miles downstream from Flat Rock (Checkerboard) Creek, and at mile 85.0.

Drainage area--2,018 sq mi.

Gage--Nonrecording prior to June 23, 1953; recording thereafter. Prior to Aug. 29, 1939, at site 450 ft downstream at present datum. Datum of gage is 632.55 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Defined by current-meter measurements below 50,000 cfs and extended by logarithmic plotting.

Bankfull stage--16 ft.

Remarks--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 3,000 cfs.

Peak stages and discharges of Deep Fork near Beggs, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	July 8, 1939	12.50	2,280	1947	Apr. 19, 1947	23.30	11,300
1940	Apr. 30, 1940	14.82	3,060	Apr. 30, 1947	22.40	9,220	
	Sept. 5, 1940	20.94	4,870	May 18, 1947	25.90	17,700	
				June 3, 1947	16.00	3,120	
1941	Dec. 2, 1940	20.13	4,890	July 2, 1947	17.20	3,500	
	Apr. 22, 1941	23.88	18,500	1948	May 17, 1948	19.24	4,300
	May 10, 1941	21.85	10,500	June 24, 1948	33.35	53,400	
	June 11, 1941	29.78	31,000	July 12, 1948	22.90	10,400	
	Sept. 11, 1941	18.40	3,950	1949	Feb. 16, 1949	18.12	3,960
1942	Oct. 6, 1941	23.50	11,800	May 3, 1949	19.34	4,590	
	Oct. 17, 1941	22.90	10,400	May 24, 1949	27.80	23,200	
	Nov. 3, 1941	28.79	27,100	June 4, 1949	22.62	9,680	
	Nov. 25, 1941	15.98	3,120	June 12, 1949	25.20	15,800	
	Apr. 13, 1942	24.18	13,400	1950	Apr. 5, 1950	15.71	3,190
	Apr. 23, 1942	27.75	23,400	May 12, 1950	26.85	20,200	
	June 15, 1942	23.71	12,200	July 13, 1950	16.65	3,520	
	June 26, 1942	26.25	18,600	July 20, 1950	23.65	12,000	
Aug. 19, 1942	22.18	8,760	Sept. 16, 1950	20.80	6,050		
1943	Oct. 31, 1942	19.33	4,270	1951	Feb. 21, 1951	16.00	3,300
	Mar. 28, 1943	17.00	3,430	Mar. 11, 1951	15.40	3,080	
	May 11, 1943	34.55	66,800	June 17, 1951	20.35	5,780	
	May 20, 1943	28.05	24,000	1952	Mar. 12, 1952	14.90	3,010
	June 2, 1943	18.0	3,770	Apr. 24, 1952	18.60	5,090	
1944	Mar. 22, 1944	18.61	3,990	May 30, 1952	19.60	6,200	
	Apr. 10, 1944	17.40	3,570	1953	Apr. 26, 1953	19.00	4,710
	May 5, 1944	16.62	3,310	1954	May 4, 1954	18.83	4,660
	May 11, 1944	19.90	4,600	May 26, 1954	14.74	3,010	
	May 30, 1944	17.90	3,740	1955	May 25, 1955	23.18	11,100
1945	Mar. 8, 1945	17.01	3,430	1956	Oct. 5, 1955	12.82	2,400
	Mar. 20, 1945	25.63	17,700	1957	Apr. 3, 1957	15.86	3,430
	Apr. 15, 1945	34.11	60,900	Apr. 27, 1957	21.50	7,290	
	June 14, 1945	17.88	4,030	May 20, 1957	22.74	9,910	
	June 18, 1945	22.09	8,530	May 26, 1957	29.75	30,300	
	July 3, 1945	19.97	5,070	June 5, 1957	22.52	10,500	
				June 16, 1957	26.17	20,300	
1946	Oct. 5, 1945	24.50	13,400	June 29, 1957	20.35	6,810	
	Jan. 11, 1946	15.79	3,060	1958	June 23, 1958	19.53	5,390
	Apr. 4, 1946	15.93	3,180	June 27, 1958	25.22	16,600	
	May 5, 1946	17.60	3,700				
	May 14, 1946	16.40	3,340				
	May 29, 1946	20.36	5,600				
	June 30, 1946	15.50	3,030				
1947	Dec. 14, 1946	17.95	3,770				

2440. Deep Fork near Dewar, Okla.

Location.--Lat 35°28'50", long 95°52'50", in SE $\frac{1}{4}$ sec. 25, T.12 N., R.13 E., at left bank on downstream side of pier of bridge on U. S. Highway 266, 3.2 miles upstream from Wolf Creek, $3\frac{1}{2}$ miles east of Dewar, and at mile 43.9.

Drainage area.--2,307 sq mi.

Gage.--Nonrecording prior to Feb. 14, 1939, and since Sept. 30, 1950; recording for remainder of period. Datum of gage is 578.32 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--18 ft.

Historical data.--Crest stage for 1908 obtained from floodmark by Corps of Engineers. Crest for 1935 obtained from floodmark on bridge in 1939, identified by local resident who said 1923 flood was "higher."

Remarks.--Records 1948-50 computed by Corps of Engineers and reviewed by Geological Survey. Maximum observed stages since 1950 from U. S. Weather Bureau records. Base for partial-duration series, 3,200 cfs.

Peak stages and discharges of Deep Fork near Dewar, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	October 1908	29.0	85,000	1946	Jan. 12, 1946	17.05	3,650
					Feb. 19, 1946	17.65	3,970
1935	June 1935	24.48	29,000		Apr. 24, 1946	16.94	3,690
					May 1, 1946	19.59	6,070
1938	February 1938	-	20,000		May 16, 1946	18.71	4,860
	Mar. 29, 1938	19.76	6,360		May 24, 1946	19.86	6,760
	Apr. 4, 1938	21.43	10,100		June 1, 1946	19.24	5,390
	Apr. 22, 1938	15.74	3,580		July 1, 1946	17.29	3,650
	May 23, 1938	19.21	5,700				
	June 12, 1938	17.40	4,370	1947	Nov. 7, 1946	16.82	3,680
					Dec. 12, 1946	20.00	7,020
1939	July 9, 1939	11.69	2,220		Apr. 22, 1947	20.67	9,500
					May 3, 1947	20.11	7,600
1940	Sept. 6, 1940	18.45	4,140		May 20, 1947	21.84	14,700
					June 2, 1947	18.74	4,860
1941	Dec. 6, 1940	17.72	4,190		July 4, 1947	16.14	3,430
	Apr. 24, 1941	21.87	12,300				
	May 15, 1941	19.64	5,700	1948	Mar. 2, 1948	15.90	3,340
	June 15, 1941	23.9	23,300		Mar. 23, 1948	15.77	3,300
	Sept. 18, 1941	17.26	3,420		Mar. 26, 1948	18.45	4,640
					May 19, 1948	17.52	4,110
1942	Oct. 10, 1941	21.05	8,750		June 24, 1948	25.16	39,500
	Oct. 16, 1941	21.88	12,200		July 15, 1948	20.72	8,760
	Oct. 30, 1941	24.17	24,400				
	Nov. 5, 1941	24.24	24,400	1949	Feb. 15, 1949	18.61	4,720
	Apr. 15, 1942	21.56	12,400		Feb. 25, 1949	16.20	3,360
	Apr. 25, 1942	24.32	27,400		May 9, 1949	19.18	5,560
	June 18, 1942	20.82	9,410		May 25, 1949	23.12	21,700
	June 28, 1942	22.02	14,800		June 4, 1949	21.25	11,000
	Aug. 23, 1942	19.83	6,310		June 12, 1949	22.63	18,600
1943	Nov. 8, 1942	18.73	4,440	1950	Apr. 3, 1950	18.71	4,960
	Dec. 27, 1942	17.79	3,850		May 11, 1950	23.18	23,000
	Mar. 27, 1943	18.53	4,440		July 23, 1950	22.22	15,800
	May 12, 1943	26.21	44,800		Sept. 17, 1950	20.46	8,160
	May 22, 1943	23.29	20,600				
1944	Mar. 20, 1944	18.98	5,580	1951	Feb. 21, 1951	19.3	5,710
	Apr. 12, 1944	16.12	3,660		Mar. 12, 1951	18.7	4,960
	May 6, 1944	15.49	3,410		June 22, 1951	18.7	4,960
	May 12, 1944	18.81	5,290	1952	Apr. 23, 1952	19.6	6,160
	May 29, 1944	17.10	4,110		June 2, 1952	17.7	4,050
1945	Mar. 3, 1945	19.12	5,390	1953	Mar. 25, 1953	19.06	5,440
	Mar. 21, 1945	21.96	15,800				
	Apr. 16, 1945	26.67	57,400	1954	May 3, 1954	21.06	7,120
	June 12, 1945	20.1	7,910				
	June 22, 1945	21.47	13,700	1955	May 21, 1955	19.98	6,900
	July 2, 1945	18.90	5,250		May 29, 1955	20.17	7,360
1946	Oct. 7, 1945	21.51	12,300				

2450. Canadian River near Whitefield, Okla.

Location.--Lat 35°16', long 95°14', in SE¹/₄ sec. 12, T.9 N., R.19 E., near right bank on downstream side of pier of bridge on State Highway 2, three-quarters of a mile north of Whitefield, 5½ miles upstream from Snake Creek, and at mile 18.8.

Drainage area.--47,576 sq mi, of which about 37,876 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Jan. 11, 1939; recording thereafter. Prior to Dec. 10, 1941, and June 12, 1947, to Sept. 30, 1948, at site 2.1 miles downstream at datum 2.80 ft lower. Datum of present gage is 478.16 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 230,000 cfs and extended above.

Bankfull stage.--16 ft.

Historical data.--Local residents reported that flood in May 1898 was about same as that in October 1941 (discharge smaller since channel capacity has increased over the period of years). Corps of Engineers reported that significant floods occurred in May 1914 and October 1923.

Remarks.--Occasional slight regulation by Conchas Reservoir in New Mexico. Records for 1938-39 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 35,000 cfs.

Peak stages and discharges of Canadian River near Whitefield, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	July 3, 1939	13.0	58,800	1948	Feb. 27, 1948	10.55	42,000
1940	Aug. 18, 1940	12.3	31,400		Mar. 1, 1948	10.97	46,800
1941	Jan. 1, 1941	14.41	53,500		June 25, 1948	17.7	260,000
	Apr. 19, 1941	15.45	63,900		July 12, 1948	11.47	42,700
	May 6, 1941	17.75	94,600	1949	Feb. 15, 1949	13.44	54,100
	May 26, 1941	13.04	40,800		May 2, 1949	14.86	78,700
	June 2, 1941	13.20	36,500		May 19, 1949	18.70	210,000
	June 7, 1941	15.70	74,200		June 14, 1949	14.41	73,900
	June 11, 1941	16.90	85,400	1950	Feb. 13, 1950	12.60	42,700
	July 28, 1941	14.0	49,000		May 7, 1950	11.92	42,700
	Sept. 26, 1941	15.0	62,500		May 11, 1950	20.00	256,000
1942	Oct. 5, 1941	16.74	84,500		July 11, 1950	12.42	48,200
	Oct. 16, 1941	15.75	66,000		July 18, 1950	12.00	41,000
	Oct. 25, 1941	15.70	65,000		July 23, 1950	14.35	81,100
	Oct. 31, 1941	21.4	220,000		July 26, 1950	14.88	91,000
	Apr. 9, 1942	17.49	89,000		July 29, 1950	15.37	102,000
	Apr. 25, 1942	21.10	137,000		Aug. 3, 1950	13.34	43,600
	June 11, 1942	14.88	45,500		Sept. 16, 1950	18.73	159,000
	June 24, 1942	15.47	57,600	1951	Feb. 20, 1951	13.15	54,100
1943	Dec. 27, 1942	14.8	48,500		May 19, 1951	14.47	73,900
	May 10, 1943	25.5	281,000		June 12, 1951	13.97	64,800
1944	May 28, 1944	13.08	35,800		June 15, 1951	12.50	44,500
	June 14, 1944	13.07	35,600	1952	Apr. 23, 1952	14.42	60,400
1945	Mar. 3, 1945	15.15	70,600	1953	Mar. 31, 1953	14.10	66,100
	Mar. 15, 1945	17.22	107,000		Apr. 24, 1953	14.01	57,800
	Mar. 19, 1945	15.66	90,000		May 13, 1953	12.11	35,900
	Mar. 30, 1945	14.36	47,500		July 21, 1953	13.40	48,700
	Apr. 16, 1945	21.80	255,000	1954	May 2, 1954	18.71	165,000
	May 13, 14, 1945	12.25	35,000		May 13, 1954	12.48	35,900
	June 12, 1945	15.50	90,400	1955	May 21, 1955	15.22	97,500
	July 11, 1945	13.11	46,100		May 24, 1955	13.07	48,700
1946	Oct. 1, 1945	16.08	102,000	1956	Oct. 6, 1955	12.50	41,000
	Feb. 18, 1946	12.38	45,000	1957	Apr. 3, 1957	15.76	94,700
	May 3, 1946	13.25	46,400		Apr. 24, 1957	15.38	100,000
	May 23, 1946	14.26	75,000		May 18, 1957	18.25	176,000
	June 1, 1946	13.46	60,000		May 23, 1957	16.40	159,000
	July 1, 1946	12.22	35,500		May 26, 1957	16.80	159,000
1947	Oct. 11, 1946	12.07	38,700		June 2, 1957	14.74	89,500
	Nov. 6, 1946	12.85	45,600		June 11, 1957	12.63	45,400
	Dec. 10, 1946	17.1	151,000		June 15, 1957	15.72	119,000
	Apr. 11, 1947	13.60	47,100		Sept. 22, 1957	12.00	37,100
	Apr. 16, 1947	13.4	45,600	1958	June 22, 1958	13.17	50,400
	Apr. 29, 1947	13.80	48,600		June 26, 1958	14.30	77,400
	May 13, 1947	16.93	118,000		Aug. 21, 1958	15.55	103,000
	May 17, 1947	18.07	144,000				
	June 1, 1947	16.93	118,000				

2455. Sallisaw Creek near Sallisaw, Okla.

Location.--Lat 35°28', long 94°52', in SW $\frac{1}{4}$ sec.34, T.12 N., R.23 E., on downstream side of right pier of abandoned highway bridge, 400 ft downstream from water-supply dam of City of Sallisaw, 3 $\frac{1}{2}$ miles west of Sallisaw, 5 miles upstream from Little Sallisaw Creek, and 9 miles upstream from mouth.

Drainage area.--182 sq mi.

Gage.--Recording gage. Prior to Aug. 20, 1953, just above dam 400 ft upstream at datum 13.22 ft higher. Datum of present gage is 476.78 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements to 23,000 cfs and extended on basis of contracted-opening measurements of peak flows in April and June 1945.

Bankfull stage.--14 ft.

Historical data.--Flood in October 1941 reported by local resident in 1943 as "highest flood in recent years," referenced to high-water mark for flood of Dec. 27, 1942.

Remarks.--Small diversion at low-water dam for municipal water supply. Base for partial-duration series, 4,000 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Sallisaw Creek near Sallisaw, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	October 1941	a15.4	b28,400	1949	Jan. 24, 1949	3.56	5,66C
1943	Nov. 5, 1942	4.08	7,740	1949	Jan. 27, 1949	3.10	4,37C
	Dec. 27, 1942	6.65	18,900	1949	Feb. 14, 1949	3.50	5,51C
	Apr. 11, 1943	3.80	6,690	1949	May 1, 1949	5.29	12,40C
	May 10, 1943	8.63	38,000	1949	June 3, 1949	3.52	5,66C
	May 27, 1943	3.07	4,430	1949	June 13, 1949	4.46	8,82C
1944	Mar. 19, 1944	4.07	7,340	1950	Jan. 13, 1950	3.75	6,30C
	May 2, 1944	4.21	7,870	1950	Feb. 12, 1950	4.05	7,34C
1945	Feb. 21, 1945	4.74	10,000	1950	May 10, 1950	8.30	35,00C
	Feb. 26, 1945	4.34	8,430	1951	Feb. 20, 1951	4.55	8,820
	Mar. 2, 1945	4.68	9,820	1951	June 9, 1951	5.77	14,90C
	Mar. 15, 1945	3.73	6,300	1952	Apr. 12, 1952	3.32	4,92C
	Mar. 19, 1945	6.76	20,100	1952	May 3, 1952	3.43	5,63C
	Mar. 25, 1945	4.51	9,010	1953	Mar. 17, 1953	3.85	6,98C
	Apr. 15, 1945	11.25	110,000	1953	May 12, 1953	4.06	7,69C
1946	May 16, 1945	3.59	5,820	1954	May 2, 1954	15.50	30,00C
	June 10, 1945	7.96	58,000	1955	Feb. 19, 1955	11.56	9,62C
	July 1, 1945	-	10,000	1955	Mar. 20, 1955	11.59	9,620
	Feb. 13, 1946	4.72	9,820	1956	Apr. 29, 1956	6.83	3,42C
	Apr. 23, 1946	3.10	4,370	1957	Apr. 3, 1957	16.50	38,40C
1947	May 23, 1946	5.76	14,900	1957	Apr. 23, 1957	8.28	4,86C
	June 30, 1946	5.40	12,900	1957	May 25, 1957	12.00	10,80C
	Nov. 6, 1946	4.75	10,000	1957	June 2, 1957	10.42	7,17C
	Nov. 10, 1946	4.50	9,010	1957	June 10, 1957	9.40	5,90C
	Nov. 25, 1946	3.25	4,780	1957	June 13, 1957	13.50	17,000
	Dec. 10, 1946	5.85	14,900	1958	Mar. 8, 1958	8.07	4,06C
	Dec. 12, 1946	5.45	12,900	1958	May 2, 1958	10.46	6,94C
	May 17, 1947	3.63	5,980	1958	May 9, 1958	10.94	7,80C
	June 1, 1947	3.71	6,140	1958	June 25, 1958	11.46	8,09C
	June 11, 1947	4.73	10,000	1958	July 7, 1958	11.39	7,870
	June 21, 1947	3.78	6,470	1958	July 13, 1958	10.80	6,790
1948	Mar. 26, 1948	3.11	4,500				
	Apr. 10, 1948	3.00	4,240				
	June 24, 1948	4.45	8,820				
	Aug. 8, 1948	3.71	6,300				
	Aug. 15, 1948	3.45	5,360				

a At present site and datum.

b Annual peak only.

2460. Sans Bois Creek near Keota, Okla.

Location.--Lat 35°16', long 94°58', in NW $\frac{1}{4}$ sec.15, T.9 N., R.22 E., at bridge on State Highway 10, 2 $\frac{1}{2}$ miles west of Keota and 13 miles upstream from mouth

Drainage area.--346 sq mi.

Gage.--Nonrecording. Datum of gage is 437.27 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 17,000 cfs and extended above.

Bankfull stage.--17 ft.

Remarks.--Records 1938-40 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 1,800 cfs.

Peak stages and discharges of Sans Bois Creek near Keota, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Feb. 18, 1938	a26.1	30,000	1941	Apr. 21, 1941	16.7	2,310
					May 1, 1941	14.4	1,970
1939	Feb. 20, 1939	14.8	1,840				
	Mar. 5, 1939	14.8	1,840	1942	Oct. 17, 1941	17.5	3,050
	Apr. 7, 1939	17.1	2,920		Nov. 1, 1941	22.2	10,100
	Apr. 18, 1939	17.55	3,450		Jan. 31, 1942	14.7	2,030
1940	Apr. 13, 1940	17.90	3,660		Feb. 17, 1942	14.5	2,120
	June 11, 1940	16.7	2,740		Apr. 9, 1942	19.5	7,150
1941	Jan. 3, 1941	19.4	6,300		Apr. 25, 1942	25.2	26,300
	Feb. 4, 1941	13.8	1,830		June 28, 1942	15.7	2,260
	Feb. 21, 1941	17.6	3,290	1943	July 12, 1942	15.6	2,280
	Apr. 17, 1941	16.1	2,800		May 11, 1943	a27.9	-

a Annual peak only.

2465. Arkansas River near Sallisaw, Okla.

Location.--Lat 35°21', long 94°46', in SW $\frac{1}{4}$ sec.9, T.10 N., R.24 E., near center of span on downstream side of pier of bridge on State Highway 59, 3.9 miles downstream from Sans Bois Creek, 7 $\frac{1}{2}$ miles south of Sallisaw, and at mile 395.0.

Drainage area.--147,757 sq mi, of which about 125,516 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 413.42 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--23 ft.

Remarks.--Some regulation of peaks by storage reservoirs and power development. Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 100,000 cfs. Only annual peak stages are shown prior to 1948.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	April 1927	34.5	-	1951	May 22, 1951	21.30	180,000
1940	Sept. 6, 1940	20.0	-		June 12, 1951	18.96	124,000
1941	Apr. 21, 1941	29.05	-		July 6, 1951	25.65	253,000
1942	Nov. 2, 1941	34.70	-	1952	July 19, 1951	25.84	245,000
1943	May 11, 1943	37.90	-		Sept. 17, 1951	18.75	118,000
1944	May 3, 1944	24.33	-	1953	Apr. 25, 1953	17.26	112,000
1945	Apr. 16, 1945	35.96	-	1954	May 3, 1954	23.70	202,000
1946	Oct. 2, 1945	27.37	-	1955	May 22, 1955	17.30	108,000
1947	Dec. 12, 1946	23.80	-		May 30, 1955	17.46	102,000
1948	June 25, 1948	29.70	361,000	1956	Oct. 7, 1955	19.70	139,000
	July 20, 1948	20.72	144,000	1957	Apr. 4, 1957	19.85	134,000
	Aug. 16, 1948	20.26	138,000		Apr. 27, 1957	23.98	191,000
1949	Jan. 28, 1949	17.65	132,000		May 3, 1957	22.08	146,000
	Feb. 16, 1949	21.86	199,000		May 15, 1957	18.57	110,000
	May 2, 1949	18.83	139,000		May 20, 1957	29.75	334,000
	May 21, 1949	28.18	363,000		May 23, 1957	31.15	367,000
	June 12, 1949	21.77	160,000		May 27, 1957	34.80	544,000
1950	May 12, 1950	31.04	442,000	1958	June 3, 1957	28.83	300,000
	July 23, 1950	24.40	212,000		June 16, 1957	28.04	264,000
	Aug. 3, 1950	23.75	203,000		Mar. 27, 1958	18.40	130,000
	Sept. 17, 1950	22.00	176,000		June 26, 1958	20.28	161,000
1951	Feb. 21, 1951	19.50	146,000		July 9, 1958	16.76	106,000
					July 14, 1958	20.00	156,000

2470. Poteau River at Cauthron, Ark.

Location.--Lat 34°55', long 94°18', in sec.16, T.3 N., R.31 W., on right bank at downstream side of highway bridge at Cauthron, 8 miles downstream from Jones Creek.

Drainage area.--200 sq mi.

Gage.--Nonrecording prior to May 2, 1939; recording thereafter. Datum of gage is 569.53 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--19 ft.

Historical data.--Flood in June 1935 was reported by local residents as greatest known.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1935	June 1935	a27.4	-	1949	Feb. 14, 1949	17.68	8,52C	
1939	Feb. 19, 1939	15.1	5,640		Mar. 26, 1949	14.20	5,12C	
	Feb. 25, 1939	17.0	7,460		May 1, 1949	16.29	6,84C	
	Mar. 5, 1939	14.6	5,240	1950	Jan. 4, 1950	17.08	7,71C	
	Apr. 6, 1939	17.8	8,470		Jan. 13, 1950	19.81	13,200	
	Apr. 16, 1939	22.5	24,400		Feb. 1, 1950	17.92	8,840	
			Feb. 12, 1950		22.78	27,80C		
			Apr. 4, 1950		11.85	3,580		
1940	Apr. 29, 1940	10.71	2,810		May 8, 1950	18.28	9,500	
	Dec. 16, 1940	10.57	2,760		May 12, 1950	14.98	5,690	
1942	Oct. 4, 1941	17.34	7,820		July 23, 1950	14.55	5,400	
	Oct. 31, 1941	18.87	10,500		Aug. 2, 1950	15.60	6,180	
	Apr. 8, 1942	16.70	7,130		Sept. 16, 1950	14.42	5,260	
	May 20, 1942	14.54	5,160	1951	Feb. 15, 1951	15.08	5,770	
					Feb. 20, 1951	14.59	5,40C	
1943	May 11, 1943	21.74	19,000	1952	Nov. 1, 1951	15.13	5,77C	
	May 20, 1943	19.43	11,800		Jan. 2, 1952	16.16	6,74C	
1944	Feb. 17, 1944	15.23	5,720		Mar. 10, 1952	15.88	6,45C	
	Feb. 28, 1944	17.09	7,580		Apr. 12, 1952	18.86	10,70C	
	Mar. 16, 1944	14.33	5,010		Apr. 22, 1952	18.69	10,90C	
	May 2, 1944	16.96	7,460	1953	Nov. 25, 1952	20.44	15,60C	
1945	Feb. 21, 1945	21.03	16,600		Mar. 18, 1953	20.28	15,20C	
	Feb. 27, 1945	19.07	10,800		Apr. 24, 1953	17.23	7,830	
	Mar. 3, 1945	16.14	6,640		Apr. 29, 1953	18.90	10,700	
	Mar. 6, 1945	14.13	5,050		May 13, 1953	20.46	16,000	
	Mar. 12, 1945	17.34	7,950	1954	May 2, 1954	19.86	13,600	
	Mar. 19, 1945	17.78	8,590		1955	Mar. 21, 1955	17.22	7,830
	Mar. 29, 1945	22.11	22,000			1956	Feb. 18, 1956	16.52
	May 15, 1945	22.39	23,800	1957	Jan. 22, 1957		14.57	5,220
June 11, 1945	18.56	9,850	Apr. 4, 1957		18.37	9,680		
1946	Jan. 9, 1946	16.37	6,940		Apr. 25, 1957	16.28	6,840	
	Feb. 13, 1946	18.30	9,350		Apr. 27, 1957	18.15	9,320	
	May 23, 1946	17.44	8,070		May 23, 1957	18.73	10,300	
	May 31, 1946	17.67	8,450	June 5, 1957	16.20	6,740		
1947	Nov. 26, 1946	15.58	6,180	Aug. 12, 1957	18.38	9,320		
	Dec. 10, 1946	21.18	17,400	1958	Nov. 18, 1957	18.63	10,100	
1948	Dec. 7, 1947	14.90	5,610		Mar. 7, 1958	15.85	6,820	
	Jan. 1, 1948	21.08	17,000		May 2, 1958	18.91	11,200	
	Feb. 26, 1948	14.52	5,330					
	Mar. 2, 1948	14.44	5,260					
1949	Jan. 24, 1949	23.34	31,000					

a Annual peak only.

2475. Fourche Maline near Red Oak, Okla.

Location.--Lat 34°54'45", long 95°09'20", in NW¼NW¼ sec.13, T.5 N., R.20 E., on downstream side of left abutment of highway bridge, 0.1 mile downstream from Little Fourche Maline, 5 miles southwest of Red Oak, and at mile 41.2.

Drainage area.--122 sq mi.

Gage.--Nonrecording prior to Apr. 25, 1939; recording thereafter. Datum of gage is 540.80 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 8,000 cfs and extended by logarithmic plotting.

Bankfull stage.--15 ft.

Remarks.--Records for 1939 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 3,100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	June 1935	a25.4	-	1948	Feb. 27, 1948	16.32	3,200
1939	Apr. 16, 1939	16.60	3,630	1949	Feb. 14, 1949	16.38	3,350
1940	Apr. 11, 1940	17.47	5,850		June 14, 1949	16.15	3,090
1941	Apr. 16, 1941	16.53	3,470	1950	Jan. 13, 1950	16.87	4,210
1942	Oct. 31, 1941	17.94	7,130		Feb. 13, 1950	16.72	3,810
	Apr. 8, 1942	17.72	6,470		May 11, 1950	17.49	5,720
	Apr. 25, 1942	22.34	26,300		July 22, 1950	17.30	5,190
	July 11, 1942	17.64	6,150		July 29, 1950	20.72	16,400
					Sept. 16, 1950	20.60	16,100
1943	Dec. 27, 1942	21.34	21,600	1951	Feb. 18, 1951	17.60	5,990
	Apr. 12, 1943	17.24	4,990		June 11, 1951	17.00	4,440
	May 10, 1943	21.14	20,900	1952	Apr. 12, 1952	17.36	5,450
1944	Feb. 28, 1944	17.80	6,790	1953	Mar. 14, 1953	18.17	7,730
	May 2, 1944	17.54	5,850		Mar. 18, 1953	18.46	8,970
1945	Feb. 21, 1945	21.01	17,600		Apr. 24, 1953	19.47	12,800
	Mar. 3, 1945	17.60	5,990		Apr. 29, 1953	17.25	5,450
	Mar. 19, 1945	19.17	11,000		May 12, 1953	17.96	8,030
	Mar. 30, 1945	17.99	7,130		July 25, 1953	16.79	4,680
	Apr. 14, 1945	17.22	4,930	1954	May 2, 1954	11.89	1,460
	May 15, 1945	20.40	15,300	1955	Mar. 21, 1955	17.28	5,190
	June 11, 1945	18.14	7,430	1956	Feb. 17, 1956	12.55	1,490
1946	Feb. 13, 1946	17.32	5,190	1957	Apr. 3, 1957	18.86	13,400
	May 31, 1946	16.86	4,210		Apr. 23, 1957	16.68	3,870
1947	Nov. 6, 1946	17.68	6,270		Apr. 26, 1957	19.02	14,300
	Dec. 10, 1946	19.34	11,300		May 26, 1957	17.76	7,520
	Apr. 11, 1947	17.70	6,270	1958	May 2, 1958	18.19	8,200
	Apr. 29, 1947	17.04	4,440				
	May 17, 1947	17.13	4,680				

a Annual peak only.

2485. Poteau River near Wister, Okla.

Location.--Lat 34°56'15", long 94°42'50", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.6, T.5 N., R.25 E., on left bank of outflow channel, 700 ft downstream from Wister Dam, 2 $\frac{1}{4}$ miles southeast of Wister, 2.6 miles upstream from Caston Creek, and at mile 60.5.

Drainage area.--993 sq mi.

Gage.--Nonrecording prior to Jan. 1, 1939, at site 0.1 mile downstream at datum 13.11 ft lower; recording thereafter. Jan. 1, 1939, to Sept. 30, 1947, and Oct. 1, 1947, to June 28, 1953, at sites 1.6 and 1.1 miles, respectively, downstream at datum 12.41 ft lower. Datum of present gage is 445.43 ft above mean sea level, datum of 1929.

Bankfull stage.--18 ft. At previous site, 24 ft.

Historical data.--Maximum stage known occurred in 1935. According to project report for Wister Reservoir, other major floods occurred in August and October 1915, April 1927, May 1930, May 1935, and February 1938.

Remarks.--Flow completely regulated by Wister Reservoir since October 1949 (capacity, 429,600 acre-ft). Records 1938-39 furnished by Corps of Engineers. Base for partial-duration series, 7,000 cfs. Only annual peaks are shown subsequent to 1948.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	June 1935	a43.0	-	1946	Jan. 10, 1946	27.51	14,800
1939	Feb. 21, 1939	22.88	10,200	1946	Feb. 14, 1946	30.00	18,400
	Feb. 26, 1939	25.37	13,000	1946	Apr. 25, 1946	27.15	14,400
	Apr. 7, 1939	25.90	13,700	1946	May 1, 1946	19.08	6,850
	Apr. 17, 1939	37.1	77,800	1946	May 4, 1946	23.31	10,200
1940	Apr. 12, 1940	19.70	7,670	1946	May 18, 1946	21.78	8,880
				1946	May 26, 1946	30.20	18,800
1941	Jan. 2, 1941	21.58	8,760	1947	June 1, 1946	32.24	26,800
	Feb. 21, 1941	19.89	7,740	1947	Nov. 7, 1946	27.90	15,300
	Apr. 16, 1941	18.98	7,200	1947	Nov. 9, 1946	28.72	16,400
	Apr. 18, 1941	21.28	8,580	1947	Nov. 27, 1946	21.40	8,560
1942	Oct. 5, 1941	20.79	8,770	1947	Dec. 12, 1946	34.66	46,400
	Nov. 2, 1941	27.69	15,400	1947	Apr. 11, 1947	26.29	13,800
	Apr. 9, 1942	31.03	21,800	1947	Apr. 30, 1947	23.56	11,500
	Apr. 26, 1942	29.82	18,700	1947	May 14, 1947	25.10	12,700
1943	Dec. 28, 1942	30.64	20,600	1948	May 18, 1947	22.46	10,700
	May 11, 1943	37.05	77,000	1948	Dec. 8, 1947	23.34	10,300
	May 22, 1943	26.08	13,400	1948	Jan. 2, 1948	32.71	24,500
				1948	Feb. 27, 1948	29.50	17,500
1944	Feb. 29, 1944	28.75	17,000	1948	Mar. 2, 1948	26.03	12,200
	Mar. 20, 1944	25.20	12,400	1948	May 12, 1948	25.12	11,300
	May 3, 1944	31.06	22,100	1949	Jan. 27, 1949	29.89	14,600
	June 14, 1944	20.94	8,840	1950	Jan. 12, 1950	23.33	8,420
1945	Feb. 18, 1945	20.40	8,490	1951	Feb. 27, 1951	20.11	7,090
	Feb. 22, 1945	34.31	42,800	1952	Apr. 27, 1952	24.03	9,720
	Feb. 28, 1945	32.66	30,100	1953	May 5, 1953	22.89	9,220
	Mar. 14, 1945	22.67	10,100	1954	May 13, 1954	8.73	6,740
	Mar. 20, 1945	33.08	32,900	1955	Apr. 7, 1955	8.43	6,360
	Mar. 25, 1945	20.18	8,360	1956	Feb. 23, 1956	8.10	6,060
	Mar. 31, 1945	34.23	41,900	1957	May 27, 1957	14.41	11,300
	Apr. 13, 1945	21.10	8,980	1958	May 23, 1958	8.76	7,140
	May 13, 1945	20.47	8,560				
	May 16, 1945	37.16	78,600				
	June 12, 1945	35.00	49,400				
	June 18, 1945	23.66	10,900				
	Sept. 29, 1945	26.64	14,000				
1946	Jan. 6, 1946	19.91	7,440				

a Annual peak only, at site and datum used in 1938; estimated as 38.5 ft at site used 1939-47, on basis of fall determined for flood in 1943.

2490. Poteau River at Poteau, Okla.

Location.--Lat 35°03'35", long 94°36'10", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.19, T.7 N., R.26 E., at St. Louis-San Francisco Railway Co. bridge, 1 mile northeast of Poteau, 2 miles upstream from Nail Creek, and at mile 39.6.

Drainage area.--1,240 sq mi.

Gage.--Nonrecording prior to May 20, 1939, at site 100 ft upstream; recording thereafter. Datum of gage is 409.4 ft above mean sea level (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 73,000 cfs.

Bankfull stage.--20 ft.

Historical data.--Major floods are reported to have occurred in May 1898, June 1904, and May 1908.

Remarks.--Base for partial-duration series, 6,500 cfs. Only annual peaks are shown prior to 1938.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	September 1923	29.0	21,000	1941	Feb. 21, 1941	23.28	8,250
					Apr. 19, 1941	24.75	9,160
1926	September 1926	32.5	40,000	1942	Oct. 6, 1941	22.31	7,750
1927	Apr. 15, 1927	34.0	51,000		Nov. 3, 1941	27.77	11,800
					Feb. 1, 1942	20.16	6,700
1929	May 20, 1929	29.0	21,000		Apr. 10, 1942	29.63	22,700
					Apr. 27, 1942	28.56	18,500
1930	May 12, 1930	31.8	37,000	1943	Dec. 29, 1942	29.03	20,900
1932	Feb. 18, 1932	31.0	32,000		May 11, 1943	37.00	58,100
					May 16, 1943	23.22	7,420
1935	June 18, 1935	39.0	100,000		May 22, 1943	26.76	11,500
1938	Nov. 12, 1937	24.0	8,370	1944	Feb. 19, 1944	24.29	8,140
	Dec. 19, 1937	25.0	9,370		Mar. 1, 1944	28.27	15,400
	Jan. 25, 1938	31.8	37,000		Mar. 21, 1944	26.68	10,900
	Feb. 19, 1938	36.3	73,000		May 4, 1944	29.51	20,300
	May 30, 1938	28.0	16,500		June 14, 1944	23.86	7,900
	Apr. 1, 1938	24.1	8,460	1945	Feb. 19, 1945	22.51	7,150
	Apr. 9, 1938	24.8	9,160		Feb. 22, 1945	32.89	39,200
	Apr. 17, 1938	24.2	8,560		Mar. 1, 1945	31.02	27,300
1939	Feb. 21, 1939	24.70	9,060		Mar. 14, 1945	25.13	9,500
	Feb. 27, 1939	26.80	12,400		Mar. 20, 1945	31.55	30,700
	Apr. 8, 1939	26.69	12,100		Mar. 25, 1945	23.95	9,000
	Apr. 17, 1939	36.20	68,200		Mar. 31, 1945	32.38	35,800
1940	Apr. 12, 1940	22.40	7,540		Apr. 14, 1945	23.67	7,780
					May 16, 1945	36.42	66,300
1941	Jan. 3, 1941	24.87	9,260		June 12, 1945	35.10	55,900
	Feb. 4, 1941	19.91	6,550		June 19, 1945	25.89	9,680
					Sept. 30, 1945	27.84	13,800

2494.5. Arkansas River at Fort Smith, Ark.

Location.--Lat 35°23'35", long 94°26'00", in S $\frac{1}{2}$ sec.27, T.11 N., R.27 E., Indian Meridian, on upstream side of bridge on U. S. Highway 64 at Fort Smith, 0.2 mile downstream from Poteau River, 7.1 miles upstream from Lee Creek, and at mile 361.8.

Drainage area.--149,972 sq mi, of which about 127,731 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. Prior to Oct. 1, 1903, at present site and Oct. 1, 1903, to July 23, 1942, on Missouri Pacific Railroad Co. bridge 800 ft upstream. All gages at datum 380.24 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Bankfull stage.--22 ft.

Historical data.--The flood in June 1833 was highest known prior to flood in 1943.

Remarks.--Gage heights furnished by U. S. Weather Bureau. Crest stages affected by storage reservoirs and power development since 1940.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1833	June 1833	38.0	-	1917	June 10, 1917	15.0	-
1879	May 4, 1879	10.8	-	1918	May 12, 1918	18.00	-
1880	Apr. 5, 1880	12.9	-	1919	Nov. 10, 1918	20.7	-
				1920	Mar. 28, 1920	22.9	-
1881	May 25, 1881	15.8	-	1921	Mar. 25, 1921	22.8	-
1882	Feb. 23, 1882	21.8	-	1922	Apr. 12, 1922	27.8	-
1883	June 11, 1883	22.8	-	1923	June 15, 1923	23.0	-
1884	Feb. 14, 1884	27.9	-	1924	May 2, 1924	29.4	-
1885	Apr. 26, 1885	27.9	-	1925	Apr. 30, 1925	15.8	-
1886	Aug. 9, 1886	13.7	-	1926	Sept. 8, 1926	19.7	-
1887	June 18, 1887	9.3	-	1927	Apr. 16, 1927	30.7	-
1888	May 21, 1888	17.8	-	1928	June 24, 1928	24.8	-
1889	Mar. 26, 1889	20.0	-	1929	May 16, 1929	29.7	-
1890	Mar. 12, Apr. 28	21.0	-	1930	May 13, 1930	21.5	-
1891	June 8, 1891	20.4	-	1931	Feb. 10, 1931	14.2	-
1892	May 19, 1892	30.95	-	1932	Jan. 24, 1932	22.0	-
1893	May 1, 1893	26.8	-	1933	May 17, 1933	27.7	-
1894	Mar. 8-9, 1894	17.6	-	1934	Apr. 8, 1934	18.1	-
1895	Aug. 1, 1895	19.6	-	1935	June 19, 1935	34.4	-
1896	Dec. 26, 1895	27.6	-	1936	Sept. 30, 1936	20.00	-
1897	Jan. 5, 1897	18.6	-	1937	June 14, 1937	21.7	-
1898	May 7, 1898	35.4	-	1938	Feb. 19, 1938	33.2	-
1899	May 9, 1899	26.4	-	1939	May 16, 1939	16.6	-
1900	May 23, 1900	12.8	-	1940	Sept. 6, 1940	19.1	-
1901	Apr. 19, 1901	14.7	-	1941	Apr. 22, 1941	31.4	-
1902	May 25, 1902	19.0	-	1942	Nov. 1, 1941	37.3	-
1903	May 26, 1903	25.1	-	1943	May 12, 1943	41.7	-
1904	June 7, 1904	33.4	-	1944	May 4, 1944	26.7	-
1905	May 30, 1905	22.4	-	1945	Apr. 16, 1945	38.4	-
1906	Aug. 10, 1906	20.2	-	1946	Oct. 2, 1945	28.8	-
1907	May 17-18, 1907	19.3	-	1947	Dec. 13, 1946	26.6	-
1908	May 27, 1908	32.7	-	1948	June 26, 1948	29.7	-
1909	May 27, 1909	26.6	-	1949	May 22, 1949	28.6	-
1910	Nov. 19, 1909	12.4	-	1950	May 13, 1950	31.0	-
1911	Aug. 7, 1911	21.2	-	1951	July 19, 1951	25.9	-
1912	May 1, 1912	28.2	-	1952	Apr. 24, 1952	19.2	-
1913	Mar. 28, 1913	16.0	-	1953	Apr. 26, 1953	18.3	-
1914	May 6, 1914	17.2	-	1954	May 3, 1954	22.5	-
1915	May 30, 1915	29.2	-	1955	May 31, 1955	17.7	-
1916	Jan. 30, 1916	32.7	-	1957	May 27, 1957	35.75	-

2495. Cove Creek near Lee Creek, Ark.

Location.--Lat 35°43'20", long 94°24'30", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.16, T.12 N., R.32 W., on downstream side of bridge, 4 $\frac{1}{2}$ miles northwest of Lee Creek and 5 $\frac{3}{4}$ miles upstream from mouth.

Drainage area.--36.9 sq mi.

Gage.--Recording. Altitude of gage is 852 ft (by barometer).

Stage-discharge relation.--Defined by current-meter measurements below 5,000 cfs and extended on basis of slope-area measurement at 20,500 cfs.

Bankfull stage.--7 ft.

Remarks.--Base for partial-duration series, 1,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	May 10, 1950	10.50	a9,510	1955	June 15, 1955	7.80	4,340
1951	Feb. 18, 1951	6.65	2,850	1956	Apr. 28, 1956	7.80	4,320
	July 2, 1951	8.80	5,890		May 15, 1956	6.60	2,790
1952	Mar. 10, 1952	5.28	1,580	1957	Apr. 3, 1957	13.50	20,500
	Apr. 12, 1952	5.79	2,150		May 17, 1957	11.75	13,700
	May 23, 1952	6.01	2,250		May 22, 1957	11.75	13,700
1953	Mar. 14, 1953	8.03	4,640		May 25, 1957	7.00	3,300
	May 12, 1953	6.20	2,250		June 9, 1957	6.30	2,440
	May 17, 1953	6.45	2,520	Aug. 13, 1957	8.70	5,840	
1954	May 2, 1954	5.56	1,670	Aug. 16, 1957	9.60	7,680	
				Sept. 21, 1957	5.83	2,000	
1955	Oct. 11, 1954	6.78	2,930	1958	Nov. 7, 1957	6.09	2,230
	Dec. 27, 1954	6.20	2,250		Nov. 18, 1957	6.44	2,610
	Feb. 19, 1955	7.90	4,190		Mar. 8, 1958	6.15	2,280
	Mar. 20, 1955	7.20	3,470		June 25, 1958	6.90	3,170
	May 26, 1955	6.30	2,350		July 12, 1958	12.45	16,100
	June 5, 1955	7.95	4,640		Aug. 2, 1958	6.30	2,200

a Annual peak only.

2500. Lee Creek near Van Buren, Ark.

Location.--Lat 35°29'40", long 94°27'00", in SE $\frac{1}{4}$ sec.21, T.12 N., R.27 E., Indian Meridian, on right bank 300 ft west of Arkansas-Oklahoma State line, 3.2 miles downstream from Webbers Creek, 6 $\frac{3}{4}$ miles northwest of Van Buren, and 7.9 miles upstream from mouth.

Drainage area.--427 sq mi.

Gage.--Nonrecording prior to June 1937; recording thereafter. Datum of gage is 408.04 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 55,000 cfs.

Bankfull stage.--17 ft.

Remarks.--Base for partial-duration series, 13,000 cfs. Only annual peaks are shown prior to 1951.

ARKANSAS RIVER BASIN

Peak stages and discharges of Lee Creek near Van Buren, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1931	Feb. 8, 1931	20.5	27,700	1953	Mar. 14, 1953	15.65	16,200
1932	Jan. 16, 1932	18.1	23,200		Mar. 18, 1953	17.24	19,500
1933	May 14,15, 1933	22.3	32,200		May 12, 1953	16.57	18,300
1934	Sept. 2, 1934	13.3	13,700	1954	May 2, 1954	15.34	15,600
1935	June 17, 1935	27.0	57,700	1955	Feb. 20, 1955	18.54	22,500
1936	Dec. 6, 1935	14.8	15,100		Mar. 20, 1955	16.06	17,300
1943	May 10, 1943	27.0	57,700	1956	Apr. 29, 1956	14.02	13,000
1945	Apr. 15, 1945	35.0	112,000	1957	Apr. 3, 1957	29.37	73,200
1950	May 10, 1950	27.2	58,900		May 17, 1957	17.98	21,700
1951	Feb. 18, 1951	17.76	20,900		May 23, 1957	25.16	48,500
	July 2, 1951	19.46	25,000		June 2, 1957	15.86	16,700
1952	Apr. 12, 1952	15.02	15,000		June 13, 1957	20.66	29,800
					Aug. 16, 1957	14.04	13,000
				1958	May 9, 1958	14.34	14,800
					June 25, 1958	15.22	16,600
					July 13, 1958	22.32	35,900

2505. Arkansas River at Van Buren, Ark.

Location.--Lat 35°25'42", long 94°21'37", in NW $\frac{1}{4}$ sec.36, T.9 N., R.32 W., near right bank on downstream side of bridge on U. S. Highways 64 and 71 at Van Buren, 1.3 miles downstream from Lee Creek, 8.6 miles downstream from Poteau River, and at mile 353.4.

Drainage area.--150,483 sq mi, of which about 128,242 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Oct. 1, 1934; recording thereafter. Datum of gage is 372.36 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 760,000 cfs.

Bankfull stage.--22 ft.

Historical data.--Maximum stage known since at least 1833, that of Apr. 16, 1945.

Remarks.--Peak discharges affected by storage reservoirs and power development since March 1940. Base for partial-duration series, 110,000 cfs. Only annual peaks prior to 1934.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 16, 1927	35.0	-	1936	Dec. 8, 1935	20.10	118,000
1928	Oct. 5, 1927	25.2	243,000		Sept.30, 1936	21.17	143,000
1929	May 16, 1929	29.0	315,000	1937	Oct. 10, 1936	20.10	126,000
1930	May 10, 1930	22.6	164,000		Jan. 17, 1937	21.9	154,000
1931	Dec. 6, 1930	15.5	82,500		Feb. 2, 1937	21.1	143,000
1932	Jan. 24, 1932	22.15	184,000		June 2, 1937	18.9	122,000
1933	May 17, 1933	27.88	278,000		June 14, 1937	21.9	148,000
1934	Apr. 9, 1934	17.90	116,000		June 19, 1937	21.0	134,000
1935	Nov. 24, 1934	18.60	111,000	1938	Feb. 19, 1938	32.71	375,000
	Mar. 14, 1935	25.10	206,000		Mar. 30, 1938	a25.40	195,000
	Mar. 26, 1935	23.78	179,000		May 25, 1938	25.12	200,000
	May 6, 1935	22.41	165,000	1939	May 16, 1939	16.68	77,400
	May 22, 1935	25.48	215,000	1940	Sept. 6, 1940	20.45	127,000
	June 9, 1935	a29.47	269,000	1941	Apr. 22, 1941	30.58	311,000
	June 19, 1935	b34.1	418,000		June 13, 1941	27.52	244,000
					Sept.11, 1941	a19.64	115,000
				1942	Oct. 7, 1941	a25.93	209,000
					Oct. 18, 1941	a26.32	204,000

a Occurred on following day.

b Occurred at different time than peak discharge.

Peak stages and discharges of Arkansas River at Van Buren, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)			
1942	Oct. 28, 1941	25.56	203,000	1948	Aug. 17, 1948	21.9	149,000			
	Nov. 2, 1941	a35.70	485,000		1949	Jan. 27-28, 1949	b22.02	157,000		
	Apr. 12, 1942	27.78	268,000	Feb. 16, 1949		b24.90	205,000			
	Apr. 30, 1942	31.00	328,000	May 2, 1949		b21.40	152,000			
	June 26, 1942	26.20	218,000	May 22, 1949		b29.03	325,000			
			June 15, 1949	23.04		175,000				
1943	Dec. 29, 1942	a23.30	188,000	1950	May 13, 1950	b30.90	402,000			
	May 12, 1943	b38.00	850,000		July 24, 1950	25.30	225,000			
	May 23, 1943	b36.80	752,000		July 30, 1950	23.20	173,000			
	June 8, 1943	22.80	144,000		Aug. 4, 1950	24.50	204,000			
			Sept. 17, 1950		22.80	185,000				
1944	Mar. 21, 1944	22.50	152,000	1951	Feb. 21, 1951	21.19	164,000			
	Apr. 13, 1944	24.63	182,000		May 22, 1951	a22.08	164,000			
	May 3, 1944	a25.84	238,000		June 13, 1951	20.72	138,000			
	June 15, 1944	20.32	127,000		June 28, 1951	20.98	140,000			
			July 6, 1951		28.76	250,000				
1945	Dec. 9, 1944	19.37	124,000	July 19, 1951	26.82	238,000				
	Feb. 24, 1945	19.28	111,000	Sept. 17, 1951	19.56	117,000				
	Mar. 4, 1945	b23.88	177,000	1952	Apr. 24, 1952	20.70	145,000			
	Mar. 21, 1945	b29.78	304,000		1953	Apr. 26, 1953	b19.28	133,000		
	Apr. 2, 1945	23.70	156,000			1954	May 3, 1954	23.84	205,000	
	Apr. 17, 1945	c38.10	650,000				1955	May 31, 1955	18.91	101,000
	Apr. 17, 1945	21.86	148,000					1956	Oct. 7, 1955	19.63
	May 17, 1945	21.86	148,000	1957					Apr. 5, 1957	21.78
	June 11, 1945	b26.70	228,000		Apr. 28, 1957				25.32	197,000
	July 4, 1945	20.40	130,000		May 28, 1957	35.97			510,000	
			1958		Mar. 28, 1958	20.17	132,000			
					May 10, 1958	18.93	117,000			
				June 26, 1958	21.90	171,000				
				July 15, 1958	22.20	160,000				
1946	Oct. 2, 1945	29.42	287,000	1954	May 3, 1954	23.84	205,000			
	Jan. 12, 1946	20.45	139,000		1955	May 31, 1955	18.91	101,000		
	Feb. 20, 1946	20.13	128,000			1956	Oct. 7, 1955	19.63	128,000	
	May 24, 1946	21.63	148,000				1957	Apr. 5, 1957	21.78	150,000
	June 2, 1946	19.62	118,000					Apr. 28, 1957	25.32	197,000
			May 28, 1957	35.97				510,000		
			1958	Mar. 28, 1958	20.17			132,000		
				May 10, 1958	18.93	117,000				
				June 26, 1958	21.90	171,000				
				July 15, 1958	22.20	160,000				
1947	Nov. 10, 1946	19.68	119,000	1958	Mar. 28, 1958	20.17	132,000			
	Dec. 13, 1946	27.80	262,000		May 10, 1958	18.93	117,000			
Apr. 17, 1947	26.36	238,000	June 26, 1958		21.90	171,000				
Apr. 30, 1947	25.80	205,000	July 15, 1958		22.20	160,000				
May 18, 1947	26.72	224,000								
June 3, 1947	23.53	155,000								
1948	June 25-26, 1948	b30.61	330,000							
	July 20, 1948	22.12	152,000							

a Occurred on following day.

b Occurred at different time than peak discharge.

c Occurred Apr. 16, 1945.

2510. Frog Bayou near Mountainburg, Ark.

Location--Lat 35°39'40", long 94°09'10", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.2, T.11 N., R.30 W., on left bank above concrete weir in spillway of Fort Smith Dam, three-quarters of a mile upstream from Warloop Creek, 1 $\frac{1}{2}$ miles upstream from Howard Fork, 2 $\frac{1}{2}$ miles northeast of Mountainburg, and $\frac{3}{8}$ miles downstream from Jones Fork.

Drainage area--74 sq mi.

Gage--Nonrecording gage and concrete control prior to Aug. 28, 1939; recording thereafter. Datum of gage is 800.00 ft above mean sea level, datum of 1929 (levels by city of Fort Smith).

Stage-discharge relation--Defined by current-meter measurements below 11,100 cfs and extended by logarithmic plotting.

Remarks--Records represent spillway overflow from Lake Fort Smith and do not include water diverted for municipal supply of Fort Smith. Peak discharge affected by storage in Lake Fort Smith (capacity, 10,000 acre-ft) and since Jan. 1, 1956, by Lake Sheppard Springs (capacity, 19,000 acre-ft). Base for partial-duration series, 3,000 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Frog Bayou near Mountainburg, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	Jan. 14, 1937	26.6	2,400	1947	June 21, 1947	27.58	4,800
1938	Feb. 15, 1938	27.90	5,600	1948	Aug. 14, 1948	26.69	2,550
	Feb. 18, 1938	28.20	6,500				
1939	Feb. 19, 1939	26.55	2,190	1949	Jan. 24, 1949	28.21	6,500
					Feb. 15, 1949	27.66	4,940
1940	Apr. 11, 1940	27.35	4,220	1950	Jan. 13, 1950	27.00	3,270
					May 10, 1950	27.61	4,800
1941	Apr. 19, 1941	26.58	2,310	1951	Feb. 18, 1951	28.01	5,920
1942	Apr. 8, 1942	27.96	5,780		July 2, 1951	28.48	7,440
1943	Nov. 5, 1942	26.92	3,300	1952	Apr. 12, 1952	26.58	2,310
	Dec. 27, 1942	28.61	11,100				
	May 10, 1943	29.84	12,000	1953	Mar. 17, 1953	27.05	3,390
1944	Apr. 8, 1944	28.40	7,120		Apr. 29, 1953	27.09	3,510
	June 14, 1944	27.06	3,390		May 12, 1953	27.08	3,510
1945	Feb. 21, 1945	28.81	8,420	1954	May 3, 1954	25.46	397
	Mar. 2, 1945	27.71	5,070				
	Mar. 19, 1945	28.43	7,120	1955	Feb. 19, 1955	27.32	4,010
	Mar. 30, 1945	27.92	5,630		Mar. 20, 1955	26.91	3,030
	Apr. 15, 1945	31.06	17,300	1956	June 9, 10, 1956	25.16	92
	June 10, 1945	29.10	9,420				
1946	Feb. 15, 1946	27.77	5,210	1957	Apr. 3, 1957	27.83	5,630
	May 24, 1946	29.14	9,420		May 13, 1957	26.85	3,030
					May 23, 1957	30.28	13,700
1947	Nov. 9, 1946	28.12	6,210	1958	(a)	26.48	2,100
	Dec. 10, 1946	27.41	4,270				

a Nov. 18, 1957, July 12, 1958.

2515. Frog Bayou at Rudy, Ark.

Location.--Lat 35°31'25", long 94°16'30", in SW $\frac{1}{4}$ sec.23, T.10 N., R.31 W., on left bank at downstream side of bridge on county road at Rudy, 0.5 mile downstream from Cedar Creek.

Drainage area.--217 sq mi.

Gage.--Recording. Datum of gage is 475.08 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 26,000 cfs.

Bankfull stage.--10 ft.

Remarks.--Peak discharge affected to some extent by storage in Lake Fort Smith (capacity, 10,000 acre-ft) and since Jan. 1, 1956, by Lake Sheppard Springs (capacity, 19,000 acre-ft). Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Apr. 15, 1945	18.5	a39,500	1955	Dec. 28, 1954	9.15	7,070
					Feb. 19, 1955	11.34	12,600
1950	May 10, 1950	11.40	a13,200		Mar. 20, 1955	9.17	7,070
1951	Feb. 15, 1951	9.07	7,110	1956	May 15, 1956	6.82	2,710
	Feb. 18, 1951	11.35	13,200				
	Feb. 20, 1951	8.75	6,490	1957	Apr. 3, 1957	12.88	13,900
	July 2, 1951	11.77	14,700		Apr. 26, 1957	7.74	4,140
			May 13, 1957		9.32	6,810	
1952	Nov. 25, 1951	7.98	4,980	May 23, 1957	18.04	36,200	
	Mar. 10, 1952	8.46	5,900	May 24, 1957	11.85	12,400	
	Apr. 12, 1952	8.86	6,690	June 13, 1957	12.37	13,800	
1953	Mar. 14, 1953	8.55	5,860	1958	Aug. 13, 1957	8.45	5,130
	Mar. 17, 1953	10.22	9,250		Aug. 16, 1957	16.24	25,800
	Apr. 29, 1953	9.90	8,570				
	May 12, 1953	10.18	9,250	Nov. 18, 1957	9.02	6,200	
1954	May 2, 1954	5.86	1,520	May 9, 1958	10.85	9,890	
				June 25, 1958	8.62	5,480	
				July 12, 1958	14.25	19,100	

a Annual peak only.

2520. Mulberry River near Mulberry, Ark.

Location.--Lat 35°34', long 94°01', in NW¹/₄ sec.6, T.10 N., R.28 W., on left bank a quarter of a mile upstream from Mill Creek, 5 miles northeast of Mulberry, and 11.3 miles upstream from mouth.

Drainage area.--372 sq mi.

Gage.--Nonrecording prior to Apr. 19, 1940, at site 500 ft downstream; recording thereafter. Datum of gage is 432.75 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 39,000 cfs and extended on basis of velocity-area study.

Bankfull stage.--18 ft.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1928	December 1927	a22.0	59,000	1949	Jan. 24, 1949	18.61	42,100
					Feb. 14, 1949	15.98	30,100
1939	Apr. 17, 1939	11.2	12,600	1950	Jan. 4, 1950	13.90	22,000
1940	Apr. 11, 1940	8.6	8,010		Jan. 13, 1950	10.53	12,300
1941	Jan. 24, 1941	8.32	7,110		Feb. 12, 1950	13.44	20,300
					May 11, 1950	12.74	18,000
1942	Oct. 31, 1941	10.79	12,200	1951	Feb. 15, 1951	10.95	13,500
	Apr. 8, 1942	12.89	17,500		Feb. 18, 1951	14.55	24,500
1943	Dec. 27, 1942	14.00	20,700	1952	Nov. 25, 1951	11.10	13,800
	May 10, 1943	18.23	40,100		Mar. 11, 1952	11.57	14,500
1944	Apr. 8, 1944	12.82	17,600		Apr. 12, 1952	11.63	15,000
	June 14, 1944	11.83	15,000		May 23, 1952	10.93	13,300
1945	Feb. 21, 1945	17.17	35,400	1953	Mar. 14, 1953	10.52	12,300
	Mar. 3, 1945	12.77	18,300		Mar. 19, 1953	15.17	26,800
	Mar. 19, 1945	15.06	26,400		Apr. 29, 1953	11.07	13,800
	Mar. 30, 1945	14.17	23,100		May 12, 1953	13.92	22,000
	Apr. 2, 1945	10.52	12,300	1954	Apr. 16, 1954	8.33	7,320
	Apr. 15, 1945	19.70	47,800	1955	Feb. 20, 1955	12.14	15,600
	May 16, 1945	10.37	12,100		Mar. 21, 1955	13.28	19,000
	June 10, 1945	17.30	35,800	1956	May 15, 1956	11.68	15,300
1946	Jan. 9, 1946	10.33	11,900	1957	Apr. 3, 1957	15.70	28,800
	Feb. 6, 1946	10.56	12,600		Apr. 26, 1957	10.81	13,100
	Feb. 13, 1946	13.57	20,900		May 13, 1957	15.54	21,600
	May 25, 1946	14.93	25,700		May 23, 1957	11.90	16,600
1947	Nov. 10, 1946	13.93	22,000		June 13, 1957	9.55	10,700
	Dec. 12, 1946	15.28	27,200	1958	Mar. 8, 1958	9.54	10,100
	May 20, 1947	15.4	27,600		May 9, 1958	9.88	11,000
1948	Jan. 1, 1948	12.04	16,100				
	Feb. 26, 1948	9.68	10,500				

a Annual peak only.

2524. Arkansas River at Ozark, Ark.

Location.--Lat 35°29'02", long 93°49'56", in SE¹/₄ sec.35, T.10 N., R.27 W., at bridge on State Highway 23 at Ozark, 14 miles downstream from Mulberry River and at mile 810.3.

Drainage area.--151,797 sq mi, of which about 129,556 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. Datum of gage is 337.06 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Bankfull stage.--22 ft.

Remarks.--Records furnished by U. S. Weather Bureau. Crest stages affected by storage reservoir and power development since March 1940. Only annual peak stages are shown.

Peak stages and discharges of Arkansas River at Ozark, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 27, 1927	35.4	-	1943	May 14, 1943	38.4	-
1928	Oct. 5, 1927	22.4	-	1944	May 4, 1944	23.3	-
1929	May 17, 1929	24.9	-	1945	Apr. 19, 1945	35.9	-
1930	May 11, 1930	21.0	-	1946	Oct. 3, 1945	25.8	-
1931	Feb. 10, 1931	12.0	-	1947	Dec. 13, 1946	23.3	-
1932	Nov. 26, 1931	14.8	-	1948	June 27, 1948	25.2	-
1933	May 18, 1933	23.7	-	1949	May 22, 1949	24.9	-
1934	Apr. 9, 1934	13.2	-	1950	May 13, 1950	27.5	-
1935	June 21, 1935	31.1	-	1951	July 7, 1951	22.8	-
1936	June 10, 1936	12.2	-	1952	Apr. 24, 1952	15.9	-
1937	Jan. 17, 1937	17.0	-	1953	Mar. 27, 1953	15.1	-
1938	Feb. 20, 1938	28.9	-	1954	May 4, 1954	19.2	-
1939	May 16, 1939	12.0	-	1955	May 25, 1955	13.7	-
1940	Sept. 7, 1940	14.3	-	1956	Oct. 8, 1955	14.9	-
1941	Apr. 22, 1941	26.0	-	1957	May 28, 1957	34.4	-
1942	Nov. 4, 1941	33.0	-	1958	June 27, 1958	19.3	-

2565. Spadra Creek at Clarksville, Ark.

Location--Lat 35°28', long 93°28', in NW $\frac{1}{4}$ sec.4, T.9 N., R.23 W., on right bank at Clarksville, 1,000 ft downstream from bridge on U. S. Highway 64 and 4 $\frac{1}{2}$ miles upstream from mouth.

Drainage area--54.8 sq mi.

Gage--Recording. Datum of gage is 352.99 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 14,000 cfs.

Bankfull stage--10 ft.

Remarks--Gage heights since 1952 represent water surface in gage well and are slightly lower than outside water surface because of drawdown. Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	December 1927	a14.7	14,500	1955	Feb. 19, 1955	8.91	5,550
1949	Jan. 24, 1949	a14.5	14,000	1955	Mar. 20, 1955	10.32	7,130
1953	Nov. 25, 1952	7.23	3,820	1956	Feb. 17, 1956	6.64	3,120
	Mar. 14, 1953	6.82	3,390	1957	Apr. 3, 1957	14.58	15,300
	Mar. 17, 1953	9.84	7,160		Apr. 27, 1957	9.30	6,390
	Apr. 24, 1953	6.75	3,390		Apr. 29, 1957	6.83	3,420
	Apr. 29, 1953	9.26	6,460		May 24, 1957	7.13	3,740
					June 13, 1957	14.38	14,700
1954	Jan. 20, 1954	10.7	7,600	1958	May 2, 1958	7.96	4,100
	Feb. 15, 1954	7.0	3,500		May 9, 1958	10.15	6,880
	May 2, 1954	6.99	3,600				

a Annual peak only.

2570. Piney Creek near Dover, Ark.

Location--Lat 35°33'00", long 93°09'25", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.6, T.10 N., R.20 W., $\frac{7}{4}$ miles downstream from Indian Creek and 10 miles north of Dover.

Drainage area--274 sq mi.

Gage--Recording. Datum of gage is 487.66 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 16,000 cfs and extended by logarithmic plotting.

Remarks--Base for partial-duration series, 7,000 cfs.

Peak stages and discharges of Piney Creek near Dover, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Jan. 24, 1949	a25.6	80,000	1955	Mar. 20, 1955	17.06	28,900
1951	Feb. 20, 1951	14.95	17,600	1955	Apr. 21, 1955	11.37	11,000
1952	Nov. 23, 1951	12.64	14,000	1956	Feb. 1, 1956	12.44	13,400
	Mar. 10, 1952	12.78	14,500		Feb. 17, 1956	11.28	10,700
	Apr. 12, 1952	13.34	15,800		May 15, 1956	10.68	9,380
	May 23, 1952	11.95	12,400	1957	Apr. 3, 1957	20.37	44,000
1953	Nov. 25, 1952	12.46	13,700		Apr. 27, 1957	11.02	10,100
	Mar. 14, 1953	13.34	15,800		Apr. 30, 1957	10.18	8,280
	Mar. 17, 1953	17.04	28,500		May 13, 1957	11.85	12,000
	Apr. 24, 1953	11.56	11,400		May 23, 1957	10.45	8,830
	Apr. 29, 1953	11.18	10,500		June 10, 1957	9.70	7,320
	May 12, 1953	13.08	15,300		June 13, 1957	13.60	16,600
1954	Jan. 20, 1954	11.15	10,500	1958	Mar. 8, 1958	10.65	9,160
	Apr. 16, 1954	10.98	10,000		Mar. 13, 1958	9.62	7,140
	May 2, 1954	16.03	24,700		May 3, 1958	9.58	7,140
					May 9, 1958	10.30	8,520
1955	Feb. 20, 1955	15.62	23,200		Aug. 1, 1958	12.80	14,500

a Annual peak only.

2575. Illinois Bayou near Scottsville, Ark.

Location.--Lat 35°28', long 93°02', in SW $\frac{1}{4}$ sec.32, T.10 N., R.19 W., on downstream side of bridge on county road, $1\frac{1}{4}$ miles north of Scottsville and 3 miles downstream from North Fork Illinois Bayou.

Drainage area.--242 sq mi.

Gage.--Nonrecording prior to Mar. 25, 1948; recording thereafter. Datum of gage is 447.54 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 57,000 cfs and extended by logarithmic plotting.

Bankfull stage.--16 ft.

Remarks.--Base for partial-duration series, 7,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	May 10, 1943	a24.6	77,000	1953	Nov. 25, 1952	14.74	17,400
1948	Jan. 1, 1948	15.0	18,600		Mar. 14, 1953	11.56	8,760
1949	Dec. 15, 1948	10.96	7,000		Mar. 18, 1953	14.76	17,800
	Jan. 24, 1949	24.60	77,000		Apr. 24, 1953	11.60	8,760
	Jan. 27, 1949	11.60	9,550	1954	May 2, 1954	16.48	23,500
	Feb. 14, 1949	12.05	10,600	1955	Feb. 20, 1955	-	15,000
1950	Oct. 21, 1949	11.90	9,460		Mar. 20, 1955	14.75	17,300
	Jan. 4, 1950	15.30	19,400		Apr. 21, 1955	14.66	17,000
	Jan. 13, 1950	14.80	17,800	1956	Feb. 2, 1956	12.70	10,700
	Feb. 1, 1950	11.28	8,100		Feb. 17, 1956	12.84	11,000
	Feb. 12, 1950	13.65	14,100	1957	Apr. 3, 1957	17.90	24,600
	June 3, 1950	10.98	7,470		May 24, 1957	16.20	19,200
1951	Feb. 15, 1951	11.56	8,760		June 13, 1957	11.60	7,160
	Feb. 20, 1951	14.20	15,900		Aug. 13, 1957	16.80	21,100
1952	Nov. 24, 1951	12.65	11,300	1958	Nov. 13, 1957	13.32	10,900
	Mar. 10, 1952	14.08	15,600		Nov. 18, 1957	12.86	9,920
	Apr. 12, 1952	13.47	13,800		Mar. 23, 1958	12.34	8,620
	Apr. 22, 1952	13.90	15,000		May 2, 1958	12.27	8,620
	May 23, 1952	11.82	9,220		May 9, 1958	12.10	8,200

a Annual peak only.

ARKANSAS RIVER BASIN

2580. Arkansas River at Dardanelle, Ark.

Location.--Lat 35°13'34", long 93°08'58", in SW $\frac{1}{4}$ sec.29, T.7 N., R.20 W., on downstream side of bridge on State Highway 7 at Dardanelle, 1 mile upstream from Whig Creek, 4.7 miles downstream from Illinois Bayou, and at mile 255.8.

Drainage area.--153,707 sq mi, of which about 131,466 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Jan. 11, 1939; recording thereafter. Datum of gage is 290.16 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined prior to 1937. Defined by current-meter measurements since that date.

Bankfull stage.--22 ft.

Remarks.--Gage-height record prior to 1939 furnished by U. S. Weather Bureau. Peak discharges affected by storage reservoirs and power development since March 1940. Base for partial-duration series, 130,000 cfs. Only annual peak stages are shown prior to 1938.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1887	May 5, 1887	12.6	-	1915	May 30, 1915	26.9	-
1888	May 22, 1888	16.1	-	1916	Jan. 31, 1916	29.8	-
1889	Mar. 26, 1889	19.0	-	1917	June 11, 1917	14.4	-
1890	Apr. 27, 1890	20.00	-	1918	May 13, 1918	20.3	-
1891	Apr. 22, 1891	18.0	-	1919	Nov. 11-12, 1918	17.9	-
1892	May 18, 1892	27.5	-	1920	Mar. 29, 1920	20.9	-
1893	May 2, 1893	24.0	-	1921	Mar. 26, 1921	20.6	-
1894	Mar. 21, 1894	17.5	-	1922	Apr. 13, 1922	25.2	-
1895	Aug. 2, 1895	17.5	-	1923	June 17, 1923	26.5	-
1896	Dec. 26, 1895	23.5	-	1924	Dec. 16, 1923	22.0	-
1897	Mar. 20, 1897	17.4	-	1925	May 1, 1925	13.0	-
1898	May 10, 1898	28.9	-	1926	Oct. 17, 1925	12.1	-
1899	May 10, 1899	23.1	-	1927	Apr. 19, 1927	33.0	-
1900	July 7, 1900	11.3	-	1928	Dec. 14, 1927	24.5	-
1901	Apr. 19, 1901	15.5	-	1929	May 18, 1929	27.6	-
1902	June 2, 1902	17.3	-	1930	May 11, 1930	24.3	-
1903	May 31, 1903	22.8	-	1931	Feb. 10, 1931	14.2	-
1904	June 9, 1904	28.0	-	1932	Jan. 25, 1932	20.2	-
1905	May 30-31, 1905	21.2	-	1933	May 18, 1933	25.1	-
1906	May 4, 1906	19.0	-	1934	Apr. 8, 1934	15.5	-
1907	May 11, 1907	18.8	-	1935	June 21, 1935	29.5	-
1908	May 29, 1908	27.2	-	1936	Dec. 8, 1935	18.5	-
1909	Dec. 2, 1908	24.9	-	1937	Jan. 18, 1937	19.4	-
1910	Jan. 20, May 17	12.0	-	1938	Feb. 19-20, 1938	29.55	396,000
1911	Aug. 9, 1911	18.4	-		Apr. 1, 1938	22.8	201,000
1912	May 3, 1912	24.3	-		May 26, 1938	22.8	205,000
					June 14, 1938	20.2	157,000
1913	Mar. 29, 1913	14.4	-	1939	Apr. 17, 1939	19.00	142,000
1914	(a)	16.2	-	1940	Sept. 7, 1940	116.65	103,000

a Dec. 7, 1913, May 7, 1914.
b Occurred on following day.

Peak stages and discharges of Arkansas River at Dardanelle, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)				
1941	Apr. 23, 1941	27.16	295,000	1948	June 27, 1948	c27.07	300,000				
	June 14, 1941	23.94	233,000		July 21, 1948	19.37	153,000				
1942	Oct. 9, 1941	b22.70	203,000		Aug. 18, 1948	18.93	146,000				
	Oct. 19, 1941	b23.30	213,000	1949	Jan. 25, 1949	c25.70	294,000				
	Nov. 5, 1941	c31.92	433,000		Feb. 17, 1949	23.51	235,000				
	Apr. 13, 1942	25.06	246,000		May 3, 1949	19.13	143,000				
	May 1, 1942	c28.65	316,000		May 22, 1949	26.97	303,000				
	June 27, 1942	c23.55	200,000		June 15, 1949	22.00	195,000				
1943	Dec. 28, 1942	c21.24	182,000		1950	Feb. 13, 1950	17.94	137,000			
	May 13-14, 1943	33.30	683,000	May 14, 1950		c29.20	382,000				
	May 25, 1943	33.60	682,000	July 24, 1950		c23.68	215,000				
	June 9, 1943	22.06	147,000	Aug. 5, 1950		24.22	221,000				
1944	Mar. 21, 1944	21.88	164,000	Sept. 18, 1950		c21.64	175,000				
	Apr. 14, 1944	23.37	191,000	1951		Feb. 22, 1951	21.20	174,000			
	May 4, 1944	26.29	245,000		May 23, 1951	19.70	148,000				
	June 15-16, 1944	19.60	132,000		June 14, 1951	18.73	135,000				
1945	Feb. 22, 1945	21.10	170,000		July 7, 1951	25.06	224,000				
	Feb. 27, 1945	21.24	172,000		July 20, 1951	25.14	227,000				
	Mar. 5, 1945	23.18	201,000		1952	Apr. 24, 1952	19.88	145,000			
	Mar. 21, 1945	28.45	307,000	1953		Mar. 18, 1953	19.33	137,000			
	Mar. 31, 1945	27.09	265,000			1954	May 4, 1954	c22.64	194,000		
	Apr. 19, 1945	33.15	579,000				1955	Mar. 21, 1955	17.35	109,000	
June 11, 1945	29.46	335,000	1956					Oct. 9, 1955	16.50	113,000	
1946	Oct. 4, 1945	27.63						285,000	1957	Apr. 4, 1957	22.10
	Jan. 9, 1946	19.71			148,000			Apr. 28, 1957		24.77	244,000
	Feb. 21, 1946	18.53		132,000	May 30, 1957			33.42		471,000	
	May 25, 1946	21.64		175,000	1958	Mar. 27, 1958		18.56		139,000	
1947	Nov. 10, 1946	20.00		160,000		May 10, 1958	19.46	152,000			
	Dec. 13, 1946	26.56	303,000	June 27, 1958		18.93	156,000				
	Apr. 18, 1947	24.02	224,000	July 16, 1958		18.97	154,000				
	May 1, 1947	23.82	220,000								
	May 15, 1947	18.90	146,000								
	May 21, 1947	24.90	246,000								
June 3, 1947	20.23	163,000									

b Occurred on following day.

c Occurred at different time than peak discharge.

2585. Petit Jean Creek near Booneville, Ark.

Location.--Lat 35°06'25", long 93°55'25", in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.18, T.5 N., R.27 W., on right bank at downstream side of bridge on State Highway 116, 0.5 mile downstream from Fletcher Creek and 2 $\frac{1}{4}$ miles south of Booneville.

Drainage area.--247 sq mi.

Gage.--Nonrecording prior to May 24, 1939; recording thereafter. Datum of gage is 423.39 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 21,000 cfs and extended by slope-area and contracted-opening measurements made by Corps of Engineers.

Bankfull stage.--19 ft.

Remarks.--Base for partial-duration series, 4,000 cfs.

ARKANSAS RIVER BASIN

Peak stages and discharges of Petit Jean Creek near Booneville, Ark.

water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1939	Feb. 19, 1939	19.5	8,250	1949	Jan. 25, 1949	22.40	29,800		
	Feb. 25, 1939	19.6	8,350		Feb. 14, 1949	19.85	9,700		
	Mar. 5, 1939	13.3	4,120		June 14, 1949	18.10	6,650		
	Apr. 6, 1939	17.2	6,540	1950	Jan. 4, 1950	20.24	11,100		
	Apr. 16, 1939	23.42	43,200		Jan. 13, 1950	20.58	12,900		
1940	Apr. 29, 1940	10.45	2,580		Feb. 1, 1950	19.05	8,000		
	Jan. 1, 1941	18.81	7,640		Feb. 12, 1950	21.40	18,100		
1941	Jan. 1, 1941	18.81	7,640		May 7, 1950	20.68	13,400		
	1942	Oct. 31, 1941	15.33	5,320	May 12, 1950	17.43	6,280		
		Jan. 30, 1942	16.53	5,320	July 22, 1950	17.62	6,440		
		Apr. 8, 1942	19.43	7,360	Sept. 16, 1950	18.51	7,250		
		May 6, 1942	14.19	4,250	1951	Feb. 15, 1951	19.43	8,290	
May 20, 1942		18.35	6,530	Feb. 18, 1951		17.32	5,950		
1943	Dec. 27, 1942	15.35	4,790	1952	Oct. 31, 1951	19.35	8,700		
	May 10, 1943	22.59	32,300		Mar. 10, 1952	18.68	7,520		
	May 16, 1943	18.10	6,290		Apr. 12, 1952	20.49	11,500		
1944	Feb. 28, 1944	15.95	5,270		Apr. 22, 1952	18.90	8,340		
	Mar. 16, 1944	16.46	5,520	1953	Nov. 25, 1952	19.88	10,000		
	Mar. 19, 1944	14.78	4,700		Mar. 14, 1953	19.91	10,000		
	May 2, 1944	17.12	5,930		Mar. 17, 1953	20.99	15,100		
	June 13, 1944	16.78	5,690		Mar. 31, 1953	13.20	4,430		
1945	Feb. 17, 1945	15.78	5,000		Apr. 6, 1953	14.19	4,910		
	Feb. 21, 1945	21.16	16,100	Apr. 24, 1953	20.95	15,100			
	Feb. 27, 1945	20.42	10,800	Apr. 29, 1953	19.66	9,400			
	Mar. 3, 1945	17.45	6,030	May 13, 1953	19.42	8,770			
	Mar. 12, 1945	19.74	8,850	1954	Jan. 20, 1954	14.05	4,480		
	Mar. 19, 1945	20.92	13,600		Feb. 16, 1954	13.48	4,260		
	Mar. 30, 1945	21.38	18,000		May 2, 1954	15.47	5,190		
	Apr. 13, 1945	16.61	5,460	1955	Feb. 20, 1955	16.38	5,660		
	May 12, 1945	16.98	5,730		Mar. 18, 1955	14.50	4,710		
	May 15, 1945	21.61	20,100		Mar. 20, 1955	20.58	12,900		
	June 11, 1945	20.55	11,800		1956	Feb. 17, 1956	16.72	6,240	
	Sept. 12, 1945	15.52	4,850			1957	Feb. 5, 1957	14.46	4,770
	Sept. 27, 1945	15.31	4,750	Apr. 3, 1957			20.94	13,700	
	1946	Jan. 8, 1946	18.20	6,750			Apr. 25, 1957	15.28	5,380
		Feb. 13, 1946	18.56	7,170			Apr. 27, 1957	20.60	12,200
Apr. 16, 1946		16.48	5,400	May 13, 1957	14.60		5,020		
Apr. 24, 1946		19.58	8,650	May 23, 1957	20.76	13,200			
Apr. 29, 1946		14.45	4,380	May 25, 1957	14.94	5,220			
May 3, 1946		17.71	6,270	June 5, 1957	13.90	4,770			
May 23, 1946		16.03	5,100	Aug. 12, 1957	20.47	11,000			
1947		Nov. 10, 1946	13.75	4,070	Aug. 15, 1957	16.32	5,900		
	Nov. 26, 1946	14.04	4,160	Sept. 22, 1957	15.64	5,530			
	Dec. 10, 1946	21.24	16,400	1958	Nov. 18, 1957	20.81	13,200		
	Apr. 10, 1947	16.70	5,520		Mar. 7, 1958	12.89	4,280		
1948	Dec. 31, 1947	20.92	14,500		May 2, 1958	21.13	15,700		
	Feb. 5, 1948	13.95	4,160		May 9, 1958	19.22	8,470		
	Feb. 25, 1948	13.98	4,160		June 26, 1958	19.02	8,210		
	Mar. 1, 1948	17.17	5,880						
	Apr. 11, 1948	18.43	7,100						

2595. Petit Jean Creek near Waveland, Ark.
(Published as "near Blue Mountain" prior to 1943)

Location.--Lat 35°06'17", long 93°37'51", in SE 1/4 SW 1/4 sec. 11, T.5 N., R.25 W., on left bank 0.8 mile downstream from Rock Creek, 1.2 miles downstream from Cedar Creek, 1.3 miles south of Waveland, and 1.4 miles downstream from Blue Mountain Dam.

Drainage area.--517 sq mi (495 sq mi at former site).

Gage.--Recording. Prior to Oct. 1, 1943, at site 1 3/4 miles upstream at datum 9.54 ft higher. Datum of present gage is 339.70 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements at former site below 13,000 cfs and extended by velocity-area study and slope-area determination at 62,600 cfs. Defined by current-meter measurements at present site.

Bankfull stage.--22 ft.

Remarks.--Flow regulated by Blue Mountain Reservoir since May 7, 1946 (capacity, 258,000 acre-ft). Base for partial-duration series, 5,000 cfs. Only annual peaks are shown subsequent to 1946.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1939	Feb. 20, 1939	21.89	10,200	1945	May 13, 1945	25.30	6,880	
	Feb. 25, 1939	22.06	10,500		May 16, 1945	31.18	25,800	
	Mar. 5, 1939	20.78	8,670		June 12, 1945	29.70	16,200	
	Apr. 6, 1939	20.35	8,250		Sept. 13, 1945	22.56	5,040	
	Apr. 16, 1939	28.95	62,600					
1940	Apr. 29, 1940	13.65	3,700	1946	Jan. 9, 1946	28.15	11,600	
					Feb. 14, 1946	29.07	14,000	
1941	Jan. 2, 1941	20.75	7,460		Mar. 6, 1946	23.80	5,740	
					Mar. 28, 1946	25.81	7,390	
1942	Oct. 31, 1941	21.43	7,100		Apr. 16, 1946	28.27	11,800	
	Jan. 31, 1942	20.24	7,200	Apr. 25, 1946	27.37	9,790		
	Apr. 9, 1942	21.64	9,950	May 3, 1946	27.07	9,230		
	May 20, 1942	20.07	7,600					
				1947	Dec. 13, 1946	27.63	9,050	
1943	Dec. 28, 1942	18.3	6,560	1948	Jan. 2, 1948	27.25	8,580	
	Apr. 12, 1943	17.2	5,880					
	May 11, 1943	28.70	38,000	1949	Jan. 24, 1949	24.27	5,900	
	May 17, 1943	19.0	7,050					
					1950	Feb. 12, 1950	21.67	4,860
1944	Feb. 9, 1944	23.48	5,570	1951	Feb. 25, 1951	15.63	2,500	
	Feb. 17, 1944	27.12	9,260					
	Feb. 28, 1944	27.65	10,200	1952	Apr. 22, 1952	19.42	3,800	
	Mar. 16, 1944	27.22	9,440					
	Mar. 20, 1944	27.20	9,440		1953	Mar. 17, 1953	24.58	6,310
	May 2, 1944	28.10	11,400					
	June 14, 1944	23.88	5,810	1954		May 2, 1954	17.44	3,150
1945	Feb. 18, 1945	25.07	6,700	1955	Feb. 24, 1955	16.72	2,820	
	Feb. 21, 1945	30.70	21,800					
	Feb. 28, 1945	30.07	18,100	1956	Feb. 23, 1956	15.80	2,550	
	Mar. 3, 1945	28.33	11,800					
	Mar. 7, 1945	23.60	5,620		1957	Aug. 15, 1957	22.00	4,600
	Mar. 13, 1945	28.06	11,400					
	Mar. 20, 1945	29.77	16,600	1958		Mar. 23, 1958	15.65	2,650
	Mar. 25, 1945	25.31	6,880					
	Mar. 30, 1945	32.23	37,100					

2600. Dutch Creek at Waltreak, Ark.

Location--Lat 34°59', long 93°37', in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.24, T.4 N., R.25 W., on left bank a quarter of a mile north of Waltreak and 20.0 miles upstream from mouth.

Drainage area--74 sq mi.

Gage--Recording. Datum of gage is 371.48 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Defined by current-meter measurements below 11,000 cfs and by slope-area measurement at 13,000 cfs.

Bankfull stage--17 ft.

Remarks--Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1937	-	a19.5	-	1951	Feb. 15, 1951	10.76	3,140	
1946	Jan. 9, 1946	10.80	3,140	1952	Oct. 31, 1951	11.80	3,820	
	Feb. 13, 1946	17.42	11,400		Mar. 10, 1952	11.90	3,900	
	Mar. 6, 1946	10.73	3,060		Apr. 12, 1952	13.68	5,450	
	May 25, 1946	14.30	6,360		Apr. 22, 1952	17.40	11,100	
1947	Dec. 12, 1946	16.66	10,100	1953	Nov. 25, 1952	16.56	9,160	
1948	Jan. 1, 1948	18.12	13,000		Mar. 18, 1953	13.67	5,450	
	Feb. 25, 1948	12.28	4,400		Apr. 29, 1953	11.57	3,670	
	Apr. 10, 1948	11.41	3,460		May 12, 1953	13.77	5,550	
	Apr. 13, 1948	12.07	4,260	1954	May 2, 1954	16.46	9,700	
1949	Jan. 24, 1949	18.45	13,700		1955	Mar. 21, 1955	12.81	4,620
	Feb. 13, 1949	12.24	4,350	1956	Feb. 17, 1956	11.39	3,530	
	Mar. 26, 1949	12.26	4,440		1957	Apr. 3, 1957	15.04	7,270
1950	Jan. 2, 1950	12.39	4,550	Apr. 27, 1957		14.73	6,860	
	Jan. 13, 1950	16.50	9,950	May 23, 1957		11.34	3,560	
	Feb. 1, 1950	14.00	6,310	1958		May 2, 1958	12.80	4,890
	Feb. 12, 1950	15.31	8,090					
	May 7, 1950	15.94	8,980					
	July 23, 1950	16.56	10,100					

a Annual peak only.

2605. Petit Jean Creek at Danville, Ark.

Location--Lat 35°04', long 93°24', in SE $\frac{1}{4}$ sec.25, T.5 N., R.23 W., on left bank at downstream side of bridge on State Highway 10 at Danville, 1,800 ft upstream from Chicago, Rock Island and Pacific Railroad Co. bridge, 0.5 mile upstream from Spring Creek, and 0.6 mile downstream from Dutch Creek.

Drainage area--741 sq mi.

Gage--Nonrecording prior to July 13, 1939; recording gage and concrete-control thereafter. Prior to Aug. 25, 1934, at site 1,800 ft downstream at datum 0.25 ft higher. Datum of present gage is 303.33 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 57,000 cfs.

Bankfull stage--20 ft.

Remarks--Records prior to July 1937 computed by Corps of Engineers using gage heights furnished by U. S. Weather Bureau, reviewed by U. S. Geological Survey. Flow regulated by Blue Mountain Reservoir since May 7, 1946. Only annual peaks are shown prior to 1938 and subsequent to 1946. Base for partial-duration series, 7,000 cfs.

Peak stages and discharges of Petit Jean Creek at Danville, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1917	June 3, 1917	21.7	6,290	1939	Apr. 17, 1939	31.82	70,800
1918	May 14, 1918	20.9	5,010	1940	Apr. 30, 1940	a19.30	3,380
1919	Dec. 15, 1918	24.3	14,600	1941	Jan. 4, 1941	22.18	6,350
1920	Jan. 24, Mar. 26	24.8	17,700	1942	Nov. 1, 1941	24.18	13,000
1921	Apr. 28, 1921	24.7	17,000		Apr. 10, 1942	23.53	10,400
1922	Nov. 20, 1921	24.0	15,800	1943	May 12, 1943	28.12	35,500
1923	May 16, 1923	25.1	19,800	1944	Feb. 18, 1944	23.26	9,700
1924	Apr. 30, 1924	25.4	22,200		Mar. 1, 1944	23.39	10,000
1925	Feb. 24, 1925	18.3	3,020		Mar. 21, 1944	23.22	9,350
1926	Oct. 18, 1925	23.5	10,900	1945	May 4, 1944	24.02	12,200
1927	Apr. 15, 1927	28.4	50,900		Feb. 22, 1945	27.02	23,800
1928	Apr. 7, 1928	25.5	23,000		Feb. 28, 1945	26.47	20,500
1929	Jan. 26, 1929	23.9	12,600		Mar. 14, 1945	23.44	9,290
1930	May 11, 1930	26.3	30,200	1946	Mar. 20, 1945	25.93	20,000
1931	Feb. 24, 1931	21.4	5,770		Mar. 31, 1945	29.50	45,700
1932	Feb. 18, 1932	24.4	15,200		May 17, 1945	27.47	29,700
1933	May 17, 1933	23.6	11,300		June 13, 1945	26.00	20,500
1934	Mar. 27, 1934	22.9	8,970	1947	Jan. 10, 1946	23.96	10,000
1935	June 18, 1935	30.2	58,300		Feb. 14, 1946	25.05	13,400
1936	Dec. 9, 1935	23.3	9,560		Apr. 18, 1946	23.60	8,940
1937	Jan. 23, 1937	24.3	13,000		May 26, 1946	23.32	8,190
1938	Nov. 12, 1937	23.0	8,650	1948	Dec. 13, 1946	24.99	13,400
	Jan. 25, 1938	27.12	28,000	1949	Jan. 1, 1948	25.05	13,400
	Feb. 18, 1938	29.30	45,400	1950	Jan. 25, 1949	27.85	27,000
	Mar. 31, 1938	23.04	8,650	1951	Jan. 14, 1950	25.43	15,000
	Apr. 17, 1938	22.9	8,350	1952	Feb. 16, 1951	22.07	5,730
1939	Feb. 21, 1939	23.40	10,000	1953	Apr. 23, 1952	25.12	14,200
	Feb. 27, 1939	23.81	11,400	1954	Mar. 18, 1953	b24.14	11,100
	Apr. 7, 1939	22.64	7,450	1955	May 3, 1954	24.35	11,200
				1956	Mar. 22, 1955	21.66	5,190
				1957	Feb. 19, 1956	22.10	5,730
				1958	Apr. 4, 1957	25.53	16,300
					May 3, 1958	23.77	11,100

a Occurred at different time than peak discharge.
 b Occurred Nov. 26, 1952.

2608. Arkansas River near Morrilton, Ark.

Location.--Lat 35°07'36", long 92°43'54", in SW $\frac{1}{4}$ sec.29, T.6 N., R.16 W., at bridge on State Highway 9, 1 $\frac{1}{2}$ miles southeast of Morrilton, 2 miles downstream from Point Remove Creek, and at mile 221.0.

Drainage area.--155,480 sq mi, of which about 133,239 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. Datum of gage is 255.55 ft above mean sea level, datum of 1929. Prior to Jan. 1, 1948, at datum 10 ft higher. All stages for this report adjusted to present datum.

Bankfull stage.--30 ft.

Remarks.--Records furnished by U. S. Weather Bureau. Crest stages affected by storage reservoirs and power development since March 1940. Only annual peak stages are shown.

ARKANSAS RIVER BASIN

Peak stages and discharges of Arkansas River near Morrilton, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 19, 1927	42.0	-	1943	May 15, 1943	40.8	-
1928	June 25, 1928	32.4	-	1944	May 5, 1944	31.8	-
1929	May 19, 1929	36.6	-	1945	Apr. 21, 1945	40.4	-
1930	May 12, 1930	32.0	-	1946	Oct. 4, 1945	31.6	-
1931	Feb. 10, 1931	21.9	-	1947	Dec. 14, 1946	31.1	-
1932	Jan. 25-26, 1932	29.8	-	1948	June 28-29, 1948	31.2	-
1933	May 19, 1933	33.9	-	1949	May 24, 1949	31.0	-
1934	Apr. 8, 1934	23.9	-	1950	May 15, 1950	33.7	-
1935	June 22, 1935	39.2	-	1951	July 21, 1951	29.6	-
1936	Dec. 8, 1935	27.2	-	1952	Apr. 25, 1952	23.7	-
1937	Jan. 18, 1937	27.8	-	1953	Mar. 19, 1953	22.2	-
1938	Feb. 21, 1938	38.0	-	1954	Aug. 5, 1954	25.7	-
1939	Apr. 17, 1939	26.4	-	1955	Mar. 22, 1955	20.6	-
1940	Sept. 9, 1940	23.0	-	1956	Oct. 9, 1955	19.7	-
1941	Apr. 24, 1941	33.4	-	1957	May 30, 1957	39.55	-
1942	Nov. 6, 1941	39.1	-	1958	May 10, 1958	24.4	-

2615. Fourche La Fave River near Gravelly, Ark.

Location.--Lat 34°52', long 93°39', in NW $\frac{1}{4}$ sec.34, T.3 N., R.25 W., on left bank at downstream side of bridge on State Highway 28, 1 mile downstream from Garner Creek, $1\frac{1}{2}$ miles east of Gravelly, and 6.4 miles upstream from Gaffords Creek.

Drainage area.--413 sq mi.

Gage.--Nonrecording prior to May 11, 1939; recording thereafter. Datum of gage is 410.50 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 47,000 cfs.

Bankfull stage.--24 ft.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Apr. 16, 1939	27.00	38,000	1945	Mar. 12, 1945	16.15	11,500
1940	Apr. 29, 1940	10.32	4,630	1945	Mar. 17, 1945	12.32	6,980
1941	May 9, 1941	9.35	3,970	1945	Mar. 19, 1945	21.89	19,500
1942	Oct. 31, 1941	25.87	29,100	1945	Mar. 25, 1945	14.25	9,100
1942	Apr. 9, 1942	17.48	14,100	1945	Mar. 29, 1945	27.01	38,000
1942	Apr. 28, 1942	18.58	15,800	1945	May 16, 1945	25.31	26,800
1942	May 20, 1942	13.35	8,420	1945	June 11, 1945	19.90	16,400
1943	Dec. 27, 1942	11.41	6,120	1945	June 18, 1945	13.16	7,970
1943	May 11, 1943	14.19	9,430	1945	Sept. 26, 1945	11.02	5,650
1943	May 20, 1943	15.61	11,300	1946	Oct. 1, 1945	12.20	6,870
1944	Feb. 9, 1944	11.55	6,260	1946	Jan. 5, 1946	12.50	7,200
1944	Feb. 17, 1944	16.40	12,000	1946	Jan. 9, 1946	20.86	18,000
1944	Feb. 28, 1944	17.56	13,600	1946	Feb. 6, 1946	10.97	5,650
1944	Mar. 16, 1944	15.92	11,300	1946	Feb. 14, 1946	24.77	25,200
1944	Mar. 19, 1944	11.80	6,480	1946	Mar. 6, 1946	11.74	6,350
1944	Apr. 2, 1944	11.52	6,160	1946	Apr. 16, 1946	13.74	8,520
1944	Apr. 11, 1944	11.22	5,860	1946	Apr. 30, 1946	17.01	12,500
1944	May 2, 1944	20.03	17,000	1946	May 24, 1946	23.70	22,700
1945	Dec. 7, 1944	15.10	10,200	1946	May 31, 1946	21.92	19,500
1945	Feb. 21, 1945	26.90	36,800	1947	Nov. 7, 1946	12.05	6,650
1945	Feb. 27, 1945	23.88	23,100	1947	Nov. 26, 1946	15.64	10,800
1945	Mar. 3, 1945	18.69	14,800	1947	Dec. 12, 1946	25.75	28,800
1945	Mar. 6, 1945	12.90	7,640	1948	Dec. 8, 1947	12.21	6,870
				1948	Jan. 1, 1948	27.37	39,800
				1948	Feb. 25, 1948	18.00	13,800
				1948	Mar. 2, 1948	13.55	8,190

Peak stages and discharges of Fourche La Fave River near Gravelly, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1948	Apr. 13, 1948	14.85	9,820	1952	Apr. 22, 1952	26.99	37,700	
	May 12, 1948	11.20	5,850		1953	Nov. 25, 1952	22.73	22,400
1949	Jan. 18, 1949	10.57	5,250	Dec. 4, 1952		11.38	6,450	
	Jan. 24, 1949	28.86	54,000	Jan. 23, 1953		11.10	6,150	
	Feb. 14, 1949	15.47	10,700	Mar. 18, 1953		17.19	13,400	
	Mar. 26, 1949	16.90	12,400	Apr. 6, 1953		11.90	6,970	
	May 1, 1949	23.89	23,100	Apr. 24, 1953		13.20	8,400	
	June 14, 1949	11.78	6,450	Apr. 29, 1953	20.83	18,800		
1950	Jan. 3, 1950	17.67	13,400	1954	Apr. 16, 1954	11.12	6,150	
	Jan. 10, 1950	10.76	5,450		May 2, 1954	26.20	33,400	
	Jan. 13, 1950	26.70	35,200	1955	Oct. 25, 1954	9.97	5,050	
	Jan. 26, 1950	11.80	6,450		Feb. 20, 1955	11.95	7,080	
	Feb. 1, 1950	22.10	19,900		Mar. 21, 1955	17.60	13,900	
	Feb. 13, 1950	27.20	38,400		1956	Feb. 2, 1956	10.16	5,250
	Apr. 4, 1950	12.63	7,310			Feb. 18, 1956	16.59	12,600
	May 2, 1950	13.66	8,520			1957	Jan. 23, 1957	11.78
	May 7, 1950	21.80	19,400	Apr. 4, 1957			22.39	21,800
	May 12, 1950	11.25	5,850	Apr. 25, 1957			16.68	12,700
	July 23, 1950	14.79	9,820	Apr. 27, 1957			21.58	20,200
	Aug. 2, 1950	11.75	6,450	May 23, 1957	14.43		9,820	
Sept. 16, 1950	16.51	11,900	May 26, 1957	16.06	11,900			
1951	Feb. 15, 1951	15.77	11,000	June 5, 1957	12.14	7,190		
	Feb. 20, 1951	14.71	9,700	June 13, 1957	18.44	15,000		
	July 3, 1951	13.80	8,630	1958	Mar. 7, 1958	14.90	10,400	
1952	Nov. 1, 1951	19.85	17,100		Mar. 24, 1958	13.63	8,860	
	Nov. 6, 1951	10.05	5,050		Apr. 21, 1958	12.93	8,070	
	Dec. 9, 1951	10.29	5,350		Apr. 27, 1958	10.90	5,950	
	Jan. 3, 1952	12.91	8,070		May 3, 1958	23.21	24,300	
	Mar. 11, 1952	16.43	12,300		May 10, 1958	11.63	6,650	
	Mar. 22, 1952	10.42	5,450		June 26, 1958	11.45	6,450	
	Apr. 4, 1952	10.49	5,550					
	Apr. 10, 1952	13.12	8,290					
	Apr. 12, 1952	23.27	23,700					

2625. Fourche La Fave River near Nimrod, Ark.

Location--Lat 34°57'01", long 93°09'18", in SW $\frac{1}{4}$ sec. 32, T.4 N., R.20 W., on left bank 2,000 ft downstream from Nimrod Dam, $4\frac{1}{2}$ miles southwest of Nimrod, and 9.8 miles upstream from South Fourche La Fave River.

Drainage area--680 sq mi.

Gage--Nonrecording prior to Dec. 20, 1938, at site 1.1 miles downstream at datum 3.92 ft lower; recording thereafter. Dec. 21, 1938, to Aug. 26, 1946, at site 2.0 miles downstream at datum 9.72 ft lower. Datum of present gage is 305.25 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation--Defined by current-meter measurements below 34,000 cfs.

Historical data--Flood in April 1927 reached a stage of 28.15 ft at site and datum of nonrecording gage, from information by Corps of Engineers. Flood in June 1935 reached a stage of 28.8 ft at present site and datum, from information by Corps of Engineers.

Remarks--Records prior to 1938 furnished by Corps of Engineers and reviewed by Geological Survey. Flow completely regulated by Nimrod Reservoir since May 1942 (capacity, 336,000 acre-ft). Base for partial-duration series, 5,000 cfs. Only annual peaks are shown prior to 1937 and subsequent to 1941.

ARKANSAS RIVER BASIN

Peak stages and discharges of Fourche La Fave River near Nimrod, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1927	April 1927	28.15	32,800	1943	Dec. 30, 1942	15.86	9,900		
1935	June 1935	30.9	39,000	1944	Apr. 25, 1944	13.21	7,180		
1937	Dec. 7, 1936	14.7	10,000	1945	Apr. 1, 1945	26.19	20,000		
	Jan. 10, 1937	15.2	10,600			1946	Feb. 14, 1946	15.93	9,380
	Jan. 16, 1937	14.5	9,760	1947	Dec. 20, 1946			10.36	7,210
	Jan. 23, 1937	22.8	21,800					1948	At times
	May 3, 1937	14.8	10,100	1949	Feb. 6, 1949	10.38	7,480		
1938	Oct. 20, 1937	13.9	9,040			1950	Feb. 21, 1950	10.31	7,030
	Nov. 11, 1937	18.5	14,800	1951	Mar. 5, 1951			9.79	5,830
	Dec. 8, 1937	11.4	5,420			1952	May 5,6, 1952	10.20	6,850
	Jan. 25, 1938	28.2	32,800	1953	May 25, 1953			10.09	6,680
	Jan. 31, 1938	12.9	7,740			1954	May 11, 1954	9.68	6,000
	Feb. 19, 1938	29.7	36,100	1955	Mar. 27, 1955			9.54	5,670
	Mar. 30, 1938	17.6	13,500			1956	Feb. 13, 1956	9.68	5,830
	Apr. 9, 1938	12.0	6,380	1957	July 18,19,1957			9.72	5,830
	Apr. 17, 1938	16.6	12,300			1958	May 26,29, 1958	9.70	5,930
	1939	Feb. 21, 1939	17.33	10,800					
Feb. 26, 1939		18.32	11,800						
Mar. 6, 1939		12.17	6,140						
Apr. 7, 1939		20.94	14,900						
Apr. 16, 1939		30.45	34,600						
1940	June 11, 1940	10.80	4,910						
1941	Feb. 4, 1941	9.35	3,680						
1942	Apr. 29, 1942	18.21	10,700						

2630. South Fourche La Fave River near Hollis, Ark.

Location.--Lat 34°55', long 93°03', in NE $\frac{1}{4}$ sec.18, T.3 N., R.19 W., on left bank 0.6 mile upstream from Big Cove Creek, 4 miles northeast of Hollis, and 5.8 miles upstream from mouth.

Drainage area.--211 sq mi.

Gage.--Recording. Datum of gage is 366.10 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 35,000 cfs and extended on basis of slope-area measurements at 47,000 and 54,000 cfs.

Remarks.--Records furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 15,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Apr. 8, 1942	12.75	16,700	1950	Sept.16, 1950	12.65	17,000
	Apr. 27, 1942	15.80	29,700				
1943	Dec. 27, 1942	13.29	18,500	1951	Feb. 15, 1951	11.38	12,300
	Apr. 23, 1944	18.51	47,000				
1945	Feb. 21, 1945	15.29	27,200	1952	Apr. 22, 1952	13.22	18,300
	Mar. 30, 1945	19.47	54,400				
	Mar. 28, 1946	14.16	22,200				
1947	Dec. 12, 1946	13.96	21,300	1953	Nov. 25, 1952	13.96	21,300
	Apr. 13, 1948	12.21	14,600				
1949	Dec. 15, 1948	13.32	18,500	1954	Dec. 4, 1952	15.51	28,200
	Jan. 24, 1949	16.04	30,700				
1950	Jan. 2, 1950	13.24	18,200				
	Jan. 10, 1950	12.60	16,700				
	Feb. 1, 1950	12.28	15,600				
	Feb. 12, 1950	12.68	17,000	1956	May 2, 1954	16.30	32,400
				1957	Mar. 20, 1955	13.38	19,100
				1958	Jan. 29, 1956	12.75	17,000
				1959	Apr. 3, 1957	14.56	24,000
				1960	May 24, 1957	12.90	17,300
				1961	Aug. 13, 1957	13.62	19,800
				1962	Apr. 29, 1958	12.48	16,100
				1963	May 2, 1958	14.56	24,000

2635. Arkansas River at Little Rock, Ark.

Location--Lat 34°45'00", long 92°16'25", in sec.3, T.1 N., R.12 W., on right bank 130 ft downstream from Main Street Bridge in Little Rock and at mile 165.5.

Drainage area--158,201 sq mi, of which about 135,960 sq mi contributes directly to surface runoff.

Gage--Nonrecording prior to Oct. 1, 1934; recording thereafter. Datum of gage is 223.61 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements since 1928 and by float or current-meter measurements made intermittently since 1885.

Bankfull stage--23 ft.

Historical data--Maximum stage known, 34.6 ft in June 1833. Flood in May 1844 reached a stage of 32.6 ft, authority of U. S. Weather Bureau.

Remarks--Peak discharges affected by storage reservoirs and power development since March 1940. Gage-height record prior to 1928 and for 1932-33, furnished by U. S. Weather Bureau. Peak discharge for 1932-33 water years from reports of Mississippi River Commission. Base for partial-duration series, 140,000 cfs. Only annual peaks are shown prior to 1928.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1833	June 1833	34.6	-	1897	Mar. 21, 1897	21.4	-
1844	May 1844	32.6	-	1898	May 11, 1898	27.5	-
1873	Apr. 12, 1873	25.6	-	1899	May 11, 1899	24.5	-
1874	Apr. 24, 1874	26.0	-	1900	Feb. 11, 1900	12.5	-
1875	Aug. 5, 1875	24.8	-	1901	Apr. 20, 1901	17.9	-
1876	July 7, 1876	29.3	-	1902	May 28, 1902	18.1	-
1877	June 13, 1877	30.5	-	1903	June 3, 1903	24.8	-
1878	May 28, 1878	27.3	-	1904	June 11, 1904	27.8	-
1879	Feb. 3, 1879	19.4	-	1905	May 31, 1905	23.0	-
1880	Mar. 14, 1880	16.1	-	1906	May 5, 1906	20.5	-
1881	Feb. 20, 1881	18.6	-	1907	May 11, 1907	21.5	-
1882	Feb. 25, 1882	25.1	-	1908	May 30, 1908	26.5	-
1883	Feb. 19, 1883	24.4	-	1909	May 29, 1909	23.5	-
1884	Feb. 16, 1884	27.0	-	1910	May 26, 1910	14.5	-
1885	Apr. 27, 1885	26.6	-	1911	Aug. 10, 1911	18.5	-
1886	Feb. 15, 1886	16.6	-	1912	May 4, 1912	24.0	-
1887	May 6, 1887	16.5	-	1913	Apr. 13, 1913	17.4	-
1888	May 23, 1888	18.4	-	1914	May 8, 1914	17.8	-
1889	Mar. 28, 1889	21.5	-	1915	June 1, 1915	25.4	-
1890	Apr. 29, 1890	24.3	-	1916	Feb. 2, 1916	27.3	-
1891	Apr. 23, 1891	20.9	-	1917	June 12, 1917	15.0	-
1892	May 20, 1892	27.9	-	1918	May 14, 1918	18.9	-
1893	May 3, 1893	25.2	-	1919	Nov. 13, 1918	16.9	-
1894	May 22, 1894	22.6	-	1920	Mar. 30, 1920	20.6	-
1895	Aug. 3, 1895	19.1	-	1921	Apr. 30, 1921	20.8	-
1896	Dec. 29, 1895	23.5	-	1922	Apr. 14, 1922	23.1	-

Peak stages and discharges of Arkansas River at Little Rock, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	June 18, 1923	25.3	300,000	1943	May 27, 1943 June 10, 1943	30.05 19.03	536,000 164,000
1924	May 3, 1924	21.0	-	1944	Mar. 22, 1944	18.94	196,000
1925	May 2, 1925	12.0	-		Apr. 15, 1944	19.52	194,000
1926	Sept. 11, 1926	14.2	-		May 4, 1944	a22.35	282,000
1927	Apr. 20, 1927	33.0	-		June 17, 1944	15.60	154,000
1928	Oct. 7, 1927	20.9	220,000	1945	Mar. 5, 1945	a19.90	242,000
	Dec. 15, 1927	20.0	200,000		Mar. 23, 1945	24.00	325,000
	Apr. 10, 1928	18.7	175,000		Apr. 1, 1945	24.05	314,000
	Apr. 26, 1928	20.5	211,000		Apr. 21, 1945	b28.13	467,000
	June 16, 1928	19.6	192,000		May 17, 1945	18.90	176,000
	June 26-27, 1928	20.6	213,000		June 13, 1945	23.98	332,000
1929	Apr. 13, 1929	17.9	160,000	1946	Oct. 4, 1945	21.22	268,000
	Apr. 19, 1929	18.1	164,000		Jan. 14, 1946	16.69	174,000
	Apr. 26, 1929	19.9	194,000		Feb. 22, 1946	15.08	148,000
	May 19, 1929	23.3	275,000		May 26, 1946	17.31	192,000
	June 8, 1929	18.1	163,000	1947	Nov. 11, 1946	14.41	145,000
1930	Feb. 8, 1930	17.4	152,000		Dec. 13, 1946	a20.56	288,000
	May 12, 1930	21.3	221,000		Apr. 19, 1947	18.37	224,000
1931	Feb. 11, 1931	13.0	97,000		May 2, 1947	18.90	224,000
1932	Jan. 20, 1932	18.5	206,000		May 21, 1947	19.80	234,000
	Jan. 26, 1932	19.5	233,000		June 5, 1947	16.03	162,000
	Feb. 19, 1932	18.0	182,000	1948	Mar. 4, 1948	14.34	142,000
1933	Dec. 28, 1932	17.2	175,000		June 28, 1948	20.80	264,000
	May 19, 1933	22.7	277,000		July 23, 1948	15.63	151,000
	Sept. 6, 1933	17.0	158,000		Aug. 19, 1948	15.36	140,000
1934	Apr. 9, 1934	15.52	127,000	1949	Jan. 26, 1949	20.28	301,000
1935	Mar. 15, 1935	20.40	208,000		Feb. 17, 1949	19.09	225,000
	Mar. 27, 1935	21.22	207,000		May 4, 1949	15.56	161,000
	May 8, 1935	22.20	229,000		May 23, 1949	a20.98	284,000
	May 22, 1935	21.71	218,000		June 16, 1949	18.45	199,000
	June 12, 1935	23.64	263,000	1950	Jan. 15, 1950	15.41	158,000
	June 22-23, 1935	28.18	422,000		Feb. 14, 1950	15.25	164,000
1936	Dec. 9, 1935	18.00	144,000		May 15, 1950	22.80	358,000
1937	Jan. 18, 1937	18.74	170,000		July 25, 1950	16.88	222,000
	Feb. 3, 1937	17.60	152,000		Aug. 6, 1950	19.50	222,000
1938	Jan. 25-26, 1938	15.16	142,000		Sept. 19, 1950	17.67	175,000
	Feb. 21, 1938	a26.2	471,000	1951	Feb. 22, 1951	17.37	189,000
	Apr. 1, 1938	a21.60	244,000		May 24, 1951	15.00	158,000
	May 26, 1938	20.30	207,000		July 8, 1951	b19.79	235,000
	June 15, 1938	17.24	148,000		July 22, 1951	b20.36	225,000
1939	Apr. 18, 1939	18.12	181,000	1952	Mar. 12, 1952	14.91	148,000
1940	Sept. 9, 1940	11.87	92,300		Apr. 14, 1952	14.69	146,000
1941	Apr. 24, 1941	b22.36	294,000		Apr. 25, 1952	16.20	167,000
	June 15, 1941	b20.30	214,000	1953	Mar. 19, 1953	15.24	159,000
1942	Oct. 10, 1941	a19.65	202,000		Apr. 27, 1953	14.30	142,000
	Oct. 20, 1941	a20.61	209,000		May 16, 1953	14.61	150,000
	Nov. 7, 1941	26.33	404,000	1954	May 5, 1954	17.86	210,000
	Apr. 14, 1942	22.24	285,000	1955	Mar. 22, 1955	13.85	130,000
	May 2, 1942	24.86	312,000	1956	Oct. 10, 1955	11.94	102,000
	June 28, 1942	20.67	218,000	1957	Apr. 6, 1957	18.52	224,000
1943	Dec. 31, 1942	19.63	216,000		Apr. 29, 1957	21.86	270,000
	May 16, 1943	28.34	484,000		May 31, 1957	27.87	460,000
				1958	Mar. 28, 1958	16.03	158,000
					May 11, 1958	17.43	187,000
					June 29, 1958	15.08	154,000
					July 17, 1958	15.27	166,000

a Occurred on following day.

b Occurred at different time than peak discharge.

2637. Arkansas River at Pine Bluff, Ark.

Location.--Lat 34°13'55", long 91°58'35", on right bank at Pine Bluff, Jefferson County, 1.4 miles downstream from Cassey Bayou, 6.1 miles upstream from Plum Bayou, and at mile 110.3.

Drainage area.--158,765 sq mi, of which about 136,524 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. Datum of gage is 181.06 ft above mean sea level, datum of 1929, supplemental adjustment of 1946.

Stage-discharge relation.--Defined by current-meter measurements below 560,000 cfs.

Bankfull stage.--25 ft.

Remarks.--Gage-height records furnished by U. S. Weather Bureau. Peak discharge for 1938, 1940-43, 1948-53 calendar years from reports of Mississippi River Commission. Peak discharge affected by storage reservoirs and power development since March 1940. Only annual peaks are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1892	May 22, 1892	29.6	-	1932	Jan. 27, 1932	23.5	-
				1933	May 20, 1933	25.8	-
1906	May 6-7, 1906	22.6	-	1934	Apr. 10, 1934	19.0	-
1907	May 12, 1907	23.7	-	1935	June 24, 1935	33.0	-
1908	May 31, June 1	28.9	-				
1909	May 30, 1909	27.0	-	1936	Oct. 3, 1936	18.0	-
1910	May 26-27, 1910	18.2	-	1937	Jan. 19, 1937	22.1	-
				1938	Feb. 22, 1938	a31.7	476,000
1911	Aug. 11, 1911	22.1	-	1939	Apr. 19, 1939	20.9	-
1912	May 4, 1912	27.7	-	1940	Sept. 10, 1940	14.9	77,900
1913	Apr. 14, 1913	20.4	-				
1914	May 9, 1914	19.7	-	1941	Nov. 8, 1941	b50.6	409,000
1915	June 2, 1915	26.9	-	1942	May 3, 1942	27.7	312,000
				1943	May 28, 1943	33.78	553,000
1916	Feb. 3, 1916	29.6	-	1944	May 6, 1944	25.3	-
1917	June 13, 1917	17.6	-	1945	Apr. 22, 1945	32.1	-
1918	May 15, 1918	20.9	-				
1919	Nov. 3-5, 1919	20.0	-	1946	Dec. 15, 1946	21.7	-
1920	Mar. 31, 1920	23.5	-	1947	May 22, 1947	21.4	-
				1948	June 30, 1948	21.9	281,000
1921	May 1, 1921	23.9	-	1949	May 25, 1949	22.7	291,000
1922	Apr. 16, 1922	26.0	-	1950	May 16, 1950	24.1	340,000
1923	June 19-20, 1923	27.7	-				
1924	May 5, 1924	23.7	-	1951	July 8, 1951	c21.9	230,000
1925	Oct. 19, 1925	16.6	-	1952	Apr. 26, 1952	19.4	164,000
				1953	Apr. 28, 1953	d17.6	141,000
1926	Oct. 15, 1926	25.8	-	1954	May 6, 1954	19.9	-
1927	Apr. 21, 1927	32.4	-	1955	Mar. 23, 1955	15.7	-
1928	June 27, 1928	24.8	-				
1929	May 20, 1929	27.6	-	1956	Feb. 20, 1956	12.4	-
1930	May 13, 1930	24.7	-	1957	May 31, 1957	30.85	-
				1958	May 12, 1958	19.3	-
1931	Dec. 1, 1931	17.6	-				

- a Occurred on following day.
- b Occurred Nov. 8-9, 1941.
- c Occurred July 22-23, 1951.
- d Occurred May 17, 1953.

2639.2. Bayou Meto near North Little Rock, Ark.
(Published as "Big Bayou Meto")

Location.--Lat 34°52'49", long 92°10'58", in NE $\frac{1}{4}$ sec. 21, T.3 N., R.11 W., on downstream side of bridge on State Highway 5, 3.7 miles upstream from Kellogg Creek, 3.8 miles downstream from Bridge Creek, and 8.9 miles northeast of junction of State Highway 30 with U. S. Highways 70 and 67E in North Little Rock.

Drainage area.--68 sq mi.

Gage.--Recording. Datum of gage is 226.53 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined at high stages.

Bankfull stage.--18 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges of Bayou Meto near North Little Rock, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Mar. 2, 1948	23.2	-	1953	Dec. 4, 1952	24.9	-
1949	Jan. 28, 1949	22.2	-	1954	May 2, 1954	27.1	-
1950	Feb. 13, 1950	24.2	-	1955	May 27, 1955	23.3	-
1951	Apr. 7, 1951	23.2	-	1956	Feb. 2, 1956	23.6	-
1952	Apr. 13, 1952	21.0	-	1957	Aug. 13, 1957	25.2	-

2640. Bayou Meto near Lonoke, Ark.

(Published by Corps of Engineers as "Big Bayou Meto" prior to 1955)

Location.--Lat 34°44'10", long 91°54'58", in SW $\frac{1}{4}$ sec.6, T.1 N., R.8 W., near left bank on downstream side of bridge on State Highway 31, 3 miles upstream from Brushy Slough, and 3 $\frac{1}{2}$ miles south of Lonoke.

Drainage area.--203 sq mi.

Gage.--Recording. Prior to Feb. 10, 1955, at site 4 $\frac{1}{4}$ miles upstream at datum 6.97 ft higher. Datum of present gage is 199.11 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements at present site. Not adequately defined at former site.

Bankfull stage.--16 ft.

Remarks.--Gage-height records prior to 1955 furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	January 1937	a22.9	-	1953	May 19, 1953	19.7	-
				1954	May 7, 1954	21.3	-
1948	March 1948	20.2	-	1955	June 1, 1955	22.30	1,920
1949	Jan. 30, 1949	22.1	-				
1950	Jan. 14, 1950	22.0	-	1956	Feb. 6, 1956	23.80	2,120
				1957	May 29, 1957	25.16	3,360
1951	Jan. 20, 1951	18.0	-	1958	May 6, 1958	25.13	3,440
1952	Apr. 18, 1952	16.8	-				

a Site and datum used prior to 1955.

2645. Bayou Meto near Stuttgart, Ark.

Location.--Lat 34°27'15", long 91°37'00", in SE $\frac{1}{4}$ sec.11, T.3 S., R.6 W., on downstream side of bridge on U. S. Highway 79, 5 $\frac{1}{2}$ miles southwest of Stuttgart and 8 miles upstream from Crooked Creek.

Drainage area.--560 sq mi. Combined area of Bayou Meto and Crooked Creek, 647 sq mi.

Gage.--Nonrecording. Prior to Oct. 1, 1936, at datum 5.00 ft higher. Present datum of gage is 169.94 ft above mean sea level, datum of 1929. All stages adjusted to present datum.

Stage-discharge relation.--Defined by current-meter measurements below 5,000 cfs.

Bankfull stage.--20 ft.

Remarks.--Diversions above station for irrigation of about 1,300 acres do not seriously affect peak discharges. Stage for 1955-58 from reports of Corps of Engineers.

During flows above 600 cfs, Bayou Meto and Crooked Creeks are interconnected above station. Discharges tabulated below are for combined flows of Bayou Meto and Crooked Creek. Gage heights are for Bayou Meto. Only annual maximum daily discharges are shown.

Peak stages and discharges of Bayou Meto near Stuttgart, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	July 5, 1936	15.00	1,060	1948	Mar. 8, 9, 1948	22.82	4,500
1937	Jan. 26, 1937	25.50	29,350	1949	Feb. 6, 1949	23.67	5,280
1938	Feb. 1, 1938	23.26	4,850	1950	Feb. 18-20, 1950	24.33	6,200
1939	Feb. 16, 1939	23.54	5,180				
1940	Feb. 22, 1940	17.01	1,640	1951	Jan. 20, 1951	20.38	3,080
				1952	Mar. 14, 15, 1952	18.75	2,260
1941	Apr. 25, 1941	17.49	1,570	1953	May 23, 1953	22.56	4,410
1942	Apr. 29, 1942	21.59	3,200	1954	Jan. 31, 1954	19.27	2,690
1943	Mar. 27, 28, 1943	20.04	2,530	1955	June 8-10, 1955	19.47	2,500
1944	Apr. 12, 1944	21.25	3,290				
1945	Apr. 7, 1945	22.86	4,410	1956	Feb. 24, 1956	22.23	4,020
				1957	May 5, 6, 1957	22.60	4,540
1946	Jan. 20, 21, 1946	23.29	4,420	1958	May 12, 1958	23.55	5,340
1947	June 4, 1947	16.57	1,420				

a Flow for Crooked Creek estimated.

Note.--Peak stage frequently occurs on different date than maximum daily discharge.

2650. Crooked Creek near Humphrey, Ark.

Location--Lat 34°25'35", long 91°40'00", in SE $\frac{1}{4}$ sec. 20, T.3 S., R.6 W., near center of span on downstream side of bridge on U. S. Highway 79, 100 ft upstream from St. Louis-Southwestern Railway bridge, 2 miles east of Humphrey, and 5.8 miles upstream from mouth.

Drainage area--87 sq mi.

Gage--Nonrecording gage Oct. 1, 1938, to June 19, 1950, and since Sept. 30, 1954. Recording June 20, 1950, to Sept. 30, 1954. Datum of gage is 169.94 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 1,800 cfs. Discharges for 1936-38 computed on basis of stage relation with Bayou Meto near Stuttgart.

Bankfull stage--20 ft.

Remarks--See Bayou Meto near Stuttgart.

MISSISSIPPI RIVER MAIN STEM

2655. Mississippi River near Arkansas City, Ark.

Location--Lat 33°33'55", long 91°14'34", in sec. 18, T.13 S., R.1 W., on right bank 3 miles southwest of Arkansas City, 28 miles downstream from Arkansas River, and at mile 547.0.

Drainage area--1,130,700 sq mi, approximately.

Gage--Nonrecording. Prior to Sept. 3, 1930, at site 4 miles upstream, Sept. 3, 1930, to Feb. 29, 1944, at site 1.9 miles upstream, and Mar. 1, 1944, to Oct. 31, 1948, at site 1.2 miles upstream. All gages at datum 96.66 ft above mean sea level, datum of 1929, supplementary adjustment of 1941, or 96.75 ft above mean Gulf level.

