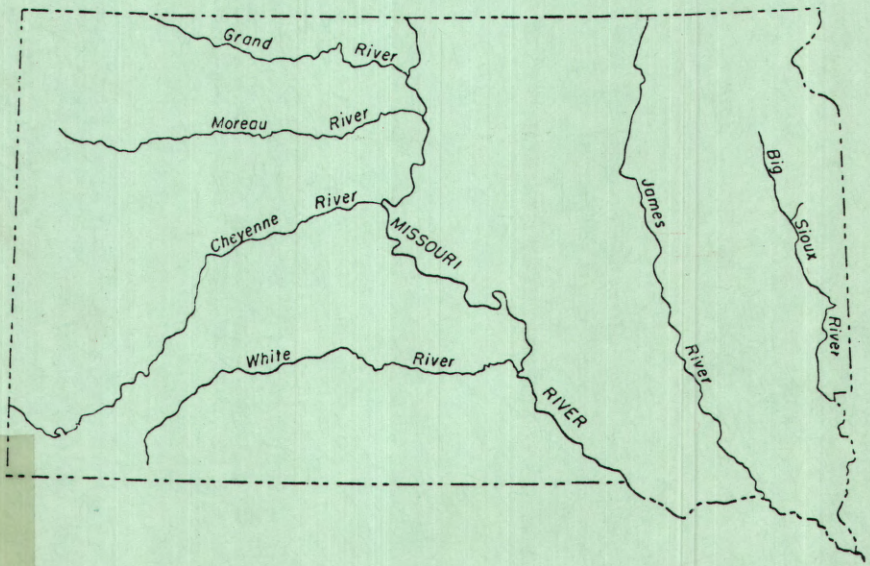
MAGNITUDE AND FREQUENCY OF FLOODS FROM SELECTED DRAINAGE BASINS IN SOUTH DAKOTA

U.S. GEOLOGICAL SURVEY

Water-Resources Investigations 82-31

Prepared in cooperation with the
South Dakota Department of Transportation
and the U.S. Department of Transportation,
Federal Highway Administration



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16. Abstract (Limit: 200 words) The 2-, 5-, 10-, 25-, 50-, and 100-year floods are determined for gaged sites on 120 selected, small drainage basins in South Dakota. These estimates are from the frequency curves defined from the streamflow records. Short-term records for 66 sites were extended on the basis of long-term climatic records and a rainfall-runoff model. These frequency curves may provide the best estimates of floods at these gaged sites. Analyses of flood-frequency information from these gaged sites have been the basis for techniques (published previously) used in estimating flood magnitude and frequency at ungaged sites in South Dakota.

This report supplements flood-frequency information published earlier. It presents: Annual peak discharges collected during a 25-year period at 124 crest-stage partial-record stations; maximum observed and unit discharges determined for 124 crest-stage and 120 continuous-record gaging stations; updated flood-frequency curves for 120 crest-stage gages; a documentation of analytical procedures used; and a summary of the small-streams data collection program in the State from 1955 to 1981. Maximum flood peaks determined at 244 partial- and continuous-record gaging stations and at 52 miscellaneous sites are compared with regional flood relationships.

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By Lawrence D. Becker

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UNITED STATES DEPARTMENT OF THE INTERIOR

JAMES G. WATT, Secretary

GEOLOGICAL SURVEY

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CONTENTS

ILLUSTRATIONS

TABLES

METRIC CONVERSIONS

The analyses and compilations used in this report are based on inch-pound units of measurements. Conversion factors for inch-pound units and metric units are listed below. Multiply inch-pound units by the conversion factor to obtain metric units.

Inch-pound units	Conversion factor	Metric units
inch (in.)	25.40	millimeter
foot (ft)	0.3048	meter
mile (mi)	1.609	kilometer
square mile (mi^2)	2.590	square kilometer
foot per mile (ft/mi)	0.1894	meter per kilometer
cubic foot per second (ft^3/s)	0.02832	cubic meter per second
cubic foot per second per square mile [$(ft^3/s)/mi^2$]	0.01093	cubic meter per square kilometer

MAGNITUDE AND FREQUENCY OF FLOODS FROM SELECTED DRAINAGE BASINS IN SOUTH DAKOTA

By Lawrence D. Becker

ABSTRACT

The magnitude and frequency of future flood peaks are estimated for selected small drainage basins in South Dakota. Estimates of the 2-, 5-, 10-, 25-, 50-, and 100-year floods for 120 gaged sites within the State are from the frequency curves defined from the gaging records. These frequency curves may provide the best estimates of floods at these gaged sites. For 66 sites, short-term records were extended on the basis of long-term climatic records and a rainfall-runoff model. Analyses of flood-frequency information at gaged sites have been the basis for techniques (published previously) used in estimating flood magnitude and frequency at ungaged sites in South Dakota.

This report, summarizing a seven-year investigation, supplements flood-frequency information published earlier. It presents: Annual maximum discharges collected over a 25-year time period at 124 crest-stage partial-record stations; maximum observed discharges and unit discharges (discharge per unit of area) determined at 124 crest-stage gaging stations and at 120 continuous-record gaging stations; flood-frequency curves defined at 120 crest-stage gage sites; a documentation of procedures used in data analysis, including aspects of flood-frequency analysis and regression analysis; and a summary to date (1981) of the small-streams flood-peak data collection program in the State since 1955. Also, maximum flood peaks determined at these partial- and continuous-record gaging stations and at 52 miscellaneous sites are compared with regional flood relationships.

INTRODUCTION

The need for information about floods on small streams in South Dakota has long been recognized. The magnitude and frequency of flood flows need to be considered in the design of highway structures such as bridges and culverts, in land-use planning, in mapping of flood-prone areas, in establishing rates for flood insurance, in formulating emergency evacuation plans for flood-prone areas, and other planning aspects. Systematic collection of small-streams data first began in the State in 1955. A regional flood-frequency analysis, which provided techniques for estimating peaks with recurrence intervals of as

much as 100 years at most ungaged sites located in unregulated drainage basins, was made for South Dakota (Becker, 1974). That analysis demonstrated the need for additional, long-term small-streams data. In order to determine flood-flow characteristics in unregulated drainage basins with areas less than 100 mi^2, the U.S. Geological Survey, in cooperation with the South Dakota Department of Transportation and the U.S. Department of Transportation, Federal Highway Administration, conducted an investigation from 1974 to 1981 to determine the magnitude and frequency of flood peaks in small, unregulated drainage basins. A specific objective was to collect sufficient data to define 50- and 100-year recurrence-interval floods (exceedance probabilities of 2 and 1 percent).

This is the final report resulting from the investigation and supplements flood-frequency information given in earlier reports by Becker (1974, 1980). It presents: (1) Annual maximum discharges at 124 crest-stage partial-record stations, (2) maximum observed discharges and unit discharges (discharge per unit of area) determined at 124 crest-stage gaging stations and at 120 continuous-record gaging stations, (3) flood-frequency curves defined at 120 crest-stage gage sites, (4) a documentation of procedures used in data analysis, including aspects of flood-frequency analysis and regression analysis, and (5) a summary of the small-streams flood-peak data-collection program in the State since 1955. The findings and conclusions presented in this report are those of the U.S. Geological Survey and are not necessarily those of the cooperating agencies.

