

SYNTHESIS OF NATURAL FLOWS AT SELECTED SITES IN THE UPPER MISSOURI RIVER BASIN, MONTANA, 1928-89

By Lawrence E. Cary and Charles Parrett

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CONVERSION FACTORS

Multiply	By	To obtain
acre	0.4047	hectare
acre-foot	1,233	cubic meter
cubic foot per second (ft ³ /s)	0.028317	cubic meter per second
foot	0.3048	meter
mile (mi)	1.609	kilometer
square mile	2.59	square kilometer

SYNTHESIS OF NATURAL FLOWS AT SELECTED SITES IN THE UPPER MISSOURI RIVER BASIN, MONTANA, 1928-89

By Lawrence E. Cary *and* Charles Parrett

Abstract

Natural monthly streamflows were synthesized for the years 1928-89 for 43 sites in the upper Missouri River Basin upstream from Fort Peck Lake in Montana. The sites are represented as nodes in a streamflow accounting model being developed by the Bureau of Reclamation. Recorded and historical flows at most sites have been affected by human activities including reservoir storage, diversions for irrigation, and municipal use. Natural flows at the sites were synthesized by eliminating the effects of these activities. Recorded data at some sites do not include the entire study period. The missing flows at these sites were estimated using a statistical procedure.

The methods of synthesis varied, depending on upstream activities and information available. Recorded flows were transferred to nodes that did not have streamflow-gaging stations from the nearest station with a sufficient length of record. The flows at one node were computed as the sum of flows from three upstream tributaries. Monthly changes in reservoir storage were computed from monthend contents. The changes in storage were corrected for the effects of evaporation and precipitation using pan-evaporation and precipitation data from climate stations. Irrigation depletions and consumptive use by the three largest municipalities were computed. Synthesized natural flow at most nodes was computed by adding algebraically the upstream depletions and changes in reservoir storage to recorded or historical flow at the nodes.

Two comparisons were made to check the validity of the results. Synthesized monthly natural flow, expressed as a percentage of annual natural flow, at two tributary and two mainstem nodes compared favorably with the percentages for a stream that was known to be little affected by human activities. Next, synthesized mean annual natural flows at the mainstem nodes were compared with distance from Three Forks, Montana. The flows consistently increased downstream.

INTRODUCTION

The Bureau of Reclamation (BOR) is developing a monthly streamflow accounting model for use in the Missouri River Basin in Montana. The model will be used to evaluate the effects of different water-allocation schemes on water availability at selected locations in the basin upstream from Fort Peck Lake. To make comparisons between alternative schemes, a consistent data base of natural streamflows (unaffected by human use) is required. Accordingly, BOR requested that the U.S. Geological Survey (USGS) develop a record of synthesized monthly natural flows for 1928-89 at 43 mainstem and tributary sites in the basin.

Purpose and Scope

This report, which was prepared in cooperation with BOR, presents the results of the synthesis of natural flows for the 1928-89 period at selected sites in the Missouri River Basin upstream from Fort Peck Lake. Sites were selected by BOR for use as nodes in their model and are referred to as nodes in this report. Thirteen nodes are on the mainstem Missouri River, and 30 nodes are on tributaries (table 1). The numbering scheme for the nodes was developed by BOR, and as shown in table 1, does not follow the downstream-order numbering system used by USGS. As indicated in table 1, 19 nodes were located at USGS streamflow-gaging stations where recorded data were used to synthesize natural flows. One node (node 1200) was below a dam where recorded streamflow data provided by BOR were used to synthesize natural flows. At 22 other nodes, recorded data from stations on the same stream as the node, but some distance away, were used after an adjustment for difference in drainage area. These adjusted flows are termed historical flows in this report. At node 1000, Missouri River near Three Forks, natural flows were synthesized by adding together previously synthesized natural flows at three nodes on tributaries that form the Missouri River. The locations of the study area, nodes, and associated streamflow-gaging stations where flow records were adjusted are shown in figure 1.

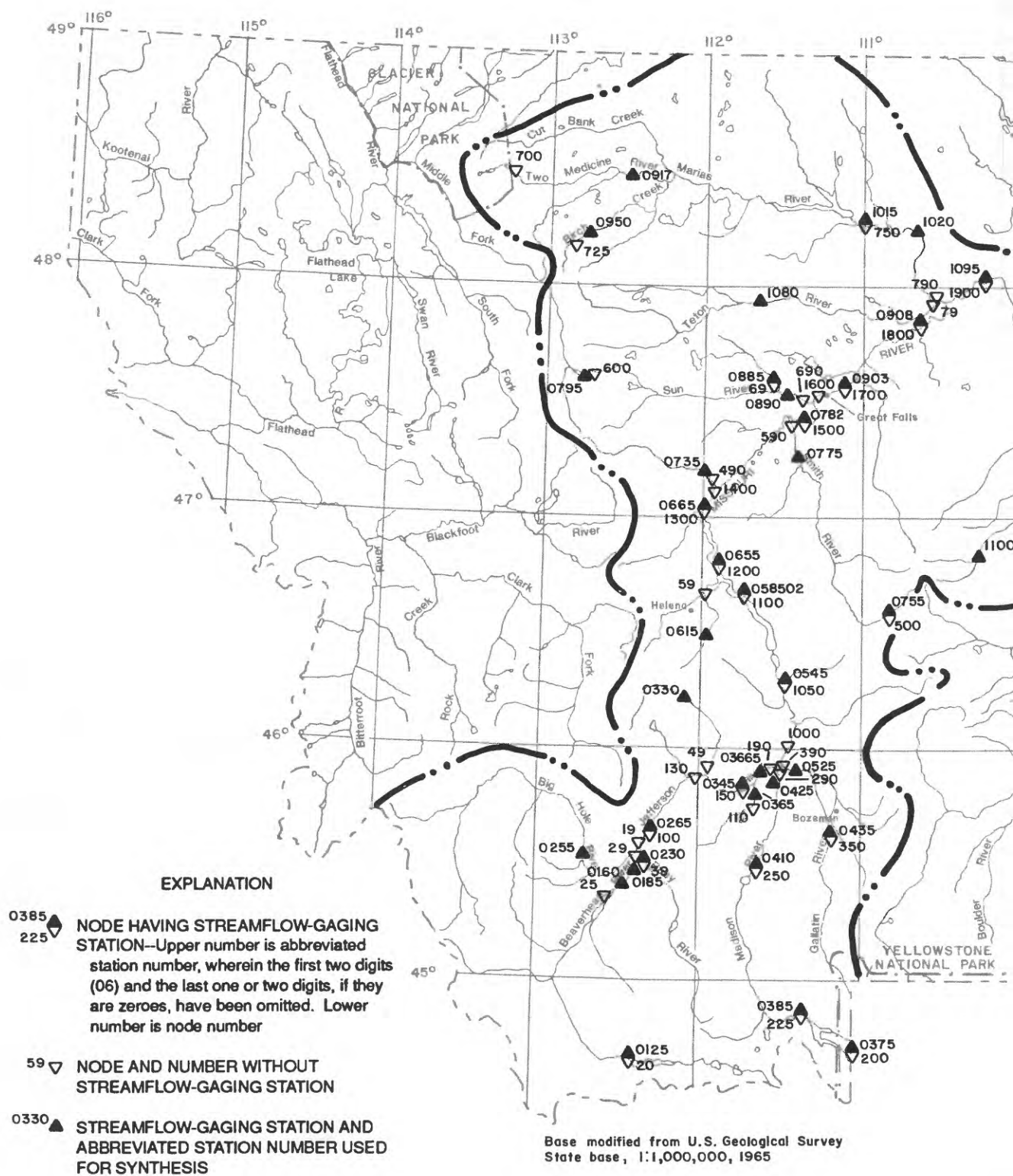


Figure 1. Location of nodes and streamflow-gaging stations used in data synthesis.

Table 1. Streamflow accounting-model nodes and associated streamflow-gaging stations, Missouri River Basin above Fort Peck Lake, Montana

[Symbol: --, not applicable]

Streamflow accounting-model node		Streamflow-gaging station			Drainage-area adjustment factor ¹
Number	Name	At node	Used for estimation	Period of record	
20	Red Rock River below Lima Reservoir, near Monida	06012500	--	² 1928-69; ² 1974-82; ² 1985-89	--
25	Beaverhead River below Clark Canyon Reservoir	--	06016000	³ 1964-89	.92
29	Beaverhead River at mouth	--	06018500	³ 1964-89	1.15
39	Ruby River near Twin Bridges	06023000	--	1940-43; 1946-65; 1979-81	--
19	Big Hole River at mouth	--	06025500	1928-89	1.27
100	Jefferson River near Twin Bridges	06026500	--	1940-43; 1958-72	--
130	Jefferson River above Boulder River	--	06026500	1940-43; 1958-72	1.04
49	Boulder River at mouth	--	06033000	1929-32; 1934-72; 1985-89	1.41
150	Jefferson River at Sappington	06034500	--	1938-69	--
170	Willow Creek below Willow Creek Reservoir, near Harrison	--	06036500	1928-33; 1946-53; 1955-57	.96
190	Jefferson River at mouth	--	06036650	² 1978-89	1.01
200	Madison River near West Yellowstone	06037500	--	1928-73; 1984-86; 1989	--
225	Madison River below Hebgen Lake, near Grayling	06038500	--	1939-89	--
250	Madison River below Ennis Lake, near McAllister	06041000	--	1939-89	--
290	Madison River at mouth	--	06042500	1928-32; 1941-50	1.01
350	Gallatin River near Gallatin Gateway	06043500	--	1930-69; ² 1971-81; 1985	--
390	Gallatin River at mouth	--	06052500	1928-89	1.01
1000	Missouri River near Three Forks	--	--	--	--
1050	Missouri River at Toston	06054500	--	1941-89	--
1100	Missouri River below Canyon Ferry Dam, near Helena	06058500	--	1953-89	--
59	Prickly Pear Creek at mouth	--	06061500	1928-33; ² 1945-53; ² 1954-69; 1979-89	1.78
1200	Missouri River below Hauser Lake Dam, near Helena	-- ⁴	--	1953-89	1.03
1300	Missouri River below Holter Dam, near Wolf Creek	06066500	--	² 1945-89	--
1400	Missouri River above Dearborn River	--	06066500	² 1945-89	1.02
490	Dearborn River at mouth	--	06073500	1946-69	1.29
500	Smith River above Fivemile Creek, near White Sulphur Springs	06075500	--	1934-43	--
590	Smith River at mouth	--	06077500	1951-69	1.13
1500	Missouri River near Ulm	06078200	--	² 1957-89	--
600	Sun River below Gibson Reservoir	--	06079500	1930-89	.97
69	Muddy Creek at Vaughn	06088500	--	1934-68; 1971-89	--
690	Sun River at mouth	--	06089000	1934-89	1.02
1600	Missouri River below Black Eagle Dam	--	06078200	² 1957-89	1.05
1700	Missouri River near Great Falls	06090300	--	1957-89	--
1800	Missouri River at Fort Benton	06090800	--	1928-89	--
700	Two Medicine River below Lower Two Medicine Lake	--	06091700	1977-89	.45
725	Birch Creek below Swift Reservoir	--	06095000	1928-37	.85
750	Marias River near Chester	06101300	--	² 1955-89	--
79	Teton River at mouth	--	06108000	1954-89	1.24
790	Marias River at mouth ⁵	--	06102000	1928-56	⁶ 1.05
1900	Missouri River at Virgelle	06109500	--	1935-89	--
2000	Missouri River above Judith River	--	06109500	1935-89	1.02
890	Judith River at mouth	--	06110000	1928-75	2.89
2100	Missouri River near Landusky	06115200	--	1934-89	--

¹Drainage-area adjustment factor is the square root of the ratio of the drainage area at the node to the drainage area at the streamflow-gaging station used for estimation.

²Some periods of missing record.

³Only record after completion of Clark Canyon Reservoir used.

⁴Data for this site obtained from Bureau of Reclamation.

⁵Natural flows for this site synthesized by adding natural flows for Teton River at mouth to natural flows for remainder of Marias River Basin.

⁶Drainage-area adjustment factor is for the difference in drainage area between station 06102000 and the mouth, excluding the drainage area of Teton River at mouth.

Natural flows were synthesized by adjusting recorded or historical flows for the effects of reservoir regulation, irrigation, and municipal use. Information pertaining to reservoir storage capacity, surface area, discharge, and monthend contents were acquired from BOR (Scott Boelmann, written commun., 1993), Montana Department of Natural Resources and Conservation (Mel McBeath, written commun., 1993), and the Montana Power Company (Larry Gruel, written commun., 1993). The information generally was used to compute monthly reservoir gains and losses. Diversions for irrigation and subsequent return flows were computed by BOR (Rick DeVore, written commun., 1993). Municipal water use was computed by BOR (Scott Boelmann, written commun., 1993) from information provided by USGS.

Several mathematical and statistical methods were used in data synthesis. Climate data, which were used to compute reservoir gains and losses, were estimated by statistical methods for months of missing data during the base period. The synthesized monthly flows at some nodes also were estimated by statistical methods for months of missing data during the base period. For reservoirs where area-capacity data were not available, surface areas corresponding to monthend contents were computed from dimensionless area-capacity equations developed from data from other reservoirs.

Most flow records are for stream sites that are affected by human activities and estimated natural flows for the base period cannot be independently verified. Nevertheless, the synthesis methods were applied consistently, and results at selected sites were compared with data at a gaged site where streamflows are not greatly affected by human activities.

Description of Study Area

The Missouri River originates in southwestern Montana east of the Continental Divide, at the confluence of the Jefferson, Madison, and Gallatin Rivers near Three Forks (fig. 1). The headwaters of the Missouri River are in the mountains of southwestern Montana and northwestern Wyoming. From Three Forks, the Missouri River flows generally north, then east for about 450 mi before flowing into Fort Peck Lake in northeastern Montana. The drainage area of the Missouri River Basin above Fort Peck Lake includes 57,500 mi².

The flows of the Missouri River and its tributaries are affected by reservoirs, irrigation, and, to a minor degree, municipal water use. Fifteen reservoirs in the basin have storage capacities larger than 10,000 acre-ft. Of these, three have storage capacities larger than

250,000 acre-ft. Upstream from Fort Peck Lake, about 920,000 acres are irrigated, mostly from surface water. Bozeman, Helena, and Great Falls, in addition to several smaller communities, are supplied by water from the Missouri River or its tributaries.

METHODS OF DATA ESTIMATION AND SYNTHESIS

Synthesis of natural flows for the base period required three steps. First, historical flows were estimated for 23 nodes without streamflow-gaging stations by multiplying recorded flows at nearby gaged sites on the same streams by drainage-area ratio adjustment factors. As previously described, natural flows for one node without a gaging station, node 1000 (Missouri River near Three Forks), were synthesized by adding together previously synthesized natural flows for three tributaries; thus, neither recorded nor historical data were directly used. Although a drainage-area ratio adjustment factor was used for node 790 (Marias River at mouth), the factor did not include the drainage area for Teton River, a major tributary. The adjusted historical flows for node 790 thus did not include those for Teton River.

Second, natural flows were synthesized by adjusting recorded or historical flows for the effects of reservoir storage, irrigation, and municipal use. Because the adjusted historical flows for node 790 did not include those for Teton River, previously synthesized natural flows for Teton River at mouth, node 79, were added to the adjusted historical flows for node 790 to produce synthesized natural flows for node 790.

Most historical flows were based on records that did not include the complete 1928-89 base period. Thus, the third step was to estimate missing months of synthesized natural flow using a record-extension method.

Drainage-Area Adjustment

At the 23 nodes where streamflow-gaging stations were located some distance away, historical streamflow was estimated by multiplying recorded data at the nearby gaging stations by drainage-area adjustment factors. Previous studies (Parrett and others, 1989; Parrett and Johnson, 1989) showed that streamflow at a site generally is proportional to drainage area at the site raised to some power between 0.4 and 0.9. For this study, the exponent used for drainage area was 0.5 (square root). Thus, for any site A, streamflow can be represented by the following equation:

$$Q_A = K A_A^{0.5}, \quad (1)$$

where

Q_A is the streamflow at A,
 K is a constant, and
 A_A is the drainage area at site A.

For some nearby site B, equation 1 can be rewritten as:

$$Q_B = K A_B^{0.5}, \quad (2)$$

where

Q_B and A_B are, respectively, the streamflow and drainage area for site B, and
 K is the same constant as in equation 1.

The ratio of streamflow at site A to that at site B thus can be expressed as:

$$Q_A/Q_B = (A_A/A_B)^{0.5}, \quad (3)$$

where all terms are as previously defined. Finally, equation 3 can be rewritten to express streamflow at site A in terms of streamflow at site B as:

$$Q_A = Q_B \cdot (A_A/A_B)^{0.5}. \quad (4)$$

The ratio of drainage areas raised to the 0.5 power thus represents a drainage-area adjustment factor that can be used to estimate streamflow at an ungaged site (A) from recorded streamflow at a nearby site (B).

Synthesis of Natural Flows

Natural flows were synthesized by adjusting recorded or historical flows at nodes for human effects. The human effects considered were reservoir storage, irrigation, and municipal use. Other human effects were assumed to be generally insignificant.

At 16 nodes (table 2), recorded or historical flows were adjusted for the effects of reservoir storage. Effects considered were changes in reservoir contents caused by increases or decreases in storage, evaporation, and precipitation. Owing to the lack of seepage data for many of the reservoirs, seepage was not separately accounted for. Data for monthend contents were acquired directly from the reservoir operator or indirectly from the Montana State Library (J.R. Stimson, Natural Resources Information System, Montana State Library, written commun., 1992). The monthly change in storage was computed as the difference between the monthend contents of the preceding and current month for each month of available record during the base period.

Monthend reservoir-contents data were not collected during some months when recorded or historical streamflow data were available at nodes downstream from Ruby, Willow Creek near Harrison, and Smith Reservoirs. For those months of missing reservoir data, streamflow data at the nodes also were considered to be missing and the streamflow-record extension method, discussed below, was used to synthesize flows for those months.

Dams forming Lower Two Medicine Lake and Swift Reservoir were destroyed by floods during the spring of 1964. These reservoirs were assumed to be completely empty during reconstruction, and no correction to recorded streamflow at downstream nodes was applied during this period.

Monthly evaporation, which represents a loss of water that would not have occurred in the absence of reservoirs, was estimated for each reservoir using pan-evaporation data. Pan evaporation is measured at several stations from May through September, and at a few stations from April through October. Measurements began at some stations prior to 1928 and have continued to the present. Varying lengths of record are available at other stations. Evaporation data were not reported for some months at most stations owing to equipment malfunctions, missed observations, or frozen pans. Four stations were selected to estimate reservoir evaporation. Missing record during April through September at these stations was estimated by linear regression using other long-term evaporation stations. The four evaporation stations used to estimate reservoir evaporation, the long-term stations used to estimate missing months of evaporation at those four stations, the coefficients of determination (r^2), and coefficients of variation are shown in table 3. The coefficients of determination and variation provide measures of the overall reliability of the linear regressions. In general, the larger the coefficient of determination and the smaller the coefficient of variation, the more reliable are the linear regression and regression estimates. Perfect linear regression, with independent and dependent variables plotting as a straight line, would have a coefficient of determination of 100 percent and a coefficient of variation of 0.

Although pan-evaporation data generally were available only for May through September, significant amounts of evaporation can occur during other months. Accordingly, monthly pan evaporation was estimated for October through April at each of the four stations from a linear regression relating monthly pan evaporation to mean monthly maximum air temperature, a variable for which data generally were available for all months during the base period. At one station used to estimate reservoir evaporation (Canyon Ferry Dam),

Table 2. Reservoirs in the Missouri River Basin, Montana, whose storage effects were used to adjust recorded or historical flows

Stream and nearest downstream node	Reservoir	Period of record since 1928
Red Rock River (20)	Lima	1940-89
Beaverhead River (25)	Clark Canyon	1964-89
Ruby River (39)	Ruby	¹ 1938-50; 1967-89
Willow Creek (170)	Willow Creek near Harrison	¹ 1938-85; 1987-89
Madison River (225)	Hebgen Lake	1936-89
Madison River (250)	Ennis Lake	1936-89
Missouri River (1100)	Canyon Ferry	¹ 1953-89
Missouri River (1200)	Hauser	1939-89
Missouri River (1300)	Holter	1936-89
Smith River (500)	Smith	¹ 1938-50; 1987-89
Sun River (600)	Gibson	1930-89
Sun River (690)	Pishkun ²	1947-89
Willow Creek (690)	Willow Creek ³	1936-89
Two Medicine River (700)	Lower Two Medicine Lake ⁴	¹ 1938-63; 1964-67; 1968-89
Birch Creek (725)	Swift ⁵	1936-63; 1964-67; 1968-89
Marias River (750)	Lake Elwell	¹ 1955-89

¹Missing data during some months.

²Off-stream reservoir supplied from Sun River.

³Reservoir located on tributary to Sun River.

⁴Reservoir empty from June 1964 through November 1967 owing to dam failure.

⁵Reservoir empty from June 1964 through June 1967 owing to dam failure.

Table 3. Pan-evaporation stations used to estimate reservoir evaporation and missing record at evaporation stations, Missouri River Basin above Fort Peck Lake, Montana

Station used to estimate reservoir evaporation	Period of record since 1928	Station used to estimate missing record	Coefficient of determination (percent)	Coefficient of variation (percent)
Bozeman 6W Experiment Farm	1928-89	Huntley Experiment Station	74	12
Canyon Ferry Dam	1957-89	Bozeman 6W Experiment Farm	73	14
Dillon WMCE	1950-89	Bozeman 6W Experiment Farm	65	15
Valier	1928-78	Fort Assiniboine	62	16

mean monthly maximum air temperatures were not available for 30 of the years in the base period, so data from a nearby site (Holter Dam) were used. Coefficients of determination and variation for the regressions between monthly pan evaporation and mean monthly maximum air temperature are shown in table 4.

Pan-evaporation data at the four stations were transferred to each reservoir by multiplying the pan-evaporation data by the ratio of mean monthly maximum air temperature at a station close to the reservoir to the mean monthly maximum air temperature at the

evaporation station. Mean monthly maximum temperature was used rather than mean monthly temperature because maximum temperature correlated more closely with pan evaporation. The ratios varied from month to month and ranged from less than one to greater than one. A ratio that was less than one represented a reservoir that would be expected to have less evaporation than the evaporation station because of cooler temperatures. Conversely, a ratio of greater than one represented a reservoir that would be expected to have more evaporation than the evaporation station.

Table 4. Results of linear regression between monthly pan evaporation and mean monthly maximum air temperature at stations used to estimate reservoir evaporation, Missouri River Basin above Fort Peck Lake, Montana

Evaporation station	Coefficient of determination (percent)	Coefficient of variation (percent)
Bozeman 6W Experiment Farm	85	12
Canyon Ferry Dam	90	10
Dillon WMCE	56	18
Valier	48	19

Monthly pan evaporation was converted to depth-of-lake evaporation by multiplying by empirically derived pan coefficients. Monthly pan coefficients generally have been found to vary from 0.4 to 2.0 (Winter, 1981, p. 92) and also can vary regionally. Based on results by Kohler (1954, p. 140) and Knapp and others (1982, p. 81), monthly pan coefficients were selected to be generally representative of the study area and ranged from 0.30 to 1.15.

Monthly reservoir contents were next adjusted for precipitation. The depth of precipitation at each reservoir was considered to be equal to the monthly total precipitation from the nearest climate station. Some stations were not operated for the entire study period, and missing values were estimated by linear regression using total monthly precipitation from a nearby, long-term climate station as the explanatory variable. The stations used to estimate precipitation at reservoirs, the stations used to estimate missing data at those stations, and regression statistics are presented in table 5. Table 6 shows the climate stations used to estimate evaporation and precipitation at each reservoir. The locations of all climate stations used for flow synthesis are shown on figure 2.

In order to convert the depths of evaporation and precipitation to volumes, the average monthly surface area of each reservoir was needed. The average surface area was computed as the mean of the surface area at the end of the preceding month and at the end of the current month for each month the reservoir was operated. For 12 reservoirs, the surface-area data were provided by the operator as area-elevation tables or graphs.

Surface-area data were not available for four reservoirs (Lima, Willow Creek, Pishkun, and Swift). For each of these four reservoirs, a comparison reservoir was selected on the basis of similar topography and reservoir size from the 12 reservoirs where surface-area data were available. Surface areas for each of the 4 reservoirs lacking data were estimated from area-capacity relations for each comparison reservoir.

For each comparison reservoir, relative area and relative capacity were computed as:

$$Cr = \frac{Ci}{Ct}, \text{ and} \quad (5)$$

$$Ar = \frac{Ai}{At} \quad (6)$$

where

- Cr is relative reservoir capacity, $0 \leq Cr \leq 1$,
- Ci is incremental reservoir capacity, $0 \leq Ci \leq Ct$,
- Ct is total reservoir capacity,
- Ar is relative reservoir area, $0 \leq Ar \leq 1$,
- Ai is reservoir surface area associated with incremental reservoir capacity, and
- At is maximum reservoir surface area associated with maximum reservoir capacity.

Next, the relative areas were related to relative capacities by a power function of the form:

$$Ar = Cr^n, \text{ for } 1/4 \leq n \leq 9/4, \quad (7)$$

where the exponent, n, was estimated graphically.

The surface area for each of the four reservoirs lacking data was calculated as:

$$\hat{A}_i = \hat{C}_i^n \hat{A}_t, \quad (8)$$

where

- \hat{A}_i is the monthend surface area,
- \hat{C}_i is the relative reservoir capacity for month i for the comparison reservoir,
- n is the exponent for the comparison reservoir, and
- \hat{A}_t is the maximum surface area determined by planimetry, on a suitable topographic map, the elevation contour corresponding to the spillway elevation.

The monthend reservoir area computed from equation 8 was averaged with the monthend value for the previous month, and the average value was multiplied by the monthly precipitation and evaporation depth to determine monthly precipitation and evaporation volumes. These volumes, together with the

Table 5. Precipitation stations used to estimate precipitation at reservoirs and missing record at precipitation stations, Missouri River Basin above Fort Peck Lake, Montana

[--, not applicable]

Precipitation station used to estimate reservoir precipitation	Period of record since 1928	Precipitation station used to estimate missing record	Coefficient of determination (percent)	Coefficient of variation (percent)
Alder 17 S	1957-89	Dillon WMCE	66	52
Bozeman MSU	1928-89	--	--	--
Dillon WMCE	1928-89	--	--	--
Ennis	1929-89	Bozeman MSU	55	60
Gibson Dam	1939-89	Conrad	55	64
Hebgen Dam	1937-89	West Yellowstone	64	34
Holter Dam	1949-89	Conrad	58	65
Lima	1931-89	Dillon WMCE	63	58
Valier	1928-89	--	--	--

Table 6. Climate stations used to estimate evaporation and precipitation at reservoirs, Missouri River Basin above Fort Peck Lake, Montana

Reservoir	Evaporation station	Precipitation station
Lima	Dillon WMCE	Lima
Clark Canyon	Dillon WMCE	Dillon WMC
Ruby	Dillon WMCE	Alder 17S
Willow Creek near Harrison	Bozeman 6W Experiment Farm	Bozeman MSU
Hebgen	Bozeman 6W Experiment Farm	Hebgen Dam
Ennis	Bozeman 6W Experiment Farm	Ennis
Smith	Canyon Ferry Dam	Holter Dam
Gibson	Valier	Gibson Dam
Willow Creek	Valier	Gibson Dam
Pishkun	Valier	Gibson Dam
Lower Two Medicine	Valier	Valier
Swift	Valier	Valier
Lake Elwell	Valier	Valier
Canyon Ferry	Canyon Ferry Dam	Holter Dam
Hauser	Canyon Ferry Dam	Holter Dam
Holter	Canyon Ferry Dam	Holter Dam

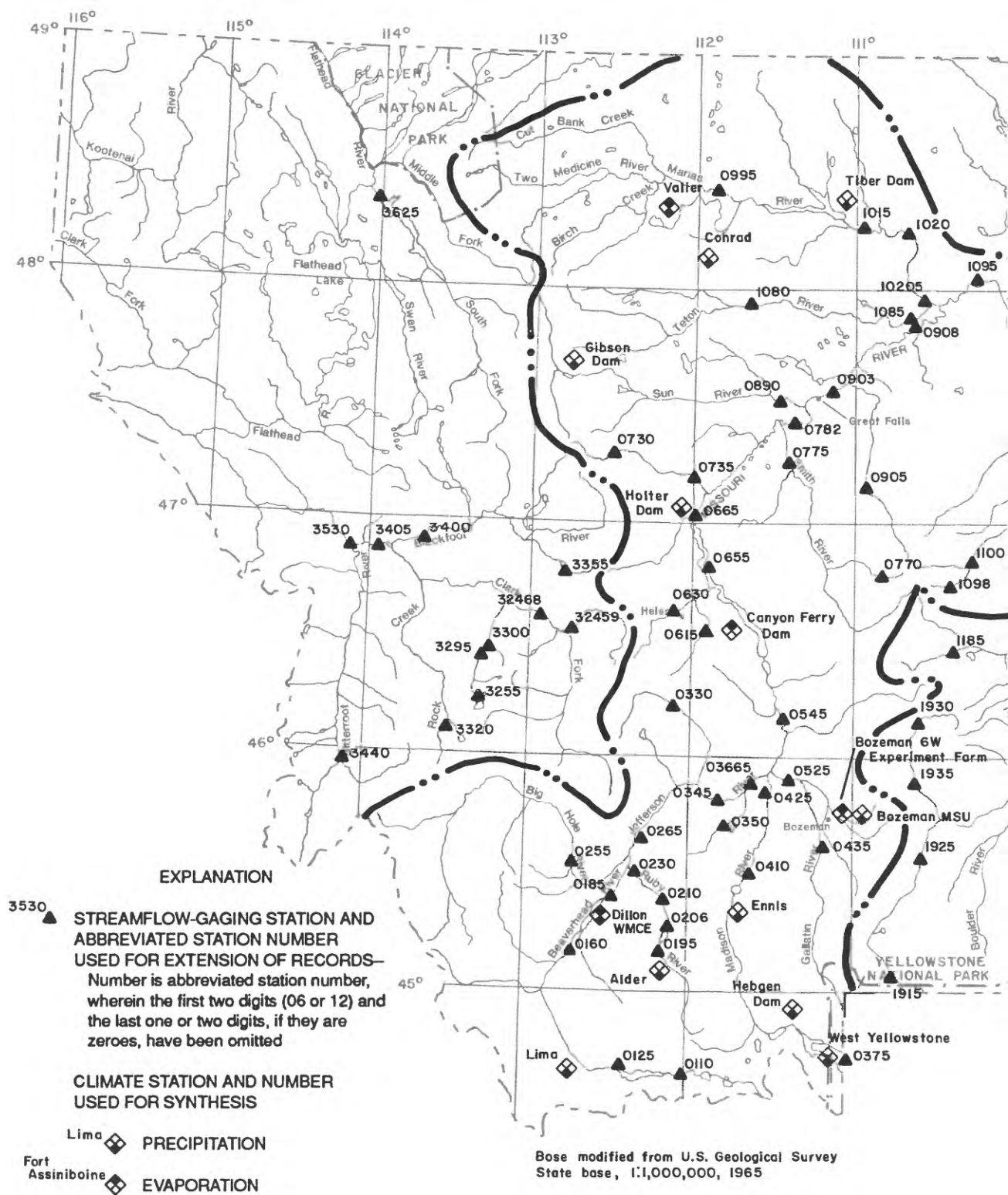
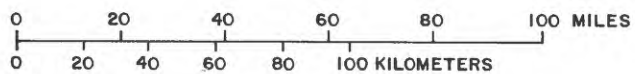
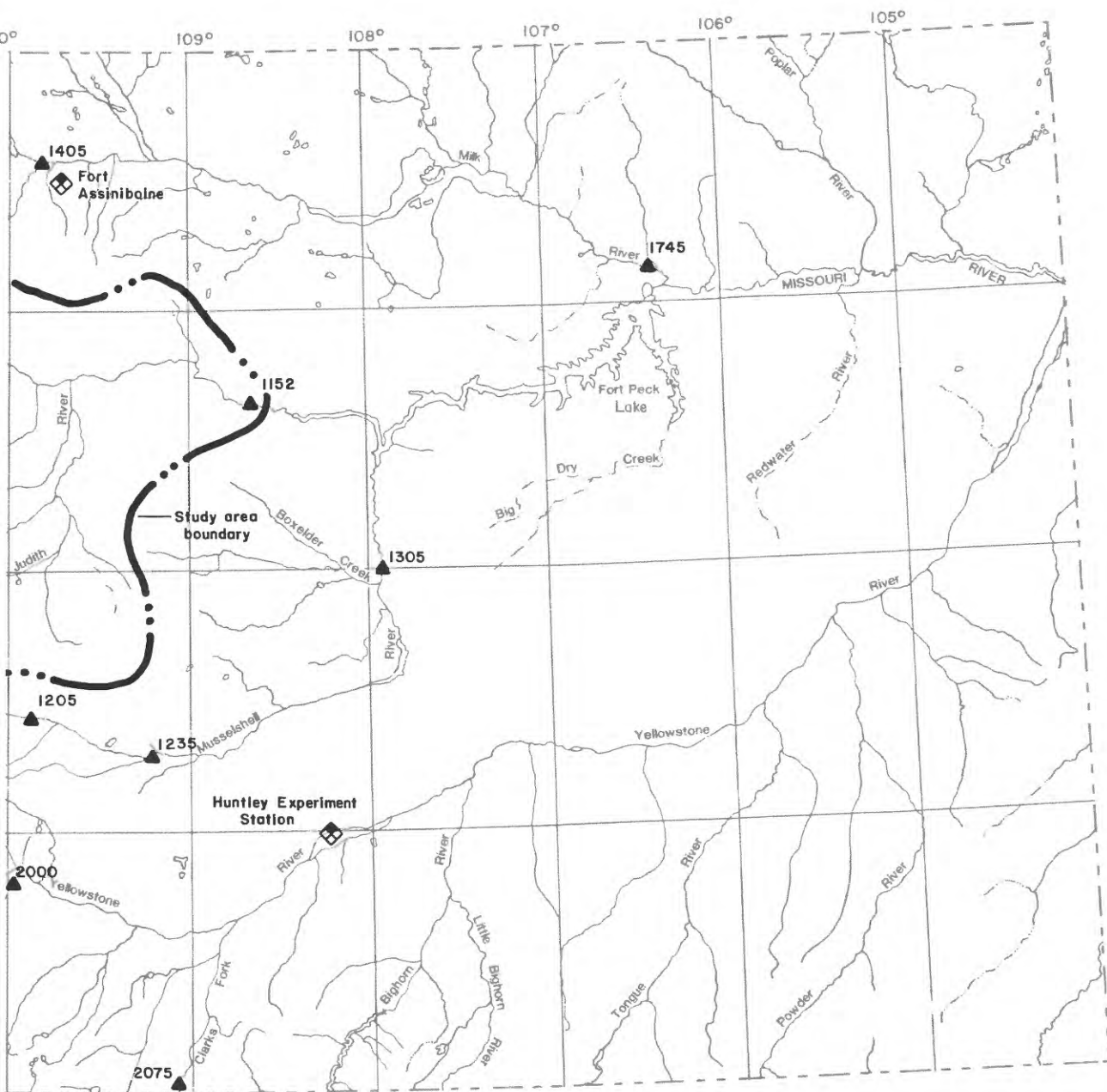


Figure 2. Location of climate stations used for data synthesis and streamflow-gaging stations used for extension of records.



monthly change in reservoir contents, were algebraically added to recorded or historical monthly flow volumes at the nodes to produce synthesized monthly natural flows.

Recorded or historical flows also were adjusted for the effects of irrigation. Historically, water for irrigation has been and continues to be diverted at numerous locations along the Missouri River and its tributaries. The amount of water diverted commonly is greater than the amount required by the irrigated crop, and at least some of the excess returns to the stream as irrigation return flow, sometimes several months after the diversion. The net effect of irrigation on monthly flow, generally referred to as irrigation depletion, can be positive or negative, depending on whether irrigation return flow is greater than the amount diverted. During the summer months when irrigation diversions greatly exceed irrigation return flows, streamflows are decreased by irrigation and the net irrigation depletion is positive. During fall months when irrigation diversions are zero or very small, streamflows can be increased as a result of irrigation return flows, and the net irrigation depletion can be negative.

Based on data from the U.S. Agricultural Census, Montana Department of Natural Resources and Conservation, and the U.S. Natural Resources Conservation Service (formerly U.S. Soil Conservation Service), BOR estimated monthly irrigation depletions for the base period at each node (Richard DeVore, Bureau of Reclamation, written commun., 1992). Separate computations were made for full-service flood, partial-service flood, and sprinkler irrigation because of the different water-use efficiencies of the three types of irrigation. The irrigation depletion data for each type of irrigation were stored in separate irrigation depletion files for each node. The irrigation depletion data at each node contained the cumulative irrigation depletion data for that type of irrigation for the intervening area between the node and the next upstream node. For stream basins having only one node, the irrigation depletions were for the total drainage area at the node.

In a similar manner, streamflow depletions resulting from municipal withdrawals in Bozeman, Helena, and Great Falls were estimated by BOR (Scott Boelmann, written commun., 1993). For simplicity, only one municipal depletion was used for Helena even though that city obtains water from two streams. The depletions represented water that was consumptively used, so were always positive. Municipal depletions generally are very small compared to irrigation depletions, and their effect on streamflows at nodes was minor.

Table 7 shows a summary of the various adjustments required at each node. Included in the table are the number of reservoirs, the type of irrigation depletions, and the number of municipal withdrawals. The

change in storage for each reservoir, the depletion for each type of irrigation, and the municipal withdrawal at each node were algebraically summed, resulting in the adjustment that was applied to recorded or historical flows.

Because streamflow depletions were cumulative only from one node to another, depletions were added together for basins having more than one node. The upstream nodes whose depletions were added to nodes located downstream are shown in table 8.

Adjustments to recorded or historical flows resulted in negative synthesized natural flow for some months at some nodes. Alteration of the irrigation efficiencies and distribution of irrigation return flows eliminated the negative values in most cases (Richard DeVore, Bureau of Reclamation, oral commun., 1993). However, a few (less than 10) synthesized natural monthly flows were still negative at each of 6 nodes: Red Rock River below Lima Reservoir, near Monida (node 20), Beaverhead River at mouth (node 29), Ruby River at mouth, near Twin Bridges (node 39), Teton River at mouth (node 79), Willow Creek below Willow Creek Reservoir, near Harrison (node 170), and Two Medicine River below Two Medicine Lake (node 700). Because the number of negative synthesized natural flows was small and the results for the remaining years appeared to be reasonable, the problem of negative flows was bypassed by considering the years in which synthesized natural flows were negative to be years of missing historical flows. Natural flows for these years subsequently were estimated by the streamflow record-extension method discussed below.

Streamflow Record Extension

Because the method for synthesizing natural flows at each node (except for node 1000) was based on recorded flows at the node or at a nearby node on the same stream, the period of synthesized natural flow record was the same as the period of recorded flow record. To extend short-term and seasonal synthesized natural flow records to the 1928-89 base period, a mixed-station record-extension computer program developed by Alley and Burns (1983) was used. This program selects the best (base) station from all those available in a region to estimate each month of missing record at a site using a regression technique. The criterion for selection is to use the base station that results in the smallest standard error of prediction for that month. Only stations with flow record for a particular month and year were used to estimate missing flows at other sites for that month and year; previously estimated flows were not used to estimate other missing flows.

Table 7. Summary of adjustments required at streamflow accounting-model nodes to synthesize flows, Missouri River Basin above Fort Peck Lake, Montana

[Abbreviations: FS, full-service flood irrigation; PS, partial-service flood irrigation; S, sprinkler irrigation. Symbol: --, no depletions]

Streamflow accounting-model node		Number of reservoirs	Types of irrigation depletions	Number of municipal withdrawals
Number	Name			
20	Red Rock River below Lima Reservoir, near Monida	1	FS,PS,S	0
19	Big Hole River at mouth	0	FS,PS,S	0
25	Beaverhead River below Clark Canyon Reservoir	1	FS,PS,S	0
29	Beaverhead River at mouth	0	FS,PS,S	0
39	Ruby River near Twin Bridges	1	FS,S	0
100	Jefferson River near Twin Bridges	0	--	0
130	Jefferson River above Boulder River	0	FS,PS,S	0
49	Boulder River at mouth	0	FS,PS,S	0
150	Jefferson River at Sappington	0	FS,PS,S	0
170	Willow Creek below Willow Creek Reservoir, near Harrison	1	--	0
190	Jefferson River at mouth	0	FS,PS,S	0
200	Madison River near West Yellowstone	0	--	0
225	Madison River below Hebgen Lake, near Grayling	1	--	0
250	Madison River below Ennis Lake, near McAllister	1	FS,S	0
290	Madison River at mouth	0	FS,PS,S	0
350	Gallatin River near Gallatin Gateway	0	PS,S	0
390	Gallatin River at mouth	0	PS,S	1
1000	Missouri River near Three Forks	0	--	0
1050	Missouri River at Toston	0	FS,PS,S	0
1100	Missouri River below Canyon Ferry Dam, near Helena	1	FS,PS,S	0
59	Prickly Pear Creek at mouth	0	FS,PS,S	0
1200	Missouri River below Hauser Lake Dam, near Helena	1	FS,PS,S	1
1300	Missouri River below Holter Dam, near Wolf Creek	1	FS,PS,S	0
1400	Missouri River above Dearborn River	0	--	0
490	Dearborn River at mouth	0	FS,PS,S	0
500	Smith River above Five Mile Creek, near White Sulphur Springs	1	--	0
590	Smith River at mouth	0	FS,PS,S	0
1500	Missouri River near Ulm	0	FS,PS,S	0
600	Sun River below Gibson Reservoir	1	FS,PS,S	0
69	Muddy Creek at Vaughn	0	FS,PS,S	0
690	Sun River at mouth	2	FS,PS,S	0
1600	Missouri River below Black Eagle Dam	0	--	1
1700	Missouri River near Great Falls	0	--	0
1800	Missouri River at Fort Benton	0	FS,PS,S	0
700	Two Medicine River below Lower Two Medicine Lake	1	--	0
725	Birch Creek below Swift Reservoir	1	--	0
750	Marias River near Chester	1	FS,PS,S	0
79	Teton River at mouth	0	FS,S	0
790	Marias River at mouth	0	FS,PS,S	0
1900	Missouri River at Virgelle	0	FS,S	0
2000	Missouri River above Judith River	0	FS,PS,S	0
890	Judith River at mouth	0	FS,PS,S	0
2100	Missouri River near Landusky	0	FS,PS,S	0

Table 8. Streamflow accounting-model nodes where depletions from upstream model nodes were added, Missouri River Basin above Fort Peck Lake, Montana

Downstream model node		Upstream model node whose depletions were added to those at the downstream model node
Number	Name	
20	Red Rock River below Lima Reservoir, near Monida	None
19	Big Hole River at mouth	None
25	Beaverhead River below Clark Canyon Reservoir	Red Rock River below Lima Reservoir, near Monida
29	Beaverhead River at mouth	Beaverhead River below Clark Canyon Reservoir
39	Ruby River near Twin Bridges	None
100	Jefferson River near Twin Bridges	Big Hole River at mouth Beaverhead River at mouth Ruby River at mouth, near Twin Bridges
130	Jefferson River above Boulder River	Jefferson River near Twin Bridges
49	Boulder River at mouth	None
150	Jefferson River at Sappington	Jefferson River above Boulder River Boulder River at mouth
170	Willow Creek below Willow Creek Reservoir, near Harrison	None
190	Jefferson River at mouth	Jefferson River at Sappington Willow Creek below Willow Creek Reservoir, near Harrison
200	Madison River near West Yellowstone	None
225	Madison River below Hebgen Lake, near Grayling	None
250	Madison River below Ennis Lake, near McAllister	Madison River below Hebgen Lake, near Grayling
290	Madison River at mouth	Madison River below Ennis Lake, near McAllister
350	Gallatin River at Gallatin Gateway	None
390	Gallatin River at mouth	Gallatin River at Gallatin Gateway
1000	Missouri River near Three Forks	None
1050	Missouri River at Toston	Missouri River near Three Forks
1100	Missouri River below Canyon Ferry Dam, near Helena	Missouri River at Toston
59	Prickly Pear Creek at mouth	None
1200	Missouri River below Hauser Lake Dam, near Helena	Missouri River below Canyon Ferry Dam, near Helena Prickly Pear Creek at mouth
1300	Missouri River below Holter Dam, near Wolf Creek	Missouri River below Hauser Lake Dam, near Helena
1400	Missouri River above Dearborn River	Missouri River below Holter Dam, near Wolf Creek
490	Dearborn River at mouth	None
500	Smith River above Fivemile Creek, near White Sulphur Springs	None
590	Smith River at mouth	Smith River above Fivemile Creek, near White Sulphur Springs
1500	Missouri River near Ulm	Missouri River above Dearborn River Dearborn River at mouth Smith River at mouth
600	Sun River below Gibson Reservoir	None
69	Muddy Creek at Vaughn	None
690	Sun River at mouth	Sun River below Gibson Reservoir Muddy Creek at Vaughn
1600	Missouri River below Black Eagle Dam	Missouri River near Ulm Sun River at mouth
1700	Missouri River near Great Falls	Missouri River below Black Eagle Dam
1800	Missouri River at Fort Benton	Missouri River near Great Falls
700	Two Medicine River below Lower Two Medicine Lake	None
725	Birch Creek below Swift Reservoir	None
750	Marias River near Chester	Two Medicine River below Lower Two Medicine Lake Birch Creek below Swift Reservoir
79	Teton River at mouth	None
790	Marias River at mouth	Marias River near Chester Teton River at mouth
1900	Missouri River at Virgelle	Missouri River at Fort Benton Marias River at mouth Teton River at mouth
2000	Missouri River above Judith River	Missouri River at Virgelle
890	Judith River at mouth	None
2100	Missouri River near Landusky	Missouri River above Judith River Judith River at mouth

The regression technique used in the record-extension program is the MOVE.1 (Maintenance of Variance Extension, Type 1) curve-fitting technique described by Hirsch (1982). This technique is analogous to ordinary least-squares (OLS) regression, except that MOVE.1, unlike OLS regression, results in an extended flow record with a variance comparable to that of the unextended flow record.

The record-extension program was used to estimate missing, synthesized natural flows at 40 of 43 nodes. The program was not used for the Big Hole River at mouth (node 19) or the Missouri River at Fort Benton (node 1800) because recorded flows were available at these nodes for the entire base period. The program was not used for the Missouri River near Three Forks (node 1000) because synthesized flows at this node were the sums of the synthesized flows of the three tributaries whose confluence forms the Missouri River.

Base stations that were used to estimate missing natural flows at the remaining 40 nodes are listed in table 9 and their locations are shown on figure 2. Included in the list are most of the streamflow-gaging stations located at nodes or used to estimate historical flows at the nodes. Some base stations also were nodes or were used to estimate historical flows at nearby nodes. Recorded flows at these base stations thus served two purposes: (1) synthesis of natural flows and (2) estimation of missing values of synthesized natural flow through the use of the streamflow-record extension program. Some base stations were used to estimate missing natural flows at more than one node. At some nodes having several missing natural flows, more than one base station commonly was used to estimate the missing values. For example, one base station may have been used to estimate a missing natural flow at a particular site for October 1938, while a different base station may have been used to estimate a missing natural flow at the same site for November 1938. The results of the synthesis of natural flows are presented in tables 10-52 at the back of the report. One table was prepared for each node and shows the synthesized monthly and annual flow volume, in acre-feet, for each calendar year of the base period.

RELIABILITY OF RESULTS

Ideally, the reliability of the synthesis of natural flows would be verified by application of the methods to sites where flows were unaffected by human activities for part of the study period. Because irrigation diversion began prior to the commencement of streamflow measurement at most sites in Montana, no independent means of verifying the results exists.

However, the results of synthesis of natural flows were evaluated in two ways. First, results at selected nodes were compared to the hydrograph of flows at a gaged site where human effects were assumed to be slight. Second, the flows at the Missouri River mainstem nodes were inspected for a consistent pattern of increased flows downstream.

Diversions and reservoir regulation generally reduce peak flows and alter the seasonal distribution of flows. A successful synthesis of natural flows would be expected to result in the restoration of the natural seasonal distribution. Flows at node 350, Gallatin River near Gallatin Gateway, are only slightly affected by limited irrigation during a short growing season. Streamflow records are available for 55 years at the node. Dimensionless hydrographs of mean monthly flows were constructed for the station and for recorded and synthesized flows at selected nodes in the basin by dividing mean monthly flow volume by the mean annual flow volume. Four nodes were selected for comparison with the recorded flows at the Gallatin River site. The selected nodes included two in tributary basins having reservoirs and irrigation diversions, one on the mainstem near the headwaters, and one at the basin outlet.

The dimensionless hydrographs of flows at the tributary nodes are shown in figure 3. In figure 3A, the recorded and synthesized flows for the Jefferson River at the mouth (node 190) are compared with the hydrograph of recorded flow of the Gallatin River near Gallatin Gateway (node 350). The dimensionless hydrograph of recorded flows for the Jefferson River is significantly different from that for the Gallatin River, presumably because of the large irrigation depletion upstream from the Jefferson River node. Thus, dimensionless recorded flows in the Jefferson River are smaller than those in the Gallatin River during the irrigation months of May through August and are larger during the irrigation return-flow months of October through April. The dimensionless hydrograph of synthesized natural flows for the Jefferson River is more like the Gallatin River dimensionless hydrograph than is the dimensionless hydrograph of recorded flows. The dimensionless synthesized natural flows are larger than dimensionless flows for the Gallatin River during March and April. This difference is presumed to be the result of more low-elevation runoff in the generally lower-elevation Jefferson River Basin than in the Gallatin River Basin upstream from node 350. Both the synthesized natural flows and recorded flows for the Jefferson River increase from October to November, whereas the recorded flows for the Gallatin River decrease from October to November. Flow commonly

Table 9. Streamflow-gaging stations used as base stations to estimate missing flows at the streamflow accounting-model nodes, Missouri River Basin above Fort Peck Lake, Montana

Base station		Period of record since 1928
Number	Name	
06011000	Red Rock River at Kennedy Ranch, near Lakeview	1936-67
06012500	Red Rock River below Lima Reservoir, near Monida	1928-69;74-82;85-89
06016000	Beaverhead River at Barretts	¹ 1928-89
06018500	Beaverhead River near Twin Bridges	1935-89
06019500	Ruby River above reservoir, near Alder	1938-89
06020600	Ruby River below reservoir, near Alder	1963-89
06021000	Ruby River near Alder	1929-39;46-61
06023000	Ruby River near Twin Bridges	1940-43;46-65;79-81
06025500	Big Hole River near Melrose	1928-89
06026500	Jefferson River near Twin Bridges	1940-43;58-72
06033000	Boulder River near Boulder	1929-32;34-72;85-89
06034500	Jefferson River at Sappington	1938-69
06035000	Willow Creek near Harrison	1938-89
06036650	Jefferson River near Three Forks	1979-89
06037500	Madison River near West Yellowstone	1928-73;84-86;89
06041000	Madison River below Ennis Lake, near McAllister	1928-89
06042500	Madison River near Three Forks	1928-32;41-50
06043500	Gallatin River near Gallatin Gateway	² 1930-69;72-81;85-89
06052500	Gallatin River at Logan	² 1928-89
06054500	Missouri River at Toston	² 1941-89
06061500	Prickly Pear Creek near Clancy	1928-33;46-53;55-69; 79-89
06063000	Tenmile Creek near Helena	1928-54
06065500	Missouri River below Hauser Lake Dam, near Helena	1928-42
06066500	Missouri River below Holter Dam, near Wolf Creek	1946-89
06073000	Dearborn River near Clemons	1929-53
06073500	Dearborn River near Craig	1946-69
06077000	Sheep Creek near White Sulphur Springs	1941-72
06077500	Smith River near Eden	1951-69
06078200	Missouri River near Ulm	² 1957-89
06089000	Sun River near Vaughn	² 1934-89
06090300	Missouri River near Great Falls	1953;57-89
06090500	Belt Creek near Monarch	1951-82
06090800	Missouri River at Fort Benton	1928-89
06099500	Marias River near Shelby	1928-89
06101500	Marias River near Chester	² 1945-47;55-89
06102000	Marias River near Brinkman	1928-56
06102050	Marias River near Loma	1960-72
06108000	Teton River near Dutton	² 1954-89
06108500	Teton River near Fort Benton	1929-32
06109500	Missouri River at Virgelle	² 1935-89

Table 9. Streamflow-gaging stations used as base stations to estimate missing flows at the streamflow accounting-model nodes, Missouri River Basin above Fort Peck Lake, Montana (Continued)

Base station		Period of record since 1928
Number	Name	
06109800	South Fork Judith River near Utica	1958-79
06110000	Judith River near Utica	1928-75
06115200	Missouri River near Landusky	² 1934-89
06118500	South Fork Musselshell River above Martinsdale	1942-79
06120500	Musselshell River at Harlowton	² 1928-89
06123500	Musselshell River near Ryegate	1946-79
06130500	Musselshell River at Mosby	1929;30-32;34-89
06140500	Milk River at Havre	1954-89
06174500	Milk River at Nashua	1939-89
06191500	Yellowstone River at Corwin Springs	1928-89
06192500	Yellowstone River near Livingston	1928-32;37-89
06193000	Shields River near Wilsall	1935-57
06193500	Shields River at Clyde Park	1929-32;34-67
06200000	Boulder River at Big Timber	1947-53;55-89
06207500	Clarks Fork Yellowstone River near Belfry	1928-89
12324590	Little Blackfoot River near Garrison	² 1972-89
12324680	Clark Fork at Goldcreek	² 1977-89
12325500	Flint Creek near Southern Cross	² 1940-89
12329500	Flint Creek at Maxville	² 1941-89
12330000	Boulder Creek at Maxville	² 1939-89
12332000	Middle Fork Rock Creek near Philipsburg	² 1937-89
12335500	Nevada Creek above reservoir, near Finn	² 1939-89
12340000	Blackfoot River near Bonner	² 1939-89
12340500	Clark Fork above Missoula	² 1929-89
12344000	Bitterroot River near Darby	² 1937-89
12353000	Clark Fork below Missoula	² 1929-89
12362500	South Fork Flathead River near Columbia Falls	² 1928-89

¹Seasonal records only.

²Some periods of missing data.