Stage-discharge relation--Defined by current-meter measurements. (Frequent measurements since 1928 and occasional measurements since 1884.)

Bankfull stage--44 ft.

Remarks--Natural flow affected by many reservoirs and navigation dams. Records from publications of Mississippi River Commission and Vicksburg District, Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges of Mississippi River near Arkansas City, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1880	Mar. 20-27, 1880	45.1	-	1920	Apr. 12, 1920	a54.0	1,513,000
1881	May 16-18, 1881	44.3	-	1921	May 5,6,1921	45.4	1,083,000
1882	Feb. 28, 1882	47.1	-	1922	Apr. 22-27, 1922	58.0	1,725,000
1883	Mar. 11, 1883	46.35	-	1923	Mar. 31, 1923	a49.4	1,224,000
1884	Mar. 7-9, 1884	46.5	-	1924	Jan. 24-26, 1924	45.05	1,070,000
1885	May 7-9, 1885	42.6	-	1925	Mar. 7, 1925	37.6	834,000
1886	May 4-5, 1886	46.9	-	1926	Apr. 25-27, 1926	41.9	965,000
1887	Mar. 24, 1887	a46.65	1,480,000	1927	Apr. 20, 1927	a60.4	b1,712,000
1888	Apr. 21,22, 1888	45.38	-	1928	July 3, 1928	a52.5	1,424,000
1889	June 30, July 1	36.3	-	1929	May 30, 1929	a58.8	1,788,000
1890	Mar. 19, 1890	a49.5	1,418,000	1930	Jan. 28, 29, 1930	47.78	1,141,000
1891	Apr. 7, 1891	a48.2	1,425,000	1931	Apr. 18, 1931	33.6	725,000
1892	May 4, 1892	a50.0	1,742,000	1932	Feb. 27, 1932	a53.45	1,448,000
1893	May 27, 1893	a50.3	1,676,000	1933	June 5, 1933	a53.63	1,380,000
1894	Feb. 24, 1894	40.5	-	1934	Apr. 12, 1934	a38.99	874,000
1895	Apr. 1,2, 1895	32.2	-	1935	Apr. 3-5, 1935	a51.75	1,460,000
1896	Apr. 19, 1896	40.0	-	1936	Apr. 26, 1936	a41.3	1,289,000
1897	Mar. 27, 1897	a51.9	1,646,000	1937	Feb. 16, 1937	a53.86	2,159,000
1898	Apr. 20, 1898	a51.2	1,497,000	1938	Apr. 23, 1938	a37.4	1,201,000
1899	Apr. 15-20, 1899	48.6	-	1939	Feb. 28, 1939	a39.0	1,435,000
1900	Mar. 25, 1900	39.3	933,000	1940	May 7, 1940	a30.8	1,067,000
1901	May 12,13, 1901	43.3	1,090,000	1941	Apr. 29, 1941	25.3	821,000
1902	Mar. 29, 1902	41.4	1,011,000	1942	Apr. 18, 1942	a33.9	1,121,000
1903	Mar. 16, 1903	a52.9	1,743,000	1943	June 2, 1943	a44.2	1,688,000
1904	Apr. 20, 1904	a49.0	1,403,000	1944	May 7, 1944	a42.2	1,614,000
1905	June 3, 1905	43.2	1,086,000	1945	Apr. 9, 1945	a46.3	1,922,000
1906	Apr. 19, 1906	a50.0	1,462,000	1946	Jan. 25, 1946	a37.3	1,520,000
1907	Feb. 4, 1907	a52.1	1,573,000	1947	May 3,4, 1947	a35.81	1,312,000
1908	June 2-4, 1908	49.9	1,449,000	1948	Apr. 11,12, 1948	a37.54	1,320,000
1909	Mar. 27, 1909	a50.1	1,520,000	1949	Feb. 14, 1949	a36.7	1,523,000
1910	Mar. 23, 1910	43.13	1,083,000	1950	Feb. 21,22, 1950	a41.37	1,791,000
1911	May 2, 1911	a48.03	1,281,000	1951	Mar. 9, 1951	a33.57	1,330,000
1912	Apr. 16, 1912	a55.33	2,007,000	1952	Apr. 6, 1952	a35.91	1,374,000
1913	Apr. 26, 1913	a55.15	1,782,000	1953	May 25,26, 1953	a29.57	997,000
1914	Apr. 20-23, 1914	43.24	1,087,000	1954	May 7, 1954	20.21	697,000
1915	Feb. 24, 25, 1915	45.95	1,201,000	1955	Apr. 6, 1955	34.71	1,315,000
1916	Feb. 10, 1916	a56.4	1,889,000	1956	Mar. 3, 1956	28.87	1,120,000
1917	Apr. 17, 1917	a52.11	1,591,000	1957	June 5, 1957	37.6	1,345,000
1918	Mar. 5-7, 1918	39.8	951,000	1958	May 15, 1958	33.85	1,192,000
1919	Apr. 5, 1919	a49.4	1,378,000				

a Occurred on following day.

b About 2,472,000 cfs in May if flow had been confined between levees.

Note.--Daily discharges computed from 1928 to date. Peaks prior to this date are results of discharge measurements made during periods of maximum stage.

YAZOO RIVER BASIN

2660. Cane Creek near New Albany, Miss.

Location--Lat 34°34'15", long 88°57'25", in SW $\frac{1}{4}$ sec. 11, T.6 S., R.3 E., Chickasaw meridian, on right bank 150 ft downstream from Ellis Creek, 600 ft downstream from bridge on county highway, 5.0 miles upstream from mouth, and $\frac{6}{16}$ miles northeast of New Albany.

Drainage area--22.2 sq mi.

Gage--Recording prior to July 19, 1941, and since June 15, 1950; nonrecording Feb. 1 to June 14, 1950. Prior to Dec. 10, 1955, at site 600 ft upstream and prior to Oct. 1, 1955, at datum 10.00 ft higher. Datum of present gage is 356.74 ft above mean sea level, datum of 1929, supplementary adjustment of 1944.

Stage-discharge relation--Defined by current-meter measurements at former site below 4,200 cfs and extended by logarithmic plotting. Defined by current-meter measurements at present site below 1,900 cfs and extended on basis of slope-area measurement. Rating subject to small shifts.

Bankfull stage--5 ft.

Remarks--Base for partial-duration series, 1,400 cfs.

Peak stages and discharges of Cane Creek near New Albany, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	May 22, 1939	8.43	5,700	1955	Mar. 21, 1955	9.08	8,680
	June 11, 1939	7.51	2,750		Apr. 12, 1955	7.56	1,520
	June 13, 1939	7.24	2,080		1956	Feb. 4, 1956	11.89
	June 17, 1939	7.25	2,100	Apr. 6, 1956		9.33	1,720
1940	Apr. 4, 1940	7.55	2,860	1957	Feb. 1, 1957	10.91	2,020
	Apr. 18, 1940	6.99	1,620		Apr. 4, 1957	17.02	4,780
1941	Dec. 16, 1940	7.02	1,670		June 9, 1957	14.72	3,270
	June 29, 1941	7.16	1,920		July 1, 1957	9.19	1,460
1950	Mar. 27, 1950	7.59	1,890		July 2, 1957	10.32	1,820
	1951	Mar. 28, 1951	8.20	3,220	Sept. 15, 1957	9.12	1,420
Jan. 3, 1951		7.87	2,400	Sept. 20, 1957	9.32	1,490	
1952	Jan. 27, 1952	7.99	2,700	1958	Oct. 23, 1957	10.01	1,720
	Mar. 10, 1952	7.50	1,470		Nov. 13, 1957	14.67	3,270
1953	July 21, 1953	8.45	4,720		Nov. 18, 1957	10.21	1,790
	1954	Jan. 22, 1954	7.42		1,220	Apr. 29, 1958	11.37
					May 1, 1958	9.71	1,620
				Sept. 20, 1958	14.33	3,140	

2670. Hell Creek near New Albany, Miss.

Location.--Lat 34°30'55", long 89°03'10", in SW $\frac{1}{4}$ sec.36, T.6 S., R.2 E., Chickasaw meridian, at bridge on U. S. Highway 78, 3 miles northwest of New Albany, and $4\frac{1}{2}$ miles upstream from mouth.

Drainage area.--27.3 sq mi.

Gage.--Nonrecording prior to Sept. 30, 1939; recording July 22, 1941, to Dec. 31, 1942; crest-stage gage since Oct. 25, 1951.

Stage-discharge relation.--Defined by current-meter measurements below 2,400 cfs. Rating subject to small shifts.

Bankfull stage.--16 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	June 17, 1939	16.73	3,600	1954	Jan. 21, 1954	15.12	1,880
	1942	Apr. 9, 1942	15.80	2,240	1955	Mar. 21, 1955	17.32
1952		Jan. 27, 1952	16.23	2,400	1956	Feb. 4, 1956	15.72
1953	Feb. 20, 1953	14.96	1,830	1957	Apr. 4, 1957	17.06	3,030
				1958	Nov. 15, 1957	17.16	3,080

2680. Tallahatchie River at Etta, Miss.

Location.--Lat 34°29'00", long 89°13'30", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.8, T.7 S., R.1 E., Chickasaw meridian, at bridge on State Highway 30, three-quarters of a mile northeast of Etta, $3\frac{1}{2}$ miles upstream from Puskus Creek, and 4 miles downstream from Locks Creek.

Drainage area.--526 sq mi.

Gage.--Nonrecording prior to Mar. 17, 1939, and Aug. 26, 1952, to June 22, 1953; recording Mar. 17, 1939, to Aug. 25, 1952, and since June 23, 1953. Prior to June 1, 1937, at datum 5.33 ft higher. Sept. 24, 1938, to Sept. 30, 1952, at datum 5.00 ft higher. Datum of present gage is 273.48 ft above mean sea level, datum of 1929, supplementary adjustment of 1944 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 47,000 cfs.

Bankfull stage.--20 ft.

Remarks.--Gage-height records prior to June 1, 1937, from reports of Corps of Engineers. Base for partial-duration series, 13,000 cfs.

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Peak stages and discharges of Tallahatchie River at Etta, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	Jan. 3, 1937	18.10	13,500	1949	Jan. 4, 1949	21.81	31,000
1939	Feb. 15, 1939	20.71	29,900	1949	Feb. 28, 1949	20.26	20,100
	May 23, 1939	19.06	17,800		1950	Jan. 6, 1950	19.70
	June 18, 1939	20.56	29,200	Mar. 13, 1950		20.53	21,500
1940	Mar. 14, 1940	18.78	14,500	1951	Jan. 4, 1951	21.09	25,700
	Apr. 19, 1940	20.43	27,300	Mar. 29, 1951	23.11	50,500	
1941	Dec. 17, 1940	18.81	14,500	1952	Dec. 26, 1951	20.20	19,400
1942	Apr. 10, 1942	17.99	8,670	1953	Feb. 21, 1953	21.66	12,600
1943	Mar. 13, 1943	19.85	21,900	1954	Jan. 22, 1954	22.41	13,900
1944	Feb. 27, 1944	18.99	15,600	1955	Mar. 22, 1955	29.32	79,000
	Mar. 29, 1944	20.6	28,800		Apr. 13, 1955	24.57	28,200
1945	Jan. 1, 1945	21.11	28,600	1956	Feb. 4, 1956	23.89	23,100
	Mar. 4, 1945	19.16	14,400		Feb. 18, 1956	22.78	16,000
1946	Jan. 8, 1946	21.59	32,600		Apr. 6, 1956	22.34	13,300
	Feb. 9, 1946	21.36	31,000		May 1, 1956	23.59	21,000
	May 26, 1946	19.45	16,300	1957	Feb. 1, 1957	24.93	30,600
1947	Jan. 3, 1947	20.01	20,200		Apr. 4, 1957	23.83	22,400
	Apr. 12, 1947	20.36	23,000	1958	Oct. 23, 1957	22.55	15,200
1948	Feb. 13, 1948	23.70	59,500		Nov. 14, 1958	25.62	32,700
	Mar. 17, 1948	20.72	25,100		Apr. 29, 1958	23.32	19,000
	Nov. 19, 1948	23.15	52,000		Sept. 21, 1958	24.54	27,400

2682. Fice Creek at Etta, Miss.

Location.--Lat 34°28'20", long 89°14'10", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.18, T.7 S., R.1 E., Chickasaw meridian, at bridge on State Highway 30, 0.6 mile east of Lafayette-Union County line and 0.8 mile west of Etta.

Drainage area.--9.09 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by 3 current-meter measurements below 2,400 cfs.

Bankfull stage.--8 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Mar. 10, 1952	10.84	a568	1956	Feb. 4, 1956	12.33	3,780
1953	Feb. 20, 1953	10.90	607	1957	Apr. 4, 1957	11.61	1,420
1954	Jan. 21, 1954	11.20	850	1958	Nov. 15, 1957	12.62	5,220
1955	Mar. 21, 1955	12.23	3,360				

a Record incomplete; possibly the yearly maximum.

2685. Cypress Creek near Etta, Miss.

Location--Lat 34°26'30", long 89°17'25", in SE $\frac{1}{4}$ sec.27, T.7 S., R.1 W., Chickasaw meridian, at bridge on State Highway 30, 4 $\frac{1}{2}$ miles southwest of Etta and 5 miles upstream from mouth.

Drainage area--28.5 sq mi.

Gage--Recording prior to December 1942; crest-stage gage since October 1951. Altitude of gage is 315 ft (from topographic map).

Stage-discharge relation--Defined by current-meter measurements below 6,300 cfs.

Bankfull stage--8 ft.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	June 17, 1939	10.12	3,920	1953	Apr. 29, 1953	9.48	2,150
1940	Mar. 13, 1940	9.20	1,460	1954	May 28, 1954	9.52	2,200
				1955	Mar. 21, 1955	11.58	8,800
1941	Dec. 16, 1940	9.93	3,220				
1942	Apr. 9, 1942	9.54	2,380	1956	Feb. 4, 1956	10.88	5,900
				1957	July 1, 1957	10.19	3,700
1948	Feb. 13, 1948	10.7	-	1958	Nov. 14, 1957	11.35	7,800
1952	Dec. 26, 1951	10.46	4,450				

2690. North Tippah Creek near Ripley, Miss.

Location--Lat 34°44', long 89°02', in SW $\frac{1}{4}$ sec.18, T.4 S., R.3 E., Chickasaw meridian, at bridge on State Highway 4, 2 miles upstream from Tippah drainage canal and 5 $\frac{1}{2}$ miles west of Ripley.

Drainage area--20.0 sq mi.

Gage--Nonrecording prior to Mar. 13, 1939; recording Mar. 13, 1939, to September 1942; crest-stage gage after Oct. 26, 1951.

Stage-discharge relation--Defined by current-meter measurements below 1,600 cfs and extended by logarithmic plotting.

Bankfull stage--10 ft.

Remarks--Base for partial-duration series, 900 cfs. Only annual peaks are shown subsequent to 1942.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Apr. 11, 1939	10.45	945	1948	-	12.1	2,420
	Apr. 17, 1939	10.50	970				
	May 22, 1939	10.85	1,180	1952	(b)	11.59	1,770
	May 27, 1939	10.70	1,090				
	June 17, 1939	11.40	1,510	1953	July 21, 1953	13.63	6,180
1940	Apr. 18, 1940	10.23	845	1954	Feb. 20, 1954	11.14	1,310
1941	Dec. 16, 1940	10.47	945	1955	Mar. 21, 1955	12.10	2,420
	Apr. 23, 1941	10.38	920				
				1956	Feb. 4, 1956	11.67	1,860
1942	Feb. 6, 1942	11.29	1,670	1957	Apr. 4, 1957	12.05	2,350
	Feb. 24, 1942	11.20	1,550				
	Apr. 9, 1942	11.53	1,980	1958	Nov. 16, 1957	12.29	2,710

a Record incomplete; may not be maximum of the year.

b Prior to Mar. 4, 1952.

2699.9. Tippah Creek near Potts Camp, Miss.

Location.--Lat 34°35'51", long 89°21'01", in NW $\frac{1}{4}$ sec.6, T.6 S., R.1 W., Chickasaw meridian, at bridge on county road, 5 miles southwest of Potts Camp.

Drainage area.--359 sq mi.

Gage.--Recording. Datum of gage is 277.79 ft above mean sea level, datum of 1929, supplementary adjustments of 1941 and 1944.

Stage-discharge relation.--Defined by current-meter measurements below 7,000 cfs.

Bankfull stage.--14 ft.

Remarks.--Records furnished by Corps of Engineers. Peak discharge for 1947-58 from rating curve defined by Corps of Engineers discharge measurements. Base for partial-duration series, 5,000 cfs. Only annual peaks are shown prior to 1951.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Mar. 14, 1943	17.3	9,000	1952	Mar. 12, 1952	16.3	6,600
1944	Mar. 29, 1944	18.0	11,600	1953	Feb. 12, 1953	18.4	13,000
1945	Jan. 1, 1945	19.78	19,200		Feb. 22, 1953	16.0	6,000
1946	Jan. 8, 1946	18.9	15,000		Mar. 5, 1953	16.3	6,600
1947	Jan. 4, 1947	17.37	9,600		Mar. 24, 1953	15.4	4,900
1948	Feb. 13, 1948	20.78	24,000		Apr. 7, 1953	16.6	7,300
1949	Nov. 20, 1948	18.9	a15,000		May 5, 1953	16.4	6,900
1950	Mar. 13, 1950	17.71	10,600		May 17, 1953	18.8	14,800
1951	Jan. 4, 1951	17.67	10,500		July 22, 1953	18.99	15,500
	Feb. 9, 1951	15.8	5,600	1954	Jan. 23, 1954	15.62	5,200
	Feb. 21, 1951	15.6	5,200	1955	Mar. 22, 1955	19.79	19,300
	Mar. 28, 1951	15.6	5,200		Apr. 13, 1955	18.0	11,600
	Mar. 31, 1951	15.2	4,600	1956	Feb. 4, 1956	17.90	11,200
1952	Dec. 16, 1951	16.5	7,000		Feb. 19, 1956	15.3	4,700
	Jan. 28, 1952	17.69	10,500	1957	Feb. 1, 1957	18.7	14,300
	Feb. 4, 1952	15.2	4,600		Apr. 4, 1957	17.8	10,900
				1958	Nov. 15, 1957	18.1	12,000
					May 1, 1958	16.3	7,000
					Sept. 22, 1958	17.23	8,900

a Maximum daily.

2710. Clear Creek near Oxford, Miss.

Location.--Lat 34°21'20", long 89°39'30", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.30, T.8 S., R.4 W., Chickasaw meridian, at bridge on State Highway 6, 1.0 mile upstream from Hudson Creek and 8.3 miles west of Oxford.

Drainage area.--10.3 sq mi.

Gage.--Nonrecording prior to Mar. 6, 1939; recording thereafter. Datum of gage is 275.47 ft above mean sea level, datum of 1929, supplementary adjustment of 1944.

Stage-discharge relation.--Defined by current-meter measurements below 1,700 cfs, by slope-area measurements below 2,700 cfs and extended by logarithmic plotting.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 900 cfs.

Peak stages and discharges of Clear Creek near Oxford, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Mar. 29, 1939	6.77	1,330	1954	Dec. 5, 1953	5.46	1,200
	Apr. 11, 1939	6.56	1,210		Jan. 20, 1954	9.18	2,380
	Apr. 26, 1939	6.90	1,430		Jan. 21, 1954	5.98	1,360
	June 17, 1939	8.44	2,130		May 27, 1954	11.04	2,960
	June 27, 1939	8.70	a2,220	1955	Mar. 20, 1955	11.02	3,700
1940	June 28, 1940	7.18	1,640		Apr. 12, 1955	8.35	2,660
	July 12, 1940	9.17	2,380		Apr. 21, 1955	4.42	1,080
	1941	Dec. 15, 1940	7.14		a1,600	May 28, 1955	7.23
1950		Mar. 12, 1950	6.64		1,520	July 17, 1955	4.53
	Apr. 30, 1950	6.48	1,480	July 24, 1955	5.02	1,320	
	June 3, 1950	7.22	a1,740	Sept. 23, 1955	4.00	930	
	July 6, 1950	6.51	1,480	1956	Feb. 2, 1956	8.25	2,580
	Aug. 17, 1950	6.20	1,370		Feb. 16, 1956	7.68	2,380
	Aug. 25, 1950	5.44	1,090		Apr. 30, 1956	11.14	3,740
1951	Nov. 20, 1950	6.19	1,380	1957	Jan. 4, 1957	5.38	1,330
	Jan. 3, 1951	7.72	1,940		Feb. 1, 1957	5.54	1,380
	Mar. 28, 1951	7.47	1,860		Apr. 4, 1957	11.66	3,980
1952	Dec. 25, 1951	6.68	1,560		Apr. 22, 1957	5.17	1,240
	Jan. 27, 1952	6.72	1,560		June 4, 1957	11.28	3,820
	Mar. 10, 1952	5.08	1,020		June 22, 1957	6.67	1,920
1953	Feb. 6, 1953	4.76	976	1958	Nov. 14, 1957	10.90	3,660
	Feb. 20, 1953	9.46	2,480		Nov. 17, 1957	5.18	1,240
	Mar. 2, 1953	5.56	1,230		Apr. 27, 1958	4.67	1,010
	Mar. 3, 1953	5.49	1,200		Apr. 29, 1958	7.97	2,500
	Mar. 22, 1953	6.82	1,620		June 26, 1958	5.80	1,510
	Apr. 29, 1953	5.26	1,140		July 8, 1958	5.92	1,560
	May 4, 1953	4.75	976	July 23, 1958	5.71	1,460	
	May 16, 1953	7.40	1,810	Sept. 20, 1958	8.40	2,660	
	May 16, 1953	5.38	1,170				

a Record incomplete; probably the yearly maximum.

2725. Tallahatchie River at Sardis Dam, near Sardis, Miss.

Location.--Lat 34°23'57", long 89°47'10", in NE $\frac{1}{4}$ sec.11, T.8 S., R.6 W., Chickasaw meridian, in gatehouse of Sardis Dam, $7\frac{1}{2}$ miles southeast of Sardis.

Drainage area.--1,545 sq mi.

Gage.--Recording. Datum of gage is 219.43 ft above mean sea level, datum of 1929, supplementary adjustment of 1944 (levels by Corps of Engineers).

Remarks.--Flow completely regulated by Sardis Reservoir. Records furnished by Corps of Engineers. Only annual peak discharges are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Aug. 19, 1940		4,730	1950	June 8, 1950		5,160
1941	Nov. 28, 1940		3,330	1951	Aug. 2, 1951		5,580
1942	(a)		4,580	1952	June 23, 1952		4,470
1943	July 14, 1943		4,130	1953	Sept. 14, 1953		5,280
1944	At times		4,920	1954	Oct. 8, 1953		5,130
1945	July 25, 1945		5,380	1955	Sept. 26, 1955		4,710
1946	June 24, 1946		5,780	1956	Oct. 1, 1955		4,310
1947	Oct. 4, 5, 1946		5,410	1957	Apr. 25, 1957		4,660
1948	Aug. 18, 1948		5,430	1958	Feb. 4, 1958		4,860
1949	Sept. 9, 1949		5,520				

a May 10, 11, June 13, 14, 23, 1942.

2730. Tallahatchie River near Sardis, Miss.

Location.--Lat 34°23'10", long 89°52'52", in NE $\frac{1}{4}$ sec.13, T.8 S., R.7 W., Chickasaw meridian, at bridge on U. S. Highway 51 (old), $3\frac{1}{2}$ miles upstream from Illinois Central Railroad bridge, 4 miles southeast of Sardis, and $9\frac{1}{2}$ miles downstream from Sardis Reservoir.

Drainage area.--1,595 sq mi.

Gage.--Nonrecording prior to 1949; recording thereafter. Datum of gage is 187.84 ft above mean sea level, datum of 1929, supplementary adjustment of 1944 (levels by Corps of Engineers).

Bankfull stage.--16 ft.

Remarks.--After Aug. 26, 1939, 1,545 sq mi regulated by Sardis Reservoir. Records for July 1928 to September 1931 and October 1938 to September 1942 computed by Corps of Engineers and reviewed by Geological Survey. Records for December 1931 to September 1938 furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Mar. 26, 1929	20.23	21,900	1944	July 17, 1944	12.0	5,600
1930	Mar. 10, 1930	21.31	29,600	1945	Dec. 31, 1944	15.8	9,100
1931	Apr. 2, 1931	14.58	7,000	1946	July 8, 1946	14.1	7,200
1932	Jan. 15, 1932	26.36	65,300	1947	Apr. 11, 1947	12.82	6,200
1933	Apr. 3, 1933	22.67	39,400	1948	Feb. 13, 1948	14.98	8,100
1934	Mar. 6, 1934	19.93	20,100	1949	Jan. 3, 1949	13.16	6,400
1935	Jan. 23, 1935	19.80	19,500	1950	Mar. 13, 1950	14.03	7,100
1936	Mar. 29, 1936	17.61	11,000	1951	Jan. 3, 1951	16.70	10,500
1937	Jan. 5, 1937	21.08	28,200	1952	Jan. 27, 1952	12.90	6,300
1938	Apr. 12, 1938	18.23	13,200	1953	May 4, 1953	15.72	6,900
1939	June 20, 1939	22.09	39,000	1954	May 28, 1954	12.50	6,000
1940	Aug. 19, 1940	10.4	4,610	1955	Mar. 21, 1955	14.10	7,200
1941	Jan. 1, 1941	9.00	4,030	1956	Apr. 6, 1956	12.11	5,700
1942	Apr. 9, 1942	17.1	14,400	1957	Feb. 1, 1957	12.0	5,600
1943	Mar. 12, 1943	10.5	4,700	1958	Nov. 14, 1957	14.0	7,100

2735. Tallahatchie River at Batesville, Miss.

Location.--Lat 34°19'55", long 89°58'00", in SE $\frac{1}{4}$ sec.6, T.9 S., R.7 W., Chickasaw meridian, near center of span on upstream side of county highway bridge, 1 mile west of Batesville and about 2 miles downstream from Illinois Central Railroad bridge.

Drainage area.--1,750 sq mi, approximately.

Gage.--Nonrecording. Datum of gage is 175.4 ft above mean sea level.

Stage-discharge relation.--Defined by current-meter measurements below 12,000 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1906	Nov. 22, 1905	18.6	13,800	1910	July 12, 1910	17.1	11,400
1908	Feb. 18, 1908	18.2	13,100	1911	Apr. 20, 1911	18.9	14,200
1909	Feb. 21, Mar. 2	16.9	11,100	1912	Dec. 28, 1911	18.4	13,400

2735.5. Tallahatchie River (Panola-Quitman floodway) near Batesville, Miss.

Location--Lat 34°17'44", long 90°03'18", on south line of sec.17, T.9 S., R.8 W., Chickasaw meridian, at bridge on new State Highway 6, 6.4 miles west of Batesville.

Drainage area--1,802 sq mi (1,545 sq mi controlled by Sardis Dam).

Gage--Nonrecording prior to January 1946; recording thereafter. Prior to June 26, 1941, at site 800 ft upstream. Datum of gage is 163.46 ft above mean sea level, datum of 1929, supplementary adjustments of 1941 and 1944.

Stage-discharge relation--Defined by current-meter measurements below 18,000 cfs.

Bankfull stage--18 ft.

Remarks--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	Jan. 9, 1937	18.0	a10,600	1949	Jan. 3, 1949	18.52	11,900
				1950	Mar. 13, 1950	19.35	14,300
1940	Apr. 15, 1940	14.91	6,890	1951	Jan. 3, 1951	19.66	15,700
1941	Apr. 23, 1941	16.8	-	1952	Mar. 10, 1952	18.30	11,200
1942	Apr. 9, 1942	21.16	27,500	1953	May 4, 1953	19.36	14,300
1943	Mar. 13, 1943	18.2	11,000	1954	May 13, 1954	15.15	6,500
1944	Mar. 28, 1944	17.6	10,400	1955	Mar. 21, 1955	20.00	17,500
1945	Dec. 31, 1944	19.98	15,600	1956	Feb. 3, 1956	17.90	9,380
1946	July 8, 1946	19.36	19,600	1957	Feb. 1, 1957	18.79	11,000
1947	Jan. 30, 1947	17.33	9,600	1958	Apr. 29, 1958	18.02	10,400
1948	Feb. 13, 1948	20.12	25,200				

a Result of discharge measurement.

2736. Tallahatchie River (Panola-Quitman floodway) near Crowder, Miss.

Location--Lat 34°10'45", long 90°06'18", in SE $\frac{1}{4}$ sec.29, T.27 N., R.2 E., Choctaw meridian, at bridge over west channel of Panola-Quitman floodway on county road, $1\frac{1}{2}$ miles upstream from Yocona River Canal and 1.8 miles north-east of Crowder.

Drainage area--1,826 sq mi.

Gage--Nonrecording prior to Nov. 10, 1947; recording thereafter. Datum of gage is 143.89 ft above mean sea level, datum of 1929, supplementary adjustments of 1941 and 1944.

Bankfull stage--26 ft.

Remarks--1,545 sq mi controlled by Sardis Dam. Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Apr. 24, 1941	ab21.0		1951	Jan. 3, 1951	27.51	
1942	Apr. 9, 1942	25.4		1952	Dec. 26, 1951	24.3	
1943	Mar. 13, 1943	a24.2		1953	May 5, 1953	23.13	
1944	Mar. 29, 1944	a24.4		1954	May 28, 1954	20.66	
1945	Jan. 1, 1945	a26.0		1955	Mar. 21, 1955	24.06	
1946	Jan. 9, 1946	a25.5		1956	Feb. 4, 1956	22.42	
1947	Apr. 11, 1947	24.69		1957	Feb. 1, 1957	23.40	
1948	Feb. 13, 1948	27.57		1958	Nov. 14, 1957	22.9	
1949	Jan. 4, 1949	26.87					
1950	Mar. 13, 1950	28.28					

a Maximum observed; S a.m. reading.

b Year incomplete; may not be the yearly maximum.

2740. Yocona River near Oxford, Miss.

Location--Lat 34°16'23", long 89°31'11", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.28, T.9 S., R.3 W., Chickasaw meridian, at bridge on State Highway 7, 1 $\frac{1}{2}$ miles downstream from Burney Branch and 6 miles south of Oxford.

Drainage area--262 sq mi.

Gage--Recording. Datum of gage is 272.20 ft above mean sea level, datum of 1929, supplementary adjustment of 1944.

Stage-discharge relation--Defined by current-meter measurements below 22,000 cfs and extended by logarithmic plotting.

Bankfull stage--20 ft.

Historical data--The flood of Mar. 21, 1955, is the greatest known in at least 50 years, from information by local residents.

Remarks--Records prior to 1952 furnished by Corps of Engineers. Base for partial-duration series, 8,000 cfs. Only annual peaks are shown prior to 1952.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 11, 1947	21.78	9,210	1954	Jan. 22, 1954	16.33	4,250
1948	Feb. 13, 1948	22.60	19,400	1955	Mar. 21, 1955	23.72	44,100
1949	Jan. 4, 1949	22.23	15,800		Apr. 13, 1955	21.48	11,500
1950	Mar. 13, 1950	21.46	9,350	1956	Feb. 4, 1956	21.40	10,900
1951	Mar. 29, 1951	23.10	24,400		May 1, 1956	20.79	8,090
1952	Dec. 27, 1951	21.50	8,710	1957	Feb. 2, 1957	21.40	10,900
1953	Feb. 21, 1953	20.57	6,750		Apr. 4, 1957	21.45	11,100
				1958	Nov. 15, 1957	22.16	14,200
					Apr. 29, 1958	21.42	8,500
					Sept. 21, 1958	22.78	22,300

2742.5. Otuckalofa Creek near Water Valley, Miss.

Location--Lat 34°08'25", long 89°38'15", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.8, T.11 S., R.4 W., Chickasaw meridian, at bridge on State Highway 7, 0.9 mile south of Water Valley and 5.2 miles upstream from mouth.

Drainage area--84.1 sq mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined by current-meter measurements below 5,900 cfs.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Dec. 23, 1951	25.9	5,600	1956	Feb. 4, 1956	25.49	4,700
1953	Feb. 20, 1953	23.84	3,300	1957	Sept. 14, 1957	23.84	3,300
1954	Jan. 20, 1954	20.75	1,950	1958	Sept. 20, 1958	26.30	6,800
1955	Mar. 21, 1955	27.36	21,000				

2750. Yocona River at Enid Dam, near Enid, Miss.

Location.--Lat 34°09'29", long 89°54'14", in NE $\frac{1}{4}$ sec.2, T.11 S., R.7 W., Chickasaw meridian, in gatehouse of Enid Dam, 0.8 mile upstream from U. S. Highway 51, $2\frac{1}{2}$ miles upstream from Illinois Central Railroad bridge, and $3\frac{1}{4}$ miles northeast of Enid.

Drainage area.--560 sq mi.

Gage.--Nonrecording prior to July 14, 1939, and July 16, 1951, to May 23, 1952; recording July 14, 1939, to July 15, 1951, and since May 23, 1952. Prior to July 15, 1951, at site 0.8 mile downstream at datum 10.58 ft lower. Datum of present gage is 200.00 ft above mean sea level, datum of 1929, supplementary adjustments of 1941 and 1944.

Stage-discharge relation.--Defined by current-meter measurements. Relation subject to shift.

Bankfull stage.--17 ft at site and datum used prior to July 15, 1951.

Remarks.--Flow completely regulated by Enid Reservoir since July 16, 1951. Records for 1932-38 furnished by Corps of Engineers. Records for 1939-58 computed by Corps of Engineers and reviewed by Geological Survey. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Mar. 23, 1929	19.16	16,000	1944	Mar. 29, 1944	20.13	24,400
1930	May 20, 1930	18.22	10,100	1945	Jan. 1, 1945	20.20	25,400
1931	Apr. 1, 1931	13.16	4,880	1946	Feb. 10, 1946	20.17	25,400
1932	Jan. 14, 1932	21.04	27,000	1947	Apr. 12, 1947	19.41	20,100
1933	Apr. 1, 1933	19.70	20,600	1948	Feb. 14, 1948	21.61	36,300
1934	Mar. 3, 1934	16.87	10,500	1949	Jan. 5, 1949	20.10	28,800
1935	Mar. 12, 1935	16.90	9,720	1950	Mar. 13, 1950	17.45	18,000
1936	Feb. 4, 1936	16.89	9,710	1951	Mar. 30, 1951	18.63	21,700
1937	Jan. 2, 1937	17.76	13,200	1952	Dec. 28, 1951	-	6,080
1938	Apr. 7, 1938	18.32	12,800	1953	July 8-9, 1953	-	1,360
1939	Mar. 30, 1939	18.57	16,800	1954	Jan. 26-27, 1954	-	1,090
1940	Mar. 13, 1940	17.84	12,600	1955	July 20-21, 1955	-	2,190
1941	Dec. 16, 1940	18.00	13,000	1956	Oct. 1, 1955	-	1,480
1942	Apr. 9, 1942	18.53	15,200	1957	Sept. 19, 1957	-	2,240
1943	Mar. 13, 1943	18.55	13,900	1958	Jan. 21, 1958	-	3,670

2755. Long Creek at Courtland, Miss.

Location.--Lat 34°13'40", long 89°56'25", in sec.9, T.10 S., R.7 W., Chickasaw meridian, at bridge on U. S. Highway 51, 1 mile south of Courtland, $5\frac{1}{2}$ miles upstream from mouth, and 6 miles south of Batesville.

Drainage area.--66.2 sq mi.

Gage.--Recording prior to Dec. 31, 1943; crest-stage gage since Nov. 18, 1951. Datum of gage is 205.33 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 7,000 cfs and by indirect measurement of 38,300 cfs.

Bankfull stage.--18 ft.

Historical data.--Flood of May 28, 1954, is the highest since at least 1907, from information by local residents. Unusual floods occurred in 1907, 1911, and 1929, and reached stages within 3 ft of that of May 28, 1954.

Remarks.--Only annual peaks are shown.

YAZOO RIVER BASIN

Peak stages and discharges of Long Creek at Courtland, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	July 12, 1940	14.82	a5,440	1953	May 5, 1953	20.21	13,400
1941	Nov. 11, 1940	11.87	3,540	1954	May 28, 1954	25.02	38,300
1942	Apr. 9, 1942	22.21	13,500	1955	Mar. 21, 1955	22.39	20,700
1943	Dec. 27, 1942	19.51	a9,380	1956	Apr. 30, 1956	12.30	3,100
1948	Feb. 13, 1948	21.8	a12,800	1957	Apr. 3, 1957	20.71	14,800
1952	Dec. 27, 1951	21.03	15,800	1958	Nov. 14, 1957	21.17	16,200

a Record incomplete; may not be yearly maximum.

2760. Coldwater River near Lewisburg, Miss.

Location.--Lat 34°50'27", long 89°49'32", in center of sec.10, T.3 S., R.6 W., Chickasaw meridian, at bridge on State Highway 305, 1.6 miles south of Lewisburg and 4.0 miles upstream from Pigeonroost Creek.

Drainage area.--218 sq mi.

Gage.--Nonrecording prior to Sept. 3, 1942, and Aug. 26, 1948, to Aug. 22, 1950; Recording Sept. 3, 1942, to Aug. 25, 1948, and since Aug. 22, 1950. Datum of gage is 250.52 ft above mean sea level, datum of 1929, supplementary adjustments of 1941 and 1944.

Stage-discharge relation.--Defined by current-meter measurements below 13,000 cfs.

Bankfull stage.--10 ft.

Remarks.--High flows intermingle above station with Pigeonroost Creek. Records furnished by Corps of Engineers and reviewed by Geological Survey 1942-53. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	June 29, 1940	10.8	2,020	1950	Jan. 13, 1950	12.53	10,600
1941	Jan. 6, 1941	9.3	790	1951	Jan. 3, 1951	12.90	11,400
1942	Apr. 9, 1942	14.56	20,900	1952	Jan. 27, 1952	12.84	11,200
1943	Mar. 13, 1943	12.97	12,900	1953	May 19, 1953	13.10	12,300
1944	Mar. 29, 1944	12.41	16,200	1954	Feb. 18, 1954	10.77	2,750
1945	Jan. 1, 1945	12.95	13,200	1955	Mar. 21, 1955	12.68	10,500
1946	Jan. 8, 1946	15.60	25,900	1956	Feb. 4, 1956	12.18	8,440
1947	June 23, 1947	13.20	13,900	1957	Feb. 1, 1957	12.38	9,240
1948	Feb. 13, 1948	14.02	17,400	1958	Sept. 22, 1958	12.60	10,100
1949	June 15, 1949	11.98	8,400				

2765. Pigeonroost Creek near Byhalia, Miss.

Location.--Lat 34°45'35", long 89°41'45", in SE $\frac{1}{4}$ sec.2, T.4 S., R.5 W., Chickasaw meridian, at bridge on county road, 3.1 miles north of Wall Hill, 3.9 miles downstream from Cuffawa Creek Canal, and 7.8 miles south of Byhalia.

Drainage area.--117 sq mi.

Gage.--Recording prior to Apr. 2, 1942, and since Nov. 2, 1956; nonrecording Apr. 2 to Sept. 30, 1942. Prior to Nov. 3, 1956, at datum 3.76 ft lower. Altitude of present gage is 300 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 8,400 cfs and extended on basis of velocity-area study.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Pigeonroost Creek near Byhalia, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	June 29, 1940	9.96	a5,480	1957	Jan. 31, 1957	8.60	
1941	Jan. 2, 1941	9.88	5,320	1958	Nov. 14, 1957	8.95	-
1942	Apr. 9, 1942	14.6	24,500				

a Record incomplete; probably the yearly maximum.

2770. Pigeonroost Creek near Lewisburg, Miss.

Location.--Lat 34°49'49", long 89°49'20", in NW $\frac{1}{4}$ sec.15, T.3 S., R.6 W., Chickasaw meridian, at bridge on State Highway 305, 1.6 miles upstream from mouth and 2.4 miles south of Lewisburg.

Drainage area.--228 sq mi.

Gage.--Nonrecording prior to Sept. 3, 1942, and July 12, 1948, to Dec. 17, 1949; recording Sept. 3, 1942, to July 11, 1948, and since Dec. 17, 1949. Datum of gage is 253.14 ft above mean sea level, datum of 1929, supplementary adjustment of 1944.

Bankfull stage.--9 ft.

Remarks.--High flows intermingle above station with Coldwater River. Records furnished by Corps of Engineers and reviewed by Geological Survey 1942-53. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	June 29, 1940	10.00	4,600	1950	Mar. 13, 1950	12.30	4,960
1941	Jan. 2, 1941	10.40	5,480	1951	Jan. 3, 1951	12.52	5,060
1942	Apr. 9, 1942	12.2	34,900	1952	Jan. 27, 1952	12.64	5,100
1943	Mar. 13, 1943	11.01	9,390	1953	May 19, 1953	16.74	17,200
1944	Apr. 23, 1944	10.96	6,110	1954	Feb. 20, 1954	13.10	6,450
1945	Feb. 27, 1945	11.08	6,100	1955	Apr. 13, 1955	14.32	10,000
1946	Jan. 8, 1946	12.85	9,430	1956	Jan. 29, 1956	14.30	10,000
1947	June 22, 1947	12.70	3,250	1957	Feb. 1, 1957	13.89	8,850
1948	Feb. 13, 1948	12.68	6,160	1958	Sept. 20, 1958	14.60	11,000
1949	Nov. 19, 1948	13.05	7,210				

2775. Coldwater River near Coldwater, Miss.

Location.--Lat 34°43', long 89°59', in SW $\frac{1}{4}$ sec.19, T.4 S., R.7 W., Chickasaw meridian, at bridge on U. S. Highway 51, 1 $\frac{1}{4}$ miles northwest of Coldwater, 3.0 miles downstream from Beartail Creek, and 3.8 miles upstream from HICKAHALA Creek.

Drainage area.--617 sq mi.

Gage.--Nonrecording. Datum of gage is 208.29 ft above mean sea level, datum of 1929.

Stage-discharge relation.-- Defined by current-meter measurements.

Bankfull stage.--13 ft.

Remarks.--Records July 1928 to September 1931 and October 1938 to July 1942 computed by Corps of Engineers and reviewed by Geological Survey. Records for October 1931 to September 1938 furnished by Corps of Engineers. Only annual peaks are shown.

YAZOO RIVER BASIN

Peak stages and discharges of Coldwater River near Coldwater, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Feb. 27, 1929	15.89	20,000	1936	Oct. 24-25, 1935	13.97	4,900
1930	Jan. 9, 1930	18.86	41,800	1937	Jan. 25, 1937	17.00	25,000
				1938	Jan. 23, 1938	16.49	17,300
1931	July 26, 1931	14.18	7,940	1939	Feb. 3, 1939	16.14	16,500
1932	Jan. 14, 1932	16.03	20,900	1940	June 30, 1940	14.64	8,300
1933	Apr. 1, 1933	16.10	18,800				
1934	Dec. 19, 1933	17.75	29,200	1941	Jan. 4, 1941	13.95	4,280
1935	Jan. 21, 1935	21.00	79,500	1942	Apr. 9, 1942	20.40	33,600

2777. Hickahala Creek near Senatobia, Miss.

Location.--Lat 34°37'54", long 89°55'30", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 22, T.5 S., R.7 W., Chickasaw meridian, at bridge on county road, 1.5 miles upstream from confluence of Hickahala Creek and Senatobia Creek and 3 miles northeast of Senatobia.

Drainage area.--121 sq mi.

Gage.--Recording. Datum of gage is 233.02 ft above mean sea level, datum of 1929, supplementary adjustments of 1941 and 1944.

Stage-discharge relation.--Defined by current-meter measurements below 2,600 cfs.

Bankfull stage.--13 ft.

Historical data.--The flood of June 22, 1947, is the highest known, reaching a stage slightly higher than the 1900 flood, from information by local residents.

Remarks.--Gage-height records furnished by Corps of Engineers. Discharge computed from curve defined by Corps of Engineer measurements. Base for partial-duration series, 5,000 cfs. Only annual peaks are shown prior to 1951.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Dec. 27, 1942	15.4	7,300	1955	Mar. 21, 1955	16.25	10,400
					Apr. 6, 1955	14.8	5,200
1944	Feb. 26, 1944	14.3	4,000		Apr. 13, 1955	16.2	10,200
					Apr. 21, 1955	15.6	8,000
1945	Dec. 31, 1944	16.4	11,000		June 14, 1955	15.0	9,900
1946	July 8, 1946	17.1	14,000	1956	Jan. 30, 1956	15.3	6,900
					Feb. 3, 1956	16.10	9,900
1947	June 22, 1947	20.6	30,000		Feb. 18, 1956	15.6	8,000
					Apr. 6, 1956	14.9	5,600
1948	Feb. 13, 1948	15.6	8,000	1957	Feb. 1, 1957	16.67	12,300
					Apr. 4, 1957	15.0	5,900
1949	Nov. 19, 1948	15.1	6,100		Apr. 25, 1957	15.0	5,900
					June 4, 1957	14.9	5,600
1950	Mar. 13, 1950	14.76	5,200	1958	Nov. 14, 1957	16.1	9,900
					Nov. 18, 1957	15.9	9,100
1951	Jan. 3, 1951	15.50	7,700		Nov. 25, 1957	15.2	6,500
1952	Jan. 27, 1952	16.70	12,300		Dec. 7, 1957	16.5	11,400
					Dec. 15, 1957	15.1	6,100
1953	May 19, 1953	18.00	17,900		Apr. 4, 1958	15.32	6,900
					May 1, 1958	15.80	8,800
1954	May 3, 1954	14.61	4,700		May 10, 1958	15.56	7,800
					Sept. 20, 1958	16.70	12,300
1955	Mar. 16, 1955	14.8	5,200				

a Record incomplete; may not be yearly maximum.

2777.3. Senatobia Creek near Senatobia, Miss.

Location.--Lat 34°37'02", long 89°56'30", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.28, T.5 S., R.7 W., Chickasaw meridian, at bridge on State Highway 4, 1.4 miles upstream from mouth and 1.5 miles east of Senatobia.

Drainage area.--82 sq mi.

Gage.--Recording. Datum of gage is 233.80 ft above mean sea level, datum of 1929, supplementary adjustments of 1941 and 1944.

Stage-discharge relation.--Defined by current-meter measurements furnished by Corps of Engineers below 9,200 cfs.

Bankfull stage.--13 ft.

Remarks.--Gage-height records furnished by Corps of Engineers. Base for partial-duration series, 11,300 cfs. Only annual peaks are shown prior to 1951.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Dec. 27, 1942	16.7	13,200	1953	May 17, 1953	17.5	17,100
1944	Apr. 23, 1944	15.6	9,300		May 19, 1953	17.2	15,500
1945	Dec. 31, 1944	16.0	10,500	1954	May 28, 1954	15.85	10,000
1946	July 8, 1946	16.7	13,200	1955	Mar. 20, 1955	17.40	16,600
1947	June 22, 1947	17.85	19,000		Apr. 13, 1955	17.2	15,500
1948	Feb. 12, 1948	16.60	12,900		Apr. 21, 1955	17.1	15,100
1949	Jan. 3, 1949	16.85	13,900	1956	Feb. 2, 1956	16.9	14,100
1950	Apr. 30, 1950	16.92	14,200		Feb. 17, 1956	17.0	14,800
1951	Jan. 3, 1951	17.20	15,500		Apr. 6, 1956	17.24	15,600
1952	Jan. 27, 1952	17.60	17,700		Apr. 30, 1956	16.5	12,500
	Mar. 10, 1952	16.8	13,900	1957	Jan. 31, 1957	16.5	12,500
1953	Feb. 11, 1953	16.8	13,900		Apr. 4, 1957	17.0	14,800
	Feb. 20, 1953	17.3	16,000		Apr. 18, 1957	16.6	12,900
	Mar. 3, 1953	17.4	16,600		Apr. 25, 1957	16.4	12,000
	Mar. 22, 1953	17.2	15,500	1958	Nov. 13, 1957	17.56	17,500
	Apr. 6, 1953	17.1	15,100		Nov. 18, 1957	17.58	17,600
	Apr. 29, 1953	17.6	17,700		Dec. 7, 1957	16.9	14,200
	May 4, 1953	17.60	17,700		Apr. 29, 1958	17.05	15,000
					May 1, 1958	16.75	13,600
					June 26, 1958	17.15	15,300
					Sept. 17, 1958	16.40	12,000
					Sept. 19, 1958	17.90	19,400

2785. Coldwater River at Arkabutla Dam, near Arkabutla, Miss.
(Prior to October 1941 published as "at Pratts Bridge")

Location.--Lat 34°45'26", long 90°07'27", in SW $\frac{1}{4}$ sec.2, T.4 S., R.9 W., Chickasaw meridian, in gatehouse of Arkabutla Dam, 4 miles north of Arkabutla.

Drainage area.--1,000 sq mi.

Gage.--Nonrecording prior to Oct. 1, 1939, and Jan. 1 to June 30, 1942; recording Oct. 1, 1939, to Nov. 28, 1941, and after June 30, 1942. Prior to Oct. 1, 1941, at site 1.7 miles downstream at datum 3.64 ft lower. Jan. 1, 1942, to Dec. 31, 1947, at site 370 ft downstream from outlet tunnel and at datum 19.90 ft lower. Datum of present gage is 191.18 ft above mean sea level, datum of 1929, supplementary adjustments of 1941 and 1944 (levels by Corps of Engineers).

Historical data.--A stage of 21.3 ft occurred in January 1935, from floodmarks at original site and datum (determined by Corps of Engineers).

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Flow completely regulated by Arkabutla Reservoir since Aug. 14, 1941. Only annual peaks are shown.

Peak stages and discharges of Coldwater River at Arkabutla Dam, near Arkabutla, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Jan. 22, 1938	12.7	28,700	1949	May 19, 1949	-	9,030
1939	Feb. 4, 1939	12.5	23,600	1950	Feb. 16, 1950	-	4,850
1940	June 29, 1940	10.2	8,170				
1941	Jan. 4, 1941	10.0	5,360	1951	Dec. 16, 1950	-	4,830
1942	Apr. 12, 1942	-	10,200	1952	Mar. 13, 1952	-	4,100
1943	Mar. 14, 1943	-	8,720	1953	May 21, 1953	-	7,120
1944	May 21, 1944	-	4,610	1954	Feb. 26, 1954	-	3,230
1945	Apr. 20, 1945	-	4,700	1955	Apr. 22, 1955	-	4,900
1946	Jan. 13, 1946	-	5,150	1956	Feb. 20, 1956	-	4,580
1947	June 27, 1947	-	3,850	1957	Feb. 7-9, 1957	-	3,950
1948	Mar. 8, 1948	-	5,110	1958	Dec. 23, 1957	-	3,920

2793. Coldwater River at Prichard, Miss.

Location.--Lat 34°41'58", long 90°13'54", in SW $\frac{1}{4}$ sec.26, T.4 S., R.10 W., Chickasaw meridian, at bridge on county road, 0.3 mile southeast of Prichard.

Drainage area.--1,214 sq mi (1,000 sq mi controlled by Arkabutla Dam).

Gage.--Nonrecording prior to 1948; recording thereafter. Datum of gage is 156.22 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Fairly well defined by current-meter measurements below 6,800 cfs.

Bankfull stage.--30 ft.

Remarks.--Flow regulated by Arkabutla Dam. Gage-height records furnished by Corps of Engineers. Discharge computed from curve defined by Corps of Engineer measurements. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Jan. 12, 1946	31.34	8,000	1953	May 21, 1953	29.79	7,200
1947	June 28, 1947	25.78	5,350	1954	Feb. 20, 1954	23.19	4,200
1948	Feb. 14, 1948	28.93	6,700	1955	Apr. 22, 1955	28.47	6,600
1949	Apr. 13, 1949	29.05	6,800				
1950	Feb. 14, 1950	29.87	7,300	1956	Feb. 18, 1956	28.26	6,500
				1957	Feb. 1, 1957	26.4	5,600
1951	Jan. 14, 1951	28.10	6,400	1958	Nov. 14, 1957	26.61	5,700
1952	Mar. 11, 1952	27.32	6,000				

2795. Coldwater River at Savage, Miss.

Location.--Lat 34°38'00", long 90°13'50", in SW $\frac{1}{4}$ sec.23, T.5 S., R.10 W., Chickasaw meridian, at county highway bridge 1,000 ft downstream from Yazoo and Mississippi Valley Railroad bridge, a quarter of a mile west of Savage, $7\frac{1}{4}$ miles upstream from Arkabutla Canal, and $9\frac{1}{2}$ miles southeast of Tunica.

Drainage area.--1,225 sq mi.

Gage.--Nonrecording. Oct. 1, 1908, to Oct. 31, 1912, at site 1,000 ft upstream from last used gage at mean sea level datum. Dec. 19, 1935, to May 24, 1942, at same site as and at datum 5.00 ft higher than last used gage. Datum of last used gage was 164.74 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--16 ft.

Remarks.--Flow regulated by Arkabutla Reservoir since Aug. 14, 1941. Records for 1935-58 furnished by Corps of Engineers. Records for 1938-42 computed by Corps of Engineers and reviewed by Geological Survey. Only annual peaks are shown.

Peak stages and discharges of Coldwater River at Savage, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	June 3, 1909	186.1	11,300	1937	Jan. 25, 1937	18.05	45,800
1910	Apr. 18, 1910	187.0	13,000	1938	Jan. 25, 1938	17.46	24,900
				1939	Feb. 5, 1939	17.35	25,100
1911	Apr. 7, 17, 1911	186.9	14,500	1940	July 3, 1940	15.52	4,320
1912	May 1, 1912	186.9	14,500				
1935	January 1935	a20	-	1941	Apr. 28, 1941	b15.11	3,590
				1942	Apr. 12-13, 1942	21.66	11,800
1936	Mar. 31, 1936	15.51	3,800				

a From floodmark by Corps of Engineers.
 b Occurred on following day.

2796. Arkabutla Creek near Arkabutla, Miss.

Location.--Lat 34°39'10", long 90°09'40", in SW¹/₄ NW¹/₄ sec.16, T.5 S., R.9 W., Chickasaw meridian, at bridge on county road, 0.5 mile downstream from Hoover Creek, 4 miles southwest of Arkabutla, and 7.9 miles upstream from mouth.

Drainage area.--97 sq mi.

Gage.--Recording. Datum of gage is 185.73 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements furnished by Corps of Engineers below 7,100 cfs and extended on basis of logarithmic plotting.

Bankfull stage.--16 ft.

Remarks.--Gage-height records furnished by Corps of Engineers. Base for partial-duration series, 7,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	May 24, 1947	21.2	a13,000	1953	Feb. 11, 1953	19.3	7,800
					Apr. 6, 1953	20.2	10,000
1948	Jan. 1, 1948	20.0	9,800		Apr. 30, 1953	20.8	11,800
	Feb. 13, 1948	22.26	16,500		May 4, 1953	21.00	12,200
	Mar. 2, 1948	20.8	11,800		May 11, 1953	20.2	10,000
	Mar. 6, 1948	20.0	9,800		May 14, 1953	18.8	7,000
	Mar. 31, 1948	19.1	7,400		May 17, 1953	20.6	11,200
	Apr. 13, 1948	20.3	10,500		May 19, 1953	20.6	11,200
1949	Nov. 19, 1948	20.6	11,200	1954	Feb. 20, 1954	17.30	3,800
	Jan. 3, 1949	20.80	11,800				
	Mar. 25, 1949	20.1	9,900	1955	Mar. 21, 1955	19.6	8,600
					Apr. 12, 1955	21.03	12,300
1950	Dec. 12, 1949	19.6	8,600		Apr. 21, 1955	19.9	9,400
	Jan. 5, 1950	19.90	9,400				
	Jan. 10, 1950	20.50	11,000	1956	Feb. 3, 1956	19.00	7,200
	Jan. 12, 1950	19.25	7,800				
	Feb. 13, 1950	21.2	13,000	1957	Jan. 30, 1957	19.5	8,500
	Mar. 13, 1950	21.60	14,000		Apr. 4, 1957	18.9	7,100
	Apr. 30, 1950	19.0	7,200				
1951	Jan. 2, 1951	20.15	10,000	1958	Nov. 18, 1957	20.12	10,000
					Dec. 7, 1957	19.6	8,600
1952	Dec. 14, 1951	19.0	7,200		Apr. 15, 1958	19.35	8,000
	Jan. 27, 1952	21.60	14,000		Apr. 26, 1958	19.70	8,800
	Mar. 2, 1952	19.0	7,200		May 1, 1958	19.70	8,800
	Mar. 11, 1952	21.1	12,800		May 10, 1958	18.90	7,100
					Sept. 20, 1958	20.10	9,900

a Record incomplete; may not be the yearly peak.

2796.5. Arkabutla Creek near Sarah, Miss.

Location--Lat 34°36'14", long 90°13'05", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.35, T.5 S., R.10 W., Chickasaw meridian, at bridge on Yazoo and Mississippi Valley Railroad, 2.3 miles upstream from mouth and 2.5 miles north of Sarah.

Drainage area--160 sq mi.

Gage--Recording. Datum of gage is 168.81 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation--Not adequately defined. Relation affected by back-water from Coldwater River.

Bankfull stage--16 ft.

Remarks--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Sept. 24, 1940	16.8	-	1950	Feb. 13, 1950	19.02	-
1941	Apr. 23, 1941	18.8	-	1951	Jan. 3, 1951	17.95	-
1942	Apr. 9, 1942	19.0	-	1952	Mar. 10, 1952	18.16	-
1943	Mar. 12-13, 1943	12.1	-	1953	May 19, 1953	18.70	-
1944	Apr. 23, 1944	18.1	-	1954	Feb. 20, 1954	14.90	-
1945	Apr. 26, 1945	18.5	-	1955	Mar. 21, 1955	18.20	-
1946	May 24, 1946	18.4	-	1956	Feb. 2, 1956	17.90	-
1947	Jan. 2, 1947	18.65	-	1957	Apr. 4, 1957	16.50	-
1948	Feb. 13, 1948	17.40	-	1958	Apr. 30, 1958	16.80	-
1949	Mar. 25, 1949	18.60	-				

a Record incomplete; may not be yearly maximum.

2798. Coldwater River (Pompey ditch) near Sledge, Miss.

Location--Lat 34°26'20", long 90°15'29", on line between secs. 28 and 33, T.7 S., R.10 W., Chickasaw meridian, at bridge on county road, 2.5 miles west of Sledge.

Drainage area--Not determined.

Gage--Nonrecording. Datum of gage is 146.09 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation--Not defined.

Bankfull stage--24 ft.

Remarks--Flow affected by Arkabutla Reservoir. Gage-height records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Jan. 14, 1951	23.99	-	1956	Feb. 3-4, 1956	23.28	-
1952	Jan. 28, 1952	24.28	-	1957	Feb. 1, 1957	23.30	-
1953	May 20, 1953	26.08	-	1958	Dec. 20, 1957	21.6	-
1954	Feb. 20, 1954	25.40	-				
1955	Apr. 13, 1955	24.25	-				

2798.5. Coldwater River (old channel) near Birdie, Miss.

Location.--Lat 34°24'39", long 90°23'22", in sec.3, T.29 N., R.2 W., Choctaw meridian, at bridge on county road, 1.3 miles northwest of Birdie.

Drainage area.--Not determined.

Gage.--Nonrecording prior to Jan. 1, 1948; recording thereafter. Datum of gage is 140.09 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Bankfull stage.--25 ft.

Remarks.--Flow affected by Arkabutla Dam since Aug. 14, 1941. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Feb. 20, 1940	16.2	-	1950	Feb. 15, 1950	25.97	-
1941	Apr. 25, 1941	18.0	-	1951	Jan. 16, 1951	24.31	-
1942	Apr. 12, 1942	24.3	-	1952	Jan. 29, 1952	25.62	-
1943	Mar. 17, 1943	24.8	-	1953	May 20, 1953	28.05	-
1944	Mar. 31, 1944	23.6	-	1954	Jan. 23, 1954	20.19	-
1945	Jan. 3, 1945	25.2	-	1955	Apr. 15, 1955	25.65	-
1946	Jan. 11, 1946	27.3	-	1956	Feb. 5, 1956	26.16	-
1947	Jan. 5, 1947	22.20	-	1957	Feb. 2, 1957	25.53	-
1948	Feb. 15, 1948	25.90	-	1958	May 2, 1958	24.60	-
1949	Jan. 29, 1949	23.40	-				

2798.7. Yazoo Pass near Lula, Miss.

Location.--Lat 34°26'18", long 90°29'48", in SW $\frac{1}{4}$ sec.27, T.30 N., R.3 W., Choctaw meridian, at bridge on county road, 200 ft from outlet of Moon Lake and $\frac{1}{2}$ miles southwest of Lula.

Drainage area.--Not determined.

Gage.--Nonrecording prior to 1949; recording thereafter. Datum of gage is 151.47 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Bankfull stage.--19 ft.

Remarks.--Gage-height records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Apr.27 to May 5	7.8	-	1950	Mar. 20, 1950	16.56	-
1941	Apr.30 to May 7	7.6	-	1951	Jan.20-23, 1951	13.30	-
1942	Apr.21-24, 1942	12.4	-	1952	Feb. 16, 1952	12.73	-
1943	Mar.27-29, 1943	12.2	-	1953	May 24, 1953	17.30	-
1944	Apr.12-15, 1944	11.5	-	1954	Feb.4-5, 1954	9.20	-
1945	Apr. 6-10, 1945	13.6	-	1955	Apr. 24, 1955	14.19	-
1946	Jan.20-25, 1946	16.7	-	1956	Feb. 24, 1956	13.35	-
1947	Jan.31 to Feb. 3	10.3	-	1957	Feb.10-11, 1957	11.1	-
1948	Mar. 8-10, 1948	14.75	-	1958	May 12, 1958	14.44	-
1949	Feb.5-6, 1949	13.30	-				

2799. Coldwater River near Darling, Miss.

Location.--Lat 34°21'40", long 90°17'21", in sec.30, T.8 S., R.10 W., Chickasaw meridian, at bridge on county road, 0.8 mile west of Darling.

Drainage area.--1,620 sq mi.

Gage.--Nonrecording prior to January 1948; recording thereafter. Datum of gage is 134.31 ft above mean sea level, datum of 1929, supplementary adjustments of 1941 and 1944.

Stage-discharge relation.--Slope affected.

Bankfull stage.--29 ft.

Remarks.--Flow affected by Arkabutla Reservoir. Gage-height records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Jan. 10, 1946	31.7	-	1953	May 20, 1953	30.49	-
1947	Jan. 4, 1947	26.22	-	1954	Jan. 22, 1954	22.15	-
1948	Feb. 15, 1948	30.67	-	1955	Apr. 14, 1955	28.55	-
1949	Jan. 5, 1949	27.15	-				
1950	Feb. 16, 1950	29.52	-	1956	Feb. 4, 1956	28.79	-
				1957	Feb. 2, 1957	28.38	-
1951	Jan. 15, 1951	27.75	-	1958	Nov. 19, 1957	26.9	-
1952	Jan. 28, 1952	26.65	-				

2799.2. David Bayou near Sledge, Miss.

Location.--Lat 34°25'14", long 90°14'02", in NE $\frac{1}{4}$ sec.3, T.8 S., R.10 W., Chickasaw meridian, at bridge on Illinois Central Railroad, 1 mile southwest of Sledge.

Drainage area.--28 sq mi.

Gage.--Nonrecording. Datum of gage is 154.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Bankfull stage.--11 ft.

Remarks.--Gage-height records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Feb. 10, 1946	11.0	-	1953	May 21, 1953	11.85	-
1947	Jan. 4, 1947	10.37	-	1954	Jan. 23, 1954	8.09	-
1948	Feb. 15, 1948	11.90	-	1955	Mar. 22-23, 1955	11.10	-
1949	Nov. 20-22, 1948	10.8	-				
1950	Jan. 16, Mar. 14, 15	11.35	-	1956	Feb. 5, 1956	11.68	-
				1957	Feb. 2, 1957	11.28	-
1951	Jan. 5, 1951	10.70	-	1958	Nov. 19, 1957	10.9	-
	Jan. 29, 1952	10.09	-				

a Maximum daily.

2799.5. Coldwater River at Marks, Miss.

Location.--Lat 34°15', long 90°15', in NE $\frac{1}{4}$ sec.35, T.28 N., R.1 W., Choctaw meridian, at bridge on old State Highway 6 in Marks, 8.1 miles upstream from mouth (1946).

Drainage area.--Not determined.

Gage.--Nonrecording. Datum of gage is 120.71 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not well defined. A discharge of 14,800 cfs was measured May 20, 1953 (gage height, 38.90 ft).

Bankfull stage.--35 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Jan. 30, 1949	36.47	-	1954	Jan. 23, 1954	31.67	-
1950	Jan. 17, 1950	39.34	-	1955	Apr. 16, 1955	36.88	-
1951	Jan. 17, 1951	36.39	-	1956	Feb. 5, 1956	36.80	-
1952	Jan. 29, 1952	35.05	-	1957	Feb. 2, 1957	36.37	-
1953	May 23, 1953	39.20	-	1958	May 4, 1958	36.43	-

2799.7. Bobo Bayou at Bobo, Miss.

Location.--Lat 34°17'00", long 90°10'32", in SE $\frac{1}{4}$ sec.22, T.28 N., R.1 E., Choctaw meridian, at bridge on State Highway 6 in Bobo, 7 miles east of Marks.

Drainage area.--92 sq mi.

Gage.--Recording. Datum of gage is 140.92 ft above mean sea level, datum of 1929, supplementary adjustment of 1944.

Stage-discharge relation.--Defined by current-meter measurements. May be affected by variable slope.

Bankfull stage.--18 ft.

Remarks.--Floodflows intermingle with adjacent basins. Gage-height records and occasional current-meter measurements collected by Corps of Engineers; discharge computed on mean curve based on current-meter measurements. Base for partial-duration series, 1,100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	July 11, 1946	16.5	1,770	1952	Dec. 28, 1951	15.0	1,290
1947	Jan. 20, 1947	13.90	980		Jan. 29, 1952	14.8	1,230
1948	Feb. 19, 1948	16.70	1,900		Mar. 13, 1952	15.56	1,460
1949	Nov. 22-24, 1948	a16.0	1,600	1953	Feb. 13, 1953	14.8	1,230
	Jan. 6, 1949	a16.23	1,700		May 6, 1953	15.8	1,550
	Jan. 29, 30, 1949	a15.1	1,300		May 19, 1953	16.71	1,900
	Feb. 5, 1949	a14.7	1,200	1954	May 3, 1954	13.69	930
	Mar. 28, 29, 1949	a15.6	1,480	1955	Mar. 23, 1955	16.44	1,740
1950	Jan. 18, 1950	16.62	1,800		Apr. 15, 1955	15.8	1,550
	Feb. 5, 1950	a15.5	1,450	1956	Feb. 6, 1956	16.54	1,780
	Feb. 16, 17, 1950	a15.8	1,550	1957	Feb. 3, 1957	16.12	1,650
	Feb. 23, 1950	a15.8	1,550	1958	Nov. 19-21, 1957	15.8	1,550
	Mar. 15, 1950	a16.4	1,730		May 2, 1958	16.42	1,730
1951	Jan. 6, 1951	16.04	1,610		Sept. 24, 1958	15.80	1,550
	Jan. 16, 1951	15.2	1,340				
	Feb. 9, 1951	15.3	1,390				
	Apr. 27, 1951	14.8	1,230				

a Maximum daily.

2800. Tallahatchie River near Lambert, Miss.

Location.--Lat 34°10'50", long 90°12'55", in SW $\frac{1}{4}$ sec.29, T.27 N., R.1 E., Choc-taw meridian, at bridge on county road, a quarter of a mile downstream from Coldwater River, 4 miles southeast of Lambert, and 24 $\frac{1}{2}$ miles downstream from point of diversion of Panola-Quitman floodway.

Drainage area.--1,980 sq mi; does not include 2,600 sq mi of Upper Tallahatchie and Yocona Rivers, entire flow of which is diverted through Panola-Quitman floodway.

Gage.--Nonrecording prior to Sept. 4, 1946; recording thereafter. Datum of gage is 123.83 ft above mean sea level, datum of 1929, supplementary adjustments of 1941 and 1944.

Stage-discharge relation.--Defined by current-meter measurements. Relation is affected by variable slope.

Bankfull stage.--31 ft.

Remarks.--Flow partly regulated by Arkabutla Reservoir since Aug. 14, 1941. Records for 1936-38 furnished by Corps of Engineers. Records for 1938-58 computed by Corps of Engineers and reviewed by Geological Survey. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	January 1932	a36.8	-	1947	Jan. 5, 1947	28.98	8,510
				1948	Feb. 18, 1948	32.01	12,400
1936	Mar. 31, 1936	27.8	4,500	1949	Feb. 3, 1949	30.64	9,570
1937	Jan. 30, 1937	35.5	32,800	1950	Jan. 18, 1950	33.16	13,800
1938	Feb. 6, 1938	33.6	9,320				
1939	Feb. 20, 1939	34.64	15,100	1951	Jan. 18, 1951	30.42	11,900
1940	July 8, 1940	25.98	4,090	1952	Jan. 29, 1952	29.10	10,700
				1953	May 23, 1953	32.68	15,900
1941	Apr. 27, 1941	24.50	5,590	1954	Jan. 23, 1954	26.25	7,680
1942	Apr. 14, 1942	31.5	15,800	1955	Apr. 17, 1955	30.76	12,900
1943	Mar. 19, 1943	31.27	14,400				
1944	Apr. 3, 1944	30.30	11,400	1956	Feb. 9, 1956	30.81	12,700
1945	Jan. 7, 1945	31.57	12,400	1957	Feb. 3, 1957	30.30	12,500
				1958	May 3, 1958	30.54	11,600
1946	Jan. 16, 1946	33.50	16,100				

a From floodmark; probably affected by levee breaks above.

2800.5. Tallahatchie River at Shine Turner Bridge, near Lambert, Miss.

Location.--Lat 34°08'37", long 90°13'51", in NE $\frac{1}{4}$ sec.7, T.26 N., R.1 E., Choc-taw meridian, at bridge on county road, 7.1 miles southeast of Lambert and 23 $\frac{1}{2}$ miles downstream from point of diversion of Panola-Quitman floodway.

Drainage area.--1,985 sq mi; does not include 2,600 sq mi of Upper Tallahatchie and Yocona Rivers, entire flow of which is diverted through Panola-Quitman floodway.

Gage.--Nonrecording prior to Jan. 1, 1946; recording thereafter. Datum of gage is 126.49 ft above mean sea level, datum of 1929, supplementary adjustments of 1941 and 1944.

Stage-discharge relation.--Not defined.

Bankfull stage.--26 ft.

Remarks.--Flow partly regulated by Arkabutla Reservoir since Aug. 14, 1941. Only annual peak stages are shown.

Peak stages and discharges of Tallahatchie River at Shine Turner Bridge near Lambert, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	January 1932	32.6	-	1948	Feb. 17, 1948	27.18	-
1939	Feb. 21, 1939	29.5	-	1949	Jan. 7, 1949	26.35	-
1940	Apr. 23, 1940	22.4	-	1950	Jan. 19, 1950	27.96	-
1941	Apr. 27, 1941	19.6	-	1951	Jan. 18, 1951	26.14	-
1942	Apr. 13, 1942	26.8	-	1952	Jan. 30, 1952	24.90	-
1943	Mar. 18, 20, 1943	26.6	-	1953	May 24, 1953	28.00	-
1944	Apr. 1, 1944	26.1	-	1954	Jan. 23, 1954	22.29	-
1945	Mar. 6-7, 1945	26.4	-	1955	Apr. 17, 1955	26.30	-
1946	Jan. 15-18, 1946	28.2	-	1956	Feb. 9, 1956	26.45	-
1947	Jan. 6, 1947	24.82	-	1957	Feb. 5, 1957	26.00	-
				1958	May 3, 1958	26.37	-

2808. Cassidy Bayou near Marks, Miss.

Location.--Lat 34°14'00", long 90°25'42", on line between secs. 5 and 8, T.27 N., R.2 W., Choctaw meridian, at bridge on State Highway 6, 10 miles west of Marks.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to 1948; recording thereafter. Datum of gage is 141.28 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Bankfull stage.--20 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	July 8, 1946	12.3	-	1953	May 19, 1953	17.53	-
1947	Jan. 3, 1947	11.92	-	1954	Jan. 22, 1954	10.20	-
1948	Feb. 13, 1948	15.20	-	1955	Mar. 22 to Apr. 13	14.52	-
1949	Jan. 4, 1949	13.39	-	1956	Feb. 4, 1956	15.25	-
1950	Mar. 13, 1950	14.65	-	1957	Feb. 1, 1957	14.60	-
1951	Jan. 3, 1951	12.51	-	1958	May 1, 1958	13.91	-
1952	Dec. 26, 1951	12.6	-				

a Maximum daily.

2809. Cassidy Bayou at Webb, Miss.

Location.--Lat 33°56'59", long 90°20'28", in NW $\frac{1}{4}$ sec. 18, T.24 N., R.1 W., Choctaw meridian, at bridge on State Highway 32 at Webb.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to 1948; recording thereafter. Datum of gage is 127.55 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Slope affected.

Bankfull stage.--18 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges of Cassidy Bayou at Webb, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	July 13, 1946	13.6	-	1953	May 21, 1953	17.15	-
1947	Jan. 26, 1947	15.05	-	1954	Jan. 25, 1954	11.02	-
1948	Feb. 17, 1948	19.50	-	1955	Apr. 17, 1955	16.13	-
1949	Jan. 9, 1949	17.46	-				
1950	Mar. 17, 1950	18.53	-	1956	Feb. 8, 1956	15.66	-
				1957	Feb. 4, 1957	15.4	-
1951	Jan. 9-10, 1951	16.27	-	1958	May 3, 1958	17.96	-
1952	Jan. 1, 1952	15.08	-				

a Record incomplete.

2810. Tallahatchie River at Swan Lake, Miss.

Location.--Lat 33°52'55", long 90°16'45", in NE $\frac{1}{4}$ sec.10, T.23 N., R.1 W., Choctaw meridian, at bridge on county road, half a mile northeast of Swan Lake, 2 miles downstream from Cassidy Bayou, and 17 miles downstream from point where Panola-Quitman floodway empties into Tallahatchie River.

Drainage area.--5,130 sq mi, approximately.

Gage.--Nonrecording. Prior to Oct. 10, 1934, at datum 2.00 ft higher. Datum of gage is 113.38 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements; slope affected. Not defined prior to 1930.

Bankfull stage.--26 ft.

Remarks.--Gage-height records prior to 1930 furnished by U. S. Weather Bureau. Records 1930-38 furnished by Corps of Engineers. Records 1938-58 computed by Corps of Engineers and reviewed by Geological Survey. Flow partly regulated by reservoirs since August 1939. Only annual peaks are shown. Gage heights prior to Dec. 21, 1922, too high by varying amounts; maximum error about 0.9 ft.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1907	Dec. 2, 1906	29.3	-	1935	Jan. 31, 1935	34.1	46,000
1911	Apr. 25, 1911	29.9	-	1936	Apr. 13, 1936	27.6	11,600
1914	Apr. 19-21, 1914	24.8	-	1937	Feb. 2, 1937	33.8	48,900
1915	Feb. 15, 1915	29.1	-	1938	Apr. 11-13, 1938	31.0	19,700
1916	Feb. 11, 1916	29.1	-	1939	Feb. 22, 1939	32.97	43,200
1917	Apr. 13, 1917	29.6	-	1940	July 18-20, 1940	b25.15	10,400
1918	May 4, 1918	21.9	-	1941	Dec. 21, 1940	22.41	10,400
1919	Mar. 26, 1919	29.8	-	1942	Apr. 14, 1942	b29.34	24,000
1920	May 3-7, 1920	29.1	-	1943	Mar. 21, 1943	29.02	21,400
1921	Apr. 25-27, 1921	29.8	-	1944	Apr. 2, 1944	b50.17	27,500
1922	Mar. 19-21, 1922	29.2	-	1945	Jan. 6, 1945	30.79	34,000
1923	May 26, 1923	29.0	-	1946	Feb. 14, 1946	c32.03	41,200
1924	Jan. 18-20, 1924	28.4	-	1947	Jan. 24, 1947	28.27	16,200
1925	Mar. 25-26, 1925	18.9	-	1948	Feb. 17, 1948	32.20	43,800
1926	Nov. 20-21, 1925	26.4	-	1949	Jan. 9, 1949	30.53	26,500
1927	Mar. 22, 1927	31.8	-	1950	Mar. 17, 1950	31.30	33,800
1928	May 3-4, 1928	30.6	-	1951	Jan. 8, 1951	d29.38	23,600
1929	Mar. 29 to Apr. 1	31.7	-	1952	Jan. 1, 1952	28.20	18,600
1930	Jan. 27-29, 1930	31.9	20,700	1953	May 21, 1953	29.71	24,100
1931	(a)	23.2	9,920	1954	Jan. 26, 1954	b23.75	12,800
1932	Jan. 15, 1932	35.0	30,000	1955	Mar. 26, 1955	e28.67	21,700
1933	Apr. 9, 1933	33.2	49,200	1956	Feb. 10, 1956	28.28	19,100
1934	Mar. 14-16, 1934	27.7	16,200	1957	Feb. 5, 1957	b28.02	18,900
				1958	May 4, 1958	30.40	28,300

a Mar. 13, 14, Apr. 10, 11, 1931.

b Occurred on following day.

c Occurred on preceding day.

d Occurred Feb. 23, 1951.

e Occurred Apr. 17, 1955.

2811. Tallahatchie River (cutoff) near Glendora, Miss.

Location.--Lat 33°50'35", long 90°16'51", in SE $\frac{1}{4}$ sec.22, T.23 N., R.1 W., Choc-taw meridian, at bridge on county road, 2 miles northeast of Glendora and 3 miles south of Swan Lake.

Drainage area.--5,135 sq mi.

Gage.--Nonrecording prior to Oct. 6, 1944; recording thereafter. Prior to Oct. 6, 1944, at bridge over old bend at Glendora at present datum. Datum of gage is 112.43 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Bankfull stage.--30 ft.

Remarks.--Records furnished by Corps of Engineers. Flow regulated by reservoirs upstream since August 1939. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	July 21, 1940	25.0	-	1950	Mar. 17, 1950	30.91	-
1941	Jan. 7, 1941	22.0	-	1951	Feb. 23, 1951	29.20	-
1942	Apr.15-17, 1942	29.4	-	1952	Jan. 1, 1952	28.08	-
1943	Mar. 22, 1943	29.1	-	1953	May 21, 1953	29.48	-
1944	Apr.3-4, 1944	30.1	-	1954	Jan. 27, 1954	23.52	-
1945	Jan. 7, 1945	30.6	-	1955	Apr. 17, 1955	28.51	-
1946	Feb. 14, 1946	31.5	-	1956	Feb. 10, 1956	28.11	-
1947	Jan. 28, 1947	28.15	-	1957	Feb. 6, 1957	27.9	-
1948	Feb. 17, 1948	31.65	-	1958	May 4, 1958	30.07	-
1949	Jan. 10, 1949	30.25	-				

2815. Tallahatchie River at Phillip, Miss.

Location.--Lat 33°45'30", long 90°12'30", in NE $\frac{1}{4}$ sec.20, T.22 N., R.1 E., Choc-taw meridian, at Illinois Central (Y and MV) Railroad bridge at Phillip.

Drainage area.--5,165 sq mi.

Gage.--Nonrecording. Datum of gage is at mean sea level.

Stage-discharge relation.--Defined by current-meter measurements. Rating is affected by variable slope.

Bankfull stage.--135 ft.

Remarks.--Records for 1932 and 1937 furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	Mar.24-28, 1909	136.8	21,000	1913	Feb.1-7, 1913	138.2	-
1910	July 24-27, 1910	134.3	14,800				
				1932	January 1932	141.2	-
1911	Apr.28-30, 1911	138.6	25,600				
1912	Apr.5-6, 1912	139.0	28,600	1937	Jan. 14, 1937	135.11	12,500

2815.5. Tallahatchie River near Minter City, Miss.

Location.--Lat 33°45'10", long 90°17'00", in SE $\frac{1}{4}$ sec.22, T.22 N., R.1 W., Choc-taw meridian, at county road bridge half a mile east of Minter City.

Drainage area.--Not determined.

Gage.--Nonrecording. Datum of gage is at mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Remarks.--Flow regulated by reservoirs since 1939. Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges of Tallahatchie River near Minter City, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	Jan. 16, 1932	140.0	-	1944	Apr. 3, 1944	138.1	-
1933	Apr. 10, 1933	139.2	-	1945	Jan. 9, 1945	138.0	-
1935	February 1935	137.2	-	1946	Feb. 15, 1946	139.1	-
1937	Feb. 3, 1937	138.9	-	1947	Jan. 28, 1947	136.8	-
1938	Apr. 15, 1938	135.7	-	1948	Feb. 18, 1948	138.8	-
1939	Feb. 25, 1939	137.1	-	1949	Jan. 12, 1949	138.5	-
1940	July 21, 1940	129.8	-	1950	Mar. 18, 1950	138.2	-
				1951	Feb. 16, 1951	137.0	-
1941	Jan. 7, 1941	126.8	-	1953	May 22, 1953	136.8	-
1942	Apr. 17, 1942	134.7	-				
1943	Mar. 24, 1943	134.4	-				

2816. Tallahatchie River at Money, Miss.

Location.--Lat 33°39'04", long 90°12'40", in SE $\frac{1}{4}$ sec.29, T.21 N., R.1 E., Choctaw meridian, at bridge on county road at Money.

Drainage area.--Not determined.

Gage.--Nonrecording. Datum of gage is 98.98 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Bankfull stage.--27 ft.

Remarks.--Flow regulated by reservoirs. Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Feb. 19, 1948	36.90	-	1954	Jan. 27, 1954	23.80	-
1949	Jan. 11, 1949	36.40	-	1955	Apr. 16, 1955	31.39	-
1950	Mar. 20, 1950	36.25	-	1956	Feb. 25, 1956	29.82	-
1951	Apr. 5, 1951	35.36	-	1957	Feb.5-9, 1957	29.4	-
1952	Jan. 5, 1952	30.85	-	1958	May 7, 1958	33.15	-
1953	May 22-23, 1953	33.48	-				

2820. Yalobusha River at Calhoun City, Miss.

Location.--Lat 33°50'20", long 89°18'55", in SE $\frac{1}{4}$ sec.23, T.23 N., R.9 E., Choctaw meridian, at bridge on State Highway 9 over Yalobusha River Canal, three-quarters of a mile upstream from Topashaw Creek, 1.2 miles south of Calhoun City, $\frac{1}{2}$ miles upstream from Old Channel and $\frac{3}{4}$ miles upstream from Topashaw Creek Canal. Records include flow in Topashaw Canal and all supplemental channels.

Drainage area.--305 sq mi (combined drainage area of all channels).

Gage.--Nonrecording prior to Nov. 15, 1950; recording thereafter. Datum of gage is 236.06 ft above mean sea level, datum of 1929, supplementary adjustment of 1944 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements. Relation subject to shifting.

Bankfull stage.--12 ft.

Remarks.--Gage-height records 1949-50 furnished by Corps of Engineers. Base for partial-duration series, 6,000 cfs.

Peak stages and discharges of Yalobusha River at Calhoun City, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Jan. 4, 1949	a14.35	-	1955	Mar. 22, 1955 Apr. 13, 1955	14.19 13.45	21,900 14,800
1950	Feb. 14, 1950	a13.42	-	1956	Feb. 4, 1956 Apr. 6, 1956	12.57 12.14	8,600 6,550
1951	Jan. 4, 1951 Feb. 2, 1951 Feb. 7, 1951 Mar. 29, 1951	14.06 13.36 12.34 15.22	15,300 10,000 6,730 23,000	1957	Feb. 1, 1957	11.54	9,530
1952	Dec. 21, 1951	12.07	4,570	1958	Nov. 14, 1957 Nov. 19, 1957 Apr. 27, 1958 Apr. 29, 1958 May 2, 1958	13.78 13.05 12.31 13.34 12.83	17,100 10,200 6,030 12,300 8,420
1953	Feb. 21, 1953	13.38	13,100				
1954	Jan. 16, 1954	b11.29	3,760				

a Annual peak only.

b Occurred May 5, 1954.

2825. Yalobusha River at Graysport, Miss.

Location.--Lat 33°49', long 89°37', in E $\frac{1}{2}$ sec.36, T.23 N., R.6 E., Choctaw meridian, on left bank at downstream side of bridge on State Highway 8 (old), half a mile north of Graysport, half a mile downstream from Butputter Creek, $\frac{1}{2}$ miles upstream from Redgrass Creek, 11 miles east of Grenada, and 11 $\frac{1}{4}$ miles upstream from Skuna River.

Drainage area.--607 sq mi.

Gage.--Recording. Datum of gage is 179.91 ft above mean sea level, datum of 1929, supplementary adjustment of 1944 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 42,000 cfs.

Bankfull stage.--22 ft.

Remarks.--Base for partial-duration series, 8,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Apr. 19, 1940 July 10, 1940	24.76 23.73	18,500 9,670	1946	Feb. 10, 1946	25.35	18,600
1941	Dec. 17, 1940	23.54	8,470	1947	Jan. 3, 1947 Jan. 20, 1947 Apr. 12, 1947	24.65 23.81 25.89	14,100 9,400 21,600
1942	Nov. 23, 1941	23.63	8,940	1948	Feb. 13, 1948	28.25	46,800
1943	Mar. 14, 1943	23.44	7,840	1949	Nov. 29, 1948 Jan. 5, 1949 Jan. 24, 1949 Mar. 28, 1949	23.94 27.56 24.57 26.00	9,650 35,600 12,400 20,700
1944	Mar. 29, 1944	27.00	34,300				
1945	Mar. 5, 1945	24.39	14,800				
1946	Jan. 9, 1946	25.52	19,200				

2830. Skuna River at Bruce, Miss.

Location.--Lat 33°58', long 89°21', in SW $\frac{1}{4}$ sec.6, T.13 S., R.1 W., Chickasaw meridian, at bridge on State Highway 9, 1 mile south of Bruce.

Drainage area.--254 sq mi.

Gage.--Recording. Datum of gage is 239.70 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 19,000 cfs and extended on basis of an incomplete current-meter measurement and estimate of flow over road and through bridge openings by indirect methods.

Bankfull stage.--20 ft.

Historical data.--The flood of Mar. 21, 1955, was the highest known, from information by local residents.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Mar. 17, 1948	-	a6,500	1953	Feb. 21, 1953	20.83	9,480
	Apr. 13, 1948	20.0	6,150		Mar. 23, 1953	20.30	7,500
1949	Nov. 19, 1948	20.90	10,200	1954	Apr. 30, 1953	18.85	5,210
	Nov. 28, 1948	19.60	5,460		May 5, 1953	18.65	5,050
	Jan. 5, 1949	21.14	11,900		Feb. 20, 1954	18.96	5,400
	Jan. 22, 1949	19.32	5,100	1955	Dec. 28, 1954	18.74	5,150
	Feb. 4, 1949	19.48	5,330		Mar. 21, 1955	24.11	61,400
	Mar. 27, 1949	20.69	8,820		Apr. 13, 1955	21.46	14,600
1950	Jan. 6, 1950	20.31	7,350	May 29, 1955	20.66	8,650	
	Feb. 2, 1950	19.94	6,280	1956	Feb. 4, 1956	19.94	6,730
	Feb. 14, 1950	20.2	7,050		Apr. 6, 1956	20.85	9,480
	Mar. 14, 1950	20.63	8,650		Apr. 30, 1956	21.21	11,600
	Aug. 31, 1950	20.19	7,050		1957	Jan. 28, 1957	18.60
1951	Jan. 3, 1951	21.23	11,900			Feb. 1, 1957	20.53
	Feb. 1, 1951	20.58	8,450	Apr. 4, 1957		18.99	7,100
	Feb. 7, 1951	20.04	6,850	Apr. 8, 1957		18.83	5,940
	Mar. 29, 1951	21.62	17,800	1958		Nov. 18, 1957	19.40
	Apr. 22, 1951	19.80	6,650		Apr. 29, 1958	19.60	10,600
1952	Dec. 20, 1951	19.41	5,800		Sept. 20, 1958	19.78	10,800
	Dec. 26, 1951	20.48	8,050				
	Mar. 11, 1952	19.62	6,160				

a Maximum daily discharge.

2835. Skuna River near Coffeerville, Miss.

Location.--Lat 33°34'35", long 89°38'30", in NW $\frac{1}{4}$ sec.35, T.24 N., R.6 E., Choc-taw meridian, at bridge on county road, 1 mile south of Gums, 3 $\frac{1}{4}$ miles upstream from Turkey Creek, 5 miles south of Coffeerville, and 9 $\frac{1}{4}$ miles upstream from mouth.

Drainage area.--435 sq mi.

Gage.--Recording. Datum of gage is 188.46 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 23,000 cfs and extended on basis of area-velocity studies.

Bankfull stage.--19 ft.

Historical data.--Flood of Apr. 20, 1940, was highest in at least 12 years, from information by local residents.

Remarks.--Base for partial-duration series, 7,000 cfs.

Peak stages and discharges of Skuna River near Coffeerville, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Mar. 15, 1940	18.98	7,100	1946	Jan. 9, 1946	21.07	16,500
	Apr. 20, 1940	20.58	16,100		Feb. 10, 1946	20.88	15,600
1941	Dec. 17, 1940	19.78	10,300		Mar. 30, 1946	20.01	10,600
	1942	Mar. 19, 1942	19.46	8,350	1947	Jan. 4, 1947	20.23
Apr. 10, 1942		19.25	7,350	Apr. 12, 1947		20.87	14,400
1943	Mar. 14, 1943	19.76	10,000	1948	Feb. 14, 1948	22.15	31,000
	1944	Feb. 28, 1944	20.02		12,200	Mar. 18, 1948	20.19
Mar. 29, 1944		23.22	44,000		Apr. 14, 1948	19.91	8,900
1945	Apr. 12, 1944	19.25	8,140	1949	Nov. 20, 1948	20.90	14,600
	Jan. 2, 1945	19.62	9,910		Jan. 4, 1949	21.75	25,000
Mar. 5, 1945	20.16	10,700	Mar. 28, 1949		20.50	10,900	

2850. Yalobusha River at Grenada Dam, near Grenada, Miss.
(Published as "at Grenada Dam Site near Grenada" prior to June 30, 1953)

Location.--Lat 33°48'31", long 89°46'14", in SE $\frac{1}{4}$ sec.33, T.23 N., R.5 E., Choctaw meridian, in gatehouse of Grenada Dam, $2\frac{1}{4}$ miles upstream from Batupan Creek and 3 miles northeast of Grenada.

Drainage area.--1,320 sq mi.

Gage.--Nonrecording prior to Dec. 19, 1953; recording thereafter. Prior to July 1, 1953, at datum 6.00 ft lower. Datum of gage is 160.00 ft above mean sea level, datum of 1929. Alluvial Valley supplementary adjustments of 1941 and 1944 (levels by Corps of Engineers).

Stage-discharge relation.--Not defined.

Bankfull stage.--21 ft, former datum.

Remarks.--Flow completely regulated by Grenada Reservoir since June 1953. Gage-height records prior to 1954 furnished by Corps of Engineers; discharge since this date computed by Corps of Engineers and reviewed by Geological Survey. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1938	Apr. 11, 1938	24.9	-	1949	Jan. 5, 1949	34.50	-	
1939	Apr. 1, 1939	28.2	-	1950	Mar. 15, 1950	30.70	-	
1940	Apr. 21, 1940	29.7	-	1951	Mar. 30, 1951	33.76	-	
1941	Dec. 18, 1940	27.7	-		1952	Mar. 14, 1952	25.30	-
1942	Nov. 25, 1941	26.4	-		1953	Feb. 23, 1953	33.00	-
1943	Mar. 15-16, 1943	27.4	-	1954	Mar. 9, 1954	-	3,790	
1944	Mar. 30, 1944	34.5	-	1955	Mar. 31, 1955	-	3,990	
1945	Mar. 5-6, 1945	29.4	-	1956	May 7-8, 1956	-	3,120	
1946	Jan. 10, Feb. 11	31.1	-		1957	Sept. 19, 1957	-	3,020
1947	Apr. 12, 1947	31.50	-		1958	Jan. 3, 1958	-	4,880
1948	Feb. 14, 1948	35.3	-					

a Maximum daily.

Note.--Cofferdam closure made June 30, 1953. Peak discharges for 1954-58 computed by Corps of Engineers as peak inflow.

2855. Yalobusha River at Grenada, Miss.

Location.--Lat 33°47'19", long 89°48'36", in NE $\frac{1}{4}$ sec.7, T.22 N., R.5 E., Choc-taw meridian, at bridge on U. S. Highway 51, in Grenada, 0.8 mile downstream from Illinois Central Railroad bridge and 1 mile downstream from Batupan River.

Drainage area.--1,550 sq mi, approximately.

Gage.--Nonrecording prior to Oct. 30, 1944; recording thereafter. Prior to July 23, 1934, at site 0.1 mile downstream. Datum of gage is 152.03 ft above mean sea level, datum of 1929, supplementary adjustments of 1941 and 1944.

Stage-discharge relation.--Defined by current-meter measurements. Relation subject to shifts.

Bankfull stage.--20 ft.

Remarks.--Regulated by Grenada Reservoir since June 1953. Records for 1932-38 furnished by Corps of Engineers. Records computed by Corps of Engineers and reviewed by Geological Survey since 1938. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	May 27, 1909	24.6	a15,900	1942	Nov. 23, 1941	25.35	16,100
1910	July 9, 1910	25.7	a17,600	1943	Mar. 16, 1943	25.65	16,000
				1944	Mar. 29, 1944	30.53	76,800
1911	Apr. 22, 1911	25.4	a17,000	1945	Mar. 4, 1945	27.24	29,000
1929	Mar. 25, 1929	25.42	17,800	1946	Jan. 10, 1946	28.40	38,500
1930	May 20, 1930	27.49	33,700	1947	Apr. 11, 1947	29.35	50,100
				1948	Feb. 14, 1948	30.78	78,900
1931	Apr. 1, 1931	20.64	5,180	1949	Jan. 5, 1949	30.30	61,600
1932	Jan. 13, 1932	28.40	46,000	1950	Mar. 15, 1950	27.88	32,600
1933	Dec. 14, 1932	26.90	29,200				
1934	Mar. 6, 1934	24.34	10,300	1951	Mar. 30, 1951	29.72	56,400
1935	Mar. 12, 1935	26.33	24,100	1952	Dec. 21, 1951	24.60	9,800
				1953	Feb. 23, 1953	25.71	26,600
1936	Apr. 9, 1936	24.68	12,100	1954	Feb. 20, 1954	19.91	7,800
1937	Jan. 25, 1937	25.43	17,700	1955	Apr. 13, 1955	b24.82	18,600
1938	Apr. 12, 1938	24.10	9,300				
1939	Mar. 30, 1939	26.30	20,700	1956	Feb. 4, 1956	20.36	9,300
1940	Apr. 21, 1940	27.26	29,100	1957	Apr. 4, 1957	20.4	9,300
				1958	Nov. 14, 1957	22.10	12,000
1941	Dec. 18, 1940	26.16	19,200				

a Maximum daily.

b Occurred Mar. 21, 1955.

2860. Askalmore Creek near Charleston, Miss.

Location.--Lat 33°55'05", long 90°04'10", in SE $\frac{1}{4}$ sec.27, T.24 N., R.2 E., Choc-taw meridian, at bridge on county highway from Charleston to Holcomb, 0.4 mile downstream from Shook Creek, 1.4 miles downstream from Young Creek, 6.5 miles south of Charleston, and 12.2 miles upstream from mouth.

Drainage area.--31.0 sq mi.

Gage.--Nonrecording prior to Sept. 3, 1941; recording Sept. 3, 1941, to Sept. 30, 1942, and May 20, 1946, to Mar. 24, 1948; crest-stage gage Nov. 1, 1951, to February 1957; recording thereafter. Datum of gage is 161.95 ft above mean sea level, datum of 1929, supplementary adjustment of 1941. Prior to May 20, 1946, at datum 0.45 ft lower.

Stage-discharge relation.--Defined by current-meter measurements below 11,000 cfs.

Bankfull stage.--20 ft.

Remarks.--Gage-height records for 1947-48, 1957-58, furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges of Askalmore Creek near Charleston, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Aug. 1, 1941	10.5	a5,350	1953	Feb. 20, 1953	13.33	8,200
1942	May 14, 1942	12.9	8,420	1954	May 27, 1954	15.8	11,700
				1955	Mar. 21, 1955	14.8	10,400
1947	Apr. 11, 1947	14.8	10,300	1956	Feb. 4, 1956	13.05	7,800
1948	Feb. 12, 1948	11.90	a6,400	1957	Apr. 4, 1957	16.10	12,200
1952	Apr. 24, 1952	12.83	7,500	1958	Nov. 16, 1957	15.6	11,500

a Record incomplete; probable yearly peak.

2862. Yalobusha River at Whaley, Miss.

Location.--Lat 33°37'33", long 90°06'27", in NE $\frac{1}{4}$ sec.5, T.20 N., R.2 E., Choctaw meridian, at bridge on county road at Whaley, 10.2 miles upstream from mouth.

Drainage area.--1,960 sq mi.

Gage.--Nonrecording prior to Jan. 1, 1947; recording thereafter. Datum of gage is 107.80 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements. Relation affected by slope.

Bankfull stage.--21 ft.

Remarks.--Records furnished by Corps of Engineers. Flow partially regulated by Grenada Reservoir since June 30, 1953. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Apr.16-17, 1938	a24.5	8,290	1949	Jan.8-9, 1949	27.44	33,500
1939	Feb.28 to Mar.6	26.3	20,000	1950	Mar. 20, 1950	27.09	30,200
1940	Apr.25, July 19	23.4	8,170	1951	Apr. 3, 1951	27.19	26,200
1941	Dec. 24, 1940	22.65	7,810	1952	Jan. 4, 1952	23.58	6,740
1942	Apr.18-19, 1942	23.4	6,620	1953	May 21, 1953	25.13	11,100
1943	Mar. 21, 1943	23.78	7,230	1954	May 3, 1954	21.15	6,260
1944	Apr.1-2, 1944	27.7	32,600	1955	Apr. 15, 1955	23.62	10,200
1945	Mar. 9-11, 1945	27.0	28,000	1956	Feb. 4, 1956	21.89	8,200
1946	Feb.14-16, 1946	27.6	44,100	1957	Feb. 1, 1957	22.75	8,200
1947	Apr. 17, 1947	26.20	19,800	1958	May 5, 1958	24.35	12,600
1948	Feb. 18, 1948	27.79	72,600				

a Occurred on different date than peak discharge.

2865. Thompson Creek at McCarley, Miss.

Location.--Lat 33°31'25", long 89°50'40", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.11, T.19 N., R.4 E., Choctaw meridian, at county road 0.6 mile west of McCarley.

Drainage area.--14.4 sq mi.

Gage.--Recording. Datum of gage is 251.86 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 2,300 cfs.

Bankfull stage.--13 ft.

Remarks.--Peak stage data prior to October 1956, from records furnished by U. S. Department of Agriculture, Soil Conservation Service. Base for partial-duration series, 2,000 cfs.

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Peak stages and discharges of Thompson Creek at McCarley, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Aug. 28, 1950	12.58	a3,000	1955	Mar. 21, 1955	12.72	3,070
1951	Jan. 3, 1951	11.76	2,440	1955	Apr. 12, 1955	14.05	3,980
	Mar. 27, 1951	12.96	3,280		1956	Feb. 4, 1956	10.58
1952	Dec. 20, 1951	12.42	2,860	1957	Dec. 13, 1956	11.68	2,270
1953	Feb. 20, 1953	11.26	2,180	1957	Jan. 4, 1957	12.06	2,420
1954	Apr. 29, 1954	10.84	2,000	1958	June 20, 1958	11.49	2,190

a Record incomplete; probable yearly maximum.

2867. Big Sand Creek at Carrollton, Miss.

Location.--Lat 33°30'50", long 89°55'10", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.18, T.19 N., R.4 E., Choctaw meridian, at bridge between Carrollton and North Carrollton.

Drainage area.--74.1 sq mi.

Gage.--Crest-stage gage. Datum of gage is 197.16 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 16,000 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 11, 1947	a23	-	1955	Apr. 12, 1955	17.78	22,500
1952	Dec. 20, 1951	17.64	22,000	1956	Feb. 4, 1956	14.2	9,000
1953	Feb. 20, 1953	16.97	18,800	1957	Dec. 12, 1956	15.94	14,000
1954	May 3, 1954	16.17	15,500	1958	-	12.3	5,000

a From information by Corps of Engineers.

2868. Big Sand Creek at Valley Hill, Miss.

Location.--Lat 33°31'07", long 90°02'58", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.12, T.19 N., R.2 E., Choctaw meridian, at bridge on Columbus and Greenville Railway at Valley Hill, 8 miles east of Greenwood.

Drainage area.--110 sq mi.

Gage.--Recording. Datum of gage is 148.38 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Poorly defined by current-meter measurements below 19,000 cfs. Relation subject to large shifts.

Bankfull stage.--25 ft.

Remarks.--Gage-height records furnished by Corps of Engineers. Discharge computed from rating curves based on Corps of Engineers measurements. Base for partial-duration series, 12,500 cfs.

Peak stages and discharges of Big Sand Creek at Valley Hill, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 11, 1947	21.91	33,000	1954	May 1, 1954	12.75	15,000
1948	Feb. 13, 1948	15.4	20,000	1955	Mar. 21, 1955	14.9	19,000
1949	Jan. 3, 1949	19.0	28,000		Apr. 12, 1955	16.43	22,100
1950	Mar. 12, 1950	11.9	13,000	1956	Feb. 4, 1956	12.2	13,600
	Aug. 29, 1950	11.7	12,700		Mar. 13, 1956	12.3	13,800
	Sept. 17, 1950	13.40	16,000	1957	Dec. 13, 1956	14.44	18,100
1951	Jan. 3, 1951	12.2	13,600		Jan. 4, 1957	13.85	16,800
1952	Mar. 10, 1952	10.35	10,000		Apr. 4, 1957	11.7	12,700
1953	Feb. 20, 1953	15.20	19,600	1958	Nov. 14, 1957	11.8	12,800
					Nov. 18, 1957	11.6	12,500
					Sept. 21, 1958	13.86	17,000

2870. Yazoo River at Greenwood, Miss.

Location.--Lat 33°31'17", long 90°11'03", in SW $\frac{1}{4}$ sec. 10, T.19 N., R.1 E., Choc-taw meridian, at bridge on U. S. Highways 49E and 82 in Greenwood, 0.4 mile downstream from Palusha Bayou, and 3 miles downstream from confluence of Tallahatchie and Yalobusha Rivers.

Drainage area.--7,450 sq mi, approximately.

Gage.--Nonrecording prior to Oct. 1, 1940; recording thereafter. Datum of gage was at mean sea level 1908-12. Datum of present gage is 92.07 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements. Relation is affected by slope.

Bankfull stage.--35 ft.

Remarks.--Gage-height records 1904-7, 1913-27, furnished by U. S. Weather Bureau. Records 1928-38 furnished by Mississippi River Commission. Records since 1938 computed by Corps of Engineers and reviewed by Geological Survey. Flow partly regulated by reservoirs since August 1939. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1882	-	a41.2	-	1921	Apr. 27-28, 1921	37.3	-
1905	Feb. 23, 1905 ^b	29.6	-	1922	Mar. 22, 1922	35.6	-
1906	Apr. 9, 1906	21.3	-	1923	May 30-31, 1923	34.3	-
1907	Dec. 14, 1906	32.6	-	1924	Jan. 18, 1924	32.0	-
1908	Feb. 26-27, 1908	124.5	29,800	1925	Mar. 28, 1925	22.0	-
1909	Mar. 27-28, 1909	122.72	27,200	1926	Nov. 19-20, 1925	30.0	-
1910	July 21-23, 1910	119.3	22,700	1927	Jan. 2-3, 1927	38.4	-
1911	May 1-2, 1911	128.9	36,300	1928	May 4-6, 1928	32.5	31,000
1912	Apr. 6-7, 1912	130.7	39,000	1929	Mar. 31 to Apr. 5	32.2	28,000
1913	Feb. 11, 1913	35.8	-	1930	May 29, 1930	34.2	27,200
1914	Apr. 14, 1914 ^b	26.6	-	1931	Apr. 11-12, 1931	22.0	12,800
1915	Feb. 23-25, 1915	32.7	-	1932	Jan. 19-20, 1932	40.10	72,900
1916	Feb. 13, 1916 ^b	31.4	-	1933	Apr. 14-17, 1933	38.1	41,000
1917	Apr. 17, 1917 ^b	35.4	-	1934	Mar. 16-18, 1934	26.0	17,100
1918	May 1-2, 1918	19.2	-	1935	Mar. 19-21, 1935	35.6	31,200
1919	Apr. 2, 1919	34.7	-	1936	Apr. 16, 1936	c27.1	19,300
1920	May 7-8, 1920	36.9	-	1937	Feb. 9, 1937	36.4	33,200
				1938	Apr. 18-20, 1938	c32.7	24,600

a Caused by overflow from Mississippi River.

b And also on later dates.

c Occurred on following day.

YAZOO RIVER BASIN

Peak stages and discharges of Yazoo River at Greenwood, Miss.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Apr. 11-12, 1939	35.9	31,000	1949	Jan. 10, 1949	g38.84	41,400
1940	July 22-23, 1940	25.74	19,800	1950	Mar. 21, 1950	38.67	41,800
1941	(d)	e23.70	16,900	1951	Apr. 5, 1951	c36.92	35,200
1942	Apr. 20, 1942	29.72	24,800	1952	Jan. 4, 1952	h29.33	20,900
1943	Mar. 23-24, 1943	f30.03	24,400	1953	May 22, 1953	33.71	26,800
1944	Apr. 4, 1944	38.47	45,700	1954	May 5, 1954	24.16	15,400
1945	Mar. 13, 1945	37.06	36,900	1955	Apr. 15, 1955	c32.31	23,600
1946	Feb. 17, 1946	39.78	48,900	1956	Feb. 22, 1956	19.74	22,300
1947	Apr. 19, 1947	c35.72	30,500	1957	Feb. 4, 1957	29.15	22,000
1948	Feb. 21, 1948	38.99	50,400	1958	May 10, 1958	34.15	28,200

c Occurred on following day.

d Dec. 24-25, 27, 1940.

e Occurred Dec. 28, 1940.

f Occurred Mar. 27, 1943.

g Occurred Jan. 12, 1949.

h Occurred Jan. 6, 1952.

2873. Yazoo River at Belzoni, Miss.

Location.--Lat 33°10'25", long 90°29'17", in SE¹ sec. 3, T.15 N., R.3 W., Choctaw meridian, at bridge on State Highway 12 at Belzoni.

Drainage area.--7,830 sq mi.

Gage.--Nonrecording prior to Jan. 1, 1949; recording thereafter. Datum of gage is 76.02 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Slope affected.

Bankfull stage.--34 ft.

Remarks.--Records furnished by Corps of Engineers. Flow partly regulated by reservoirs since August 1939. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	Jan. 27-30, 1932	37.9	-	1948	Mar. 22, 1948	36.90	-
				1949	Jan. 24, 1949	37.00	-
1937	Feb. 23-28, 1937	36.3	-	1950	Mar. 28, 1950	36.97	-
1940	July 25-27, 1940	27.6	-	1951	Apr. 11, 1951	36.29	-
1941	(a)	26.8	-	1952	Apr. 5, 1952	31.71	-
1942	Apr. 21, 24-29	31.3	-	1953	May 28, 1953	34.55	-
1943	Apr. 4, 7, 10, 1943	29.6	-	1954	May 7, 1954	26.68	-
1944	Apr. 20, May 6	35.8	-	1955	Apr. 21, 1955	34.02	-
1945	Apr. 2-5, 1945	36.6	-	1956	Mar. 18, 1956	31.90	-
1946	Feb. 20 to Mar. 2	37.2	-	1957	Feb. 12-22, 1957	29.90	-
1947	Apr. 30, 1947	34.40	-	1958	May 16-17, 1958	34.53	-

a Dec. 30-31, 1940, Jan. 10, 1941.

2873.55. Fannegusha Creek near Howard, Miss.

Location.--Lat 33°08'15", long 90°11'40", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.28, T.15 N., R.1 E., ChocTaw meridian, at steel girder bridge on county road, 1 mile north of Howard and 3.2 miles southeast of Tchula.

Drainage area.--103 sq mi.

Gage.--Crest-stage gage. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Poorly defined by current-meter measurements. Subject to large shifts.

Bankfull stage.--142 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Apr. 29, 1953	137.7	35,000	1956	Feb. 4, 1956	138.80	15,000
1954	Jan. 20, 1954	131.7	1,100	1957	Dec. 12, 1956	138.84	8,600
1955	Apr. 12, 1955	142.10	37,000	1958	Nov. 14, 1957	140.64	14,000

2874.8. Piney Creek near Yazoo City, Miss.

Location.--Lat 32°54'25", long 90°22'55", in NE $\frac{1}{4}$ sec.10, T.12 N., R.2 W., ChocTaw meridian, at bridge on U. S. Highway 49E, 75 ft upstream from Illinois Central Railroad, 3 miles upstream from mouth, and 3 miles northeast of north city limits of Yazoo City.

Drainage area.--70 sq mi.

Gage.--Crest-stage gage. Datum of gage is at mean sea level.

Stage-discharge relation.--Poorly defined by current-meter measurements below 10,000 cfs. Subject to large shifts.

Bankfull stage.--110 ft.

Historical data.--According to local engineers, the flood of Mar. 28, 1951, reached an elevation of 119.3 ft upstream from main channel bridge and an elevation of 117 ft downstream from bridge, from floodmark. Local residents report that greatest flood known occurred Aug. 9, 1942, exceeding that of 1951.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Apr. 29, 1953	114.52	13,000	1956	Feb. 4, 1956	113.9	10,500
1954	May 3, 1954	112.40	3,500	1957	Dec. 12, 1956	114.05	11,000
1955	Apr. 12, 1955	114.43	12,400	1958	Sept. 22, 1958	114.23	11,700

a From information by Corps of Engineers.

YAZOO RIVER BASIN

2875. Yazoo River near Yazoo City, Miss.

Location.--Lat 32°51'29", long 90°26'07", in E½ sec.30, T.12 N., R.2 W., Choc-taw meridian, at bridge on U. S. Highway 49 West, 1.2 miles upstream from Topeka Bayou, 1½ miles northwest of Yazoo City, and 3.9 miles upstream from old U. S. Highway 49 bridge.

Drainage area.--8,900 sq mi, approximately.

Gage.--Nonrecording. Prior to Aug. 1, 1956, at site 3.9 miles downstream and prior to Oct. 11, 1934, at datum 6.0 ft higher. Datum of present gage is 67.70 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Affected by slope.

Bankfull stage.--32 ft at present site and 29 ft at former site and present datum.

Remarks.--Flow partly regulated by reservoirs since August 1939. Records furnished by U. S. Weather Bureau. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1882	-	36.5	-	1922	(c)	31.9	-
				1923	Apr. 25, 1923	30.3	-
1886	May 9, 1886	ab22.4	-	1924	Feb. 4-5, 1924	26.0	-
1887	May 20, 1887	a23.8	-	1925	Mar. 20, 1925	16.6	-
1888	Apr. 24, 1888	a23.9	-				
1889	Feb. 11, 1889	a18.5	-	1926	Nov. 19, 1925	18.1	-
1890	Apr. 27, 1890	28.9	-	1927	May 5, 1927	37.4	-
				1928	May 21, 1928	26.0	-
1891	Mar. 9, 1891	29.0	-	1929	May 1, 1929	29.7	-
1892	Apr. 29, 1892	a27.4	-	1930	Feb. 7-8, 1930	24.2	-
1893	May 23, 1893	a25.6	-				
1894	Apr. 10, 1894	a24.5	-	1931	Apr. 18, 1931	13.8	-
1895	Apr. 1, 1895	a18.9	-	1932	Feb. 21, 1932	32.0	-
				1933	May 6-7, 1933	31.2	-
1896	Apr. 14, 1896	a21.4	-	1934	Mar. 8, 1934	23.5	-
1897	Apr. 27, 1897	a31.5	-	1935	Apr. 11, 1935	36.3	-
1898	Apr. 26, 1898	a24.4	-				
1899	Apr. 9, 1899	a25.8	-	1936	Apr. 30, 1936	28.2	-
1900	Apr. 30, 1900	23.0	-	1937	Feb. 24, Mar. 1	37.1	-
				1938	Apr. 28-30, May 1	30.5	-
1901	Jan. 11, 1901	18.3	-	1939	Apr. 26, May 8	33.1	-
1902	Apr. 21-22, 1902	26.6	-	1940	May 3, 1940	24.6	-
1903	Apr. 5-8, 1903	28.7	-				
1904	Apr. 26-29, 1904	22.6	-	1941	Dec. 28, 1940	22.9	-
1905	Mar. 20, 1905	a21.5	-	1942	Apr. 25-30, 1942	28.3	-
				1943	Apr. 10, 1943	28.1	-
1906	Apr. 27, 1906	a22.6	-	1944	May 5, 1944	34.1	-
1907	Feb. 14, 1907	a26.1	-	1945	Apr. 4-13, 1945	35.8	-
1908	Mar. 24, 1908	26.0	-				
1909	Apr. 3, 1909	a25.9	-	1946	Feb. 10, 1946	37.0	-
1910	Aug. 1, 1910	a19.1	-	1947	May 1-4, 1947	31.4	-
				1948	Mar. 19-20, 1948	35.65	-
1911	May 12, 1911	a25.1	-	1949	Feb. 10, 1949	36.22	-
1912	Apr. 17, 1912	30.4	-	1950	Mar. 14, 1950	36.32	-
1913	May 2, 1913	a29.8	-				
1914	Apr. 29, 1914	21.5	-	1951	Mar. 28, 1951	36.9	-
1915	Mar. 5, 1915	25.2	-	1952	Apr. 13, 1952	29.28	-
				1953	May 30, 1953	31.96	-
1916	Feb. 18, 1916	29.9	-	1954	May 7, 1954	23.60	-
1917	Apr. 29, 1917	29.6	-	1955	Apr. 13, 1955	33.34	-
1918	Apr. 30, May 5-10	14.4	-				
1919	Apr. 17, 1919	a28.9	-	1956	Mar. 16, 1956	30.4	-
1920	May 19-21, 1920	31.0	-	1957	Feb. 19-21, 1957	28.2	-
				1958	May 22, 1958	34.29	-
1921	May 3, 4, 10-13	30.8	-				

a Also on later dates.

b May have been exceeded during period of missing record.

c Apr. 29-30, May 1, 4-6, 1922.

2876. Yazoo River at Sartartia, Miss.

Location.--Lat 32°40'22", long 90°32'54", in NW $\frac{1}{4}$ sec.31, T.10 N., R.3 W., Choctaw meridian, at bridge on county road at Sartartia.

Drainage area.--9,020 sq mi.

Gage.--Nonrecording. Datum of gage is 60.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Slope affected.

Bankfull stage.--35 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	June 9, 1929	42.1	-	1944	May 12-18, 1944	35.8	-
1930	Feb. 5, 1930	34.1	-	1945	Apr.12-18, 1945	38.6	-
1931	Apr. 22, 1931	21.9	-	1946	Feb.27,Mar. 4	37.0	-
1932	Mar.1-5, 1932	40.8	-	1947	May 1-3, 1947	32.41	-
1933	May 5, 1933	38.9	-	1948	Apr. 17, 1948	35.97	-
1934	Apr.13-14, 1934	24.9	-	1949	Feb. 19, 1949	37.22	-
1935	Apr. 13, 1935	38.2	-	1950	Mar. 13, 1950	38.45	-
1936	Apr. 29, 1936	32.5	-	1951	Mar. 28, 1951	38.29	-
1937	Feb.21-24, 1937	43.0	-	1952	Apr.15-16, 1952	31.65	-
1938	Apr.25-26, 1938	32.9	-	1953	May 28-29, 1953	32.75	-
1939	Apr.4,6-7, 1939	34.8	-	1954	May 8, 1954	24.70	-
1940	May 4-5, 1940	25.9	-	1955	Apr. 13, 1955	35.43	-
1941	Dec. 28, 1940	21.3	-	1956	Feb. 20, 1956	31.05	-
1942	Apr. 24, 1942	30.4	-	1957	May 10-12, 1957	30.3	-
1943	June 9-12, 1943	31.8	-	1958	May 24, 1958	35.57	-

2880. Sunflower River at Clarksdale, Miss.

Location.--Lat 34°12'00", long 90°34'30", in E $\frac{1}{2}$ sec.23, T.27 N., R.4 W., Choctaw meridian, at Second Street bridge in Clarksdale, approximately 1,200 ft upstream from Yazoo and Mississippi Valley Railroad bridge and $\frac{1}{2}$ miles downstream Little Sunflower River.

Drainage area.--106 sq mi.

Gage.--Nonrecording prior to January 1949; recording thereafter. Prior to Dec. 10, 1946, at site 2 blocks downstream at same datum. Datum of gage is 131.70 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Slope affected.

Bankfull stage.--38 ft.

Historical data.--A discharge of 4,620 cfs was measured Feb. 16, 1909.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

YAZOO RIVER BASIN

Peak stages and discharges of Sunflower River at Clarksdale, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Jan. 25, 1938	15.5	-	1949	Jan. 4, 1949	15.95	-
1939	Mar. 31, 1939	16.0	-	1950	Jan. 16, 1950	18.96	-
1940	Apr. 20, 1940	9.8	-	1951	Jan. 5, 1951	16.04	-
1941	Apr. 25, 1941	11.2	-	1952	Jan. 28, 1952	12.77	-
1942	Apr. 11, 1942	17.9	-	1953	May 20, 1953	19.99	-
1943	Mar. 14, 1943	16.5	-	1954	Jan. 23, 1954	13.03	-
1944	Mar. 30, 1944	15.8	-	1955	Mar. 23, 1955	17.64	-
1945	Jan. 1, 1945	16.2	-	1956	Feb. 6, 1956	18.94	-
1946	Jan. 12, 1946	21.2	-	1957	Feb. 3, 1957	17.98	-
1947	Jan. 4, 1947	14.42	-	1958	May 3, 1958	20.78	-
1948	Feb. 15, 1948	18.75	-				

2880.8. Sunflower River at Harvey's Chapel, Miss.

Location.--Lat 34°03'52", long 90°35'23", in SW $\frac{1}{4}$ sec.2, T.25 N., R.4 W., Choc-taw meridian, at bridge 0.4 mile south of Harvey's Chapel and 9.5 miles south of Clarksdale.

Drainage area.--257 sq mi.

Gage.--Recording. Datum of gage is 123.04 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Slope affected. A discharge of 3,040 cfs was measured May 2, 1958 (gage height, 26.00 ft).

Bankfull stage.--28 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Feb. 15, 1948	23.15	-	1954	Jan. 23, 1954	16.73	-
1949	Jan. 5, 1949	19.99	-	1955	Mar. 23, 1955	21.94	-
1950	Jan. 16, 1950	23.39	-	1956	Feb. 5, 1956	23.10	-
1951	Jan. 5, 1951	19.99	-	1957	Feb. 2, 1957	22.2	-
1952	Jan. 29, 1952	16.12	-	1958	May 2, 1958	26.02	-
1953	May 19, 1953	23.95	-				

2881.5. Hushpuckena River at Hushpuckena, Miss.

Location.--Lat 34°00'35", long 90°45'10", in SE $\frac{1}{4}$ sec.30, T.25 N., R.5 W., Choc-taw meridian, at bridge on U. S. Highway 61 at Hushpuckena.

Drainage area.--102 sq mi.

Gage.--Nonrecording prior to January 1948; recording thereafter. Datum of gage is 115.84 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Slope affected.

Bankfull stage.--35 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges of Hushpuckena River at Hushpuckena, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Jan. 12, 1946	26.37	-	1953	May 20, 1953	24.20	-
1947	Jan. 4, 1947	16.37	-	1954	Jan. 23, 1954	16.95	-
1948	Feb. 15, 1948	23.38	-	1955	Mar. 24, 1955	21.21	-
1949	Jan. 6, 1949	19.10	-				
1950	Jan. 17, 1950	24.40	-	1956	Feb. 6, 1956	21.73	-
1951	Jan. 5, 1951	19.70	-	1957	Feb. 3, 1957	20.8	-
1952	Jan. 29, 1952	16.27	-	1958	May 3, 1958	27.74	-

2882. Sunflower River near Lombardy, Miss.

Location.--Lat 33°52'54", long 90°36'38", in NE $\frac{1}{4}$ sec.9, T.23 N., R.4 W., Choc-taw meridian, at bridge on county road, 1 $\frac{1}{2}$ miles south of Lombardy and 5 miles upstream from Hyde Bayou.

Drainage area.--492 sq mi.

Gage.--Nonrecording prior to January 1948; recording thereafter. Datum of gage is 98.72 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Slope affected. A discharge of 6,840 cfs was measured May 2, 1958 (gage height, 41.26 ft).

Bankfull stage.--42 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Jan. 5, 1947	28.10	-	1953	May 20, 1953	36.18	-
1948	Feb. 15, 1948	35.89	-	1954	Jan. 24, 1954	28.49	-
1949	Jan. 6, 1949	31.14	-	1955	Mar. 23, 1955	34.48	-
1950	Jan. 17, 1950	36.69	-				
1951	Jan. 5, 1951	32.09	-	1956	Feb. 9, 1956	35.28	-
1952	Jan. 29, 1952	27.22	-	1957	Feb. 3, 1957	34.8	-
				1958	May 3, 1958	41.30	-

2885. Sunflower River at Sunflower, Miss.

Location.--Lat 33°32'50", long 90°32'35", in NE $\frac{1}{4}$ sec.6, T.19 N., R.3 W., Choc-taw meridian, at bridge on old U. S. Highway 49, half a mile northwest of Sunflower, 2 $\frac{1}{2}$ miles downstream from Jones Bayou, and 19 miles upstream from Quiver River.

Drainage area.--767 sq mi.

Gage.--Nonrecording prior to July 1, 1947; recording thereafter. Prior to Nov. 28, 1934, at datum 93.00 ft lower. Datum of gage is 92.95 ft above mean sea level, datum of 1929, supplementary adjustment of 1941. All gage heights adjusted to present datum.

Stage-discharge relation.--Defined by current-meter measurements. Relation is slope affected.

Bankfull stage.--25 ft.

Remarks.--Records furnished by Corps of Engineers and since 1938, records reviewed by Geological Survey. Only annual peaks are shown.