The approach to this research has been to collect and analyze data on flood peaks on a sample of streams draining basins with areas generally less than 100 mi^2. These data were augmented by peak-flow data from a rainfall-runoff modeling program that were collected on basins of less than 10 mi^2 in area. Effort was oriented toward collecting hydrologic data that would form the basis for defining flood-frequency characteristics and provide information for detailed hydrologic studies.

Analysis included defining relationships between magnitude and frequency of flood peaks for gaged sites. Because reliability of that frequency relationship increases with record length, long-term flood records of up to 25 years in length have been collected at many of the 124 partial-record gaging stations in South Dakota. Also, a rainfall-runoff model has been used to synthesize long-term flood records from available long-term climatological records for 66 of these gaged sites having short-term observed flood records. These flood records have been used in multiple-regression analyses, reported earlier (Becker, 1980), which have been used to define relations for estimating the magnitude-frequency relation for flood peaks at ungaged sites on small streams in South Dakota.

FLOOD RECORDS

Data Collection Program

Systematic collection of flood records on small streams in South Dakota first began in 1955 when a cooperative data-collection program between the then South Dakota Department of Highways and the United States Geological Survey was initiated. Because flood data were almost totally lacking for small streams, provision was made for establishment of more than 60 crest-stage gages, clustered in groups of 2-4 gages at 17 localities, scattered throughout the State. A range of drainage areas from 0.04 mi^2 to 552 mi^2 was sampled (drainage areas for all but 4 stations in the gage network were within the range of 0.1 mi^2 to 100 mi^2). The information gathered through operation of these crest-stage gages was to be used to determine flood-frequency and magnitude. In 1967, the crest-stage gage program was briefly operated as a part of a research project to investigate runoff hydrographs (Becker, 1973 and 1980) based on rainfall-runoff modeling, but was re-established as a separate program in 1969. Over the years, the number of stations operated varied, but the crest-stage gage program remained unchanged in general until 1973 when an analysis was made of what had been accomplished to that point. It was found that a rather large amount of very useful data had been collected, but that additional information on small streams was needed.

A statewide flood-frequency analysis which dealt with the complete range of drainage basin sizes encountered in South Dakota (Becker, 1974) utilized the small streams data available up to that time. In general, 17 years of peak discharge data, obtained from operation of the crest-stage gage network, were available for each of 47 small basins for inclusion in that analysis. The need for additional small streams information was demonstrated in that report because streamflow records for small streams having drainage areas of less than about 100 mi^2 were of insufficient length to accurately define 50- and 100-year recurrence-interval floods (exceedance probabilities of 2 and 1 percent). However, the estimating relations provided rough estimates of high-recurrence-interval floods for small drainage basins.

A continuation of the program as a research project during 1974-81 was instituted to obtain the needed additional information. A major program revision was made. The data-collection network based on clustering of gages was replaced by a network having rather uniform coverage of the State by individual gages. The reactivated crest-stage gaging program utilized 30 crest-stage gages from the original program. Gaged sites were selected geographically to include all significant hydrologic areas in the State and to include a wide range of basin characteristics. A

specific objective was to collect sufficient data to define 50- and 100-year floods based on U.S. Geological Survey guidelines (as discussed by Becker, 1974) which required 20 and 25 years of observed data, respectively.

When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Flood-peak data collected at these partial-record stations are used in floodflow analyses. A crest-stage gage is used to record the peak stage occurring between inspections of the gage (Buchanan and Somers, 1968). A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow (Bodhaine, 1968, Dalrymple and Benson, 1967) or by current meter. Detailed descriptions of the general procedures used in collecting the field data are given in Carter and Davidian (1968), and Buchanan and Somers (1968, 1969).

Figures 1 and 2 show, respectively, the locations of gaged sites where only annual maximum discharges were determined and of gaged sites where rainfall-runoff modeling was used to extend observed record length. The distribution of these partial-record gaged sites by drainage basin size is shown on figure 3. Locations of continuous-record stations for which flood data are given are shown on figure 4.

Data collection for this crest-stage gage program was discontinued at the end of the 1980 water year as scheduled after adequate data had been collected to meet major program objectives. Under recommended flood-frequency guidelines (U.S. Water Resources Council, 1977) in use by the U.S. Geological Survey at the end of the data collection period, flood magnitudes (including the 50- and 100-year floods) have been determined at gaged sites on 120 selected drainage basins in South Dakota.

Data Available

Annual maximum discharges at 124 crest-stage partial-record stations are listed in table 1. Only the maximum discharge for each water year (the 12-month period ending September 30 of each designated year) is given. Information on some lower floods may have been obtained, but not published. Annual peak gage heights are referenced to an arbitrary local datum at the on-site drainage structure. Information on recovery of this datum can be obtained from the South Dakota District Office of the U.S. Geological Survey. The years given in the period of record represent water years for which the annual maximum has been determined. The date of the maximum discharge is not always certain, but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry.