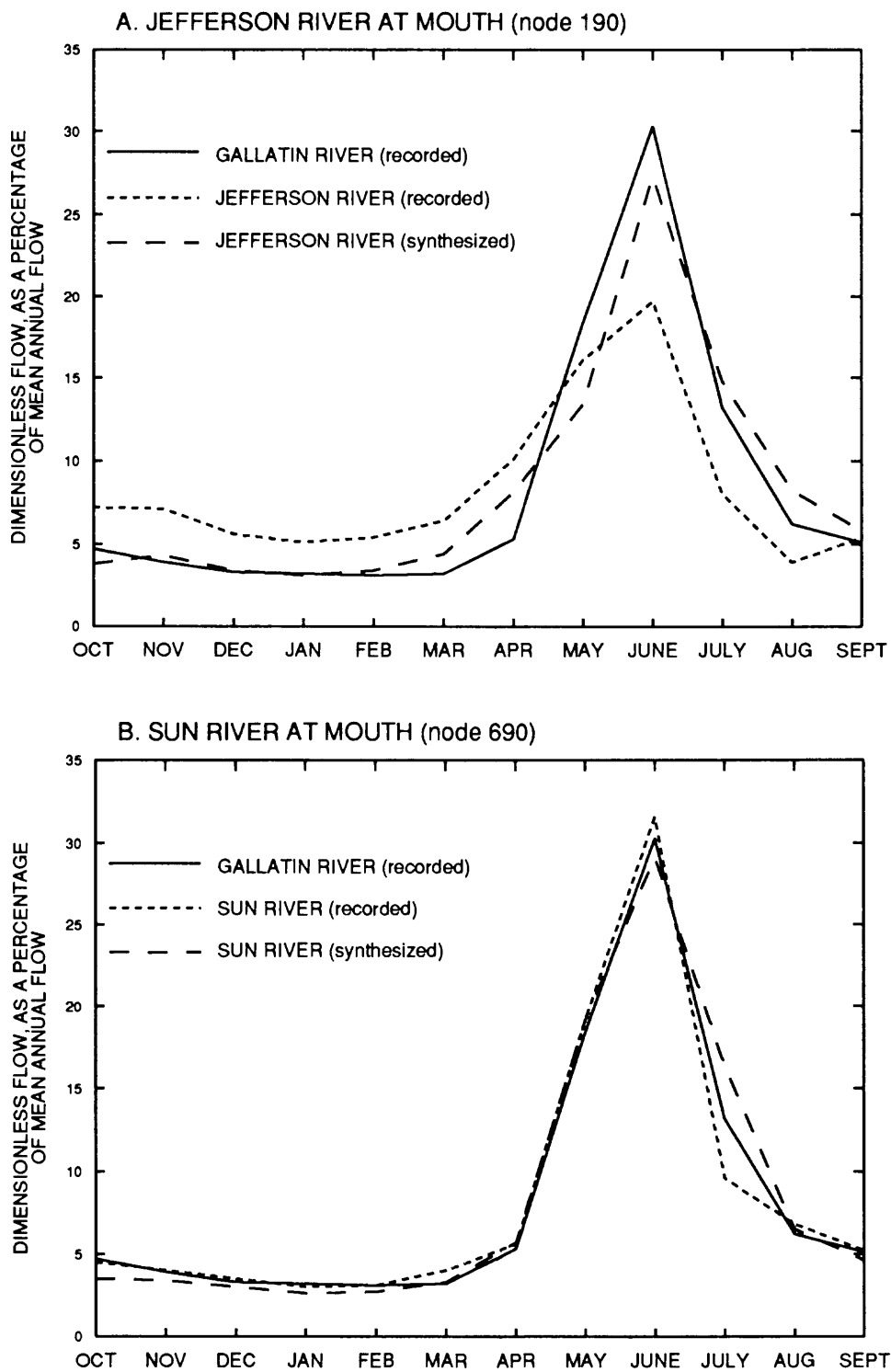


Figure 3. Dimensionless recorded and synthesized natural flows at tributary nodes compared to dimensionless flows of the Gallatin River near Gallatin Gateway, Mont. (06043500).

increases from October to November on streams where flow is affected by irrigation (Shields and White, 1981; Omang, 1984) and the increase in synthesized flow for the Jefferson River—although small—might indicate that the effects of irrigation were not completely accounted for in the synthesis of natural flow. If so, larger errors in natural-flow synthesis might be present during the irrigation season when they are difficult to discern because of the large stream-to-stream variability in runoff. Although some error in synthesized natural flows is acknowledged, the synthesized flows for the Jefferson River are believed to be reasonable overall. The mean annual synthesized natural flow for the Jefferson River was 3,150 ft³/s compared to a mean annual historical flow of 2,110 ft³/s, and the difference is largely attributable to the large amount of irrigated acreage in the basin.

In figure 3B, dimensionless recorded and synthesized natural flows for the Sun River at mouth (node 690) are compared to dimensionless flows of the Gallatin River. The dimensionless synthesized natural flows for the Sun River did not differ much from recorded flows and were similar to dimensionless flows in the Gallatin River during most months. Synthesized natural flows were most different from recorded flows in July, probably due to correction for large irrigation diversions during this month. Overall, the dimensionless hydrographs for the Gallatin River and for synthesized natural flows for the Sun River were similar. For the Sun River at mouth, synthesized mean annual natural flow was 1,030 ft³/s compared to the recorded mean annual flow of 700 ft³/s. This difference is considered to be primarily the result of substantial irrigation in the Sun River Basin.

The two nodes selected on the mainstem Missouri River are a node near the upstream end (Missouri River at Toston, node 1050) and the node at the basin outlet (Missouri River near Landusky, node 2100). The Missouri River at Toston represents the effects of three large tributaries that form the river (Madison, Jefferson, and Gallatin Rivers). The inadequate synthesis of natural flows in these tributary basins probably would result in inadequately synthesized flows along the remainder of the mainstem. The dimensionless flows at Toston are compared with dimensionless flows of the Gallatin River in figure 4A. The pattern of dimensionless flows for the Missouri River is similar to that for the Jefferson River. The synthesized natural flows for the Missouri River increase from October to November, indicating that the effects of irrigation might not be completely accounted for in the methods of natural flow synthesis. Overall, synthesized mean annual natural flow was 6,350 ft³/s whereas recorded flow was

5,240 ft³/s. Dimensionless synthesized natural flows were larger in fall, winter, and during the irrigation season than those of the Gallatin River, although dimensionless flows were smaller during May and June. Some of these differences probably are the result of elevation differences between the two basins, while others probably are partly due to the difference in size between the two basins.

The dimensionless recorded and synthesized natural flows of the Missouri River near Landusky (node 2100) are compared with the dimensionless flows of the Gallatin River in figure 4B. The flows between Toston and Landusky are affected by inflows from numerous tributaries, irrigation of 315,000 acres, and storage in about 20 reservoirs. The distribution of dimensionless synthesized natural flow near Landusky is similar to the distribution at Toston. Synthesized mean annual natural flow was 12,000 ft³/s compared to a mean recorded flow of 9,300 ft³/s. The recession of the dimensionless hydrograph of synthesized natural flows for the site near Landusky was about the same as for the site near Toston. Synthesis of natural flows provided similar results at both nodes. Differences between the dimensionless synthesized natural flows for the Missouri River near Landusky and dimensionless recorded flows for the Gallatin River near Gallatin Gateway probably are largely due to the differences in elevation and size between the two basins.

Natural flows typically are expected to increase downstream. Decreasing synthesized flows between nodes may indicate errors in the procedure, inaccurate synthesis of natural flows from the streamflow-record extension, or inaccurate estimates of depletions and storage. Synthesized natural flows between some nodes decreased for some months, but the decreases generally were small and not persistent from month to month. The errors or inaccurate synthesis associated with such occasional decreases in monthly flow were considered to be random and not so serious as possible errors or inaccuracies that would result in decreases in synthesized mean annual flow. In order to check for decreasing annual flows downstream, mean annual synthesized natural flows were plotted against distance downstream from the Missouri River near Three Forks (node 1000). The results (fig. 5) show increasing flows with distance, although the increase from Great Falls (node 1700) to Fort Benton (node 1800) is small. Although no large tributaries enter between the two nodes, the small increase still appears to be anomalous and probably indicates some estimation error. Overall, the general increase in synthesized mean annual natural flow in the downstream direction appears to be reasonable. In general, the comparisons indicate that the

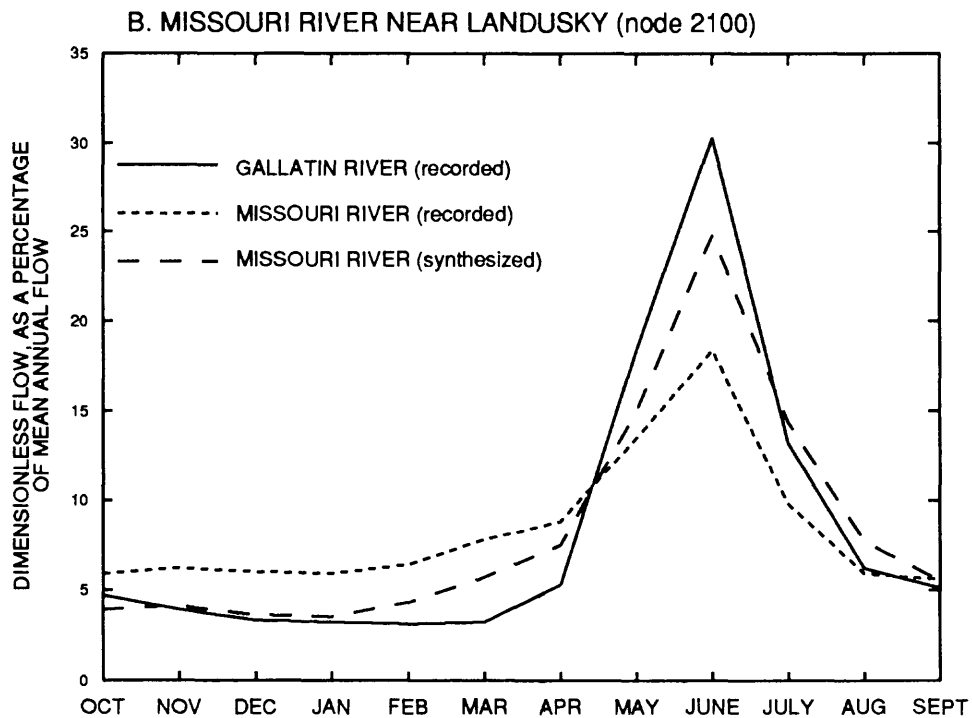
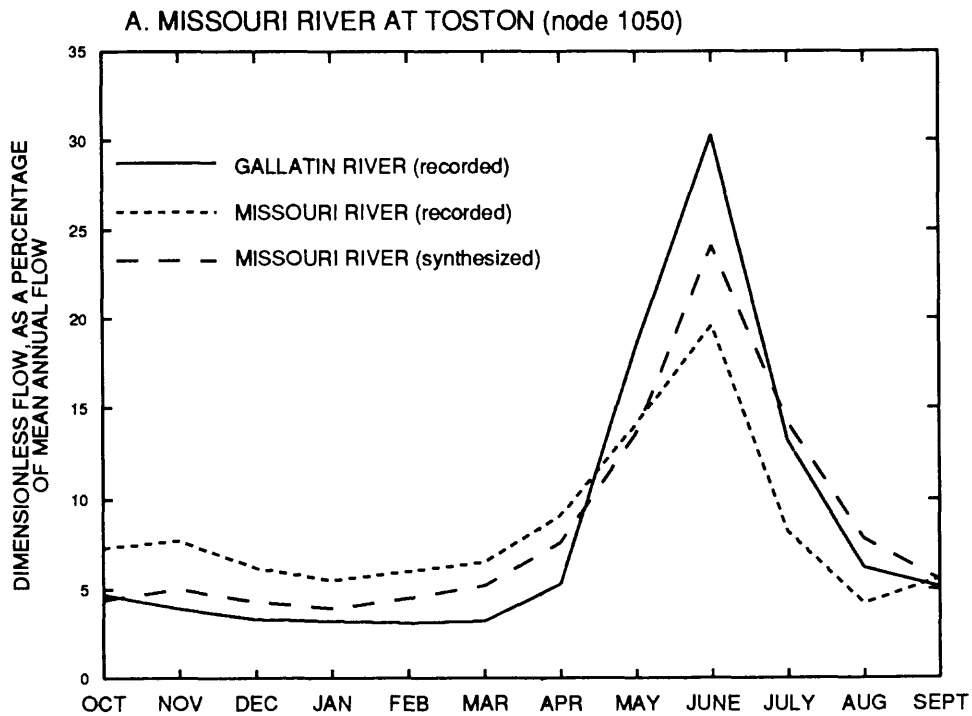


Figure 4. Dimensionless recorded and synthesized natural flows at mainstem nodes compared to dimensionless flows of the Gallatin River near Gallatin Gateway, Mont. (06043500).

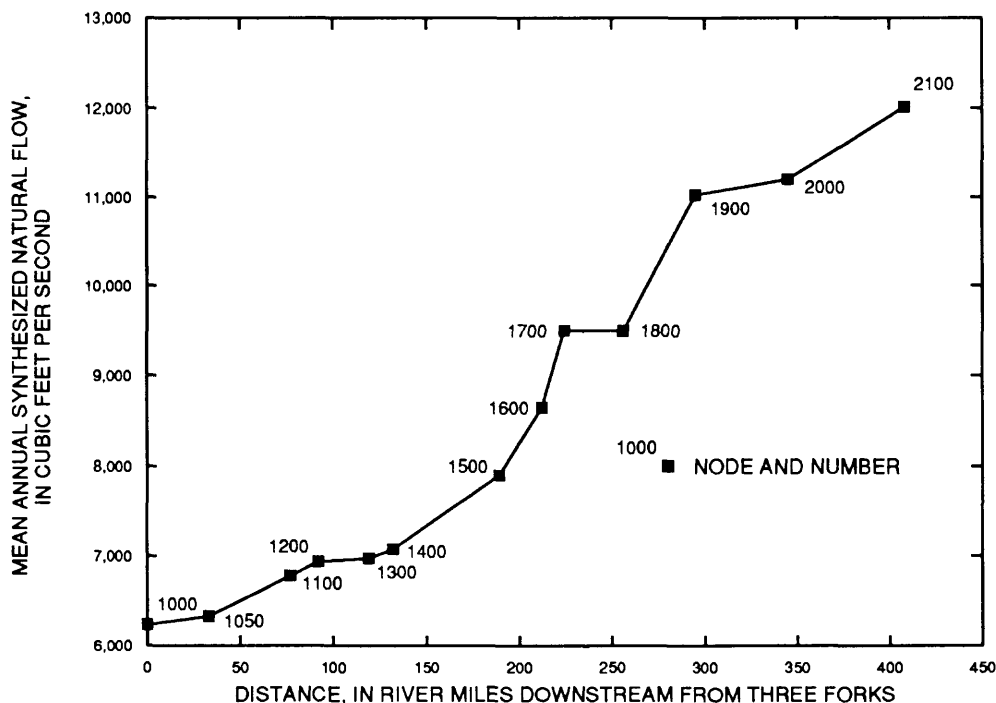


Figure 5. Estimated mean annual synthesized natural flow for Missouri River nodes from Three Forks to Landusky, Mont.

synthesis of natural flows resulted in reasonable results. Nevertheless, some comparisons and some of the at-site monthly estimates shown in tables 10-52 indicate some errors or inaccuracies in the estimation process. At several sites, for example, large changes in monthly natural flow occur during the months September through November. These changes seem to be related to the general end of the irrigation season and probably indicate that irrigation effects are not completely accounted for in the synthesis of natural flows.

SUMMARY

Natural monthly streamflows for the 1928-89 base period were synthesized for 43 nodes in the upper Missouri River Basin in Montana. The methods of synthesis varied depending on upstream human activities and data availability. Twenty nodes had recorded streamflow data that were used to synthesize natural flows. For 22 nodes, streamflow data were transferred from nearby streamflow-gaging stations after adjustment by drainage-area adjustment factors. The adjusted recorded flows were termed historical flows. For one node (1000, Missouri River near Three Forks), natural flows were synthesized by adding together synthesized natural flows for three tributary nodes; historical flows at node 1000 thus were not used directly.

For the 42 nodes where recorded or historical flows were directly used to synthesize natural flows,

the recorded or historical flows were corrected for the effects of reservoir storage, irrigation, and municipal use. Monthly changes in reservoir storage were computed from monthend-contents data obtained directly from the reservoir operator or indirectly from the Montana State Library. Monthly changes in contents were corrected for the effects of evaporation and precipitation. Reservoir evaporation was computed from pan evaporation that was measured at various sites in the basin. Evaporation and precipitation depths were converted to volumes using area-capacity curves developed from information provided by the reservoir operator or from dimensionless area-capacity curves developed from reservoir data in the basin. Irrigation depletions were computed by the BOR and provided to the USGS. The amount of water consumptively used by the three largest municipalities in the basin was computed by BOR from information from various sources. Synthesized natural flows at the 42 nodes were calculated by algebraically adding upstream depletions for irrigation and municipal use and changes in reservoir storage to recorded or historical flows.

A mixed-station record-extension computer program was used to estimate missing values of synthesized monthly natural flows during the 1928-89 base period at 40 nodes. Two nodes had complete flow records for the base period and thus had synthesized monthly natural flows for the base period. The synthesis of natural flows resulted in a few negative values at

six nodes. The negative values were considered to be missing data and were estimated using the record-extension program.

Although the results could not be verified independently, the natural flow synthesis was evaluated in two ways. Dimensionless monthly flows at two tributary and two mainstem nodes were compared with dimensionless flows of the Gallatin River near Gallatin Gateway, a stream considered to be little affected by human activities. Synthesized monthly natural flow distributions for all four nodes generally compared favorably with the flow distribution for the Gallatin River. The natural flow synthesis was also evaluated by checking for an increase in flows downstream. Mean annual natural flows at each mainstem node were compared to the distance from Missouri River near Three Forks. Synthesized mean annual natural flow showed an increase downstream, although the increase was anomalously small between Great Falls and Fort Benton. In general, synthesized natural flows appear to be reasonable, but some errors or inaccuracies are indicated in synthesized monthly natural flows after the end of the irrigation season (September-November) at some sites.

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SYNTHESIZED FLOW DATA

Table 10. Synthesized streamflow for Red Rock River below Lima Reservoir, near Monida, Montana, 1928-89, in acre-feet
[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	3,380	3,110	2,520	3,870	24,800	30,000	17,200	11,500	2,860	578	3,510	1,840	105,000
1929	1,540	1,280	1,110	3,390	29,700	30,700	21,600	8,980	3,870	3,070	3,810	486	110,000
1930	615	722	738	17,700	16,500	52,800	5,470	3,870	2,740	922	95	55	102,000
1931	129	178	148	3,510	9,720	48,000	6,150	4,300	893	2,150	512	117	75,800
1932	191	173	738	15,100	15,200	31,500	8,790	4,670	2,920	2,150	1,010	523	83,000
1933	615	666	799	774	40,000	34,900	6,580	1,720	1,190	799	2,560	1,170	91,800
1934	467	355	3,440	7,380	4,300	9,700	5,170	3,320	1,190	4,120	2,260	350	42,100
1935	566	244	1,050	10,500	17,900	29,100	5,350	4,430	2,740	2,150	2,020	264	76,300
1936	510	328	922	35,900	19,400	23,700	20,700	12,400	1,550	2,090	1,190	215	119,000
1937	984	889	2,400	19,800	21,400	17,500	5,720	2,770	1,670	1,290	1,130	277	75,800
1938	307	194	1,170	23,000	33,900	32,800	20,800	6,090	2,560	4,980	7,260	1,170	134,000
1939	3,010	2,170	3,750	23,400	22,400	20,200	22,000	18,500	6,720	2,090	2,800	1,290	128,000
1940	2,400	1,380	1,600	26,200	13,400	21,000	14,500	11,300	3,210	2,520	1,790	369	99,700
1941	984	611	3,940	17,300	9,840	22,200	6,760	2,460	2,560	4,180	3,810	2,030	76,700
1942	1,480	666	1,170	32,700	22,500	27,600	9,470	3,870	2,860	2,280	3,030	1,780	109,000
1943	344	778	1,230	40,000	22,100	30,300	13,000	5,230	12,100	4,550	7,380	1,410	139,000
1944	2,210	472	1,600	17,700	30,100	33,100	18,000	4,000	4,400	2,890	4,400	2,210	121,000
1945	1,170	1,110	1,480	7,850	35,000	27,700	13,300	5,530	6,660	5,290	4,700	799	111,000
1946	1,910	1,390	1,290	33,600	38,600	28,300	8,360	2,580	3,750	5,530	4,220	2,640	132,000
1947	2,210	2,000	7,130	29,400	42,900	36,100	12,400	4,370	2,800	6,700	5,300	4,120	155,000
1948	3,010	431	2,710	24,700	33,800	24,200	8,180	3,500	2,800	3,940	4,050	572	112,000
1949	1,600	1,780	2,890	23,000	33,800	30,900	8,610	2,770	3,570	4,300	7,260	1,110	122,000
1950	596	1,280	2,580	17,600	22,900	32,300	9,780	6,270	5,410	6,830	7,380	3,070	116,000
1951	2,280	1,500	1,170	27,600	22,300	27,800	6,700	5,840	5,890	4,550	3,930	2,280	112,000
1952	1,110	1,210	1,290	29,300	60,200	37,000	15,200	6,460	5,180	4,060	3,750	1,660	166,000
1953	2,090	2,390	2,710	18,600	33,700	33,900	13,400	4,800	3,810	1,970	4,110	1,780	123,000
1954	123	333	922	17,800	17,400	28,300	9,160	5,170	5,060	3,500	5,360	1,910	95,000
1955	437	833	1,110	14,300	22,400	33,700	13,000	6,950	4,400	3,630	3,030	4,120	108,000
1956	4,730	1,210	6,890	25,700	19,600	29,300	6,700	2,580	4,280	3,870	3,210	1,350	109,000
1957	135	555	1,170	16,100	61,100	38,000	12,200	5,040	6,370	4,300	4,220	2,210	151,000
1958	738	1,720	1,910	25,500	35,200	35,200	11,300	6,270	5,890	3,570	3,270	1,970	133,000
1959	1,540	1,060	861	16,500	15,600	27,800	11,900	2,340	5,830	7,810	6,490	3,690	101,000
1960	2,830	2,700	4,180	30,200	15,200	24,000	7,070	1,290	4,110	3,440	3,390	922	99,300
1961	332	944	4,920	14,600	8,240	27,900	5,840	4,490	3,330	4,550	3,330	1,050	79,600
1962	369	1,170	2,090	39,100	31,700	43,500	12,200	9,780	4,340	3,810	4,760	2,640	155,000
1963	486	833	4,060	20,400	14,600	21,300	13,000	4,300	4,340	4,800	6,250	3,070	97,400
1964	984	155	1,230	15,400	34,500	51,400	17,700	7,320	5,240	4,120	6,010	4,730	149,000
1965	2,890	1,890	2,770	37,900	37,400	39,900	23,000	11,000	6,720	6,580	8,510	5,040	184,000
1966	2,830	1,830	2,580	21,600	20,600	26,800	9,040	4,120	2,380	1,970	3,270	2,400	99,500
1967	1,170	944	1,410	12,000	31,100	43,600	28,000	9,470	7,140	4,980	6,130	3,440	149,000
1968	1,480	1,500	2,210	15,500	42,100	36,100	17,300	7,010	4,760	6,090	6,960	3,320	144,000
1969	1,350	1,280	1,350	42,500	54,500	41,200	25,200	10,100	6,130	5,410	5,180	2,400	197,000
1970	2,520	1,440	3,010	15,100	40,600	56,600	14,400	7,750	5,060	5,530	5,360	2,770	160,000
1971	1,110	2,720	2,030	27,200	45,300	45,300	19,900	10,900	4,640	5,600	5,530	3,200	173,000
1972	1,540	3,390	7,320	25,500	31,500	44,700	14,900	7,190	6,610	4,670	5,770	3,140	156,000
1973	2,150	2,110	1,410	7,740	22,600	31,400	8,980	7,870	5,650	4,980	7,800	2,090	105,000
1974	2,030	944	3,940	32,100	29,200	40,500	16,700	5,960	5,470	4,670	5,530	3,140	150,000
1975	1,350	889	1,410	161	58,400	51,800	30,600	11,600	7,970	10,900	6,900	5,290	187,000

Table 10. Synthesized streamflow for Red Rock River below Lima Reservoir, near Monida, Montana, 1928-89, in acre-feet
(Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	9,160	2,590	5,530	23,000	46,900	36,200	13,800	5,040	6,250	8,120	5,830	3,570	166,000
1977	2,280	2,170	4,670	16,900	14,100	29,800	7,500	2,090	2,740	3,380	3,990	2,400	92,100
1978	2,210	1,280	3,870	37,100	23,600	33,300	11,900	7,320	4,940	6,390	6,070	4,000	142,000
1979	547	1,780	3,750	26,100	34,800	32,500	8,490	2,150	5,240	2,770	4,820	3,440	126,000
1980	455	1,610	1,480	17,000	36,000	51,100	18,600	4,550	8,150	6,890	5,300	2,710	154,000
1981	3,070	1,830	1,910	25,000	31,000	41,400	12,700	4,670	1,670	4,430	5,530	3,440	137,000
1982	1,110	2,170	3,070	24,200	53,600	44,300	28,900	13,600	8,210	5,290	6,190	3,690	194,000
1983	8,120	2,330	2,090	28,300	27,600	41,000	25,000	7,870	4,170	7,930	7,800	2,640	165,000
1984	4,240	1,670	1,410	43,700	42,700	49,700	24,000	14,000	5,410	7,070	6,190	3,380	203,000
1985	3,010	1,720	2,770	45,000	30,200	33,900	9,780	6,760	2,140	6,520	6,370	2,090	150,000
1986	1,780	2,280	13,000	35,600	25,300	38,300	14,900	7,990	6,960	7,190	6,130	3,630	163,000
1987	799	1,060	2,460	18,400	13,300	22,600	7,380	5,600	3,990	6,700	4,050	1,350	87,700
1988	344	500	1,540	23,800	11,900	24,200	4,730	2,770	1,430	615	3,150	541	75,500
1989	277	372	1,540	19,200	17,200	26,100	5,170	6,090	5,000	4,800	4,460	2,640	92,800

Table 11. Synthesized streamflow for Beaverhead River below Clark Canyon Reservoir, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	16,500	13,900	30,900	41,900	137,000	108,000	70,700	30,500	18,700	12,200	23,000	16,900	520,000
1929	13,100	11,200	19,600	22,300	65,200	129,000	47,000	31,900	19,200	14,300	26,700	19,100	418,000
1930	13,800	11,800	20,000	68,400	91,000	94,600	32,800	34,900	19,600	13,600	22,800	11,900	435,000
1931	9,650	10,300	16,400	23,800	29,300	75,000	28,700	19,400	16,500	9,280	15,800	11,100	265,000
1932	7,010	7,710	12,500	24,100	81,200	131,000	43,300	34,100	15,300	10,600	20,200	9,280	396,000
1933	10,100	8,280	14,100	33,800	109,000	148,000	39,700	30,100	15,500	8,360	19,200	11,100	447,000
1934	11,300	9,890	14,600	54,700	49,800	75,600	28,500	23,300	13,400	7,930	16,200	12,700	318,000
1935	8,360	8,330	12,600	34,600	23,100	108,000	32,700	23,600	14,900	7,870	16,700	7,560	299,000
1936	9,590	8,630	11,400	58,600	104,000	101,000	35,700	26,500	16,200	8,300	18,700	6,760	405,000
1937	5,170	7,660	12,300	17,700	35,000	79,100	33,900	26,600	14,600	6,520	14,600	7,440	261,000
1938	9,220	8,220	9,960	34,800	88,500	89,900	75,000	42,600	18,600	11,900	22,000	12,500	423,000
1939	12,100	9,890	15,100	43,900	77,500	105,000	50,400	24,300	20,900	8,360	11,500	10,300	390,000
1940	11,900	11,000	14,900	26,500	60,100	81,500	59,900	25,900	20,100	16,600	17,600	13,400	360,000
1941	9,220	9,440	15,600	21,300	20,300	145,000	55,200	18,400	24,600	26,300	26,200	21,100	392,000
1942	11,800	11,900	25,800	88,100	111,000	142,000	75,600	27,800	26,600	11,300	23,900	16,500	572,000
1943	12,400	11,700	21,500	90,400	87,300	151,000	87,900	23,600	23,900	9,350	20,500	14,400	554,000
1944	10,600	11,700	14,600	21,800	90,400	199,000	86,100	30,800	26,500	9,960	19,600	10,500	532,000
1945	13,900	12,700	13,200	21,200	47,400	106,000	65,800	26,100	26,400	9,350	16,100	10,200	368,000
1946	13,100	11,200	12,800	36,400	82,400	118,000	53,100	24,500	18,600	31,700	35,400	18,200	455,000
1947	12,700	13,100	31,100	54,300	124,000	142,000	63,300	32,700	25,100	23,900	33,900	19,200	575,000
1948	14,800	12,400	17,800	50,200	109,000	188,000	96,500	57,100	21,800	17,100	23,300	15,200	623,000
1949	9,720	12,100	22,800	53,600	103,000	123,000	55,900	31,700	16,700	12,400	12,700	12,700	467,000
1950	12,000	12,600	15,800	29,400	89,800	126,000	88,500	53,200	25,300	19,400	29,000	17,200	518,000
1951	13,000	13,600	15,700	44,300	100,000	127,000	71,300	62,100	32,200	15,600	23,300	13,300	532,000
1952	11,900	12,700	17,500	53,700	130,000	139,000	61,200	44,300	19,500	7,560	11,600	11,600	521,000
1953	14,300	12,900	13,500	25,500	62,100	152,000	90,400	41,900	25,500	14,300	26,200	13,700	492,000
1954	13,700	13,000	12,300	25,700	66,400	109,000	79,900	38,300	19,200	9,220	20,200	10,100	417,000
1955	10,800	10,500	12,500	17,900	67,000	75,000	77,500	46,000	24,800	7,070	11,700	14,800	376,000
1956	13,500	11,800	18,900	51,000	77,500	112,000	52,200	23,100	25,200	9,840	10,400	12,200	418,000
1957	9,650	10,800	13,400	24,900	81,200	144,000	62,100	36,200	30,400	16,200	18,300	16,200	463,000
1958	10,200	12,900	13,800	31,400	65,800	167,000	97,200	59,600	25,800	12,700	20,900	16,700	534,000
1959	11,900	11,000	13,900	36,500	66,400	99,400	70,700	40,900	26,200	23,300	29,300	17,800	447,000
1960	7,500	12,000	31,500	52,500	81,200	115,000	55,700	33,000	18,800	7,810	22,800	12,100	450,000
1961	8,920	10,800	12,700	12,900	62,100	111,000	44,600	21,400	19,600	8,120	25,100	11,900	349,000
1962	6,760	10,100	11,700	50,200	91,000	154,000	72,600	41,300	19,200	17,600	28,400	19,500	522,000
1963	7,690	13,400	21,800	28,000	72,600	141,000	65,800	33,400	22,200	10,900	26,800	13,700	457,000
1964	10,500	11,700	12,100	25,700	99,600	168,000	79,900	45,100	27,000	14,000	21,200	17,800	533,000
1965	14,600	11,500	13,800	57,600	43,000	169,000	85,500	44,600	24,000	20,500	27,800	18,400	530,000
1966	13,500	9,770	15,700	31,900	42,900	80,300	50,100	29,900	16,300	6,030	10,900	10,000	317,000
1967	7,930	6,220	8,300	16,800	35,400	115,000	89,200	51,100	25,800	12,300	22,300	15,800	407,000
1968	13,000	13,500	16,700	28,600	51,600	98,800	62,100	33,400	20,200	21,600	24,500	16,000	400,000
1969	12,900	9,830	23,200	76,200	92,200	92,800	81,800	44,100	25,300	16,800	22,100	15,700	513,000
1970	11,400	10,100	12,700	18,300	68,300	180,000	62,700	40,700	26,200	19,900	24,000	17,700	492,000
1971	13,500	12,800	19,400	44,700	101,000	174,000	86,100	37,000	37,900	31,300	31,000	22,800	611,000
1972	16,000	14,000	45,100	46,200	52,300	165,000	56,000	33,400	30,100	27,900	30,500	14,500	531,000
1973	14,300	12,600	16,700	45,100	72,600	82,700	50,400	27,700	20,600	20,800	22,800	18,400	405,000
1974	11,400	11,000	22,600	45,600	25,800	141,000	48,700	21,700	26,600	17,100	22,400	21,200	415,000
1975	10,200	10,600	14,000	14,600	82,400	158,000	92,800	54,200	38,000	35,700	25,200	22,900	559,000

Table 11. Synthesized streamflow for Beaverhead River below Clark Canyon Reservoir, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	21,000	17,800	22,500	54,000	111,000	107,000	52,800	39,600	33,100	29,500	30,300	18,900	538,000
1977	13,000	12,700	15,200	27,800	8,670	86,900	41,900	28,000	20,600	16,800	18,400	14,900	305,000
1978	12,800	10,800	21,500	45,800	34,200	131,000	53,400	35,000	27,100	18,500	18,500	14,200	423,000
1979	8,490	9,220	17,300	41,300	67,000	121,000	32,700	26,400	29,500	9,900	14,600	13,100	390,000
1980	10,300	9,380	12,400	30,700	48,400	139,000	68,900	30,500	34,300	26,000	25,100	21,000	456,000
1981	17,800	14,800	18,100	40,200	46,400	142,000	54,400	37,900	27,000	18,000	22,200	18,300	457,000
1982	11,800	11,400	17,900	43,000	65,800	138,000	84,200	48,200	35,800	26,200	28,700	21,300	532,000
1983	19,000	13,900	20,700	39,600	77,500	128,000	92,200	56,100	35,900	39,000	43,000	27,000	592,000
1984	24,200	20,700	26,900	59,100	144,000	211,000	110,000	91,000	53,700	44,000	37,900	25,100	847,000
1985	22,100	16,300	16,800	58,400	50,700	126,000	48,000	28,300	10,900	18,800	14,800	12,200	423,000
1986	10,200	10,100	23,500	42,200	42,200	151,000	54,800	28,800	24,500	22,900	22,800	14,800	447,000
1987	11,300	9,500	17,700	33,100	7,260	108,000	39,300	22,300	22,600	17,300	15,900	11,600	316,000
1988	9,410	9,490	13,200	31,200	16,000	99,400	54,800	33,700	17,900	3,260	5,360	6,760	300,000
1989	6,700	4,220	10,800	25,200	18,700	75,600	41,300	39,700	23,100	9,100	14,200	8,980	277,000

Table 12. Synthesized streamflow for Beaverhead River at mouth, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	37,600	30,800	52,800	54,100	196,000	156,000	94,700	56,900	60,100	16,700	35,300	37,900	828,000
1929	39,000	23,100	40,700	39,300	44,900	173,000	89,800	46,500	57,200	21,100	36,700	32,300	644,000
1930	22,800	24,900	36,200	51,400	43,300	135,000	79,900	46,500	30,700	18,200	34,200	28,300	551,000
1931	24,600	21,000	28,800	37,700	81,200	129,000	59,200	58,500	27,900	26,800	36,600	27,200	559,000
1932	15,000	19,700	27,500	29,900	22,200	199,000	71,300	51,600	36,400	20,800	35,400	26,400	555,000
1933	18,000	19,300	31,900	28,000	49,700	224,000	74,400	64,600	30,600	22,100	32,300	31,800	626,000
1934	32,500	23,100	40,100	73,800	49,300	96,400	84,900	49,600	28,100	15,400	29,700	31,800	555,000
1935	34,500	19,600	38,700	23,300	29,900	195,000	70,700	53,300	54,700	2,090	32,900	27,900	583,000
1936	20,400	20,800	28,800	24,900	24,500	170,000	62,700	51,500	38,200	4,000	29,700	27,300	503,000
1937	10,000	19,400	26,300	35,300	88,500	140,000	65,800	51,000	27,100	11,800	27,300	27,500	530,000
1938	19,600	18,900	31,000	19,700	72,600	169,000	113,000	73,200	35,300	18,700	37,100	28,800	636,000
1939	25,500	18,600	40,200	22,100	10,700	116,000	86,100	64,600	58,800	10,400	27,400	30,900	511,000
1940	25,600	23,400	32,200	75,000	48,400	177,000	46,200	55,900	11,200	25,800	26,900	27,200	575,000
1941	23,700	20,800	33,800	33,100	10,500	160,000	79,900	51,800	40,200	40,700	37,400	34,200	566,000
1942	29,800	27,200	35,800	91,600	62,700	209,000	89,200	57,100	63,700	18,000	38,300	36,200	759,000
1943	30,100	26,600	35,300	88,700	36,300	140,000	108,000	61,200	75,600	14,000	42,300	32,000	690,000
1944	22,600	23,200	27,400	56,800	18,300	108,000	129,000	76,900	63,100	26,700	39,300	34,400	625,000
1945	31,500	29,300	34,300	39,800	45,000	95,200	81,800	61,300	51,600	23,600	36,700	27,500	558,000
1946	29,800	24,000	30,100	56,100	19,200	197,000	73,200	40,200	50,700	36,800	40,200	37,100	634,000
1947	25,500	26,300	56,000	60,700	84,900	152,000	106,000	66,400	51,800	40,800	40,700	38,400	749,000
1948	33,700	25,500	36,100	72,600	76,900	142,000	114,000	79,300	61,300	35,400	43,300	31,700	752,000
1949	20,800	25,400	41,800	75,600	42,200	195,000	84,200	44,500	66,600	34,300	41,800	32,900	705,000
1950	27,700	24,700	33,500	67,200	62,100	137,000	90,400	70,100	43,300	46,500	41,700	38,700	683,000
1951	28,300	30,900	36,200	66,600	62,700	212,000	82,400	67,600	66,100	24,500	34,800	28,600	741,000
1952	23,100	25,400	30,100	74,400	63,300	205,000	104,000	77,500	82,100	13,300	31,800	29,700	759,000
1953	30,000	26,300	31,700	43,900	34,700	206,000	121,000	71,300	65,500	16,400	36,900	34,900	717,000
1954	27,700	26,400	31,400	42,500	59,200	144,000	96,500	59,200	64,300	5,960	24,700	24,400	606,000
1955	19,900	18,500	22,000	35,200	22,500	187,000	94,100	91,600	58,100	11,300	29,800	34,400	624,000
1956	31,200	21,900	40,800	51,500	34,300	272,000	77,500	65,200	72,600	8,120	31,100	27,800	734,000
1957	16,100	19,300	28,300	38,400	91,600	239,000	110,000	62,100	76,800	30,900	40,500	37,000	790,000
1958	30,100	29,400	36,100	61,300	108,000	114,000	96,500	86,100	75,600	27,900	39,700	37,400	742,000
1959	28,800	24,400	33,000	34,000	4,000	177,000	141,000	59,600	43,400	27,900	39,000	32,600	644,000
1960	26,700	24,700	41,400	53,900	42,700	245,000	94,100	50,900	60,700	6,580	28,500	25,600	700,000
1961	22,400	22,500	27,200	15,300	5,040	314,000	92,800	73,800	19,000	6,330	28,200	20,100	646,000
1962	9,470	21,200	24,500	58,600	11,400	254,000	71,900	59,800	66,600	21,200	33,900	34,900	667,000
1963	8,790	30,000	32,900	40,000	11,200	97,000	134,000	72,600	76,200	19,400	40,500	34,400	597,000
1964	26,500	24,800	27,600	45,700	43,700	185,000	146,000	60,500	73,200	19,900	38,900	37,900	729,000
1965	36,500	30,000	34,000	79,700	51,600	245,000	121,000	68,300	58,900	36,700	50,800	43,900	856,000
1966	34,000	28,800	35,800	43,000	54,600	135,000	75,600	54,800	40,600	15,100	29,900	28,600	576,000
1967	25,100	22,400	25,800	31,500	40,100	174,000	126,000	73,800	61,300	19,200	41,600	33,000	674,000
1968	30,400	30,400	38,400	45,000	45,600	143,000	89,200	42,000	49,700	35,700	47,300	36,800	633,000
1969	32,200	26,900	48,600	113,000	116,000	124,000	125,000	62,100	55,300	29,900	45,600	39,800	819,000
1970	34,600	31,900	36,800	37,600	73,800	254,000	83,000	53,900	55,300	37,400	44,500	41,000	784,000
1971	36,300	37,900	42,700	64,900	95,300	233,000	124,000	34,400	73,200	52,500	53,800	45,800	894,000
1972	42,600	38,000	75,600	64,300	52,100	239,000	67,600	38,400	58,000	45,400	53,700	33,600	808,000
1973	33,900	32,200	40,500	66,600	74,400	98,800	73,200	29,000	45,200	19,100	28,400	26,400	568,000
1974	22,400	29,300	40,700	72,000	87,900	187,000	106,000	62,100	66,600	21,500	39,100	35,600	771,000
1975	22,900	23,300	30,300	35,800	109,000	174,000	126,000	77,500	76,200	53,600	48,500	51,900	829,000

Table 12. Synthesized streamflow for Beaverhead River at mouth, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	44,000	36,500	47,800	91,600	148,000	155,000	62,100	55,900	72,000	58,400	51,200	41,800	864,000
1977	31,100	30,300	28,800	48,000	86,700	127,000	57,600	38,200	55,700	35,400	36,500	33,400	608,000
1978	29,700	27,000	44,000	63,100	25,500	187,000	83,000	58,700	59,000	36,600	36,200	31,900	682,000
1979	20,500	26,900	43,100	72,600	80,500	190,000	43,800	51,000	62,500	16,400	31,000	30,300	668,000
1980	22,800	25,300	32,300	49,900	45,800	238,000	97,200	43,100	69,000	42,900	47,500	43,300	757,000
1981	39,100	33,400	41,400	54,800	51,500	208,000	72,600	62,700	52,500	35,100	43,600	37,400	732,000
1982	27,300	26,500	41,900	70,200	76,900	208,000	124,000	68,900	61,300	53,200	51,100	44,300	854,000
1983	42,300	35,600	46,100	61,300	90,400	165,000	132,000	80,500	79,100	60,900	66,600	49,200	909,000
1984	44,700	41,900	53,700	86,900	178,000	267,000	154,000	129,000	98,200	72,600	65,500	50,700	1,242,000
1985	44,800	36,100	43,100	89,900	37,900	198,000	57,800	45,100	28,300	40,400	29,600	26,000	677,000
1986	27,500	28,300	46,800	58,400	44,100	216,000	62,700	46,800	56,700	42,000	41,700	31,500	703,000
1987	26,800	25,000	37,000	39,600	89,200	114,000	59,400	48,300	59,500	19,400	30,100	27,600	575,000
1988	21,100	24,000	29,300	43,000	99,000	124,000	54,200	37,400	31,000	12,600	20,800	21,000	518,000
1989	21,000	14,800	29,100	38,500	19,400	115,000	54,400	61,200	53,900	20,400	30,600	23,600	482,000

Table 13. Synthesized streamflow for Ruby River near Twin Bridges, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	12,300	16,200	21,200	25,000	35,900	31,400	36,600	13,600	15,900	10,400	14,700	14,300	247,000
1929	12,300	13,500	8,120	17,700	9,900	44,600	31,800	14,100	13,700	11,000	16,800	14,400	208,000
1930	12,300	9,770	12,600	22,100	5,780	29,400	30,800	8,920	12,100	10,600	15,900	10,800	181,000
1931	7,440	11,600	4,430	15,900	14,100	21,900	29,300	14,700	7,740	11,700	13,400	8,550	161,000
1932	6,640	6,960	6,700	13,500	6,760	37,400	31,900	15,700	10,100	10,900	16,800	12,100	175,000
1933	9,960	5,550	12,900	14,700	19,400	30,900	33,900	8,120	10,800	11,100	11,700	11,000	180,000
1934	11,500	7,390	11,500	8,030	2,400	41,500	33,200	4,430	7,740	10,100	10,400	8,050	156,000
1935	8,300	9,720	12,100	13,100	13,700	28,900	33,100	9,720	8,990	9,350	12,700	7,810	167,000
1936	10,400	3,110	5,470	16,800	14,900	32,100	28,900	12,100	9,820	9,840	14,900	7,750	166,000
1937	7,870	3,720	5,290	12,400	8,050	42,000	32,300	7,380	9,340	9,530	11,700	5,600	155,000
1938	9,220	3,170	7,070	6,010	20,600	35,100	33,800	8,920	12,200	11,600	14,200	9,220	171,000
1939	11,900	6,050	15,700	13,500	8,420	26,200	30,300	10,200	16,200	9,960	10,900	8,610	168,000
1940	9,350	3,220	7,320	7,260	2,770	31,800	27,900	10,100	11,000	11,300	10,200	11,400	144,000
1941	11,700	3,890	4,430	6,250	4,670	39,000	32,000	13,900	10,400	13,000	12,600	13,300	165,000
1942	10,600	9,500	10,900	23,500	28,300	50,500	32,600	18,800	8,510	10,000	14,300	13,300	231,000
1943	14,600	10,300	13,200	14,200	19,400	37,400	36,700	21,400	15,100	10,800	15,800	9,280	218,000
1944	19,200	8,000	8,490	6,130	4,610	44,200	31,400	19,100	13,900	11,300	15,400	10,300	192,000
1945	18,100	6,610	9,530	5,180	5,410	32,300	32,700	21,400	15,600	11,000	13,600	9,280	181,000
1946	11,400	7,720	9,650	13,300	7,870	37,500	31,900	21,900	13,900	13,500	14,600	10,500	194,000
1947	13,300	3,610	15,300	20,200	21,700	48,000	33,100	21,800	14,000	11,900	14,300	12,900	230,000
1948	27,700	15,200	8,920	25,700	24,800	53,100	36,700	20,700	17,000	12,400	18,400	8,550	269,000
1949	14,000	7,160	9,530	18,300	20,400	37,900	31,200	15,900	17,900	11,500	10,200	10,800	205,000
1950	9,840	5,330	7,560	14,600	19,400	45,900	37,500	21,800	18,300	12,900	16,300	11,200	221,000
1951	16,800	6,830	14,400	8,630	18,300	42,200	38,300	15,700	12,700	12,800	13,700	10,900	211,000
1952	8,490	7,770	12,700	13,400	17,900	40,400	34,700	29,300	19,800	10,100	11,200	8,980	215,000
1953	8,420	6,440	6,700	6,130	6,150	48,700	36,600	28,700	15,100	9,100	11,800	9,840	194,000
1954	7,440	6,160	6,760	5,530	6,090	17,100	33,200	18,100	22,800	10,900	12,000	8,490	155,000
1955	8,050	4,940	8,300	9,700	3,570	40,300	36,100	17,300	18,500	15,500	16,800	10,500	190,000
1956	7,130	5,870	8,300	7,620	12,900	45,400	24,300	18,000	16,100	8,610	10,800	8,360	173,000
1957	5,840	6,500	7,320	7,080	10,400	34,800	35,300	27,900	21,100	12,600	15,800	14,000	199,000
1958	7,930	6,440	6,700	5,470	14,200	24,000	25,900	27,200	15,300	12,900	9,820	8,180	164,000
1959	6,830	5,440	6,760	7,080	5,720	28,300	33,400	25,900	13,200	15,200	13,200	10,300	171,000
1960	8,420	39,500	14,300	20,400	19,900	35,000	18,600	9,040	15,800	6,580	16,200	15,600	219,000
1961	10,200	11,400	12,300	9,400	1,410	35,500	16,900	8,420	8,690	18,400	12,200	13,500	158,000
1962	8,850	12,500	14,000	24,700	16,400	42,800	16,800	12,300	18,400	7,070	24,900	13,800	213,000
1963	11,600	14,300	13,000	13,600	15,500	34,600	30,900	13,500	15,900	2,030	26,100	14,200	205,000
1964	10,500	10,400	12,900	14,800	12,700	55,800	45,400	11,100	14,600	9,900	20,500	14,400	233,000
1965	13,800	16,400	6,460	18,800	16,900	48,100	40,800	12,000	14,600	16,000	18,400	15,200	238,000
1966	16,700	18,900	17,900	12,100	14,000	25,500	17,300	20,800	15,900	10,900	14,900	13,300	198,000
1967	11,700	10,500	17,800	7,440	21,600	44,800	46,100	20,000	17,500	13,800	27,800	15,000	254,000
1968	13,100	15,200	11,700	10,900	11,400	39,900	32,000	19,900	12,900	16,600	23,900	16,500	224,000
1969	10,400	21,200	22,700	22,000	7,380	37,800	49,200	22,900	14,000	12,400	20,400	15,000	255,000
1970	9,470	14,300	11,700	7,680	29,000	48,900	38,700	20,800	15,600	14,100	21,500	15,200	247,000
1971	9,590	18,500	15,200	16,800	16,800	40,700	41,600	25,100	14,600	15,200	22,400	16,300	253,000
1972	12,400	23,400	14,800	11,300	12,600	40,800	32,600	22,000	18,000	13,700	23,500	14,900	240,000
1973	10,300	16,100	11,200	8,330	2,460	30,500	21,200	7,810	11,100	10,800	17,700	15,200	163,000
1974	9,780	14,800	8,550	17,700	9,040	46,500	33,900	21,200	15,800	12,700	22,400	14,700	227,000
1975	10,700	20,200	9,100	7,800	33,400	48,300	75,000	23,800	20,100	19,300	29,900	17,900	315,000

Table 13. Synthesized streamflow for Ruby River near Twin Bridges, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	12,000	23,400	16,100	15,900	39,100	47,700	37,200	18,000	19,300	16,000	24,000	16,500	285,000
1977	11,600	16,100	10,900	18,000	6,640	21,600	14,500	16,700	18,100	11,700	14,400	15,600	176,000
1978	9,780	10,800	24,000	14,300	34,600	39,200	41,400	21,300	19,200	20,500	25,500	15,100	276,000
1979	13,600	9,610	19,600	17,600	24,700	38,200	20,200	23,700	13,900	13,500	14,200	14,300	223,000
1980	10,200	7,940	18,100	16,700	21,100	53,900	35,300	22,100	18,000	19,600	16,100	16,200	255,000
1981	14,100	11,700	13,700	14,100	21,300	58,600	31,900	26,600	12,100	18,800	16,400	14,700	254,000
1982	11,300	16,700	10,100	8,090	17,200	50,400	53,600	30,200	15,900	18,000	15,800	17,000	264,000
1983	17,200	16,700	8,300	20,500	10,200	38,400	50,700	16,500	14,000	17,600	16,100	18,000	244,000
1984	14,300	18,800	7,440	26,400	8,490	38,500	49,000	13,900	19,900	15,400	14,700	15,900	243,000
1985	9,220	15,900	7,690	19,600	3,380	25,800	13,500	19,100	18,200	18,100	16,200	15,100	182,000
1986	12,200	12,200	15,400	18,700	9,470	38,200	26,000	27,000	12,800	20,500	18,400	15,100	226,000
1987	10,200	9,000	10,500	18,100	5,230	23,800	17,900	20,400	15,600	14,100	15,200	13,800	174,000
1988	7,690	5,350	6,640	16,100	3,500	24,900	14,300	7,320	10,100	11,400	12,900	13,400	134,000
1989	6,210	3,220	11,700	11,500	6,030	32,500	16,000	13,200	15,400	14,000	15,000	14,000	159,000

Table 14. Synthesized streamflow for Big Hole River at mouth, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	41,000	36,400	43,500	96,400	438,000	214,000	191,000	101,000	50,300	25,600	20,000	16,000	1,275,000
1929	19,000	15,100	15,200	46,400	143,000	327,000	196,000	114,000	25,500	12,900	11,200	12,400	938,000
1930	13,700	12,800	18,000	162,000	154,000	230,000	133,000	68,900	41,100	25,000	17,600	14,800	892,000
1931	15,300	13,100	16,700	52,800	76,200	156,000	132,000	95,900	19,400	12,200	7,380	8,300	606,000
1932	8,490	10,500	16,500	53,100	197,000	332,000	172,000	94,700	61,900	13,300	17,300	8,180	986,000
1933	9,160	10,800	22,300	76,800	129,000	427,000	172,000	65,800	37,400	12,000	19,200	20,200	1,001,000
1934	20,800	19,800	57,700	130,000	149,000	104,000	110,000	83,000	27,800	17,400	21,800	16,500	758,000
1935	22,300	15,600	20,400	79,100	129,000	234,000	134,000	68,300	45,300	3,940	11,500	10,400	774,000
1936	10,400	10,500	18,600	138,000	235,000	226,000	137,000	87,300	32,100	8,360	7,740	8,360	918,000
1937	2,890	3,280	12,100	37,600	143,000	132,000	93,500	90,400	39,700	5,040	5,650	8,790	574,000
1938	8,050	7,890	15,700	78,500	186,000	293,000	274,000	113,000	69,000	19,200	25,200	19,800	1,109,000
1939	20,000	14,100	27,700	131,000	264,000	154,000	162,000	81,800	38,300	9,160	10,100	13,300	926,000
1940	12,600	12,800	26,900	73,200	152,000	171,000	97,200	71,900	6,610	35,400	25,700	22,700	709,000
1941	17,400	14,400	39,400	66,100	121,000	198,000	173,000	68,300	44,400	54,500	49,600	42,900	889,000
1942	25,500	24,500	29,000	192,000	264,000	384,000	221,000	85,500	46,100	16,300	24,000	24,900	1,336,000
1943	20,800	19,100	28,000	221,000	272,000	467,000	298,000	113,000	58,100	13,200	21,200	14,300	1,546,000
1944	11,600	12,400	16,800	52,200	117,000	280,000	186,000	100,000	48,800	18,800	19,600	13,200	877,000
1945	15,200	15,600	21,200	48,200	136,000	220,000	200,000	94,700	30,100	14,500	15,500	13,500	824,000
1946	17,200	14,300	21,400	113,000	206,000	210,000	162,000	73,200	48,700	63,900	44,900	37,100	1,011,000
1947	21,800	23,900	42,600	161,000	470,000	283,000	194,000	101,000	41,100	40,600	34,600	26,300	1,440,000
1948	24,300	15,200	22,000	126,000	410,000	500,000	210,000	124,000	49,900	26,100	24,600	13,700	1,546,000
1949	9,650	12,300	23,800	137,000	336,000	295,000	168,000	83,600	44,200	18,200	19,800	14,200	1,161,000
1950	8,920	13,200	23,900	76,800	146,000	387,000	238,000	113,000	43,000	40,800	36,100	28,500	1,155,000
1951	20,000	24,400	23,800	125,000	335,000	303,000	239,000	98,400	59,500	27,300	18,900	14,800	1,289,000
1952	14,900	18,300	22,100	141,000	360,000	264,000	197,000	95,300	66,100	12,400	10,600	9,590	1,212,000
1953	16,100	13,500	17,800	68,400	148,000	432,000	234,000	103,000	54,800	10,800	15,500	16,400	1,129,000
1954	15,700	17,000	21,900	80,300	191,000	183,000	232,000	78,100	54,600	12,900	16,100	7,500	910,000
1955	8,420	9,000	13,000	34,000	164,000	262,000	234,000	146,000	47,100	9,530	19,700	21,700	970,000
1956	17,500	10,500	26,800	151,000	374,000	336,000	177,000	92,200	60,100	7,130	15,700	11,200	1,279,000
1957	9,650	12,300	19,400	59,200	336,000	311,000	181,000	94,700	53,400	13,300	13,300	11,400	1,115,000
1958	13,700	14,700	20,000	60,700	300,000	259,000	156,000	118,000	54,700	17,600	20,700	18,800	1,053,000
1959	18,000	13,900	23,600	94,600	130,000	358,000	215,000	91,600	18,600	44,100	35,900	23,400	1,066,000
1960	13,600	15,600	50,500	121,000	170,000	315,000	191,000	62,100	51,500	12,100	18,500	9,780	1,030,000
1961	9,720	17,300	28,200	38,900	127,000	279,000	133,000	103,000	13,700	18,100	13,700	13,700	796,000
1962	8,490	10,900	15,600	126,000	216,000	302,000	175,000	99,600	56,600	21,200	25,000	23,000	1,079,000
1963	11,600	30,100	39,700	67,800	217,000	313,000	213,000	120,000	45,800	14,800	20,500	14,000	1,108,000
1964	19,000	16,700	18,200	61,300	204,000	436,000	258,000	94,700	63,700	21,800	18,600	26,700	1,239,000
1965	28,600	23,300	21,200	125,000	274,000	568,000	313,000	119,000	54,700	48,500	33,300	21,000	1,629,000
1966	23,600	18,400	22,500	85,700	114,000	115,000	170,000	86,700	35,400	5,230	10,100	8,300	695,000
1967	12,500	12,700	16,800	36,100	275,000	522,000	240,000	137,000	47,900	29,300	32,100	18,800	1,380,000
1968	19,100	20,500	32,300	76,800	176,000	380,000	220,000	67,600	49,900	44,100	32,800	22,900	1,142,000
1969	23,900	19,900	26,000	171,000	351,000	221,000	221,000	122,000	41,700	20,800	20,400	13,800	1,252,000
1970	15,800	14,000	18,800	38,300	259,000	423,000	234,000	121,000	22,200	30,200	29,900	21,500	1,227,000
1971	20,700	42,500	27,400	102,000	386,000	450,000	230,000	109,000	44,000	25,600	24,300	18,800	1,481,000
1972	16,400	15,400	51,800	75,600	282,000	558,000	180,000	90,400	48,400	30,900	24,200	10,800	1,383,000
1973	11,700	13,700	20,800	53,000	104,000	126,000	116,000	60,600	30,100	18,100	26,400	20,000	601,000
1974	24,600	20,500	29,100	117,000	210,000	493,000	169,000	57,200	41,400	18,600	22,800	14,900	1,219,000
1975	11,600	13,900	21,200	29,100	175,000	481,000	344,000	133,000	87,500	54,500	46,200	43,700	1,442,000