YAZOO RIVER BASIN

Peak stages and discharges of Sunflower River at Sunflower, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1920	Dec. 5, 1919	19.6	-	1942	Apr. 13, 1942	25.35	6,620
				1943	Mar. 19, 1943	21.06	5,140
1923	May 22, 1923	19.0	-	1944	Apr. 1, 1944	26.26	7,520
1924	May 31, 1924	9.7	-	1945	Jan. 3, 1945	b26.50	7,240
1928	Apr. 29, 1928	18.3	-	1946	Jan. 16, 1946	27.43	7,700
1929	Feb. 27, 1929	11.3	-	1947	Jan. 8, 1947	c22.05	3,830
				1948	Feb. 16, 1948	26.65	6,740
1932	Jan. 7, 1932	a25.6	-	1949	Jan. 8, 1949	d23.20	4,650
1933	Apr. 4, 1933	20.8	-	1950	Feb. 18, 1950	e26.23	6,740
1934	Mar. 6, 1934	19.8	-				
1935	Jan. 26, 1935	24.8	-	1951	Jan. 8, 1951	24.24	5,080
				1952	Jan. 31, 1952	19.17	3,450
1936	Feb. 6-7, 1936	10.10	1,660	1953	May 21, 1953	25.94	6,300
1937	Jan. 28, 1937	23.76	5,960	1954	Jan. 26, 1954	f21.48	3,370
1938	Apr. 11, 1938	18.69	4,000	1955	Mar. 26, 1955	25.42	5,910
1939	Apr. 3, 1939	25.00	6,850				
1940	Apr. 22, 1940	15.42	3,040	1956	Feb. 10, 1956	26.13	6,460
				1957	Feb. 5, 1957	25.65	6,060
1941	Dec. 19, 1940	16.50	3,490	1958	May 5, 1958	28.31	9,300

a From floodmark.

b Occurred Jan. 4, 1945.

c Occurred June 4-5, 1947.

d Occurred Mar. 30-31, 1949.

e Occurred Mar. 17, 1950.

f Occurred May 6, 1959.

2885.7. Quiver River near Doddsville, Miss.

Location.--Lat 33°38'25", long 90°24'05", in SE $\frac{1}{4}$ sec.33, T.21 N., R.2 W., Choctaw meridian, at bridge on State Highway 442, 3.1 miles west of Shlater and 7.5 miles east of Doddsville. Prior to Oct. 19, 1945, at bridge 1 mile downstream.

Drainage area.--292 sq mi (352 sq mi at former site); subject to flow from Tallahatchie River when stages exceed approximately 17 ft at Swan Lake.

Gage.--Nonrecording prior to Oct. 19, 1945; recording thereafter. Prior to Oct. 19, 1945, at site 1 mile downstream from and at datum 1.84 ft lower than present gage. Datum of present gage is 97.26 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Fairly well defined by current-meter measurements. Slope affected.

Bankfull stage.--28 ft, at present site.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Apr. 10-13, 1938	23.6	2,510	1949	Jan. 6, 1949	23.63	-
1939	Mar. 2-7, 1939	25.3	3,060		Mar. 28, 29, 1949	-	2,340
1940	July 17, 1940	20.0	1,580	1950	Mar. 15, 1950	24.90	3,940
1941	Dec. 17, 1940	15.7	1,500	1951	Jan. 15, 1951	23.04	2,350
1942	Apr. 11, 1942	24.5	4,190	1952	Dec. 22, 1951	19.70	1,410
1943	Mar. 15, 1943	19.8	2,450	1953	May 19, 1953	23.62	2,720
1944	Mar. 30, 1944	26.2	6,790	1954	May 5, 1954	22.49	1,800
1945	Jan. 5, 6, 1945	25.6	4,640	1955	Mar. 25, 1955	23.85	2,700
1946	Jan. 21, 1946	24.64	3,520	1956	Feb. 7, 1956	23.84	2,700
1947	Apr. 14, 1947	22.02	1,690	1957	Feb. 4, 1957	23.6	2,500
1948	Feb. 15, 1948	24.73	3,530	1958	May 6, 1958	25.29	5,000

2886.1. Sunflower River near Moorhead, Miss.

Location.--Lat 33°27'44", long 90°33'45", in S $\frac{1}{2}$ sec.25, T.19 N., R.4 W., Choctaw meridian, at bridge on U. S. Highway 82, 3 miles west of Moorhead and at mile 98.6 (1947).

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is 78.25 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not adequately defined. A discharge of 14,700 cfs was measured May 12, 1958, at a stage of 36.49 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Mar. 31, 1949	29.89	-	1954	May 5, 1954	29.45	-
1950	Mar. 20, 1950	32.47	-	1955	Mar. 26, 1955	31.90	-
1951	Jan. 14, 1951	30.36	-	1956	Feb. 11, 1956	31.99	-
1952	Feb. 6, 1952	23.60	-	1957	Feb. 6, 1957	31.1	-
1953	May 19, 1953	32.40	-	1958	May 11-12, 1958	36.52	-

2886.5. Bogue Phalia near Leland, Miss.

Location.--Lat 33°23'47", long 90°50'47", in NW $\frac{1}{4}$ sec.20, T.18 N., R.6 W., Choctaw meridian, at bridge on State Highway 10, 0.7 mile upstream from Bogue Phalia cut-off and 3.2 miles east of Leland.

Drainage area.--Approximately 484 sq mi.

Gage.--Recording. Datum of gage is 86.21 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements. Slope affected at times.

Bankfull stage.--31 ft.

Remarks.--Records furnished by Corps of Engineers. Base for partial-duration series, 3,100 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Jan. 12, 1946	a28.0	8,500	1951	Jan. 7, 1951	26.58	7,200
	Feb. 14, 1946	26.6	7,200		Feb. 10, 1951	23.7	4,300
	Mar. 17, 1946	23.3	3,900		Feb. 21, 1951	22.1	3,100
					Apr. 24, 1951	22.4	3,300
1947	Jan. 4, 1947	23.1	3,800	1952	Feb. 4, 1952	22.56	3,400
	Jan. 20, 1947	22.7	3,500				
	Apr. 12, 1947	24.7	5,100	1953	May 5, 1953	22.6	3,400
	June 3, 1947	24.90	5,300		May 20, 1953	22.74	3,500
1948	Feb. 16, 1948	26.63	7,200	1954	May 3, 1954	25.24	5,600
	Mar. 6, 1948	24.9	5,300				
1949	Nov. 29, 1948	22.1	3,100	1955	Mar. 22, 1955	25.08	5,500
	Jan.5-7, 1949	24.6	5,000		Apr. 16, 1955	23.4	4,000
	Jan. 24, 1949	22.3	3,200	1956	Feb. 8, 1956	25.19	5,600
	Feb. 5, 1949	23.0	3,700				
	Mar. 30, 1949	26.74	7,300	1957	Feb. 1, 1957	24.7	5,100
	May 2, 1949	24.9	5,300				
1950	Jan.16-18, 1950	25.3	5,700	1958	Nov. 18, 1957	25.20	5,600
	Feb.17,18, 1950	26.2	6,800		May 5, 1958	27.11	7,900
	Mar. 17, 1950	27.81	8,400		Sept.21, 1958	26.82	7,400

a From floodmark.

2886.6. Bogue Phalia cutoff near Leland, Miss.

Location.--Lat 33°23'13", long 90°48'58", on line between secs.22 and 27, T.18 N., R.6 W., Choctaw meridian, at bridge on county road, 1.6 miles downstream from Bogue Phalia and 5 miles southeast of Leland.

Drainage area.--Indeterminate.

Gage.--Recording. Datum of gage is 84.36 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Poorly defined, slope affected.

Bankfull stage.--31 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Jan. 12, 1946	27.7	-	1953	May 17, 1953	23.12	-
1947	Apr. 11, 1947	25.40	-	1954	May 3, 1954	25.23	-
1948	Feb. 14, 1948	26.70	-	1955	Mar. 22, 1955	25.24	-
1949	Mar. 30, 1949	26.98	-				
1950	Mar. 17, 1950	27.41	-	1956	Feb. 8, 1956	25.27	-
				1957	Feb. 1, 1957	24.8	-
1951	Jan. 7, 1951	26.33	-	1958	May 5, 1958	27.38	-
1952	Feb. 4, 1952	22.39	-				

2886.8. Sunflower River at Little Callao Landing, Miss.

Location.--Lat 33°11'02", long 90°41'10", on south line of sec.35, T.16 N., R.5 W., Choctaw meridian, at bridge on State Highway 12, 6.3 miles downstream from Beasley Bayou, 10.5 miles east of Hollandale, and at mile 62.2 (1947).

Drainage area.--2,287 sq mi.

Gage.--Recording. Datum of gage is 66.02 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Poorly defined. A discharge of 21,900 cfs was measured May 6, 1958 (gage height, 36.85 ft).

Bankfull stage.--43 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Feb. 16, 1948	34.99	16,600	1954	May 5, 1954	32.41	12,800
1949	Jan. 6, 1949	34.54	16,000	1955	Apr. 15, 1955	34.12	15,200
1950	Mar. 22, 1950	34.48	15,800				
				1956	Feb. 11, 1956	33.60	14,600
1951	Jan. 14, 1951	34.00	15,100	1957	Feb.3-6, 1957	33.2	14,000
1952	Feb. 3, 1952	29.94	10,000	1958	May 11, 1958	36.87	23,000
1953	May 18, 1953	33.78	14,800				

a Year incomplete; probable yearly maximum.

2887. Sunflower River near Anguilla, Miss.

Location.--Lat 32°58'18", long 90°46'40", in SE $\frac{1}{4}$ sec.14, T.13 N., R.6 W., Choctaw meridian, at bridge on State Highway 14, 0.9 mile downstream from Jaynes Bayou, 3 miles east of Anguilla, and 39.4 miles upstream from mouth.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is 51.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined. A discharge of 23,100 cfs was measured May 8, 1958 (gage height, 48.07 ft).

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Apr. 1, 1949	46.05	-	1954	May 5, 1954	45.09	-
1950	Mar. 25, 1950	46.91	-	1955	Apr.15-16, 1955	46.55	-
1951	Jan. 14, 1951	46.46	-	1956	Feb.11-12, 1956	45.98	-
1952	Feb. 3, 1952	43.50	-	1957	Feb.4-8, 1957	45.5	-
1953	May 19, 1953	46.40	-	1958	May 11, 1958	48.16	-

2887.2. Sunflower River at Holly Bluff, Miss.

Location.--Lat 32°49'04", long 90°42'36", in NW $\frac{1}{4}$ sec.9, T.11 N., R.5 W., Choctaw meridian, at bridge on county road, 1 mile southwest of Holly Bluff, and at mile 18.7

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is 0.58 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined, slope affected and in backwater of Mississippi River.

Bankfull stage.--95 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1912	May 6, 1912	102.0	-	1936	May 2, 1936	90.8	-
1913	May 1, 1913	101.9	-	1937	Feb.22-25, 1937	102.3	-
1914	Apr. 25, 1914	89.1	-	1938	Apr.20-23, 1938	91.2	-
1915	Mar. 9, 1915	92.9	-	1939	Apr.6-8, 1939	92.8	-
				1940	July 16, 1940	85.8	-
1916	Feb.17-19, 1916	102.2	-				
1917	Apr.23-27, 1917	97.6	-	1941	Jan. 7, 1941	80.6	-
1918	Mar. 6, 1918	83.4	-	1942	Apr.21-22, 1942	90.1	-
1919	Apr.13-16, 1919	93.8	-	1943	June 9-13, 1943	91.4	-
1920	Apr.26-28, 1920	88.7	-	1944	May 13-17, 1944	93.6	-
				1945	Apr.16-17, 1945	96.7	-
1921	Apr. 23, 1921	94.6	-				
1922	May 5, 1922	103.5	-	1946	Feb.23-26, 1946	93.7	-
1923	Apr. 20, 1923	96.9	-	1947	Apr. 21, 1947	91.0	-
1924	Jan. 31, Feb. 1	91.6	-	1948	Mar. 19, 1948	93.1	-
1925	Mar. 27, 1925	83.6	-	1949	Feb. 20, 1949	93.8	-
				1950	Mar. 4, 1950	95.53	-
1926	Mar.13, Apr. 28	86.4	-				
1927	May 5-6, 1927	110.5	-	1951	Mar. 31, 1951	92.13	-
1928	July 18-19, 1928	95.6	-	1952	Apr.16-17, 1952	89.64	-
1929	June 5-9, 1929	101.7	-	1953	May 22, 1953	90.72	-
1930	Feb.5-7, 1930	92.6	-	1954	May 14, 1954	85.40	-
				1955	Apr.15-16, 1955	92.15	-
1931	Apr.20-21, 1931	78.5	-				
1932	Mar. 4, 1932	99.6	-	1956	Feb. 21, 1956	90.13	-
1933	Mar.6-8, 1933	95.9	-	1957	June 11, 1957	89.6	-
1934	Mar.7-8, 1934	84.8	-	1958	May 23-25, 1958	93.12	-
1935	Apr.15-24, 1935	95.6	-				

2887.7. Deer Creek near Hollandale, Miss.

Location.--Lat 33°08'59", long 90°50'47", in NW $\frac{1}{4}$ sec.17, T.15 N., R.6 W., Choctaw meridian, at bridge 1 mile south of Hollandale.

Drainage area.--98 sq mi.

Gage.--Nonrecording prior to January 1948; recording thereafter. Datum of gage is 93.57 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Bankfull stage.--18 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Feb. 17, 1946	15.5	700	1953	May 24, 1953	13.17	510
1947	Apr. 16, 1947	12.72	470	1954	May 6, 1954	12.70	470
1948	Feb. 19, 1948	14.12	600	1955	Mar. 25, 1955	15.05	680
1949	Apr. 3, 1949	15.70	800				
1950	Mar. 24, 1950	15.03	680	1956	Feb. 10, 1956	11.64	390
				1957	Feb. 6-7, 1957	12.3	440
1951	Jan. 13, 1951	14.26	610	1958	May 6, 1958	18.18	1,000
1952	Feb. 3, 1952	9.24	240				

2888. Yazoo River at Redwood, Miss.

Location.--Lat 32°29'16", long 90°49'00", in sec.4, T.17 N., R.4 E., Washington meridian, at bridge on Illinois Central Railroad at Redwood.

Drainage area.--12,603 sq mi.

Gage.--Nonrecording. Datum of gage is 40.17 ft above mean sea level, datum of 1929, supplementary adjustment of 1941. Prior to Jan. 11, 1941, at datum 39.90 ft lower.

Stage-discharge relation.--Not defined. Slope affected and in backwater of Mississippi River.

Bankfull stage.--54 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1911	May 7, 1911	91.7	-	1936	Apr.29 to May 2	90.1	-
1912	Apr. 12, 1912	99.6	-	1937	Feb. 24, 1937	102.4	-
1913	Apr. 30, 1913	101.3	-	1938	Apr.25-28, 1938	88.1	-
1914	Apr. 26, 1914	87.4	-	1939	Mar.31 to Apr.1	90.5	-
1915	Feb.29 to Mar.2	90.2	-	1940	May 10-12, 1940	81.2	-
1916	Feb.15-18, 1916	102.3	-	1941	Apr. 30, 1941	32.0	-
1917	Apr.22-25, 1917	97.7	-	1942	Apr.27-28, 1942	43.4	-
1918	Mar. 8, 1918	83.6	-	1943	June 10-11, 1943	51.9	-
1919	Apr. 11, 1919	93.4	-	1944	May 16, 1944	52.2	-
1920	Apr. 26, 1920	98.9	-	1945	Apr.28-30, 1945	56.7	-
1921	May 11, 1921	91.3	-	1946	Jan.29-30, 1946	48.0	-
1922	Apr. 29, 1922	103.3	-	1947	May 7, 1947	46.12	-
1923	Apr.11-13, 1923	95.0	-	1948	Apr. 18, 1948	48.62	-
1924	Jan.27 to Feb.1	90.00	-	1949	Feb. 21, 1949	49.93	-
1925	Mar.8-9, 1925	80.9	-	1950	Mar. 1, 1950	54.66	-
1926	Oct.25-26, 1926	86.5	-	1951	Mar. 13, 1951	45.71	-
1927	May 4, 1927	107.9	-	1952	Apr. 13, 1952	47.22	-
1928	July 12-18, 1928	95.9	-	1953	May 29, 1953	42.73	-
1929	June 5-6, 1929	102.0	-	1954	May 9, 1954	31.23	-
1930	Feb.2-4, 1930	91.7	-	1955	Apr. 9, 1955	46.57	-
1931	Dec. 31, 1931	83.0	-	1956	Mar. 5, 1956	41.59	-
1932	Feb.28 to Mar.2	99.0	-	1957	June 9, 1957	48.64	-
1933	June 10-12, 1933	95.3	-	1958	May 25, 1958	48.05	-
1934	Apr.13-14, 1934	81.3	-				
1935	Apr.14-18, 1935	94.9	-				

2888.8. Steele Bayou near Rolling Fork, Miss.

Location.--Lat 32°54'10", long 90°58'43", in SW $\frac{1}{4}$ sec.15, T.12 N., R.8 W., Choc-taw meridian, on downstream side of old State Highway 14 bridge over main channel of Steele Bayou, 6 miles west of Rolling Fork and 49.1 miles upstream from mouth (1946).

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Jan. 1, 1948; recording thereafter. Datum of gage is 75.69 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Bankfull stage.--27 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 17, 1947	24.15	-	1952	Feb. 6, 1952	20.86	-
1948	Feb.22-25, 1948	24.20	-	1953	May 21, 1953	22.45	-
1949	Jan. 10, 1949	23.74	-	1954	May 13, 1954	18.76	-
1950	Feb. 22, 1950	23.62	-	1955	Mar. 28, 1955	18.50	-
1951	Jan. 18, 1951	23.90	-				

2889.3. Muddy Bayou at Eagle Lake, Miss.

Location.--Lat 32°30'46", long 90°59'40", in NW $\frac{1}{4}$ sec.26, T.18 N., R.2 E., Washington meridian, on downstream side of highway bridge, 0.1 mile upstream from Eagle Lake and 17 miles north of Vicksburg.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is 63.19 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	May 9, 1947	22.72	-	1951	Mar.14-15, 1951	21.80	-
1948	Apr.16-21, 1948	24.76	-	1952	Apr.10-11, 1952	23.56	-
1949	Feb.21-22, 1949	26.10	-	1953	May 30, 1953	18.72	-
1950	Mar. 1, 1950	30.98	-				

2890. Mississippi River near Vicksburg, Miss.

Location.--Lat 32°18'45", long 90°54'25", in T.16 N., R.3 E., Washington meridian, at combined highway and railway bridge of Vicksburg Bridge Commission of Warren County, $1\frac{1}{2}$ miles downstream from Yazoo diversion canal, 3 miles southwest of Vicksburg, and at mile 430.4.

Drainage area.--1,144,500 sq mi, approximately.

Gage.--Nonrecording prior to April 1930 at mouth of Yazoo diversion canal $1\frac{1}{2}$ miles upstream; recording thereafter at present site. Datum of gage is 46.22 ft above mean sea level, datum of 1929, supplementary adjustment of 1941 (Corps of Engineers bench mark). All gages at same datum, but readings differ due to slope of water surface.

Stage-discharge relation.--Defined by current-meter measurements. Relation is affected by slope.

Remarks.--Records of discharge prior to June 1931 and records of stage prior to April 1930 furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1828	-	46.38	-	1892	June 2, 3, 1892	48.45	-
1844	June 28, 1844	46.18	-	1893	May 22, 23, 1893	48.3	-
1849	Apr. 26, 1849	46.38	-	1894	Apr. 2, 1894	40.9	-
1850	June 4, 1850	47.08	-	1895	Apr. 3, 4, 1895	31.7	-
1858	June 24, 1858	a46.98	1,244,000	1896	Apr. 21, 1896	39.0	-
1859	Apr. 21, 1859	48.28	-	1897	Apr. 15, 1897	a52.48	1,777,000
1862	Apr. 27, 1862	51.1	-	1898	Apr. 23-25, 1898	49.4	1,456,000
1865	-	46.43	-	1899	Apr. 17-23, 1899	47.3	-
1867	-	49.02	-	1900	Mar. 27, 1900	38.0	-
1872	May 2, 3, 1872	39.5	-	1901	May 16, 1901	41.5	-
1873	May 29, 30, 1873	40.6	-	1902	Apr. 17, 1902	41.22	-
1874	May 2-5, 1874	45.7	-	1903	Mar. 31, 1903	a51.8	b1,606,000
1875	Apr. 21, 1875	43.0	-	1904	Apr. 23, 1904	a46.85	b1,382,000
1876	May 10, 1876	44.9	-	1905	June 6, 1905	40.75	-
1877	May 8-13, 1877	41.6	-	1906	Apr. 25, 1906	a47.15	1,536,000
1878	Mar. 24-27, 1878	40.95	-	1907	Feb. 12, 13, 1907	49.65	1,721,000
1879	Feb. 17, 1879	39.45	-	1908	June 5-8, 1908	47.8	-
1880	Apr. 8, 9, 1880	43.15	-	1909	Mar. 29, 1909	a48.0	1,516,000
1881	Mar. 10-12, 1881	41.85	-	1910	Mar. 25, 26, 1910	40.6	-
1882	Mar. 20, 21, 1882	48.75	-	1911	May 6, 1911	45.13	-
1883	Apr. 7, 1883	43.8	-	1912	Apr. 12, 1912	51.65	1,780,000
1884	Mar. 25, 1884	49.0	-	1913	May 2, 1913	a52.2	1,783,000
1885	Jan. 22, 1885	a42.4	1,151,000	1914	Apr. 26, 1914	41.16	-
1886	May 7-9, 1886	44.15	-	1915	Feb. 28, Mar. 1	43.9	-
1887	Mar. 26-31, 1887	44.7	-	1916	Feb. 16, 1916	a53.85	1,735,000
1888	Apr. 26, 1888	44.18	-	1917	Apr. 20, 1917	49.98	1,541,000
1889	July 3, 1889	34.45	-	1918	Mar. 8, 1918	37.66	-
1890	Apr. 24, 25, 1890	49.05	-	1919	Apr. 10, 11, 1919	46.37	-
1891	Apr. 2-4, 1891	48.1	-	1920	Apr. 17, 1920	a50.9	1,649,000
				1921	May 8, 10, 1921	44.55	-
				1922	Apr. 20, 1922	a54.85	1,752,000
				1923	Apr. 9, 10, 1923	47.9	-
				1924	Apr. 29, 1924	44.0	-
				1925	Mar. 8, 1925	35.2	-

a Occurred on different day than peak discharge.

b May have been exceeded during period of missing record.

Peak stages and discharges of Mississippi River near Vicksburg, Miss.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	Apr. 27-29, May 2	39.9	-	1943	June 6, 1943	a43.42	1,648,000
1927	May 1, 1927	a58.4	c2,278,000	1944	May 13, 1944	a43.13	1,609,000
1928	July 12-16, 1928	49.3	d1,325,000	1945	Apr. 8, 9, 1945	a47.49	1,922,000
1929	June 6, 1929	55.1	d1,730,000				
1930	Feb. 3, 1930	45.7	d1,148,000	1946	Jan. 26, 1946	a38.81	1,481,000
1931	Apr. 20, 1931	a30.58	d711,000	1947	May 4, 5, 1947	a37.06	1,301,000
1932	Feb. 26, 1932	a50.27	1,410,000	1948	Apr. 13, 1948	a39.72	1,401,000
1933	June 10, 1933	47.50	1,360,000	1949	Feb. 10, 1949	a40.58	1,574,000
1934	Apr. 13, 1934	34.56	877,000	1950	Feb. 23, 1950	a44.97	1,876,000
1935	Apr. 15, 1935	46.75	1,420,000	1951	Mar. 12, 1951	36.20	1,356,000
1936	Apr. 29, 30, 1936	42.54	1,280,000	1952	Apr. 10, 1952	38.49	1,368,000
1937	Feb. 17, 1937	a53.2	2,080,000	1953	May 27, 1953	a33.52	983,000
1938	Apr. 23, 1938	a40.4	1,190,000	1954	May 8, 1954	a22.07	706,000
1939	Mar. 9, 1939	a42.65	1,410,000	1955	Apr. 7, 1955	a37.36	1,282,000
1940	May 11, 1940	33.67	1,075,000	1956	Mar. 3, 1956	a32.33	1,108,000
1941	Apr. 30, 1941	24.11	814,000	1957	June 7, 1957	40.10	d1,312,000
1942	Apr. 20, 1942	a34.43	1,178,000	1958	May 16-18, 1958	a38.44	d1,191,000

a Occurred on different day than peak discharge.

c Estimated, if all flow had been confined between levees.

d Maximum daily.

FOUR MILE BAYOU BASIN

2890.1. Durden Creek near Vicksburg, Miss.

Location.--Lat 32°17'50", long 90°52'10", in SE $\frac{1}{4}$ sec.1, T.15 N., R.3 E., Washington meridian, at Waterways Experiment Station Lake (Corps of Engineers) upstream from Halls Ferry county road, 2.3 miles south of this road's intersection with U. S. Highway 80 Bypass in Vicksburg.

Drainage area.--5.50 sq mi.

Gage.--Recording. Datum of gage is mean sea level.

Stage-discharge relation.--Defined by hydraulic computations or by current-meter measurements.

Remarks.--Peak inflow discharges prior to 1948 computed by Corps of Engineers; thereafter by U. S. Geological Survey. Peak stages shown occurred shortly after the computed peak inflow. Only annual peak discharges are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	May 5, 6, 1935	-	3,120	1949	Nov. 18, 1948	-	4,570
1941	Nov. 23, 1940	-	1,040	1953	Apr. 29, 1953	-	2,630
1942	May 14, 1942	-	2,740	1954	May 3, 1954	-	964
1943	Mar. 19, 1943	-	1,190	1955	May 14, 1955	-	2,180
1944	Mar. 28, 1944	-	2,000				
1945	Mar. 17, 1945	-	795	1956	Feb. 8, 1956	-	904
				1957	Nov. 6, 1956	-	1,460
1946	June 26, 1946	-	2,600	1958	Apr. 30, 1958	-	1,400

2891.7. Mulberry Creek at Kilmichael, Miss.

Location.--Lat 33°26'24", long 89°33'00', in E $\frac{1}{2}$ sec.10, T.18 N., R.7 E., Choc-taw meridian, on downstream side of bridge on U. S. Highway 82, 0.9 mile east of Kilmichael and 2 miles upstream from mouth.

Drainage area.--40 sq mi.

Gage.--Nonrecording prior to Jan. 1, 1948; recording thereafter. Datum of gage is 296.85 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 9,000 cfs.

Remarks.--Gage-height records and current-meter measurements furnished by Corps of Engineers. Discharge computed from rating curve based on current-meter measurements. High flows intermingle with flows from Big Black River above station. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Feb. 10, 1946	14.5	7,600	1951	Mar. 29, 1951	16.45	15,000
1947	June 3, 1947	14.16	6,900	1952	Mar. 11, 1952	12.57	3,600
1948	Feb. 13, 1948	14.00	6,400	1953	Feb. 22, 1953	a13.63	5,400
1949	Jan. 5-6, 1949	15.90	12,000				
1950	Mar. 14, 1950	14.89	8,700				

a Record incomplete; probable yearly maximum.

2891.8. Big Black River near Kilmichael, Miss.

Location.--Lat 33°25'30", long 89°34'30", in SW $\frac{1}{4}$ sec.15, T.18 N., R.7 E., Choc-taw meridian, at bridge $1\frac{1}{2}$ miles southeast of Kilmichael.

Drainage area.--549 sq mi (includes Mulberry Creek).

Gage.--Nonrecording prior to Jan. 1, 1948; recording thereafter. Datum of gage is 296.55 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 26,000 cfs.

Bankfull stage.--10 ft.

Remarks.--Records furnished by Corps of Engineers. Peak discharges include flow from Mulberry Creek. Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	Jan. 25, 1937	12.8	5,100	1944	May 5, 1944	15.10	26,800
1938	Apr. 9, 1938	13.2	6,000	1945	Feb. 23, 1945	a13.3	10,600
1939	Feb. 5, 1939	12.45	4,300		Mar. 5, 1945	13.90	16,000
1940	Apr. 19, 1940	a13.25	10,600	1946	Jan. 8, 1946	14.4	18,000
	July 4, 1940	15.2	25,800		Feb. 10, 1946	15.2	24,000
1941	Dec. 16, 1940	12.8	7,900	1947	Jan. 4, 1947	14.0	15,000
1942	Nov. 23, 1941	12.5	6,100		Jan. 21, 1947	13.4	10,000
1943	Dec. 29, 1942	13.20	10,600		Apr. 11, 1947	15.1	23,000
1944	Mar. 29, 1944	14.53	23,600	1948	June 3, 1947	14.7	20,000
				1948	Feb. 13, 1948	14.20	16,500
				1949	Nov. 29, 1948	13.5	11,000

a Maximum daily.

Peak stages and discharges of Big Black River near Kilmichael, Miss.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Dec. 18, 1948	13.2	8,800	1953	May 6, 1953	13.4	8,000
	Jan. 5, 1949	16.50	31,000	1954	May 3, 1954	13.71	10,500
	Jan. 23, 1949	14.0	15,000				
1950	Jan. 8, 1950	a14.7	20,000	1955	Mar. 22, 1955	13.8	11,000
	Feb. 15, 1950	a14.5	18,000		Apr. 14, 1955	14.56	17,000
	Mar. 14, 1950	15.32	24,000		1956	Feb. 4, 1956	13.4
1951	Jan. 4, 1951	13.9	12,000	Mar. 16, 1956		13.7	10,500
	Feb. 4, 1951	13.8	11,000	Apr. 6, 1956		13.6	9,500
	Mar. 29, 1951	17.23	37,300	1957		Feb. 2, 1957	13.8
	Apr. 23, 1951	15.3	7,000		1958	Nov. 15, 1957	14.68
1952	Dec. 21, 1951	14.0	13,000	Apr. 27, 1958		14.29	15,000
	1953	Feb. 22, 1953	14.01	13,000			

a Maximum daily.

2893.3. Zilpha Creek near Kosciusko, Miss.

Location.--Lat 33°14', long 89°40', in NW $\frac{1}{4}$ sec.23, T.16 N., R.6 E., Choctaw meridian, at bridge on State Highway 35, 5 $\frac{1}{2}$ miles upstream from mouth and 12.5 miles north of Kosciusko.

Drainage area.--90.0 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 2,900 cfs and extended by logarithmic plotting.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Feb. 20, 1953	25.11	3,300	1956	Feb. 4, 1956	25.10	3,200
1954	May 4, 1954	25.96	6,100	1957	Dec. 15, 1956	25.21	3,500
1955	Apr. 13, 1955	27.49	16,000	1958	Nov. 14, 1957	24.75	2,400

2893.5. Big Black River at West, Miss.

Location.--Lat 33°11'45", long 89°46'30", in NW $\frac{1}{4}$ sec.3, T.15 N., R.5 E., Choctaw meridian, on Holmes-Attala County line, at bridge on State Highway 19, 0.2 mile east of West, 5.2 miles upstream from Jordan Creek, and 7.1 miles downstream from Zilpha Creek.

Drainage area.--985 sq mi.

Gage.--Nonrecording prior to June 10, 1948; recording thereafter. Datum of gage is 249.74 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements made by Corps of Engineers.

Bankfull stage.--12 ft.

Remarks.--Records furnished by Corps of Engineers. Base for partial-duration series, 10,000 cfs.

BIG BLACK RIVER BASIN

Peak stages and discharges of Big Black River at West, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	Jan. 23, 1937	19.28	10,500	1949	Nov. 29, 30, 1948	18.9	12,500
1938	Apr. 8, 1938	19.0	10,000		Jan. 5, 1949	23.81	44,500
1939	Apr. 7, 1939	19.00	10,000		Jan. 23, 1949	21.0	24,000
1940	Feb. 11, 1940	19.3	14,500	1950	Mar. 28, 1949	19.4	15,000
	July 6, 1940	21.2	25,000		May 2, 1949	19.6	16,000
1941	Dec. 17, 1940	20.0	18,000		Jan. 9, 1950	21.0	24,000
1942	Nov. 24, 1941	18.3	9,500		Feb. 16, 1950	20.4	20,500
1943	Dec. 30, 1942	18.9	12,500		Mar. 15, 1950	21.35	26,000
1944	Feb. 25, 1944	19.9	17,500	1951	Jan. 4, 1951	19.9	17,500
	Mar. 30, 1944	22.36	33,500		Feb. 7, 1951	20.8	22,500
	May 6, 1944	22.0	30,500		Mar. 30, 1951	24.09	47,000
1945	Feb. 21, 1945	19.50	15,500		Apr. 23, 1951	19.4	15,000
	Mar. 5, 1945	19.92	17,500	1952	Dec. 22, 1951	20.1	18,500
	Mar. 21, 1945	19.6	16,000	1953	Feb. 24, 1953	19.58	16,000
1946	Jan. 9, 1946	22.0	30,500		May 5, 1953	19.0	13,000
	Feb. 10, 1946	22.60	35,000	1954	May 3, 1954	20.61	21,500
1947	Jan. 4, 1947	20.6	21,500	1955	Mar. 24, 1955	19.2	14,000
	Jan. 21, 1947	19.8	17,000		Apr. 14, 1955	21.16	25,000
	Apr. 12, 1947	22.64	35,500	1956	Feb. 5, 1956	19.5	15,500
	June 5, 1947	20.5	21,000		Mar. 17, 1956	19.80	17,000
1948	Feb. 14, 1948	22.33	33,000		Apr. 8, 1956	19.1	13,500
	Mar. 7, 1948	19.9	17,500	1957	Dec. 14, 1956	18.7	11,500
	Apr. 15, 1948	19.0	13,000		Feb. 2, 1957	20.1	18,500
				1958	Nov. 18, 1957	21.86	29,000
					Apr. 30, 1958	21.08	24,500

a Daily mean.

2895. Big Black River at Pickens, Miss.

Location.--Lat 32°52'45", long 89°58'05", in SW $\frac{1}{4}$ sec.14, T.12 N., R.3 E., Choctaw meridian, at bridge on old U. S. Highway 51, half a mile southeast of Pickens, 6 miles downstream from Seneasha Creek, and 6 miles upstream from Cypress Creek.

Drainage area.--1,460 sq mi, approximately.

Gage.--Nonrecording prior to Aug. 20, 1939; recording thereafter. Datum of gage is 196.26 ft above mean sea level, datum of 1929, supplementary adjustment of 1941 (U. S. Department of Agriculture bench mark, levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements. Shifts in relation occur.

Bankfull stage.--13 ft.

Historical data.--Flood in 1892 reached about the same stage as the floods in 1926 and 1930, from information by local residents.

Remarks.--Base for partial-duration series, 7,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Dec. 29, 1926	23.7	-	1941	Dec. 19, 1940	18.97	13,900
1930	May 1930	23.5	-	1942	Jan. 1, 1942	17.35	5,180
1937	Jan. 26, 1937	18.8	5,300	1943	Jan. 2, 1943	18.45	8,950
1938	Apr. 10, 1938	18.7	5,160	1944	Feb. 27, 1944	19.02	16,200
1939	Feb. 11, 1939	18.07	6,000		Mar. 20, 1944	18.01	7,360
1940	Feb. 13, 1940	18.82	12,300		Mar. 31, 1944	20.34	35,900
	Apr. 22, 1940	18.90	13,400		May 8, 1944	19.71	25,900
	July 8, 1940	19.92	25,600	1945	Feb. 22, 1945	19.17	18,100
					Mar. 6, 1945	19.01	16,200

Peak stages and discharges of Big Black River at Pickens, Miss.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1945	Mar. 23, 1945	18.72	12,500	1950	Mar. 17, 1950	19.37	20,600	
	Apr. 3, 1945	18.29	8,800					
1946	Jan. 11, 1946	20.08	28,800	1951	Jan. 8, 1951	18.78	14,200	
	Feb. 11, 1946	20.85	37,900		Feb. 7, 1951	19.46	21,600	
	Apr. 2, 1946	18.18	8,350		Mar. 28, 1951	22.20	49,400	
1947	Jan. 5, 1947 Jan. 21, 1947 Apr. 13, 1947 June 7, 1947	19.19	17,600	1952	Dec. 26, 1951	18.47	11,600	
		18.89	14,300					
		20.16	29,400					
		18.54	11,000					
1948	Feb. 15, 1948	20.52	35,600	1954	May 5, 1954	18.82	14,600	
	Mar. 8, 1948	18.82	14,100					
	Apr. 16, 1948	18.51	11,000					
1949	Dec. 1, 1948	18.76	11,500	1955	Mar. 27, 1955	18.20	10,100	
	Dec. 21, 1948	18.23	7,940		Apr. 16, 1955	18.82	14,600	
	Jan. 7, 1949	21.95	42,400		1956	Feb. 7, 1956	18.25	10,400
	Jan. 24, 1949	19.21	18,800			Mar. 18, 1956	18.48	12,100
	Feb. 10, 1949	18.62	12,400			Apr. 11, 1956	18.20	10,100
	Mar. 30, 1949	18.66	12,900		1957	Feb. 3, 1957	18.56	17,400
	May 3, 1949	18.98	16,600			June 29, 1957	17.22	7,600
1950	Jan. 11, 1950	19.29	20,000	1958	Nov. 20, 1957	19.59	26,800	
	Feb. 16, 1950	18.96	16,000		May 2, 1958	20.15	37,800	

2895.3. Doaks Creek near Canton, Miss.

Location--Lat 32°44', long 90°00', in NE $\frac{1}{4}$ sec.9, T.10 N., R.3 E., Choctaw meridian, at bridge on U. S. Highway 51, 3 $\frac{1}{2}$ miles upstream from mouth and 8 $\frac{1}{2}$ miles north of Canton.

Drainage area--161 sq mi.

Gage--Crest-stage gage.

Stage-discharge relation--Defined by current-meter measurements below 10,000 cfs.

Remarks--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Feb. 13, 1948	15.35	a3,760	1954	May 1, 1954	14.93	2,930
1949	-	16.81	7,400	1955	Apr. 13, 1955	17.32	8,900
1950	Feb. 13, 1950	16.47	6,460	1956	Apr. 6, 1956	17.31	8,870
1951	Jan. 7, 1951	18.46	12,600		Apr. 5, 1957	15.62	4,360
1952	-	(b)	-		1958	May 2, 1958	16.73
1953	Apr. 30, 1953	17.71	10,100				

a Record incomplete; probable yearly maximum.

b Less than 14.46 ft, bottom of gage.

2895.6. Bear Creek near Madison, Miss.

Location--Lat 32°30'50", long 90°05'10", in NW $\frac{1}{4}$ sec.27, T.8 N., R.2 E., Choctaw meridian, 175 ft upstream from bridge on U. S. Highway 51, 4 miles north-east of Madison.

Drainage area--24.2 sq mi.

Gage--Crest-stage gage.

Stage-discharge relation--Poorly defined by 2 current-meter measurements.

Remarks--Only annual peaks are shown.

Peak stages and discharges of Bear Creek near Madison, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Feb. 13, 1948	a12.04	880	1954	May 1, 1954	12.85	1,600
1949	-	14.38	3,700	1955	Apr. 13, 1955	13.36	2,200
1950	Feb. 13, 1950	13.33	2,150	1956	Feb. 4, 1956	-	c1,400
1951	Mar. 30, 1951	12.36	1,090	1957	Apr. 4, 1957	-	c1,100
1952	-	(b)	-	1958	May 1958	-	c2,200
1953	Apr. 29, 1953	16.04	7,300				

a Record incomplete; probable yearly maximum.

b Less than 11.5 ft, bottom of gage.

c Computed on basis of stages for Corps of Engineers gage just downstream.

2895.8. Bear Creek at Highway 51, near Canton, Miss.

Location.--Lat 32°36', long 90°03', in SE $\frac{1}{4}$ sec.25, T.9 N., R.2 E., Choctaw meridian, at bridge on U. S. Highway 51, half a mile upstream from Illinois Central Railroad and three-quarters of a mile south of Canton.

Drainage area.--86 sq mi.

Gage.--Crest-stage gage. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 4,200 cfs.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 28-29, 1951	220.60	4,100	1956	Apr. 5, 1956	220.62	4,100
1952	-	(a)	-	1957	Apr. 4, 1957	220.87	4,500
1953	Apr. 30, 1953	222.22	7,300	1958	Nov. 14, 1957	221.35	5,600
1954	-	(a)	-				
1955	Apr. 14, 1955	221.35	5,600				

a Less than 217 ft, bottom of gage.

2896. Tilda Bogue near Canton, Miss.

Location.--Lat 32°39'10", long 90°00'30", in SW $\frac{1}{4}$ sec.5, T.9 N., R.3 E., Choctaw meridian, at bridge on U. S. Highway 51, 3 miles north of Canton, and 3 $\frac{1}{2}$ miles upstream from mouth.

Drainage area.--24.4 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 4,000 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Feb. 13, 1948	16.01	666	1954	Feb. 19, 1954	16.67	1,160
1949	-	17.99	4,260	1955	Apr. 13, 1955	17.83	3,750
1950	Feb. 13, 1950	17.40	2,520	1956	Mar. 15, 1956	17.53	2,870
1951	Mar. 19, 1951	18.03	4,300	1957	Dec. 13, 1956	16.49	977
1952	-	(a)	-	1958	Nov. 14, 1957	18.33	5,540
1953	Apr. 29, 1953	19.0	8,800				

a Less than 15.62 ft, bottom of gage.

2896.1. Bachelor Creek at Canton, Miss.

Location.--Lat 32°37', long 90°02', in NW $\frac{1}{4}$ sec.19, T.9 N., R.3 E., Choctaw meridian, at bridge on U. S. Highway 51 truck route at Canton High School.

Drainage area.--3.11 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements between 350 and 550 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Apr. 29, 1953	17.78	991	1956	Mar. 15, 1956	16.05	584
1954	Jan. 20, 1954	16.07	588	1957	Dec. 13, 1956	15.49	468
1955	Apr. 12, 1955	16.98	795	1958	Apr. 29, 1958	16.27	632

2896.2. Bear Creek near Canton, Miss.

Location.--Lat 32°40'28", long 90°05'19", on line between secs.33 and 34, T.10 N., R.2 E., Choctaw meridian, at bridge on road, 5 miles northwest of Canton and 5.6 miles upstream from mouth.

Drainage area.--154 sq mi.

Gage.--Recording. Datum of gage is 176.62 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Poorly defined by current-meter measurements below 4,100 cfs. Backwater from Big Black River occurs occasionally on minor rises and falling stages.

Bankfull stage.--12 ft.

Remarks.--Gage-height records and discharge measurements furnished by Corps of Engineers. Discharge computed from rating curve based on discharge measurements. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Feb. 14, 1950	18.12	6,200	1955	Apr. 13, 1955	18.72	7,600
1951	Mar. 28, 1951	18.94	8,000	1956	Apr. 6, 1956	18.52	7,100
1952	Mar. 12, 1952	13.70	1,000	1957	Apr. 4, 1957	18.0	6,000
1953	Apr. 30, 1953	19.49	9,400	1958	Nov. 14, 1957	18.56	7,300
1954	May 4, 1954	16.92	4,000				

a Year incomplete.

2897.3. Big Black River near Bentonla, Miss.

Location.--Lat 32°36'12", long 90°21'45", in NW $\frac{1}{4}$ sec.25, T.9 N., R.2 W., Choctaw meridian, at bridge on U. S. Highway 49, 2 $\frac{1}{2}$ miles south of Bentonla, and 4 miles downstream from Burnt Corn Creek.

Drainage area.--2,340 sq mi; prior to 1948, 2,320 sq mi.

Gage.--Nonrecording prior to Jan. 1, 1948; recording thereafter. At site 3.1 miles upstream prior to Jan. 1, 1948. Datum of all gages is 130.18 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--25 ft prior to 1948, 22 ft thereafter.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

BIG BLACK RIVER BASIN

Peak stages and discharges of Big Black River near Bentonla, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	Mar. 27, 1929	31.9	a30,100	1944	Mar. 31, 1944	33.97	55,000
1930	May 23, 1930	34.7	61,800	1945	Feb. 25, 1945	30.63	26,000
1931	Aug. 3, 1931	29.8	13,600	1946	Feb. 12, 1946	32.83	44,500
1932	Feb. 23, 24, 1932	31.5	31,500	1947	Apr. 16, 1947	31.3	32,700
1933	Dec. 14, 1932	32.4	40,000	1948	Feb. 17, 1948	28.38	38,900
1934	Mar. 6, 1934	29.8	13,600	1949	Jan. 9, 1949	29.4	49,400
1935	Mar. 4, 1935	33.1	47,000	1950	Feb. 16, 1950	27.45	28,000
1936	Feb. 6, 1936	30.3	16,700	1951	Mar. 30, 1951	31.64	66,500
1937	Jan. 26, 1937	30.8	20,400	1952	Jan. 3, 4, 1952	24.59	7,900
1938	Apr. 10, 1938	30.2	16,000	1953	May 5, 1953	27.12	21,300
1939	Feb. 6, Mar. 6, 1939	29.58	13,000	1954	May 9, 1954	26.74	18,000
1940	July 11, 1940	31.48	33,000	1955	Apr. 15, 1955	27.68	27,000
1941	Dec. 22, 1940	29.64	16,200	1956	Apr. 8, 1956	27.80	28,000
1942	Mar. 17, 1942	28.52	10,000	1957	Feb. 7, 1957	26.70	17,500
1943	Dec. 30, 1942	29.8	17,200	1958	May 2, 1958	30.80	57,000

a Record incomplete.

2898.5. Bogue Chitto near Flora, Miss.

Location.--Lat 32°33', long 90°24', in NW $\frac{1}{4}$ sec. 15, T.8 N., R.2 W., Choctaw meridian, at bridge on State Highway 22, 4.6 miles southwest of Flora.

Drainage area.--127 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 8,000 cfs.

Historical data.--Flood of Apr. 30, 1953, is the highest since at least 1938, from information by local residents.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Apr. 30, 1953	20.88	21,000	1956	Apr. 6, 1956	18.51	10,000
1954	May 2, 1954	16.44	4,300	1957	July 2, 1957	17.45	6,750
1955	Feb. 22, 1955	15.01	2,000	1958	Nov. 13, 1957	18.69	10,700

2900. Big Black River near Bovina, Miss.

Location.--Lat 32°20'51", long 90°41'48", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 22, T.16 N., R.5 E., Washington meridian, at bridge on U. S. Highway 80, 300 ft upstream from Clear Creek, 0.4 mile upstream from Illinois Central Railroad bridge, 2 miles east of Bovina, and 12 miles upstream from Fourteenmile Creek.

Drainage area.--2,810 sq mi, approximately, includes that of Clear Creek.

Gage.--Nonrecording prior to Oct. 23, 1941; recording thereafter. Datum of gage is 84.93 ft above mean sea level, datum of 1929.

Bankfull stage.--24 ft.

Stage-discharge relation.--Defined by current-meter measurements.

Historical data.--The flood of May 5, 1958, is the highest since May 1930. Floods in 1912 and January 1927 both reached an elevation of 119 ft msl at Askew's Bridge 6 miles upstream (about 3 ft higher than that of May 5, 1958, at that site). The flood in May 1930 reached about the same elevation as the flood in April 1951 (117.7 ft msl) at Askew's Bridge.

Remarks.--Records February 1936 to September 1938 furnished by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 12,000 cfs.

Peak stages and discharges of Big Black River near Bovina, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Feb. 10, 1936	36.23	16,100	1949	Nov. 19, 1948	31.16	13,400
1937	Jan. 28, 1937	38.14	17,100	Dec. 3, 1948	35.25	19,100	
1938	Apr. 12-13, 1938	37.04	15,200	Jan. 11, 1949	39.22	46,400	
1939	Feb. 25, 1939	32.96	9,600	Jan. 29, 1949	36.07	21,300	
1940	Apr. 11, 1940	34.19	15,700	Mar. 31, 1949	34.97	18,600	
	May 1, 1940	32.97	13,700	May 8, 1949	35.46	19,800	
	July 14-15, 17-18	38.25	26,000	1950	Jan. 17, 1950	35.95	21,000
1941	Dec. 21-22, 1940	34.12	15,500	Feb. 18, 1950	37.22	26,100	
1942	Mar. 13, 1942	30.44	12,100	Mar. 22, 1950	35.27	19,300	
1943	Jan. 3, 1943	32.81	13,400	1951	Jan. 15, 1951	31.96	14,300
1944	Mar. 5, 1944	35.38	16,100	Feb. 13, 1951	37.56	28,800	
	Apr. 1, 1944	39.04	44,400	Apr. 1, 1951	39.65	58,600	
1945	Feb. 27, 1945	36.47	19,600	1952	Jan. 7, 1952	23.64	6,450
	Mar. 21, 1945	35.52	16,400	1953	Mar. 4, 1953	32.95	15,600
1946	Jan. 15, 1946	38.60	37,700	May 7, 1953	37.07	25,500	
	Feb. 14, 1946	39.09	46,000	1954	May 13, 1954	32.67	15,200
	May 27, 1946	32.67	12,800	1955	Apr. 18, 1955	36.75	23,900
1947	Jan. 13, 1947	38.00	29,500	1956	Feb. 12, 1956	34.67	15,700
	Apr. 18, 1947	37.86	28,400	Mar. 21, 1956	36.45	21,900	
1948	Feb. 19, 1948	38.32	35,000	Apr. 10, 1956	37.32	26,700	
	Mar. 10, 1948	35.40	19,800	1957	Feb. 11, 1957	32.72	13,300
				1958	Nov. 25, 1957	38.43	26,800
					May 5, 1958	39.74	52,700

2900.05. Clear Creek near Bovina, Miss.

Location.--Lat 32°22', long 90°43', in SW $\frac{1}{4}$ sec. 17, T.6 N., R.5 W., Choctaw meridian, at bridge on county highway, 1 mile northeast of Bovina.

Drainage area.--36 sq mi.

Gage.--Crest-stage gage. Datum of gage is 113.3 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 3,700 cfs.

Historical floods.--The floods of Feb. 17, 1927, and Mar. 28, 1951, are the highest known, from information by local residents.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Feb. 17, 1927	32.0	-	1955	Apr. 12, 1955	25.08	5,320
1951	Mar. 28, 1951	30.5	-	1956	Feb. 4, 1956	22.26	2,980
1953	Apr. 29, 1953	27.24	9,330	1957	-	24.74	4,850
1954	-	(a)	-	1958	May 1, 1958	23.39	5,780

a Less than 24.2 ft, bottom of gage.

2902. Big Black River near Hankinson, Miss.

Location.--Lat 32°07'12", long 90°53'24", in sec.15, T.13 N., R.3 E., Washington meridian, at downstream side of bridge, 2.0 miles northwest of Hankinson and 25.5 miles upstream from mouth.

Drainage area.--3,319 sq mi.

Gage.--Nonrecording. Datum of gage is 48.42 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	Feb. 21-22, 1937	47.2		1942	Mar. 20, 1942	28.1	
1938	Apr. 19, 1938	38.4		1943	June 9, 1943	35.9	
1939	Mar. 31, Apr. 1	35.7		1944	Apr. 3, 1944	41.6	
1940	July 20, 1940	38.0		1945	Apr. 12-13, 1945	41.4	
1941	Dec. 30, 1940	35.0		1946	Feb. 16, 1946	41.3	

BAYOU PIERRE BASIN

2905. Bayou Pierre near Carpenter, Miss.

Location.--Lat 32°00', long 90°41', in NE $\frac{1}{4}$ sec. 22, T.12 N., R.5 E., Washington meridian, at left of span on downstream side of bridge on State Highway 18, $\frac{1}{4}$ miles upstream from Whiteoak Creek, 2 miles south of Carpenter, 2 miles upstream from Illinois Central Railroad bridge, and 8 miles southwest of Utica.

Drainage area.--371 sq mi.

Gage.--Nonrecording prior to 1952; crest-stage gage thereafter. Datum of gage is 129.67 ft above mean sea level, from State Highway Department.

Stage-discharge relation.--Defined by current-meter measurements. Occasionally affected by backwater from Whiteoak Creek.

Bankfull stage.--25 ft.

Historical data.--According to local residents, the flood in June 1928 was highest in at least 70 years and the flood in 1900 was practically as high.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1928	June 1928	a31.0	-	1950	May 2, 1950	25.65	23,600
1932	-	a28.0	-	1951	Mar. 28, 1951	15.0	7,050
1940	July 1940	a30.0	-	1952	-	(b)	-
				1953	May 3, 1953	25.95	24,400
1945	Feb. 5, 1945	25.63	23,400	1954	May 1, 1954	23.04	18,300
				1955	Apr. 13, 1955	24.84	21,900
1946	Feb. 9, 1946	24.05	20,700	1956	June 14, 1956	a18.0	10,000
1947	Apr. 11, 1947	24.98	22,400	1957	-	23.6	19,400
1948	Aug. 9, 1948	15.00	7,650	1958	June 17, 1958	21.72	15,900
1949	Nov. 28, 1948	25.27	22,900				

a From information by local residents.

b Less than 19.0 ft, bottom of gage.

2906.6. Bayou Pierre near Port Gibson, Miss.

Location.--Lat 31°59'58", long 90°58'00", in sec.23, T.12 N., R.3 E., Washington meridian, at bridge on U. S. Highway 61, 3¼ miles north of Port Gibson and 21 miles upstream from mouth.

Drainage area.--678 sq mi.

Gage.--Recording. Datum of gage is 52.84 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements.

Historical data.--Flood prior to 1936 (believed to be June 1928), reached a stage of 43.7 ft, from information by State Highway Department.

Remarks.--Gage-height records and discharge measurements furnished by Corps of Engineers. Base for partial-duration series, 13,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Feb. 5, 1945	38.82	23,800	1953	Feb. 24, 1953	31.0	17,500
1946	June 1, 1946	34.4	20,400	Mar. 12, 1953	28.2	14,800	
1947	Apr. 11, 1947	34.61	20,500	Mar. 15, 1953	26.7	13,200	
1948	Apr. 14, 1948	31.5	a18,000	Apr. 30, 1953	40.9	25,400	
1949	Nov. 29, 1948	38.30	23,400	May 5, 1953	31.2	17,700	
	Apr. 1, 1949	35.00	20,900	May 19, 1953	41.20	25,600	
1950	Jan. 6, 1950	33.40	19,700	1954	Mar. 28, 1954	32.7	19,000
	Feb. 3, 1950	34.0	20,100	May 1, 1954	38.70	23,700	
	Feb. 10, 1950	31.52	17,900	May 11, 1954	27.6	14,200	
	Feb. 14, 1950	36.55	22,000	1955	Feb. 6, 1955	34.6	20,500
	Feb. 22, 1950	31.19	17,700	Feb. 21, 1955	31.1	17,600	
	Mar. 13, 1950	29.15	15,700	Apr. 14, 1955	37.98	23,200	
	Mar. 15, 1950	27.61	14,200	1956	Feb. 4, 1956	29.6	16,200
	Mar. 27, 1950	38.06	23,200	Mar. 16, 1956	34.15	20,200	
	May 3, 1950			1957	Apr. 4, 1957	29.95	16,300
1951	Feb. 1, 1951	34.05	20,000	June 28, 1957	28.0	14,600	
	Mar. 28, 1951	30.6	16,700	1958	Nov. 14, 1957	28.9	15,400
	Apr. 22, 1951	30.6	16,700	Nov. 19, 1957	29.2	15,800	
1952	Feb. 23, 1952	24.70	10,600	Jan. 21, 1958	28.90	15,400	
1953	Feb. 15, 1953	27.8	14,400	Mar. 24, 1958	28.23	14,800	
	Feb. 21, 1953	27.9	14,500	Apr. 30, 1958	27.55	14,000	
				June 17, 1958	34.08	20,000	

a Maximum daily.

ST. CATHERINE CREEK BASIN

2909. St. Catherine Creek near Natchez, Miss.

Location.--Lat 31°32'30", long 91°21'43", in sec.75, T.7 N., R.3 W., Washington meridian, at bridge on Liberty road, 2½ miles southeast of Natchez.

Drainage area.--53 sq mi.

Gage.--Recording. Datum of gage is 74.35 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 15,000 cfs.

Bankfull stage.--18 ft.

Remarks.--Gage-height records and current-meter measurements furnished by Corps of Engineers. Only annual peaks are shown.

ST. CATHERINE CREEK BASIN

Peak stages and discharges of St. Catherine Creek near Natchez, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	May 2, 1950	24.90	16,300	1955	Apr. 12, 1955	27.74	20,600
1951	June 16, 1951	18.70	8,400	1956	Feb. 4, 1956	13.1	3,500
1952	Dec. 8, 1951	17.0	6,700	1957	June 27, 1957	16.7	6,500
1953	May 17, 1953	33.80	31,000	1958	Nov. 8, 1957	18.80	8,500
1954	Apr. 30, 1954	32.15	28,000				

HOMOCHITTO RIVER BASIN

2910. Homochitto River at Eddiceton, Miss.

Location.--Lat 31°30', long 90°47', near center of sec.11, T.6 N., R.4 E., Washington meridian, at Mississippi Central Railroad Co. bridge, 900 ft downstream from U. S. Highway 84, 0.4 mile upstream from McCall Creek, and three-quarters of a mile east of Eddiceton.

Drainage area.--180 sq mi, approximately.

Gage.--Nonrecording prior to May 25, 1942, at site 900 ft upstream; recording thereafter at present site. Datum of gages is 217.22 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 18,000 cfs at former site, and below 20,000 cfs at present site. Relation subject to shifts.

Bankfull stage.--13 ft.

Remarks.--Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Mar. 29, 1939	12.73	30,900	1950	Feb. 13, 1950	9.64	10,800
1940	July 3, 1940	11.09	20,600		Mar. 1, 1950	9.62	10,800
1941	Dec. 13, 1940	10.7	18,200		Mar. 15, 1950	10.34	12,900
1942	May 15, 1942	12.0	26,000		May 2, 1950	15.74	26,200
1943	Apr. 9, 1943	9.74	11,800	1951	Mar. 28, 1951	8.56	8,310
1944	Mar. 29, 1944	13.84	21,000	1952	Dec. 14, 1951	6.70	4,660
1945	Feb. 5, 1945	9.10	10,500	1953	Feb. 24, 1953	10.44	12,600
1946	Feb. 6, 1946	9.98	13,100		Mar. 11, 1953	8.82	9,130
1947	Nov. 10, 1946	10.30	12,900		Apr. 29, 1953	13.57	20,400
	Jan. 19, 1947	10.53	13,500		May 4, 1953	12.33	17,200
	Mar. 13, 1947	10.10	12,300		May 17, 1953	16.37	28,100
	Apr. 1, 1947	14.52	21,700	1954	Mar. 27, 1954	6.73	4,960
	Apr. 11, 1947	12.01	19,700	1955	Feb. 6, 1955	10.49	12,800
	Apr. 20, 1947	9.41	10,300		Feb. 21, 1955	10.86	13,800
1948	Mar. 2, 1948	9.27	10,000		Apr. 10, 1955	11.69	15,700
1949	Nov. 28, 1948	10.83	14,700		Apr. 13, 1955	14.67	23,400
	Jan. 5, 1949	9.04	9,250	1956	Feb. 3, 1956	9.08	9,760
	Mar. 31, 1949	14.70	23,400		Mar. 15, 1956	9.76	11,300
1950	Jan. 6, 1950	15.34	25,000	1957	June 28, 1957	9.66	11,000
				1958	Nov. 18, 1957	8.75	9,130
					June 16, 1958	11.59	15,400

2912.5. McCall Creek near Lucien, Miss.

Location.--Lat 31°31', long 90°39', in SW $\frac{1}{4}$ sec.6, T.6 N., R.6 E., Washington meridian, at bridge on U. S. Highway 84, 0.8 mile east of Lucien.

Drainage area.--60 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Poorly defined below 5,400 cfs by two current-meter measurements, extended by logarithmic plotting.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	-	(a)	-	1956	Mar. 15, 1956	84.31	5,100
1953	May 18, 1953	89.02	8,250	1957	June 28, 1957	88.2	7,700
1954	-	(a)	-	1958	June 16, 1958	85.44	5,900
1955	Apr. 13, 1955	89.44	8,450				

a Below 84.2 ft, bottom of gage.

2915. Homochitto River near Bude, Miss.

Location.--Lat 31°26', long 90°51', in NE $\frac{1}{4}$ sec.5, T.6 N., R.3 E., Washington meridian, at bridge on old State Highway 44, a quarter of a mile downstream from Porter Creek, 1.6 miles southwest of Bude, and 5.0 miles upstream from Middle Fork.

Drainage area.--399 sq mi.

Gage.--Recording.

Stage-discharge relation.--Defined by current-meter measurements below 33,000 cfs.

Bankfull stage.--13 ft.

Remarks.--Base for partial-duration series, 20,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	May 15, 1942	12.18	25,300	1947	Apr. 11, 1947	12.87	28,000
1943	Dec. 27, 1942	11.50	22,200	1948	Mar. 2, 1948	11.56	21,500
1944	Mar. 29, 1944	14.45	36,200	1949	Nov. 26, 1948	12.40	25,500
1945	Feb. 5, 1945	10.38	19,200		Nov. 28, 1948	12.15	24,500
1946	Feb. 6, 1946	11.62	23,000		Mar. 31, 1949	14.26	35,600
1947	Jan. 19, 1947	11.81	22,500	1950	Jan. 6, 1950	16.60	49,400
	Mar. 13, 1947	12.20	24,500		Mar. 1, 1950	11.30	20,000
	Apr. 1, 1947	15.25	41,000		Mar. 15, 1950	11.75	22,500
					May 2, 1950	15.85	44,600

HOMOCHITTO RIVER BASIN

2925. Homochitto River at Rosetta, Miss.

Location.--Lat 31°19'20", long 91°06'20", in sec.12, T.4 N., R.1 E., Washington meridian, at bridge on State Highway 33 at Rosetta, 800 ft downstream from Illinois Central Railroad bridge, 1 mile downstream from Foster Creek, and 5 miles upstream from Dry Creek.

Drainage area.--750 sq mi, approximately.

Gage.--Recording. Datum of gage is 94.39 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements. Relation subject to shifts.

Bankfull stage.--37 ft.

Remarks.--Gage-height records prior to 1952 furnished by Corps of Engineers. Only peak stages are shown prior to 1952. Base for partial-duration series, 16,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Mar. 31, 1949	37.80	-	1954	May 3, 1954	24.08	9,160
1950	Jan. 6, 1950	37.60	-	1955	Feb. 6, 1955	31.66	38,800
	May 2, 1950	36.95	-		Feb. 21, 1955	30.58	34,400
1951	Mar. 29, 1951	30.30	-		Apr. 10, 1955	30.80	35,200
					Apr. 13, 1955	35.62	57,200
1952	Dec. 15, 1951	25.72	9,930	1956	Mar. 15, 1956	28.6	47,500
1953	Feb. 21, 1953	27.86	17,700	1957	Dec. 22, 1956	26.79	34,000
	Feb. 24, 1953	31.41	37,500		Apr. 1, 1957	24.24	19,000
	Mar. 11, 1953	30.64	33,900		June 28, 1957	27.72	40,400
	Apr. 30, 1953	35.56	57,000		Sept. 27, 1957	27.68	40,400
	May 4, 1953	36.03	59,400	1958	Oct. 16, 1957	25.3	24,700
	May 13, 1953	27.59	20,600		Nov. 14, 1957	25.60	25,500
	May 15, 1953	26.62	16,900		Nov. 18, 1957	25.85	27,700
	May 18, 1953	35.91	58,800		Sept. 22, 1958	24.83	22,000

2940. Second Creek at Sibley, Miss.

Location.--Lat 31°23'20", long 91°23'20", in S½ sec.13, T.5 N., R.3 W., Washington meridian, at bridge on county highway, 0.7 mile east of Sibley and 5 miles upstream from mouth.

Drainage area.--55.3 sq mi.

Gage.--Recording prior to September 1942; crest-stage gage since 1952. At site 360 ft upstream during 1942. All gages at present datum.

Stage-discharge relation.--Defined by current-meter measurements below 9,800 cfs.

Bankfull stage.--10 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	May 15, 1942	8.56	-	1955	Apr. 13, 1955	11.36	13,500
1952	December 1951	7.55	6,040	1956	Feb. 4, 1956	8.62	7,420
1953	May 3, 1953	13.7	22,500	1957	June 27, 1957	11.73	14,700
1954	May 1, 1954	11.22	14,600	1958	Mar. 18, 1958	9.47	8,720

2945. Homochitto River near Doloroso, Miss.

Location.--Lat 31°19'53", long 91°21'37", in sec.10, T.4 N., R.2 W., Washington meridian, at bridge on U. S. Highways 61 and 65, about 1,200 ft downstream from Second Creek, 2.2 miles north of Doloroso, 10 miles upstream from mouth (through Armstrong Canal), 16 miles north of Woodville, and 16 miles south of Natchez.

Drainage area.--1,120 sq mi.

Gage.--Nonrecording prior to Jan. 31, 1940, and since November 1949; recording Jan. 31, 1940, to Sept. 30, 1946. Prior to Oct. 1, 1944, at datum 15.00 ft higher. Datum of present gage is 42.23 ft above mean Gulf level (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements. Relation subject to shifts.

Bankfull stage.--25 ft.

Remarks.--Gage-height records since 1952, furnished by Corps of Engineers. Base for partial-duration series, 19,000 cfs. Only annual peaks are shown for 1953-58.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Apr. 7, 1938	23.4	-	1946	Feb. 15, 1946	23.78	19,700
1940	May 2, 1940	18.71	22,200	1946	May 16, 1946	26.10	24,100
	July 4, 1940	21.23	35,300		1949	Mar. 31, 1949	26.44
	July 13, 1940	18.30	20,200	1950		Jan. 7, 1950	32.11
1941	Dec. 14, 1940	19.54	27,300	1951	Mar. 29, 1951	22.22	35,300
	Dec. 17, 1940	17.85	19,400		1953	May 19, 1953	33.00
	Dec. 28, 1940	18.28	21,800	1954		Sept. 17, 1954	19.35
1942	Dec. 24, 1941	18.80	24,300	1955	Apr. 13, 1955	30.87	69,000
1943	Mar. 27, 1943	15.54	17,100	1956	Feb. 4, 1956	18.50	23,000
	Mar. 24, 1944	12.90	23,900		1957	June 28, 1957	21.50
1944	Mar. 30, 1944	18.56	a44,400	1958		Sept. 22, 1958	16.05
	1945	Feb. 6, 1945	24.52		17,900		
1946	Feb. 7, 1946	25.23	22,300				

a Maximum daily.

b Record incomplete; yearly maximum probably occurred in November.

BUFFALO RIVER BASIN

2950. Buffalo River near Woodville, Miss.
(Published as "Buffalo Bayou" prior to 1951)

Location.--Lat 31°13'35", long 91°17'45", in SW $\frac{1}{4}$ sec.21, T.3 N., R.2 W., Washington meridian, at bridge on U. S. Highway 61, 1 $\frac{1}{2}$ miles downstream from Fords Creek, 2 $\frac{1}{2}$ miles west of Wilkinson, and 8 $\frac{1}{2}$ miles north of Woodville.

Drainage area.--182 sq mi.

Gage.--Nonrecording prior to June 1, 1942; recording thereafter. Datum of gage is 97.52 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 20,000 cfs and extended on basis of velocity-area study.

Bankfull stage.--16 ft.

Remarks.--Base for partial-duration series, 11,000 cfs.

BUFFALO RIVER BASIN

Peak stages and discharges of Buffalo River near Woodville, Miss.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Apr. 9, 1942	10.00	12,000	1950	Jan. 6, 1950	12.82	25,200
1943	Dec. 27, 1942	10.00	12,500	1951	Apr. 22, 1951	12.18	22,200
	Feb. 5, 1943	11.87	20,700		June 17, 1951	13.26	27,700
	Mar. 20, 1943	11.18	16,100	1952	May 19, 1952	7.17	5,460
	Mar. 26, 1943	11.78	18,000				
1944	Mar. 19, 1944	9.48	11,100	1953	Mar. 11, 1953	9.76	12,700
1945	Jan. 6, 1945	9.98	12,500	May 4, 1953	15.66	37,200	
	Feb. 5, 1945	10.82	15,100	May 13, 1953	11.32	18,200	
				May 18, 1953	9.38	11,400	
1946	Feb. 6, 1946	11.85	18,000	1954	Mar. 27, 1954	7.50	6,500
	Feb. 13, 1946	10.56	14,200				
	Mar. 15, 1946	11.65	17,300	1955	Feb. 5, 1955	9.36	11,500
	May 15, 1946	9.72	11,600		Feb. 21, 1955	11.64	19,300
	May 17, 1946	12.50	23,700		Apr. 10, 1955	11.76	20,100
	May 31, 1946	11.20	16,100		Apr. 13, 1955	16.09	39,400
			July 30, 1955	11.10	17,300		
1947	Nov. 11, 1946	15.00	33,900	1956	Mar. 11, 1956	10.56	15,300
	Jan. 13, 1947	9.90	12,200		Mar. 15, 1956	12.68	23,700
	Mar. 13, 1947	11.05	15,400				
1948	Jan. 27, 1948	9.84	11,900	1957	Dec. 22, 1956	11.18	17,700
	Mar. 2, 1948	16.2	39,900		June 28, 1957	10.42	14,500
	Sept. 13, 1948	10.26	13,400				
1949	Nov. 19, 1948	10.45	13,700	1958	Nov. 14, 1957	11.93	20,500
	Nov. 26, 1948	11.86	19,600		June 22, 1958	12.24	21,700
	Dec. 16, 1948	13.40	27,000		Sept. 22, 1958	14.43	30,900
	Mar. 21, 1949	11.34	17,200				

RED RIVER BASIN

2955. Tierra Blanca Creek at reservoir, near Umbarger, Tex.

Location.--Lat 34°55', long 102°96', at conduit tower just upstream from dam, 2 miles south of Umbarger, Randall County, and 20 miles upstream from Palo Duro Creek.

Drainage area.--2,075 sq mi, of which about 575 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 3,515.6 ft above mean sea level, datum of 1929. Auxiliary recording gage and weir 9 miles upstream from dam. Prior to Aug. 29, 1940, weir located about 7 miles upstream from dam.

Stage-discharge relation.--Peak inflow computed from rate of change in reservoir contents.

Historical data.--Flood of May 30, 1937, was highest known prior to completion of dam in 1938.

Remarks.--Reservoir capacity, 18,150 acre-ft. Reservoir used for recreational purposes. No regulation upstream from reservoir. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	May 30, 1937		a6,100	1947	May 15, 1947		2,200
1941	June 6, 1941		11,300	1948	June 24, 1948		43
1942	Oct. 24, 1941		2,580	1949	May 7, 1949		2,200
1943	Oct. 2, 1942		1,000	1950	July 18, 1950		3,500
1944	June 13, 1944		332	1951	May 17, 1951		9,760
1945	Aug. 15, 1945		1,700	1952	July 18, 1952		239
1946	Sept. 13, 1946		1,280	1953	Apr. 5, 1953		764
				1954	June 11, 1954		3,600

a By slope-area measurement.

2975. Prairie Dog Town Fork Red River near Canyon, Tex.

Location.--Lat 35°01', long 101°54', 1.2 miles downstream from confluence of Palo Duro and Tierra Blanca Creeks, 2 miles upstream from Palo Duro Club Dam, and 3½ miles northeast of Canyon, Randall County.

Drainage area.--3,369 sq mi, of which about 711 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Sept. 12, 1924, 2.3 miles downstream at different datum; recording thereafter. Sept. 13, 1924, to Oct. 21, 1926, and Apr. 6, 1938, to May 20, 1942, at site 0.8 mile downstream at present datum. Datum of present gage is 3,455.0 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 4,000 cfs and by critical-depth determination at 15,200 cfs.

Historical data.--Highest known flood prior to reconstruction of Palo Duro Club Dam in May 1941, occurred May 30, 1937, when river reached a stage of 9.7 ft, from floodmarks, at site 0.8 mile downstream. According to local residents, the flood of May 16, 1951, was greatest since at least 1904 or 1905.

Remarks.--Flow partly regulated by several reservoirs upstream; the principal ones being Tierra Blanca Creek Reservoir near Umbarger (capacity, 18,150 acre-ft), and Amarillo City Lake on Palo Duro Creek (capacity, 5,120 acre-ft). The major portion of floodwater originating above these reservoirs ordinarily will be retained in them. Base for partial-duration series, 500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1924	July 4, 1924	1.70	800	1943	July 9, 1943	10.96	1,230
1925	June 24, 1925	2.62	500	1944	July 12, 1944	10.43	910
1926	May 27, 1926	3.82	1,460	1945	Aug. 15, 1945	9.14	219
1938	May 18, 1938	4.38	1,180	1946	-	-	0
1939	June 21, 1939	5.10	1,520	1947	Oct. 7, 1946	13.39	3,090
1940	May 7, 1940	4.86	1,420		May 15, 1947	11.86	1,870
1941	May 31, 1941	8.12	1,270	1948	Sept. 21, 1948	9.18	237
	June 7, 1941	10.30	3,890	1949	Nov. 1, 1948	10.75	1,000
	June 9, 1941	9.35	2,610		May 7, 1949	10.02	608
	July 3, 1941	7.33	573		June 9, 1949	10.87	827
1942	Oct. 4, 1941	9.67	3,000	1951	May 16, 1951	a20.31	15,200
	Oct. 24, 1941	12.03	6,850				

a Annual peak only.

2980. North Tule Draw at reservoir, near Tulia, Tex.

Location.--Lat 34°33', long 101°42', at walkway to conduit intake valve, 250 ft to left of concrete spillway, 1 mile upstream from mouth, and 3.2 miles northeast of Tulia, Swisher County.

Drainage area.--About 189 sq mi, of which about 65 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Nov. 26, 1940; recording thereafter. Prior to Sept. 29, 1939, at datum 70.5 ft higher. Altitude of present gage is 3,310 ft (by barometer).

Stage-discharge relation.--Peak inflow is based on change in reservoir contents, flow over spillway (computed from spillway rating curve), and computed flow through conduit.

Remarks.--Dam completed Jan. 15, 1939. Reservoir capacity, 654 acre-ft. No regulation upstream from reservoir. Only annual peaks are shown.

RED RIVER BASIN

Peak stages and discharges of North Tule Draw at reservoir, near Tulia, Tex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	June 6, 1941	-	985	1951	May 15, 1951	-	5,430
1942	Oct. 4, 1941	-	3,110	1952	July 17, 1952	-	38
1943	July 9, 1943	-	1,140	1953	Apr. 5, 1953	-	987
1944	July 11, 1944	-	389	1954	June 9, 1954	-	4,680
1945	July 5, 1945	-	80	1955	May 31, 1955	-	1,390
1947	Oct. 5, 1946	-	1,370	1956	Oct. 2, 1955	-	54
1948	Aug. 3, 1948	-	390	1957	June 18, 1957	-	984
1949	Apr. 19, 1949	-	1,380	1958	Aug. 1, 1958	-	122

2985. Prairie Dog Town Fork Red River near Brice, Tex.

Location.--Lat 34°37'45", long 100°58'30", at upstream side of county road bridge in Briscoe County, 1 mile upstream from Byrnes (Battle) Creek, 3.4 miles upstream from Mulberry Creek, and 7½ miles southwest of Brice, Hall County.

Drainage area.--5,972 sq mi, of which about 1,493 sq mi contributes directly to surface runoff.

Gage.--Recording prior to June 30, 1944, 1,200 ft upstream at datum 6.0 ft higher; nonrecording Aug. 10, 1949, to July 30, 1951. Datum of last used gage was 2,070.08 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Subject to frequent shifts. Defined by current-meter measurements below 5,000 cfs at both sites. At site used prior to 1944, extended by logarithmic plotting and slope-area measurements at gage heights 3.7 and 4.8 ft. At site used 1949 to 1951, extended by logarithmic plotting and slope-area measurement at gage height, 10.32 ft.

Historical data.--According to local residents, the flood in 1933 was greatest known since 1906.

Remarks.--Slight regulation from three reservoirs on tributary streams (total capacity, 23,900 acre-ft). Base for partial-duration series, 18,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933		a14.8	-	1943	Oct. 16, 1942	4.70	28,100
1937	May 1937	a14.3	-		Apr. 16, 1943	4.00	19,000
1939	June 20, 1939	4.12	20,100	1944	June 29, 1944	3.20	10,400
1940	Sept. 4, 1940	4.84	30,300	1950	July 5, 1950	8.50	9,730
1941	June 9, 1941	3.75	22,100	1951	May 16, 1951	10.32	41,700
	June 15, 1941	4.25	25,400		May 16, 1951	9.10	24,500
1942	Oct. 4, 1941	5.18	42,100		May 17, 1951	8.63	19,300

a Site and datum used 1949-51.

2995. Prairie Dog Town Fork Red River near Estelline, Tex.

Location.--Lat 34°35', long 100°36', at downstream side of bridge on U. S. Highway 287, 180 ft upstream from Fort Worth and Denver Railway Co. bridge, 1.7 miles northwest of Estelline, Hall County, and 6.9 miles upstream from Baylor Creek.

Drainage area.--7,293 sq mi, of which about 2,524 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Dec. 16, 1938; recording and nonrecording gages thereafter. Jan. 10, 1924, to Sept. 10, 1925, at site 410 ft downstream. Datum of all gages is 1,754.60 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Subject to frequent shifts. Defined by current-meter measurements below 14,000 cfs and extended above.

Historical data.--Maximum stage known, about 14 ft in May 1908, from information by local residents.

Remarks.--Slight regulation from three reservoirs on tributary streams (total capacity, 23,900 acre-ft). Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1924	Aug. 22, 1924	5.50	19,700	1942	Oct. 4, 1941	6.78	24,100
1925	July 30, 1925	5.60	21,500	1943	Oct. 17, 1942	8.50	51,200
				1944	July 12, 1944	5.96	5,360
1938	June 16, 1938	8.30	40,000	1945	July 10, 1945	6.50	12,600
1939	Jan. 8, 1939	6.00	9,500				
1940	Sept. 5, 1940	7.15	24,100	1946	Aug. 28, 1946	6.7	18,100
				1947	Oct. 7, 1946	8.08	38,600
1941	June 9, 1941	8.86	56,000				

3000. Salt Fork Red River near Wellington, Tex.

Location.--Lat 34°57'25", long 100°13'30", near center of stream on downstream side of bridge on U. S. Highway 83, 4 miles downstream from Fort Worth and Denver (Burlington) Railway Co. bridge, 4.5 miles south of Lutie, and 6.5 miles north of Wellington, Collingsworth County.

Drainage area.--1,222 sq mi, of which about 1,013 sq mi contributes directly to surface runoff.

Gage.--Recording and nonrecording. Datum of gage is 1,941.41 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Subject to frequent shifts. Defined by current-meter measurements below 12,000 cfs and extended on basis of slope-area measurement at 63,400 cfs.

Bankfull stage.--20 ft.

Remarks.--Small diversions above station for irrigation. Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	-	17.5	-	1956	May 27, 1956	8.50	18,400
1953	July 19, 1953	13.90	63,400	1957	Oct. 15, 1956	6.30	6,660
					Apr. 28, 1957	8.86	21,000
1954	May 11, 1954	7.01	6,080		May 16, 1957	19.00	146,000
	May 24, 1954	7.65	8,640		May 24, 1957	7.01	10,800
	June 10, 1954	16.00	95,900		Aug. 4, 1957	6.00	5,460
					Aug. 29, 1957	6.05	6,260
1955	May 19, 1955	9.25	23,000				
	June 2, 1955	7.62	12,800	1958	May 13, 1958	12.50	51,700
	June 8, 1955	6.37	6,870		July 6, 1958	6.15	7,080
	June 19, 1955	9.30	23,700				

3005. Salt Fork Red River at Mangum, Okla.

Location.--Lat 34°52', long 99°31', in SW¹/₄SE¹/₄ sec.34, T.5 N., R.22 W., near left bank on downstream side of pier of bridge on State Highway 34, half a mile south of Mangum, 13 miles downstream from Fish Creek, and at mile 35.5.

Drainage area.--1,566 sq mi, of which about 1,357 sq mi contributes directly to surface runoff.

Gage.--Nonrecording at site a quarter of a mile upstream at unknown datum during 1905-6 and at present site Oct. 1, 1937, to Nov. 8, 1938; recording thereafter. Datum of present gage is 1,490.87 ft above mean sea level, datum of 1929 (levels by Bureau of Reclamation).

Stage-discharge relation.--Defined by current-meter measurements below 50,000 cfs and extended above.

Bankfull stage.--9 ft.

Historical data.--Local residents indicate that flood in 1938 is maximum known.

Remarks.--Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1938	May 19, 1938	9.74	10,400	1949	Feb. 6, 1949	9.51	6,320	
	June 10, 1938	9.20	6,900		May 13, 1949	9.65	6,540	
	June 16, 1938	14.7	60,000		May 18, 1949	10.56	11,900	
1939	June 21, 1939	10.44	15,400	1950	Sept. 11, 1950	9.31	5,690	
1940	July 12, 1940	8.71	6,850	1951	May 17, 1951	10.79	13,200	
					July 2, 1951	10.32	12,100	
1941	Apr. 28, 1941	11.18	23,300	1952	Apr. 21, 1952	8.62	3,030	
	May 3, 1941	9.70	11,400		1953	June 5, 1953	10.13	9,100
	May 20, 1941	10.50	17,400	July 19, 1953		13.75	44,800	
	May 24, 1941	9.32	7,610	1954		May 12, 1954	8.95	7,180
	June 6, 1941	10.54	17,800			May 24, 1954	9.19	8,240
	June 8, 1941	12.20	32,500			June 10, 1954	13.30	38,100
		June 29, 1941	9.80	11,400		1955	May 11, 1955	9.02
		Sept. 17, 1941	9.31	8,790	May 16, 1955		9.08	7,180
1942	Oct. 4, 1941	8.86	5,700	May 19, 1955	10.77	16,600		
	Oct. 23, 1941	9.47	8,370	June 3, 1955	9.21	7,600		
1943	Oct. 15, 1942	10.45	15,800	June 8, 1955	9.75	10,300		
	Oct. 17, 1942	8.92	6,000	June 19, 1955	10.61	15,400		
1944	June 1, 1944	9.92	9,240	Sept. 18, 1955	8.81	6,190		
	June 13, 1944	10.95	16,900	1956	Oct. 4, 1955	10.20	13,100	
1945	June 5, 1945	8.77	6,160		May 2, 1956	11.34	19,800	
					May 27, 1956	12.20	35,900	
1946	Apr. 29, 1946	9.68	10,500		July 17, 1956	10.10	19,100	
	1947	May 12, 1947	11.35	21,400	1957	Apr. 20, 1957	8.95	6,380
May 15, 1947		9.00	9,200	Apr. 28, 1957		10.30	11,500	
May 20, 1947		8.96	8,660	May 8, 1957		9.30	7,390	
June 12, 1947		9.26	7,240	May 16, 1957		14.55	72,000	
June 22, 1947		9.1	6,420	May 25, 1957		8.90	10,200	
June 25, 1947		8.9	8,080	1958		May 13, 1958	12.18	32,500
July 18, 1947		9.70	8,660			May 17, 1958	8.23	6,100
1948		June 21, 1948	11.77	21,500				

3015. North Fork Red River near Carter, Okla.

Location.--Lat 35°10', long 99°30', in NW¹SE¹ sec.15, T.8 N., R.22 W., near left bank on downstream side of pier of bridge on State Highway 34, 3 miles south of Carter, 10.8 miles downstream from Timber Creek, and at mile 110.5.

Drainage area.--2,337 sq mi, of which about 1,938 sq mi contributes directly to surface runoff.

Gage.--Recording. Datum of gage is 1,673.71 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 18,000 cfs and extended above.

Bankfull stage.--11 ft.

Remarks.--Base for partial-duration series, 3,200 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	June 21, 1945	8.63	6,360	1951	May 21, 1951	8.96	9,930
	Aug. 15, 1945	7.49	4,040		June 2, 1951	8.70	9,490
1946	May 31, 1946	6.54	1,580	1952	June 6, 1951	9.26	11,400
					Apr. 22, 1952	6.62	2,010
1947	Oct. 7, 1946	8.50	6,120	1953	July 20, 1953	8.20	4,190
	May 12, 1947	10.37	15,000				
	May 15, 1947	7.01	4,080	1954	Oct. 23, 1953	9.01	5,550
	May 20, 1947	9.75	12,800		Apr. 30, 1954	10.51	9,070
	June 7, 1947	8.03	7,010		May 11, 1954	8.71	5,360
	June 20, 1947	7.24	4,920		May 24, 1954	11.24	12,700
June 25, 1947	7.53	5,680					
1948	Mar. 1, 1948	7.21	4,800	1955	May 16, 1955	8.75	5,170
	May 25, 1948	8.11	6,070		May 19, 1955	9.59	6,910
	June 21, 1948	8.33	7,010		June 5, 1955	7.86	3,390
			June 9, 1955		8.09	3,840	
1949	Nov. 2, 1948	6.96	3,400	1956	June 18, 1955	8.42	4,410
	Feb. 6, 1949	8.10	6,330		Oct. 4, 1955	10.14	9,450
	May 7, 1949	9.30	10,400		May 1, 1956	9.00	6,510
	May 17, 1949	7.45	5,050	May 28, 1956	9.82	8,080	
	May 27, 1949	7.81	6,070				
	June 3, 1949	7.07	4,800	1957	Apr. 19, 1957	10.39	10,600
			Apr. 23, 1957		9.80	9,470	
			Apr. 26, 1957		8.03	4,360	
			May 4, 1957		9.68	9,110	
			May 11, 1957		8.86	6,240	
1950	May 13, 1950	8.55	7,010	May 17, 1957	11.95	25,300	
	May 18, 1950	10.34	16,400				
	June 2, 1950	6.84	3,290	1958	May 13, 1958	8.10	5,360
	June 11, 1950	7.35	4,440		June 21, 1958	8.63	6,660
	July 5, 1950	8.50	8,580		June 24, 1958	7.64	5,240
	July 20, 1950	8.35	7,430		July 5, 1958	7.58	3,920
	Aug. 1, 1950	7.60	4,920		July 22, 1958	7.86	3,500
Aug. 17, 1950	8.67	8,000					
1951	May 18, 1951	9.45	18,300				

3020. North Fork Red River near Granite, Okla.
(Published as "Red River (North Fork) near Granite" 1903-4, and as "North
Fork Red River at Lugert Dam" 1930-32)

Location.--Lat 34°58', long 99°20', on south line of sec.20, T.6 N., R.20 W., near center of span on downstream side of pier of bridge on State Highway 9, 2½ miles east of Granite, 6.4 miles upstream from Lugert Dam, and at mile 80.0.

Drainage area.--2,494 sq mi, of which about 2,095 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to 1938; recording thereafter. July 1903 to March 1908 at site 50 ft downstream at datum 4.90 ft lower. Apr. 19, 1930, to Dec. 31, 1932, at old Lugert Dam, 6.5 miles downstream at datum 1,504.31 ft above mean sea level, unadjusted. Datum of last used gage was 1,534.85 ft above mean sea level, datum of 1929.

Stage-discharge relation.--1903-8: Defined by current-meter measurements below 6,000 cfs.

1930-32: Defined by current-meter measurements below 360 cfs and extended by computation of flow over dam.

1937-44: Defined by current-meter measurements below 14,000 cfs.

Bankfull stage.--8 ft.

Historical data.--In 1931, the Corps of Engineers reported that the maximum flood known occurred in 1903. A stage of 16 ft shown on bridge plans (last used site and datum) may have occurred at that time.

Remarks.--Base for partial-duration series, 3,200 cfs. Only annual peaks are shown prior to 1938.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1904	May 3, 1904	8.5	9,500	1941	May 1, 1941	5.51	6,180
1905	May 27, 1905	12.0	18,800	May 4, 1941	6.52	7,180	
1906	Nov. 24, 1905	10.0	9,000	May 21, 1941	8.72	16,400	
1907	June 21, 1907	11.0	10,000	May 24, 1941	8.30	13,500	
1928	May 16, 1928	14.5	14,300	May 27, 1941	4.52	4,160	
1930	May 7, 1930	13.70	10,400	June 2, 1941	4.46	4,050	
1931	Oct. 13, 1930	12.10	4,390	June 6, 1941	4.74	4,200	
1932	June 26, 1932	11.5	2,680	June 9, 1941	8.21	12,800	
1935	May 18, 1935	9.8	28,000	June 23, 1941	4.95	4,300	
1938	Apr. 27, 1938	5.00	5,120	June 30, 1941	4.68	3,820	
	May 19, 1938	7.11	9,770	Aug. 27, 1941	7.08	8,550	
	June 16, 1938	4.22	3,790	1942	Oct. 24, 1941	8.12	12,200
1939	May 8, 1939	6.75	8,960	Apr. 19, 1942	5.84	5,050	
	June 19, 1939	4.68	4,490	Apr. 24, 1942	6.70	7,090	
	June 22, 1939	6.84	9,080	Apr. 27, 1942	9.55	23,900	
	July 2, 1939	4.45	3,990	June 9, 1942	7.08	8,230	
1940	July 2, 1940	4.50	4,090	June 22, 1942	8.38	14,200	
				1943	Oct. 15, 1942	6.51	6,290
					Oct. 17, 1942	7.52	7,080
				1944	June 1, 1944	7.37	5,220
					June 13, 1944	8.6	10,400
					July 25, 1944	6.91	3,920
					July 30, 1944	7.07	4,410
					Sept. 28, 1944	6.52	3,260

3030. North Fork Red River below Altus Dam, near Lugert, Okla.
(Published as "at Lugert Dam" 1930-32)

Location.--Lat 34°53'26", long 99°18'22", in SW $\frac{1}{4}$ sec.22, T.15 N., R.20 W., on right bank 3,500 ft downstream from Altus Dam, 1.9 miles upstream from Elm Fork of North Fork, 2 miles west of Lugert, and at mile 72.8.

Drainage area.--2,515 sq mi, of which about 2,116 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Dec. 31, 1932, at old Lugert Dam, 0.7 mile upstream at datum 1,504.31 ft above mean sea level, unadjusted; recording thereafter at present site and datum. Datum of present gage is 1,471.81 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 11,000 cfs and extended above.

Bankfull stage.--18 ft.

Remarks.--Flow regulated since 1943 by Lake Altus (capacity, 148,600 acre-ft). Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1928	May 16, 1928	14.5	14,300	1952	Apr. 21, 1952	1.95	24	
1930	May 7, 1930	13.70	10,400	1953	June 5, 1953	3.16	(a)	
				1954	-	-	No flow	
				1955	-	-	No flow	
1931	Oct. 13, 1930	12.10	4,390	1956	-	-	No flow	
1932	June 26, 1932	11.5	2,680		1957	-	-	No flow
1951	May 18, 1951	12.70	16,100		1958	-	-	No flow

a Negligible flow.

3035. Elm Fork of North Fork Red River near Mangum, Okla.
(Published 1905-8 as "Elm Fork of Red River")

Location.--Lat 34°56', long 99°30', on east line of sec.10, T.5 N., R.22 W., near right bank on downstream side of pier of bridge on U. S. Highway 283, 3 miles north of Mangum, 5 miles downstream from Haystack Creek, and at mile 17.8.

Drainage area.--838 sq mi.

Gage.--Nonrecording 1905-8 at unknown datum and 1930-31 at datum 4.22 ft lower than last used gage; recording thereafter at datum 1,530.77 ft above mean sea level, datum of 1929 (Bureau of Reclamation bench mark).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--11 ft.

Remarks.--Base for partial-duration series, 2,400 cfs. Only annual peaks are shown prior to 1930.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	May 27, 1905	15.0	23,000	1930	June 10, 1930	9.2	2,550
1906	Sept. 17, 1906	8.0	6,200	1931	Oct. 14, 1930	9.0	2,440
1907	June 9, 1907	10.2	10,900				
1908	Oct. 3, 1907	a13.0	17,500	1938	May 16, 1938	6.44	4,180
		b16.4	-		May 19, 1938	7.38	6,860
June 10, 1938	8.07				10,400		
June 16, 1938	9.15				18,600		
1921	-	-	-		June 25, 1938	6.59	4,470
1930	May 6, 1930	9.7	2,860	1939	Jan. 8, 1939	7.76	8,580

a Maximum observed; may have been exceeded in May or June 1908.

b At present datum, from information by State Highway Commission.

Peak stages and discharges of Elm Fork of North Fork Red River near Mangum, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1939	Mar. 27, 1939	5.37	2,500	1942	June 23, 1942	6.11	2,900	
	May 26, 1939	9.00	17,200		1943	Oct. 15, 1942	7.66	5,050
	June 21, 1939	8.53	13,800	Oct. 18, 1942		6.61	3,380	
1940	Sept. 23, 1940	4.93	1,690	1944	Mar. 15, 1944	5.77	2,430	
1941	Apr. 16, 1941	5.98	3,410		June 1, 1944	5.73	2,470	
	Apr. 19, 1941	5.28	2,440	June 13, 1944	7.00	3,760		
	Apr. 29, 1941	7.77	8,580	July 13, 1944	8.12	6,200		
	May 2, 1941	8.10	8,000	1945	June 16, 1945	8.70	7,580	
	May 21, 1941	11.17	21,200		July 10, 1945	6.77	3,300	
	May 24, 1941	8.54	9,250		1946	May 31, 1946	6.07	2,670
	June 6, 1941	7.36	4,920			Oct. 6, 1946	7.58	4,610
	June 9, 1941	11.05	20,400			Apr. 15, 1947	6.27	2,840
	June 16, 1941	6.42	3,600	May 12, 1947		13.52	30,600	
	June 23, 1941	6.54	3,760	May 15, 1947		8.02	5,470	
	June 29, 1941	8.04	6,530	May 20, 1947		8.96	6,710	
	Aug. 27, 1941	7.01	7,700	May 24, 1947		6.32	2,780	
	Sept. 18, 1941	6.38	3,400	June 5, 1947		6.40	3,000	
1942	Oct. 22, 1941	7.80	5,860	June 20, 1947	6.08	3,000		
	Apr. 24, 1942	6.97	4,380	June 25, 1947	5.66	2,460		
	Apr. 27, 1942	11.18	27,800					
	May 11, 1942	6.17	3,950					

3045. Elk Creek near Hobart, Okla.

Location.--Lat 34°55', long 99°07', in NE $\frac{1}{4}$ sec.17, T.5 N., R.18 W., near right bank on downstream side of pier of county highway bridge, 7 miles downstream from Little Elk Creek, 7 $\frac{1}{2}$ miles south of Hobart, and 10.9 miles upstream from mouth.

Drainage area.--549 sq mi.

Gage.--Nonrecording 1904-8, June 6, 1951, to Oct. 23, 1952, and May 7, 1953, to Apr. 28, 1954; recording during remainder of period. Prior to Apr. 13, 1905, at site 3 miles southwest of Hobart at unknown datum. Apr. 13, 1905, to Mar. 31, 1908, at present site at datum 1,430.56 ft above mean sea level, unadjusted. Datum of present gage is 1,429.4 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 6,000 cfs and extended on basis of field estimate at 22,400 cfs.

Bankfull stage.--27 ft.

Remarks.--Base for partial-duration series, 1,800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	May 28, 1905	25.0	3,500	1954	Oct. 23, 1953	19.64	2,240
1906	July 11, 1906	16.0	1,310		May 24, 1954	18.60	1,870
1907	June 9, 1907	28.9	-	1955	May 9, 1955	18.76	2,040
1949	May 1949	a28.63	8,400		May 16, 1955	18.08	1,920
					May 19, 1955	23.30	3,270
				1956	Oct. 4, 1955	30.75	22,400
					May 28, 1956	18.70	2,130
					July 17, 1956	19.54	2,300
1950	July 17, 1950	19.00	2,200	1957	Apr. 3, 1957	18.67	2,080
	July 22, 1950	21.15	3,320		Apr. 21, 1957	18.21	2,140
	July 26, 1950	17.05	2,170		Apr. 24, 1957	23.55	3,790
	Aug. 2, 1950	15.66	1,860		May 3, 1957	20.50	2,800
	1951	May 18, 1951	27.89		6,090	May 5, 1957	25.78
May 21, 1951		18.89	2,650	May 10, 1957	22.53	3,100	
May 23, 1951		23.87	3,860	May 18, 1957	21.90	2,860	
June 7, 1951		20.5	2,990	May 25, 1957	20.08	2,420	
June 10, 1951		21.11	3,180	1958	June 21, 1958	18.50	2,220
1952		Apr. 22, 1952	17.5		2,040		
	1953	Apr. 6, 1953	17.82		2,120		
June 6, 1953		25.2	4,050				

a Annual peak only.

3050. North Fork Red River near Headrick, Okla.
(Published as "near Snyder" April to June 1905)

Location.--Lat 34°38', long 99°06', in center of N $\frac{1}{2}$ sec.21, T.2 N., R.18 W., near right bank on downstream side of pier of bridge on U. S. Highway 62, 2 $\frac{1}{2}$ miles east of Headrick, 12.9 miles upstream from Otter Creek, and at mile 33.0.

Drainage area.--4,244 sq mi, of which about 3,845 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to 1938 at different sites and unknown datum; recording thereafter at present site. Datum of gage is 1,299.83 ft above mean sea level, datum of 1929 (Bureau of Reclamation bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 28,000 cfs at present site. Peak discharge for 1907 obtained from curve extended above 9,600 cfs on basis of runoff comparisons. Peaks for historic flood which reached a stage of 16.1 ft and flood of May 18, 1935, computed by logarithmic extension above 28,000 cfs. Rating has been stable for several years.

Bankfull stage.--7 ft.

Remarks.--Some regulation since December 1943 by Lake Altus (capacity, 142,900 acre-ft), 39.5 miles above station. Base for partial-duration series, 5,000 cfs. Only annual peaks are shown prior to 1938.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
-	-	a16.1	b85,000	1946	June 2, 1946	5.17	3,830
1905	May 27, 1905	8.0	29,000	1947	May 13, 1947	9.85	21,700
1906	Nov. 24, 1905	7.0	12,500		May 16, 1947	7.98	12,200
					May 21, 1947	7.83	13,000
					May 25, 1947	6.75	7,760
1907	June 9, 1907	10.1	30,000		June 1, 1947	8.08	13,000
					June 26, 1947	6.20	6,040
1935	May 18, 1935	a14.8	b60,000	1948	June 22, 1948	7.24	8,980
1938	May 4, 1938	6.22	5,810	1949	May 19, 1949	9.55	20,600
	May 20, 1938	7.09	9,800		May 28, 1949	6.47	5,340
	June 10, 1938	6.70	8,900		June 4, 1949	6.86	6,480
	June 16, 1938	7.54	12,500	1950	July 21, 1950	7.61	12,600
	June 26, 1938	6.09	6,230		July 26, 1950	6.51	6,940
1939	Jan. 9, 1939	7.19	11,400		Aug. 3, 1950	6.68	7,100
	May 26, 1939	7.01	9,800	1951	May 19, 1951	9.96	24,900
	June 22, 1939	7.70	13,400		May 23, 1951	7.63	12,300
1940	Apr. 29, 1940	4.57	1,580		May 25, 1951	6.27	7,160
1941	May 5, 1941	8.52	16,100		June 7, 1951	9.36	19,300
	May 21, 1941	9.60	21,200		June 12, 1951	6.42	6,690
	May 23, 1941	8.16	15,200		June 19, 1951	6.06	5,370
	May 24, 1941	8.82	17,500	1952	Apr. 23, 1952	5.71	4,560
	June 7, 1941	8.34	13,400	1953	June 6, 1953	9.08	17,900
	June 10, 1941	10.85	27,400		July 20, 1953	8.46	11,700
	June 16, 1941	5.89	6,200	1954	Oct. 23, 1953	7.88	10,100
	June 24, 1941	5.68	7,200		May 12, 1954	6.42	5,080
	June 30, 1941	5.90	5,650		May 25, 1954	9.40	17,300
	Aug. 28, 1941	6.15	6,600	1955	May 17, 1955	6.88	7,510
1942	Oct. 23, 1941	8.95	18,900		May 20, 1955	7.96	11,400
	Apr. 25, 1942	7.33	10,200	1956	Oct. 5, 1955	11.50	30,700
	Apr. 28, 1942	8.33	15,700		May 3, 1956	8.25	13,700
	Apr. 30, 1942	6.38	6,400		May 28, 1956	10.10	24,500
	May 12, 1942	6.01	5,320		July 18, 1956	6.00	6,110
	June 10, 1942	6.54	7,410	1957	Apr. 23, 1957	8.93	18,300
	June 23, 1942	8.50	15,200		May 4, 1957	9.36	20,100
	Sept. 19, 1942	5.91	5,360		May 10, 1957	8.31	13,500
1943	Oct. 15, 1942	7.26	9,740		May 12, 1957	9.05	17,700
	Oct. 18, 1942	7.41	10,600		May 19, 1957	8.04	12,000
1944	Mar. 16, 1944	5.79	5,190		May 26, 1957	7.16	7,600
	June 14, 1944	7.44	13,600		July 24, 1957	6.76	6,000
1945	Mar. 11, 1945	5.61	5,250	1958	June 22, 1958	6.61	5,910
	Apr. 11, 1945	6.41	8,010				
	Apr. 14, 1945	6.50	8,400				
	June 16, 1945	6.97	10,500				
	July 11, 1945	5.62	5,250				

a At present site and datum, from information by State Highway Commission and Corps of Engineers. The stage of 16.1 occurred sometime prior to 1927.

RED RIVER BASIN

3055. Otter Creek at Snyder Lake, near Mountain Park, Okla.
(Published as "near Mountain Park" 1903-8)

Location.--Lat 34°44', long 98°59', in NE $\frac{1}{4}$ sec.16, T.3 N., R.17 W., at intake tower at Snyder Dam on Otter Creek, 0.8 mile upstream from small tributary, 3 miles northwest of Mountain Park, and at mile 26.0.

Drainage area.--132 sq mi.

Gage.--Nonrecording prior to 1952 at site 1.8 miles upstream at different datum; recording since October 1951 at present site and datum. Datum of present gage is 1,360.99 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Outflow discharge defined by current-meter measurements below 1,600 cfs and extended on basis of computation of flow-over-dam in 1953.

Bankfull stage.--14 ft, at present site.

Remarks.--Some regulation by Snyder Lake (capacity, 1,353 acre-ft). Base for partial-duration series, 1,400 cfs. Only annual peaks are shown prior to 1952.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	Apr. 11, 1903	22.0	3,200	1954	May 24, 1954	14.29	1,850
1904	June 10, 1904	11.0	1,140	1955	May 19, 1955	15.83	4,440
1905	May 27, 1905	21.0	3,400		June 19, 1955	13.98	1,450
1906	Apr. 4, 1906	18.5	2,830	1956	Oct. 4, 1955	15.74	4,240
1907	June 9, 1907	22.8	5,000	1957	Apr. 21, 1957	14.27	1,780
					Apr. 23, 1957	14.34	1,920
1952	May 17, 1952	14.24	1,940		May 4, 1957	15.05	2,960
	May 23, 1952	14.35	2,140		May 13, 1957	14.62	2,260
1953	June 6, 1953	19.50	14,200		May 18, 1957	15.73	4,240
1954	Oct. 23, 1953	14.83	2,640		May 25, 1957	14.28	1,850
	May 1, 1954	14.19	1,710		June 2, 1957	14.34	1,920
	May 11, 1954	14.13	1,630	1958	July 24, 1957	16.26	5,310
					June 21, 1958	13.29	741

3065. Otter Creek at Mountain Park, Okla.

Location.--Lat 34°42', long 98°59', in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.34, T.3 N., R.17 W., at county highway bridge 500 ft upstream from Horse Creek, $\frac{1}{2}$ miles west of Mountain Park, 3.0 miles downstream from Snyder Lake, and at mile 23.0.

Drainage area.--164 sq mi, includes that of Horse Creek.

Gage.--Nonrecording prior to Oct. 19, 1946; recording thereafter. Datum of gage is 1,329.90 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--15 ft.

Remarks.--Some regulation by Snyder Lake (capacity, 1,355 acre-ft). Base for partial-duration series, 1,400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	May 23, 1946	14.32	1,440	1949	June 3, 1949	18.30	4,800
	May 28, 1946	16.08	2,380		June 10, 1949	17.59	4,330
1947	Apr. 15, 1947	16.04	2,300	1950	July 18, 1950	17.74	4,700
	May 12, 1947	17.30	3,730		Aug. 2, 1950	17.09	3,430
	May 16, 1947	17.89	5,110	1951	May 18, 1951	17.65	4,450
	June 1, 1947	17.20	3,570		May 20, 1951	16.90	3,180
1948	Dec. 4, 1947	14.82	1,620		June 7, 1951	16.30	2,550
	June 23, 1948	17.39	3,910		July 2, 1951	15.21	1,800
1949	May 18, 1949	14.77	1,620				

3075. Quitaque Creek near Quitaque, Tex.

Location.--Lat 34°14', long 101°07', on right bank about three-quarters of a mile upstream from W. F. Saul's ranchhouse, 1 mile downstream from Wilson Creek, 1½ miles upstream from Turkey Creek, 10 miles southwest of Quitaque, Briscoe County, and at mile 22.3.

Drainage area.--293 sq mi, of which about 35 sq mi contributes directly to surface runoff.

Gage.--Recording gage and concrete control. Datum of gage is 2,633.91 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 70 cfs and extended on basis of slope-area measurements at gage heights 2.70, 3.00, 5.59, and 8.62 ft.

Bankfull stage.--9 ft.

Remarks.--Base for partial-duration series, 500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Sept. 19, 1946	2.77	423	1953	Aug. 15, 1953	4.67	1,240
1947	May 8, 1947	3.57	720	1954	May 10, 1954	4.11	970
	May 10, 1947	5.59	1,720		June 1, 1954	3.61	740
	May 16, 1947	3.40	660		Aug. 23, 1954	3.37	680
1948	Sept. 8, 1948	3.00	520	1955	May 11, 1955	3.75	1,040
1949	May 28, 1949	3.66	785		May 18, 1955	6.15	2,000
	June 7, 1949	3.35	640		June 1, 1955	6.47	2,290
1950	June 11, 1950	3.03	536		June 2, 1955	4.37	1,350
	July 23, 1950	3.20	600	June 28, 1955	8.62	4,470	
	Sept. 4, 1950	5.57	1,700	1956	May 27, 1956	3.28	700
1951	May 17, 1951	3.08	556		June 17, 1956	3.01	536
	Sept. 9, 1951	3.69	780	1957	May 11, 1957	3.70	900
1952	July 14, 1952	2.07	152		May 31, 1957	7.50	2,900
					Aug. 4, 1957	6.33	6,060
				1958	June 23, 1958	2.32	812

3080. Pease River near Crowell, Tex.

Location.--Lat 34°06', long 99°41', at bridge on State Highway 283, 4 miles upstream from Raggedy Creek, 7 miles upstream from Kansas City, Mexico and Orient Railway (Santa Fe) bridge, 8 miles north of Crowell, Foard County, and at mile 43.9.

Drainage area.--3,037 sq mi approximately, of which about 2,478 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Apr. 12, 1930, and May 18, 1935, to Feb. 11, 1939; recording Apr. 12, 1930, to May 17, 1935, and since Feb. 12, 1939. Datum of gage is 1,330.44 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Subject to frequent shifts. Defined by current-meter measurements below 100,000 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1891	June 4, 1891	19.6	-	1929	May 12, 1929	8.88	37,200
				1930	Apr. 29, 1930	5.43	3,000
1924	Aug. 22, 1924	8.20	29,700	1931	June 9, 1931	8.85	36,900
1925	Sept. 14, 1925	8.50	33,000	1932	July 6, 1932	8.90	37,400
1926	Sept. 28, 1926	6.40	-	1933	July 6, 1933	8.50	33,000
1927	Oct. 3, 1926	9.92	48,800	1934	Sept. 14, 1934	7.10	18,000
1928	May 16, 1928	6.10	7,900	1935	May 17, 1935	12.06	74,700

Peak stages and discharges of Pease River near Crowell, Tex.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Sept. 18, 1936	13.00	86,000	1942	Apr. 28, 1942	10.95	75,800
1937	Aug. 22, 1937	9.00	38,500	1943	June 5, 1943	8.08	40,600
1938	June 25, 1938	8.1	40,000	1944	June 14, 1944	9.85	52,300
1939	June 21, 1939	11.00	63,200	1945	July 10, 1945	11.20	81,000
1940	May 28, 1940	7.62	24,400				
				1946	Sept. 13, 1946	7.70	19,200
1941	June 6, 1941	11.88	106,000	1947	May 16, 1947	8.43	30,400

3110. Cache Creek near Walters, Okla.

Location.--Lat 34°20', long 98°17', in SE $\frac{1}{4}$ sec. 19, T.2 S., R.10 W., on downstream side of central pier of bridge on State Highway 53, 1 $\frac{3}{4}$ miles east of Walters, 12.2 miles upstream from West Cache Creek, and at mile 19.7.

Drainage area.--675 sq mi.

Gage.--Nonrecording prior to Jan. 8, 1939; recording thereafter. Datum of gage is 938.2 ft above mean sea level (State Highway Commission bench mark).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--15 ft.

Historical data.--According to local residents, the flood in 1906 was similar to that of May 17, 1947.

Remarks.--Some regulation by reservoirs in basin of tributary, Medicine Creek. Base for partial-duration series, 1,600 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1906	-	a29.6	-	1945	May 31, 1945	22.52	3,130
					Apr. 12, 1945	19.32	2,240
1939	Aug. 9, 1939	8.90	657		Apr. 14, 1945	23.23	3,400
					Apr. 17, 1945	26.62	6,420
1940	July 3, 1940	17.42	2,020		June 13, 1945	22.87	3,280
	July 23, 1940	18.41	2,240		July 15, 1945	23.40	3,490
					Sept. 28, 1945	26.39	6,010
1941	Nov. 27, 1940	19.16	2,690		Sept. 30, 1945	27.45	9,500
	Feb. 2, 1941	16.43	1,990				
	May 1, 1941	15.18	1,730	1946	Oct. 5, 1945	19.16	2,090
	May 6, 1941	25.60	4,860		Feb. 19, 1946	19.84	2,300
	May 24, 1941	20.51	3,040		May 30, 1946	24.26	3,950
	June 3, 1941	17.42	2,230		June 2, 1946	26.87	7,100
	June 8, 1941	28.18	11,300		July 1, 1946	20.99	2,620
	June 11, 1941	24.57	3,990				
	June 17, 1941	24.40	3,890	1947	Dec. 12, 1946	21.44	2,740
					Apr. 16, 1947	26.09	5,840
1942	Oct. 2, 1941	26.28	5,570		May 14, 1947	26.14	5,550
	Oct. 16, 1941	18.03	2,000		May 17, 1947	29.62	25,600
	Oct. 31, 1941	25.97	5,200		May 24, 1947	25.16	4,580
	Apr. 9, 1942	24.94	4,150		June 3, 1947	26.64	6,420
	Apr. 25, 1942	20.45	2,480				
	June 24, 1942	25.32	4,500	1948	Dec. 6, 1947	24.96	4,420
	Aug. 27, 1942	22.66	3,230		Feb. 27, 1948	16.54	1,600
	Sept. 21, 1942	21.66	2,940		Mar. 2, 1948	20.17	2,420
					Mar. 16, 1948	17.25	1,750
1943	Apr. 12, 1943	16.60	1,840		Mar. 23, 1948	24.75	4,280
	May 11, 1943	27.34	8,750		Apr. 26, 1948	25.03	4,420
	May 18, 1943	25.69	5,100		June 25, 1948	19.5	2,250
	May 21, 1943	27.02	7,100				
	May 28, 1943	28.06	11,100	1949	Feb. 9, 1949	22.96	3,320
	June 5, 1943	16.50	1,640		May 2, 1949	17.58	1,740
					May 20, 1949	21.47	2,770
1944	Apr. 12, 1944	25.76	5,240		May 31, 1949	25.42	4,760
					June 5, 1949	25.03	4,420
1945	Oct. 4, 1944	23.60	3,580		June 11, 1949	17.85	1,870
	Mar. 4, 1945	23.15	3,400				
	Mar. 12, 1945	27.45	9,500	1950	May 12, 1950	27.56	6,420
	Mar. 16, 1945	17.83	2,000		June 4, 1950	24.34	3,280
	Mar. 20, 1945	17.97	2,040		June 22, 1950	24.18	3,240

a Annual peak only.

Peak stages and discharges of Cache Creek near Walters, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	July 19, 1950	20.22	2,050	1954	May 13, 1954	27.80	10,200
1951	May 18, 1951	29.72	28,200	1955	May 20, 1955	28.38	14,200
	May 26, 1951	17.47	1,610		May 27, 1955	22.71	2,740
	June 8, 1951	25.71	4,340		June 10, 1955	25.21	3,880
	June 10, 1951	21.43	2,380		Sept. 27, 1955	26.33	5,050
	June 12, 1951	27.23	7,150	1956	Oct. 6, 1955	27.79	10,200
	June 20, 1951	26.76	5,790				
	July 3, 1951	25.66	4,290				
1952	May 18, 1952	28.07	11,800	1957	Apr. 24, 1957	24.75	3,610
	May 24, 1952	19.36	1,920		Apr. 26, 1957	23.90	3,130
	June 2, 1952	22.44	2,650	May 1, 1957	18.30	1,690	
1953	Mar. 15, 1953 Mar. 31, 1953 June 7, 1953 July 21, 1953	20.79	2,230	May 4, 1957	27.53	8,820	
		23.81	3,090	May 10, 1957	21.58	2,440	
		26.52	5,350	May 19, 1957	26.51	5,350	
		20.94	2,250	May 23, 1957	20.56	2,110	
					May 26, 1957	28.80	15,000
1954	Oct. 24, 1953 Oct. 27, 1953 Nov. 20, 1953 Dec. 4, 1953 May 2, 1954	27.00	6,400	June 1, 1957	25.62	3,970	
		23.80	3,090	June 5, 1957	25.23	3,610	
		26.62	5,500	June 19, 1957	19.26	1,750	
		25.80	4,440	Sept. 23, 1957	23.86	3,020	
		22.11	2,620	1958	May 4, 1958	24.24	3,120

3115. Deep Red Run near Randlett, Okla.

Location.--Lat 34°13', long 98°27', in SW $\frac{1}{4}$ sec.10, T.4 S., R.12 W., near right bank on downstream side of pier of bridge on U. S. Highway 277, 2 $\frac{1}{2}$ miles north of Randlett and 4.8 miles upstream from mouth.

Drainage area.--617 sq mi.

Gage.--Recording. Datum of gage is 924.49 ft above mean sea level, datum of 1929 (State Highway Commission bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 13,000 cfs and extended above.

Bankfull stage.--20 ft.

Historical data.--During crest of 1951, local resident indicated "highest rise since 1908 when stage was somewhat higher."

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	May 11, 1950	24.18	9,400	1955	May 20, 1955	23.99	8,190
	May 27, 1950	21.40	2,710		Sept. 26, 1955	23.00	5,680
	June 4, 1950	20.84	2,360	1956	Oct. 6, 1955	24.44	10,800
	June 23, 1950	21.02	2,450				
1951	May 18, 1951	27.10	20,300	1957	Apr. 23, 1957	22.01	3,170
	June 6, 1951	21.87	3,470		Apr. 26, 1957	22.69	4,870
1952	May 18, 1952	24.92	12,800		May 1, 1957	22.00	3,470
	May 30, 1952	19.74	2,040		May 4, 1957	23.71	7,870
					May 11, 1957	21.00	2,620
1953	Apr. 1, 1953	15.91	1,290	May 20, 1957	23.74	8,050	
				May 27, 1957	22.91	5,380	
				June 2, 1957	22.13	3,730	
				June 20, 1957	20.20	2,400	
1954	Oct. 24, 1953	23.63	7,030	1958	May 4, 1958	20.23	2,330
	Oct. 26, 1953	22.58	4,870				
	May 13, 1954	23.98	7,590				
	May 27, 1954	19.23	2,080				
				July 8, 1958	20.00	2,270	

3125. Wichita River at Wichita Falls, Tex.

Location.--Lat 33°54'30", long 98°32'05", near center of stream on downstream side of bridge on Beverly Drive in Wichita Falls, Wichita County, 4 miles upstream from Fort Worth and Denver Railway Co. bridge, about 7 miles upstream from Holliday Creek, and at mile 55.3.

Drainage area.--3,140 sq mi, of which 2,099 sq mi is above Lake Kemp Dam.

Gage.--Nonrecording. Prior to February 1902, at highway bridge about 4 miles downstream at different datum. Datum of present gage is 924.26 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--18 ft.

Historical data.--Flood of June 18, 1915, is greatest known. Maximum stage between beginning of storage in Lake Kemp Oct. 1, 1922, and establishment of station Mar. 30, 1938, was that of Sept. 18, 1936.

Remarks.--Flow largely regulated by Lake Kemp (capacity, 438,000 acre-ft). Lake Kemp was completed in 1923 and has never filled. Floods listed herein since 1923 originated downstream from Lake Kemp. Water is diverted at diversion dam (capacity of diversion reservoir, about 40,000 acre-ft) about 50 miles upstream for irrigation in the vicinity of Wichita Falls. Forty-two thousand acres of land are available for irrigation. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1900	July 21, 1900	12.10	16,740	1946	Sept. 14, 1946	7.18	1,470
1901	May 17, 1901	19.40	37,440	1947	May 21, 1947	16.39	6,100
				1948	June 1, 1948	12.60	4,040
				1949	May 26, 1949	7.71	1,500
				1950	Aug. 4, 1950	21.42	9,000
1915	June 8, 1915	-	a50,000	1951	May 20, 1951	18.98	6,670
1936	Sept. 18, 1936	20.6	-	1952	May 28, 1952	6.76	1,210
1938	June 10, 1938	17.00	7,240	1953	July 2, 1953	9.60	2,400
1939	Aug. 10, 1939	9.42	2,430	1954	May 13, 1954	14.83	4,710
1940	Aug. 15, 1940	10.17	2,830	1955	Sept. 27, 1955	18.12	7,200
1941	June 4, 1941	22.71	15,500	1956	Oct. 5, 1955	20.88	9,510
1942	Oct. 3, 1941	24.00	17,800	1957	May 3, 1957	18.27	7,200
1943	Apr. 18, 1943	11.20	3,510	1958	May 4, 1958	14.90	5,280
1944	Mar. 1, 1944	5.42	720				
1945	Sept. 30, 1945	14.82	5,170				

a Computed by Big Wichita River Irrigation Co.

3130. Little Beaver Creek near Duncan, Okla.

Location.--Lat 34°30', long 98°07', in NE $\frac{1}{4}$ sec. 11, T.1 S., R.9 W., on downstream side of right pier of county highway bridge, three-quarters of a mile downstream from Stage Stand Creek, 8 $\frac{1}{4}$ miles west of Duncan, and 11.9 miles upstream from mouth.

Drainage area.--158 sq mi.

Gage.--Recording. Prior to Oct. 1, 1954, at datum 2.00 ft higher. Datum of present gage is 1,001.39 ft above mean sea level, unadjusted (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 5,000 cfs and extended on basis of computations of overflow at gage heights 18.39 and 18.87 ft.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges of Little Beaver Creek near Duncan, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	May 18, 1949	13.19	1,880	1953	June 6, 1953	16.20	10,200
1950	May 11, 1950	16.03	12,200	1954	Oct. 23, 1953	17.13	31,800
	May 26, 1950	15.81	8,900		Oct. 25, 1953	15.90	5,560
	June 3, 1950	14.59	2,080		Nov. 19, 1953	14.39	2,330
	June 11, 1950	15.49	3,460		May 2, 1954	17.14	32,000
	July 4, 1950	15.83	4,890	1955	May 19, 1955	19.46	39,800
	Sept. 13, 1950	15.36	3,090				
1951	May 1, 1951	15.13	2,500	1956	June 3, 1956	16.03	2,120
	May 17, 1951	16.87	25,200				
	May 20, 1951	15.97	5,990	1957	Apr. 21, 1957	17.01	2,720
	June 6, 1951	15.84	4,950		Apr. 23, 1957	17.30	3,180
	June 11, 1951	16.49	16,000		May 4, 1957	17.28	3,180
	June 18, 1951	15.05	2,370		May 13, 1957	16.40	2,380
	July 2, 1951	15.57	3,710		May 18, 1957	19.16	32,500
			May 25, 1957	19.74	47,500		
			May 30, 1957	16.58	2,480		
1952	Oct. 27, 1951	16.67	3,650	June 18, 1957	16.00	2,050	
	May 17, 1952	16.40	15,000				
	May 23, 1952	15.05	2,370	1958	May 3, 1958	17.43	3,500
	June 1, 1952	15.67	4,000				
1953	May 16, 1953	14.58	2,080				

3135. Beaver Creek near Waurika, Okla.

Location.--Lat 34°13', long 98°03', on north line of NW^{1/4} sec.16, T.4 S., R.8 W., on left bank on downstream side of bridge on State Highway 5, 4.5 miles northwest of Waurika, 6.2 miles upstream from Cow Creek, and at mile 25.8.

Drainage area.--563 sq mi.

Gage.--Recording. Datum of gage is 879.17 ft above mean sea level, datum of 1929 (levels by State Highway Commission).

Stage-discharge relation.--Defined by current-meter measurements since 1953. Peak discharge of 1951 was determined by slope-area measurement.

Bankfull stage.--17 ft.

Historical data.--According to local residents, a flood similar to that of 1951 occurred in 1889 or earlier. A flood in 1908 was reported to have been 1.3 ft lower than the 1951 flood at a site 2 miles upstream.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	May 18, 1951	-	a65,300	1956	July 4, 1956	20.14	6,870
1953	June 8, 1953	19.70	a4,820	1957	Apr. 23, 1957	19.46	4,350
1954	Oct. 24, 1953	21.34	11,500		Apr. 26, 1957	19.10	3,750
	Oct. 27, 1953	19.54	4,320		May 4, 1957	20.30	7,000
	May 3, 1954	20.99	10,200		May 18, 1957	21.16	14,600
	May 12, 1954	20.46	7,800		May 26, 1957	21.82	22,500
1955	May 20, 1955	22.42	32,200	June 1, 1957	19.63	4,820	
	June 10, 1955	17.96	2,540	1958	May 5, 1958	17.92	2,560

a Annual peak only.

3145. Little Wichita River near Archer City, Tex.

Location.--Lat 33°40', long 98°36', near left bank on upstream side of pier of bridge on State Highway 79, 1.5 miles downstream from confluence of North and Middle Forks, 4.8 miles north of Archer City, Archer County, and at mile 45.5.

Drainage area.--481 sq mi, of which 275 sq mi is above Lake Kickapoo near Archer City.

Gage.--Recording gage and concrete control prior to Aug. 17, 1954, on downstream side of bridge; nonrecording thereafter at present site. Datum of gage is 934.72 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--22 ft.