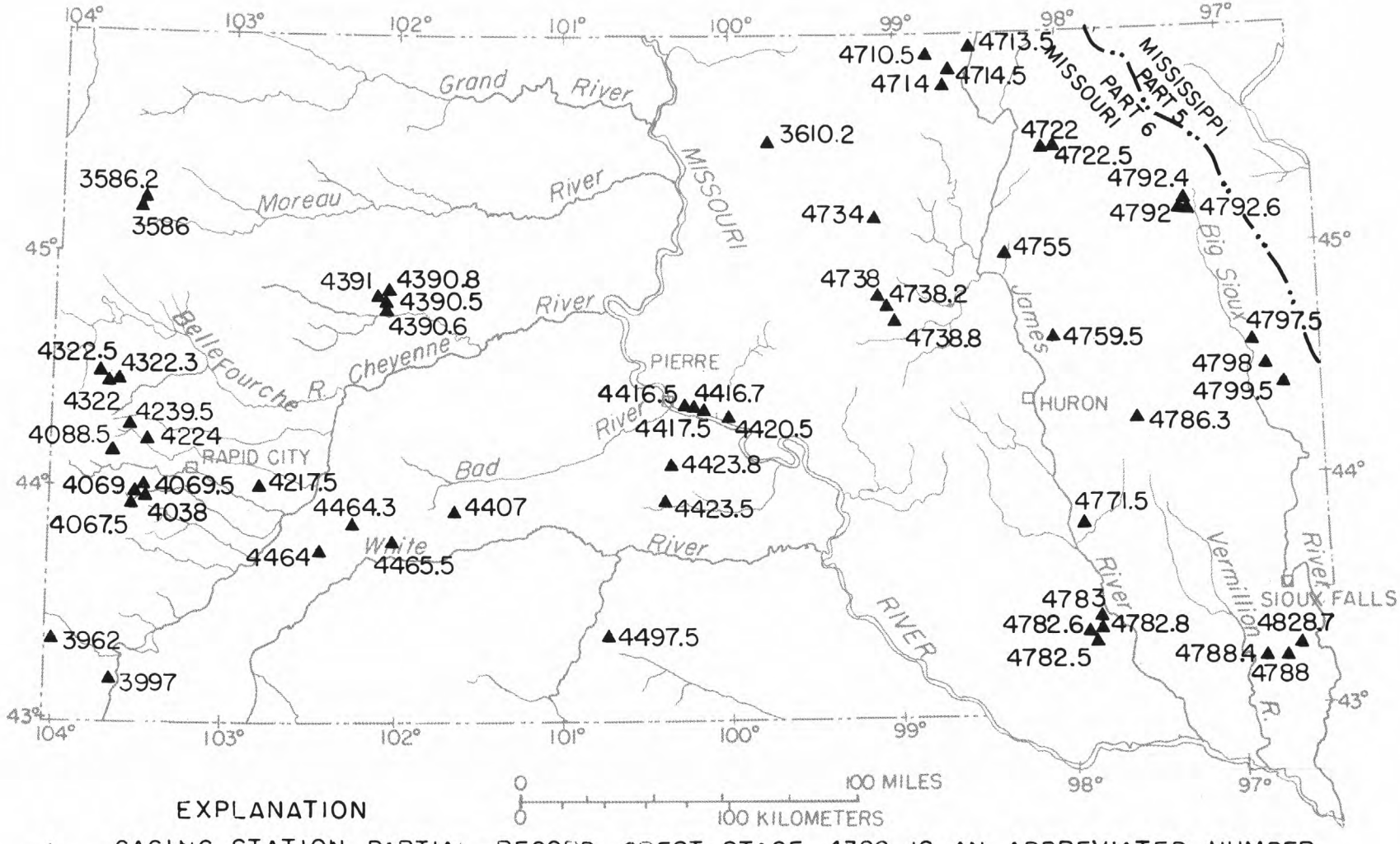

Figure 1. -- Location of partial-record gaging stations where only annual maximum discharges were determined.

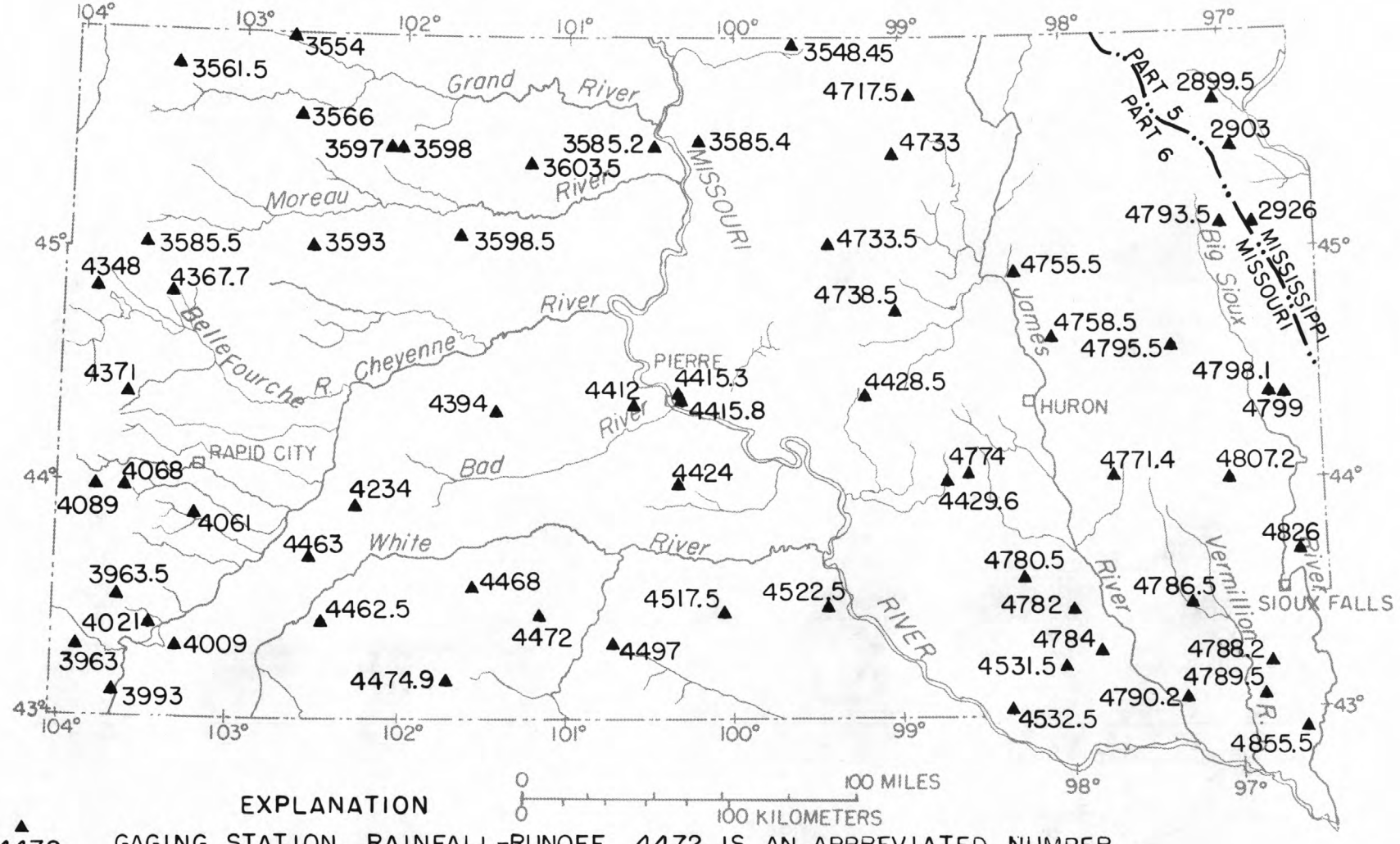

Figure 2.-- Location of partial-record gaging stations for which small basins were modeled.