Table 14. Synthesized streamflow for Big Hole River at mouth, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	25,700	26,300	28,300	161,000	548,000	377,000	214,000	106,000	64,300	46,500	31,700	21,200	1,649,000
1977	13,100	16,300	19,900	66,100	71,300	158,000	121,000	74,400	16,200	32,000	23,300	28,800	640,000
1978	24,000	23,400	55,000	146,000	251,000	372,000	237,000	123,000	58,600	36,500	19,800	22,100	1,369,000
1979	19,300	23,300	28,600	75,600	260,000	251,000	128,000	86,100	64,300	14,600	11,700	13,500	976,000
1980	7,930	12,700	17,300	104,000	294,000	318,000	210,000	91,000	49,400	27,800	31,100	33,000	1,195,000
1981	21,600	20,400	32,700	85,100	288,000	378,000	201,000	123,000	51,100	17,700	20,100	19,600	1,258,000
1982	17,300	17,000	30,000	69,000	303,000	470,000	295,000	133,000	48,600	31,700	20,500	19,600	1,454,000
1983	21,000	16,300	28,700	74,400	186,000	287,000	212,000	130,000	53,600	37,900	34,100	15,900	1,097,000
1984	31,400	24,200	32,500	89,900	247,000	391,000	234,000	132,000	56,500	22,900	24,200	22,100	1,307,000
1985	19,400	17,700	22,100	114,000	165,000	167,000	135,000	54,200	22,100	33,500	18,400	15,800	784,000
1986	17,000	17,600	59,800	120,000	188,000	298,000	149,000	87,900	25,300	34,000	27,600	15,700	1,039,000
1987	14,400	16,900	31,500	77,400	88,500	124,000	110,000	66,400	54,600	7,380	8,030	8,050	607,000
1988	8,180	12,400	16,500	87,500	124,000	162,000	113,000	57,200	30,700	10,600	13,800	10,100	646,000
1989	8,490	7,780	25,000	83,900	113,000	177,000	141,000	86,100	40,000	15,900	19,500	17,100	735,000

Table 15. Synthesized streamflow for Jefferson River near Twin Bridges, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	75,000	101,000	108,000	162,000	553,000	364,000	408,000	220,000	107,000	60,900	71,400	62,700	2,293,000
1929	75,600	61,600	57,700	89,300	160,000	483,000	327,000	154,000	101,000	34,700	78,500	68,300	1,690,000
1930	46,000	58,300	57,900	258,000	165,000	299,000	269,000	181,000	112,000	58,000	80,300	65,800	1,651,000
1931	47,900	49,900	53,500	95,200	77,500	206,000	221,000	99,600	71,400	25,400	61,900	56,000	1,065,000
1932	31,400	44,300	54,700	95,800	223,000	497,000	317,000	174,000	102,000	38,900	74,400	63,300	1,716,000
1933	31,400	46,900	65,800	132,000	140,000	601,000	354,000	165,000	94,600	33,200	65,500	68,300	1,797,000
1934	63,300	44,700	85,500	208,000	138,000	208,000	231,000	91,600	67,800	43,200	70,200	59,800	1,311,000
1935	67,000	48,100	60,700	135,000	138,000	367,000	245,000	162,000	102,000	16,800	57,800	44,800	1,445,000
1936	34,000	38,900	57,700	223,000	267,000	374,000	232,000	162,000	88,100	24,300	60,100	51,800	1,613,000
1937	18,400	46,200	45,400	72,000	139,000	271,000	234,000	135,000	85,700	17,400	56,600	52,400	1,173,000
1938	32,000	56,100	53,600	136,000	211,000	468,000	414,000	231,000	114,000	54,400	78,500	60,900	1,908,000
1939	52,000	49,700	73,800	184,000	283,000	256,000	263,000	114,000	91,600	24,900	47,400	51,000	1,492,000
1940	45,500	49,400	73,200	120,000	172,000	195,000	269,000	160,000	21,100	73,800	64,900	59,800	1,304,000
1941	53,800	46,800	76,200	98,200	128,000	355,000	276,000	141,000	75,000	103,000	101,000	89,200	1,542,000
1942	63,900	66,100	90,400	302,000	334,000	625,000	355,000	171,000	110,000	42,000	75,000	69,500	2,304,000
1943	65,800	56,600	81,200	309,000	298,000	601,000	437,000	216,000	139,000	42,600	80,300	69,500	2,397,000
1944	51,900	55,500	57,100	101,000	140,000	444,000	438,000	177,000	103,000	45,200	67,200	52,000	1,733,000
1945	62,700	58,900	67,000	99,400	166,000	409,000	340,000	201,000	83,300	42,500	66,100	50,700	1,646,000
1946	50,800	58,900	65,800	157,000	235,000	321,000	355,000	189,000	85,700	116,000	102,000	85,500	1,821,000
1947	56,800	57,800	99,600	221,000	469,000	486,000	374,000	207,000	76,200	111,000	98,800	89,800	2,347,000
1948	79,900	63,300	82,400	206,000	497,000	684,000	435,000	192,000	100,000	78,700	95,800	73,200	2,588,000
1949	46,200	52,500	94,700	218,000	344,000	527,000	291,000	164,000	76,800	56,500	69,600	62,100	2,003,000
1950	44,200	57,200	75,600	131,000	156,000	791,000	408,000	226,000	115,000	89,800	86,300	81,200	2,262,000
1951	62,100	61,600	75,600	186,000	380,000	525,000	367,000	210,000	146,000	71,300	83,900	64,600	2,233,000
1952	48,100	65,600	81,200	219,000	433,000	437,000	368,000	215,000	89,300	34,100	58,900	56,900	2,106,000
1953	67,600	54,600	68,300	116,000	159,000	613,000	379,000	179,000	70,800	29,900	64,300	65,800	1,867,000
1954	52,800	60,500	63,900	117,000	167,000	465,000	352,000	203,000	56,300	22,900	48,900	50,300	1,660,000
1955	45,900	46,700	44,800	85,700	190,000	574,000	426,000	206,000	55,700	31,900	66,600	70,700	1,844,000
1956	62,700	63,300	86,100	209,000	404,000	509,000	313,000	186,000	61,300	26,900	65,500	59,500	2,047,000
1957	49,900	51,000	67,600	114,000	398,000	484,000	322,000	187,000	138,000	54,300	72,000	64,600	2,003,000
1958	49,800	47,700	60,900	132,000	379,000	373,000	288,000	245,000	145,000	55,400	72,000	68,900	1,916,000
1959	59,900	45,200	61,500	137,000	144,000	508,000	416,000	194,000	75,000	92,200	92,800	75,000	1,901,000
1960	42,100	81,100	106,000	199,000	218,000	518,000	322,000	129,000	130,000	26,500	62,500	53,100	1,887,000
1961	45,900	48,500	65,800	64,300	119,000	541,000	271,000	202,000	40,900	42,300	55,200	51,700	1,547,000
1962	29,000	49,300	60,600	208,000	232,000	539,000	298,000	186,000	139,000	58,600	95,200	81,800	1,976,000
1963	42,300	85,500	89,200	120,000	226,000	428,000	395,000	215,000	136,000	37,200	90,400	62,100	1,926,000
1964	55,300	54,400	62,100	113,000	243,000	666,000	464,000	176,000	152,000	53,100	84,500	89,800	2,213,000
1965	80,500	73,300	65,800	219,000	328,000	785,000	477,000	202,000	117,000	106,000	105,000	85,500	2,644,000
1966	69,500	60,000	78,100	136,000	131,000	223,000	282,000	157,000	90,400	31,100	53,400	56,100	1,368,000
1967	56,700	46,200	53,700	78,500	280,000	649,000	423,000	218,000	127,000	57,900	82,100	59,000	2,131,000
1968	59,000	86,900	80,500	124,000	216,000	515,000	355,000	131,000	109,000	95,300	100,000	81,200	1,953,000
1969	72,600	69,400	90,400	297,000	461,000	353,000	398,000	221,000	101,000	65,800	86,900	65,200	2,280,000
1970	61,500	57,200	66,400	82,700	338,000	684,000	370,000	202,000	90,400	82,400	94,600	81,800	2,211,000
1971	78,700	86,100	80,500	170,000	459,000	672,000	416,000	172,000	123,000	86,100	98,800	83,600	2,527,000
1972	76,900	70,200	147,000	143,000	317,000	762,000	263,000	131,000	102,000	67,000	79,100	52,400	2,211,000
1973	38,700	62,200	62,700	95,800	101,000	292,000	282,000	149,000	72,600	39,000	79,100	81,800	1,356,000
1974	73,200	63,300	78,100	191,000	242,000	803,000	382,000	228,000	110,000	38,400	71,400	74,400	2,354,000
1975	34,900	55,500	62,100	56,100	196,000	738,000	588,000	243,000	157,000	128,000	123,000	114,000	2,495,000

Table 15. Synthesized streamflow for Jefferson River near Twin Bridges, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	80,500	73,100	78,100	255,000	707,000	553,000	381,000	218,000	130,000	96,500	91,000	78,700	2,741,000
1977	39,800	61,100	59,700	115,000	71,300	240,000	267,000	109,000	81,500	65,800	72,000	78,100	1,260,000
1978	71,300	58,300	126,000	234,000	295,000	661,000	428,000	229,000	136,000	78,700	73,200	76,900	2,468,000
1979	65,200	59,400	79,900	132,000	299,000	433,000	313,000	156,000	117,000	37,800	52,000	56,300	1,799,000
1980	43,000	59,800	55,800	172,000	354,000	471,000	392,000	160,000	123,000	65,200	93,400	95,300	2,085,000
1981	68,300	59,400	86,700	145,000	346,000	517,000	363,000	148,000	89,900	54,200	77,400	74,400	2,028,000
1982	62,100	72,800	84,900	122,000	366,000	672,000	457,000	304,000	165,000	83,600	77,400	73,800	2,541,000
1983	72,600	66,100	81,800	130,000	208,000	411,000	412,000	208,000	132,000	85,500	100,000	61,300	1,968,000
1984	100,000	67,300	86,700	152,000	290,000	584,000	404,000	223,000	127,000	63,300	81,500	76,200	2,256,000
1985	64,600	59,400	67,000	189,000	186,000	289,000	230,000	147,000	100,000	70,100	64,300	59,400	1,525,000
1986	52,500	63,300	136,000	196,000	210,000	572,000	320,000	209,000	137,000	75,600	83,900	59,600	2,115,000
1987	45,300	56,600	84,200	133,000	91,600	181,000	255,000	114,000	76,200	23,200	69,600	47,700	1,178,000
1988	32,800	47,800	55,500	149,000	134,000	279,000	242,000	95,300	63,100	23,300	53,000	53,400	1,228,000
1989	31,700	43,000	71,900	144,000	119,000	376,000	278,000	158,000	93,400	41,400	70,200	65,200	1,492,000

Table 16. Synthesized streamflow for Jefferson River above Boulder River, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	142,000	104,000	111,000	166,000	574,000	398,000	468,000	232,000	112,000	61,500	72,000	63,900	2,503,000
1929	77,500	62,800	58,900	91,000	171,000	522,000	325,000	160,000	105,000	34,400	79,700	69,500	1,757,000
1930	46,300	59,400	59,000	266,000	177,000	329,000	288,000	190,000	116,000	58,600	82,100	67,000	1,738,000
1931	48,300	50,700	54,500	97,000	84,200	230,000	237,000	103,000	73,200	25,000	61,900	56,400	1,121,000
1932	31,100	44,900	55,700	98,200	237,000	537,000	338,000	182,000	105,000	38,700	75,600	63,900	1,807,000
1933	31,100	47,700	67,000	136,000	149,000	643,000	379,000	172,000	97,600	32,900	66,100	69,500	1,890,000
1934	65,200	45,300	87,300	215,000	148,000	233,000	247,000	94,100	69,000	43,200	70,800	60,600	1,377,000
1935	68,900	48,800	62,100	139,000	149,000	401,000	362,000	169,000	105,000	16,400	58,200	48,300	1,626,000
1936	33,800	41,200	58,900	229,000	282,000	409,000	297,000	173,000	91,000	23,900	60,700	52,100	1,751,000
1937	17,900	46,900	46,100	73,200	149,000	300,000	271,000	144,000	88,700	16,900	56,900	52,800	1,263,000
1938	31,800	57,200	54,700	139,000	224,000	506,000	442,000	247,000	118,000	54,800	79,700	61,500	2,016,000
1939	52,700	50,500	75,600	189,000	299,000	284,000	344,000	122,000	94,600	24,400	47,200	51,300	1,635,000
1940	45,800	50,100	75,000	123,000	184,000	219,000	287,000	175,000	21,900	75,000	66,100	60,600	1,382,000
1941	54,400	47,400	78,100	100,000	137,000	389,000	298,000	149,000	76,200	106,000	104,000	91,600	1,630,000
1942	65,800	67,800	93,500	311,000	347,000	661,000	383,000	186,000	115,000	43,100	77,400	71,300	2,421,000
1943	67,000	58,300	83,600	320,000	309,000	625,000	462,000	231,000	146,000	42,600	81,500	70,700	2,496,000
1944	52,600	56,400	58,200	104,000	151,000	481,000	417,000	189,000	108,000	45,300	68,400	52,400	1,783,000
1945	63,900	60,000	68,300	101,000	178,000	445,000	363,000	215,000	86,900	42,400	67,200	51,000	1,741,000
1946	51,400	60,000	67,000	161,000	248,000	353,000	379,000	202,000	89,300	120,000	104,000	87,900	1,924,000
1947	57,700	58,900	102,000	227,000	486,000	525,000	400,000	221,000	79,100	114,000	101,000	92,200	2,466,000
1948	82,400	64,400	84,200	212,000	514,000	726,000	464,000	207,000	104,000	79,900	98,800	74,400	2,712,000
1949	46,500	53,500	97,200	224,000	360,000	568,000	396,000	175,000	79,700	57,100	70,800	62,700	2,191,000
1950	44,400	57,800	77,500	134,000	167,000	839,000	436,000	242,000	121,000	91,600	88,100	83,000	2,381,000
1951	63,900	63,300	77,500	191,000	397,000	565,000	392,000	226,000	154,000	72,600	85,700	65,200	2,353,000
1952	48,500	66,700	83,600	225,000	450,000	474,000	394,000	231,000	92,800	33,900	59,300	57,500	2,216,000
1953	69,500	56,100	69,500	119,000	170,000	655,000	405,000	192,000	73,200	29,500	64,900	67,000	1,970,000
1954	53,600	61,600	65,200	120,000	179,000	503,000	375,000	218,000	58,100	22,400	48,800	50,600	1,755,000
1955	46,200	47,400	45,400	87,500	202,000	613,000	386,000	221,000	57,400	31,600	67,200	72,600	1,877,000
1956	63,900	64,400	87,900	215,000	421,000	548,000	334,000	199,000	63,700	26,500	66,100	60,300	2,151,000
1957	50,500	51,900	69,500	116,000	415,000	522,000	344,000	200,000	145,000	55,400	73,800	66,400	2,110,000
1958	50,900	48,700	62,700	135,000	408,000	397,000	294,000	261,000	151,000	56,600	73,800	70,700	2,009,000
1959	61,400	46,200	63,300	141,000	152,000	552,000	443,000	207,000	78,500	93,500	94,600	76,200	2,009,000
1960	42,400	82,300	109,000	205,000	228,000	571,000	347,000	137,000	135,000	25,600	62,500	53,200	1,998,000
1961	46,100	48,800	67,000	64,900	130,000	601,000	290,000	214,000	41,400	41,200	55,000	51,600	1,650,000
1962	28,300	49,400	61,400	212,000	240,000	585,000	317,000	197,000	146,000	60,000	97,000	83,600	2,078,000
1963	42,800	88,300	91,000	123,000	238,000	450,000	421,000	232,000	143,000	38,400	92,200	63,900	2,023,000
1964	56,800	55,900	63,300	116,000	255,000	708,000	496,000	187,000	158,000	53,800	86,300	91,600	2,328,000
1965	82,400	75,000	67,600	225,000	342,000	833,000	505,000	216,000	123,000	109,000	108,000	87,900	2,775,000
1966	71,300	61,600	79,900	140,000	148,000	257,000	307,000	170,000	94,600	29,900	53,000	56,000	1,468,000
1967	56,900	46,300	54,000	79,700	292,000	690,000	451,000	235,000	133,000	58,600	83,300	60,000	2,240,000
1968	60,300	88,000	82,400	127,000	228,000	556,000	382,000	141,000	114,000	97,200	102,000	82,400	2,061,000
1969	74,400	71,100	92,800	306,000	491,000	377,000	428,000	237,000	107,000	66,400	88,100	66,400	2,404,000
1970	62,100	58,300	67,600	85,100	352,000	732,000	397,000	219,000	95,200	84,200	96,400	83,600	2,332,000
1971	80,500	88,300	82,400	175,000	483,000	720,000	444,000	187,000	129,000	87,900	101,000	84,900	2,663,000
1972	78,100	71,900	151,000	148,000	338,000	815,000	282,000	141,000	107,000	68,300	80,300	52,900	2,332,000
1973	38,700	63,900	63,900	97,600	109,000	323,000	302,000	155,000	75,600	38,900	80,300	83,600	1,431,000
1974	75,000	65,000	79,900	196,000	256,000	851,000	408,000	240,000	115,000	38,200	72,000	75,600	2,472,000
1975	34,700	54,300	63,300	57,000	209,000	780,000	504,000	256,000	165,000	132,000	127,000	117,000	2,499,000

Table 16. Synthesized streamflow for Jefferson River above Boulder River, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	83,000	74,800	79,900	263,000	732,000	594,000	406,000	229,000	137,000	99,000	92,800	80,500	2,871,000
1977	39,800	62,200	60,900	118,000	78,100	267,000	285,000	113,000	85,100	67,000	73,200	79,900	1,329,000
1978	73,200	59,400	130,000	241,000	311,000	708,000	457,000	242,000	143,000	80,500	74,400	87,300	2,607,000
1979	66,400	60,500	82,400	134,000	315,000	469,000	334,000	162,000	122,000	37,600	52,100	56,900	1,894,000
1980	28,600	61,000	56,900	177,000	371,000	510,000	419,000	167,000	129,000	66,400	95,200	97,800	2,177,000
1981	70,100	60,000	89,200	149,000	363,000	556,000	388,000	154,000	139,000	54,600	78,500	75,600	2,178,000
1982	62,700	74,400	86,700	125,000	384,000	720,000	488,000	322,000	173,000	85,500	79,100	75,600	2,675,000
1983	74,400	70,500	83,600	134,000	221,000	447,000	440,000	218,000	137,000	87,300	102,000	62,100	2,077,000
1984	104,000	69,000	88,500	156,000	306,000	625,000	431,000	235,000	132,000	63,900	83,300	78,100	2,371,000
1985	65,800	60,500	68,300	194,000	197,000	320,000	293,000	153,000	104,000	71,300	64,900	60,100	1,652,000
1986	53,100	64,400	140,000	201,000	223,000	613,000	342,000	220,000	142,000	76,900	85,700	60,400	2,220,000
1987	45,500	57,800	86,100	136,000	99,600	204,000	273,000	119,000	79,100	22,700	70,200	48,000	1,240,000
1988	32,500	48,500	56,600	153,000	144,000	308,000	259,000	98,400	64,300	22,800	53,100	53,900	1,294,000
1989	31,400	43,500	73,800	148,000	128,000	411,000	298,000	165,000	97,000	41,400	71,400	65,800	1,573,000

Table 17. Synthesized streamflow for Boulder River at mouth, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	6,150	2,820	7,260	13,900	46,700	33,000	19,100	8,550	4,700	3,570	3,150	3,200	152,000
1929	3,320	2,720	4,800	5,950	54,900	64,900	21,100	5,840	5,530	2,400	1,790	2,460	176,000
1930	1,290	2,610	3,140	42,900	42,800	28,600	9,720	5,410	4,110	2,340	2,680	1,840	147,000
1931	1,540	1,830	3,140	8,990	25,900	23,300	11,300	7,810	2,200	984	1,730	1,230	89,900
1932	1,410	1,090	2,280	6,780	38,500	38,900	13,400	6,640	4,110	799	2,200	924	117,000
1933	1,660	2,110	2,640	10,400	28,300	32,100	11,300	7,130	4,170	1,600	2,380	2,210	106,000
1934	5,410	4,550	5,040	22,400	12,500	17,100	13,500	8,180	2,260	861	1,550	1,720	95,200
1935	1,970	1,830	2,210	7,320	19,700	23,100	10,700	6,760	3,690	307	655	676	79,000
1936	1,170	690	2,210	15,000	25,500	22,000	13,700	6,270	3,150	1,290	1,610	1,410	94,000
1937	861	611	1,780	6,070	28,400	21,700	11,100	7,500	2,860	861	1,490	1,720	84,900
1938	1,290	1,220	2,210	10,700	53,700	56,500	40,000	10,000	6,130	3,870	3,570	2,580	192,000
1939	2,770	2,220	7,440	23,300	40,700	26,200	19,100	7,010	4,280	2,340	1,960	1,840	139,000
1940	1,540	1,610	3,630	12,900	35,500	23,200	9,590	7,690	1,490	2,090	1,370	1,540	102,000
1941	1,480	1,500	3,940	5,410	21,600	26,500	14,000	5,350	3,870	5,660	3,570	3,320	96,200
1942	2,280	2,000	2,830	23,300	45,300	42,500	14,700	5,780	2,620	2,150	2,860	2,710	149,000
1943	2,340	2,220	5,350	38,100	52,500	81,500	22,100	8,920	4,280	2,280	2,920	2,580	225,000
1944	1,600	1,550	2,400	7,440	29,000	39,200	20,000	7,990	3,930	2,150	2,200	1,780	119,000
1945	1,840	1,890	2,950	4,170	26,700	39,900	16,800	4,550	2,380	1,970	2,740	1,660	108,000
1946	2,640	1,720	3,140	11,300	24,600	19,500	10,100	5,410	3,210	5,350	3,690	3,500	94,200
1947	2,770	3,050	7,070	17,400	63,900	51,400	19,300	6,830	2,980	5,230	4,580	4,120	189,000
1948	3,570	2,930	3,810	19,200	83,600	64,900	25,100	12,200	5,950	3,500	3,630	3,500	232,000
1949	2,210	2,170	4,370	23,400	39,400	33,000	15,100	7,690	3,810	2,400	2,800	2,000	138,000
1950	1,410	1,940	3,630	11,200	33,200	63,100	18,000	9,350	3,930	4,000	3,390	3,440	157,000
1951	2,580	2,940	3,870	14,900	59,600	51,200	19,700	7,010	5,180	5,100	3,630	2,950	179,000
1952	2,830	2,990	3,260	29,000	62,700	29,600	16,200	7,560	4,700	1,660	1,550	2,280	164,000
1953	2,890	2,610	3,380	8,870	24,200	82,700	18,200	7,260	4,170	1,540	2,200	2,280	160,000
1954	2,340	2,440	2,890	7,970	26,900	32,900	18,500	5,720	4,110	1,600	2,260	1,540	109,000
1955	1,540	1,780	2,030	5,180	29,800	51,100	29,800	10,700	3,210	2,580	2,320	2,770	143,000
1956	2,710	2,530	5,720	18,900	63,300	32,800	12,100	5,290	4,400	1,290	2,200	1,840	153,000
1957	1,410	1,500	2,830	6,190	54,700	36,100	12,100	6,030	3,450	2,400	2,500	2,400	131,000
1958	2,210	2,780	3,630	8,870	62,700	35,800	17,000	8,120	3,810	2,280	2,680	2,830	153,000
1959	2,280	2,110	3,630	11,700	24,500	55,500	17,600	6,090	2,980	6,330	4,580	3,200	140,000
1960	2,400	2,590	9,100	18,400	43,000	47,200	11,300	6,030	3,810	2,210	2,740	2,150	151,000
1961	2,210	2,610	3,570	4,820	35,800	35,400	10,100	6,030	2,200	3,070	2,500	2,030	110,000
1962	2,030	2,280	3,070	20,500	41,900	36,700	11,900	7,320	4,460	3,140	2,920	2,950	139,000
1963	1,910	3,720	4,240	10,500	53,900	40,600	18,300	7,440	4,110	2,770	2,920	2,400	153,000
1964	2,640	2,470	2,830	9,820	47,200	81,500	24,500	7,380	5,650	3,260	2,620	3,260	193,000
1965	3,440	3,330	3,380	17,300	55,700	94,000	29,600	9,840	10,300	9,900	5,890	3,690	246,000
1966	3,500	3,110	5,470	14,800	39,500	23,600	13,200	6,580	3,630	1,410	2,020	2,340	119,000
1967	2,460	2,330	3,070	3,870	61,100	89,900	19,200	10,100	5,180	4,060	3,930	3,200	208,000
1968	3,140	3,510	5,530	11,200	45,300	76,800	20,700	8,360	7,740	6,210	4,340	3,690	196,000
1969	3,630	3,280	5,350	28,400	54,600	30,100	41,100	10,800	4,880	4,000	3,570	2,460	192,000
1970	2,770	2,780	3,260	4,880	64,600	64,300	19,600	9,470	3,810	3,440	3,330	3,140	185,000
1971	3,380	5,390	3,690	12,400	53,100	47,800	15,100	6,700	3,750	3,750	3,030	2,520	161,000
1972	2,520	2,590	10,100	9,220	49,800	63,700	12,500	5,900	4,520	3,010	2,680	2,020	169,000
1973	2,150	2,170	3,500	6,490	19,800	25,600	14,100	5,780	3,870	1,480	2,140	2,030	89,100
1974	2,460	2,220	5,600	18,000	39,000	62,500	22,100	10,800	6,250	2,460	2,380	2,280	176,000
1975	2,710	1,780	3,690	4,280	53,200	88,700	35,000	10,800	6,660	8,490	5,650	3,750	225,000

Table 17. Synthesized streamflow for Boulder River at mouth, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	3,380	3,280	4,060	24,000	89,800	68,400	23,000	8,730	5,000	4,920	3,630	2,950	241,000
1977	2,770	2,440	4,800	11,800	20,700	17,400	13,200	6,830	4,110	1,910	1,960	2,580	90,500
1978	3,010	1,940	7,070	24,900	54,400	58,100	28,900	9,350	6,660	4,120	2,740	2,340	203,000
1979	3,320	2,670	5,230	8,990	59,800	39,500	18,100	7,690	4,580	2,280	2,440	2,090	157,000
1980	2,770	2,190	2,830	17,800	74,400	54,300	13,800	6,580	6,660	5,600	3,210	2,710	193,000
1981	2,640	4,110	4,860	12,100	66,400	57,200	20,300	8,050	5,300	5,350	3,870	3,010	193,000
1982	2,830	5,330	5,290	8,630	62,100	58,800	24,400	8,300	6,310	6,950	4,050	2,950	196,000
1983	3,200	3,440	5,170	8,030	46,200	49,900	25,600	9,590	6,840	6,520	4,220	2,770	172,000
1984	3,870	2,700	4,060	10,000	53,900	60,700	16,500	7,620	6,130	3,200	2,860	2,280	174,000
1985	2,400	1,890	2,770	15,600	27,500	30,500	15,100	5,600	5,000	7,320	4,110	2,950	121,000
1986	3,010	3,780	10,500	20,100	43,600	44,600	16,800	9,410	5,410	5,230	3,390	2,770	169,000
1987	1,780	2,390	4,490	15,700	20,700	30,200	15,200	8,240	4,940	1,720	1,730	1,780	109,000
1988	1,350	1,780	2,640	13,100	31,700	31,100	14,000	6,950	2,800	1,780	2,020	1,910	111,000
1989	1,660	1,500	3,140	17,100	34,200	27,900	13,300	8,730	5,410	3,260	3,570	3,010	123,000

Table 18. Synthesized streamflow for Jefferson River at Sappington, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	80,500	76,500	116,000	170,000	558,000	414,000	392,000	186,000	134,000	65,200	75,600	66,400	2,333,000
1929	80,500	52,900	67,000	99,400	190,000	543,000	334,000	183,000	109,000	32,800	79,700	68,300	1,839,000
1930	66,400	58,300	85,500	259,000	196,000	341,000	323,000	178,000	121,000	61,400	72,000	54,400	1,816,000
1931	70,100	46,800	71,300	105,000	101,000	237,000	225,000	152,000	76,200	22,500	79,700	40,500	1,228,000
1932	70,100	45,900	68,900	106,000	254,000	559,000	312,000	171,000	110,000	37,800	76,200	33,800	1,845,000
1933	70,700	42,000	76,900	142,000	169,000	672,000	305,000	212,000	101,000	31,100	66,600	73,200	1,962,000
1934	69,500	52,900	92,200	214,000	167,000	240,000	341,000	191,000	71,400	42,900	59,100	53,200	1,594,000
1935	67,600	70,000	89,800	145,000	168,000	417,000	268,000	165,000	109,000	13,700	68,400	49,900	1,632,000
1936	58,900	45,600	71,300	226,000	296,000	425,000	254,000	154,000	94,600	21,300	59,300	44,300	1,750,000
1937	62,100	42,300	62,100	81,500	168,000	259,000	256,000	159,000	91,600	33,900	52,400	53,200	1,322,000
1938	66,400	40,900	75,600	145,000	242,000	569,000	426,000	232,000	159,000	56,000	83,300	68,900	2,165,000
1939	58,500	40,900	84,200	171,000	303,000	311,000	315,000	186,000	108,000	25,800	50,200	55,200	1,708,000
1940	52,100	54,500	78,700	168,000	243,000	393,000	190,000	181,000	16,400	80,500	70,800	65,200	1,593,000
1941	55,200	48,300	80,500	112,000	146,000	421,000	308,000	147,000	90,400	116,000	99,400	91,600	1,716,000
1942	58,400	63,900	92,800	314,000	370,000	678,000	403,000	190,000	115,000	42,100	76,800	76,900	2,481,000
1943	71,300	65,000	89,800	332,000	330,000	690,000	477,000	229,000	149,000	41,000	87,500	72,600	2,634,000
1944	58,400	64,400	65,800	122,000	156,000	469,000	418,000	216,000	121,000	56,400	79,100	63,300	1,889,000
1945	73,200	71,100	73,200	102,000	210,000	349,000	356,000	191,000	85,100	63,300	74,400	57,600	1,706,000
1946	59,200	51,800	71,300	180,000	239,000	437,000	299,000	147,000	123,000	125,000	105,000	93,500	1,930,000
1947	65,200	66,600	109,000	225,000	545,000	530,000	385,000	215,000	105,000	118,000	106,000	101,000	2,571,000
1948	86,100	68,500	89,800	208,000	537,000	815,000	409,000	264,000	142,000	84,200	101,000	81,200	2,886,000
1949	54,700	62,800	96,500	227,000	379,000	531,000	320,000	174,000	114,000	65,800	78,000	61,500	2,165,000
1950	51,300	54,300	91,600	163,000	181,000	565,000	400,000	242,000	110,000	104,000	94,000	87,300	2,145,000
1951	66,400	73,900	80,500	196,000	437,000	584,000	406,000	204,000	150,000	71,900	83,900	63,900	2,418,000
1952	46,700	49,200	84,200	228,000	460,000	509,000	394,000	236,000	172,000	34,400	59,300	54,400	2,327,000
1953	68,300	54,600	72,600	121,000	193,000	726,000	461,000	231,000	135,000	34,700	70,200	68,300	2,235,000
1954	53,800	61,100	67,600	122,000	246,000	345,000	435,000	180,000	149,000	14,900	50,900	46,400	1,771,000
1955	43,800	37,200	46,600	88,700	259,000	450,000	422,000	319,000	117,000	32,600	65,500	73,200	1,954,000
1956	65,800	46,100	94,100	213,000	410,000	678,000	323,000	202,000	152,000	19,200	61,300	53,400	2,318,000
1957	45,900	51,100	69,500	109,000	438,000	590,000	371,000	210,000	151,000	57,000	80,900	67,600	2,241,000
1958	56,800	53,800	68,300	136,000	435,000	425,000	306,000	269,000	147,000	58,200	79,700	79,300	2,114,000
1959	51,700	40,800	76,200	145,000	152,000	566,000	460,000	204,000	73,800	101,000	107,000	81,200	2,058,000
1960	47,200	82,800	113,000	212,000	255,000	607,000	358,000	137,000	138,000	26,600	70,200	60,300	2,107,000
1961	48,900	57,800	75,000	71,400	130,000	637,000	298,000	221,000	42,600	47,300	63,100	48,600	1,741,000
1962	26,100	38,000	76,200	221,000	250,000	613,000	310,000	196,000	148,000	53,600	94,000	85,500	2,112,000
1963	46,500	116,000	88,500	124,000	245,000	454,000	440,000	238,000	147,000	43,500	101,000	65,200	2,109,000
1964	70,100	69,000	71,300	122,000	268,000	756,000	532,000	181,000	165,000	58,400	91,600	106,000	2,491,000
1965	88,500	80,500	72,600	240,000	376,000	899,000	544,000	227,000	140,000	117,000	112,000	98,400	2,996,000
1966	89,200	71,600	85,500	150,000	167,000	275,000	324,000	172,000	95,200	39,400	64,900	65,200	1,599,000
1967	68,300	55,400	66,400	93,400	341,000	827,000	488,000	243,000	139,000	73,200	106,000	68,900	2,570,000
1968	63,300	92,600	97,800	145,000	248,000	625,000	411,000	146,000	117,000	110,000	112,000	94,100	2,261,000
1969	82,400	74,400	105,000	337,000	512,000	411,000	467,000	243,000	111,000	85,500	87,500	68,300	2,584,000
1970	75,000	67,800	73,800	102,000	336,000	672,000	447,000	215,000	156,000	90,400	102,000	84,200	2,422,000
1971	94,100	84,400	89,200	196,000	491,000	720,000	437,000	227,000	172,000	103,000	102,000	70,700	2,785,000
1972	88,500	71,900	124,000	182,000	361,000	815,000	406,000	255,000	170,000	73,200	75,000	54,400	2,676,000
1973	71,900	58,900	84,900	147,000	128,000	249,000	354,000	193,000	72,600	37,900	101,000	83,000	1,581,000
1974	70,700	73,300	91,600	220,000	272,000	732,000	420,000	228,000	155,000	37,100	101,000	75,600	2,476,000
1975	62,700	62,200	84,200	150,000	228,000	762,000	611,000	295,000	212,000	160,000	91,000	123,000	2,840,000

Table 18. Synthesized streamflow for Jefferson River at Sappington, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	111,000	83,400	105,000	287,000	695,000	672,000	451,000	249,000	224,000	114,000	91,600	79,900	3,163,000
1977	73,200	60,500	72,600	150,000	94,700	344,000	291,000	182,000	75,000	71,300	78,000	79,300	1,571,000
1978	72,600	59,400	111,000	229,000	323,000	589,000	464,000	226,000	202,000	89,200	102,000	86,700	2,553,000
1979	48,200	61,100	104,000	200,000	328,000	414,000	349,000	183,000	101,000	36,400	64,300	59,100	1,947,000
1980	45,900	59,200	77,500	183,000	378,000	575,000	408,000	205,000	86,900	70,700	91,600	104,000	2,284,000
1981	79,900	66,100	76,900	141,000	371,000	655,000	389,000	196,000	102,000	56,400	81,500	79,300	2,294,000
1982	58,800	67,800	92,800	184,000	390,000	720,000	524,000	245,000	158,000	95,900	82,100	79,300	2,699,000
1983	107,000	73,300	100,000	171,000	239,000	519,000	469,000	224,000	167,000	97,800	105,000	64,600	2,338,000
1984	125,000	75,400	102,000	206,000	319,000	684,000	459,000	208,000	158,000	67,600	82,700	64,600	2,552,000
1985	79,300	48,700	92,800	234,000	216,000	300,000	250,000	189,000	89,300	76,900	105,000	79,300	1,762,000
1986	67,600	68,300	94,100	185,000	240,000	517,000	370,000	184,000	137,000	84,200	91,600	75,000	2,115,000
1987	53,000	55,400	72,600	118,000	117,000	197,000	327,000	242,000	91,000	20,100	58,400	53,000	1,405,000
1988	42,500	47,500	63,300	136,000	163,000	300,000	265,000	179,000	86,300	20,200	65,500	56,600	1,424,000
1989	40,300	43,900	79,900	158,000	147,000	353,000	307,000	231,000	84,500	40,700	94,600	81,200	1,661,000

Table 19. Synthesized streamflow for Willow Creek below Willow Creek Reservoir, near Harrison, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	1,480	1,090	3,570	2,680	6,150	2,380	3,260	1,170	1,070	1,660	1,790	1,480	27,800
1929	1,170	1,060	2,640	3,750	6,890	7,200	3,320	1,230	1,730	2,770	2,860	2,640	37,200
1930	1,480	1,890	2,640	6,310	2,950	2,860	1,970	1,910	1,550	3,260	3,450	2,640	32,900
1931	1,480	2,110	2,950	2,140	3,010	3,630	1,660	984	833	1,110	1,190	861	22,000
1932	861	978	1,540	1,010	922	4,280	1,840	676	500	1,050	1,550	922	16,100
1933	1,410	833	1,480	1,790	3,570	5,000	2,150	738	530	1,480	1,490	2,210	22,700
1934	2,830	1,220	2,400	3,750	1,970	1,840	984	381	333	799	1,610	1,660	19,800
1935	1,910	889	2,150	2,380	2,520	3,930	1,970	596	470	412	2,080	1,970	21,300
1936	1,170	920	2,710	2,140	3,870	1,840	1,780	566	595	584	1,960	2,020	20,200
1937	1,110	722	1,910	2,020	2,340	3,330	1,840	676	440	799	2,020	1,780	19,000
1938	1,170	722	2,770	1,900	3,320	5,590	5,530	922	893	2,340	2,260	2,340	29,800
1939	2,460	778	4,240	3,270	3,380	2,200	2,210	861	714	1,410	1,900	1,720	25,200
1940	1,290	1,380	2,400	2,380	3,630	4,820	2,770	799	1,010	1,660	1,900	1,910	25,900
1941	1,660	1,720	2,090	2,020	2,340	6,550	3,260	1,660	3,030	4,670	2,500	2,820	34,300
1942	2,400	1,170	2,640	4,280	6,390	8,450	6,090	1,780	2,140	2,830	2,740	2,580	43,500
1943	2,640	2,330	3,630	5,530	6,150	10,100	8,730	2,640	1,730	2,460	2,740	2,280	51,000
1944	1,910	1,780	2,770	2,740	3,870	14,800	6,030	4,060	2,620	3,380	2,740	2,210	48,900
1945	2,400	1,610	1,970	2,320	2,580	4,940	3,810	1,540	1,130	2,520	2,620	2,080	29,500
1946	2,400	778	4,980	2,860	3,870	6,130	3,630	1,230	2,260	4,610	2,860	3,070	38,700
1947	2,770	3,670	2,520	3,810	6,460	8,510	8,490	1,780	2,800	4,240	3,210	2,770	51,000
1948	4,120	748	3,380	5,240	5,960	9,400	5,410	3,570	333	2,400	3,150	2,640	46,400
1949	2,090	1,560	2,280	5,120	4,490	3,270	2,830	799	893	2,030	2,320	1,840	29,500
1950	2,460	1,890	3,260	2,680	2,770	4,880	6,030	2,340	1,960	3,810	2,440	3,010	37,500
1951	2,580	2,440	5,840	3,090	3,320	3,330	3,570	1,170	1,790	3,440	3,930	2,580	37,100
1952	4,370	1,780	2,460	4,400	7,380	5,890	4,300	1,660	1,190	984	2,680	2,880	40,000
1953	1,910	2,610	3,070	2,320	2,830	7,200	3,630	1,350	1,840	738	2,800	2,480	32,700
1954	2,640	2,440	2,280	2,680	2,150	1,610	4,120	1,050	655	738	2,200	1,910	24,500
1955	1,600	944	2,030	3,090	1,780	4,340	3,750	861	1,010	984	2,200	2,480	25,000
1956	1,720	1,780	3,570	3,630	4,180	5,530	3,260	799	458	676	2,200	2,210	30,000
1957	1,910	4,280	2,210	2,440	2,950	8,330	3,630	1,110	833	1,720	2,680	2,340	34,400
1958	2,640	1,830	4,120	2,620	4,730	5,890	4,610	1,410	714	984	2,380	2,340	34,300
1959	2,400	1,330	4,610	3,330	1,540	5,240	4,000	984	893	2,640	2,680	2,480	32,100
1960	2,460	1,550	3,940	3,210	5,350	5,360	3,070	1,110	833	1,970	2,500	2,340	33,700
1961	2,280	2,330	2,090	2,080	1,410	3,870	1,660	861	1,070	3,140	2,140	2,020	25,000
1962	2,770	2,940	3,010	3,450	4,800	5,950	5,100	2,580	3,390	3,690	2,140	2,520	42,400
1963	2,150	4,220	2,950	2,560	4,730	12,300	6,520	1,660	2,980	3,140	2,440	2,400	48,000
1964	2,640	1,610	2,520	2,980	2,210	7,320	4,370	2,030	952	1,600	2,140	2,400	32,800
1965	2,460	1,390	2,640	4,580	4,550	8,630	5,530	3,260	4,580	4,060	3,390	2,640	47,700
1966	2,580	722	3,750	3,270	3,200	2,980	3,070	922	774	1,480	2,560	2,280	27,600
1967	2,710	1,440	3,010	2,680	5,170	12,800	5,960	1,350	1,130	3,260	2,860	2,520	44,900
1968	2,580	3,390	6,270	3,270	3,380	8,150	4,550	1,840	2,800	4,060	2,860	2,210	45,400
1969	2,830	2,550	4,490	4,520	6,390	7,970	4,550	1,780	1,310	3,440	2,680	2,480	44,900
1970	2,280	3,050	3,380	2,500	7,990	10,100	8,120	1,290	3,750	3,810	2,620	2,580	51,400
1971	3,140	3,780	4,800	2,560	4,730	8,210	7,500	2,090	3,450	4,300	2,860	2,120	49,600
1972	2,890	4,490	7,500	3,270	3,070	5,060	4,490	1,600	1,490	2,770	2,740	2,120	41,500
1973	2,580	833	3,320	2,380	3,380	2,800	5,290	1,170	2,200	2,830	2,560	2,340	31,700
1974	2,890	2,110	4,180	2,860	3,570	7,380	3,070	1,600	1,550	1,910	2,800	2,280	36,200
1975	2,400	1,440	3,570	2,260	6,460	11,400	13,800	5,600	2,860	3,940	3,210	3,200	60,100

Table 19. Synthesized streamflow for Willow Creek below Willow Creek Reservoir, near Harrison, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	3,690	3,390	4,120	4,340	8,300	5,890	5,230	2,640	4,110	4,180	2,800	2,520	51,200
1977	2,090	2,220	2,950	2,380	1,480	1,900	2,460	1,170	1,010	2,830	2,500	2,460	25,500
1978	1,970	1,780	4,730	3,090	2,830	4,520	7,380	1,910	2,680	2,950	1,900	2,520	38,300
1979	2,460	3,390	7,500	2,740	4,980	2,920	4,060	1,410	1,010	1,290	2,560	2,460	36,800
1980	2,150	1,730	3,070	2,860	5,960	8,450	3,810	1,480	2,080	3,570	2,740	2,580	40,500
1981	2,890	2,110	2,580	2,800	6,950	11,700	4,800	1,540	1,250	3,380	2,620	2,340	45,000
1982	2,280	2,110	2,710	4,340	6,330	11,600	11,400	1,720	4,050	5,470	2,920	2,520	57,400
1983	3,500	3,170	3,140	2,740	5,600	8,090	10,300	2,770	4,170	4,730	2,440	2,090	52,700
1984	4,610	3,850	3,940	3,270	8,920	8,690	8,920	3,380	3,690	4,120	2,560	2,150	58,100
1985	1,910	2,890	3,810	3,270	4,370	1,430	1,660	1,050	1,610	3,440	2,200	1,970	29,600
1986	2,400	944	4,180	3,090	5,780	7,200	4,240	1,050	1,960	3,440	2,620	2,400	39,300
1987	1,350	1,830	2,150	2,680	4,610	5,240	5,530	4,240	3,630	2,280	2,200	1,910	37,700
1988	2,090	1,550	1,840	2,380	4,240	3,390	1,660	517	464	529	1,900	1,720	22,300
1989	1,480	1,000	2,950	3,270	5,530	3,330	2,460	738	1,010	1,780	2,560	2,210	28,300

Table 20. Synthesized streamflow for Jefferson River at mouth, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	89,800	77,100	138,000	195,000	818,000	726,000	477,000	202,000	107,000	97,800	104,000	71,900	3,102,000
1929	81,800	51,000	107,000	100,000	195,000	678,000	314,000	173,000	109,000	62,700	117,000	72,600	2,060,000
1930	59,100	80,000	90,400	327,000	203,000	430,000	217,000	113,000	111,000	99,600	103,000	68,300	1,901,000
1931	67,600	77,800	117,000	108,000	84,200	402,000	188,000	89,200	96,400	27,300	76,200	65,200	1,399,000
1932	50,200	64,400	79,900	109,000	287,000	672,000	288,000	152,000	90,400	56,700	93,400	56,300	2,000,000
1933	56,900	57,800	82,400	155,000	167,000	732,000	263,000	114,000	91,000	59,300	89,900	64,600	1,933,000
1934	50,900	64,400	96,500	258,000	164,000	459,000	187,000	152,000	80,900	74,400	78,000	65,200	1,730,000
1935	68,300	48,500	93,500	159,000	165,000	559,000	216,000	123,000	88,700	27,700	79,700	47,300	1,676,000
1936	53,000	46,900	101,000	277,000	352,000	484,000	236,000	127,000	95,200	40,600	87,500	63,900	1,965,000
1937	46,200	66,100	91,600	79,100	165,000	263,000	224,000	96,500	86,900	34,900	72,000	46,900	1,273,000
1938	53,600	55,400	81,800	160,000	269,000	439,000	506,000	110,000	106,000	91,000	106,000	60,300	2,038,000
1939	61,400	60,000	109,000	174,000	424,000	505,000	239,000	116,000	107,000	46,100	93,400	56,500	1,990,000
1940	47,500	61,500	93,500	149,000	196,000	503,000	219,000	111,000	114,000	44,100	95,200	53,100	1,688,000
1941	53,100	60,500	78,700	132,000	152,000	666,000	260,000	106,000	134,000	89,200	81,500	86,700	1,901,000
1942	60,200	65,500	91,600	277,000	359,000	857,000	440,000	121,000	126,000	55,000	76,200	79,300	2,607,000
1943	63,300	97,700	79,900	275,000	322,000	851,000	486,000	197,000	131,000	65,800	77,400	78,700	2,724,000
1944	79,300	71,900	124,000	125,000	148,000	1,035,000	333,000	175,000	143,000	58,400	66,600	58,700	2,417,000
1945	84,900	75,000	96,500	111,000	178,000	509,000	257,000	125,000	142,000	61,100	67,800	63,300	1,770,000
1946	76,200	75,000	95,300	196,000	307,000	594,000	267,000	144,000	142,000	83,600	86,900	108,000	2,175,000
1947	79,300	73,900	105,000	242,000	521,000	821,000	311,000	157,000	159,000	105,000	92,800	110,000	2,777,000
1948	89,200	80,000	95,900	267,000	621,000	958,000	517,000	208,000	145,000	84,200	84,500	80,500	3,230,000
1949	66,400	68,300	103,000	262,000	363,000	643,000	277,000	135,000	151,000	70,100	73,800	63,300	2,276,000
1950	60,700	72,800	105,000	164,000	195,000	726,000	266,000	194,000	150,000	99,000	90,400	101,000	2,224,000
1951	70,700	78,300	92,800	184,000	408,000	655,000	430,000	186,000	127,000	81,200	80,300	60,200	2,453,000
1952	64,600	82,800	105,000	267,000	639,000	720,000	320,000	176,000	149,000	67,000	78,500	92,200	2,762,000
1953	91,600	70,500	94,100	127,000	200,000	572,000	379,000	151,000	133,000	80,500	88,100	71,300	2,058,000
1954	59,500	76,600	103,000	129,000	256,000	299,000	253,000	123,000	109,000	66,400	76,200	45,600	1,597,000
1955	53,000	49,400	78,700	122,000	229,000	296,000	300,000	199,000	118,000	55,400	73,200	76,900	1,651,000
1956	79,300	53,400	91,000	211,000	453,000	631,000	259,000	203,000	121,000	68,900	98,200	60,800	2,328,000
1957	46,500	66,600	86,100	139,000	328,000	655,000	269,000	215,000	139,000	91,600	100,000	81,800	2,217,000
1958	68,300	70,000	95,900	148,000	306,000	453,000	427,000	225,000	151,000	73,800	82,700	73,800	2,173,000
1959	62,700	53,100	103,000	156,000	169,000	631,000	249,000	151,000	118,000	143,000	143,000	181,000	2,160,000
1960	69,500	79,400	105,000	227,000	239,000	559,000	304,000	183,000	112,000	45,200	66,600	58,700	2,048,000
1961	59,800	66,600	94,100	83,300	166,000	352,000	258,000	184,000	104,000	108,000	107,000	53,000	1,636,000
1962	47,300	70,000	78,700	207,000	328,000	583,000	265,000	199,000	130,000	100,000	104,000	91,000	2,203,000
1963	56,500	103,000	95,900	133,000	320,000	780,000	365,000	181,000	124,000	76,900	97,000	58,900	2,391,000
1964	67,000	66,700	86,100	140,000	304,000	833,000	430,000	200,000	155,000	78,700	100,000	78,100	2,539,000
1965	94,700	83,900	97,800	212,000	350,000	714,000	513,000	232,000	121,000	133,000	137,000	89,800	2,781,000
1966	81,800	75,500	117,000	146,000	136,000	415,000	269,000	176,000	115,000	78,700	94,600	60,400	1,765,000
1967	71,900	66,100	95,300	120,000	315,000	702,000	328,000	265,000	189,000	106,000	105,000	75,600	2,440,000
1968	79,300	94,900	109,000	166,000	253,000	625,000	396,000	243,000	140,000	117,000	111,000	85,500	2,419,000
1969	79,900	88,900	100,000	317,000	615,000	655,000	469,000	267,000	159,000	121,000	102,000	88,500	3,061,000
1970	81,800	77,800	101,000	145,000	416,000	756,000	508,000	288,000	145,000	123,000	119,000	95,900	2,857,000
1971	95,900	101,000	106,000	218,000	508,000	643,000	332,000	258,000	137,000	133,000	119,000	87,900	2,739,000
1972	92,200	98,400	118,000	216,000	319,000	643,000	306,000	285,000	152,000	137,000	127,000	73,800	2,568,000
1973	79,300	78,900	94,700	159,000	208,000	490,000	288,000	167,000	123,000	89,800	109,000	89,800	1,977,000
1974	78,100	80,000	106,000	224,000	314,000	726,000	264,000	268,000	159,000	101,000	87,500	93,500	2,502,000
1975	71,900	68,900	88,500	162,000	247,000	750,000	750,000	341,000	211,000	154,000	136,000	167,000	3,147,000

Table 20. Synthesized streamflow for Jefferson River at mouth, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	108,000	90,300	148,000	279,000	879,000	744,000	541,000	314,000	162,000	177,000	137,000	115,000	3,695,000
1977	79,900	77,800	115,000	162,000	76,900	358,000	288,000	176,000	134,000	96,500	90,400	84,900	1,741,000
1978	79,900	74,400	111,000	231,000	333,000	619,000	449,000	291,000	161,000	117,000	80,900	64,600	2,612,000
1979	53,600	72,800	117,000	176,000	408,000	557,000	259,000	205,000	161,000	53,200	82,700	80,500	2,226,000
1980	59,200	74,200	91,600	179,000	409,000	768,000	444,000	190,000	166,000	119,000	125,000	118,000	2,742,000
1981	95,900	78,900	111,000	171,000	429,000	785,000	406,000	266,000	128,000	95,300	107,000	99,000	2,772,000
1982	76,900	91,100	108,000	174,000	429,000	833,000	606,000	277,000	142,000	140,000	116,000	111,000	3,105,000
1983	113,000	83,300	114,000	167,000	335,000	619,000	524,000	300,000	179,000	148,000	156,000	95,900	2,834,000
1984	97,800	104,000	143,000	229,000	518,000	833,000	568,000	345,000	203,000	148,000	139,000	90,400	3,418,000
1985	83,000	71,600	119,000	245,000	215,000	466,000	287,000	142,000	72,600	112,000	74,400	70,100	1,957,000
1986	78,700	85,500	141,000	220,000	276,000	661,000	307,000	205,000	124,000	119,000	102,000	68,900	2,389,000
1987	62,100	69,400	97,200	146,000	82,400	412,000	243,000	157,000	162,000	52,200	74,400	63,300	1,623,000
1988	54,800	62,100	88,500	158,000	130,000	428,000	279,000	162,000	80,300	38,900	53,900	53,200	1,589,000
1989	54,700	46,500	97,800	153,000	164,000	331,000	261,000	201,000	114,000	61,500	80,900	52,200	1,617,000