Remarks.--Some regulation since Feb. 1, 1946, by Lake Kickapoo on North Fork (capacity, 106,000 acre-ft). Diversions from Lake Kickapoo for Wichita Falls municipal use. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	June	a28	-	1944	Feb. 29, 1944	15.57	1,060
				1945	July 10, 1945	21.50	2,030
1932	July 7, 1932	21.88	2,380	1946	Oct. 1, 1945	21.46	2,150
1933	May 26, 1933	25.01	7,840	1947	Dec. 12, 1946	22.82	2,680
1934	Mar. 3, 1934	22.50	2,510	1948	Oct. 26, 1947	15.50	1,140
1935	May 6, 1935	24.81	5,940	1949	June 26, 1949	17.33	1,380
1936	Sept. 17, 1936	25.67	13,000	1950	Aug. 2, 1950	25.91	15,100
1937	Mar. 14 or 15	17.1	1,470	1951	May 20, 1951	18.81	1,330
1938	Mar. 30, 1938	22.46	2,780				
1939	May 17, 1939	16.98	1,660	1952	May 28, 1952	10.32	426
1940	June 17, 1940	21.58	2,610	1953	July 24, 1953	10.63	450
1941	June 11, 1941	24.77	4,350	1954	Oct. 26, 1953	24.48	4,400
				1942	Oct. 31, 1941	26.18	17,900
1943	Oct. 19, 1942	22.42	2,620	1955	Sept. 26, 1955	25.50	9,600
				1956	Oct. 4, 1955	23.63	b2,570

a From information by State Highway Department.

b Records incomplete, probably maximum for year.

3150. Little Wichita River near Henrietta, Tex.

Location.--Lat 33°50'00", long 98°12'30", on left bank at downstream side of bridge on State Highway 148, 1.5 miles northwest of Henrietta, Clay County, 4 miles upstream from Turkey Creek, and 5 miles upstream from Dry Fork Little Wichita River.

Drainage area.--1,037 sq mi.

Gage.--Nonrecording prior to June 26, 1953; recording gage and concrete control thereafter. Datum of gage is 831.57 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--12 ft.

Remarks.--Some regulation by Lake Kickapoo since 1946. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1908	-	a21	-	1956	Oct. 1, 1955	17.44	4,080
1953	July 25, 1953	9.78	623	1957	May 2, 1957	18.36	6,390
				1954	Oct. 26, 1953	17.91	5,890
1955	Sept. 28, 1955	17.78	5,430	1958	Nov. 10, 1957	17.23	3,390

a From information by State Highway Department.

3155. Red River near Terral, Okla.

Location.--Lat 33°52'50", long 97°56'15", near center of stream on downstream side of pier of bridge on U. S. Highway 81, a quarter of a mile downstream from Chicago, Rock Island and Pacific Railroad Co. bridge, 1.2 miles south of Terral, Jefferson County, 3.2 miles downstream from Little Wichita River, and at mile 872.

Drainage area.--28,723 sq mi, of which about 22,787 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Jan. 12, 1939; recording and nonrecording thereafter. Datum of gage is 770.31 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. Subject to frequent shifts.

Historical data.--Floods in 1891 and May 1, 1908, are reported to have reached about the same stage as flood of May 19, 1935.

Remarks.--Some regulation since 1923 by Lake Kemp on Wichita River, in Baylor County, Tex. (capacity, 648,000 acre-ft), since 1946 by Lake Kickapoo on North Fork Little Wichita River in Archer County, Tex. (capacity, 106,000 acre-ft), and since 1943 by Lake Altus on North Fork Red River in Kiowa County, Okla. (capacity, 142,000 acre-ft). Base for partial-duration series, 21,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	May 19, 1935	a27.2	-	1947	May 19, 1947	20.14	82,000
1938	May 5, 1938	16.95	29,600	May 21, 1947	18.72	57,000	
	May 24, 1938	17.85	43,700	May 24, 1947	17.78	44,400	
	June 10, 1938	17.65	40,900	June 3, 1947	16.05	25,500	
	June 18, 1938	17.48	39,500	1948	June 25, 1948	16.27	18,000
	June 27, 1938	16.60	28,400	1949	May 21, 1949	18.00	33,700
1939	June 23, 1939	18.14	43,000	1950	May 12, 1950	18.82	53,800
1940	July 2, 1940	16.62	22,400	July 24, 1950	16.90	21,700	
	Aug. 19, 1940	16.63	21,800	July 26, 1950	17.58	28,400	
1941	May 2, 1941	18.35	43,500	Aug. 2, 1950	17.36	26,200	
	May 5, 1941	25.57	134,000	Sept. 14, 1950	17.65	22,400	
	May 13, 1941	19.27	37,800	1951	May 19, 1951	26.68	164,000
	May 23, 1941	20.70	74,600	June 3, 1951	15.83	21,200	
	May 25, 1941	19.82	62,500	June 7, 1951	19.47	44,600	
	June 3, 1941	19.40	54,700	June 13, 1951	16.71	25,500	
	June 8, 1941	28.12	197,000	June 21, 1951	16.21	24,700	
1942	June 11, 1941	22.97	119,000	July 4, 1951	16.60	27,100	
	June 16, 1941	21.50	73,200	1952	May 19, 1952	17.00	30,300
	Oct. 3, 1941	20.26	76,000	1953	Aug. 20, 1953	14.87	13,000
	Oct. 6, 1941	18.15	43,500	1954	Oct. 25, 1953	19.55	57,300
	Oct. 24, 1941	18.35	47,900	May 14, 1954	21.42	85,800	
	Oct. 31, 1941	21.45	91,000	May 26, 1954	18.40	36,800	
	Nov. 2, 1941	18.05	50,100	1955	May 21, 1955	22.44	109,000
	Apr. 9, 1942	18.90	54,900	June 22, 1955	19.51	42,800	
Apr. 21, 1942	17.63	32,700	Sept. 26, 1955	16.62	24,000		
1943	Apr. 26, 1942	18.70	46,800	1956	Oct. 7, 1955	23.30	111,000
	Apr. 30, 1942	18.80	47,900	May 29, 1956	18.43	49,400	
	Sept. 21, 1942	17.00	30,300	1957	Apr. 22, 1957	17.73	41,400
	Oct. 17, 1942	16.78	39,300	Apr. 27, 1957	18.26	45,800	
	Oct. 19, 1942	16.50	32,700	Apr. 30, 1957	19.39	62,500	
	May 12, 1943	17.38	41,300	May 6, 1957	19.42	72,500	
1944	May 20, 1943	16.34	28,700	May 10, 1957	18.12	52,800	
	May 29, 1943	17.58	43,500	May 13, 1957	18.82	60,800	
	June 6, 1943	16.58	31,100	May 20, 1957	21.00	87,800	
	1944	June 16, 1944	17.20	38,700	May 23, 1957	18.11	46,200
	1945	Apr. 17, 1945	16.60	28,200	May 27, 1957	20.06	71,900
1945	July 12, 1945	16.42	26,100	May 31, 1957	16.73	27,100	
	Sept. 27, 1945	16.86	34,400	June 4, 1957	22.72	110,000	
	1946	Oct. 1, 1945	19.62	66,200	1958	May 4, 1958	15.27
1947	Apr. 17, 1947	16.25	29,100				
	May 14, 1947	17.85	40,800				

a Annual peak only.

RED RIVER BASIN

3160. Red River near Gainesville, Tex.

Location.--Lat 33°44', long 97°10', in SW $\frac{1}{4}$ sec.36, T.9 S., R.1 E., near center of span on downstream side of bridge on U. S. Highway 77, a quarter of a mile downstream from Gulf, Colorado and Santa Fe Railway Co. bridge, 5 miles downstream from Fish Creek, 7 miles north of Gainesville, and at mile 791.5.

Drainage area.--30,782 sq mi, of which about 24,846 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Jan. 17, 1939; recording thereafter. Datum of gage is 627.91 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--25 ft.

Remarks.--Information on peaks during short periods of no record in 1936-37 obtained from inspection of records for downstream stations. Some regulation since 1923 by Lake Kemp on Wichita River, since 1943 by Lake Altus on North Fork Red River, and since 1946 by Lake Kickapoo on North Fork Little Wichita River. Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 24,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1936	Dec. 5, 1935	-	{a}	1942	May 1, 1942	14.21	53,000	
	May 9, 1936	-	{a}		Sept. 22, 1942	11.26	31,000	
	May 30, 1936	12.38	32,600	1943	Oct. 20, 1942	11.96	35,500	
	June 8, 1936	11.60	26,300		May 12, 1943	13.80	47,200	
	Sept. 19, 1936	12.74	36,200		May 21, 1943	12.00	32,000	
	Sept. 21, 1936	13.40	42,500		May 30, 1943	13.37	45,100	
Sept. 28, 1936	15.95	67,900	June 7, 1943		12.30	33,100		
1937	June 1, 1937	11.4	24,500	1944	June 16, 1944	12.43	34,000	
	June 10, 1937	14.9	54,400		1945	Mar. 15, 1945	14.40	52,000
	Aug. 24, 1937	-	{a}	Mar. 19, 1945		12.65	40,000	
1938	Oct. 14, 1937	-	{a}	Apr. 2, 1945		12.05	28,000	
	Feb. 17, 1938	15.67	65,400	Apr. 17, 1945		13.10	31,700	
	Mar. 30, 1938	14.20	50,400	July 12, 1945		12.89	24,000	
	Mar. 6, 1938	11.80	29,000	Sept. 28, 1945		13.00	35,000	
	May 22, 1938	12.00	30,800	1946		Oct. 2, 1945	17.75	83,500
	May 24, 1938	15.82	67,600		May 31, 1946	12.60	28,200	
	June 11, 1938	13.8	46,400		1947	Oct. 10, 1946	11.75	24,000
	June 18, 1938	12.70	35,300			Dec. 12, 1946	12.71	33,800
	June 28, 1938	11.70	26,300			Apr. 16, 1947	12.65	33,000
	1939	June 24, 1939	13.07			38,900	May 15, 1947	14.25
1940		May 30, 1940	12.31	27,600		May 20, 1947	17.90	71,000
		July 3, 1940	13.23	37,500	May 26, 1947	15.48	52,300	
		Aug. 16, 1940	11.95	24,300	1948	June 26, 1948	13.80	24,400
		Aug. 20, 1940	11.98	24,300		1949	May 22, 1949	14.44
1941	Feb. 3, 1941	12.19	28,400	June 12, 1949			13.90	32,000
	Apr. 18, 1941	12.58	28,000	1950		May 13, 1950	15.73	51,200
	May 3, 1941	13.59	40,800			July 24, 1950	13.54	25,700
	May 6, 1941	20.43	116,000			July 27, 1950	14.36	35,500
	May 13, 1941	13.27	36,600			Aug. 3, 1950	14.80	39,900
	May 24, 1941	16.20	68,400			Aug. 24, 1950	13.94	27,700
	June 3, 1941	14.53	51,000			Aug. 28, 1950	14.98	46,000
	June 9, 1941	24.15	168,000			Sept. 13, 1950	15.14	46,000
	June 17, 1941	16.61	73,000		1951	May 21, 1951	26.53	146,000
	June 28, 1941	13.06	35,600	June 4, 1951		15.74	39,100	
July 3, 1941	12.28	28,500	June 8, 1951	17.50		55,300		
1942	Oct. 4, 1941	22.32	156,000	June 14, 1951		15.63	38,300	
	Oct. 25, 1941	13.66	44,000	June 22, 1951		13.86	24,700	
	Nov. 1, 1941	20.36	136,000	July 4, 1951		15.11	34,000	
	Apr. 9, 1942	16.11	87,700					
	Apr. 21, 1942	13.35	47,000					
	Apr. 24, 1942	15.65	72,000					

a A peak higher than the base probably occurred this date.

Peak stages and discharges of Red River near Gainesville, Tex.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	May 20, 1952	13.00	32,300	1957	Apr. 23, 1957	15.76	43,600
1953	Aug. 22, 1953	11.00	9,820		Apr. 27, 1957	17.83	62,800
1954	Oct. 26, 1953	16.20	50,800		May 1, 1957	18.57	68,500
	May 15, 1954	19.32	74,200		May 7, 1957	18.96	69,500
	May 27, 1954	15.67	41,800		May 11, 1957	16.66	48,100
1955	May 22, 1955	21.08	96,900		May 14, 1957	18.06	60,900
	June 22, 1955	16.90	49,900		May 20, 1957	b22.80	100,000
1956	Oct. 8, 1955	21.70	106,000		May 28, 1957	b21.95	75,000
	May 30, 1956	15.12	36,000	1958	June 5, 1957	b25.14	102,000
					May 5, 1958	14.36	21,600

b Backwater from Lake Texoma.

3165. Washita River near Cheyenne, Okla.

Location.--Lat 35°38', long 99°40', on line between SE $\frac{1}{4}$ and SW $\frac{1}{4}$ sec.5, T.13 N., R.23 W., near left bank on downstream side of pier of bridge on U. S. Highway 283, half a mile downstream from Sergeant Major Creek, 1 mile north of Cheyenne, 5.2 miles upstream from Dead Indian Creek, and at mile 543.9.

Drainage area.--794 sq mi.

Gage.--Nonrecording prior to Jan. 12, 1948; recording thereafter. Datum of gage is 1,905.98 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 27,000 cfs and extended on basis of contracted-opening measurement at 69,800 cfs.

Bankfull stage.--7 ft.

Historical data.--According to local residents the flood in 1934 was the highest known for 40 years.

Remarks.--Records 1938-46 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 1,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1934	Apr. 3, 1934	a16.9	bc52,000	1944	May 27, 1944	6.25	1,240
1938	May 18, 1938	10.2	c14,600		June 13, 1944	6.20	1,180
1939	Apr. 5, 1939	5.08	1,340		July 30, 1944	5.92	1,120
	Jan. 8, 1939	6.62	3,070	1945	Oct. 1, 1944	7.58	4,000
	May 7, 1939	6.50	2,940		Apr. 14, 1945	6.37	1,740
	May 12, 1939	5.84	2,090		June 11, 1945	7.51	4,000
	June 21, 1939	6.06	2,090		Aug. 15, 1945	8.99	9,900
1940	Aug. 29, 1940	5.50	1,080		Sept. 28, 1945	5.72	1,120
1941	Apr. 19, 1941	7.00	2,840	1946	May 10, 1946	7.00	2,500
	Apr. 30, 1941	7.00	3,200		May 28, 1946	6.60	1,890
	May 4, 1941	5.40	1,170		July 1, 1946	9.16	8,900
	May 20, 1941	7.60	3,400		Aug. 20, 1946	6.45	2,500
	May 23, 1941	13.5	40,000	1947	Oct. 6, 1946	8.80	d7,100
	May 27, 1941	4.76	1,280	1948	June 28, 1948	7.58	3,580
	June 9, 1941	10.00	13,300		July 30, 1948	6.94	2,340
	June 22, 1941	8.90	7,550		Aug. 15, 1948	9.21	8,900
	July 26, 1941	5.93	1,240	1949	Nov. 1, 1948	6.32	1,750
1942	Oct. 23, 1941	10.11	14,000		Mar. 30, 1949	8.25	5,150
	Apr. 23, 1942	7.50	3,400		Apr. 27, 1949	7.86	4,380
	June 8, 1942	7.90	4,250		May 6, 1949	9.80	8,900
	June 22, 1942	7.00	2,500		May 20, 1949	8.72	3,780
	June 29, 1942	6.80	2,190		May 28, 1949	7.25	2,160
1943	Oct. 14, 1942	6.45	1,590		June 4, 1949	10.60	11,900
	Oct. 17, 1942	6.8	2,190	1950	May 18, 1950	8.71	6,500
	Oct. 20, 1942	6.1	1,180		July 5, 1950	9.10	8,450
	June 16, 1943	6.36	1,520		July 12, 1950	7.87	4,120

a At right bank above highway fill where flood in 1954 reached a stage of 18.0 ft.

b Estimated from present rating to indicate approximate magnitude.

c Annual peak only.

d Maximum recorded during year; flow may have been somewhat higher in May 1947.

Peak stages and discharges of Washita River near Cheyenne, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1950	Aug. 1, 1950	7.05	2,430	1955	June 5, 1955	6.87	4,370		
1951	May 18, 1951	9.16	5,040	1955	June 8, 1955	6.22	3,280		
	June 2, 1951	7.72	2,900	1955	June 17, 1955	7.72	5,830		
	June 7, 1951	9.29	4,700	1956	July 10, 1956	6.60	3,890		
	June 10, 1951	7.53	2,470						
	June 15, 1951	7.37	2,230	1957	Apr. 3, 1957	5.33	2,160		
1952	June 1, 1952	5.30	465		Apr. 18, 1957	4.80	1,640		
	1953	June 6, 1953	8.25		3,550	Apr. 22, 1957	4.57	1,280	
		1954	Apr. 29, 1954		15.24	69,800	Apr. 26, 1957	5.03	1,800
			May 1, 1954		5.60	3,580	May 3, 1957	4.52	1,230
May 17, 1954	5.25	2,660	May 17, 1957	6.77	4,210				
May 24, 1954	5.21	1,980	May 24, 1957	6.35	3,500				
May 30, 1954	7.57	5,630	1958	Oct. 13, 1957	5.00	1,750			
				June 21, 1958	4.78	1,530			

3245. Barnitz Creek near Arapaho, Okla.

Location.--Lat 35°35', long 99°02', in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.19, T.13 N., R.17 W., on right bank on downstream side of pier of county highway bridge, half a mile downstream from confluence of East and West Barnitz Creeks, $\frac{1}{2}$ miles west of Arapaho, and 6 miles upstream from mouth.

Drainage area.--243 sq mi.

Gage.--Recording. Datum of gage is 1,529.12 ft above mean sea level, unadjusted (Bureau of Reclamation bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 2,000 cfs and extended on basis of field estimate at 7,700 cfs.

Bankfull stage.--20 ft.

Historical data.--Local residents indicated during 1951 field survey that similar stages had occurred in previous years and that maximum known occurred in April 1934.

Remarks.--Runoff affected by continuing developments in basin by Soil Conservation Service. Base for partial-duration series, 1,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	June 30, 1946	17.77	1,420	1951	May 16, 1951	20.67	7,700
1947	Oct. 7, 1946	16.58	1,240	1952	Apr. 22, 1952	9.38	168
	Oct. 10, 1946	18.99	1,610				
	Apr. 8, 1947	20.8	6,000	1953	Aug. 18, 1953	10.86	252
	May 12, 1947	17.94	1,760				
	May 16, 1947	18.08	1,850				
1948	May 10, 1948	17.90	1,600	1954	Apr. 30, 1954	18.32	1,880
					May 17, 1954	16.19	1,190
					May 24, 1954	16.10	1,290
1949	Nov. 1, 1948	19.65	2,360	1955	June 8, 1955	15.49	1,020
	Feb. 8, 1949	15.4	1,240		June 15, 1955	15.38	1,000
	May 19, 1949	17.88	1,860	1956	Oct. 4, 1955	15.56	1,050
	May 21, 1949	18.81	2,120				
1950	July 20, 1950	18.29	1,810	1957	May 1, 1957	16.07	1,160
	Aug. 1, 1950	19.47	2,240	1958	June 20, 1958	17.58	1,290

3250. Washita River near Clinton, Okla.

Location.--Lat 35°31', long 98°57', in center of sec.11, T.12 N., R.17 W., near right bank on downstream side of pier of bridge on U. S. Highway 183, half a mile north of Clinton, three-quarters of a mile upstream from Beaver Creek, 4.8 miles downstream from Barnitz Creek, and at mile 447.4.

Drainage area.--1,977 sq mi.

Gage.--Nonrecording prior to Feb. 7, 1939, and Mar. 26, 1940, to Mar. 18, 1941; recording during remainder of period. Mar. 26 to May 13, 1940, at site 75 ft upstream at present datum. May 14, 1940, to Mar. 18, 1941, at railway bridge 1 mile downstream at datum 4.55 ft lower. Datum of present gage is 1,467.60 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 7,900 cfs and extended on basis of contracted-opening measurement at 66,800 cfs.

Bankfull stage.--18 ft.

Remarks.--Probably some reduction in peak discharges in recent years from Soil Conservation Service detention reservoirs on several tributaries. Base for partial-duration series, 3,400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1934	Apr. 3-4, 1934	a33.9	-	1947	May 12, 1947	21.24	8,110
1935	May or June 1935	a28	25,000	May 16, 1947	19.32	5,930	
1936	Apr. 27, 1936	20.88	3,900	May 20, 1947	16.32	4,180	
	May 1, 1936	23.23	8,750	June 5, 1947	15.64	3,800	
	June 5, 1936	28.5	26,900	1948	Aug. 16, 1948	16.08	3,960
1937	May 30, 1937	20.5	3,650	1949	Nov. 1, 1948	21.41	8,110
1938	May 19, 1938	24.90	13,000	Feb. 6, 1949	17.19	4,670	
1939	May 9, 1939	17.82	3,430	May 21, 1949	18.34	5,300	
1940	Apr. 11, 1940	25.5	15,000	June 5, 1949	14.86	3,450	
	July 2, 1940	20.05	6,520	June 26, 1949	15.95	4,010	
1941	Apr. 19, 1941	16.65	3,810	1950	July 21, 1950	18.36	5,060
	May 4, 1941	21.84	9,320	Aug. 2, 1950	17.88	4,670	
	May 21, 1941	22.36	11,000	1951	May 16, 1951	31.09	66,800
	May 25, 1941	21.24	8,000	May 20, 1951	18.48	5,230	
	June 10, 1941	22.86	12,500	May 22, 1951	15.49	3,740	
1942	Oct. 25, 1941	22.13	10,100	June 14, 1951	15.44	3,720	
	Apr. 17, 1942	17.79	4,590	1952	Apr. 22, 1952	10.51	1,260
	Apr. 25, 1942	15.81	3,590	1953	June 8, 1953	14.06	2,470
	Apr. 27, 1942	21.34	8,200	1954	May 1, 1954	23.99	13,100
	June 23, 1942	16.87	4,140	May 24, 1954	21.29	5,960	
1943	May 27, 1943	16.19	3,860	1955	June 8, 1955	20.93	6,270
1944	June 13, 1944	18.18	4,930	1956	Oct. 4, 1955	23.21	7,550
	June 24, 1944	16.06	3,700	1957	Apr. 20, 1957	19.88	4,440
1945	Apr. 10, 1945	22.19	10,400	Apr. 23, 1957	20.63	4,900	
	Apr. 15, 1945	16.09	3,700	May 4, 1957	17.82	3,400	
1946	July 2, 1946	15.61	3,430	May 12, 1957	18.49	3,700	
1947	Apr. 8, 1947	21.70	9,060	May 25, 1957	17.98	3,480	
				May 30, 1957	19.84	4,380	
				1958	June 20, 1958	20.68	4,100

a Annual peak only, from floodmarks pointed out by local residents.

3255. Washita River at Carnegie, Okla.

Location--Lat 35°07', long 98°34', near center of north line of sec.3, T.7 N., R.13 W., on downstream side of right pier of bridge on State Highway 9, 1,300 ft upstream from Running Creek, 2.7 miles east of Carnegie, and at mile 353.9.

Drainage area--3,129 sq mi, includes that of Running Creek.

Gage--Recording. Prior to October 1942 at site 8 miles upstream at datum 24.57 ft higher. Datum of present gage is 1,249.23 ft above mean sea level, datum of 1929.

Stage-discharge relation--Defined by current-meter measurements below 36,000 cfs and extended on basis of contracted-opening measurement at 50,000 cfs. At former site defined by current-meter measurements below 8,600 cfs and extended on basis of peak stage and interpolated discharge for flood of 1951 (reach, Clinton to Carnegie).

Bankfull stage--18 ft. At former site, 5 ft.

Historical data--Data for 1903 obtained in 1952 from approximate marks pointed out by local residents at two independent sites. Data for 1913-36 obtained in 1942 from chiseled marks of all major floods occurring since 1912 at Southwestern Light and Power Co. plant at Carnegie; tabulated stages contain 0.5-foot allowance for slope in reach.

Remarks--Base for partial-duration series, 3,000 cfs. Only annual peaks are shown prior to 1938.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	May 23, 1903	29.	-	1943	May 28, 1943	19.12	6,690
1913	Oct. 27, 1912	12.20	8,700	1944	Apr. 11, 1944	19.54	6,670
1921	Apr. 5, 1921	13.96	12,000		June 14, 1944	22.74	14,000
1923	June 10, 1923	12.89	10,000		June 26, 1944	17.05	4,570
1924	Oct. 14, 1923	13.78	11,600	1945	Apr. 13, 1945	19.01	6,670
1934	Apr. 5, 1934	16.39	18,500		Apr. 16, 1945	21.00	9,810
1935	May 19, 1935	16.28	18,000		June 12, 1945	14.43	3,040
1936	June 6, 1936	17.16	21,500		June 16, 1945	14.76	3,080
1938	May 23, 1938	11.14	7,080		July 27, 1945	16.93	3,830
1939	June 22, 1939	7.69	2,950		Sept. 29, 1945	15.67	3,100
1940	Apr. 14, 1940	8.50	3,790	1946	June 26, 1946	16.10	3,310
	July 4, 1940	9.01	4,250		July 1, 1946	17.77	4,460
1941	May 5, 1941	12.51	9,030	1947	Apr. 11, 1947	15.89	3,200
	May 23, 1941	11.94	8,330		Apr. 16, 1947	16.27	3,410
	May 28, 1941	8.69	4,660		May 14, 1947	21.49	9,200
	June 6, 1941	12.29	9,050		May 17, 1947	22.20	10,600
	June 10, 1941	9.83	5,960		May 23, 1947	16.24	4,000
	June 13, 1941	11.67	8,320		June 3, 1947	17.97	4,440
1942	Oct. 23, 1941	13.16	10,300	1948	June 25, 1948	14.22	2,660
	Oct. 27, 1941	11.98	8,700	1949	Feb. 10, 1949	15.39	3,330
	Apr. 11, 1942	7.60	3,500		May 18, 1949	26.21	50,000
	Apr. 20, 1942	9.39	5,480		May 26, 1949	16.36	4,040
	Apr. 26, 1942	10.72	7,080		May 29, 1949	15.06	3,350
	Apr. 29, 1942	11.53	8,080		June 4, 1949	22.31	14,900
	June 24, 1942	8.99	5,000		June 10, 1949	17.00	4,320
1943	May 18, 1943	18.93	5,770	1950	July 18, 1950	17.63	4,920
					July 21, 1950	18.45	5,590
					July 25, 1950	17.61	5,000
					Aug. 3, 1950	19.89	6,870
				1951	May 18, 1951	25.50	40,900
					June 13, 1951	15.94	4,150
					June 16, 1951	14.11	3,100

Peak stages and discharges of Washita River at Carnegie, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	May 25, 1952	14.60	3,120	1956	Oct. 5, 1955	24.04	23,900
1953	July 19, 1953	20.29	8,550		May 29, 1956	12.78	3,120
1954	Oct. 23, 1953	14.02	3,550	1957	Apr. 3, 1957	17.60	4,330
	May 2, 1954	14.04	3,300		Apr. 24, 1957	21.41	12,600
	May 27, 1954	19.28	6,720		May 3, 1957	21.40	11,600
1955	May 10, 1955	12.21	3,020		May 11, 1957	15.57	3,810
	May 12, 1955	12.83	3,250		May 13, 1957	16.20	4,100
	May 21, 1955	15.00	4,160		May 20, 1957	15.61	3,810
	June 8, 1955	16.67	4,880		May 25, 1957	15.80	3,950
	Sept. 23, 1955	13.32	3,380	1958	June 4, 1957	18.68	6,200
					June 23, 1958	14.20	3,580

3260. Pond Creek near Fort Cobb, Okla.
(Known locally as Cobb Creek)

Location.--Lat 35°08', long 98°27', in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.26, T.8 N., R.12 W., on left bank 100 ft downstream from county highway bridge, 2.7 miles north of Fort Cobb, and 5.0 miles upstream from mouth.

Drainage area.--319 sq mi.

Gage.--Nonrecording prior to Aug. 30, 1940; recording thereafter. Datum of gage is 1,252.57 ft above mean sea level, datum of 1929 (levels by Bureau of Reclamation).

Stage-discharge relation.--Defined by current-meter measurements below 4,300 cfs and extended to 35,000 cfs on basis of contracted-opening measurements at gage heights 16.62, 17.58, and 18.72 ft.

Bankfull stage.--14 ft.

Historical data.--Data for flood in 1937 based on floodmark pointed out by local resident who stated that higher floods had occurred in previous years.

Remarks.--Base for partial-duration series, 1,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	June 15, 1937	19.93	-	1949	May 17, 1949	18.72	35,000
1940	July 2, 1940	15.81	3,290		May 20, 1949	14.95	2,300
1941	Apr. 18, 1941	14.97	1,820		May 26, 1949	14.68	2,090
	June 7, 1941	14.79	1,640		June 3, 1949	14.72	2,090
1942	Oct. 23, 1941	15.42	2,610	1950	July 20, 1950	14.92	1,940
1943	May 18, 1943	14.50	1,440		July 25, 1950	14.33	1,720
1944	Apr. 10, 1944	16.62	8,500		Aug. 1, 1950	14.46	1,820
	June 13, 1944	17.22	12,700	1951	May 18, 1951	13.93	1,640
	June 24, 1944	14.95	1,760		May 20, 1951	15.92	4,540
1945	Apr. 11, 1945	14.60	1,860		June 12, 1951	14.95	2,300
	Apr. 15, 1945	15.21	2,560	1952	May 24, 1952	15.98	4,900
	June 11, 1945	17.58	16,000	1953	Apr. 5, 1953	13.73	1,520
	July 14, 1945	15.71	3,160		July 19, 1953	16.10	5,400
	Sept. 29, 1945	14.30	1,550	1954	May 24, 1954	14.30	1,620
1946	July 1, 1946	16.05	4,700	1955	May 19, 1955	16.97	7,950
1947	May 16, 1947	16.06	4,760		June 19, 1955	16.03	2,950
	July 1, 1947	14.17	1,640		Aug. 10, 1955	15.57	2,330
1948	June 23, 1948	16.71	6,110	1956	Oct. 5, 1955	15.99	3,350
1949	Feb. 8, 1949	13.75	1,620	1957	Apr. 21, 1957	14.08	1,550
				1958	June 20, 1958	14.48	1,760

a Annual peak only.

RED RIVER BASIN

3265. Washita River at Anadarko, Okla.
(Published as "near Anadarko" 1902-8)

Location.--Lat 35°05', long 98°14', in NW $\frac{1}{4}$ sec.15, T.7 N., R.10 W., at upstream handrail of bridge on U. S. Highway 281, half a mile north of Anadarko, 8 miles upstream from Sugar Creek, and at mile 305.0.

Drainage area.--3,656 sq mi.

Gage.--Nonrecording. Prior to 1936, at site 75 ft downstream at datum estimated to be 0.9 ft higher. Datum of last used gage was 1,151.88 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 9,600 cfs and extended above.

Bankfull stage.--19 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	May 25, 1903	26.8	29,000	1907	June 14, 1907	20.7	11,600
1904	July 14, 1904	14.7	3,240	1908	Oct. 9, 1907	22.9	28,100
1905	May 31, 1905	18.9	6,480				
				1936	June 8, 1936	21.69	10,800
1906	Sept.18, 1906	13.0	3,150	1937	June 19, 1937	17.55	4,660

3275. Little Washita River at Ninnekah, Okla.

Location.--Lat 34°57'24", long 97°55'34", at center of north line of sec.34, T.6 N., R.7 W., at center of span on downstream side of pier of Chicago, Rock Island and Pacific Railroad Co. bridge, half a mile north of Ninnekah, 1.2 miles downstream from Rock Creek, and 6.2 miles upstream from mouth.

Drainage area.--227 sq mi.

Gage.--Recording. Datum of gage is 1,058.52 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 5,500 cfs and extended on basis of contracted-opening measurement at 25,200 cfs.

Bankfull stage.--17 ft.

Historical data.--According to local residents, a notable flood occurred in April 1927.

Remarks.--Base for partial-duration series, 1,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	May 16, 1947	-	336,000	1956	Oct. 3, 1955	14.23	3,480
					Oct. 4, 1955	13.82	3,260
1952	Apr. 19, 1952	12.80	2,000		May 26, 1956	11.72	2,200
	May 18, 1952	16.62	3,670				
	June 1, 1952	17.15	3,950	1957	Apr. 21, 1957	10.84	1,840
					Apr. 23, 1957	11.73	2,120
1953	Mar. 14, 1953	11.80	1,590		May 2, 1957	11.64	2,070
	Sept. 3, 1953	11.79	1,590		May 13, 1957	10.72	1,660
					May 17, 1957	18.80	7,410
1954	Oct. 23, 1953	12.57	1,910		May 22, 1957	10.40	1,800
	Oct. 25, 1953	14.34	2,640		May 24, 1957	22.20	25,200
	Dec. 3, 1953	12.82	2,000		May 30, 1957	12.43	3,230
	May 2, 1954	13.95	2,510		Sept.21, 1957	16.04	5,560
	May 10, 1954	14.49	2,730				
1955	May 19, 1955	17.09	4,860	1958	July 21, 1958	7.18	910
	Sept.22, 1955	13.73	3,100				

a Annual peak only. Contracted-opening measurement of peak discharge at State Highway 19, 4 $\frac{1}{2}$ miles downstream.

3280. Washita River near Tabler, Okla.

Location.--Lat 34°58', long 97°51', in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.21, T.6 N., R.6 W., on downstream side of left pier of abandoned county highway bridge, 1 mile downstream from Little Washita River, 5 miles south of Tabler, and at mile 243.0.

Drainage area.--4,706 sq mi.

Gage.--Nonrecording prior to June 6, 1940; recording thereafter. Datum of gage is 1,022.38 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements of main channel and by computation of flow in flood plain by special methods.

Bankfull stage.--21 ft.

Remarks.--Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1921	-	a28.7	b36,200	1945	Sept. 29, 1945	24.20	10,900
1927	Apr. 7, 1927	a29.9	b53,600	1946	May 29, 1946	19.89	5,650
1940	July 5, 1940	13.54	3,380		May 31, 1946	19.30	5,350
1941	Apr. 18, 1941	16.31	4,410		June 30, 1946	24.60	10,400
	May 2, 1941	16.94	4,510	1947	Apr. 10, 1947	16.93	4,200
	May 5, 1941	20.75	6,460		Apr. 13, 1947	20.32	5,850
	May 23, 1941	22.05	7,330		Apr. 15, 1947	19.09	5,250
	May 29, 1941	18.50	5,160		May 12, 1947	21.30	6,230
	June 7, 1941	26.02	15,800		May 16, 1947	29.08	38,000
	June 10, 1941	24.31	10,900		May 21, 1947	24.06	10,400
	June 15, 1941	21.58	6,960		June 1, 1947	24.05	10,100
1942	Oct. 2, 1941	19.60	5,690	1948	Mar. 1, 1948	20.5	6,680
	Oct. 7, 1941	15.96	4,010		June 22, 1948	22.16	7,950
	Oct. 30, 1941	24.06	10,600	1949	May 1, 1949	18.78	5,640
	Apr. 8, 1942	20.94	6,430		May 20, 1949	29.72	50,000
	Apr. 19, 1942	22.18	7,480		May 29, 1949	22.06	8,130
	Apr. 25, 1942	21.30	6,650		June 3, 1949	23.65	11,100
	May 3, 1942	17.59	4,460		June 7, 1949	23.27	10,200
	Aug. 26, 1942	18.93	5,350		June 10, 1949	20.17	7,100
	Sept. 19, 1942	16.49	4,690	1950	May 10, 1950	20.94	8,300
1943	May 10, 1943	24.13	10,600		July 20, 1950	23.35	12,300
	May 19, 1943	22.34	7,840		July 25, 1950	20.87	8,300
	May 31, 1943	16.64	4,270		Aug. 6, 1950	14.78	4,570
	June 4, 1943	23.28	9,020	1951	May 18, 1951	27.14	24,800
1944	Apr. 14, 1944	17.68	4,610		May 20, 1951	26.72	22,800
	June 12, 1944	18.40	5,050		June 9, 1951	16.54	5,340
	June 18, 1944	17.39	4,710		June 12, 1951	21.64	9,180
1945	Oct. 3, 1944	19.18	5,400	1952	May 18, 1952	14.51	4,560
	Mar. 11, 1945	23.19	9,090		June 1, 1952	15.15	4,900
	Apr. 16, 1945	25.19	13,300	1955	-	a28.8	37,300
	Apr. 20, 1945	22.70	8,940	1957	May, 1957	a29.6	48,300
	June 8, 1945	21.37	7,170				
	June 12, 1945	24.77	12,300				
	July 10, 1945	22.58	8,640				

a Annual peak only.

b Approximate discharge.

RED RIVER BASIN

3285. Washita River near Pauls Valley, Okla.

Location.--Lat 34°45', long 97°15', in SE $\frac{1}{4}$ sec.1, T.3 N., R.1 W., on downstream side of right pier of bridge on U. S. Highway 77, 2 miles northwest of Pauls Valley, 6 miles downstream from Owl Creek, 7 miles upstream from Washington Creek, and at mile 146.5.

Drainage area.--5,330 sq mi.

Gage.--Nonrecording prior to Jan. 26, 1939; recording thereafter. Prior to Oct. 7, 1948, at site 0.7 mile upstream at datum 1.53 ft higher. Datum of present gage is 854.61 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 18,000 cfs and extended above.

Bankfull stage.--24 ft. At upstream site, 25 ft.

Historical data.--According to local residents in 1938, the flood in 1908 was maximum known and in 1941, it was reported as similar to flood of June 10, 1941. In 1938, local residents reported that a notable flood occurred in 1923.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1938	Feb. 16, 1938	-	10,000	1947	Apr. 25, 1947	20.99	7,870	
	Mar. 29, 1938	23.90	7,800		May 12, 1947	21.02	7,870	
	May 7, 1938	22.41	6,570		May 19, 1947	28.04	15,200	
	May 23, 1938	24.92	8,880		May 25, 1947	27.52	14,500	
1939	June 30, 1939	16.93	4,260	May 29, 1947	17.67	5,220		
		16.93	4,260	June 2, 1947	26.25	12,500		
1940	July 4, 1940	23.42	7,150	June 24, 1947	25.41	12,100		
		23.42	7,150	July 3, 1947	17.67	5,540		
1941	May 10, 1941	19.13	5,120	1948	Mar. 3, 1948	16.23	5,600	
	May 25, 1941	19.81	5,430		May 26, 1948	16.15	5,040	
	June 2, 1941	22.3	6,610		June 21, 1948	17.02	5,600	
	June 10, 1941	30.60	22,000		June 25, 1948	24.00	12,100	
	Sept. 9, 1941	20.50	5,550	1949	May 1, 1949	21.62	10,400	
1942	Oct. 5, 1941	23.35	7,070		May 22, 1949	26.42	21,700	
	Oct. 15, 1941	21.7	6,150		May 30, 1949	17.48	7,200	
1943	Oct. 31, 1941	29.15	16,200		June 9, 1949	18.78	9,180	
	Apr. 9, 1942	25.34	9,000	1950	May 11, 1950	29.88	30,000	
	Apr. 20, 1942	24.70	7,840		May 26, 1950	15.64	8,600	
	Apr. 25, 1942	24.50	7,700		June 12, 1950	12.10	5,390	
	Oct. 30, 1942	18.94	5,180		July 22, 1950	15.74	9,200	
1944	May 11, 1943	27.75	14,000	July 26, 1950	18.11	11,400		
	May 18, 1943	25.33	9,890	Sept. 14, 1950	11.84	5,600		
	May 20, 1943	23.47	7,850	1951	May 1, 1951	16.60	11,700	
	June 6, 1943	23.63	7,990		May 23, 1951	23.00	20,100	
	June 9, 1944	21.18	8,010		May 27, 1951	13.80	6,480	
June 14, 1944	20.26	7,280	June 11, 1951		17.24	11,100		
1945	Mar. 3, 1945	18.53	5,430	June 14, 1951	15.27	8,410		
		23.56	8,170	1952	May 18, 1952	18.29	15,100	
	Mar. 19, 1945	19.59	5,990		May 28, 1952	13.41	8,120	
	Apr. 20, 1945	23.20	8,100	1953	July 23, 1953	10.14	3,830	
	June 8, 1945	21.70	7,680		1954	Oct. 23, 1953	19.15	17,400
	June 15, 1945	26.23	9,770			Oct. 26, 1953	15.39	10,700
	June 17, 1945	24.21	8,380	May 2, 1954		15.60	11,000	
	June 22, 1945	19.21	5,430	May 12, 1954		14.25	9,200	
	1946	July 10, 1945	23.28	8,600	1955	May 21, 1955	17.65	14,500
Oct. 1, 1945		29.70	18,600	June 16, 1955		12.30	5,860	
May 23, 1946		22.06	7,750	June 19, 1955		12.80	6,530	
May 31, 1946		26.19	9,860	Sept. 26, 1955		12.98	6,950	
1947	June 30, 1946	23.1	8,600	1956	Oct. 5, 1955	16.71	13,000	
	Dec. 11, 1946	21.92	8,590					
	Apr. 15, 1947	23.80	10,400					

Peak stages and discharges of Washita River near Pauls Valley, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1957	Apr. 21, 1957	16.90	12,900	1957	May 26, 1957	24.64	29,300	
	Apr. 23, 1957	17.00	12,400		May 30, 1957	21.18	21,500	
	Apr. 26, 1957	15.22	9,760		June 4, 1957	16.35	11,600	
	May 1, 1957	12.18	5,260		June 15, 1957	17.08	13,200	
	May 3, 1957	13.59	7,360		June 23, 1957	13.84	7,360	
	May 9, 1957	14.95	9,760		Sept. 21, 1957	19.10	18,600	
	May 13, 1957	17.16	13,600					
	May 18, 1957	27.34	35,800		1958	June 21, 1958	13.75	8,890
	May 22, 1957	16.10	10,800					

3290. Rush Creek at Purdy, Okla.

Location.--Lat 34°42', long 97°35', in center of NE $\frac{1}{4}$ sec. 26, T.3 N., R.4 W., on right bank 20 ft downstream from low-water bridge on State Highway 76, three-quarters of a mile south of Purdy, 8 $\frac{1}{2}$ miles south of Lindsay, and at mile 26.1.

Drainage area.--145 sq mi.

Gage.--Nonrecording prior to Aug. 23, 1943, and May 11, 1950, to Sept. 18, 1952; recording during remainder of record. Prior to Oct. 1, 1942, at datum 5.00 ft higher. Datum of last used gage was 989.7 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements to 14,500 cfs and extended on basis of conveyance studies.

Bankfull stage.--23 ft.

Historical data.--According to local residents, the flood of May 10, 1950, was the highest known since flood in 1908, which exceeded it by 1 or 2 ft.

Remarks.--Records 1939-50 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	July 3, 1940	15.95	10,400	1946	June 29, 1946	14.30	6,500
1941	Apr. 29, 1941	12.47	7,200	1947	Dec. 11, 1946	11.92	6,400
	June 1, 1941	15.60	9,990		Apr. 24, 1947	11.85	5,040
	June 6, 1941	21.00	15,200	1948	June 24, 1948	15.25	6,600
	June 9, 1941	16.80	11,400				
	June 15, 1941	13.60	8,480				
1942	Oct. 2, 1941	13.10	8,440	1949	May 1, 1949	11.60	3,950
	Oct. 4, 1941	13.80	4,950				
	Oct. 30, 1941	15.30	10,300	1950	May 10, 1950	27.0	30,000
	Apr. 8, 1942	-	10,000		May 26, 1950	18.20	14,300
	June 22, 1942	13.40	8,750		Aug. 24, 1950	16.10	11,400
1943	May 10, 1943	26.10	15,300	1951	Sept. 13, 1950	19.70	16,400
	May 16, 1943	18.50	9,100		May 1, 1951	19.90	18,400
1944	June 9, 1944	17.40	8,250	May 18, 1951	18.89	17,000	
				June 9, 1951	12.0	7,600	
1945	Mar. 11, 1945	18.00	8,700	June 11, 1951	10.9	6,160	
		19.43	9,820	July 2, 1951	11.1	6,020	
		15.40	6,750	1952	May 17, 1952	14.1	11,200
		16.20	7,350		May 28, 1952	11.5	7,860
		17.50	9,750		1953	Mar. 30, 1953	9.54
15.60	6,900	July 20, 1953	10.10	6,110			
1946	May 23, 1946	15.60	6,900	1954	Oct. 22, 1953	20.19	a20,000
	May 31, 1946	14.60	6,150				

a Annual peak only.

3295. Rush Creek near Maysville, Okla.

Location--Lat 34°44', long 97°24', in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.10, T.3 N., R.2 W., near right bank on downstream side of pier of bridge on State Highway 74, 2 $\frac{1}{2}$ miles downstream from Panther Creek, 5.3 miles south of Maysville, and at mile 14.2.

Drainage area--206 sq mi.

Gage--Recording. Datum of gage is 903.04 ft above mean sea level, datum of 1929 (levels by State Highway Commission).

Stage-discharge relation--Defined by current-meter measurements below 5,300 cfs and extended on basis of contracted-opening measurement at 38,500 cfs.

Bankfull stage--20 ft.

Remarks--Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	15.40	12,400	1957	Apr. 23, 1957	12.90	8,890
	May 10, 1954	14.70	11,200		May 13, 1957	13.81	10,200
	May 12, 1954	12.65	7,820		May 18, 1957	23.62	38,500
1955	Apr. 26, 1955	13.45	9,040		May 22, 1957	10.70	6,620
	May 19, 1955	16.12	13,700		May 25, 1957	18.73	18,700
	June 16, 1955	12.65	8,420		May 30, 1957	13.02	9,600
					June 15, 1957	17.50	16,800
1956	Oct. 5, 1955	7.78	2,790	1958	May 3, 1958	9.75	5,060
1957	Apr. 21, 1957	14.30	11,000				

3305. Caddo Creek near Ardmore, Okla.

Location--Lat 34°15', long 97°06', on west line of NW $\frac{1}{4}$ sec.4, T.4 S., R.2 E., at middle of downstream handrail of county highway bridge, 5 miles north of Ardmore and 10 miles upstream from mouth.

Drainage area--298 sq mi.

Gage--Nonrecording. Datum of gage is 709.48 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation--Defined by current-meter measurements below 15,000 cfs and extended above.

Bankfull stage--19 ft.

Remarks--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 2,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	Mar. 12, 1937	23.0	4,750	1941	Apr. 15, 1941	20.2	2,670
	Apr. 21, 1937	23.6	5,850		Apr. 30, 1941	22.0	3,750
	Aug. 22, 1937	-	7,000		May 21, 1941	20.2	2,620
1938	Feb. 16, 1938	27.94	18,800		June 10, 1941	19.9	2,550
	Mar. 29, 1938	24.00	6,880		June 15, 1941	21.7	3,450
1939	June 12, 1939	11.79	710	1942	Oct. 5, 1941	26.90	14,800
					Oct. 31, 1941	25.60	10,800
1940	May 9, 1940	22.10	3,490		Apr. 8, 1942	24.90	8,940
	May 18, 1940	22.50	3,970		Apr. 20, 1942	26.20	12,500
	May 22, 1940	25.16	9,700		Apr. 25, 1942	24.20	7,320
	May 28, 1940	21.50	2,970		May 18, 1942	21.80	3,490
	June 10, 1940	25.10	9,440		June 22, 1942	20.5	2,750
	Aug. 17, 1940	22.70	4,250	June 30, 1942	21.10	2,920	
1941	Nov. 26, 1940	22.2	3,930	1943	Oct. 30, 1942	21.50	3,280
					Nov. 8, 1942	24.70	8,460

Peak stages and discharges of Caddo Creek near Ardmore, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1943	Apr. 11, 1943	19.95	2,560	1947	Dec. 11, 1946	26.00	11,900	
	Apr. 17, 1943	24.50	7,980		Apr. 15, 1947	23.42	5,620	
	May 10, 1943	27.6	17,500		May 17, 1947	23.60	6,020	
	May 28, 1943	23.20	6,240		May 20, 1947	23.50	5,820	
1944	Feb. 28, 1944	21.50	3,280		May 25, 1947	24.55	8,230	
					June 23, 1947	21.00	2,980	
1945	Feb. 21, 1945	19.80	2,510	1948	May 10, 1948	20.03	2,560	
	Apr. 2, 1945	20.00	2,560		July 12, 1948	20.31	2,650	
	Apr. 15, 1945	23.80	6,440	1949	Mar. 21, 1949	21.60	3,350	
	June 12, 1945	23.50	5,820		May 23, 1949	20.45	2,680	
	June 17, 1945	22.50	4,130		May 27, 1949	23.90	6,660	
	Mar. 15, 1945	28.60	22,300		June 13, 1949	26.00	11,900	
	Mar. 19, 1945	25.55	10,600		1950	Oct. 24, 1949	21.45	3,220
	Apr. 24, 1945	24.60	8,230			Feb. 13, 1950	21.28	3,160
	July 10, 1945	25.53	10,600	Apr. 29, 1950		23.83	6,440	
Aug. 7, 1945	24.20	7,320	May 2, 1950	22.00		3,630		
Sept. 27, 1945	25.25	9,830	May 11, 1950	20.42		2,630		
1946	Oct. 1, 1945	25.50	10,500	July 23, 1950		20.00	2,560	
	Jan. 5, 1946	25.90	11,600	Aug. 2, 1950		21.55	3,350	
	Feb. 18, 1946	23.70	6,230	Aug. 23, 1950	23.82	6,440		
	Aug. 19, 1946	21.30	3,160	Sept. 13, 1950	19.83	2,510		
	Aug. 26, 1946	23.80	6,440					
	Aug. 29, 1946	22.00	3,630					

3310. Washita River near Durwood, Okla.

Location.--Lat 34°14', long 96°58', in SE $\frac{1}{4}$ sec.3, T.4 S., R.3 E., near left bank on downstream side of pier of bridge on State Highway 18, 1.3 miles downstream from Caddo Creek, 4 miles north of Durwood, and at mile 63.4.

Drainage area.--7,202 sq mi.

Gage.--Nonrecording prior to Feb. 16, 1939, and Dec. 15, 1950, to Feb. 19, 1952; recording for remainder of record. Dec. 15, 1950, to Feb. 19, 1952, at site 500 ft upstream at present datum. Datum of present gage is 650.57 ft above mean sea level (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--27 ft.

Historical data.--Data for 1927 obtained from local residents in 1928, and for 1908 in 1938.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1908	May 1908	42	a71,000	1933	Dec. 24, 1933	26.55	15,700
1927	April 1927	38	a43,500		Mar. 6, 1933	25.68	14,800
					May 16, 1933	32.03	23,300
					May 25, 1933	33.92	27,600
1929	May 12, 1929	26.24	15,300	Aug. 3, 1933	22.10	11,500	
	May 16, 1929	23.16	12,500	1934	Mar. 2, 1934	17.61	8,020
	June 1, 1929	26.3	15,400		1935	May 6, 1935	28.89
1930	May 11, 1930	22.90	12,200	May 19, 1935		37.22	36,400
	May 16, 1930	27.94	16,900	June 16, 1935		25.40	14,600
	May 23, 1930	22.06	11,500	1936		Dec. 7, 1935	24.95
1931	Mar. 20, 1931	23.32	11,700		May 9, 1936	31.97	24,500
					Sept. 28, 1936	27.02	16,400
1932	Oct. 23, 1931	21.02	10,600	1937	Apr. 21, 1937	20.4	10,200
	Nov. 24, 1931	28.20	17,300		Aug. 22, 1937	22.5	11,800
	Jan. 6, 1932	27.58	16,700	1938	Feb. 17, 1938	41.20	68,000
	Jan. 17, 1932	20.4	10,100		Mar. 30, 1938	30.95	21,600
	Jan. 23, 1932	21.26	10,800				
	June 28, 1932	21.02	10,600				
	July 7, 1932	27.05	16,100				

a Annual peak only.

Peak stages and discharges of Washita River near Durwood, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	May 9, 1938	25.33	13,700	1947	June 24, 1947	29.01	23,400
	May 25, 1938	28.21	17,000		1948	Feb. 26, 1948	22.99
1939	July 1, 1939	10.04	3,870	June 25, 1948		24.25	19,100
	1940	May 22, 1940	22.85	11,700		June 28, 1948	17.75
May 28, 1940		22.08	11,200	1949	Mar. 21, 1949	16.14	10,400
July 3, 1940		23.63	12,300		May 2, 1949	23.90	20,400
1941	Apr. 16, 1941	21.33	10,900		May 24, 1949	24.40	21,100
	June 13, 1941	31.56	21,000		May 27, 1949	23.01	19,200
	Sept. 10, 1941	24.38	13,100	June 13, 1949	26.18	23,800	
1942	Oct. 6, 1941	38.27	38,800	1950	May 12, 1950	42.57	80,100
	Oct. 16, 1941	21.58	10,600		May 27, 1950	16.24	12,600
	Oct. 31, 1941	44.37	85,000		July 23, 1950	17.55	10,600
	Apr. 9, 1942	38.25	44,900		July 26, 1950	18.14	13,200
	Apr. 21, 1942	35.41	32,500		Aug. 24, 1940	17.66	13,900
	Apr. 25, 1942	34.68	30,200		Sept. 15, 1950	16.26	12,600
	May 4, 1942	22.52	11,000	1951	May 2, 1951	16.40	11,700
	June 10, 1942	23.30	13,000		May 21, 1951	24.41	25,900
	June 23, 1942	30.38	18,800		May 28, 1951	16.30	11,600
	1943	Oct. 31, 1942	23.08		12,200	June 7, 1951	19.00
Nov. 8, 1942		26.23	15,200	June 12, 1951	27.08	28,700	
Apr. 12, 1943		26.18	15,700	1952	May 18, 1952	22.16	18,500
Apr. 17, 1943		23.30	12,800		May 29, 1952	16.17	11,800
May 11, 1943		44.35	91,300	1953	Apr. 24, 1953	16.93	11,800
May 19, 1943		24.54	13,900		May 12, 1953	20.10	17,800
May 28, 1943		25.65	15,100		July 20, 1953	21.20	20,000
June 6, 1943	20.33	10,400	1954	Oct. 24, 1953	26.26	30,300	
1944	June 15, 1944	21.20		11,800	Oct. 26, 1953	23.17	23,800
1945	Mar. 3, 1945	21.10		11,700	May 1, 1954	18.57	15,300
	Mar. 12, 1945	23.20		13,400	May 3, 1954	24.11	26,200
	Mar. 16, 1945	38.51		50,500	May 13, 1954	26.28	31,500
	Mar. 20, 1945	34.38	32,500	June 8, 1954	16.93	12,500	
	Apr. 16, 1945	25.31	15,400	1955	May 20, 1955	23.34	26,200
	Apr. 24, 1945	31.63	25,000		June 17, 1955	15.70	11,200
	June 10, 1945	32.19	25,900		Sept. 27, 1955	25.39	31,100
	June 13, 1945	33.58	29,300		1956	Oct. 6, 1955	17.20
	June 18, 1945	31.37	23,400	1957		Apr. 3, 1957	21.00
	July 11, 1945	31.65	25,900		Apr. 21, 1957	25.37	30,300
	Aug. 8, 1945	21.61	11,100		Apr. 24, 1957	26.08	32,100
	Sept. 28, 1945	31.34	26,100		Apr. 26, 1957	26.11	29,300
	1946	Oct. 1, 1945	41.54		64,800	May 1, 1957	19.65
Jan. 5, 1946		33.30	29,800	May 4, 1957	19.45	17,400	
Feb. 19, 1946		26.54	18,300	May 14, 1957	24.54	26,800	
June 1, 1946		29.74	22,800	May 19, 1957	42.30	98,000	
June 30, 1946		19.98	12,500	May 23, 1957	23.00	28,500	
1947		Dec. 12, 1946	34.12	31,800	May 26, 1957	27.32	41,000
	Apr. 10, 1947	17.60	10,700	May 31, 1957	24.30	33,300	
	Apr. 16, 1947	31.22	27,400	June 15, 1957	21.36	22,200	
	Apr. 25, 1947	19.45	12,700	Sept. 22, 1957	24.10	25,300	
	May 13, 1947	23.85	17,500	1958	May 3, 1958	15.88	11,900
	May 17, 1947	26.85	21,000		June 22, 1958	14.94	10,500
	May 21, 1947	32.23	29,300				
	May 25, 1947	35.22	35,800				
	June 2, 1947	19.77	12,700				

3320. Red River near Colbert, Okla.
(Published as "near Denison, Tex." prior to 1934)

Location.--Lat 33°49', long 96°31', in E½ sec.36, T.8 S., R.7 E., near center of span on downstream side of pier of former toll bridge, 1.3 miles downstream from Sand Creek, 2 miles south of Colbert, 2.9 miles downstream from Denison Dam, and at mile 723.0.

Drainage area.--39,777 sq mi, of which about 33,841 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Sept. 25, 1934; recording thereafter. Datum of gage was 13.00 ft higher 1906-8, 9.49 ft higher Oct. 1, 1923, to Sept. 30, 1931, and 9.71 ft higher Oct. 1, 1931, to Sept. 24, 1934. At site 0.6 mile upstream, datum was 13.00 ft higher 1909-17 and 10.00 ft higher during 1918-23 and Sept. 25, 1934, to July 28, 1942. Datum of present gage is 497.36 ft above mean sea level, datum of 1929. All stages adjusted to present site and datum.

Stage-discharge relation.--Defined by current-meter measurements below 180,000 cfs and extended above.

Bankfull stage.--35 ft.

Historical data.--In 1906, it was determined that highest stage known was 36.6 ft, date unknown (probably July 1876). According to local resident, the flood of May 26, 1908, was greatest known since at least 1837.

Remarks.--Gage-height records prior to 1924 collected by U. S. Weather Bureau. Stage-relation curve furnished by Corps of Engineers. Flow completely regulated since Oct. 31, 1943, by Lake Texoma (capacity, 5,530,300 acre-ft), with some prior regulation by construction operations. Base for partial-duration series, 38,000 cfs. Only annual peaks are shown prior to 1924 and subsequent to 1942.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1906	Aug. 11, 1906	26.4	-	1927	Apr. 18, 1927	24.7	99,600
1907	May 27, 1907	25.1	-		Apr. 21, 1927	20.5	47,800
1908	May 26, 1908	45.5	-		July 14, 1927	24.3	94,400
1909	June 27, 1909	21.1	-	1928	May 19, 1928	25.3	107,000
1912	June 20, 1912	21.8	-		June 18, 1928	20.2	45,400
1914	Dec. 5, 1913	25.4	-		June 21, 1928	20.0	42,000
1915	June 9, 1915	35.5	-	1929	May 14, 1929	24.7	99,600
1916	Oct. 19, 1915	29.8	-		Sept.12, 1929	21.3	57,500
1918	Apr. 15, 1918	23.6	-	1930	May 9, 1930	19.8	45,700
1919	Oct. 29, 1918	26.1	-		May 18, 1930	20.0	46,400
1920	(a)	25.4	-		June 18, 1930	19.7	39,800
1921	Oct. 25, 1920	23.8	-	1931	Oct. 16, 1930	22.3	66,900
1922	May 11, 1922	27.7	-		Dec. 7, 1930	20.2	46,500
1923	June 12, 1923	21.8	-	1932	Jan. 7, 1932	19.5	38,600
1924	Oct. 17, 1923	29.1	158,000		Feb. 16, 1932	23.3	81,500
	Oct. 28, 1923	22.0	62,000		June 29, 1932	21.0	52,500
	Nov. 15, 1923	20.3	42,200		July 9, 1932	19.8	40,800
	Apr. 26, 1924	20.7	48,800	1933	Dec. 26, 1932	19.8	38,600
	Apr. 29, 1924	20.3	44,400		May 16, 1933	20.8	49,500
1925	Sept.16, 1925	27.1	133,000		May 25, 1933	25.2	106,000
1926	Aug. 17, 1926	19.8	39,700	1934	Mar. 1, 1934	18.6	27,300
1927	Oct. 6, 1926	26.2	122,000	1935	May 4, 1935	20.5	44,500
	Oct. 12, 1926	24.0	91,800		May 12, 1935	20.2	39,500
	Apr. 11, 1927	21.3	53,700		May 19, 1935	28.6	154,000
	Apr. 14, 1927	23.5	80,200		May 23, 1935	31.8	201,000
					May 29, 1935	22.7	71,500
					June 2, 1935	21.9	61,600
					June 15, 1935	24.6	97,400
					June 18, 1935	22.3	67,100
				1936	Dec. 6, 1935	20.7	46,500
					May 9, 1936	21.4	61,600
					Sept.22, 1936	20.5	41,500
					Sept.28, 1936	23.4	86,600

a Oct. 11, 1919, May 18, 1920.

Peak stages and discharges of Red River near Colbert, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	June 11, 1937	21.6	57,200	1945	May 3, 1945	22.12	47,700
1938	Feb. 18, 1938	27.3	138,000	1946	Oct. 8, 1945	21.44	40,600
	Mar. 29, 1938	23.8	93,800				
	May 25, 1938	20.4	60,000	1947	May 29, 1947	24.00	69,200
	June 11, 1938	19.4	47,000				
1939	June 24, 1939	19.5	39,100	1948	July 12, 1948	18.57	34,500
1940	July 4, 1940	20.4	44,400	1949	June 14, 1949	18.35	32,800
1941	Apr. 18, 1941	20.5	45,100	1950	Aug. 10, 1950	20.04	40,100
	May 3, 1941	19.9	40,600				
	May 7, 1941	26.4	117,000	1951	May 26, 1951	21.02	48,300
	May 24, 1941	22.3	67,000				
	June 4, 1941	21.2	59,000	1952	Apr. 28, 1952	11.60	10,400
	June 10, 1941	31.8	182,000				
	June 17, 1941	24.3	94,600	1953	Aug. 10, 1953	11.33	9,650
1942	Oct. 5, 1941	30.0	162,000	1954	May 16, 1954	18.92	37,700
	Oct. 25, 1941	21.6	59,000				
	Nov. 1, 1941	28.3	149,000	1955	June 23, 1955	19.45	42,300
	Apr. 9, 1942	25.2	106,000				
	Apr. 25, 1942	32.0	183,000	1956	Oct. 8, 1955	19.56	41,400
	May 1, 1942	22.0	66,200				
	May 6, 1942	19.9	44,300	1957	June 5, 1957	26.26	102,000
1943	May 15, 1943	21.34	60,000	1958	May 9, 1958	18.31	44,100
1944	June 22, 1944	12.33	5,640				

3325. Blue River near Blue, Okla.

Location.--Lat 33°59', long 96°15', on south line of SW¹/₄ sec.34, T.6 S., R.10 E., near right bank on downstream side of pier of bridge on old U. S. Highway 70, 2 miles southwest of Blue, 6.5 miles upstream from Caddo Creek, 8 miles east of Durant, and at mile 37.6.

Drainage area.--478 sq mi.

Gage.--Nonrecording prior to Mar. 13, 1945; recording thereafter. Datum of gage is 498.36 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--23 ft.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	Jan. 15, 1937	22.00	3,370	1942	Oct. 31, 1941	22.33	4,150
1938	Jan. 24, 1938	23.30	4,470		Apr. 9, 1942	27.20	10,100
	Feb. 17, 1938	31.81	34,400		Apr. 25, 1942	31.69	33,600
	Mar. 30, 1938	25.60	6,940		June 11, 1942	24.40	5,480
1939	Apr. 16, 1939	21.50	3,320	1943	Nov. 9, 1942	26.00	7,500
1940	Apr. 7, 1940	24.82	5,940		Apr. 18, 1943	24.80	5,850
	May 23, 1940	26.82	9,000		May 11, 1943	28.73	15,300
	June 18, 1940	25.10	6,290		May 29, 1943	28.00	12,500
	July 23, 1940	24.30	5,390	June 6, 1943	26.40	8,260	
1941	Apr. 16, 1941	22.87	4,480	1944	Feb. 25, 1944	22.36	4,200
	Apr. 23, 1941	23.97	5,170		Feb. 28, 1944	27.25	10,100
					Mar. 20, 1944	22.52	4,250
1942	Oct. 4, 1941	25.30	6,430		May 2, 1944	22.78	4,420
	Oct. 26, 1941	24.50	5,570	May 27, 1944	27.20	10,100	
			1945	Feb. 21, 1945	28.70	15,300	

Peak stages and discharges of Blue River near Blue, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)			
1945	Feb. 28, 1945	25.00	6,060	1950	May 12, 1950	24.30	4,750			
	Mar. 3, 1945	23.06	4,600		July 28, 1950	23.48	4,150			
	Mar. 12, 1945	25.40	6,250		1951	June 13, 1951	24.92	5,270		
	Mar. 16, 1945	27.08	9,300	1952		Apr. 23, 1952	27.33	8,530		
	Mar. 19, 1945	29.59	17,300			1953	Apr. 24, 1953	25.00	5,360	
	Mar. 31, 1945	27.94	11,300				July 20, 1953	27.07	8,090	
	Apr. 3, 1945	25.30	6,130				July 25, 1953	24.06	4,590	
	Apr. 14, 1945	27.83	11,000				1954	May 2, 1954	25.45	6,000
	Apr. 16, 1945	26.73	8,440					May 12, 1954	26.32	7,260
	1945	May 16, 1945	22.67	4,200	1955	May 21, 1955	23.72	4,350		
June 13, 1945		26.30	7,660	1956		Apr. 30, June 1	12.19	978		
June 17, 1945		31.35	28,900			1957	Apr. 4, 1957	24.25	5,100	
July 8, 1945	24.49	5,330	Apr. 20, 1957	24.25	5,100					
1946	Feb. 14, 1946	24.04	4,780	Apr. 24, 1957	25.92		6,980			
	Feb. 19, 1946	27.40	9,530	Apr. 27, 1957	29.21	13,700				
	June 1, 1946	24.28	5,100	Apr. 25, 1957	29.43	14,300				
1947	Nov. 4, 1946	23.42	4,420	June 2, 1957	28.10	11,000				
	Nov. 6, 1946	29.32	16,000	Sept. 22, 1957	31.14	19,900				
	Dec. 12, 1946	29.96	19,200	1958	Nov. 6, 1957	25.08	5,980			
	May 22, 1947	23.17	4,480		Nov. 8, 1957	26.56	8,070			
1948	May 26, 1948	25.74	6,650		May 2, 1958	31.70	26,000			
	July 12, 1948	24.40	5,250							
1949	May 18, 1949	24.20	5,000							
1950	Feb. 13, 1950	25.45	5,750							
	May 2, 1950	27.42	8,770							

3340. Muddy Boggy Creek near Farris, Okla.

Location.--Lat 34°16', long 95°55', in NW $\frac{1}{4}$ sec. 26, T.3 S., R.13 E., on downstream side of right pier of main span of bridge on State Highway 3, 1.3 miles downstream from McGee Creek, $2\frac{1}{2}$ miles northwest of Farris, and 33.3 miles above confluence with Clear Boggy Creek.

Drainage area.--1,087 sq mi.

Gage.--Nonrecording prior to Mar. 13, 1945; recording thereafter. Datum of gage is 446.58 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 37,000 cfs and extended above.

Bankfull stage.--36 ft.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Jan. 24, 1938	30.60	12,300	1942	Apr. 25, 1942	42.19	41,200
	Feb. 17, 1938	43.10	52,500		June 10, 1942	38.19	22,300
	Mar. 29, 1938	35.70	17,800		July 12, 1942	31.00	11,400
	May 23, 1938	28.00	10,000	1943	Dec. 27, 1942	33.15	14,900
1939	Apr. 16, 1939	32.64	14,200		May 13, 1943	40.00	28,800
	1940	Apr. 7, 1940	36.6	19,600	1944	Feb. 28, 1944	33.40
May 22, 1940		32.6	14,200	Mar. 20, 1944		31.50	13,200
May 26, 1940		29.37	11,200	May 2, 1944		34.50	16,200
1941	Apr. 16, 1941	36.3	18,400	1945	Feb. 21, 1945	39.20	26,200
1942	Oct. 31, 1941	34.40	15,700		Feb. 27, 1945	31.25	12,000
	Apr. 9, 1942	37.60	21,000		Mar. 3, 1945	31.40	12,200
					Mar. 19, 1945	38.48	24,100

Peak stages and discharges of Muddy Bogy Creek near Farris, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1945	Mar. 30, 1945	34.41	16,200	1951	June 7, 1951	31.22	12,600	
	Apr. 18, 1945	36.33	19,400		June 12, 1951	41.78	38,800	
	May 15, 1945	33.99	15,600	1952	Apr. 13, 1952	32.17	13,000	
	June 12, 1945	35.50	18,000		Apr. 23, 1952	29.80	11,400	
	June 17, 1945	44.94	61,900		1953	Mar. 18, 1953	29.74	11,300
	Aug. 17, 1945	34.56	16,500			Apr. 24, 1953	36.30	18,500
	Sept. 27, 1945	34.07	15,700			Apr. 29, 1953	35.08	16,400
1946	Feb. 13, 1946	33.56	14,500	May 13, 1953	34.39	15,500		
	Feb. 19, 1946	34.92	16,600	July 21, 1953	40.37	27,000		
	June 1, 1946	29.21	10,200	1954	May 10, 1954	36.86	19,600	
1947	Nov. 6, 1946	38.35	23,900		1955	Mar. 22, 1955	30.88	12,200
	Dec. 12, 1946	39.57	29,500	Sept. 23, 1955		29.45	10,300	
	Apr. 11, 1947	30.25	11,600	Sept. 26, 1955		31.67	11,800	
	May 20, 1947	33.39	15,800	1956	May 25, 1956	19.26	5,240	
1948	July 12, 1948	27.90	9,710		1957	Apr. 3, 1957	37.06	19,200
1949	May 1, 1949	35.91	19,200	Apr. 26, 1957		40.40	26,600	
	1950	Jan. 14, 1950	30.34	11,000	May 25, 1957	40.09	25,900	
Feb. 13, 1950		31.63	12,300	June 4, 1957	36.88	18,800		
May 1, 1950		30.17	10,900	Sept. 22, 1957	41.00	28,200		
May 15, 1950		35.04	17,400	1958	Nov. 8, 1957	36.60	18,300	
July 30, 1950		31.35	12,100		May 2, 1958	39.79	25,100	
Aug. 2, 1950		31.20	11,900					
Sept. 16, 1950		37.81	23,400					

3350. Clear Bogy Creek near Caney, Okla.

Location.--Lat 34°15', long 96°12', in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.36, T.3 S., R.10 E., on downstream side of left pier of bridge on U. S. Highways 69 and 75, half a mile downstream from Caney Creek, 1.5 miles north of Caney, and at mile 24.1.

Drainage area.--720 sq mi.

Gage.--Nonrecording prior to Mar. 13, 1945; recording thereafter. Datum of gage is 485.05 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 43,000 cfs and extended above.

Bankfull stage.--19 ft.

Remarks.--Records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 7,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	February 1938	26.91	54,600	1945	June 18, 1945	25.20	31,100
1942	April 1942	26.8	52,800		Sept. 28, 1945	25.63	12,800
				1943	May 11, 1943	26.30	46,000
1944	Feb. 28, 1944	23.10	7,370		1947	Nov. 6, 1946	24.14
	Mar. 19, 1944	23.60	9,870	Dec. 11, 1946		26.77	52,800
	May 2, 1944	23.50	9,170	Apr. 5, 1947		22.52	7,300
	May 29, 1944	23.36	8,570	1948	Feb. 29, 1948	23.00	9,000
1945	Feb. 21, 1945	25.00	28,600		May 25, 1948	24.28	20,200
	Mar. 4, 1945	23.00	9,000		June 26, 1948	23.60	12,800
	Mar. 12, 1945	22.70	7,620	1949	May 3, 1949	24.00	16,600
	Mar. 16, 1945	24.87	27,300		1950	May 2, 1950	23.29
	Mar. 20, 1945	24.52	22,500	May 13, 1950		23.75	14,600
	Mar. 30, 1945	23.61	12,800	July 13, 1950		22.92	8,600
	Apr. 16, 1945	25.12	29,800	1951		June 12, 1951	23.63
May 15, 1945	23.04	9,000					
June 12, 1945	23.39	11,300					

Peak stages and discharges of Clear Boggy Creek near Caney, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Apr. 22, 1952	23.21	10,000	1957	Apr. 4, 1957	22.50	8,580
1953	Apr. 24, 1953	22.62	7,700		Apr. 23, 1957	23.40	15,700
	July 21, 1953	22.68	8,050		Apr. 26, 1957	23.78	18,600
1954	May 3, 1954	23.30	11,000		May 2, 1957	22.13	7,330
	May 13, 1954	23.05	9,570		May 20, 1957	22.35	8,000
					May 25, 1957	24.02	19,000
1955	Mar. 22, 1955	21.93	6,220		June 4, 1957	23.25	12,700
					Sept. 23, 1957	24.54	21,700
1956	Feb. 18, 1956	15.86	2,540	1958	Nov. 7, 1957	22.69	8,420
					May 2, 1958	23.14	10,200

3355. Red River at Arthur City, Tex.

Location.--Lat 33°53', long 95°30', in NW¹ sec.11, T.8 S., R.17 E., near right bank on downstream side of pier of bridge on U. S. Highway 271 at Arthur City, 10.6 miles downstream from Muddy Boggy River, 26.0 miles upstream from Kiamichi River, and at mile 633.1.

Drainage area.--44,531 sq mi, of which about 38,595 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Mar. 25, 1940; recording thereafter. Prior to 1935, at railroad bridge 200 ft upstream at present datum. Datum of present gage is 380.07 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined in recent years by current-meter measurements below 200,000 cfs. Rating for 1906-11 extended above 41,000 cfs on basis of records for later years.

Bankfull stage.--26 ft.

Remarks.--Considerable regulation since 1943 by Lake Texoma, 92.8 miles above station. Records for 1936-58 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 50,000 cfs. Only annual peak stages are shown 1891-1905, 1912-35.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1891	June 10, 1891	30.0	-	1907	July 12, 1907	20.8	52,000
1892	May 19, 1892	34.8	-	1908	Apr. 12, 1908	22.0	60,000
1893	Mar. 9, 1893	15.5	-		May 14, 1908	21.0	53,300
1894	Mar. 21, 1894	22.2	-		May 28, 1908	43.2	400,000
					June 7, 1908	32.1	170,000
1895	July 13, 1895	25.0	-	June 20, 1908	28.6	121,000	
1897	May 14, 1897	21.9	-	1909	Dec. 2, 1908	20.0	47,000
1898	May 8, 1898	21.1	-	1910	Dec. 3, 1909	18.0	35,600
1900	Nov. 25, 1899	28.6	-	1911	July 24, 1911	16.5	28,200
1901	Apr. 20, 1901	25.6	-	1912	Apr. 2, 1912	21.0	-
1902	June 1, 1902	27.3	-	1913	July 5, 1913	16.7	-
1903	July 5, 1903	28.8	-	1914	Dec. 7, 1913	26.7	-
1904	June 13, 1904	24.0	-	1915	June 10, 1915	33.7	-
1905	May 31, 1905	25.1	-	1916	Oct. 20, 1915	29.8	-
1906	May 4, 1906	26.1	93,800	1917	June 2, 1917	16.0	-
	Aug. 13, 1906	23.0	67,200	1918	Apr. 16, 1918	22.0	-
1907	May 29, 1907	23.2	68,800	1919	Oct. 30, 1918	22.0	-
	June 2, 1907	21.0	53,300	1920	May 19, 1919	24.2	-

Peak stages and discharges of Red River at Arthur City, Tex.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1921	Oct. 27, 1920	21.7	-	1943	May 15, 1943	22.40	94,400
1922	May 12, 1922	26.2	-		May 18, 1943	21.20	81,200
					May 31, 1943	19.56	63,000
1923	Sept. 23, 1923	20.0	-	1944	May 3, 1944	15.93	34,700
1924	Oct. 18, 1923	28.2	-	1945	Feb. 22, 1945	21.25	80,000
1925	Sept. 18, 1925	25.0	-		Feb. 28, 1945	19.68	66,000
1926	Aug. 18, 1926	25.0	-		Mar. 18, 1945	20.00	65,500
					Mar. 31, 1945	19.17	62,800
1927	Apr. 16, 1927	27.0	-		Apr. 21, 1945	19.60	61,700
					June 13, 1945	21.92	91,000
1928	May 21, 1928	24.7	-		June 18, 1945	21.60	88,000
					July 11, 1945	18.60	51,100
1929	May 15, 1929	26.7	-	1946	Oct. 6, 1945	18.86	59,800
					Oct. 9, 1945	19.70	68,000
1930	May 19, 1930	21.7	-		Feb. 19, 1946	17.89	57,500
					Feb. 23, 1946	17.82	56,500
1931	Oct. 17, 1930	18.8	-	1947	Nov. 7, 1946	23.60	104,000
1932	Feb. 18, 1932	25.0	-		Dec. 12, 1946	21.67	86,700
					June 4, 1947	20.16	68,500
1933	May 27, 1933	25.0	-	1948	Feb. 26, 1948	18.02	57,700
1934	Mar. 3, 1934	18.5	-		May 12, 1948	20.46	75,000
					July 13, 1948	19.42	64,500
1935	June 17, 1935	31.7	-	1949	Jan. 25, 1949	17.34	55,900
1936	Sept. 29, 1936	22.8	95,200	1950	Jan. 14, 1950	17.55	50,000
1937	June 12, 1937	20.6	71,800		Feb. 13, 1950	20.02	69,400
1938	Jan. 24, 1938	19.2	58,100		May 3, 1950	18.26	55,200
	Feb. 19, 1938	34.3	222,000		July 27, 1950	18.40	52,800
	Mar. 30, 1938	25.9	148,000	1951	June 8, 1951	19.70	60,600
	May 26, 1938	18.8	54,500		June 12, 1951	19.50	58,500
1939	Apr. 17, 1939	19.6	58,100		June 17, 1951	21.01	74,500
1940	Apr. 7, 1940	17.82	51,000	1952	Apr. 23, 1952	21.74	93,400
	May 24, 1940	18.35	55,200	1953	Apr. 30, 1953	18.54	53,800
1941	Apr. 19, 1941	19.13	63,800	1954	May 17, 1954	18.80	57,000
	Apr. 24, 1941	22.92	95,200	1955	June 24, 1955	17.30	42,200
	May 4, 1941	18.16	57,000	1956	Oct. 9, 1955	17.12	40,400
	May 8, 1941	24.27	108,000	1957	Apr. 28, 1957	23.70	99,200
	May 15, 1941	17.26	50,200		May 5, 1957	22.62	76,400
	May 25, 1941	19.56	67,800		May 14, 1957	22.30	79,200
	June 5, 1941	18.56	64,600		May 23, 1957	23.30	88,700
	June 12, 1941	31.27	183,000		May 27, 1957	25.00	105,000
1942	Oct. 7, 1941	28.00	148,000		June 6, 1957	28.35	136,000
	Oct. 27, 1941	19.13	61,000		Sept. 23, 1957	18.73	52,800
	Nov. 3, 1941	27.65	141,000	1958	Nov. 6, 1957	19.45	55,200
	Apr. 10, 1942	27.85	142,000		May 3, 1958	26.35	120,000
	Apr. 21, 1942	24.12	115,000				
	Apr. 26, 1942	31.55	199,000				
	May 7, 1942	19.57	53,900				
	June 11, 1942	18.90	58,000				

3365. Kiamichi River near Belzoni, Okla.

Location.--Lat 34°12', long 95°29', in SE $\frac{1}{4}$ sec.14, T.4 S., R.17 E., near right bank on downstream side of pier of bridge on State Highway 7, 1 $\frac{3}{4}$ miles northwest of Belzoni, 6.5 miles downstream from Cedar Creek, 10 miles upstream from Possum Creek, and at mile 47.7.

Drainage area.--1,423 sq mi.

Gage.--Nonrecording prior to Aug. 14, 1940; recording thereafter. Datum of gage is 389.91 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 55,000 cfs and extended above.

Bankfull stage.--28 ft.

Remarks.--Records 1932-35, 1937-58 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 18,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1916	October 1916	44.2	a72,000	1941	Apr. 18, 1941	32.31	25,400
					Apr. 23, 1941	29.32	21,400
1926	Jan. 17, 1926	26.7	18,000	1942	Apr. 8, 1942	37.13	35,800
	May 7, 1926	29.9	22,200		Apr. 25, 1942	39.75	45,200
1927	Jan. 25, 1927	32.60	25,900	1943	Dec. 27, 1942	37.02	35,500
	Apr. 15, 1927	39.60	43,800		May 11, 1943	41.60	55,300
	Apr. 20, 1927	35.76	31,500	1944	Feb. 28, 1944	33.40	27,300
	Apr. 23, 1927	32.70	26,000		May 2, 1944	36.40	31,000
1928	Dec. 14, 1927	41.24	51,600		May 29, 1944	29.20	21,300
	Apr. 6, 1928	40.3	46,900		June 6, 1944	32.45	25,700
	Apr. 23, 1928	36.7	33,600	1945	Feb. 21, 1945	40.40	47,900
	June 15, 1928	35.31	30,500		Feb. 27, 1945	36.70	32,600
1929	Dec. 17, 1928	27.16	18,700		Mar. 21, 1945	34.55	29,200
	Jan. 25, 1929	32.30	25,400		Mar. 30, 1945	33.48	27,300
	May 14, 1929	36.65	32,700		May 18, 1945	37.65	36,200
	May 18, 1929	29.40	21,500		June 12, 1945	41.72	54,600
	May 27, 1929	33.04	26,500		June 17, 1945	43.90	70,600
1930	May 4, 1930	33.16	25,800		Sept. 29, 1945	32.39	25,600
	May 23, 1930	29.40	21,500	1946	Feb. 13, 1946	34.45	27,800
1931	Feb. 9, 1931	25.6	16,700		Feb. 19, 1946	27.60	19,200
1932	January 1932	-	(b)		Apr. 24, 1946	32.00	24,100
	Feb. 17, 1932	41.0	50,400		June 1, 1946	31.37	23,300
	July 2, 1932	36.	34,500	1947	Nov. 4, 1946	35.32	29,700
1933	Dec. 24, 1932	34.37	31,400		Nov. 6, 1946	38.83	40,600
	Mar. 6, 1933	27.00	19,600		Nov. 10, 1946	30.52	22,000
1934	Apr. 5, 1934	35.00	32,500		Dec. 12, 1946	40.33	46,900
	May 5, 1934	25.8	18,000		Apr. 30, 1947	34.00	27,100
1935	Jan. 21, 1935	26.9	18,200	1948	Feb. 28, 1948	28.33	18,900
	Mar. 12, 1935	29.80	21,300		May 12, 1948	28.44	19,100
	Mar. 23, 1935	30.00	21,500		May 17, 1948	32.77	25,200
	Apr. 29, 1935	27.0	18,300	1949	Jan. 25, 1949	42.93	67,200
	May 5, 1935	41.40	52,800		Feb. 15, 1949	30.00	21,600
	May 16, 1935	33.0	25,800		May 1, 1949	40.68	51,200
	June 18, 1935	42.2	57,800		June 15, 1949	26.29	18,200
1936	Dec. 7, 1935	36.81	36,700	1950	Jan. 13, 1950	32.70	26,400
	Sept. 28, 1936	36.70	36,300		Feb. 12, 1950	38.17	38,800
1937	Jan. 9, 1937	31.53	23,900		July 7, 1950	29.84	22,200
1938	Jan. 24, 1938	35.60	31,100		July 31, 1950	30.50	23,200
	Feb. 18, 1938	44.00	71,400		Aug. 3, 1950	29.22	21,500
	Mar. 29, 1938	31.40	24,200		Sept. 17, 1950	40.02	47,000
	Mar. 31, 1938	32.60	25,900	1951	Feb. 20, 1951	36.52	35,400
1939	Apr. 18, 1939	36.53	35,500		June 12, 1951	40.05	49,400
1940	Apr. 7, 1940	24.10	14,700		July 3, 1951	28.05	20,600
1941	Apr. 16, 1941	32.55	26,000	1952	Apr. 12, 1952	31.80	25,600
					Apr. 23, 1952	33.20	27,800
				1953	Mar. 19, 1953	27.12	20,000
					Apr. 6, 1953	26.08	18,700

a Annual peak only.

b No record; maximum may have been slightly higher than that of Feb. 17.

Peak stages and discharges of Kiamichi River near Belzoni, Okla.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Apr. 24, 1953	36.52	37,200	1957	Feb. 7, 1957	26.10	18,700
	Apr. 29, 1953	35.08	33,600		Apr. 4, 1957	31.41	26,200
	May 13, 1953	30.58	24,800		Apr. 26, 1957	36.86	38,400
	July 21, 1953	35.92	35,600		May 1, 1957	30.33	24,400
1954	May 10, 1954	26.06	18,700	May 14, 1957	26.08	18,700	
				May 26, 1957	37.60	40,500	
1955	Feb. 20, 1955	28.68	22,100	1958	Sept. 22, 1957	38.23	42,300
	Mar. 22, 1955	30.70	25,000		Nov. 8, 1957	26.46	19,200
	Sept. 23, 1955	27.48	20,500		Nov. 18, 1957	30.82	25,200
	Sept. 26, 1955	32.22	27,600		May 3, 1958	40.78	55,200
1956	Feb. 18, 1956	20.00	12,000				

3370. Red River at Index, Ark.

Location.--Lat 33°33'05", long 94°02'25", in SW $\frac{1}{4}$ sec. 7, T.14 S., R.28 W., on downstream side of pier of bridge on U. S. Highway 71 at Index, 2 $\frac{1}{4}$ miles south of Ogden, 20.6 miles upstream from Little River, and at mile 485.3.

Drainage area.--48,030 sq mi, of which about 42,094 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Dec. 12, 1939, at present site or at Kansas City Southern Railway Co. bridge 1,100 ft upstream; recording at present site thereafter. Datum of gage is 246.87 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements since 1937.

Bankfull stage.--25 ft.

Remarks.--Considerable regulation by Lake Texoma, 241 miles above station since July 1942 (capacity, 5,530,300 acre-ft). Prior to 1951, records computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 70,000 cfs. Only annual peak stages are shown prior to 1937.

Peak stages and discharges of Red River at Index, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1918	Apr. 19, 1918	24.5	-	1942	Nov. 5, 1941	b25.90	128,000
1919	Oct. 31, 1918	22.0	-		Apr. 14, 1942	28.33	145,000
1920	May 21, 1920	27.6	-		Apr. 23, 1942	25.33	107,000
1921	June 27, 1921	23.5	-	1943	May 1, 1942	29.85	178,000
1922	May 15, 1922	26.3	-	1944	May 16, 1943	b24.35	112,000
1923	Sept. 24, 1923	23.3	-	1945	May 4, 1944	21.88	87,800
1924	Dec. 18, 1923	27.0	-		Feb. 24, 1945	23.25	105,000
1925	May 1, 1925	20.5	-		Mar. 2, 1945	24.17	120,000
1926	Aug. 21, 1926	23.5	-		May 20, 1945	22.63	110,000
1927	Apr. 23, 1927	30.8	-		Apr. 1, 1945	28.05	152,000
1928	May 23, 1928	25.0	-		June 14, 1945	23.90	101,000
1929	May 21, 1929	27.2	-		June 22, 1945	c24.37	120,000
1930	May 21, 1930	27.2	-	1946	Oct. 11, 1945	20.80	76,400
1931	Dec. 9, 1930	20.2	-	1947	Nov. 9, 1946	23.74	110,000
1932	Feb. 21, 1932	27.4	-		Dec. 15, 1946	23.47	108,000
1933	May 29, 1933	24.7	-		May 2, 1947	20.40	76,500
1934	Mar. 4, 1934	20.5	-		June 4, 1947	20.50	74,700
1935	May 25, 1935	31.1	-	1948	May 13, 1948	21.40	84,000
1936	Dec. 9, 1935	a22.1	-	1949	Jan. 29, 1949	24.56	112,000
1937	Oct. 1, 1936	24.00	86,100	1950	Jan. 16, 1950	20.98	78,800
1938	Jan. 26, 1938	25.95	114,000		Mar. 2, 1950	20.52	71,200
	Feb. 23, 1938	34.25	297,000		Feb. 15, 1950	23.48	108,000
	Apr. 2, 1938	27.55	139,400	1954	May 4, 1950	22.78	87,000
1939	Apr. 19, 1939	21.2	70,600		July 29, 1950	20.00	75,400
1940	May 26, 1940	19.7	70,100		Sept. 18, 1950	21.23	74,000
1941	Apr. 20, 1941	b20.29	74,000	1951	June 18, 1951	23.64	102,000
	Apr. 26, 1941	24.27	108,000	1952	Apr. 25, 1952	24.50	112,000
	May 10, 1941	23.36	94,100	1953	May 2, 1953	22.48	91,700
	June 16, 1941	27.83	145,000		May 17, 1953	20.50	76,400
1942	Oct. 9, 1941	24.55	106,000	1954	May 13, 1954	20.50	76,200
				1955	Mar. 23, 1955	17.88	56,500
				1956	Feb. 20, 1956	d15.94	41,800
				1957	Apr. 30, 1957	26.92	128,000
					May 16, 1957	24.03	86,000
					May 29, 1957	26.75	132,000
					June 8, 1957	28.56	154,000
				1958	May 6, 1958	25.32	145,000

a Maximum crest stage. Maximum stage occurred Sept. 30 on rise that crested Oct. 1, 1936.

b Occurred on following day.

c Occurred on preceding day.

d Occurred Oct. 14, 1955.

3375. Little River near Wright City, Okla.

Location.--Lat 34°04', long 95°03', on north edge of NW $\frac{1}{4}$ sec.6, T.6 S., R.22 E., at left bank on downstream side of bridge on county road, $1\frac{1}{2}$ miles upstream from White Oak Creek, 2 miles west of Wright City, and at mile 140.6.

Drainage area.--645 sq mi.

Gage.--Nonrecording prior to July 31, 1951; recording thereafter. Oct. 12, 1929, to Sept. 30, 1931, at site 1 mile downstream at datum 4.27 ft higher. Datum of present gage is 346.76 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 63,000 cfs and extended above.

Bankfull stage.--32 ft.

Remarks.--Records 1944-50 computed by Corps of Engineers and reviewed by Geological Survey. Due to effect of slope the peak discharge frequently occurs at different time than peak stage. Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1930	Dec. 16, 1929	32.66	30,000	1950	May 1, 1950	35.89	20,200	
	May 4, 1930	27.84	23,400		July 5, 1950	29.80	11,700	
	May 7, 1930	30.80	27,300		July 30, 1950	38.30	26,900	
	May 11, 1930	31.52	28,300		Aug. 2, 1950	38.83	28,700	
	May 16, 1930	25.00	18,700		Sept. 16, 1950	45.77	75,400	
	May 19, 1930	20.50	12,400					
	May 23, 1930	29.60	25,500					
1931	Feb. 9, 1931	22.86	15,700	1951	Feb. 15, 1951	31.60	13,700	
	Feb. 13, 1931	24.5	18,000		Feb. 18, 1951	35.00	18,600	
			Feb. 20, 1951		33.38	16,100		
			Apr. 21, 1951		29.30	11,100		
			June 10, 1951		34.80	18,300		
			June 12, 1951		41.51	43,200		
1945	Feb. 21, 1945	41.30	40,700	1952	June 14, 1951	28.00	9,860	
	Feb. 27, 1945	41.30	40,700		July 1, 1951	40.50	37,000	
	Mar. 3, 1945	31.0	13,000		Nov. 1, 1951	32.50	14,800	
	Mar. 18, 1945	38.0	25,300		Mar. 11, 1952	27.83	10,400	
	Mar. 25, 1945	29.0	10,800		Apr. 12, 1952	38.00	25,800	
	Mar. 29, 1945	43.65	54,800	Apr. 22, 1952	39.62	32,300		
	May 16, 1945	41.80	43,500					
	June 12, 1945	43.21	52,100	1953	Mar. 18, 1953	34.57	18,000	
	June 17, 1945	39.00	29,500		Apr. 6, 1953	36.90	22,500	
Sept. 29, 1945	29.00	10,800	Apr. 24, 1953		37.74	26,900		
			Apr. 29, 1953		39.26	30,900		
			May 12, 1953		37.84	25,500		
1946	Jan. 9, 1946	30.27	12,200	July 20, 1953	43.30	55,800		
	Feb. 13, 1946	39.00	29,500					
	Apr. 24, 1946	37.73	24,900	1954	Jan. 20, 1954	30.97	13,500	
	May 16, 1946	28.00	9,860		May 29, 1954	35.79	21,400	
	May 25, 1946	39.90	33,300					
	1947	Nov. 4, 1946	34.20	17,300	1955	Oct. 1, 1954	35.00	18,000
Nov. 6, 1946		37.00	22,900	Oct. 12, 1954		29.08	13,700	
Nov. 10, 1946		34.00	17,000	Oct. 22, 1954		25.45	10,500	
Dec. 12, 1946		42.40	47,000	Oct. 24, 1954		28.54	12,100	
Apr. 28, 1947		38.30	26,900	Mar. 21, 1955		34.25	17,800	
May 13, 1947		40.00	33,800	Sept. 23, 1955		32.13	17,100	
May 17, 1947		27.00	9,060	Sept. 25, 1955		25.72	10,300	
1948	Dec. 8, 1947	31.70	13,800	1956	Feb. 18, 1956	32.62	15,200	
	Jan. 1, 1948	37.50	24,300					
	Feb. 27, 1948	27.00	9,060	1957	Feb. 6, 1957	27.66	10,300	
	May 12, 1948	39.70	32,400		Apr. 4, 1957	37.90	26,200	
			Apr. 23, 1957		36.92	23,100		
1949	Jan. 25, 1949	45.04	69,000		Apr. 26, 1957	35.34	19,800	
	Feb. 14, 1949	31.94	14,100		May 1, 1957	27.53	10,200	
	Mar. 27, 1949	32.70	15,100		May 13, 1957	36.56	23,100	
	Apr. 10, 1949	27.17	9,220	May 26, 1957	38.24	27,300		
May 1, 1949	44.67	67,000	June 4, 1957	35.68	20,800			
June 15, 1949	29.00	10,800	Sept. 22, 1957	39.92	35,200			
1950	Oct 25, 1949	27.98	9,860	1958	Nov. 8, 1957	24.99	9,070	
	Jan. 3, 1950	36.25	20,800		Nov. 18, 1957	37.86	25,500	
	Jan. 13, 1950	39.70	32,700		Mar. 7, 1958	25.93	9,300	
	Feb. 1, 1950	36.21	20,800		May 2, 1958	41.63	44,600	
	Feb. 12, 1950	44.04	61,100					
	Apr. 29, 1950	26.50	11,100					

3380. Little River near Idabel, Okla.

Location.--Lat 33°56', long 94°49', in NE $\frac{1}{4}$ sec.19, T.7 S., R.24 E., on downstream side of former bridge on U. S. Highway 70, 3 miles north of Idabel, 7.8 miles upstream from Lukfata Creek, 16.5 miles downstream from Glover Creek, and at mile 111.4.

Drainage area.--1,173 sq mi.

Gage.--Nonrecording. Datum of gage is 318.52 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 54,000 cfs and extended on basis of high-water data collected in 1949 at described site and at current gaging station 8 miles downstream.

Bankfull stage.--30 ft.

Remarks.--Records 1932-33, 1937-46 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	Dec. 17, 1929	32.70	24,600	1939	Feb. 21, 1939	28.63	12,600
	May 8, 1930	32.28	22,600		Feb. 27, 1939	31.40	18,700
	May 12, 1930	32.80	25,200		Mar. 30, 1939	26.0	10,000
	May 19, 1930	29.80	14,400		Apr. 7, 1939	28.93	13,000
	May 25, 1930	29.30	13,600		Apr. 17, 1939	35.4	44,600
1931	Feb. 15, 1931	26.90	10,600	1940	May 19, 1940	30.20	15,100
1932	Jan. 24, 1932	35.20	42,800		May 25, 1940	31.71	19,900
	Feb. 17, 1932	34.0	33,000	1941	Dec. 13, 1940	27.60	11,500
	July 1, 1932	31.96	21,100		Dec. 17, 1940	27.10	11,000
1933	Dec. 26, 1932	32.8	25,200		Apr. 20, 1941	29.50	13,900
	Jan. 23, 1933	27.5	11,400		Apr. 25, 1941	29.90	14,500
	Mar. 7, 1933	27.8	11,700	June 12, 1941	29.60	14,100	
	Apr. 22, 1933	28.0	11,900	1942	Nov. 2, 1941	29.10	13,200
	May 17, 1933	27.4	11,300		Apr. 10, 1942	34.00	32,800
1934	Apr. 6, 1934	33.8	31,600	1943	Dec. 29, 1942	31.20	17,800
1935	Nov. 22, 1934	29.4	13,700		Apr. 19, 1943	28.38	12,300
	Jan. 22, 1935	32.26	22,600		May 12, 1943	32.96	26,300
	Mar. 6, 1935	30.26	15,300	1944	Feb. 10, 1944	26.25	10,200
	Mar. 13, 1935	31.28	18,300		Mar. 1, 1944	32.00	20,500
	Mar. 23, 1935	28.0	11,900		May 3, 1944	34.34	35,500
	Apr. 27, 1935	29.7	14,200	1945	Nov. 9, 1944	27.90	11,800
	May 6, 1935	36.46	55,000		Feb. 22, 1945	35.16	41,000
	May 17, 1935	33.90	32,300		Feb. 28, 1945	34.20	35,200
June 18, 1935	36.0	50,000	Mar. 20, 1945		34.30	36,200	
June 22, 1935	34.10	33,800	Mar. 26, 1945		28.70	12,700	
1936	Dec. 8, 1935	33.14	27,000		Mar. 30, 1945	37.60	71,000
	1937	Jan. 10, 1937	28.40		12,400	May 17, 1945	34.20
		Jan. 16, 1937	27.70	11,600	June 13, 1945	35.56	43,200
Apr. 22, 1937		29.5	13,900	June 19, 1945	31.34	18,300	
Aug. 24, 1937		28.6	12,600	Sept. 30, 1945	28.70	12,700	
1938	Dec. 19, 1937	26.70	10,600	1946	Jan. 10, 1946	30.86	15,900
	Jan. 25, 1938	35.80	48,200		Feb. 7, 1946	26.11	10,100
	Feb. 18, 1938	39.3	86,000		Feb. 15, 1946	32.42	20,500
	Mar. 30, 1938	33.80	31,600		Apr. 26, 1946	32.30	20,400
	Apr. 9, 1938	27.96	11,900		May 18, 1946	28.28	12,200
	Apr. 17, 1938	29.30	13,600		May 26, 1946	32.77	25,700

3385. Little River below Lukfata Creek, near Idabel, Okla.

Location.--Lat 33°56', long 94°45', in SE $\frac{1}{4}$ sec.14, T.7 S., R.24 E., on left bank at downstream side of bridge on U. S. Highway 70, just downstream from Lukfata Creek, 5 miles northeast of Idabel and at mile 103.4.

Drainage area.--1,226 sq mi.

Gage.--Nonrecording prior to Oct. 27, 1950; recording thereafter. Datum of gage is 312.08 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--27 ft.

Remarks.--Records 1946-50 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	February 1938	a39.7	86,000	1952	Nov. 3, 1951	26.09	10,800
1947	Nov. 8, 1946	31.10	18,500	Apr. 14, 1952	32.46	24,200	
	Dec. 13, 1946	36.35	56,100	Apr. 23, 1952	35.04	40,800	
	Apr. 30, 1947	32.80	25,100				
	May 15, 1947	32.60	24,100	1953	Mar. 20, 1953	27.74	12,200
				Apr. 8, 1953	30.12	15,900	
1948	Dec. 9, 1947	26.85	11,000	Apr. 26, 1953	28.88	13,700	
	Jan. 3, 1948	32.80	25,100	Apr. 30, 1953	34.00	33,200	
	Feb. 28, 1948	27.85	11,800	May 14, 1953	32.88	26,400	
	May 13, 1948	32.60	24,100	July 22, 1953	34.07	34,000	
				1954	May 31, 1954	25.27	10,100
1949	Jan. 26, 1949	39.22	76,000	1955	Oct. 2, 1954	28.53	13,200
	Feb. 16, 1949	26.17	11,300	Mar. 23, 1955	29.55	14,900	
	Mar. 28, 1949	27.56	12,000				
	May 3, 1949	35.00	40,500	1956	Feb. 20, 1956	27.98	12,600
	June 16, 1949	27.50	12,000	1957	Feb. 8, 1957	25.23	10,600
1950	Jan. 5, 1950	31.60	20,000	Apr. 6, 1957	29.89	16,400	
	Jan. 15, 1950	34.01	33,200	Apr. 26, 1957	33.34	29,100	
	Feb. 3, 1950	32.12	22,200	May 15, 1957	29.57	15,800	
	Feb. 13, 1950	37.00	61,900	May 27, 1957	32.97	27,500	
	May 3, 1950	32.82	25,900	June 6, 1957	30.53	17,800	
	May 17, 1950	26.27	10,900	Sept. 24, 1957	29.56	15,800	
	Aug. 1, 1950	30.98	18,000				
	Sept. 17, 1950	37.30	66,100	1958	Nov. 20, 1957	28.17	13,600
				Mar. 10, 1958	26.58	11,800	
1951	Feb. 20, 1951	30.56	17,000	May 4, 1958	35.01	40,700	
	June 14, 1951	33.51	30,000				
	July 3, 1951	34.08	34,000				

a Annual peak only.

3390. Mountain Fork River near Eagletown, Okla.
(Published as "near Broken Bow" 1924-25)

Location.--Lat 34°03', long 94°37', in SE $\frac{1}{4}$ sec.7, T.6 S., R.26 E., near center of span on downstream side of pier of bridge on U. S. Highway 70, 2 miles west of Eagletown and 8.9 miles upstream from mouth.

Drainage area.--787 sq mi.

Gage.--Nonrecording prior to Aug. 3, 1940, and Jan. 31 to July 22, 1950; recording during remainder of period. During 1924-25 at site 300 ft downstream at datum 0.70 ft lower. Oct. 9, 1929, to Jan. 30, 1950, at site 300 ft downstream at same datum. Datum of present gage is 333.87 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 65,000 cfs and extended by logarithmic plotting.

Bankfull stage.--18 ft.

Remarks.--Records 1932-35, 1937-50 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 22,000 cfs.

Peak stages and discharges of Mountain Fork River near Eagletown, Okla.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	Aug. 18-19, 1915	a26.4	92,000	1945	Mar. 29, 1945	25.80	88,500
1925	June 13, 1925	22.0	67,500	May 15, 1945	20.32	51,800	
1930	May 7, 1930	15.5	27,200	June 12, 1945	18.07	39,200	
	May 11, 1930	21.0	56,000	Sept. 29, 1945	16.93	33,200	
1931	July 26, 1931	12.75	18,200	1946	Oct. 1, 1945	15.13	25,600
1932	Feb. 17, 1932	22.50	65,800	Jan. 9, 1946	17.97	38,700	
	July 8, 1932	14.18	22,400	Feb. 14, 1946	17.77	37,700	
1933	Dec. 24, 1932	17.49	36,100	May 25, 1946	23.30	71,100	
	Dec. 30, 1933	17.1	34,200	May 31, 1946	16.60	31,800	
	Jan. 22, 1933	14.52	23,400	1947	Dec. 12, 1946	20.50	53,000
	May 15, 1933	15.0	25,200	May 13, 1947	20.00	50,000	
1934	Apr. 5, 1934	14.0	21,700	Aug. 28, 1947	25.7	87,800	
1935	Nov. 20, 1934	16.04	29,200	1948	Dec. 7, 1947	17.62	36,600
	Jan. 20, 1935	17.04	33,700	Jan. 1, 1948	21.73	60,600	
	Mar. 22, 1935	15.5	27,100	May 12, 1948	16.34	30,500	
	May 5, 1935	22.68	67,100	1949	Jan. 24, 1949	24.77	81,400
	May 16, 1935	18.74	42,500	May 1, 1949	21.85	61,200	
	June 16, 1935	21.5	59,300	June 14, 1949	18.66	42,500	
1936	Dec. 7, 1935	17.54	36,100	1950	Jan. 3, 1950	17.27	35,200
1937	Jan. 10, 1937	14.1	22,000	Jan. 13, 1950	20.62	56,700	
	Aug. 23, 1937	15.0	25,200	Feb. 1, 1950	18.92	46,000	
1938	Jan. 24, 1938	25.4	85,700	Feb. 12, 1950	25.66	91,500	
	Feb. 18, 1938	23.50	72,500	May 2, 1950	14.60	23,700	
	Mar. 29, 1938	17.05	33,700	May 7, 1950	14.60	23,700	
	Apr. 16, 1938	15.47	27,100	Aug. 2, 1950	14.50	23,700	
1939	Feb. 20, 1939	14.22	22,400	Sept. 16, 1950	20.59	48,800	
	Feb. 25, 1939	15.48	27,100	1951	Feb. 16, 1951	15.34	26,400
	Apr. 6, 1939	16.86	33,200	1952	Nov. 1, 1951	15.32	27,800
	Apr. 17, 1939	23.0	69,100	Apr. 12, 1952	19.23	45,400	
1940	May 18, 1940	17.93	38,200	Apr. 22, 1952	21.08	57,400	
	July 1, 1940	14.42	23,000	1953	Nov. 26, 1952	15.13	25,500
	Aug. 17, 1940	16.23	29,100	Mar. 18, 1953	14.20	23,100	
1941	June 11, 1941	11.40	14,500	Apr. 6, 1953	15.29	26,900	
1942	Oct. 31, 1941	19.90	49,400	Apr. 29, 1953	20.24	51,500	
	Apr. 8, 1942	17.60	34,900	May 11, 1953	16.76	32,800	
1943	Dec. 27, 1942	15.98	28,400	May 15, 1953	18.36	40,600	
1944	Feb. 28, 1944	14.10	22,100	July 20, 1953	17.00	33,700	
	May 2, 1944	18.33	40,500	July 25, 1953	15.10	26,200	
1945	Feb. 21, 1945	21.30	58,000	1954	May 3, 1954	17.07	34,100
	Feb. 27, 1945	19.55	47,600	1955	Oct. 1, 1954	14.89	24,100
	Mar. 19, 1945	20.20	51,200	Mar. 21, 1955	14.08	22,800	
				1956	Feb. 18, 1956	14.38	23,800
				1957	Apr. 25, 1957	17.50	36,000
				1958	May 3, 1958	18.52	41,300

a Annual peak only.

3395. Rolling Fork near De Queen, Ark.

Location.--Lat 34°03', long 94°25', in SW $\frac{1}{4}$ sec. 21, T.8 S., R.32 W., near center of span on downstream side of pier of bridge on U. S. Highway 70, 4 miles west of DeQueen, 6 miles upstream from Rock Creek, and 17 miles upstream from mouth.

Drainage area.--181 sq mi.

Gage.--Nonrecording prior to Dec. 16, 1948; recording thereafter. Datum of gage is 318.24 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 27,000 cfs and contracted-opening measurement at 110,000 cfs.

Bankfull stage.--20 ft.

Remarks.--Base for partial-duration series, 6,000 cfs.

RED RIVER BASIN

Peak stages and discharges of Rolling Fork near De Queen, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Aug. 27, 1947	25.6	a10,000	1953	May 11, 1953 July 20, 1953	21.96 17.60	34,000 10,200
1949	Jan. 24, 1949 May 1, 1949 June 14, 1949	20.16 17.20 18.96	19,200 8,800 14,100	1954	Apr. 16, 1954 May 2, 1954	16.11 15.94	7,040 6,700
1950	Dec. 12, 1949 Jan. 2, 1950 Jan. 13, 1950 Feb. 1, 1950 Feb. 12, 1950 May 1, 1950 July 30, 1950 Sept. 16, 1950 Sept. 20, 1950	15.80 16.63 21.04 18.28 20.52 18.65 15.64 20.49 17.56	6,420 7,660 23,700 11,700 20,800 12,700 6,150 20,800 9,720	1955	Oct. 1, 1954 Mar. 21, 1955 Apr. 21, 1955 May 27, 1955	16.54 17.67 17.11 18.75	7,220 10,500 9,020 14,000
1951	Jan. 14, 1951 July 2, 1951	16.01 16.35	6,700 7,320	1956	Feb. 2, 1956 Feb. 18, 1956	15.88 17.03	6,220 8,800
1952	Jan. 3, 1952 Apr. 12, 1952 Apr. 22, 1952	16.45 18.80 18.80	7,000 14,000 14,000	1957	Mar. 18, 1957 Apr. 4, 1957 Apr. 23, 1957 Apr. 25, 1957 Apr. 27, 1957 May 23, 1957 May 26, 1957	17.80 16.77 16.97 17.78 18.38 16.98 15.92	10,700 8,400 8,800 10,700 12,600 8,800 6,700
1953	Nov. 25, 1952 Apr. 6, 1953 Apr. 29, 1953	19.86 18.06 18.98	19,200 11,500 14,700	1958	Apr. 27, 1958 May 2, 1958 Sept. 19, 1958	16.73 18.73 16.21	8,200 13,800 7,220

a Annual peak only.

3400. Little River near Horatio, Ark.

Location.--Lat 33°55'10", long 94°23'15", in NE $\frac{1}{4}$ sec.10, T.10 S., R.32 W., on left bank on downstream side of bridge on State Highway 41, 0.9 mile downstream from Rolling Fork, 2 miles southwest of Horatio, 28.5 miles upstream from Cossatot River, and at mile 72.0.

Drainage area.--2,674 sq mi.

Gage.--Nonrecording prior to Feb. 5, 1935; recording thereafter. Datum of gage is 272.89 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 93,000 cfs.

Bankfull stage.--26 ft.

Remarks.--Base for partial-duration series, 25,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1915	August 1915	38.0	a124,000	1938	Apr. 17, 1938	29.10	33,300
1930	May 20, 1930	36.0	a97,700	1939	Feb. 26, 1939 Apr. 7, 1939 Apr. 18, 1939	28.05 29.00 32.12	31,500 36,400 56,500
1931	July 27, 1931	24.84	20,700	1940	May 19, 1940 July 2, 1940	28.50 30.62	28,200 37,500
1932	Jan. 6, 1932 Jan. 18, 1932 Jan. 24, 1932 Feb. 18, 1932	31.5 28.6 31.84 31.3	48,400 31,000 50,800 46,800	1941	Apr. 24, 1941	26.90	23,900
1933	Jan. 1, 1933	27.2	24,800	1942	Nov. 1, 1941 Apr. 9, 1942	b27.58 31.77	25,400 50,800
1934	Apr. 9, 1934	27.36	25,100	1943	Dec. 28, 1942	26.45	24,700
1935	Jan. 21, 1935 May 6, 1935 May 21, 1935 June 19, 1935	31.2 34.80 29.14 33.56	46,000 82,100 33,300 68,200	1944	Mar. 1, 1944 May 3, 1944	c28.16 32.64	29,200 57,900
1936	Dec. 8, 1935	28.85	31,800	1945	Feb. 22, 1945 Feb. 28, 1945 Mar. 21, 1945 Mar. 30, 1945 May 17, 1945 June 15, 1945	32.78 32.65 31.15 37.70 30.80 30.90	59,900 57,900 44,900 120,000 41,700 42,500
1937	Jan. 11, 1937	28.15	26,700	1946	Oct. 2, 1945	29.30	32,500
1938	Jan. 25, 1938 Feb. 19, 1938 Apr. 1, 1938	36.93 36.65 30.48	110,000 106,000 41,100				

a Annual peak only.

b Occurred on following day.

c Occurred at different time than peak discharge.

Peak stages and discharges of Little River near Horatio, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1946	Jan. 10, 1946	31.29	45,700	1951	Feb. 21, 1951	29.48	33,500	
	Feb. 7, 1946	29.16	32,000		June 16, 1951	29.40	33,000	
	Feb. 15, 1946	29.67	34,500		July 4, 1951	31.47	47,500	
	May 26, 1946	31.74	49,300	1952	Apr. 13, 1952	31.84	53,300	
1947	Nov. 8, 1946	28.25	28,000		Apr. 23, 1952	34.26	83,900	
	Dec. 14, 1946	31.82	50,200	1953	Nov. 26, 1952	27.46	26,400	
	May 1, 1947	29.98	36,200		Apr. 7, 1953	28.12	29,500	
	May 14, 1947	32.00	52,000		Apr. 30, 1953	32.02	55,700	
	May 18, 1947	30.87	42,500		May 12, 1953	32.32	59,000	
	Aug. 29, 1947	32.99	61,900		July 24, 1953	28.75	31,800	
1948	Dec. 9, 1947	28.99	31,100	1954	May 4, 1954	28.16	29,800	
	Jan. 2, 1948	32.29	54,900		1955	Mar. 22, 1955	30.10	37,200
	Mar. 3, 1948	28.86	30,700			1956	Feb. 19, 1956	27.84
	May 13, 1948	29.36	33,000	1957	Mar. 19, 1957		27.46	27,600
1949	Jan. 27, 1949	35.58	97,900		Apr. 5, 1957		29.86	37,800
	May 2, 1949	30.50	39,500	Apr. 28, 1957	33.15	68,300		
	June 15, 1949	30.47	39,500	May 15, 1957	28.35	30,500		
1950	Jan. 5, 1950	29.25	32,000	May 27, 1957	30.92	44,500		
	Jan. 14, 1950	32.66	59,700	June 6, 1957	28.50	30,900		
	Feb. 2, 1950	31.42	46,600	1958	Mar. 9, 1958	26.48	25,200	
	Feb. 13, 1950	34.06	82,500		May 3, 1958	32.72	63,600	
	May 3, 1950	31.78	50,200					
	July 31, 1950	28.65	29,500					
	Sept. 17, 1950	32.80	60,800					

3405. Cossatot River near De Queen, Ark.

Location.--Lat 34°03', long 94°13', on south edge of SE $\frac{1}{4}$ sec.20, T.8 S., R.30 W., on downstream side of pier of bridge on U. S. Highway 71, just downstream from Hale Creek, 7 miles east of De Queen.

Drainage area.--361 sq mi.

Gage.--Nonrecording prior to Nov. 9, 1938; recording thereafter. Datum of gage is 335.48 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 42,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Jan. 24, 1938	19.70	36,300	1944	May 2, 1944	18.70	29,100
	Feb. 17, 1938	19.40	34,000		1945	Feb. 21, 1945	18.14
	Mar. 29, 1938	16.30	14,800	Feb. 27, 1945		18.18	25,600
	Apr. 16, 1938	17.10	18,900	Mar. 19, 1945		16.78	17,100
1939	Feb. 25, 1939	15.86	13,000	Mar. 30, 1945		20.20	43,300
	Apr. 6, 1939	17.43	20,700	May 16, 1945		15.25	11,300
	Apr. 16, 1939	19.70	36,300	1946	Jan. 5, 1946	15.19	11,300
1940	Apr. 29, 1940	17.46	21,300		Jan. 9, 1946	17.37	20,400
	May 18, 1940	17.94	23,700		Feb. 6, 1946	16.83	17,100
	July 1, 1940	16.78	18,300		Feb. 14, 1946	15.78	13,000
1941	July 13, 1941	15.08	10,100		Mar. 6, 1946	14.87	10,700
	1942	Apr. 8, 1942	18.42	27,000	Apr. 30, 1946	16.74	16,600
Apr. 26, 1942		16.10	14,000	May 25, 1946	19.96	41,200	
Sept. 9, 1942		18.56	28,400	1947	Dec. 12, 1946	17.86	23,500
1943	Dec. 27, 1942	14.30	9,520		Aug. 28, 1947	20.47	46,900
	1944	Feb. 9, 1944	15.90	14,000	1948	Oct. 31, 1947	17.29
Mar. 16, 1944		16.66	17,400	Dec. 7, 1947		18.28	26,300
				Jan. 1, 1948		18.30	26,500

Peak stages and discharges of Cossatot River near De Queen, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Jan. 24, 1949	19.76	39,400	1953	Apr. 6, 1953	16.97	18,000
	Jan. 27, 1949	15.67	12,600		Apr. 24, 1953	14.52	10,100
	May 1, 1949	16.29	14,800		Apr. 29, 1953	17.37	20,200
1950	Dec. 12, 1949	15.56	12,300	1954	May 12, 1953	19.16	33,100
	Jan. 3, 1950	16.40	15,200		July 21, 1953	14.74	10,400
	Jan. 10, 1950	15.80	13,000		May 2, 1954	16.57	16,100
	Jan. 13, 1950	18.97	31,700	1955	Oct. 25, 1954	14.62	10,200
	Feb. 1, 1950	17.48	21,000		Mar. 21, 1955	17.25	19,200
	Feb. 12, 1950	19.36	35,400		1956	Feb. 2, 1956	16.33
	May 2, 1950	14.98	10,900	Feb. 18, 1956		16.20	14,400
	Sept. 16, 1950	18.94	30,900	1957		Jan. 22, 1957	15.59
	Sept. 20, 1950	20.14	42,500		Mar. 18, 1957	16.37	15,200
Jan. 14, 1951	15.78	13,000	Apr. 4, 1957		17.33	19,800	
1951	July 3, 1951	16.49	15,600	Apr. 25, 1957	15.15	11,300	
	Jan. 3, 1952	15.10	11,300	Apr. 27, 1957	17.82	22,800	
1952	Mar. 22, 1952	14.54	10,100	May 26, 1957	15.30	11,600	
	Apr. 12, 1952	17.94	23,500	1958	Nov. 13, 1957	16.46	16,500
	Apr. 22, 1952	18.00	34,200		Mar. 7, 1958	14.48	10,300
Nov. 25, 1952	19.02	31,700	Apr. 27, 1958		15.55	13,000	
1953	Dec. 4, 1952	15.54	12,100	May 3, 1958	18.56	29,200	
	Mar. 18, 1953	14.94	10,800				

3407. Little River near White Cliffs, Ark.

Location--Lat 33°45'25", long 94°03'30", in SW $\frac{1}{4}$ sec.36, T.11 S., R.29 W., at Graysonia, Nashville and Ashdown Railway bridge, 1.9 miles upstream from Hurricane Creek, $2\frac{1}{4}$ miles south of White Cliffs, and at mile 35.8.

Drainage area--3,471 sq mi.

Gage--Nonrecording. Datum of gage is 236.81 ft above mean sea level, datum of 1929.

Stage-discharge relation--Not defined.

Bankfull stage--25 ft.

Remarks--Records furnished by U. S. Weather Bureau. Only annual peak stages are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)	
1905	May 16, 1905	26.8	-	1932	Jan. 26, 1932	27.8	-	
1906	May 6, 1906	28.1	-	1933	Jan. 2, 1933	25.6	-	
	Jan. 5, 1907	28.2	-	1934	Apr. 11, 1934	25.3	-	
1908	May 16, 1908	29.0	-	1935	May 8, 1935	29.6	-	
1909	Mar. 12, 1909	22.9	-	1936	Dec. 10, 1936	23.1	-	
1910	Apr. 15, 1910	25.8	-		1937	Jan. 25, 1937	26.4	-
	Apr. 21, 1911	27.7	-		1938	Jan. 26, 1938	31.0	-
1912	Apr. 5, 1912	29.0	-	1939	Apr. 20, 1939	27.8	-	
1913	Dec. 10, 1913	28.0	-	1940	July 4, 1940	27.1	-	
1914	Apr. 2-3, 1914	27.7	-	1941	Apr. 26, 1941	25.5	-	
1915	Aug. 21, 1915	32.0	-		1942	Apr. 11, 1942	28.0	-
	Feb. 3, 1916	28.4	-		1943	Apr. 21, 1943	24.8	-
1917	Mar. 5, 1917	24.0	-	1944	May 4, 1944	29.2	-	
1918	Dec. 16, 1918	28.7	-	1945	Apr. 1, 1945	33.5	-	
1919	Oct. 14, 1919	27.4	-	1946	Dec. 16, 1946	27.6	-	
1920	May 14, 1920	30.0	-		1947	May 16, 1947	27.6	-
	Apr. 29, 1921	29.0	-		1948	Jan. 4-5, 1948	27.2	-
1922	Apr. 30, 1922	26.1	-	1949	Jan. 28, 1949	31.1	-	
1923	May 17, 1923	27.9	-	1950	Feb. 15, 1950	29.1	-	
1924	Apr. 29, 1924	23.2	-	1951	July 5, 1951	27.9	-	
1925	Oct. 20, 1925	22.5	-		1952	Apr. 25, 1952	29.5	-
	Dec. 24, 1926	28.9	-		1953	May 14, 1953	29.0	-
1927	Apr. 24, 1927	29.9	-	1954	May 5, 1954	25.4	-	
1928	Dec. 20, 1928	27.4	-	1955	Mar. 24, 1955	27.0	-	
1929	May 22, 1929	26.4	-	1956	Feb. 21, 1956	25.7	-	
1930	May 14, 1930	27.6	-		1957	Apr. 29, 1957	29.9	-
	Dec. 21, 1931	24.7	-		1958	May 5, 1958	29.5	-

3410. Saline River near Dierks, Ark.

Location.--Lat 34°06', long 94°05', in W $\frac{1}{2}$ sec.3, T.8 S., R.29 W., near left bank on downstream side of bridge on U. S. Highway 70, 3 $\frac{1}{2}$ miles upstream from Holly Creek and 4 miles southwest of Dierks.

Drainage area.--124 sq mi.

Gage.--Nonrecording prior to Aug. 10, 1940; recording thereafter. Prior to Aug. 31, 1951, at site 100 ft upstream at present datum. Datum of gage is 353.09 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 16,000 cfs and extended by velocity-area studies.

Bankfull stage.--15 ft.

Remarks.--Records for the period 1938-50 computed by Corps of Engineers and reviewed by Geological Survey. Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1920	-	a21.9	-	1950	Feb. 12, 1950	14.82	6,860		
1939	Apr. 16, 1939	17.10	12,000	May 2, 1950	13.72	5,520			
	May 19, 1939	14.50	6,400	May 6, 1950	13.79	5,620			
1940	Apr. 29, 1940	15.20	7,350	Sept.16, 1950	15.32	7,610			
	May 18, 1940	17.00	11,700	Sept.20, 1950	14.30	6,180			
	July 2, 1940	14.70	6,670	1951	Jan. 14, 1951	13.83	5,630		
	July 21, 1940	13.85	5,500		July 1, 1951	13.08	5,090		
1941	Nov. 23, 1940	17.94	15,200	1952	Mar. 21, 1952	13.50	5,720		
	July 14, 1941	18.75	20,100		Apr. 12, 1952	14.90	7,520		
1942	Apr. 8, 1942	17.07	12,000		Apr. 22, 1952	16.54	11,000		
	Sept. 9, 1942	13.50	5,260	1953	Nov. 25, 1952	15.62	8,720		
1943	Dec. 27, 1942	12.04	3,940		Dec. 4, 1952	15.90	9,360		
	1944	Mar. 16, 1944	14.38		6,280	Apr. 6, 1953	14.07	6,330	
Apr. 10, 1944		14.34	6,150		Apr. 24, 1953	13.64	5,860		
May 1, 1944		16.68	10,800	Apr. 29, 1953	16.78	11,500			
1945	Feb. 21, 1945	15.35	7,730	May 11, 1953	18.56	16,500			
	Feb. 27, 1945	15.72	8,330	July 21, 1953	14.02	6,250			
	Mar. 30, 1945	19.93	31,200	1954	May 2, 1954	11.15	3,640		
1946	Jan. 8, 1946	14.93	7,880		1955	Oct. 1, 1954	13.32	5,320	
	Feb. 5, 1946	14.56	7,470	Oct. 12, 1954		13.50	5,720		
	Apr. 30, 1946	16.23	10,100	Mar. 20, 1955		16.82	11,600		
	May 25, 1946	16.43	10,600	July 17, 1955	13.76	5,920			
1947	May 17, 1947	13.97	5,830	Sept.23, 1955	17.23	12,600			
	Aug. 28, 1947	15.00	7,160	1956	Apr. 30, 1956	17.71	14,000		
1948	Mar. 1, 1948	13.21	5,050		1957	Mar. 17, 1957	14.25	6,490	
	1949	Jan. 24, 1949	16.65			9,800	Apr. 3, 1957	13.60	5,820
		May 1, 1949	13.27			5,140	Apr. 25, 1957	13.66	5,920
June 15, 1949	13.21	5,050	Apr. 27, 1957	13.38		5,620			
1950	Jan. 10, 1950	14.03	5,830	May 26, 1957	13.62	6,370			
	Jan. 13, 1950	13.83	5,620	1958	Nov. 13, 1957	15.80	9,140		
			Apr. 27, 1958		13.84	6,030			
			May 1, 1958		14.70	7,150			
				May 3, 1958	13.30	5,820			

a Annual peak only.