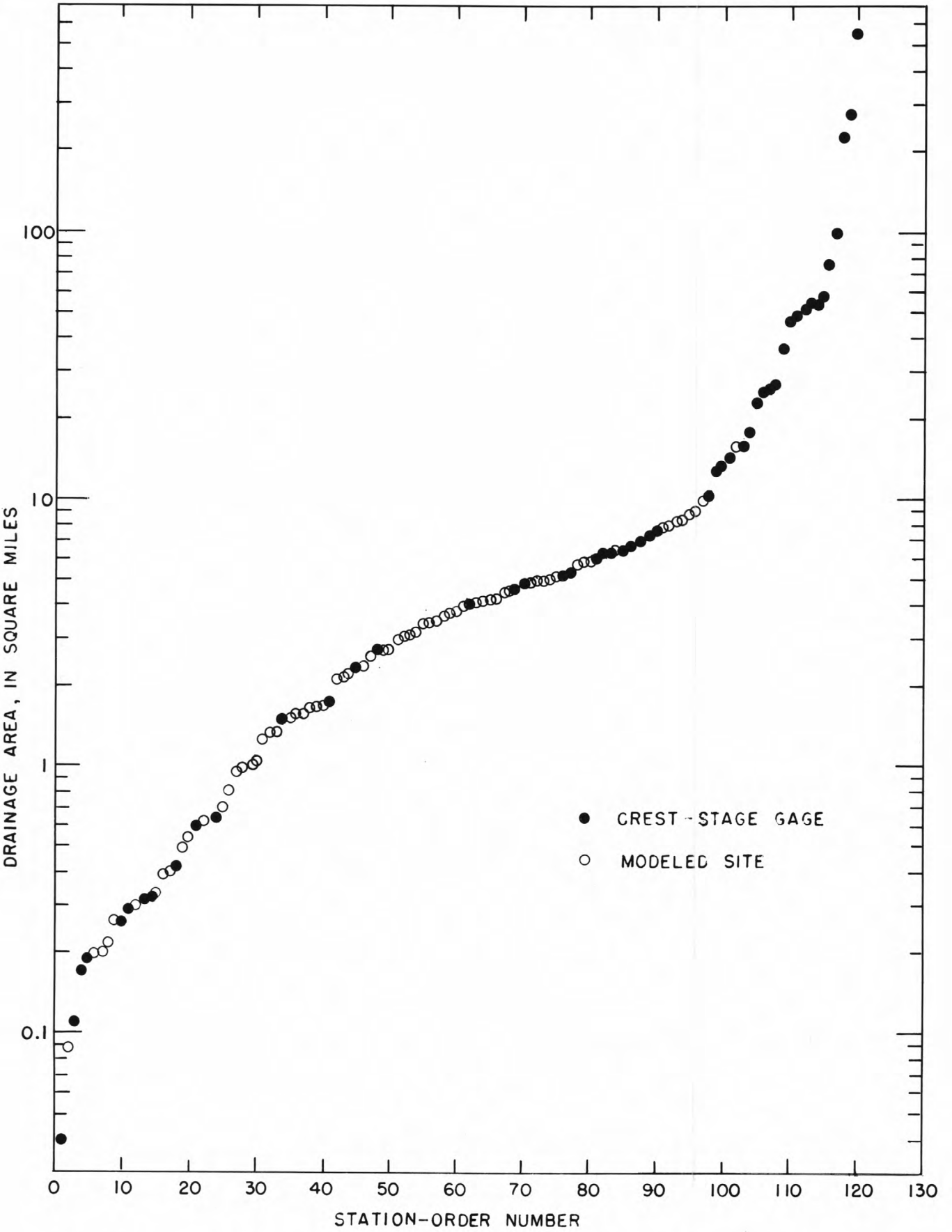

Figure 3.--Graph of drainage-area distribution of partial record sites.

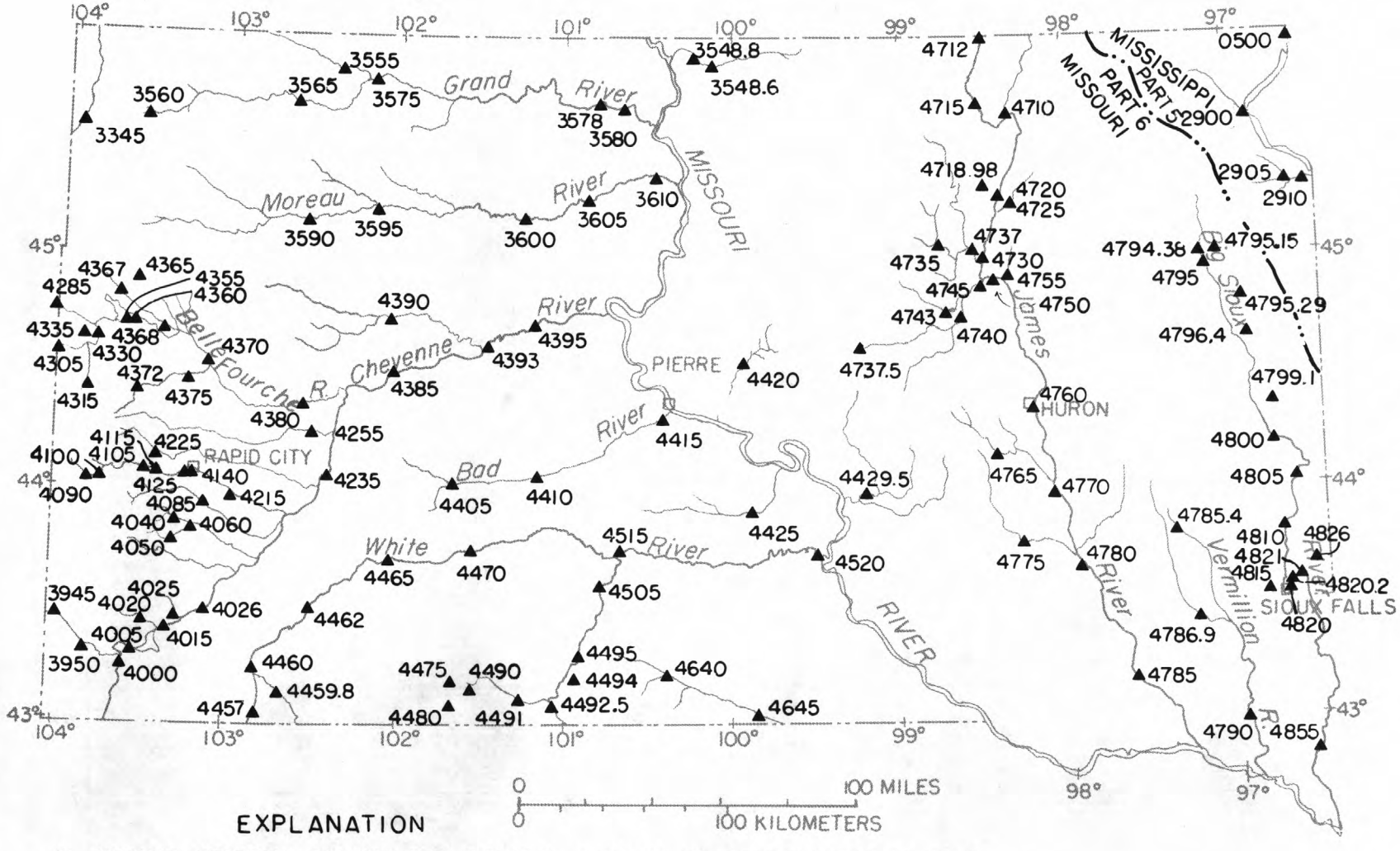

Figure 4.--Location of selected continuous-record gaging stations for which observed maximum discharges are given.

Over the years, annual publication of crest-stage gage records has been in various U.S. Geological Survey Water-Supply Papers and in annual releases of Water Resources Data for South Dakota. Data included in table 1 supersede data published in the annual series of Water Data Reports for South Dakota and in other reports because of revisions which have been made to some of these data based on improved station rating curves or additional hydrologic information which has since become available.

The hydrologic data now available for small watersheds in South Dakota satisfy project requirements and also supplement similar information obtained in other stream-gaging programs for larger drainage basins. Combined, recorded, flood-peak data for small streams, available from the crest-stage gage and the rainfall-runoff modeling studies, total 1,866 station-years of record. This total includes 5 stations with 5 or less years of record, 63 stations with 8 to 12 years of record, 16 stations with 13 to 18 years of record, 13 stations with 19 to 24 years of record, and 27 stations which have 25 years of record. The additional hydrologic data collected in connection with this project have become a part of the computer files of streamflow data maintained by the U.S. Geological Survey. Currently (1981), peak-discharge data are available in the U.S. Geological Survey peak-data file for some 240 gaged sites in South Dakota, including 120 stations which have been operated under the small streams program.