Table 21. Synthesized streamflow for Madison River near West Yellowstone, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	26,700	22,300	25,400	25,800	70,100	43,600	33,000	27,600	24,900	27,700	24,800	26,100	378,000
1929	25,600	22,900	25,800	26,000	40,200	45,300	26,600	23,600	23,000	24,300	24,000	24,000	331,000
1930	22,300	21,000	22,900	29,100	43,100	29,200	22,300	24,200	21,500	25,200	21,600	21,900	304,000
1931	20,400	17,700	20,500	22,800	29,600	20,300	17,300	17,100	16,800	18,300	17,700	18,700	237,000
1932	18,700	17,400	19,800	22,200	45,600	44,800	24,500	19,900	19,400	21,500	20,400	21,400	296,000
1933	21,900	19,900	21,200	24,500	35,000	43,300	22,200	21,100	20,100	20,400	19,800	20,700	290,000
1934	20,800	18,500	21,400	26,700	23,900	20,800	17,300	16,800	16,800	18,300	17,900	19,400	239,000
1935	19,600	17,700	19,800	24,300	38,500	42,800	22,200	19,400	18,200	19,100	19,900	19,700	281,000
1936	19,900	18,900	20,000	30,900	51,000	31,900	21,400	20,700	19,100	20,700	20,300	20,400	295,000
1937	20,000	19,400	21,500	25,300	37,200	28,600	21,200	18,600	18,600	19,800	19,500	20,700	270,000
1938	19,700	18,400	21,000	27,400	47,200	50,900	28,700	23,000	21,500	26,400	23,700	22,600	331,000
1939	22,600	21,700	24,300	27,300	42,700	27,500	21,500	19,900	19,200	20,800	18,900	19,900	286,000
1940	20,200	19,100	20,900	23,700	39,000	25,300	19,100	17,600	17,700	18,900	18,400	19,100	259,000
1941	19,200	17,600	20,400	22,000	38,300	27,300	20,300	19,500	20,100	20,100	20,400	22,000	267,000
1942	21,200	18,900	19,700	25,300	36,200	39,500	22,800	19,200	18,700	20,200	21,200	20,500	284,000
1943	18,900	17,600	19,200	37,100	57,000	79,100	42,900	29,800	26,400	29,500	26,800	25,500	410,000
1944	25,300	23,800	25,600	26,100	42,100	40,900	27,100	23,000	22,700	23,600	23,200	23,200	327,000
1945	23,600	21,300	23,400	23,600	44,700	43,900	28,900	24,900	23,500	24,300	23,900	23,900	330,000
1946	23,800	21,700	24,300	35,600	53,200	37,400	25,900	23,900	23,400	27,200	25,700	25,800	348,000
1947	23,900	21,700	24,300	26,500	62,100	48,600	29,800	26,900	25,300	25,100	25,100	26,100	365,000
1948	25,400	22,800	24,000	27,100	48,600	39,900	26,300	23,900	22,400	22,900	23,200	24,700	331,000
1949	22,600	21,700	24,600	32,200	57,900	38,100	25,700	22,800	22,300	25,100	23,300	23,700	340,000
1950	24,400	21,700	23,700	28,300	44,300	63,700	36,600	28,100	26,600	30,000	27,400	27,100	382,000
1951	25,800	23,200	25,900	29,200	60,800	51,700	35,300	31,200	26,400	29,600	27,200	27,600	394,000
1952	27,500	24,300	25,200	34,500	69,500	53,000	34,700	29,900	26,700	26,700	25,200	26,700	404,000
1953	27,800	23,000	25,700	27,800	44,600	56,700	28,600	25,600	23,500	23,800	24,000	25,300	356,000
1954	25,500	21,700	23,500	29,600	57,700	48,400	32,100	27,200	24,300	24,500	24,200	24,900	363,000
1955	26,100	22,100	24,500	23,600	44,200	43,000	25,600	24,200	22,500	23,900	23,600	26,800	330,000
1956	25,700	22,100	23,900	32,100	74,400	59,500	33,700	28,700	26,700	27,700	26,500	26,400	407,000
1957	25,400	24,000	26,600	26,800	58,200	52,100	30,600	26,400	25,800	26,500	24,400	25,700	373,000
1958	25,900	24,200	25,200	26,100	46,900	31,300	23,900	21,500	21,500	21,800	23,100	21,200	313,000
1959	21,500	20,300	21,300	24,200	40,900	45,500	26,100	25,900	29,400	31,400	28,200	27,300	342,000
1960	25,500	22,600	26,200	29,500	41,200	34,400	22,600	21,800	21,200	22,700	21,200	21,100	310,000
1961	20,600	20,000	23,800	24,200	42,100	34,900	22,200	21,400	23,100	23,700	22,000	22,500	300,000
1962	20,400	19,800	21,800	32,000	63,900	49,000	30,600	27,100	25,500	27,000	25,800	26,000	369,000
1963	24,400	23,400	25,100	27,700	58,700	45,200	29,000	24,700	23,700	22,400	22,900	21,400	349,000
1964	22,000	20,800	22,800	25,900	45,600	61,300	32,900	27,300	23,500	24,000	24,800	28,200	359,000
1965	26,800	23,000	25,100	32,400	58,400	72,600	41,400	33,300	33,100	31,500	29,600	29,200	437,000
1966	29,000	24,800	28,300	29,900	50,700	37,700	26,900	25,300	24,500	25,200	25,800	26,700	355,000
1967	26,800	23,300	26,100	25,900	59,700	81,500	41,300	31,200	29,000	33,900	29,500	29,300	438,000
1968	28,900	26,900	28,000	27,000	49,400	68,400	36,300	33,500	29,700	32,300	30,100	28,300	419,000
1969	28,600	25,300	25,300	32,700	64,600	47,700	36,800	30,200	28,400	30,100	27,900	27,100	405,000
1970	25,600	22,700	24,700	24,700	48,000	69,600	36,200	29,700	29,000	28,200	28,100	28,700	395,000
1971	28,300	25,000	28,000	30,500	70,100	84,500	47,400	36,900	34,300	33,000	27,900	28,600	474,000
1972	28,200	26,700	28,800	28,300	63,900	73,800	41,100	35,400	35,300	33,900	30,300	30,600	456,000
1973	27,000	24,000	26,900	26,400	46,200	36,700	24,300	23,400	24,000	28,200	26,500	27,700	341,000
1974	27,400	22,100	25,800	33,700	54,500	58,700	40,600	30,600	28,700	25,800	23,600	26,900	398,000
1975	27,100	22,800	24,900	25,300	49,400	47,800	44,200	32,100	33,600	29,000	33,600	32,900	403,000

Table 21. Synthesized streamflow for Madison River near West Yellowstone, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	29,600	26,200	26,500	32,300	71,900	61,900	35,000	29,500	31,200	28,000	27,300	27,800	427,000
1977	27,100	22,800	25,400	29,400	43,100	29,500	16,700	22,500	20,500	25,300	24,800	29,600	317,000
1978	26,700	21,900	28,100	33,700	52,900	55,400	36,800	30,700	31,500	30,400	26,700	29,000	404,000
1979	23,200	23,100	27,700	29,200	51,600	42,600	26,000	22,800	24,300	24,600	24,400	26,100	346,000
1980	22,600	22,900	25,200	29,100	56,300	31,500	24,900	23,200	23,400	32,500	32,000	28,200	352,000
1981	26,700	23,900	25,300	28,400	56,500	42,400	25,100	21,900	23,000	30,000	28,300	25,800	357,000
1982	25,300	26,400	25,000	27,000	46,700	55,600	46,000	31,100	27,600	33,900	30,800	27,600	403,000
1983	28,600	24,000	27,600	26,200	45,100	40,900	32,000	28,500	27,100	30,700	28,600	26,800	366,000
1984	26,100	23,900	25,100	26,400	53,800	51,400	33,000	31,000	29,000	29,000	28,200	28,200	385,000
1985	26,900	23,300	26,300	31,700	57,200	36,900	28,300	26,400	27,800	28,800	26,800	26,600	367,000
1986	25,900	24,300	30,100	37,000	63,300	75,000	40,400	34,500	33,100	28,600	27,700	25,600	445,000
1987	24,000	21,500	23,400	31,000	54,900	29,300	17,400	23,800	23,500	22,100	21,900	22,100	315,000
1988	22,400	20,800	22,900	28,000	65,800	34,500	16,700	21,600	21,500	20,000	20,400	20,200	315,000
1989	21,000	18,700	23,900	32,500	59,200	37,700	24,500	24,000	21,800	24,300	23,200	22,800	334,000

Table 22. Synthesized streamflow for Madison River below Hebgen Lake, near Grayling, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	53,100	41,700	56,400	57,500	175,000	105,000	68,900	53,700	48,000	54,600	36,300	51,100	802,000
1929	50,200	43,500	53,100	49,000	86,700	110,000	48,500	44,900	43,900	46,400	48,100	45,500	670,000
1930	39,500	39,000	51,500	66,100	94,700	67,800	44,000	46,400	40,600	48,500	40,300	41,000	619,000
1931	37,200	31,000	40,500	51,100	59,400	45,500	33,200	31,300	30,800	32,500	40,900	33,000	467,000
1932	33,100	30,200	39,000	47,200	102,000	108,000	44,100	37,200	36,200	39,800	37,400	39,000	594,000
1933	40,800	36,200	40,000	51,800	73,200	105,000	43,800	39,700	37,700	37,200	36,100	38,200	579,000
1934	38,200	33,100	39,500	76,200	45,300	46,700	33,200	29,100	30,800	32,300	31,800	35,200	471,000
1935	35,400	31,000	35,800	46,300	82,400	103,000	43,800	36,000	33,700	34,100	36,400	35,000	554,000
1936	35,900	33,600	36,300	65,500	117,000	75,000	42,100	38,900	35,600	37,900	37,300	37,400	593,000
1937	36,200	35,200	39,800	35,900	78,700	66,100	41,600	34,500	34,600	35,800	35,300	38,100	512,000
1938	35,500	32,800	38,600	54,900	106,000	125,000	58,700	43,700	40,800	50,100	43,400	41,500	672,000
1939	45,300	38,000	41,500	60,100	119,000	61,300	42,400	41,600	36,100	36,000	33,300	36,400	591,000
1940	36,800	34,200	37,300	46,300	87,900	57,400	37,000	35,400	36,200	36,800	33,500	34,000	513,000
1941	34,700	30,200	33,800	39,000	75,600	59,500	38,700	35,600	34,400	38,600	31,700	35,000	487,000
1942	34,800	30,800	22,800	61,300	79,900	114,000	51,200	39,300	37,700	41,600	40,100	42,000	596,000
1943	38,700	42,400	59,100	75,600	125,000	194,000	90,400	53,400	48,300	56,600	49,700	50,500	885,000
1944	54,800	46,000	48,400	48,300	85,500	94,600	54,300	38,200	37,800	41,200	42,100	40,200	632,000
1945	43,300	37,800	41,400	41,700	89,800	109,000	60,300	50,800	49,400	46,700	44,600	42,500	657,000
1946	43,100	38,200	48,500	80,300	129,000	97,600	54,900	48,100	42,400	48,800	46,800	47,000	725,000
1947	44,900	37,800	48,900	60,100	136,000	124,000	60,300	49,800	50,300	48,500	47,400	47,700	756,000
1948	41,900	35,300	43,800	66,600	110,000	100,000	49,400	42,400	39,300	42,900	41,100	46,400	659,000
1949	39,900	36,300	40,800	64,900	129,000	88,100	47,500	48,400	50,500	51,500	48,600	50,400	696,000
1950	48,100	41,400	42,200	47,700	81,200	149,000	70,100	50,900	52,200	57,000	51,300	53,200	744,000
1951	50,700	44,700	47,300	56,000	133,000	113,000	67,600	57,200	46,200	55,000	50,100	53,200	775,000
1952	54,600	48,700	44,900	63,100	179,000	140,000	78,700	59,200	51,100	52,100	49,000	56,500	877,000
1953	54,400	46,400	48,900	53,300	86,100	147,000	62,700	48,700	42,000	44,100	41,400	45,000	720,000
1954	47,400	41,800	43,700	54,900	115,000	104,000	60,600	48,000	44,300	48,800	51,100	48,000	708,000
1955	47,300	39,900	44,300	45,200	80,500	101,000	49,600	39,900	36,100	40,300	43,200	49,700	617,000
1956	45,100	38,900	38,900	65,500	152,000	128,000	60,800	46,500	44,500	48,800	55,000	51,000	776,000
1957	46,700	45,700	48,500	50,200	125,000	129,000	60,400	49,000	49,200	57,700	56,800	50,200	768,000
1958	48,300	42,700	44,500	50,200	108,000	73,800	47,400	43,700	42,400	49,100	47,700	41,100	639,000
1959	39,500	36,100	37,900	45,500	70,100	108,000	49,100	37,500	62,500	64,600	59,500	65,200	676,000
1960	55,900	47,000	57,300	61,900	70,100	72,000	45,100	42,600	39,800	43,400	41,400	42,400	619,000
1961	39,000	38,000	41,500	43,000	79,900	82,700	40,400	41,400	46,700	52,000	46,000	45,900	596,000
1962	42,900	38,600	41,700	63,700	129,000	120,000	63,900	51,000	46,800	83,000	43,400	48,000	772,000
1963	44,900	42,800	45,900	50,200	111,000	111,000	60,100	49,600	53,300	57,100	28,800	45,000	700,000
1964	45,100	42,500	44,900	47,100	104,000	156,000	72,600	52,400	46,400	49,600	44,500	49,000	755,000
1965	55,800	44,400	42,400	55,600	129,000	187,000	86,100	64,600	57,600	59,500	57,600	52,900	892,000
1966	56,400	45,100	50,900	59,400	106,000	77,400	48,900	48,500	46,200	45,200	41,200	48,000	673,000
1967	44,100	41,600	47,600	49,000	122,000	213,000	95,300	65,200	55,700	59,300	50,200	54,400	898,000
1968	57,200	52,100	50,100	52,300	104,000	165,000	69,500	72,600	58,900	57,600	53,900	51,800	845,000
1969	52,700	51,500	46,300	75,000	184,000	122,000	79,900	59,900	56,700	58,800	55,300	51,400	894,000
1970	53,500	46,300	52,900	48,600	111,000	183,000	83,000	53,800	56,100	58,400	48,100	59,000	854,000
1971	51,900	44,700	53,900	61,300	159,000	208,000	92,200	71,300	65,500	67,000	56,800	62,100	994,000
1972	67,600	50,000	62,100	57,300	159,000	186,000	83,600	66,400	70,800	70,100	60,700	61,300	995,000
1973	57,200	51,900	53,600	53,400	117,000	104,000	61,100	54,800	53,100	53,400	54,100	53,100	767,000
1974	48,900	46,400	48,100	64,300	132,000	211,000	86,700	67,000	61,300	64,600	59,500	59,000	949,000
1975	56,900	54,000	54,100	52,000	90,400	177,000	103,000	63,900	58,700	63,900	58,700	61,500	894,000

Table 22. Synthesized streamflow for Madison River below Hebgen Lake, near Grayling, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	56,200	53,000	48,700	56,800	173,000	154,000	78,100	64,600	66,600	60,600	53,400	53,800	918,000
1977	55,300	50,900	46,500	59,400	65,800	58,500	44,800	44,100	42,500	45,900	42,600	43,300	600,000
1978	48,300	41,600	37,600	56,500	121,000	133,000	65,800	50,700	48,700	48,600	45,500	46,500	743,000
1979	45,400	41,000	44,800	48,200	109,000	92,800	51,100	47,500	40,500	44,900	43,900	43,600	653,000
1980	44,800	41,600	42,200	58,600	114,000	93,400	61,200	53,600	52,100	50,200	47,700	45,700	705,000
1981	49,200	41,600	42,900	58,500	109,000	97,600	56,700	47,800	42,700	53,600	49,000	48,000	696,000
1982	46,700	42,500	42,900	49,500	144,000	170,000	95,900	66,400	58,500	60,900	59,500	59,000	895,000
1983	60,800	47,300	50,400	52,600	115,000	149,000	93,500	67,000	57,900	69,500	65,500	64,600	893,000
1984	54,900	48,900	53,400	60,700	137,000	154,000	88,500	71,900	61,300	57,000	55,300	54,000	897,000
1985	57,900	46,700	48,900	66,100	147,000	86,300	60,300	56,300	53,700	56,600	52,100	50,200	782,000
1986	48,300	41,600	58,400	78,500	143,000	176,000	83,000	73,800	66,100	66,400	61,900	57,400	954,000
1987	56,800	50,800	54,200	66,100	78,100	55,600	53,200	46,900	37,600	48,500	43,100	43,800	635,000
1988	45,500	42,000	43,800	59,400	97,200	64,300	43,300	38,700	38,700	40,500	41,500	40,300	595,000
1989	42,600	36,900	45,300	66,600	138,000	97,600	55,600	52,800	48,500	52,800	47,000	46,800	731,000

Table 23. Synthesized streamflow for Madison River below Ennis Lake, near McAllister, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	70,700	77,700	86,100	97,000	325,000	208,000	135,000	95,900	80,300	72,600	66,600	63,900	1,379,000
1929	92,200	75,000	87,900	85,700	140,000	217,000	99,600	72,600	73,800	76,200	82,100	75,000	1,177,000
1930	60,300	66,100	87,300	112,000	175,000	163,000	97,800	70,700	69,000	73,800	52,400	67,600	1,095,000
1931	50,300	76,100	87,300	97,000	156,000	140,000	59,100	62,100	53,500	81,200	72,600	56,400	992,000
1932	45,800	68,500	86,700	80,300	196,000	283,000	90,400	68,900	61,900	76,200	64,300	65,800	1,188,000
1933	70,100	62,800	86,700	83,300	104,000	231,000	87,900	82,400	64,300	77,500	62,500	63,300	1,076,000
1934	71,900	67,800	78,700	104,000	116,000	54,900	47,200	75,000	53,500	71,300	55,300	59,000	854,000
1935	49,900	52,000	84,900	75,600	103,000	203,000	97,800	67,000	58,200	65,800	63,100	59,800	980,000
1936	57,600	55,100	84,900	105,000	209,000	121,000	62,700	62,700	70,200	68,900	64,300	62,100	1,024,000
1937	58,600	56,600	86,700	68,400	160,000	143,000	80,500	64,600	59,500	67,000	61,300	63,300	969,000
1938	57,300	54,000	84,200	82,700	148,000	238,000	116,000	80,500	69,000	75,600	66,600	65,200	1,138,000
1939	65,200	51,900	73,800	98,800	201,000	118,000	94,100	67,600	64,300	68,900	65,500	67,600	1,036,000
1940	67,000	70,200	71,900	83,300	178,000	151,000	71,900	63,300	65,500	70,700	63,100	59,300	1,015,000
1941	61,400	54,400	65,200	66,100	132,000	133,000	73,800	60,400	66,100	69,500	60,700	61,500	903,000
1942	56,800	48,900	57,700	109,000	141,000	221,000	119,000	73,800	68,400	71,300	70,200	66,400	1,104,000
1943	54,500	60,500	94,100	126,000	195,000	334,000	172,000	96,500	84,500	87,300	82,700	76,200	1,463,000
1944	74,400	71,300	76,200	85,100	144,000	192,000	119,000	71,300	69,600	70,700	74,400	65,200	1,114,000
1945	72,600	66,100	71,300	69,600	133,000	199,000	127,000	81,800	71,400	75,600	75,000	65,200	1,108,000
1946	59,200	62,800	72,600	114,000	196,000	190,000	94,700	75,000	77,400	87,900	77,400	71,900	1,179,000
1947	65,200	63,300	77,500	91,600	239,000	265,000	144,000	86,700	83,300	89,200	82,700	86,700	1,374,000
1948	74,400	71,300	81,800	105,000	229,000	252,000	107,000	81,200	73,800	81,800	78,000	78,100	1,314,000
1949	63,300	67,800	80,500	117,000	217,000	172,000	89,200	78,700	79,100	91,600	85,100	76,200	1,217,000
1950	68,900	80,000	86,100	89,300	133,000	251,000	140,000	87,900	81,500	92,200	84,500	82,400	1,277,000
1951	66,400	74,400	78,700	94,000	204,000	185,000	114,000	95,300	76,800	82,400	79,700	73,200	1,224,000
1952	75,600	74,200	84,900	118,000	290,000	273,000	146,000	99,000	86,300	81,800	78,500	88,500	1,495,000
1953	87,900	71,100	84,200	85,100	126,000	271,000	123,000	79,900	70,800	75,000	78,500	78,700	1,231,000
1954	78,100	72,200	71,900	85,700	174,000	171,000	111,000	78,700	73,200	77,500	82,100	71,300	1,147,000
1955	70,700	61,100	75,000	82,100	129,000	204,000	95,900	70,100	63,100	67,000	79,700	81,800	1,080,000
1956	70,700	59,800	73,800	101,000	255,000	247,000	104,000	75,600	72,000	79,900	86,300	74,400	1,300,000
1957	61,400	75,500	84,900	81,500	200,000	235,000	116,000	78,700	76,200	90,400	85,700	83,600	1,270,000
1958	77,500	73,300	76,200	80,300	216,000	152,000	93,500	77,500	67,200	71,900	75,600	75,000	1,137,000
1959	62,100	58,900	73,200	76,200	116,000	251,000	108,000	21,900	66,100	145,000	99,400	92,800	1,169,000
1960	91,000	84,000	107,000	106,000	141,000	181,000	88,500	77,500	76,800	76,200	77,400	76,900	1,183,000
1961	71,900	72,200	71,900	72,000	125,000	164,000	65,800	67,600	70,200	80,500	84,500	67,000	1,013,000
1962	78,100	73,300	81,200	121,000	212,000	250,000	121,000	87,300	78,500	119,000	84,500	84,900	1,392,000
1963	63,300	81,600	78,100	85,100	172,000	217,000	109,000	84,200	91,000	87,900	65,500	76,900	1,212,000
1964	73,800	66,100	77,500	89,300	173,000	308,000	167,000	89,800	83,300	83,600	81,500	86,100	1,380,000
1965	97,800	81,100	81,800	99,400	196,000	340,000	186,000	117,000	105,000	102,000	93,400	94,100	1,594,000
1966	94,700	82,800	94,100	104,000	172,000	142,000	92,800	81,200	78,000	71,900	78,500	84,200	1,176,000
1967	85,500	77,800	89,200	88,100	191,000	348,000	191,000	111,000	94,600	100,000	89,300	83,600	1,549,000
1968	89,800	93,200	93,500	88,100	164,000	314,000	149,000	119,000	107,000	108,000	102,000	93,500	1,520,000
1969	91,000	90,500	84,900	132,000	314,000	220,000	150,000	101,000	98,200	102,000	103,000	94,100	1,581,000
1970	96,500	85,500	92,200	89,300	199,000	373,000	165,000	98,400	105,000	106,000	94,000	97,800	1,601,000
1971	96,500	85,500	95,900	110,000	261,000	403,000	202,000	122,000	105,000	113,000	104,000	91,600	1,790,000
1972	96,500	85,700	103,000	89,900	241,000	343,000	150,000	108,000	111,000	113,000	105,000	92,800	1,638,000
1973	91,600	86,600	97,200	102,000	207,000	216,000	117,000	91,600	94,600	94,100	97,600	93,500	1,390,000
1974	85,500	83,900	97,200	109,000	200,000	389,000	164,000	111,000	95,200	108,000	93,400	95,300	1,633,000
1975	89,800	88,300	98,400	95,800	138,000	308,000	254,000	122,000	101,000	105,000	105,000	109,000	1,615,000

Table 23. Synthesized streamflow for Madison River below Ennis Lake, near McAllister, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	94,100	88,000	84,900	104,000	286,000	283,000	150,000	108,000	98,800	99,600	89,300	95,300	1,580,000
1977	88,500	91,100	88,500	108,000	113,000	150,000	87,300	76,200	73,800	83,000	77,400	83,600	1,120,000
1978	86,100	76,100	73,800	94,600	191,000	274,000	153,000	87,300	82,100	79,300	77,400	73,800	1,349,000
1979	71,300	73,300	86,700	84,500	179,000	182,000	94,100	78,700	69,600	71,300	71,400	76,200	1,138,000
1980	68,300	76,500	74,400	97,600	211,000	204,000	122,000	83,000	83,900	82,400	82,700	83,600	1,269,000
1981	82,400	71,100	75,600	92,800	192,000	223,000	108,000	71,900	65,500	81,200	77,400	77,500	1,219,000
1982	68,300	73,900	76,200	82,100	213,000	314,000	215,000	107,000	96,400	106,000	97,000	94,700	1,543,000
1983	98,400	77,200	82,400	85,700	180,000	309,000	202,000	116,000	98,200	117,000	109,000	94,700	1,569,000
1984	90,400	84,000	95,900	108,000	250,000	338,000	192,000	133,000	112,000	110,000	91,600	91,000	1,695,000
1985	91,600	78,300	91,000	115,000	224,000	151,000	95,900	86,700	82,100	89,800	79,700	84,200	1,269,000
1986	87,300	78,900	96,500	115,000	211,000	317,000	132,000	110,000	97,000	95,300	95,200	89,800	1,524,000
1987	87,900	82,800	90,400	98,200	122,000	98,800	91,600	79,300	69,600	79,900	73,200	71,900	1,045,000
1988	72,600	71,300	79,900	97,000	164,000	127,000	68,900	58,500	58,100	65,200	64,300	61,100	987,000
1989	68,300	55,300	84,900	96,400	187,000	181,000	95,900	78,700	70,800	81,200	69,600	77,500	1,146,000

Table 24. Synthesized streamflow for Madison River at mouth, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	103,000	76,500	89,800	92,800	325,000	167,000	168,000	101,000	88,700	69,500	69,000	90,400	1,440,000
1929	129,000	139,000	124,000	94,600	111,000	151,000	127,000	215,000	167,000	92,200	88,100	86,700	1,520,000
1930	87,300	49,600	51,200	46,300	72,600	118,000	71,300	73,200	39,300	50,100	50,800	60,500	770,000
1931	73,200	70,000	81,800	113,000	104,000	115,000	91,600	114,000	85,700	74,400	76,200	73,200	1,070,000
1932	67,600	63,300	67,600	83,900	118,000	171,000	115,000	78,100	69,600	62,100	70,200	62,700	1,030,000
1933	59,200	58,300	63,900	88,100	124,000	176,000	101,000	87,900	79,100	69,500	67,200	69,500	1,040,000
1934	62,700	60,500	101,000	112,000	160,000	97,000	75,600	34,400	38,500	81,800	58,700	58,400	942,000
1935	49,600	54,700	68,300	78,500	139,000	152,000	125,000	58,800	70,200	65,800	60,100	55,000	977,000
1936	78,100	46,400	79,300	114,000	167,000	135,000	53,600	76,900	58,900	55,200	61,300	62,100	987,000
1937	57,500	50,700	67,000	70,200	147,000	104,000	105,000	65,800	64,300	65,800	69,600	54,700	921,000
1938	60,100	60,000	62,100	86,900	171,000	189,000	200,000	81,200	72,600	68,900	67,200	65,800	1,190,000
1939	61,200	50,300	76,900	112,000	191,000	142,000	120,000	68,300	71,400	75,600	80,300	52,900	1,100,000
1940	55,000	53,800	71,300	88,100	157,000	144,000	152,000	73,800	68,400	71,900	61,900	59,900	1,060,000
1941	57,600	49,700	64,600	78,000	123,000	152,000	93,500	76,200	79,100	70,700	63,700	64,600	972,000
1942	58,400	51,300	60,400	114,000	157,000	249,000	136,000	79,300	74,400	68,900	68,400	68,900	1,190,000
1943	49,400	70,500	102,000	132,000	200,000	371,000	192,000	102,000	85,100	89,200	82,100	79,900	1,560,000
1944	78,100	74,200	79,300	88,700	150,000	212,000	141,000	77,500	76,200	76,200	75,600	66,400	1,200,000
1945	73,200	68,300	73,800	70,800	136,000	207,000	146,000	86,700	72,600	79,300	79,100	69,500	1,160,000
1946	64,600	67,800	80,500	123,000	210,000	225,000	111,000	83,600	82,100	86,700	79,700	72,600	1,290,000
1947	68,900	64,400	77,500	92,800	253,000	272,000	163,000	95,300	83,300	86,100	80,900	89,800	1,430,000
1948	79,300	78,200	88,500	112,000	247,000	277,000	129,000	92,800	77,400	84,200	79,700	80,500	1,430,000
1949	67,000	70,000	83,000	124,000	229,000	208,000	103,000	84,200	72,000	83,600	81,500	70,100	1,280,000
1950	65,200	78,300	79,300	85,700	143,000	267,000	157,000	95,900	77,400	91,600	85,700	71,300	1,300,000
1951	65,200	86,100	77,500	95,800	237,000	232,000	103,000	91,000	82,700	97,200	82,700	68,900	1,320,000
1952	59,200	70,800	82,400	132,000	223,000	325,000	164,000	93,500	74,400	79,900	91,600	75,000	1,470,000
1953	83,600	62,200	60,000	82,100	140,000	249,000	123,000	89,200	76,200	77,500	103,000	83,600	1,230,000
1954	54,600	68,300	75,000	86,900	187,000	266,000	143,000	84,900	78,000	87,900	102,000	66,400	1,300,000
1955	48,800	55,300	51,800	73,800	156,000	250,000	151,000	89,200	82,100	79,900	95,200	76,900	1,210,000
1956	72,600	61,500	84,200	104,000	192,000	255,000	104,000	91,000	82,700	82,400	114,000	69,500	1,310,000
1957	42,900	60,500	66,400	78,500	215,000	242,000	127,000	89,800	82,100	84,900	111,000	74,400	1,270,000
1958	62,700	67,800	62,100	86,300	232,000	260,000	140,000	87,900	85,100	86,700	101,000	73,800	1,340,000
1959	57,600	65,500	80,500	91,600	173,000	214,000	134,000	88,500	79,100	84,200	101,000	81,200	1,250,000
1960	63,900	70,200	91,000	120,000	175,000	244,000	92,800	87,900	78,500	76,900	74,400	73,200	1,250,000
1961	54,900	65,000	58,000	83,900	161,000	222,000	83,000	79,900	74,400	81,200	117,000	59,800	1,140,000
1962	43,500	60,000	66,400	143,000	183,000	244,000	172,000	90,400	82,700	90,400	104,000	75,600	1,360,000
1963	51,900	71,600	65,200	92,200	189,000	288,000	117,000	89,800	82,700	79,300	102,000	73,200	1,300,000
1964	61,500	66,100	55,300	90,400	204,000	299,000	173,000	90,400	82,100	83,600	106,000	66,400	1,380,000
1965	86,100	71,600	75,600	102,000	222,000	290,000	212,000	96,500	85,700	99,000	124,000	70,700	1,540,000
1966	75,000	73,900	81,200	104,000	134,000	221,000	90,400	81,200	70,800	81,200	116,000	82,400	1,210,000
1967	65,800	64,400	63,900	86,900	182,000	335,000	179,000	90,400	83,300	81,200	99,400	79,900	1,410,000
1968	72,600	70,200	92,800	95,200	178,000	248,000	168,000	86,100	86,300	87,300	98,200	74,400	1,360,000
1969	73,200	67,800	71,900	131,000	226,000	271,000	167,000	90,400	84,500	83,600	94,000	73,800	1,430,000
1970	75,000	69,400	60,400	79,700	193,000	261,000	132,000	89,200	78,500	81,800	104,000	76,900	1,300,000
1971	87,900	72,800	63,300	92,800	247,000	261,000	144,000	91,600	78,000	83,600	108,000	78,100	1,410,000
1972	84,200	70,200	86,700	102,000	205,000	273,000	162,000	96,500	79,100	83,600	114,000	71,300	1,430,000
1973	72,600	63,900	64,600	90,400	126,000	226,000	132,000	89,200	71,400	74,400	108,000	71,300	1,190,000
1974	71,900	70,500	72,600	120,000	181,000	254,000	167,000	91,600	75,600	78,100	89,900	97,200	1,370,000
1975	65,800	64,400	55,700	88,700	157,000	295,000	220,000	103,000	82,700	100,000	111,000	85,500	1,430,000

Table 24. Synthesized streamflow for Madison River at mouth, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	98,400	86,300	83,600	115,000	261,000	254,000	156,000	95,300	82,100	87,900	116,000	79,300	1,520,000
1977	73,200	73,900	62,100	124,000	107,000	120,000	84,900	88,500	70,800	74,400	102,000	71,900	1,050,000
1978	73,200	65,000	86,100	111,000	197,000	244,000	135,000	91,600	81,500	79,300	102,000	61,100	1,330,000
1979	54,700	71,600	79,300	89,300	183,000	246,000	104,000	92,800	78,500	79,900	89,300	75,000	1,240,000
1980	52,900	70,800	65,200	120,000	170,000	240,000	141,000	87,300	72,600	76,900	98,800	66,400	1,260,000
1981	78,100	70,500	69,500	110,000	184,000	278,000	119,000	88,500	75,600	76,200	95,800	63,900	1,310,000
1982	62,700	70,500	89,200	89,900	201,000	261,000	152,000	94,700	79,700	86,700	112,000	79,900	1,380,000
1983	95,900	71,100	88,500	92,800	145,000	259,000	141,000	91,000	88,100	83,000	121,000	79,900	1,360,000
1984	87,300	78,200	73,200	115,000	188,000	252,000	149,000	87,900	78,500	85,500	110,000	82,400	1,390,000
1985	78,100	70,000	75,600	126,000	158,000	202,000	95,300	80,500	72,600	95,300	94,000	66,400	1,210,000
1986	69,500	68,900	83,000	123,000	172,000	214,000	155,000	78,700	84,500	81,800	98,800	70,700	1,300,000
1987	58,500	64,400	67,600	121,000	122,000	215,000	108,000	89,200	76,800	71,300	85,700	63,900	1,140,000
1988	50,100	59,200	62,100	116,000	148,000	138,000	79,900	91,000	73,800	73,800	78,500	73,800	1,040,000
1989	48,300	54,200	81,800	102,000	150,000	243,000	114,000	92,200	70,800	85,500	104,000	62,700	1,210,000

Table 25. Synthesized streamflow for Gallatin River near Gallatin Gateway, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	17,900	17,900	21,500	29,400	251,000	183,000	109,000	35,200	30,600	30,100	19,000	18,300	764,000
1929	16,200	16,100	16,300	23,300	77,500	184,000	78,100	29,900	24,600	24,300	19,800	18,300	528,000
1930	15,600	14,300	18,500	38,600	101,000	137,000	64,600	40,800	27,100	30,700	20,100	18,000	527,000
1931	12,000	17,500	20,200	29,800	89,800	113,000	34,800	22,800	14,200	14,000	17,900	17,600	404,000
1932	16,500	15,800	16,200	20,800	120,000	231,000	77,500	33,900	26,200	21,800	18,900	16,000	615,000
1933	17,300	14,400	15,700	22,600	55,300	193,000	59,200	29,600	24,500	18,400	17,300	17,400	485,000
1934	17,900	15,600	18,000	34,300	65,800	43,700	27,700	21,200	15,800	15,700	14,400	12,900	303,000
1935	13,200	12,100	12,500	18,600	55,000	165,000	65,800	30,100	22,000	17,600	15,500	14,400	442,000
1936	14,100	12,800	13,700	34,700	129,000	97,000	39,200	27,400	19,600	17,400	14,200	13,800	433,000
1937	14,400	13,100	13,300	15,500	94,700	110,000	51,100	27,800	18,600	17,400	15,500	14,400	406,000
1938	14,100	12,600	13,800	22,100	84,200	195,000	81,200	36,400	25,300	25,100	19,300	16,700	545,000
1939	16,900	14,800	19,300	33,700	126,000	91,600	58,000	30,500	22,400	19,900	15,900	14,100	463,000
1940	13,800	12,900	14,400	22,600	123,000	142,000	50,800	30,100	22,000	21,000	15,900	15,600	484,000
1941	15,100	13,200	15,200	18,600	83,000	95,800	42,400	28,300	31,600	32,000	23,300	19,200	418,000
1942	16,700	15,200	16,100	40,100	86,100	180,000	97,800	36,400	24,800	21,400	20,000	17,200	571,000
1943	16,000	14,700	17,100	44,600	106,000	242,000	129,000	43,800	28,300	25,400	21,900	18,900	707,000
1944	17,700	16,400	16,700	21,100	92,200	161,000	79,900	35,900	28,700	24,300	19,900	16,700	530,000
1945	17,600	15,200	16,500	17,800	67,000	155,000	101,000	39,500	28,900	27,200	21,500	16,600	525,000
1946	17,300	15,800	18,400	47,500	107,000	164,000	73,800	33,200	26,500	24,500	19,100	17,500	565,000
1947	15,100	13,000	16,000	24,800	156,000	195,000	119,000	45,600	31,900	32,000	23,900	22,400	695,000
1948	21,300	19,400	17,600	26,500	153,000	226,000	82,400	46,500	31,400	28,600	22,700	19,400	694,000
1949	18,400	15,600	17,200	36,000	135,000	124,000	54,300	31,200	24,900	23,800	20,700	16,800	518,000
1950	14,400	14,400	16,800	24,800	60,200	184,000	116,000	47,200	31,600	28,300	24,300	19,700	581,000
1951	15,100	15,300	17,200	26,100	116,000	125,000	75,600	40,600	27,000	27,200	22,300	17,800	526,000
1952	17,200	15,400	17,200	44,300	187,000	214,000	90,400	45,100	30,300	24,200	19,000	18,700	722,000
1953	18,400	15,100	17,000	20,200	53,700	187,000	94,100	37,400	25,300	20,800	17,600	16,200	523,000
1954	17,500	16,100	17,400	22,400	97,200	120,000	79,900	34,300	24,100	21,000	18,400	15,700	484,000
1955	16,400	14,100	15,100	17,100	63,900	156,000	68,900	34,400	24,200	22,100	17,600	16,200	466,000
1956	15,700	14,900	16,500	29,600	162,000	204,000	60,000	33,600	25,900	22,600	18,800	18,300	621,000
1957	17,500	15,600	16,700	18,800	110,000	199,000	85,500	37,900	28,800	25,200	20,300	18,600	594,000
1958	18,800	18,300	18,300	22,100	145,000	120,000	51,200	33,700	25,800	23,100	19,600	18,200	514,000
1959	16,700	15,400	17,100	24,200	68,900	246,000	90,400	47,900	43,400	43,700	34,600	29,700	678,000
1960	26,100	23,300	28,500	37,400	89,800	176,000	62,100	37,200	29,100	25,300	21,100	18,400	574,000
1961	18,900	17,300	19,600	20,800	74,400	141,000	45,100	31,900	34,000	35,800	26,900	20,100	486,000
1962	19,500	18,300	19,900	50,800	133,000	220,000	101,000	49,700	35,600	32,800	27,300	24,900	732,000
1963	22,800	21,000	22,800	24,600	105,000	186,000	76,200	40,000	34,600	26,900	22,800	18,300	601,000
1964	18,100	16,700	17,500	23,900	109,000	232,000	118,000	45,300	33,000	27,100	24,300	20,600	686,000
1965	19,600	18,700	19,900	29,000	98,400	277,000	157,000	57,500	40,200	37,400	28,800	24,300	808,000
1966	23,400	20,000	23,700	30,100	117,000	129,000	62,700	35,300	28,500	25,100	21,800	18,900	535,000
1967	18,600	17,200	19,600	22,100	100,000	252,000	130,000	49,900	33,700	33,300	25,900	21,500	724,000
1968	20,400	19,400	23,100	25,800	94,100	283,000	138,000	62,700	47,000	41,900	30,800	25,300	811,000
1969	22,400	20,600	22,300	43,700	181,000	168,000	103,000	49,100	34,300	33,400	25,800	24,200	727,000
1970	19,900	19,700	20,500	21,400	113,000	287,000	108,000	46,800	41,200	37,000	27,800	24,800	766,000
1971	21,700	20,200	20,000	28,800	132,000	309,000	125,000	44,400	41,400	35,500	28,700	23,800	831,000
1972	24,000	21,700	26,700	28,900	111,000	233,000	85,500	44,700	35,500	36,500	27,600	21,400	697,000
1973	20,500	19,200	20,200	23,900	116,000	198,000	90,400	42,000	36,000	31,200	27,300	23,900	648,000
1974	20,500	18,800	23,700	38,100	110,000	310,000	122,000	53,200	36,500	31,300	26,100	23,600	814,000
1975	24,000	20,300	22,800	22,800	63,300	249,000	231,000	63,900	39,500	37,000	30,700	26,700	832,000

Table 25. Synthesized streamflow for Gallatin River near Gallatin Gateway, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	24,000	21,700	23,000	35,600	194,000	252,000	127,000	57,400	41,800	36,300	28,100	23,800	864,000
1977	22,100	19,200	20,700	39,900	72,600	124,000	48,000	30,300	26,500	26,900	20,300	17,900	469,000
1978	18,900	17,300	21,200	33,500	101,000	212,000	122,000	46,700	36,200	30,100	22,300	19,700	680,000
1979	19,300	16,800	18,300	23,200	103,000	160,000	71,300	38,200	25,900	23,300	19,100	18,800	537,000
1980	18,000	16,600	17,000	38,100	141,000	148,000	73,200	38,600	32,400	26,900	22,800	21,600	594,000
1981	19,200	17,100	19,400	33,000	135,000	193,000	77,500	39,600	28,800	28,000	22,700	21,600	634,000
1982	20,800	19,700	20,000	23,500	103,000	198,000	121,000	40,700	32,300	33,000	24,900	24,200	660,000
1983	25,800	19,200	21,100	24,300	66,400	163,000	103,000	43,500	34,600	32,400	29,200	22,900	586,000
1984	24,200	22,000	22,800	28,100	106,000	178,000	110,000	45,700	38,100	37,400	30,200	24,400	667,000
1985	24,000	19,100	21,300	40,700	126,000	101,000	46,100	33,300	29,700	28,100	20,500	19,200	509,000
1986	20,000	17,800	22,900	39,500	121,000	226,000	66,400	39,600	31,100	28,400	22,300	18,500	652,000
1987	18,900	16,500	18,400	38,700	95,900	64,900	52,100	35,700	26,400	21,900	17,900	16,400	424,000
1988	16,400	14,800	17,100	35,900	135,000	121,000	43,700	28,200	21,800	20,300	16,900	14,800	485,000
1989	15,100	12,600	16,800	29,300	97,800	152,000	63,900	34,600	24,300	25,000	20,600	15,900	508,000

Table 26. Synthesized streamflow for Gallatin River at mouth, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	48,000	43,400	65,200	66,600	293,000	251,000	146,000	71,900	50,800	48,900	49,700	43,200	1,180,000
1929	38,900	28,100	48,800	53,200	101,000	269,000	163,000	101,000	40,200	31,700	39,000	42,200	956,000
1930	31,700	42,400	42,500	63,700	110,000	252,000	101,000	66,400	48,700	43,200	38,000	36,500	876,000
1931	36,300	29,200	47,300	51,800	72,600	213,000	102,000	89,200	24,400	18,200	28,600	32,000	745,000
1932	24,800	30,700	40,900	44,500	156,000	235,000	136,000	73,800	56,700	28,500	43,400	34,500	905,000
1933	37,300	24,900	39,400	42,400	77,500	317,000	143,000	28,000	33,700	29,300	40,100	37,500	850,000
1934	38,100	34,800	38,700	27,600	59,800	98,800	114,000	86,700	22,900	12,400	15,100	26,200	575,000
1935	26,400	27,000	33,900	37,500	44,300	221,000	122,000	78,100	49,200	13,500	30,300	33,200	717,000
1936	32,000	21,200	46,500	59,400	161,000	146,000	128,000	60,900	31,400	15,900	24,400	28,300	755,000
1937	24,000	35,900	35,000	47,500	116,000	121,000	114,000	92,800	30,800	18,600	22,100	32,300	690,000
1938	32,300	30,500	34,500	46,700	117,000	267,000	141,000	77,500	56,900	29,800	44,900	42,200	921,000
1939	38,700	23,700	53,000	59,000	109,000	106,000	143,000	79,900	43,000	26,700	31,500	37,800	751,000
1940	33,000	33,800	45,200	58,300	160,000	223,000	111,000	86,100	27,300	25,400	30,800	37,400	871,000
1941	36,700	32,800	43,300	42,800	78,700	126,000	106,000	56,700	39,000	55,700	50,900	51,300	719,000
1942	39,800	38,700	46,700	97,600	130,000	236,000	146,000	76,900	48,400	37,600	45,700	40,900	984,000
1943	40,200	40,400	65,200	83,300	133,000	298,000	151,000	75,000	54,600	36,000	46,900	48,200	1,070,000
1944	40,300	35,800	47,100	48,400	69,500	186,000	143,000	59,000	49,500	46,700	45,300	43,800	815,000
1945	46,700	40,500	42,900	40,000	76,200	150,000	157,000	63,300	43,800	46,100	47,600	44,900	799,000
1946	42,800	39,300	55,800	82,700	124,000	195,000	103,000	66,400	48,400	45,700	50,800	47,000	900,000
1947	43,700	40,800	51,300	67,800	188,000	245,000	181,000	81,800	55,200	62,100	59,500	54,900	1,130,000
1948	53,700	51,300	54,400	91,600	229,000	287,000	137,000	83,600	60,100	48,400	53,500	49,900	1,200,000
1949	43,500	35,500	53,200	78,500	150,000	153,000	121,000	75,000	44,500	43,400	46,100	40,900	884,000
1950	35,000	40,700	48,000	58,000	76,200	215,000	127,000	74,400	51,400	54,600	51,900	50,100	882,000
1951	39,000	44,700	53,500	63,100	165,000	154,000	109,000	61,500	52,500	49,800	53,100	46,200	892,000
1952	41,900	39,000	43,700	120,000	282,000	291,000	148,000	77,500	63,700	31,400	43,500	47,700	1,230,000
1953	49,100	40,500	47,600	48,000	63,900	262,000	155,000	86,100	50,800	31,200	40,200	46,600	921,000
1954	40,300	41,600	44,800	46,800	74,400	139,000	152,000	67,000	46,700	29,300	30,100	33,800	746,000
1955	34,600	31,200	38,500	54,800	94,100	223,000	113,000	91,000	38,300	28,800	42,800	38,100	828,000
1956	35,900	33,800	55,700	69,000	203,000	276,000	101,000	62,100	46,200	26,500	43,900	44,300	997,000
1957	32,200	35,600	46,000	45,300	103,000	212,000	138,000	78,700	52,400	31,200	43,300	47,200	865,000
1958	41,400	39,200	49,400	60,100	183,000	137,000	69,500	69,500	48,600	31,200	40,400	44,300	813,000
1959	41,900	37,500	52,900	58,700	94,700	321,000	153,000	73,800	45,400	57,100	55,600	57,100	1,050,000
1960	52,000	49,200	79,900	80,900	122,000	241,000	119,000	62,100	52,700	30,800	44,700	44,100	978,000
1961	42,800	40,000	43,200	34,300	56,400	212,000	92,200	68,300	34,300	54,000	55,700	47,000	781,000
1962	41,000	43,800	53,700	102,000	152,000	320,000	114,000	70,100	67,200	49,900	56,400	60,300	1,130,000
1963	36,300	69,400	54,900	60,100	141,000	224,000	135,000	83,000	60,100	33,400	40,800	44,900	984,000
1964	43,300	39,700	44,300	53,900	146,000	274,000	191,000	58,000	78,000	41,000	46,100	50,500	1,070,000
1965	49,100	46,400	48,800	75,600	146,000	323,000	230,000	75,000	69,600	72,600	57,600	55,900	1,250,000
1966	49,900	42,500	58,200	59,300	99,000	135,000	140,000	69,500	48,000	34,600	44,600	44,900	826,000
1967	46,400	43,000	52,600	57,700	132,000	308,000	207,000	97,200	58,600	51,300	57,400	53,300	1,160,000
1968	49,100	54,800	65,200	64,300	141,000	350,000	207,000	84,900	78,500	71,300	68,400	59,500	1,290,000
1969	53,800	45,000	62,100	119,000	205,000	189,000	206,000	107,000	66,600	56,300	63,700	57,500	1,230,000
1970	55,600	47,300	56,100	59,000	214,000	455,000	157,000	96,500	65,500	63,900	63,700	58,500	1,390,000
1971	50,800	51,500	51,000	68,400	186,000	368,000	229,000	94,700	69,000	68,900	64,900	49,900	1,350,000
1972	43,500	46,200	62,100	62,500	137,000	288,000	120,000	70,700	49,300	53,400	60,100	44,000	1,040,000
1973	43,000	39,700	54,400	66,600	151,000	255,000	174,000	65,800	55,300	52,700	63,700	56,400	1,080,000
1974	53,200	46,500	62,100	77,400	133,000	466,000	190,000	63,900	59,300	45,100	48,900	50,200	1,300,000
1975	49,900	41,300	54,000	66,600	149,000	348,000	328,000	108,000	73,200	65,200	67,800	63,300	1,410,000

Table 26. Synthesized streamflow for Gallatin River at mouth, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	59,300	54,800	62,100	88,700	266,000	292,000	194,000	103,000	61,300	65,200	57,800	52,800	1,360,000
1977	46,300	40,600	48,300	73,800	64,600	183,000	94,700	53,400	38,900	50,700	49,000	48,000	791,000
1978	45,200	40,100	65,800	75,000	135,000	302,000	189,000	92,200	57,700	57,400	51,100	48,800	1,160,000
1979	42,200	40,800	57,400	73,200	140,000	224,000	138,000	81,800	61,300	33,100	46,600	43,700	982,000
1980	40,200	40,400	47,800	84,500	167,000	242,000	138,000	56,100	44,000	48,100	49,800	52,400	1,010,000
1981	46,200	43,500	46,800	57,300	204,000	299,000	155,000	90,400	47,800	51,000	51,100	53,200	1,150,000
1982	48,000	51,800	58,700	72,000	172,000	327,000	240,000	91,000	62,500	73,200	60,700	55,600	1,310,000
1983	52,700	46,700	53,500	60,700	127,000	290,000	198,000	96,500	60,100	70,700	66,100	47,200	1,170,000
1984	55,000	48,000	62,700	76,800	202,000	331,000	198,000	95,900	65,500	63,300	58,600	46,400	1,300,000
1985	43,500	34,800	49,500	85,700	122,000	183,000	103,000	49,900	30,900	48,800	40,800	41,600	833,000
1986	41,900	44,300	52,300	56,600	138,000	323,000	121,000	76,900	51,400	51,400	51,000	46,100	1,050,000
1987	42,900	38,000	42,700	49,700	50,300	166,000	94,700	63,300	52,800	31,000	35,900	37,000	704,000
1988	34,200	34,500	37,700	63,100	160,000	198,000	107,000	62,700	29,000	28,700	33,000	34,700	822,000
1989	34,300	24,000	45,400	60,100	136,000	193,000	113,000	70,100	40,600	35,700	44,000	40,300	837,000

Table 27. Synthesized streamflow for Missouri River near Three Forks, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	241,000	197,000	293,000	354,000	1,430,000	1,140,000	793,000	374,000	246,000	216,000	222,000	205,000	5,720,000
1929	250,000	218,000	279,000	248,000	408,000	1,090,000	603,000	488,000	316,000	186,000	244,000	202,000	4,540,000
1930	178,000	172,000	184,000	437,000	386,000	797,000	389,000	252,000	199,000	193,000	192,000	165,000	3,540,000
1931	177,000	177,000	247,000	273,000	261,000	732,000	382,000	292,000	206,000	120,000	181,000	170,000	3,220,000
1932	143,000	158,000	188,000	237,000	561,000	1,080,000	539,000	304,000	217,000	147,000	207,000	154,000	3,930,000
1933	153,000	141,000	186,000	286,000	368,000	1,230,000	508,000	230,000	204,000	158,000	197,000	172,000	3,830,000
1934	152,000	160,000	236,000	398,000	384,000	655,000	377,000	273,000	142,000	168,000	152,000	150,000	3,250,000
1935	144,000	130,000	196,000	276,000	348,000	934,000	464,000	260,000	208,000	107,000	170,000	135,000	3,370,000
1936	163,000	114,000	227,000	450,000	683,000	768,000	418,000	264,000	186,000	111,000	173,000	154,000	3,710,000
1937	128,000	153,000	194,000	197,000	429,000	488,000	443,000	255,000	182,000	119,000	164,000	154,000	2,880,000
1938	146,000	146,000	178,000	293,000	557,000	893,000	849,000	269,000	236,000	189,000	218,000	168,000	4,140,000
1939	161,000	134,000	239,000	345,000	726,000	750,000	501,000	264,000	221,000	148,000	205,000	147,000	3,840,000
1940	135,000	149,000	210,000	296,000	513,000	869,000	482,000	271,000	209,000	141,000	188,000	150,000	3,610,000
1941	148,000	143,000	186,000	253,000	354,000	946,000	459,000	239,000	253,000	216,000	196,000	202,000	3,590,000
1942	158,000	156,000	199,000	488,000	646,000	1,340,000	719,000	277,000	248,000	162,000	190,000	189,000	4,780,000
1943	153,000	209,000	247,000	490,000	652,000	1,520,000	830,000	374,000	271,000	191,000	206,000	207,000	5,350,000
1944	198,000	182,000	250,000	262,000	368,000	1,430,000	615,000	311,000	268,000	181,000	187,000	169,000	4,430,000
1945	205,000	184,000	213,000	221,000	390,000	863,000	560,000	275,000	259,000	186,000	195,000	178,000	3,730,000
1946	184,000	182,000	232,000	402,000	639,000	1,010,000	481,000	294,000	273,000	216,000	217,000	228,000	4,360,000
1947	192,000	179,000	233,000	403,000	959,000	1,340,000	652,000	334,000	298,000	253,000	233,000	255,000	5,330,000
1948	222,000	209,000	239,000	470,000	1,090,000	1,520,000	781,000	384,000	283,000	217,000	218,000	211,000	5,850,000
1949	177,000	174,000	239,000	465,000	744,000	1,010,000	501,000	294,000	268,000	197,000	201,000	174,000	4,440,000
1950	161,000	192,000	232,000	307,000	414,000	1,210,000	551,000	365,000	278,000	245,000	228,000	223,000	4,400,000
1951	175,000	209,000	224,000	343,000	812,000	1,040,000	646,000	338,000	262,000	228,000	216,000	175,000	4,670,000
1952	165,000	193,000	231,000	519,000	1,140,000	1,330,000	633,000	347,000	287,000	178,000	214,000	215,000	5,460,000
1953	224,000	173,000	202,000	258,000	404,000	1,080,000	658,000	326,000	259,000	189,000	231,000	202,000	4,210,000
1954	154,000	187,000	223,000	262,000	518,000	702,000	548,000	275,000	233,000	184,000	208,000	146,000	3,640,000
1955	137,000	136,000	169,000	251,000	479,000	768,000	563,000	379,000	238,000	164,000	211,000	192,000	3,690,000
1956	188,000	149,000	231,000	383,000	849,000	1,160,000	464,000	356,000	250,000	178,000	256,000	175,000	4,640,000
1957	122,000	163,000	199,000	262,000	646,000	1,110,000	534,000	383,000	274,000	208,000	254,000	204,000	4,350,000
1958	172,000	177,000	207,000	294,000	719,000	851,000	633,000	382,000	284,000	192,000	224,000	192,000	4,330,000
1959	162,000	156,000	236,000	307,000	437,000	1,170,000	536,000	313,000	243,000	285,000	299,000	320,000	4,460,000
1960	185,000	199,000	275,000	427,000	535,000	1,040,000	517,000	333,000	243,000	153,000	186,000	176,000	4,270,000
1961	157,000	172,000	196,000	202,000	384,000	785,000	433,000	332,000	213,000	243,000	280,000	160,000	3,560,000
1962	132,000	174,000	199,000	452,000	664,000	1,150,000	552,000	360,000	280,000	240,000	264,000	227,000	4,690,000
1963	144,000	244,000	216,000	285,000	652,000	1,290,000	615,000	354,000	267,000	189,000	240,000	177,000	4,670,000
1964	172,000	173,000	186,000	284,000	652,000	1,400,000	793,000	348,000	315,000	204,000	252,000	195,000	4,980,000
1965	230,000	202,000	222,000	390,000	719,000	1,330,000	953,000	403,000	277,000	305,000	320,000	216,000	5,560,000
1966	207,000	192,000	256,000	310,000	369,000	774,000	499,000	327,000	234,000	194,000	255,000	188,000	3,800,000
1967	184,000	173,000	212,000	265,000	627,000	1,340,000	713,000	453,000	331,000	239,000	262,000	209,000	5,010,000
1968	201,000	220,000	267,000	325,000	571,000	1,220,000	769,000	414,000	305,000	275,000	278,000	220,000	5,060,000
1969	207,000	202,000	234,000	566,000	1,050,000	1,110,000	842,000	465,000	311,000	260,000	259,000	220,000	5,720,000
1970	212,000	194,000	217,000	284,000	824,000	1,470,000	799,000	474,000	289,000	269,000	286,000	231,000	5,550,000
1971	235,000	225,000	221,000	380,000	941,000	1,270,000	707,000	445,000	284,000	285,000	292,000	216,000	5,500,000
1972	220,000	215,000	267,000	380,000	658,000	1,200,000	588,000	453,000	281,000	274,000	302,000	189,000	5,030,000
1973	195,000	182,000	213,000	317,000	486,000	970,000	594,000	322,000	249,000	217,000	281,000	218,000	4,240,000
1974	203,000	197,000	240,000	421,000	627,000	1,450,000	621,000	424,000	295,000	224,000	226,000	241,000	5,170,000
1975	188,000	174,000	198,000	317,000	554,000	1,390,000	1,300,000	552,000	367,000	320,000	314,000	316,000	5,990,000