3415. Red River at Fulton, Ark.

Location.--Lat 33°37', long 93°49', in NE $\frac{1}{4}$ sec.20, T.13 S., R.26 W., on downstream side of bridge on U. S. Highway 67 at Fulton, 0.3 mile downstream from Missouri Pacific Railroad Co. bridge, 2 $\frac{1}{2}$ miles downstream from Little River, and at mile 463.0.

Drainage area.--52,380 sq mi, of which about 46,444 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. Prior to Oct. 16, 1942, on railroad bridge 0.3 mile upstream at same datum. Datum of gage is 224.94 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--See Red River at Garland.

Bankfull stage.--28 ft.

Remarks.--Some regulation since July 1942 by Lake Texoma, 261 miles upstream (capacity, 5,530,300 acre-ft). Discharges for October 1937 to September 1942 and January 1946 to date are published by Mississippi River Commission. Since discharges for this station are comparable to those for station at Garland, they are not listed in following tables (see Red River at Garland for peak discharges since 1949).

Gage-height records from publications of U. S. Weather Bureau and Mississippi River Commission. Only annual peak stages are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1876	July 17, 1876	35.8	-	1922	Apr. 9, 1922	28.5	-
1886	Apr. 21, 1886	20.9	-	1923	Dec. 19, 1923	31.4	-
1887	Dec. 12, 1887	27.5	-	1924	May 1-2, 1924	26.2	-
1888	May 7, 1888	31.8	-	1925	May 2, 1925	23.1	-
1889	Jan. 20, 1889	30.8	-	1926	Dec. 25, 1926	27.5	-
1890	May 3, 1890	34.0	-	1927	Apr. 24, 1927	35.0	-
1891	Apr.27-28, 1891	30.3	-	1928	May 24, 1928	25.9	-
1892	May 23-24, 1892	34.8	-	1929	May 23, 1929	31.1	-
1893	Mar. 13, 1893	26.8	-	1930	May 22, 1930	32.5	-
1894	Mar. 24, 1894	32.9	-	1931	Feb.17,27, 1931	18.5	-
1895	July 18, 1895	31.4	-	1932	Jan.28,29, 1932	31.6	-
1896	Feb. 7, 1896	a20.5	-	1933	May 30, 1933	24.4	-
1897	Mar. 23, 1897	28.6	-	1934	Mar. 5, 1934	21.3	-
1898	May 11, 1898	27.9	-	1935	June 24, 1935	34.8	-
1899	Nov. 28, 1899	26.0	-	1936	Oct. 2, 1936	23.7	-
1900	Nov. 4, 1900	23.0	-	1937	Jan. 17, 1937	22.4	-
1901	May 25, 1901	27.7	-	1938	Feb. 24, 1938	36.4	-
1902	Dec. 1, 1902	32.2	-	1939	Apr.20,21, 1939	24.0	-
1903	Mar. 14, 1903	31.2	-	1940	May 31, 1940	24.6	-
1904	June 13-14, 1904	31.6	-	1941	June 17, 1941	29.6	-
1905	June 1-3, 1905	31.5	-	1942	May 2, 1942	33.3	-
1906	May 10, 1906	31.2	-	1943	May 17, 1943	26.0	-
1907	June 4, 1907	31.4	-	1944	May 5, 1944	28.2	-
1908	June 2, 1908	34.1	-	1945	Apr. 2, 1945	37.4	-
1909	June 21, 1909	20.6	-	1946	Dec. 17, 1946	27.34	-
1910	Apr. 19, 1910	22.6	-	1947	May 24, 1947	25.58	-
1911	Apr. 21, 1911	24.1	-	1948	May 14, 1948	23.85	-
1912	Apr. 6, 1912	30.9	-	1949	Jan. 30, 1949	32.03	-
1913	Dec. 12, 1913	33.2	-	1950	Feb. 16, 1950	28.24	-
1914	May 9, 1914	31.5	-	1951	June 19, 1951	26.16	-
1915	May 2, 1915	34.1	-	1952	Apr. 26, 1952	28.22	-
1916	Feb. 4, 1916	32.2	-	1953	May 18, 1953	27.01	-
1917	May 1, 1917	19.9	-	1954	May 14, 1954	21.65	-
1918	Apr. 21, 1918	28.1	-	1955	Mar. 24, 1955	20.54	-
1919	Oct. 26, 1919	29.8	-	1956	Feb. 21, 1956	18.03	-
1920	May 18, 19, 1920	33.6	-	1957	June 9, 1957	31.12	-
1921	Apr. 30, 1921	26.6	-	1958	May 6, 1958	29.41	-

a Maximum crest stage; maximum stage of 21.8 ft observed Jan. 1, 1896, following crest of Dec. 30, 1895.

3420. Red River at Garland, Ark.
(Published as "at Garland City" prior to 1935)

Location.--Lat 33°21', long 93°42', in SE $\frac{1}{4}$ sec.17, T.16 S., R.25 W., on line between Miller and Lafayette Counties at bridge on U. S. Highway 82 at Garland, at mile 424.0.

Drainage area.--52,630 sq mi, of which about 46,694 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Oct. 1, 1934 on railroad bridge 0.2 mile upstream at same datum; recording Oct. 1, 1934, to Sept. 30, 1949, at described site. Datum of gage is 203.08 ft above mean sea level, datum of 1929. Since Oct.1, 1949, records are from Corps of Engineers nonrecording gage at Fulton, 39 miles upstream. Datum of Fulton gage is 224.94 ft above mean sea level, datum of 1929, supplementary datum of 1941.

Stage-discharge relation.--Defined by current-meter measurements at both sites. Considerable shifting occurs.

Bankfull stage.--30 ft at Garland and 28 ft at Fulton.

Remarks.--Records prior to 1934 furnished by Mississippi River Commission or Corps of Engineers. Records since 1950 furnished by Corps of Engineers and reviewed by Geological Survey. Some regulation by Lake Texoma, 326 miles upstream, since July 1942. Base for partial-duration series, 75,000 cfs. Only annual peaks are shown prior to 1935.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1885	-	28.3	-	1916	Feb. 4, 1916	30.3	-
1890	Apr. 30, 1890	28.2	-	1917	May 2, 1917	21.3	-
1891	Apr. 28, 1891	27.6	-	1918	Apr. 22, 1918	30.4	-
1892	May 24-25, 1892	28.4	-	1920	May 17, 1920	34.7	-
1893	Dec. 18, 1892	27.3	-	1921	Apr. 30, 1921	27.5	-
1894	Mar. 24, 1894	28.5	-	1922	May 16-17, 1922	29.6	-
1895	July 19, 1895	28.4	-	1923	June 15, 1923	26.5	-
1896	Dec. 31, 1895	24.6	-	1924	Dec.21-22, 1923	30.8	-
1897	Mar. 24, 1897	27.6	-	1925	May 2, 1925	23.5	-
1898	May 11, 1898	27.7	-	1926	Aug. 22, 1926	23.4	-
1899	July 26, 1899	24.6	-	1927	Apr. 23, 1927	35.4	-
1904	June 11, 1904	28.9	-	1928	May 24, 1928	25.8	78,900
1905	May 31 to June 2	29.0	-	1929	May 24, 1929	30.2	105,000
1906	May 10, 1906	29.5	-	1930	May 22-23, 1930	32.5	119,000
1907	June 5, 1907	30.5	-	1931	Dec. 10, 1930	21.85	57,100
1908	Apr. 15, 1908	31.1	-	1932	Jan.28-30, 1932	31.5	131,000
1909	June 21, 1909	22.3	-	1933	May 30, 1933	24.42	80,000
1910	Apr. 20, 1910	24.8	-	1934	Mar. 5, 1934	20.8	56,000
1911	Apr. 21, 1911	26.0	-	1935	May 12, 1935	32.6	132,000
1912	Apr. 6, 1912	30.9	-		May 27, 1935	33.6	138,000
1913	May 25, 1913	25.8	-		June 25, 1935	34.37	143,000
1914	Dec. 12, 1913	31.7	-	1936	Dec. 11, 1935	22.90	73,700
1915	May 1, 1915	34.0	-	1937	Oct. 2, 1936	22.95	74,200
				1938	Jan. 28, 1938	31.25	160,000

Peak stages and discharges of Red River at Garland, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Feb. 25, 1938	a35.97	327,000	1948	Mar. 4, 1948	19.77	78,400
	Apr. 4, 1938	29.65	139,000		May 14, 1948	20.75	88,000
1939	Apr. 20, 1939	22.9	85,000	1949	Jan. 31, 1949	30.18	185,000
1940	May 30, 1940	b22.91	86,900		Feb. 27, 1949	20.66	84,700
					June 16, 1949	19.35	76,400
1941	Apr. 27, 1941	25.66	119,000	1950	Jan. 17, 1950	c25.8	108,000
	May 10, 1941	25.56	99,000		Feb. 16, 1950	28.20	136,000
	June 17, 1941	b27.11	130,000		May 5, 1950	26.6	114,000
1942	Oct. 9, 1941	b23.70	93,400		May 18, 1950	23.1	82,000
	Nov. 6, 1941	b24.80	110,000		Sept. 20-21, 1950	25.6	113,000
1943	Apr. 15, 1942	b31.10	175,000	1951	Feb. 22-23, 1951	23.80	91,700
	May 2, 1942	32.45	185,000		June 19, 1951	26.16	123,000
	1943	May 17, 1943	b24.25		112,000	July 10, 1951	22.09
June 1, 1943		b20.99	76,000	1952	Apr. 15-16, 1952	22.22	87,400
1944	May 5, 1944	b25.58	122,000		Apr. 26, 1952	28.22	150,000
				1945	May 2, 1953	25.07	117,000
Mar. 3, 1945	b28.72	150,000	May 17, 1953		b27.01	127,000	
1946	Mar. 25, 1945	26.73	118,000	1954	May 14, 1954	21.65	86,000
	Apr. 3, 1945	36.87	280,000		1955	Mar. 24, 1955	20.54
	June 23, 1945	27.10	130,000	1956		Feb. 21, 1956	18.03
1947	Oct. 11, 1945	21.50	80,300		May 1, 1957	30.41	220,000
	Feb. 21, 1946	22.20	93,600		June 9, 1957	31.12	228,000
	June 3, 1946	20.98	79,600	Sept. 26, 1957	20.44	90,500	
1947	Nov. 10, 1946	23.86	119,000	1957	May 6, 1958	29.41	214,000
	Dec. 18, 1946	24.26	123,000				
	May 3, 1947	21.17	85,500				
	May 25, 1947	22.50	97,000				

a Occurred Feb. 24, 1938, just prior to levee break.

b Occurred on following day.

c Occurred Jan. 16, 1950.

3423.5. McKinney Bayou near Garland, Ark.
(Published as "East of Texarkana" by Corps of Engineers)

Location.--Lat 33°24'47", long 93°48'26", in SE $\frac{1}{4}$ sec. 29, T.15 S., R.26 W., at bridge on U. S. Highway 82, 1.0 mile downstream from Red Chute and 6.7 miles northwest of Garland.

Drainage area.--169 sq mi.

Gage.--Nonrecording prior to June 14, 1950; recording thereafter. Datum of gage is 215.05 ft above mean sea level.

Stage-discharge relation.--Defined by current-meter measurements below 6,100 cfs. Affected by backwater from Red River at times.

Bankfull stage.--18 ft.

Remarks.--Gage-height records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	July 2, 1940	22.0	-	1949	Jan. 28, 1949	a19.8	-
				1950	May 3-4, 1950	a20.45	-
1941	Apr. 25, 1941	a19.8	-	1951	Feb. 17, 1951	17.18	-
1942	Apr. 10, 1942	a20.3	-		Apr. 13, 1952	19.37	-
1943	Apr. 19, 1943	a16.0	-	1953	May 19, 1953	19.96	-
1944	May 3-4, 1944	a20.3	-		May 14, 1954	18.28	-
1945	Apr. 2, 1945	21.3	-	1955	Mar. 22, 1955	19.0	-
1946	May 20, 1946	a20.4	-	1956	May 4, 1956	16.98	-
1947	May 15, 1947	a16.6	-		Apr. 5, 1957	20.25	-
1948	Mar. 23, 1948	a19.5	-		1958	Apr. 27, 1958	20.72

a 8 a.m. readings.

3425. South Sulphur River near Cooper, Tex.

Location.--Lat 33°21', long 95°36', on left bank of cut channel at downstream side of pile bent of bridge on State Highway 154, 0.6 mile downstream from Big Creek, 1.0 mile upstream from Brushy Creek, 3.5 miles downstream from Doctors Creek, and 5.7 miles southeast of Cooper, Delta County.

Drainage area.--527 sq mi.

Gage.--Nonrecording prior to Nov. 9, 1949; recording thereafter. Prior to May 14, 1955, at site 700 ft upstream at present datum. Datum of gage is 374.91 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--Levees broke during flood of Apr. 29, 1953, at a gage height of 23 ft.

Historical data.--Levees were broken by floods in 1935, 1939.

Remarks.--Base for partial-duration series, 8,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	June 7, 1943	18.55	7,390	1952	Apr. 23, 1952	20.49	13,300
1944	May 2, 1944	20.40	13,000	1953	Apr. 29, 1953	23.00	23,800
1945	Feb. 21, 1945	19.20	9,560	1954	May 13, 1954	18.01	6,100
	Mar. 30, 1945	21.50	16,400	1955	Oct. 25, 1954	19.19	10,000
	June 13, 1945	20.00	11,800				
1946	Feb. 6, 1946	18.58	7,930	1956	May 3, 1956	17.02	3,700
1947	Nov. 4, 1946	21.02	14,800	1957	Apr. 4, 1957	18.68	10,300
1948	May 12, 1948	18.60	7,930		Apr. 27, 1957	22.37	23,200
					May 14, 1957	21.19	18,400
					May 27, 1957	19.63	13,000
1949	Jan. 27, 1949	20.60	13,600	June 5, 1957	19.43	12,400	
	Feb. 25, 1949	19.60	10,700	Sept. 23, 1957	17.90	8,040	
1950	Feb. 3, 1950	20.76	14,100	1958	Nov. 6, 1957	22.36	23,200
	Feb. 13, 1950	22.09	18,300		Apr. 28, 1958	18.73	10,300
	Sept. 17, 1950	20.16	12,300		May 1, 1958	20.93	17,400
					May 3, 1958	20.28	15,200
1951	June 13, 1951	19.47	10,300				

3430. North Sulphur River near Cooper, Tex.

Location.--Lat 33°28', long 95°35', on left bank at downstream side of bridge on State Highway 24, 4.9 miles upstream from Auds Creek, 7.3 miles upstream from Click Creek, and 8.6 miles northeast of Cooper, Delta County.

Drainage area.--276 sq mi.

Gage.--Nonrecording prior to Nov. 8, 1949; recording thereafter. Datum of gage is 381.42 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--20 ft.

Historical data.--Flood in 1944 was highest known since at least 1915; flood in 1932 reached about the same stage, from information by Corps of Engineers and local residents.

Remarks.--No regulation. This gage is on a rectified channel which extends 28 miles upstream and 15 miles downstream. The natural channel was greatly shortened in this reach resulting in high-peak discharges and rapid runoff. Base for partial-duration series, 20,000 cfs.

Peak stages and discharges of North Sulphur River near Cooper, Tex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	May 2, 1944	a26.6	-	1954	May 12, 1954	20.13	28,000
1950	Jan. 12, 1950	18.45	21,700	1955	Oct. 23, 1954	17.70	22,400
	Jan. 31, 1950	21.30	28,000		Mar. 20, 1955	21.34	31,000
	Feb. 12, 1950	23.15	32,000	1956	Feb. 17, 1956	21.8	32,300
	May 2, 1950	22.55	30,700		May 1, 1956	18.25	23,600
1951	Sept. 16, 1950	22.36	31,900	1957	Apr. 1, 1957	19.15	31,500
	Feb. 20, 1951	18.10	22,400		Apr. 26, 1957	22.50	39,800
	June 3, 1951	21.80	32,300		May 13, 1957	22.30	39,200
June 12, 1951	22.25	33,400	May 23, 1957		23.0	41,000	
1952	Apr. 12, 1952	18.55	24,500		May 26, 1957	17.8	28,000
	Apr. 22, 1952	21.15	30,800	Sept. 22, 1957	16.17	24,000	
1953	Apr. 29, 1953	25.86	42,800	1958	Nov. 4, 1957	20.90	35,800
					May 2, 1958	22.35	39,500
					June 16, 1958	17.55	27,500

a Annual peak only.

3435. Whiteoak Creek near Talco, Tex.

Location.--Lat 33°19', long 95°05', near center of main channel on downstream side of pier of bridge on U. S. Highway 271, 2 miles upstream from Ripley Creek, 2.7 miles south of Talco, Titus County, and 2.8 miles downstream from Lick Creek.

Drainage area.--494 sq mi.

Gage.--Recording. Datum of gage is 286.45 ft above mean sea level, datum of 1929 (Corps of Engineers bench mark).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--15 ft.

Historical data.--According to local residents, the flood in 1945 was highest since at least 1870.

Remarks.--Base for partial-duration series, 9,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Mar. 21, 1945	a25.3	-	1954	Oct. 27, 1953	17.08	4,040
1950	Feb. 3, 1950	18.97	23,300	1955	Jan. 17, 1955	17.26	5,000
	Feb. 13, 1950	18.73	20,100		1956	May 4, 1956	14.80
1951	Feb. 20, 1951	17.15	5,250	1957		Apr. 28, 1957	18.32
1952	Apr. 23, 1952	18.68	19,700		May 15, 1957	18.41	15,800
1953	Apr. 30, 1953	18.38	15,800	1958	Nov. 6, 1957	19.13	21,600
	May 18, 1953	17.90	10,700		Apr. 28, 1958	19.52	26,600

a Annual peak only.

3438. Whiteoak Creek below Talco, Tex.

Location.--Lat 33°18', long 95°01', at bridge on county road, about 4 miles downstream from Ripley Creek, 5 miles upstream from Green Creek, and 6 miles southeast of Talco, Titus County.

Drainage area.--579 sq mi.

Gage.--Nonrecording. Datum of gage is 274.34 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Historical data.--Flood in 1945 is highest known since at least 1870.

Remarks.--Current-meter measurements and gage-height records furnished by Corps of Engineers. Base for partial-duration series, 8,900 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Dec. 29, 1937	-	24,200	1945	Feb. 23, 1945	-	11,900
	Jan. 23, 1938	20.40	44,000		Mar. 1, 1945	-	20,200
	Feb. 20, 1938	-	16,400		Mar. 31, 1945	24.1	83,100
	Mar. 30, 1938	-	11,900		June 13, 1945	-	23,700
	Apr. 10, 1938	-	11,200		July 13, 1945	-	13,700
	Apr. 17, 1938	-	17,200				
1939	Feb. 28, 1939	16.30	9,000	1946	Oct. 10, 1945	-	24,500
					Jan. 12, 1946	-	11,000
					Feb. 7, 1946	-	23,700
1940	Apr. 9, 1940	16.24	8,580		May 25, 1946	-	15,300
1941	Dec. 29, 1940	-	13,800	1947	June 1, 1946	18.51	26,100
	Mar. 9, 1941	-	14,500		Nov. 7, 1946	18.22	23,700
	May 1, 1941	17.73	19,800		May 19, 1947	-	13,700
1942	Apr. 9, 1942	19.40	34,000	1948	Dec. 19, 1947	-	13,700
	Apr. 23, 1942	-	10,000		May 13, 1948	18.20	23,700
	Apr. 27, 1942	-	9,700				
1943	June 8, 1943	17.38	17,200	1949	Jan. 28, 1949	17.70	19,800
					Feb. 26, 1949	-	14,400
1944	Mar. 21, 1944	-	13,000		May 1, 1949	-	12,200
	May 3, 1944	18.62	26,700	1950	Oct. 9, 1949	-	23,700
			Oct. 25, 1949		18.35	24,900	

3440. Sulphur River near Darden, Tex.

Location.--Lat 33°15', long 94°37', near left bank on upstream side of bridge on U. S. Highway 67, 0.6 mile upstream from St. Louis Southwestern Railway bridge, 1 mile southwest of Darden, Bowie County, and at mile 105.

Drainage area.--2,774 sq mi.

Gage.--Nonrecording prior to Oct. 26, 1934, 0.6 mile downstream, and since Feb. 12, 1942, at present site; recording at site 780 ft downstream Oct. 26, 1934, to Feb. 12, 1942. Datum of all gages is 220.61 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--24 ft.

Historical data.--Flood in 1945 is highest known since at least 1865.

Remarks.--Gage-height record prior to Oct. 26, 1934, furnished by U. S. Weather Bureau (published as "near Naples"). Peaks prior to 1924 were obtained from publication "Floods in Louisiana, Magnitude and Frequency," December 1952. Only annual peaks are shown.

Peak stages and discharges of Sulphur River near Darden, Tex.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1910	Apr. 10, 1910	21.8	4,200	1932	Jan. 9, 1932	29.10	34,700
1911	Apr. 23, 1911	23.0	5,900	1933	Mar. 11, 1933	25.86	15,500
1912	Apr. 20, 1912	25.0	12,000	1934	Apr. 10, 1934	26.1	16,300
1913	Apr. 16, 1913	22.1	4,500	1935	Jan. 23, 1935	30.16	40,300
1914	Mar. 31, 1914	29.6	46,300	1936	May 15, 1936	26.04	14,000
1915	Apr. 28, 1915	31.4	63,600	1937	Mar. 29, 1937	26.58	16,100
1916	Feb. 3, 1916	27.0	23,600	1938	Jan. 25, 1938	34.9	92,900
1917	Mar. 8, 1917	23.7	7,400	1939	Apr. 1, 1939	27.42	20,300
1918	Apr. 21, 1918	26.6	20,600	1940	Apr. 11, 1940	27.23	19,700
1919	Dec. 17, 1918	27.9	31,000	1941	May 3, 1941	31.5	60,600
1920	May 17, 1920	29.2	42,700	1942	Apr. 11, 1942	32.71	68,900
1921	June 30, 1921	28.7	38,000	1943	Mar. 17, 1943	27.8	23,000
1922	Apr. 30, 1922	28.2	33,400	1944	May 5, 1944	31.71	57,900
1923	Feb. 7, 1923	24.7	10,800	1945	Apr. 1, 1945	37.56	157,000
1924	Dec. 18, 1923	27.9	28,600	1946	Feb. 9, 1946	29.95	40,000
1925	May 4, 1925	25.1	13,000	1947	Nov. 9, 1946	32.22	63,200
1926	July 19, 20, 1926	26.1	17,800	1948	May 15, 1948	29.43	34,400
1927	Dec. 26, 1926	29.0	36,500	1949	Jan. 30, 1949	30.77	44,000
1928	June 29, 1928	29.0	36,500	1950	Feb. 5, 1950	31.27	51,100
1929	Dec. 21, 1928	30.3	46,200	1951	June 19, 1951	28.10	21,800
1930	May 19, 1930	31.7	67,200	1952	Apr. 25, 1952	31.45	54,400
1931	Mar. 10, 1931	23.5	8,100	1953	May 2, 1953	30.70	47,000
				1954	May 15, 1954	29.56	36,000

3443.5. Red River at Springbank, Ark.

Location.--Lat 33°05'30", long 93°51'40", in NW $\frac{1}{4}$ sec.24, T.19 S., R.27 W., at Ferry landing on State Highway 160 at Springbank, 0.5 mile downstream from Sulphur River, 2.6 miles east of Doddridge, and at mile 377.8.

Drainage area.--56,903 sq mi, of which about 50,967 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. Datum of gage is 172.39 ft above mean sea level, datum of 1929. Prior to Jan. 1, 1919, at datum 8 ft higher. Peaks for this report referred to present datum.

Stage-discharge relation.--Not defined.

Bankfull stage.--37 ft.

Historical data.--Data for floods in 1866, 1879, 1892, and 1908, authority, Corps of Engineers (Red River Report, House Document 387).

Remarks.--Records furnished by U. S. Weather Bureau November 1904 to September 1905 and January 1909 to December 1943, and by Corps of Engineers since April 1945. Only annual peak stages are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1866	-	41.7	-	1917	May 3, 1917	23.7	-
1879	-	39.1	-	1918	Apr. 24, 1918	33.3	-
				1919	Oct. 29-30, 1919	37.5	-
1892	-	43.7	-	1920	May 23, 1920	41.4	-
1905	June 1-3, 1905	40.8	-	1921	May 1, 1921	29.4	-
				1922	May 4, 1922	32.7	-
1908	-	43.0	-	1923	Dec. 24-27, 1923	34.0	-
1909	June 22, 1909	26.8	-	1924	May 3, 1924	25.9	-
1910	Apr. 20, 1910	29.8	-	1925	May 2, 1925	26.5	-
				1926	Dec. 26, 1926	28.1	-
1911	Apr. 24, 1911	29.9	-	1927	Apr. 27-28, 1927	40.2	-
1912	Apr. 13, 1912	36.6	-	1928	Apr. 28, 1928	26.9	-
1913	Dec. 18, 1913	36.8	-	1929	May 25, 1929	31.6	-
1914	Apr. 8-9, 1914	39.5	-	1930	May 24, 1930	37.7	-
1915	May 6, 1915	41.5	-				
1916	Feb. 7, 1916	39.4	-	1931	Mar. 11, 1931	21.8	-
				1932	Jan. 31, 1932	33.2	-

a Maximum peak stage. Maximum stage of 28.8 ft on Jan. 1, 1924, following a crest of Dec. 24-27, 1923.

Peak stages and discharges of Red River at Springbank, Ark.--Continued

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1933	May 31, 1933	24.4	-	1946	Feb. 22, 1946	26.3	-
1934	Apr. 10-11, 1934	21.7	-	1947	May 26, 1947	24.9	-
1935	June 27, 1935	36.3	-	1948	Mar. 5-6, 1948	23.0	-
				1949	Feb. 1, 1949	30.9	-
1936	Oct. 3, 1936	23.4	-	1950	Feb. 17, 1950	30.1	-
1937	Jan. 29, 1937	23.7	-				
1938	Feb. 27, 1938	38.0	-	1951	June 19-20, 1951	26.4	-
1939	Apr. 21, 1939	24.4	-	1952	Apr. 27, 1952	29.0	-
				1953	May 19, 1953	28.83	-
1941	May 11, 1941	29.8	-	1954	May 15, 1954	22.7	-
1942	May 4, 1942	34.7	-	1955	May 25, 1955	22.3	-
1943	May 18, 1943	24.1	-				
				1956	Feb. 21, 1956	20.4	-
1945	Apr. 6, 1945	42.0	-	1957	May 2-4, 1957	31.6	-
				1958	May 8, 1958	26.5	-

3445. Cypress Creek near Pittsburg, Tex.

Location.--Lat 33°01'10", long 94°52'40", near center of stream at downstream side of pile bent of bridge on State Highway 11, 1,800 ft upstream from Louisiana & Arkansas Railway Co. bridge, 5.2 miles east of Pittsburg, Camp County, and at mile 110.

Drainage area.--366 sq mi.

Gage.--Recording. Prior to Nov. 12, 1954, at site 1,300 ft downstream at present datum. Datum of gage is 247.49 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 20,000 cfs and extended by logarithmic plotting.

Bankfull stage.--12 ft.

Historical data.--Flood in 1945 is highest since at least 1910.

Remarks.--Base for partial-duration series, 6,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	January 1938	24	-	1950	May 3, 1950	17.57	15,100
					May 7, 1950	15.02	7,190
1943	June 8, 1943	14.62	6,570		Sept. 17, 1950	15.42	8,170
1944	May 2, 1944	18.73	19,200	1951	Feb. 19, 1951	13.75	4,280
1945	Feb. 22, 1945	15.44	8,510	1952	Apr. 13, 1952	15.07	7,380
	Feb. 28, 1945	14.41	6,140		Apr. 23, 1952	18.03	16,600
	Mar. 30, 1945	27.32	56,500		May 29, 1952	14.77	6,880
	June 13, 1945	20.69	27,100				
1946	Oct. 10, 1945	14.40	6,140	1953	May 16, 1953	17.78	13,700
	Jan. 9, 1946	15.38	8,510	1954	Jan. 16, 1954	12.78	3,140
	May 20, 1946	16.56	11,900				
	May 31, 1946	15.70	9,290	1955	Mar. 22, 1955	13.46	2,550
1947	Nov. 10, 1946	14.02	5,300	1956	Feb. 4, 1956	12.31	1,110
1948	Dec. 16, 1947	14.87	6,680	1957	Apr. 27, 1957	17.09	9,220
	May 12, 1948	17.27	14,100		May 27, 1957	16.63	8,260
					June 5, 1957	15.70	6,460
1949	Jan. 27, 1949	15.95	9,800				
1950	Oct. 25, 1949	17.45	14,600	1958	Nov. 6, 1957	17.46	10,200
	Jan. 13, 1950	16.12	10,200		Apr. 27, 1958	24.80	35,700
	Feb. 2, 1950	17.02	13,100		May 1, 1958	19.73	16,100
	Feb. 13, 1950	18.08	16,900		May 4, 1958	15.94	6,820

3450. Boggy Creek near Daingerfield, Tex.

Location.--Lat 33°02'05", long 94°47'10", on right bank at downstream side of bridge on State Highway 11, a quarter of a mile upstream from Louisiana & Arkansas Railway Co. bridge, 3.8 miles west of Daingerfield, Morris County, 9 miles upstream from mouth, and at mile 11.5.

Drainage area.--72 sq mi.

Gage.--Recording. Prior to Oct. 1, 1954, at site 1,700 ft downstream at present datum. Datum of gage is 256.41 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--10 ft.

Historical data.--The flood in January 1938 is the second highest since at least 1900, from information by local residents.

Remarks.--Base for partial-duration series, 1,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	January 1938	a16	-	1950	Oct. 8, 1949	10.02	2,180
1944	Feb. 29, 1944	9.33	1,240		Oct. 22, 1949	11.59	6,410
	Mar. 19, 1944	9.82	1,880		Oct. 25, 1949	11.62	6,510
	Apr. 9, 1944	9.66	1,620		Jan. 13, 1950	11.20	5,090
	May 2, 1944	12.40	9,650		Feb. 2, 1950	11.10	4,770
	May 27, 1944	9.93	2,080		Feb. 12, 1950	12.59	10,100
1945	Dec. 29, 1944	9.91	2,040		Mar. 13, 1950	9.36	1,260
	Feb. 22, 1945	10.68	4,080		May 2, 1950	12.10	8,240
	Feb. 28, 1945	10.25	2,820		May 7, 1950	11.83	7,250
	Mar. 4, 1945	9.85	1,930		May 14, 1950	9.23	1,040
	Mar. 20, 1945	9.60	1,540		May 31, 1950	9.57	1,510
	Mar. 30, 1945	14.10	15,900		Sept. 17, 1950	12.97	10,100
	Apr. 2, 1945	11.10	5,070	1951	Feb. 16, 1951	9.15	1,160
	May 16, 1945	9.18	1,240		Feb. 19, 1951	9.20	1,210
	June 12, 1945	10.82	5,010	1952	Apr. 13, 1952	10.93	4,610
	June 23, 1945	10.15	2,960		Apr. 23, 1952	10.68	3,700
1946	Jan. 10, 1946	9.28	1,000		May 30, 1952	9.00	1,070
	May 1, 1946	9.55	1,250	1953	Apr. 30, 1953	9.49	1,290
	May 14, 1946	10.50	2,860		May 16, 1953	11.05	4,290
	May 19, 1946	10.20	2,120	1954	May 30, 1954	10.50	3,100
	June 1, 1946	10.22	2,160	1955	Mar. 22, 1955	10.80	2,540
1947	Nov. 7, 1946	9.80	1,540	1956	Feb. 17, 1956	9.13	350
	Nov. 11, 1946	9.65	1,360	1957	Apr. 24, 1957	11.34	2,160
	Nov. 27, 1946	9.70	1,420		Apr. 27, 1957	11.59	2,600
1948	Nov. 23, 1947	9.45	1,160		June 23, 1957	10.53	1,260
	Dec. 8, 1947	9.95	1,750	1958	Nov. 6, 1957	12.09	3,600
	Dec. 16, 1947	10.29	2,300		Nov. 13, 1957	11.88	3,200
	Jan. 2, 1948	9.50	1,200		Jan. 21, 1958	11.13	1,900
	Mar. 2, 1948	10.67	3,250		Apr. 27, 1958	17.80	28,900
	Mar. 23, 1948	9.30	1,160		May 1, 1958	13.02	5,750
	Apr. 14, 1948	8.88	1,070		May 4, 1958	10.48	1,220
May 12, 1948	10.87	3,990					
1949	Jan. 27, 1949	10.48	3,100				

a Annual peak only.

3460. Cypress Creek near Jefferson, Tex.

Location.--Lat 32°45', long 94°29', at bridge on Farm Road 726, 1,500 ft downstream from Lake O' the Pines Dam, 8 miles west of Jefferson, Marion County, 14 miles upstream from Black Cypress Creek, and at mile 72.2.

Drainage area.--850 sq mi.

Gage.--Nonrecording prior to Nov. 2, 1933; recording thereafter. Prior to Dec. 9, 1955, at site 1,500 ft upstream at datum 183.7 ft higher. Datum of present gage is at mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 29,000 cfs and extended above.

Bankfull stage.--22 ft.

Remarks.--Flow slightly regulated by Ellison Creek Reservoir since January 1943 (capacity, 24,700 acre-ft), and completely regulated by Lake O' the Pines Dam since August 1957. Records for 1958 furnished by Corps of Engineers. Base for partial-duration series, 1,800 cfs. Only annual peaks are shown prior to 1925 and subsequent to 1955.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1913	Mar. 23, 1913	a13.2	2,000	1931	Apr. 5, 1931	11.40	1,300
1914	Apr. 4, 1914	a20.0	10,900	1932	Dec. 24, 1931	15.85	4,000
1915	Apr. 28-29, 1915	a21.2	15,200		Jan. 8, 1932	21.10	15,600
1916	Feb. 5, 1916	a16.3	4,600		Jan. 17, 1932	16.40	4,880
1917	Apr. 30, 1917	a10.9	1,200		Jan. 28, 1932	16.65	5,180
1918	Apr. 24, 1918	a16.6	4,900		Feb. 20, 1932	17.85	7,350
1919	Mar. 25, 1919	a13.5	2,200		Mar. 11, 1932	14.80	2,830
1920	Nov. 14, 1919	a20.1	11,000	1933	Jan. 5, 1933	15.32	3,550
1921	Apr. 27, 1921	a17.1	5,500		Jan. 28, 1933	12.80	1,840
1922	Apr. 4, 1922	a19.2	8,900		Mar. 13, 1933	12.85	1,840
1923	Feb. 5, 1923	a16.3	4,700		May 5, 1933	15.05	3,250
1924	Jan. 1, 1924	a16.7	5,000	1934	Mar. 8, 1934	15.50	4,030
1925	May 5, 1925	12.80	1,820		Mar. 31, 1934	16.13	4,870
1926	Jan. 23, 1926	13.42	1,990		May 12, 1934	12.84	1,970
	Mar. 17, 1926	14.01	2,160	1935	May 8, 1935	20.31	13,200
	Mar. 31, 1926	12.97	1,870		May 27, 1935	13.33	2,020
	Apr. 5, 1926	13.40	1,990	1936	May 19, 1936	12.65	1,790
	July 17, 1926	16.70	5,900	1937	Jan. 26, 1937	17.30	6,430
1927	Dec. 28, 1926	14.75	3,120		Mar. 12, 1937	14.70	3,010
	Jan. 26, 1927	14.20	2,560	1938	Dec. 30, 1937	21.51	17,400
	Feb. 14, 1927	13.40	2,050		Jan. 26, 1938	24.94	35,200
	Mar. 13, 1927	16.90	6,200		Feb. 23, 1938	16.62	5,540
	Apr. 11, 1927	17.50	6,820		Apr. 4, 1938	14.70	2,820
1928	Apr. 29, 1928	13.40	2,050		Apr. 13, 1938	15.08	3,200
	May 20, 1928	18.00	7,910		Apr. 21, 1938	16.80	5,250
	June 28, 1928	18.10	8,060	1939	Mar. 2, 1939	16.65	5,250
1929	Dec. 20, 1928	21.4	17,000	1940	Apr. 17, July 4	11.33	1,320
	Jan. 10-11, 1929	16.1	4,960	1941	Jan. 2, 1941	15.80	3,720
	Jan. 20, 1929	12.90	1,840		Mar. 15, 1941	15.44	3,500
	Feb. 2, 1929	13.55	2,280		May 7, 1941	14.57	3,200
	Mar. 10, 1929	13.75	2,400		June 25, 1941	14.16	2,460
	May 21, 1929	14.10	2,560		June 29, 1941	14.02	2,370
1930	Feb. 12, 1930	13.90	2,380	1942	Jan. 1, 1942	13.42	2,010
	May 20, 1930	25.37	37,900		Apr. 11, 1942	21.96	19,800
					May 21, 1942	18.49	8,290
				1943	June 15, 1943	12.42	1,770
				1944	Mar. 4, 1944	15.65	3,710
					Mar. 25, 1944	15.85	3,910

a These values from gage-height relation curve between Geological Survey and U. S. Weather Bureau gage at Jefferson 12 miles downstream.

Peak stages and discharges of Cypress Creek near Jefferson, Tex.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1944	Apr. 14, 1944	16.28	4,410	1949	Feb. 1, 1949	17.72	6,120	
	May 4, 1944	24.13	30,800		Mar. 5, 1949	12.90	1,940	
	May 23, 1944	15.14	3,340	1950	Oct. 15, 1949	14.07	2,730	
	June 2, 1944	14.38	2,760		Oct. 28, 1949	20.56	12,900	
1945	Jan. 1, 1945	18.32	7,040	Jan. 17, 1950	20.50	12,700		
	Feb. 27, 1945	18.20	7,040	Feb. 6, 1950	18.55	7,580		
	Mar. 4, 1945	19.22	9,400	Feb. 15, 1950	22.29	20,400		
	Apr. 1, 1945	28.78	57,100	Mar. 19, 1950	15.18	3,580		
	May 23, 1945	12.46	1,880	May 5, 1950	20.90	14,100		
	June 16, 1945	21.02	15,200	May 10, 1950	19.90	10,700		
1946	Jan. 14, 1946	17.48	5,840	Sept. 20, 1950	20.34	12,100		
	Feb. 15, 1946	16.03	4,200	1951	Feb. 24, 1951	17.06	5,570	
	Mar. 14, 1946	13.45	2,200		Apr. 28, 1951	13.17	2,180	
	May 6, 1946	14.70	3,060	1952	Apr. 17, 1952	18.02	6,750	
	May 19, 1946	18.07	6,720		Apr. 27, 1952	19.63	9,860	
	May 24, 1946	19.44	9,400		June 4, 1952	15.20	3,600	
1947	June 3, 1946	21.08	15,600	1953	May 6, 1953	14.61	3,100	
	Nov. 15, 1946	16.17	4,400		May 19, 1953	21.67	17,500	
	Dec. 2, 1946	14.73	3,060	1954	Jan. 24, 1954	13.15	2,090	
	Jan. 26, 1947	13.12	2,100		May 20, 1954	13.08	2,040	
	Mar. 20, 1947	12.51	1,810		1955	Mar. 23, 1955	14.12	2,210
	Apr. 9, 1947	13.09	2,100			Mar. 28, 1955	15.10	2,530
Apr. 21, 1947	12.56	1,850	Apr. 14, 1955	13.02	1,860			
1948	Dec. 13, 1947	15.45	3,620	1956	May 4, 1956	195.50	1,220	
	Dec. 21, 1947	17.06	5,320		1957	Apr. 27, 1957	205.61	16,000
	Jan. 8, 1948	14.59	3,060	1958		Apr. 29, 1958	201.30	5,190
	Feb. 13, 1948	15.96	4,200					
	Mar. 6, 1948	17.79	6,880					
	Mar. 23, 1948	14.92	3,460					
	May 13, 1948	20.14	12,000					

3464.5. Black Bayou at Rodessa, La.

Location.-- Lat 32°57'30", long 93°59'40", in W $\frac{1}{2}$ sec. 26, T. 23 N., R. 16 W., Caddo Parish, at bridge on State Highway 1, 0.7 mile south of Rodessa.

Drainage area.--177 sq mi.

Gage.--Nonrecording. Datum of gage is 174.62 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements. High-water shifts have occurred.

Bankfull stage.--10 ft.

Remarks.--Gage-height records and occasional discharge measurements collected by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	July 3, 1940	12.5	5,230	1946	Jan. 9, June 1	12.2	2,440
1941	May 7, 1941	10.4	2,300	1947	Nov. 11, 1946	11.3	2,600
		12.4	5,060	1948	Mar. 28, 1948	9.8	1,600
1942	Aug. 23, 1942	12.4	5,060	1949	Jan. 29, 1949	9.8	1,300
1943	Apr. 20, 1943	8.2	400	1950	Jan. 15, 1950	12.4	5,020
1944	May 3, 1944	12.9	6,100				
1945	Apr. 1, 1945	12.2	4,600	1951	Feb. 20, 1951	9.1	820

3465. Black Bayou near Hosston, La.

Location.--Lat 32°52'55", long 93°53'55", in SE $\frac{1}{4}$ sec.22, T.22 N., R.15 W., Caddo Parish, at bridge on State Highway 2, 75 ft downstream from Black Bayou Dam, 1 mile upstream from an unnamed tributary, and 1 $\frac{1}{4}$ miles west of Hosston.

Drainage area.--231 sq mi.

Gage.--Nonrecording. Datum of gage is 171.09 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements made 1939-44; affected by fall.

Remarks.--Gage-height records April 1943 to September 1944 by U. S. Geological Survey. Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	July 4, 1940	12.5	3,520	1946	Jan.11-12, 1946	11.0	2,800
1941	May 8-9, 1941	9.3	2,010	1947	Nov. 13, 1946	10.9	2,760
1942	Apr. 12, 1942	10.8	2,710	1948	Feb. 15, 1948	8.6	1,520
1943	(a)	6.0	491	1949	Jan. 31, 1949	7.9	1,380
1944	May 4, 1944	13.0	3,780	1950	Jan. 17, 1950	11.1	2,850
1945	Apr. 3-4, 1945	13.4	3,980	1951	Feb.20-21, 1951	6.9	-

a Jan. 3-17, Mar. 27, Apr. 1, 1943.

3470. Kelly Bayou near Hosston, La.

Location.--Lat 32°51'25", long 93°52'20", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.36, T.22 N., R.15 W., near center of span on downstream side of bridge on U. S. Highway 71, 0.4 mile downstream from Willow Lake lateral, 2.0 miles south of Hosston, and 2.7 miles upstream from mouth.

Drainage area.--116 sq mi.

Gage.--Nonrecording prior to Feb. 2, 1953; recording thereafter. Datum of gage is 165.53 ft above mean sea level, datum of 1929, supplementary adjustment of 1941. Recording gage for station on Black Bayou near Gilliam used as an auxiliary gage for this station.

Stage-discharge relation.--Defined by current-meter measurements; affected by fall.

Remarks.--Base for partial-duration series, 700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Dec. 29, 1944	14.73	1,740	1948	Feb. 12, 1948	12.70	1,020
	Jan. 18, 1945	11.05	937		Mar. 2, 1948	12.33	962
	Feb. 20, 1945	9.85	758		Mar. 23, 1948	10.82	752
	Feb. 29, 1945	10.62	892		May 11, 1948	11.48	850
	Mar. 5, 1945	15.55	1,800		May 26, 1948	12.57	1,000
	Apr. 1, 1945	a16.20	1,600	1949	Jan. 16, 1949	11.41	856
	Apr. 24, 1945	10.32	804		Jan. 27, 1949	10.97	780
1946	Nov. 12, 1945	10.24	814		Apr. 26, 1949	11.30	822
	Jan. 9, 1946	a13.29	1,270	1950	Jan. 16, 1950	13.73	967
	Feb. 10, 1946	10.76	815		Feb. 13, 1950	14.47	1,110
	Mar. 7, 1946	13.46	1,460		May 2, 1950	14.16	1,100
	Mar. 15, 1946	10.21	768	1951	Jan. 14, 1951	10.01	513
	May 13, 1946	14.68	1,730	1952	Feb. 20, 1952	10.29	809
	May 25, 1946	14.31	1,550		Apr. 13, 1952	11.34	994
	May 31, 1946	a14.61	1,470	1953	Mar. 12, 1953	13.55	1,520
1947	Nov. 5, 1946	11.18	966		Apr. 24, 1953	10.24	837
	Nov. 11, 1946	14.40	1,660		Apr. 29, 1953	11.69	955
	Nov. 26, 1946	10.40	805		May 15, 1953	a14.53	1,340
	Mar. 13, 1947	11.60	1,050				
	Mar. 23, 1947	12.93	1,330				
	Apr. 11, 1947	10.33	786				
	May 17, 1947	11.94	1,120				

a Occurred on different date.

Peak stages and discharges of Kelly Bayou near Hosston, La.--Continued.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	Jan. 15, 1954	11.31	1,040	1957	Apr. 4, 1957	11.64	1,040
	May 12, 1954	9.50	714		Apr. 29, 1957	17.18	1,720
1955	Mar. 21, 1955	11.07	1,050	1958	June 5, 1957	12.62	1,070
	May 20, 1955	10.15	870		Nov. 8, 1957	11.58	916
	May 24, 1955	13.44	1,520		Nov. 15, 1957	a13.10	970
1956	Feb. 2, 1956	11.86	1,200	Jan. 22, 1958	11.96	921	
				Apr. 28, 1958	a22.72	4,460	
1957	Feb. 1, 1957	10.25	880	July 7, 1958	11.40	962	

a Occurred on different date.

3475. Black Bayou near Gilliam, La.

Location.--Lat 32°48'55", long 93°52'15", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.13, T.21 N., R.15 W., near left bank on downstream side of bridge on State Highway 170, 0.2 mile downstream from Red Bayou and 2 miles southwest of Gilliam.

Drainage area.--364 sq mi.

Gage.--Nonrecording prior to Dec. 12, 1948; recording thereafter. Datum of gage is 155.59 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Auxiliary nonrecording gage Jan. 26, 1945, to Oct. 25, 1949, and recording gage thereafter at site 5.5 miles downstream at same datum.

Stage-discharge relation.--Defined by current-meter measurements; affected by fall.

Remarks.--Base for partial-duration series, 2,000 cfs. Only annual peaks are shown prior to 1948.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1943	Apr. 19, 1943	a9.96	983	1951	Feb. 20, 1951	b15.75	1,560	
1944	May 4, 1944	22.60	6,270	1952	Mar. 10, 1952	14.40	2,240	
					Apr. 13, 1952	14.78	2,120	
1945	Apr. 2, 1945	25.73	5,830	1953	Mar. 12, 1953	16.03	2,630	
1946	June 1, 1946	20.37	3,610		Apr. 29, 1953	15.89	2,570	
					May 19, 1953	20.52	4,090	
1947	Nov. 12, 1946	18.04	4,010	1954	Jan. 16, 1954	13.50	1,760	
1948	Feb. 11, 1948	16.72	2,820		1955	May 24, 1955	16.63	3,150
	Mar. 26, 1948	14.96	2,740	1956		Feb. 3, 1956	13.60	1,650
	May 12, 1948	14.15	3,050			1957	Apr. 6, 1957	16.51
	May 25, 1948	16.05	2,710	Apr. 29, 1957			22.00	8,200
1949	Jan. 27, 1949	15.18	2,740	June 5, 1957	17.34	3,830		
	Apr. 27, 1949	13.93	2,070	1958	Nov. 18, 1957	19.36	3,770	
1950	Jan. 17, 1950	18.46	3,790		Jan. 23, 1958	16.58	2,470	
	Feb. 16, 1950	19.87	3,650		Apr. 29, 1958	27.50	17,700	
	May 5, 1950	17.07	3,180					

a Occurred Jan. 8, 1943.

b Occurred Oct. 1, 1950.

Note.--Peak stage frequently occurs at different time or on different date than peak discharge.

3480. Twelvemile Bayou near Dixie, La.

Location.--Lat 32°38'45", long 93°52'40", in NW¹/₄NW¹/₄ sec.14, T.19 N., R.15 W., near right bank on downstream side of pier of bridge on State Highway 173, 0.1 mile downstream from Cottonwood Bayou, 4.2 miles southwest of Dixie, 5.5 miles downstream from Caddo Lake, and 17.3 miles upstream from mouth.

Drainage area.--3,137 sq mi.

Gage.--Nonrecording prior to Sept. 5, 1947; recording thereafter. Prior to Sept. 30, 1950, at datum 2.0 ft higher. Datum of present gage is 143.88 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements. Discharge computed by using submergence, as determined from auxiliary gage, as a factor during periods of backwater from Red River. Moderate shifts occur.

Bankfull stage.--24 ft.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Jan. 9, 1943	14.82	4,070	1950	Jan. 22, 1950	25.04	14,200
1944	Mar. 6, 1944	23.93	11,400	Feb. 21, 1950	27.31	18,600	
	Apr. 1, 1944	23.77	11,200	May 15, 1950	24.56	13,600	
	May 9, 1944	30.21	26,600	Sept.25, 1950	24.36	13,300	
1945	Jan. 7, 1945	25.46	13,800	1951	Oct. 1, 1950	24.78	11,200
	Mar. 13, 1945	27.57	a18,000	Mar. 2, 1951	21.83	a8,060	
	Apr. 5, 1945	33.65	34,900	1952	Feb.13-14, 1952	17.6	a5,500
	June 24, 1945	22.31	a9,370	Mar. 11, 1952	19.19	6,310	
1946	Jan. 21, 1946	24.61	12,900	Apr.26-27, 1952	23.60	a9,790	
	Feb. 23, 1946	23.28	11,100	1953	Mar. 14, 1953	20.89	7,360
	Mar. 30, 1946	17.40	6,220	May 1, 1953	21.17	7,580	
	May 1, 1946	17.48	6,270	May 24, 1953	29.83	19,800	
	June 9, 1946	27.90	19,500	1954	May 13, 1954	14.90	a4,270
1947	Nov. 19, 1946	22.59	10,400	1955	Apr. 1, 1955	20.13	a6,850
	Jan. 23, 1947	17.87	6,630	Apr. 14, 1955	18.82	a6,100	
	Mar. 16, 1947	18.41	6,930	May 25, 1955	22.30	8,490	
	Mar. 23, 1947	18.50	6,990	1956	Feb. 9, 1956	15.41	4,580
	Apr. 12, 1947	20.65	8,480	1957	May 4, 1957	32.59	a26,100
	May 22, 1947	18.00	6,690	June 16, 1957	25.60	a10,100	
1948	Dec. 26, 1947	17.80	6,570	1958	Oct. 24, 1957	15.98	a5,600
	Feb. 19, 1948	22.26	10,600	Nov.21-25, 1957	26.05	a14,200	
	Mar. 11, 1948	23.08	11,500	Jan.26,27, 1958	22.41	a9,450	
	May 22, 1948	22.40	10,700	Mar. 24, 1958	14.72	a5,000	
1949	Feb. 6, 1949	20.18	8,400	May 5, 1958	35.65	38,400	
	Apr. 3, 1949	15.28	5,260	June 27, 1958	19.00	a7,240	
	Apr. 28, 1949	15.91	5,550				
1950	Nov. 5, 1949	20.41	8,580				

a Mean daily discharge.

Note.--Peak stage frequently occurs at different time or on different date than peak discharge.

3481. McCain Creek near Shreveport, La.

Location.--Lat 32°35'50", long 93°50'00", in SW¹/₄NE¹/₄ sec.31, T.19 N., R.14 W., at bridge on State Highway 1, 7.0 miles northwest of Shreveport.

Drainage area.--13.8 sq mi.

Gage.--Crest-stage gage. Datum of gage is 148.07 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges of McCain Creek near Shreveport, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	37.10		1956	May 5, 1956	37.99	
1955	May 24, 1955	43.82		1957	Apr. 28, 1957	40.76	
				1958	Apr. 25, 1958	41.10	

3485. Red River at Shreveport, La.

Location.--Lat 32°30'55", long 93°44'25", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.30, T.18 N., R.13 W., on second pier from east bank, at Illinois Central Railroad bridge at Shreveport, half a mile downstream from Cross Bayou and at mile 310.2.

Drainage area.--60,613 sq mi, of which about 54,677 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to Sept. 29, 1939; recording thereafter. Datum of gage is 131.48 ft above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

Stage-discharge relation.--Variable; discharge maxima based on occasional current-meter measurements made 1872-1905, and loop curves defined by frequent current-meter measurements since August 1928.

Bankfull stage.--39 ft.

Remarks.--Current-meter measurements and computations of daily discharge furnished by Corps of Engineers. Some current-meter measurements made, gage-height records collected, and records reviewed by Geological Survey. Prior to 1929, gage-height records and occasional current-meter measurements furnished by Mississippi River Commission and Weather Bureau. Base for partial-duration series, 70,000 cfs. Only annual peaks are shown prior to 1940.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1849	August 1849	45.9	-	1892	May 28, 1892	45.6	242,000
1873	June 8, 1873	35.5	57,000	1893	Jan. 1-2, 1893	39.1	108,000
1874	Apr. 29, 1874	37.9	88,000	1894	Apr. 2, 1894	44.4	215,000
1875	Apr. 22, 1875	35.8	61,000	1895	July 29-30, 1895	40.3	129,000
1876	July 28, 1876	41.9	160,000	1896	Feb. 25-26, 1896	27.5	35,000
1877	May 11-12, 1877	39.8	120,000	1897	Apr. 11-13, 1897	34.10	53,000
1878	Jan. 31, 1878	38.4	97,000	1898	May 21, 1898	25.00	30,000
1879	May 16, 1879	34.9	53,000	1899	Jan. 24, 1899	25.60	31,000
1880	Apr. 4, 1880	33.2	42,000	1900	May 8, 1900	25.00	30,000
1881	Mar. 7, 1881	37.3	80,000	1901	June 7, 1901	26.4	33,000
1882	Feb. 21, 1882	41.4	150,000	1902	June 14, 1902	27.6	35,000
1883	Mar. 11-12, 1883	35.3	57,000	1903	Dec. 15-16, 1902	44.10	208,000
1884	May 14, 1884	42.7	177,000	1904	June 24-25, 1904	38.5	98,000
1885	May 11-12, 1885	40.5	132,000	1905	June 9, 1905	43.6	197,000
1886	Apr. 29, 1886	28.3	31,000	1906	Jan. 2-3, 1906	32.6	54,000
1887	Mar. 19, 1887	28.4	33,000	1907	June 13, 1907	36.9	90,000
1888	May 19, 1888	40.3	129,000	1908	June 15, 1908	45.1	256,000
1889	Feb. 3, 1889	41.9	160,000	1909	Dec. 7, 1908	22.0	33,000
1890	May 8, 1890	44.7	221,000	1910	Apr. 21, 1910	23.86	40,000
1891	Feb. 12, 1891	35.2	59,000	1911	Apr. 25, 27, 1911	23.42	41,000

Peak stages and discharges of Red River at Shreveport, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1912	Apr. 14, 1912	29.3	68,000	1943	June 2, 1943	20.50	77,800
1913	May 28, 1913	22.2	41,000	1944	Feb. 14, 1944	16.49	-
1914	Apr. 10, 1914	32.93	102,000		Feb. 22, 1944	17.76	-
1915	May 9, 1915	39.0	185,000		Mar. 3, 1944	21.90	89,800
1916	Feb. 10, 1916	35.5	140,000		Mar. 24, 1944	20.91	80,800
1917	May 4, 1917	20.4	41,000		Mar. 20, 1944	21.22	a80,600
1918	Apr. 25-26, 1918	26.9	77,000		Apr. 6, 1944	19.68	-
1919	Dec. 29, 1918	23.8	62,000	1945	Apr. 26, 1944	15.48	-
1920	May 26, 1920	36.2	178,000		May 9, 1944	27.70	163,000
1921	May 3, 1921	28.4	99,000		May 27, 1944	17.72	-
1922	May 5-6, 1922	31.3	132,000		June 1, 1944	21.88	78,900
1923	Feb 8, 1923	24.3	75,000		June 10, 1944	18.42	-
1924	Dec. 26-27, 1923	30.4	133,000	1946	Mar. 8, 1945	30.30	173,000
1925	May 3, 1925	21.8	63,000		Mar. 26, 1945	28.15	147,000
1926	July 30-31, 1926	23.2	75,000		Apr. 7, 1945	37.90	303,000
1927	Apr. 29-30, 1927	37.4	248,000		Apr. 24, 1945	24.25	94,100
1928	Apr. 28, 1928	25.1	95,000		May 13, 1945	19.68	-
1929	May 26-27, 1929	27.48	121,000	1947	May 21, 1945	21.50	a85,800
1930	May 26-28, 1930	35.91	243,000		June 17, 1945	23.64	118,000
1931	Dec. 11, 1930	22.74	62,600		June 23, 1945	26.43	140,000
1932	Feb. 3, 1932	31.79	168,000	1946	Oct. 12, 1945	20.35	a83,500
1933	May 31, 1933	22.82	75,600		Jan. 16, 1946	20.10	84,000
1934	Apr. 11, 1934	21.78	71,400		Feb. 22, 1946	23.15	117,000
1935	May 29, 1935	32.65	181,000	1947	May 22, 1946	20.65	89,000
1936	Dec. 12, 1935	22.32	86,400		June 5, 1946	23.75	a123,000
1937	Jan. 29, 1937	23.15	93,600	1947	Dec. 17, 1946	21.67	127,000
1938	Mar. 1, 1938	35.50	211,000		May 4, 1947	19.87	101,000
1939	Apr. 21, 1939	22.47	88,500	1948	May 19, 1947	20.50	106,000
1940	June 1, 1940	21.49	89,600		May 26, 1947	21.22	101,000
1941	July 8, 1940	22.04	95,600	1948	Mar. 6, 1948	20.00	99,500
1941	Feb. 7, 1941	19.12	70,900		May 15, 1948	19.60	93,500
1941	Apr. 28, 1941	23.88	a112,000	1949	May 22, 1948	19.15	82,200
1941	May 12, 1941	27.93	143,000		Feb. 1-2, 1949	25.80	171,000
1941	June 8, 1941	19.73	70,600		Feb. 28, 1949	19.29	89,100
1941	June 18, 1941	24.99	a125,000	1950	Mar. 31, 1949	16.27	75,900
1942	Oct. 11, 1941	21.01	90,000		Jan. 18, 1950	22.70	a129,000
1942	Nov. 8, 1941	22.46	a107,000		Feb. 5-6, 1950	20.80	102,000
1942	Apr. 18, 1942	29.65	a170,000		Feb. 18, 1950	26.20	163,000
1942	May 5, 1942	31.47	a183,000		May 7, 1950	22.86	110,000
1942	May 18, 1942	23.32	90,100		May 19, 1950	22.55	a103,000
1942	May 23, 1942	23.55	a90,900	1951	Aug. 3, 1950	18.67	75,800
1943	Apr. 22, 1943	20.28	a74,400		Sept. 24, 1950	22.55	123,000
1943	May 18, 1943	21.86	93,300	1951	Feb. 24, 1951	20.88	104,000
					June 20, 1951	22.15	111,000
					July 8, 1951	19.48	a82,100
				1952	Apr. 17, 1952	20.56	102,000
					Apr. 28, 1952	25.45	154,000
				1953	Apr. 11, 1953	17.60	a72,600
					May 4, 1953	23.17	129,000
					May 20, 1953	27.32	173,000
				1954	May 16, 1954	20.53	94,700
				1955	Mar. 26, 1955	20.15	92,400
				1956	Feb. 22, 1956	16.72	62,200
				1957	Apr. 9, 1957	22.80	a106,000
					May 3, 1957	b33.91	230,000
					May 31, 1957	30.25	173,000
					Sept. 28, 1957	20.80	a74,700
				1958	Nov. 22, 1957	21.92	a96,200
					Jan. 25, 1958	18.6	a76,900
					May 8, 1958	33.70	a249,000

a Mean daily.

b Observed May 4, 1957.

3487.2. Bayou Dorcheat near Sarepta, La.

Location.--Lat 32°55'20", long 93°22'25", in SW $\frac{1}{4}$ sec.2, T.22 N., R.10 W., Webster Parish, at bridge on State Highway 2, 1.2 miles upstream from Indian Creek, 2.4 miles downstream from Cypress Creek, and 4.8 miles northeast of Sarepta.

Drainage area.--718 sq mi.

Gage.--Nonrecording. Datum of gage is 167.18 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 7,700 cfs and extended above.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Feb. 5, 1939	17.9	10,800	1946	Jan. 10, 1946	17.8	10,500
1940	July 5, 1940	17.6	9,800	1947	Mar. 15, 1947	15.5	4,280
				1948	Mar. 26, 1948	16.9	7,570
1941	May 6, 1941	18.1	11,500	1949	Jan.30-31, 1949	17.0	7,860
1942	Apr.29-30, 1942	17.9	10,800	1950	Jan. 16, 1950	18.3	12,000
1943	Apr. 24, 1943	14.9	3,360				
1944	May 5, 1944	18.5	13,000	1951	Feb. 22, 1951	15.1	4,100
1945	Mar. 5, 1945	18.0	11,200				

3487.4. Bayou Dorcheat near Cotton Valley, La.

Location.--Lat 32°50'35", long 93°21'15", at bridge on State Highway 160, Webster Parish, 1.0 mile upstream from Davis Slough, 1.5 miles upstream from Wildcat Slough, 1.8 miles upstream from Black Bayou, and 4.0 miles northeast of town of Cotton Valley.

Drainage area.--818 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Jan. 16, 1950	45.29		1955	Mar. 23, 1955	45.45	
1951	Feb. 23, 1951	42.54		1956	Feb. 18, 1956	42.14	
1952	Feb. 11, 1952	43.17		1957	May 2, 1957	46.60	
1953	May 20, 1953	45.16		1958	Apr. 29, 1958	46.74	
1954	May 16, 1954	(a)					

a Below 41.1 ft, bottom of gage.

3487.6. Black Bayou at Leton, La.

Location.--Lat 32°51'10", long 93°15'05", in SW $\frac{1}{4}$ sec.36, T.22 N., R.9 W., at bridge on State Highway 2, 0.5 mile south of Leton.

Drainage area.--49.8 sq mi.

Gage.--Crest-stage gage. Datum of gage is 163.51 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Fairly well defined below 3,350 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges of Black Bayou at Leton, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	45.32	1,670	1956	Feb. 5, 1956	45.11	1,480
1955	Mar. 21, 1955	47.22	-	1957	Apr. 28, 1957	45.96	2,400
				1958	Apr. 26, 1958	49.34	-

3488. Flat Lick Bayou near Leton, La.

Location.--Lat 32°46'10", long 93°16'00", in NW $\frac{1}{4}$ sec.35, T.21 N., R.9 W., near left bank on downstream side of bridge on State Highway 159, half a mile downstream from Cypress Creek, 6 miles upstream from mouth, and 6 $\frac{1}{2}$ miles south of Leton.

Drainage area.--66.9 sq mi.

Gage.--Crest-stage gage prior to September 1956; recording thereafter. Datum of gage is 183.79 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 3,300 cfs.

Remarks.--Base for partial-duration series, 500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	6.78	228	1958	Nov. 7, 1957	8.86	806
1955	May 24, 1955	9.48	al,700		Nov. 14, 1957	10.00	2,600
					Nov. 18, 1957	9.46	1,670
					Nov. 23, 1957	8.65	610
1956	Feb. 6, 1956	7.09	259		Jan. 21, 1958	8.93	892
					Apr. 26, 1958	12.95	10,200
1957	Apr. 4, 1957	8.98	962		Apr. 28, 1958	10.27	3,160
	Apr. 27, 1957	9.92	2,340		Apr. 30, 1958	10.89	4,620
	May 14, 1957	9.52	1,740		May 20, 1958	9.62	2,450
	June 24, 1957	8.84	784		June 26, 1958	8.79	731

a Annual peak only.

3489. Brushy Creek near Hortman, La.

Location.--Lat 32°41'40", long 93°22'40", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.27, T.20 N., R.10 W., Webster Parish, at bridge on State Highway 7, 2.4 miles south of Hortman and 7.5 miles northwest of Minden.

Drainage area.--16.1 sq mi.

Gage.--Crest-stage gage. Datum of gage is 161.00 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurement below 1,600 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Feb. 23, 1951	9.53	395	1955	May 24, 1955	13.42	2,400
1952	Apr. 13, 1952	12.40	1,290				
1953	Apr. 29, 1953	12.75	1,580	1956	Apr. 5, 1956	9.48	385
1954	May 1, 1954	8.72	305	1957	May 13, 1957	11.73	910
				1958	Apr. 26, 1958	12.94	1,800

3490. Bayou Dorcheat near Minden, La.

Location.--Lat 32°35'55", long 93°20'00", in NW $\frac{1}{4}$ sec.31, T.19 N., R.9 W., on left bank 500 ft upstream from bridge on U. S. Highway 80, three-quarters of a mile upstream from Louisiana & Arkansas Railway Co. bridge, 3 miles west of Minden, and 28 miles upstream from Bistineau Dam.

Drainage area.--1,097 sq mi.

Gage.--Nonrecording prior to Mar. 1, 1940; recording thereafter. Datum of gage is 133.75 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). Low-stage recording gage since July 29, 1953, 4.6 miles upstream at different datum.

Stage-discharge relation.--Defined by current-meter measurements. High-water shifts have occurred.

Bankfull stage.--19 ft.

Remarks.--Records furnished by Corps of Engineers October 1929 to September 1931 and December 1935 to September 1938. Base for partial-duration series, 5,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1929	Apr.29-30, 1929	12.50	2,910	1946	Jan. 12, 1946	18.85	a14,500	
1930	Jan. 15, 1930	16.04	a7,200		Feb. 13, 1946	18.04	11,800	
	May 21, 1930	22.95	40,000		May 18, 1946	17.39	10,000	
1931	Jan. 12, 1931	11.46	2,640		May 27, 1946	16.82	8,490	
				1947	Mar. 16, 1947	15.38	6,220	
1933	July 26, 1933	21.12	25,000	1948	Feb. 17, 1948	17.13	9,180	
					Mar. 30, 1948	-	6,830	
1936	May 15, 1936	9.10	878	1949	Jan. 31, Feb. 1	17.44	9,110	
1937	Jan. 26, 1937	18.70	14,500			Mar. 31, 1949	14.84	5,510
1938	Dec. 31, 1937	20.50	22,300	1950	Jan. 18, 1950	19.85	15,900	
	Apr. 12, 1938	17.64	a10,600			Feb. 18, 1950	18.22	10,900
1939	Feb.5-7, 1939	18.80	14,300			May 4, 1950	17.60	9,490
	Mar. 3, 1939	17.18	a9,680	1951	Feb. 24, 1951	13.79	4,120	
1940	July 8, 1940	17.04	8,750	1952	Jan. 30, 1952	15.40	5,700	
1941	Jan. 3, 1941	18.38	13,000		Feb. 17, 1952	15.36	5,700	
	Mar. 13, 1941	16.37	8,250	1953	Mar. 17, 1953	16.81	7,300	
	May 8, 1941	19.63	17,000			May 2, 1953	19.63	12,400
					May 18, 1953	20.78	16,900	
1942	Apr. 13, 1942	17.72	10,900	1954	May 17, 1954	11.67	3,020	
	Apr. 27, 1942	17.68	10,900		1955	Mar. 25, 1955	15.64	5,940
	May 1, 1942	18.47	12,900	1943		Apr. 27, 1943	12.76	3,830
	May 21, 1942	17.89	11,400		1944	Feb. 29, 1944	18.21	11,400
1943	Apr. 27, 1943	12.76	3,830			Mar. 31, 1944	17.72	9,560
						May 7, 1944	20.36	20,800
				1945	Jan. 4, 1945	18.43	12,200	
1944	Feb. 29, 1944	18.21	11,400			Feb. 24, 1945	16.03	7,700
	Mar. 31, 1944	17.72	9,560			Mar. 5, 1945	20.84	21,600
	May 7, 1944	20.36	20,800			Apr. 4, 1945	b18.38	13,000
1945	Jan. 4, 1945	18.43	12,200	1958	Nov. 20, 1957	15.29	5,690	
	Feb. 24, 1945	16.03	7,700			Nov. 25, 1957	15.41	5,800
	Mar. 5, 1945	20.84	21,600			Jan. 26, 1958	15.37	5,800
	Apr. 4, 1945	b18.38	13,000			May 1, 1958	24.90	44,800

a Mean daily.

b Occurred Apr. 6, 1945.

3492. Clark Bayou near Haughton, La.

Location.--Lat 32°34'05", long 93°29'10", in NE $\frac{1}{4}$ sec.10, T.18 N., R.11 W., Bossier Parish, at bridge on U. S. Highways 79 and 80, 2.5 miles northeast of Haughton, 3 miles upstream from Illinois Central Railroad bridge and bridge on State Highway 164, and 12 miles southwest of Minden.

Drainage area.--35.1 sq mi.

Gage.--Crest-stage gage. Datum of gage is 184.85 ft above mean sea level (Louisiana Department of Highway bench mark).

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 29, 1951	9.55		1955	May 24, 1955	11.26	
1952	Apr. 13, 1952	9.72					
1953	May 24, 1953	10.12		1956	Apr. 6, 1956	8.38	
1954	May 13, 1954	8.87		1957	June 6, 1957	9.31	
				1958	Apr. 29, 1958	10.52	

3493. Shell Bayou (Flat River) near Shreveport, La.

Location.--Lat 32°32'35", long 93°38'25", in SE $\frac{1}{4}$ sec.18, T.18 N., R.12 W., Bossier Parish, at bridge on U. S. Highway 80, 6.4 miles northeast of Shreveport.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to July 9, 1952, at datum 148.08 ft higher; recording thereafter. Datum of present gage is at mean sea level, datum of 1929. Gage heights given herein converted to present datum.

Stage-discharge relation.--Not defined; shifts of considerable magnitude have occurred.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Major channel improvements made on Bayou during 1948-49. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	July 26, 1933	167.0	-	1948	Feb. 21, 1948	162.9	1,910
				1949	Feb. 7, 1949	161.3	-
1939	Mar. 13, 1939	163.9	1,480	1950	Feb. 20, 1950	159.5	-
1940	July 10, 1940	164.7	2,060				
				1951	Feb. 19, 1951	155.6	-
1941	Jan. 4-6, 1941	165.1	2,630	1952	Mar. 11, 1952	158.4	-
1942	May 5-6, 1942	164.5	2,940	1953	May 18-19, 1953	163.1	-
1943	Apr. 28-29, 1943	159.7	-	1954	May 12, 1954	154.8	-
1944	May 10, 1944	165.3	-	1955	May 24, 1955	158.5	-
1945	Mar. 8-9, 1945	165.5	-				
				1956	Apr. 5, 1956	155.4	-
1946	Jan. 19, 1946	165.2	-	1957	May 2, 1957	161.23	-
1947	Apr. 13-16, 1947	161.8	-	1958	May 4-5, 1958	163.15	-

3493.5. Alligator Bayou near Shreveport, La.

Location.--Lat 32°32'25", long 93°39'05", in NW $\frac{1}{4}$ sec.19, T.18 N., R.12 W., Bossier Parish, at bridge on U. S. Highway 80, 5.7 miles northwest of Shreveport.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to July 9, 1952; recording thereafter. Datum of gage is 152.14 ft above mean sea level.

Stage-discharge relation.--Not defined.

Bankfull stage.--7 ft.

Remarks.--Gage-height records and current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	July 26, 1933	14.8	-	1949	Feb. 7-8, 1949	8.6	-
				1950	Oct. 5, 1949	7.5	-
1940	July 12-14, 1940	12.5	-				
1941	Jan. 5, 1941	12.8	-	1951	Dec. 8, 1950	4.4	-
1942	May 8, 1942	12.1	-	1952	Mar. 10, 1952	7.2	-
1943	Mar. 26, 28, 1943	9.5	-	1953	May 18-19, 1953	10.6	-
1944	May 10-11, 1944	12.9	-	1954	May 12, 1954	5.6	-
1945	Mar. 9, 1945	13.3	-	1955	May 23, 1955	7.7	-
				1956	Apr. 5, 1956	6.4	-
1946	Jan. 19-21, 1946	12.9	-	1957	May 2, 1957	9.28	-
1947	Feb. 20, Mar. 13	9.1	-	1958	May 5, 1958	10.95	-
1948	Feb. 23, 1948	10.1	-				

3495. Bayou Bodcau near Sarepta, La.

Location.--Lat 32°54'15", long 93°28'55", in NW $\frac{1}{4}$ sec.15, T.22 N., R.11 W., on left bank on downstream side of bridge on State Highway 2, 2 miles west of Sarepta and 9.5 miles upstream from Caney Creek.

Drainage area.--546 sq mi.

Gage.--Recording. Datum of gage is 173.91 ft above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements. Rate of change in stage used as a factor.

Bankfull stage.--17 ft.

Historical data.--Flood in 1905 may have reached a stage of 27 ft, from information by local residents. Flood of May 22, 23, 1930, exceeded 25 ft.

Remarks.--Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Feb. 5, 1939	17.49	3,930	1945	Jan. 3, 1945	18.61	5,580
	Mar. 1, 1939	18.47	5,050		Mar. 4, 1945	a19.82	7,820
					Apr. 3, 1945	a19.00	6,680
1940	July 6, 1940	22.16	12,600		June 19, 1945	17.08	3,880
1941	Dec. 29, 1940	18.50	5,450	1946	Jan. 11, 1946	19.87	7,990
	Mar. 10, 1941	17.36	4,140		Feb. 11, 1946	17.32	3,900
	May 7, 1941	19.88	7,470		Mar. 17, 1946	16.85	3,480
1942	Apr. 14, 1942	20.10	7,830		May 15, 1946	18.25	5,420
	May 1, 1942	20.82	9,170		May 21, 1946	a18.61	5,760
	May 21, 1942	17.52	4,250	1947	May 19, 1947	16.16	2,830
1943	Apr. 22, 1943	16.08	2,830	1948	Feb. 15, 1948	17.71	4,360
					Mar. 29, 1948	18.00	4,740
1944	Feb. 27, 1944	18.11	5,160				
	Mar. 30, 1944	a18.46	5,810	1949	Jan. 29, 1949	18.70	5,700
	May 7, 1944	20.28	8,170		Feb. 2, 1949	18.34	5,140

a Occurred on different date.

Peak stages and discharges of Bayou Podcau near Sarepta, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Jan. 16, 1950	20.36	8,340	1954	May 16, 1954	13.46	1,540
	Feb. 14, 1950	19.66	7,170	1955	Apr. 21, 1955	15.28	2,340
	Feb. 18, 1950	19.72	7,170				
	Mar. 20, 1950	17.07	3,680				
	May 3, 1950	18.80	5,840	1956	Feb. 11, 1956	14.52	1,750
1951	Feb. 20, 1951	15.67	2,480	1957	Apr. 10, 1957	18.45	5,150
1952	Mar. 14, 1952	17.17	3,730		Apr. 28, 1957	a20.49	8,890
				May 3, 1957	19.09	6,060	
1953	Mar. 14, 1953	16.49	3,150	1958	Nov. 20, 1957	16.95	3,440
	Apr. 30, 1953	a19.05	6,020		May 2, 1958	25.14	18,600
	May 18, 1953	a19.04	5,950				

a Occurred on different date.

3497. Bayou Bodcau near Bellevue, La.

Location.--Lat 32°41'10", long 93°33'10", in NE $\frac{1}{4}$ sec.36, T.20 N., R.12 W., Bossier Parish, at bridge on State Highways 162 and 157, 2.0 miles northwest of Bellevue.

Drainage area.--693 sq mi.

Gage.--Nonrecording. Datum of gage is 150.74 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined; affected by fall through Bodcau Lake.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	May 1950	20.8	-	1940	July 10-11, 1940	17.2	-
1938	Jan. 4-5, 1938	16.9	-	1941	Jan. 4, 1941	17.1	-
1939	Mar. 4-6, 1939	16.6	-	1942	May 3-4, 1942	16.8	-

3497.1. Bayou Bodcau at Hodges Camp, near Bellevue, La.

Location.--Lat 32°38'55", long 93°34'40", in SW $\frac{1}{4}$ sec.11, T.19 N., R.12 W., Bossier Parish, on south side of private road, three-quarters of a mile northwest of Hodges Camp, 3.0 miles downstream from bridge on State Highways 162 and 157, and 3.5 miles southwest of Bellevue.

Drainage area.--704 sq mi.

Gage.--Nonrecording. Datum of gage is 153.34 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Mar. 4, 1939	13.9	-	1946	Jan.17-20, 1946	14.1	-
1940	July 11, 1940	14.3	-				
1941	Jan. 4, 1941	14.4	-	1948	Feb. 22, 1948	12.2	-
1942	May 3-5, 1942	13.9	-	1949	Feb.6-7, 1949	12.5	-
1943	Apr.26-30, 1943	9.5	-	1950	Feb.17-19, 1950	11.6	-
1944	May 10-11, 1944	14.2	-	1951	Feb.22-26, 1951	9.3	-
1945	Mar. 7-8, 1945	14.4	-				

3498. Cypress Bayou near Benton, La.

Location.--Lat 32°42'20", long 93°41'15", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.23, T.20 N., R.13 W., near right bank on downstream side of bridge on State Highway 162, 2 miles upstream from Little Caney Bayou and 3 miles east of Benton.

Drainage area.--133 sq mi.

Gage.--Nonrecording prior to Oct. 31, 1952; recording since Oct. 1, 1956. Datum of gage is 165.98 ft above mean sea level, datum of 1929 (authority, Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--12 ft.

Remarks.--November 1938 to November 1946 and January 1948 to October 1952 gage-height records and occasional current-meter measurements collected by Corps of Engineers. Base for partial-duration series, 1,000 cfs. Only annual peaks are shown prior to 1956.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Feb. 4, 1939	11.7	1,950	1950	May 3, 1950	12.4	2,700
1940	July 2, 1940	15.4	9,000	1951	Feb. 9-10, 1951	10.0	750
1941	Dec. 28, 1940	12.8	3,250	1952	Apr. 15, 1952	11.9	2,150
1942	May 19, 1942	12.9	3,400	1956	Feb. 11, 1956	8.26	396
1943	Apr. 18, 1943	13.3	4,070	1957	Apr. 6, 1957	10.51	1,270
1944	Mar. 30, 1944	13.6	4,650		Apr. 28, 1957	15.08	8,130
1945	Apr. 2, 1945	12.6	2,970		May 3, 1957	11.89	2,540
1946	Jan. 8-9, 1946	12.8	3,250		June 7, 1957	10.78	1,460
1948	Mar. 6, 1948	11.9	2,150	1958	Nov. 21, 1957	10.19	1,060
1949	Jan. 29-30, 1949	11.0	1,370		June 23, 1958	10.14	1,030
					Apr. 27, 1958	15.18	8,350
					Apr. 30, 1958	13.23	4,490

3498.5. Red Chute Bayou near Shreveport, La.

Location.--Lat 32°33'15", long 93°37'30", in NE $\frac{1}{4}$ sec.17, T.18 N., R.12 W., Bossier Parish, at bridge on U. S. Highway 80, 7.5 miles northeast of Shreveport.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to July 14, 1952; recording thereafter. Datum of gage is 133.83 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements; affected by fall and by shifting-control. Change in relation occurred in December 1955 due to extensive channel changes.

Bankfull stage.--30 ft.

Remarks.--Gage read twice daily. Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges of Red Chute Bayou near Shreveport, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	July 26, 1933	33.1	-	1949	Feb. 6, 1949	29.3	2,360
1940	July 13, 1940	31.0	3,980	1950	Feb.16,17, 1950	28.1	2,140
1941	Jan.4-5, 1941	31.1	3,110	1951	Feb.22-23, 1951	26.0	1,580
1942	May 5, 1942	30.7	3,210	1952	Mar. 10, 1952	27.2	1,880
1943	Apr.26-30, 1943	26.6	1,540	1953	May 18, 1953	30.1	2,980
1944	May 13, 1944	30.8	3,110	1954	May 22, 1954	22.4	940
1945	Mar.8-9, 1945	31.0	3,340	1955	June 5, 1955	26.2	1,630
1946	Jan.19-21, 1946	30.8	3,260	1956	Feb. 20, 1956	19.1	1,140
1947	Apr. 12, 1947	28.6	2,220	1957	May 1, 1957	26.31	3,060
1948	Feb. 21, 1948	29.2	2,640	1958	May 4-5, 1958	27.62	3,450

3500. Loggy Bayou near Ninock, La.

Location.--Lat 32°14'10", long 93°25'35", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.31, T.15 N., R.10 W., near center of span on downstream side of bridge on U. S. Highway 71, a quarter of a mile downstream from Flat River, 2 miles southeast of Ninock, and 6 miles downstream from Lake Bistineau Dam.

Drainage area.--2,628 sq ml.

Gage.--Nonrecording prior to Mar. 29, 1949, and June 30 to Sept. 24, 1951; recording Mar. 29, 1949, to June 29, 1951, and since Sept. 25, 1951. Datum of gage is 100.26 ft above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

Auxiliary gage 6 miles downstream. Nonrecording prior to Sept. 14, 1955; recording thereafter. Prior to Sept. 23, 1953, at datum 9.79 ft higher. Datum of present gage is 100.21 ft above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements; affected by fall. Insufficient data for computation of peak discharge prior to 1949.

Remarks.--Some regulation by Lake Bistineau Dam. Base for partial-duration series, 6,000 cfs. Only annual peak stages are shown prior to 1949.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Apr. 24, 1943	31.12	-	1952	Mar. 12, 1952	27.43	a7,700
1944	May 11, 1944	44.45	-		Mar. 21, 1952	27.20	a7,470
1945	Apr. 8, 1945	50.20	-		Apr. 23, 1952	38.20	a8,080
1946	Jan. 18, 1946	41.90	-	1953	May 21-22, 1953	43.95	a20,000
1947	Nov. 13, 1946	35.20	-	1954	May 12, 1954	31.50	5,850
1948	Mar.6-7, 1948	33.40	-	1955	Mar. 29, 1955	31.76	a6,900
					Apr. 13, 1955	27.48	7,010
					May 26, 1955	29.65	9,760
					June 8, 1955	24.83	a6,750
1949	Feb. 7, 1949	40.00	14,300	1956	Apr. 7, 1956	28.67	10,100
	Apr. 5, 1949	30.70	a8,550				
1950	Jan. 23, 1950	40.74	14,000	1957	Apr. 13, 1957	35.33	all,700
	Mar. 23, 1950	28.05	a8,200		May 15, 1957	47.08	17,000
	May 9, 1950	36.80	9,980		June 20, 1957	44.14	a12,500
1951	Feb. 21, 1951	33.75	7,250	1958	Nov. 23, 1957	35.56	all,700
	Mar. 29, 1951	24.43	a6,140		Jan. 22, 1958	30.08	a8,060
					May 4, 1958	47.83	a32,600
1952	Feb. 3, 1952	25.96	7,930		June 18, 1958	24.94	a6,000
	Feb. 14, 1952	28.76	10,100		June 27, 1958	26.92	a7,640
	Feb. 22, 1952	27.93	a9,380		July 13, 1958	28.08	a8,240

a Mean daily.

Note.--Peak stage frequently occurs at different time or date than peak discharge.

3505. Red River at Coushatta, La.

Location.--Lat 32°00'45", long 93°21'10", in lot 23, T.12 N., R.10 W., near center of span on downstream side of bridge on U. S. Highway 84 at Coushatta, 11 miles downstream from Coushatta Bayou and at mile 242.4.

Drainage area.--63,362 sq mi, of which about 57,426 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. Datum of gage is 95.78 ft above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

Stage-discharge relation.--Variable; discharge maxima from loop curves defined by frequent discharge measurements since April 1937. Discharge maxima for period 1889-94 not determined.

Bankfull stage.--30 ft.

Remarks.--Some regulation by upstream dams. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1889	Feb.12-13, 1889	26.5	-	1942	May 6, 1942	35.25	178,000
1890	May 15-16, 1890	38.1	-	1943	May 19, 1943	23.05	91,800
				1944	May 11, 1944	31.2	141,000
1891	Feb.15-17, 1891	22.5	-	1945	Apr. 7, 1945	39.9	a275,000
1892	June 5, 1892	39.2	-				
1893	Jan.4-5, 1893	27.4	-	1946	June 5, 1946	28.9	132,000
1894	Apr.7-9, 1893	31.9	-	1947	Nov.12-13, 1946	26.75	124,000
				1948	Mar. 6, 1948	23.85	113,000
1938	Mar.2-3, 1938	34.30	181,000	1949	Feb.3-4, 1949	30.75	157,000
1939	Mar. 3, 1939	24.10	99,000	1950	Feb. 19, 1950	31.75	162,000
1940	July 9, 1940	23.36	92,700				
				1951	Feb. 25, 1951	25.20	112,000
1941	May 11, 1941	31.18	158,000	1952	Apr. 28, 1952	29.80	149,000

a Includes bypass flow through Bayou Pierre from levee crevasse upstream.

Note.--Peak stage frequently occurs on different date than peak discharge.

3506. Bayou Pierre at Ochley Drive, Shreveport, La.

Location.--Lat 32°27'50", long 93°44'10", in sec.18, T.17 N., R.13 W., Caddo Parish, at bridge on Ochley Drive in Shreveport.

Drainage area.--5.7 sq mi.

Gage.--Recording prior to Mar. 3, 1945, and since Nov. 4, 1946; nonrecording Mar. 20, 1945, to Nov. 3, 1946. Datum of gage is 140.24 ft above mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	May 2, 1944	17.9		1947	Mar. 12, 1947	18.5	
1945	Mar. 3, 1945	20.4		1948	May 11, 1948	16.4	
				1949	Jan. 27, 1949	17.4	
1946	Oct. 5, 1945	20.9					

3507.3. Bayou Pierre at 70th Street, Shreveport, La.

Location.--Lat 32°26'35", long 93°43'50", between lots 32 and 38, T.17 N., R.13 W., Caddo Parish, at bridge on 70th Street in Shreveport.

Drainage area.--8.5 sq mi.

Gage.--Nonrecording prior to July 27, 1949; recording thereafter. Datum of gage is 145.92 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined; severe channel shifts have occurred.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. No gage-height record Dec. 19, 1951, to July 17, 1952. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	May 2, 1944	12.2	-	1950	Oct. 4, 1949	12.0	-
1945	July 12, 1945	14.5	-	1951	Dec. 14, 1950	7.7	-
1946	Jan. 5, 1946	13.4	-				
1947	Nov. 10, 1946	9.1	-	1953	Apr. 28, 1953	15.2	-
1948	Feb. 8, 1948	9.2	-	1954	May 12, 1954	8.6	-
1949	Feb. 24, 1949	11.0	-				

3509.5. Bayou Pierre near Gayles, La.

Location.--Lat 32°18'00", long 93°37'35", in SW $\frac{1}{4}$ sec.8, T.15 N., R.12 W., Caddo Parish, at bridge on gravel road between Caspiana and Forbing, 0.1 mile east of intersection of this road and State Highway 175, 1.0 mile upstream from Cypress (Wallace) Bayou, 3.2 miles south of Gayles, and 64.9 miles above mouth.

Drainage area.--44 sq mi.

Gage.--Nonrecording prior to July 22, 1952; recording thereafter. Datum of gage is 126.95 ft above mean sea level.

Stage-discharge relation.--Not defined; severely affected by backwater from Cypress (Wallace) Bayou.

Bankfull stage.--23 ft.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	August 1933	28.2	-	1949	Jan. 28, 1949	10.8	-
				1950	Oct. 12, 1949	16.1	-
1939	Feb. 4, 1939	18.2	-	1951	Feb. 19, 1951	8.5	-
1942	May 20, 1942	18.8	-	1952	Feb. 13, 1952	12.5	-
1943	Mar. 26, 1943	8.0	-	1953	Apr. 29, 1953	16.7	-
1944	May 4, 1944	20.3	-	1954	May 14, 1954	12.6	-
1945	Mar. 5, 1945	19.4	-				
1946	Jan. 6, 1946	22.7	-	1956	Apr. 6, 1956	15.8	-
1947	Mar. 13, 1947	12.0	-	1957	Apr. 29, 1957	11.44	-
1948	Feb. 13, 1948	11.8	-	1958	May 1, 1958	10.28	-

3510. Boggy Bayou near Keithville, La.

Location.--Lat 32°22'35", long 93°49'20", in NW 1/4 sec. 17, T. 16 N., R. 14 W., near right bank on downstream side of bridge on U. S. Highway 171, 0.4 mile downstream from Gilmer Bayou, 3 miles north of Keithville, and 5 miles upstream from mouth.

Drainage area.--79 sq mi.

Gage.--Nonrecording prior to Sept. 7, 1949; recording thereafter. Datum of gage is 145.13 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 7,300 cfs and extended by velocity area studies. Shifts in relation occur.

Bankfull stage.--16 ft.

Remarks.--Base for partial-duration series, 1,400 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	-	a26.70	-	1946	Jan. 16, 1946	17.21	1,620
1939	Jan. 13, 1939	18.00	4,410	Feb. 10, 1946	17.71	2,960	
	Feb. 3, 1939	19.00	8,380	Feb. 19, 1946	17.13	1,740	
	Feb. 26, 1939	17.40	2,840	Mar. 7, 1946	16.96	1,440	
	Feb. 28, 1939	16.80	1,620	Mar. 28, 1946	17.10	1,660	
1940	Dec. 23, 1939	17.63	3,360	May 13, 1946	19.02	8,380	
	Feb. 10, 1940	16.85	1,500	June 1, 1946	17.51	2,420	
	Apr. 7, 1940	17.29	2,590	1947	Feb. 20, 1947	17.30	1,770
	Apr. 29, 1940	17.34	2,720	Mar. 13, 1947	17.95	3,840	
1941	Nov. 23, 1940	18.60	6,520	Apr. 8, 1947	17.98	4,030	
	Dec. 7, 1940	18.57	6,520	1948	Feb. 9, 1948	17.12	1,610
	Dec. 13, 1940	16.98	1,830	May 12, 1948	17.00	1,420	
	Dec. 27, 1940	18.95	8,380	1949	Jan. 27, 1949	17.10	1,610
1942	Jan. 2, 1941	17.78	3,880	1950	Oct. 5, 1949	18.78	5,100
	Feb. 21, 1941	17.67	4,140	Jan. 1, 1950	17.67	2,480	
	Mar. 7, 1941	17.28	2,590	Jan. 12, 1950	17.38	1,920	
	May 5, 1941	18.21	4,990	Feb. 13, 1950	17.82	2,740	
	June 11, 1941	17.17	1,870	1951	Mar. 29, 1951	16.65	845
	Nov. 1, 1941	17.50	2,780	1952	Jan. 28, 1952	17.54	2,860
1943	Nov. 23, 1941	18.16	4,970	Feb. 12, 1952	19.45	6,980	
	Apr. 9, 1942	17.45	2,640	Mar. 10, 1952	17.18	2,050	
	Apr. 26, 1942	17.15	1,870	Apr. 13, 1952	17.58	2,970	
	May 18, 1942	19.24	9,370	1953	Apr. 29, 1953	18.82	7,320
1944	Mar. 26, 1943	15.67	435	May 14, 1953	17.70	4,280	
	Feb. 26, 1944	17.75	3,500	1954	May 12, 1954	17.10	2,780
	Mar. 29, 1944	17.45	2,640	1955	Apr. 13, 1955	17.04	2,640
1945	May 2, 1944	18.43	5,670	May 24, 1955	17.64	4,150	
	Jan. 1, 1945	18.04	4,180	Aug. 4, 1955	18.67	6,840	
	Jan. 19, 1945	18.35	5,390	1956	Apr. 6, 1956	16.44	1,450
	Feb. 21, 1945	17.04	1,700	May 2, 1956	17.12	2,830	
	Mar. 4, 1945	18.76	7,430	1957	Apr. 28, 1957	17.62	4,070
	Mar. 20, 1945	17.05	1,700	June 13, 1957	16.60	1,730	
1946	Apr. 2, 1945	18.00	4,000	1958	Jan. 21, 1958	16.56	1,730
	Oct. 5, 1945	18.30	5,230	May 4, 1958	16.46	1,550	
	Dec. 4, 1945	17.51	2,420				
	Jan. 5, 1946	20.20	14,800				
Jan. 9, 1946	17.29	2,000					
Jan. 12, 1946	17.05	1,580					

a Annual peak only.

3515. Cypress Bayou near Keithville, La.

Location.--Lat 32°18'00", long 93°49'40", in SW $\frac{1}{4}$ sec.8, T.15 N., R.14 W., near center of span on downstream side of bridge on U. S. Highway 171, immediately downstream from Texas and Pacific Railway Co. bridge, 2 miles south of Keithville and 6 miles upstream from mouth of Boggy Bayou.

Drainage area.--66 sq mi.

Gage.--Nonrecording prior to Dec. 28, 1939; recording Dec. 28, 1939, to Sept. 30, 1957; crest-stage gage since Apr. 23, 1958. Datum of gage is 162.13 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 7,500 cfs and extended by logarithmic plotting and velocity-area studies.

Bankfull stage.--10 ft.

Remarks.--Base for partial-duration series, 3,000 cfs. Only annual peaks are shown for period 1940-45.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1933	-	18.0	-	1948	May 12, 1948	10.43	3,200	
1939	Jan. 13, 1939	10.40	3,760	1949	Jan. 28, 1949	10.45	3,200	
	Feb. 3, 1939	11.50	7,720		1950	Oct. 5, 1949	12.15	8,010
1940	Dec. 23, 1939	10.80	5,170	Feb. 13, 1950		10.85	3,540	
1941	Dec. 27, 1940	11.55	8,050	1951	Mar. 28, 1951	9.86	1,130	
1942	Oct. 31, 1941	11.28	6,970	1952	Feb. 12, 1952	10.90	3,700	
1943	May 31, 1943	6.69	220		Mar. 10, 1952	10.73	3,190	
				1953	Mar. 12, 1953	10.80	4,950	
Apr. 29, 1953	12.36	13,900						
May 15, 1953	10.44	3,310						
1945	Mar. 4, 1945	11.26	7,050	1954	May 12, 1954	11.30	7,450	
1946	Jan. 5, 1946	13.32	14,700		1955	Mar. 21, 1955	10.83	5,100
	Feb. 6, 1946	10.36	3,580	Apr. 12, 1955		10.67	4,320	
	Feb. 10, 1946	10.23	3,220	May 24, 1955		10.38	3,080	
	Feb. 19, 1946	10.19	3,040	Aug. 3, 1955		13.62	23,700	
	Mar. 26, 1946	10.29	3,400	1956		Apr. 6, 1956	12.17	12,500
	May 13, 1946	10.31	3,400			May 2, 1956	10.72	4,450
1947	Mar. 13, 1947	10.69	4,840	1957	May 1, 1957	10.05	2,020	
1948	Feb. 9, 1948	10.42	3,020					

a Annual peak only.

3515.6. Cypress (Wallace) Bayou near Frierson, La.

Location.--Lat 32°18'25", long 93°39'05", in NE $\frac{1}{4}$ sec.12, T.15 N., R.13 W., on line between Caddo and DeSoto Parishes, at bridge on parish road, 1.4 miles downstream from Wallace Lake Dam, 1.8 miles upstream from confluence with Bayou Pierre, and 4.5 miles northeast of Frierson.

Drainage area.--268 sq mi.

Gage.--Nonrecording prior to July 17, 1952; recording thereafter. Datum of gage is 100.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Peak discharges defined by current-meter measurements made at or near annual maximum stages. Stage affected by backwater from Bayou Pierre.

Remarks.--Gage-height records and occasional discharge measurements collected by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges of Cypress (Wallace) Bayou near Frierson, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	-	53.7	-	1950	Oct. 7, 1949	42.8	2,070
1938	Apr. 9, 1938	43.4	4,360	1951	Feb. 21, 1951	37.9	1,190
1947	Mar. 15, 1947	40.4	1,650	1952	Feb. 14, 1952	40.0	1,950
1948	Feb. 13, 1948	40.5	1,500	1953	Apr. 30, 1953	43.3	2,780
1949	Jan. 30, 1949	39.7	1,310	1954	May 14, 1954	40.1	1,370
				1955	Aug. 4, 1955	42.0	-

3516. Bayou Pierre near Grand Bayou, La.

Location.--Lat 32°04'40", long 93°30'40", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.29, T.13 N., R.11 W., on line between Red River and DeSoto Parishes, at bridge on State Highway 84, 2.3 miles west of town of Grand Bayou and 43.4 miles from mouth.

Drainage area.--674 sq mi.

Gage.--Nonrecording prior to July 15, 1952; recording thereafter. Datum of gage is 101.13 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	August 1933	35.4	-	1951	Mar. 31, 1951	14.3	-
				1952	Feb. 14, 1952	19.2	-
1947	Jan. 19, 1947	22.0	-	1953	May 19, 1953	30.8	-
1948	Feb. 14, 1948	21.8	-	1954	May 14, 1954	20.7	-
1949	Jan. 22, 1949	17.0	-				
1950	Feb. 15, 1950	25.2	-	1956	Apr. 7, 1956	24.5	-
				1957	May 1, 1957	23.11	-

3517.4. Bayou Pierre at Evelyn, La.

Location.--Lat 31°59'20", long 93°26'30", in NE corner sec.36, T.12 N., R.11 W., on line between DeSoto and Red River Parishes, at bridge on State Highway 177 at Evelyn, 2.8 miles upstream from Shell Bayou and 6 miles west of Coushatta.

Drainage area.--707 sq mi.

Gage.--Crest-stage gage. Datum of gage is 81.45 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	June 3, 1950	41.29	-	1955	Aug. 4, 1955	41.00	-
1951	Feb. 23, 1951	(a)	-	1956	Apr. 6, 1956	(a)	-
1952	Feb. 14, 1952	(a)	-	1957	Apr. 28, 1957	(a)	-
1953	May 20, 1953	46.11	-	1958	Sept.20, 1958	45.43	-
1954	May 12, 1954	(a)	-				

a Stage below 39 ft; bottom of gage.

3517.45. Bayou Pierre near Hanna, La.

Location.--Lat 31°57'15", long 93°22'20", in SE $\frac{1}{4}$ sec.10, T.11 N., R.10 W., on line between Red River and DeSoto Parishes, at bridge on State Highway 487, 1.6 miles southwest of Hanna.

Drainage area.--729 sq mi.

Gage.--Nonrecording. Datum of gage is 94.57 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined; affected by backwater from Red River.

Bankfull stage.--34 ft.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	August 1933	35.2	-	1946	Feb. 11, 1946	26.5	-
				1947	Jan. 20, 1947	21.4	-
1939	Feb. 7, 1939	21.5	-	1948	Feb. 14, 1948	21.5	-
1940	Feb. 11, 1940	22.9	-	1949	Feb. 6, 1949	19.7	-
				1950	June 4, 1950	27.2	-
1941	Nov. 26, 1940	31.0	-				
1942	Nov. 2, 1941	25.7	-	1951	Mar. 31, 1951	15.7	-
1943	Mar. 28, 1943	10.5	-	1952	Feb. 15, 1952	19.3	-
1944	May 5, 1944	28.0	-				
1945	Apr. 13, 1945	36.4	-				

a Estimated on basis of stages for station near Lake End.

3517.5. Bayou Pierre near Lake End, La.

Location.--Lat 31°54'35", long 93°21'10", in W $\frac{1}{2}$ sec.25, T.11 N., R.10 W., on line between Natchitoches and Red River Parishes, at Jims Island Bridge on parish road, 3.0 miles southwest of Lake End and 23.4 miles above mouth.

Drainage area.--739 sq mi.

Gage.--Nonrecording prior to July 29, 1952. Recording July 29, 1952, to Nov. 22, 1954, and intermittently since Aug. 2, 1956. Datum of gage is 83.14 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined; affected by backwater from Red River.

Bankfull stage.--42 ft.

Remarks.--Gage-height records and occasional current-meter measurements since April 1938, collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	August 1933	45.8	-	1948	Feb. 14, 1948	30.9	-
				1949	Feb. 5, 1949	30.0	-
1940	Feb. 11, 1940	32.8	-	1950	June 4, 1950	36.8	-
1941	Nov. 26, 1940	40.5	-	1951	Mar. 31, 1951	24.2	-
1942	Nov. 2, 1941	35.4	-				
1943	May 20-21, 1943	19.4	-	1953	May 20, 1953	41.5	-
1944	May 5, 1944	37.8	-				
1945	Apr. 13, 1945	47.2	-	1956	Apr. 7, 1956	32.2	-
				1957	May 10, 1957	36.41	-
1946	Feb. 11, 1946	36.2	-	1958	Sept. 23, 1958	39.67	-
1947	Jan. 21, 1947	30.9	-				

3517.55. Bayou Pierre at Powhatan, La.

Location.--Lat 31°58'36", long 93°12'20", in SE $\frac{1}{4}$ sec.22, T.10 N., R.8 W., Natchitoches Parish, at bridge on State Highway 485, 1.0 mile southwest of Powhatan and 12.2 miles upstream from mouth.

Drainage area.--879 sq mi.

Gage.--Nonrecording. Datum of gage is 80.80 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined; affected by backwater from Red River.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Nov. 13, 1946	25.9	-	1950	Feb.22-23, 1950	33.3	-
1948	Feb. 15, 1948	24.9	-				
1949	Feb. 5, 1949	31.2	-	1951	June 21-22, 1951	24.1	-

3519.2. Bayou Pierre near Natchitoches, La.

Location.--Lat 31°48'10", long 93°09'15", between secs. 47 and 48, T.10 N., R.8 W., Natchitoches Parish, at bridge on State Highway 1, 4.7 miles upstream from mouth and 5.0 miles northwest of Natchitoches.

Drainage area.--1,122 sq mi.

Gage.--Nonrecording prior to Oct. 27, 1952; recording thereafter. Datum of gage is 71.94 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined; affected by backwater from Red River.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Nov. 14, 1946	a34.2	-	1953	May 22, 1953	45.1	-
1948	Mar. 8, 1948	32.6	-	1954	May 16, 1954	31.6	-
1949	Feb. 5, 1949	39.5	-				
1950	Feb. 22, 1950	41.6	-	1956	Apr. 8, 1956	24.6	-
				1957	May 7, 1957	46.59	-
1951	June 22, 1951	32.7	-	1958	May 15, 1958	46.49	-
1952	Apr. 30, May 1	38.0	-				

a Records incomplete; probably maximum for year.

3519.3. Red River at Grand Ecore, La.

Location.--Lat 31°49'05", long 93°05'05", in lot 51, T.10 N., R.7 W., Natchitoches Parish, at bridge on State Highway 6 at Grand Ecore, 3.5 miles downstream from Bayou Pierre, 3.7 miles upstream from Cane River, 4.0 miles north of Natchitoches, and at mile 206.4.

Drainage area.--64,575 sq mi, of which about 58,639 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. Datum of gage is 75.09 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Variable; defined by current-meter measurements for 1938, 1945-49. Discharge maxima for other years obtained from records for stations at Shreveport and Alexandria or from average rating curve. Discharge since 1950 not determined.

Bankfull stage.--33 ft.

Remarks.--Gage-height records since December 1913 and occasional current-meter measurements April 1937 to September 1938 and since April 1945 furnished by Corps of Engineers. Some regulation by upstream dams. Only annual peaks are shown.

Peak stages and discharges of Red River at Grand Ecore, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	Apr. 12-13, 1914	31.8	132,000	1936	Dec. 13, 1935	24.9	73,000
1915	May 13, 1915	34.7	162,000	1937	Jan. 31, 1937	29.7	113,000
				1938	Mar. 4, 1938	38.2	188,000
1916	Feb. 12-13, 1916	35.7	139,000	1939	Mar. 4, 1939	28.4	101,000
1917	May 5, 1917	17.5	29,000	1940	July 10, 1940	26.9	89,000
1918	Apr. 27-28, 1918	25.6	78,000				
1919	Dec. 31, 1918	22.5	57,000	1941	May 15, 1941	36.0	150,000
1920	May 29-30, 1920	35.1	166,000	1942	May 8, 1942	39.7	170,000
				1943	May 21, 1943	25.6	78,000
1921	May 4-5, 1921	27.9	97,000	1944	May 12, 1944	36.3	150,000
1922	May 7, 1922	33.3	148,000	1945	Apr. 10, 1945	44.7	280,000
1923	June 17, 1923	23.8	65,000				
1924	Dec. 28-30, 1923	32.0	134,000	1946	Feb. 23, 1946	33.4	138,000
1925	May 3-14, 1925	19.7	40,000	1947	Nov. 17, 1946	29.7	132,000
				1948	Mar. 8, 1948	28.3	115,000
1926	May 15, 1926	23.6	64,000	1949	Feb. 4, 1949	35.2	174,000
1927	May 7, 1927	40.2	224,000	1950	Feb. 22, 1950	37.1	194,000
1928	May 2, 1928	28.0	98,000				
1929	May 28, 1929	30.2	117,000	1951	Feb. 26-27, 1951	29.2	-
1930	May 31, 1930	39.3	214,000	1952	Apr. 30, 1952	33.9	-
				1953	May 22-23, 1953	40.5	-
1931	Feb. 19-20, 1931	21.9	53,000	1954	May 17, 1954	27.1	-
1932	Feb. 2-3, 1932	38.9	209,000	1955	Mar. 28, 1955	25.35	-
1933	Mar. 12-13, 1933	26.3	84,000				
1934	Mar. 8, 1934	26.8	88,000	1956	Feb. 23, 1956	21.74	-
1935	May 31, 1935	37.9	198,000	1957	May 10, 1957	41.95	-
				1958	May 11, 1958	41.92	-

3520. Saline Bayou near Lucky, La.

Location.--Lat 32°15'00", long 92°58'35", in SW¹/₄ sec. 27, T.15 N., R.6 W., near center of span on downstream side of bridge on State Highway 4, 0.7 mile downstream from Sixmile Creek and 1.0 mile east of Lucky.

Drainage area.--154 sq mi.

Gage.--Nonrecording prior to Feb. 27, 1949; recording thereafter. Datum of gage is 152.65 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 6,400 cfs and extended on basis of records for nearby stations. Shifts in relation occur.

Historical data.--A stage of about 13 ft occurred some time prior to installation of gage; date unknown.

Remarks.--Base for partial-duration series, 1,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Nov. 26, 1940	7.81	1,770	1945	Mar. 5, 1945	8.13	2,020
	Dec. 10, 1940	7.12	1,070		Mar. 14, 1945	7.51	1,380
	Dec. 14, 1940	7.39	1,340		Apr. 2, 1945	11.99	10,200
	Dec. 28, 1940	9.51	4,380		June 16, 1945	7.20	1,090
	Jan. 4, 1941	7.03	1,050	1946	Oct. 7, 1945	8.65	2,620
	Mar. 9, 1941	7.27	1,290		Jan. 6, 1946	8.30	2,250
	May 6, 1941	9.84	5,070	Jan. 10, 1946	8.71	2,750	
1942	Nov. 1, 1941	8.20	2,180	Jan. 17, 1946	7.56	1,480	
	Nov. 24, 1941	8.00	1,940	Feb. 10, 1946	10.10	5,100	
	Apr. 10, 1942	8.42	2,450	Mar. 29, 1946	8.14	2,020	
	May 15, 1942	7.95	1,940	May 15, 1946	7.27	1,140	
	May 19, 1942	11.62	8,920	May 21, 1946	7.58	1,480	
			June 2, 1946	7.86	1,800		
1943	Mar. 30, 1943	6.71	737	1947	Jan. 4, 1947	8.04	1,760
					Jan. 19, 1947	8.50	2,380
					Mar. 14, 1947	-	1,500
1944	Feb. 28, 1944	10.60	6,200	1948	Feb. 13, 1948	8.49	2,380
	Mar. 31, 1944	8.98	3,060		Apr. 15, 1948	8.45	2,250
	May 5, 1944	8.69	2,630				
1945	Jan. 1, 1945	12.90	13,500				
	Jan. 21, 1945	7.62	1,480				

Peak stages and discharges of Saline Bayou near Lucky, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Jan. 28, 1949	7.06	815	1955	Mar. 24, 1955	7.61	1,420
1950	Jan. 8, 1950	7.36	1,060	Apr. 15, 1955	7.21	1,070	
	Feb. 14, 1950	8.71	2,510	May 20, 1955	7.78	1,600	
	May 4, 1950	7.60	1,300	May 25, 1955	9.28	3,410	
	June 4, 1950	9.67	4,080	June 8, 1955	7.56	1,380	
	June 23, 1950	7.38	1,080	July 19, 1955	7.36	1,200	
				Aug. 6, 1955	7.12	1,010	
1951	Jan. 16, 1951	8.69	2,510	1956	Mar. 16, 1956	7.30	1,150
	Mar. 30, 1951	7.47	1,170	Apr. 7, 1956	10.02	4,880	
1952	Apr. 15, 1952	7.59	1,290	1957	Apr. 6, 1957	7.25	1,110
1953	Feb. 22, 1953	7.73	1,460	1958	Nov. 19, 1957	7.91	1,700
	Mar. 13, 1953	9.71	4,280		Jan. 23, 1958	7.19	1,060
	Apr. 30, 1953	9.52	3,940		May 1, 1958	8.98	2,890
	May 5, 1953	8.78	2,740		May 23, 1958	8.51	2,290
	May 17, 1953	11.58	8,830		Sept. 22, 1958	8.52	2,290
1954	May 14, 1954	7.57	1,270				

3522. Black Lake Bayou near Minden, La.

Location.--Lat 32°34'50", long 93°10'35", in N $\frac{1}{2}$ sec.3, T.18 N., R.8 W., on line between Bienville and Webster Parishes, at bridge on U. S. Highway 80, 2.8 miles upstream from Yazoo and Mississippi Valley Railway bridge, 3 miles upstream from Bear Creek, and 7 miles southeast of Minden.

Drainage area.--38.6 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Defined by current-meter measurements below 1,400 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Feb. 22, 1951	(a)	-	1956	Apr. 6, 1956	15.97	1,390
1952	Feb. 11, 1952	15.53	1,100	1957	Apr. 28, 1957	17.74	-
1953	May 20, 1953	17.12	-	1958	Oct. 22, 1957	16.37	-
1954	May 4, 1954	(a)	-				
1955	Mar. 21, 1955	16.28	-				

a Below 14.0 ft; bottom of gage.

3523. Black Lake Creek near Gibsland, La.

Location.--Lat 32°32'45", long 93°05'10", in SE $\frac{1}{2}$ sec.16, T.18 N., R.7 W., Bienville Parish, at bridge on Illinois Central Railroad just upstream from U. S. Highway 80, 1.8 miles upstream from confluence with Leathermans Creek and 2.0 miles west of Gibsland.

Drainage area.--46.1 sq mi.

Gage.--Crest-stage gage. Datum of gage is 160.21 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges of Black Lake Creek near Gibsland, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Jan. 6, 1950	44.46	-	1955	May 24, 1955	45.35	-
1951	Mar. 29, 1951	44.37	-	1956	Apr. 6, 1956	45.77	-
1952	Apr. 14, 1952	44.29	-	1957	Apr. 28, 1957	45.79	-
1953	Apr. 30, 1953	45.48	-	1958	Sept. 21, 1958	46.74	-
1954	May 4, 1954	45.51	-				

3523.5. Leatherman's Creek near Gibsland, La.

Location.--Lat 32°32'40", long 93°06'20", in SE $\frac{1}{4}$ sec.17, T.18 N., R.7 W., Bienville Parish, at bridge on Illinois Central Railroad just upstream from U. S. Highway 80, 0.7 mile upstream from Black Lake Creek and 3.2 miles west of Gibsland.

Drainage area.--57 sq mi.

Gage.--Crest-stage gage. Datum of gage is 156.09 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	June 3, 1950	47.70	-	1955	June 4, 1955	43.81	-
1951	Feb. 22, 1951	(a)	-	1956	Feb. 5, 1956	45.00	-
1952	Feb. 11, 1952	43.15	-	1957	May 13, 1957	43.93	-
1955	Apr. 30, 1953	44.94	-	1958	Sept. 21, 1958	46.40	-
1954	May 4, 1954	(a)	-				

a Below 43.1 ft; bottom of gage.

3524. Kepler Creek near Sparta, La.

Location.--Lat 32°22'05", long 93°05'35", in SW $\frac{1}{4}$ sec.16, T.16 N., R 7 W., at bridge on State Highway 507, 0.8 mile west of Sparta.

Drainage area.--21.1 sq mi.

Gage.--Crest-stage gage. Datum of gage is 139.53 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	43.88	-	1956	Apr. 6, 1956	44.45	-
1955	July 11, 1955	43.78	-	1957	Apr. 28, 1957	(a)	-
				1958	Apr. 27, 1958	42.94	-

a Below 42.10 ft; bottom of gage.

3525. Black Lake Bayou near Castor, La.

Location.--Lat 32°15'40", long 93°12'50", in NW¼ sec.29, T.15 N., R.8 W., near center of span on downstream side of bridge on State Highway 4, 2.8 miles downstream from Fourmile Bayou, 2.8 miles northwest of Castor, and 6.0 miles southeast of Ringgold.

Drainage area.--423 sq mi.

Gage.--Nonrecording prior to May 12, 1952; recording thereafter. Altitude of gage is 135 ft (from topographic map).

Stage-discharge relation.--Defined by current-meter measurements below 6,900 cfs and extended above.

Bankfull stage.--8 ft.

Remarks.--Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1940	June 16, 1940	9.71	a3,150	1947	Jan. 22, 1947	9.79	3,400		
1941	Nov. 25, 1940	10.30	4,410	1947	Mar. 17, 1947	9.82	3,400		
	Nov. 28, 1940	10.03	3,750		1948	Feb. 16, 1948	10.50	4,710	
	Dec. 30, 1940	11.73	7,950	1949		Jan. 31, 1949	9.71	3,070	
	Jan. 4, 1941	11.25	6,580			1950	Jan. 6, 1950	10.22	4,020
	Mar. 11, 1941	9.72	3,150				Jan. 17, 1950	9.78	3,420
	1942	May 8, 1941	12.17		9,480	Feb. 16, 1950	10.37	4,360	
Oct. 31, 1941		10.44	4,640		June 5, 1950	10.78	5,490		
Apr. 12, 1942		9.99	3,760		1951	Apr. 2, 1951	8.86	2,010	
May 20, 1942	12.57	11,000	1952	Feb. 16, 1952		10.11	3,990		
1943	Apr. 1, 1943	8.38		1,370	1953	Mar. 15, 1953	10.98	5,630	
	1944	Feb. 28, 1944	12.36	10,300		May 1, 1953	12.87	11,500	
Mar. 31, 1944		12.65	11,000	May 17, 1953		12.31	9,240		
May 5, 1944		11.92	8,610	1954	May 16, 1954	9.56	2,780		
1945	Jan. 3, 1945	13.05	13,000		1955	Mar. 26, 1955	10.03	3,700	
	Jan. 23, 1945	10.18	4,190			May 27, 1955	10.72	5,000	
	Mar. 6, 1945	11.94	8,560			June 10, 1955	9.72	3,270	
	Mar. 17, 1945	9.70	3,180		1956	Apr. 9, 1956	11.31	6,380	
	Apr. 3, 1945	13.20	14,100			1957	May 1, 1957	10.91	5,430
1946	Oct. 8, 1945	10.14	3,980	May 18, 1957	9.67		3,200		
	Jan. 9, 1946	12.10	9,270	1958	Sept.20, 1958		12.37	9,480	
	Mar. 30, 1946	11.25	6,580						
	May 16, 1946	10.13	3,990						
	June 3, 1946	11.70	7,950						
1947	Jan. 7, 1947	9.69	3,220						

a Record incomplete; not maximum for year.

3527. Castor Creek at Castor, La.

Location.--Lat 32°14'35", long 93°09'30", in SE¼ sec.35, T.15 N., R.8 W., at bridge on State Highway 153, 0.8 mile southeast of Castor.

Drainage area.--27.9 sq mi.

Gage.--Crest-stage gage. Datum of gage is 114.29 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 27, 1954	46.72	-	1956	Apr. 6, 1956	47.89	-
1955	May 24, 1955	48.70	-	1957	Jan. 30, 1957	47.11	-
				1958	Sept.20, 1958	47.84	-

3530. Saline Bayou near Clarence, La.

Location.--Lat 31°49'05", long 92°56'55", in SE $\frac{1}{4}$ sec.26, T.10 N., R.6 W., near center of span on downstream side of bridge on U. S. Highway 84, 1.8 miles downstream from Bayou Boubeau, 4.0 miles downstream from Saline Lake conservation dam, 4.6 miles east of Clarence, and 6.7 miles upstream from mouth.

Drainage area.--1,382 sq mi.

Gage.--Nonrecording prior to Nov. 3, 1954; recording thereafter. Altitude of gage is 73 ft (from river-profile survey). Auxiliary gage 5.3 miles downstream at same datum. Nonrecording prior to Nov. 3, 1949; recording thereafter.

Stage-discharge relation.--Defined by current-meter measurements below 12,700 cfs and extended above; affected by fall. Shifts in relation occur.

Bankfull stage.--32 ft.

Remarks.--Some regulation by Saline Lake 4.0 miles above station. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	April 1945	43.60	-	1954	May 25, 1954	24.92	4,230
				1955	May 29, 1955	24.33	6,340
1950	June 8, 1950	34.60	7,880	1956	Apr. 13, 1956	22.27	5,860
1951	Jan. 21, 1951	26.23	4,700	1957	June 29, 1957	38.08	6,980
1952	Apr. 24, 1952	30.26	4,120	1958	May 26, 1958	37.30	8,880
1953	May 19, 1953	40.49	14,200				

Note.--Peak stage usually occurred on different date than peak discharge.

3535. Nantachie Creek near Montgomery, La.

Location.--Lat 31°41'15", long 92°52'40", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.9, T.8 N., R.5 W., near center of span on upstream side of bridge on State Highway 34, 1.4 miles downstream from Kadesh Branch and 1.5 miles northeast of Montgomery.

Drainage area.--47 sq mi.

Gage.--Nonrecording prior to July 25, 1945; recording thereafter. Datum of gage is 107.43 ft above mean sea level, datum of 1929 (Louisiana Geodetic Survey bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 9,700 cfs and extended above. Moderate shifts in relation occur.

Bankfull stage.--10 ft.

Remarks.--Base for partial-duration series, 600 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Mar. 27, 1943	6.26	217	1949	Jan. 3, 1949	9.44	1,150
					Mar. 26, 1949	9.56	1,250
1944	Jan. 15, 1944	11.19	3,780	1950	Jan. 12, 1950	8.44	618
	May 2, 1944	11.80	5,460		Feb. 13, 1950	10.56	2,750
1945	Apr. 1, 1945	12.6	6,620		Feb. 23, 1950	8.68	715
	July 29, 1945	11.70	5,130		Mar. 1, 1950	9.73	1,400
1946	Jan. 8, 1946	9.31	1,020		May 2, 1950	9.65	1,300
	Jan. 16, 1946	9.04	790		May 15, 1950	9.74	1,410
	Feb. 9, 1946	11.80	5,460		June 3, 1950	10.68	3,030
1947	Jan. 2, 1947	8.88	690	1951	Mar. 28, 1951	9.53	1,200
	Jan. 17, 1947	10.01	1,740	1952	Apr. 24, 1952	8.41	560
	Mar. 13, 1947	8.82	630	1953	Mar. 11, 1953	10.10	1,950
	Apr. 7, 1947	11.55	4,680		Apr. 29, 1953	13.34	8,030
	Apr. 11, 1947	10.41	2,280		May 5, 1953	9.15	920
	May 21, 1947	9.95	1,680		May 13, 1953	10.16	2,060
1948	Feb. 9, 1948	9.34	1,060		May 17, 1953	14.63	10,500
	Apr. 13, 1948	9.62	1,300				

Peak stages and discharges of Nantachie Creek near Montgomery, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	7.19	321	1958	Nov. 8, 1957	9.55	1,200
1955	Aug. 3, 1955	7.68	395		Nov. 14, 1957	9.40	1,080
1956	Feb. 9, 1956	5.76	196		Nov. 19, 1957	9.65	1,300
1957	Apr. 29, 1957	9.36	1,050		Nov. 23, 1957	10.21	2,150
	June 28, 1957	9.00	640		Jan. 21, 1958	8.50	600
					Apr. 27, 1958	9.83	1,560
					June 22, 1958	10.34	2,410
					July 23, 1958	9.55	1,200
					Sept. 21, 1958	10.76	3,150

3540. Little Sandy Creek at Kisatchie, La.

Location.--Lat 31°24'30", long 93°10'15", in SE $\frac{1}{4}$ sec.15, T.5 N., R.8 W., on right bank at downstream side of bridge on State Highway 117, 0.5 mile south of Kisatchie and 2 miles upstream from mouth.

Drainage area.--21.4 sq mi.

Gage.--Recording. Datum of gage is 204.44 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,500 cfs and extended by logarithmic plotting and area-velocity studies. Moderate shifts in relation occur.

Bankfull stage.--16 ft.