Flood-frequency Curves

A flood-frequency curve is a graph showing the relationship between recurrence interval as abscissa and flood magnitude as ordinate. The theory of frequency curves is discussed and procedures, both graphical and mathematical, are described by Riggs (1968b) for preparing frequency curves from samples of hydrologic data.

Frequency curves for peak discharges defined from the gaging records at 120 partial-record sites on small streams in South Dakota are presented in table 2. These flood-flow tabulations show the data for flood-frequency curves based on the period of record using the log-Pearson Type III frequency distribution. Table 2 shows the magnitude and frequency of instantaneous peak flow for recurrence interval, in years, for 2-year, 5-year, 10-year, 25-year, 50-year, and 100-year floods. These recurrence intervals correspond to exceedance probabilities of 50-percent, 20-percent, 10-percent, 4-percent, 2-percent, and 1-percent, respectively. A graph of the frequency curve for any gaging station given in table 2 may be constructed by plotting discharges versus respective recurrence intervals on log-probability paper and drawing a smooth curve through the indicated

points. Flood characteristics for 66 sites were defined by short-term records which were extended on the basis of long-term climatic records and a rainfall-runoff model. These modeled sites are indicated by footnote in tables 1, 2, and 3. Although much of these flood-frequency data have been previously published (Becker, 1980), they have been revised where necessary and are summarized herein for convenience of the user.

USE OF DATA

Data collected as a result of this research project have been used in several prior analyses which have resulted in (1) flood-frequency estimates at the various gaged sites and (2) flood-frequency estimating relations which are applicable to ungaged sites in South Dakota. Early frequency studies by McCabe and Crosby (1959), Patterson (1966), and Patterson and Gamble (1968) were based on the index-flood method. Multiple-regression analysis techniques have since been employed by Larimer (1970) and Becker (1974, 1980). Flood magnitudes and estimating relations given in these and other interpretive reports are widely used by not only the cooperating agencies in highway design, but also by other users for many purposes other than that of highway design.

The most extensive, statewide application of the data gathered under the crest-stage gage program has been in the development of techniques for estimating flood peaks, volumes, and hydrographs on small streams in South Dakota (Becker, 1980). Estimating relations, contained therein, can be used to obtain reliable estimates for the 50- and 100-year recurrence-interval floods (2- and 1-percent probabilities), in addition to estimates for smaller recurrence interval (larger probability) floods, at both gaged and ungaged sites on small streams. Flood-frequency estimates are made for ungaged sites by using regression relations that require evaluation of the size, main channel slope, and a soil-infiltration index for the drainage basin. That report (Becker, 1980) presents the combined principal products of two research studies: (1) The subject crest-stage gage program and (2) the recently completed rainfall-runoff program. These two research projects were mutually supportive in that both provided needed small-streams information not otherwise available in South Dakota. Consequently, several of the principal analytical products of this crest-stage gage investigation of flood-peak magnitude and frequency have previously been published.

ANALYTICAL PROCEDURE

Flood-frequency Analysis

Analysis of station data was based on use of the log-Pearson Type III method for fitting flood-frequency curves. Details of the log-Pearson Type III method and calculations are given by the U.S. Water Resources Council (1977). The generalized skew coefficients found in that report were used in the analysis of recorded peak data. Use of generalized skew coefficients was not considered appropriate (Becker, 1980) in analysis of the synthetic flood records available for modeled partial-record sites. The flood-frequency curves were also adjusted for outliers and historic information. Frequency analyses, in general, are the most reliable estimators of future floods and form the basis for regression relations that transfer information to ungaged sites.

Peak discharge frequencies were determined, based on actual records, at 54 crest-stage partial-record gaging stations (fig. 1). The length of record for these stations ranged from 8 to 25 years and averaged 20 years (20 stations have 25 years of record). Flood frequencies were not determined at four gaged sites shown on figure 1 because periods of record at these sites were too short (less than five years). Frequency curves for peak discharges at the additional 66 modeled sites (fig. 2) were defined by Becker (1980). They were developed by averaging frequency curves based on synthetic records of 68 to 76 years in length that resulted from modeling with frequency curves based on actual records of annual maximum discharges, generally ranging in length from 8 to 11 years.

Analyses of data from this research project and of additional data from other studies have provided simple, accurate, and practical relations for estimating flood characteristics (Becker, 1980) at gaged and ungaged sites located in small drainage basins. The 50- and 100-year recurrence-interval floods can be estimated for small streams in South Dakota without qualification as was necessary in Becker (1974). Estimates of these floods may be made with confidence because of (1) the longer periods of record available; (2) the availability of long-term, synthetic flood records for 66 sites; and (3) the currently recommended methods for computation of station frequency curves which allow estimation of higher recurrence-interval floods based upon shorter station records. Frequency curve data given in table 2 update that given by Becker in 1980 because of the inclusion of an additional one or two years of record for many of the crest-stage partial-record sites.

Regionalization by Regression Analysis

The regional analyses of observed and synthesized flood records by regression techniques provide a means of transferring the hydrologic information available at gaged sites to most ungaged sites within the State where estimates may be required.

Regionalization of the small streams flood-frequency data by Becker in 1980 was based on multiple-regression techniques as described by Benson (1962). These techniques have been previously used by Larimer (1970) and by Becker (1974) in analyses of South Dakota streamflow data. The relations of flood peaks to drainage basin and climatic characteristics were determined from a regression model of the assumed form $Q = aA^bB^cC^d...$, where the dependent variable (Q) is the peak discharge and the independent variables (A, B, and C) are basin or climatic characteristics. In the equation, the constant and coefficients of regression are indicated respectively by "a" and by "b, c, and d." The regression constant and regression coefficients are defined, the statistical significance of each basin or climatic characteristics is evaluated, and a standard error of estimate is determined using regression analysis techniques.

Basin Characteristics

Many basin characteristics that may affect the magnitudes of floods have been investigated in this program; however, only those basin characteristics of both statistical and hydrologic significance are retained in final estimating relations. Variables based on drainage area, main channel slope, and soil-infiltration index have most recently proved significant and useful in estimation of floods at ungaged sites in South Dakota (Becker, 1980). These basin characteristics are listed for crest-stage partial-record stations in table 2. Other basin characteristics defined for this investigation included stream length, mean basin elevation, area of lakes and ponds, forested area, mean annual precipitation, precipitation intensity (2-year, 24-hour), mean minimum January temperature, snowfall index, and gaging station latitude and longitude. These data have also become a part of the computer files of streamflow and basin characteristics maintained by the U.S. Geological Survey.

MAXIMUM FLOODS OF RECORD

A knowledge of the maximum observed flood at a site is often desired or required by planners and designers as an initial step in estimating future flood characteristics. Tables 3 and 4 give maximum flood peaks determined at 124 crest-stage partial-record gages and at 120 selected continuous-record gaging stations.

The ratio of discharge to contributing drainage area, which may be of value in design considerations, has been computed and tabulated for each maximum observed flood. An indicated recurrence interval, in years, is given for the maximum flood observed at each gaged site. The recurrence intervals of these observed floods were determined graphically from the plotted frequency curves. Frequency data are given in table 2. For crest-stage partial-record stations, comparisons are also made of the maximum observed flood to the 50-year flood at each gaged site. Data provided in tables 3 and 4 supersede, in part, like information given in 1974 by Becker because of the longer periods of record now available.