Table 27. Synthesized streamflow for Missouri River near Three Forks, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	266,000	231,000	293,000	483,000	1,410,000	1,290,000	892,000	512,000	306,000	330,000	311,000	247,000	6,570,000
1977	199,000	192,000	225,000	360,000	248,000	661,000	468,000	319,000	244,000	221,000	241,000	205,000	3,580,000
1978	198,000	179,000	263,000	418,000	664,000	1,170,000	775,000	475,000	301,000	253,000	234,000	175,000	5,100,000
1979	151,000	185,000	254,000	339,000	732,000	1,030,000	502,000	379,000	301,000	166,000	218,000	199,000	4,450,000
1980	152,000	185,000	205,000	384,000	744,000	1,250,000	719,000	333,000	283,000	243,000	274,000	237,000	5,010,000
1981	220,000	193,000	227,000	338,000	818,000	1,360,000	683,000	445,000	251,000	223,000	254,000	216,000	5,230,000
1982	188,000	213,000	256,000	336,000	799,000	1,420,000	996,000	463,000	284,000	300,000	289,000	247,000	5,790,000
1983	261,000	201,000	256,000	321,000	608,000	1,170,000	861,000	488,000	327,000	302,000	343,000	223,000	5,360,000
1984	240,000	230,000	279,000	421,000	910,000	1,420,000	916,000	529,000	347,000	296,000	308,000	219,000	6,110,000
1985	205,000	177,000	243,000	456,000	495,000	851,000	485,000	272,000	176,000	256,000	209,000	178,000	4,000,000
1986	190,000	199,000	277,000	400,000	585,000	1,200,000	582,000	360,000	260,000	253,000	252,000	186,000	4,740,000
1987	164,000	172,000	207,000	317,000	255,000	791,000	446,000	310,000	292,000	154,000	196,000	164,000	3,470,000
1988	139,000	156,000	188,000	337,000	438,000	762,000	465,000	315,000	183,000	141,000	165,000	162,000	3,450,000
1989	137,000	125,000	225,000	315,000	449,000	768,000	489,000	363,000	225,000	183,000	228,000	155,000	3,660,000

Table 28. Synthesized streamflow for Missouri River at Toston, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	168,000	215,000	312,000	370,000	1,120,000	893,000	836,000	469,000	259,000	223,000	204,000	216,000	5,280,000
1929	167,000	169,000	231,000	276,000	540,000	1,120,000	598,000	318,000	255,000	176,000	210,000	191,000	4,260,000
1930	129,000	219,000	203,000	334,000	467,000	762,000	413,000	309,000	198,000	225,000	198,000	162,000	3,620,000
1931	156,000	141,000	225,000	269,000	495,000	561,000	364,000	261,000	162,000	200,000	210,000	130,000	3,170,000
1932	133,000	150,000	194,000	228,000	581,000	1,150,000	558,000	296,000	192,000	175,000	205,000	163,000	4,030,000
1933	159,000	147,000	188,000	217,000	413,000	1,340,000	491,000	373,000	173,000	181,000	190,000	164,000	4,030,000
1934	165,000	169,000	263,000	437,000	408,000	566,000	606,000	333,000	151,000	149,000	177,000	159,000	3,580,000
1935	164,000	148,000	191,000	191,000	410,000	899,000	411,000	287,000	201,000	86,700	192,000	143,000	3,320,000
1936	133,000	156,000	221,000	311,000	658,000	916,000	446,000	265,000	198,000	138,000	177,000	138,000	3,760,000
1937	89,800	171,000	168,000	245,000	411,000	601,000	425,000	274,000	159,000	83,600	165,000	159,000	2,950,000
1938	131,000	146,000	191,000	240,000	556,000	1,170,000	701,000	362,000	189,000	188,000	230,000	183,000	4,290,000
1939	167,000	162,000	235,000	401,000	670,000	774,000	450,000	274,000	218,000	116,000	177,000	160,000	3,800,000
1940	133,000	163,000	233,000	286,000	443,000	625,000	417,000	254,000	205,000	210,000	170,000	181,000	3,320,000
1941	155,000	152,000	217,000	249,000	355,000	732,000	520,000	265,000	201,000	264,000	236,000	208,000	3,550,000
1942	154,000	156,000	223,000	574,000	683,000	1,220,000	701,000	355,000	243,000	154,000	201,000	192,000	4,850,000
1943	143,000	178,000	307,000	595,000	683,000	1,390,000	849,000	418,000	294,000	160,000	220,000	189,000	5,420,000
1944	183,000	178,000	204,000	267,000	362,000	851,000	744,000	362,000	252,000	179,000	197,000	162,000	3,940,000
1945	200,000	187,000	204,000	215,000	413,000	714,000	689,000	348,000	203,000	188,000	204,000	172,000	3,740,000
1946	180,000	169,000	221,000	398,000	568,000	881,000	523,000	293,000	248,000	259,000	246,000	225,000	4,210,000
1947	178,000	203,000	269,000	423,000	1,030,000	1,080,000	775,000	405,000	253,000	272,000	255,000	245,000	5,390,000
1948	215,000	203,000	247,000	439,000	1,000,000	1,450,000	713,000	455,000	277,000	213,000	234,000	199,000	5,650,000
1949	173,000	199,000	271,000	465,000	781,000	934,000	568,000	340,000	241,000	197,000	206,000	162,000	4,540,000
1950	147,000	195,000	249,000	342,000	422,000	1,050,000	701,000	422,000	242,000	258,000	240,000	236,000	4,510,000
1951	165,000	200,000	247,000	374,000	836,000	1,000,000	664,000	370,000	301,000	212,000	210,000	156,000	4,730,000
1952	162,000	179,000	210,000	499,000	1,070,000	1,140,000	719,000	428,000	329,000	150,000	189,000	197,000	5,270,000
1953	216,000	179,000	210,000	248,000	381,000	1,330,000	787,000	414,000	266,000	140,000	195,000	202,000	4,570,000
1954	166,000	203,000	203,000	260,000	508,000	696,000	750,000	331,000	271,000	114,000	169,000	149,000	3,820,000
1955	148,000	137,000	172,000	242,000	497,000	928,000	670,000	490,000	208,000	117,000	169,000	211,000	3,990,000
1956	199,000	143,000	272,000	405,000	855,000	1,310,000	555,000	345,000	270,000	118,000	180,000	175,000	4,830,000
1957	127,000	187,000	221,000	249,000	732,000	1,100,000	646,000	371,000	284,000	170,000	211,000	207,000	4,500,000
1958	183,000	182,000	206,000	284,000	861,000	762,000	462,000	427,000	246,000	145,000	184,000	208,000	4,150,000
1959	172,000	144,000	225,000	295,000	365,000	1,200,000	762,000	298,000	170,000	298,000	273,000	243,000	4,450,000
1960	196,000	227,000	327,000	440,000	549,000	1,100,000	588,000	265,000	261,000	124,000	195,000	181,000	4,450,000
1961	162,000	183,000	198,000	176,000	284,000	1,100,000	465,000	355,000	143,000	179,000	208,000	161,000	3,610,000
1962	144,000	185,000	227,000	456,000	601,000	1,230,000	554,000	350,000	298,000	223,000	241,000	229,000	4,740,000
1963	160,000	280,000	238,000	284,000	571,000	940,000	732,000	406,000	292,000	157,000	218,000	184,000	4,460,000
1964	187,000	181,000	204,000	276,000	588,000	1,340,000	928,000	317,000	320,000	173,000	241,000	231,000	4,990,000
1965	255,000	231,000	215,000	422,000	719,000	1,580,000	1,000,000	411,000	301,000	281,000	264,000	242,000	5,920,000
1966	223,000	201,000	242,000	322,000	424,000	576,000	581,000	307,000	200,000	127,000	189,000	196,000	3,590,000
1967	205,000	183,000	219,000	248,000	664,000	1,610,000	953,000	453,000	287,000	222,000	261,000	207,000	5,510,000
1968	210,000	271,000	272,000	317,000	575,000	1,380,000	830,000	340,000	303,000	285,000	287,000	228,000	5,300,000
1969	211,000	227,000	299,000	637,000	1,050,000	845,000	898,000	457,000	269,000	237,000	278,000	225,000	5,630,000
1970	221,000	210,000	235,000	261,000	830,000	1,680,000	787,000	441,000	239,000	269,000	279,000	242,000	5,700,000
1971	248,000	253,000	251,000	373,000	922,000	1,550,000	941,000	403,000	310,000	286,000	290,000	226,000	6,060,000
1972	240,000	255,000	340,000	319,000	707,000	1,550,000	589,000	342,000	269,000	275,000	286,000	213,000	5,390,000
1973	221,000	208,000	259,000	330,000	614,000	774,000	592,000	283,000	239,000	201,000	271,000	248,000	4,240,000
1974	219,000	214,000	282,000	402,000	553,000	1,740,000	652,000	285,000	256,000	207,000	258,000	236,000	5,310,000
1975	205,000	197,000	253,000	276,000	689,000	1,560,000	1,280,000	522,000	363,000	303,000	309,000	334,000	6,290,000

Table 28. Synthesized streamflow for Missouri River at Toston, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	268,000	236,000	276,000	502,000	1,340,000	1,210,000	744,000	431,000	355,000	327,000	292,000	261,000	6,250,000
1977	220,000	224,000	239,000	352,000	238,000	780,000	440,000	278,000	170,000	249,000	223,000	231,000	3,640,000
1978	226,000	206,000	286,000	438,000	633,000	1,320,000	836,000	445,000	299,000	255,000	225,000	215,000	5,380,000
1979	166,000	202,000	288,000	365,000	756,000	1,010,000	515,000	376,000	299,000	153,000	209,000	215,000	4,550,000
1980	171,000	208,000	236,000	379,000	793,000	1,280,000	726,000	327,000	287,000	246,000	256,000	264,000	5,170,000
1981	234,000	205,000	240,000	325,000	873,000	1,400,000	701,000	448,000	241,000	228,000	242,000	237,000	5,370,000
1982	189,000	232,000	260,000	350,000	812,000	1,480,000	1,080,000	493,000	301,000	326,000	283,000	262,000	6,070,000
1983	270,000	217,000	263,000	321,000	639,000	1,240,000	941,000	517,000	334,000	338,000	339,000	232,000	5,650,000
1984	287,000	249,000	304,000	422,000	1,010,000	1,550,000	972,000	568,000	365,000	332,000	312,000	226,000	6,600,000
1985	219,000	199,000	283,000	471,000	563,000	863,000	494,000	281,000	179,000	261,000	184,000	204,000	4,200,000
1986	212,000	215,000	296,000	400,000	614,000	1,320,000	552,000	384,000	264,000	266,000	255,000	197,000	4,980,000
1987	179,000	193,000	230,000	280,000	231,000	714,000	429,000	299,000	282,000	165,000	185,000	162,000	3,350,000
1988	163,000	175,000	213,000	315,000	444,000	803,000	463,000	277,000	158,000	138,000	161,000	156,000	3,460,000
1989	165,000	121,000	249,000	328,000	512,000	726,000	473,000	342,000	218,000	180,000	211,000	187,000	3,710,000

Table 29. Synthesized streamflow for Missouri River below Canyon Ferry Dam, near Helena, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	265,000	213,000	369,000	387,000	1,190,000	1,000,000	910,000	386,000	276,000	236,000	256,000	181,000	5,670,000
1929	174,000	135,000	285,000	287,000	484,000	1,240,000	621,000	344,000	271,000	174,000	194,000	173,000	4,380,000
1930	133,000	208,000	242,000	344,000	497,000	857,000	443,000	397,000	206,000	239,000	223,000	144,000	3,930,000
1931	146,000	141,000	202,000	279,000	286,000	643,000	389,000	209,000	168,000	98,400	195,000	100,000	2,860,000
1932	138,000	146,000	214,000	239,000	615,000	1,270,000	574,000	313,000	201,000	162,000	207,000	119,000	4,200,000
1933	165,000	119,000	200,000	228,000	438,000	1,460,000	529,000	252,000	179,000	167,000	190,000	175,000	4,100,000
1934	171,000	169,000	378,000	453,000	433,000	649,000	446,000	289,000	169,000	78,700	157,000	116,000	3,510,000
1935	172,000	128,000	212,000	346,000	436,000	1,010,000	606,000	266,000	210,000	99,000	171,000	124,000	3,770,000
1936	124,000	101,000	216,000	321,000	701,000	1,020,000	552,000	273,000	183,000	90,400	156,000	138,000	3,870,000
1937	104,000	174,000	164,000	276,000	437,000	690,000	604,000	321,000	164,000	95,900	169,000	118,000	3,320,000
1938	133,000	147,000	199,000	393,000	592,000	1,290,000	756,000	397,000	214,000	211,000	211,000	163,000	4,700,000
1939	171,000	113,000	264,000	422,000	707,000	875,000	604,000	255,000	247,000	124,000	174,000	127,000	4,080,000
1940	149,000	162,000	234,000	355,000	470,000	714,000	598,000	247,000	231,000	239,000	175,000	148,000	3,720,000
1941	143,000	159,000	252,000	313,000	352,000	904,000	652,000	378,000	327,000	265,000	254,000	226,000	4,230,000
1942	173,000	181,000	310,000	613,000	787,000	1,480,000	769,000	371,000	298,000	172,000	217,000	215,000	5,590,000
1943	181,000	267,000	288,000	637,000	738,000	1,660,000	775,000	379,000	315,000	178,000	238,000	214,000	5,870,000
1944	220,000	197,000	210,000	307,000	378,000	1,370,000	941,000	347,000	311,000	186,000	215,000	180,000	4,870,000
1945	233,000	205,000	191,000	264,000	428,000	1,120,000	713,000	271,000	305,000	178,000	233,000	189,000	4,330,000
1946	212,000	206,000	273,000	374,000	606,000	970,000	726,000	298,000	338,000	221,000	208,000	257,000	4,690,000
1947	219,000	204,000	363,000	484,000	990,000	1,430,000	762,000	320,000	353,000	289,000	260,000	260,000	5,930,000
1948	242,000	219,000	301,000	461,000	1,100,000	1,710,000	824,000	402,000	298,000	223,000	248,000	217,000	6,240,000
1949	188,000	188,000	291,000	480,000	793,000	1,070,000	633,000	282,000	333,000	216,000	225,000	188,000	4,890,000
1950	175,000	200,000	247,000	305,000	441,000	1,270,000	793,000	380,000	326,000	256,000	265,000	247,000	4,900,000
1951	199,000	214,000	259,000	425,000	849,000	1,100,000	683,000	347,000	312,000	253,000	242,000	183,000	5,070,000
1952	184,000	227,000	273,000	481,000	1,110,000	1,270,000	670,000	351,000	317,000	154,000	208,000	234,000	5,480,000
1953	248,000	194,000	79,300	298,000	395,000	1,360,000	830,000	457,000	308,000	162,000	242,000	205,000	4,780,000
1954	200,000	232,000	241,000	288,000	526,000	726,000	781,000	351,000	306,000	137,000	219,000	174,000	4,180,000
1955	164,000	137,000	189,000	268,000	503,000	970,000	707,000	526,000	228,000	132,000	196,000	219,000	4,240,000
1956	199,000	159,000	303,000	448,000	941,000	1,400,000	600,000	373,000	293,000	127,000	211,000	179,000	5,230,000
1957	122,000	176,000	238,000	267,000	732,000	1,210,000	707,000	402,000	312,000	181,000	234,000	211,000	4,790,000
1958	186,000	191,000	220,000	316,000	916,000	803,000	515,000	461,000	270,000	170,000	215,000	218,000	4,480,000
1959	173,000	153,000	239,000	301,000	413,000	1,330,000	842,000	331,000	184,000	347,000	386,000	342,000	5,040,000
1960	219,000	244,000	340,000	464,000	590,000	1,170,000	633,000	287,000	282,000	138,000	217,000	189,000	4,770,000
1961	172,000	192,000	210,000	187,000	298,000	1,170,000	501,000	391,000	144,000	188,000	241,000	162,000	3,850,000
1962	157,000	192,000	236,000	464,000	608,000	1,330,000	592,000	375,000	320,000	221,000	266,000	221,000	4,980,000
1963	154,000	289,000	250,000	284,000	595,000	1,040,000	787,000	440,000	323,000	173,000	245,000	192,000	4,770,000
1964	192,000	194,000	215,000	291,000	664,000	1,460,000	1,030,000	344,000	343,000	190,000	259,000	229,000	5,410,000
1965	261,000	214,000	229,000	462,000	799,000	1,660,000	1,090,000	447,000	336,000	346,000	329,000	256,000	6,430,000
1966	229,000	210,000	264,000	345,000	444,000	631,000	627,000	336,000	226,000	144,000	215,000	199,000	3,870,000
1967	203,000	171,000	221,000	255,000	664,000	1,590,000	1,020,000	494,000	314,000	232,000	274,000	199,000	5,640,000
1968	210,000	287,000	310,000	325,000	564,000	1,370,000	873,000	366,000	324,000	309,000	328,000	223,000	5,490,000
1969	220,000	229,000	323,000	649,000	1,070,000	869,000	990,000	595,000	295,000	239,000	305,000	228,000	6,010,000
1970	225,000	217,000	251,000	289,000	849,000	1,780,000	849,000	481,000	274,000	269,000	289,000	236,000	6,010,000
1971	241,000	273,000	259,000	386,000	941,000	1,590,000	1,000,000	429,000	325,000	290,000	314,000	213,000	6,270,000
1972	236,000	254,000	363,000	344,000	756,000	1,620,000	633,000	363,000	387,000	279,000	309,000	210,000	5,750,000
1973	221,000	204,000	269,000	325,000	633,000	803,000	646,000	318,000	260,000	236,000	299,000	243,000	4,460,000
1974	221,000	211,000	282,000	397,000	573,000	1,830,000	713,000	311,000	278,000	213,000	266,000	226,000	5,520,000
1975	204,000	183,000	255,000	273,000	701,000	1,610,000	1,360,000	572,000	397,000	325,000	363,000	353,000	6,590,000

Table 29. Synthesized streamflow for Missouri River below Canyon Ferry Dam, near Helena, Montana, 1928-89, in acre-feet
(Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	288,000	255,000	296,000	520,000	1,370,000	1,270,000	799,000	457,000	380,000	327,000	299,000	250,000	6,510,000
1977	207,000	219,000	239,000	349,000	241,000	839,000	478,000	298,000	182,000	261,000	230,000	222,000	3,770,000
1978	218,000	207,000	319,000	453,000	664,000	1,410,000	904,000	480,000	321,000	265,000	226,000	203,000	5,670,000
1979	172,000	192,000	315,000	372,000	787,000	1,080,000	560,000	421,000	337,000	163,000	218,000	207,000	4,820,000
1980	160,000	213,000	245,000	380,000	812,000	1,390,000	787,000	349,000	315,000	252,000	274,000	250,000	5,420,000
1981	230,000	198,000	248,000	330,000	922,000	1,520,000	756,000	494,000	266,000	238,000	256,000	232,000	5,690,000
1982	180,000	236,000	270,000	362,000	842,000	1,590,000	1,170,000	536,000	315,000	339,000	301,000	252,000	6,400,000
1983	280,000	221,000	283,000	335,000	658,000	1,320,000	1,010,000	552,000	345,000	360,000	375,000	247,000	5,990,000
1984	307,000	269,000	314,000	425,000	1,040,000	1,620,000	1,060,000	646,000	399,000	332,000	325,000	221,000	6,950,000
1985	236,000	198,000	304,000	483,000	582,000	952,000	545,000	309,000	192,000	273,000	194,000	213,000	4,480,000
1986	220,000	222,000	315,000	412,000	652,000	1,430,000	612,000	438,000	274,000	274,000	272,000	201,000	5,320,000
1987	188,000	196,000	244,000	300,000	247,000	797,000	486,000	336,000	320,000	175,000	204,000	164,000	3,660,000
1988	161,000	186,000	225,000	326,000	456,000	881,000	517,000	322,000	181,000	150,000	171,000	150,000	3,730,000
1989	160,000	113,000	269,000	343,000	537,000	774,000	516,000	365,000	246,000	187,000	218,000	182,000	3,910,000

Table 30. Synthesized streamflow for Prickly Pear Creek at mouth, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	2,340	2,360	5,470	5,300	12,700	11,500	10,500	6,150	4,520	2,890	2,380	2,340	68,400
1929	2,340	2,050	4,370	6,010	18,400	21,100	8,300	5,530	3,150	2,640	2,260	2,340	78,500
1930	2,520	3,550	4,180	13,700	12,500	14,000	6,330	4,490	3,450	2,210	1,490	9 ²⁴	69,500
1931	1,110	1,000	1,780	2,200	5,900	8,090	4,240	4,120	2,200	1,230	1,190	922	34,000
1932	922	1,040	1,720	2,380	7,750	15,200	7,260	5,350	4,700	1,600	1,430	1,230	50,600
1933	1,720	1,390	1,660	2,860	7,560	15,200	6,520	3,570	4,340	1,170	1,550	1,230	48,700
1934	1,410	1,610	5,470	8,210	3,690	8,150	3,940	4,370	3,150	1,050	1,070	1,230	43,400
1935	1,170	1,170	1,910	3,450	5,660	9,700	5,900	4,120	2,440	2,150	1,070	1,0 ⁷⁰	39,800
1936	1,110	1,270	2,210	3,630	6,640	10,400	6,830	3,630	2,980	1,970	1,370	9 ²⁴	43,000
1937	1,230	1,170	1,350	2,680	7,440	10,100	6,030	3,870	2,620	1,480	1,010	1,230	40,300
1938	1,230	1,110	1,780	3,930	14,800	21,800	12,800	4,730	4,170	1,970	2,140	1,720	72,200
1939	1,480	1,440	3,200	6,010	11,100	12,500	7,070	4,180	2,980	2,030	1,430	1,230	54,700
1940	1,410	1,440	2,710	3,990	9,470	9,460	6,520	3,690	2,980	1,970	1,250	1,650	46,500
1941	1,540	1,280	2,030	3,450	5,960	14,000	6,270	3,630	4,050	3,320	2,500	2,7 ¹⁰	50,800
1942	2,030	1,780	2,090	9,340	12,600	22,800	9,590	5,410	3,990	3,010	2,320	2,030	77,000
1943	2,150	1,780	2,710	9,460	14,500	22,900	12,000	5,600	4,280	2,770	2,200	1,840	82,200
1944	1,600	1,500	1,970	3,390	8,240	19,300	11,700	4,370	3,990	2,950	1,900	1,600	62,500
1945	2,090	2,050	2,090	3,270	7,620	19,100	9,160	4,550	3,150	3,320	2,680	1,840	60,900
1946	2,280	2,000	2,890	3,450	5,900	8,450	5,720	3,630	2,800	2,770	2,740	2,5 ⁷⁰	45,200
1947	2,340	2,170	4,670	7,440	20,000	19,500	9,900	5,960	4,520	3,750	3,390	3,140	86,800
1948	2,890	2,190	1,720	7,320	19,800	66,100	14,600	8,980	6,900	4,430	4,110	2,890	142,000
1949	1,720	1,720	3,260	7,680	11,900	15,900	8,240	5,170	4,280	2,770	2,560	1,7 ⁷⁰	66,900
1950	1,480	2,170	3,140	5,240	13,500	20,600	9,280	5,780	4,110	3,380	2,620	2,770	74,100
1951	2,030	3,000	4,000	5,650	14,600	17,800	8,980	5,660	5,120	3,260	2,740	1,840	74,600
1952	1,720	1,840	2,770	8,870	14,900	12,500	6,950	4,730	4,220	1,970	1,960	2,030	64,500
1953	2,090	1,830	2,340	3,570	7,750	27,600	10,000	5,290	4,110	1,970	2,200	1,540	70,300
1954	1,720	2,000	2,400	3,270	7,130	14,300	9,350	6,150	3,630	1,660	1,550	1,170	54,400
1955	1,540	1,170	1,970	4,170	10,500	16,500	10,600	5,840	3,630	1,910	1,550	1,650	61,000
1956	2,150	1,730	3,750	4,760	12,900	11,800	5,960	3,380	3,810	1,170	1,430	1,410	54,300
1957	676	1,170	1,600	2,560	8,790	11,500	6,950	4,120	3,270	1,840	1,550	1,650	45,700
1958	1,410	1,610	2,280	3,990	19,700	13,200	8,670	6,210	4,580	2,030	1,730	1,910	67,400
1959	1,600	1,440	2,520	4,400	6,640	18,600	9,720	5,350	3,810	2,460	2,140	2,150	60,900
1960	1,050	1,550	3,570	5,120	14,500	17,300	7,560	4,300	4,170	1,660	1,610	1,4 ⁷⁰	63,800
1961	1,290	1,610	1,780	2,560	7,750	13,400	5,350	4,240	2,140	1,660	1,130	1,230	44,200
1962	1,050	1,500	1,910	5,770	12,400	17,400	9,350	5,470	5,120	2,210	1,960	2,030	66,100
1963	1,410	5,280	3,200	3,930	11,400	13,900	9,840	5,960	5,000	2,090	1,900	1,720	65,700
1964	1,540	1,550	2,280	3,810	14,300	28,700	15,400	7,190	6,720	3,440	2,620	2,2 ⁷⁰	89,900
1965	2,280	2,390	2,770	6,840	12,500	24,500	15,600	8,180	6,900	7,070	5,240	3,940	98,200
1966	3,070	2,610	4,370	5,530	13,800	11,500	7,620	5,170	4,280	1,970	1,610	1,4 ⁷⁰	63,000
1967	1,540	1,610	2,460	3,150	13,800	28,800	13,400	8,550	5,950	3,260	3,150	2,400	88,100
1968	2,400	3,740	4,430	4,700	10,500	20,000	12,000	6,330	4,940	3,140	2,740	1,970	76,800
1969	2,210	1,830	2,150	10,400	13,600	12,700	18,900	9,220	6,250	2,520	2,200	1,600	83,600
1970	1,840	2,110	2,710	3,270	17,600	21,800	11,100	6,090	5,180	2,950	2,320	1,910	78,900
1971	1,410	4,170	2,520	5,180	14,500	18,800	8,490	5,290	4,760	2,340	2,380	2,150	72,000
1972	2,030	3,450	7,560	6,610	13,600	19,300	8,980	8,240	6,660	2,580	2,500	1,3 ⁵⁰	82,900
1973	1,540	1,440	2,090	3,390	8,920	13,000	8,120	4,490	5,770	1,660	3,570	2,400	56,400
1974	2,950	1,500	3,380	9,040	10,100	21,800	11,700	8,920	5,060	2,710	2,440	2,030	81,800
1975	1,660	1,110	2,520	3,210	21,200	25,900	22,800	9,160	6,610	4,240	3,090	3,870	105,000

Table 30. Synthesized streamflow for Prickly Pear Creek at mouth, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	1,910	2,650	4,240	7,680	24,200	22,700	12,400	6,950	5,890	4,060	2,560	2,280	97,500
1977	1,840	1,780	2,280	5,530	9,900	10,000	5,470	4,610	3,570	2,580	1,670	2,210	51,400
1978	1,480	1,220	5,100	9,040	19,700	18,700	14,700	7,930	6,660	4,430	2,500	2,340	93,900
1979	2,210	1,890	3,320	5,180	17,800	15,100	8,980	6,390	5,120	2,460	1,900	1,970	72,300
1980	1,660	1,960	2,340	6,490	17,100	24,800	15,100	8,980	7,080	5,410	5,180	4,610	101,000
1981	3,500	3,500	4,490	8,570	49,400	43,400	18,200	10,900	7,500	5,470	4,110	3,630	163,000
1982	3,440	4,780	4,370	7,320	12,900	26,400	16,100	8,420	7,140	5,960	4,220	3,940	105,000
1983	3,810	3,220	4,240	5,060	11,400	15,400	12,500	7,010	5,120	3,630	2,860	2,400	76,700
1984	2,830	2,360	2,890	4,280	12,100	16,100	9,280	5,720	3,990	2,340	1,840	1,350	65,100
1985	1,540	1,170	2,520	5,060	8,790	12,500	6,270	2,890	2,440	4,060	2,680	2,280	52,200
1986	2,340	3,110	4,980	6,070	14,700	18,900	7,990	5,470	3,810	3,200	2,260	1,970	74,800
1987	1,780	1,720	2,770	4,280	8,180	13,100	8,610	5,900	4,700	1,970	1,370	1,540	55,900
1988	1,170	1,210	1,840	3,630	7,930	12,700	6,460	4,060	2,680	1,480	1,010	922	45,100
1989	799	666	4,060	6,010	12,200	12,100	7,260	5,290	4,580	2,520	2,440	2,030	60,000

Table 31. Synthesized streamflow for Missouri River below Hauser Lake Dam, near Helena, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	314,000	217,000	253,000	393,000	1,210,000	1,030,000	941,000	405,000	288,000	242,000	260,000	182,000	5,730,000
1929	178,000	139,000	231,000	271,000	495,000	1,270,000	646,000	361,000	282,000	178,000	198,000	175,000	4,430,000
1930	136,000	213,000	196,000	350,000	508,000	887,000	463,000	263,000	215,000	245,000	226,000	144,000	3,850,000
1931	149,000	145,000	192,000	282,000	293,000	672,000	408,000	221,000	176,000	100,000	197,000	97,200	2,930,000
1932	141,000	150,000	176,000	284,000	627,000	1,300,000	598,000	329,000	209,000	166,000	237,000	116,000	4,340,000
1933	169,000	123,000	178,000	346,000	449,000	1,500,000	552,000	266,000	186,000	172,000	192,000	176,000	4,310,000
1934	175,000	174,000	199,000	459,000	444,000	678,000	406,000	304,000	177,000	80,500	158,000	114,000	3,370,000
1935	175,000	132,000	149,000	351,000	446,000	1,040,000	627,000	281,000	219,000	101,000	173,000	122,000	3,810,000
1936	126,000	104,000	159,000	478,000	713,000	1,050,000	576,000	288,000	216,000	92,200	157,000	138,000	4,100,000
1937	106,000	178,000	156,000	281,000	447,000	720,000	627,000	338,000	172,000	98,400	170,000	116,000	3,410,000
1938	136,000	150,000	207,000	409,000	605,000	1,320,000	769,000	416,000	224,000	216,000	295,000	163,000	4,910,000
1939	175,000	117,000	228,000	432,000	719,000	904,000	627,000	269,000	258,000	144,000	208,000	125,000	4,210,000
1940	151,000	166,000	194,000	313,000	481,000	744,000	621,000	261,000	242,000	244,000	226,000	146,000	3,790,000
1941	146,000	163,000	256,000	321,000	361,000	934,000	670,000	395,000	341,000	272,000	225,000	232,000	4,320,000
1942	177,000	185,000	319,000	625,000	805,000	1,520,000	781,000	389,000	310,000	188,000	220,000	220,000	5,740,000
1943	185,000	271,000	295,000	649,000	750,000	1,700,000	787,000	397,000	328,000	180,000	296,000	218,000	6,050,000
1944	224,000	202,000	195,000	314,000	387,000	1,410,000	941,000	364,000	324,000	215,000	244,000	182,000	5,000,000
1945	238,000	209,000	182,000	271,000	438,000	1,160,000	732,000	285,000	318,000	215,000	260,000	191,000	4,500,000
1946	216,000	210,000	231,000	383,000	621,000	1,000,000	738,000	313,000	265,000	227,000	239,000	265,000	4,710,000
1947	224,000	208,000	207,000	494,000	1,010,000	1,470,000	775,000	336,000	287,000	297,000	264,000	268,000	5,840,000
1948	247,000	224,000	212,000	470,000	1,120,000	1,740,000	830,000	421,000	311,000	229,000	251,000	221,000	6,280,000
1949	192,000	192,000	189,000	490,000	805,000	1,100,000	652,000	297,000	347,000	216,000	295,000	190,000	4,970,000
1950	178,000	205,000	164,000	312,000	451,000	1,300,000	805,000	398,000	279,000	263,000	269,000	255,000	4,880,000
1951	204,000	219,000	219,000	434,000	867,000	1,140,000	701,000	365,000	325,000	247,000	246,000	184,000	5,150,000
1952	188,000	231,000	205,000	491,000	1,130,000	1,310,000	689,000	368,000	330,000	160,000	247,000	240,000	5,590,000
1953	253,000	199,000	46,300	329,000	410,000	1,380,000	836,000	481,000	284,000	207,000	248,000	204,000	4,880,000
1954	195,000	249,000	239,000	284,000	540,000	750,000	793,000	362,000	327,000	124,000	228,000	178,000	4,270,000
1955	173,000	145,000	197,000	264,000	513,000	988,000	719,000	540,000	249,000	132,000	208,000	221,000	4,350,000
1956	202,000	170,000	292,000	461,000	959,000	1,430,000	621,000	392,000	309,000	134,000	214,000	181,000	5,370,000
1957	125,000	182,000	240,000	272,000	732,000	1,240,000	732,000	417,000	318,000	194,000	232,000	220,000	4,900,000
1958	191,000	192,000	223,000	317,000	941,000	821,000	533,000	485,000	289,000	177,000	208,000	220,000	4,600,000
1959	185,000	154,000	236,000	300,000	427,000	1,370,000	873,000	344,000	198,000	356,000	393,000	357,000	5,190,000
1960	205,000	246,000	354,000	477,000	601,000	1,220,000	658,000	298,000	299,000	143,000	222,000	188,000	4,910,000
1961	180,000	189,000	207,000	196,000	306,000	1,200,000	524,000	413,000	150,000	192,000	242,000	157,000	3,960,000
1962	159,000	188,000	256,000	464,000	604,000	1,360,000	615,000	397,000	333,000	196,000	303,000	218,000	5,090,000
1963	151,000	290,000	254,000	301,000	608,000	1,070,000	818,000	462,000	338,000	178,000	251,000	193,000	4,910,000
1964	183,000	204,000	214,000	306,000	670,000	1,480,000	1,060,000	365,000	364,000	194,000	262,000	236,000	5,540,000
1965	264,000	220,000	232,000	472,000	799,000	1,700,000	1,130,000	462,000	343,000	360,000	306,000	294,000	6,570,000
1966	234,000	216,000	269,000	352,000	463,000	661,000	652,000	357,000	239,000	144,000	217,000	205,000	4,010,000
1967	209,000	174,000	225,000	257,000	670,000	1,610,000	1,060,000	518,000	328,000	238,000	253,000	202,000	5,740,000
1968	237,000	295,000	318,000	336,000	574,000	1,400,000	904,000	382,000	333,000	317,000	335,000	229,000	5,660,000
1969	226,000	232,000	333,000	661,000	1,090,000	887,000	1,010,000	596,000	315,000	240,000	342,000	236,000	6,170,000
1970	229,000	223,000	257,000	296,000	867,000	1,820,000	879,000	507,000	281,000	278,000	295,000	241,000	6,180,000
1971	248,000	276,000	266,000	396,000	953,000	1,630,000	1,030,000	451,000	337,000	297,000	319,000	218,000	6,420,000
1972	241,000	260,000	368,000	353,000	775,000	1,660,000	652,000	379,000	406,000	282,000	316,000	213,000	5,910,000
1973	224,000	209,000	272,000	322,000	652,000	833,000	670,000	334,000	272,000	242,000	305,000	247,000	4,580,000
1974	227,000	217,000	288,000	404,000	582,000	1,870,000	744,000	320,000	278,000	236,000	268,000	232,000	5,670,000
1975	208,000	187,000	261,000	278,000	707,000	1,630,000	1,400,000	589,000	414,000	333,000	371,000	360,000	6,730,000

Table 31. Synthesized streamflow for Missouri River below Hauser Lake Dam, near Helena, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	295,000	261,000	305,000	533,000	1,400,000	1,300,000	830,000	477,000	395,000	333,000	305,000	255,000	6,680,000
1977	212,000	222,000	244,000	353,000	245,000	875,000	500,000	314,000	187,000	268,000	234,000	227,000	3,880,000
1978	224,000	213,000	327,000	459,000	676,000	1,460,000	928,000	505,000	336,000	272,000	229,000	207,000	5,840,000
1979	177,000	195,000	319,000	339,000	849,000	1,110,000	587,000	442,000	359,000	167,000	221,000	212,000	4,970,000
1980	165,000	215,000	248,000	384,000	812,000	1,420,000	818,000	371,000	325,000	256,000	280,000	255,000	5,550,000
1981	236,000	202,000	254,000	336,000	928,000	1,580,000	787,000	523,000	284,000	240,000	259,000	236,000	5,860,000
1982	184,000	242,000	276,000	367,000	855,000	1,630,000	1,210,000	565,000	327,000	346,000	306,000	257,000	6,570,000
1983	285,000	226,000	290,000	343,000	670,000	1,360,000	1,050,000	576,000	359,000	368,000	383,000	253,000	6,150,000
1984	313,000	274,000	321,000	431,000	1,060,000	1,670,000	1,100,000	676,000	421,000	339,000	329,000	226,000	7,160,000
1985	241,000	202,000	307,000	489,000	604,000	1,010,000	580,000	320,000	196,000	277,000	197,000	216,000	4,630,000
1986	223,000	224,000	319,000	417,000	670,000	1,480,000	639,000	464,000	278,000	280,000	276,000	205,000	5,480,000
1987	192,000	198,000	247,000	303,000	253,000	845,000	505,000	360,000	339,000	181,000	206,000	167,000	3,800,000
1988	164,000	188,000	228,000	329,000	466,000	934,000	552,000	348,000	192,000	154,000	171,000	151,000	3,880,000
1989	164,000	116,000	274,000	346,000	550,000	797,000	538,000	381,000	257,000	191,000	220,000	185,000	4,020,000

Table 32. Synthesized streamflow for Missouri River below Holter Dam, near Wolf Creek, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	176,000	231,000	345,000	467,000	1,200,000	1,010,000	928,000	417,000	300,000	250,000	217,000	170,000	5,710,000
1929	180,000	149,000	258,000	389,000	509,000	1,040,000	633,000	352,000	294,000	184,000	224,000	157,000	4,370,000
1930	137,000	202,000	243,000	295,000	389,000	988,000	450,000	342,000	224,000	253,000	236,000	169,000	3,930,000
1931	166,000	184,000	243,000	417,000	364,000	649,000	396,000	376,000	181,000	105,000	224,000	150,000	3,460,000
1932	137,000	187,000	215,000	371,000	591,000	1,140,000	584,000	327,000	217,000	172,000	218,000	170,000	4,330,000
1933	170,000	174,000	211,000	235,000	388,000	1,220,000	538,000	416,000	193,000	177,000	201,000	229,000	4,150,000
1934	176,000	222,000	291,000	501,000	433,000	1,200,000	394,000	370,000	124,000	84,200	186,000	166,000	4,140,000
1935	173,000	216,000	214,000	298,000	436,000	1,000,000	581,000	316,000	227,000	106,000	204,000	169,000	3,940,000
1936	140,000	190,000	247,000	309,000	769,000	1,040,000	488,000	320,000	224,000	95,900	173,000	143,000	4,130,000
1937	92,200	178,000	197,000	373,000	518,000	922,000	579,000	302,000	178,000	103,000	168,000	166,000	3,780,000
1938	138,000	179,000	214,000	324,000	762,000	1,240,000	769,000	404,000	193,000	213,000	246,000	196,000	4,880,000
1939	179,000	188,000	264,000	431,000	713,000	881,000	578,000	302,000	201,000	137,000	183,000	170,000	4,230,000
1940	141,000	189,000	262,000	309,000	469,000	726,000	571,000	273,000	182,000	236,000	208,000	194,000	3,760,000
1941	165,000	187,000	245,000	271,000	352,000	1,020,000	639,000	342,000	235,000	305,000	249,000	255,000	4,260,000
1942	176,000	211,000	271,000	383,000	805,000	1,240,000	781,000	372,000	217,000	180,000	230,000	224,000	5,090,000
1943	185,000	219,000	345,000	367,000	750,000	1,460,000	787,000	333,000	267,000	185,000	218,000	218,000	5,340,000
1944	229,000	200,000	241,000	332,000	378,000	1,240,000	928,000	460,000	258,000	192,000	220,000	173,000	4,850,000
1945	245,000	194,000	227,000	312,000	430,000	1,280,000	713,000	395,000	240,000	204,000	212,000	187,000	4,640,000
1946	202,000	185,000	234,000	403,000	580,000	970,000	561,000	306,000	273,000	268,000	259,000	253,000	4,490,000
1947	173,000	217,000	297,000	453,000	1,110,000	1,180,000	849,000	433,000	262,000	302,000	278,000	279,000	5,840,000
1948	245,000	216,000	275,000	489,000	1,110,000	1,650,000	805,000	512,000	302,000	228,000	252,000	213,000	6,300,000
1949	181,000	208,000	299,000	499,000	812,000	1,020,000	627,000	382,000	253,000	210,000	224,000	181,000	4,900,000
1950	167,000	210,000	268,000	354,000	451,000	1,140,000	750,000	473,000	260,000	282,000	258,000	253,000	4,870,000
1951	181,000	225,000	274,000	412,000	885,000	1,120,000	726,000	403,000	335,000	236,000	244,000	170,000	5,210,000
1952	184,000	204,000	237,000	526,000	1,130,000	1,240,000	775,000	468,000	368,000	164,000	199,000	202,000	5,700,000
1953	244,000	195,000	253,000	286,000	397,000	1,450,000	842,000	458,000	294,000	167,000	220,000	217,000	5,030,000
1954	178,000	224,000	217,000	262,000	518,000	732,000	781,000	356,000	299,000	124,000	187,000	152,000	4,030,000
1955	164,000	149,000	197,000	281,000	523,000	1,000,000	732,000	563,000	266,000	148,000	198,000	230,000	4,450,000
1956	208,000	165,000	314,000	447,000	922,000	1,410,000	615,000	384,000	312,000	140,000	197,000	181,000	5,300,000
1957	120,000	190,000	240,000	280,000	732,000	1,150,000	707,000	419,000	315,000	192,000	226,000	223,000	4,790,000
1958	194,000	201,000	276,000	256,000	910,000	803,000	500,000	479,000	286,000	192,000	201,000	216,000	4,520,000
1959	173,000	161,000	242,000	308,000	386,000	1,290,000	836,000	349,000	197,000	301,000	261,000	250,000	4,760,000
1960	216,000	254,000	341,000	448,000	584,000	1,220,000	658,000	298,000	289,000	151,000	213,000	201,000	4,870,000
1961	178,000	212,000	225,000	197,000	287,000	1,200,000	520,000	411,000	156,000	194,000	221,000	162,000	3,960,000
1962	159,000	218,000	246,000	474,000	611,000	1,330,000	615,000	388,000	342,000	229,000	249,000	229,000	5,090,000
1963	156,000	308,000	257,000	296,000	574,000	1,020,000	793,000	457,000	341,000	191,000	231,000	204,000	4,830,000
1964	204,000	204,000	224,000	294,000	664,000	1,480,000	1,010,000	365,000	377,000	208,000	250,000	244,000	5,530,000
1965	276,000	252,000	240,000	467,000	762,000	1,680,000	1,100,000	473,000	359,000	355,000	295,000	269,000	6,530,000
1966	251,000	240,000	290,000	372,000	480,000	672,000	646,000	347,000	242,000	155,000	220,000	216,000	4,130,000
1967	232,000	208,000	247,000	283,000	707,000	1,680,000	1,050,000	526,000	346,000	244,000	273,000	202,000	6,000,000
1968	248,000	305,000	317,000	348,000	585,000	1,420,000	892,000	385,000	349,000	324,000	324,000	247,000	5,740,000
1969	244,000	264,000	340,000	678,000	1,080,000	899,000	1,050,000	621,000	328,000	255,000	309,000	252,000	6,320,000
1970	248,000	247,000	269,000	289,000	922,000	1,860,000	861,000	534,000	306,000	298,000	281,000	243,000	6,360,000
1971	249,000	279,000	255,000	369,000	947,000	1,680,000	1,030,000	456,000	352,000	307,000	295,000	227,000	6,440,000
1972	252,000	261,000	371,000	325,000	732,000	1,640,000	606,000	374,000	409,000	290,000	299,000	226,000	5,790,000
1973	232,000	223,000	280,000	328,000	639,000	833,000	664,000	338,000	278,000	251,000	286,000	258,000	4,610,000
1974	243,000	235,000	300,000	421,000	575,000	1,890,000	726,000	334,000	306,000	229,000	267,000	243,000	5,770,000
1975	221,000	202,000	279,000	301,000	799,000	1,710,000	1,420,000	607,000	447,000	347,000	330,000	366,000	7,030,000

Table 32. Synthesized streamflow for Missouri River below Holter Dam, near Wolf Creek, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	301,000	266,000	305,000	534,000	1,430,000	1,330,000	818,000	501,000	433,000	343,000	287,000	263,000	6,820,000
1977	228,000	229,000	244,000	351,000	237,000	863,000	485,000	307,000	204,000	286,000	226,000	236,000	3,900,000
1978	233,000	220,000	331,000	471,000	683,000	1,480,000	916,000	518,000	375,000	296,000	226,000	227,000	5,980,000
1979	191,000	219,000	338,000	385,000	830,000	1,100,000	569,000	442,000	365,000	175,000	214,000	220,000	5,050,000
1980	171,000	220,000	260,000	403,000	830,000	1,420,000	830,000	362,000	336,000	276,000	283,000	284,000	5,670,000
1981	254,000	227,000	268,000	347,000	1,000,000	1,600,000	799,000	542,000	286,000	260,000	264,000	256,000	6,110,000
1982	199,000	265,000	290,000	377,000	855,000	1,700,000	1,220,000	577,000	368,000	378,000	304,000	280,000	6,810,000
1983	306,000	242,000	288,000	317,000	633,000	1,340,000	1,060,000	604,000	379,000	371,000	340,000	232,000	6,120,000
1984	302,000	277,000	339,000	453,000	1,080,000	1,710,000	1,080,000	652,000	433,000	351,000	315,000	243,000	7,240,000
1985	252,000	214,000	322,000	499,000	595,000	994,000	570,000	317,000	201,000	287,000	181,000	225,000	4,650,000
1986	236,000	252,000	331,000	406,000	670,000	1,520,000	627,000	462,000	292,000	283,000	267,000	207,000	5,550,000
1987	187,000	204,000	251,000	311,000	250,000	839,000	507,000	355,000	348,000	192,000	198,000	173,000	3,820,000
1988	171,000	194,000	239,000	340,000	467,000	934,000	544,000	347,000	193,000	157,000	158,000	151,000	3,900,000
1989	167,000	130,000	291,000	356,000	551,000	780,000	516,000	379,000	266,000	196,000	212,000	191,000	4,040,000

Table 33. Synthesized streamflow for Missouri River above Dearborn River, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	181,000	236,000	344,000	477,000	1,220,000	1,020,000	935,000	422,000	305,000	256,000	222,000	175,000	5,790,000
1929	186,000	153,000	264,000	396,000	515,000	1,050,000	633,000	356,000	299,000	189,000	229,000	162,000	4,430,000
1930	141,000	206,000	249,000	299,000	394,000	1,000,000	453,000	346,000	227,000	258,000	215,000	174,000	3,960,000
1931	172,000	189,000	248,000	425,000	369,000	655,000	398,000	380,000	184,000	108,000	229,000	154,000	3,510,000
1932	142,000	192,000	220,000	377,000	598,000	1,150,000	589,000	330,000	221,000	176,000	223,000	175,000	4,400,000
1933	176,000	179,000	216,000	239,000	392,000	1,230,000	542,000	421,000	196,000	182,000	205,000	235,000	4,220,000
1934	183,000	226,000	298,000	511,000	439,000	1,210,000	397,000	373,000	127,000	86,700	190,000	171,000	4,220,000
1935	179,000	220,000	219,000	303,000	441,000	1,010,000	585,000	319,000	231,000	109,000	209,000	174,000	4,000,000
1936	145,000	196,000	253,000	314,000	781,000	1,040,000	491,000	323,000	228,000	99,000	176,000	148,000	4,190,000
1937	95,900	183,000	202,000	268,000	523,000	934,000	582,000	306,000	181,000	106,000	172,000	171,000	3,720,000
1938	143,000	184,000	219,000	329,000	769,000	1,250,000	775,000	408,000	197,000	218,000	252,000	202,000	4,950,000
1939	185,000	193,000	269,000	439,000	719,000	887,000	582,000	306,000	204,000	141,000	187,000	175,000	4,290,000
1940	146,000	194,000	267,000	315,000	474,000	726,000	574,000	277,000	186,000	242,000	214,000	190,000	3,810,000
1941	171,000	192,000	250,000	276,000	356,000	1,020,000	639,000	346,000	239,000	312,000	254,000	261,000	4,320,000
1942	182,000	215,000	277,000	389,000	818,000	1,260,000	787,000	376,000	220,000	184,000	236,000	230,000	5,180,000
1943	191,000	223,000	352,000	373,000	762,000	1,480,000	793,000	337,000	272,000	190,000	223,000	224,000	5,420,000
1944	236,000	205,000	247,000	337,000	382,000	1,250,000	941,000	464,000	262,000	197,000	217,000	170,000	4,910,000
1945	251,000	199,000	232,000	317,000	435,000	1,290,000	719,000	400,000	245,000	208,000	217,000	192,000	4,710,000
1946	208,000	190,000	239,000	411,000	590,000	976,000	565,000	309,000	277,000	274,000	265,000	259,000	4,560,000
1947	178,000	221,000	304,000	463,000	1,130,000	1,210,000	855,000	437,000	268,000	309,000	283,000	285,000	5,940,000
1948	251,000	221,000	281,000	500,000	1,130,000	1,680,000	812,000	517,000	307,000	233,000	258,000	218,000	6,410,000
1949	186,000	212,000	305,000	508,000	824,000	1,040,000	627,000	386,000	257,000	215,000	230,000	185,000	4,970,000
1950	171,000	215,000	274,000	359,000	457,000	1,150,000	756,000	478,000	265,000	288,000	264,000	259,000	4,940,000
1951	186,000	229,000	279,000	420,000	898,000	1,130,000	732,000	408,000	340,000	242,000	250,000	175,000	5,290,000
1952	189,000	209,000	243,000	536,000	1,150,000	1,250,000	787,000	472,000	372,000	169,000	205,000	207,000	5,790,000
1953	250,000	200,000	258,000	290,000	400,000	1,460,000	849,000	462,000	297,000	170,000	224,000	223,000	5,080,000
1954	184,000	229,000	222,000	267,000	521,000	732,000	781,000	358,000	302,000	128,000	192,000	157,000	4,070,000
1955	168,000	154,000	202,000	284,000	525,000	1,000,000	732,000	568,000	271,000	154,000	204,000	235,000	4,500,000
1956	215,000	171,000	320,000	455,000	928,000	1,420,000	621,000	389,000	318,000	146,000	202,000	187,000	5,370,000
1957	126,000	196,000	247,000	286,000	732,000	1,160,000	713,000	424,000	320,000	197,000	231,000	220,000	4,860,000
1958	201,000	207,000	282,000	262,000	916,000	809,000	506,000	484,000	292,000	198,000	206,000	221,000	4,580,000
1959	177,000	164,000	246,000	311,000	393,000	1,300,000	842,000	352,000	200,000	307,000	271,000	260,000	4,820,000
1960	221,000	258,000	345,000	456,000	594,000	1,230,000	658,000	303,000	293,000	156,000	218,000	205,000	4,930,000
1961	184,000	217,000	229,000	201,000	290,000	1,200,000	524,000	416,000	160,000	199,000	227,000	168,000	4,020,000
1962	164,000	223,000	251,000	478,000	613,000	1,330,000	621,000	393,000	348,000	236,000	255,000	234,000	5,150,000
1963	161,000	314,000	262,000	301,000	584,000	1,040,000	799,000	461,000	346,000	197,000	237,000	210,000	4,910,000
1964	210,000	209,000	229,000	298,000	670,000	1,510,000	1,020,000	370,000	382,000	214,000	256,000	251,000	5,610,000
1965	283,000	258,000	248,000	476,000	775,000	1,700,000	1,110,000	479,000	367,000	368,000	305,000	275,000	6,640,000
1966	258,000	245,000	296,000	378,000	485,000	672,000	652,000	352,000	246,000	159,000	224,000	223,000	4,190,000
1967	240,000	215,000	254,000	289,000	713,000	1,700,000	1,060,000	532,000	351,000	249,000	278,000	200,000	6,090,000
1968	255,000	312,000	329,000	356,000	593,000	1,430,000	898,000	391,000	354,000	331,000	331,000	254,000	5,830,000
1969	251,000	272,000	348,000	690,000	1,090,000	910,000	1,060,000	627,000	334,000	260,000	314,000	250,000	6,420,000
1970	256,000	253,000	276,000	298,000	935,000	1,870,000	873,000	542,000	312,000	304,000	288,000	250,000	6,460,000
1971	256,000	285,000	263,000	379,000	965,000	1,690,000	1,040,000	462,000	359,000	314,000	301,000	234,000	6,550,000
1972	259,000	269,000	378,000	334,000	744,000	1,650,000	612,000	380,000	416,000	297,000	306,000	232,000	5,880,000
1973	238,000	229,000	285,000	331,000	646,000	839,000	670,000	342,000	282,000	256,000	292,000	264,000	4,680,000
1974	250,000	242,000	307,000	430,000	584,000	1,900,000	738,000	341,000	312,000	234,000	271,000	240,000	5,860,000
1975	229,000	208,000	287,000	308,000	805,000	1,730,000	1,440,000	615,000	454,000	355,000	340,000	375,000	7,140,000