Remarks.--Base for partial-duration series, 1,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Oct. 4, 1949	6.90	1,120	1953	May 17, 1953	13.00	4,100
	Dec. 17, 1949	7.40	1,280				
	Feb. 9, 1950	6.60	1,030	1954	Dec. 3, 1953	9.34	2,060
	Feb. 12, 1950	12.44	3,740		Apr. 16, 1954	7.10	1,190
	May 1, 1950	9.77	2,300				
	May 13, 1950	7.01	1,160	1955	Feb. 5, 1955	7.25	1,220
	May 30, 1950	6.69	1,060		Apr. 12, 1955	8.40	1,650
	June 1, 1950	12.93	4,040		July 13, 1955	6.56	1,030
	June 3, 1950	15.00	5,590		Aug. 3, 1955	13.54	4,430
1951	Nov. 3, 1950	10.29	2,550	1956	Feb. 8, 1956	5.59	729
	Jan. 2, 1951	11.22	3,040				
	Mar. 27, 1951	8.29	1,610	1957	Mar. 24, 1957	8.25	1,590
	May 2, 1951	10.25	2,500		Apr. 28, 1957	7.10	1,190
1952	Apr. 23, 1952	10.83	2,820	1958	Nov. 8, 1957	8.50	1,700
1953	Mar. 11, 1953	7.17	1,220		Nov. 18, 1957	6.64	1,030
	Mar. 14, 1953	8.03	1,500		Apr. 28, 1958	6.66	1,060
	Apr. 29, 1953	15.36	5,880		Apr. 30, 1958	6.58	1,030
	May 4, 1953	8.75	1,810		June 22, 1958	8.57	1,740
	May 13, 1953	6.60	1,030		Aug. 24, 1958	9.82	2,300
					Sept. 21, 1958	9.65	2,450

3547. Kisatchie Bayou at Cypress, La.

Location.--Lat 31°35'50", long 93°02'30", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.13, T.7 N., R.7 W., Natchitoches Parish, at bridge on State Highway 494, 0.5 mile south of Cypress and 1.5 miles upstream from confluence with Old River (tributary to Cane River).

Drainage area.--360 sq mi.

Gage.--Nonrecording. Datum of gage is 69.68 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined; severely affected by backwater.

Bankfull stage.--20 ft.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Occasional current-meter measurements November 1944 to April 1948 collected by Geological Survey. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Apr. 9, 1938	29.3	-	1946	Feb. 11, 1946	33.3	-
1939	Mar. 31, 1939	27.0	-	1947	Jan. 20, 1947	28.0	-
1940	Aug. 11, 1940	24.2	-	1948	Apr. 15, 1948	25.9	-
				1949	Feb. 11, 1949	25.4	-
1941	May 7-8, 1941	26.0	-	1950	June 4, 1950	32.3	-
1942	May 11-14, 1942	28.7	-				
1943	Mar. 28, 1943	16.6	-	1951	Jan. 5, 1951	25.4	-
1944	May 6, 1944	30.6	-	1952	May 2, 1952	23.0	-
1945	Apr. 17, 1945	34.9	-				

3549. Cane River near Galbraith, La.

Location.--Lat 31°29'30", long 92°50'00", between lots 38 and 40, T.6 N., R.5 W., Natchitoches Parish, at bridge on State Highway 1, 2.0 miles northwest of Galbraith, 4.3 miles downstream from Bayou Barbue, and 12 miles upstream from mouth.

Drainage area.--687 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	-	105	-	1953	Apr. 29, 1953	102.16	-
				1954	May 12, 1954	(a)	-
1949	-	(a)	-	1955	Apr. 13, 1955	(a)	-
1950	Feb. 12, 1950	96.78	-				
				1956	Feb. 9, 1956	(a)	-
1951	Feb. 23, 1951	(a)	-	1957	Apr. 30, 1957	98.88	-
1952	Apr. 24, 1952	92.79	-	1958	May 5, 1958	98.67	-

a Below 89 ft; bottom of gage.

3549.1. Cane River, Lena Station, near Galbraith, La.

Location.--Lat 31°30'30", long 92°45'55", between lots 54 and 55, T.6 N., R.4 W., Natchitoches Parish, at bridge on State Highway 431, 2.7 miles upstream from mouth and 3 miles northeast of Galbraith.

Drainage area.--729 sq mi.

Gage.--Nonrecording. Datum of gage is 54.26 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined; affected by backwater from Red River

Bankfull stage.--46 ft.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Apr. 22, 1938	29.7	-	1949	Feb. 6, 1949	39.8	-
1939	Mar. 4, 1939	33.9	-	1950	Feb. 23, 1950	43.0	-
1940	July 10, 1940	32.2	-				
				1951	Feb. 28, 1951	33.2	-
1941	May 15, 1941	41.1	-	1952	May 1, 1952	38.5	-
1942	May 9-10, 1942	44.1	-	1953	May 23, 1953	47.7	-
1943	May 21-22, 1943	29.9	-	1954	May 16, 1954	30.8	-
1944	May 12-14, 1944	42.8	-	1955	Aug. 5, 1955	28.4	-
1945	Apr. 16-18, 1945	49.9	-				
				1956	Feb. 8-9, 1956	24.7	-
1946	Feb. 24, 1946	40.5	-	1957	May 12, 1957	44.75	-
1947	Nov. 15-17, 1946	35.0	-	1958	May 13, 1958	44.31	-
1948	Mar. 8, 1948	33.5	-				

3549.5. Red River at Colfax, La.

Location.--Lat 31°31'00", long 92°43'15", on line between lot 12, T 6 N., R.4 W., and lot 7, T.6 N., R.5 W., in Natchitoches Parish, at ferry landing on State Highway 490 at mouth of Cane River opposite town of Colfax, Grant Parish, and 140.7 miles above mouth.

Drainage area.--66,860 sq mi, of which about 60,924 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. Datum of gage is 50.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Feb. 23-24, 1946	44.5	-	1953	May 23, 1953	51.4	-
1947	Nov. 16-17, 1946	39.1	-	1954	May 17, 1954	35.4	-
1948	Mar. 9, 1948	37.5	-	1955	Mar. 28, 1955	33.2	-
1949	Feb. 5, 1949	43.9	-				
1950	Feb. 22-23, 1950	46.4	-	1956	Feb. 24, 1956	28.6	-
				1957	May 11-12, 1957	50.85	-
1951	Feb. 26-27, 1951	37.2	-	1958	May 12-13, 1958	50.85	-
1952	May 1, 1952	42.6	-				

3550. Hemphill Creek near Hot Wells, La.

Location.--Lat 31°17'50", long 92°44'10", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.25, T.4 N., R.4 W., near left bank on downstream side of bridge on State Highway 1200, a quarter of a mile upstream from Dyer Creek and $3\frac{1}{4}$ miles southwest of Hot Wells.

Drainage area.--18.0 sq mi.

Gage.--Recording. Datum of gage is 87.78 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 3,900 cfs and extended above; affected by backwater from Red River.

Bankfull stage.--10 ft.

Remarks.--During periods of high flow, there is an interchange with Dyer Creek above station. Base for partial-duration series, 700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1949	Nov. 18, 1948	11.32	2,580	1953	May 16, 1953	10.01	1,280	
	Nov. 26, 1948	9.54	940		May 18, 1953	12.50	4,100	
	Feb. 10, 1949	9.58	970	1954	Dec. 3, 1953	9.36	825	
	Mar. 21, 1949	8.46	880		Apr. 16, 1954	9.08	715	
	Mar. 27, 1949	10.71	1,930		May 1, 1954	10.32	1,530	
Mar. 31, 1949	9.59	970	May 3, 1954		9.85	1,150		
1950	Dec. 18, 1949	10.07	1,310	1955	Feb. 6, 1955	10.05	1,310	
	Feb. 13, 1950	12.40	3,970		Apr. 13, 1955	11.46	2,760	
	Apr. 29, 1950	9.42	850		Aug. 3, 1955	9.85	1,150	
	May 2, 1950	9.17	735		1956	Jan. 22, 1956	9.17	743
	June 3, 1950	11.77	3,120			Feb. 9, 1956	10.23	1,470
1951	Jan. 3, 1951	10.24	1,480	Mar. 16, 1956	9.40	850		
	Mar. 28, 1951	9.38	850	1957	Dec. 22, 1956	9.39	845	
1952	Feb. 2, 1952	10.36	1,580		Mar. 21, 1957	9.11	719	
	Apr. 23, 1952	12.25	3,710		June 28, 1957	9.52	922	
1953	Feb. 24, 1953	9.45	880	1958	Nov. 13, 1957	10.32	1,530	
	Mar. 11, 1953	9.96	1,240		Nov. 18, 1957	9.33	825	
	Apr. 29, 1953	15.51	8,320		Mar. 24, 1958	9.27	755	
	May 4, 1953	10.55	1,780		Aug. 24, 1958	10.36	1,580	
	May 13, 1953	9.22	764					

3550.5. Bayou Jean de Jean at Hot Wells, La.

Location.--Lat 31°20'35", long 92°43'05", between lots 115 and 117, T.4 N., R.3 W., Rapides Parish, at intersection of levee and State Highway 121, 0.3 mile northwest of Hot Wells.

Drainage area.--41.0 sq mi.

Gage.--Nonrecording prior to Apr. 4, 1951; recording thereafter. Datum of gage is at mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Jan. 20, 1947	a87.4		1951	May 3, 1951	86.5	
1948	Apr. 14, 1948	b82.8		1952	Apr. 23, 1952	89.6	
1949	Feb. 7, 1949	88.5		1953	May 18, 1953	95.4	
1950	Feb. 23, 1950	91.8		1954	May 3, 1954	84.7	
				1955	Apr. 13, 1955	86.78	

a Maximum observed; gage-height record intermittent.

b Maximum observed; no gage-height record Nov. 4, 1947, to Feb. 21, 1948.

3554.7. Bayou Rapides near McNutt, La.

Location.--Lat 31°18'42", long 92°36'54", on line between lots 58 and 66, T.4 N., R.2 W., Rapides Parish, at Lemothe Bridge on State Highway 596, 2.0 miles east of McNutt.

Drainage area.--Indeterminate.

Gage.--Nonrecording intermittently prior to Dec. 16, 1949; recording thereafter. Datum of gage is at mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Jan. 20, 1947	81.8		1950	Feb. 14, 1950	82.4	
1948	June 30, 1948	a72.7					
1949	Mar.28-31, 1949	81.4		1951	Jan. 4, 1951	80.0	
				1952	Apr. 24, 1952	79.7	

a May not be maximum for the year.

3554.8. Bayou Rapides at Alexandria, La.

Location.--Lat 31°18'50", long 92°27'55", in lot 15, T.4 N., R.1 W., Rapides Parish, at bridge on State Highway 1 in Alexandria.

Drainage area.--Indeterminate.

Gage.--Recording. Datum of gage is at mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	June 5, 1950	75.24		1955	Feb. 6, 1955	73.78	
1951	Feb. 23, 1951	70.00		1956	Feb. 9, 1956	68.70	
1952	Apr. 24, 1952	73.98		1957	Apr. 8, 1957	72.76	
1953	May 21, 1953	78.32		1958	May 1, 1958	69.72	
1954	May 17, 1954	71.60					

3555. Red River at Alexandria, La.

Location.--Lat 31°18'46", long 92°26'34", in SE $\frac{1}{4}$ sec.10, T.4 N., R.1 W., near center of span of old bridge on U. S. Highway 165 between Alexandria and Pineville, 1.7 miles downstream from Bayou Rigolette and at mile 122.3.

Drainage area.--67,500 sq mi, of which about 61,564 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. Datum of gage is 44.26 ft above mean sea level, datum of 1929, supplementary adjustment of 1941, or 44.18 ft above mean Gulf level, datum of Mississippi River Commission (levels by Corps of Engineers).

Stage-discharge relation.--Variable, discharge maxima prior to 1928 computed on basis of occasional current-meter measurements made between 1879 and 1927, and since January 1928 from loop curves defined by frequent current-meter measurements.

Bankfull stage.--32 ft.

Remarks.--Gage-height records and current-meter measurements furnished by Corps of Engineers and reviewed by Geological Survey. Prior to 1929, gage heights and occasional current-meter measurements furnished by Mississippi River Commission and U. S. Weather Bureau. Base for partial-duration series, 50,000 cfs. Only annual peaks are shown prior to 1951.

Peak stages and discharges of Red River at Alexandria, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1849	-	35.36	-	1913	Apr. 6, 1913	24.2	54,000
1866	-	36.46	-	1914	Apr. 15, 1914	34.75	117,000
1872	Apr. 29, May 1	33.30	127,000	1915	May 17, 1915	36.08	129,000
1873	June 19-20, 1873	30.2	104,000	1916	Feb. 16, 1916	36.89	136,000
1874	May 8-10, 1874	34.9	140,000	1917	May 6, 1917	18.47	34,000
1875	Apr. 27, 1875	23.9	66,000	1918	Apr. 30, 1918	27.87	70,000
1876	Apr. 17, 1876	32.8	123,000	1919	Jan. 1, 1919	24.5	55,000
1877	May 18-19, 1877	25.45	73,000	1920	June 2, 1920	37.15	152,000
1878	Mar. 13, 1878	27.1	83,000	1921	May 6, 1921	32.7	103,000
1879	May 26, 1879	19.2	50,000	1922	May 10, 1922	37.4	130,000
1880	Apr. 11-13, 1880	21.8	57,000	1923	Feb. 11, 1923	30.1	84,000
1881	Mar. 20, 1881	27.85	88,000	1924	Jan. 2, 1924	37.1	139,000
1882	Mar. 17, 19, 1882	34.85	139,000	1925	May 5, 1925	20.4	48,000
1883	Mar. 27, 1883	25.45	73,000	1926	May 15-16, 1926	25.8	70,000
1884	May 30-31, June 1 ⁵	35.25	142,000	1927	May 8, 1927	42.35	173,000
1885	Jan. 25, 1885	34.3	135,000	1928	May 2-3, 1928	31.8	93,000
1886	June 17, 1886	27.9	89,000	1929	May 27-28, 1929	33.30	103,000
1887	Mar. 24, 1887	14.92	34,000	1930	June 3-4, 1930	41.20	151,000
1888	Mar. 27-28, 1888	29.6	100,000	1931	Dec. 13, 1930	25.60	73,800
1889	Feb. 13, 1889	31.5	113,000	1932	Feb. 3-5, 1932	43.65	186,000
1890	May 19, 1890	36.8	157,000	1933	Mar. 13, 1933	29.86	85,300
1891	Feb. 17, 1891	30.0	103,000	1934	Mar. 9, 1934	29.8	82,500
1892	June 12-13, 1892	38.25	175,000	1935	June 4, 1935	41.22	151,000
1893	Jan. 7, 1893	32.25	118,000	1936	Dec. 13, 15, 1935	26.58	75,000
1894	Apr. 12, 1894	35.15	142,000	1937	Feb. 2, 1937	33.02	107,000
1895	Aug. 5, 1895	28.2	93,000	1938	Mar. 5-6, 1938	39.77	143,000
1896	Feb. 6, 1896	26.5	79,000	1939	Mar. 5-6, 1939	31.8	91,500
1897	Apr. 14-15, 1897	26.25	78,000	1940	July 9, 1940	29.1	88,900
1898	Jan. 23, 1898	17.4	41,000	1941	May 15, 1941	38.04	132,000
1899	Jan. 27, 1899	18.2	44,000	1942	May 9-10, 1942	40.65	156,000
1900	Apr. 25, 1900	19.8	50,000	1943	May 21, 1943	26.91	84,400
1901	Apr. 26, 1901	14.6	33,000	1944	May 14, 1944	38.51	146,000
1902	Apr. 21, 1902	19.8	50,000	1945	Apr. 17, 1945	45.23	233,000
1903	Mar. 28, 1903	36.05	149,000	1946	Feb. 24, 1946	35.93	137,000
1904	June 30, 1904	29.5	99,000	1947	May 28, 1947	30.44	131,000
1905	June 17, 1905	35.55	145,000	1948	Mar. 8-10, 1948	28.86	123,000
1906	Jan. 5, 1906	29.65	100,000	1949	Feb. 4, 1949	34.6	145,000
1907	June 17-18, 1907	32.5	120,000	1950	Feb. 21-22, 1950	38.0	157,000
1908	July 6, 1908	41.84	205,000	1951	Feb. 27, 1951	28.57	115,000
1909	June 4, 1909	22.3	47,000		June 22, 1951	27.8	112,000
1910	Apr. 23, 1910	22.38	48,000		July 9-10, 1951	23.7	81,000
1911	Apr. 30, 1911	25.38	59,000	1952	Apr. 30, 1952	33.80	138,000
1912	Apr. 22, 1912	33.56	108,000	1953	Mar. 16, 1953	22.85	73,600
					Mar. 25, 1953	23.29	77,200
					Apr. 13, 1953	21.49	64,800

Note.--Peak stage frequently occurs on different date than peak discharge.

Peak stages and discharges of Red River at Alexandria, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	May 6, 1953	35.27	157,000	1957	Mar. 27, 1957	18.08	a59,600
	May 19, 1953	42.05	195,000		Apr. 11, 1957	28.59	a103,000
	Aug. 1, 1953	21.23	67,900		May 7, 1957	40.70	197,000
1954	May 17, 1954	26.66	95,100	1958	June 17, 1957	40.65	a172,000
	June 3, 1954	18.99	55,000		Sept.30, 1957	22.24	a78,800
					Nov. 25, 1957	30.93	a143,000
1955	Mar. 28, 1955	24.67	89,800	Jan. 1, 1958	19.87	a64,400	
	Apr. 15, 1955	20.89	60,000	Jan. 26, 1958	23.74	a93,200	
	May 28, 1955	17.63	54,800	Mar. 14, 1958	19.98	a72,500	
1956	Feb. 11, 1956	18.32	61,300	Mar. 30, 1958	18.26	a63,200	
	Feb.23-24, 1956	20.76	71,300	May 12, 1958	40.18	a200,000	
	May 8, 1956	17.14	56,700				

a Maximum daily.

Note.--Peak stage frequently occurs on different date than peak discharge.

3556. Red River at Moncla, La.

Location.--Lat 31°12'40", long 92°07'35", between lots 36 and 55, T.3 N., R.3 E., in Avoyelles Parish, at old bridge on State Highway 115, 0.8 mile northwest of Moncla.

Drainage area.--67,625 sq mi, of which about 61,689 sq mi contributes directly to surface runoff.

Gage.--Nonrecording prior to June 29, 1950; recording thereafter. Datum of gage is 23.90 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements 1938-42. Shifting channel and variable fall preclude computation of discharge maxima for other years.

Bankfull stage.--44 ft.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1935	June 2, 1935	47.0	-	1947	May 28, 1947	35.6	-
				1948	Mar. 8, 1948	35.9	-
				1949	Feb. 6-7, 1949	40.2	-
				1950	Feb. 24, 1950	43.0	-
1936	Dec. 15, 1935	34.4	-	1951	Feb. 27, 1951	35.0	-
	Feb. 3, 1937	42.2	-	1952	May 2, 1952	39.8	-
	Mar. 8-10, 1938	46.0	146,000	1953	May 25, 1953	44.5	-
1939	Mar. 6-7, 1939	41.0	92,000	1954	May 18, 1954	31.0	-
1940	July 11, 1940	37.0	83,000	1955	Mar. 29, 1955	30.7	-
1941	May 17, 1941	44.9	137,000	1956	Feb. 24, 1956	27.6	-
1942	May 10-13, 1942	44.6	168,000	1957	May 13, 1957	43.00	-
1943	May 22, 1943	32.7	-	1958	May 14, 1958	42.55	-
1944	May 15-16, 1944	43.1	-				
1945	Mar. 15, 18, 20	43.7	-				
1946	Feb.23-25, 1946	42.8	-				

3556.1. Red River at Barbin Landing, La.

Location.--Lat 31°10'45", long 92°03'15", on lot 78, T.2 N., R.4 E., Avoyelles Parish, on right bank of river at Barbin Landing, 3.8 miles north of Marks-ville.

Drainage area.--67,730 sq mi, of which about 61,794 sq mi contributes directly to surface runoff.

Gage.--Nonrecording. Datum of gage is 0.05 ft below mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined; affected by high stages on Mississippi River.

Remarks.--Gage-height records June 1928 to Dec. 31, 1942, collected by Mississippi River Commission. Gage-height records January 1932 to December 1942 and March to April 1945 collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1929	May 29-31, 1929	63.0	-	1937	Feb. 3-4, 1937	62.5	-
1930	June 4-7, 1930	65.8	-	1938	Mar. 8-10, 1938	65.4	-
				1939	Mar. 6, 1939	61.6	-
1931	Dec. 13, 1930	54.0	-	1940	July 11-12, 1940	56.6	-
1932	Feb. 1, 1932	66.9	-				
1933	June 2-3, 1933	61.1	-	1941	May 17-18, 1941	63.5	-
1934	Apr. 13-14, 1934	59.2	-	1942	May 13, 1942	63.4	-
1935	May 31, June 5	66.2	-				
1936	Dec. 15, 1935	54.9	-	1945	Mar. 22, 1945	62.7	-

3560. Ouachita River near Mount Ida, Ark.

Location.--Lat 34°36'40", long 93°41'45", in sec.32, T.1 S., R.25 W., on right bank 350 ft upstream from bridge on U. S. Highway 270, 4½ miles upstream from Fiddler's Creek, and 5½ miles northwest of Mount Ida.

Drainage area.--410 sq mi.

Gage.--Nonrecording prior to Dec. 3, 1941, and Mar. 1, 1945, to Apr. 1, 1946; recording during remainder of period. Prior to Nov. 3, 1949, at site 350 ft downstream at same datum. Datum of gage is 655.14 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 30,000 cfs.

Bankfull stage.--22 ft.

Remarks.--Records prior to Oct. 1, 1949, furnished by Corps of Engineers. Base for partial-duration series, 18,000 cfs. Only annual peaks are shown prior to 1950.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Apr. 28, 1942	18.68	20,500	1951	July 3, 1951	21.70	24,400
1943	Apr. 18, 1943	8.84	4,890	1952	Apr. 13, 1952	20.14	21,000
1944	May 3, 1944	17.30	17,700		Apr. 23, 1952	24.26	30,200
1945	Mar. 30, 1945	27.80	48,500	1953	Nov. 26, 1952	21.66	23,600
1946	Jan. 9, 1946	20.00	20,400		May 13, 1953	20.46	21,800
1947	Dec. 12, 1946	19.20	18,600	1954	May 3, 1954	23.48	28,400
1948	Jan. 1, 1948	25.65	39,800	1955	Mar. 21, 1955	14.40	10,500
1949	Jan. 25, 1949	30.80	54,800	1956	Feb. 18, 1956	17.46	15,800
1950	Jan. 13, 1950	24.80	31,300	1957	Apr. 4, 1957	20.83	22,500
	Feb. 1, 1950	19.00	18,800		Apr. 27, 1957	20.40	21,600
	Feb. 12, 1950	24.84	31,300	1958	May 3, 1958	22.04	25,100

3565. South Fork Ouachita River at Mount Ida, Ark.

Location.--Lat 34°34', long 93°38', in NW $\frac{1}{4}$ sec.24, T.2 S., R.25 W., on downstream side of bridge on U. S. Highway 270 at Mount Ida, $2\frac{3}{4}$ miles upstream from Williams Creek and 22.5 miles upstream from mouth.

Drainage area.--64 sq mi.

Gage.--Recording. Datum of gage is 612.05 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 6,900 cfs and extended on basis of slope-area measurement at 10,800 cfs.

Bankfull stage.--10 ft.

Remarks.--Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1950	Dec. 11, 1949	8.15	3,120	1953	Dec. 4, 1952	9.50	4,160	
	Jan. 10, 1950	8.83	3,860		Mar. 18, 1953	9.50	4,160	
	Jan. 13, 1950	10.00	6,120		Apr. 29, 1953	8.68	3,220	
	Feb. 1, 1950	9.18	4,520		May 12, 1953	12.02	8,380	
	Feb. 12, 1950	10.59	7,540		1954	May 2, 1954	10.60	6,320
	Sept. 16, 1950	9.71	5,000			1955	Mar. 20, 1955	8.36
1951	Feb. 20, 1951	8.75	3,860	1956	Jan. 29, 1956		9.23	3,780
	July 2, 1951	9.80	5,200		Feb. 2, 1956		10.52	5,640
	Sept. 27, 1951	8.45	3,040		Feb. 17, 1956	9.47	4,160	
1952	Nov. 24, 1951	8.44	3,040	1957	Jan. 22, 1957	8.77	3,890	
	Jan. 2, 1952	9.05	3,750		Mar. 17, 1957	9.03	4,150	
	Mar. 10, 1952	11.44	7,600		Apr. 3, 1957	10.38	5,870	
	Mar. 21, 1952	9.16	4,010		Apr. 27, 1957	8.13	3,110	
	Apr. 1, 1952	12.61	10,500	1958	Nov. 13, 1957	9.78	5,030	
	Apr. 12, 1952	9.92	4,960		Nov. 18, 1957	8.54	3,550	
	Apr. 22, 1952	8.94	3,620		May 2, 1958	9.92	5,970	
	1953	Nov. 25, 1952	13.24		10,800			

3570. Ouachita River near Mountain Pine, Ark.

Location.--Lat 34°36', long 93°12', in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.1, T.2 S., R.21 W., on left bank three-quarters of a mile downstream from Mill Creek, 2 miles downstream from Blakely Creek, and 4 miles northwest of Mountain Pine.

Drainage area.--1,100 sq mi.

Gage.--Recording. Datum of gage is 404.16 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 92,000 cfs and extended by logarithmic plotting.

Remarks.--Station discontinued Sept. 30, 1950, due to backwater from Blakely Mountain Dam. Base for partial-duration series, 25,000 cfs.

Peak stages and discharges of Ouachita River near Mountain Pine, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	May 1923	37.0	112,000	1945	Mar. 20, 1945	19.78	30,400
1937	Jan. 23, 1937	22.38	39,100		Mar. 30, 1945	38.55	123,000
					May 16, 1945	18.48	26,500
1938	Jan. 24, 1938	26.8	57,400	1946	June 12, 1945	20.60	32,900
	Feb. 18, 1938	32.2	83,200		Jan. 9, 1946	21.55	36,200
1939	Apr. 17, 1939	34.54	94,900		Apr. 30, 1946	18.62	26,800
					May 25, 1946	23.10	41,800
1940	Apr. 29, 1940	13.36	13,700	1947	Dec. 12, 1946	18.76	27,400
1941	Nov. 23, 1940	20.10	31,300	1948	Jan. 2, 1948	20.54	32,600
1942	Apr. 9, 1942	21.12	34,500	1949	Jan. 26, 1949	29.28	69,100
	Apr. 28, 1942	23.90	44,900		May 1, 1949	20.99	34,200
1943	Dec. 27, 1942	18.46	26,500	1950	Jan. 10, 1950	19.31	28,900
1944	Apr. 23, 1944	26.50	56,000		Jan. 14, 1950	21.30	35,300
				Feb. 1, 1950	19.87	30,700	
				Feb. 15, 1950	23.69	44,100	
1945	Feb. 22, 1945	24.67	48,200	Sept. 15, 1950	b29.68	30,000	
	Feb. 28, 1945	23.36	42,900				

a Annual peak only.

b Backwater from Blakely Mountain Dam.

3580. Ouachita River near Hot Springs, Ark.

Location.--Lat 34°26'20", long 93°04'10", in SW $\frac{1}{4}$ sec. 29, T.3 S., R.19 W., half a mile upstream from Fourche a Loup Creek and 5 miles south of Hot Springs.

Drainage area.--1,405 sq mi.

Gage.--Nonrecording. Datum of gage is 304.8 ft above mean sea level (unadjusted).

Stage-discharge relation.--Defined by current-meter measurements below 43,000 cfs and extended by velocity-area study of main channel flow and slope-area measurement of overflow.

Remarks.--Station discontinued Sept. 30, 1930, due to construction of Carpenter Dam. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	May 16, 1923	43.9	143,000	1927	Apr. 21, 1927	42.4	134,000
1924	Dec. 13, 1923	18.08	23,400	1928	Apr. 6, 1928	27.36	59,000
1925	Feb. 23, 1925	14.62	13,500	1929	Dec. 17, 1928	23.25	41,600
				1930	May 18, 1930	29.0	66,000
1926	Jan. 21, 1926	27.10	57,600				

3595. Ouachita River near Malvern, Ark.
(Published as "at Rammel Dam, near Malvern" January 1925 to March 1937)

Location.--Lat 34°23'10", long 92°50'20", in NW $\frac{1}{4}$ sec.16, T.4 S., R.17 W., on downstream side of bridge on State Highway 84, 2 miles northwest of Malvern and 5.8 miles downstream from Rammel Dam.

Drainage area.--1,562 sq mi.

Gage.--Nonrecording prior to 1925; recording thereafter. March 1903 to April 1904 at present site at datum 2.00 ft higher. January 1925 to March 1937 at site 5.8 miles upstream at datum 20.11 ft higher. Datum of present gage is 228.05 ft above mean sea level, datum of 1929. Gage-height records for 1903-4 adjusted to present datum.

Stage-discharge relation.--Defined by current-meter measurements below 120,000 cfs at present site and extended by logarithmic plotting. Defined by current-meter measurements below 44,000 cfs at Rammel Dam.

Remarks.--Flow regulated by Lake Catherine since 1925 (capacity, 13,950 acre-ft), by Lake Hamilton since 1932 (capacity, 70,560 acre-ft), and by Lake Ouachita since July 1952 (capacity, 2,768,000 acre-ft). Peaks not seriously affected prior to regulation by Lake Ouachita. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1903	Mar. 10, 1903	24.0	66,500	1940	Apr. 30, 1940	15.82	22,000
1904	Mar. 18, 1904	20.0	39,500	1941	Nov. 23, 1940	13.72	16,500
1923	May 15, 1923	30.3	140,000	1942	Apr. 8, 1942	21.77	56,000
1924	Dec. 13, 1923	-	226,000	1943	May 31, 1943	14.76	19,200
1925	Feb. 23, 1925	-	216,000	1944	Apr. 23, 1944	25.20	83,000
1926	Jan. 21, 1926	24.3	60,900	1945	Mar. 30, 1945	27.20	132,000
1927	Apr. 21, 1927	35.7	138,000	1946	May 23, 1946	24.90	40,000
1928	Apr. 6, 1928	24.43	60,000	1947	Dec. 12, 1946	18.60	35,100
1929	Dec. 17, 1928	21.72	48,100	1948	Jan. 2, 1948	18.80	36,100
1930	May 10, 1930	24.0	58,200	1949	Jan. 26, 1949	24.89	90,700
1931	Oct. 7, 1930	20.22	41,600	1950	Feb. 13, 1950	21.72	57,100
1932	Jan. 5, 1932	26.0	67,400	1951	July 3, 1951	20.70	49,800
1933	Dec. 30, 1932	27.55	74,400	1952	Apr. 23, 1952	18.40	38,600
1934	Mar. 26, 1934	25.2	63,700	1953	Dec. 4, 1952	20.90	54,400
1935	May 5, 1935	28.97	70,500	1954	May 2, 1954	17.36	31,400
1936	Dec. 9, 1935	12.5	13,200	1955	May 27, 1955	14.36	20,000
1937	Jan. 22, 1937	24.67	53,800	1956	Feb. 18, 1956	12.75	15,500
1938	Feb. 18, 1938	26.74	103,000	1957	Apr. 4, 1957	16.14	27,400
1939	Apr. 16, 1939	27.00	108,000	1958	May 2, 1958	21.16	55,200

a Discharge estimated on basis of records for Ouachita River near Hot Springs.

3597. Caddo River at Glenwood, Ark.

Location.--Lat 34°19'20", long 93°32'30", in NE $\frac{1}{4}$ sec.10, T.5 S., R.24 W., on downstream side of bridge on U. S. Highway 70 and State Highway 27 at Glenwood, 700 ft downstream from Sweetwater Creek.

Drainage area.--192 sq mi.

Gage.--Nonrecording prior to Nov. 26, 1946; recording thereafter. Datum of gage is 514.41 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 26,000 cfs since 1946.

Bankfull stage.--14 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges of Caddo River at Glenwood, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Apr. 16, 1939	15.6	-	1949	Jan. 24, 1949	22.4	42,000
1940	Nov. 23, 1940	13.1	-	1950	Feb. 12, 1950	15.9	20,000
1941	Dec. 23, 1941	9.9	-	1951	July 3, 1951	15.4	19,000
1942	Apr. 8, 1942	14.4	-	1952	Dec. 4, 1952	19.6	32,000
1943	May 20, 1943	12.1	-	1953	May 12, 1953	18.8	29,000
1944	May 1, 1944	14.2	-	1954	May 2, 1954	16.9	23,000
1945	Mar. 30, 1945	27.0	65,000	1955	Mar. 20, 1955	18.5	26,000
1946	May 25, 1946	19.4	31,000	1956	Feb. 2, 1956	16.4	21,500
1947	Apr. 30, 1947	11.7	9,500	1957	Nov. 13, 1957	17.6	25,000
1948	Mar. 1, 1948	13.6	14,000	1958	Nov. 15, 1958	17.3	16,500

3598. Caddo River near Alpine, Ark.

Location.--Lat 34°16', long 93°22', in SE¹ sec.28, T.5 S., R.22 W., at Runyan Bridge on gravel road between Alpine and Bismark, 7.1 miles below Sugar Fork Creek and 33.8 miles above mouth.

Drainage area.--312 sq mi.

Gage.--Nonrecording prior to Jan. 29, 1947; recording thereafter. Datum of gage is 394.85 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 38,000 cfs.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	-	22.0	43,000	1949	Jan. 24, 1949	23.50	46,900
1939	Apr. 16, 1939	20.3	37,700	1950	Feb. 12, 1950	15.75	26,900
1940	Apr. 29, 1940	7.86	8,150	1951	July 3, 1951	13.66	20,800
1941	Nov. 23, 1940	20.6	39,400	1952	Apr. 23, 1952	15.97	27,400
1942	Apr. 8, 1942	19.4	36,200	1953	Dec. 4, 1952	19.95	37,800
1945	Mar. 30, 1945	30.2	64,200	1954	May 2, 1954	13.80	21,900
				1955	Mar. 21, 1955	16.25	27,900
1947	Apr. 30, 1947	10.0	12,500	1956	Feb. 2, 1956	12.15	17,900
1948	Mar. 2, 1948	12.39	18,300	1957	Apr. 4, 1957	13.70	19,400
				1958	May 3, 1958	20.18	36,500

3600. Ouachita River at Arkadelphia, Ark.

Location.--Lat 34°07'16", long 93°02'46", in sec.17, T.7 S., R.19 W., at bridge on State Highway 7 at Arkadelphia, 5.4 miles downstream from Caddo River.

Drainage area.--2,311 sq mi.

Gage.--Nonrecording prior to Mar. 31, 1946; recording thereafter. September 1905 to December 1906 at site 800 ft downstream at different datum. January 1914 to Sept. 28, 1934, at present site at datum 5.00 ft higher (adjusted to present datum). Datum of present gage is 160.30 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 130,000 cfs.

Bankfull stage.--17 ft.

Remarks.--All records except those for 1906 furnished by Corps of Engineers. Slight regulation by Lake Catherine since 1925 and by Lake Hamilton since 1932. Considerable regulation by Lake Ouachita since 1952. See remarks for Ouachita River near Malvern. Only annual peaks are shown. Prior to 1929, peaks are shown on calendar year basis.

Peak stages and discharges of Ouachita River at Arkadelphia, Ark.

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1906	May 4, 1906	20.6	33,800	1935	May 6, 1935	26.97	94,000
1914	Apr. 29, 1914	26.2	-	1936	Dec. 7, 1935	17.72	23,200
1915	Aug. 22, 1915	26.3	-	1937	Jan. 22, 1937	26.03	81,400
				1938	Feb. 19, 1938	28.97	133,000
1916	Jan. 28, 1916	23.2	-	1939	Apr. 17, 1939	28.87	131,000
1917	Mar. 4, 1917	20.8	-	1940	May 1, 1940	17.40	20,800
1918	Dec. 14, 1918	23.8	-				
1919	Oct. 12, 1919	25.7	-	1941	Nov. 24, 1940	18.15	22,700
1920	May 12, 1920	27.9	-	1942	Apr. 9, 1942	26.75	94,700
				1943	Apr. 19, 1943	18.49	22,000
1921	Apr. 27, 1921	26.5	-	1944	May 2, 1944	25.90	86,400
1922	Apr. 1, 1922	22.8	-	1945	Mar. 30, 1945	30.3	170,000
1923	May 15, 1923	28.3	-				
1924	May 1, 1924	15.3	-	1946	Apr. 30, 1946	27.83	122,000
1925	Oct. 18, Nov. 8	19.0	-	1947	Dec. 13, 1946	21.90	36,800
				1948	Mar. 2, 1948	23.68	47,300
1926	Dec. 22, 1926	27.8	-	1949	Jan. 27, 1949	28.15	139,200
1927	Apr. 21, 1927	29.2	133,000	1950	Feb. 13, 1950	25.92	76,600
1928	Dec. 18, 1928	24.9	-				
Water year				1951	July 3, 1951	26.20	81,100
				1952	Apr. 24, 1952	22.85	41,800
1929	Jan. 26, May 15	19.1	26,600	1953	Dec. 4, 1952	25.15	73,100
1930	Jan. 10, 1930	25.4	68,500	1954	May 3, 1954	23.30	45,200
				1955	Mar. 21, 1955	23.90	51,100
1931	Oct. 8, 1930	21.02	35,400				
1932	Jan. 5, 1932	26.72	89,100	1956	Feb. 18, 1956	20.60	31,700
1933	Dec. 31, 1932	24.80	61,700	1957	Apr. 4, 1957	24.20	55,100
1934	Mar. 27, 1934	24.28	56,800	1958	May 3, 1958	27.65	119,000

Note.--Calendar year basis prior to 1929; water year thereafter.

3608. Muddy Fork Creek near Murfreesboro, Ark.

Location.--Lat 34°05'00", long 93°45'05", in NE $\frac{1}{4}$ sec.3, T.8 S., R.26 W., 1.8 miles upstream from mouth and 3 miles northwest of Murfreesboro.

Drainage area.--121 sq mi.

Gage.--Nonrecording prior to Mar. 4, 1940; recording thereafter. Datum of gage is 337.29 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 24,000 cfs.

Bankfull stage.--15 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	May 18, 1940	13.25	6,200	1949	Jan. 24, 1949	21.75	24,700
				1950	Sept. 16, 1950	18.1	13,200
1941	Nov. 23, 1940	17.2	11,800				
1942	Apr. 8, 1942	18.3	13,500	1951	July 2, 1951	14.85	8,310
1943	Mar. 12, 1943	10.2	3,400	1952	Apr. 22, 1952	19.44	15,800
1944	May 1, 1944	16.6	10,900	1953	May 11, 1953	22.56	24,800
1945	Mar. 30, 1945	29.7	47,100	1954	May 2, 1954	13.40	6,620
				1955	Mar. 21, 1955	16.72	11,900
1946	Feb. 5, 1946	14.6	8,560				
1947	Apr. 30, 1947	12.40	5,480	1956	Apr. 30, 1956	15.18	9,470
1948	Mar. 2, 1948	13.40	6,680	1957	May 26, 1957	14.35	8,190
				1958	May 2, 1958	26.28	35,100

3610. Little Missouri River near Murfreesboro, Ark.

Location.--Lat 34°03', long 93°43', in SE $\frac{1}{4}$ sec.13, T.8 S., R.26 W., on downstream side of bridge on State Highway 27, 1.9 miles downstream from Muddy Fork, 2 miles southwest of Murfreesboro, and 4.6 miles upstream from Prairie Creek.

Drainage area.--380 sq mi.

Gage.--Nonrecording prior to Sept. 30, 1931; recording thereafter. Datum of gage is 324.28 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 38,000 cfs and extended on basis of contracted-opening measurement of 120,000 cfs.

Bankfull stage.--17 ft.

Remarks.--Peak discharge seriously regulated by Lake Greeson since November 1949 (capacity, 408,000 acre-ft, drainage area, 237 sq mi). Base for partial-duration series, 15,000 cfs. Only annual peaks are shown prior to 1938 and subsequent to 1949.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	April 1927	21.0	-	1945	Mar. 30, 1945	19.84	120,000
1928	Apr. 21, 1928	a7.75	8,740	1946	Jan. 8, 1946	13.71	17,500
1929	Dec. 17, 1928	a12.52	21,600		Feb. 5, 1946	15.12	24,500
1930	May 3, 1930	a14.00	26,000		Apr. 30, 1946	16.78	41,500
					May 25, 1946	14.36	20,700
1931	Feb. 13, 1931	a6.80	6,290	1947	Apr. 30, 1947	12.62	13,500
1938	Jan. 24, 1938	17.50	54,300	1948	Mar. 2, 1948	14.53	21,200
	Feb. 18, 1938	16.60	38,600	1949	Jan. 24, 1949	18.05	65,700
	Mar. 29, 1938	15.60	28,000		Mar. 9, 1949	14.83	21,900
1939	Apr. 16, 1939	14.73	21,800		Mar. 26, 1949	13.26	15,100
1940	May 18, 1940	13.49	16,800	1950	Sept. 16, 1950	13.74	16,600
1941	Nov. 23, 1940	17.03	44,800	1951	July 2, 1951	11.34	9,220
1942	Dec. 23, 1941	14.07	19,600	1952	Apr. 22, 1952	14.19	17,600
	Apr. 8, 1942	16.52	37,200	1953	May 11, 1953	15.60	25,800
	Sept. 9, 1942	16.80	32,500	1954	May 2, 1954	9.10	6,080
1943	Dec. 27, 1942	14.24	20,000	1955	Mar. 21, 1955	12.55	13,300
1944	Apr. 23, 1944	12.69	15,000	1956	Apr. 30, 1956	10.15	8,180
	May 1, 1944	16.60	38,600	1957	Apr. 3, 1957	10.75	9,020
1945	Dec. 6, 1944	13.11	15,200	1958	May 2, 1958	15.74	30,300
	Feb. 21, 1945	15.05	23,800				
	Feb. 27, 1945	15.08	24,500				

a Maximum observed. Peak could be much higher.

3612. Ozan Creek near McCaskill, Ark.

Location.--Lat 33°52'35", long 93°35'35", in NW $\frac{1}{4}$ sec.17, T.10 S., R.24 W., on downstream side of bridge on State Highway 24, 1 mile upstream from Haley Branch, 3 $\frac{1}{2}$ miles southeast of McCaskill, and 14.5 miles upstream from mouth.

Drainage area.--148 sq mi.

Gage.--Nonrecording prior to May 14, 1948; recording thereafter. Datum of gage is 281.07 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not adequately defined.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

RED RIVER BASIN

Peak stages and discharges of Ozan Creek near McCaskill, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Apr. 7, 1940	13.3	-	1949	Jan. 25, 1949	16.4	-
1941	Apr. 23, 1941	14.5	-	1950	Feb. 13, 1950	15.42	-
1942	Apr. 8, 1942	15.1	-	1951	Jan. 3, 1951	14.83	-
1943	Mar. 12, 1943	16.7	-	1952	Apr. 12, 1952	15.02	-
1944	May 2, 1944	16.4	-	1953	May 11, 1953	18.08	-
1945	Mar. 30, 1945	19.9	-	1954	May 2, 1954	13.88	-
				1955	Mar. 21, 1955	15.23	-
1946	Feb. 6, Mar. 6	14.5	-				
1947	May 13, 1947	17.96	-	1956	Feb. 18, 1956	14.17	-
1948	Mar. 22, 1948	14.5	-	1957	Apr. 3, 1957	16.10	-
				1958	May 13, 1958	16.95	-

3615. Antoine River at Antoine, Ark.

Location.--Lat 34°02'20", long 93°25'05", in NW¹ sec.24, T 8 S., R.23 W., near right bank on downstream side of pier of bridge on State Highway 26 at Antoine, 1.6 miles downstream from Brushy Creek, 1.9 miles downstream from Suck Creek, and 8.5 miles upstream from mouth.

Drainage area.--181 sq mi.

Gage.--Recording. Prior to Oct. 22, 1954, at site 75 ft upstream at same datum. Datum of gage is 229.33 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 28,000 cfs.

Historical data.--Floods in 1905, 1945 are highest known prior to 1951.

Remarks.--Gage-height records prior to 1955 furnished by Corps of Engineers. Base for partial-duration series, 4,000 cfs. Only annual peaks are shown prior to 1955.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	May 1905	a29.7	40,000	1956	Feb. 18, 1956	15.62	4,580
1945	Mar. 31, 1945	b24.6	18,800		Apr. 30, 1956	19.80	8,320
1951	Jan. 13, 1951	20.0	8,100	1957	Mar. 18, 1957	17.77	6,000
					Apr. 3, 1957	24.00	16,600
1952	Apr. 27, 1952	22.1	10,500		Apr. 27, 1957	20.70	8,870
					May 24, 1957	18.64	6,720
1953	May 11, 1953	23.6	15,300		May 26, 1957	19.80	7,900
1954	May 2, 1954	19.0	7,100	1958	Nov. 8, 1957	15.52	4,320
					Nov. 13, 1957	19.59	7,700
1955	Mar. 21, 1955	23.52	14,900		Jan. 20, 1958	19.44	7,500
	May 27, 1955	19.87	8,000		Apr. 27, 1958	21.24	9,510
					May 2, 1958	28.75	35,500
1956	Feb. 2, 1956	18.03	6,540		June 26, 1958	16.62	4,780
	Feb. 8, 1956	16.86	5,580		July 5, 1958	19.20	7,000
					Sept. 19, 1958	19.64	7,700

a From information by Arkansas Highway Department.

b From floodmark by Corps of Engineers.

3616. Little Missouri River near Boughton, Ark.

Location.--Lat 33°52'32", long 93°18'16", in NE $\frac{1}{4}$ sec.13, T.10 S., R.22 W., on downstream side of bridge on U. S. Highway 67, 1.5 miles northeast of Boughton, 5.9 miles downstream from Howard Creek, and 10.2 miles downstream from Antoine River.

Drainage area.--1,068 sq mi.

Gage.--Nonrecording prior to Mar. 19, 1947; recording thereafter. Datum of gage is 182.13 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 62,000 cfs.

Bankfull stage.--20 ft.

Remarks.--Records furnished by Corps of Engineers. Peak discharge regulated to some extent since November 1949 by Lake Greason (capacity, 408,000 acre-ft, drainage area, 237 sq mi). Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1905	-	a26.9	-	1948	Mar. 4, 1948	20.71	20,700
1938	Feb. 19, 1938	23.55	57,000	1949	Jan. 26, 1949	23.90	62,000
1939	Apr. 18, 1939	21.28	22,600	1950	Feb. 13, 1950	22.18	36,500
1940	May 2, 1940	17.05	7,350	1951	Jan. 15, 1951	21.40	25,600
1941	Apr. 25, 1941	20.5	17,400	1952	Apr. 24, 1952	21.28	24,700
1942	Apr. 9, 1942	23.35	54,000	1953	May 12, 1953	23.35	54,000
1943	Mar. 14, Apr. 19	21.4	25,000	1954	May 3, 1954	18.50	11,000
1944	May 2-3, 1944	23.4	54,000	1955	Mar. 22, 1955	21.58	28,000
1945	Mar. 31, 1945	27.2	111,000	1956	May 3, 1956	19.72	14,700
1946	Feb. 7, 1946	21.8	30,000	1957	Apr. 4, 1957	21.58	29,100
1947	May 14, 1947	22.06	37,500	1958	May 3, 1958	24.22	66,000

a From information by Corps of Engineers.

3618. Terre Noire Creek East of Gurdon, Ark.

Location.--Lat 33°54'50", long 93°02'10", in SW $\frac{1}{4}$ sec.27, T.9 S., R.19 W., on downstream side of highway bridge, 6 $\frac{1}{4}$ miles east of Gurdon and 13.6 miles upstream from mouth.

Drainage area.--250 sq mi.

Gage.--Nonrecording prior to Nov. 3, 1949; recording thereafter. Prior to Jan. 1, 1947, at datum 5 ft higher. Datum of present gage is 133.65 ft above mean sea level, datum of 1929 (levels by Corps of Engineers). All gage heights adjusted to present datum.

Stage-discharge relation.--Not adequately defined.

Bankfull stage.--16 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Apr. 29, 1940	16.7	-	1950	Feb. 13, 1950	19.54	-
1941	May 6, 1941	19.5	-	1951	Jan. 14, 1951	19.25	-
1942	Apr. 9, 1942	21.9	-	1952	Apr. 13, 1952	18.76	-
1944	May 2, 1944	20.5	-	1953	May 12, 1953	20.06	-
1945	Mar. 30, 1945	22.8	-	1954	May 2, 1954	17.94	-
1947	May 13, 1947	19.1	-	1955	Mar. 21, 1955	19.3	-
1948	Mar. 22, 1948	18.0	-	1956	Feb. 9, 1956	18.08	-
1949	June 14, 1949	18.07	-	1957	Apr. 4, 1957	21.24	-
				1958	May 3, 1958	22.85	-

3620. Ouachita River at Camden, Ark.
(Published as "near Camden" August 1928 to September 1929)

Location.--Lat 33°35'49", long 92°49'12", in SE $\frac{1}{4}$ sec.14, T.13 S., R.17 W., at bridge on U. S. Highway 79 at Camden, 3 $\frac{1}{2}$ miles downstream from Ecure Fabre Bayou and 7 $\frac{1}{2}$ miles upstream from Two Bayou Creek.

Drainage area.--5,391 sq mi.

Gage.--Nonrecording prior to Oct. 28, 1947; recording thereafter. Datum of gage is 71.69 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 230,000 cfs.

Bankfull stage.--30 ft.

Historical data.--Flood in 1882 reached a stage of 46.0 ft, from information by Corps of Engineers.

Remarks.--Records furnished by Corps of Engineers except for August 1928 to September 1929. Slight regulation by Lake Catherine since 1925, by Lake Hamilton since 1932, and by Lake Greeson since November 1949. Some regulation by Lake Ouachita since 1952. See remarks for Ouachita River near Malvern. Only annual peaks are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1882	May 12, 1882	46.0	-	1923	May 19, 1923	40.1	-
1886	Nov. 27, 1886	26.8	-	1924	Mar. 24, 1924	26.5	-
1887	Dec. 13, 1887	35.7	-	1925	Nov. 11, 1925	29.7	-
1888	Jan. 18, 1888	34.2	-	1926	Dec. 26, 1926	39.1	-
1889	Jan. 21, 1889	37.7	-	1927	Apr. 24, 1927	41.8	-
1890	Apr. 7, 1890	38.5	-				
					Water year		
1891	Feb. 5, 1891	35.6	-				
1892	Dec. 17, 1892	38.0	-	1928	Apr. 11, 1928	30.4	-
1893	Jan. 6, 1893	34.8	-	1929	Dec. 22, 1928	35.41	62,400
1894	Mar. 23, 1894	43.25	-	1930	May 21, 1930	40.84	138,000
1895	Mar. 18, 1895	30.7	-				
1896	Feb. 6-7, 1896	34.0	-	1931	Oct. 10, 1930	24.91	14,500
1897	Mar. 23, 1897	38.75	-	1932	Jan. 9, 1932	38.42	102,000
1898	Jan. 25, 1898	33.7	-	1933	Jan. 5, 1933	32.46	36,700
1899	Jan. 18, 1899	39.1	-	1934	Mar. 31, 1934	35.32	38,800
1900	Mar. 4, 1900	26.2	-	1935	May 9, 1935	39.33	126,000
1901	Apr. 23, 1901	33.9	-	1936	Dec. 13, 1935	25.2	22,700
1902	Dec. 1, 1902	36.2	-	1937	Jan. 25, 1937	41.71	151,000
1903	Feb. 20, 1903	39.6	-	1938	Feb. 22, 1938	41.1	158,000
1904	June 12, 1904	35.6	-	1939	Apr. 21, 1939	37.71	102,000
1905	July 1, 1905	42.0	-	1940	July 4, 1940	a26.66	24,400
1906	Jan. 27, May 8	35.2	-	1941	May 11, 1941	31.78	37,500
1907	Jan. 6, 1907	42.9	-	1942	Apr. 12, 1942	40.17	124,000
1908	May 19, 1908	36.1	-	1943	Mar. 17, 1943	30.14	39,000
1909	Mar. 13, 1909	31.0	-	1944	May 5, 1944	39.10	144,000
1910	Apr. 17, 1910	33.1	-	1945	Apr. 3, 1945	44.82	243,000
1911	Apr. 22, 1911	38.2	-	1946	May 29, 1946	b37.46	89,900
1912	Apr. 5, 1912	39.4	-	1947	(d)	c29.71	33,500
1913	Apr. 14, 1913	37.1	-	1948	Mar. 6, 1948	35.41	57,000
1914	Apr. 4, 1914	36.9	-	1949	Jan. 30, 1949	44.15	185,000
1915	Aug. 25, 1915	36.5	-	1950	Feb. 17, 1950	39.63	110,000
1916	Feb. 1, 1916	39.0	-	1951	Jan. 20, 1951	34.40	53,400
1917	Mar. 8, 1917	31.7	-	1952	Apr. 18, 1952	35.45	58,400
1918	Apr. 23, 1918	35.5	-	1953	May 16, 1953	a38.82	126,000
1919	Oct. 16, 1919	37.4	-	1954	May 6, 1954	28.78	32,900
1920	May 20, 1920	38.6	-	1955	Mar. 25, 1955	a34.51	58,200
1921	Apr. 30, 1921	38.8	-	1956	Feb. 21, 1956	a29.28	32,000
1922	Apr. 3, 1922	37.0	-	1957	May 1, 1957	36.92	98,900
				1958	May 5, 1958	43.87	181,000

a Occurred on following day.

b Occurred Jan. 13, 1946.

c Occurred Nov. 11, 1946.

d Nov. 13, Dec. 17, 1946.

Note.--Calendar year basis prior to 1928; water year thereafter.

3621. Smackover Creek near Smackover, Ark.

Location.--Lat 33°22'40", long 92°46'45", in SE $\frac{1}{4}$ sec.32, T.15 S., R.16 W., on downstream side of bridge on State Highway 7, 0.1 mile downstream from Camp Creek, 3 miles northwest of Smackover, and 23 miles above mouth.

Drainage area.--377 sq mi.

Gage.--Nonrecording prior to Aug. 27, 1948; recording thereafter. Datum of gage is 97.56 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 11,000 cfs.

Bankfull stage.--10 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Feb. 4, 1939	18.7	12,200	1949	Jan. 28, 1949	16.8	7,000
1940	July 3, 1940	17.8	9,400	1950	Jan. 14, 1950	19.3	14,500
1941	May 7, 1941	15.5	4,700	1951	Feb. 9, 1951	13.2	2,300
1942	Apr. 27, 1942	18.7	12,200	1952	Apr. 14, 1952	14.9	3,900
1943	Mar. 28, 1943	14.5	3,500	1953	May 1, 1953	17.0	7,400
1944	May 3, 1944	18.2	10,600	1954	May 5, 1954	12.2	1,600
1945	Apr. 3, 1945	19.8	16,500	1955	Mar. 24, 1955	13.1	2,200
1946	Jan.10, 1946a/	15.8	5,100	1956	Feb. 9, 1956	13.0	2,100
1947	Apr. 13, 1947	15.2	4,200	1957	Apr. 29, 1957	19.6	16,000
1948	Mar. 24, 1948	16.2	5,800	1958	Apr. 27, 1958	21.21	25,000

a And other dates.

3624. Ouachita River at lock and dam 8, Champagnolle Landing, Ark.

Location.--Lat 33°18'45", long 92°28'05", in NE $\frac{1}{4}$ sec.29, T.16 S., R.13 W., $6\frac{1}{2}$ miles west of Moro Bay, 10.9 miles upstream from Moro Creek, and at mile 297.9.

Drainage area.--6,569 sq mi.

Gage.--Nonrecording. Datum of gage is 56.07 ft above mean sea level, datum of 1929.

Bankfull stage.--23 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1910	Apr. 20, 1910	29.7	-	1926	Dec. 30, 1926	34.1	-
1911	Apr. 25, 1911	34.3	-	1927	Apr. 27, 1927	38.9	-
1912	Apr. 8, 1912	35.5	-	1928	Dec. 27, 1928	29.6	-
1913	Apr. 18, 1913	31.2	-	1929	Feb. 3, 1929	27.9	-
1914	Apr. 8, 1914	32.0	-	1930	May 23-24, 1930	37.5	-
1915	Feb. 10, 1915	30.7	-	1931	Dec. 25, 1931	32.7	-
1916	Feb. 5, 1916	35.7	-	1932	Feb. 1, 1932	34.6	-
1917	Mar.13-14, 1917	27.4	-	1933	Jan.10-11, 1933	26.7	-
1918	Apr. 27, 1918	30.2	-	1934	Apr. 4, 1934	29.3	-
1919	Oct. 30, 1919	33.1	-	1935	May 13, 1935	34.4	-
1920	May 22, 1920	34.7	-	1936	Dec. 13, 1936	20.7	-
1921	May 4, 1921	33.7	-	1937	Jan. 28, 1937	38.2	-
1922	Apr. 6, 1922	33.5	-	1938	Jan. 31, 1938	36.4	-
1923	May 22-23, 1923	33.4	-	1939	Apr. 25, 1939	32.5	-
1924	Jan. 1, 1924	26.1	-	1940	July 8-9, 1940	27.8	-
1925	Nov. 15, 1925	26.5	-	1941	May 14-15, 1941	28.0	-

RED RIVER BASIN

Peak stages and discharges of Ouachita River at lock and dam 8,
Champagnolle Landing, Ark.--Continued

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1942	Apr. 16, 1942	34.6	-	1951	Mar. 1, 1951	29.7	-
1943	Mar. 23, 1943	28.1	-	1952	Apr. 22-23, 1952	30.6	-
1944	May 9, 1944	37.2	-	1953	May 21, 1953	35.4	-
1945	Apr. 6, 1945	40.2	-	1954	May 10, 1954	27.0	-
				1955	Mar. 31, 1955	29.2	-
1946	Jan. 16, 1946	34.5	-				
1947	May 25, 1947	26.7	-	1956	Feb. 25-26, 1956	27.2	-
1948	Mar. 10, 1948	31.7	-	1957	May 5, 1957	34.8	-
1949	Feb. 2, 1949	39.0	-	1958	May 8, 1958	40.4	-
1950	Feb. 20, 1950	35.3	-				

3625. Moro Creek near Fordyce, Ark.

Location.--Lat 33°47', long 92°20', in NW $\frac{1}{4}$ sec. 3, T.11 S., R. 12 W., on downstream side of bridge on State Highway 8, 1,100 ft upstream from Caney Creek, 4 miles southeast of Fordyce, and 12 miles upstream from White Water Creek.

Drainage area.--216 sq mi.

Gage.--Recording. Datum of gage is 160.63 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 19,000 cfs.

Bankfull stage.--11 ft.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	January 1938	a15.1	15,800	1955	Mar. 23, 1955	12.27	4,360
					Apr. 14, 1955	11.30	2,120
1952	Mar. 12, 1952	11.23	2,150	1956	Feb. 22, 1956	10.22	1,060
	Apr. 15, 1952	11.88	3,290				
1953	Mar. 22, 1953	12.20	4,230	1957	Feb. 3, 1957	14.26	10,700
	Apr. 9, 1953	11.49	2,570		Apr. 5, 1957	14.35	11,100
	May 2, 1953	11.68	2,950		Apr. 29, 1957	13.38	7,440
	May 5, 1953	11.13	2,000				
	May 14, 1953	12.55	5,340	1958	Nov. 14, 1957	11.57	2,350
	May 18, 1953	12.54	5,340		Dec. 10, 1957	11.71	2,610
1954	May 4-5, 1954	10.94	1,760		Jan. 24, 1958	11.40	2,130
					Apr. 28, 1958	13.26	6,790
					May 2, 1958	16.47	26,800

a Annual peak only, from information by Arkansas Highway Department.

3630. Saline River at Benton, Ark.

Location.--Lat 34°34'05", long 92°36'40", in NE $\frac{1}{4}$ sec. 9, T.2 S., R.15 W., on left bank three-quarters of a mile west of Benton and 3 miles downstream from confluence of North Fork and Alum Fork.

Drainage area.--569 sq mi.

Gage.--Nonrecording July 6, 1938, to July 29, 1948, and Feb. 14, to Mar. 24, 1950; recording during remainder of period. Prior to Mar. 26, 1950, at site 0.4 mile downstream at datum 3.00 ft lower. Datum of present gage is 260.91 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 50,000 cfs.

Bankfull stage.--20 ft.

Historical data.--Flood in April 1927 reached a stage of 32.0 ft former site and datum, from information by State Highway Department, or about 30.5 ft present site and datum.

Remarks.--Peaks prior to 1948 computed from graph based on once-daily or more frequent gage readings of U. S. Weather Bureau and will not necessarily agree with maximum in their publications. Gage-height records for 1948-51 furnished by Corps of Engineers. Base for partial-duration series, 10,000 cfs. Only annual peaks are shown prior to 1951.

Peak stages and discharges of Saline River at Benton, Ark.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	April 1927	32.0	-	1952	Apr. 23, 1952	17.54	13,300
1938	Jan. 22, 1938	23.52	34,000	1953	Nov. 26, 1952	19.77	18,600
1939	Apr. 17, 1939	27.5	67,000		Dec. 4, 1952	25.28	49,500
1940	Apr. 7, 1940	15.4	7,800		Jan. 23, 1953	18.00	14,200
1941	May 9, 1941	15.4	7,800		Mar. 18, 1953	19.18	17,000
1942	Apr. 9, 1942	25.0	45,000	1954	Apr. 6, 1953	16.72	11,900
1943	Mar. 12, 1943	20.1	17,300		Apr. 24, 1953	17.52	13,300
1944	Apr. 23, 1944	26.72	58,000		May 12, 1953	19.22	18,100
1945	Mar. 30, 1945	27.0	59,000	1954	May 2, 1954	24.49	48,000
1946	May 24, 1946	26.2	50,000	1955	Mar. 21, 1955	19.51	19,700
1947	Apr. 11, 1947	16.4	8,800		May 27, 1955	23.16	38,800
1948	Mar. 2, 1948	23.0	25,500	1956	Jan. 30, 1956	22.36	33,200
1949	Jan. 25, 1949	24.50	32,000		Feb. 2, 1956	21.43	27,400
1950	Feb. 13, 1950	24.50	32,000		Feb. 9, 1956	17.44	14,100
1951	Jan. 15, 1951	20.27	14,700		Feb. 18, 1956	20.77	24,400
	Feb. 16, 1951	17.80	10,500	1957	Jan. 23, 1957	18.23	16,000
	Feb. 21, 1951	22.60	21,500		Jan. 28, 1957	16.76	12,900
	Apr. 7, 1951	18.16	11,000		Apr. 4, 1957	22.68	35,200
	July 3, 1951	18.22	14,700		Apr. 28, 1957	18.58	17,100
1952	Jan. 4, 1952	15.44	10,000		May 24, 1957	19.84	20,700
	Apr. 13, 1952	20.42	20,500		May 26, 1957	18.34	16,300
					June 14, 1957	15.50	10,600
					Aug. 18, 1957	15.67	10,200
				1958	Nov. 14, 1957	18.70	17,900
					Jan. 21, 1958	17.8	15,500
					Apr. 29, 1958	14.95	10,100
					May 3, 1958	21.40	28,400
					May 5, 1958	15.70	11,200
					June 26, 1958	16.55	12,900

3632. Saline River and Gambie Creek near Sheridan, Ark.

Location.--Lat 34°06'40", long 92°24'10", in sec.15, T.7 S., R.13 W., on downstream side of bridge on U. S. Highway 167, 1 mile upstream from Gambie Creek, 1.6 miles downstream from Lost Creek, 6.4 miles upstream from Hurricane Creek, and 13½ miles south of Sheridan.

Drainage area.--1,129 sq mi.

Gage.--Nonrecording prior to Nov. 23, 1948; recording thereafter. Datum of gage is 152.86 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 54,000 cfs.

Bankfull stage.--14 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1938	Jan. 24, 1938	21.0	-	1949	Jan. 28, 1949	20.1	61,000
1939	Apr. 19, 1939	19.4	-	1950	Feb. 15, 1950	19.7	56,000
1940	Apr. 13, 1940	13.2	-	1951	Jan. 16, 1951	16.8	22,000
1941	Dec. 29, 1941	14.9	-	1952	Dec. 7, 1952	17.3	27,000
1942	Apr. 11, 1942	19.3	-	1953	May 15, 1953	17.2	26,000
1943	Mar. 18, 1943	15.2	-	1954	May 5, 1954	17.8	34,000
1944	May 5, 1944	17.6	-	1955	Mar. 24, 1955	16.9	23,000
1945	Apr. 2, 1945	19.8	-	1956	Feb. 21, 1956	17.2	26,000
1946	Mar. 30, 1946	18.8	-	1957	Apr. 6, 1957	18.3	40,000
1947	Apr. 14, 1947	15.1	-	1958	May 3, 1958	18.97	48,000
1948	Mar. 5, 1948	16.4	18,500				

3634. Hurricane Creek near Sheridan, Ark.

Location.--Lat 34°13'30", long 92°21'45", in sec.1, T.6 S., R.13 W., on downstream side of bridge on State Highway 35, 5 $\frac{1}{4}$ miles southeast of Sheridan and 11.0 miles upstream from mouth.

Drainage area.--270 sq mi.

Gage.--Nonrecording prior to Nov. 29, 1948; recording thereafter. Datum of gage is 180.10 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not adequately defined.

Bankfull stage.--11 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Jan. 22, 1938	14.7	-	1951	Jan. 14, 1951	14.2	-
1939	Feb. 4, 1939	14.0	-	1952	Apr. 14, 1952	12.2	-
1940	June 23, 1940	10.6	-	1953	May 13, 1953	12.7	-
				1954	May 5, 1954	11.5	-
1947	Apr. 12, 1947	14.7	-	1955	May 28, 1955	14.0	-
1948	Mar. 23, 1948	14.3	-				
1949	Jan. 28, 1949	14.1	-	1956	Feb. 19, 1956	12.4	-
1950	Feb. 13, 1950	15.4	-	1957	Apr. 4, 1957	14.0	-
				1958	May 3, 1958	14.48	-

3635. Saline River near Rye, Ark.

Location.--Lat 33°42', long 92°02', on line between secs.3 and 4, T.12 S., R.9 W., on downstream side of bridge on State Highway 15, 4 miles southwest of Rye and 5 miles upstream from Hudgin Creek.

Drainage area.--2,062 sq mi.

Gage.--Nonrecording prior to May 30, 1939; recording thereafter. Altitude of gage is 95 ft (by barometer).

Stage-discharge relation.--Defined by current-meter measurements below 68,000 cfs.

Bankfull stage.--20 ft.

Historical data.--Flood in April 1927 is greatest known, from information by State Highway Department.

Remarks.--Base for partial-duration series, 10,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	April 1927	30.5	a73,000	1944	Mar. 29, 1944	24.20	16,100
					May 8, 1944	26.77	32,800
1938	Jan. 27, 1938	28.0	42,300	1945	Jan. 6, 1945	23.29	12,600
	Feb. 23, 1938	27.81	40,700		Mar. 6, 1945	26.05	26,900
	Apr. 8, 1938	24.05	16,500		Apr. 5, 1945	28.43	47,600
1939	Feb. 9, 1939	26.05	27,700		May 21, 1945	25.95	26,900
	Feb. 17, 1939	24.90	21,200		June 18, 1945	25.53	23,500
	Mar. 5, 1939	23.60	15,500	1946	Jan. 14, 1946	26.91	36,100
	Apr. 16, 1939	22.50	12,100		Feb. 14, 1946	24.62	20,400
	Apr. 23, 1939	26.50	31,400		Apr. 2, 1946	27.01	37,100
1940	July 3, 1940	20.91	9,040		May 8, 1946	22.91	13,300
					May 30, 1946	25.62	26,500
1941	Apr. 28, 1941	21.60	9,050	1947	June 26, 1947	21.94	10,700
1942	Apr. 14, 1942	27.65	39,600	1948	Feb. 19, 1948	23.75	14,400
	May 4, 1942	24.92	19,800				
1943	Mar. 16, 1943	22.29	10,100				

a Annual peak only.

Peak stages and discharges of Saline River near Rye, Ark.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Mar. 9, 1948	25.02	20,400	1953	May 5, 1953	23.72	15,300
	Mar. 27, 1948	24.97	20,400		May 19, 1953	27.16	36,100
1949	Jan. 31, 1949	29.19	57,400	1954	May 11, 1954	23.30	14,600
	Apr. 2, 1949	24.36	17,100		1955	Mar. 29, 1955	24.30
1950	Jan. 17, 1950	26.70	32,000	1956	Feb. 11, 1956	24.32	17,600
	Feb. 7, 1950	26.33	29,000		Feb. 24, 1956	25.10	21,300
	Feb. 18, 1950	28.26	46,500	1957	Feb. 6, 1957	24.29	17,600
	Mar. 16, 1950	22.93	11,500		Apr. 9, 1957	26.50	33,000
	Apr. 5, 1950	22.38	10,300		May 3, 1957	27.00	37,000
	May 14, 1950	23.86	14,800		June 3, 1957	23.66	16,700
1951	Jan. 21, 1951	25.10	21,000	1958	Nov. 20, 1957	25.70	27,200
	Mar. 2, 1951	22.32	10,100		Jan. 30, 1958	22.46	12,600
1952	Apr. 21, 1952	23.92	14,800	May 3, 1958	30.31	70,500	
1953	Mar. 25, 1953	24.96	20,800	May 21, 1958	22.23	11,800	

3640. Saline River near Warren, Ark.

Location.--Lat 33°35', long 92°01', in sec.15, T 13 S., R.9 W., at bridge on State Highway 4, 3 miles downstream from Cypress Creek and 3½ miles southeast of Warren.

Drainage area.--2,476 sq mi.

Gage.--Nonrecording. Datum of gage is 86.02 ft above mean sea level, datum of 1929 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements below 60,000 cfs.

Bankfull stage.--22 ft.

Remarks.--Records since September 1929 furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	Apr. 27, 1927	28.0	-	1931	Apr. 3-6, 1931	12.00	4,270
1929	Mar. 11-13, 1929	20.22	11,900	1938	Jan. 28, 1938	25.72	57,100
1930	Mar. 19, 1930	25.90	61,500	1939	Feb. 10, 1939	24.39	32,200
				1940	July 3, 1940	22.49	16,400

3640.8. Ouachita River at lock and dam No. 6, near Felsenthal, Ark.

Location.--Lat 33°01'55", long 92°05'15", in SW¼NE¼ sec.25, T.19 S., R.10 W., in upper pool of lock and dam No. 6, 2.5 miles upstream from Arkansas-Louisiana State line, 3.7 miles downstream from Missouri Pacific Railroad Co. bridge, 4.5 miles southeast of Felsenthal, and at mile 239.4.

Drainage area.--10,787 sq mi.

Gage.--Nonrecording. Datum of gage is 44.09 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Bankfull stage.--21 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges of Ouachita River at lock and dam No. 6, near Felsenthal, Ark.

Calendar year	Date	Gage height (feet)	Discharge (cfs)	Calendar year	Date	Gage height (feet)	Discharge (cfs)
1912	Apr. 16-18, 1912	39.0	-	1936	Feb. 5, 1936	18.5	-
1913	Apr. 24-26, 1913	30.8	-	1937	Feb. 4-5, 1937	38.8	-
1914	Apr. 15-16, 1914	32.2	-	1938	Mar. 4, 1938	34.8	-
1915	Mar. 17-19, 1915	29.7	-	1939	Mar. 10-13, 1939	34.6	-
				1940	July 15, 1940	24.2	-
1916	Feb. 12-13, 1916	35.0	-				
1917	Mar. 22-24, 1917	23.1	-	1941	Mar. 21-23, 1941	25.5	-
1918	May 5-6, 1918	24.1	-	1942	May 10-11, 1942	32.8	-
1919	Dec. 16-17, 1919	30.9	-	1943	Apr. 7-10, 1943	25.2	-
1920	May 29, 1920	34.5	-	1944	May 15-16, 1944	39.2	-
				1945	Apr. 11-12, 1945	44.2	-
1921	May 12-13, 1921	32.8	-				
1922	Apr. 13-16, 1922	35.0	-	1946	Feb. 22-24, 1946	37.7	-
1923	May 29-30, 1923	32.2	-	1947	Apr. 21-24, 1947	25.2	-
1924	Jan. 3-5, 1924	26.0	-	1948	Apr. 3-5, 1948	33.5	-
1925	Nov. 20-22, 1925	26.2	-	1949	Feb. 10-12, 1949	36.0	-
				1950	Feb. 25-26, 1950	40.0	-
1926	Apr. 18-19, 1926	26.2	-				
1927	Apr. 30, May 1	43.0	-	1951	Mar. 8-9, 1951	28.8	-
1928	May 7-8, 1928	27.1	-	1952	May 5-7, 1952	29.2	-
1929	Mar. 23-24, 1929	26.4	-	1953	May 28-29, 1953	39.4	-
1930	May 30-31, 1930	36.6	-	1954	May 19, 1954	23.2	-
				1955	Apr. 20-23, 1955	26.1	-
1931	Apr. 6-7, 1931	419.9	-				
1932	Feb. 3-4, 1932	42.7	-	1956	Mar. 3-5, 1956	26.8	-
1933	Apr. 11-15, 1933	26.2	-	1957	May 11-14, 1957	35.8	-
1934	Apr. 17-20, 1934	29.0	-	1958	May 14-16, 1958	43.0	-
1935	May 21, 1935	31.2	-				

a Maximum crest stage. Maximum stage occurred Dec. 31, 1931, on rise that crested Feb. 3-4, 1932.

3641.2. Bayou Bartholomew near Star City, Ark.

Location.--Lat 33°57'40", long 91°47'05", in SW $\frac{1}{4}$ sec. 1, T.9 S., R.7 W., on downstream side of bridge on State Highway 11, 3 $\frac{1}{2}$ miles northeast of Star City and 10.7 miles upstream from Deep Bayou.

Drainage area.--215 sq mi.

Gage.--Nonrecording prior to July 13, 1948; recording thereafter. Datum of gage is 153.25 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--28 ft.

Remarks.--Records furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	May 3-4, 1942	21.7	2,200	1951	Jan. 21, 1951	18.7	1,440
1943	Mar. 20, 1943	20.8	1,960	1952	Feb. 4, 1952	17.9	1,240
1944	Mar. 31, 1944	18.9	1,480	1953	May 18, 1953	24.0	2,860
1945	Apr. 3-4, 1945	21.8	2,220	1954	Jan. 23, 1954	15.4	740
				1955	Mar. 27, 1955	19.1	1,520
1946	Jan. 12, 1946	23.1	2,580				
1947	June 4, 1947	16.8	1,000	1956	Feb. 10, 1956	18.4	1,360
1948	Feb. 16, 1948	21.3	2,080	1957	Feb. 8, 1957	21.5	2,140
1949	Jan. 30, 1949	18.8	1,460	1958	May 2, 1958	26.29	4,000
1950	Jan. 16, 1950	21.4	2,120				

3641.5. Bayou Bartholomew near McGehee, Ark.

Location--Lat 33°37'40", long 91°26'45", in sec.30, T.12 S., R.3 W., on downstream side of bridge on State Highway 4, 2 $\frac{3}{4}$ miles west of McGehee and 17.5 miles downstream from Ables Creek.

Drainage area--592 sq mi.

Gage--Nonrecording prior to Sept. 7, 1949; recording thereafter. Datum of gage is 121.48 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation--Defined by current-meter measurements.

Bankfull stage--20 ft.

Remarks--Records prior to 1957 furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1930	-	19.4	4,300	1947	June 5, 1947	13.7	2,100
1932	-	22.4	5,600	1948	Feb. 22, 1948	20.0	4,600
				1949	Feb. 6-7, 1949	16.2	3,000
1939	Feb. 28, 1939	19.4	4,300	1950	Jan. 21, 23, 1950	20.0	4,600
1940	July 15, 1940	11.1	1,350	1951	Jan. 24-25, 1951	14.8	2,450
1941	Mar. 13, 1941	12.4	1,700	1952	Feb. 9, 1952	14.8	2,450
				1953	May 25, 1953	22.5	5,700
1942	May 10-11, 1942	15.5	2,700	1954	Feb. 1, 1954	12.0	1,600
1943	Mar. 27, 1943	17.0	3,300	1955	Apr. 19, 1955	16.6	3,150
1944	Apr. 3-4, 1944	17.7	3,600	1956	Feb. 14, 1956	17.3	3,450
1945	Apr. 8, 1945	20.7	4,900		Feb. 14, 1957	16.79	3,070
1946	Jan. 20-21, 1946	21.3	5,200	1958	May 11, 1958	24.49	6,870

3641.9. Bayou Bartholomew at Wilmot, Ark.

Location--Lat 33°04'10", long 91°34'40", in SW $\frac{1}{4}$ sec.1, T.19 S., R 5 W., on downstream side of bridge on State Highway 52, 0.9 mile northwest of Wilmot and 19.7 miles upstream from Overflow Creek.

Drainage area--1,170 sq mi.

Gage--Nonrecording prior to Nov. 28, 1949; recording thereafter. Prior to September 1943 at Smith's Ferry, 1 mile upstream at same datum. Datum of gage is 85.17 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation--Defined by occasional current-meter measurements made since 1939 below 8,000 cfs.

Bankfull stage--25 ft.

Remarks--Gage-height records and results of current-meter measurements furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	Nov. 16-17, 1925	23.8	5,950	1943	Apr. 4-5, 1943	19.7	4,200
1927	May 10-11, 1927	25.9	6,920	1944	Apr. 9-11, 1944	24.7	6,360
1928	May 3-5, 1928	18.9	3,890	1945	Apr. 8-15, 1945	25.2	6,590
1929	Mar. 14-15, 1929	17.3	3,290	1946	Feb. 14-22, 1946	25.3	6,640
1930	May 27-28, 1930	24.9	6,440		Apr. 18, 1947	18.1	3,580
1931	Mar. 16-18, 21	8.6	990	1948	Mar. 11-12, 1948	23.9	6,000
1932	Jan. 12, 1932	26.3	7,100	1949	Apr. 3-5, 1949	22.3	5,310
1933	Apr. 8-10, 1933	20.4	4,480	1950	Apr. 2-3, 1950	25.0	6,500
1934	Mar. 13-16, 1934	18.0	3,550	1951	Feb. 16, 1951	20.2	4,180
1935	Jan. 31-Feb. 6	24.8	6,400		Feb. 22, 1952	18.6	3,580
1936	July 17-18, 1936	8.8	1,020	1953	May 28-29, 1953	25.3	6,240
1937	Feb. 2-8, 1937	24.8	6,400	1954	May 13, 1954	17.7	3,440
1938	Jan. 8, 1938	19.6	4,160	1955	Apr. 2-25, 1955	20.9	4,400
1939	Mar. 5-6, 1939	24.0	6,040	1956	Apr. 23-25, 1956	20.8	4,360
1940	July 17-20, 1940	18.9	3,890		Mar. 7, 1957	19.6	3,940
1941	Mar. 17, 1941	18.1	3,580	1958	May 23, 1958	26.16	8,000
1942	Apr. 19-20, 1942	20.0	4,330				

3645. Bayou Bartholomew near Beekman, La.

Location.--Lat 32°52'20", long 91°52'04", in NW¹/₄NW¹/₄ sec.28, T.22 N., R.6 E., near center of span on downstream side of bridge on State Highway 139, 0.8 mile downstream from Bayou De Glalze, 4 miles south of Beekman, and 7 miles north of Bastrop.

Drainage area.--1,645 sq mi.

Gage.--Nonrecording prior to Aug. 18, 1955; recording thereafter. Datum of gage is 70.60 ft above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

Stage-discharge relation.--Defined by current-meter measurements. Considerable shifting has occurred at high stages.

Remarks.--Records furnished by Corps of Engineers September 1929 to October 1938. Base for partial-duration series, 4,500 cfs. Only annual peaks are shown 1927, 1932-38.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)			
1927	Apr. 1, 1927	a26.75	-	1947	Jan. 23, 1947	17.50	4,960			
1929	Mar. 27, 1929	19.20	5,230		Mar. 17, 1947	17.41	4,910			
					Apr. 13, 1947	20.80	6,700			
1930	Feb. 1, 1930	21.44	7,120	1948	Feb. 16, 1948	23.34	7,380			
					Mar. 7, 1948	22.62	7,070			
1931	Jan. 13, 1931	9.08	1,560		Apr. 18, 1948	20.05	5,900			
1932	Jan. 12, 1932	25.78	12,400	1949	Feb. 9, 1949	20.28	6,030			
					Mar. 29, 1949	23.35	7,800			
1933	Apr. 4, 1933	21.70	7,400	1950	Jan. 17, 1950	21.82	7,120			
					Feb. 16, 1950	25.76	9,380			
1934	Mar. 6, 1934	21.40	7,200		Mar. 17, 1950	22.71	7,620			
					May 4, 1950	22.00	7,230			
1935	Feb. 15, 1935	22.80	8,400		Sept. 4, 1950	18.23	5,140			
1936	Feb.11-12, 1936	7.40	1,260	1951	Jan. 7, 1951	18.32	b5,490			
1937	Jan. 27, 1937	23.60	9,100		Feb.11-12, 1951	20.50	6,560			
				Apr. 1, 1951	17.22	b4,970				
1938	Apr. 11, 1938	19.20	5,820	1952	Feb. 2, 1952	17.32	4,760			
1939	Mar.2-3, 1939	22.07	7,560	1953	Mar. 16, 1953	18.70	b5,060			
					Apr. 10, 1939	19.96	6,290	May 20, 1953	25.09	8,540
1940	Apr. 22, 1940	19.06	b5,610	1954	May 6, 1954	20.30	5,680			
					July 16, 1940	23.83	8,570			
1941	Jan. 7, 1941	17.25	b4,750	1955	Mar. 24, 1955	22.48	7,510			
					Mar. 11, 1941	18.81	5,470	Apr. 17, 1955	20.26	b6,420
1942	Apr. 12, 1942	21.29	6,860	1956	Feb.21-22, 1956	18.05	b5,000			
					Mar. 17, 1956	17.77	b4,920			
					Mar. 23, 1956	17.51	b4,720			
1943	Apr. 4, 1943	16.86	4,610		Apr. 9, 1956	18.14	5,030			
1944	Feb. 29, 1944	21.93	6,790	1957	Feb. 6, 1957	17.19	b4,680			
					Mar. 31, 1944	25.33	8,780	Mar. 4, 1957	17.97	b5,000
					May 7, 1944	23.94	7,940	Apr. 7, 1957	21.08	6,480
1945	Jan. 4, 1945	21.50	7,080	1958	May 6, 1957	18.24	b4,980			
					Feb. 23, 1945	22.10	7,410	Nov. 21, 1957	24.59	b8,500
					Apr. 5, 1945	26.45	9,890	Jan. 26, 1958	18.70	b5,250
1946	Feb. 12, 1946	27.23	10,400		May 2, 1958	28.30	14,700			
					May 23, 1958	26.71	b10,300			
					Sept.23, 1958	23.92	b8,060			

a Affected by Mississippi River overflow.

b Mean daily.

3645.5. Ouachita River at lock and dam No. 5, at Sterlington, La.

Location--Lat 32°42'05", long 92°05'05", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.20, T.20 N., R.4 E., on line between Union and Ouachita Parishes, in upper pool of lock and dam No.5, 0.4 mile upstream from Sterlington and bridge on State Highway 2, 0.9 mile upstream from Missouri Pacific Railroad Co. bridge, and at mile 151.7.

Drainage area--12,954 sq mi.

Gage--Nonrecording. Datum of gage is 38.09 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation--Not defined.

Remarks--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1919	Apr.4-6, 1919	31.7	-	1939	Mar.12-13, 1939	38.8	-
1920	May 30-31, 1920	37.9	-	1940	July 17, 1940	27.2	-
1921	May 15, 1921	36.0	-	1941	Mar.22,24, 1941	28.6	-
1922	Apr.18-19, 1922	38.7	-	1942	May 10-12, 15	36.4	-
1923	May 30, June 5	35.2	-	1943	Apr.8-10, 1943	28.2	-
1924	Jan.4-5, 1924	29.0	-	1944	May 15-17, 1944	43.3	-
1925	Dec.14-15, 1924	15.5	-	1945	Apr.12-13, 1945	48.2	-
1926	Nov. 18, 1925	29.8	-	1946	Feb.19,Mar. 1	42.0	-
1927	May 1-3, 1927	45.8	-	1947	Apr.20-23, 1947	29.6	-
1928	May 6-8, 1928	30.0	-	1948	Apr.3-6, 1948	37.8	-
1929	Mar.26-27, 1929	29.8	-	1949	Feb.13-14, 1949	40.1	-
1930	May 31, June 2	39.2	-	1950	Feb. 26, 1950	44.7	-
1931	Mar.15-17, 1931	17.8	-	1951	Mar. 9-10, 1951	32.5	-
1932	Feb.3-4, 1932	46.8	-	1952	May 3-7, 1952	32.7	-
1933	Apr.9-11, 1933	30.2	-	1953	May 28-30, 1953	43.9	-
1934	Apr. 19, 1934	32.0	-	1954	May 19-21, 1954	26.7	-
1935	May 23, 1935	34.5	-	1955	Apr.21-23, 1955	29.9	-
1936	Feb. 4, 1936	15.4	-	1956	Mar.5-6, 1956	29.9	-
1937	Feb. 5, 1937	42.6	-	1957	May 15, 1957	40.2	-
1938	Mar. 6, 1938	38.5	-	1958	May 21-22, 1958	47.7	-

3647.5. Bayou de Loutre at De Loutre, La.

Location--Lat 32°50'16", long 92°18'57", in W $\frac{1}{2}$ NW $\frac{1}{4}$ sec.6, T.22 N., R.2 E., on downstream side of new Highway 33 bridge over Bayou de Loutre, 6 miles north-east of Farmerville, near De Loutre, and 22.8 miles above mouth.

Drainage area--302 sq mi.

Gage--Nonrecording. Datum of gage is at mean sea level.

Stage-discharge relation--Not defined.

Bankfull stage--83 ft.

Remarks--Gage-height records collected by Corps of Engineers. Annual peak stages shown are 8 a.m. readings.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Feb. 15, 1948	88.8	-	1954	May 6, 1954	89.2	-
1949	Mar. 29, 1949	87.7	-	1955	Mar. 22, 1955	88.9	-
1950	May 3, 1950	89.2	-	1956	Apr. 7, 1956	88.25	-
1951	Jan. 16, 1951	88.0	-	1957	Apr. 30, 1957	88.8	-
1952	Jan. 30, 1952	88.0	-	1958	Apr. 28, 1958	96.55	-
1953	May 19, 1953	90.7	-				

a Gage overtopped; stage was higher.

3648. Bayou D'Arbonne at Homer, La.

Location.--Lat 32°48'30", long 93°03'20", in SE $\frac{1}{4}$ sec.14, T.21 N., R.7 W., at bridge on U. S. Highway 79, 0.2 mile north of Homer.

Drainage area.--30.0 sq mi.

Gage.--Crest-stage gage. Datum of gage is 159.40 ft above mean sea level (Louisiana Department of Highways reference mark).

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	Apr. 15, 1954	45.06	-	1956	Feb. 18, 1956	45.11	-
1955	May 25, 1955	47.09	-	1957	Apr. 28, 1957	46.95	-
				1958	Apr. 29, 1958	47.75	-

3649. Big Creek near Vienna, La.

Location.--Lat 32°37'50", long 92°43'25", in SW $\frac{1}{4}$ sec.18, T.19 N., R.3 W., at bridge on State Highway 146, 5.3 miles northwest of Vienna.

Drainage area.--68.9 sq mi.

Gage.--Crest-stage gage. Datum of gage is 88.52 ft above mean sea level (levels by Louisiana Department of Public Works).

Stage-discharge relation.--Fairly well defined above 600 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 14, 1954	47.74	3,260	1956	Mar. 13, 1956	45.32	2,660
1955	May 15, 1955	45.60	3,050	1957	June 1, 1957	45.75	3,280
				1958	Nov. 14, 1957	45.10	2,390

3650. Bayou D'Arbonne near Dubach, La.

Location.--Lat 32°40'50", long 92°39'10", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.35, T.20 N., R.3 W., near left bank on downstream side of bridge on U. S. Highway 167, 1 $\frac{1}{2}$ miles south of Dubach and 8 miles upstream from Middle Fork Bayou D'Arbonne.

Drainage area.--355 sq mi.

Gage.--Nonrecording prior to Dec. 4, 1952; recording thereafter. Prior to May 7, 1952, at site 1,000 ft upstream at same datum. Datum of gage is 83.25 ft above mean sea level, datum of 1929 (levels by Louisiana Department of Public Works).

Stage-discharge relation.--Defined by current-meter measurements.

Bankfull stage.--19 ft.

Remarks.--Base for partial-duration series, 3,500 cfs.

Peak stages and discharges of Bayou D'Arbonne near Dubach, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1933	July 1933	a24.0	-	1950	Jan. 6, 1950	19.82	6,850	
1941	Dec. 28, 1940	20.48	9,340	1950	Feb. 14, 1950	18.96	3,890	
	Jan. 2, 1941	19.95	7,760		May 3, 1950	20.20	8,570	
	Mar. 8, 1941	18.56	3,970		June 4, 1950	19.40	5,210	
	May 6, 1941	21.08	13,100		Sept. 1, 1950	19.58	6,020	
1942	Apr. 10, 1942	19.16	5,130	1951	Jan. 16, 1951	18.33	2,900	
	Apr. 27, 1942	20.05	7,760		1952	Jan. 30, 1952	18.36	3,960
	May 19, 1942	19.59	6,300			Feb. 14, 1952	18.90	4,970
1943	Mar. 27, 1943	18.17	3,210	1952	Apr. 15, 1952	18.50	4,130	
					1944	Feb. 26, 1944	21.25	13,600
Mar. 29, 1944	21.47	15,400	May 1, 1953	20.09		9,410		
May 5, 1944	19.86	7,400	May 5, 1953	19.49		6,910		
1945	Jan. 1, 1945	21.50	15,400	1954	May 16, 1953	19.74	7,960	
	Jan. 21, 1945	18.50	3,700		May 14, 1954	18.25	3,520	
	Feb. 22, 1945	18.85	4,280		1955	Mar. 23, 1955	18.86	4,920
	Mar. 5, 1945	21.22	13,600			May 26, 1955	19.17	5,660
	Mar. 14, 1945	18.42	3,540			1956	Apr. 7, 1956	19.70
Apr. 2, 1945	22.83	23,400	Apr. 5, 1957	18.39	3,810			
1946	Jan. 9, 1946	20.23	8,820	1957	Apr. 29, 1957	20.16	9,650	
	Feb. 10, 1946	20.56	10,200		May 15, 1957	20.27	10,200	
	Mar. 29, 1946	19.58	6,350		1958	Nov. 10, 1957	18.97	5,150
	May 15, 1946	18.70	4,070	Nov. 15, 1957		19.29	6,350	
	June 1, 1946	19.40	5,750	Nov. 18, 1957	19.10	5,650		
1947	Jan. 5, 1947	18.55	3,790	Apr. 28, 1958	20.90	13,400		
	Mar. 14, 1947	20.20	8,610	May 1, 1958	20.03	9,440		
	Apr. 12, 1947	19.30	5,480	May 21, 1958	19.24	6,140		
1948	Feb. 14, 1948	19.48	6,040	Sept. 21, 1958	19.34	6,550		
	Jan. 30, 1949	17.39	2,400					

a Annual peak only, from information by local residents.

3651. Cypress Creek near Unionville, La.

Location.--Lat 32°39'35", long 92°35'15", in SW corner sec.4, T.19 N., R.2 W., at bridge on State Highway 822, 3.2 miles east of Unionville.

Drainage area.--63.3 sq mi.

Gage.--Crest-stage gage. Datum of gage is 57.84 ft above mean sea level (levels by Louisiana Department of Public Works).

Stage-discharge relation.--Defined by current-meter measurements.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 14, 1954	41.39	700	1956	Apr. 5, 1956	43.15	3,390
1955	July 3, 1955	43.52	4,200	1957	June 4, 1957	42.91	2,900
				1958	Dec. 6, 1957	43.16	3,400

3653. Middle Fork Bayou D'Arbonne near Colquitt, La.

Location.--Lat 32°55'40", long 92°59'40", in NE $\frac{1}{4}$ sec.4, T.22 N., R.6 W., at bridge on State Highway 520, 2.0 miles southwest of Colquitt.

Drainage area.--43.9 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	44.06	-	1956	Feb. 18, 1956	44.53	-
1955	Mar. 21, 1955	45.50	-	1957	Apr. 28, 1957	45.70	-
				1958	Apr. 26, 1958	49.68	-

3655. Middle Fork Bayou D'Arbonne near Bernice, La.

Location.--Lat 32°45'50", long 92°39'30", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.34, T.21 N., R.3 W., near center of channel on downstream side of bridge on U. S. Highway 167, 4 miles south of Bernice and 8 miles upstream from mouth.

Drainage area.--178 sq mi.

Gage.--Nonrecording prior to July 8, 1947, and Jan. 23, 1951, to July 7, 1952; recording July 8, 1947, to Jan. 22, 1951, and July 8, 1952, to Oct. 3, 1957; crest-stage gage thereafter. Datum of gage is 97.08 ft above mean sea level, datum of 1929 (levels by Louisiana Department of Public Works).

Stage-discharge relation.--Defined by current-meter measurements below 13,000 cfs.

Bankfull stage.--8 ft.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1941	Dec. 29, 1940	8.81	3,910	1949	Jan. 31, 1949	7.71	1,440	
	Jan. 2, 1941	8.54	3,320					
	Mar. 9, 1941	8.05	2,260		1950	Jan. 5, 1950	8.14	2,140
	May 7, 1941	9.36	5,180			Jan. 17, 1950	8.48	2,900
1942	Apr. 11, 1942	8.60	3,330	Feb. 14, 1950		8.14	2,140	
	Apr. 28, 1942	8.24	2,520	May 3, 1950		9.62	5,400	
1943	Mar. 29-30, 1943	7.45	1,120	Aug. 31, 1950	6.78	3,530		
				1951	Feb. 9-10, 1951	7.76	1,380	
1944	Feb. 28, 1944	8.94	3,920		1952	Jan. 29, 1952	8.96	3,950
	Mar. 30, 1944	10.00	6,400	Feb. 15, 1952		8.27	2,410	
	May 4, 1944	9.18	4,460	Apr. 15, 1952		8.12	2,120	
1945	Jan. 1, 1945	-	7,500	1953	Mar. 15, 1953	8.60	3,110	
	Feb. 22, 1945	8.30	2,510		May 1, 1953	9.10	4,170	
	Mar. 5, 1945	11.45	10,500		May 5, 1953	8.72	3,360	
	Apr. 2, 1945	11.07	9,590		May 15, 1953	8.82	3,570	
	July 29, 1945	8.32	2,510		1954	May 14, 1954	7.87	1,560
	1946	Jan. 8, 1946	9.60			5,390	1955	Mar. 24, 1955
Feb. 10, 1946		8.60	3,100	May 26, 1955		8.33		2,420
Mar. 29, 1946		8.60	3,100	1956		Apr. 7, 1956		8.17
May 15, 1946		8.43	2,690		1957	Apr. 29, 1957		10.31
1947	Mar. 16, 1947	-	3,000	1958		Apr. 27, 1958	13.86	a28,000
	Apr. 11, 1947	8.80	3,530					
1948	Feb. 14, 1948	8.85	3,640					

a Annual peak only.

3660. Corney Bayou near Lillie, La.
(Published as "Cornie Bayou" prior to 1956)

Location--Lat 32°53'15", long 92°39'25", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.22, T 22 N., R.3 W., near left bank on downstream side of bridge on U. S. Highway 167, 2 miles upstream from Little Corney Bayou and 3 miles south of Lillie.

Drainage area--462 sq mi.

Gage--Nonrecording prior to Aug. 4, 1952; recording Aug. 4, 1952, to Sept. 30, 1957; crest-stage gage thereafter. Datum of gage is 84.08 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation--Defined by current-meter measurements. Minor high-water shifts have occurred.

Bankfull stage--15 ft.

Historical data--According to local residents, the flood in April 1958 was the highest for at least 100 years.

Remarks--Some regulation by Corney Lake (capacity, 8,000 acre-ft), about 6 miles above station. Storage began in 1935. Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)				
1941	Dec. 30, 1940	16.07	9,050	1948	Feb. 15, 1948	15.30	5,740				
	Jan. 4, 1941	15.18	5,770								
	Mar. 10, 1941	14.84	4,550	1949	Jan. 31, 1949	14.85	4,440				
	Apr. 7, 1941	15.02	5,140								
	May 7, 1941	17.48	15,100								
1942	Apr. 11, 1942	16.48	10,300	1950	Jan. 17, 1950	15.54	6,440				
	Apr. 29, 1942	15.42	6,330								
1943	Mar. 30, 1943	14.26	3,230					1951	Feb. 11, 1951	13.75	2,520
	1944	Feb. 29, 1944	15.09								
Mar. 31, 1944		16.78	11,000	1952	Jan. 30, 1952	14.86	4,690				
May 4, 1944	16.27	9,000									
1945	Jan. 4, 1945	16.23	8,590	1953	Mar. 15, 1953	15.40	6,020				
	Feb. 24, 1945	14.84	4,440								
	Mar. 1, 1945	15.02	4,940								
	Mar. 5, 1945	18.20	17,200	1954	May 6, 1954	12.90	1,700				
	Apr. 3, 1945	18.00	16,200								
1946	Jan. 11, 1946	15.44	6,020	1955	Mar. 25, 1955	14.36	3,540				
	Feb. 12, 1946	15.82	7,210								
	Mar. 30, 1946	15.25	5,470	1956	Feb. 9, 1956	13.43	2,320				
	May 16, 1946	15.42	6,020								
	May 23, 1946	14.72	4,200								
1947	Mar. 16, 1947	14.70	4,200	1957	Apr. 6, 1957	14.67	4,010				
	Apr. 14, 1947	15.39	6,020								
1948	Apr. 30, 1957	17.06	11,500	1958	Apr. 27, 1958	25.20	a46,300				

a Annual peak only.

3663. Bayou D'Arbonne near Farmerville, La.

Location--Lat 32°45'27", long 92°28'54", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.1, T.20 N., R.1 W., Union Parish, at bridge on State Highway 15, 1 mile downstream from Big Corney Bayou, 1.5 miles south of Farmerville, and 36.1 miles upstream from mouth.

Drainage area--1,470 sq mi.

Gage--Nonrecording prior to July 20, 1949; recording thereafter. November 1925 to April 1929 at site 1.5 miles downstream at same datum. Datum of gage is 39.79 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation--Not defined; affected severely by backwater from Ouachita River.

Bankfull stage--27 ft.

Remarks--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges of Bayou D'Arbonne near Farmerville, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	Nov. 6, 1925	37.0	-	1943	Apr. 2, 1943	31.3	-
1927	May 3, 1927	44.5	-	1944	May 7, 1944	36.0	-
1928	Apr. 9, 1928	32.5	-	1945	Apr. 4-14, 1945	43.1	-
1929	Mar. 5, 1929	30.1	-				
1930	May 21, 1930	36.6	-	1946	Feb. 2, 1946	38.5	-
				1947	Apr. 15, 1947	34.0	-
1931	Jan. 12-14, 1931	31.8	-	1948	Feb. 17, 1948	34.6	-
1932	Dec. 19, 1931	43.2	-	1949	Feb. 17-18, 1949	34.5	-
1933	July 27, 1933	40.3	-	1950	Mar. 1, 1950	39.5	-
1934	Mar. 30, 1934	35.5	-				
1935	Jan. 25, 1935	34.8	-	1951	Feb. 13, 1951	31.9	-
				1952	Feb. 3, 1952	32.8	-
1936	Dec. 10, 1935	21.4	-	1953	May 19, 1953	39.2	-
1937	Feb. 8-11, 1937	36.9	-	1954	May 17, 1954	31.6	-
1938	Jan. 1, 1938	37.1	-	1955	Mar. 27, 1955	32.8	-
1939	Feb. 8, 1939	35.4	-				
1940	June 22, 1940	30.8	-	1956	Apr. 10, 1956	32.8	-
				1957	May 3, 1957	37.02	-
1941	May 10, 1941	35.6	-	1958	Apr. 29, 1958	a45.71	67,000
1942	Apr. 14, 1942	34.0	-				

a Occurred on following day.

3663.5. Stowe Creek near Farmerville, La.

Location.--Lat 32°40'20", long 92°28'20", in SE $\frac{1}{4}$ sec. 33, T. 20 N., R. 1 W., at bridge on State Highway 151, 8 miles southwest of Farmerville.

Drainage area.--29.0 sq mi.

Gage.--Crest-stage gage. Datum of gage is 61.73 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	44.03	-	1956	Apr. 6, 1956	46.38	-
				1957	Sept. 17, 1957	45.70	-
1955	Apr. 12, 1955	45.52	-	1958	July 13, 1958	46.37	-

3670. Ouachita River at Monroe, La.

Location.--Lat 32°30'19", long 92°07'32", in lot 50, T. 18 N., R. 3 E., near center of span on downstream side of bridge on U. S. Highway 80 at Monroe, 0.4 mile upstream from Illinois Central Railroad bridge and 5 $\frac{1}{2}$ miles upstream from Lock and Dam No. 4.

Drainage area.--15,298 sq mi.

Gage.--Nonrecording. June 1884 to Jan. 5, 1937, at several sites within half a mile of present gage at same datum. Datum of gage is 31.40 ft above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers). Since June 26, 1941, auxiliary nonrecording gage 5 $\frac{1}{2}$ miles downstream. Datum of auxiliary gage is 29.39 ft above mean sea level.

Stage-discharge relation.--Defined by frequent current-meter measurements affected by fall. Discharges computed from discharge hydrographs giving consideration to gage heights at auxiliary gage.

Remarks.--Gage-height records and current-meter measurements furnished by Corps of Engineers and U. S. Weather Bureau. Stages above 15 ft are not affected by operation of lock 5 $\frac{1}{2}$ miles downstream. Base for partial-duration series, 30,000 cfs. Only annual peaks are shown prior to 1938.

Peak stages and discharges of Ouachita River at Monroe, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1874	-	49.1	95,300	1922	May 9-11, 1922	42.3	63,100
1882	-	48.9	92,200	1923	June 5-6, 1923	37.8	52,000
1884	June 3-4, 1884	46.3	75,700	1924	Jan. 5, 1924	32.4	40,200
1885	Jan. 19, 1885	48.3	87,800	1925	Mar. 17, 1925	15.9	15,400
1886	May 24, 1886	30.1	35,400	1926	Nov.14-15, 1925	32.8	41,000
1887	Mar.31 to Apr.4	33.6	42,700	1927	May 4, 1927	48.2	78,000
1888	Apr. 6-13, 1888	34.2	44,000	1928	May 5-8, 1928	32.8	37,900
1889	Feb. 9-14, 1889	34.0	43,500	1929	Mar. 26, 1929	33.0	36,600
1890	May 14-15, 1890	43.2	65,400	1930	June 1, 1930	40.6	60,900
1891	Mar.16-18, 1891	38.5	53,700	1931	Mar. 10, 1931	20.1	18,900
1892	June 27-29, 1892	41.1	60,000	1932	Feb.2-4, 1932	49.7	101,000
1893	Jan. 9-11, 1893	40.2	57,800	1933	May 11-12, 1933	33.6	39,400
1894	Apr.10-11, 1894	45.0	70,600	1934	Apr.20-21, 1934	34.6	40,900
1895	Apr.1-3, 1895	26.1	28,000	1935	Feb. 13, 1935	37.3	45,500
1896	Apr.21-22, 1896	33.0	41,400	1936	Dec.19-21, 1935	16.4	16,000
1897	Apr. 9-12, 1897	37.9	52,300	1937	Feb. 6, 1937	44.7	72,800
1898	Feb.12-13, 1898	35.9	47,700	1938	Jan. 9, 1938	33.8	47,100
1899	Feb.5-7, 1899	32.3	39,900		Feb. 11, 1938	37.7	53,600
1900	May 2-3, 1900	31.0	37,200		Mar. 7, 1938	40.6	58,200
1901	May 7-9, 1901	24.6	25,500		Apr. 22, 1938	41.4	58,100
1902	Apr.27-28, 1902	35.1	45,900	1939	Mar. 8-11, 1939	41.3	60,800
1903	Mar.26,29, 1903	44.5	69,100		May 4-5, 1939	39.1	54,500
1904	Apr.15-20, 1904	29.5	34,200	1940	July 17, 1940	29.1	36,600
1905	May 31 to June 2	44.0	67,800	1941	Jan.7-9, 1941	31.2	36,500
1906	Feb. 9-10, 1906	35.0	45,700		Mar.17-20, 1941	30.8	40,400
1907	Jan.23-26, 1907	38.5	53,700		May 14-15, 1941	30.3	36,100
1908	May 22-25, 1908	35.6	47,000	1942	May 8, 1942	39.8	54,800
1909	Mar. 29, 1909	30.5	36,200	1943	Apr. 8, 1943	30.4	39,100
1910	May 2, 1910	28.7	32,700	1944	Mar.7-8, 1944	31.2	40,500
1911	May 9-13, 1911	36.9	50,000		Apr.12-14, 1944	40.2	56,700
1912	Apr. 22, 1912	46.2	75,200		May 19, 1944	45.46	72,200
1913	Apr.29-30, 1913	36.9	50,000	1945	Jan.21-24, 1945	36.22	47,800
1914	Apr.19-23, 1914	38.3	53,200		Apr. 12, 1945	50.42	100,000
1915	Mar.11-19, 1915	35.7	47,200		June 30 to July 1	36.61	44,300
1916	Feb.19-20, 1916	40.6	58,700	1946	Feb. 22, 1946	45.3	67,700
1917	Apr. 9, 1917	28.4	32,200		Apr. 3, 1946	42.4	58,600
1918	May 8-10, 1918	26.5	28,700		June 7-8, 1946	39.8	51,400
1919	Apr.4-8, 1919	34.1	43,700	1947	Mar.22-23, 1947	27.6	31,000
1920	June 5, 1920	41.0	59,800		Apr.17-18, 1947	33.45	38,100
1921	May 18, 1921	38.8	54,400	1948	Mar.16-17, 1948	40.2	54,200
					Apr.4-6, 1948	40.2	51,900
				1949	Feb. 12, 1949	42.48	59,400
					Apr. 9, 1949	40.31	51,700
				1950	Feb. 2, 1950	42.20	61,800
					Feb. 27, 1950	47.25	77,400
					May 8, 1950	38.72	47,900
				1951	Mar. 11, 1951	34.88	41,900
				1952	Mar. 26, 1952	31.70	37,200
					May 6, 1952	35.15	42,200

Note.--Peak stage frequently occurs at different time or on different day than peak discharge.

Peak stages and discharges of Ouachita River at Monroe, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	Mar. 4, 1953	27.97	31,800	1956	Mar. 7-8, 1956	31.67	38,600
	Apr. 4-6, 1953	32.76	40,200	1957	Feb. 23-24, 1957	29.38	34,800
	May 30-June 1	45.94	68,700		May 19, 1957	42.65	59,500
1954	May 20-21, 1954	29.45	36,000	1958	Dec. 7, 1957	38.08	46,400
1955	Apr. 21, 1955	32.50	38,800		Feb. 1, 1958	32.35	39,600
					May 22, 1958	50.45	97,200

Note.--Peak stage frequently occurs at different time or on different day than peak discharge.

3670.5. Ouachita River at lock and dam No. 4, at Monroe, La.

Location--Lat 32°28'00", long 92°06'55", in S $\frac{1}{2}$ sec. 12, T. 17 N., R. 3 E., Ouachita Parish, in upper pool of lock and dam No. 4 at Monroe, 4.7 miles downstream from Illinois Central Railroad bridge and at mile 121.5.

Drainage area--15,319 sq mi.

Gage--Nonrecording. Datum of gage is 29.39 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation--Not defined.

Remarks--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1912	Apr. 21-22, 1912	47.0	-	1936	Dec. 20, 1935	17.7	-
1913	Apr. 28, May 2	37.8	-	1937	Feb. 9-12, 1937	45.5	-
1914	Apr. 19-20, 1914	39.3	-	1938	Apr. 23-28, 1938	42.4	-
1915	Mar. 13-18, 1915	37.7	-	1939	Mar. 12-16, 1939	42.1	-
				1940	July 18-20, 1940	30.1	-
1916	Feb. 18-22, 1916	42.4	-	1941	Jan. 8-10, 1941	32.2	-
1917	Apr. 9-11, 1917	28.6	-		May 19-20, 1942	40.9	-
1918	May 9-10, 1918	27.5	-	1943	Apr. 9-11, 1943	31.4	-
1919	Apr. 4-8, 10-11	35.0	-	1944	May 17-20, 22	46.3	-
1920	June 5-6, 1920	42.0	-	1945	Apr. 14-17, 1945	51.1	-
1921	May 17-19, 1921	39.6	-	1946	Feb. 24, 26-27	46.2	-
1922	May 8-11, 1922	45.3	-		1947	Apr. 19-21, 1947	34.6
1923	June 4, 1923	39.0	-	1948	Mar. 21-25, Apr. 4-7	41.1	-
1924	Jan. 4-7, 1924	33.4	-	1949	Feb. 17-19, 1949	43.4	-
1925	Mar. 20-22, 1925	18.0	-	1950	Mar. 1-2, 1950	48.0	-
1926	Nov. 14-15, 1925	33.7	-	1951	Mar. 12-13, 1951	35.8	-
1927	May 4, 1927	48.9	-		1952	May 3-9, 1952	36.2
1928	May 4-9, 1928	33.8	-	1953	May 31, June 1	46.8	-
1929	Mar. 26-27, 1929	34.1	-	1954	May 20-21, 1954	30.6	-
1930	June 6-7, 1930	41.5	-	1955	Apr. 20-24, 1955	33.6	-
1931	Mar. 8-17, 1931	21.0	-	1956	Mar. 5-8, 1956	32.7	-
1932	Feb. 3-4, 1932	50.1	-		1957	May 19, 1957	43.5
1933	May 10-12, 1933	34.7	-	1958	May 23-24, 1958	51.18	-
1934	Apr. 19-20, 1934	35.6	-				
1935	May 25-27, 1935	38.5	-				

3673. North Cheniere Creek at Cheniere, La.

Location--Lat 32°29'35", long 92°15'40", in NE $\frac{1}{4}$ sec.4, T.17 N., R.2 E., at bridge on State Highway 546, 1 mile south of Cheniere.

Drainage area--38.0 sq mi.

Gage--Crest-stage gage. Datum of gage is 41.63 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation--Not defined.

Remarks--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 13, 1954	42.98	-	1956	Apr. 5, 1956	43.68	-
1955	Mar. 21, 1955	45.89	-	1957	June 27, 1957	42.86	-
				1958	Nov. 18, 1957	43.22	-

3676. Cypress Creek near Vixen, La.

Location--Lat 32°17'20", long 92°14'50", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.15, T.15 N., R.2 E., at bridge on State Highway 557, 4 miles northeast of Vixen.

Drainage area--16 sq mi.

Gage--Crest-stage gage.

Stage-discharge relation--Not defined.

Remarks--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	46.14	-	1956	Feb. 11, 1956	46.83	-
1955	Aug. 4, 1955	46.76	-	1957	June 28, 1957	46.51	-
				1958	Apr. 30, 1958	46.91	-

3676.5. Ouachita River at lock and dam No. 3, near Riverton, La.

Location--Lat 32°10'45", long 92°06'11", between lot 41 and sec.19, T.14 N., R.4 E., Caldwell Parish, in upper pool of lock and dam No. 3, 1.3 miles northwest of Riverton, 4.8 miles upstream from Missouri Pacific Railroad Co. bridge, and at mile 77.5.

Drainage area--15,632 sq mi.

Gage--Nonrecording. Datum of gage is 14.82 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation--Not defined.

Bankfull stage--50 ft.

Remarks--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

RED RIVER BASIN

Peak stages and discharges of Ouachita River at lock and dam No. 3, near Riverton, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1913	May 14-17, 1913	47.6	-	1936	May 6-7, 1936	28.3	-
1914	Apr. 20-22, 1914	47.5	-	1937	Feb. 12-13, 1937	51.5	-
1915	Mar. 17-20, 1915	44.3	-	1938	Apr. 24-29, 1938	49.3	-
1916	Mar. 1-2, 1916	50.9	-	1939	Mar. 15-18, 1939	48.5	-
1917	Apr. 13-15, 1917	37.4	-	1940	May 9-10, 1940	37.5	-
1918	May 9-11, 1918	34.5	-	1941	Jan. 9-11, 1941	38.7	-
1919	Apr. 16-19, 1919	42.3	-	1942	May 19-20, 1942	47.7	-
1920	June 6, 1920	49.5	-	1943	Apr. 11, 14, 1943	38.5	-
1921	May 8-10, 1921	46.5	-	1944	May 22-23, 1944	52.6	-
1922	May 13-15, 1922	52.7	-	1945	Apr. 14-18, 1945	55.3	-
1923	Apr. 14-17, 1923	47.9	-	1946	Feb. 25-28, 1946	52.6	-
1924	Jan. 11-12, 1924	42.5	-	1947	Apr. 21-23, 1947	42.9	-
1925	Mar. 21-22, 1925	24.0	-	1948	Mar. 22-25, 1948	47.7	-
1926	Apr. 18-19, 1926	39.8	-	1949	Feb. 20-22, 1949	49.8	-
1927	May 15-17, 1927	57.0	-	1950	Mar. 3-5, 1950	54.3	-
1928	May 8-10, 1928	42.8	-	1951	Mar. 11-13, 1951	42.9	-
1929	Mar. 28-31, 1929	42.5	-	1952	May 5-10, 1952	44.0	-
1930	June 9, 1930	47.6	-	1953	May 30, June 4	52.8	-
1931	Mar. 9-12, 1931	27.9	-	1954	May 20-22, 1954	37.6	-
1932	Jan. 30, Feb. 10	54.3	-	1955	Apr. 21-22, 1955	41.4	-
1933	May 11-14, 1933	43.5	-	1956	Mar. 6-8, 1956	39.4	-
1934	Apr. 17-22, 1934	42.3	-	1957	May 20-22, 1957	49.0	-
1935	May 27-30, 1935	46.5	-	1958	May 25, 1958	56.36	-

3676.8. Boeuf River near Eudora, Ark.

Location.--Lat 33°07'25", long 91°20'55", on line between secs. 18 and 19, T. 18 S., R. 2 W., on downstream side of bridge on State Highway 8, 1.4 miles downstream from Canal No. 2, 5 miles west of Eudora, and at mile 205.7.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to May 3, 1951; recording thereafter. Datum of gage is 83.24 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined at high stages by current-meter measurements.

Bankfull stage.--21 ft.

Remarks.--Gage-height records and current-meter measurements furnished by Corps Engineers. Major channel improvements made in 1955. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Mar. 31, 1939	17.7	5,060	1949	Mar. 28, 1949	19.7	7,450
1940	July 8, 1940	18.7	6,220	1950	Feb. 14, 1950	20.2	8,080
1941	Mar. 9, 1941	16.8	4,080	1951	Jan. 3, 1951	20.8	8,870
1942	Apr. 9, 1942	20.0	7,830	1952	Jan. 28, 1952	17.60	4,980
1943	Mar. 27, 1943	17.5	4,840	1953	May 17, 1953	19.26	6,940
1944	Mar. 29, 1944	21.0	9,110	1954	May 3, 1954	20.03	7,870
1945	Jan. 1, 1945	21.5	9,760	1955	Mar. 22, 1955	21.52	9,830
1946	Feb. 10, 1946	20.5	8,470	1956	Feb. 4, 1956	15.24	9,030
1947	Apr. 11, 1947	20.3	8,210	1957	Feb. 2, 1957	15.2	8,980
1948	Feb. 13, 1948	20.9	8,980	1958	Sept. 22, 1958	19.69	14,600

3677. Boeuf River near Kilbourne, La.

Location.--Lat 32°58'35", long 91°26'20", in SW $\frac{1}{4}$ sec.15, T.23 N., R.10 E., on line between Morehouse and West Carroll Parishes, on left bank of river, 200 ft upstream from ferry crossing of Whitefield Lake section, 2 miles south of Arkansas-Louisiana State line, 7 $\frac{1}{2}$ miles southwest of Kilbourne, and at mile 190.1.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is 74.11 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Bankfull stage.--25 ft.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Major channel improvements made on river during 1954-55. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 13, 1947	22.7	-	1953	May 18-19, 1953	22.3	-
1948	Feb.14-15, 1948	22.8	-	1954	May 4, 1954	22.7	-
1949	Mar. 29, 1949	22.3	-	1955	Mar. 23, 1955	22.0	-
1950	Feb.15-17, 1950	22.4	-				
				1956	Feb. 4, 1956	18.4	-
1951	Jan. 5, 1951	22.6	-	1957	Feb. 2, 1957	18.1	-
1952	Jan.30-31, 1952	21.5	-	1958	Sept.22, 1958	22.7	-

3678. Boeuf River near Oak Grove, La.

Location.--Lat 32°46'20", long 91°35'45", in SE $\frac{1}{4}$ sec.25, T.21 N., R.8 E., on line between Morehouse and West Carroll Parishes, at bridge on State Highway 2, 13 $\frac{1}{2}$ miles southwest of Oak Grove and at mile 167.2.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to December 1954; recording thereafter. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur. Annual discharge maxima computed from average rating curves based on all available high-water measurements.

Bankfull stage.--90 ft.

Historical data.--A discharge of 10,700 cfs was measured Jan. 8, 1945 (gage height not determined).

Remarks.--Gage-height records since October 1946 and occasional current-meter measurements, February 1939 and since April 1944 collected by Corps of Engineers. Major channel improvements made during 1953. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 17, 1947	88.3	8,740	1953	May 17, 1953	87.4	7,750
1948	Feb. 21, 1948	89.6	10,100	1954	May 12, 1954	82.2	9,200
1949	Apr. 3-4, 1949	87.4	7,750	1955	Mar. 24, 1955	84.9	17,700
1950	Feb. 22, 1950	87.7	8,060				
				1956	Feb. 4, 1956	84.95	17,700
1951	Jan. 13, 1951	87.4	7,750	1957	Feb. 2, 1957	82.7	14,500
1952	Feb.3-5, 1952	84.4	5,650	1958	May 5, 1958	88.60	21,500

RED RIVER BASIN

3679.5. Boeuf River near Oak Ridge, La.

Location.--Lat 32°36'55", long 91°41'10", in NW¹SE¹ sec.19, T.19 N., R.8 E., on line between Morehouse and Richland Parishes, at bridge on State Highway 134, 0.6 mile upstream from La Fourche cut-off, 1.5 miles downstream from Bayou Bonne Idee, 5 miles downstream from Oak Ridge, and at mile 151.5.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to December 1954; recording thereafter. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements; shifts in relation occur. Annual discharge maxima computed from average rating curves based on all available high-water measurements.

Bankfull stage.--92 ft.

Remarks.--At stages above 68.5 ft, part of flow diverts into La Fourche cut-off. Gage-height records since October 1946 and occasional current-meter measurements since May 1936 collected by Corps of Engineers. Major channel improvements made during 1953. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	December 1931	81.4	13,600	1952	Apr. 26, 1952	76.2	7,500
				1953	May 17, 1953	76.2	11,300
1947	Apr. 11, 1947	79.8	11,700	1954	May 12, 1954	73.2	10,800
1948	Feb. 21, 1948	78.9	10,600	1955	Mar. 24, 1955	77.8	16,500
1949	Apr. 2, 1949	76.5	7,840				
1950	Feb.15-16, 1950	77.6	9,100	1956	Feb. 4, 1956	77.62	17,800
				1957	Feb. 2, 1957	75.7	16,600
1951	Jan.17-18, 1951	77.3	8,760	1958	May 5, 1958	80.52	23,300

3680. Boeuf River near Girard, La.

Location.--Lat 32°28'50", long 91°47'55", on line between sec.1, T.17 N., R.6 E., and sec.6, T.17 N., R.7 E., on upstream side of pier on Illinois Central Railroad bridge, 0.5 mile east of Girard.

Drainage area.--1,226 sq mi. (See Remarks.)

Gage.--Nonrecording prior to Nov. 2, 1955; recording thereafter. July 11, 1944, to Nov. 2, 1955, at site 200 ft upstream at same datum. Datum of gage is 51.62 ft above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers). Auxiliary nonrecording gage Feb. 15, 1945, to Dec. 8, 1952, at site 6.4 miles downstream at different datum; at site 8.1 miles downstream at different datum thereafter.

Stage-discharge relation.--Defined by current-meter measurements since October 1938. Discharge computed by using fall as a factor since Feb. 15, 1945. Stage-discharge relation affected at times by backwater from Ouachita River. Moderate high-water shifts have occurred.

Remarks.--Small diversions above station for irrigation. Interconnecting systems of bayous and drainage ditches produced an interchange of flow under varying conditions; hence, the drainage limits were arbitrarily determined. Boeuf River and Bayou Lafourche basins are connected by canal systems. Base for partial-duration series, 1,500 cfs. Only annual peaks are shown prior to 1939.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1926	Nov.20-23, 1925	13.6	2,350	1933	Mar. 1, 1933	13.3	2,280
1927	May 7, 1927	29.5	(a)	1934	Mar.10-12, 1934	13.8	2,400
1928	Apr.29-30, 1928	12.9	2,180	1935	Dec. 4, 1934	17.5	3,580
1929	Mar. 24, 1929	14.3	2,530	1936	Feb. 9-10, 1936	9.4	1,410
1930	May 29-30, 1930	15.8	2,970	1937	Jan.26,31, Feb.3	14.3	2,530
1931	Jan.15-16, 1931	8.7	1,270	1938	Apr.18-19, 1938	14.0	2,450
1932	Dec. 26, 1931	19.6	4,400	1939	Jan. 20, 1939	11.6	1,940

a Affected by overflow from Mississippi River; discharge indeterminate.

Note.--Peak gage height frequently occurred on different day than peak discharge.

Peak stages and discharges of Boeuf River near Girard, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1939	Jan. 31, 1939	10.7	b1,640	1948	Feb. 25, 1948	17.06	2,690	
	Feb.10-13, 1939	13.0	b2,310		Apr. 21, 1948	11.12	1,500	
	Apr. 11, 1939	12.2	b2,030	1949	Nov. 20, 1948	13.50	1,950	
1940	Feb.19-20, 1940	10.5	b1,620		Dec.18-19, 1948	10.95	1,550	
	Apr. 19-20, 30	13.9	2,340		Jan. 5, 1949	14.26	2,160	
	May 1, 1940	15.0	2,580		Jan. 23, 1949	13.25	1,820	
	July 23-25, 1940	13.7	b2,290		Feb.5-6, 1949	13.94	1,590	
1941	Nov. 26, 1940	10.78	b1,650	Apr. 10, 1949	15.41	2,220		
	Dec.8-9, 1940	11.60	1,820	May 12, 1949	10.94	1,590		
	Dec. 28, 1940	10.66	b1,620	1950	Jan. 28, 1950	13.89	2,010	
	Jan. 11, 1941	10.41	b1,560		Feb. 14, 1950	17.70	2,470	
	Mar. 17, 1941	11.18	b1,730		Apr.1-3, 1950	14.52	1,860	
1942	Nov. 11, 1941	11.65	b1,890		May 4, 1950	13.31	1,840	
	Nov. 27, 1941	9.98	b1,530	1951	Jan. 5, 1951	15.14	2,340	
	Mar. 17, 1942	11.15	b1,780		Jan.14-15, 1951	16.05	2,320	
	Apr. 19, 1942	15.02	b2,730		Feb. 8, 1951	12.27	1,710	
	1943	Mar. 22, 1943	10.49		b1,650	Feb.16-17, 1951	12.33	1,720
Apr. 4, 1943		10.91	b1,720		Apr. 6, 1951	11.30	1,590	
1944	Mar. 8, 1944	14.19	2,270	1952	Dec. 22, 1951	12.95	1,880	
	Apr.11-12, 1944	16.00	2,540		Feb. 5, 1952	13.53	2,050	
	May 5, 1944	15.68	b2,460		Apr. 27, 1952	13.57	1,920	
1945	Jan.13-14, 1945	16.47	b2,890	1953	Feb. 26, 1953	14.55	2,110	
	Mar.20-21, 1945	17.30	b2,690		May 6, 1953	12.85	1,750	
	Apr. 3, 1945	16.82	2,410		May 18, 1953	17.22	2,370	
1946	Jan. 22, 1946	17.35	2,840	1954	May 13-14, 1954	9.68	1,220	
	Feb. 10, 1946	18.37	2,780		1955	Mar. 25, 1955	13.15	1,910
	Mar. 17, 1946	12.70	1,540	1956		Feb. 6, 1956	12.94	1,650
	Mar. 30, 1946	11.95	1,550			1957	Feb. 3, 1957	12.37
	May 27, 1946	10.63	1,500	1958	Nov.21-22, 1957		15.04	1,850
1947	Jan. 19, 1947	14.94	2,320		May 2, 1958	19.31	3,070	
	Mar. 15, 1947	11.72	1,700		Sept.26, 1958	-	2,270	
	Apr. 12, 1947	18.80	2,970					

b Mean daily.