Maximum flood peaks, given in tables 3 and 4, are related to drainage area on figure 5. Significant flood data for the State include information at 52 miscellaneous sites (Becker, 1974) also shown on figure 5. Regional curves for small streams developed in an analysis by Becker (1980) based on equations using the single variable of drainage area for the 50- and 100-year floods (2- and 1-percent exceedance probabilities) are shown for comparison. A comparison of South Dakota floods with maximum known floods in the region and in the United States is also made (Hoyt and Langbein, 1955; Matthai, 1969; Crippen and Bue, 1977). The enveloping curves of figure 5 provide a means of estimating extreme-flood potential without regard to frequency or probability of the estimate of floods.

SUMMARY

This study has been directed toward definition of flood characteristics of small streams in South Dakota. The project has provided the additional hydrologic information required to define, specifically, 50- and 100-year recurrence interval floods (exceedance probabilities of 2 and 1 percent). This knowledge of flood characteristics is needed for planning and designing drainage structures, for establishing equitable land-use regulations, and for many other uses.

Much new and additional peak flow data have been collected and placed in the public domain for alternate and future analyses. These data are the basis of statewide flood-frequency analyses which have been reported earlier.

Analyses of data from this project and of additional data from other studies have provided simple, accurate, and practical relations for use in estimating flood characteristics at gaged and ungaged sites located in small drainage basins. These analyses have provided: (1) Flood peak-frequency relations for 120 gaged sites on small streams where flood flows are virtually natural, and (2) regression relations for estimating flood peak-frequency relations at ungaged sites for future floods of given magnitude.

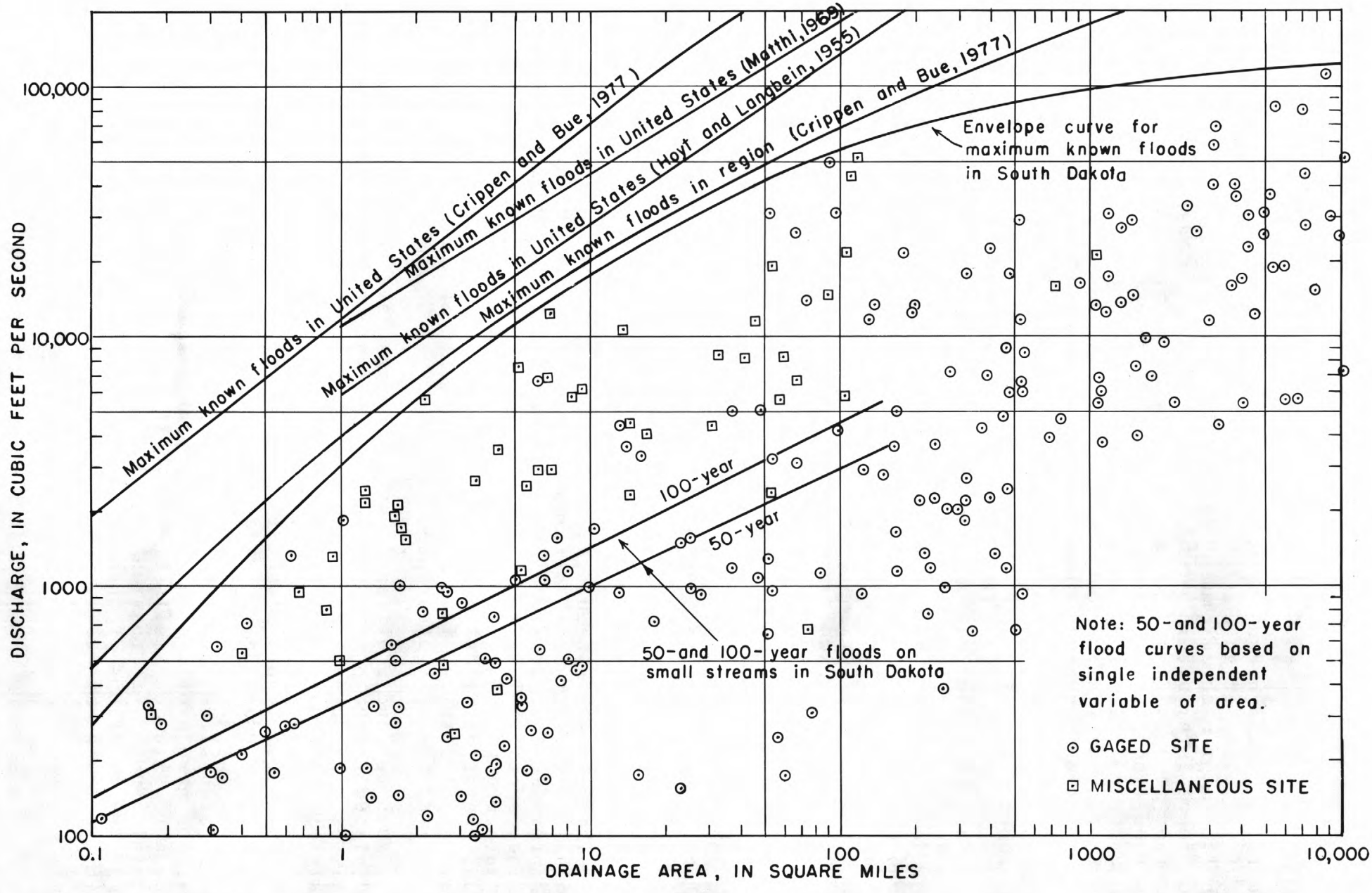

Figure 5. --Relation of floods of record to drainage areas less than 10,000 square miles for stream-gaging stations and miscellaneous sites in South Dakota.