Table 33. Synthesized streamflow for Missouri River above Dearborn River, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	309,000	273,000	315,000	547,000	1,450,000	1,340,000	830,000	508,000	440,000	350,000	293,000	270,000	6,930,000
1977	235,000	235,000	249,000	356,000	242,000	863,000	488,000	311,000	208,000	291,000	231,000	243,000	3,950,000
1978	240,000	227,000	339,000	479,000	695,000	1,490,000	922,000	525,000	381,000	302,000	233,000	235,000	6,070,000
1979	199,000	225,000	344,000	393,000	836,000	1,110,000	574,000	447,000	369,000	180,000	218,000	226,000	5,120,000
1980	178,000	225,000	266,000	410,000	836,000	1,430,000	836,000	366,000	340,000	282,000	290,000	291,000	5,760,000
1981	261,000	233,000	275,000	352,000	1,010,000	1,630,000	812,000	547,000	290,000	264,000	269,000	263,000	6,210,000
1982	206,000	272,000	299,000	386,000	861,000	1,710,000	1,240,000	585,000	375,000	386,000	311,000	288,000	6,920,000
1983	314,000	249,000	296,000	324,000	646,000	1,350,000	1,080,000	612,000	385,000	378,000	349,000	240,000	6,220,000
1984	310,000	284,000	347,000	462,000	1,090,000	1,740,000	1,090,000	658,000	445,000	360,000	323,000	251,000	7,370,000
1985	259,000	220,000	327,000	505,000	601,000	1,000,000	574,000	320,000	204,000	292,000	187,000	231,000	4,720,000
1986	242,000	258,000	338,000	412,000	683,000	1,530,000	633,000	468,000	297,000	288,000	274,000	214,000	5,630,000
1987	194,000	208,000	256,000	315,000	254,000	845,000	512,000	360,000	352,000	197,000	203,000	178,000	3,870,000
1988	176,000	199,000	243,000	345,000	472,000	940,000	548,000	351,000	197,000	161,000	161,000	155,000	3,950,000
1989	172,000	135,000	296,000	362,000	557,000	785,000	519,000	383,000	270,000	199,000	217,000	196,000	4,090,000

Table 34. Synthesized streamflow for Dearborn River at mouth, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	6,090	5,580	11,900	18,600	87,900	43,900	25,500	13,400	6,430	3,570	4,820	4,120	232,000
1929	3,200	3,440	7,810	10,400	49,300	30,200	9,650	5,660	3,510	5,780	4,340	5,350	139,000
1930	3,570	4,170	5,230	51,600	47,800	24,300	6,090	5,290	4,170	3,690	3,870	3,500	163,000
1931	3,140	3,170	3,500	3,390	6,890	3,210	2,340	3,380	1,610	2,460	3,090	3,070	39,300
1932	2,640	3,050	3,260	7,500	31,600	45,800	9,040	4,730	3,210	3,690	3,390	2,770	121,000
1933	2,830	2,670	4,180	9,820	53,700	60,100	8,920	8,550	5,890	4,730	5,000	5,100	171,000
1934	4,860	5,550	14,000	64,900	53,400	56,000	13,500	6,390	3,210	7,320	8,630	5,100	243,000
1935	4,300	5,110	5,900	11,600	34,700	25,300	6,700	4,300	2,200	2,710	3,810	3,320	110,000
1936	2,830	3,220	3,500	12,800	29,200	9,700	3,140	3,500	1,370	1,600	3,510	3,140	77,500
1937	2,890	2,830	2,580	4,110	14,100	18,100	4,180	3,870	1,370	3,070	3,150	3,200	63,400
1938	2,950	2,890	4,000	14,000	74,400	64,300	29,700	7,930	4,940	5,040	5,120	4,610	220,000
1939	3,690	3,390	5,040	14,000	26,100	6,250	3,570	3,870	1,610	2,710	3,990	3,260	77,500
1940	2,890	3,160	3,380	7,800	23,000	7,740	3,200	3,200	1,900	5,350	4,170	3,810	69,600
1941	3,260	3,330	3,380	6,250	17,600	27,400	7,810	4,000	4,700	7,010	6,550	9,840	101,000
1942	6,270	4,720	5,720	29,300	60,800	66,100	15,900	6,520	4,640	5,720	7,200	7,130	220,000
1943	5,170	5,330	7,070	47,900	50,100	133,000	42,300	12,100	5,060	3,200	4,280	4,000	319,000
1944	3,440	3,740	4,000	7,620	33,100	64,300	30,700	10,900	7,140	5,660	5,300	4,300	180,000
1945	3,810	3,720	4,060	7,200	43,100	73,800	17,100	7,620	3,210	4,180	5,300	3,870	177,000
1946	4,300	3,280	3,750	7,260	28,100	24,800	10,900	4,800	4,050	11,700	12,700	12,300	128,000
1947	8,240	6,050	14,800	29,600	62,100	41,600	15,900	6,640	4,520	7,260	6,610	5,960	209,000
1948	5,350	4,490	8,300	26,800	87,900	137,000	38,500	13,900	7,380	6,270	5,060	4,860	346,000
1949	5,040	4,550	6,700	14,200	39,400	29,600	12,700	6,700	3,390	4,000	5,410	4,180	136,000
1950	2,400	3,780	5,350	13,900	55,600	87,500	31,100	11,900	5,770	6,270	7,970	7,380	239,000
1951	5,600	5,220	12,900	25,600	82,400	83,300	50,500	15,200	10,300	11,300	10,000	6,700	319,000
1952	4,860	4,600	7,810	34,000	61,200	24,600	14,900	9,040	5,180	3,630	4,170	4,370	178,000
1953	4,120	4,000	5,100	21,400	82,400	157,000	34,700	8,790	5,830	4,610	5,120	5,100	338,000
1954	3,260	4,890	4,240	14,000	54,800	57,800	25,600	7,070	5,000	7,010	7,260	6,760	198,000
1955	3,750	3,280	4,240	11,600	58,300	55,700	21,300	11,600	4,340	3,140	3,990	8,490	190,000
1956	6,580	3,620	7,320	13,000	47,800	30,100	10,800	4,730	3,450	1,050	2,680	3,570	135,000
1957	2,770	3,280	4,430	6,960	91,600	47,900	15,900	7,320	4,520	5,410	7,140	5,230	202,000
1958	4,370	4,000	6,890	28,300	81,800	119,000	38,600	16,200	7,080	5,960	5,890	6,830	325,000
1959	7,070	4,500	9,530	25,300	47,600	60,700	22,400	9,160	5,470	6,950	9,520	8,980	217,000
1960	4,060	3,850	6,760	15,100	51,700	36,200	13,800	5,530	3,990	3,570	3,690	2,950	151,000
1961	3,380	3,000	3,260	3,930	30,900	25,900	9,350	5,350	2,320	4,490	4,110	3,500	99,600
1962	3,630	4,390	5,900	28,400	91,600	70,800	21,200	9,160	6,190	4,920	4,640	2,890	254,000
1963	2,890	8,110	4,430	8,990	31,800	43,700	18,900	8,610	4,050	3,010	3,510	3,380	141,000
1964	3,630	2,650	3,140	7,620	90,400	163,000	27,800	9,650	5,830	4,860	3,330	4,980	327,000
1965	4,000	5,550	5,840	28,600	51,800	80,900	27,900	10,300	12,900	15,100	7,680	6,330	257,000
1966	4,980	4,720	8,490	24,500	42,100	24,400	13,300	6,580	4,580	3,380	3,750	3,010	144,000
1967	3,630	2,720	6,270	8,750	74,400	149,000	35,400	13,000	5,830	4,610	5,120	4,860	314,000
1968	4,980	6,790	7,620	8,750	21,800	37,000	15,400	6,390	5,590	6,580	4,400	3,690	129,000
1969	5,040	3,050	10,400	39,900	37,300	31,600	32,000	11,600	5,180	4,610	4,880	4,430	190,000
1970	4,490	3,830	5,660	35,000	84,900	78,000	21,300	8,300	5,650	5,780	6,070	4,180	263,000
1971	5,900	4,390	6,830	36,100	76,200	57,800	15,500	7,130	8,450	7,070	5,890	4,980	236,000
1972	6,090	4,140	10,700	36,100	55,300	112,000	16,800	9,590	8,150	7,010	5,950	4,800	277,000
1973	4,370	3,000	4,920	17,000	24,600	21,400	11,000	7,320	6,840	4,240	5,240	3,630	113,000
1974	7,010	4,500	5,040	33,900	46,500	62,500	19,100	7,990	4,170	4,240	3,630	3,750	202,000
1975	3,690	2,670	7,690	14,900	59,000	140,000	40,600	7,690	8,330	8,300	8,270	7,560	309,000

Table 34. Synthesized streamflow for Dearborn River at mouth, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	5,470	5,920	8,920	28,900	74,400	66,100	22,100	10,600	8,030	7,260	6,190	4,670	248,000
1977	3,500	3,170	5,840	10,800	14,900	8,570	11,400	8,300	3,690	3,940	4,580	4,980	83,700
1978	3,630	3,280	14,100	30,000	68,900	63,700	29,900	10,800	7,440	5,840	6,190	4,610	248,000
1979	3,810	3,500	14,400	23,600	79,300	46,800	30,800	7,380	6,190	3,630	3,330	3,570	226,000
1980	2,830	2,930	6,760	9,280	78,700	117,000	14,900	11,100	4,340	5,410	5,590	7,190	266,000
1981	6,330	4,890	5,410	31,100	85,500	60,700	13,600	7,500	4,220	3,500	4,280	5,230	232,000
1982	4,550	6,390	6,460	30,500	58,700	84,500	29,700	14,700	6,550	7,010	5,830	5,530	260,000
1983	4,920	4,440	5,230	25,600	51,700	32,800	16,100	13,400	6,660	7,190	8,450	3,200	180,000
1984	6,520	4,600	4,060	29,100	54,500	67,800	10,900	7,440	2,320	9,350	6,840	4,370	208,000
1985	4,300	2,670	3,870	35,200	49,700	11,400	7,930	7,870	5,240	6,390	6,370	4,060	145,000
1986	4,370	6,500	7,440	17,100	58,200	26,000	12,100	8,550	5,410	4,730	5,590	4,000	160,000
1987	3,140	2,720	5,410	21,200	42,200	9,520	16,300	10,300	1,960	3,260	3,510	2,460	122,000
1988	2,340	3,110	4,370	8,930	27,900	14,400	10,400	5,170	3,150	2,770	4,050	3,380	89,900
1989	3,010	2,830	9,590	7,320	38,800	27,200	15,900	11,100	8,810	3,070	3,210	5,530	136,000

Table 35. Synthesized streamflow for Smith River above Fivemile Creek, near White Sulphur Springs, Montana. 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	799	690	799	1,610	4,430	3,270	1,410	1,720	494	615	518	418	16,800
1929	517	417	387	893	984	3,990	922	738	369	394	369	357	10,300
1930	350	317	387	2,440	1,910	2,380	738	1,050	458	596	452	375	11,400
1931	363	305	357	952	1,290	952	295	228	262	301	298	277	5,880
1932	252	270	363	833	2,030	3,330	1,480	861	339	430	452	25 ^a	10,900
1933	252	267	455	1,310	1,970	4,170	922	738	393	381	470	467	11,800
1934	455	417	1,050	1,490	2,030	1,010	412	209	244	326	280	215	8,130
1935	307	444	307	893	1,110	1,490	609	320	226	338	298	24 ^c	6,580
1936	246	230	369	6,130	5,660	2,440	1,110	578	422	252	321	289	18,000
1937	160	144	289	2,440	1,660	2,200	2,830	922	173	105	315	307	11,500
1938	258	233	357	2,020	2,030	3,870	3,070	1,230	321	547	589	467	15,000
1939	449	328	547	1,730	3,140	1,960	861	510	315	424	417	387	11,100
1940	676	374	615	1,900	1,970	1,490	283	406	363	369	369	35 ^d	9,160
1941	307	294	449	422	1,290	1,130	615	467	595	338	399	412	6,720
1942	350	322	461	1,430	1,720	6,070	1,660	922	375	184	536	79 ^e	14,800
1943	394	361	615	4,580	3,810	5,830	1,910	2,280	464	596	547	48 ^f	21,900
1944	443	391	443	595	1,230	2,800	1,970	738	476	375	375	547	10,400
1945	418	367	467	595	1,720	4,220	1,290	1,660	417	473	553	48 ^g	12,700
1946	517	489	676	2,320	2,640	2,740	1,170	676	655	676	714	922	14,200
1947	676	611	1,350	2,800	4,120	4,400	1,780	1,720	541	861	774	67 ^h	20,300
1948	615	569	609	2,140	3,440	7,560	2,640	1,170	518	596	547	418	20,800
1949	369	361	492	1,840	5,170	3,870	1,290	922	458	455	452	381	16,100
1950	560	417	676	1,310	2,210	6,130	1,660	1,910	536	738	952	79 ⁱ	17,900
1951	738	778	799	2,800	5,040	4,820	2,520	2,520	518	922	714	57 ^j	22,700
1952	498	483	492	3,090	4,800	4,280	861	1,110	446	467	458	437	17,400
1953	529	500	547	833	1,480	7,800	2,400	861	375	566	530	517	16,900
1954	461	439	553	1,430	3,010	3,750	2,580	1,290	351	676	589	553	15,700
1955	492	405	424	714	1,910	4,170	2,830	861	333	584	547	57 ^k	13,800
1956	615	466	799	2,740	4,920	2,440	1,290	1,170	393	578	553	60 ^l	16,600
1957	480	428	676	1,190	4,370	4,340	1,170	1,170	458	566	500	504	15,800
1958	369	400	553	1,370	3,200	3,330	1,410	529	458	676	774	861	13,900
1959	676	611	861	3,030	2,520	6,840	1,540	922	428	1,540	1,430	1,23 ^m	21,600
1960	738	575	1,110	2,980	2,580	5,300	922	492	411	504	482	424	16,500
1961	437	505	572	1,070	2,090	3,990	584	344	369	529	482	43 ⁿ	11,400
1962	344	439	473	2,860	2,890	4,640	1,780	1,540	488	676	595	603	17,300
1963	504	944	799	1,550	3,140	5,180	1,910	861	494	560	494	467	16,900
1964	461	408	418	1,010	3,750	6,780	3,140	1,540	500	615	565	615	19,800
1965	676	555	615	3,030	3,940	7,800	1,780	2,460	714	984	774	67 ^o	24,000
1966	584	500	676	2,080	1,290	1,490	517	523	309	504	476	48 ^p	9,430
1967	461	428	486	1,010	2,830	7,680	1,840	1,780	387	615	655	603	18,800
1968	492	805	1,110	1,070	2,710	5,890	1,410	2,340	553	799	655	517	18,300
1969	676	550	676	3,750	4,670	3,210	1,600	1,110	446	615	553	523	18,400
1970	449	455	517	833	3,320	7,680	2,580	1,410	506	615	571	517	19,500
1971	615	1,500	861	2,320	2,890	3,750	2,210	2,340	405	584	553	56 ^q	18,600
1972	547	437	1,840	2,500	4,240	4,940	2,210	1,600	422	738	595	523	20,600
1973	418	389	596	714	1,110	1,670	553	799	333	406	428	443	7,850
1974	738	533	738	3,090	2,830	5,890	2,400	1,970	321	572	512	461	20,100
1975	443	389	461	833	1,970	10,000	4,120	2,210	559	1,050	1,010	1,410	24,500

Table 35. Synthesized streamflow for Smith River above Fivemile Creek, near White Sulphur Springs, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	1,050	805	1,050	3,810	4,980	6,010	2,210	1,840	655	676	541	486	24,100
1977	461	444	443	893	922	1,840	394	357	399	400	381	492	7,430
1978	387	344	1,050	2,680	3,500	6,720	2,710	2,210	565	609	524	510	21,800
1979	375	472	738	1,370	2,890	3,390	861	799	434	510	428	473	12,700
1980	363	391	461	1,490	2,400	3,990	1,600	738	500	615	583	738	13,900
1981	799	722	861	1,610	2,950	5,180	1,840	615	393	590	547	541	16,600
1982	461	611	922	1,790	3,940	4,400	2,400	2,770	512	738	595	547	19,700
1983	572	555	861	1,130	1,600	3,390	2,710	1,480	530	676	655	799	15,000
1984	738	518	676	1,610	3,070	7,500	1,970	1,540	530	615	577	443	19,800
1985	455	394	498	1,670	1,970	1,900	394	560	494	861	833	572	10,600
1986	547	611	2,340	2,800	2,460	3,870	1,110	1,350	541	535	500	443	17,100
1987	375	350	535	1,370	1,910	1,370	400	363	286	326	315	283	7,880
1988	301	299	394	1,190	1,660	2,320	295	209	422	400	488	430	8,410
1989	387	311	615	3,570	1,720	3,090	984	738	375	615	774	922	14,100

Table 36. Synthesized streamflow for Smith River at mouth, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	4,060	9,720	13,200	28,900	204,000	74,400	67,000	13,100	18,700	12,600	9,700	9,650	465,000
1929	11,200	9,390	10,000	35,000	38,000	92,200	35,500	13,200	15,300	8,490	8,810	6,030	283,000
1930	1,720	18,300	6,890	26,100	81,200	53,700	23,400	12,100	14,600	8,240	5,470	7,010	259,000
1931	2,210	3,720	9,280	16,200	26,700	20,500	15,200	9,220	6,840	3,690	3,270	3,010	120,000
1932	1,910	3,050	6,150	18,700	62,100	76,200	33,300	10,200	12,700	7,010	5,360	5,040	242,000
1933	2,210	5,610	5,600	20,600	122,000	96,400	42,400	18,200	10,200	4,370	7,680	5,900	342,000
1934	8,180	4,670	5,350	15,200	47,800	20,100	37,700	6,950	6,490	3,440	3,270	1,840	161,000
1935	3,690	6,000	3,690	13,700	38,200	43,300	24,900	8,670	7,200	2,950	3,270	2,030	158,000
1936	1,290	2,880	8,850	32,900	109,000	41,600	19,200	11,100	9,580	4,180	3,690	2,150	247,000
1937	738	4,940	4,000	25,800	44,000	24,800	24,700	8,050	4,520	5,350	3,090	2,640	153,000
1938	1,720	3,110	3,870	19,500	75,600	101,000	45,300	13,500	21,400	7,320	9,280	8,980	310,000
1939	7,260	5,440	12,600	19,900	56,500	44,100	24,700	14,100	9,640	7,070	5,830	4,370	212,000
1940	2,340	3,850	8,120	16,200	31,500	49,000	24,000	11,100	7,080	15,200	3,210	1,910	174,000
1941	2,090	3,890	7,190	15,100	32,000	34,100	30,400	17,600	22,300	4,490	5,180	3,260	178,000
1942	7,990	6,160	11,200	49,300	79,900	88,700	47,500	16,300	21,000	7,620	7,850	4,920	348,000
1943	8,240	6,940	16,900	41,700	44,600	100,000	48,200	22,400	17,100	5,410	5,530	6,210	323,000
1944	7,870	7,310	7,070	16,000	33,300	58,600	37,000	29,300	17,800	4,060	3,390	2,210	224,000
1945	9,900	8,660	6,700	11,700	25,600	94,000	38,900	24,800	13,300	7,320	5,300	5,600	252,000
1946	5,040	7,780	16,000	30,500	68,300	85,100	40,500	19,100	18,200	16,100	10,400	8,240	325,000
1947	8,360	8,830	17,800	27,400	178,000	97,000	46,500	23,200	19,000	10,100	13,300	9,040	459,000
1948	9,590	8,690	12,900	40,800	143,000	99,400	57,100	24,500	15,900	19,100	19,600	7,690	458,000
1949	7,870	6,280	19,900	41,400	78,100	65,500	27,900	18,500	19,300	7,560	7,320	5,100	305,000
1950	8,490	9,890	15,600	31,200	25,600	108,000	51,600	22,700	25,600	12,100	11,500	11,900	334,000
1951	7,560	13,900	16,500	27,400	92,800	82,700	41,000	23,100	18,900	11,700	9,820	7,260	353,000
1952	6,390	6,670	7,930	55,800	110,000	74,400	35,000	20,400	18,900	7,440	6,840	6,520	356,000
1953	7,440	7,280	11,300	11,500	54,200	232,000	58,100	26,600	20,800	10,000	8,390	8,300	456,000
1954	5,840	10,200	8,610	13,700	32,400	62,500	35,400	14,900	12,600	6,950	6,490	3,260	213,000
1955	2,640	2,940	4,300	18,400	50,300	97,000	47,000	28,000	15,900	9,100	5,240	5,170	286,000
1956	5,900	4,950	7,320	20,500	48,000	56,700	23,000	12,200	15,300	3,260	4,520	2,830	204,000
1957	3,690	6,050	10,800	13,700	37,800	64,300	36,000	16,300	11,700	6,760	6,720	6,270	220,000
1958	4,060	7,390	15,100	18,300	59,500	38,400	32,500	23,400	15,500	6,700	4,580	5,290	231,000
1959	5,040	3,890	15,400	20,900	44,500	130,000	48,000	17,500	14,300	10,600	6,660	8,670	326,000
1960	5,470	6,270	20,900	24,000	58,000	88,100	29,100	10,500	17,600	4,550	5,360	3,200	273,000
1961	3,810	5,890	7,380	10,000	26,600	72,000	18,300	13,700	4,170	3,440	2,440	1,410	169,000
1962	2,890	4,890	8,670	23,000	54,800	75,600	28,800	15,600	17,900	7,870	7,440	4,000	251,000
1963	3,140	22,700	12,000	16,100	45,200	78,000	42,400	19,300	15,900	7,500	7,140	4,980	274,000
1964	4,430	5,870	7,070	21,200	148,000	144,000	56,400	20,400	23,300	13,300	9,640	9,160	462,000
1965	10,100	9,000	11,300	49,600	120,000	170,000	82,400	32,500	35,200	35,000	22,500	15,800	593,000
1966	12,800	11,800	21,300	37,700	97,800	70,200	43,200	21,100	18,700	10,500	9,340	6,210	361,000
1967	9,900	14,500	18,400	23,700	99,000	213,000	77,500	34,400	28,600	18,900	16,000	10,400	564,000
1968	11,100	18,600	27,400	36,300	120,000	161,000	70,700	29,500	27,400	25,000	20,600	17,800	565,000
1969	14,900	10,400	14,900	80,900	72,600	43,300	58,200	27,700	19,000	16,200	17,300	11,000	386,000
1970	6,830	9,660	9,780	34,300	198,000	179,000	55,100	26,700	23,400	12,600	11,100	11,300	577,000
1971	8,550	14,100	17,600	48,200	78,100	92,800	33,000	16,100	13,600	6,950	6,430	4,730	340,000
1972	6,270	9,550	19,100	39,800	56,300	124,000	27,900	20,700	14,300	5,410	4,700	3,750	332,000
1973	6,390	10,000	10,800	13,900	70,700	43,400	32,700	14,100	14,900	5,660	6,430	5,230	234,000
1974	10,600	10,400	17,600	33,600	108,000	140,000	53,900	34,600	22,400	11,200	10,100	8,420	461,000
1975	4,060	7,000	10,900	38,900	125,000	245,000	89,800	36,300	29,800	19,400	17,800	16,500	641,000

Table 36. Synthesized streamflow for Smith River at mouth, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	14,100	13,700	18,300	67,200	120,000	103,000	56,300	26,300	20,500	10,600	9,700	9,280	469,000
1977	3,940	9,610	10,000	21,700	87,900	57,600	30,400	18,100	18,400	11,600	10,300	10,100	290,000
1978	7,010	8,660	20,900	39,700	146,000	117,000	72,600	29,300	30,600	30,400	17,100	13,900	533,000
1979	6,950	8,160	19,400	29,600	98,400	94,000	43,200	21,600	16,700	8,610	8,510	9,410	365,000
1980	5,040	7,420	11,600	39,600	37,500	63,700	32,000	17,100	22,600	7,500	12,300	7,070	263,000
1981	10,100	17,900	8,920	21,700	184,000	96,400	48,900	23,300	17,200	9,650	10,700	9,470	459,000
1982	8,850	14,200	9,470	47,100	52,300	175,000	60,300	24,500	19,800	12,400	25,500	12,800	462,000
1983	9,410	15,900	11,900	27,300	69,500	92,200	61,100	25,100	24,600	18,300	12,800	4,980	373,000
1984	13,800	9,780	16,400	21,400	78,700	191,000	58,500	20,200	23,400	10,400	7,560	4,430	456,000
1985	8,180	4,670	15,600	27,400	48,500	28,300	16,800	26,700	17,000	23,700	13,200	3,570	234,000
1986	6,700	16,400	17,600	37,300	71,300	70,200	35,000	31,900	25,700	15,100	10,100	7,930	345,000
1987	6,950	7,280	6,950	22,700	27,000	31,300	21,300	25,800	11,700	6,950	5,060	5,100	178,000
1988	4,240	4,770	5,470	18,000	30,300	34,200	18,900	24,400	12,500	5,600	3,330	1,780	164,000
1989	4,860	5,280	10,600	34,900	62,100	47,400	25,700	20,700	15,500	10,200	9,880	5,530	253,000

Table 37. Synthesized streamflow for Missouri River near Ulm, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	358,000	266,000	497,000	475,000	1,870,000	1,230,000	1,050,000	429,000	316,000	273,000	265,000	208,000	7,230,000
1929	236,000	167,000	360,000	331,000	606,000	1,500,000	695,000	376,000	309,000	201,000	218,000	200,000	5,200,000
1930	236,000	258,000	242,000	406,000	454,000	1,060,000	481,000	261,000	229,000	276,000	219,000	257,000	4,380,000
1931	245,000	175,000	269,000	321,000	423,000	809,000	419,000	213,000	182,000	156,000	155,000	212,000	3,580,000
1932	194,000	181,000	232,000	269,000	707,000	1,530,000	639,000	338,000	222,000	187,000	243,000	238,000	4,980,000
1933	204,000	148,000	269,000	255,000	453,000	1,750,000	584,000	263,000	195,000	193,000	226,000	202,000	4,740,000
1934	223,000	210,000	258,000	309,000	615,000	821,000	416,000	331,000	120,000	223,000	158,000	222,000	3,910,000
1935	199,000	159,000	243,000	223,000	520,000	1,230,000	478,000	281,000	233,000	114,000	176,000	143,000	4,000,000
1936	213,000	125,000	339,000	375,000	762,000	1,250,000	524,000	360,000	230,000	131,000	134,000	160,000	4,600,000
1937	173,000	215,000	311,000	290,000	713,000	946,000	496,000	228,000	178,000	111,000	170,000	205,000	4,040,000
1938	209,000	181,000	282,000	284,000	984,000	1,420,000	1,120,000	553,000	196,000	239,000	266,000	224,000	5,950,000
1939	203,000	218,000	311,000	530,000	787,000	899,000	529,000	267,000	203,000	139,000	170,000	155,000	4,410,000
1940	201,000	201,000	309,000	366,000	515,000	893,000	486,000	258,000	183,000	271,000	234,000	175,000	4,090,000
1941	237,000	197,000	285,000	316,000	445,000	1,020,000	520,000	381,000	242,000	371,000	301,000	261,000	4,570,000
1942	204,000	223,000	314,000	803,000	1,000,000	1,530,000	787,000	362,000	221,000	194,000	254,000	247,000	6,140,000
1943	214,000	332,000	421,000	845,000	935,000	1,870,000	1,090,000	419,000	278,000	201,000	270,000	242,000	7,110,000
1944	263,000	243,000	274,000	317,000	477,000	1,360,000	1,060,000	379,000	267,000	210,000	240,000	206,000	5,300,000
1945	280,000	253,000	255,000	311,000	541,000	1,280,000	762,000	469,000	248,000	201,000	237,000	216,000	5,050,000
1946	253,000	254,000	332,000	462,000	769,000	1,070,000	683,000	308,000	289,000	403,000	243,000	259,000	5,320,000
1947	262,000	251,000	409,000	619,000	1,270,000	1,460,000	867,000	337,000	315,000	390,000	256,000	264,000	6,690,000
1948	291,000	270,000	356,000	584,000	1,410,000	1,890,000	1,090,000	445,000	331,000	307,000	305,000	255,000	7,530,000
1949	223,000	231,000	349,000	613,000	1,010,000	1,550,000	600,000	289,000	222,000	245,000	246,000	231,000	5,810,000
1950	205,000	247,000	308,000	395,000	558,000	2,110,000	990,000	416,000	305,000	336,000	284,000	285,000	6,440,000
1951	237,000	265,000	319,000	534,000	1,090,000	1,550,000	885,000	373,000	346,000	288,000	278,000	209,000	6,370,000
1952	217,000	280,000	332,000	613,000	1,420,000	1,340,000	812,000	377,000	258,000	173,000	224,000	270,000	6,320,000
1953	299,000	239,000	271,000	357,000	483,000	1,740,000	830,000	291,000	223,000	157,000	233,000	232,000	5,350,000
1954	202,000	259,000	256,000	359,000	524,000	1,410,000	670,000	475,000	212,000	131,000	218,000	222,000	4,940,000
1955	182,000	167,000	220,000	275,000	585,000	1,650,000	762,000	427,000	303,000	165,000	238,000	240,000	5,220,000
1956	263,000	181,000	374,000	591,000	1,160,000	1,510,000	646,000	434,000	306,000	146,000	235,000	210,000	6,050,000
1957	162,000	225,000	285,000	350,000	947,000	1,450,000	744,000	467,000	360,000	222,000	254,000	246,000	5,710,000
1958	226,000	237,000	322,000	337,000	1,080,000	1,010,000	633,000	556,000	331,000	204,000	234,000	258,000	5,430,000
1959	218,000	199,000	316,000	382,000	499,000	1,490,000	965,000	384,000	222,000	328,000	321,000	313,000	5,640,000
1960	249,000	280,000	404,000	525,000	750,000	1,360,000	713,000	328,000	334,000	154,000	223,000	221,000	5,540,000
1961	203,000	237,000	244,000	210,000	358,000	1,330,000	552,000	422,000	162,000	207,000	232,000	180,000	4,330,000
1962	178,000	243,000	271,000	541,000	793,000	1,500,000	664,000	418,000	364,000	236,000	262,000	234,000	5,700,000
1963	154,000	356,000	273,000	323,000	621,000	1,150,000	922,000	496,000	363,000	196,000	241,000	221,000	5,310,000
1964	224,000	223,000	246,000	338,000	996,000	1,810,000	1,210,000	390,000	408,000	235,000	275,000	274,000	6,620,000
1965	291,000	270,000	271,000	601,000	996,000	1,950,000	1,300,000	531,000	403,000	424,000	350,000	313,000	7,690,000
1966	290,000	274,000	341,000	463,000	658,000	774,000	713,000	386,000	274,000	170,000	230,000	235,000	4,810,000
1967	259,000	234,000	280,000	311,000	935,000	2,110,000	1,250,000	590,000	377,000	266,000	299,000	218,000	7,120,000
1968	266,000	347,000	347,000	440,000	738,000	1,650,000	1,000,000	423,000	390,000	355,000	331,000	258,000	6,550,000
1969	256,000	268,000	407,000	863,000	1,210,000	994,000	1,220,000	701,000	365,000	290,000	334,000	269,000	7,180,000
1970	271,000	283,000	303,000	339,000	1,190,000	2,030,000	972,000	563,000	327,000	313,000	318,000	268,000	7,180,000
1971	291,000	354,000	330,000	461,000	1,140,000	1,820,000	1,130,000	499,000	380,000	346,000	343,000	259,000	7,350,000
1972	279,000	299,000	459,000	381,000	879,000	1,830,000	756,000	454,000	408,000	297,000	323,000	239,000	6,600,000
1973	245,000	233,000	312,000	370,000	732,000	916,000	701,000	347,000	292,000	248,000	309,000	266,000	4,970,000
1974	253,000	245,000	311,000	460,000	701,000	2,080,000	818,000	364,000	328,000	225,000	278,000	264,000	6,320,000
1975	240,000	218,000	304,000	383,000	1,340,000	2,090,000	1,620,000	676,000	498,000	394,000	365,000	408,000	8,540,000

Table 37. Synthesized streamflow for Missouri River near Ulm, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	358,000	326,000	346,000	591,000	1,800,000	1,480,000	972,000	561,000	474,000	399,000	339,000	313,000	7,960,000
1977	282,000	310,000	314,000	436,000	348,000	982,000	549,000	348,000	220,000	293,000	237,000	250,000	4,570,000
1978	252,000	242,000	421,000	575,000	941,000	1,680,000	1,090,000	581,000	430,000	334,000	265,000	272,000	7,090,000
1979	236,000	257,000	387,000	461,000	1,030,000	1,260,000	646,000	477,000	388,000	191,000	231,000	241,000	5,810,000
1980	199,000	248,000	296,000	464,000	959,000	1,650,000	959,000	431,000	369,000	286,000	301,000	287,000	6,450,000
1981	275,000	254,000	308,000	420,000	1,300,000	1,870,000	916,000	603,000	331,000	281,000	279,000	266,000	7,110,000
1982	210,000	284,000	314,000	439,000	928,000	1,920,000	1,370,000	621,000	368,000	392,000	320,000	295,000	7,460,000
1983	322,000	257,000	307,000	359,000	842,000	1,500,000	1,200,000	652,000	418,000	407,000	380,000	274,000	6,920,000
1984	366,000	350,000	403,000	540,000	1,190,000	1,760,000	1,210,000	701,000	444,000	388,000	359,000	285,000	8,000,000
1985	300,000	265,000	395,000	577,000	726,000	1,120,000	615,000	338,000	226,000	368,000	242,000	261,000	5,440,000
1986	262,000	300,000	387,000	478,000	805,000	1,630,000	695,000	493,000	306,000	305,000	272,000	227,000	6,160,000
1987	212,000	227,000	269,000	359,000	323,000	946,000	566,000	393,000	369,000	194,000	198,000	174,000	4,230,000
1988	180,000	205,000	242,000	357,000	542,000	1,590,000	502,000	327,000	190,000	162,000	171,000	167,000	4,640,000
1989	185,000	144,000	374,000	431,000	707,000	922,000	584,000	423,000	304,000	220,000	218,000	218,000	4,730,000

Table 38. Synthesized streamflow for Sun River below Gibson Reservoir, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	14,600	19,200	22,900	35,200	333,000	181,000	119,000	14,600	23,700	25,600	20,900	16,000	825,000
1929	13,900	8,720	16,200	21,500	141,000	172,000	45,300	19,800	14,000	15,200	12,400	11,100	491,000
1930	6,030	5,280	8,360	89,900	141,000	69,600	35,600	16,200	10,900	10,300	13,300	8,420	415,000
1931	8,050	6,660	8,120	36,100	89,800	50,600	19,700	14,100	14,200	14,800	8,690	7,590	278,000
1932	7,260	7,130	11,400	28,500	165,000	147,000	41,600	21,200	15,600	13,700	14,300	14,100	487,000
1933	15,700	13,100	9,160	27,300	157,000	357,000	68,300	27,200	16,600	34,200	50,700	43,800	820,000
1934	29,500	23,600	36,000	204,000	306,000	159,000	42,900	20,000	16,400	15,500	19,500	11,600	884,000
1935	12,100	6,050	12,400	20,700	156,000	162,000	46,800	20,200	12,200	13,600	10,500	9,350	482,000
1936	8,850	8,510	9,040	52,400	220,000	89,300	23,500	14,400	10,300	10,700	9,400	8,730	465,000
1937	6,270	8,550	7,620	12,900	105,000	105,000	35,600	16,100	13,000	13,700	10,100	9,220	343,000
1938	8,180	7,830	9,960	31,400	166,000	190,000	60,200	27,500	18,700	18,800	12,400	14,300	565,000
1939	9,350	8,660	14,800	67,800	198,000	94,600	40,600	17,700	14,000	14,100	11,200	9,590	500,000
1940	9,350	8,170	9,720	23,900	108,000	63,700	20,100	13,100	13,300	10,800	7,680	5,530	293,000
1941	8,790	7,110	8,670	22,300	67,600	63,700	31,500	19,600	14,300	20,400	15,700	23,600	303,000
1942	19,200	6,220	11,600	47,700	157,000	158,000	55,800	24,300	18,700	14,300	12,500	22,300	547,000
1943	13,200	10,300	7,130	61,300	180,000	318,000	155,000	37,600	22,400	14,600	14,600	13,400	848,000
1944	13,900	9,780	13,000	18,300	95,900	100,000	43,500	22,700	16,800	15,100	10,800	9,200	369,000
1945	9,470	7,830	7,810	11,200	113,000	145,000	42,500	16,500	11,400	16,700	13,600	12,100	407,000
1946	8,120	9,050	11,900	50,300	142,000	130,000	45,100	17,300	13,800	19,100	17,900	20,700	485,000
1947	12,700	14,400	21,100	69,000	277,000	183,000	62,700	24,200	20,900	30,400	22,700	17,300	755,000
1948	17,800	13,500	13,300	32,200	255,000	314,000	67,000	28,800	20,600	16,700	13,200	13,100	806,000
1949	12,400	9,220	11,600	38,400	186,000	111,000	31,500	15,200	15,600	14,400	16,100	15,900	478,000
1950	12,200	11,200	12,600	22,200	146,000	317,000	136,000	47,300	24,000	28,200	32,200	25,000	814,000
1951	22,400	18,000	17,900	49,900	254,000	216,000	136,000	41,400	32,700	33,400	25,100	20,500	867,000
1952	17,500	15,300	16,200	78,500	208,000	111,000	41,400	24,600	19,500	14,100	16,300	13,300	576,000
1953	14,800	12,000	12,200	27,900	164,000	356,000	115,000	31,000	20,900	21,300	14,600	14,800	804,000
1954	12,800	12,300	13,600	23,700	250,000	253,000	144,000	32,700	23,200	21,900	16,100	13,700	818,000
1955	8,610	5,280	5,100	12,900	116,000	236,000	90,400	28,000	19,300	24,300	16,200	16,000	577,000
1956	15,700	9,780	14,000	41,200	241,000	249,000	68,900	43,200	18,600	17,900	18,100	12,900	750,000
1957	12,400	10,900	13,800	19,200	252,000	159,000	44,100	22,300	18,200	15,600	13,800	11,700	593,000
1958	10,500	8,780	11,100	16,900	229,000	184,000	60,600	26,700	21,700	26,300	23,600	22,800	641,000
1959	19,400	14,800	17,300	52,800	151,000	369,000	97,200	30,400	27,300	41,100	36,400	26,300	883,000
1960	18,000	15,100	20,000	44,300	113,000	178,000	49,600	0	0	4,300	14,600	13,200	470,000
1961	12,300	12,200	10,700	16,000	178,000	199,000	35,500	15,700	16,600	18,300	16,300	14,400	546,000
1962	12,700	11,900	12,500	60,700	199,000	228,000	65,800	24,600	19,500	22,900	20,000	16,300	693,000
1963	15,100	15,600	14,600	24,700	118,000	139,000	51,800	25,000	16,700	16,000	15,500	13,400	466,000
1964	12,900	11,600	12,100	15,600	137,000	451,000	90,400	25,300	20,600	20,500	14,200	13,500	825,000
1965	15,700	10,300	11,600	33,900	179,000	308,000	101,000	33,700	34,500	30,300	22,000	20,300	801,000
1966	17,200	11,100	16,900	43,300	177,000	133,000	48,300	19,600	16,700	16,000	14,800	13,500	527,000
1967	13,300	11,600	13,000	15,200	176,000	378,000	106,000	28,800	20,500	19,100	20,500	16,000	819,000
1968	14,900	15,200	19,200	19,500	107,000	185,000	58,400	22,800	24,200	27,500	21,500	8,550	524,000
1969	9,530	12,900	12,200	67,200	180,000	134,000	73,800	23,000	16,400	16,100	13,700	10,800	570,000
1970	11,300	9,110	9,960	10,600	156,000	271,000	62,100	23,200	17,300	16,500	15,500	14,300	617,000
1971	13,800	28,800	18,300	43,800	282,000	253,000	91,000	31,700	22,100	17,500	17,100	14,000	834,000
1972	13,300	13,100	25,100	31,800	204,000	337,000	93,500	38,000	23,800	20,800	17,700	16,600	834,000
1973	14,400	9,110	12,700	15,200	105,000	97,000	30,000	16,000	8,090	11,800	15,600	11,600	347,000
1974	18,300	12,700	14,400	37,400	122,000	309,000	84,900	31,400	21,900	17,300	14,400	14,000	697,000
1975	12,200	10,800	11,000	13,300	95,900	455,000	165,000	37,300	25,300	22,400	25,800	26,400	900,000

Table 38. Synthesized streamflow for Sun River below Gibson Reservoir, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	20,200	10,900	14,800	50,200	286,000	194,000	94,100	35,100	22,200	17,600	15,100	13,300	773,000
1977	12,400	10,300	10,800	24,000	69,500	64,300	16,900	13,200	9,940	12,300	11,500	13,500	269,000
1978	12,900	10,800	16,200	46,500	170,000	248,000	117,000	35,800	27,100	18,900	16,100	15,200	734,000
1979	14,600	12,800	13,700	21,000	176,000	165,000	59,200	23,000	17,600	14,800	13,100	13,000	544,000
1980	11,600	10,400	11,700	44,900	189,000	170,000	55,600	26,100	20,100	17,500	18,600	18,400	595,000
1981	17,600	13,200	15,700	30,500	220,000	134,000	58,400	22,300	16,300	16,400	13,900	12,800	572,000
1982	11,000	12,200	14,100	20,000	138,000	267,000	105,000	30,300	19,700	20,300	16,400	15,400	669,000
1983	14,400	11,700	14,800	19,000	105,000	113,000	58,400	25,000	17,800	16,700	15,100	11,600	423,000
1984	15,300	11,300	11,700	24,700	79,900	135,000	48,400	20,700	17,200	16,600	15,100	13,300	409,000
1985	11,700	10,100	11,400	33,100	171,000	113,000	34,200	23,600	36,900	49,300	44,700	25,700	565,000
1986	18,800	17,300	36,800	64,900	158,000	141,000	40,400	20,700	23,400	19,500	18,100	16,100	575,000
1987	14,100	11,800	15,000	55,900	133,000	60,700	34,900	23,600	16,700	14,300	12,800	12,000	405,000
1988	11,400	10,600	12,200	31,200	113,000	78,000	24,800	13,700	13,400	19,400	20,200	13,800	362,000
1989	12,500	10,200	13,800	67,800	177,000	182,000	67,600	34,600	28,800	24,200	52,000	33,100	704,000

Table 39. Synthesized streamflow for Muddy Creek at Vaughn, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	2,150	2,130	9,960	4,280	10,200	9,820	11,000	20,700	13,600	6,640	3,690	2,770	96,900
1929	2,090	1,440	4,060	2,320	9,100	7,850	16,100	13,200	8,690	6,390	2,860	2,490	76,500
1930	1,170	2,050	3,500	2,380	7,810	17,400	11,300	12,800	9,580	6,330	3,390	2,490	80,100
1931	1,600	1,280	922	1,790	4,430	16,900	8,240	10,300	5,890	4,060	2,140	2,490	60,000
1932	1,230	2,650	1,720	1,900	8,420	9,880	14,600	10,500	8,270	5,100	3,090	2,770	70,100
1933	1,480	1,670	2,460	2,740	8,610	8,630	9,220	14,300	11,700	6,270	4,940	2,590	74,600
1934	2,400	4,170	2,030	1,670	7,560	17,600	7,690	12,100	8,270	7,690	2,740	2,520	76,300
1935	2,150	1,890	1,840	1,840	3,320	6,720	9,650	14,100	6,250	2,830	2,740	2,210	55,500
1936	984	477	7,190	2,380	4,300	6,190	5,720	7,990	4,400	2,950	2,500	2,290	47,400
1937	1,110	722	1,910	2,140	7,440	8,870	9,470	11,500	5,360	5,290	2,860	2,030	58,700
1938	1,600	1,110	1,970	2,020	7,750	11,400	9,470	14,100	7,200	3,500	2,740	2,290	65,100
1939	1,780	1,280	1,840	2,380	11,100	10,100	10,700	12,500	7,740	4,610	2,800	1,910	68,800
1940	1,480	1,440	2,210	1,670	8,790	11,900	14,900	10,600	6,720	4,730	3,450	3,070	71,100
1941	2,030	1,940	2,030	1,430	3,500	8,330	13,000	11,100	10,200	5,530	3,690	3,390	66,200
1942	2,770	2,500	6,460	2,620	8,850	11,800	11,200	15,200	11,600	5,100	2,920	2,030	83,100
1943	1,600	3,330	4,550	2,320	3,380	12,300	12,400	16,200	11,800	7,690	3,810	2,890	82,300
1944	1,970	1,550	2,210	1,960	5,960	10,400	9,780	13,700	10,400	5,410	3,270	2,210	68,800
1945	2,150	1,670	2,340	1,490	5,840	10,100	12,200	13,800	9,640	5,780	3,390	3,010	71,300
1946	2,340	2,110	1,970	2,440	9,590	11,400	15,700	17,200	11,700	6,890	2,860	3,070	87,200
1947	3,010	2,500	5,720	1,670	8,920	15,800	15,900	15,800	10,800	4,980	3,810	2,770	91,600
1948	1,600	1,150	3,140	1,960	11,400	14,800	15,900	17,500	12,400	6,030	4,220	1,840	92,000
1949	1,230	1,110	3,140	3,450	13,000	12,700	15,700	13,700	10,500	8,050	3,810	2,490	88,800
1950	1,230	2,500	3,140	3,270	4,490	10,200	14,800	20,300	14,200	6,890	3,750	5,100	89,800
1951	2,030	1,330	2,460	2,140	5,780	14,400	12,900	19,700	10,700	5,350	4,280	2,520	83,600
1952	2,400	5,580	5,660	2,860	8,180	20,100	19,700	15,700	10,200	8,490	3,750	2,590	105,000
1953	4,000	1,720	2,400	1,790	18,600	28,900	18,400	21,000	12,900	7,440	4,050	2,150	123,000
1954	1,660	2,940	1,410	2,080	8,490	13,200	22,100	22,600	11,700	6,890	4,220	3,290	101,000
1955	2,770	1,780	1,840	5,180	5,290	10,500	12,900	16,400	14,200	7,560	3,330	2,150	83,900
1956	2,090	1,730	4,610	1,840	5,720	11,700	13,600	19,200	11,100	9,410	4,220	7,930	93,100
1957	2,150	3,110	6,030	1,960	9,720	16,400	17,500	19,300	11,800	6,270	3,750	1,840	99,700
1958	1,410	1,720	3,260	2,440	8,240	18,500	14,200	24,300	12,600	8,670	4,520	3,750	104,000
1959	2,770	1,720	8,790	1,840	7,500	15,100	18,600	20,500	11,200	6,460	3,990	3,570	102,000
1960	2,280	1,730	1,840	1,670	7,010	13,700	19,900	20,600	8,390	6,460	3,750	3,140	90,500
1961	2,210	1,610	1,540	1,550	7,320	14,900	21,600	21,300	11,400	7,320	2,560	1,110	94,500
1962	1,170	1,670	2,090	1,610	9,900	12,700	21,400	22,900	12,900	12,300	4,400	2,890	106,000
1963	1,600	3,220	2,150	1,840	7,620	17,600	20,000	21,900	12,100	9,220	6,610	2,290	106,000
1964	1,970	1,960	1,780	2,800	15,200	28,600	23,700	24,600	13,400	7,130	3,510	2,640	127,000
1965	3,070	2,720	3,320	4,050	7,320	24,800	23,100	25,100	15,800	4,730	1,840	2,030	118,000
1966	1,410	1,610	4,180	1,610	9,840	24,000	26,500	22,400	15,200	9,590	3,030	2,890	122,000
1967	2,460	1,890	1,840	2,260	6,520	13,800	18,100	23,300	15,600	8,670	5,300	2,710	102,000
1968	2,830	2,930	2,770	1,070	11,400	17,000	23,600	23,100	12,700	7,930	3,870	2,030	111,000
1969	2,210	1,940	5,720	3,810	7,870	13,700	20,200	23,400	12,300	8,240	3,810	2,340	106,000
1970	2,090	2,170	2,770	2,200	7,750	18,100	23,200	25,100	14,200	7,130	3,690	2,150	111,000
1971	2,340	2,280	4,550	3,270	12,400	19,100	20,700	24,500	16,200	6,830	3,090	1,720	117,000
1972	1,410	1,840	2,580	1,610	9,720	19,500	25,000	27,700	16,400	8,420	3,750	1,720	120,000
1973	1,290	1,390	2,210	2,200	7,320	20,400	18,100	15,900	7,850	5,470	3,690	2,890	88,700
1974	2,150	2,500	2,340	1,550	9,410	15,000	19,900	24,300	12,000	7,990	4,170	2,490	104,000
1975	1,910	1,280	2,280	10,700	17,800	20,500	22,800	30,400	13,200	9,960	4,220	3,140	138,000

Table 39. Synthesized streamflow for Muddy Creek at Vaughn, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	3,010	2,470	4,060	2,440	7,440	22,000	21,500	22,600	14,500	6,890	3,990	3,380	114,000
1977	2,340	2,220	1,600	2,860	9,410	12,300	17,800	12,400	6,310	4,800	2,740	2,090	76,800
1978	1,780	1,720	17,300	2,920	8,610	14,300	25,700	24,600	13,800	5,720	3,510	3,070	123,000
1979	2,030	1,890	14,000	4,760	9,650	20,200	22,800	24,800	11,100	4,120	2,920	2,950	121,000
1980	1,230	2,300	2,580	1,790	15,200	14,400	12,500	19,700	13,700	5,600	3,330	3,140	95,500
1981	2,400	2,050	2,400	3,210	18,600	17,100	22,100	21,800	8,690	4,860	3,030	2,460	109,000
1982	1,600	3,440	3,630	3,510	10,900	15,900	25,900	23,700	14,200	5,600	3,810	3,320	115,000
1983	3,140	2,830	2,150	1,960	8,240	16,200	24,800	23,100	15,900	6,760	3,630	2,210	111,000
1984	3,440	2,820	2,030	2,020	8,300	15,100	16,900	17,500	9,520	5,410	3,930	2,400	89,400
1985	1,410	889	3,140	1,840	8,550	10,900	12,200	16,800	10,800	7,190	4,220	3,500	81,400
1986	2,890	3,670	2,770	2,020	6,150	14,900	21,800	16,000	9,160	4,980	2,860	2,030	89,200
1987	1,540	1,780	2,030	1,840	10,500	13,800	19,200	15,700	7,620	6,270	2,860	2,150	85,400
1988	1,410	1,320	1,290	1,190	7,010	16,200	18,200	13,000	8,330	4,370	2,860	2,640	77,800
1989	2,280	1,720	6,210	3,150	7,500	19,600	24,600	23,700	9,640	4,920	3,750	2,280	109,000