Note.--Peak gage height frequently occurred on different day than peak discharge.

3681. Boeuf River near Alto, La.

Location.--Lat 32°22'25", long 91°52'50", in NW $\frac{1}{4}$ sec.17, T.16 N., R 6 E., Richland Parish, at bridge on State Highway 15, 1.6 miles northwest of Alto and at mile 102.5.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is 36.71 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined; affected by backwater from Ouachita River.

Bankfull stage.--25 ft.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1932	January 1932	28.1	-	1950	Feb. 15, 1950	27.5	-	
1939	(a)	22.0	-	1951	Jan. 15, 1951	24.6	-	
	May 1, 1940	25.3	-	1952	Apr. 26, 1952	22.8	-	
1941	Nov.28, Dec.7	20.4	-	1953	May 19, 1953	27.4	-	
				1954	May 14, 1954	19.2	-	
				1955	Mar. 27, 1955	21.5	-	
1942	Apr. 21, 1942	23.9	-	1956	Feb. 9, 1956	22.81	-	
1947	Apr. 15, 1947	27.5	-		1957	Feb. 4, 1957	21.8	-
	Mar.2-3, 1948	26.0	-		1958	May 6-7, 1958	28.14	-
1949	Apr. 11, 1949	25.4	-					

a Feb. 18, Mar. 1, Apr. 8, 1939.

3684.5. Lyon Bayou at Forest, La.

Location.--Lat 32°47'00", long 91°24'30", in NE corner of sec.26, T.21 N., R.10 E., at bridge on parish road, 0.5 mile southeast of Forest.

Drainage area.--9.79 sq mi.

Gage.--Crest-stage gage. Datum of gage is 48.74 ft above mean sea level (levels by Louisiana Department of Public Works).

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	(a)	-	1956	Mar. 16, 1956	(a)	-
1955	Mar. 21, 1955	47.30	-	1957	June 28, 1957	41.67	-
				1958	Nov. 18, 1957	43.64	-

a Less than 38.94 ft; bottom of gage.

3685. Big Colewa Bayou near Oak Grove, La.

Location.--Lat 32°47'55", long 91°30'05", in NE¹/₄ sec.24, T.21 N., R.9 E., on downstream side near center of bridge on State Highway 2, 0.1 mile downstream from Little Colewa Bayou and 8 miles southwest of Oak Grove.

Drainage area.--42 sq mi. (See Remarks.)

Gage.--Nonrecording prior to Oct. 20, 1949, and July 1952 to Jan. 20, 1954; recording during remainder of period. Prior to Jan. 28, 1953, at datum 87.29 ft higher. Datum of present gage is at mean sea level, datum of 1929, with 1941 Alluvial Valley and 1944 Birmingham-Corinth supplementary adjustment (levels by Corps of Engineers). Auxiliary gage 5.7 miles downstream at same datum. Nonrecording Jan. 1, to Oct. 7, 1954; recording thereafter.

Stage-discharge relation.--Defined by current-meter measurements. Since Jan. 1, 1954, high-water discharge computed by using fall as a factor. Discharge prior to 1950 not determined. High-water shifts have occurred.

Bankfull stage.--90 ft.

Remarks.--Interconnecting systems of bayous and drainage ditches produce an interchange of flow under varying conditions; hence, the drainage limits were arbitrarily determined. Extensive channel enlargement by Corps of Engineers in 1955. Gage-height records and some current-meter measurements furnished by Corps of Engineers. Only annual peak stages are shown prior to 1950. Base for partial-duration series, 700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Dec. 9, 1940	5.4	-	1951	Jan. 4, 1951	7.93	972
1942	Apr. 11, 1942	7.5	-	1952	Dec. 21, 1951	7.22	811
1943	Mar. 16, 1943	5.3	-	1953	Feb. 21, 1953	91.9	1,600
1944	Mar. 30, 1944	6.9	-		Mar. 12, 1953	91.02	1,080
1945	Jan.2-4, 1945	7.3	-		Apr. 29, 1953	90.80	1,200
					May 5, 1953	90.55	1,100
					May 16, 1953	a92.60	1,400
1946	Feb. 11, 1946	7.4	-	1954	May 2, 1954	a90.73	1,060
1947	Apr. 12, 1947	8.2	-		May 13, 1954	b91.70	c700
1948	Feb. 14, 1948	7.8	-	1955	Mar. 22, 1955	94.13	2,050
					Apr. 13, 1955	91.00	c865
1949	Jan.5-6, 1949	7.1	-	1956	Feb. 4, 1956	92.53	1,360
1950	Feb. 14, 1950	7.64	864		Mar. 14, 1956	91.77	c1,180
					Apr. 6, 1956	91.00	c1,030

a Occurred on following day.
b Occurred on preceding day.
c Mean daily.

Peak stages and discharges of Big Colewa Bayou near Oak Grove, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Jan. 31, 1957	91.47	944	1958	Apr. 27, 1958	91.60	c850
	Apr. 4, 1957	91.30	c873		May 1, 1958	91.93	c900
1958	Nov. 17, 1957	91.64	c800	May 5, 1958	91.48	c1,010	
	Mar. 24, 1958	91.30	c952	May 21, 1958	b90.59	c705	
				Sept. 23, 1958	94.10	c1,600	

b Occurred on preceding day.

c Mean daily.

3685.2. Big Creek at Holly Ridge, La.

Location.--Lat 32°28'00", long 91°36'40", in SE $\frac{1}{4}$ sec.11, T.17 N., R.8 E., Richland Parish, at Illinois Central Railroad trestle 225 ft downstream from bridge on U. S. Highway 80, 0.5 mile east of Holly Ridge, and 46.8 miles above mouth.

Drainage area.--171 sq mi.

Gage.--Nonrecording. Datum of gage is 70.6 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined; trend of current-meter measurements made since 1947 indicate severe shifting of channel, probably due to channel improvement work.

Bankfull stage.--8 ft.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Nov. 27-29, 1940	8.0	-	1950	Feb. 14-17, 1950	7.5	-
1942	Apr. 19-20, 1942	8.8	-	1951	Mar. 29, 1951	8.0	-
1943	Jan. 2-4, 1943	7.4	-		1952	Apr. 24, 1952	7.0
1944	May 7, 1944	8.8	-	1953	May 19, 1953	10.0	-
1945	Jan. 8, Mar. 21-28	8.3	-	1954	May 16, 1954	8.3	-
				1955	Mar. 26-27, 1955	8.4	-
1946	Feb. 10-11, 1946	9.5	-	1956	Feb. 6, 1956	8.9	-
1947	Apr. 12-13, 1947	10.6	-		1957	Feb. 4, 1957	8.4
1948	Feb. 17-19, 1948	9.1	-	1958	May 2, 1958	9.5	-
1949	Nov. 22-24, 1949	8.5	-				

3685.4. Big Creek near Mangham, La.

Location.--Lat 32°17'30", long 91°45'50", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.9, T.15 N., R.7 E., on line between Richland and Franklin Parishes, at bridge on State Highway 15 at town of Big Creek, immediately downstream from Missouri Pacific Railroad Co. bridge, 1.4 miles southeast of Mangham and 21.39 miles above mouth.

Drainage area.--345 sq mi.

Gage.--Nonrecording. Datum of gage is 40.46 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Bankfull stage.--24 ft.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Major channel improvements made during 1956. Only annual peak stages are shown.

Peak stages and discharges of Big Creek near Mangham, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Mar. 11, 1941	a18.9	-	1950	Feb. 14, 1950	23.6	-
1942	Apr. 10, 1942	21.6	-				
1943	Dec. 30, 1942	19.4	-	1951	Jan. 4, 1951	23.6	-
1944	May 8, 1944	21.9	-	1952	Apr. 25, 1952	21.7	-
1945	Apr.23-25, 1945	21.6	-	1953	May 19, 1953	23.6	-
				1954	May 15, 1954	21.5	-
1946	Feb. 12, 1946	23.4	-	1955	July 17, 1955	22.6	-
1947	Apr.12-13, 1947	24.5	-				
1948	Feb.14-16, 1948	21.2	-	1956	Feb. 6, 1956	22.64	-
1949	Nov. 20, 1948	23.5	-	1957	Feb. 2, 1957	18.0	-
				1958	May 3, 1958	21.05	-

a Maximum for period Feb. 6 to Sept. 30, 1941.

3685.8. Big Creek near Sligo, La.

Location.--Lat 32°12'20", long 91°49'10", in SE¹₄SE¹₄ sec.11, T 14 N., R 6 E., on line between Richland and Franklin Parishes, at bridge on State Highway 135, 3.8 miles east of Sligo, 6.5 miles northwest of Winnboro, and 9.9 miles upstream from mouth (confluence with Boeuf River).

Drainage area.--497 sq mi.

Gage.--Nonrecording. Datum of gage is 37.62 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined; affected by backwater from Boeuf River.

Bankfull stage.--18 ft.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Major channel improvements made during 1954. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Mar. 11, 1941	a14.4	-	1950	Mar.6-9, 1950	22.7	-
1942	Apr.12-13, 1942	18.9	-				
1943	Dec. 30, 1942	17.1	-	1951	Jan. 4, 1951	20.9	-
1944	May 25-29, 1944	20.2	-	1952	Apr. 26, 1952	19.1	-
1945	Apr. 26, 1945	b25.5	-	1953	May 31, June 1	21.7	-
				1954	May 16, 1954	18.3	-
1946	Feb.12-13, 1946	21.3	-	1955	Apr. 15, 1955	18.0	-
1947	Apr. 12, 1947	21.3	-				
1948	Feb.14-16, Mar.4	18.8	-	1956	Feb. 10, 1956	17.77	-
1949	Nov. 20, 1948	21.0	-	1957	June 30, 1957	18.76	-
				1958	May 29-30, 1958	22.40	-

a Maximum for period Feb. 6 to Sept. 30, 1941.

b Approximate; water over gage Apr. 17 to May 4, 1945.

3686. Bayou La Fourche cutoff near Oak Ridge, La.

Location.--Lat 32°36'45", long 91°42'10", in SE¹₄ sec.24, T.19 N., R 7 E., on line between Morehouse and Richland Parishes, at bridge on parish road, 0.5 mile southeast of its intersection with State Highway 134, 0.9 mile downstream from Boeuf River, 4.3 miles southeast of Oak Ridge, and 73.5 miles above mouth.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Jan. 1, 1955; recording thereafter. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements. Moderate shifts have occurred. Annual discharge maxima computed from rating curves separately drawn on basis of current-meter measurements made in each year.

Remarks.--Bayou La Fourche cut-off receives its flow from Boeuf River when stages on Boeuf River exceed approximately 68.5 ft above mean sea level. Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Major channel improvements made during 1953. Only annual peaks are shown.

Peak stages and discharges of Bayou La Fourche cutoff near Oak Ridge, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1946	Jan. 24, 1946	79.5	-	1953	Feb. 21, 1953	76.3	4,500
1947	Apr. 11, 1947	78.8	8,600	1954	May 12, 1954	72.2	10,400
1948	Feb. 22, 1948	77.8	6,900	1955	Mar. 24, 1955	76.6	15,400
1949	Jan. 4, 1949	75.7	5,200				
1950	Feb. 13, 1950	77.2	6,300	1956	Feb. 4, 1956	76.60	15,700
1951	Jan. 3, 1951	76.6	5,800	1957	Feb. 2, 1957	74.4	13,500
1952	Feb. 3, 1952	74.8	4,000	1958	May 5, 1958	79.28	22,200

3688. Bayou Galion north of Oak Ridge, La.

Location--Lat 32°42'30", long 91°47'00", in NE $\frac{1}{4}$ sec.19, T.20 N., R.7 E., Morehouse Parish, at bridge on State Highway 133, 5.5 miles north of Oak Ridge and 14.4 miles above mouth.

Drainage area--Indeterminate.

Gage--Nonrecording. Datum of gage is 70.08 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation--Not defined.

Bankfull stage--12 ft.

Remarks--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Major channel improvements made during 1950. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Apr. 11, 1942	12.2	-	1951	Jan. 3, 1951	11.6	-
1943	Dec. 28, 1942	9.7	-	1952	Jan. 28, 1952	9.8	-
1944	Mar. 30, 1944	10.9	-	1953	May 17, 1953	10.0	-
1945	Jan. 2, 1945	11.9	-	1954	May 2, 1954	11.0	-
				1955	Mar. 22, 1955	12.8	-
1946	Feb. 11, 1946	12.7	-				
1947	Apr. 12, 1947	13.8	-	1956	Feb. 4, 1956	10.7	-
1948	Feb. 13, 1948	10.9	-	1957	Apr. 4, 1957	11.05	-
1949	Jan. 4, 1949	10.6	-	1958	Sept.22, 1958	11.21	-
1950	Feb. 13, 1950	11.4	-				

a Records incomplete; probably maximum for year.

3689. Little Bayou Boeuf near Collinston, La.

Location--Lat 32°29'35", long 91°56'10", in SE $\frac{1}{4}$ sec.3, T.19 N., R.5 E., on line between Morehouse and Ouachita Parishes, at bridge on State Highway 139, 3.0 miles downstream from Sandy Lick Bayou, 4.5 miles southwest of Collinston, and 13 miles upstream from mouth (confluence with Bayou LaFourche).

Drainage area--67 sq mi. Due to interchange of flow between basins, the limits of drainage are arbitrarily determined.

Gage--Crest-stage gage. Datum of gage is 30.70 ft above mean sea level (levels by Louisiana Department of Public Works).

Stage-discharge relation--Not defined; one current-meter measurement made to date.

Remarks--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	Mar. 12, 1950	44.24	-	1954	May 1, 1954	44.52	-
				1955	Apr. 15, 1955	45.01	-
1951	Jan. 3, 1951	44.34	-				
1952	Jan. 30, 1952	43.33	-	1956	Apr. 6, 1956	43.42	-
1953	May 22, 1953	44.20	-	1957	Apr. 4, 1957	43.29	-
				1958	May 1, 1958	44.37	-

3690. Bayou LaFourche near Crew Lake, La.

Location.--Lat 32°29'55", long 91°55'05", in SW $\frac{1}{4}$ sec.36, T.18 N., R.5 E., near center of span on downstream side of bridge on U. S. Highway 80, 1.1 miles upstream from Illinois Central Railroad bridge and 2.5 miles west of town of Crew Lake.

Drainage area.--361 sq ml. (See Remarks.)

Gage.--Nonrecording prior to Aug. 11, 1944, and June 6 to Sept. 29, 1952; recording during remainder of time. Prior to Sept. 30, 1952, at datum 19.00 ft higher. Datum of present gage is 37.08 ft above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Corps of Engineers).

Since Oct. 1, 1957, auxiliary recording gage 9.5 miles downstream. Datum of auxiliary gage is at mean sea level.

Stage-discharge relation.--Defined by current-meter measurements; affected occasionally by backwater. Moderate high-water shifts have occurred. Discharge computed by using fall as a factor since October 1957.

Bankfull stage.--21 ft.

Remarks.--Major channel improvements made during 1952-53. Interconnecting system of bayous and drainage ditches produce an interchange of flow; hence, the drainage limits were arbitrarily determined. Base for partial-duration series, 3,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	December 1931	a9.30	b17,800	1949	Feb. 6, 1949	7.34	5,880
1939	Jan.17-20, 1939	6.60	c3,920		Feb. 11, 1949	7.35	5,880
	Feb. 7-11, 1939	7.00	4,870		Apr. 5, 1949	7.46	6,240
	Mar.1-5, 1939	6.80	c4,370	1950	Jan. 8, 1950	6.97	3,960
1940	Apr.13-14, 1940	7.50	7,490		Jan. 14, 1950	7.18	4,840
	May 2, 1940	7.27	c6,770		Jan. 28, 1950	7.03	4,300
	July 16, 1940	6.98	c5,690		Feb. 3, 1950	7.00	4,120
					Feb. 15, 1950	8.73	11,300
1941	Nov.28-29, 1940	6.60	4,040		Feb. 23, 1950	7.86	7,440
	Dec. 10, 1940	6.44	c3,520		Mar. 2, 1950	7.73	7,020
	Mar. 9, 1941	6.36	c3,520	Mar. 29, 1950	6.81	3,510	
1942				May 4, 1950	7.64	6,620	
	Nov. 11, 1941	6.53	c3,860	1951	Jan. 6, 1951	8.53	10,400
	Nov. 29, 1941	6.60	c4,040		Feb. 8, 1951	7.17	c4,760
	Mar.14-16, 1942	6.50	c4,010	1952	Dec. 23, 1951	7.36	c6,570
Apr. 12, 1942	7.90	9,230	Jan. 30, 1952		7.39	c6,730	
			Apr. 25, 1952		7.65	8,200	
1943	Mar.20-21, 1943	5.98	2,130	1953	Feb. 22, 1953	24.74	c7,650
1944	Mar.1-3, 1944	7.30	c6,750		Mar. 13, 1953	24.32	c7,170
	Apr. 4-12, 1944	7.60	c8,040		Apr. 30, 1953	24.21	8,340
	May 6-7, 1944	7.70	8,480		May 6, 1953	25.19	9,910
1945	Jan.10-11, 1945	8.03	c9,640	May 18, 1953	26.56	12,000	
	Mar. 6, 1945	7.54	c6,920	1954	Jan. 11, 1954	18.78	c3,800
	Mar. 21, 1945	8.14	10,200		Jan. 31, 1954	18.60	c3,800
	Apr. 4, 1945	8.08	c9,920		May 4, 1954	21.94	c11,400
	Apr. 17, 1945	7.62	c5,790		May 13, 1954	24.06	13,800
1946	Jan. 20, 1946	8.26	10,800	1955	Feb. 7, 1955	17.62	c6,300
	Feb. 12, 1946	8.78	13,500		Feb. 22, 1955	16.64	c5,610
1947	Jan. 21, 1947	8.02	8,530		Mar. 25, 1955	25.28	20,800
	Mar. 16, 1947	7.01	4,660	Apr. 14, 1955	22.28	c11,900	
	Apr. 13, 1947	9.72	16,900	July 15, 1955	16.20	c5,350	
1948	Feb. 15, 1948	8.44	10,700	1956	Feb. 6, 1956	25.25	20,600
	Mar. 4, 1948	7.67	7,010		Feb. 20, 1956	20.14	10,900
1949	Nov. 23, 1948	6.85	4,170		Mar. 16, 1956	22.53	13,600
	Dec. 19, 1948	6.87	4,170		Apr. 7, 1956	23.59	16,200
	Jan. 6, 1949	7.52	6,430	1957	Dec. 14, 1956	13.01	3,930

a From floodmark.

b Annual peak only.

c Mean daily.

Peak stages and discharges of Bayou LaFourche near Crew Lake, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1957	Dec. 23, 1956	17.50	6,950	1958	Feb. 16, 1958	e15.30	4,330
	Jan. 6, 1957	17.30	6,800		Feb. 28, 1958	13.90	3,960
	Feb. 2, 1957	24.40	c15,800		Mar. 10, 1958	15.72	5,490
	Feb. 19, 1957	16.90	c5,000		Mar. 25, 1958	-	c6,000
	Feb. 26, 1957	20.56	c9,500		May 2, 1958	g27.50	26,800
	Apr. 5, 1957	d24.20	17,000		May 22, 1958	25.60	c15,100
1958	Nov. 9, 1957	e16.24	5,800	June 17, 1958	22.21	4,620	
	Nov. 20, 1957	f26.19	c22,800	June 23, 1958	21.03	4,620	
	Dec. 8, 1957	18.92	c4,900	July 28, 1958	19.34	4,050	
	Jan. 16, 1958	d16.60	5,270	July 10, 1958	e17.37	c4,450	
	Jan. 22, 1958	22.36	10,700	Sept. 14, 1958	17.52	7,240	
				Sept. 24, 1958	26.54	c23,400	

c Mean daily.

d Occurred on following day.

e Occurred on preceding day.

f Occurred Nov. 23, 1957.

g Occurred May 6, 1958.

3690.5. Bayou LaFourche near Alto, La.

Location.--Lat 32°23'50", long 91°59'35", in SE $\frac{1}{4}$ sec.6, T.16 N., R.5 E., on line between Ouachita and Richland Parishes, at bridge on State Highway 15, 8 miles northwest of Alto and 40.2 miles above mouth.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to July 8, 1947; recording thereafter. Prior to Jan. 1, 1952, at datum 47.58 ft higher. Datum of present gage is at mean sea level, datum of 1929, supplementary adjustment of 1941. All gage heights adjusted to present datum.

Stage-discharge relation.--Not defined.

Bankfull stage.--59 ft.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Major channel improvements made during 1952. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Feb.10-12, 1939	60.2	-	1950	Feb. 16, 1950	61.7	-
1940	May 3-4, 1940	60.8	-		1951	Jan. 8, 1951	61.4
1941	(a)	59.8	-	1952		Apr. 26, 1952	53.4
1942	Apr. 14, 1942	60.9	-	1953	May 21, 1953	59.6	-
				1954	May 13, 1954	57.4	-
1946	Feb. 16, 1946	62.0	-	1955	Mar. 26, 1955	58.8	-
1947	Apr. 23, 1947	63.8	-				
1948	Feb.16-17, 1948	61.6	-	1956	Feb. 6, 1956	58.95	-
1949	Apr. 7, 1949	60.6	-	1957	Feb. 3, 1957	58.1	-
				1958	May 8, 1958	61.27	-

a Dec. 1-3, 7, 11-12, 1940.

3691. Bayou LaFourche cutoff near Columbia, La.

Location.--Lat 32°09'21", long 92°00'41", in NE $\frac{1}{4}$ sec.36, T.14 N., R.5 E., Caldwell Parish, at bridge on State Highway 133, 5 miles northeast of Columbia and 8.4 miles above mouth.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Oct. 9, 1951; recording thereafter. Datum of gage is mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Bankfull stage.--56 ft.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges of Bayou LaFourche cutoff near Columbia, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Apr. 2, 1951	52.85	-	1955	Mar. 28, 1955	53.18	-
1952	Apr. 27, 1952	52.73	-				
1953	June 1, 1953	59.03	-	1956	Feb. 10, 1956	53.88	-
1954	May 14, 1954	51.99	-	1957	June 30, 1957	55.80	-
				1958	May 30, 1958	59.62	-

3693.2. Ouachita River at Stafford Point Landing, La.

Location--Lat 31°51'20", long 91°47'15", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.7, T.10 N., R.7 E., Catahoula Parish, at Stafford Point Landing, immediately downstream from Boeuf River at mile 24.3.

Drainage area--18,610 sq mi.

Gage--Nonrecording. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation--Not defined.

Remarks--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Mar.26-28, 1948	52.8	-	1954	May 20-22, 1954	45.7	-
1949	Feb.26, Mar.2	55.2	-	1955	Apr.17-19, 1955	50.3	-
1950	Mar. 8, 1950	59.2	-				
1951	Mar.31, Apr.3	51.7	-	1956	Mar.19-20, 1956	48.0	-
1952	May 3-10, 1952	52.2	-	1957	June 28-30, 1957	55.5	-
1953	May 28, June 1	58.2	-	1958	May 30-31, 1958	58.2	-

3693.3. Black Bayou near Sicily Island, La.

Location--Lat 31°49'40", long 91°42'45", in lot 42, T.10 N., R.7 E., at bridge on State Highway 8, 3.5 miles southwest of Sicily Island.

Drainage area--6.5 sq mi.

Gage--Crest-stage gage. Datum of gage is 18.37 ft above mean sea level (levels by Louisiana Department of Public Works).

Stage-discharge relation--Not defined.

Remarks--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	43.60	-	1956	Feb. 9, 1956	44.03	-
1955	Apr. 13, 1955	43.83	-	1957	Apr. 1, 1957	43.13	-
				1958	June 14, 1958	43.74	-

3693.4. Ouachita River at lock and dam No. 2, at Harrisonburg, La.

Location.--Lat 31°46'30", long 91°48'55", in lot 42, T.9 N., R.6 E., Catahoula Parish, in upper pool of lock and dam No. 2, 0.3 mile upstream from bridge on State Highway 8, 0.4 mile northeast of Harrisonburg, and at mile 16.7.

Drainage area.--18,793 sq mi.

Gage.--Nonrecording. Datum of gage is 0.26 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records since September 1908 and occasional current-meter measurements December 1931 to March 1932 at site 7 miles upstream, and June 1933 and February and March 1937 at bridge on State Highway 8 collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1909	June 9-12, 1909	49.9	-	1934	Apr. 16-20, 1934	48.0	-
1910	Mar. 22-27, 1910	41.9	-	1935	May 23-27, 1935	54.2	-
1911	May 15-18, 1911	47.8	-	1936	May 5-8, 1936	42.6	-
1912	May 14, 1912	64.3	-	1937	Mar. 5-8, 1937	57.9	-
1913	May 14-15, 1913	57.7	-	1938	Apr. 23-24, 1938	55.0	-
1914	Apr. 21, 26, 1914	51.4	-	1939	Mar. 30, Apr. 6	53.6	-
1915	Mar. 20-23, 1915	51.0	-	1940	May 8-12, 1940	47.6	-
1916	Mar. 3-7, 1916	60.7	-	1941	May 17-19, 1941	44.8	-
1917	May 2-8, 1917	49.7	-	1942	May 19-22, 1942	52.5	-
1918	May 8-11, 1918	42.6	-	1943	June 17, 1943	48.1	-
1919	Apr. 18, 1919	49.4	-	1944	May 23, 26, 1944	55.8	-
1920	June 3-4, 1920	56.3	-	1945	Apr. 24, May 2	60.5	-
1921	Apr. 1-3, May 7-12	52.7	-	1946	Feb. 20-23, 1946	55.8	-
1922	May 21, 1922	62.6	-	1947	Apr. 25-28, 1947	51.0	-
1923	Apr. 15-19, 1923	54.0	-	1948	May 19-23, 1948	52.2	-
1924	Jan. 16-17, 1924	51.3	-	1949	Mar. 31, Apr. 4	54.5	-
1925	Mar. 10-11, 1925	33.0	-	1950	Mar. 6-8, 1950	58.2	-
1926	Apr. 12-16, 23-24	46.6	-	1951	Apr. 2-3, 1951	51.3	-
1927	May 17-19, 1927	67.2	-	1952	May 5-8, 1952	51.9	-
1928	May 21-22, 1928	50.3	-	1953	May 26-31, 1953	57.4	-
1929	June 14, 17, 1929	54.6	-	1954	May 20-22, 1954	44.9	-
1930	June 11-14, 1930	51.7	-	1955	Apr. 17-19, 1955	49.7	-
1931	Mar. 9, 1931	35.6	-	1956	Mar. 19, 1956	47.2	-
1932	Mar. 5-8, 1932	58.5	-	1957	June 28-30, 1957	54.8	-
1933	May 9-14, 1933	52.4	-	1958	May 28-31, 1958	56.4	-

3693.8. Tensas Bayou near Transylvania, La.

Location.--Lat 32°42'50", long 91°16'10", between secs. 17 and 20, T. 20 N., R. 12 E., East Carroll Parish, at bridge on State Highway 581, 500 ft downstream from Swan Lake and 5½ miles northwest of Transylvania.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is 67.28 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 700 cfs and extended above. Annual discharge maxima computed from average rating curve based on all available high-water current-meter measurements.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Major channel improvements made during 1956. Only annual peaks are shown.

Peak stages and discharges of Tensas Bayou near Transylvania, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Nov. 29, 1940	11.0	425	1950	Feb. 15, 1950	15.0	720
1942	Apr. 10, 1942	12.5	535				
1943	Mar. 28, 1943	9.0	285	1951	Jan. 5-7, 1951	14.5	680
1944	May 8, 1944	12.9	565	1952	Apr. 23, 1952	8.8	270
1945	Apr. 3, 1945	13.1	575	1953	May 19, 1953	16.0	790
				1954	May 13, 1954	11.5	460
1946	Feb. 11, 1946	17.5	910	1955	Mar. 24, 1955	10.0	350
1947	Apr. 13-14, 1947	16.8	855				
1948	Feb. 15, 1948	14.9	710	1956	Apr. 7, 1956	11.8	310
1949	Jan. 6, 1949	17.0	870	1957	Feb. 2, 1957	10.5	440
				1958	May 2, 1958	14.7	1,600

3694. Tensas Bayou near Alsatia, La.

Location.--Lat 32°36'40", long 91°17'50", between secs. 24 and 25, T.19 N., R.11 E., at bridge on State Highway 580 at Ditch No. 2, 0.7 mile upstream from Maiden Doe Bayou and 6½ miles west of Alsatia.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not adequately defined.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 12, 1947	80.1	-	1953	May 18, 1953	79.0	-
1948	Feb. 14, 1948	78.5	-	1954	May 13, 1954	77.2	-
1949	Nov. 20, 1948	80.4	-	1955	Apr. 13, 1955	76.0	-
1950	Feb. 13, 1950	78.5	-				
				1956	Feb. 4, 1956	78.0	-
1951	Mar. 28, 1951	78.5	-	1957	Feb. 2, 1957	76.4	-
1952	Apr. 24, 1952	74.4	-	1958	May 2, 1958	79.4	-

3695. Tensas River at Tendal, La.

Location.--Lat 32°25'55", long 91°22'00", in NW¼ sec. 29, T.17 N., R.11 E., near left bank on upstream side of bridge on U. S. Highway 80 at Tendal, 200 ft upstream from Illinois Central Railroad bridge and 3 miles east of Waverly.

Drainage area.--309 sq mi.

Gage.--Nonrecording prior to Sept. 14, 1954; recording thereafter. Prior to July 11, 1944, at site 1,000 ft upstream at same datum. Datum of gage is 50.07 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Auxiliary nonrecording gage since Feb. 19, 1945. Prior to Nov. 28, 1951, at site 9.5 miles downstream at different datum. Nov. 28, 1951, to Sept. 30, 1957, at site 8.5 miles downstream at datum 0.31 ft lower. Since Oct. 1, 1957, at site 8.5 miles downstream at same datum.

Stage-discharge relation.--Defined by current-meter measurements; affected by fall and shifts. Since 1946, high-water discharge computed by using fall as a factor.

Remarks.--Record prior to 1943 computed by Corps of Engineers and reviewed by Geological Survey. Small diversions above station for irrigation. Interconnecting systems of bayous and drainage ditches produce an interchange of flow; hence, the drainage limits were arbitrarily determined. Base for partial-duration series, 1,400 cfs. Only annual peaks are shown prior to 1939.

Peak stages and discharges of Tensas River at Tendam, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1927	May 15, 1927	834.02	-	1949	Nov. 19, 1948	24.78	b4,610	
1931	December 1931	25.2	-	1949	Dec. 18, 1948	15.19	b1,530	
				1949	Jan. 5, 1949	22.52	3,640	
1936	May 2, 1936	18.1	2,200	1949	Jan. 23, 1949	16.24	1,750	
				1949	Feb. 5, 1949	14.38	b1,400	
1937	Jan. 26, 1937	16.3	1,640	1949	Feb. 11, 1949	16.13	1,730	
				1949	Mar. 28, 1949	21.55	2,910	
1938	Apr. 10, 1938	19.5	2,720	1950	Feb. 16, 1950	22.35	3,550	
1939	Feb. 28, 1939	15.4	b1,460		1950	Mar. 2, 1950	15.54	1,590
	Mar. 31, 1939	17.0	1,650		1950	Mar. 14, 1950	16.45	2,040
	Apr. 7, 1939	16.1	b1,500	1950	May 3, 1950	17.49	2,160	
1940	May 2, 1940	19.18	b2,320	1951	Jan. 5, 1951	21.23	2,700	
	July 15, 1940	19.56	2,440		1951	Jan. 15, 1951	16.37	1,500
1941	Nov. 27, 1940	16.50	1,600		1951	Feb. 8, 1951	18.90	2,610
	Dec. 17, 1940	15.46	b1,400	1951	Mar. 29, 1951	24.10	4,020	
1942	Mar. 10, 1942	15.88	b1,560	1952	Mar. 12, 1952	14.26	b1,560	
	Apr. 11-12, 1942	17.00	1,850		1952	Apr. 25, 1952	15.75	1,940
1943	Mar. 28, 1943	14.20	1,200	1953	Feb. 22, 1953	15.83	1,480	
					1953	Mar. 13, 1953	17.91	2,120
1944	Feb. 26-27, 1944	16.58	b1,640		1953	May 3-5, 1953	18.69	2,000
	Mar. 31, 1944	21.50	2,270	1953	May 18, 1953	24.00	2,910	
	May 7, 1944	18.00	2,040	1954	May 14-15, 1954	-	b1,400	
1945	Mar. 22-23, 1945	20.20	b2,280		1955	Feb. 7, 1955	15.43	b1,530
	Apr. 3-4, 1945	19.95	b2,050	1955	Apr. 14, 1955	17.32	1,780	
	June 17-18, 1945	17.16	1,520	1956	Feb. 5, 1956	21.77	3,210	
1946	Jan. 11, 1946	23.5	3,050		1956	Mar. 16, 1956	18.47	b2,240
	Feb. 12-13, 1946	24.2	b2,980		1956	Mar. 23, 1956	15.22	b1,420
	Mar. 18, 1946	17.50	b1,530		1956	Apr. 7, 1956	20.00	b2,600
	Mar. 28, 1946	17.22	b1,590	1957	Dec. 24, 1956	15.44	b1,740	
May 21, 1946	17.80	b2,050	1957		Feb. 2, 1957	17.70	2,220	
May 26, 1946	18.41	b2,140	1957		Apr. 5, 1957	17.21	b1,880	
1957	June 29, 1957				1957	June 29, 1957	18.56	1,830
1947	Jan. 19, 1947	21.94	b2,830	1958	Nov. 19, 1957	21.14	2,850	
	Apr. 11, 1947	22.20	b2,920		1958	Jan. 25, 1958	15.34	1,480
	May 22, 1947	16.32	b1,640		1958	Feb. 28, 1958	14.93	1,490
1948	Feb. 14, 1948	18.86	b1,680	1958	Mar. 25, 1958	17.49	b2,040	
	Mar. 7, 1948	19.34	b1,590	1958	May 1, 1958	23.07	3,900	
	Aug. 10, 1948	15.96	b1,980	1958	Sept. 23, 1958	20.33	b2,550	

a Affected by overflow from Mississippi River.

b Mean daily.

Note.--Peak stage frequently occurs on different day than peak discharge.

3696. Tensas River near Tendam, La.

Location.--Lat 32°15'55", long 91°25'55", in SW¹/₄ sec. 22, T. 15 N., R 10 E., Madison Parish, on west bank of Tensas River immediately east of gravel road, 12 miles southwest of Tendam and at mile 104.7.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 21, 26, 1947	66.3	-	1953	May 19, 1953	68.0	-
1948	Mar. 8, 1948	63.3	-	1954	May 5, 1954	56.5	-
1949	Nov. 22, 1948	a67.5	-	1955	Apr. 15, 1955	60.5	-
1950	Feb. 15, 1950	64.9	-	1956	Feb. 6, 1956	64.2	-
1951	Mar. 30, 1951	68.2	-		1957	June 30, 1957	59.0
	1952	Apr. 25, 1952	56.6	1958	May 6, 1958	64.9	-

a Records incomplete; probably maximum for year.

3696.2. Alligator Bayou near Tallulah, La.

Location.--Lat 32°17'20", long 91°13'05", in NE corner of sec.22, T.15 N., R.12 E., at bridge on U. S. Highway 65, 8.5 miles south of Tallulah.

Drainage area.--28 sq mi.

Gage.--Crest-stage gage. Datum of gage is 31.25 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	42.12	-	1956	Feb. 17, 1956	34.92	-
1955	May 14, 1955	34.00	-	1957	Apr. 4, 1957	32.99	-
				1958	Nov. 19, 1957	43.07	-

3696.4. Bayou Vidal at Quimby, La.

Location.--Lat 32°14'00", long 91°12'55", on line between secs.4 and 5, T.15 N., R.12 E., at bridge on U. S. Highway 65, on Tensas-Madison Parish line.

Drainage area.--160 sq mi.

Gage.--Crest-stage gage. Datum of gage is 24.00 ft above mean sea level (levels by Louisiana Department of Public Works).

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	45.18	-	1956	Feb. 11, 1956	45.53	-
1955	Apr. 11, 1955	45.35	-	1957	Apr. 4, 1957	42.90	-
				1958	May 1, 1958	45.44	-

3696.45 Tensas River at Newlight, La.

Location.--Lat 32°06'10", long 91°26'00", in S $\frac{1}{2}$ sec.15, T.13 N., R.10 E., Tensas Parish, on left bank at Newlight, 100 ft east of center of line of ferry road, 200 ft north of Newlight store, 1 mile upstream from Mound Bayou, and 66.3 miles above mouth.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is 24.10 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Bankfull stage.--40 ft.

Remarks.--Gage-height records since April 1942 and occasional current-meter measurements at site 5 miles downstream at bridge on State Highway 4, since January 1947 collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges of Tensas River at Newlight, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	May 16, 1942	28.8	-	1951	Mar. 30, 1951	34.9	-
1943	June 15-18, 1943	24.3	-	1952	May 3-8, 1952	27.1	-
1944	May 23, 1944	31.9	-	1953	May 20-21, 1953	36.1	-
1945	Apr. 28, May 2	36.5	-	1954	May 15, 1954	20.2	-
				1955	Apr. 14, 1955	28.2	-
1946	Feb. 12-15, 1946	34.9	-				
1947	Apr. 22, 1947	30.9	-	1956	Mar. 18, 1956	24.60	-
1948	Mar. 7-18, 1948	27.8	-	1957	July 1, 1957	30.50	-
1949	Apr. 1, 1949	35.9	-	1958	May 29-30, 1958	31.40	-
1950	Mar. 5-9, 16, 1950	34.0	-				

a Maximum for period Apr. 18 to Sept. 30, 1942.

3696.8. Bayou Macon at Eudora, Ark.

Location.--Lat 33°06'00", long 91°15'10", on line between and near south edge of secs. 25 and 30, T. 18 S., R. 12 E., on downstream side of bridge on new U. S. Highway 65, 0.9 mile southeast of Eudora.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to July 23, 1948; recording thereafter. Prior to July 17, 1952, at bridge on old U. S. Highway 65, 0.2 mile upstream at present datum. Datum of gage is 80.92 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements. Affected by fall and shifts.

Bankfull stage.--18 ft.

Remarks.--Gage-height records and discharge measurements furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	December 1931	26.2	3,570	1948	Feb. 14, 1948	23.5	3,110
1938	Apr. 8, 1938	19.0	2,260	1949	Feb. 5, 1949	22.4	2,790
1939	Feb. 28, 1939	20.4	2,600	1950	Mar. 30, 1950	24.9	3,300
1940	July 9, 1940	17.4	1,850	1951	Jan. 4, 1951	21.0	2,530
1941	Mar. 9, 1941	14.6	1,360	1952	Jan. 29, 1952	18.0	1,930
1942	Apr. 10, 1942	23.0	2,620	1953	May 23-24, 1953	24.9	3,680
1943	Mar. 27, 1943	19.3	1,850	1954	May 4, 1954	19.0	2,260
1944	Apr. 11, 1944	22.7	2,550	1955	Mar. 22, 1955	22.0	2,750
1945	Apr. 11, 1945	24.1	2,910	1956	Feb. 21, 1956	21.4	2,620
1946	Jan. 23-25, 1946	25.9	3,420	1957	Feb. 2, 1957	18.7	2,050
1947	Apr. 12, 1947	23.6	3,130	1958	May 22, 1958	27.43	5,100

3697.2. Bayou Macon near Oak Grove, La.

Location.--Lat 32°51'35", long 91°20'30", in NE¹/₄NE¹/₄ sec. 33, T. 22 N., R. 11 E., on line between East Carroll and West Carroll Parishes, at bridge on State Highway 2, 2.8 miles east of Oak Grove and 125.1 miles above mouth.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is 68.11 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not adequately defined.

Bankfull stage.--27 ft.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 11, 1947	24.7	-	1950	Feb. 14, 1950	22.5	-
1948	Feb. 13-14, 1948	22.1	-				
1949	Jan. 4, 1949	21.5	-	1951	Jan. 4, 1951	21.7	-

RED RIVER BASIN

Peak stages and discharges of Bayou Macon near Oak Grove, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1952	Jan. 28, 1952	18.9	-	1956	Mar. 14, 1956	19.77	-
1953	May 17, 1953	22.2	-	1957	Feb. 2, 1957	19.4	-
1954	May 4, 1954	17.8	-	1958	Sept. 21, 1958	23.55	-
1955	Mar. 22, 1955	22.6	-				

3698.3. Bayou Macon near Floyd, La.

Location.--Lat 32°42'00", long 91°22'40", on line between secs.19 and 20, T.20 N., R.11 E., on line between East Carroll and West Carroll Parishes, on right bank of bayou at dead end of parish road, 2.2 miles northeast of Floyd, 4.1 miles southeast of Pioneer, and 4.6 miles northeast of Darnell.

Drainage area.--Indeterminate.

Gage.--Crest-stage gage. Datum of gage is 63.97 ft above mean sea level (levels by Louisiana Department of Public Works).

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Jan. 3, 1951	17.84	-	1955	Mar. 28, 1955	18.75	-
1952	Jan. 31, 1952	14.80	-				
1953	May 23, 1953	19.66	-	1956	Mar. 16, 1956	17.18	-
1954	May 1, 1954	8.22	-	1957	Apr. 7, 1957	16.91	-
				1958	Apr. 30, 1958	21.88	-

3700. Bayou Macon near Delhi, La.

Location.--Lat 32°27'20", long 91°28'30", in SE $\frac{1}{4}$ sec.18, T.17 N., R.10 E., near right bank on downstream side of pier of bridge on U. S. Highway 80, 150 ft upstream from Illinois Central Railroad bridge and 1 mile east of Delhi.

Drainage area.--782 sq mi. (See Remarks.)

Gage.--Nonrecording prior to Mar. 15, 1949; recording thereafter. Prior to July 13, 1944, at railroad bridge 150 ft upstream at same datum. Datum of gage is 50.05 ft above mean sea level, datum of 1929, supplementary adjustment of 1941. Auxiliary nonrecording gage since Feb. 16, 1945, at site 7.5 miles upstream.

Stage-discharge relation.--Defined by current-meter measurements; affected by fall and by shifts.

Historical data.--A stage of 37.5 ft occurred in 1882, caused by overflow from Mississippi River, from information by U. S. Weather Bureau.

Remarks.--Records furnished by U. S. Weather Bureau 1885-95 and by Corps of Engineers 1926-38. Interconnecting system of bayous and drainage ditches produce an interchange of flow under varying conditions; hence, the drainage limits are arbitrarily determined. Base for partial-duration series, 2,500 cfs. Only annual peaks are shown prior to 1937.

Peak stages and discharges							
Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1882	-	37.50	-	1893	June 5-7, 1893	33.50	-
1885	May 21, 1885	24.80	-	1894	Mar. 25-26, 1894	19.80	-
1886	May 10-13, 1886	31.20	-	1895	Mar. 20, 1895	10.80	-
1887	Mar. 29-31, 1887	30.70	-	1926	Nov. 7, 1925	18.00	3,750
1888	May 6-7, 1888	22.00	-	1927	May 10-11, 1927	a34.60	-
1889	Jan. 29-30, 1889	11.40	-	1928	Apr. 24-25, 1928	18.80	11,070
1890	Apr. 6-8, 25-27	31.70	-	1929	Mar. 25-26, 1929	21.60	5,190
1891	Apr. 15-23, 1891	26.70	-	1930	May 22-23, 1930	23.30	5,900
1892	June 7-10, 1892	30.40	-	1931	Apr. 2, 1931	8.50	1,300

a Affected by overflow from Mississippi River; discharge not determined.

Note.--Peak stage frequently occurs on different day than peak discharge.

Peak stages and discharges of Bayou Macon near Delhi, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	Jan.15-16, 1932	24.20	6,280	1948	Feb. 16, 1948	22.76	4,560
1933	Mar. 3, 1933	19.70	4,430		Mar. 7, 1948	21.94	b4,160
					Apr. 17, 1948	15.48	2,740
1934	Mar. 6, 1934	19.70	4,430	1949	Nov. 20, 1948	24.23	b4,060
					Dec. 19, 1948	18.07	b5,330
1935	Mar. 13, 1935	18.70	4,030		Jan. 6, 1949	23.90	4,730
					Jan. 24, 1949	19.44	b5,610
1936	May 1-2, 1936	12.50	2,180		Feb. 10, 1949	20.89	b5,950
					Mar. 31, 1949	22.12	b5,540
1937	Jan. 27, 1937	18.00	3,760		May 5, 1949	15.22	b2,670
1938	Jan. 3, 1938	15.10	b2,700	1950	Jan. 14, 1950	19.15	3,460
	Apr.10-11, 1938	20.70	4,830		Feb. 14, 1950	25.02	4,240
					Mar.15-16, 1950	20.13	b5,100
1939	Feb.3-4,28,1939	17.40	b5,590		Apr. 1, 1950	19.72	b5,410
	Mar.1-2, 1939	17.90	3,760		May 4, 1950	20.35	b5,690
	Apr. 1, 1939	15.10	b2,830		June 6, 1950	17.05	b5,010
	Apr. 9, 1939	16.50	b5,280	1951	Jan. 7, 1951	22.96	4,230
1940	Apr. 22, 1940	14.93	b2,610		Feb. 10, 1951	20.84	b5,790
	May 2, 1940	17.92	b5,150		Mar. 7, 1951	14.87	2,560
	July 14, 1940	19.05	3,350		Mar. 30, 1951	22.31	3,450
1941	Nov. 26, 1940	15.03	2,620	1952	Dec. 23, 1951	16.10	b2,990
					Jan. 30, 1952	18.26	3,290
1942	Apr.13-14, 1942	21.95	5,330		Mar. 12, 1952	17.07	b5,050
					Apr. 26, 1952	18.20	b5,190
1943	Mar. 30, 1943	15.05	2,760	1953	Feb. 22, 1953	19.93	b3,370
1944	Feb. 29, 1944	17.83	3,700		Mar. 15, 1953	19.75	3,310
	Mar.30-31, 1944	21.55	4,420		May 17, 1953	25.88	4,060
	Apr. 26, 1944	17.86	b5,740	1954	May 5, 1954	16.49	2,760
	May 5-6, 1944	20.89	b4,240		May 14, 1954	20.23	3,490
	May 24, 1944	17.19	b5,460	1955	Mar. 24, 1955	21.73	4,360
1945	Jan. 8, 1945	19.45	4,380		Apr. 14, 1955	20.69	b3,570
	Jan. 22, 1945	17.22	b3,480	1956	Feb. 17, 1956	21.86	b3,470
	Feb. 24, 1945	18.90	3,540		Mar. 16, 1956	21.60	b3,910
	Mar. 21, 1945	22.49	4,450		Apr. 7, 1956	19.54	b3,260
	Apr. 4, 1945	21.85	b5,950	1957	Feb. 2, 1957	20.70	b3,860
	May 19, 1945	16.60	b2,600		Feb. 27, 1957	17.51	b3,080
1946	Jan. 13, 1946	24.39	4,960		Apr. 2, 1957	21.09	b3,580
	Feb. 10, 1946	25.55	4,930	1958	Nov. 19, 1957	24.83	b4,220
	Mar. 20, 1946	17.98	b5,160		Jan. 25, 1958	18.04	b2,900
	May 27, 1946	15.34	2,600		Mar. 26, 1958	19.17	b3,360
1947	Jan. 21, 1947	22.78	4,330		May 1, 1958	26.00	b4,760
	Mar. 16, 1947	15.99	b2,850				
	Apr. 14, 1947	25.58	5,460				

b Mean daily.

Note.--Peak stage frequently occurs on different day than peak discharge.

3701. Bayou Macon at Warsaw Bridge, near Delhi, La.

Location.--Lat 32°17'45", long 91°31'45", in SE $\frac{1}{4}$ sec.10, T.15 N., R.9 E., on line between Franklin and Madison Parishes, at Warsaw Bridge on State Highway 577, 1.2 miles southeast of Lamar, 11 miles south of Delhi, and 63.1 miles above mouth.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not adequately defined.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

RED RIVER BASIN

Peak stages and discharges of Bayou Macon at Warsaw Bridge near Delhi, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Mar. 1-3, 1939	61.4	-	1951	Mar. 31, 1951	67.2	-
1940	May 3, 1940	62.4	-	1952	Apr. 27, 1952	61.2	-
				1953	May 19, 1953	70.5	-
1941	Nov. 27, 1940	58.6	-	1954	May 16, 1954	62.4	-
1942	Apr. 17, 1942	64.3	-	1955	Apr. 17, 1955	63.8	-
1947	Apr. 20-21, 1947	68.2	-	1956	Feb. 11, 1956	65.49	-
1948	Mar. 6-8, 1948	64.9	-	1957	Apr. 8-9, 1957	63.7	-
1949	Nov. 22-23, 1948	68.0	-	1958	May 19, 1958	69.76	-
1950	Feb. 23, 1950	69.3	-				

3701.3. Tensas River at Kirks Ferry Landing, La.

Location.--Lat 31°51'50", long 91°34'20", in N $\frac{1}{2}$ sec. 8, T.10 N., R.9 E., on line between Catahoula and Tensas Parishes, at junction with Big Choctaw Bayou at Kirks Ferry Landing, 37.8 miles above mouth.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is at mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Bankfull stage.--60 ft.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Apr. 22-23, 1947	53.0	-	1953	May 24-27, 1953	57.5	-
1948	Mar. 15-20, 1948	51.6	-	1954	May 20, 1954	44.0	-
1949	Mar. 31, Apr. 1	55.6	-	1955	Apr. 16, 1955	50.8	-
1950	Mar. 6-8, 1950	58.1	-				
				1956	Mar. 19, 1956	47.5	-
1951	Mar. 31, Apr. 1	54.5	-	1957	June 27-30, 1957	54.5	-
1952	May 6-8, 1952	51.4	-	1958	May 29 to June 1	55.4	-

3701.8. Tensas River at Clayton, La.

Location.--Lat 31°43'25", long 91°32'40", in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 27, T 9 N., R.9 E., on line between Catahoula and Concordia Parishes, at bridge on State Highway 15 at Clayton, 27.3 miles above mouth.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is 0.29 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined; affected severely by backwater from Ouachita River. Reverse flows have occurred.

Bankfull stage.--55 ft.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges of Tensas River at Clayton, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1917	May 4-8, 1917	45.5	-	1938	Apr. 21-22, 1938	54.4	-
1918	May 8-9, 1918	37.9	-	1939	Mar. 30, Apr. 1	53.6	-
1919	Apr. 19, 1919	44.9	-	1940	Apr. 20, 1940	50.0	-
1920	June 3-6, 1920	52.0	-				
1921	Apr. 27-29, 1921	49.5	-	1941	May 15-19, 1941	43.5	-
1922	Apr. 23, 1922	a52.3	-	1942	May 17-19, 1942	51.7	-
1923	Apr. 15-16, 1923	54.3	-	1943	June 15-18, 1943	47.8	-
1924	Jan. 17-18, 1924	51.5	-	1944	May 24, 1944	55.2	-
1925	Mar. 10-12, 1925	32.5	-	1945	Apr. 26, May 2	60.1	-
				1946	Feb. 20, 1946	55.5	-
1926	Apr. 11-14, 1926	45.9	-	1947	Apr. 24, 1947	57.5	-
1927	May 17-18, 1927	b67.3	-	1948	Mar. 17-18, 1948	51.2	-
1928	May 26-27, 1928	49.4	-	1949	Mar. 31, Apr. 1	54.7	-
1929	June 13-15, 1929	54.0	-	1950	Mar. 6, 1950	57.7	-
1930	June 9-14, 1930	50.0	-				
				1951	Apr. 1-2, 1951	52.8	-
1931	Mar. 8-10, 1931	35.0	-	1952	May 6-9, 1952	51.0	-
1932	Mar. 5-8, 1932	57.6	-	1953	May 25-27, 1953	57.0	-
1933	May 6, 1933	52.2	-	1954	May 20, 1954	43.5	-
1934	Apr. 21, 1934	46.4	-	1955	Apr. 16, 1955	49.9	-
1935	May 24-25, 1935	54.2	-				
				1956	Mar. 19, 1956	46.65	-
1936	May 3-4, 1936	43.0	-	1957	June 29, 1957	54.16	-
1937	Mar. 5-8, 1937	57.5	-	1958	June 1, 1958	54.86	-

a Gage overtopped; crest probably only slightly higher.

b Affected by overflow from Mississippi River.

3702. Castor Creek at Chatham, La.

Location.--Lat 32°19'10", long 92°26'15", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T.15 N., R.1 W., Jackson Parish at bridge on State Highway 34, 0.2 mile upstream from Tremont and Gulf Railway Co. bridge, 0.6 mile upstream from Edwards Branch, and 1.0 mile northeast of Chatham.

Drainage area.--60.0 sq mi.

Gage.--Crest-stage gage. Datum of gage is 116.71 ft above mean sea level.

Stage-discharge relation.--Not defined; three discharge measurements made to date.

Historical data.--Maximum stage known, about 46.8 ft, from floodmarks, date unknown.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	June 24, 1950	44.10	-	1954	Dec. 2, 1953	(a)	-
				1955	Apr. 10, 1955	45.18	-
1951	Jan. 3, 1951	43.98	-	1956	Apr. 6, 1956	44.17	-
1952	May 12, 1952	(a)	-	1957	June 28, 1957	44.34	-
1953	May 17, 1953	46.09	-	1958	July 23, 1958	45.39	-

a Less than 43.1 ft; bottom of gage.

3703. Edwards Branch at Chatham, La.

Location.--Lat 32°18'40", long 92°26'45", in SW $\frac{1}{4}$ sec. 2, T.15 N., R.1 W., Jackson Parish, at bridge on State Highway 34, 100 ft upstream from Tremont and Gulf Railway Co. bridge, 0.5 mile northeast of Chatham, and 0.8 mile upstream from confluence with Bayou Castor.

Drainage area.--11.3 sq mi.

Gage.--Crest-stage gage. Datum of gage is 113.73 ft above mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges of Edwards Branch at Chatham, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1950	May 4, 1950	44.46	-	1954	Dec. 2, 1953	44.00	-
				1955	Apr. 10, 1955	45.26	-
1951	Jan. 3, 1951	44.67	-				
1952	May 12, 1952	(a)	-	1956	Apr. 5, 1956	44.65	-
1953	May 17, 1953	45.18	-	1957	June 28, 1957	44.74	-
				1958	July 23, 1958	45.30	-

a Less than 43.1 ft; bottom of gage.

3705. Castor Creek near Grayson, La.
(Published as "Bayou Castor" prior to 1958)

Location.--Lat 32°04'55", long 92°12'25", in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.30, T.13 N., R.3 E., near center of span on downstream side of bridge on State Highway 126, 6 miles upstream from Beaucoup Creek and 6 $\frac{1}{2}$ miles northwest of Grayson.

Drainage area.--271 sq mi.

Gage.--Nonrecording prior to July 15, 1947; recording thereafter. Datum of gage is 89.89 ft above mean sea level, unadjusted.

Stage-discharge relation.--Defined by current-meter measurements below 11,000 cfs and extended by velocity-area studies.

Bankfull stage.--13 ft.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Nov. 26, 1940	13.20	6,690	1950	Feb. 13, 1950	13.78	9,000
	Dec. 29, 1940	12.39	3,860		May 3, 1950	12.88	5,730
					June 5, 1950	12.20	4,000
1942	Nov. 3, 1941	11.78	3,060	1951	Jan. 5, 1951	12.40	4,450
	Nov. 26, 1941	11.85	3,060		Mar. 30, 1951	-	3,300
	Apr. 9, 1942	13.45	7,250				
	May 20, 1942	13.66	7,980	1952	Apr. 24, 1952	11.84	3,240
1943	Apr. 2, 1943	8.19	397				
1944	Mar. 31, 1944	12.05	3,520	1953	Feb. 24, 1953	11.62	2,730
	May 5, 1944	13.32	6,970		Mar. 14, 1953	12.61	4,920
					May 1, 1953	12.74	5,280
1945	Jan. 3, 1945	12.36	4,450		May 6, 1953	11.82	3,180
	Mar. 20, 1945	12.22	4,000		May 17, 1953	15.65	18,000
	Apr. 3, 1945	15.30	16,100	1954	May 5, 1954	11.66	2,830
1946	Jan. 10, 1946	12.68	5,170	1955	Mar. 24, 1955	12.38	4,450
	Jan. 17, 1946	11.90	3,350		Apr. 15, 1955	11.63	2,830
	Feb. 10, 1946	14.30	11,100				
	June 4, 1946	11.50	2,530	1956	Feb. 5, 1956	11.50	2,530
1947	Jan. 5, 1947	11.50	2,530		Apr. 8, 1956	11.58	2,690
	Jan. 14, 1947	11.70	2,930	1957	Feb. 3, 1957	11.21	2,000
	Jan. 19, 1947	13.10	6,370		Apr. 5, 1957	11.42	2,260
	Mar. 13, 1947	12.10	3,780		Apr. 21, 1957	11.72	2,800
	Apr. 11, 1947	16.25	21,200		June 30, 1957	12.30	4,120
1948	Feb. 13, 1948	12.72	5,170	1958	Nov. 14, 1957	12.38	4,360
1949	Nov. 19, 1948	11.26	2,160		Nov. 23, 1957	12.12	3,660
	Jan. 3, 1949	12.77	5,300		May 3, 1958	13.12	6,370
	Jan. 30, 1949	11.38	2,300		July 25, 1958	12.12	3,660
	Mar. 26, 1949	13.10	6,370		Sept. 21, 1958	12.66	5,000

3706. Beaucoup Creek near Cotton Plant, La.

Location.--Lat 32°06'40", long 92°19'20", in sec.13, T.13 N., R.1 E., Winn Parish, at bridge on State Highway 126, 3.3 miles west of Cotton Plant, 9.3 miles upstream from mouth (confluence with Castor Creek), and 13 miles northwest of Grayson.

Drainage area.--127 sq mi.

Gage.--Crest-stage gage. Datum of gage is 104.87 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined; two discharge measurements made to date.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Jan. 5, 1951	10.54	-	1955	July 14-15, 1955	10.17	-
1952	May 12, 1952	9.62	-				
1953	May 17, 1953	13.18	-	1956	Apr. 6, 1956	9.82	-
1954	May 1, 1954	10.36	-	1957	June 22, 1957	10.67	-
				1958	Sept.21, 1958	11.56	-

3706.5. Flat Creek near Sikes, La.

Location.--Lat 32°04'45", long 92°27'50", in sec.27, T.13 N., R.1 W., Winn Parish, at bridge on State Highway 126, 1.5 miles east of Sikes and 4.4 miles upstream from Turkey Creek.

Drainage area.--41.5 sq mi.

Gage.--Crest-stage gage. Datum of gage is 122.27 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 30, 1951	9.85	-	1955	July 14, 1955	9.66	-
1952	May 12, 1952	9.46	-				
1953	May 17, 1953	12.56	-	1956	Apr. 6, 1956	9.76	-
1954	May 1, 1954	9.55	-	1957	June 22, 1957	9.76	-
				1958	Sept.21, 1958	11.43	-

3707. Beech Creek near Olla, La.

Location.--Lat 31°54'55", long 92°23'35", in SW¹/₄ sec.20, T.11 N., R.1 E., at bridge on State Highway 124, 9.0 miles west of Olla.

Drainage area.--58.0 sq mi.

Gage.--Crest-stage gage. Datum of gage is 51.80 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	41.30	-	1956	Feb. 13, 1956	41.63	-
1955	May 30, 1955	42.04	-	1957	June 29, 1957	42.27	-
				1958	Sept.21, 1958	44.46	-

3707.5. Big Chickasaw Creek near Olla, La.

Location.--Lat 31°52'30", long 92°13'35", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.1, T.10 N., R.2 E., at bridge on State Highway 127, 2 miles southeast of Olla.

Drainage area.--86.0 sq mi.

Gage.--Crest-stage gage. Datum of gage is 64.22 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	41.08	-	1956	Feb. 13, 1956	38.95	-
1955	Apr. 13, 1955	40.22	-	1957	June 22, 1957	40.58	-
				1958	Nov. 17, 1957	40.04	-

3708. Castor Creek at Tullos, La.

Location.--Lat 31°49'45", long 92°20'20", in sec.23, T.10 N., R.1 E., on line between LaSalle and Grant Parishes, at bridge on U. S. Highway 84, 0.9 mile west of Tullos and 3.8 miles upstream from confluence with Dugdemona River.

Drainage area.--923 sq mi.

Gage.--Crest-stage gage. Datum of gage is 42.93 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 28, 1951	27.20	-	1955	Apr. 13, 1955	20.84	-
1952	May 12, 1952	23.41	-	1956	Feb. 13, 1956	20.08	-
1953	May 18, 1953	33.05	-	1957	June 22, 1957	13.09	-
1954	May 1, 1954	21.17	-	1958	Nov. 17, 1957	24.74	-

3710. Garrett Creek at Jonesboro, La.

Location.--Lat 32°13'55", long 92°43'35", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.1, T.14 N., R.4 W., near right bank on downstream side of bridge on State Highway 4, 0.3 mile southwest of Jonesboro town limits and 0.9 mile upstream from Little Dugdemona River.

Drainage area.--2.14 sq mi.

Gage.--Recording. Datum of gage is 171.86 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Fairly well defined below 1,000 cfs and extended by section ratings.

Remarks.--Base for partial-duration series, 300 cfs.

Peak stages and discharges of Garrett Creek at Jonesboro, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1953	Jan. 31, 1953	7.54	424	1957	May 23, 1957	7.84	536	
	Feb. 20, 1953	7.72	488		June 27, 1957	7.41	368	
	Apr. 24, 1953	9.87	1,670		Sept. 15, 1957	7.66	464	
	May 4, 1953	7.74	496	1958	Nov. 7, 1957	7.83	530	
	May 16, 1953	9.07	1,190		Nov. 16, 1957	7.82	525	
1954	Dec. 3, 1953	7.74	496		Nov. 18, 1957	8.41	830	
	1955	Mar. 21, 1955	8.95		1,120	Apr. 30, 1958	7.59	440
Apr. 12, 1955		8.37	790		May 1, 1958	8.40	830	
May 24, 1955		8.41	820		July 13, 1958	8.38	310	
1956		July 14, 1955	8.52		870	July 22, 1958	9.43	1,510
		Apr. 5, 1956	7.73		492	July 23, 1958	7.87	650
1957	Apr. 27, 1957	7.78	512	Aug. 22, 1958	8.02	715		
				Sept. 17, 1958	7.55	532		
				Sept. 18, 1958	6.76	320		
				Sept. 20, 1958	8.49	960		

3715. Dugdemona River near Jonesboro, La.

Location.--Lat 32°12'25", long 92°48'05", in SW¹ sec. 8, T.14 N., R.4 W., on left bank just downstream from bridge on State Highway 4, 200 ft downstream from Brush Creek, 1.5 miles downstream from McDonald Creek, and 6 miles southwest of Jonesboro.

Drainage area.--347 sq mi.

Gage.--Recording. Datum of gage is 116.53 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 20,000 cfs and extended on basis of records for station near Winnfield. Shifts in relation occur.

Bankfull stage.--16 ft.

Remarks.--Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1939	Feb. 5, 1939	13.99	4,290	1946	July 8, 1946	16.79	13,500	
	Feb. 28, 1939	13.85	4,600	1947	Jan. 5, 1947	13.71	4,220	
1940	Feb. 10, 1940	13.95	4,690		Jan. 10, 1947	13.23	3,300	
	May 1, 1940	14.42	5,680		Jan. 19, 1947	15.16	8,040	
	1941	June 19, 1940	14.21		5,240	Mar. 15, 1947	14.09	5,120
		Nov. 26, 1940	14.00		4,800	Apr. 10, 1947	14.77	6,760
1942	Dec. 9, 1940	13.39	3,560	Apr. 12, 1947	14.84	7,030		
	Dec. 29, 1940	14.86	6,830	1948	Feb. 11, 1948	14.18	5,360	
	Mar. 9, 1941	13.27	3,370		Feb. 14, 1948	14.29	5,600	
	May 7, 1941	15.06	7,210		Apr. 15, 1948	14.16	5,240	
	1943	Nov. 2, 1941	16.03	10,200	1949	Mar. 26, 1949	13.06	2,940
Nov. 25, 1941		13.64	4,030	1950		Feb. 14, 1950	15.90	9,460
Apr. 11, 1942		14.28	5,560			May 3, 1950	14.68	6,020
May 16, 1942		15.67	9,290			June 5, 1950	15.25	7,320
1944		May 19, 1942	17.64			16,600	June 23, 1950	14.86
	Mar. 31, 1943	11.56	1,270		1951	Jan. 5, 1951	13.68	4,080
1945	Feb. 28, 1944	15.52	7,820	Mar. 30, 1951		13.34	3,560	
	Mar. 31, 1944	14.59	5,380	1952	Jan. 31, 1952	13.23	3,310	
	May 4, 1944	15.37	7,520		Apr. 15, 1952	13.06	3,000	
Apr. 25, 1952	13.04	3,000						
1946	Jan. 1, 1945	19.87	30,600	1953	Mar. 13, 1953	16.06	10,300	
	Jan. 8, 1945	13.50	3,470		Apr. 30, 1953	17.39	15,400	
	Jan. 22, 1945	13.90	4,180		May 6, 1953	13.88	4,370	
	Mar. 6, 1945	13.94	4,200	May 17, 1953	18.78	23,500		
	Apr. 2, 1945	18.72	23,000	1954	May 15, 1954	12.65	2,420	
1947	Jan. 9, 1946	15.91	10,300		1955	Mar. 23, 1955	14.75	6,280
	Feb. 10, 1946	17.64	16,600			Apr. 14, 1955	13.94	4,500
	Mar. 29, 1946	14.13	5,240					
	May 16, 1946	13.10	3,030					
	June 3, 1946	13.56	3,900					

Peak stages and discharges of Dugdemona River near Jonesboro, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	May 26, 1955	15.06	7,100	1956	Apr. 7, 1956	16.29	11,000
	July 16, 1955	13.45	3,640				
1956	Feb. 6, 1956	14.38	5,390	1957	Apr. 6, 1957	13.52	3,720
					Apr. 30, 1957	14.02	4,630
					June 30, 1957	13.10	3,070

3718. Big Creek near Dodson, La.

Location.--Lat 32°05'40", long 92°41'25", SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.20, T.13 N., R.3 W., at bridge on State Highway 126, 2 miles northwest of Dodson.

Drainage area.--81.0 sq mi.

Gage.--Crest-stage gage. Datum of gage is 86.75 ft above mean sea level, datum of 1929. (Louisiana Geodetic Survey bench mark).

Stage-discharge relation.--Fairly well defined between 800 and 5,000 cfs and extended by logarithmic plotting.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	47.30	3,300	1956	Apr. 6, 1956	46.92	2,000
1955	July 14, 1955	47.20	2,870	1957	July 24, 1957	46.98	2,180
				1958	July 23, 1958	47.97	7,800

3720. Dugdemona River near Winnfield, La.

Location.--Lat 31°58'30", long 92°39'10", on line between secs.34 and 35, T.12 N., R.3 W., on right bank just downstream from bridge on U. S. Highway 167, 300 ft upstream from Chicago, Rock Island and Pacific Railroad Co. bridge, 2.4 miles downstream from Kyiales Creek, and 3.5 miles north of Winnfield.

Drainage area.--654 sq mi.

Gage.--Nonrecording prior to Dec. 19, 1950; recording thereafter. Datum of gage is 81.14 ft above mean sea level (Louisiana Geodetic Survey bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 21,000 cfs and extended above. Moderate shifts in relation occur.

Bankfull stage.--17 ft.

Remarks.--Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Feb. 11-12, 1940	18.04	6,370	1946	Jan. 11, 1946	20.45	14,700
	May 5, 1940	17.10	4,520		Feb. 12, 1946	21.42	18,600
1941	Nov. 25, 1940	19.46	11,500		Mar. 31, 1946	17.76	6,310
	Dec. 14, 1940	16.97	4,350		May 16, 1946	16.95	4,620
	Dec. 31, 1940	18.30	7,250		July 11, 1946	18.25	7,450
	May 10, 1941	17.53	5,500	1947	Jan. 8, 1947	17.65	5,810
1942	Nov. 4, 1941	18.88	8,310		Jan. 21, 1947	18.88	9,640
	Apr. 13, 1942	17.50	5,280		Mar. 15, 1947	17.67	6,050
	May 21, 1942	20.10	13,900		Apr. 13, 1947	18.58	8,680
1943	Apr. 5, 1943	11.88	1,130	1948	Feb. 14, 1948	18.14	7,150
1944	Mar. 2, 1944	17.98	6,370		Feb. 22, 1948	17.78	6,310
	Apr. 2, 1944	17.78	5,870		Apr. 18, 1948	16.74	4,150
	May 6, 1944	19.79	12,700	1949	Jan. 6, 1949	17.07	4,790
1945	Jan. 3, 1945	22.86	25,000		Jan. 29, 1949	17.24	4,970
	Jan. 25, 1945	16.89	4,360		Mar. 27, 1949	18.73	9,000
	Apr. 4, 1945	22.26	22,300	1950	Jan. 15, 1950	16.68	4,150
			Feb. 16, 1950		19.45	11,300	

Peak stages and discharges of Dugdemona River near Winnfield, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1950	May 6, 1950	17.93	6,580	1955	Apr. 18, 1955	16.85	4,690	
	June 6, 1950	19.86	13,000		May 28, 1955	18.55	9,280	
1951	Jan. 8, 1951	17.06	4,790		July 18, 1955	16.39	5,020	
	Apr. 2, 1951	16.55	4,000	1956	Feb. 9, 1956	17.65	6,670	
1952	Feb. 5, 1952	15.51	2,720		Apr. 9, 1956	19.14	10,800	
		1953	Feb. 27, 1953	16.68	4,270	1957	May 2, 1957	17.91
Mar. 15, 1953	20.08		11,900	June 6, 1957	16.72		4,550	
May 1, 1953	21.94		18,800	1958	Nov. 18, 1957	19.36	11,200	
May 19, 1953	23.78		27,100		Nov. 22, 1957	19.56	11,800	
1954	May 14-15, 1954	15.12	2,630		May 4, 1958	20.50	15,000	
		1955	Mar. 27, 1955	16.97	4,910	May 24, 1958	17.37	6,010
				July 25, 1958	19.20	10,600		
				Sept. 22, 1958	21.16	17,400		

3721. Port de Luce Creek at Winnfield, La.

Location.--Lat 31°56'15", long 92°39'05", in sec.14, T.11 N., R.3 W., Winn Parish, at bridge on U. S. Highway 167, 0.9 mile north of Winnfield, 1.2 miles upstream from Chicago, Rock Island and Pacific Railroad Co. bridge, and 3.2 miles upstream from mouth (confluence with Dugdemona River).

Drainage area.--31.0 sq mi.

Gage.--Crest-stage gage. Datum of gage is 86.78 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Fairly well defined by current-meter measurements. May be subject to backwater from Dugdemona River.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	May 2, 1951	12.09	430	1955	Apr. 13, 1955	12.50	540
1952	May 12, 1952	13.66	940				
1953	May 17, 1953	16.88	7,140	1956	Feb. 12, 1956	12.74	600
1954	May 12, 1954	12.48	530				
				1957	Mar. 12, 1957	13.72	970

3721.9. Little River at Rochelle, La.

Location.--Lat 31°47'35", long 92°21'40", in sec.3, T 9 N., R.1 E., on line between Grant and LaSalle Parishes, at bridge on U. S. Highway 165, 0.1 mile downstream from confluence of Dugdemona River and Bayou Castor, 0.5 mile northeast of Rochelle, 3 miles southwest of Tullos, and 90.0 miles above mouth.

Drainage area.--1,871 sq mi.

Gage.--Nonrecording. Datum of gage is 24.79 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined; affected by backwater.

Bankfull stage.--31 ft.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges of Little River at Rochelle, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1939	Mar. 30-31, 1939	38.8	-	1949	Mar. 27, 1949	41.5	-
1940	May 4, 1940	37.4	-	1950	Feb. 15, 1950	40.6	-
1941	Nov. 28, 1940	38.6	-	1951	Mar. 30, 1951	39.0	-
1942	Apr. 11, 1942	38.6	-	1952	Apr. 26, 1952	36.5	-
1943	Apr. 11, 1943	26.1	-	1953	May 19, 1953	50.9	-
1944	May 7, 1944	40.2	-	1954	May 6, 1954	34.2	-
1945	Apr. 5, 1945	42.2	-	1955	Apr. 16, 1955	34.2	-
1946	Feb. 11, 1946	43.0	-	1956	Feb. 13, 1956	34.70	-
1947	Jan. 23, 1947	38.2	-	1957	July 2, 1957	35.7	-
1948	Feb. 19, 1948	36.0	-	1958	Sept. 24, 1958	40.28	-

3723. Bear Creek near Packton, La.

Location.--Lat 31°47'05", long 92°34'40", in S½ sec. 4, T.9 N., R.2 W., at bridge on U. S. Highway 167, 0.9 mile south of Packton.

Drainage area.--11 sq mi.

Gage.--Crest-stage gage. Datum of gage is 88.50 ft above mean sea level (Louisiana Geodetic Survey bench mark).

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	44.02	-	1956	Feb. 13, 1956	(a)	-
1955	Apr. 13, 1955	44.10	-	1957	Apr. 28, 1957	45.87	-
				1958	July 22, 1958	48.33	-

a Less than 41.0 ft; bottom of gage.

3725. Bayou Funny Louis near Trout, La.

Location.--Lat 31°43'00", long 92°13'20", in SE¼NW¼ sec. 36, T.9 N., R.2 E., near left bank on downstream side of bridge on U. S. Highway 84, 0.4 mile downstream from Jumping Gully Creek, 3 miles northwest of Trout, and 12 miles upstream from mouth.

Drainage area.--92 sq mi, approximately.

Gage.--Nonrecording prior to Aug. 4, 1945; recording thereafter. Datum of gage is 81.51 ft above mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 14,000 cfs and extended by logarithmic plotting.

Bankfull stage.--20 ft.

Remarks.--Base for partial-duration series, 1,800 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Feb. 6, 1940	15.80	1,820	1944	May 5, 1944	15.94	1,990
	Apr. 30, 1940	15.99	2,120				
1941	Nov. 24, 1940	16.15	2,160	1945	Feb. 5, 1945	15.99	2,090
	Dec. 27, 1940	15.82	2,020		Mar. 4, 1945	15.97	2,090
	May 6, 1941	15.59	1,940		Mar. 20, 1945	16.80	3,060
	May 31, 1941	16.18	2,170		Apr. 2, 1945	16.37	2,530
					June 15, 1945	16.52	2,660
1942	Feb. 16, 1942	16.67	2,920	1946	Jan. 9, 1946	16.33	2,470
	Mar. 8, 1942	15.83	1,900		Jan. 11, 1946	16.50	2,660
	Apr. 3, 1942	16.98	3,320		Jan. 16, 1946	15.87	1,940
1943	Apr. 9, 1943	16.88	2,170		Feb. 9, 1946	19.91	9,730
					Mar. 28, 1946	15.67	1,900

Peak stages and discharges of Bayou Funny Louis near Trout, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Jan. 18, 1947	16.77	2,970	1952	Apr. 23, 1952	16.84	3,250
	Apr. 11, 1947	17.13	3,560				
	Apr. 20, 1947	16.20	2,300	1953	Mar. 11, 1953	16.73	3,100
1948	Apr. 14, 1948	16.35	2,460		Mar. 15, 1953	16.73	3,100
					Apr. 29, 1953	20.55	13,600
1949	Nov. 19, 1948	19.70	9,190		May 17, 1953	23.26	32,700
	Nov. 28, 1948	15.81	1,960	1954	May 1, 1954	18.03	5,170
	Jan. 3, 1949	15.79	1,960				
	Mar. 27, 1949	16.60	2,770	1955	Apr. 13, 1955	17.12	3,650
	Apr. 30, 1949	15.86	2,000				
1950	Feb. 13, 1950	18.21	5,530				
	May 2, 1950	17.12	3,480				
	June 3, 1950	16.46	2,580	1957	Dec. 23, 1956	15.91	2,110
1951	Jan. 3, 1951	15.73	1,860		Apr. 1, 1957	15.48	1,970
	Mar. 28, 1951	19.73	9,190		June 28, 1957	15.40	1,940
				1958	November 1957	16.52	2,730

3730. Big Creek at Pollock, La.

Location.--Lat 31°32'10", long 92°24'30", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.31, T.7 N., R.1 E., near right bank on downstream side of bridge on U. S. Highway 165, 0.5 mile upstream from Sugar Branch, 0.7 mile upstream from Missouri Pacific Railroad bridge and water-supply diversion dam, 0.8 mile north of Pollock, and 1.3 miles downstream from Dyson Creek.

Drainage area.--51 sq mi, approximately.

Gage.--Nonrecording prior to Feb. 25, 1942; recording thereafter. Prior to June 22, 1955, at site 0.3 mile downstream at same datum. Datum of gage is 76.69 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 21,000 cfs and extended above. Shifts in relation occur.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 650 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Feb. 16, 1942	10.12	2,110	1951	Jan. 3, 1951	10.79	2,770
	Mar. 8, 1942	11.38	3,640		Feb. 7, 1951	8.56	1,150
	Apr. 9, 1942	11.82	4,460		Mar. 28, 1951	11.51	3,820
1943	Mar. 25, 1943	5.07	426		May 2, 1951	7.57	866
				1944	May 5, 1944	7.71	865
Apr. 23, 1952	12.64	5,940					
May 24, 1952	6.64	657					
1945	Apr. 1-2, 1945	9.46	1,610	1953	Mar. 1, 1953	9.95	1,880
1946	Jan. 8, 1946	10.70	2,660		Mar. 15, 1953	6.84	694
	Jan. 11, 1946	8.03	1,010		Apr. 24, 1953	16.90	23,500
	Jan. 15, 1946	7.89	985		May 4, 1953	10.49	2,420
	Feb. 9, 1946	11.95	4,870		May 17, 1953	16.17	20,100
	Mar. 28, 1946	6.87	775	1954	May 1, 1954	9.13	1,320
May 15, 1946	10.94	2,960					
1947	Jan. 16, 1947	10.10	2,110	1955	Feb. 5, 1955	6.58	653
	Apr. 11, 1947	13.65	10,100		Apr. 12, 1955	11.20	3,310
	Apr. 20, 1947	7.15	835	1956	Feb. 9, 1956	7.43	712
1948	Dec. 15, 1947	5.47	526				
1949	Nov. 18, 1948	9.96	1,980	1957	Apr. 1, 1957	8.30	915
	Feb. 21, 1949	7.17	777		June 28, 1957	7.78	792
	Mar. 25, 1949	7.20	777	1958	Nov. 14, 1957	8.02	831
	Mar. 27, 1949	10.95	2,960		Nov. 15, 1957	9.33	1,160
	Apr. 25, 1949	6.83	694		Nov. 18, 1957	8.62	970
1950	Feb. 13, 1950	14.52	13,700		Apr. 26, 1958	15.14	10,200
	Mar. 1, 1950	8.77	1,210		Apr. 28, 1958	8.80	1,020
	May 2, 1950	10.88	2,890	Apr. 30, 1958	8.18	876	
	May 13, 1950	8.73	1,180	Aug. 23, 1958	7.09	650	
	June 3, 1950	10.50	2,430	Aug. 24, 1958	9.49	1,220	
				Sept. 23, 1958	8.42	922	

3731. Big Creek at Fishville, La.

Location.--Lat 31°31'25", long 92°21'45", in sec.3, T.6 N., R.1 E., Grant Parish, at bridge on State Highway 8 at Fishville, 2.7 miles east of Pollock, 3.0 miles downstream from Missouri Pacific Railroad Co. bridge, and 5.3 miles upstream from mouth (confluence with Little River).

Drainage area.--66.5 sq mi.

Gage.--Crest-stage gage. Datum of gage is 53.21 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Historical data.--According to local residents, the flood in 1933 was greatest known since 1886. The flood in February 1950 was greatest known between 1933-50.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1933	-	16.40	-	1954	May 1, 1954	10.76	-
1950	February 1950	15.70	-	1955	Apr. 13, 1955	11.80	-
1951	Mar. 28, 1951	12.18	-	1956	Feb. 13, 1956	9.46	-
1952	Apr. 23, 1952	12.87	-	1957	Apr. 1, 1957	10.06	-
1953	Apr. 29, 1953	16.45	-	1958	Mar. 28, 1958	13.87	-

3732.6. Black River at Jonesville, La.

Location.--Lat 31°37'25", long 91°48'45", between lots 37 and 39, T.8 N., R.6 E., on line between Catahoula and Concordia Parishes, at bridge on U. S. Highway 84 at Jonesville, 0.3 mile downstream from Little River, 0.6 mile downstream from Tensas River, and 56.3 miles above mouth.

Drainage area.--24,158 sq mi. (Variable due to interchanging drainage).

Gage.--Nonrecording. Datum of gage is 1.87 ft above mean sea level, datum of 1929, supplementary adjustment of 1941, or 1.17 ft above mean Gulf level.

Stage-discharge relation.--Not defined; affected by fall.

Bankfull stage.--50 ft.

Remarks.--Gage-height records since June 1928 and occasional current-meter measurements April 1903 to January 1924 collected by Mississippi River Commission. Gage-height records since June 1928 and occasional current-meter measurements since February 1937 collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1927	May 17-18, 1927	64.1	-	1943	June 15-18, 1943	46.2	-
1928	May 17, 1928	47.4	-	1944	May 23-25, 1944	53.4	-
1929	June 15-16, 1929	52.9	-	1945	Apr. 24, May 2	58.5	-
1930	Feb. 19-21, 1930	46.5	-	1946	Feb. 21-24, 1946	52.9	-
1931	Mar. 7, 1931	32.5	-	1947	Apr. 28, 1947	47.8	-
1932	Mar. 5-8, 1932	55.6	-	1948	Mar. 19-20, 1948	49.1	-
1933	May 11-13, 1933	50.0	-	1949	Apr. 2, 1949	51.9	-
1934	Apr. 17-18, 1934	44.8	-	1950	Mar. 6, 1950	55.8	-
1935	May 22-29, 1935	51.9	-	1951	Apr. 3, 1951	48.2	-
1936	May 7, 1936	40.8	-	1952	May 6-7, 1952	49.3	-
1937	Mar. 5, 1937	55.9	-	1953	May 27-28, 1953	54.8	-
1938	Apr. 23-25, 1938	52.4	-	1954	May 22, 1954	41.2	-
1939	Apr. 6, 1939	51.1	-	1955	Apr. 17, 1955	46.6	-
1940	May 10, 1940	44.9	-	1956	Mar. 22, 1956	43.25	-
1941	May 17-18, 1941	41.9	-	1957	June 28, 1957	52.34	-
1942	May 17-20, 1942	49.6	-	1958	May 29, 1958	52.96	-

3732.7. Black River near Acme, La.

Location.--Lat 31°16'00", long 91°49'55", in lot 1, T.3 N., R.6 E., on line between Catahoula and Concordia Parishes, on left bank 0.1 mile upstream from mouth and 1.3 miles southwest of Acme.

Drainage area.--24,237 sq mi. (Variable due to interchanging drainage).

Gage.--Nonrecording. Datum of gage is 0.68 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Not defined.

Bankfull stage.--48 ft.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1924	Jan. 8-9, 1924	48.9	-	1941	May 9, 1941	40.5	-
1925	Mar. 9-12, 1925	32.8	-	1942	May 4-7, 1942	48.4	-
				1943	June 16-17, 1943	47.5	-
1926	Apr. 29-30, May 1-3	43.7	-	1944	May 22-24, 1944	53.5	-
1927	May 14-17, 1927	62.7	-	1945	Apr. 24, May 2	59.4	-
1928	May 23-25, 1928	47.3	-				
1929	June 15-19, 1929	53.7	-	1946	Feb. 28, Mar. 6	51.2	-
1930	Feb. 16-19, 1930	46.9	-	1947	May 8-9, 1947	46.9	-
				1948	(a)	47.4	-
1931	Mar. 8, 1931	31.2	-	1949	Mar. 2-5, 1949	51.2	-
1932	Mar. 6-9, 1932	55.8	-	1950	Mar. 4-6, 1950	56.0	-
1933	May 8-14, 1933	49.8	-				
1934	Apr. 17-18, 1934	43.5	-	1951	Apr. 2, 1951	45.6	-
1935	June 8-18, 1935	51.2	-	1952	May 3-6, 1952	48.7	-
				1953	May 26-30, 1953	52.8	-
1936	May 6, 1936	41.8	-	1954	May 18, 1954	38.7	-
1937	Mar. 1-7, 1937	56.8	-	1955	Apr. 15, 1955	45.6	-
1938	Apr. 25-29, 1938	51.5	-				
1939	Apr. 6-7, 1939	50.7	-	1956	Feb. 27, 1956	41.6	-
1940	May 10-12, 1940	43.4	-	1957	June 15-22, 1957	51.3	-
				1958	May 23-24, 1958	51.1	-

a Mar. 15-18, Apr. 21-23, 1948.

LITTLE BAYOU SARA BASIN

3733. Little Bayou Sara near Turnbull, La.

Location.--Lat 30°58'15", long 91°28'50", between lots 73 and 76, T.1 S., R.4 W., St. Helena meridian, West Feliciana Parish, at bridge on State Highway 66, 1.2 miles northwest of Turnbull, 1.6 miles downstream from Caney Creek, 2.0 miles south of Louisiana-Mississippi State line, and 2.4 miles upstream from Clapp Creek.

Drainage area.--22.3 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Mar. 22, 1949	14.32	-	1954	May 4, 1954	(a)	-
1950	Jan. 6, 1950	(a)	-	1955	Apr. 12, 1955	16.96	-
1951	Apr. 30, 1951	(a)	-	1956	Feb. 5, 1956	14.36	-
1952	May 20, 1952	13.04	-	1957	Dec. 22, 1956	14.78	-
1953	May 18, 1953	12.87	-	1958	Sept. 24, 1958	15.52	-

a Below 12.3 ft; bottom of gage.

3736. Thompson Creek at Jackson, La.

Location.--Lat 30°50'25", long 91°13'35", in lot 75, T.2 S., R.1 W., St. Helena meridian, at bridges across Thompson Creek and West Fork Thompson Creek on State Highway 10, East Feliciana Parish, 0.5 mile west of Jackson, 0.5 mile upstream from junction of main channel and West Fork channel, 1.0 mile upstream from Vaughan Creek, and 1.8 miles upstream from Asylum Creek.

Drainage area.--166 sq mi, includes West Fork Thompson Creek (66.6 sq mi).

Gage.--Crest-stage gage. Datum of gage is 48.69 ft above mean sea level (levels by Bill Horton, Civil Engineer).

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Mar. 22, 1949	42.40	-	1954	May 14, 1954	36.83	-
1950	Jan. 6, 1950	(a)	-	1955	Apr. 13, 1955	43.03	-
1951	Apr. 30, 1951	39.17	-	1956	Dec. 4, 1955	42.92	-
1952	May 19, 1952	36.47	-	1957	June 28, 1957	39.81	-
1953	May 18, 1953	41.85	-	1958	Nov. 17, 1957	37.22	-

a Below 35.6 ft; bottom of gage.

3737. Thompson Creek near Starhill, La.

Location.--Lat 30°44'55", long 91°17'05", in lot 71, West Feliciana Parish between West Feliciana and East Feliciana Parishes, at bridge on U. S. Highway 61, 1.7 miles southeast of Starhill, 2.4 miles upstream from Illinois Central Railroad bridge, and 8 miles upstream from mouth.

Drainage area.--249 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Mar. 22, 1949	42.92	-	1954	May 4, 1954	(a)	-
1950	Jan. 7, 1950	43.42	-	1955	Apr. 13, 1955	46.02	-
1951	Apr. 8, 1951	42.33	-	1956	Mar. 12, 1956	43.89	-
1952	May 19, 1952	(a)	-	1957	June 28, 1957	43.82	-
1953	May 18, 1953	46.10	-	1958	Nov. 17, 1957	(a)	-

a Below 42.1 ft; bottom of gage.

3738. Alexander Creek near St. Francisville, La.

Location.--Lat 30°42'55", long 91°22'05", between lots 51 and 67, T.3 S., R.2 W., at bridge on State Highway 10, 2.0 miles northeast of St. Francisville.

Drainage area.--23.9 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges of Alexander Creek near St. Francisville, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	May 18, 1953	14.18	-	1956	Mar. 12, 1956	10.93	-
1954	July 17, 1954	9.35	-	1957	June 28, 1957	(a)	-
1955	Apr. 12, 1955	12.55	-	1958	Mar. 24, 1958	9.20	-

a Below 8.24 ft; bottom of gage.

BAYOU BATON ROUGE BASIN

3739. Bayou Baton Rouge above Baker, La.

Location.--Lat 30°37'20", long 91°12'35", T.5. S., R.1 W., at bridge on parish road, 3.4 miles northwest of Baker.

Drainage area.--14.2 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	May 18, 1953	22.64	-	1956	Feb. 5, 1956	16.52	-
1954	Dec. 9, 1953	16.34	-	1957	Sept. 26, 1957	15.02	-
1955	Apr. 13, 1955	16.61	-	1958	Oct. 15, 1957	13.72	-

MISSISSIPPI RIVER DELTA

3747. Tchefuncta River near Franklinton, La.

Location.--Lat 30°45'22", long 90°15'55", in SE $\frac{1}{4}$ sec. 26, T.3 S., R.9 E., on line between Washington and Tangipahoa Parishes, at bridge on State Highway 16, immediately downstream from Taylor Creek, 0.8 mile downstream from Garman Creek and 9 miles southwest of Franklinton.

Drainage area.--53.1 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Not defined; two discharge measurements made to date.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Mar. 23, 1949	44.05	-	1954	Dec. 4, 1953	45.17	-
1950	Feb. 13, 1950	45.42	-	1955	Feb. 7, 1955	43.24	-
1951	Mar. 29, 1951	44.84	-	1956	Feb. 5, 1956	44.83	-
1952	Feb. 16, 1952	(a)	-	1957	Apr. 5, 1957	45.05	-
1953	May 3, 1953	45.48	-	1958	Jan. 25, 1958	44.72	-

a Below 42.0 ft; bottom of gage.

MISSISSIPPI RIVER DELTA

3750. Tchefuncta River near Folsom, La.

Location.--Lat 30°36'55", long 90°14'55", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.13, T.5 S., R.9 E., St. Helena meridian, near center of span on downstream side of bridge on State Highway 40, 1.2 miles upstream from Bull Branch and 3.6 miles southwest of Folsom.

Drainage area.--95.5 sq mi.

Gage.--Nonrecording prior to June 9, 1944; recording thereafter. Datum of gage is 62.11 ft above mean sea level (Louisiana Geodetic Survey bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 4,200 cfs and extended to 18,300 cfs by area-velocity studies.

Bankfull stage.--17 ft.

Remarks.--Base for partial-duration series, 1,300 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	Mar. 24, 1944	16.41	2,300	1949	May 2, 1949	20.13	8,730
	Mar. 30, 1944	15.21	1,480		Aug. 2, 1949	15.02	1,390
1945	Nov. 27, 1944	15.78	1,840	1950	Aug. 15, 1949	15.64	1,670
	Mar. 18, 1945	17.46	3,390		Feb. 14, 1950	19.34	6,500
	Apr. 30, 1945	14.85	1,300	Mar. 16, 1950	17.68	3,430	
1946	Dec. 26, 1945	15.10	1,430	1951	Feb. 2, 1951	17.00	2,630
	Jan. 6, 1946	15.50	1,650		Mar. 29, 1951	17.92	3,710
	Feb. 19, 1946	15.60	1,710	Apr. 23, 1951	14.75	1,500	
	Mar. 17, 1946	15.34	1,550	1952	Feb. 16, 1952	11.22	536
	Mar. 28, 1946	14.98	1,390		May 3, 1953	22.26	18,300
1947	Jan. 4, 1947	15.18	1,470	May 19, 1953	17.23	2,860	
	Jan. 14, 1947	15.10	1,430	July 24, 1953	15.78	1,770	
	Jan. 21, 1947	15.78	1,770	1954	Dec. 4, 1953	19.40	6,630
	Mar. 8, 1947	16.06	1,950		Dec. 9, 1953	18.12	4,010
	Mar. 14, 1947	18.25	4,240		Dec. 11, 1953	15.65	1,670
	Apr. 2, 1947	20.37	9,780		Feb. 7, 1955	14.56	1,220
	Apr. 11, 1947	18.35	4,400	1956	Feb. 5, 1956	18.68	4,980
	1948	Dec. 10, 1947	20.62		10,500	Mar. 11, 1956	14.68
Dec. 15, 1947		16.05	1,950		1957	Apr. 5, 1957	17.21
Mar. 3, 1948		16.68	2,350	Apr. 18, 1957		15.36	1,580
Mar. 6, 1948		18.30	4,320	1958	Nov. 15, 1957	17.57	3,220
Sept. 5, 1948	15.68	1,720	Apr. 23, 1949		15.51	1,620	
1949	Nov. 23, 1948	18.37	4,400				
	Nov. 27, 1948	21.59	15,000				
	Mar. 23, 1949	17.51	3,160				
	Apr. 23, 1949	15.51	1,620				

3750.5. Tchefuncta River near Covington, La.

Location.--Lat 30°29'40", long 90°10'10", SW $\frac{1}{4}$ sec.26, T.6 S., R.10 E., St. Helena meridian, St. Tammany Parish, at bridge on U. S. Highway 190, 150 ft upstream from Illinois Central Railroad bridge, 1 mile downstream from Horse Branch, 1 mile upstream from Pruden Creek, and 4 miles west of Covington.

Drainage area.--145 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges of Tchefuncta River near Covington, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 30, 1951	15.10	-	1956	Feb. 6, 1956	14.04	-
1952	Feb. 16, 1952	10.65	-	1957	Mar. 6, 1957	12.98	-
1953	May 3, 1953	20.47	-	1958	Nov. 15, 1957	14.62	-
1954	Apr. 17, 1954	19.37	-				
1955	Apr. 16, 1955	11.83	-				

3753. Tangipahoa River near Kentwood, La.

Location.--Lat 30°56'15", long 90°29'25", between lots 43 and 45, T.1 S., R.7 E., St. Helena meridian, Tangipahoa Parish, at bridge on State Highway 38, 0.9 mile upstream from Terrys Creek, 1.1 miles east of Kentwood, and 1.7 miles downstream from Irving Branch.

Drainage area.--237 sq mi.

Gage.--Crest-stage gage. Datum of gage is 180.30 ft above mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 28, 1951	14.08	-	1956	Mar. 17, 1956	11.23	-
1952	Feb. 16, 1952	(a)	-	1957	Sept. 18, 1957	10.68	-
1953	May 3, 1953	12.14	-	1958	Mar. 10, 1958	11.37	-
1954	Dec. 4, 1953	(a)	-				
1955	Apr. 14, 1955	13.67	-				

a Below 9.2 ft; bottom of gage.

3754.3. Tangipahoa River near Amite, La.

Location.--Lat 30°43'40", long 90°29'05", in lot 50, Tangipahoa Parish, 0.7 mile upstream from Connors Creek, 1.5 miles east of Amite, and 1.8 miles downstream from Big Creek.

Drainage area.--482 sq mi.

Gage.--Crest-stage gage. Datum of gage is 59.03 ft above mean sea level.

Stage-discharge relation.--Fairly well defined between 5,800 and 8,300 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	May 4, 1949	45.26	-	1954	Dec. 14, 1953	41.04	7,800
1950	Jan. 8, 1950	42.40	-	1955	Apr. 15, 1955	42.55	-
1951	Mar. 30, 1951	42.62	-	1956	Feb. 5, 1956	40.57	6,700
1952	Feb. 16, 1952	41.90	-	1957	Sept. 18, 1957	(a)	-
1953	May 3, 1953	42.19	-	1958	Jan. 25, 1958	40.00	5,770

a Below 39.0 ft; bottom of gage.

3755. Tangipahoa River at Robert, La.

Location.--Lat 30°30'23", long 90°21'42", in lot 39, T.6 S., R.8 E., St. Helena meridian, on right bank just downstream from bridge on U. S. Highway 190, 1 mile west of Robert, 2 miles downstream from Chapppeeela Creek, and 6 miles east of Hammond.

Drainage area.--646 sq mi.

Gage.--Nonrecording prior to Nov. 25, 1939; recording thereafter. Datum of gage is 6.87 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 35,000 cfs and extended above. Rate of change in stage is a factor on some rises. Moderate shifts in relation have occurred.

Bankfull stage.--16 ft.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1921	-	27.10	-	1949	Nov. 23, 1948	15.96	8,450
1939	June 6, 1939	14.72	6,000		Nov. 27, 1948	19.14	24,600
1940	May 2, 1940	15.44	7,690		Dec. 10, 1948	14.29	5,200
	July 7, 1940	14.15	5,460		Dec. 20, 1948	15.33	6,760
	July 13, 1940	15.10	6,970		Feb. 19, 1949	14.82	5,920
					Mar. 24, 1949	16.69	11,200
1941	Dec. 18, 1940	16.48	11,200		Apr. 3, 1949	16.55	10,600
	Dec. 28, 1940	13.90	5,100		Apr. 24, 1949	14.89	6,080
					May 4, 1949	19.60	27,700
1942	Jan. 5, 1942	14.38	5,740	1950	Jan. 10, 1950	16.16	8,960
	Sept. 13, 1942	14.72	6,250		Feb. 14, 1950	17.27	14,500
					Mar. 6, 1950	14.17	5,070
1943	Dec. 29, 1942	19.70	28,300		Mar. 17, 1950	15.62	7,370
	Feb. 8, 1943	16.61	12,000		June 7, 1950	16.68	11,200
	Mar. 22, 1943	20.87	35,500	1951	Feb. 2, 1951	16.38	10,200
	Sept. 22, 1943	13.87	5,220		Mar. 20, 1951	14.66	5,770
1944	Mar. 24, 1944	14.90	7,150		Mar. 31, 1951	16.74	11,500
	Mar. 31, 1944	15.55	8,860		Apr. 25, 1951	16.33	9,740
	May 6, 1944	14.00	5,390	1952	Apr. 5, 1952	11.55	2,800
1945	Nov. 27, 1944	13.86	5,220	1953	Feb. 27, 1953	14.84	5,920
	May 1, 1945	14.29	5,920		Mar. 16, 1953	14.18	5,070
					May 3, 1953	23.13	50,500
1946	Jan. 7, 1946	14.32	5,920		May 19 or May 20	20.10	30,700
	Mar. 18, 1946	15.28	8,080	1954	Dec. 4, 1953	16.93	12,400
	July 9, 1946	15.68	9,130		Dec. 10, 1953	16.28	9,540
	July 16, 1946	-	8,600	1955	Jan. 18, 1955	14.31	5,200
	Sept. 26, 1946	15.75	9,410		Feb. 8, 1955	16.55	10,600
					Apr. 16, 1955	17.11	13,200
1947	Jan. 4, 1947	13.89	5,220	1956	Feb. 5, 1956	16.83	11,900
	Jan. 16, 1947	15.32	8,080		Feb. 12, 1956	14.55	5,550
	Jan. 22, 1947	16.32	11,000		Mar. 15, 1956	15.70	7,610
	Mar. 9, 1947	15.31	6,630	1957	Apr. 5, 1957	15.22	6,620
	Mar. 14, 1947	17.64	16,000		Sept. 19, 1957	15.73	7,690
	Apr. 3, 1947	17.95	18,200	1958	Nov. 16, 1957	16.29	9,540
	Apr. 11, 1947	15.30	6,630		Mar. 10, 1958	15.35	6,950
1948	Dec. 11, 1947	17.14	13,500				
	Feb. 1, 1948	14.20	5,050				
	Mar. 6, 1948	18.95	24,000				
	Sept. 6, 1948	15.93	8,150				

3756. Washley Creek near Robert, La.

Location.--Lat 30°30'20", long 90°18'30", on line between secs.21 and 28, T.6 S., R.9 E., St. Helena meridian, Tangipahoa Parish, at bridge on U. S. Highway 190, 800 ft upstream from unnamed tributary, 900 ft upstream from Illinois Central Railroad bridge, 1 mile upstream from Holden Branch, and 2 miles east of Robert.

Drainage area.--25.3 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 30, 1951	11.75	-	1956	Feb. 5, 1956	11.08	-
1952	Feb. 16, 1952	9.93	-	1957	Sept. 18, 1957	9.18	-
1953	May 3, 1953	13.25	-	1958	Nov. 15, 1957	9.08	-
1954	Dec. 4, 1953	11.37	-				
1955	Apr. 15, 1955	10.54	-				

3758.5. Tickfaw River near Greensburg, La.

Location.--Lat 30°49'30", long 90°38'10", in lot 52, St. Helena Parish, at bridge on State Highway 10, 1.2 miles upstream from Josephs Branch and 1.8 miles southeast of Greensburg.

Drainage area.--136 sq mi.

Gage.--Crest-stage gage. Datum of gage is at mean sea level.

Stage-discharge relation.--Fairly well defined below 3,000 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	May 4, 1949	164.89	-	1954	Dec. 5, 1953	(a)	-
1950	Feb. 14, 1950	161.57	2,730	1955	Jan. 7, 1955	162.51	4,000
1951	Mar. 30, 1951	162.55	4,050	1956	Mar. 11, 1956	162.34	3,730
1952	Apr. 6, 1952	(a)	-	1957	Sept. 18, 1957	(a)	-
1953	May 3, 1953	163.02	4,950	1958	Jan. 12, 1958	162.03	3,300

a Below 161.5 ft; bottom of gage.

3759.6. Tickfaw River at Montpelier, La.

Location.--Lat 30°41'10", long 90°38'35", between lots 41 and 42, T.4 S., R.6 E., St. Helena meridian, St. Helena Parish, at bridge on State Highway 43, 0.5 mile northeast of Montpelier, 0.8 mile downstream from Twelvemile Creek, and 1.5 miles upstream from Killion Branch.

Drainage area.--220 sq mi.

Gage.--Crest-stage gage. Datum of gage is same as Corps of Engineers staff gage, possibly mean sea level.

Stage-discharge relation.--Not adequately defined.

Remarks.--Only annual peak stages are shown.

MISSISSIPPI RIVER DELTA

Peak stages and discharges of Tickfaw River at Montpelier, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 30, 1951	100.68	-	1956	Mar. 11, 1956	100.42	-
1952	Apr. 6, 1952	(a)	-	1957	Sept. 18, 1957	99.28	-
1953	May 3, 1953	103.93	-	1958	Jan. 12, 1958	100.46	-
1954	Dec. 6, 1954	99.09	-				
1955	Apr. 15, 1955	101.20	-				

a Below 97.4 ft; bottom of gage.

3760. Tickfaw River at Holden, La.

Location.--Lat 30°30'13", long 90°40'38", in sec. 26, T. 6 S., R. 5 E., St. Helena meridian, near left bank on downstream side of bridge on U. S. Highway 190, half a mile west of Holden and 5.1 miles upstream from Big Branch.

Drainage area.--242 sq mi.

Gage.--Nonrecording prior to Sept. 13, 1944; recording thereafter. Datum of gage is 19.15 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 6,500 cfs and extended above. Minor shifts in relation occur.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 2,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	Dec. 17, 1940	16.87	5,740	1949	Apr. 24, 1949	13.66	2,310
	Dec. 29, 1940	12.70	2,030		May 4, 1949	-	6,000
1942	May 18, 1942	12.68	2,030	1950	Jan. 10, 1950	15.10	3,350
	Sept. 19, 1942	14.81	3,380		Feb. 16, 1950	14.78	3,440
1943	Dec. 30, 1942	16.27	4,740		Mar. 16, 1950	14.36	3,120
	Feb. 3, 1943	16.55	5,090		June 9, 1950	17.06	5,740
	Mar. 22, 1943	19.75	9,680	1951	Feb. 3, 1951	15.08	3,760
	Mar. 28, 1943	13.54	2,400		Mar. 21, 1951	12.50	2,040
1944	Mar. 25, 1944	13.30	2,280		Mar. 31, 1951	16.24	4,770
	Apr. 1, 1944	13.40	2,340	1952	Apr. 7, 1952	10.93	1,450
1945	May 2, 1945	13.17	2,230		1953	Feb. 28, 1953	12.86
	1946	Mar. 18, 1946	15.25	3,650		Mar. 17, 1953	12.55
May 20, 1946		12.80	2,030	Apr. 27, 1953		12.68	2,130
July 9, 1946		13.59	2,460	May 3, 1953		18.01	6,940
Sept. 26, 1946		13.94	2,650	May 20, 1953		18.97	8,400
1947	Jan. 17, 1947	13.63	2,460	1954	Dec. 6, 1953	14.44	3,200
	Jan. 23, 1947	14.80	3,320		Dec. 12, 1953	14.39	3,200
	Mar. 10, 1947	12.96	2,130	1955	Feb. 9, 1955	16.42	4,980
	Mar. 15, 1947	16.20	4,630		Apr. 15, 1955	16.57	5,180
	Apr. 3, 1947	17.76	6,640		Aug. 4, 1955	16.58	5,180
1948	Dec. 12, 1947	15.60	3,870	1956	Feb. 7, 1956	13.32	2,470
	Mar. 5, 1948	17.82	6,640		Mar. 14, 1956	16.04	4,610
1949	Nov. 29, 1948	15.68	3,980	1957	Sept. 21, 1957	12.83	2,520
	Dec. 21, 1948	13.96	2,500		1958	Nov. 16, 1957	15.33
	Feb. 19, 1949	14.15	2,630	Mar. 10, 1958		12.05	2,140
	Mar. 24, 1949	17.80	6,640	May 27, 1958		12.87	2,550
	Apr. 3, 1949	15.90	4,220				

3762. Hog Branch near Doyle, La.

Location.--Lat 30°30'10", long 90°42'20", on line between secs.21 and 28, T.6 S., R.5 E., St. Helena meridian, Livingston Parish, at bridge on U. S. Highway 190, 200 ft downstream from Illinois Central Railroad bridge, 0.5 mile upstream from Big Branch, 2.0 miles east of Doyle, 2.1 miles west of Holden, and 4 miles downstream from West Hog Branch.

Drainage area.--110 sq mi.

Gage.--Crest-stage gage. Datum of gage is 16.37 ft above mean sea level.

Stage-discharge relation.--Defined by four current-meter measurements, prior to 1957, below 8,100 cfs and extended to 15,100 cfs by logarithmic plotting. Channel dredged during 1957.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 30, 1951	16.68	2,200	1956	Feb. 4, 1956	15.58	1,550
1952	Apr. 12, 1952	13.98	1,000	1957	Sept. 18, 1957	(a)	-
1953	May 4, 1953	22.77	15,100	1958	Nov. 14, 1957	15.33	-
1954	Dec. 6, 1953	17.03	2,500				
1955	Feb. 7, 1955	17.51	2,950				

a Below 12.05 ft; bottom of gage.

3763. Tickfaw River near Springfield, La.

Location.--Lat 30°22'35", long 90°33'02", between lots 37 and 42, T.8 S., R.6 E., St. Helena meridian, in Livingston Parish, at bridge on State Highway 22, 0.2 mile downstream from Blood River, 3.7 miles south of Springfield, and 7.1 miles upstream from mouth.

Drainage area.--487 sq mi.

Gage.--Recording. Datum of gage is at mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Mar. 6, 1948	4.2	-	1954	Sept. 17, 1954	3.7	-
1949	Mar. 30, 1949	2.8	-	1955	Aug. 2, 1955	3.0	-
1950	Oct. 5, 1949	3.7	-				
				1956	Sept. 25, 1956	3.7	-
1951	Mar. 29, 1951	2.5	-	1957	June 27, 1957	3.21	-
1952	July 17, 1952	3.0	-	1958	Sept. 6, 1958	2.97	-
1953	May 5, 1953	3.9	-				

3765. Natalbany River at Baptist, La.

Location.--Lat 30°30'15", long 90°32'45", in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.30, T.6 S., R.7 E., St. Helena meridian near right bank on downstream side of bridge on U. S. Highway 190, 0.7 mile downstream from Still Branch and 0.7 mile west of Baptist.

Drainage area.--79.5 sq mi.

Gage.--Nonrecording prior to June 4, 1948; recording thereafter. Prior to Apr. 14, 1950, at old highway bridge 100 ft upstream at present datum. Datum of gage is 11.28 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 6,000 cfs and extended above.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 1,000 cfs.

MISSISSIPPI RIVER DELTA

Peak stages and discharges of Natalbany River at Baptist, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	Jan. 13, 1944	10.96	1,240	1952	Feb. 15, 1952	12.23	1,630
	Jan. 15, 1944	10.30	1,020		Apr. 4, 1952	11.93	1,450
	Mar. 23, 1944	10.75	1,170	1953	Jan. 23, 1953	11.77	1,400
May 5, 1944	12.00	1,580	Feb. 15, 1953		12.15	1,630	
1945	Nov. 26, 1944	10.80	1,170		Feb. 25, 1953	11.54	1,250
	Jan. 22, 1945	10.46	1,080		Mar. 15, 1953	12.63	1,900
	Feb. 5, 1945	10.75	1,170		Apr. 25, 1953	12.56	1,870
	July 27, 1945	10.60	1,110		May 3, 1953	19.73	9,550
1946	Jan. 5, 1946	11.10	1,270		May 18, 1953	14.05	3,120
	Mar. 8, 1946	11.15	1,500	June 29, 1953	13.00	2,210	
	Mar. 16, 1946	12.64	2,040	July 24, 1953	11.28	1,230	
	May 15, 1946	11.85	1,600	1954	Nov. 20, 1953	13.34	2,450
	May 18, 1946	10.40	1,080		Dec. 4, 1953	13.66	2,810
	June 1, 1946	11.70	1,510		Dec. 9, 1953	13.72	2,810
1947	Jan. 15, 1947	10.65	1,110		Dec. 12, 1953	12.74	1,980
	Jan. 21, 1947	11.00	1,100	Dec. 22, 1953	12.05	1,540	
	Mar. 7, 1947	13.05	2,220	Apr. 16, 1954	12.40	1,770	
	Mar. 13, 1947	15.70	4,960	1955	Jan. 16, 1955	11.71	1,390
	Apr. 2, 1947	13.46	2,670		Feb. 6, 1955	13.15	2,370
	Apr. 11, 1947	10.96	1,100		Apr. 10, 1955	12.44	1,770
Sept. 19, 1947	12.52	1,820	Apr. 13, 1955		12.18	1,650	
1948	Nov. 18, 1947	10.93	1,070		July 31, 1955	11.64	1,370
	Dec. 11, 1947	14.68	3,890	Aug. 2, 1955	12.98	2,210	
	Dec. 15, 1947	12.18	1,640	Aug. 6, 1955	10.87	1,150	
	Mar. 3, 1948	13.00	2,220	1956	Feb. 4, 1956	13.37	2,510
	Mar. 6, 1948	13.98	3,160		Feb. 10, 1956	11.28	1,220
1949	Nov. 22, 1948	12.76	2,040		Mar. 11, 1956	13.09	2,280
	Nov. 26, 1948	16.10	5,050		Mar. 14, 1956	11.14	1,170
	Mar. 23, 1949	12.05	1,530	May 5, 1956	11.24	1,210	
	Apr. 22, 1949	12.05	1,470	1957	Dec. 23, 1956	11.65	1,370
May 4, 1949	11.61	1,260	Apr. 1, 1957		11.03	1,130	
1950	Feb. 13, 1950	14.53	3,530		Apr. 4, 1957	13.58	2,700
	Mar. 3, 1950	11.88	1,410		Apr. 17, 1957	11.74	1,410
	June 7, 1950	16.57	5,540	1958	Nov. 14, 1957	12.59	1,910
1951	Jan. 30, 1951	10.96	1,000		Feb. 6, 1958	11.72	1,390
	Feb. 1, 1951	12.74	1,960		Mar. 7, 1958	12.70	1,980
	Mar. 18, 1951	14.85	3,810		Mar. 24, 1958	11.50	1,310
	Mar. 29, 1951	13.04	2,200		Apr. 10, 1958	10.92	1,090
				May 24, 1958	10.78	1,060	

3766. Ponchatoula Creek at Natalbany, La.

Location.--Lat 30°33'40", long 90°28'55", between secs.2 and 3, T.6 S., R.7 E., St. Helena meridian, Tangipahoa Parish, at bridge on U. S. Highway 51, 1.0 mile north of Natalbany and 1.1 miles south of Tickfaw.

Drainage area.--13.8 sq mi.

Gage.--Crest-stage gage. Datum of gage is 44.45 ft above mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 19, 1951	11.63	-	1956	Mar. 11, 1956	7.79	-
1952	Apr. 12, 1952	9.51	-	1957	Sept. 18, 1957	10.26	-
1953	Feb. 28, 1953	9.36	-	1958	Mar. 6, 1958	8.62	-
1954	Dec. 4, 1953	6.92	-				
1955	Feb. 5, 1955	6.71	-				

3766.1. Ponchatoula Creek east of Hammond, La.

Location.--Lat 30°30'26", long 90°26'51", in SW $\frac{1}{4}$ sec.19, T.6 S., R.8 E., Tangipahoa Parish, at bridge on U. S. Highway 190 in Hammond.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Oct. 19, 1949; recording thereafter. Datum of gage is at mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Sept. 4, 1948	a33.8	-	1954	Dec. 4, 1953	a28.7	-
1949	Nov. 27, 1948	35.50	-	1955	Feb. 5, 1955	31.8	-
1950	June 7, 1950	37.17	-	1956	Feb. 4, 1956	32.6	-
1951	Mar. 18, 1951	35.95	-	1957	Apr. 17, 1957	34.00	-
1952	Feb. 15, 1952	32.11	-	1958	Sept. 18, 1958	30.78	-
1953	May 3, 1953	37.86	-				

a Records incomplete, might have been higher during the year.

3766.2. Ponchatoula Creek south of Hammond, La.

Location.--Lat 30°27'21", long 90°27'22", in sec.12, T.7 S., R.7 E., Tangipahoa Parish, at bridge on U. S. Highway 51, 1 $\frac{1}{2}$ miles northwest of Ponchatoula and 3.5 miles south of Hammond.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Apr. 1, 1949; recording thereafter. Datum of gage is at mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Sept. 5, 1948	a15.00	-	1954	Dec. 4, 1953	b7.20	-
1949	Nov. 27, 1948	16.80	-	1955	Feb. 5, 1955	b11.40	-
1950	June 7, 1950	17.37	-	1956	Feb. 4, 1956	b12.60	-
1951	Mar. 18, 1951	15.80	-	1957	Apr. 17, 1957	b11.10	-
1952	Feb. 15, 1952	12.28	-	1958	Apr. 9, 1958	b8.70	-
1953	May 3, 1953	12.32	-				

a Records incomplete, might have been higher during the year.

b 8 a.m. reading.

3767. Yellow Water River Canal near Hammond, La.

Location.--Lat 30°31'25", long 90°29'00", on line between secs.14 and 15, T.6 S., R.7 E., St. Helena meridian, Tangipahoa Parish, at bridge on U. S. Highway 51, 0.5 mile downstream from Ponchatoula Creek, 1.6 miles south of Natalbany, and 1.9 miles northwest of Hammond.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Nov. 21, 1950; crest-stage gage thereafter. Datum of gage is mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records and occasional current-meter measurements prior to 1950 collected by Corps of Engineers. Major channel improvements made during 1953. Only annual peak stages are shown.

Peak stages and discharges of Yellow Water River Canal near Hammond, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Sept. 4, 1948	43.9	-	1954	Dec. 4, 1953	41.52	-
1949	Nov. 27, 1948	44.45	-	1955	Feb. 5, 1955	41.49	-
1950	June 7, 1950	45.82	-				
				1956	Mar. 11, 1956	41.59	-
1951	Mar. 29, 1951	43.97	-	1957	Apr. 6, 1957	43.4	-
1952	Feb. 16, 1952	37.22	-	1958	Nov. 15, 1957	41.10	-
1953	May 3, 1953	42.14	-				

3767.1. Yellow Water River Canal near Baptist, La.

Location.--Lat 30°30'16", long 90°30'30", in sec.28, T.6 S., R.7 E., Tangipahoa Parish, at culvert on U. S. Highway 190, 2 miles west of Hammond and 4½ miles east of Albany.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Apr. 12, 1951; recording thereafter. Datum of gage is at mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Sept. 4, 1948	34.00	-	1951	Mar. 19, 1951	35.40	-
1949	Nov. 26, 1948	34.00	-	1952	Feb. 15, 1952	31.61	-
1950	June 7, 1950	36.10	-	1953	May 4, 1953	33.68	-

a Maximum for period Jan. 1 to Aug. 17, 1953, from floodmark.

3770. Amite River near Darlington, La.

Location.--Lat 30°53'20", long 90°50'40", in lot 72, T.2 S., R.4 E., St. Helena meridian on left bank just downstream from bridge on State Highway 10, 1.5 miles upstream from Collins Creek and 3.9 miles west of Darlington.

Drainage area.--580 sq mi.

Gage.--Crest-stage gage prior to Oct. 24, 1950; nonrecording gage Oct. 24, 1950, to Jan. 11, 1951; recording thereafter. Datum of gage is 148.80 ft above mean sea level, datum of 1929, supplementary adjustment of 1941.

Stage-discharge relation.--Defined by current-meter measurements below 36,000 cfs and extended above. Moderate shifts in relation occur at medium and low stages.

Bankfull stage.--12 ft.

Remarks.--Base for partial-duration series, 5,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	March 1949	14.80	a20,000	1953	Feb. 22, 1953	11.20	5,840
					Feb. 26, 1953	13.05	10,200
1950	Jan. 7, 1950	17.21	a43,400		Mar. 13, 1953	12.00	7,330
					May 1, 1953	11.85	7,000
1951	Dec. 7, 1950	10.92	5,420		May 5, 1953	14.11	15,500
	Jan. 30, 1951	11.92	7,110		May 20, 1953	14.64	18,900
	Mar. 30, 1951	16.05	31,600				
	Apr. 23, 1951	15.63	27,100	1954	Jan. 16, 1954	8.58	3,280
	June 18, 1951	10.86	5,420				
1952	Dec. 21, 1951	8.23	3,180	1955	Feb. 7, 1955	15.32	24,200
					Feb. 23, 1955	13.04	10,200

a Annual peak only.

Peak stages and discharges of Amite River near Darlington, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Apr. 13, 1955	18.18	55,700	1957	May 4, 1957	10.82	5,350
1956	Dec 19, 1955	11.90	7,110	1957	June 29, 1957	14.82	20,200
	Feb. 5, 1956	14.38	17,100		Sept.29, 1957	11.18	5,820
	Feb. 11, 1956	11.40	6,160		1958	Nov. 16, 1957	13.78
	Mar. 12, 1956	14.85	20,400	Nov. 20, 1957		11.56	6,510
	Mar. 17, 1956	14.79	19,900	June 23, 1958	13.28	11,400	
1957	Apr. 5, 1957	12.01	7,350	Sept.23, 1958	15.06	22,400	

3771.5. Amite River at Grangeville, La.

Location.--Lat 30°44'10", long 90°50'30", between lots 63 and 64, T.4 S., R.4 E., St. Helena meridian, on line between East Feliciana and St. Helena Parishes, at bridge on State Highway 37, 50 ft downstream from Lilleys Creek and 0.5 mile southwest of Grangeville.

Drainage area.--741 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Not defined.

Historical data.--Maximum stage known, about 17.4 ft, from floodmarks, date unknown.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 31, 1951	13.99	-	1956	Mar. 12, 1956	12.74	-
1952	Dec. 21, 1951	(a)	-	1957	June 30, 1957	11.25	-
1953	May 20, 1953	13.74	-	1958	Nov. 16, 1957	10.55	-
1954	Jan. 15, 1954	(b)	-				
1955	Apr. 14, 1955	16.71	-				

a Below 7.5 ft.

b Below 9.0 ft.

3773. Amite River at Magnolia, La.

Location.--Lat 30°32'05", long 90°58'50", on parish line between East Baton Rouge Parish and Livingston Parish, at bridge on State Highway 64, 0.4 mile east of town of Magnolia, 2 miles upstream from mouth of Beaver Creek, and 8 miles upstream from mouth of Comite River.

Drainage area.--884 sq mi.

Gage.--Crest-stage gage. Datum of gage is at mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	May 4, 1949	42.26	-	1954	Dec. 11, 1953	36.74	-
1950	Jan. 9, 1950	45.10	-	1955	Apr. 15, 1955	48.26	-
1951	Apr. 1, 1951	44.32	-	1956	Mar. 14, 1956	41.92	-
1952	Apr. 5, 1952	(a)	-	1957	July 1, 1957	37.71	-
1953	May 20, 1953	47.46	-	1958	Sept.25, 1958	38.42	-

a Below 36.5 ft; bottom of gage.

3774. Comite River near Clinton, La.

Location.--Lat 30°51'30", long 91°02'20", between lots 86 and 87, T.2 S., R.2 E., St. Helena meridian, East Feliciana Parish, at bridge on State Highway 10, 1.3 miles west of Clinton and 2 miles upstream from Pretty Creek.

Drainage area.--88.0 sq mi.

Gage.--Crest-stage gage. Datum of gage is about 164.2 ft above mean sea level, as determined from Louisiana Department of Highways reference mark.

Stage-discharge relation.--Fairly well defined by current-meter measurements below 4,200 cfs.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1949	Mar. 21, 1949	13.75	-	1954	May 4, 1954	11.68	3,350
1950	Jan. 7, 1950	14.06	-	1955	Apr.13-14, 1955	14.88	-
1951	Mar. 29, 1951	13.48	-	1956	Dec. 19, 1955	13.57	-
1952	Apr. 4, 1952	(a)	-	1957	June 29, 1957	11.89	3,720
1953	May 18, 1953	13.28	-	1958	Oct. 15, 1957	11.92	3,770

a Below 10.1 ft; bottom of gage.