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DATA TABULATIONS

Tables 1 to 4.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Minnesota River basin					
05289950	†Little Minnesota River tributary at Sisseton, SD	Lat 45°39'38", long 97°04'21", in NW¼ sec.32, T.126 N., R.51 W., Roberts County, Hydrologic Unit 07020001, at culvert on State Highway 10, 0.6 mile west of Sisseton.	4.21	1970-79	4-27-70	4.25	16
					6-29-71	8.54	228
					3-16-72	[a]10.22	[b]175
					5-24-73	6.06	83
					3- 3-74	[a]8.24	[b]20
					6-21-75	5.10	44
					3-20-76	[a]9.85	[b]30
					6-16-77	4.99	40
					7- 1-78	9.78	315
					6-20-79	10.90	393
05290300	†North Fork Whetstone River tributary near Wilmot, SD	Lat 45°26'02", long 96°57'33", in SE¼ sec.18, T.123 N., R.50 W., Roberts County, Hydrologic Unit 07020001, at culvert on county highway, 6.0 miles northwest of Wilmot.	.96	1970-79	6-15-70	3.66	24
					6-29-71	4.06	36
					7-26-72	3.82	28
					3-14-73	[a]7.71	[b]40
					3- 3-74	[a]4.92	[b]8.0
					5- 7-75	[a]3.56	[b]15
					3-20-76	[a]7.09	[b]8.5
					7-30-77	3.86	29
					6-30-78	4.10	37
					6-20-79	4.55	53
05292600	†North Fork Yellow Bank River tributary near Stockholm, SD	Lat 45°06'28", long 96°49'19", in SE¼SE¼SE¼ sec.16, T.119 N., R.50 W., Grant County, Hydrologic Unit 07020001, at culvert on State Highway 20, 1.0 mile northwest of Stockholm.	8.15	1970-79	4-19-70	4.64	52
					6-29-71	10.44	510
					4-12-72	8.05	290
					3-14-73	5.58	101
					3- 3-74	[a]4.44	[b]15
					4-15-75	[a]4.33	[b]20
					3-20-76	[a]5.69	[b]13
					6-16-77	8.71	349
					5-29-78	4.96	68
					6-20-79	5.65	105
		Spring Creek basin					
06354845	†Spring Creek tributary near Greenway, SD	Lat 45°54'45", long 99°36'48", in SW¼ sec.12, T.128 N., R.73 W., McPherson County, Hydrologic Unit 10130102, at culvert on State Highway 47, 4.8 miles east of Greenway.	.99	1970-79	6-12-70	2.91	3.0
					6-17-71	7.86	188
					5- 5-72	3.88	20
					9- 3-73	5.88	91
					10-12-73	6.10	100
					4-29-75	2.87	2.2
					- -76	(c)	<0.5
					6-12-77	[a]4.00	[b]10
					6-26-78	5.84	90
					4- -79	[a]7.53	[b]50
		Grand River basin					
06355400	†North Fork Grand River tributary near Lodgepole, SD	Lat 45°55'45", long 102°39'04", in NW¼ sec.28, T.23 N., R.12 E., Perkins County, Hydrologic Unit 10130301, at culvert on county highway, 9.0 miles north of Lodgepole.	3.07	1970-79	6-12-70	5.28	127
					7-12-71	6.21	219
					5-28-72	4.04	42
					6- 2-73	4.49	67
					6- 1-74	3.95	38
					4-28-75	5.00	104
					6-15-76	3.14	3.3
					9- 7-77	4.45	65
					6-25-78	7.46	370
					8-27-79	11.05	847
06356150	†North Jack Creek near Ludlow, SD	Lat 45°47'15", long 103°23'43", in SW¼NW¼NW¼ sec.16, T.21 N., R.6 E., Harding County, Hydrologic Unit 10130302, at culvert on U.S. Highway 85, 3.4 miles southwest of Ludlow.	1.69	1970-79	4-25-70	[a]4.24	[b]20
					6- 4-71	3.74	17
					5- 9-72	3.46	11
					4-20-73	4.55	41
					3-13-74	[a]4.04	[b]10
					4-28-75	3.82	19
					6-14-76	3.64	15
					4- 7-77	[a]3.71	[b]7.5
					6-25-78	6.68	145
					5- -79	4.30	33
06356600	†South Fork Grand River tributary near Bison, SD	Lat 45°35'54", long 102°39'28", in NE¼ sec.21, T.19 N., R.12 E., Perkins County, Hydrologic Unit 10130302, at culvert on county highway, 10 miles northwest of Bison.	1.0	1970-79	5-30-70	3.06	5.0
					6- 4-71	5.55	80
					5-25-72	3.47	14
					4-20-73	[a]4.40	[b]30
					8-23-74	3.55	14
					4-28-75	4.10	30
					7- 3-76	4.18	32
					7- 6-77	5.30	70
					6-29-78	7.76	183
					4- -79	[a]7.76	[b]90

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum: Date	Annual maximum: Gage height (feet)	Annual maximum: Discharge (ft^3/s)
		Deadman Creek basin					
06358520	†Deadman Creek tributary near Mobridge, SD	Lat 45°28'15", long 100°29'54", in NW¼ sec.1, T.17 N., R.29 E., Dewey County, Hydrologic Unit 10130102, at culvert on county highway, 5.5 miles southwest of Mobridge.	0.30	1956-79	3-18-56	4.76	8.0
					5- -57	6.69	51
					3-24-58	5.42	20
					3- -59	4.00	1.0
					3- -60	4.56	4.5
					3- -61	4.67	6.0
					2- 6-62	5.98	33
					5- -63	4.12	1.2
					6-17-64	[d]12.07	180
					5- -65	4.86	9.0
					4- -66	4.29	1.0
					6-18-67	5.32	18
					6-30-68	4.84	10
					8- 4-69	5.19	16
					4-21-70	5.36	18
					5-23-71	5.03	13
					5- 1-72	5.31	18
					5-26-73	5.96	32
					10-11-73	5.35	19
					5- 6-75	7.62	77
					6-15-76	4.46	4.3
					9-23-77	5.56	23
					5-11-78	5.44	20
					7- 1-79	7.66	79
					6- 2-80	8.73	109
		Blue Blanket Creek basin					
06358540	†Blue Blanket Creek tributary near Glenham, SD	Lat 45°32'12", long 100°12'01", in NW¼NW¼NW¼ sec.30, T.124 N., R.77 W., Walworth County, Hydrologic Unit 10130102, at culvert on U.S. Highway 12, 3.5 miles east of Glenham.	.62	1970-79	9- 7-70	3.33	7.0
					6-17-71	3.48	9.0
					5- 1-72	2.82	2.0
					3-14-73	[a]3.51	[b]4.5
					- -74	(c)	<4.5
					6-21-75	3.55	10
					6-15-76	3.19	5.3
					- -77	(c)	[b]3.0
					6-26-78	4.26	21
					7- 1-79	3.22	5.6
		Moreau River basin					
06358550	†Battle Creek tributary near Castle Rock, SD	Lat 45°02'57", long 103°32'56", in NE¼ sec.31, T.13 N., R. 5 E., Butte County, Hydrologic Unit 10130304, at culvert on U.S. Highway 85, 8.7 miles northwest of Castle Rock.	1.57	1969-79	7- 8-69	10.8	430
					6-12-70	4.69	60
					6- 4-71	5.52	97
					6-25-72	12.72	536
					4-20-73	4.12	40
					7-20-74	4.71	61
					5- 9-75	13.70	580
					6-17-76	6.26	135
					7- 4-77	4.50	53
					7-20-78	7.21	189
					7-26-79	5.90	117
06358600	South Fork Moreau River tributary near Redig, SD	Lat 45°11'55", long 103°34'05", in SE¼SE¼ sec.1, T.14 N., R.4 E., Butte County, Hydrologic Unit 10130304, at culvert on former U.S. Highway 85, 5 miles south of Redig, 26.2 miles south of Buffalo.	2.33	1956, 1958-80	7- -56	2.44	72
					- -58	2.08	1.0
					6-25-59	3.56	205
					3-20-60	[a]2.98	[b]30
					- -61	--	0
					3- -62	[a]2.56	[b]15
					6- -63	3.55	170
					- -64	--	0
					7- 8-65	2.38	65
					3-13-66	[a]3.20	[b]40
					6- 6-67	2.32	58
					8-24-68	2.38	65
					7- 8-69	5.15	450
					5-11-70	2.20	40
					4-19-71	3.80	180
					5-11-72	2.42	70
					3-14-73	[a]2.76	[b]20
					4-11-74	[a]2.40	[b]30
					4-28-75	2.34	60
					6-23-76	3.17	80
					4- 7-77	[a]2.42	[b]35
					6-29-78	3.35	120
					4- -79	[a]2.49	[b]35
					8-16-80	3.35	150