Table 40. Synthesized streamflow for Sun River at mouth, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	21,600	19,600	46,200	49,500	278,000	181,000	192,000	54,500	42,400	37,000	29,500	23,400	976,000
1929	20,500	14,700	20,500	27,800	111,000	162,000	98,400	41,600	28,900	26,900	19,500	17,600	590,000
1930	12,600	18,600	25,500	66,600	148,000	164,000	76,900	38,900	28,000	18,000	17,900	16,500	632,000
1931	15,300	13,400	13,400	17,900	65,800	80,900	50,400	21,800	17,200	12,600	15,200	18,300	342,000
1932	14,800	22,500	35,100	26,700	116,000	178,000	94,100	41,500	25,600	18,000	16,300	21,600	610,000
1933	17,700	16,100	20,400	25,300	127,000	270,000	114,000	42,300	22,200	22,600	21,600	32,800	731,000
1934	38,400	31,100	22,900	123,000	152,000	189,000	75,000	31,100	16,500	30,000	30,900	24,100	764,000
1935	27,700	15,500	6,520	30,200	124,000	173,000	95,300	52,000	38,400	12,300	15,600	13,300	604,000
1936	25,800	10,400	26,400	45,700	175,000	112,000	61,400	36,800	20,300	9,840	15,200	13,700	553,000
1937	7,380	11,700	14,500	11,300	71,900	117,000	75,600	59,800	20,800	14,100	15,400	17,300	436,000
1938	13,000	10,800	16,500	31,200	143,000	225,000	151,000	57,400	45,600	15,300	21,600	21,600	752,000
1939	17,400	14,100	21,800	50,000	143,000	126,000	114,000	54,200	23,100	16,500	16,400	16,100	613,000
1940	13,600	13,600	16,500	14,100	92,200	108,000	62,100	68,900	11,300	21,700	18,000	14,200	454,000
1941	13,900	13,000	14,100	14,500	27,900	89,300	84,900	30,600	19,200	31,700	25,500	34,700	399,000
1942	27,900	11,900	26,600	43,700	144,000	204,000	113,000	51,500	34,800	22,800	21,700	31,800	733,000
1943	21,000	29,900	48,400	124,000	168,000	361,000	248,000	45,500	43,900	18,800	25,900	24,700	1,159,000
1944	23,200	16,700	23,900	23,300	54,600	114,000	113,000	25,600	32,200	22,400	21,800	21,700	492,000
1945	20,800	16,300	17,200	18,100	83,000	156,000	125,000	17,000	15,500	28,100	26,800	27,600	545,000
1946	21,100	16,200	18,400	43,300	98,400	152,000	91,000	40,300	23,900	55,900	34,900	35,100	631,000
1947	28,800	30,200	35,700	67,800	257,000	216,000	119,000	39,000	32,800	40,900	31,700	21,700	921,000
1948	18,900	15,400	24,000	44,100	234,000	436,000	160,000	63,300	34,500	24,500	24,100	21,200	1,100,000
1949	17,600	13,400	20,800	42,300	154,000	167,000	73,800	51,000	30,700	20,500	25,500	21,900	638,000
1950	14,100	18,200	22,400	31,200	149,000	350,000	199,000	75,600	33,100	36,100	28,200	10,100	967,000
1951	44,100	24,900	27,800	53,600	258,000	257,000	200,000	36,200	62,500	46,900	36,700	21,000	1,068,000
1952	18,100	19,900	42,900	88,700	180,000	120,000	103,000	55,000	44,200	18,300	22,200	27,600	732,000
1953	24,700	17,200	22,700	40,000	183,000	503,000	224,000	63,900	44,300	19,200	24,900	25,300	1,194,000
1954	18,300	20,800	20,000	31,900	223,000	277,000	224,000	39,600	42,300	35,900	30,000	25,300	991,000
1955	20,400	15,100	16,800	32,700	116,000	247,000	159,000	70,700	24,900	16,100	24,700	27,000	763,000
1956	20,200	12,700	22,600	42,800	213,000	274,000	119,000	20,700	42,800	12,500	26,200	22,300	828,000
1957	15,500	13,600	20,200	23,700	228,000	178,000	105,000	34,300	39,700	20,400	28,100	22,000	728,000
1958	14,500	14,500	23,500	38,500	203,000	227,000	121,000	79,300	33,700	31,500	36,300	35,400	858,000
1959	28,500	18,900	30,300	60,700	138,000	331,000	161,000	48,300	36,400	53,900	13,400	34,400	955,000
1960	13,300	19,900	28,200	48,200	119,000	173,000	97,800	40,100	26,400	14,900	20,600	18,900	621,000
1961	20,400	18,100	16,400	19,100	114,000	231,000	71,900	52,300	21,100	26,700	24,000	18,300	634,000
1962	9,720	20,900	22,600	63,700	180,000	269,000	98,400	51,700	36,000	20,400	30,000	25,000	827,000
1963	16,000	27,500	22,900	28,100	86,100	126,000	119,000	45,300	24,900	12,700	21,900	27,900	551,000
1964	18,600	16,000	15,900	18,700	137,000	506,000	197,000	46,400	43,800	19,100	22,100	27,400	1,061,000
1965	29,800	23,100	26,400	63,700	176,000	300,000	178,000	43,700	42,800	45,200	31,500	27,100	989,000
1966	22,900	21,300	33,800	49,900	135,000	146,000	122,000	38,700	27,900	17,900	21,200	22,100	660,000
1967	19,700	17,900	18,800	21,400	179,000	495,000	191,000	54,000	32,800	18,600	30,500	25,800	1,106,000
1968	21,700	24,200	28,500	25,000	78,100	168,000	122,000	28,700	35,700	39,500	28,000	27,500	619,000
1969	19,100	16,200	48,100	82,700	147,000	116,000	168,000	57,600	21,200	22,300	25,300	22,500	747,000
1970	16,500	16,400	19,100	17,100	168,000	269,000	111,000	65,200	27,600	22,900	22,600	18,500	774,000
1971	20,000	37,700	24,100	48,100	256,000	283,000	133,000	45,000	36,500	27,600	24,300	17,800	954,000
1972	17,600	21,200	38,500	38,000	169,000	327,000	113,000	39,600	36,000	32,100	29,700	27,000	881,000
1973	20,700	19,200	22,000	19,900	81,200	84,500	64,600	28,300	31,500	18,900	24,300	27,700	436,000
1974	30,600	20,600	20,800	42,800	79,900	291,000	109,000	44,200	38,700	26,400	22,300	19,200	746,000
1975	15,600	12,900	13,200	34,600	156,000	467,000	242,000	67,600	63,100	44,900	39,300	51,900	1,207,000

Table 40. Synthesized streamflow for Sun River at mouth, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	24,800	31,100	30,300	60,700	314,000	208,000	138,000	70,700	36,800	27,200	25,800	21,200	988,000
1977	18,200	19,300	15,800	32,300	36,100	69,600	73,800	48,500	22,700	22,000	19,300	18,000	395,000
1978	15,100	15,500	50,400	51,600	172,000	292,000	202,000	72,600	46,200	27,200	24,300	20,500	989,000
1979	17,600	15,900	26,400	33,400	178,000	181,000	86,100	57,400	52,300	17,800	18,500	18,900	703,000
1980	15,700	16,300	18,400	49,700	148,000	254,000	136,000	49,900	36,400	23,200	27,100	28,700	804,000
1981	27,900	19,300	20,800	36,500	215,000	155,000	97,200	67,600	52,700	21,000	22,000	17,700	753,000
1982	14,900	21,400	24,000	29,800	119,000	290,000	176,000	84,200	19,000	34,500	25,700	21,500	860,000
1983	18,200	17,500	19,400	23,400	94,100	116,000	122,000	73,200	19,500	32,500	19,000	15,100	570,000
1984	26,900	17,600	15,500	25,500	71,300	117,000	109,000	47,800	23,800	24,700	22,400	18,100	520,000
1985	14,800	12,300	24,700	34,700	139,000	145,000	99,600	39,000	49,300	71,300	44,600	33,300	707,000
1986	36,800	37,400	50,700	75,000	147,000	139,000	91,000	56,500	22,000	34,900	28,100	19,400	737,000
1987	14,200	15,600	20,700	62,500	88,500	81,500	76,900	45,400	58,400	18,800	19,300	16,400	518,000
1988	13,900	14,200	16,100	23,100	51,800	88,100	70,700	27,900	34,000	25,100	25,900	18,600	409,000
1989	16,000	12,200	46,500	76,800	187,000	165,000	120,000	82,400	51,100	49,700	55,300	31,700	893,000

Table 41. Synthesized streamflow for Missouri River below Black Eagle Dam, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	206,000	286,000	532,000	515,000	2,000,000	1,310,000	1,170,000	454,000	337,000	292,000	287,000	228,000	7,610,000
1929	256,000	182,000	384,000	359,000	670,000	1,600,000	775,000	397,000	330,000	214,000	237,000	219,000	5,620,000
1930	256,000	277,000	258,000	441,000	508,000	1,140,000	537,000	272,000	246,000	295,000	239,000	183,000	4,660,000
1931	266,000	190,000	286,000	349,000	474,000	881,000	467,000	222,000	198,000	165,000	170,000	231,000	3,900,000
1932	212,000	197,000	248,000	292,000	781,000	1,630,000	713,000	355,000	239,000	199,000	264,000	258,000	5,390,000
1933	207,000	162,000	287,000	277,000	506,000	1,860,000	652,000	275,000	211,000	205,000	246,000	227,000	5,110,000
1934	243,000	227,000	275,000	613,000	683,000	887,000	465,000	348,000	207,000	238,000	276,000	242,000	4,700,000
1935	217,000	174,000	259,000	242,000	579,000	1,320,000	534,000	295,000	251,000	121,000	192,000	157,000	4,340,000
1936	233,000	138,000	358,000	407,000	836,000	1,340,000	585,000	303,000	248,000	133,000	149,000	176,000	4,910,000
1937	164,000	233,000	332,000	315,000	799,000	1,020,000	554,000	237,000	193,000	117,000	239,000	224,000	4,430,000
1938	228,000	197,000	299,000	309,000	1,080,000	1,520,000	1,240,000	267,000	211,000	253,000	286,000	241,000	6,140,000
1939	223,000	234,000	331,000	572,000	873,000	970,000	591,000	280,000	220,000	143,000	206,000	170,000	4,810,000
1940	264,000	218,000	328,000	396,000	585,000	797,000	542,000	270,000	198,000	289,000	252,000	192,000	4,330,000
1941	258,000	213,000	303,000	342,000	498,000	1,090,000	580,000	258,000	260,000	403,000	322,000	287,000	4,810,000
1942	223,000	240,000	336,000	869,000	1,090,000	1,630,000	873,000	290,000	238,000	203,000	274,000	269,000	6,540,000
1943	234,000	355,000	451,000	910,000	1,020,000	1,990,000	1,210,000	445,000	298,000	212,000	290,000	267,000	7,680,000
1944	285,000	262,000	293,000	343,000	532,000	1,460,000	1,170,000	401,000	287,000	221,000	259,000	225,000	5,740,000
1945	302,000	273,000	272,000	337,000	601,000	1,370,000	849,000	299,000	267,000	211,000	256,000	255,000	5,290,000
1946	274,000	274,000	355,000	499,000	842,000	1,150,000	762,000	323,000	309,000	441,000	339,000	297,000	5,870,000
1947	284,000	270,000	438,000	666,000	1,370,000	1,560,000	965,000	355,000	337,000	426,000	332,000	325,000	7,320,000
1948	314,000	291,000	381,000	631,000	1,510,000	2,010,000	1,210,000	472,000	353,000	331,000	327,000	271,000	8,100,000
1949	243,000	249,000	373,000	661,000	1,100,000	1,650,000	670,000	303,000	239,000	260,000	265,000	253,000	6,270,000
1950	225,000	267,000	330,000	427,000	621,000	2,230,000	1,100,000	440,000	326,000	365,000	305,000	307,000	6,950,000
1951	258,000	285,000	341,000	575,000	1,180,000	1,650,000	984,000	394,000	369,000	309,000	299,000	303,000	6,940,000
1952	237,000	301,000	355,000	661,000	1,530,000	1,440,000	904,000	398,000	277,000	180,000	237,000	293,000	6,810,000
1953	322,000	258,000	289,000	386,000	539,000	1,840,000	922,000	305,000	240,000	163,000	252,000	252,000	5,770,000
1954	221,000	279,000	274,000	387,000	584,000	1,510,000	750,000	242,000	229,000	134,000	237,000	242,000	5,080,000
1955	200,000	182,000	234,000	298,000	652,000	1,760,000	849,000	453,000	324,000	171,000	257,000	263,000	5,640,000
1956	284,000	196,000	400,000	637,000	1,250,000	1,610,000	719,000	461,000	328,000	151,000	253,000	227,000	6,530,000
1957	178,000	243,000	305,000	378,000	1,030,000	1,550,000	824,000	481,000	386,000	232,000	273,000	265,000	6,150,000
1958	246,000	254,000	342,000	373,000	1,210,000	1,060,000	689,000	604,000	348,000	220,000	261,000	285,000	5,890,000
1959	241,000	217,000	314,000	405,000	548,000	1,590,000	1,090,000	400,000	236,000	374,000	334,000	342,000	6,090,000
1960	261,000	295,000	430,000	569,000	799,000	1,460,000	799,000	345,000	354,000	164,000	239,000	237,000	5,960,000
1961	220,000	254,000	260,000	230,000	435,000	1,440,000	604,000	453,000	170,000	223,000	251,000	207,000	4,740,000
1962	196,000	258,000	289,000	601,000	842,000	1,590,000	738,000	445,000	387,000	242,000	284,000	252,000	6,130,000
1963	172,000	377,000	291,000	348,000	713,000	1,240,000	1,030,000	519,000	378,000	202,000	259,000	237,000	5,770,000
1964	240,000	236,000	260,000	355,000	1,130,000	1,900,000	1,340,000	401,000	433,000	245,000	296,000	295,000	7,130,000
1965	314,000	290,000	295,000	649,000	1,110,000	2,020,000	1,430,000	543,000	426,000	464,000	377,000	331,000	8,250,000
1966	304,000	285,000	363,000	514,000	726,000	845,000	812,000	403,000	286,000	176,000	244,000	255,000	5,210,000
1967	283,000	255,000	303,000	332,000	1,050,000	2,180,000	1,410,000	627,000	396,000	275,000	321,000	238,000	7,670,000
1968	289,000	369,000	384,000	471,000	818,000	1,770,000	1,110,000	432,000	410,000	389,000	355,000	277,000	7,080,000
1969	279,000	289,000	425,000	910,000	1,320,000	1,050,000	1,340,000	738,000	374,000	303,000	354,000	287,000	7,680,000
1970	291,000	300,000	325,000	370,000	1,330,000	2,150,000	1,060,000	615,000	342,000	330,000	340,000	287,000	7,750,000
1971	315,000	394,000	357,000	509,000	1,240,000	1,930,000	1,260,000	528,000	397,000	347,000	370,000	283,000	7,930,000
1972	304,000	324,000	493,000	404,000	984,000	1,960,000	842,000	454,000	413,000	325,000	348,000	256,000	7,100,000
1973	259,000	246,000	333,000	390,000	812,000	988,000	756,000	365,000	316,000	267,000	334,000	290,000	5,360,000
1974	283,000	272,000	339,000	517,000	781,000	2,230,000	916,000	382,000	358,000	245,000	292,000	283,000	6,900,000
1975	262,000	236,000	326,000	411,000	1,440,000	2,170,000	1,770,000	707,000	546,000	417,000	382,000	438,000	9,110,000

Table 41. Synthesized streamflow for Missouri River below Black Eagle Dam, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	384,000	349,000	374,000	631,000	1,890,000	1,600,000	1,090,000	608,000	497,000	419,000	364,000	338,000	8,550,000
1977	307,000	335,000	335,000	475,000	381,000	1,050,000	609,000	387,000	239,000	314,000	259,000	275,000	4,960,000
1978	275,000	265,000	455,000	631,000	1,010,000	1,840,000	1,220,000	627,000	462,000	358,000	291,000	298,000	7,740,000
1979	257,000	273,000	403,000	486,000	1,110,000	1,380,000	707,000	511,000	436,000	205,000	247,000	263,000	6,280,000
1980	221,000	267,000	317,000	519,000	1,020,000	1,760,000	1,080,000	459,000	391,000	306,000	327,000	315,000	6,980,000
1981	304,000	279,000	336,000	461,000	1,370,000	1,990,000	1,000,000	652,000	378,000	295,000	299,000	288,000	7,660,000
1982	235,000	309,000	342,000	474,000	990,000	2,060,000	1,510,000	689,000	372,000	420,000	345,000	319,000	8,070,000
1983	346,000	278,000	333,000	392,000	910,000	1,600,000	1,320,000	713,000	423,000	436,000	408,000	299,000	7,460,000
1984	395,000	376,000	430,000	581,000	1,290,000	1,890,000	1,330,000	744,000	480,000	421,000	388,000	313,000	8,630,000
1985	325,000	287,000	419,000	619,000	799,000	1,240,000	707,000	350,000	258,000	410,000	265,000	281,000	5,960,000
1986	274,000	320,000	414,000	512,000	873,000	1,730,000	775,000	540,000	314,000	332,000	301,000	253,000	6,640,000
1987	237,000	243,000	289,000	409,000	358,000	1,010,000	615,000	422,000	421,000	208,000	215,000	189,000	4,620,000
1988	197,000	220,000	258,000	381,000	595,000	1,670,000	559,000	350,000	222,000	184,000	194,000	188,000	5,020,000
1989	204,000	163,000	403,000	492,000	756,000	1,010,000	676,000	472,000	329,000	243,000	231,000	233,000	5,210,000

Table 42. Synthesized streamflow for Missouri River near Great Falls, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	323,000	315,000	614,000	518,000	2,200,000	1,420,000	1,240,000	505,000	378,000	327,000	318,000	295,000	8,440,000
1929	226,000	304,000	433,000	393,000	1,160,000	1,740,000	830,000	448,000	371,000	244,000	243,000	264,000	6,660,000
1930	161,000	369,000	285,000	530,000	861,000	1,170,000	586,000	320,000	286,000	331,000	314,000	223,000	5,440,000
1931	205,000	234,000	314,000	383,000	516,000	857,000	513,000	266,000	234,000	140,000	234,000	204,000	4,100,000
1932	178,000	227,000	274,000	422,000	972,000	1,540,000	769,000	406,000	278,000	228,000	281,000	228,000	5,790,000
1933	212,000	263,000	315,000	306,000	996,000	2,220,000	701,000	323,000	249,000	234,000	274,000	282,000	6,370,000
1934	221,000	250,000	302,000	365,000	781,000	1,080,000	596,000	398,000	241,000	114,000	306,000	208,000	4,870,000
1935	229,000	251,000	286,000	342,000	664,000	1,310,000	614,000	342,000	291,000	141,000	217,000	210,000	4,900,000
1936	167,000	209,000	390,000	625,000	984,000	1,270,000	607,000	421,000	287,000	129,000	217,000	176,000	5,480,000
1937	125,000	257,000	267,000	526,000	855,000	1,090,000	603,000	283,000	230,000	138,000	210,000	208,000	4,790,000
1938	164,000	217,000	328,000	434,000	1,090,000	1,640,000	1,230,000	627,000	249,000	282,000	292,000	250,000	6,810,000
1939	228,000	288,000	406,000	594,000	922,000	1,040,000	646,000	328,000	258,000	163,000	232,000	217,000	5,320,000
1940	108,000	240,000	303,000	414,000	664,000	839,000	572,000	317,000	235,000	321,000	271,000	247,000	4,530,000
1941	250,000	235,000	314,000	358,000	564,000	1,170,000	633,000	444,000	300,000	441,000	321,000	320,000	5,350,000
1942	230,000	264,000	352,000	899,000	1,210,000	1,770,000	892,000	423,000	277,000	229,000	304,000	283,000	7,140,000
1943	243,000	393,000	520,000	940,000	1,140,000	2,180,000	1,320,000	544,000	339,000	237,000	296,000	277,000	8,430,000
1944	311,000	288,000	260,000	360,000	1,030,000	1,580,000	1,180,000	466,000	327,000	248,000	288,000	221,000	6,550,000
1945	334,000	300,000	350,000	353,000	676,000	1,480,000	904,000	538,000	306,000	237,000	327,000	216,000	6,020,000
1946	296,000	302,000	409,000	519,000	947,000	1,230,000	812,000	502,000	349,000	480,000	333,000	293,000	6,470,000
1947	310,000	298,000	435,000	690,000	1,510,000	1,700,000	996,000	555,000	378,000	464,000	386,000	299,000	8,010,000
1948	350,000	321,000	374,000	655,000	1,090,000	2,200,000	1,380,000	523,000	395,000	365,000	309,000	288,000	8,250,000
1949	256,000	274,000	312,000	684,000	1,220,000	1,800,000	713,000	427,000	278,000	290,000	312,000	253,000	6,820,000
1950	232,000	293,000	321,000	446,000	892,000	2,460,000	1,270,000	492,000	367,000	400,000	325,000	314,000	7,810,000
1951	274,000	314,000	457,000	601,000	1,300,000	1,800,000	1,210,000	445,000	410,000	341,000	364,000	261,000	7,780,000
1952	248,000	332,000	272,000	684,000	1,680,000	1,560,000	941,000	449,000	317,000	204,000	266,000	264,000	7,220,000
1953	362,000	284,000	342,000	403,000	609,000	2,020,000	1,040,000	472,000	397,000	185,000	299,000	266,000	6,680,000
1954	227,000	308,000	243,000	405,000	658,000	1,640,000	885,000	544,000	268,000	154,000	264,000	215,000	5,810,000
1955	200,000	249,000	278,000	312,000	904,000	1,920,000	1,000,000	504,000	365,000	194,000	260,000	282,000	6,470,000
1956	311,000	215,000	411,000	661,000	1,390,000	1,760,000	732,000	512,000	369,000	168,000	253,000	232,000	7,010,000
1957	127,000	237,000	309,000	336,000	1,110,000	1,480,000	904,000	497,000	398,000	247,000	280,000	260,000	6,180,000
1958	233,000	248,000	343,000	373,000	1,300,000	1,260,000	775,000	627,000	364,000	241,000	268,000	303,000	6,340,000
1959	242,000	211,000	378,000	457,000	664,000	1,830,000	1,140,000	443,000	278,000	400,000	389,000	360,000	6,780,000
1960	265,000	301,000	433,000	573,000	879,000	1,540,000	818,000	382,000	371,000	180,000	251,000	239,000	6,230,000
1961	205,000	282,000	278,000	248,000	483,000	1,560,000	633,000	499,000	213,000	245,000	277,000	206,000	5,130,000
1962	207,000	274,000	324,000	631,000	996,000	1,790,000	793,000	504,000	430,000	288,000	318,000	280,000	6,830,000
1963	192,000	419,000	326,000	376,000	726,000	1,260,000	1,050,000	571,000	405,000	225,000	280,000	242,000	6,070,000
1964	251,000	260,000	275,000	380,000	1,160,000	2,330,000	1,410,000	459,000	478,000	269,000	311,000	290,000	7,870,000
1965	362,000	322,000	291,000	661,000	1,170,000	2,230,000	1,480,000	597,000	473,000	473,000	405,000	339,000	8,810,000
1966	312,000	298,000	416,000	525,000	818,000	940,000	861,000	455,000	322,000	219,000	277,000	272,000	5,720,000
1967	286,000	285,000	346,000	381,000	1,160,000	2,590,000	1,460,000	676,000	456,000	327,000	370,000	251,000	8,590,000
1968	344,000	425,000	426,000	490,000	879,000	1,870,000	1,170,000	505,000	454,000	443,000	420,000	288,000	7,720,000
1969	328,000	338,000	528,000	964,000	1,390,000	1,140,000	1,400,000	781,000	406,000	339,000	383,000	312,000	8,310,000
1970	296,000	320,000	347,000	369,000	1,430,000	2,320,000	1,140,000	658,000	390,000	376,000	394,000	338,000	8,380,000
1971	382,000	467,000	423,000	625,000	1,530,000	2,190,000	1,370,000	621,000	472,000	408,000	394,000	282,000	9,160,000
1972	331,000	366,000	567,000	481,000	1,120,000	2,210,000	898,000	514,000	512,000	389,000	392,000	303,000	8,090,000
1973	311,000	297,000	356,000	420,000	867,000	1,050,000	812,000	408,000	356,000	294,000	352,000	309,000	5,830,000
1974	323,000	298,000	359,000	534,000	812,000	2,460,000	996,000	451,000	410,000	306,000	327,000	297,000	7,570,000
1975	269,000	270,000	383,000	480,000	1,600,000	2,680,000	1,960,000	769,000	613,000	483,000	465,000	504,000	10,490,000

Table 42. Synthesized streamflow for Missouri River near Great Falls, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	406,000	358,000	358,000	666,000	2,140,000	1,710,000	1,110,000	615,000	489,000	444,000	386,000	362,000	9,040,000
1977	304,000	343,000	335,000	482,000	398,000	1,060,000	639,000	418,000	273,000	336,000	277,000	269,000	5,130,000
1978	284,000	290,000	533,000	631,000	1,180,000	2,010,000	1,330,000	683,000	499,000	371,000	293,000	270,000	8,370,000
1979	250,000	293,000	520,000	571,000	1,290,000	1,510,000	781,000	578,000	478,000	240,000	270,000	277,000	7,050,000
1980	213,000	300,000	347,000	553,000	1,170,000	1,930,000	1,130,000	531,000	444,000	339,000	339,000	334,000	7,630,000
1981	322,000	303,000	362,000	489,000	1,520,000	1,960,000	1,030,000	701,000	416,000	332,000	335,000	304,000	8,080,000
1982	272,000	379,000	392,000	521,000	1,110,000	2,270,000	1,590,000	738,000	396,000	429,000	395,000	348,000	8,840,000
1983	410,000	327,000	398,000	436,000	965,000	1,590,000	1,310,000	744,000	452,000	456,000	412,000	274,000	7,780,000
1984	407,000	339,000	407,000	557,000	1,270,000	1,840,000	1,300,000	738,000	450,000	426,000	386,000	281,000	8,410,000
1985	336,000	289,000	444,000	637,000	916,000	1,310,000	762,000	413,000	305,000	474,000	298,000	345,000	6,530,000
1986	331,000	359,000	502,000	607,000	1,050,000	1,810,000	842,000	595,000	369,000	381,000	364,000	315,000	7,530,000
1987	278,000	306,000	359,000	469,000	462,000	1,070,000	683,000	475,000	475,000	242,000	274,000	233,000	5,330,000
1988	247,000	278,000	319,000	430,000	658,000	1,740,000	615,000	382,000	253,000	218,000	239,000	207,000	5,590,000
1989	245,000	178,000	451,000	561,000	947,000	1,200,000	762,000	548,000	397,000	315,000	331,000	321,000	6,250,000

Table 43. Synthesized streamflow for Missouri River at Fort Benton, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	292,000	332,000	560,000	595,000	1,760,000	1,610,000	1,290,000	689,000	428,000	283,000	284,000	279,000	8,410,000
1929	269,000	269,000	327,000	362,000	867,000	1,550,000	1,010,000	732,000	356,000	267,000	233,000	264,000	6,510,000
1930	267,000	213,000	259,000	732,000	787,000	1,280,000	664,000	434,000	323,000	171,000	159,000	204,000	5,490,000
1931	223,000	242,000	287,000	336,000	433,000	1,040,000	664,000	601,000	244,000	154,000	138,000	129,000	4,490,000
1932	130,000	137,000	291,000	394,000	885,000	1,460,000	818,000	584,000	439,000	195,000	208,000	160,000	5,710,000
1933	192,000	189,000	335,000	365,000	726,000	1,980,000	916,000	330,000	319,000	178,000	248,000	248,000	6,030,000
1934	293,000	248,000	299,000	607,000	775,000	827,000	744,000	531,000	212,000	132,000	155,000	163,000	4,990,000
1935	177,000	148,000	241,000	274,000	480,000	1,290,000	744,000	571,000	432,000	183,000	170,000	174,000	4,890,000
1936	323,000	151,000	223,000	371,000	1,040,000	1,010,000	713,000	470,000	283,000	146,000	176,000	183,000	5,080,000
1937	129,000	132,000	264,000	267,000	646,000	791,000	664,000	531,000	255,000	149,000	136,000	186,000	4,150,000
1938	189,000	154,000	240,000	298,000	842,000	1,690,000	1,220,000	561,000	443,000	195,000	271,000	232,000	6,340,000
1939	234,000	174,000	341,000	478,000	885,000	851,000	861,000	484,000	300,000	209,000	191,000	195,000	5,200,000
1940	156,000	197,000	271,000	389,000	824,000	1,170,000	556,000	496,000	135,000	220,000	187,000	212,000	4,810,000
1941	218,000	181,000	251,000	303,000	435,000	988,000	738,000	354,000	256,000	360,000	302,000	291,000	4,680,000
1942	226,000	217,000	325,000	815,000	990,000	1,800,000	1,020,000	512,000	347,000	225,000	268,000	266,000	7,010,000
1943	175,000	262,000	411,000	940,000	1,030,000	2,210,000	1,330,000	562,000	415,000	231,000	288,000	243,000	8,100,000
1944	241,000	237,000	309,000	401,000	559,000	1,230,000	1,170,000	488,000	356,000	259,000	271,000	207,000	5,730,000
1945	274,000	242,000	301,000	324,000	633,000	1,170,000	1,050,000	456,000	271,000	273,000	275,000	239,000	5,510,000
1946	247,000	239,000	293,000	497,000	750,000	1,260,000	769,000	399,000	315,000	371,000	325,000	343,000	5,810,000
1947	253,000	265,000	456,000	625,000	1,610,000	1,560,000	1,110,000	531,000	328,000	382,000	348,000	320,000	7,800,000
1948	278,000	265,000	344,000	613,000	1,540,000	2,460,000	1,210,000	676,000	411,000	306,000	317,000	234,000	8,650,000
1949	207,000	259,000	398,000	619,000	1,130,000	1,400,000	793,000	476,000	315,000	249,000	268,000	207,000	6,320,000
1950	190,000	263,000	355,000	477,000	775,000	1,710,000	1,120,000	652,000	344,000	354,000	336,000	319,000	6,900,000
1951	244,000	292,000	405,000	595,000	1,390,000	1,740,000	1,110,000	503,000	453,000	327,000	320,000	213,000	7,590,000
1952	247,000	281,000	354,000	750,000	1,520,000	1,520,000	996,000	580,000	459,000	204,000	246,000	254,000	7,420,000
1953	314,000	239,000	315,000	397,000	879,000	2,930,000	1,260,000	603,000	399,000	219,000	264,000	269,000	8,090,000
1954	197,000	317,000	285,000	380,000	892,000	1,260,000	1,130,000	461,000	380,000	173,000	236,000	180,000	5,890,000
1955	211,000	183,000	267,000	415,000	885,000	1,520,000	1,020,000	707,000	327,000	202,000	236,000	308,000	6,290,000
1956	270,000	225,000	408,000	532,000	1,210,000	1,850,000	805,000	454,000	396,000	176,000	264,000	242,000	6,830,000
1957	135,000	244,000	345,000	350,000	1,160,000	1,510,000	928,000	504,000	403,000	234,000	276,000	253,000	6,340,000
1958	229,000	247,000	333,000	378,000	1,310,000	1,260,000	756,000	627,000	349,000	231,000	259,000	297,000	6,270,000
1959	241,000	211,000	384,000	465,000	719,000	1,890,000	1,150,000	445,000	280,000	384,000	365,000	367,000	6,900,000
1960	269,000	311,000	456,000	589,000	910,000	1,570,000	836,000	395,000	384,000	188,000	255,000	243,000	6,410,000
1961	205,000	278,000	272,000	251,000	490,000	1,580,000	652,000	514,000	209,000	239,000	268,000	208,000	5,170,000
1962	210,000	283,000	334,000	643,000	1,050,000	1,840,000	793,000	505,000	455,000	296,000	318,000	284,000	7,000,000
1963	190,000	480,000	336,000	391,000	750,000	1,320,000	1,080,000	568,000	395,000	202,000	262,000	223,000	6,190,000
1964	251,000	291,000	310,000	412,000	1,260,000	2,400,000	1,500,000	522,000	532,000	326,000	356,000	357,000	8,520,000
1965	430,000	398,000	345,000	744,000	1,290,000	2,420,000	1,560,000	604,000	493,000	514,000	430,000	350,000	9,570,000
1966	327,000	312,000	449,000	545,000	867,000	976,000	885,000	459,000	332,000	214,000	267,000	272,000	5,900,000
1967	288,000	281,000	337,000	390,000	1,250,000	2,700,000	1,490,000	670,000	442,000	328,000	373,000	260,000	8,810,000
1968	362,000	422,000	421,000	502,000	928,000	1,960,000	1,200,000	505,000	449,000	445,000	417,000	295,000	7,910,000
1969	341,000	353,000	555,000	1,000,000	1,440,000	1,210,000	1,490,000	793,000	408,000	341,000	382,000	315,000	8,630,000
1970	325,000	350,000	345,000	374,000	1,560,000	2,440,000	1,160,000	652,000	397,000	371,000	377,000	336,000	8,690,000
1971	381,000	450,000	371,000	536,000	1,480,000	2,150,000	1,320,000	571,000	434,000	386,000	378,000	286,000	8,750,000
1972	324,000	363,000	562,000	457,000	1,120,000	2,250,000	892,000	501,000	505,000	397,000	400,000	301,000	8,070,000
1973	333,000	329,000	374,000	435,000	898,000	1,070,000	830,000	406,000	346,000	290,000	346,000	313,000	5,970,000
1974	330,000	308,000	366,000	558,000	892,000	2,520,000	1,000,000	449,000	424,000	294,000	336,000	298,000	7,780,000
1975	280,000	284,000	371,000	489,000	1,720,000	2,770,000	1,940,000	775,000	619,000	507,000	470,000	517,000	10,750,000

Table 43. Synthesized streamflow for Missouri River at Fort Benton, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	416,000	366,000	367,000	696,000	2,180,000	1,770,000	1,160,000	646,000	525,000	437,000	386,000	355,000	9,310,000
1977	318,000	323,000	328,000	507,000	456,000	1,080,000	633,000	424,000	282,000	360,000	305,000	286,000	5,310,000
1978	302,000	311,000	605,000	678,000	1,270,000	2,080,000	1,380,000	683,000	533,000	402,000	311,000	287,000	8,840,000
1979	274,000	327,000	565,000	601,000	1,370,000	1,560,000	787,000	590,000	493,000	236,000	271,000	262,000	7,340,000
1980	215,000	304,000	345,000	562,000	1,210,000	2,020,000	1,160,000	512,000	441,000	344,000	364,000	392,000	7,860,000
1981	338,000	306,000	386,000	514,000	1,740,000	2,180,000	1,080,000	719,000	415,000	333,000	324,000	282,000	8,610,000
1982	276,000	388,000	382,000	519,000	1,140,000	2,430,000	1,620,000	732,000	419,000	467,000	386,000	331,000	9,090,000
1983	380,000	293,000	360,000	414,000	1,010,000	1,670,000	1,370,000	738,000	455,000	460,000	417,000	265,000	7,830,000
1984	402,000	342,000	410,000	586,000	1,330,000	1,920,000	1,320,000	726,000	465,000	444,000	384,000	282,000	8,610,000
1985	339,000	284,000	421,000	625,000	910,000	1,330,000	769,000	424,000	311,000	470,000	299,000	371,000	6,550,000
1986	344,000	380,000	510,000	613,000	1,050,000	1,810,000	812,000	585,000	355,000	354,000	320,000	271,000	7,410,000
1987	250,000	266,000	315,000	436,000	432,000	1,040,000	646,000	457,000	458,000	224,000	241,000	204,000	4,970,000
1988	216,000	243,000	287,000	409,000	646,000	1,730,000	607,000	386,000	243,000	203,000	205,000	189,000	5,370,000
1989	218,000	168,000	464,000	544,000	941,000	1,130,000	738,000	535,000	386,000	309,000	312,000	288,000	6,030,000

Table 44. Synthesized streamflow for Two Medicine River below Lower Two Medicine Lake, Montana, 1928-82, in acre-feet
[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	2,030	1,960	13,000	11,200	63,900	32,900	19,800	10,300	4,460	6,460	4,110	2,280	172,000
1929	1,840	1,060	2,460	7,260	37,100	29,000	6,520	1,170	1,310	1,780	1,610	1,350	92,500
1930	861	1,780	3,870	16,400	29,100	22,100	5,960	1,290	1,430	1,840	1,250	1,230	87,200
1931	1,290	889	2,460	11,700	25,200	11,200	4,300	2,150	1,730	1,780	1,190	1,480	65,400
1932	1,110	2,650	7,440	8,330	39,900	30,100	7,990	2,280	952	1,290	3,090	1,970	107,000
1933	1,480	1,330	2,460	8,390	40,200	25,800	10,900	2,400	1,790	6,460	17,800	4,060	123,000
1934	4,730	5,440	5,230	14,500	46,400	42,800	9,220	1,720	1,190	4,180	13,400	3,380	152,000
1935	1,540	4,550	3,570	10,500	40,800	27,300	8,850	1,170	494	1,170	1,070	1,230	102,000
1936	922	334	1,970	15,000	32,400	14,300	3,750	922	440	578	833	799	72,200
1937	738	394	984	7,910	28,800	34,900	7,070	1,050	482	738	1,430	984	85,500
1938	1,410	611	2,520	9,100	38,200	32,400	11,000	6,030	1,960	1,540	1,130	1,410	107,000
1939	1,540	666	1,970	14,300	35,000	15,900	5,290	676	655	1,290	655	1,600	79,600
1940	1,110	575	3,070	11,300	24,900	10,500	2,580	984	1,490	2,280	833	1,230	60,800
1941	1,170	1,000	3,570	9,700	14,000	12,300	6,950	2,090	2,860	6,580	2,500	3,070	65,800
1942	2,400	1,560	2,340	15,800	31,500	28,300	8,490	1,110	1,610	2,210	2,200	2,710	100,000
1943	1,840	3,720	4,920	32,100	46,900	69,600	20,400	1,660	1,070	1,540	1,070	1,290	186,000
1944	984	805	1,230	6,010	18,600	14,800	6,460	1,540	1,130	1,540	1,130	1,350	55,600
1945	1,480	944	2,280	3,570	37,500	26,100	8,850	578	714	1,480	4,110	2,520	90,100
1946	2,030	944	2,280	22,300	29,900	21,000	7,260	547	1,070	2,340	2,740	2,830	95,200
1947	1,910	3,670	3,200	20,700	50,100	31,700	9,350	984	2,260	3,690	2,920	2,280	133,000
1948	1,840	1,040	3,320	9,700	57,300	23,700	19,200	4,430	2,200	2,400	833	1,050	127,000
1949	984	944	3,140	13,400	39,900	21,500	6,210	111	774	1,910	3,510	3,440	95,900
1950	1,910	1,500	3,140	9,220	49,300	38,400	24,700	3,320	1,960	3,010	5,710	1,840	144,000
1951	3,630	2,830	3,500	14,500	65,200	30,900	7,190	2,710	2,620	2,950	3,210	2,770	142,000
1952	1,840	3,280	2,640	23,400	41,100	18,400	4,060	1,410	1,370	1,480	464	1,050	101,000
1953	2,400	1,390	2,400	10,700	55,100	34,000	7,750	1,540	71	369	833	1,410	118,000
1954	1,230	3,390	2,520	6,310	64,600	28,900	5,900	541	268	922	3,390	2,640	121,000
1955	1,600	1,170	1,780	3,150	43,300	25,600	10,500	1,170	595	861	4,700	3,200	97,700
1956	2,710	1,090	4,430	14,600	57,100	39,500	16,800	676	518	799	1,840	2,030	142,000
1957	1,410	1,110	5,660	7,560	57,800	31,400	4,920	2,030	1,550	2,090	774	984	117,000
1958	922	1,330	2,460	7,970	38,800	31,300	5,350	1,110	774	1,170	4,580	4,300	100,000
1959	3,690	2,170	3,140	16,100	47,000	27,100	8,490	1,290	1,370	2,580	5,650	4,060	123,000
1960	2,210	1,900	6,890	17,500	36,800	31,200	3,940	1,050	1,130	1,540	1,490	1,540	107,000
1961	1,410	1,610	3,070	10,200	38,600	31,500	6,460	203	440	1,050	1,550	1,480	97,600
1962	1,350	2,110	4,120	21,000	36,400	26,200	5,230	2,580	2,140	3,140	3,330	3,870	112,000
1963	2,340	4,000	4,060	9,160	24,000	25,900	5,600	1,170	1,370	1,970	1,010	1,410	82,100
1964	1,230	978	2,090	4,340	41,100	36,700	9,220	1,290	1,070	1,660	2,620	2,830	105,000
1965	2,340	3,330	3,940	15,300	49,600	52,300	15,900	3,380	7,320	6,890	2,140	2,280	165,000
1966	1,660	1,610	5,290	13,800	37,300	29,300	6,700	1,170	952	1,480	1,550	2,340	103,000
1967	2,150	1,720	3,690	4,640	59,000	69,600	10,000	2,210	1,670	2,520	3,030	1,970	162,000
1968	1,970	2,240	4,300	5,360	31,400	29,200	14,400	2,890	2,560	2,890	4,700	2,770	105,000
1969	2,460	1,500	5,720	21,400	33,100	28,500	16,200	1,660	1,370	2,090	1,370	1,230	117,000
1970	1,290	1,280	2,640	3,090	54,400	55,600	9,780	1,720	2,200	2,460	1,370	1,970	138,000
1971	2,460	4,720	2,890	13,300	54,800	41,400	4,490	1,050	1,840	2,950	1,370	1,540	133,000
1972	1,410	1,670	7,620	11,100	47,000	48,000	3,500	2,830	1,960	2,280	1,190	1,480	130,000
1973	2,090	1,940	2,460	5,530	28,000	18,300	4,430	1,540	1,370	2,460	3,870	3,140	75,100
1974	3,870	2,050	3,870	15,900	34,900	44,500	9,470	3,940	3,030	2,890	1,070	1,350	127,000
1975	1,230	833	1,350	1,840	50,600	102,000	20,200	5,960	3,630	3,870	4,640	4,000	200,000

Table 44. Synthesized streamflow for Two Medicine River below Lower Two Medicine Lake, Montana, 1928-89, in acre-feet
(Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	2,950	5,410	6,700	13,600	53,500	24,200	10,100	4,730	3,330	3,010	893	1,170	130,000
1977	1,660	1,670	1,720	8,630	14,400	6,840	4,000	1,970	4,880	2,770	1,490	1,410	51,500
1978	1,480	1,390	11,200	13,400	43,800	34,100	13,500	3,070	5,650	3,570	1,900	1,970	135,000
1979	1,290	1,170	4,860	7,560	49,300	30,100	6,150	1,350	1,840	799	595	1,110	106,000
1980	615	805	1,290	17,200	43,200	25,700	4,980	1,110	6,430	2,520	3,450	6,760	114,000
1981	4,370	3,000	3,750	10,900	44,800	19,600	6,830	1,970	655	3,810	1,010	1,970	103,000
1982	1,780	3,170	3,810	7,740	34,900	42,700	13,900	3,690	893	1,720	1,310	2,210	118,000
1983	2,460	2,280	2,890	7,680	24,700	19,200	7,380	2,520	3,450	2,280	1,900	1,230	78,000
1984	2,520	1,780	1,350	8,090	19,100	22,600	3,380	98	893	1,600	1,190	1,170	63,800
1985	1,170	833	1,230	17,900	38,100	28,000	2,830	1,290	14,300	14,900	9,220	2,710	132,000
1986	2,030	7,280	13,100	15,500	24,900	16,700	6,390	2,830	4,050	15,100	3,930	2,890	115,000
1987	2,210	1,780	5,350	20,900	28,700	12,200	12,400	5,230	3,870	510	595	1,170	94,900
1988	984	1,090	2,210	15,600	24,300	11,400	4,240	615	1,190	1,600	5,000	2,710	71,100
1989	1,540	1,220	3,440	20,900	42,100	38,600	10,700	5,720	4,760	4,120	13,800	3,260	150,000

Table 45. Synthesized streamflow for Birch Creek below Swift Reservoir, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	1,290	575	1,170	1,430	27,400	24,400	15,200	21,500	5,950	3,630	893	523	104,000
1929	572	517	984	3,870	16,600	16,200	20,300	18,100	1,610	1,480	411	424	81,100
1930	467	722	922	7,380	12,400	12,900	13,900	21,800	1,840	1,480	303	523	74,700
1931	314	189	314	1,490	4,000	5,120	10,300	2,460	1,670	2,950	595	363	29,700
1932	314	500	560	4,110	15,100	16,700	17,300	12,300	1,310	2,770	655	418	71,900
1933	363	328	572	1,490	22,700	30,500	19,600	21,300	1,370	1,840	506	467	101,000
1934	861	10,000	799	17,200	25,500	33,600	17,200	12,100	3,270	4,860	1,430	1,170	128,000
1935	676	944	2,030	5,590	18,300	17,800	19,300	8,980	3,150	4,860	506	498	82,700
1936	11,800	1,550	2,460	5,650	16,200	7,800	246	2,770	2,020	2,830	2,140	1,910	57,400
1937	1,290	1,940	2,150	2,740	11,100	21,600	4,300	3,940	2,560	1,840	470	467	54,400
1938	2,770	2,500	590	3,630	26,500	20,900	9,960	20,800	2,860	3,690	1,430	861	96,500
1939	3,260	2,550	2,770	5,060	12,300	8,330	7,320	8,980	2,020	3,140	547	738	57,000
1940	2,520	2,930	738	4,110	11,200	4,760	3,320	3,200	2,500	3,940	559	799	40,600
1941	2,640	2,000	922	5,060	9,100	5,950	6,520	8,120	5,410	9,470	6,610	1,600	63,400
1942	3,570	3,280	1,230	6,310	23,400	17,600	10,500	13,400	3,750	4,180	1,610	984	89,800
1943	3,870	3,720	1,600	17,100	20,800	57,100	17,000	6,270	3,630	4,490	2,440	1,480	140,000
1944	2,640	2,130	1,410	2,080	14,700	7,560	8,300	10,800	4,170	4,000	1,490	799	60,100
1945	3,320	2,890	1,290	5,180	19,000	27,300	9,590	15,500	3,690	3,690	2,200	799	94,500
1946	3,940	3,170	676	5,710	13,700	11,900	8,670	6,640	4,110	5,780	1,310	1,050	66,600
1947	5,600	4,390	1,050	8,090	26,900	20,400	10,900	34,400	5,410	8,670	6,130	6,210	138,000
1948	4,000	3,740	412	8,210	30,300	98,200	12,600	20,700	3,990	6,090	5,000	1,600	195,000
1949	3,440	2,940	738	7,260	20,200	12,300	7,620	22,500	4,050	4,670	1,900	984	88,600
1950	3,570	3,720	738	4,700	21,600	59,300	15,700	42,900	4,640	6,890	6,310	4,800	175,000
1951	4,060	4,830	922	8,870	25,500	36,600	12,900	44,600	4,640	8,610	3,930	1,110	156,000
1952	3,320	3,510	676	10,900	24,300	10,100	9,220	19,000	4,170	3,200	1,310	1,410	91,100
1953	3,630	3,500	547	2,440	25,300	69,600	14,400	26,800	3,930	3,010	893	738	155,000
1954	4,670	4,330	1,720	4,050	27,500	29,800	13,300	22,900	2,980	3,140	1,070	517	116,000
1955	3,320	2,940	467	2,500	15,600	30,500	16,000	23,000	2,920	3,500	893	799	102,000
1956	4,370	3,510	861	9,820	36,500	27,100	9,470	8,120	2,380	3,070	1,250	1,230	108,000
1957	5,100	4,890	394	3,390	37,400	20,100	7,990	9,100	3,330	4,060	1,730	1,350	98,800
1958	3,810	3,890	547	4,050	16,700	20,100	8,490	20,000	2,800	4,240	1,490	1,290	87,400
1959	4,670	3,830	590	8,690	24,500	37,400	11,100	16,100	3,750	7,690	7,140	6,640	132,000
1960	4,920	3,280	861	8,930	17,200	19,900	8,490	18,100	3,330	4,240	2,140	1,230	92,600
1961	3,140	3,830	486	2,800	16,400	20,200	5,840	10,800	2,500	4,060	3,690	1,540	75,200
1962	3,260	3,330	504	9,160	14,600	15,900	9,350	27,200	4,580	5,720	4,580	4,430	103,000
1963	3,630	5,050	738	4,580	18,100	15,600	11,600	16,800	4,340	5,290	3,810	1,290	90,900
1964	3,630	3,340	541	4,050	18,700	92,200	16,300	29,300	5,470	5,720	4,340	5,470	189,000
1965	5,040	4,780	676	10,900	27,400	39,100	13,300	6,270	6,490	15,100	4,220	3,870	137,000
1966	3,870	3,390	984	6,370	15,700	18,300	5,350	12,000	2,260	3,010	2,500	1,350	75,100
1967	3,260	3,000	615	3,090	26,600	56,700	11,100	50,200	3,450	7,750	5,950	4,550	176,000
1968	4,300	5,350	984	3,630	13,400	18,300	10,600	49,400	5,770	10,200	5,060	4,300	131,000
1969	5,170	3,940	517	13,900	12,000	17,700	8,980	18,800	3,570	7,440	3,690	3,630	99,300
1970	4,000	3,550	4,120	2,560	29,600	42,400	14,000	25,500	5,120	6,150	4,580	4,300	146,000
1971	4,730	6,890	5,350	5,590	33,600	28,800	12,400	5,290	4,110	6,640	3,870	1,840	119,000
1972	3,870	4,030	10,800	7,560	24,600	34,900	12,700	30,700	4,220	7,500	3,690	1,230	146,000
1973	4,370	3,220	3,320	7,020	8,550	9,880	5,780	12,400	6,490	2,210	4,220	3,690	71,200
1974	4,120	3,500	4,980	8,930	13,400	31,700	13,000	6,330	6,190	4,240	3,210	1,970	102,000
1975	3,380	2,830	3,690	2,920	28,500	92,800	21,800	8,610	5,770	8,120	6,250	7,870	193,000

Table 45. Synthesized streamflow for Birch Creek below Swift Reservoir, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	5,230	4,310	5,470	13,300	31,900	14,300	14,600	37,600	7,140	7,930	3,810	3,380	149,000
1977	2,890	2,720	3,630	2,500	4,060	2,560	6,090	6,830	4,280	3,380	1,790	1,110	41,800
1978	4,670	4,050	4,120	8,450	17,700	20,900	15,700	6,210	5,830	6,700	3,870	1,720	100,000
1979	3,440	3,330	799	4,280	27,700	20,100	7,690	12,400	4,400	3,140	1,310	1,170	89,700
1980	2,890	2,990	553	4,220	21,700	22,100	10,700	11,800	5,120	7,130	5,530	6,150	101,000
1981	5,410	4,330	1,050	4,460	27,400	15,400	10,600	9,220	3,930	6,270	3,930	5,720	97,800
1982	3,870	4,610	984	5,890	13,700	30,800	16,900	6,330	5,240	5,040	3,990	3,570	101,000
1983	4,370	3,720	984	3,150	14,400	9,160	10,800	28,000	5,470	8,180	4,760	1,480	94,500
1984	4,980	4,200	676	5,180	19,100	10,800	14,400	21,800	6,190	6,150	4,170	1,410	98,900
1985	3,630	3,110	615	5,000	17,000	13,500	5,350	14,500	5,770	11,800	1,840	1,050	83,200
1986	3,320	4,110	1,170	8,150	16,400	10,500	7,440	24,800	5,530	8,360	3,750	1,410	94,900
1987	3,070	3,000	676	3,330	10,800	6,430	5,100	32,200	4,050	3,380	952	738	73,700
1988	2,210	2,470	486	2,980	9,410	5,300	5,720	3,140	4,220	3,440	714	553	40,600
1989	2,890	2,280	922	9,880	14,000	22,300	7,620	21,400	5,360	5,900	1,840	922	95,200

Table 46. Synthesized streamflow for Marias River near Chester, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	18,600	18,800	127,000	82,700	293,000	236,000	168,000	50,500	48,000	49,200	36,400	19,100	1,150,000
1929	16,800	9,770	30,200	51,400	173,000	217,000	77,500	40,000	27,600	18,200	17,300	10,700	690,000
1930	6,640	17,400	44,400	132,000	138,000	181,000	73,200	37,800	26,400	24,300	14,100	9,350	704,000
1931	9,590	7,830	14,200	22,200	120,000	114,000	58,500	25,200	29,900	15,900	13,900	11,600	443,000
1932	8,980	26,400	78,100	54,200	186,000	223,000	89,800	39,900	23,200	17,500	29,200	16,200	792,000
1933	12,700	12,300	29,900	61,300	188,000	295,000	111,000	40,500	18,900	49,200	118,000	37,800	974,000
1934	55,700	18,700	76,900	181,000	215,000	283,000	99,000	30,600	23,900	7,500	94,000	30,400	1,120,000
1935	42,900	49,500	41,000	90,400	190,000	208,000	95,900	23,700	13,700	5,660	12,400	9,280	783,000
1936	5,960	2,880	24,700	70,800	152,000	134,000	53,000	30,000	17,900	11,300	10,600	5,720	520,000
1937	2,090	3,390	14,000	60,700	136,000	246,000	82,400	21,200	14,600	10,300	15,900	7,440	614,000
1938	12,100	5,330	30,700	59,500	178,000	234,000	112,000	58,800	37,600	17,700	13,100	11,300	770,000
1939	12,400	5,780	24,800	79,700	164,000	145,000	67,000	27,800	17,900	14,800	14,400	9,160	583,000
1940	5,230	15,000	16,200	45,300	118,000	109,000	52,000	18,700	27,500	23,000	16,400	10,600	457,000
1941	6,390	9,270	20,900	29,200	67,600	121,000	81,200	32,900	20,100	66,400	24,600	41,500	521,000
1942	19,400	15,100	28,400	65,500	148,000	214,000	99,000	30,300	32,300	24,400	21,700	28,600	726,000
1943	16,000	39,200	54,700	128,000	217,000	394,000	165,000	46,200	24,000	21,100	22,800	13,500	1,140,000
1944	12,700	7,250	16,700	31,000	89,200	138,000	72,600	35,700	25,400	26,300	17,400	11,000	483,000
1945	9,100	8,780	19,200	28,500	175,000	269,000	86,700	45,400	35,500	25,700	18,000	15,200	736,000
1946	19,300	14,700	28,300	59,500	141,000	174,000	94,100	40,400	24,600	28,700	20,400	23,400	669,000
1947	52,600	38,800	202,000	104,000	232,000	230,000	95,900	47,800	20,900	50,500	42,500	16,000	1,130,000
1948	27,000	20,700	17,600	82,100	264,000	523,000	83,000	42,000	30,400	28,500	22,100	8,420	1,150,000
1949	24,900	21,400	37,000	80,300	186,000	177,000	71,300	30,900	21,200	30,600	33,300	20,900	735,000
1950	7,930	17,100	22,800	95,200	228,000	402,000	187,000	56,600	37,000	34,400	60,700	55,100	1,200,000
1951	28,900	24,700	92,200	124,000	298,000	313,000	164,000	49,600	51,100	39,300	65,500	32,800	1,280,000
1952	23,400	21,300	89,200	141,000	192,000	160,000	76,900	51,600	26,100	20,300	13,900	8,790	824,000
1953	18,100	18,400	29,500	81,500	254,000	437,000	144,000	36,500	18,900	21,700	25,800	14,000	1,100,000
1954	12,800	22,900	30,600	101,000	296,000	281,000	165,000	46,300	13,800	18,300	40,900	24,700	1,050,000
1955	15,700	14,700	22,800	70,200	202,000	284,000	138,000	47,600	13,600	16,400	1,250	4,980	831,000
1956	55,600	12,600	30,600	76,800	234,000	234,000	123,000	50,300	35,400	11,900	36,000	14,600	914,000
1957	12,500	13,000	60,300	49,400	257,000	186,000	57,600	32,600	33,400	17,000	27,900	14,000	760,000
1958	18,100	16,200	27,200	72,600	212,000	173,000	78,700	61,500	35,900	22,000	30,900	37,900	785,000
1959	33,200	21,000	122,000	73,200	212,000	315,000	154,000	45,700	41,200	45,600	37,300	43,200	1,140,000
1960	18,300	20,700	61,100	72,600	172,000	224,000	93,500	29,900	37,600	16,200	20,200	11,200	778,000
1961	13,600	16,200	23,700	38,300	162,000	236,000	50,300	32,000	5,950	30,300	25,100	10,300	644,000
1962	15,900	23,400	32,100	85,100	140,000	183,000	46,900	42,500	30,800	23,000	23,100	19,600	666,000
1963	13,800	37,100	24,000	42,200	131,000	120,000	81,800	28,100	24,100	23,500	4,940	8,490	539,000
1964	11,900	11,600	11,900	35,600	189,000	593,000	122,000	48,900	32,600	37,000	23,900	15,800	1,130,000
1965	19,100	38,800	43,900	146,000	224,000	309,000	148,000	51,500	41,200	65,800	33,600	27,400	1,150,000
1966	16,700	13,800	57,400	78,500	180,000	178,000	103,000	34,200	38,200	18,500	17,900	22,300	758,000
1967	14,500	15,200	50,100	41,600	267,000	415,000	156,000	59,000	37,300	24,800	30,000	10,000	1,120,000
1968	24,900	24,600	52,000	37,400	117,000	169,000	98,400	23,600	33,400	46,700	27,000	17,300	671,000
1969	20,800	17,100	89,800	124,000	168,000	163,000	138,000	50,800	25,600	4,980	20,500	12,400	835,000
1970	6,270	11,800	24,500	27,300	255,000	337,000	92,200	56,400	27,300	22,600	12,000	21,800	895,000
1971	17,600	62,800	30,900	85,700	253,000	298,000	121,000	59,700	30,200	18,100	25,200	11,400	1,010,000
1972	12,800	15,600	189,000	80,900	239,000	305,000	114,000	65,800	35,100	34,100	26,600	13,700	1,130,000
1973	13,700	16,300	29,600	30,400	158,000	170,000	80,500	40,500	27,100	15,400	12,000	17,500	611,000
1974	29,900	22,900	41,700	65,500	154,000	326,000	130,000	42,600	43,200	17,600	14,500	11,300	900,000
1975	7,620	3,390	16,200	90,400	229,000	556,000	255,000	76,200	65,500	51,200	40,900	61,500	1,450,000