3775. Comite River near Olive Branch, La.

Location.--Lat 30°45'35", long 91°02'50", between lots 41 and 42, T.3 S., R.2 E., St. Helena meridian, near center of span on downstream side of bridge on State Highway 67, 500 ft downstream from Knighton Bayou and 1.8 miles northeast of Olive Branch.

Drainage area.--149 sq mi.

Gage.--Nonrecording prior to Oct. 29, 1949; recording thereafter. Datum of gage is 115.65 ft above mean sea level (Louisiana Geodetic Survey bench mark).

Stage-discharge relation.--Defined by current-meter measurements below 10,000 cfs and extended above.

Bankfull stage.--18 ft.

Remarks.--Base for partial-duration series, 2,500 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Feb. 6, 1943	20.60	12,400	1949	Feb. 17, 1949	16.43	3,810
	Mar. 7, 1943	15.04	2,590		Mar. 22, 1949	19.44	10,600
	Mar. 21, 1943	18.98	7,150		Mar. 31, 1949	17.40	4,970
	Mar. 27, 1943	17.25	4,300		Apr. 24, 1949	16.20	3,640
					May 3, 1949	17.66	5,490
1944	Nov. 7, 1943	15.74	3,010	1950	Jan. 7, 1950	19.62	11,300
	Mar. 20, 1944	15.30	2,800				
	Apr. 24, 1944	15.92	3,110	1951	Jan. 31, 1951	16.34	3,720
			Mar. 29, 1951		19.23	9,900	
1945	Jan. 8, 1945	15.04	2,740	1952	Apr. 4, 1952	10.61	1,530
	Apr. 26, 1945	14.60	2,580				
	Apr. 29, 1945	16.38	3,460	1953	Feb. 26, 1953	15.62	3,220
1946	Mar. 16, 1946	15.30	2,870		Mar. 12, 1953	15.73	3,280
	May 19, 1946	14.78	2,660		May 6, 1953	17.20	4,680
1947	Jan. 14, 1947	17.04	4,490		May 18, 1953	20.12	13,300
	Jan. 21, 1947	14.70	2,830	1954	Dec. 9, 1953	11.53	1,780
	Mar. 14, 1947	17.60	5,240				
	Apr. 2, 1947	17.54	5,100	1955	Feb. 6, 1955	18.05	6,330
1948	Dec. 10, 1947	15.10	2,960		Feb. 23, 1955	13.94	2,960
	Mar. 3, 1948	19.20	9,900		Apr. 13, 1955	20.45	14,400
	Mar. 6, 1948	17.00	4,420		May 20, 1955	13.32	2,700
1949	Nov. 28, 1948	15.85	3,350		Aug. 3, 1955	17.34	4,910
	Dec. 17, 1948	19.58	11,300	1956	Dec. 19, 1955	18.45	7,450

Peak stages and discharges of Comite River near Olive Branch, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1956	Feb. 5, 1956	17.89	5,920	1957	June 29, 1957	16.53	4,270
	Mar. 12, 1956	18.68	8,140		1958	Nov. 14, 1957	13.68
	Mar. 17, 1956	13.18	2,650	Sept. 24, 1958		15.07	3,510
1957	Apr. 4, 1957	13.13	2,630				

3777.5. Comite River near Zachary, La.

Location--Lat 30°38'35", long 91°05'40", between secs.3 and 37, T.5 S., R.1 E., St. Helena meridian, East Baton Rouge Parish, at bridge on State Highway 64, 0.7 mile southeast of Fred, 1.6 miles downstream from Redwood Creek, and 3.7 miles east of Zachary.

Drainage area--228 sq mi.

Gage--Crest-stage gage. Datum of gage is 87.55 ft above mean sea level (levels by Baton Rouge Department of Public Works).

Stage-discharge relation--Not defined.

Remarks--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 29, 1951	21.39	-	1956	Mar. 12, 1956	20.93	-
1952	Apr. 4, 1952	(a)	-	1957	Apr. 4, 1957	14.95	-
1953	May 18, 1953	24.52	-	1958	Nov. 14, 1957	15.25	-
1954	Dec. 9, 1953	15.45	-				
1955	Apr. 13, 1955	22.41	-				

a Below 14.1 ft; bottom of gage.

3780. Comite River near Comite, La.

Location--Lat 30°30'45", long 91°04'25", in NW $\frac{1}{4}$ sec.24, T.6 S., R.1 E., St. Helena meridian, near left bank on downstream side of bridge on State Highway 946, half a mile downstream from Blackwater Bayou and 2.6 miles west of Comite.

Drainage area--332 sq mi.

Gage--Nonrecording prior to Apr. 22, 1946; recording thereafter. Datum of gage is 28.85 ft above mean sea level (Louisiana Geodetic Survey bench mark; levels by Department of Public Works).

Stage-discharge relation--Defined by current-meter measurements below 11,000 cfs and extended above. Rate of change in stage is a factor on some rises.

Bankfull stage--16 ft.

Remarks--Base for partial-duration series, 4,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	Apr. 25, 1944	18.12	3,440	1948	Dec. 12, 1947	20.84	6,630
1945	Jan. 8, 1945	19.65	4,480	1949	Mar. 4, 1948	22.00	10,000
	May 1, 1945	19.80	4,820		Nov. 28, 1948	20.95	7,150
1946	Mar. 17, 1946	20.30	a5,470	Dec. 19, 1948	21.39	8,270	
	May 16, 1946	20.61	6,010	Feb. 18, 1949	20.28	5,480	
	June 2, 1946	20.22	a4,940	Mar. 24, 1949	22.14	10,300	
1947	Jan. 15, 1947	20.98	7,150	Apr. 2, 1949	20.78	6,630	
	Jan. 21, 1947	19.94	4,700	Apr. 23, 1949	20.86	6,890	
	Mar. 8, 1947	19.35	4,060	May 4, 1949	21.32	7,980	
	Mar. 14, 1947	22.16	10,600	1950	Jan. 8, 1950	22.07	10,100
	Apr. 3, 1947	20.25	5,270	Feb. 15, 1950	20.10	5,070	
				Mar. 17, 1950	19.80	4,540	

a Mean daily.

MISSISSIPPI RIVER DELTA

Peak stages and discharges of Comite River near Comite, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1950	June 8, 1950	20.43	5,690	1954	Dec. 10, 1953	21.02	7,150	
1951	Feb. 1, 1951	21.22	7,670	1955	Feb. 7, 1955	22.45	9,090	
	Mar. 20, 1951	20.27	5,480		Apr. 11, 1955	21.25	6,220	
	Mar. 30, 1951	22.62	11,500		Apr. 15, 1955	23.07	10,900	
			Aug. 5, 1955		20.00	4,260		
1952	Apr. 5, 1952	18.83	3,630	1956	Feb. 6, 1956	22.11	8,360	
1953	Feb. 26, 1953	20.61	6,140		Feb. 11, 1956	20.16	4,410	
	Mar. 13, 1953	19.94	4,700		Mar. 13, 1956	22.54	9,450	
	Mar. 24, 1953	19.67	4,390	1957	Apr. 5, 1957	20.07	4,320	
	Apr. 26, 1953	20.65	6,260		1958	Nov. 15, 1957	19.52	4,530
	May 4, 1953	21.15	7,540			Jan. 14, 1958	18.78	4,120
	May 19, 1953	25.64	20,500			Mar. 24, 1958	20.18	5,000
1954	Dec. 4, 1953	20.15	5,270					

3785. Amite River near Denham Springs, La.

Location--Lat 30°27'50", long 90°59'25", in lot 2, T.7 S., R.2 E., St. Helena meridian, on left bank just downstream from bridge on U. S. Highway 190, 1,000 ft downstream from Comite River, 3 miles southwest of town of Denham Springs, and 15 miles east of Baton Rouge.

Drainage area--1,330 sq mi.

Gage--Nonrecording prior to Aug. 8, 1939; recording thereafter. Datum of gage is 3.87 ft above mean sea level, datum of 1929, supplementary adjustment of 1941. Auxiliary nonrecording gage 3 miles downstream, Oct. 1, 1945, to Dec. 23, 1952; recording thereafter. Datum of auxiliary gage is 3.12 ft above mean sea level.

Stage-discharge relation--Defined by current-meter measurements below 50,000 cfs and extended above; affected by fall.

Bankfull stage--20 ft.

Remarks--Base for partial-duration series, 10,000 cfs. Only annual peaks are shown prior to 1948.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1921	Mar. 15, 1921	a35.40	-	1949	Feb. 19, 1949	23.96	20,400	
1939	June 6, 1939	21.96	12,100		Mar. 24, 1949	25.87	28,800	
	1940	July 7, 1940	23.09		16,000	Apr. 2, 1949	23.95	20,400
						Apr. 25, 1949	23.56	18,600
					May 4, 1949	25.46	27,400	
1941	Dec. 17, 1940	24.32	20,800	1950	Jan. 9, 1950	28.18	40,800	
1942	Sept. 19, 1942	21.77	12,200		Feb. 16, 1950	23.16	17,100	
					Mar. 6, 1950	21.36	11,200	
1943	Mar. 23, 1943	28.63	40,200		Mar. 17, 1950	21.49	11,900	
1944	Mar. 23, 1944	21.17	11,000	June 9, 1950	22.78	15,800		
				1951	Feb. 2, 1951	23.85	20,900	
1945	Jan. 10, 1945	21.50	11,600		Mar. 20, 1951	22.16	13,400	
					Apr. 1, 1951	28.19	36,900	
1946	July 7, 1946	b22.94	15,500		Apr. 25, 1951	22.39	15,100	
1947	Mar. 14, 1947	c25.73	27,800	1952	Apr. 6, 1952	19.06	8,230	
1948	Dec. 12, 1947	22.50	14,300		1953	Feb. 27, 1953	23.43	18,100
	Feb. 1, 1948	22.25	13,800	Mar. 15, 1953		21.88	12,900	
	Mar. 5, 1948	29.59	45,100	Apr. 27, 1953		20.95	11,600	
				May 5, 1953		25.80	29,000	
1949	Nov. 30, 1948	24.93	24,500	May 20, 1953	32.46	67,000		
	Dec. 20, 1948	24.53	22,400	1954	Dec. 5, 1953	19.74	10,100	

a Annual peak only.

b Occurred May 7, 1946.

c Occurred on following day.

Peak stages and discharges of Amite River near Denham Springs, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	Dec. 11, 1953	22.36	15,200	1956	Mar. 14, 1956	26.20	23,400
1955	Jan. 18, 1955	20.61	10,800	1957	Mar. 19, 1956	23.12	14,500
	Feb. 9, 1955	26.49	24,600		Apr. 6, 1957	21.64	11,600
	Apr. 15, 1955	32.08	54,300		July 1, 1957	21.91	12,300
	Aug. 5, 1955	21.27	10,700	1958	Nov. 17, 1957	22.55	14,700
1956	Feb. 7, 1956	25.54	20,800		Mar. 9, 1958	20.63	10,500
	Feb. 12, 1956	22.73	13,400		Mar. 26, 1958	20.90	11,000
				Sept. 26, 1958	22.12	13,600	

3800. Ward Creek at Siegens Lane, near Baton Rouge, La.

Location--Lat 30°22'30", long 91°04'10", in lot 54, T.8 S., R.1 E., St. Helena meridian, East Baton Rouge Parish, at bridge on Siegens Lane, half a mile downstream from Dawson Creek and 8 miles southeast of Baton Rouge.

Drainage area--41.1 sq mi.

Gage--Recording prior to Mar. 21, 1954; crest-stage gage since Nov. 17, 1954. Datum of gage is at mean sea level (Louisiana Geodetic Survey bench mark; levels by Louisiana Department of Public Works).

Stage-discharge relation--Defined by current-meter measurements. Shifts in relation occur.

Remarks--Major channel improvements made during 1954. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1947	Mar. 13, 1947	23.49	3,900	1953	May 3, 1953	24.70	3,840	
1948	Mar. 6, 1948	21.49	1,900	1954	Dec. 10, 1953	19.92	a660	
1949	Apr. 23, 1949	21.17	1,210	1955	Apr. 13, 1955	15.31	3,770	
1950	June 7, 1950	22.02	1,950					
1951	Mar. 29, 1951	19.92	723	1956	Feb. 6, 1956	12.70	2,680	
	1952	Apr. 5, 1952	19.56	600	1957	Sept. 27, 1957	18.90	4,750
					1958	Jan. 12, 1958	15.05	2,970

a May not be maximum for the year.

3801.3. Colyell Creek at Livingston, La.

Location--Lat 30°30'10", long 90°46'10", on line between secs. 24 and 25, T.6 S., R.4 E., St. Helena meridian, Livingston Parish, at bridge on U. S. Highway 190, 200 ft downstream from Illinois Central Railroad bridge, 0.2 mile downstream from Antioch Creek, 1.0 mile west of town of Livingston, and 2.4 miles upstream from Hornsby Creek.

Drainage area--20.7 sq mi.

Gage--Crest-stage gage.

Stage-discharge relation--Not defined.

Remarks--Major channel improvements made during 1953-54. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 19, 1951	8.94	-	1956	Mar. 11, 1956	(a)	-
1952	Apr. 12, 1952	6.57	-	1957	Sept. 18, 1957	(a)	-
1953	May 4, 1953	11.86	-	1958	Nov. 14, 1957	6.00	-
1954	Jan. 16, 1954	(a)	-				
1955	Apr. 15, 1955	(a)	-				

a Below 5.5 ft; bottom of gage.

MISSISSIPPI RIVER DELTA

3801.6. Middle Collyell Creek near Walker, La.

Location.--Lat 30°29'45", long 90°50'30", in NE $\frac{1}{4}$ sec.30, T.6 S., R.4 E., St. Helena meridian, Livingston Parish, at bridge on U. S. Highway 190, 0.2 mile downstream from Illinois Central Railroad bridge, 1.3 miles east of Walker, and 3.4 miles upstream from Dumplin Creek.

Drainage area.--22.4 sq mi.

Gage.--Crest-stage gage. Datum of gage is 37.18 ft above mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Major channel improvements made during 1952-53. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 19, 1951	6.10	-	1956	Mar. 11, 1956	(a)	-
1952	July 16, 1952	4.75	-	1957	Sept. 18, 1957	(a)	-
1953	May 4, 1953	6.72	-	1958	Nov. 14, 1957	(a)	-
1954	Jan. 16, 1954	6.99	-				
1955	Apr. 15, 1955	(a)	-				

a Below 3.0 ft, bottom of gage.

3801.8. West Collyell Creek near Walker, La.

Location.--Lat 30°29'05", long 90°53'35", in NE $\frac{1}{4}$ sec.34, T.6 S., R.3 E., St. Helena meridian, Livingston Parish, at bridge on U. S. Highway 190, 0.6 mile downstream from Illinois Central Railroad bridge and 2.0 miles west of Walker.

Drainage area.--29.5 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Not defined since channel change in 1953.

Remarks.--Major channel improvements made during 1953. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1951	Mar. 19, 1951	8.10	790	1955	Apr. 15, 1955	4.78	-
1952	Apr. 12, 1952	6.18	150	1956	Mar. 11, 1956	8.01	-
1953	May 1953	10.00	4,800				
1954	Apr. 23, 1954	7.58	-	1958	Nov. 14, 1957	5.91	-

3819. Bayou Cocodrie near Glenmora, La.

Location.--Lat 31°56'00", long 92°28'55", in sec.33, T.1 S., R.1 W., at bridge on parish road, 8.0 miles southeast of Glenmora.

Drainage area.--72.1 sq mi.

Gage.--Crest-stage gage. Datum of gage is about 48 ft above mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1954	May 1, 1954	10.66	-	1956	Feb. 9, 1956	10.42	-
1955	May 20, 1955	12.50	-	1957	July 1, 1957	10.64	-
				1958	Nov. 15, 1957	12.19	-

3820. Bayou Cocodrie near Clearwater, La.
(Published as "near Meeker" May 1922 to January 1925)

Location.--Lat 31°00'00", long 92°22'46", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.4, T.1 S., R.1 E., Louisiana meridian, on left bank just downstream from bridge on U. S. Highway 167, seven-eighths of a mile downstream from Chicago, Rock Island and Pacific Railroad Co. bridge, $\frac{1}{2}$ miles east of Clearwater, 4 miles south of Meeker, and 5 miles downstream from Hurricane Creek.

Drainage area.--240 sq mi.

Gage.--Nonrecording prior to Mar. 28, 1940; recording thereafter. May 1922 to January 1925 at site 500 ft downstream at datum about $1\frac{1}{2}$ ft lower. Datum of present gage is 40.00 ft above mean Gulf level (datum of Corps of Engineers). Since Jan. 23, 1945, auxiliary nonrecording gage 6.6 miles downstream.

Stage-discharge relation.--Defined by current-meter measurement below 13,000 cfs and extended above; affected by fall.

Bankfull stage.--18 ft.

Remarks.--Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1923	Apr. 14, 1923	14.70	1,790	1947	Jan. 20, 1947	a18.00	1,800
1924	Dec. 24, 1923	13.65	1,520	1948	Mar. 3, 1948	c16.34	1,080
1938	Apr. 9, 1938	21.50	4,000	1949	Apr. 24, 1949	20.88	3,070
1939	Feb. 6-8, 1939	14.70	717	1950	June 6, 1950	17.42	1,300
1940	Aug. 11, 1940	18.41	2,000	1951	Feb. 9, 1951	12.17	633
1941	Dec. 14, 1940	a18.67	1,740	1952	Apr. 26, 1952	13.92	816
1942	Apr. 11, 1942	15.50	1,120	1953	May 18, 1953	26.72	28,200
1943	Mar. 29, 1943	12.03	586	1954	May 5, 1954	18.62	1,540
1944	Mar. 23-24, 1944	16.86	1,300	1955	Feb. 8, 1955	18.06	1,430
1945	Apr. 4, 1945	16.99	1,260	1956	Feb. 11, 1956	16.40	1,150
1946	May 19, 1946	b17.13	1,460	1957	Dec. 25, 1956	16.46	1,160
				1958	Nov. 16, 1957	19.90	1,470

a Occurred on following day.

b Occurred Jan. 22, 1946.

c Occurred Mar. 6, 1948.

3821. Bayou Cocodrie at Dossman, La.

Location.--Lat 30°51'35", long 92°17'00", in NE $\frac{1}{4}$ sec.30, T.2 S., R.2 E., Louisiana meridian, Evangeline Parish, at bridge on State Highway 115 at Dossman, 2 miles northwest of town of St. Landry.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is at mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Apr. 18, 1938	46.0	-	1946	May 19-20, 1946	a44.1	-
				1947	June 23, 1947	45.1	-
1940	Aug. 9, 1940	45.3	-	1948	Mar. 2-3, 1948	44.0	-
				1949	Apr. 23, 1949	45.8	-
1941	Dec. 14, 1940	45.4	-	1950	Feb. 14, 1950	44.1	-
1942	Mar. 9, 1942	43.7	-				
				1953	May 18, 1953	50.7	-

a Maximum for period Feb. 26 to Sept. 30, 1946.

3821.2. Bayou Cocodrie at St. Landry, La.

Location.--Lat 30°50'40", long 92°15'35", in NW $\frac{1}{4}$ sec.35, T.2 S., R.2 E., Louisiana meridian, Evangeline Parish, at bridge on State Highway 106 at town of St. Landry immediately downstream from Black Lake, 0.5 mile upstream from Texas and Pacific Railway Co. bridge.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to July 20, 1950; recording thereafter. Datum of gage is at mean sea level, datum of 1929.

Stage-discharge relation.--Defined by current-meter measurements below 3,900 cfs and extended by logarithmic plotting; moderate shifts have occurred.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	June 24, 1947	43.8	3,110	1953	May 20, 1953	48.8	7,000
1948	Mar. 2, 1948	42.5	2,380	1954	May 3, 1954	44.0	3,200
1949	Apr. 23, 1949	44.0	2,970	1955	Feb. 6, 1955	44.5	3,480
1950	Feb. 14, 1950	42.8	2,100				
				1956	Feb. 5, 1956	42.3	2,270
1951	Mar. 29, 1951	40.6	1,180	1957	Apr. 17-18, 1957	41.9	2,050
1952	Apr. 24, 1952	41.2	1,450	1958	Nov. 23, 1957	43.64	3,000

3821.4. Bayou Cocodrie near Whiteville, La.

Location.--Lat 30°46'40", long 92°11'30", between lot 75 and sec.20, T.3 S., R.3 E., Louisiana meridian, on line between St. Landry and Evangeline Parishes, at bridge on State Highway 29, 2.4 miles southwest of Whiteville.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Nov. 18, 1948; recording thereafter. Datum of gage is at mean sea level, datum of 1929.

Stage-discharge relation.--Not defined; severe shifts have occurred due to channel improvement work.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Aug. 10, 1940	36.3	-	1951	Mar. 29, 1951	31.7	-
				1952	Apr. 24, 1952	30.6	-
1941	Dec. 16-17, 1940	35.8	-	1953	May 20, 1953	42.3	-
1942	Dec. 27, 1941	35.9	-	1954	May 3, 1954	35.0	-
				1955	Feb. 7, 1955	36.1	-
1946	May 18-19, 1946	35.6	-				
1947	Nov. 28, 1946	34.6	-	1956	Feb. 5, 1956	32.2	-
1948	Mar. 3, 1948	31.7	-	1957	Apr. 17, 1957	31.3	-
1949	Apr. 29, 1949	35.8	-	1958	Nov. 25, 1957	34.1	-
1950	Feb. 14, 1950	35.6	-				

a Maximum for period Mar. 1 to Sept. 30, 1946.

3822.5. Bayou Boeuf at Twin Bridges, La.

Location.--Lat 31°14'35", long 92°33'10", on line between secs.11 and 14, T.3 N., R.2 W., Rapides Parish, at bridge on State Highway 278 at Twin Bridges.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Dec. 9, 1949; recording thereafter. Datum of gage is at mean sea level, datum of 1929.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1941	May 6, 1941	73.8	-	1951	Mar. 29, 1951	72.0	-
				1952	Apr. 23, 1952	72.4	-
1946	May 18, 1946	72.7	-	1953	May 16, 1953	74.6	-
1947	Jan.21, Apr.12	72.6	-	1954	May 3, 1954	72.8	-
				1955	Apr. 13, 1955	72.8	-
1948	Feb. 13, 1948	71.9	-				
1949	Mar. 28, 1949	72.5	-	1956	Feb. 9, 1956	72.4	-
1950	Feb. 14, 1950	72.7	-	1957	June 26, 1957	72.6	-
				1958	Aug. 24, 1958	72.6	-

3822.6. Bayou Boeuf near Lamourie, La.

Location.--Lat 31°09'10", long 92°25'55", between lots 57 and 74, T.2 N., R.1 W., Rapides Parish, at bridge on parish road, 0.8 mile upstream from Bayou Lamourie and 2 miles northwest of town of Lamourie.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is at mean sea level.

Stage-discharge relation.--Not defined; affected by backwater.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Apr.9-11, 1938	69.3	-	1949	Apr. 1, 1949	a69.2	-
1939	Jan.14-16, 1939	66.9	-	1950	Feb. 14, 1950	68.3	-
1940	Aug. 10, 1940	67.7	-				
				1951	Dec. 15, 1951	65.1	-
1941	Dec. 14, 1940	68.0	-	1952	Apr.25-26, 1952	66.0	-
1942	Nov.2-4, 1942	67.1	-	1953	May 18-19, 1953	72.4	-
1943	Apr. 19, 1943	65.8	-	1954	May 3, 1954	67.9	-
1944	May 6, 1944	66.7	-	1955	Feb. 7, 1955	67.4	-
1945	Apr. 2, 1945	68.0	-				
				1956	Feb.4-5, 1956	66.9	-
1946	May 18, 1946	68.5	-	1957	June 29, 1957	65.9	-
1947	Jan.19-22, 1947	68.3	-	1958	Nov. 14, 1957	67.7	-
1948	Mar. 3, 1948	67.3	-				

a May have been higher Nov. 27 to Dec. 1, 1948, when gage was overtopped at 69 ft.

3822.8. Bayou Boeuf near Lecompte, La.

Location.--Lat 31°06'41", long 92°26'11", in lot 36, T.2 N., R.1 W., Rapides Parish, $2\frac{3}{4}$ miles northwest of Lecompte and $3\frac{3}{4}$ miles above U. S. Highway 112.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is at mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	-	(a)	-	1954	May 3, 1954	67.2	-
1949	Mar. 31, Apr. 17	(a)	-	1955	Feb. 6-7, 1955	66.6	-
1950	Feb. 15, 1950	68.2	-	1956	Feb. 4, 1956	66.2	-
1951	Mar. 29, 1951	64.3	-	1957	June 30, 1957	64.9	-
1952	Apr. 25, 1952	65.0	-	1958	Nov. 14, 1957	67.2	-
1953	May 18-19, 1953	71.8	-				

a Above 69 ft.

3822.9. Bayou Boeuf at Lyles, La.

Location.--Lat 31°02'15", long 92°20'45", in lot 6, T.1 N., R.1 E., Rapides Parish, at The Texas and Pacific Railway Co. bridge at Lyles, about 200 ft upstream from U. S. Highway 71 and 4 miles northwest of Cheneyville.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Dec. 8, 1949; recording thereafter. Datum of gage is at mean sea level, datum of 1929.

Stage-discharge relation.--Affected by fall or by channel shifts or by both. Annual discharge maxima defined from average rating curves based on current-meter measurements made in each year.

Remarks.--Daily gage heights May 1939 to June 1942 and May 1946 to Oct. 14, 1954, intermittent gage heights July 1942 to February 1946, 1955-56, and occasional current-meter measurements since 1939 collected by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Aug. 10, 1940	65.4	420	1949	Apr. 22, 1949	67.3	710
				1950	Feb. 15-16, 1950	66.1	600
1941	May 9, 1941	66.0	500				
1942	Mar. 9, 1942	64.8	475	1951	Mar. 30, 1951	62.0	275
				1952	Apr. 26, 1952	62.7	275
1946	May 18-20, 1946	66.0	465	1953	May 18, 1953	68.9	800
1947	Jan. 20-21, 1947	66.4	565	1954	May 2, 1954	64.9	395
1948	Mar. 2-3, 1948	65.3	470				

a Occurred Dec. 13, 1940.

3825. Bayou Courtableau at Washington, La.

Location.--Lat 30°37'05", long 92°03'20", in lot 81, T.5 S., R.4 E., Louisiana meridian, near center of span on downstream side of bridge on State Highway 10, at Washington, a quarter of a mile upstream from Texas and New Orleans Railroad Co. bridge, 1¼ miles upstream from Bayou Carron, 3½ miles downstream from confluence of Bayou Cocodrie and Bayou Boeuf, and 6 miles north of Opelousas.

Drainage area.--715 sq mi.

Gage.--Nonrecording prior to Aug. 23, 1948; recording thereafter. Datum of gage is at mean sea level. Auxiliary nonrecording gage 3½ miles upstream Feb. 25, 1947, to Feb. 28, 1948; recording thereafter.

Stage-discharge relation.--Defined by current-meter measurements; affected by fall.

Bankfull stage.--18 ft.

Remarks.--Some flow diverted from Bayou Boeuf into Chatlin Lake Canal through Bayou Lamourie. Since April 1952, floodflow is diverted from 76.1 sq mi in Bayou Rapides basin into Bayou Boeuf when stages of Red River make it necessary to close gates at mouth of Bayou Rapides. In extreme floods, considerable flow bypasses station. Base for partial-duration series, 3,000 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1940	Aug. 12, 1940	a30.3	-	1953	Feb. 16, 1953	23.17	3,220
1947	Jan. 29, 1947	26.66	3,600	Feb. 26, 1953	26.66	4,350	
	Apr. 4, 1947	25.12	3,120	Mar. 15, 1953	24.04	3,480	
	June 27, 1947	24.59	3,400	Mar. 24, 1953	25.63	3,040	
				May 22, 1953	35.29	9,490	
1948	Mar. 6, 1948	26.83	3,450	1954	May 8, 1954	27.55	5,570
1949	Dec. 2, 1948	23.54	3,230	1955	Feb. 12, 1955	30.70	6,330
	Jan. 19, 1949	24.59	3,010	Apr. 14, 1955	27.73	4,750	
	Mar. 23, 1949	25.87	3,370	May 22, 1955	26.44	4,160	
	Apr. 2, 1949	25.04	3,310				
	Apr. 12, 1949	24.93	3,400	1956	Feb. 8, 1956	27.02	4,590
	Apr. 29, 1949	27.85	4,520	Mar. 16, 1956	27.00	3,510	
1950	Feb. 15, 1950	26.17	3,800	1957	Dec. 24, 1956	27.29	4,800
	Mar. 5, 1950	25.66	3,220	Mar. 23, 1957	24.26	3,260	
	May 5, 1950	23.73	3,340	Apr. 6, 1957	22.30	3,080	
	June 5, 1950	24.64	3,360	Apr. 18, 1957	25.26	3,810	
1951	Mar. 30, 1951	24.57	3,210	June 29, 1957	26.77	4,190	
	Apr. 1, 1951	25.18	3,260	1958	Nov. 28, 1957	27.54	4,960
1952	Feb. 3, 1952	25.10	3,160	Dec. 29, 1957	24.28	3,180	
	Apr. 5, 1952	44.83	3,180	Jan. 25, 1958	23.72	3,200	
	Apr. 25, 1952	25.20	3,510	Feb. 7, 1958	23.05	3,100	
				Mar. 25, 1958	24.77	3,300	
				Sept. 23, 1958	24.26	3,600	

a Annual peak only.

Note.--Peak stage frequently occurs on different day than peak discharge.

3829. Bayou Lamourie at Lamourie, La.

Location.--Lat 31°08'20", long 92°25'25", in lot 59, T.2 N., R.1 W., Rapides Parish, at bridge on parish road, 0.5 mile south of junction of Bayou Lamourie and Bayou Boeuf and 1 mile northwest of town of Lamourie.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is at mean Gulf level.

Stage-discharge relation.--Not defined; affected by fall.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Flow in Bayou Lamourie can be in either direction but is usually from Bayou Boeuf. Flow through Bayou Lamourie, depending upon stage in Bayou Boeuf, may be controlled by changing elevations of a sill at town of Lamourie. Only annual peak stages are shown.

Peak stages and discharges of Bayou Lamourie at Lamourie, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Apr. 9, 1938	68.8	-	1944	May 6, 1944	66.3	-
1939	Jan.14-16, 1939	66.4	-	1945	Apr. 2, 1945	67.6	-
1940	Aug. 9-10, 1940	67.3	-	1946	May 18, 1946	68.0	-
1941	Dec.14-15, 1940	67.5	-	1947	Jan.19-22, 1947	68.1	-
1942	Nov.2-4, 1941	66.7	-	1948	Mar. 3, 1948	66.8	-
1943	Apr. 19, 1943	65.4	-	1949	Apr. 1, 1949	68.8	-

3830. Chatlin Lake Canal near Lecompte, La.

Location.--Lat 31°07'10", long 92°20'40", in NW¹ sec.26, T.2 N., R.1 E., near center of span on downstream side of State Highway 457, 1.2 miles downstream from Indian Bayou and 3.7 miles northeast of Lecompte.

Drainage area.--75.9 sq mi. Flow includes diversion from Bayou Boeuf through Bayou Lamourie which is a considerable portion of the low-water flow.

Gage.--Nonrecording prior to Oct. 21, 1944; recording thereafter. Prior to Sept. 3, 1953, at datum 3.00 ft higher. Datum of gage is 39.96 ft above mean sea level (Louisiana Geodetic Survey bench mark).

Stage-discharge relation.--Defined by current-meter measurements prior to channel dredging in fall of 1953; affected by fall. Relation not defined for present channel conditions.

Remarks.--Peak flows affected by diversion. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1943	Apr. 19, 1943	13.44	1,430	1951	Mar. 29, 1951	13.55	1,560
1944	Mar. 19, 1944	16.60	2,280	1952	Feb. 2, 1952	14.22	1,520
1945	Mar. 18, 1945	16.7	2,370	1953	May 18, 1953	19.51	2,600
				1954	May 1, 1954	21.04	-
1946	May 18, 1946	16.26	2,110	1955	Feb. 6, 1955	20.09	-
1947	Jan. 19, 1947	16.52	2,080				
1948	Dec. 15, 1947	15.84	2,080	1956	Feb. 4, 1956	20.05	-
1949	Mar. 31, 1949	17.21	2,020	1957	Dec. 13, 1956	19.13	-
1950	Feb. 12, 1950	a16.78	2,020	1958	Nov. 8, 1957	20.22	-

a Occurred on following day.

b Occurred Apr. 4, 1952.

3833.8. Coulie des Grues near Marksville, La.

Location.--Lat 31°06'30", long 92°03'50", in lot 65, T.2 N., R.4 E., Avoyelles Parish, at The Texas and Pacific Railway Co. trestle, about 200 ft upstream from bridge on State Highway 115 and 1.2 miles south of Marksville.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is at mean sea level, datum of 1929.

Stage-discharge relation.--Not defined; affected by backwater.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1945	Apr. 25, 1945	a59.7	-	1952	Apr. 5, 1952	46.5	-
				1953	May 18-21, 1953	53.0	-
1947	Apr.13-14, 1947	50.3	-	1954	May 5, 1954	49.9	-
1948	Mar. 6, 1948	50.5	-	1955	Feb. 8, 1955	49.5	-
1949	Nov. 29, 1948	52.5	-				
1950	Feb.17-18, 1950	52.9	-	1956	Feb. 10, 1956	48.5	-
				1957	June 28, 1957	50.0	-
1951	Jan.3, Mar.29-30	46.0	-	1958	Nov.14-20, 1957	48.7	-

a Intermittent gage heights obtained October 1937 to July 1946; maximum stage observed during that period.

3833.9. Three Prong Lake at Belledeau, La.

Location.--Lat 31°04'45", long 92°11'00", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.8, T.1 N., R.3 E., Avoyelles Parish, at bridge on State Highway 114 at Belledeau.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Nov. 7, 1952; recording thereafter. Datum of gage is at mean Gulf level.

Stage-discharge relation.--Not defined; flow occurs in either direction, to Bayou du Lac or to Choctaw Bayou.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1947	Jan. 23, 1947	53.0	-	1953	May 20-21, 1953	56.2	-
1948	Mar. 3, 1948	51.6	-	1954	May 4, 1954	53.6	-
1949	Dec. 1, 1948	53.2	-	1955	Feb. 8, 1955	52.4	-
1950	Feb.16-17, 1950	52.9	-				
				1956	Feb. 6, 1956	51.9	-
1951	Mar.29-30, 1951	50.6	-	1957	Apr.5-6, 1957	51.2	-
1952	(a)	50.0	-	1958	Nov. 15, 1957	52.3	-

a Apr 5-6, 24, May 25, 1952.

3834. Bayou du Lac near Hessmer, La.

Location.--Lat 31°01'15", long 92°08'55", between lots 35 and 51, T.1 N., R.3 E., Avoyelles Parish, at bridge on State Highway 115, 0.7 mile upstream from Lake Pearl and 3 miles southwest of Hessmer.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Dec. 16, 1949; recording thereafter. Datum of gage is at mean sea level, datum of 1929.

Stage-discharge relation.--Not determined; flow is usually toward Lake Pearl but has occurred in the opposite direction.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Apr.18-22, 1938	53.4	-	1952	Apr. 7, 1952	45.2	-
				1953	May 21-22, 1953	54.4	-
1947	Jan. 23, 1947	49.5	-	1954	May 6, 1954	50.1	-
1948	Mar.6-7, 1948	47.8	-	1955	Feb. 10, 1955	48.5	-
1949	(a)	49.8	-				
1950	Feb. 18, 1950	49.1	-	1956	Feb.10-11, 1956	48.6	-
				1957	Apr. 7, 1957	46.0	-
1951	Mar. 31, 1951	45.0	-	1958	Nov. 18, 1957	49.7	-

a Nov. 30, Dec. 4, 1948, Apr. 23-25, 1949.

MISSISSIPPI RIVER DELTA

3835. Bayou des Glaises diversion channel at Moreauville, La.

Location.--Lat 31°01'59", long 91°58'57", in NE¹/₄ sec.29, T.1 N., R.5 E., near right bank on downstream side of bridge on State Highway 1 at Moreauville, 150 ft downstream from point of diversion from Bayou des Glaises.

Drainage area.--270 sq mi.

Gage.--Nonrecording prior to Oct. 1, 1950; recording thereafter. Datum of gage is 28.30 ft above mean sea level, datum of 1929, supplementary adjustment of 1941 (levels by Louisiana Department of Public Works).

Stage-discharge relation.--Defined by current-meter measurements below 6,000 cfs and extended above. Frequent shifts in relation occur.

Bankfull stage.--25 ft.

Remarks.--Diversion channel carries natural flow of Bayou des Glaises except when operation of floodgates, 12 miles downstream from point of diversion, regulates flow into or out of bayou depending on stage in Red River and Old River overflow area. Above 16 ft some flow bypasses station and is not included in the record. Base for partial-duration series, 1,300 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)	
1944	Jan. 18, 1944	10.11	1,580	1950	June 8, 1950	8.80	1,540	
	Mar. 30, 1944	11.48	2,340		1951	Mar. 28, 1951	7.42	1,110
	May 8, 1944	9.95	1,520	1952		Apr. 4, 1952	7.69	1,300
	May 23, 1944	10.32	1,680			1953	Feb. 24, 1953	9.46
1945	Jan. 7, 1945	10.12	1,580	Mar. 11, 1953			10.37	2,370
	Apr. 2, 1945	11.85	2,500	May 4, 1953	14.52		4,420	
	May 18, 1945	9.89	1,570	May 15, 1953	13.92		4,090	
1946	Jan. 21, 1946	12.00	2,670	May 18, 1953	17.64	a6,340		
	May 18, 1946	11.50	2,390	1954	May 1, 1954	13.05	3,590	
	July 7, 1946	11.00	2,120		May 3, 1954	14.01	4,140	
	July 22, 1946	9.35	1,400	1955	Feb. 6, 1955	13.92	4,090	
1947	Jan. 25, 1947	11.61	2,440		Feb. 21, 1955	9.52	1,870	
	Mar. 14, 1947	9.55	1,580		Apr. 13, 1955	15.30	4,860	
	Apr. 2, 1947	9.55	1,580		Aug. 6, 1955	7.79	1,360	
	Apr. 21, 1947	9.96	1,740	1956	Feb. 4, 1956	11.21	2,620	
June 24, 1947	9.95	1,640	Feb. 9, 1956		10.02	2,120		
1948	Dec. 19, 1947	8.77	1,300		Feb. 14, 1956	8.92	1,740	
	Mar. 2, 1948	10.60	2,010		Mar. 11, 1956	7.69	1,380	
	1949	Nov. 29, 1948	11.35	2,450	1957	Dec. 22, 1956	10.20	2,190
Jan. 25, 1949		9.68	1,730	Apr. 17, 1957		7.68	1,380	
Feb. 10, 1949		9.80	1,770	June 28, 1957		11.99	3,030	
Apr. 23, 1949		13.30	3,680	1958		Nov. 8, 1957	12.26	3,180
1950	Jan. 17, 1950	8.60	1,440		Nov. 14, 1957	14.21	4,250	
	Feb. 13, 1950	11.67	2,890		Nov. 23, 1957	10.75	2,410	
	Mar. 16, 1950	10.13	2,130		Jan. 24, 1958	7.76	1,400	
	Apr. 2, 1950	8.51	1,420					
	May 3, 1950	9.11	1,680					
	May 13, 1950	9.15	1,720					

a May 17-27, 1953, an estimated 5,000 acre-ft was diverted. Bypass flow not included.

3840. West Protection Levee borrow pit channel (Bayou Rouge)
near Palmetto, La.

Location.--Lat 30°45'20", long 91°54'40", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.36, T.3 S., R.5 E., Louisiana meridian, St. Landry Parish, on left bank of borrow pit channel at its intersection with Bayou Rouge at levee station 1010+69, 2.6 miles north of Palmetto.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is at mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1937	Mar. 16, 1937	a26.5	-	1948	Mar. 6-7, 1948	28.0	-
1938	Apr. 8-9, 1938	23.9	-	1949	Apr. 23, 1949	27.9	-
1939	May 21, 1939	26.6	-	1950	Feb. 14, 1950	27.0	-
1940	Aug. 9, 1940	30.2	-				
				1951	Feb. 4, 1951	24.3	-
1941	Dec. 16, 1940	26.2	-	1952	Apr. 5, 1952	24.0	-
1942	Dec. 26, 1941	24.0	-	1953	May 18, 1953	33.2	-
1943	Feb. 6, 1943	24.8	-	1954	May 4, 1954	27.8	-
1944	Mar. 23, 1944	24.9	-	1955	Feb. 7, 1955	30.6	-
1945	Apr. 2, 1945	25.6	-				
				1956	Feb. 5, 1956	26.6	-
1946	July 7-8, 1946	b27.0	-	1957	June 29, 1957	27.9	-
1947	Jan. 20-22, 1947	b27.0	-	1958	Nov. 15, 1957	27.8	-

a Maximum observed; no record Mar. 20 to May 31, 1937.

b May have been higher; gage overtopped at 27.0 ft.

3844.5. Bayou Courtableau at Port Barre, La.

Location.--Lat 30°33'30", long 91°57'20", in lot 4, T.6 S., R.5 E., Louisiana meridian, St. Landry Parish, 100 ft downstream from bridge on State Highway 103 at Port Barre, 0.2 mile southeast of head of Bayou Teche, and 0.6 mile downstream from The Texas and Pacific Railway Co. bridge.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is at mean Gulf level.

Stage-discharge relation.--Not defined; subject to reverse flow.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1936	Feb. 7-8, 1936	a20.9	-	1943	Feb. 7, 1943	22.3	-
1937	Jan. 21, 1937	23.8	-	1944	Mar. 20-21, 1944	21.4	-
1938	Apr. 21, 1938	21.9	-	1945	Apr. 3, 1945	21.3	-
1939	May 22, 1939	19.4	-				
1940	Aug. 10, 1940	26.4	-	1946	July 3, 1946	22.0	-
				1947	Jan. 14, 1947	22.5	-
1941	Dec. 16, 1940	21.8	-	1948	Mar. 5, 1948	22.5	-
1942	Jan. 3, 1942	21.0	-	1949	Apr. 29, 1949	21.7	-

a Maximum observed; gage-height record intermittent Jan. 20 to Mar. 15, 1936.

3852. West Protection Levee borrow pit channel at New Henderson Landing, La.

Location.--Lat 30°18'50", long 91°47'20", in NE¹ sec.31, T.8 S., R.7 E., Louisiana meridian, St. Martin Parish, at bridge on State Highway 349 at New Henderson Landing.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Feb. 3, 1949; recording thereafter. Datum of gage is at mean sea level, datum of 1929.

Stage-discharge relation.--Not defined; affected by backwater.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	Mar. 11, 1932	18.4	-	1946	July 9-11, 1946	9.3	-
1933	May 2-16, 1933	11.0	-	1947	Jan. 21-22, 1947	8.9	-
1934	Apr. 19-21, 1934	9.2	-	1948	Mar. 7-9, 1948	9.4	-
1935	June 8, 1935	11.3	-	1949	Apr. 1, 1949	8.3	-
				1950	Jan. 8, 1950	8.1	-
1936	Feb. 10, 1936	8.6	-				
1937	Jan. 25, 1937	9.9	-	1951	Mar. 30, 1951	7.3	-
1938	Apr. 27, 1938	9.3	-	1952	Apr. 13, 1952	6.1	-
1939	May 22, 1939	8.5	-	1953	May 29, 1953	13.1	-
1940	Aug. 12, 1940	12.5	-	1954	May 5, 1954	7.4	-
				1955	Feb. 11, 1955	10.0	-
1941	Dec. 17-19, 1940	9.0	-				
1942	Jan. 3-4, 1942	7.7	-	1956	Feb. 11, 1956	7.8	-
1943	Feb. 6, 1943	8.7	-	1957	July 3, 1957	5.55	-
1944	Jan. 17, 1944	8.0	-	1958	Oct. 17, 1957	4.0	-
1945	Apr. 4-5, 1945	8.0	-				

a Affected by overflow through West Protection Levee crevasse.

3855. Bayou Teche at Arnaudville, La.

Location.--Lat 30°23'50", long 91°55'50", in lot 63, T.7 S., R.5 E., Louisiana meridian, near center of span on upstream side of bridge on State Highway 31 at Arnaudville, 300 ft upstream from Bayou Fusilier.

Drainage area.--1,531 sq mi.

Gage.--Nonrecording prior to May 11, 1949; recording thereafter. Datum of gage is at mean sea level (Louisiana Geodetic Survey bench mark). Auxiliary non-recording gage 3.7 miles upstream at same datum Nov. 6, 1947, to June 22, 1949; recording thereafter.

Stage-discharge relation.--Defined by current-meter measurements since 1949; affected by fall.

Remarks.--Bayou Teche heads in Bayou Courtableau at Port Barr. At high stages, considerable flow bypasses station via Bayou Courtableau at Weirs near Krotz Springs. Some current-meter measurements furnished by Corps of Engineers. Only annual peaks are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1944	Nov. 8-9, 1943	17.5	-	1951	Mar. 28, 1951	19.17	2,440
1945	Feb. 7-8, 1945	17.1	-	1952	Apr. 12, 1952	b17.06	2,020
				1953	May 24, 1953	c24.27	4,650
1946	May 18, July 8	19.25	-	1954	May 3, 1954	17.31	2,180
1947	Jan. 14, 1947	20.40	-	1955	Feb. 6, 1955	b22.79	2,970
1948	Mar. 6, 1948	19.62	-				
1949	May 5, 1949	18.60	a1,640	1956	Feb. 10, 1956	18.07	1,960
1950	Jan. 6, 1950	b21.37	2,260	1957	June 28, 1957	d19.75	2,350
				1958	Nov. 24, 1957	b17.01	1,650

a Maximum for period Apr. 18 to Sept. 30, 1949.

b Occurred on following day.

c Occurred May 23, 1953.

d Occurred June 30, 1957.

3857. Bayou Teche at Keystone lock, near St. Martinsville, La.

Location.--Lat 30°04'15", long 91°49'45", in lot 8, T.11 S., R.6 E., Louisiana meridian, St. Martin Parish, in upper pool of Keystone Lock, 3.5 miles south of St. Martinsville and 4 miles north of New Iberia.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is at mean low Gulf.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1914	Oct. 1, 1913	12.7	-	1936	Feb. 7-10, 1936	9.4	-
1915	Feb. 27, 1915	10.2	-	1937	Jan. 25, 1937	9.6	-
1916	May 23, 1916	9.4	-	1938	Apr. 18, 20-23	9.2	-
1917	Feb. 24-27, Mar. 4	a 8.4	-	1939	(d)	8.9	-
1918	Sept. 20, 1918	b 7.7	-	1940	Aug. 17, 1940	15.2	-
1919	Jan. 25, 1919	9.2	-	1941	Dec. 26, 1940	10.0	-
1920	Jan. 24, Feb. 12	8.8	-	1942	Apr. 8, 1942	10.6	-
1921	Dec. 22, 1920	9.4	-	1943	Apr. 1, 1943	9.7	-
1922	Mar. 28, 1922	9.1	-	1944	Dec. 28, 1943	9.8	-
1923	Dec. 18-19, 1922	10.6	-	1945	Feb. 5, 1945	9.9	-
1924	Jan. 16, 1924	10.9	-	1946	July 6, 1946	11.6	-
1925	(c)	8.3	-	1947	Mar. 13, 1947	14.8	-
1926	Mar. 29, 1926	9.7	-	1948	Mar. 5, 1948	11.5	-
1927	May 27, 1927	23.5	-	1949	Mar. 21, 1949	10.7	-
1928	June 3, 5, 1928	9.3	-	1950	Jan. 8, 1950	10.4	-
1929	Mar. 15-16, 1929	8.9	-	1951	Mar. 29, 1951	10.0	-
1930	Jan. 29, 1930	10.2	-	1952	Apr. 12, 1952	9.9	-
1931	Jan. 12, 17-19	9.0	-	1953	May 19, 1953	12.0	-
1932	Feb. 22, 1932	10.4	-	1954	July 29, 1954	11.5	-
1933	Mar. 6, 1933	9.8	-	1955	May 20, 1955	11.6	-
1934	June 16, 1934	10.9	-	1956	Feb. 3-4, 1956	10.3	-
1935	May 6, 1935	11.3	-	1957	June 30, July 1-2	11.2	-
				1958	Sept. 24-25, 1958	10.9	-

a No record June 1 to Sept. 30, 1917.

b No record Oct. 1 to May 31, 1918.

c Jan. 18-22, Mar. 19-20, 1925.

d Mar. 3-4, June 3-9, Aug. 5-8, 1939.

3860. Bayou Carencro near Sunset, La.

Location.--Lat 30°22'35", long 92°02'35", in lot 71, T 8 S., R.4 E., Louisiana meridian, near center of span on downstream side of bridge on U. S. Highway 167, 1½ miles downstream from Texas and New Orleans Railroad Co. bridge, 2¼ miles southeast of Sunset, and 4¼ miles upstream from mouth.

Drainage area.--37.1 sq mi.

Gage.--Nonrecording prior to Nov. 2, 1950; recording thereafter. Datum of gage is 12.77 ft above mean sea level (Louisiana Geodetic Survey bench mark; levels by Louisiana Department of Public Works).

Prior to Oct. 1, 1948, nonrecording gage for station on Bayou Teche at Arnaudville used as auxiliary gage; since that date, auxiliary nonrecording gage on Vermilion River 600 ft downstream from mouth of Bayou Carencro.

Stage-discharge relation.--Defined by current-meter measurements below 3,700 cfs and extended above. Discharge affected by submergence.

Bankfull stage.--10 ft.

Historical data.--A stage of 30 ft was reached in August 1940 (before channel was dredged), from floodmark.

Remarks.--Channel changes due to dredging in 1943. Base for partial-duration series, 1,500 cfs.

MISSISSIPPI RIVER DELTA

Peak stages and discharges of Bayou Carencro near Sunset, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1940	August 1940	a30.00	-	1950	Oct. 8, 1949	12.70	1,770		
1944	Nov. 7, 1943	14.10	2,530	1950	Jan. 6, 1950	14.76	2,640		
					Jan. 27, 1950	12.57	1,720		
1945	May 16, 1945	13.00	1,940	1950	Feb. 13, 1950	12.20	1,570		
					Mar. 19, 1950	12.85	1,860		
1946	Mar. 8, 1946	12.70	1,790	1951	Mar. 27, 1951	13.00	1,990		
	May 15, 1946	14.30	2,630		1952	Apr. 4, 1952	12.56	1,790	
	May 18, 1946	12.70	1,670			Apr. 23, 1952	12.25	1,600	
	June 24, 1946	13.00	1,940			1953	Apr. 25, 1953	13.98	2,510
	July 6, 1946	14.40	2,690				May 13, 1953	12.51	1,740
1947	Nov. 11, 1946	12.30	1,610	1953	May 18, 1953	14.86	2,660		
	Jan. 13, 1947	16.50	3,870		1954	Dec. 9, 1953	11.96	1,520	
	Jan. 19, 1947	12.60	1,740			1955	Feb. 5, 1955	16.14	3,720
	Mar. 7, 1947	13.00	1,940	Feb. 21, 1955	12.53		1,740		
	Mar. 13, 1947	17.10	4,220	Apr. 10, 1955	12.49		1,720		
	Apr. 11, 1947	13.10	1,990	1956	Dec. 2, 1955		12.16	1,580	
	May 20, 1947	14.90	2,960		1957	June 28, 1957	14.63	2,130	
1948	Mar. 2, 1948	13.20	2,050	1958		Oct. 16, 1957	11.16	1,210	
	Dec. 7, 1948	12.26	1,640						
	Feb. 8, 1949	12.00	1,520						
	Mar. 30, 1949	13.41	2,100						
1949	Apr. 22, 1949	12.35	1,660						

a Annual peak only.

3865. Bayou Bourbeau at Shuteston, La.

Location.--Lat 30°25'40", long 92°05'30", in lot 174, T.7 S., R.4 E., Louisiana meridian, near center of span on downstream side of bridge on State Highway 178, three-quarters of a mile east of Shuteston, $\frac{1}{4}$ miles northwest of Sunset, and 2 miles upstream from Bayou Sylvain and Texas and New Orleans Railroad Co. bridge.

Drainage area.--19.0 sq mi.

Gage.--Nonrecording prior to Dec. 7, 1948; recording thereafter. Datum of gage is 27.14 ft above mean sea level (Louisiana Geodetic Survey bench mark; levels by Louisiana Department of Public Works).

Stage-discharge relation.--Defined by current-meter measurements below 1,400 cfs and extended above.

Bankfull stage.--7 ft.

Remarks.--Base for partial-duration series, 700 cfs.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)		
1943	Dec. 22, 1942	8.55	830	1948	Feb. 9, 1948	8.55	830		
	Feb. 5, 1943	8.48	775		Mar. 2, 1948	8.90	1,020		
	Mar. 25, 1943	9.65	1,620		Mar. 5, 1948	8.52	775		
	Sept. 17, 1943	8.74	890		1949	Mar. 22, 1949	8.51	775	
1944	Nov. 7, 1943	8.50	775	Mar. 23, 1949		8.86	985		
	Jan. 2, 1944	9.22	1,260	July 16, 1949		8.82	950		
	Mar. 19, 1944	8.52	775	1950		Jan. 6, 1950	9.82	1,800	
1945	June 13, 1945	9.00	1,100		Jan. 27, 1950	8.58	830		
1946	Dec. 27, 1945	8.80	950	1951	Dec. 6, 1950	8.43	700		
	Jan. 7, 1946	9.10	1,180		Mar. 27, 1951	8.89	919		
	May 15, 1946	8.60	830		1952	Apr. 4, 1952	8.92	919	
	July 6, 1946	8.95	1,100	Apr. 23, 1952		8.50	721		
1947	1947	Jan. 1, 1947	9.00	1,100	May 19, 1952	8.62	765		
		Jan. 13, 1947	10.80	2,840	1953	Apr. 25, 1953	9.39	922	
		Mar. 13, 1947	9.95	2,000		May 18, 1953	10.41	1,310	
		Apr. 11, 1947	8.50	775		1954	May 3, 1954	8.30	323
		May 21, 1947	8.65	830			1955	Jan. 16, 1955	8.56
1948	Dec. 10, 1947	8.75	950						
	Jan. 27, 1948	8.58	830						

Peak stages and discharges of Bayou Bourbeau at Shuteston, La.--Continued

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1955	Feb. 5, 1955	10.67	2,000	1957	Dec. 23, 1956	8.69	764
	Feb. 21, 1955	9.35	1,160		June 28, 1957	10.64	1,390
	Apr. 11, 1955	8.98	955	1958	Oct. 16, 1957	8.38	625
	May 20, 1955	8.87	872				
1956	Dec. 2, 1955	9.20	1,070				

3866.5. Vermilion River at Tontons Bridge, La.

Location.--Lat 30°21'00", long 91°58'50", between lots 61 and 88, T.8 S., R.5 E., Louisiana meridian, Lafayette Parish, at Tontons Bridge on State Highway 726, 2.2 miles downstream from confluence of Bayou Carencro and Bayou Fusilier, 4 miles southwest of Arnaudville, and 4.5 miles northeast of Carencro.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Sept. 15, 1954; recording thereafter. Datum of gage is at mean low Gulf (0.78 ft below mean sea level).

Stage-discharge relation.--Variable; affected by fall.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Major channel changes made during 1950-51. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1948	Mar. 6, 1948	18.9	-	1954	Jan. 11, 1954	14.1	-
1949	Mar. 31, 1949	19.6	-	1955	Feb. 10, 1955	17.6	-
1950	Jan. 7, 1950	20.3	-	1956	Feb. 11, 1956	14.6	-
1951	Mar. 29, 1951	17.3	-				
1952	Apr. 4, 1952	15.0	-				
1953	May 19, 1953	21.1	-	1957	June 29, 1957	17.0	-
				1958	Sept. 23, 1958	13.6	-

3866.6. Vermilion River at Long Bridge, La.

Location.--Lat 30°14'25", long 91°57'50", between lots 72 and 92, T.9 S., R.5 E., Louisiana meridian, on line between Lafayette and St. Martin Parishes, at bridge on State Highway 94 at town of Long Bridge, 2 miles upstream from Ruth Canal and 3 miles east of Lafayette.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Sept. 28, 1954; recording thereafter. Datum of gage is at mean low Gulf (0.78 ft below mean sea level).

Stage-discharge relation.--Not defined; severely affected by backwater.

Remarks.--Gage-height records and occasional current-meter measurements collected by Corps of Engineers. Major channel changes made during 1950-51. Only annual peak stages are shown.

Peak stages and discharges of Vermilion River at Long Bridge, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Jan. 12-13, 1938	10.7	-	1949	Mar. 31, 1949	10.0	-
1939	June 5, 1939	11.6	-	1950	Jan. 7-8, 1950	10.6	-
1940	Aug. 15, 1940	19.6	-				
				1951	Mar. 29, 1951	9.1	-
1941	Dec. 28-29, 1940	13.6	-	1952	Feb. 23, 1952	9.7	-
1942	Apr. 8, 1942	14.3	-	1953	May 21, 1953	13.9	-
1943	Mar. 28, 1943	12.9	-	1954	Jan. 10-11, July 30	9.5	-
1944	Jan. 15-17, 1944	12.9	-	1955	Feb. 8, 1955	13.1	-
1945	Feb. 13, 1945	12.0	-				
				1956	Feb. 11, 1956	9.8	-
1946	Jan. 15-16, 1946	13.2	-	1957	June 28, 1957	10.4	-
1947	Mar. 13, 1947	13.1	-	1958	Oct. 17, 1957	8.7	-
1948	Mar. 6, 1948	10.2	-				

3868. Vermilion River at Ruth Canal, near Long Bridge, La.

Location.--Lat 30°13'35", long 91°56'35", in lot 19, T.9 S., R.5 E., Louisiana meridian, St. Martin Parish, on Ruth Canal 50 ft from Vermilion River, 1.6 miles southwest of town of Long Bridge, and 57.4 miles above mouth.

Drainage area.--Indeterminate.

Gage.--Nonrecording. Datum of gage is at mean low Gulf (0.78 ft below mean sea level).

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1938	Jan. 12-15, 1938	9.4	-	1948	Mar. 6-7, 1948	10.1	-
1939	June 6-8, 1939	9.7	-	1949	Mar. 22, 1949	10.0	-
1940	August 1940	20.2	-				
				1952	Apr. 12, 1952	8.0	-
1941	Jan. 1-3, 1941	12.1	-	1953	May 18, 1953	12.9	-
1942	Apr. 10-12, 1942	12.7	-	1954	Jan. 10, July 30	8.7	-
1943	Mar. 29-30, 1943	11.2	-	1955	May 20, 1955	11.0	-
1944	Jan. 16-17, 1944	11.8	-				
1945	Feb. 13-16, 1945	11.2	-	1956	Feb. 11-12, 1956	9.3	-
				1957	June 28, 1957	9.7	-
1946	May 20, 1946	12.3	-	1958	Oct. 16, 1957	7.6	-
1947	Mar. 14, 1947	13.8	-				

3869. Vermilion River at Lafayette, La.

Location.--Lat 30°11'40", long 92°01'00", between lots 46 and 47, T.10 S., R.4 E., Louisiana meridian, Lafayette Parish, at Pin Hook Bridge on U. S. Highway 90, 0.9 mile south of Lafayette, 1.4 miles downstream from Southern Pacific Railroad bridge, and 50.6 miles upstream from mouth.

Drainage area.--Indeterminate.

Gage.--Recording. Datum of gage is 0.78 ft below mean sea level (Louisiana Geodetic Survey bench mark).

Stage-discharge relation.--Not defined; affected by tides and subject to occasional reverse flow.

Remarks.--Gage-height records since November 1941 and occasional current-meter measurements since March 1941 collected by Corps of Engineers. Major channel changes made during 1950-51. Only annual peak stages are shown.

Peak stages and discharges of Vermilion River at Lafayette, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Apr. 8, 1942	14.3	-	1951	Mar. 28, 1951	8.0	-
1943	Mar. 26, 1943	10.8	-	1952	Feb. 23, 1952	8.6	-
1944	Jan. 15, 1944	11.0	-	1953	May 19, 1953	11.4	-
1945	Feb. 5, 1945	10.8	-	1954	July 29, 1954	8.4	-
				1955	Feb. 6, 1955	11.2	-
1946	May 15, 1946	10.6	-				
1947	Mar. 13, 1947	14.7	-	1956	Feb. 4, 1956	8.1	-
1948	Mar. 5, 1948	9.9	-	1957	May 2, 1957	9.5	-
1949	Mar. 22, 1949	10.5	-	1958	Oct. 16, 1957	7.4	-
1950	June 21, 1950	a8.9	-				

a May have been slightly higher during period of no record Jan. 4-10, 1950.

3869.5. Bayou Ile des Cannes near Lafayette, La.

Location.--Lat 30°10'52", long 92°06'26", in lot 7, T.10 S., R.4 E., at bridge on State Highway 342, 6.5 miles southwest of Lafayette.

Drainage area.--30 sq mi.

Gage.--Crest-stage gage.

Stage-discharge relation.--Not defined.

Remarks.--Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1953	May 19, 1953	11.13	-	1956	Feb. 9, 1956	8.75	-
1954	July 29, 1954	9.58	-	1957	Dec. 23, 1956	10.71	-
1955	Apr. 15, 1955	11.46	-	1958	Oct. 16, 1957	8.22	-

3869.6. Vermilion River at Landry Bridge, near Milton, La.

Location.--Lat 30°03'55", long 92°04'45", between lots 29 and 52, T.11 S., R.4 E., Louisiana meridian, Vermilion Parish, at Landry Bridge on parish road, 2.5 miles south of Milton.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to July 25, 1951; recording thereafter. Datum of gage is 0.78 ft below mean sea level (Louisiana Geodetic Survey bench mark).

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records collected by Corps of Engineers. Only annual peak stages are shown.

Peak stages and discharges of Vermilion River at Landry Bridge, near Milton, La.

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1942	Apr. 8, 1942	12.6	-	1947	Mar. 13, 1947	14.5	-
1943	Sept. 19, 1943	9.7	-	1948	Mar. 6, 1948	8.8	-
1944	Jan. 14-15, 1944	7.9	-	1949	Mar. 22, 1949	10.2	-
1945	Jan. 7, 1945	8.5	-	1950	June 21, 1950	9.0	-
1946	May 15, 1946	10.0	-	1951	Mar. 29, 1951	6.9	-

3869.7. Vermilion River at Abbeville pumping plant, near Abbeville, La.

Location.--Lat 29°57'50", long 92°09'45", in lot 54, T.12 S., R.3 E., Vermilion Parish, at north intake of pumping plant on west bank of river, 1.4 miles downstream from Southern Pacific Railroad bridge and 1.5 miles southwest of Abbeville.

Drainage area.--Indeterminate.

Gage.--Nonrecording prior to Feb. 3, 1942; recording thereafter. Datum of gage is 0.78 ft below mean sea level.

Stage-discharge relation.--Not defined.

Remarks.--Gage-height records collected by Acadia Vermilion Rice Irrigation Co. prior to February 1942 and by Corps of Engineers thereafter. Only annual peak stages are shown.

Peak stages and discharges

Water year	Date	Gage height (feet)	Discharge (cfs)	Water year	Date	Gage height (feet)	Discharge (cfs)
1932	Jan. 24, 1932	6.1	-	1946	May 15, 1946	7.8	-
1933	Mar. 6, 1933	5.6	-	1947	Mar. 13, 1947	10.5	-
1934	July 28, 1934	5.5	-	1948	Mar. 5, 1948	7.1	-
1935	May 6, 1935	6.5	-	1949	Mar. 22, 1949	7.8	-
				1950	Oct. 5, 1949	7.2	-
1936	May 25, 1936	4.0	-				
1937	Jan. 19, 1937	5.1	-	1951	Mar. 29, 1951	5.4	-
1938	Aug. 14, 1938	4.8	-	1952	Feb. 23, 1952	6.1	-
1939	Oct. 16, 1939	3.6	-	1953	May 19, 1953	8.0	-
1940	Aug. 9, 1940	13.5	-	1954	July 29, 1954	6.1	-
				1955	Feb. 6, 1955	8.0	-
1941	May 31, 1941	7.8	-				
1942	Apr. 9, 1942	7.4	-	1956	Feb. 9, 1956	4.7	-
1943	Sept. 18, 1943	7.4	-	1957	June 28, 1957	7.6	-
1944	Jan. 14, 1944	5.0	-	1958	Oct. 16, 1957	5.6	-
1945	May 16, 1945	6.6	-				

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INDEX

	Page		Page
Adams Branch near West Plains, Mo.	32	Bayou Bartholomew near McGehee, Ark.	553
Alexander Creek near St. Francisville, La.	594	near Star City, Ark.	552
Alkali Arroyo near Trinchera, Colo.	33	Bayou Baton Rouge above Baker, La.	595
Alligator Bayou (Mississippi River Delta) near Tallulah, La.	578	Bayou Bodcau, at Hodges Camp, near Bellevue, La.	515
Alligator Bayou (Red River basin) near Shreveport, La.	514	near Bellevue, La.	515
Amite River, at Grangeville, La.	605	near Sarepta, La.	514
at Magnolia, La.	605	Bayou Boeuf, at Lyles, La.	614
near Darlington, La.	604	at Twin Bridges, La.	613
near Denham Springs, La.	608	near Lamourie, La.	613
Anthony ditch near Eureka Springs, Miss.	34	near LeCompte, La.	614
Antoine River at Antoine, Ark.	544	Bayou Bourbeau at Shuteston, La.	622
Apishapa River, at Aguilar, Colo.	33	Bayou Carencro near Sunset, La.	621
near Aguilar, Colo.	187	Bayou Cocodrie, at St. Landry, La.	612
near Fowler, Colo.	189	near Clearwater, La.	611
near White Rock, Colo.	188	near Dossman, La.	611
Apple Creek basin, records.	32	near Glenmora, La.	610
Arkabutla Creek, near Arkabutla, Miss.	401	near Whiteville, La.	612
near Sarah, Miss.	402	Bayou Courtableau, at Port Barre, La.	619
Arkansas River, at Amity canal head-gate, near Prowers, Colo.	33	at Washington, La.	615
at Arkansas City, Kans.	221	Bayou D'Arbonne, at Homer, La.	556
at Canon City, Colo.	172	Middle Fork, near Bernice, La.	558
at Dardanelle, Ark.	372	near Colquitt, La.	558
at Dodge City, Kans.	206	near Dubach, La.	556
at Fort Smith, Ark.	364	near Farmerville, La.	559
at Garden City, Kans.	204	Bayou DeLoutre at DeLoutre, La.	555
at Granite, Colo.	165	Bayou DeView at Morton, Ark.	159
at Great Bend, Kans.	210	Bayou des Glaisses diversion channel at Moreauville, La.	618
at Holly, Colo.	200	Bayou Dorcheat, near Cotton Valley, La.	510
at Hutchinson, Kans.	212	near Minden, La.	512
at La Junta, Colo.	191	near Sarepta, La.	510
at Lamar, Colo.	199	Bayou du Chien near Clinton, Ky.	74
at Larned, Kans.	208	Bayou du Lac near Hessler, La.	617
at Las Animas, Colo.	192	Bayou Funny Louis near Trout, La.	590
at Little Rock, Ark.	381	Bayou Gallion north of Oak Ridge, La.	571
at Nepesta, Colo.	187	Bayou Ile des Cannes near Lafayette, La.	625
at Ozark, Ark.	369	Bayou Jean de Jean at Hot Wells, La.	533
at Parkdale, Colo.	171	Bayou LaFourche, near Alto, La.	573
at Pine Bluff, Ark.	383	near Crew Lake, La.	572
at Portland, Colo.	173	Bayou LaFourche cutoff near Columbia, La.	573
at Ralston, Okla.	230	Bayou LaFourche cutoff near Oak Ridge, La.	570
at Salida, Colo.	169	Bayou Lamourie at Lamourie, La.	615
at Syracuse, Kans.	202	Bayou Macon, at Eudora, Ark.	579
at Tulsa, Okla.	248	at Warsaw Bridge, near Delhi, La.	581
at Van Buren, Ark.	366	near Delhi, La.	580
at Webbers Falls, Okla.	299	near Floyd, La.	580
at Wichita, Kans.	216	near Oak Grove, La.	579
below John Martin Reservoir, Colo.	198	Bayou Meto, near Lonoke, Ark.	384
East Fork, near Leadville, Colo.	162	near North Little Rock, Ark.	383
near Avondale, Colo.	181	near Stuttgart, Ark.	384
near Coolidge, Kans.	202	Bayou Pierre (Mississippi River tributary), near Carpenter, Miss.	440
near Kinsley, Kans.	207	near Port Gibson, Miss.	441
near Morrilton, Ark.	377	Bayou Pierre basin, records.	440-441
near Muskogee, Okla.	297	Bayou Pierre (Red River basin), at Evelyn, La.	522
near Nepesta, Colo.	186	at Ochley Drive, Shreveport, La.	518
near Pueblo, Colo.	175	at Powhatan, La.	524
near Rocky Ford, Colo.	190	at 70th Street, Shreveport, La.	519
near Sallisaw, Okla.	359	near Gayles, La.	519
near Wichita, Kans.	213	near Grand Bayou, La.	522
Salt Fork, at Tonkawa, Okla.	228	near Hanna, La.	523
near Alva, Okla.	225	near Lake End, La.	523
near Cherokee, Okla.	226	near Macthitchos, La.	524
near Jet, Okla.	227	Bayou Rapides, at Alexandria, La.	534
Arkansas River basin, records. 32-34, 162	385	near McNutt, La.	534
Arroyo del Alamo near Mosquero, N. Mex.	33	Bayou Teche, at Arnaudville, La.	620
Arroyo Laguna tributary near Montoya, N. Mex.	33	at Keystone lock, near St. Martinsville, La.	621
Arroyo No. 1 near Livesey, Colo.	32	Bayou Vidal near Quimby, La.	578
Arroyo No. 2 near Pueblo, Colo.	32	Bear Creek (Big Black River basin), at Highway 51, near Canton, Miss.	436
AskaImore Creek near Charleston, Miss.	414	near Canton, Miss.	437
Bachelor Creek at Canton, Miss.	437	near Madison, Miss.	435
Barnes Creek near Fredericktown, Mo.	32	Bear Creek (Red River basin) near Packton, La.	590
Barnitz Creek near Arapaho, Okla.	466	Beaucoup Creek near Cotton Plant, La.	585
Barren Fork at Eldon, Okla.	301		
Bayou Bartholomew, at Wilmot, Ark.	553		
near Beekman, La.	554		

	Page		Page
Beaver Creek (tributary to Arkansas River) near Hobson, Colo.	32	Bogue Phalia cutoff near Leland, Miss.	426
Beaver Creek (tributary to Red River) near Waurika, Okla.	461	Bogue Phalia near Leland, Miss.	425
Beaver Creek (tributary to Washita River), tributary of, near Arapahoe, Okla.	35	Bourbeuse River, at Union, Mo.	64
Beech Creek near Olla, La.	585	near St. James, Mo.	62
Behmke Branch near Rolla, Mo.	58	near Spring Bluff, Mo.	63
Bellecoo Creek at Chandler, Okla.	354	Browns Creek near Wilkinson, Miss.	34
Big Black River, at Pickens, Miss.	434	Brush Creek at Pacific, Mo.	32
near Bentonia, Miss.	433	Brush Hollow Creek near Portland, Colo.	32
near Bovina, Miss.	437	Brushy Creek near Hortman, La.	511
near Hankinson, Miss.	438	Bryant Creek near Tecumseh, Mo.	127
near Kilmichael, Miss.	440	Buffalo Creek near Tiff City, Mo.	33
Big Black River basin, records.	432-440	Buffalo River (Mississippi River tributary) near Woodville, Miss.	445
Big Cabin Creek near Big Cabin, Okla.	293	Buffalo River (White River basin), near Rush, Ark.	125
Big Chickasaw Creek near Olla, La.	586	near St. Joe, Ark.	124
Big Colewa Bayou near Oak Grove, La.	568	Burro Canyon at Madrid, Colo.	33
Big Creek (tributary to Bayou D'Arbonne), near Vienna, La.	556	Cache Creek near Walter, Okla.	458
Big Creek (tributary Boeuf River), at Holly Ridge, La.	569	Cache River at Patterson, Ark.	159
near Mangham, La.	569	Caddo Creek near Ardmore, Okla.	474
near Sligo, La.	570	Caddo River, at Glenwood, Ark.	540
Big Creek (tributary to Current River) near Yukon, Mo.	137	near Alpine, Ark.	541
Big Creek (tributary to Dugdemona River) near Dodson, La.	588	Caddoa Creek at Caddoa, Colo.	199
Big Creek (tributary to Little River), at Fishville, La.	592	Cameron Arroyo near Livesey, Colo.	32
at Pollock, La.	591	Canadian River, at Bridgeport, Okla.	333
Big Creek (tributary to Saline River through Hurricane Creek), West Fork, at Sheridan, Ark.	35	at Calvin, Okla.	336
Big Creek (tributary to Wewoka Creek), East Fork, near Bowlegs, Okla. (Tiger Creek).	34	at Logan, N. Mex.	328
Big Lake Outlet near Manila, Ark.	109	below Conchas Dam, N. Mex.	326
Big River, at Byrnesville, Mo.	66	near Amarillo, Tex.	330
near DeSoto, Mo.	65	near Bell Ranch, N. Mex.	324
Big Sand Creek, at Carrollton, Miss.	416	near Canadian, Tex.	331
at Valley Hill, Miss.	416	near Hebron, N. Mex.	303
Big Sandy Creek at Ramah, Colo.	33	near Newcastle, Okla.	333
Bird Creek, at Avant, Okla.	267	near Roy, N. Mex.	315
near Owasso, Okla.	269	near Sanchez, N. Mex.	323
near Sperry, Okla.	268	near Taylor Springs, N. Mex.	314
Black Bayou (tributary to Bayou Dorcheat) at Leton, La.	510	near Whitefield, Okla.	356
Black Bayou (tributary to Ouachita River) near Sicily Island, La.	574	tributary of, near Mills, N. Mex.	315
Black Bayou (tributary to Twelvemile Bayou), at Rodessa, La.	504	Cane Creek (tributary to Upper Tallahatchie River) near New Albany, Miss.	386
near Gilliam, La.	506	Cane Creek (tributary to Yalobusha River) near Holcomb, Miss.	34
near Hosston, La.	505	Cane River, Lena Station, near Galbraith, La.	532
Black Bear Creek at Pawnee, Okla.	232	near Galbraith, La.	531
Black Lake Bayou, near Castor, La.	528	Caney Creek (tributary to Long Creek) near Eureka Springs, Miss.	34
near Minden, La.	526	Caney Creek (tributary to Skuna River) near Coffeetown, Miss.	34
Black Lake Creek near Gibsland, La.	526	Caney River, at Bartlesville, Okla.	264
Black River (Red River basin) at Jonesville, La.	592	near Copan, Okla.	263
near Acme, La.	593	near Elgin, Kans.	261
Black River (White River basin), at Black Rock, Ark.	148	near Hulah, Okla.	262
at Leeper, Mo.	133	near Ramona, Okla.	265
at Pochontas, Ark.	143	Carrizo Creek near Clayton, N. Mex.	34
at Poplar Bluff, Mo.	134	Carrizozo Creek, near Kenton, Okla.	234
near Annapolis, Mo.	132	tributary of, near Kenton, Okla.	33
near Corning, Ark.	135	Carros Creek near Gallegos, N. Mex.	33
Blanco Creek tributary at Palomas, N. Mex.	33	Cassidy Bayou, at Webb, Miss.	407
Blue Ribbon Creek near Pueblo, Colo.	32	near Marks, Miss.	407
Blue River near Blue, Okla.	478	Castor Creek (tributary to Black Lake Bayou) at Castor, La.	528
Bluff Creek (tributary to Cottonwood Creek) above Lake Hefner, near Oklahoma City, Okla.	241	Castor Creek (tributary to Little River), at Chatham, La.	583
Bluff Creek (tributary to Red Deer Creek) near Miami, Tex.	34	at Tullos, La.	586
Bobo Bayou at Bobo, Miss.	405	near Grayson, La.	584
Boeuf River, near Alto, La.	567	Castor River (Headwater diversion channel basin) at Zalma, Mo.	69
near Eudora, Ark.	564	Castor River (St. Francis River basin) at Aquilla, Mo.	107
near Girard, La.	566	Cedar Creek near Cedar Point, Kans.	273
near Kilbourne, La.	565	Cedar Hollow at Bradleyville, Mo.	32
near Oak Grove, La.	565	Chalk Creek, near Nathrop, Colo.	168
near Oak Ridge, La.	566	near St. Elmo, Colo.	168
Boggs Creek near Livesey, Colo.	32	upper station, near St. Elmo, Colo.	168
Boggy Bayou near Keithville, La.	520	Chandler Creek near Florence, Colo.	32
Boggy Creek near Daing, field, Tex.	502	Chatlin Lake Canal near LeCompte, La.	616
Bogue Chitto near Flora, Miss.	438	near Eudora, Ark.	181
		near Girard, La.	566
		near Kilbourne, La.	565
		near Oak Grove, La.	565
		near Oak Ridge, La.	566
		Boggs Creek near Livesey, Colo.	32
		Boggy Bayou near Keithville, La.	520
		Boggy Creek near Daing, field, Tex.	502
		Bogue Chitto near Flora, Miss.	438
		Bogue Phalia cutoff near Leland, Miss.	426
		Bogue Phalia near Leland, Miss.	425
		Bourbeuse River, at Union, Mo.	64
		near St. James, Mo.	62
		near Spring Bluff, Mo.	63
		Browns Creek near Wilkinson, Miss.	34
		Brush Creek at Pacific, Mo.	32
		Brush Hollow Creek near Portland, Colo.	32
		Brushy Creek near Hortman, La.	511
		Bryant Creek near Tecumseh, Mo.	127
		Buffalo Creek near Tiff City, Mo.	33
		Buffalo River (Mississippi River tributary) near Woodville, Miss.	445
		Buffalo River (White River basin), near Rush, Ark.	125
		near St. Joe, Ark.	124
		Burro Canyon at Madrid, Colo.	33
		Cache Creek near Walter, Okla.	458
		Cache River at Patterson, Ark.	159
		Caddo Creek near Ardmore, Okla.	474
		Caddo River, at Glenwood, Ark.	540
		near Alpine, Ark.	541
		Caddoa Creek at Caddoa, Colo.	199
		Cameron Arroyo near Livesey, Colo.	32
		Canadian River, at Bridgeport, Okla.	333
		at Calvin, Okla.	336
		at Logan, N. Mex.	328
		below Conchas Dam, N. Mex.	326
		near Amarillo, Tex.	330
		near Bell Ranch, N. Mex.	324
		near Canadian, Tex.	331
		near Hebron, N. Mex.	303
		near Newcastle, Okla.	333
		near Roy, N. Mex.	315
		near Sanchez, N. Mex.	323
		near Taylor Springs, N. Mex.	314
		near Whitefield, Okla.	356
		tributary of, near Mills, N. Mex.	315
		Cane Creek (tributary to Upper Tallahatchie River) near New Albany, Miss.	386
		Cane Creek (tributary to Yalobusha River) near Holcomb, Miss.	34
		Cane River, Lena Station, near Galbraith, La.	532
		near Galbraith, La.	531
		Caney Creek (tributary to Long Creek) near Eureka Springs, Miss.	34
		Caney Creek (tributary to Skuna River) near Coffeetown, Miss.	34
		Caney River, at Bartlesville, Okla.	264
		near Copan, Okla.	263
		near Elgin, Kans.	261
		near Hulah, Okla.	262
		near Ramona, Okla.	265
		Carrizo Creek near Clayton, N. Mex.	34
		Carrizozo Creek, near Kenton, Okla.	234
		tributary of, near Kenton, Okla.	33
		Carros Creek near Gallegos, N. Mex.	33
		Cassidy Bayou, at Webb, Miss.	407
		near Marks, Miss.	407
		Castor Creek (tributary to Black Lake Bayou) at Castor, La.	528
		Castor Creek (tributary to Little River), at Chatham, La.	583
		at Tullos, La.	586
		near Grayson, La.	584
		Castor River (Headwater diversion channel basin) at Zalma, Mo.	69
		Castor River (St. Francis River basin) at Aquilla, Mo.	107
		Cedar Creek near Cedar Point, Kans.	273
		Cedar Hollow at Bradleyville, Mo.	32
		Chalk Creek, near Nathrop, Colo.	168
		near St. Elmo, Colo.	168
		upper station, near St. Elmo, Colo.	168
		Chandler Creek near Florence, Colo.	32
		Chatlin Lake Canal near LeCompte, La.	616
		near Eudora, Ark.	181
		near Girard, La.	566
		near Kilbourne, La.	565
		near Oak Grove, La.	565
		near Oak Ridge, La.	566
		Boggs Creek near Livesey, Colo.	32
		Boggy Bayou near Keithville, La.	520
		Boggy Creek near Daing, field, Tex.	502
		Bogue Chitto near Flora, Miss.	438
		Bogue Phalia cutoff near Leland, Miss.	426
		Bogue Phalia near Leland, Miss.	425
		Bourbeuse River, at Union, Mo.	64
		near St. James, Mo.	62
		near Spring Bluff, Mo.	63
		Browns Creek near Wilkinson, Miss.	34
		Brush Creek at Pacific, Mo.	32
		Brush Hollow Creek near Portland, Colo.	32
		Brushy Creek near Hortman, La.	511
		Bryant Creek near Tecumseh, Mo.	127
		Buffalo Creek near Tiff City, Mo.	33
		Buffalo River (Mississippi River tributary) near Woodville, Miss.	445
		Buffalo River (White River basin), near Rush, Ark.	125
		near St. Joe, Ark.	124
		Burro Canyon at Madrid, Colo.	33
		Cache Creek near Walter, Okla.	458
		Cache River at Patterson, Ark.	159
		Caddo Creek near Ardmore, Okla.	474
		Caddo River, at Glenwood, Ark.	540
		near Alpine, Ark.	541
		Caddoa Creek at Caddoa, Colo.	199
		Cameron Arroyo near Livesey, Colo.	32
		Canadian River, at Bridgeport, Okla.	333
		at Calvin, Okla.	336
		at Logan, N. Mex.	328
		below Conchas Dam, N. Mex.	326
		near Amarillo, Tex.	330
		near Bell Ranch, N. Mex.	324
		near Canadian, Tex.	331
		near Hebron, N. Mex.	303
		near Newcastle, Okla.	333
		near Roy, N. Mex.	315
		near Sanchez, N. Mex.	323
		near Taylor Springs, N. Mex.	314
		near Whitefield, Okla.	356
		tributary of, near Mills, N. Mex.	315
		Cane Creek (tributary to Upper Tallahatchie River) near New Albany, Miss.	386
		Cane Creek (tributary to Yalobusha River) near Holcomb, Miss.	34
		Cane River, Lena Station, near Galbraith, La.	532
		near Galbraith, La.	531
		Caney Creek (tributary to Long Creek) near Eureka Springs, Miss.	34
		Caney Creek (tributary to Skuna River) near Coffeetown, Miss.	34
		Caney River, at Bartlesville, Okla.	264
		near Copan, Okla.	263
		near Elgin, Kans.	261
		near Hulah, Okla.	262
		near Ramona, Okla.	265
		Carrizo Creek near Clayton, N. Mex.	34
		Carrizozo Creek, near Kenton, Okla.	234
		tributary of, near Kenton, Okla.	33
		Carros Creek near Gallegos, N. Mex.	33
		Cassidy Bayou, at Webb, Miss.	407
		near Marks, Miss.	407
		Castor Creek (tributary to Black Lake Bayou) at Castor, La.	528
		Castor Creek (tributary to Little River), at Chatham, La.	583
		at Tullos, La.	586
		near Grayson, La.	584
		Castor River (Headwater diversion channel basin) at Zalma, Mo.	69
		Castor River (St. Francis River basin) at Aquilla, Mo.	107
		Cedar Creek near Cedar Point, Kans.	273
		Cedar Hollow at Bradleyville, Mo.	32
		Chalk Creek, near Nathrop, Colo.	168
		near St. Elmo, Colo.	168
		upper station, near St. Elmo, Colo.	168
		Chandler Creek near Florence, Colo.	32
		Chatlin Lake Canal near LeCompte, La.	616
		near Eudora, Ark.	181
		near Girard, La.	566
		near Kilbourne, La.	565
		near Oak Grove, La.	565
		near Oak Ridge, La.	566
		Boggs Creek near Livesey, Colo.	32
		Boggy Bayou near Keithville, La.	520
		Boggy Creek near Daing, field, Tex.	502
		Bogue Chitto near Flora, Miss.	438
		Bogue Phalia cutoff near Leland, Miss.	426
		Bogue Phalia near Leland, Miss.	425
		Bourbeuse River, at Union, Mo.	64
		near St. James, Mo.	62
		near Spring Bluff, Mo.	63
		Browns Creek near Wilkinson, Miss.	34
		Brush Creek at Pacific, Mo.	32
		Brush Hollow Creek near Portland, Colo.	32
		Brushy Creek near Hortman, La.	511
		Bryant Creek near Tecumseh, Mo.	127
		Buffalo Creek near Tiff City, Mo.	33
		Buffalo River (Mississippi River tributary) near Woodville, Miss.	445
		Buffalo River (White River basin), near Rush, Ark.	125
		near St. Joe, Ark.	124
		Burro Canyon at Madrid, Colo.	33
		Cache Creek near Walter, Okla.	458
		Cache River at Patterson, Ark.	159
		Caddo Creek near Ardmore, Okla.	474
		Caddo River, at Glenwood, Ark.	540
		near Alpine, Ark.	541
		Caddoa Creek at Caddoa, Colo.	199
		Cameron Arroyo near Livesey, Colo.	32
		Canadian River, at Bridgeport, Okla.	333
		at Calvin, Okla.	336
		at Logan, N. Mex.	328
		below Conchas Dam, N. Mex.	326
		near Amarillo, Tex.	330
		near Bell Ranch, N. Mex.	324
		near Canadian, Tex.	331
		near Hebron, N. Mex.	303
		near Newcastle, Okla.	333
		near Roy, N. Mex.	315
		near Sanchez, N. Mex.	323
		near Taylor Springs, N. Mex.	314
		near Whitefield, Okla.	356
		tributary of, near Mills, N. Mex.	315
		Cane Creek (tributary to Upper Tallahatchie River) near New Albany, Miss.	386
		Cane Creek (tributary to Yalobusha River) near Holcomb, Miss.	34
		Cane River, Lena Station, near Galbraith, La.	532
		near Galbraith, La.	531
		Caney Creek (tributary to Long Creek) near Eureka Springs, Miss.	34
		Caney Creek (tributary to Skuna River) near Coffeetown, Miss.	34
		Caney River, at Bartlesville, Okla.	264
		near Copan, Okla.	263
		near Elgin, Kans.	261
		near Hulah, Okla.	262
		near Ramona, Okla.	265

	Page		Page
Cimarron Creek, at Springer, N. Mex...	313	Cucharas River, at Boyd Ranch near	
at Ute Park, N. Mex.	309	La Veta, Colo.	184
below Eagle Nest Dam, N. Mex.	309	near La Veta, Colo.	184
near Cimarron, N. Mex.	310	Current River, at Doniphan, Mo.	141
tributary of, at Cimarron, N. Mex.	33	at Van Buren, Mo.	140
tributary of, near Cimarron, N. Mex.	33	near Eminence, Mo.	139
Cimarron River, above Ute Creek, near		Cypress Bayou (tributary to Bayou	
Boise City, Okla.	235	Bodcau) near Benton, La.	516
at Mannford, Okla.	247	Cypress Bayou (tributary to Boggy	
at Oilton, Okla.	246	Bayou) near Keithville, La.	521
at Perkins, Okla.	244	near Frierson, La. (Wallace Bayou).	521
near Boise City, Okla.	236	Cypress Creek (tributary to Bayou	
near Folsom, N. Mex.	233	D'Arbonne) near Unionville, La. ...	557
near Guthrie, Okla.	242	Cypress Creek (tributary to Ouachita	
near Guy, N. Mex.	232	River) near Vixen, La.	563
near Kenton, Okla.	234	Cypress Creek (tributary to Red River)	
near Liberal, Kans.	237	near Jefferson, Tex.	503
near Mocane, Okla.	237	near Pittsburg, Tex.	501
near Satanta, Kans.	236	Cypress Creek (tributary to Talla-	
near Waynoka, Okla.	239	hatchie River) near Etta, Miss.	389
tributary (No. 3) near Kenton, Okla.	33	Cypress Creek (tributary to Turkey	
Clark Bayou near Haughton, La.	513	Creek) near Coffeerville, Miss.	34
Clark Creek at Patterson, Mo.	32	David Bayou near Sledge, Miss.	404
Clay Creek near Lamar, Colo.	33	Deep Fork, near Beggs, Okla.	354
Clear Boggy Creek near Caney, Okla.	480	near Dewar, Okla.	355
Clear Creek (Arkansas River basin),		near Stroud, Okla.	34
above Clear Creek Reservoir,		Deep Red Run near Randlett, Okla.	459
Colo.	166	Deer Creek (tributary to Canadian	
below Clear Creek Reservoir, Colo.	167	River), at Hydro, Okla.	34
Clear Creek (Big Black River basin)		near Custer, Okla.	34
near Bovina, Miss.	439	tributary, near Hydro, Okla.	34
Clear Creek (Meramec River basin)		tributary No. 1, near Custer,	
tributary near Pacific, Mo.	32	Okla.	34
Clear Creek (Yazoo River basin) near		Deer Creek (tributary to Yazoo River)	
Oxford, Miss.	390	near Hollandale, Miss.	428
Coal Creek at Florence, Colo.	32	Delaware Creek tributary near Bloom-	
Coldwater Creek near Hardesty, Okla.	340	field, Mo.	32
Coldwater River, at Arkabutla Dam,		Dirty Creek near Warner, Okla.	302
near Arkabutla, Miss.	399	Doaks Creek near Canton, Miss.	435
at Marks, Miss.	405	Dog Creek near Shoemaker, N. Mex.	321
at Prichard, Miss.	400	Dry Cimarron River at Folsom, N. Mex.	33
at Savage, Miss.	400	Dry Creek (Arkansas River basin) at	
near Coldwater, Miss.	397	Pueblo, Colo.	32
near Darling, Miss.	404	Dry Creek (tributary to Deep Fork) near	
near Lewisburg, Miss.	396	Davenport, Okla.	34
near Sledge, Miss. (Pompey ditch).	402	Dry Creek (tributary to Washita River)	
old channel, near Birdie, Miss.	403	near Clinton, Okla.	35
Colorado Canyon near Jansen, Colo.	33	Dry Fork near St. James, Mo.	59
Colyeil Creek at Livingston, La.	609	Dry Traywick Branch near Oxford, Miss. ...	34
Comite River, near Clinton, La.	606	Dugdemonia River, near Jonesboro, La. ...	587
near Comite, La.	607	near Winnfield, La.	588
near Olive Branch, La.	606	Durden Creek near Vicksburg, Miss.	431
near Zachary, La.	607	Dutch Creek at Waltreak, Ark.	376
Conchas River at Variadero, N. Mex.	325	Eagle Chief Creek near Carmen, Okla.	33
Coon Creek near Wewoka, Okla.	34	Edwards Branch at Chatham, La.	583
Corney Bayou, near Lillie, La.	559	Eightmile Creek near Florence, Colo.	32
near Three Creeks, Ark.	35	Eleven Point River, near Bardley, Mo. ...	146
Cossatot River near DeQueen, Ark.	491	near Ravenden Springs, Ark.	147
Cottonwood Creek (tributary to		near Thomasville, Mo.	145
Arkansas River), below Hot		Elk Creek near Hobart, Okla.	454
Springs, near Buena Vista, Colo.	167	Elk River (tributary to Neosho River)	
near Buena Vista, Colo.	32	near Tiff City, Mo.	290
Cottonwood Creek (tributary to		Elk River (tributary to Verdigris	
Cimarron River), at Guthrie		River) near Elk City, Kans.	256
Okla.	242	Fall River, at Fredonia, Kans.	255
Cottonwood River, at Cottonwood Falls,		near Eureka, Kans.	252
Kans.	275	near Fall River, Kans.	253
at Elmgale, Kans.	274	Fannegusha Creek near Howard, Miss.	419
at Emporia, Kans.	33	Fice Creek near Etta, Miss.	388
near Marlon, Kans.	272	Flat Creek (Meramec River basin) at	
Coulie des Grues near Marksville,		Union, Mo.	32
La.	616	Flat Creek (Red River basin) near	
Council Creek near Stillwater, Okla.	245	Sikes, La.	585
Cove Creek near Lee Creek, Ark.	365	Flat Lick Bayou near Leton, La.	511
Cow Creek (Arkansas River basin),		Flood area, description.	3-4
near Lyons, Kans.	213	Flood-frequency, analysis, general	
Cow Creek (Red River basin), at		method.	36
Waurika, Okla.	35	application of data.	41-54
near Comanche, Okla.	35	at gaging station.	36-37
Coyote Creek, below Black Lake,		regional.	37-39
N. Mex.	319	Flowers Creek near Eureka Springs,	
near Golondrinas, N. Mex.	320	Miss.	34
Cracker ditch near Pontotoc, Miss.	34	Forked Deer River, Middle Fork, near	
Crooked Arroyo near La Junta, Colo.	33	Alamo, Tenn.	89
Crooked Creek (tributary to Bayou		North Fork, at Dyersburg, Tenn.	90
Meto) near Humphrey, Ark.	385	at Trenton, Tenn.	88
Crooked Creek (tributary to Cimarron		South Fork, at Chestnut Bluff, Tenn. ...	85
River) near Nye, Kans.	238	at Jackson, Tenn.	84
Crooked Creek (tributary to White			
River), at Harrison, Ark.	32		
West Fork, near Harrison, Ark.	32		

	Page		Page
Forked Deer River, South Fork, at Yellow Bluff near Fowlkes, Tenn.	87	Illinois River, near Gore, Okla.	302
South Fork, near Halls, Tenn.	86	near Prairie Grove, Ark.	33
Poster Creek at Crosby, Miss.	34	near Tahlequah, Okla.	300
Fountain Creek, above Cheyenne Creek, at Colorado Springs, Colo.	32	Ingenthron Hollow near Forsyth, Mo.	32
near Colorado Springs, Colo.	179	Jacks Fork at Eminence, Mo.	137
near Fountain, Colo.	32	James River, at Galena, Mo.	120
Fountain Farm Branch near Potosi, Mo.	32	below Battlefield, Mo.	119
Four Mile Creek near El Reno, Okla.	34	Joe Creek near Morley, Colo.	33
Fourche La Pave River, near Gravelly, Ark.	378	Kelly Bayou near Hosston, La.	505
near Nimrod, Ark.	379	Keplers Creek near Sparta, La.	527
Fourche Maline near Red Oak, Okla.	361	Kiamichi River near Belzoni, Okla.	483
Fox Creek, at Allenton, Mo.	32	Kingfisher Creek near Kingfisher, Okla.	33
near Pacific, Mo.	32	Kings River near Berryville, Ark.	118
Frijoie Creek near Alfalfa, Colo.	33	Kisatchie Bayou at Cypress, La.	531
Frog Bayou, at Rudy, Ark.	368	Labette Creek near Oswego, Kans.	283
near Mountainburg, Ark.	367	Lagoon Creek near Jennings, Okla.	33
Gaging-station records, explanation...	54-55	Lagru Bayou near Stuttgart, Ark.	161
inventory of stations not used to define regional relations	20-31	Lake Creek (Arkansas River basin), above Twin Lakes Reservoir, Colo.	164
inventory of stations used to define regional relations	5-19	below Twin Lakes Reservoir, Colo.	165
short term stations, summary	32-35	Lake Creek (Red River basin) near Headley, Tex.	34
Gaines Creek near Krebs, Okla.	338	near Lelia Lake, Tex.	34
Garrett Creek at Jonessboro, La.	586	Lake Fork, above Sugar Loaf Reservoir, Colo.	163
Golden ditch near Coffeerville, Miss.	34	below Sugar Loaf Reservoir, Colo.	163
Granada Creek near Granada, Colo.	33	Lanes Fork near Vichy, Mo.	62
Grape Creek, near Canon City, Colo.	32	L'Anguille River at Palestine, Ark.	113
near Westcliffe, Colo.	171	Lariat Creek, near Geary, Okla.	34
Grasmack Arroyo near Trinidad, Colo.	33	tributary near Geary, Okla.	34
Gray Branch at Lutie, Mo.	32	Leathermans Creek near Gibsland, La.	527
Gray Creek near Trinidad, Colo.	33	Lee Creek, at Natural Dam, Ark.	34
Green Acre Branch near Rolla, Mo.	57	near Van Buren, Ark.	365
Guropa Creek near Hot Springs, Ark.	35	Lightning Creek near McCune, Kans.	282
Hackberry Creek (tributary to North Canadian River) near Hardesty, Okla.	34	Lion Creek near Halfway, Colo.	177
Hackberry Creek (tributary to Sweet- water Creek), near Wheeler, Tex.	35	Little Arkansas River at Valley Center, Kans.	214
tributary No. 1 at Wheeler, Tex.	34	Little Bayou Boeuf near Collinston, La.	571
tributary No. 2 at Wheeler, Tex.	34	Little Bayou Sara near Turnbull, La.	593
tributary No. 3 near Wheeler, Tex.	35	Little Beaver Creek (Arkansas River basin) near Pikes Peak, Colo.	174
Halfmoon Creek near Malta, Colo.	164	Little Beaver Creek (Red River basin) near Duncan, Okla.	460
Haltme River, at Bolivar, Tenn.	95	Little Black River, near Fairdealing, Mo.	143
at Pochontas, Tenn.	93	North Prong, at Hunter, Mo.	32
at Rialto, Tenn.	97	Little Deer Creek near Thomas, Okla.	34
at Serles, Tenn.	94	Little Missouri River, near Boughton, Ark.	545
near Pochontas, Tenn.	92	near Murfreesboro, Ark.	543
near Stanton, Tenn.	96	Little Red River, Middle Fork, at Shirley, Ark.	153
near Walnut, Miss.	92	near Heber Springs, Ark.	156
Hatchie River basin, records	92-97	South Fork, near Clinton, Ark.	155
Headwater diversion channel basin, records	32, 69-70	Little River (St. Francis River basin), Right Hand Chute, at Riverdale, Ark.	110
Hell Creek near New Albany, Miss.	387	ditch 1 near Kennett, Mo.	106
Hemphill Creek near Hot Wells, La.	533	ditch 1 near Morehouse, Mo.	108
Hickahala Creek near Senatobia, Miss.	398	ditch 81 near Kennett, Mo.	105
Hoehs Branch near Uniontown, Mo.	32	ditch 251 near Kennett, Mo.	108
Hog Branch near Doyle, La.	601	ditch 251 near Lilbourn, Mo.	107
Hogans Gulch near Eden, Colo.	32	ditch 259 near Kennett, Mo.	109
Hominy Creek near Skiatook, Okla.	267	Little River (tributary to Canadian River) below Hog Creek, near Norman, Okla.	334
Homochitto River, at Eddicocton, Miss.	442	near Sasakwa, Okla.	335
at Rosetta, Miss.	444	near Tecumseh, Okla.	334
near Bude, Miss.	443	Little River (tributary to Ouachita River) at Rochelle, La.	589
near Doloroso, Miss.	445	Little River (tributary to Red River), below Lukfata Creek, near Idabel, Okla.	488
Homochitto River basin, records	34, 442-445	near Horatio, Ark.	490
Horse Creek near Sugar City, Colo.	191	near Idabel, Okla.	487
Hot Springs Creek at Hot Springs, Ark.	35	near White Cliffs, Ark.	492
Hudson Creek near Narcissa, Okla.	33	near Wright City, Okla.	486
Huerfano River, at Badito, Colo.	183	Little Sandy Creek at Kisatchie, La.	530
at Manzanares Crossing, near Redwing, Colo.	181	Little Washita River at Ninnekah, Okla.	470
below Huerfano Valley Dam, near Undercliffe, Colo.	185	Little Wichita River, near Archer City, Tex.	462
near Badito, Colo.	182	near Henrietta, Tex.	462
near Mustang, Colo.	183	North Fork, near Archer City, Tex.	35
near Nepesta, Colo.	33	Loggy Bayou near Ninock, La.	517
Hurricane Creek near Sheridan, Ark.	35, 550	Long Canyon near Sopris, Colo.	33
Hushpuckena River at Hushpuckena, Miss.	422		
Hussar Creek at Bellefonte, Ark.	32		
Illinois Bayou near Scottsville, Ark.	371		

	Page		Page
Long Creek (tributary to Cimarron River) near Freedom, Okla.....	33	Neosho River, near Langley, Okla.....	292
Long Creek (tributary to White River) at Alpena, Ark.....	32	near Oswego, Kans.....	33
Long Creek (tributary to Yocona River), near Courtland, Miss....	395	near Parsons, Kans.....	281
near Eureka Springs, Miss.....	34	near Wagoner, Okla.....	296
near Pope, Miss.....	34	near Wyandotte, Okla.....	290
Loosahatchie River at Brunswick, Tenn.....	98	Mnnescah River, near Peck, Kans.....	219
Lost Creek (tributary to Neosho River) at Seneca, Mo.....	289	North Fork, near Cheney, Kans.....	218
Lost Creek (tributary to Saline River) near Sheridan, Ark.....	35	South Fork, near Murdock, Kans.....	219
Lost Dog Branch near Grenada, Miss....	34	North Canadian River, at Beaver, Okla.....	341
Lyon Bayou at Forest, La.....	568	at Canton, Okla.....	349
McCain Creek near Shreveport, La.....	507	at Woodward, Okla.....	347
McCall Creek near Lucien, Miss.....	443	below Lake Overholser, near Oklahoma City, Okla.....	351
McClellan Creek, at Beaver Dam bridge, near Alanreed, Tex.....	34	near El Reno, Okla.....	350
at reservoir, near Alanreed, Tex.....	34	near Fort Supply, Okla.....	342
at Alanreed, Tex.....	34	near Guyton, Okla.....	339
McKinney Bayou near Garland, Ark.....	496	near Oklahoma City, Okla.....	352
Marphy Branch near Crystal City, Mo....	32	near Seiling, Okla.....	348
Mayfield Creek at Lovelaceville, Ky....	72	near Wetumka, Okla.....	353
Mayfield Creek basin, records.....	71-72	North Catamount Creek near Green Mountain Falls, Colo.....	176
Mean annual flood, definition.....	38	North Cheniere Creek at Cheniere, La... 563	
Mean annual flood relation.....	39-41	North Fork River, at Norfolk Dam, near Norfolk, Ark.....	129
Medicine Lodge River near Kiowa, Kans. 225		at Tecumseh, Mo.....	127
Meramec River, at Robertsville, Mo.....	65	near Henderson, Ark.....	128
near Eureka, Mo.....	67	near Tecumseh, Mo.....	126
near Steelville, Mo.....	59	North Sulphur River near Cooper, Tex... 497	
near Sullivan, Mo.....	61	North Tippah Creek near Ripley, Miss... 389	
Meramec River basin, records.....	32,57-67	North Tule Draw at reservoir, near Tullia, Tex.....	447
Middle Colyell Creek near Walker, La.....	610	Obion Creek at Pryorsburg, Ky.....	74
Middle Creek near Elmdale, Kans.....	274	Obion River, at Obion, Tenn.....	81
Mill Creek (tributary to Arkansas River) at Fort Smith, Ark.....	34	near Bogota, Tenn.....	83
Mill Creek (tributary to Fourche La Fave River) near Boles, Ark.....	34	North Fork, at U.S. Highway 45E near Martin, Tenn.....	79
Miscellaneous sites and short term station peaks.....	32-35	near Rives, Tenn.....	81
Mississippi River, at Arkansas City, Ark.....	385	near Union City, Tenn.....	80
at Chester, Ill.....	68	Rutherford Fork, near Bradford, Tenn.....	77
at Columbus, Ky.....	73	near Kenton, Tenn.....	78
at Fulton, Tenn.....	91	South Fork, near Greenfield, Tenn... 76	
at Helena, Ark.....	113	near Kenton, Tenn.....	77
at Hickman, Ky.....	75	Obion River basin, records.....	76-90
at Memphis, Tenn.....	101	Observers Draw near Doloroso, Miss... 34	
at St. Louis, Mo.....	56	Ocate Creek at Colmor, N. Mex.....	33
at Thebes, Ill.....	70	Oil Creek near Canon City, Colo.....	173
near Vicksburg, Miss.....	430	Osage Creek, at Osage, Ark.....	32
Mississippi River Delta, records.....	35,595-626	near Berryville, Ark.....	32
Monument Creek, at Colorado Springs, Colo.....	32	near Elm Springs, Ark.....	299
at Pikeview, Colo.....	178	Osteen Arroyo near Swallows, Colo... 32	
Moore Branch near Woodville, Miss....	34	Otter Creek (Arkansas River basin) at Climax, Kans.....	252
Mora River, at La Cueva, N. Mex.....	317	Otter Creek (Red River basin) at Mountain Park, Okla.....	456
near Golondrinas, N. Mex.....	318	at Snyder Lake, near Mountain Park, Okla.....	456
near Shoemaker, N. Mex.....	322	Otuckalofa Creek at Water Valley, Miss.....	394
Moreland Creek tributary near Coffeeville, Miss.....	34	Ouachita River, at Arkadelphia, Ark... 541	
Moreno Creek at Eagle Nest, N. Mex....	306	at Camden, Ark.....	546
Moro Creek near Fordyce, Ark.....	548	at lock and dam No. 2, at Harrisonburg, La.....	575
Mountain Fork River near Eagletown, Okla.....	488	at lock and dam No. 3, near Riverton, La.....	563
Mud Creek near Caddoa, Colo.....	33	at lock and dam No. 4, at Monroe, La.....	562
Muddy Bayou at Eagle Lake, Miss.....	429	at lock and dam No. 5, at Sterlington, La.....	555
Muddy Boggy Creek near Farris, Okla... 479		at lock and dam No. 6, near Pelsenthal, Ark.....	551
Muddy Creek near Pueblo, Colo.....	32	at lock and dam No. 8, Champagnolle Landing, Ark.....	547
Muddy Fork Creek near Murfreesboro, Ark.....	542	at Monroe, La.....	560
Mulberry Creek at Kilmichael, Miss... 432		at Stafford Point Landing, La.....	574
Mulberry River near Mulberry, Ark....	369	near Hot Springs, Ark.....	539
Mustang Creek near Perico, Tex.....	34	near Malvern, Ark.....	540
Nantachie Creek near Montgomery, La... 529		near Mount Ida, Ark.....	537
Natalbany River at Baptist, La.....	601	near Mountain Pine, Ark.....	538
Neosho River, at Council Grove, Kans.....	271	South Fork, at Mount Ida, Ark.....	538
at Strawn, Kans.....	277	Ozan Creek near McCaskill, Ark.....	543
below Fort Gibson Reservoir, near Fort Gibson, Okla.....	297	Pajarito Creek at Newkirk, N. Mex.... 33	
near Chouteau, Okla.....	294	Palo Duro Creek, at Hansford, Tex... 34	
near Commerce, Okla.....	284	near Spearman, Tex.....	340
near Grove, Okla.....	291	Panola-Quitman Floodway. See Tallahatchie River stations.....	393
near Iola, Kans.....	278	Panther Creek near Bartlesville, Okla.. 33	
		Pawnee River near Larned, Kans.....	209

	Page		Page
Pease River near Crowell, Tex.....	457	Red River, North Fork, near Carter,	
Pecks Creek near Livesey, Colo.....	32	Okla.....	451
Perico Creek tributary at Clayton,		North Fork, near Granite, Okla.....	452
N. Mex.....	34	near Headrick, Okla.....	455
Perry Creek (tributary to Mayfield		Prairie Dog Town Fork, near Brice,	
Creek) near Mayfield, Ky.....	71	Tex.....	448
Perry Creek (tributary to Yalobusha		near Canyon, Tex.....	34,447
River) near Torrance, Miss.....	34	near Estelline, Tex.....	449
Pettit Jean Creek, at Danville, Ark....	376	Salt Fork, at Mangum, Okla.....	450
near Booneville, Ark.....	373	near Wellington, Tex.....	449
near Waveland, Ark.....	375	Red River basin, records.....	34-35,446-593
Pigeonroost Creek, near Byhalia,		Rcd Rock Branch near Pontotoc, Miss...	593
Miss.....	396	Reelfoot Creek near Samburg, Tenn.....	84
near Lewisburg, Miss.....	397	Reilly Canyon at Cokedale, Colo.....	33
Pike Creek tributary near Poplar		Rio Agua Negra near Holman, N. Mex....	316
Bluff, Mo.....	32	Rock Creek (tributary to Arkansas	
Piney Creek (Arkansas River basin)		River) near Livesey, Colo.....	32
near Dover, Ark.....	370	Rock Creek (tributary to Neosho River)	
Piney Creek (Yazoo River basin) near		at Burlington, Kans.....	33
Yazoo City, Miss.....	419	Rolling Fork near DeQueen, Ark.....	489
Plattin Creek basin, records.....	32	Rowsey Creek near Eureka Springs,	
Plaza Larga Creek tributary near		Miss.....	34
Ragland, N. Mex.....	329	Rule Creek near Caddoa, Colo.....	198
Polecat Creek, below Heyburn Reser-		Rush Creek (tributary to Arkansas	
voir, near Heyburn, Okla.....	249	River) near Swallows, Colo.....	32
near Sapulpa, Okla.....	33	Rush Creek (tributary to Washita	
Pompey ditch. See Coldwater River		River) at Purdy, Okla.....	473
near Sledge, Miss.....	402	near Maysville, Okla.....	474
Poncha Creek at Poncha, Colo.....	170	near Reydton, Okla.....	35
Ponchatoula Creek, at Natalbany, La...	602	Sackett Creek near Pikes Peak, Colo...	174
east of Hammond, La.....	603	St. Catherine Creek near Natchez,	
south of Hammond, La.....	603	Miss.....	441
Pond Creek near Fort Cobb, Okla.....	469	St. Charles River, at Burnt Mill,	
Ponil Creek near Cimarron, N. Mex.....	310	Colo.....	32
Port de Luce Creek at Winfield,		at mouth, near Pueblo, Colo.....	32
La.....	589	at San Isabel, Colo.....	180
Poteau River, at Cauthron, Ark.....	360	near Pueblo, Colo.....	180
at Poteau, Okla.....	363	St. Francis Bay at Riverfront, Ark....	112
near Wister, Okla.....	362	St. Francis River, at Lake City,	
Preacher Creek near Dover, Okla.....	240	Ark.....	105
Pryor Creek near Pryor, Okla.....	295	at Marked Tree, Ark.....	111
Purgatoire River, above Lorencito		at Parkin, Ark.....	112
canyon, near Weston, Colo.....	33	at St. Francis, Ark.....	104
at Highland Dam near Las Animas,		at Wappapell, Mo.....	103
Colo.....	196	floodway, near Marked Tree, Ark....	110
at Jansen, Colo.....	33	near Patterson, Mo.....	102
at Lopez Diversion Dam, Colo.....	33	St. Francis River basin, records.....	32,102-113
at Ninemile Dam near Higbee, Colo...	195	Saline Bayou, near Clarence, La.....	529
at Trinidad, Colo.....	192	near Lucky, La.....	525
at U.S. Highway 350 bridge, Colo....	33	Saline River (tributary to Little	
near Alfalfa, Colo.....	194	River) near Dierks, Ark.....	493
near Hoehne, Colo.....	33	Saline River (tributary to Ouachita	
near Las Animas, Colo.....	197	River), near Benton, Ark.....	548
Quitaque Creek near Quitaque, Tex....	457	near Rye, Ark.....	550
Quiver River near Doddsville, Miss....	424	near Warren, Ark.....	551
Rainy Mountain Creek near Mountain		South Fork, near Hot Springs, Ark...	35
View, Okla.....	35	Saline River (tributary to Ouachita	
Rana Canyon near Porter, N. Mex.....	34	River) and Gamble Creek near	
Ranch Creek near Hallett, Okla.....	33	Sheridan, Ark.....	549
Raton Creek, at Raton, N. Mex.....	304	Sallisaw Creek near Sallisaw, Okla....	357
at Starkville, Colo.....	33	Salt Creek near Pueblo, Colo.....	32
at upper U.S. Highways 85 and 87,		San Bois Creek near Keota, Okla.....	358
Colo.....	33	San Francisco Creek near Alfalfa,	
Rattlesnake Creek tributary near		Colo.....	33
Bucklin, Kans.....	33	Sandy Arroyo near Clayton, N. Mex....	34
Rayado Creek at Sauble Ranch, near		Sandy Draw near Centerville, Miss.....	35
Cimarron, N. Mex.....	311	Second Creek at Sibley, Miss.....	444
Records available.....	4	Senatobia Creek near Senatobia,	
Red Chute Bayou near Shreveport, La...	516	Miss.....	399
Red Deer Creek, near Pampa, Tex.....	34	Sheep Creek near Halfway, Colo.....	177
tributary, near Miami, Tex.....	34	Shell Bayou near Shreveport, La.....	513
Red River, at Alexandria, La.....	534	Shoal Creek above Joplin, Mo.....	287
at Arthur City, Tex.....	481	Six Mile Creek near Eagle Nest,	
at Barbin Landing, La.....	537	N. Mex.....	308
at Colfax, La.....	532	Sixmile Creek near Avondale, Colo....	33
at Couchatta, La.....	519	Skeleton Creek near Lovell, Okla.....	243
at Fulton, Ark.....	494	Skuna River, at Bruce, Miss.....	412
at Garland, Ark.....	495	near Coffeetown, Miss.....	412
at Grand Ecore, La.....	524	Smackover Creek near Smackover, Ark...	547
at Index, Ark.....	484	Snake Creek near Coffeetown, Miss....	34
at Moncla, La.....	536	South Arkansas River, at Poncha,	
at Shreveport, La.....	508	Colo.....	170
at Springbank, Ark.....	500	near Salida, Colo.....	170
near Colbert, Okla.....	477	South Boggy Creek at Enid, Okla.....	33
near Gainesville, Tex.....	464	South Cascade Creek at Cascade, Colo..	176
near Terral, Okla.....	463	South Fourche La Fave River near	
North Fork, below Altus Dam, near		Hollis, Ark.....	380
Lugert, Okla.....	453	South Sulphur River near Cooper,	
Elm Fork of, near Mangum, Okla....	453	Tex.....	497
		Spadra Creek at Clarksville, Ark.....	370

	Page		Page
Spavinaw Creek near Spavinaw, Okla.....	33	Turkey Creek (tributary to Spring River) at Joplin, Mo.....	286
Spring Creek near Locust Grove, Okla.....	33	Tuscumbia River Canal near Corinth, Miss.....	93
Spring River (tributary to Black River) at Imboden, Ark.....	144	Twelveville Bayou near Dixie, La.....	507
Spring River (tributary to Neesho River), near Quapaw, Okla.....	288	Two Buttes Creek near Holly, Colo.....	33
near Waco, Mo.....	285	Tyronza River near Tyroneza, Ark.....	111
Stahl Creek near Miller, Mo.....	285	Ute Creek, near Bueyeros, N. Mex.....	327
Steele Bayou near Rolling Fork, Miss..	429	near Gladstone, N. Mex.....	33
Stowe Creek near Farmerville, La.....	560	near Logan, N. Mex.....	327
Strawberry River, near Evening Shade, Ark.....	149	tributary of, near Gallegos, N. Mex..	34
near Poughkeepsie, Ark.....	151	Verdigris River, at Independence, Kans.....	257
Piney Fork, at Evening Shade, Ark...	150	near Altoona, Kans.....	251
Sulphur River near Darden, Tex.....	499	near Claremore, Okla.....	266
Sunflower River, at Clarksdale, Miss.....	421	near Coysville, Kans.....	250
at Harvey's Chapel, Miss.....	422	near Inola, Okla.....	270
at Holly Bluff, Miss.....	427	near Lenaph, Okla.....	259
at Little Callao Landing, Miss.....	426	near Liberty, Kans.....	259
at Sunflower, Miss.....	423	near Madison, Kans.....	33
near Anguilla, Miss.....	427	near Sageeyah, Okla.....	260
near Lombardy, Miss.....	423	Vermejo River near Dawson, N. Mex.....	305
near Moorhead, Miss.....	425	Vermilion River, at Abbeville pumping plant, near Abbeville, La.....	626
Sunnybrook Creek at Lutesville, Mo....	32	at Lafayette, La.....	624
Sycamore Creek near Winona, Mo.....	32	at Landry Bridge, near Milton, La....	625
Tallahatchie River, at Batesville, Miss.....	392	at Long Bridge, La.....	623
at Etta, Miss.....	387	at Ruth Canal, near Long Bridge, La.....	624
at Money, Miss.....	410	at Tontons Bridge, La.....	623
at Phillip, Miss.....	409	Walnut Creek (Arkansas River basin) at Albert, Kans.....	33
at Sardis Dam near Sardis, Miss.....	391	Walnut Creek (Red River basin) near Lone Grove, Okla.....	35
at Shine Turner Bridge, near Lambert, Miss.....	406	Walnut River, at Winfield, Kans.....	223
at Swan Lake, Miss.....	408	near El Dorado, Kans.....	33
cutoff, near Glendora, Miss.....	409	West Branch, at El Dorado, Kans.....	33
near Batesville, Miss.....	393	War Eagle Creek near Hindsville, Ark...	116
near Crowder, Miss.....	393	Ward Creek at Stogens Lane, near Baton Rouge, La.....	609
near Lambert, Miss.....	406	Washita River, at Anadarko, Okla.....	470
near Minter City, Miss.....	409	at Carnegie, Okla.....	468
near Sardis, Miss.....	392	near Cheyenne, Okla.....	465
Tangipahoa River, at Robert, La.....	598	near Clinton, Okla.....	467
near Amite, La.....	597	near Durwood, Okla.....	475
near Kentwood, La.....	597	near Pauls Valley, Okla.....	472
Tarr Creek near Redfield, Ark.....	34	near Tabler, Okla.....	471
Tchefuncta River, near Covington, La.....	596	Washley Creek near Robert, La.....	599
near Folsom, La.....	596	West Colyell Creek near Walker, La....	610
near Franklinton, La.....	595	West Protection Levee borrow pit channel, at New Henderson Landing, La.....	620
Templeton Gap near Colorado Springs, Colo.....	32	near Palmetto, La.....	619
Tennessee Fork near Leadville, Colo...	162	Wewoka Creek at Lima, Okla.....	34
Tensas Bayou, near Alsatia, La.....	576	White River, at Batesville, Ark.....	131
near Transylvania, La.....	575	at Beaver, Ark.....	117
Tensas River, at Clayton, La.....	582	at Calico Rock, Ark.....	130
at Kirks Ferry Landing, La.....	582	at Clarendon, Ark.....	160
at Newlight, La.....	578	at De Valls Bluff, Ark.....	158
at Tendal, La.....	576	at Des Arc, Ark.....	157
near Tendal, La.....	577	at Georgetown, Ark.....	157
Terre Noire Creek east of Gurdon, Ark.....	545	at Newport, Ark.....	152
Texas Creek at Texas Creek, Colo.....	32	near Augusta, Ark.....	153
Thompson Creek (Mississippi River tributary) at Jackson, La.....	594	near Branson, Mo.....	122
near Starhill, La.....	594	near Flippin, Ark.....	123
Thompson Creek basin, records.....	594	near Reeds Spring, Mo.....	121
Thompson Creek (Yazoo River basin) at McCarley, Miss.....	415	near Rogers, Ark.....	116
Three Creek near Three Creeks, Ark....	35	West Fork, at Greenland, Ark.....	115
Three Prong Lake at Belledeau, La.....	617	near Fayetteville, Ark.....	115
Tickfaw River, at Holden, La.....	600	White River basin, records.....	32, 115-162
at Montpellier, La.....	599	Whiteoak Creek, below Talco, Tex.....	499
near Greensburg, La.....	599	near Talco, Tex.....	498
near Springfield, La.....	601	Whitewater River at Augusta, Kans.....	223
Tierra Blanca Creek at reservoir, near Umbarger, Tex.....	446	Wichita River at Wichita Falls, Tex....	460
Tilda Bogue near Canton, Miss.....	436	Wild Cat Creek near Tontitown, Ark.....	33
Timpas Creek near Rocky Ford, Colo....	190	Wild Horse Creek at Holly, Colo.....	201
Tippah Creek near Potts Camp, Miss....	390	Williams Spring Branch near Alton, Mo..	32
Trementina Creek at Trementina, N. Mex.....	33	Willow Creek at Duncan, Okla.....	35
Trinchera Creek near Trinchera, Colo.....	33	Wilson Creek (Arkansas River basin), near Canon City, Colo.....	32
Turkey Creek (tributary to Arkansas River) near Swallows, Colo.....	32	near mouth near Canon City, Colo....	32
Turkey Creek (tributary to Cimarron River) near Drummond, Okla.....	241	Wilson Creek (White River basin) near Springfield, Mo.....	119
Turkey Creek (tributary to Skuna River) near Coffeeyville, Miss....	34	Wolf Creek (tributary to Arkansas River) near Granada, Colo.....	33
		Wolf Creek (tributary to North Canadian River), at Lipscomb, Tex.....	343
		near Fargo, Okla.....	345

	Page		Page
Wolf Creek near Fort Supply, Okla.....	346	Yandell Branch near Kirbyville, Mo.....	32
near Shattuck, Okla.....	344	Yazoo Pass near Lula, Miss.....	403
Wolf Creek (tributary to St. Francis		Yazoo River, at Belzoni, Miss.....	418
River) near Farmington, Mo.....	32	at Greenwood, Miss.....	417
Wolf River, at Raleigh, Tenn.....	100	at Redwood, Miss.....	428
at Rossville, Tenn.....	99	at Sartartia, Miss.....	421
Wolf River basin, records.....	99-101	at Yazoo City, Miss.....	420
Woodruff Creek near Eureka Springs,		Yazoo River basin, records.....	34,386-429
Miss.....	34	Yellow Water River Canal, near	
Wynn Creek near Gallegos, N. Mex.....	33	Baptist, La.....	604
Yalobusha River, at Calhoun City,		near Hammond, La.....	603
Miss.....	410	Yocona River, at Enid Dam, near	
at Graysport, Miss.....	411	Enid, Miss.....	395
at Grenada, Miss.....	414	near Oxford, Miss.....	394
at Grenada Dam, near Grenada, Miss..	413	Zarcillo Canyon near Segundo, Colo.....	33
at Whaley, Miss.....	415	Zilpha Creek near Kosciusko, Miss.....	433