Table 46. Synthesized streamflow for Marias River near Chester, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	44,500	32,100	47,800	82,100	279,000	168,000	123,000	47,100	53,700	21,900	15,900	14,800	929,000
1977	9,040	15,800	13,600	36,700	62,100	127,000	52,400	24,800	25,800	23,600	9,580	15,400	416,000
1978	15,200	14,800	167,000	79,700	167,000	258,000	139,000	72,600	55,300	36,000	18,000	18,400	1,040,000
1979	11,300	9,160	129,000	77,400	256,000	252,000	103,000	64,600	45,000	20,400	15,900	16,700	1,000,000
1980	7,190	9,490	36,400	81,500	205,000	226,000	119,000	46,200	49,200	20,900	34,000	31,500	866,000
1981	36,200	23,000	28,700	49,900	226,000	196,000	84,900	71,300	45,300	17,500	16,200	12,200	807,000
1982	6,270	21,100	36,800	79,700	143,000	312,000	146,000	57,100	23,600	28,300	13,200	15,000	882,000
1983	15,700	16,000	25,500	33,900	119,000	170,000	79,900	67,600	27,000	24,200	14,000	8,240	601,000
1984	19,700	19,300	17,500	33,200	115,000	159,000	85,500	54,300	21,700	4,240	16,400	8,300	554,000
1985	9,470	6,780	29,500	59,100	142,000	214,000	81,200	35,400	57,300	80,500	67,800	36,800	820,000
1986	36,700	105,000	68,900	78,500	136,000	196,000	85,500	45,100	33,400	49,600	33,300	30,600	899,000
1987	18,800	20,100	46,400	96,400	137,000	182,000	63,900	52,800	63,700	28,300	19,600	11,900	740,000
1988	10,500	15,900	25,000	51,900	134,000	133,000	55,800	49,100	13,500	18,600	19,900	16,800	544,000
1989	15,100	11,700	79,900	67,800	170,000	248,000	112,000	62,700	60,700	41,200	89,300	45,200	1,000,000

Table 47. Synthesized streamflow for Teton River at mouth, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	3,200	4,770	42,100	16,200	107,000	85,100	63,300	20,500	14,300	6,460	11,500	3,010	378,000
1929	2,890	2,220	8,180	12,600	26,600	78,500	44,900	14,200	17,400	609	1,670	1,110	211,000
1930	861	7,720	14,600	19,900	27,900	66,600	46,100	5,040	15,400	676	4,820	861	211,000
1931	1,410	2,550	2,640	1,370	14,000	113,000	30,300	2,890	6,070	615	1,430	1,290	178,000
1932	1,290	2,300	24,200	3,750	22,900	80,300	43,500	10,500	14,500	326	3,030	2,290	209,000
1933	2,030	2,890	8,120	16,200	29,200	105,000	49,500	5,230	8,690	6,460	3,810	9,650	246,000
1934	12,400	4,780	7,190	5,470	24,300	101,000	34,200	676	5,410	2,950	321	6,700	205,000
1935	9,040	2,110	5,290	5,530	9,220	79,100	36,500	6,030	8,870	264	214	861	163,000
1936	799	1,320	29,500	17,300	26,400	61,900	34,500	5,780	8,210	2,520	232	532	189,000
1937	172	2,170	8,360	9,520	21,900	88,700	34,800	3,500	4,170	98	226	566	174,000
1938	1,910	2,550	11,800	8,030	30,400	84,500	63,900	5,960	24,000	486	7,560	1,230	242,000
1939	1,970	2,330	19,500	11,400	26,400	72,000	37,200	4,980	21,100	338	1,310	861	199,000
1940	676	3,340	7,750	5,710	24,400	56,000	33,200	4,610	14,700	984	655	615	153,000
1941	861	2,780	3,690	1,840	15,800	101,000	37,500	4,490	14,400	3,010	1,960	1,050	189,000
1942	5,290	5,940	19,400	14,200	42,400	60,100	48,800	5,780	22,000	1,480	4,280	1,720	231,000
1943	3,200	7,940	22,100	28,300	36,800	97,000	67,000	18,500	21,000	1,410	7,800	1,720	313,000
1944	2,210	2,820	6,030	8,450	16,700	79,700	59,900	12,200	11,400	1,170	3,390	1,170	205,000
1945	3,140	3,830	13,800	8,450	21,200	73,200	49,600	6,210	11,700	1,110	4,050	2,150	198,000
1946	4,060	4,390	11,800	11,500	21,600	76,800	45,400	15,600	18,600	2,770	2,620	4,240	220,000
1947	5,100	4,940	25,100	21,200	60,300	72,000	55,100	22,400	19,200	6,640	11,300	4,800	308,000
1948	4,800	8,110	9,720	13,800	79,900	95,800	68,300	44,800	21,000	2,640	4,580	3,320	357,000
1949	3,690	3,280	27,700	22,400	41,100	57,200	40,700	21,500	16,500	1,110	7,560	2,460	245,000
1950	3,810	5,390	18,100	19,300	25,600	129,000	63,300	41,000	30,300	7,620	5,590	7,070	356,000
1951	4,920	7,940	19,600	19,600	43,100	75,600	60,500	50,000	36,100	4,610	8,930	5,500	337,000
1952	5,230	3,510	19,900	27,700	52,100	58,100	50,500	32,700	22,300	584	3,150	2,710	278,000
1953	4,060	4,330	6,760	4,940	21,800	112,000	56,800	30,400	23,500	1,720	2,020	3,630	272,000
1954	2,950	5,890	4,920	7,140	15,100	104,000	48,600	17,900	15,700	5,170	3,810	3,500	235,000
1955	2,950	3,000	3,690	13,400	26,700	90,400	52,300	35,800	24,400	2,950	952	2,090	259,000
1956	3,690	3,220	10,400	10,700	42,700	92,800	52,600	21,000	28,700	1,410	2,440	4,180	274,000
1957	2,210	2,720	14,600	11,500	26,300	60,100	64,600	26,600	19,000	1,410	5,180	3,540	238,000
1958	4,300	5,000	12,500	14,000	54,900	59,500	64,600	46,700	30,200	5,780	1,730	5,350	305,000
1959	4,000	3,440	28,000	20,800	26,100	92,800	66,400	25,100	11,700	2,950	7,560	14,400	303,000
1960	5,100	4,490	10,000	8,150	47,400	88,100	51,800	16,600	18,200	295	1,670	1,290	253,000
1961	2,460	3,940	5,530	4,340	11,600	111,000	33,900	24,400	6,010	480	2,320	2,030	208,000
1962	3,200	4,330	6,830	7,020	17,600	87,500	38,200	24,800	22,000	455	5,120	2,770	220,000
1963	2,210	17,900	6,210	5,120	20,200	32,100	48,800	31,700	22,000	184	6,130	553	193,000
1964	1,110	1,960	3,320	7,380	42,600	218,000	77,500	28,400	24,000	10,100	3,750	3,070	422,000
1965	4,980	13,800	14,400	36,400	41,200	79,100	55,900	33,400	15,600	17,000	9,160	6,330	327,000
1966	3,200	3,890	20,500	13,400	41,900	57,000	61,400	24,100	25,500	615	1,730	2,950	256,000
1967	2,400	4,110	6,890	7,560	33,800	133,000	71,900	39,900	25,400	799	1,670	2,710	330,000
1968	3,630	4,830	12,000	7,500	9,960	58,300	55,000	13,500	9,160	8,120	4,820	3,010	190,000
1969	2,950	2,890	62,100	24,800	41,200	38,200	66,400	38,200	25,900	861	2,020	2,640	308,000
1970	2,400	3,830	8,360	8,990	37,800	87,500	48,300	43,100	23,500	1,540	1,490	2,640	269,000
1971	3,690	16,700	14,600	16,800	44,300	100,000	48,200	33,800	18,100	2,210	4,280	3,010	306,000
1972	2,710	5,460	40,800	18,700	41,900	129,000	37,500	35,400	22,200	5,350	6,130	6,030	351,000
1973	3,690	4,000	10,600	8,930	42,000	69,000	43,300	23,100	12,400	37	0	738	218,000
1974	4,000	4,220	7,440	5,530	7,930	106,000	44,900	7,870	20,400	799	298	375	210,000
1975	1,720	2,220	4,300	29,300	69,500	138,000	84,200	32,900	38,000	9,100	9,880	14,000	433,000

Table 47. Synthesized streamflow for Teton River at mouth, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	11,900	12,600	23,700	15,700	105,000	79,100	52,400	27,800	30,100	2,030	2,440	5,600	369,000
1977	5,470	6,220	7,320	13,300	12,500	92,200	41,400	10,500	7,200	1,170	54	1,480	199,000
1978	2,030	2,280	52,800	17,400	26,700	90,400	66,400	43,300	28,400	5,660	3,930	5,100	345,000
1979	3,200	3,940	51,200	30,300	65,200	86,300	51,800	38,500	28,800	480	71	2,030	362,000
1980	3,140	5,350	14,000	17,800	24,500	96,400	71,300	27,100	24,600	529	3,090	4,670	293,000
1981	4,860	6,000	8,790	10,000	31,700	89,900	56,200	32,500	32,100	984	595	2,890	276,000
1982	596	5,000	12,700	17,700	17,400	77,400	72,600	42,100	20,200	1,230	893	2,460	270,000
1983	4,000	4,890	7,990	7,200	10,200	89,300	45,300	40,300	14,800	418	18	264	225,000
1984	2,580	4,200	4,490	3,810	41,100	54,900	48,800	33,900	9,460	61	77	277	204,000
1985	307	666	4,370	4,400	23,900	92,200	54,400	984	11,000	11,300	4,700	3,200	211,000
1986	4,800	26,300	17,100	7,800	37,000	80,900	42,500	26,200	22,000	4,120	2,680	2,890	274,000
1987	2,580	4,220	8,730	10,100	10,700	84,500	30,100	22,400	28,600	738	333	861	204,000
1988	1,050	3,220	5,410	6,370	24,100	72,600	36,200	24,200	10,800	12	0	406	184,000
1989	984	1,060	29,100	11,500	27,400	66,600	49,700	34,500	24,500	4,240	4,880	7,190	262,000

Table 48. Synthesized streamflow for Marias River at mouth, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	22,600	25,900	145,000	102,000	403,000	314,000	272,000	124,000	73,800	52,400	42,400	22,400	1,600,000
1929	19,000	13,900	37,200	63,100	213,000	271,000	172,000	89,800	46,600	23,700	15,800	12,700	977,000
1930	8,610	28,100	53,400	168,000	182,000	274,000	160,000	69,500	54,300	17,300	16,500	11,800	1,040,000
1931	11,700	11,300	20,700	28,100	160,000	295,000	76,200	81,800	38,400	26,400	11,400	14,100	776,000
1932	10,700	28,400	87,900	55,500	208,000	280,000	175,000	62,100	72,600	9,900	25,200	21,200	1,040,000
1933	14,900	15,700	35,200	70,800	208,000	494,000	218,000	46,500	63,700	38,600	104,000	48,400	1,360,000
1934	57,600	63,300	84,900	190,000	304,000	355,000	192,000	75,000	29,000	29,000	69,600	35,000	1,480,000
1935	43,200	50,300	45,100	95,200	179,000	319,000	168,000	79,300	51,400	12,900	9,280	9,960	1,060,000
1936	19,200	6,040	57,700	85,700	212,000	242,000	130,000	59,200	45,100	9,900	8,810	7,930	884,000
1937	3,750	8,830	30,300	67,800	214,000	300,000	170,000	74,400	37,300	16,500	10,500	10,800	944,000
1938	17,300	9,220	57,400	69,600	212,000	307,000	178,000	58,800	88,700	15,700	20,800	18,000	1,050,000
1939	17,500	8,660	53,100	86,900	184,000	209,000	158,000	67,000	55,300	9,100	17,900	14,600	882,000
1940	7,500	7,880	26,600	50,100	218,000	211,000	89,200	65,800	34,000	22,300	12,000	9,410	754,000
1941	8,980	13,800	22,300	32,300	67,600	196,000	151,000	46,500	30,800	38,900	25,800	47,100	681,000
1942	26,800	23,200	49,400	92,800	173,000	274,000	147,000	64,600	69,600	25,900	25,900	29,900	1,000,000
1943	21,300	55,400	80,500	160,000	261,000	500,000	291,000	91,000	54,400	17,800	26,800	16,500	1,580,000
1944	16,300	13,300	21,000	47,700	90,400	149,000	151,000	43,200	41,100	24,600	19,000	16,200	633,000
1945	14,600	14,800	37,900	34,000	194,000	286,000	169,000	50,900	29,200	20,000	25,900	19,900	896,000
1946	21,300	16,700	42,200	72,000	151,000	221,000	117,000	57,600	49,900	27,300	35,200	33,400	844,000
1947	29,600	45,000	178,000	150,000	344,000	244,000	182,000	59,900	52,000	62,700	43,100	25,800	1,420,000
1948	22,900	11,700	38,400	108,000	343,000	881,000	269,000	146,000	78,000	34,200	25,300	13,700	1,970,000
1949	12,700	13,600	60,500	106,000	236,000	266,000	107,000	79,300	47,200	18,600	37,600	24,700	1,010,000
1950	17,500	22,500	40,200	121,000	274,000	524,000	291,000	127,000	82,700	46,400	47,300	63,900	1,660,000
1951	37,600	35,600	101,000	148,000	360,000	352,000	336,000	132,000	117,000	81,200	62,500	45,200	1,810,000
1952	31,800	58,100	110,000	243,000	248,000	228,000	130,000	82,400	71,400	25,600	16,500	14,700	1,260,000
1953	18,300	20,800	31,900	85,700	270,000	720,000	259,000	103,000	72,000	34,600	28,000	23,900	1,670,000
1954	19,500	41,700	40,500	89,900	349,000	410,000	226,000	75,000	52,400	52,900	42,000	30,000	1,430,000
1955	18,800	15,800	21,500	91,600	188,000	415,000	200,000	113,000	72,000	22,700	2,800	7,560	1,170,000
1956	59,200	16,200	48,000	90,400	278,000	332,000	177,000	70,700	70,200	30,500	26,100	20,600	1,220,000
1957	20,500	15,500	77,500	61,900	334,000	322,000	153,000	66,400	72,000	23,400	19,900	18,700	1,190,000
1958	22,100	18,300	42,300	75,600	220,000	321,000	194,000	73,200	49,900	33,600	31,000	52,700	1,130,000
1959	47,700	29,400	137,000	134,000	269,000	438,000	231,000	86,700	64,900	58,200	56,700	55,500	1,610,000
1960	29,500	26,100	89,800	92,800	208,000	320,000	162,000	81,200	55,500	15,200	13,600	14,600	1,110,000
1961	18,300	22,100	37,900	45,800	218,000	323,000	138,000	49,400	27,300	29,800	21,000	10,600	941,000
1962	14,600	28,200	62,100	115,000	205,000	286,000	144,000	81,800	44,700	21,500	27,400	24,700	1,060,000
1963	20,500	51,100	36,300	43,000	132,000	284,000	176,000	75,600	54,700	11,700	7,800	8,550	902,000
1964	14,000	14,200	19,100	37,100	233,000	684,000	229,000	113,000	39,100	36,000	23,000	20,700	1,460,000
1965	33,400	43,000	59,400	149,000	285,000	448,000	228,000	112,000	111,000	44,300	32,400	27,100	1,570,000
1966	20,500	21,900	74,400	104,000	210,000	308,000	177,000	99,000	47,500	23,900	23,400	24,200	1,130,000
1967	21,600	23,700	56,900	50,700	342,000	539,000	231,000	134,000	67,800	24,200	35,000	18,700	1,540,000
1968	25,800	30,300	63,900	47,100	175,000	307,000	156,000	79,900	46,500	49,300	34,500	13,300	1,030,000
1969	18,900	20,500	122,000	149,000	185,000	302,000	215,000	109,000	51,600	20,500	23,700	16,700	1,240,000
1970	11,100	18,000	29,300	38,400	314,000	467,000	194,000	82,400	59,100	30,100	24,600	14,600	1,280,000
1971	19,100	59,400	47,800	99,400	316,000	385,000	198,000	76,900	54,600	24,800	27,700	19,300	1,330,000
1972	18,900	22,600	202,000	106,000	269,000	424,000	231,000	119,000	69,600	41,800	26,600	23,200	1,550,000
1973	32,800	26,200	42,500	41,100	155,000	226,000	114,000	53,500	39,100	9,900	25,700	22,900	789,000
1974	40,200	27,700	59,300	85,700	196,000	403,000	208,000	83,000	80,900	17,200	13,900	12,000	1,230,000
1975	13,700	12,100	27,800	97,600	290,000	690,000	330,000	143,000	95,200	45,500	40,200	78,700	1,860,000

Table 48. Synthesized streamflow for Marias River at mouth, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	68,900	67,900	87,900	106,000	308,000	271,000	179,000	95,300	66,100	20,800	18,400	20,900	1,310,000
1977	20,000	22,900	22,400	28,100	71,300	116,000	86,700	65,800	31,200	16,000	13,100	16,400	510,000
1978	18,100	17,500	134,000	84,500	226,000	328,000	219,000	102,000	220,000	32,800	28,600	22,600	1,430,000
1979	14,900	15,300	119,000	88,100	286,000	321,000	150,000	68,300	62,500	14,400	15,100	19,100	1,170,000
1980	14,400	16,600	29,500	89,900	252,000	337,000	153,000	81,200	46,700	31,900	33,900	35,100	1,120,000
1981	53,600	47,000	43,600	57,800	285,000	282,000	153,000	67,600	36,200	15,000	15,000	14,700	1,070,000
1982	8,670	31,800	42,900	76,800	199,000	398,000	228,000	70,100	60,100	20,400	17,000	17,200	1,170,000
1983	22,300	23,800	41,000	43,000	133,000	218,000	147,000	89,200	51,600	14,000	13,400	7,260	803,000
1984	25,500	22,900	26,100	45,100	106,000	236,000	114,000	79,300	14,500	16,200	16,000	10,800	713,000
1985	13,300	10,900	38,100	76,800	188,000	264,000	89,800	62,700	27,700	95,300	91,600	43,000	1,000,000
1986	32,500	87,200	117,000	95,200	164,000	233,000	108,000	51,700	168,000	40,100	30,800	32,800	1,160,000
1987	35,100	29,800	65,200	109,000	175,000	183,000	182,000	98,400	49,200	21,500	20,400	20,700	989,000
1988	12,400	21,600	37,200	67,800	137,000	165,000	84,200	67,000	11,300	11,600	18,600	17,600	652,000
1989	17,500	13,200	55,600	101,000	200,000	339,000	177,000	103,000	51,900	43,900	159,000	76,900	1,340,000

Table 49. Synthesized streamflow for Missouri River at Virgelle, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	355,000	352,000	451,000	466,000	2,480,000	1,620,000	1,080,000	775,000	423,000	360,000	312,000	267,000	8,940,000
1929	256,000	243,000	342,000	408,000	1,010,000	1,470,000	978,000	540,000	412,000	269,000	293,000	255,000	6,470,000
1930	184,000	193,000	338,000	539,000	1,010,000	1,490,000	904,000	543,000	354,000	363,000	222,000	207,000	6,340,000
1931	278,000	218,000	313,000	377,000	658,000	893,000	689,000	558,000	266,000	156,000	156,000	204,000	4,760,000
1932	192,000	185,000	299,000	359,000	1,150,000	1,590,000	1,100,000	588,000	356,000	251,000	274,000	165,000	6,510,000
1933	221,000	208,000	336,000	405,000	1,060,000	1,570,000	972,000	590,000	394,000	259,000	224,000	257,000	6,490,000
1934	561,000	193,000	298,000	443,000	1,290,000	1,670,000	744,000	556,000	280,000	127,000	132,000	177,000	6,470,000
1935	248,000	192,000	287,000	388,000	652,000	1,550,000	873,000	652,000	475,000	200,000	181,000	177,000	5,870,000
1936	314,000	170,000	276,000	445,000	1,210,000	1,170,000	812,000	526,000	317,000	150,000	176,000	159,000	5,730,000
1937	140,000	139,000	277,000	329,000	842,000	1,000,000	787,000	593,000	276,000	156,000	143,000	205,000	4,890,000
1938	207,000	167,000	291,000	355,000	984,000	1,850,000	1,320,000	633,000	536,000	213,000	292,000	253,000	7,100,000
1939	252,000	181,000	373,000	548,000	1,040,000	994,000	996,000	554,000	339,000	224,000	212,000	207,000	5,920,000
1940	159,000	207,000	303,000	442,000	1,020,000	1,330,000	621,000	562,000	161,000	248,000	205,000	223,000	5,480,000
1941	230,000	192,000	275,000	334,000	487,000	1,080,000	849,000	408,000	277,000	387,000	328,000	317,000	5,160,000
1942	252,000	237,000	373,000	910,000	1,150,000	2,040,000	1,110,000	562,000	386,000	257,000	291,000	301,000	7,870,000
1943	201,000	347,000	526,000	1,110,000	1,270,000	2,670,000	1,580,000	646,000	447,000	248,000	314,000	265,000	9,630,000
1944	255,000	248,000	344,000	465,000	646,000	1,300,000	1,290,000	522,000	389,000	284,000	289,000	224,000	6,250,000
1945	286,000	254,000	332,000	359,000	812,000	1,430,000	1,180,000	502,000	287,000	293,000	300,000	250,000	6,280,000
1946	270,000	264,000	328,000	561,000	885,000	1,420,000	849,000	453,000	353,000	401,000	361,000	378,000	6,520,000
1947	285,000	307,000	582,000	750,000	1,890,000	1,750,000	1,240,000	571,000	356,000	430,000	380,000	342,000	8,880,000
1948	307,000	278,000	387,000	732,000	1,880,000	3,450,000	1,500,000	818,000	489,000	364,000	373,000	261,000	10,830,000
1949	225,000	284,000	457,000	738,000	1,380,000	1,670,000	867,000	543,000	356,000	282,000	319,000	241,000	7,360,000
1950	208,000	295,000	395,000	601,000	1,030,000	2,110,000	1,380,000	775,000	412,000	402,000	383,000	375,000	8,370,000
1951	275,000	315,000	493,000	738,000	1,700,000	2,040,000	1,420,000	583,000	529,000	403,000	373,000	245,000	9,110,000
1952	274,000	355,000	529,000	994,000	1,770,000	1,710,000	1,080,000	627,000	502,000	221,000	260,000	271,000	8,600,000
1953	340,000	273,000	362,000	485,000	1,110,000	3,770,000	1,480,000	676,000	440,000	255,000	297,000	306,000	9,800,000
1954	213,000	346,000	306,000	437,000	1,210,000	1,570,000	1,320,000	527,000	431,000	251,000	292,000	224,000	7,120,000
1955	246,000	221,000	310,000	522,000	1,060,000	1,850,000	1,190,000	775,000	363,000	209,000	243,000	332,000	7,330,000
1956	347,000	253,000	464,000	619,000	1,470,000	2,130,000	941,000	521,000	439,000	196,000	286,000	264,000	7,930,000
1957	156,000	265,000	439,000	409,000	1,420,000	1,730,000	1,030,000	548,000	441,000	268,000	318,000	293,000	7,320,000
1958	269,000	288,000	402,000	479,000	1,550,000	1,490,000	898,000	713,000	405,000	275,000	312,000	405,000	7,480,000
1959	325,000	275,000	621,000	607,000	928,000	2,240,000	1,360,000	508,000	331,000	444,000	411,000	412,000	8,470,000
1960	296,000	339,000	523,000	649,000	1,110,000	1,810,000	935,000	433,000	412,000	199,000	283,000	280,000	7,260,000
1961	230,000	307,000	316,000	306,000	658,000	1,830,000	701,000	544,000	222,000	289,000	307,000	239,000	5,950,000
1962	243,000	337,000	402,000	744,000	1,200,000	2,090,000	861,000	546,000	479,000	323,000	353,000	315,000	7,890,000
1963	216,000	561,000	366,000	421,000	879,000	1,470,000	1,170,000	587,000	420,000	235,000	272,000	238,000	6,830,000
1964	277,000	317,000	303,000	437,000	1,520,000	3,240,000	1,660,000	520,000	519,000	333,000	340,000	380,000	9,850,000
1965	480,000	488,000	391,000	922,000	1,520,000	2,780,000	1,740,000	676,000	543,000	578,000	463,000	391,000	10,970,000
1966	350,000	334,000	545,000	643,000	1,050,000	1,160,000	1,010,000	497,000	378,000	245,000	303,000	308,000	6,830,000
1967	312,000	324,000	429,000	434,000	1,500,000	3,220,000	1,710,000	732,000	494,000	360,000	397,000	265,000	10,180,000
1968	415,000	473,000	518,000	584,000	1,060,000	2,170,000	1,320,000	558,000	510,000	510,000	444,000	312,000	8,870,000
1969	366,000	378,000	719,000	1,140,000	1,600,000	1,360,000	1,650,000	842,000	437,000	361,000	413,000	338,000	9,600,000
1970	341,000	370,000	394,000	421,000	1,890,000	2,850,000	1,280,000	719,000	431,000	402,000	397,000	389,000	9,880,000
1971	415,000	555,000	435,000	631,000	1,740,000	2,500,000	1,430,000	627,000	463,000	407,000	412,000	306,000	9,920,000
1972	331,000	361,000	762,000	544,000	1,350,000	2,590,000	996,000	572,000	522,000	410,000	412,000	309,000	9,170,000
1973	325,000	349,000	402,000	472,000	1,060,000	1,250,000	898,000	454,000	391,000	317,000	371,000	342,000	6,630,000
1974	376,000	342,000	424,000	649,000	1,060,000	2,850,000	1,140,000	494,000	447,000	323,000	349,000	312,000	8,770,000
1975	307,000	292,000	398,000	619,000	2,030,000	3,400,000	2,260,000	867,000	661,000	531,000	489,000	607,000	12,450,000

Table 49. Synthesized streamflow for Missouri River at Virgelle, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	468,000	406,000	461,000	768,000	2,500,000	1,980,000	1,300,000	701,000	583,000	462,000	392,000	363,000	10,390,000
1977	327,000	355,000	344,000	541,000	518,000	1,240,000	701,000	443,000	299,000	372,000	308,000	310,000	5,760,000
1978	325,000	332,000	928,000	791,000	1,430,000	2,360,000	1,540,000	750,000	584,000	415,000	323,000	315,000	10,100,000
1979	305,000	352,000	744,000	672,000	1,620,000	1,830,000	892,000	639,000	525,000	254,000	286,000	295,000	8,410,000
1980	227,000	319,000	392,000	643,000	1,370,000	2,230,000	1,290,000	556,000	489,000	354,000	392,000	407,000	8,670,000
1981	371,000	333,000	408,000	573,000	1,940,000	2,350,000	1,140,000	769,000	459,000	354,000	348,000	309,000	9,350,000
1982	299,000	425,000	443,000	625,000	1,270,000	2,770,000	1,830,000	799,000	449,000	502,000	399,000	361,000	10,180,000
1983	419,000	328,000	408,000	470,000	1,160,000	1,870,000	1,490,000	818,000	486,000	478,000	442,000	290,000	8,660,000
1984	437,000	368,000	430,000	631,000	1,460,000	2,090,000	1,440,000	799,000	509,000	440,000	392,000	296,000	9,290,000
1985	365,000	305,000	467,000	696,000	1,060,000	1,520,000	824,000	438,000	360,000	558,000	363,000	453,000	7,410,000
1986	416,000	555,000	587,000	690,000	1,180,000	2,050,000	916,000	627,000	410,000	440,000	386,000	336,000	8,590,000
1987	297,000	308,000	391,000	569,000	602,000	1,270,000	732,000	517,000	524,000	258,000	268,000	243,000	5,980,000
1988	240,000	283,000	320,000	469,000	793,000	1,870,000	652,000	417,000	249,000	220,000	228,000	207,000	5,950,000
1989	242,000	197,000	581,000	631,000	1,140,000	1,420,000	849,000	596,000	445,000	336,000	394,000	347,000	7,180,000

Table 50. Synthesized streamflow for Missouri River above Judith River, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	274,000	360,000	463,000	474,000	2,510,000	1,640,000	1,090,000	787,000	432,000	368,000	318,000	274,000	8,990,000
1929	263,000	248,000	349,000	415,000	1,020,000	1,490,000	990,000	548,000	421,000	275,000	299,000	261,000	6,580,000
1930	189,000	197,000	345,000	549,000	1,020,000	1,510,000	916,000	551,000	362,000	371,000	227,000	213,000	6,450,000
1931	285,000	223,000	320,000	383,000	670,000	904,000	695,000	566,000	272,000	160,000	160,000	209,000	4,850,000
1932	198,000	189,000	304,000	366,000	1,160,000	1,610,000	1,120,000	596,000	365,000	258,000	280,000	170,000	6,620,000
1933	228,000	213,000	344,000	413,000	1,080,000	2,740,000	984,000	598,000	402,000	266,000	228,000	264,000	7,760,000
1934	574,000	197,000	304,000	450,000	1,080,000	1,700,000	750,000	564,000	286,000	130,000	134,000	183,000	6,350,000
1935	255,000	195,000	293,000	396,000	664,000	1,570,000	885,000	658,000	481,000	205,000	185,000	182,000	5,970,000
1936	318,000	174,000	281,000	452,000	1,230,000	1,190,000	824,000	533,000	323,000	155,000	180,000	164,000	5,820,000
1937	144,000	142,000	283,000	335,000	855,000	1,010,000	793,000	601,000	280,000	160,000	146,000	209,000	4,960,000
1938	210,000	171,000	296,000	361,000	1,000,000	1,870,000	1,330,000	639,000	543,000	217,000	298,000	258,000	7,210,000
1939	257,000	185,000	382,000	559,000	1,060,000	1,010,000	1,010,000	561,000	345,000	229,000	216,000	212,000	6,020,000
1940	163,000	211,000	309,000	449,000	1,030,000	1,340,000	627,000	571,000	166,000	252,000	209,000	232,000	5,570,000
1941	235,000	196,000	280,000	340,000	495,000	1,090,000	861,000	413,000	281,000	394,000	334,000	323,000	5,240,000
1942	258,000	242,000	381,000	922,000	1,170,000	2,070,000	1,120,000	570,000	391,000	263,000	298,000	307,000	7,990,000
1943	207,000	355,000	537,000	1,140,000	1,300,000	2,720,000	1,600,000	658,000	455,000	255,000	320,000	273,000	9,820,000
1944	261,000	254,000	351,000	472,000	658,000	1,330,000	1,300,000	530,000	396,000	290,000	295,000	231,000	6,370,000
1945	291,000	259,000	339,000	365,000	824,000	1,450,000	1,190,000	510,000	293,000	299,000	306,000	256,000	6,390,000
1946	276,000	270,000	335,000	571,000	898,000	1,430,000	861,000	462,000	359,000	408,000	368,000	387,000	6,630,000
1947	291,000	313,000	594,000	762,000	1,920,000	1,780,000	1,250,000	580,000	363,000	439,000	388,000	349,000	9,030,000
1948	314,000	285,000	395,000	750,000	1,910,000	3,500,000	1,520,000	830,000	499,000	371,000	380,000	267,000	11,030,000
1949	231,000	289,000	465,000	750,000	1,400,000	1,690,000	873,000	551,000	362,000	288,000	325,000	247,000	7,470,000
1950	213,000	302,000	403,000	613,000	1,050,000	2,150,000	1,400,000	787,000	421,000	410,000	391,000	384,000	8,520,000
1951	282,000	322,000	503,000	756,000	1,730,000	2,060,000	1,440,000	592,000	539,000	413,000	381,000	251,000	9,280,000
1952	280,000	363,000	541,000	1,020,000	1,800,000	1,740,000	1,090,000	639,000	510,000	226,000	267,000	278,000	8,760,000
1953	347,000	279,000	369,000	492,000	1,130,000	3,830,000	1,500,000	683,000	448,000	259,000	303,000	314,000	9,950,000
1954	220,000	353,000	313,000	445,000	1,220,000	1,590,000	1,330,000	535,000	439,000	258,000	299,000	231,000	7,240,000
1955	253,000	227,000	317,000	531,000	1,080,000	1,870,000	1,210,000	787,000	371,000	216,000	251,000	341,000	7,450,000
1956	355,000	261,000	472,000	625,000	1,480,000	2,150,000	953,000	532,000	449,000	203,000	293,000	271,000	8,050,000
1957	163,000	273,000	449,000	418,000	1,430,000	1,750,000	1,050,000	558,000	450,000	275,000	325,000	301,000	7,450,000
1958	277,000	295,000	410,000	488,000	1,570,000	1,510,000	916,000	726,000	415,000	283,000	320,000	413,000	7,620,000
1959	333,000	281,000	633,000	619,000	947,000	2,270,000	1,380,000	519,000	339,000	452,000	424,000	427,000	8,620,000
1960	302,000	345,000	530,000	661,000	1,120,000	1,830,000	947,000	443,000	421,000	207,000	290,000	287,000	7,380,000
1961	237,000	314,000	322,000	311,000	664,000	1,850,000	713,000	554,000	228,000	296,000	315,000	246,000	6,050,000
1962	250,000	344,000	410,000	750,000	1,210,000	2,110,000	873,000	556,000	490,000	331,000	360,000	321,000	8,000,000
1963	223,000	572,000	373,000	428,000	892,000	1,490,000	1,190,000	598,000	428,000	241,000	278,000	245,000	6,960,000
1964	284,000	324,000	309,000	443,000	1,540,000	3,300,000	1,680,000	533,000	529,000	341,000	349,000	390,000	10,020,000
1965	491,000	499,000	402,000	934,000	1,540,000	2,810,000	1,770,000	689,000	557,000	596,000	478,000	400,000	11,170,000
1966	358,000	342,000	556,000	655,000	1,060,000	1,180,000	1,030,000	507,000	386,000	252,000	310,000	316,000	6,950,000
1967	322,000	333,000	440,000	443,000	1,520,000	3,260,000	1,730,000	750,000	504,000	368,000	405,000	273,000	10,350,000
1968	426,000	484,000	534,000	595,000	1,080,000	2,190,000	1,340,000	570,000	519,000	521,000	454,000	321,000	9,030,000
1969	376,000	387,000	732,000	1,150,000	1,620,000	1,370,000	1,680,000	861,000	447,000	368,000	421,000	347,000	9,760,000
1970	350,000	379,000	403,000	432,000	1,910,000	2,890,000	1,300,000	738,000	443,000	411,000	407,000	399,000	10,060,000
1971	426,000	566,000	446,000	649,000	1,770,000	2,520,000	1,440,000	639,000	473,000	416,000	420,000	314,000	10,090,000
1972	341,000	370,000	775,000	558,000	1,380,000	2,620,000	1,010,000	586,000	535,000	421,000	421,000	318,000	9,330,000
1973	334,000	357,000	408,000	478,000	1,080,000	1,260,000	910,000	465,000	397,000	323,000	379,000	350,000	6,740,000
1974	385,000	350,000	434,000	661,000	1,080,000	2,890,000	1,160,000	505,000	458,000	330,000	355,000	320,000	8,920,000
1975	317,000	300,000	408,000	631,000	2,060,000	3,450,000	2,300,000	885,000	678,000	542,000	502,000	615,000	12,680,000

Table 50. Synthesized streamflow for Missouri River above Judith River, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	479,000	416,000	474,000	785,000	2,530,000	2,010,000	1,330,000	713,000	595,000	472,000	402,000	373,000	10,580,000
1977	336,000	363,000	351,000	550,000	526,000	1,250,000	713,000	450,000	304,000	378,000	315,000	319,000	5,850,000
1978	334,000	341,000	947,000	803,000	1,450,000	2,390,000	1,560,000	762,000	595,000	424,000	332,000	325,000	10,260,000
1979	315,000	360,000	756,000	690,000	1,640,000	1,860,000	910,000	652,000	534,000	259,000	292,000	302,000	8,560,000
1980	235,000	327,000	400,000	649,000	1,380,000	2,260,000	1,310,000	568,000	497,000	362,000	401,000	416,000	8,810,000
1981	381,000	342,000	418,000	581,000	1,960,000	2,390,000	1,160,000	781,000	469,000	359,000	355,000	316,000	9,520,000
1982	309,000	435,000	453,000	637,000	1,290,000	2,800,000	1,860,000	818,000	460,000	511,000	408,000	370,000	10,350,000
1983	429,000	337,000	418,000	480,000	1,170,000	1,900,000	1,510,000	836,000	496,000	486,000	453,000	299,000	8,820,000
1984	448,000	377,000	440,000	643,000	1,480,000	2,120,000	1,460,000	818,000	524,000	451,000	400,000	304,000	9,470,000
1985	374,000	313,000	476,000	702,000	1,070,000	1,540,000	836,000	446,000	367,000	568,000	374,000	464,000	7,530,000
1986	426,000	566,000	598,000	702,000	1,190,000	2,070,000	928,000	646,000	418,000	449,000	395,000	345,000	8,740,000
1987	306,000	315,000	398,000	577,000	610,000	1,290,000	744,000	526,000	533,000	264,000	274,000	250,000	6,080,000
1988	247,000	290,000	327,000	476,000	805,000	1,880,000	664,000	427,000	256,000	224,000	233,000	212,000	6,040,000
1989	248,000	203,000	591,000	637,000	1,160,000	1,430,000	861,000	606,000	453,000	343,000	401,000	355,000	7,280,000

Table 51. Synthesized streamflow for Judith River at mouth, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	1,780	1,500	2,150	6,010	84,200	39,500	37,100	15,100	7,620	3,440	2,860	1,410	203,000
1929	535	161	443	893	18,500	49,800	19,200	11,700	4,110	1,170	1,010	861	108,000
1930	535	4,830	9,040	21,100	41,100	35,300	11,100	9,160	3,990	1,230	1,250	1,050	140,000
1931	603	378	320	244	3,500	11,800	13,300	8,550	3,870	203	315	412	43,500
1932	264	247	221	184	28,400	36,600	19,200	8,980	5,300	861	833	738	102,000
1933	320	178	37	1,310	52,100	57,800	25,100	5,410	4,640	443	1,070	861	149,000
1934	443	367	246	4,640	17,900	13,400	12,200	10,900	2,680	154	196	209	63,300
1935	98	61	43	42	2,090	26,200	13,700	10,500	5,410	172	256	252	58,700
1936	172	86	166	10,400	50,000	22,600	11,100	8,920	3,450	369	268	258	108,000
1937	160	56	135	83	16,500	13,200	14,300	10,600	3,150	80	226	344	58,800
1938	221	139	86	89	37,000	55,300	42,300	17,100	7,260	1,050	1,430	861	163,000
1939	572	394	738	4,400	33,400	17,600	22,500	10,500	5,530	517	655	615	97,400
1940	307	207	301	387	25,500	29,600	6,210	13,500	4,880	148	244	234	81,500
1941	160	106	117	113	2,340	18,500	13,200	9,470	5,360	2,710	2,320	1,110	55,500
1942	596	272	221	7,500	53,700	63,700	29,300	17,800	6,900	2,520	1,840	1,290	186,000
1943	799	555	1,840	18,200	34,700	75,600	31,700	14,600	9,160	1,840	1,310	1,170	191,000
1944	676	299	264	375	35,500	59,500	37,800	13,600	8,630	2,400	1,490	922	161,000
1945	676	483	430	387	9,530	47,500	27,700	13,200	3,930	1,840	1,430	984	108,000
1946	596	333	307	12,300	29,300	46,400	29,300	15,600	5,000	4,180	2,800	1,290	147,000
1947	738	472	2,890	9,400	73,200	57,500	35,300	15,900	7,620	4,060	1,670	984	210,000
1948	615	443	344	4,520	51,700	72,000	36,100	20,700	10,800	4,240	2,440	1,780	206,000
1949	922	372	400	7,440	46,400	40,500	22,600	12,900	5,300	1,660	1,310	922	141,000
1950	430	317	320	714	38,600	80,900	34,400	20,800	8,510	3,380	2,080	1,480	192,000
1951	1,110	611	738	1,840	45,800	54,500	30,700	11,700	6,660	2,460	1,790	1,290	159,000
1952	799	460	430	12,800	74,400	49,300	24,800	12,500	8,930	1,410	1,610	1,110	188,000
1953	676	355	320	363	16,400	79,100	31,600	15,200	8,630	1,410	952	1,050	156,000
1954	510	666	541	417	22,300	33,000	26,800	9,100	5,890	1,230	1,190	1,050	103,000
1955	560	339	381	268	19,200	55,300	26,400	17,300	6,490	1,050	952	676	129,000
1956	406	230	178	256	25,800	35,500	17,100	9,350	7,380	363	262	289	97,100
1957	184	167	184	149	31,600	48,700	25,300	12,300	7,850	984	774	676	129,000
1958	387	222	184	184	34,200	14,600	13,200	14,100	7,380	252	208	338	85,300
1959	357	289	240	226	21,600	76,200	31,100	7,990	5,360	2,640	2,020	1,410	149,000
1960	861	339	615	5,180	28,600	46,500	22,300	10,300	6,370	984	833	676	124,000
1961	332	222	215	167	18,000	31,000	11,400	10,500	1,960	117	226	178	74,400
1962	111	144	98	1,310	35,700	55,600	20,200	8,850	7,020	1,110	1,070	738	132,000
1963	350	722	541	268	22,600	35,200	21,800	11,600	6,190	861	893	861	102,000
1964	381	293	228	232	43,200	86,300	29,900	10,300	6,720	2,030	1,550	1,290	182,000
1965	861	666	535	4,400	52,600	104,000	36,900	13,800	8,330	8,850	4,820	2,640	238,000
1966	1,480	944	922	3,930	45,700	34,100	20,200	10,700	6,610	603	589	584	126,000
1967	480	283	289	321	43,900	122,000	45,400	19,000	6,840	2,580	2,380	1,970	245,000
1968	1,110	863	922	1,130	35,400	84,500	33,900	13,000	6,370	3,010	2,260	1,600	184,000
1969	922	611	676	13,000	33,800	22,400	33,800	18,100	8,210	1,540	1,790	1,290	136,000
1970	738	411	357	470	84,200	112,000	33,000	18,800	6,610	2,400	1,960	1,110	262,000
1971	799	666	529	655	41,200	48,800	25,800	15,200	5,890	1,290	1,250	922	143,000
1972	449	299	332	4,050	42,500	69,600	17,800	12,900	8,030	1,660	1,430	861	160,000
1973	615	367	314	244	21,000	27,400	19,900	11,000	3,270	578	595	529	85,800
1974	455	411	301	6,550	40,200	92,200	29,200	12,800	9,040	1,910	1,610	1,170	196,000
1975	676	250	449	1,490	48,000	143,000	64,600	21,200	11,400	3,690	3,090	2,340	301,000

Table 51. Synthesized streamflow for Judith River at mouth, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	1,110	546	517	1,670	52,600	58,200	30,600	19,400	8,210	1,660	1,490	1,350	177,000
1977	676	511	387	2,080	15,900	30,500	16,000	9,720	6,070	1,840	1,610	1,480	86,800
1978	799	555	738	2,080	58,400	84,500	41,200	17,800	7,620	2,580	1,900	1,970	220,000
1979	1,110	489	676	1,900	55,600	110,000	23,900	10,600	5,890	1,230	1,310	1,350	214,000
1980	676	495	369	1,960	31,800	67,800	19,200	12,700	8,510	1,050	2,020	1,050	148,000
1981	615	311	381	1,900	50,700	66,100	20,500	13,600	7,320	1,410	1,730	1,350	166,000
1982	676	611	350	1,250	40,700	97,000	36,200	17,700	6,660	2,030	4,700	1,230	209,000
1983	1,050	833	209	1,010	36,300	51,300	30,300	18,700	10,800	3,630	2,080	1,170	157,000
1984	1,230	495	517	1,550	39,000	102,000	32,700	22,100	8,090	1,540	1,130	1,660	212,000
1985	430	378	400	2,440	30,100	13,700	10,800	8,240	8,390	1,110	2,140	676	78,800
1986	799	944	615	4,170	38,700	46,100	16,000	13,500	8,090	2,710	1,610	1,350	135,000
1987	572	439	326	3,450	21,500	11,200	13,900	9,530	6,660	1,350	714	738	70,400
1988	498	259	203	1,840	22,100	17,100	8,920	8,240	2,380	1,780	417	799	64,600
1989	332	228	394	4,520	35,600	28,400	22,000	8,920	5,300	1,480	1,550	799	109,000

Table 52. Synthesized streamflow for Missouri River near Landusky, Montana, 1928-89, in acre-feet

[All values rounded to 3 significant digits]

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1928	289,000	396,000	762,000	567,000	2,660,000	1,640,000	1,210,000	855,000	469,000	390,000	373,000	297,000	9,890,000
1929	249,000	382,000	412,000	450,000	1,480,000	1,980,000	1,090,000	593,000	459,000	298,000	362,000	276,000	8,030,000
1930	233,000	503,000	547,000	720,000	1,130,000	1,360,000	1,010,000	597,000	396,000	394,000	317,000	227,000	7,440,000
1931	299,000	262,000	279,000	523,000	707,000	940,000	775,000	613,000	301,000	179,000	275,000	144,000	5,300,000
1932	202,000	247,000	363,000	496,000	1,260,000	1,880,000	1,230,000	646,000	399,000	279,000	316,000	175,000	7,500,000
1933	234,000	310,000	278,000	505,000	1,290,000	2,930,000	1,080,000	646,000	439,000	287,000	308,000	272,000	8,580,000
1934	223,000	28,400	499,000	785,000	1,130,000	1,190,000	972,000	652,000	274,000	161,000	237,000	205,000	6,350,000
1935	193,000	224,000	289,000	421,000	664,000	1,640,000	941,000	683,000	502,000	204,000	204,000	184,000	6,150,000
1936	328,000	132,000	387,000	487,000	1,270,000	1,260,000	867,000	556,000	342,000	157,000	199,000	153,000	6,140,000
1937	138,000	142,000	305,000	383,000	910,000	1,070,000	842,000	646,000	310,000	179,000	165,000	211,000	5,300,000
1938	231,000	188,000	368,000	383,000	990,000	2,050,000	1,480,000	670,000	590,000	227,000	348,000	290,000	7,830,000
1939	283,000	195,000	419,000	570,000	1,090,000	1,030,000	1,080,000	593,000	371,000	247,000	236,000	220,000	6,340,000
1940	177,000	237,000	354,000	459,000	1,090,000	1,430,000	652,000	615,000	197,000	265,000	213,000	247,000	5,940,000
1941	242,000	208,000	307,000	362,000	550,000	1,140,000	941,000	432,000	293,000	421,000	356,000	342,000	5,590,000
1942	270,000	249,000	486,000	970,000	1,210,000	2,360,000	1,220,000	633,000	418,000	285,000	317,000	271,000	8,680,000
1943	208,000	437,000	658,000	1,200,000	1,330,000	2,860,000	1,770,000	713,000	499,000	275,000	340,000	297,000	10,590,000
1944	270,000	259,000	417,000	532,000	689,000	1,390,000	1,410,000	581,000	425,000	325,000	328,000	261,000	6,890,000
1945	322,000	272,000	394,000	397,000	836,000	1,540,000	1,300,000	548,000	330,000	332,000	351,000	297,000	6,920,000
1946	312,000	305,000	401,000	601,000	941,000	1,550,000	941,000	498,000	378,000	431,000	393,000	427,000	7,180,000
1947	326,000	334,000	664,000	785,000	2,120,000	1,930,000	1,410,000	646,000	400,000	483,000	431,000	387,000	9,920,000
1948	349,000	312,000	426,000	744,000	1,900,000	3,660,000	1,640,000	861,000	535,000	389,000	387,000	244,000	11,440,000
1949	231,000	299,000	467,000	756,000	1,440,000	1,790,000	941,000	621,000	407,000	321,000	359,000	266,000	7,890,000
1950	233,000	314,000	422,000	666,000	1,090,000	2,220,000	1,500,000	830,000	453,000	415,000	396,000	388,000	8,930,000
1951	288,000	347,000	500,000	869,000	1,730,000	2,100,000	1,520,000	695,000	595,000	453,000	427,000	262,000	9,790,000
1952	320,000	422,000	744,000	1,210,000	1,880,000	1,860,000	1,180,000	707,000	581,000	279,000	306,000	325,000	9,820,000
1953	390,000	328,000	418,000	533,000	1,190,000	4,340,000	1,670,000	744,000	493,000	281,000	328,000	360,000	11,070,000
1954	225,000	398,000	373,000	502,000	1,290,000	1,720,000	1,430,000	575,000	470,000	285,000	325,000	263,000	7,850,000
1955	263,000	238,000	342,000	637,000	1,170,000	2,050,000	1,350,000	873,000	417,000	260,000	290,000	374,000	8,260,000
1956	393,000	297,000	507,000	666,000	1,550,000	2,330,000	1,000,000	574,000	492,000	228,000	319,000	293,000	8,650,000
1957	183,000	285,000	490,000	456,000	1,480,000	1,840,000	1,120,000	597,000	486,000	293,000	362,000	346,000	7,930,000
1958	312,000	294,000	526,000	546,000	1,670,000	1,580,000	972,000	787,000	460,000	317,000	355,000	477,000	8,290,000
1959	332,000	249,000	738,000	678,000	1,050,000	2,490,000	1,520,000	583,000	380,000	478,000	451,000	471,000	9,430,000
1960	333,000	374,000	695,000	714,000	1,210,000	1,960,000	1,020,000	489,000	464,000	237,000	312,000	319,000	8,130,000
1961	271,000	376,000	379,000	325,000	695,000	1,950,000	744,000	583,000	246,000	300,000	318,000	232,000	6,420,000
1962	231,000	333,000	422,000	774,000	1,310,000	2,280,000	922,000	605,000	521,000	357,000	386,000	357,000	8,500,000
1963	234,000	666,000	418,000	472,000	935,000	1,550,000	1,290,000	658,000	489,000	282,000	323,000	270,000	7,580,000
1964	299,000	341,000	361,000	496,000	1,620,000	3,540,000	1,830,000	595,000	595,000	376,000	384,000	437,000	10,880,000
1965	532,000	555,000	463,000	1,050,000	1,640,000	3,010,000	1,920,000	750,000	589,000	652,000	549,000	462,000	12,180,000
1966	416,000	387,000	615,000	684,000	1,130,000	1,270,000	1,090,000	539,000	414,000	269,000	324,000	355,000	7,490,000
1967	339,000	355,000	503,000	515,000	1,650,000	3,570,000	1,850,000	805,000	547,000	394,000	443,000	300,000	11,280,000
1968	421,000	526,000	541,000	619,000	1,160,000	2,340,000	1,420,000	621,000	541,000	534,000	471,000	354,000	9,550,000
1969	394,000	402,000	965,000	1,210,000	1,650,000	1,390,000	1,830,000	941,000	481,000	400,000	441,000	366,000	10,470,000
1970	346,000	401,000	455,000	443,000	2,160,000	2,990,000	1,340,000	799,000	481,000	430,000	406,000	397,000	10,650,000
1971	414,000	555,000	467,000	661,000	1,770,000	2,610,000	1,500,000	689,000	500,000	426,000	428,000	325,000	10,350,000
1972	325,000	387,000	898,000	585,000	1,370,000	2,710,000	1,080,000	646,000	564,000	422,000	431,000	288,000	9,710,000
1973	328,000	347,000	457,000	503,000	1,150,000	1,340,000	959,000	498,000	420,000	327,000	365,000	409,000	7,110,000
1974	401,000	342,000	446,000	649,000	1,170,000	3,020,000	1,270,000	592,000	509,000	357,000	368,000	292,000	9,410,000
1975	271,000	324,000	472,000	851,000	2,340,000	3,650,000	2,540,000	941,000	732,000	568,000	491,000	504,000	13,690,000

Table 52. Synthesized streamflow for Missouri River near Landusky, Montana, 1928-89, in acre-feet (Continued)

YEAR	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	YEAR
1976	490,000	483,000	564,000	785,000	2,620,000	2,120,000	1,410,000	762,000	631,000	491,000	414,000	373,000	11,150,000
1977	320,000	498,000	400,000	581,000	574,000	1,320,000	750,000	476,000	320,000	392,000	335,000	320,000	6,290,000
1978	320,000	331,000	1,250,000	970,000	1,620,000	2,520,000	1,710,000	818,000	607,000	485,000	391,000	456,000	11,470,000
1979	449,000	483,000	1,130,000	827,000	1,760,000	2,060,000	1,000,000	707,000	568,000	272,000	298,000	301,000	9,850,000
1980	249,000	338,000	441,000	726,000	1,490,000	2,390,000	1,440,000	615,000	527,000	349,000	417,000	421,000	9,400,000
1981	394,000	369,000	443,000	607,000	2,160,000	2,560,000	1,250,000	836,000	510,000	376,000	373,000	346,000	10,220,000
1982	274,000	447,000	574,000	690,000	1,320,000	3,020,000	1,960,000	861,000	490,000	526,000	434,000	427,000	11,010,000
1983	443,000	428,000	452,000	502,000	1,180,000	1,970,000	1,530,000	873,000	518,000	476,000	415,000	279,000	9,070,000
1984	510,000	450,000	498,000	666,000	1,540,000	2,150,000	1,560,000	861,000	515,000	440,000	392,000	331,000	9,920,000
1985	415,000	389,000	584,000	714,000	1,080,000	1,620,000	867,000	497,000	393,000	566,000	412,000	525,000	8,060,000
1986	513,000	561,000	664,000	714,000	1,320,000	2,220,000	990,000	701,000	517,000	492,000	422,000	376,000	9,480,000
1987	294,000	319,000	431,000	595,000	633,000	1,360,000	744,000	540,000	549,000	269,000	278,000	247,000	6,260,000
1988	253,000	308,000	370,000	519,000	873,000	1,960,000	713,000	467,000	290,000	239,000	245,000	213,000	6,450,000
1989	311,000	232,000	639,000	678,000	1,240,000	1,520,000	916,000	658,000	502,000	360,000	403,000	363,000	7,820,000