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum: Date	Annual maximum: Gage height (feet)	Annual maximum: Discharge (ft^3/s)
		Moreau River basin - Continued					
06358620	Sand Creek tributary near Redig, SD	Lat 45°13'21", long 103°32'56", in NE¼ sec.31, T.15 N., R.5 E., Harding County, Hydrologic Unit 10130304, at culvert on U.S. Highway 85, 3.5 miles south of Redig.	0.04	1956, 1958-72	7- -56	2.64	14
					8-30-58	3.69	32
					6-29-59	2.07	5.2
					6-20-60	2.92	18
					8-17-61	2.55	12
					5- -62	3.37	26
					6- -63	3.32	25
					6- 9-64	2.79	16
					5- -65	2.89	18
					7- -66	3.71	32
					6- 6-67	3.85	35
					8-24-68	3.97	37
					7- 8-69	5.31	64
					5-31-70	3.96	37
					4-19-71	2.58	13
					7-27-72	2.73	15
06359300	†Deep Creek tributary near Maurine, SD	Lat 45°01'34", long 102°32'29", in SW¼SE¼ sec.4, T.12 N., R.13 E., Meade County, Hydrologic Unit 10130305, at culvert on U.S. Highway 212, 2.6 miles east of Maurine.	1.26	1970-79	5-30-70	3.27	5.6
					5-30-71	8.13	188
					5-11-72	2.99	2.7
					- -73	(c)	<0.5
					- -74	(c)	<0.5
					4-28-75	4.46	29
					- -76	--	0
					5-26-77	2.69	0.3
					4- -78	[a]9.05	[b]20
					4- -79	[a]4.63	[b]5.0
06359700	†Thunder Butte Creek tributary near Meadow, SD	Lat 45°26'39", long 102°05'21", in SE¼ sec.12, T.17 N., R.16 E., Perkins County, Hydrologic Unit 10130306, at culvert on State Highway 20, 8.5 miles southeast of Meadow, 15.7 miles west of Glad Valley.	3.0	1970-79	5- 7-70	8.00	145
					3-13-71	[a]6.43	[b]35
					5-21-72	5.93	79
					4-20-73	3.76	20
					- -74	(c)	<5.0
					4-28-75	5.90	78
					- -76	(c)	<3.0
					7- 6-77	4.60	40
					4- -78	[a]6.71	[b]20
					4- -79	[a]3.35	[b]5.0
06359800	†Thunder Butte Creek tributary near Glad Valley, SD	Lat 45°26'39", long 102°01'01", in SW¼ sec.10, T.17 N., R.17 E., Perkins County, Hydrologic Unit 10130306, at culvert on State Highway 20, 12.2 miles west of Glad Valley.	8.0	1970-77	6- 8-70	8.43	1,130
					7-11-71	6.05	561
					5-22-72	5.19	363
					3-14-73	[a]5.63	[b]50
					4-23-74	2.88	<3.0
					4-28-75	8.20	1,070
					6-23-76	4.21	122
					7- 6-77	6.13	579
06359850	†Elm Creek tributary near Dupree, SD	Lat 45°03'12", long 101°38'39", in SW¼ sec.26, T.13 N., R.20 E., Ziebach County, Hydrologic Unit 10130306, at culvert on U.S. Highway 212, 1.8 miles west of Dupree.	4.16	1970-79	5-14-70	3.11	42
					5-23-71	3.66	110
					5-22-72	6.35	410
					5-27-73	3.22	61
					4-19-74	3.78	120
					4-28-75	6.89	494
					6-23-76	3.71	115
					6-21-77	5.07	245
					4- -78	[a]7.56	[b]75
					4- -79	--	[b]25
06360350	†Little Moreau River tributary near Firesteel, SD	Lat 45°24'16", long 101°13'30", in NE¼SE¼ sec.25, T.17 N., R.23 E., Dewey County, Hydrologic Unit 10130306, at culvert on State Highway 63, 3.5 miles southeast of Firesteel.	2.09	1970-79	6-12-70	2.71	1.0
					4-20-71	4.14	40
					5-22-72	4.01	34
					3-14-73	[a]4.85	[b]20
					- -74	(c)	<4.0
					4-28-75	[a]5.45	[b]75
					- -76	(c)	<1.0
					6-15-77	3.48	15
					4- -78	4.89	78
					4- -79	3.40	12
		Swan Creek basin					
06361020	Swan Lake Creek tributary near Bowdle, SD	Lat 45°26'57", long 99°44'34", in SW¼ sec.23, T.123 N., R.74 W., Walworth County, Hydrologic Unit 10130105, at culvert on U.S. Highway 12, 3.7 miles west of Bowdle.	27.1	1970-79	4-28-70	4.60	65
					4- 8-71	4.80	75
					5- 1-72	3.63	23
					3-14-73	[a]5.01	[b]15
					10-12-73	4.07	43
					5-19-75	3.33	11
					6-16-76	3.06	4.6
					3- -77	<2.95	<3.2
					5-12-78	5.12	91
					4- -79	3.11	5.7

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Cheyenne River basin					
06396200	Fiddle Creek near Edgemont, SD	Lat 43°18'16", long 103°59'46", in SE¼ sec.33, T.8 S., R. 1 E., Fall River County, Hydrologic Unit 10120106, at culvert on U.S. Highway 18 and 85A, 9 miles west of Edgemont.	0.64	1956-80	6-18-56	1.37	3.1
					5-24-57	2.82	41
					7-20-58	2.87	43
					9-24-59	1.46	4.4
					- -60	(c)	[b]0.5
					8- 4-61	3.53	68
					7-14-62	2.34	26
					3-16-63	2.80	40
					6-14-64	2.10	19
					6-12-65	2.54	32
					7-22-66	1.86	13
					6-15-67	1.69	8.0
					6-25-68	2.49	30
					7-18-69	2.32	25
					4-23-70	1.24	1.5
					5-22-71	1.41	3.6
					2-29-72	1.18	1.0
					3- -73	1.40	3.5
					7-19-74	2.12	19
					3-27-75	[a]2.95	[b]20
					7- 6-76	2.72	37
					8- 9-77	2.93	44
					5- 4-78	2.17	18
					8-20-79	2.50	30
					6-15-80	7.89	275
06396300	†Cottonwood Creek tributary near Edgemont, SD	Lat 43°17'48", long 103°52'02", in SW¼ sec.3, T.9 S., R.2 E., Fall River County, Hydrologic Unit 10120106, at culvert on U.S. Highway 18 and 85A, 2.5 miles west of Edgemont.	.09	1956-80	7- 8-56	3.83	25
					6- -57	3.37	14
					7-20-58	4.38	41
					7-13-59	3.77	23
					- -60	<2.98	<6.0
					7-20-61	3.27	12
					9- -62	4.28	38
					6-20-63	4.30	38
					6-21-64	4.21	35
					7-19-65	5.65	86
					7-14-66	3.77	23
					6-15-67	3.71	22
					6-25-68	4.21	35
					7-18-69	5.37	75
					7-12-70	[e]2.93	9.2
					5-22-71	3.10	13
					- -72	<2.63	<4.0
					9- 2-73	3.10	13
					8-10-74	4.10	40
					7- 9-75	3.04	12
					7-20-76	3.04	12
					8- 9-77	4.42	51
					6-17-78	3.15	14
					8-20-79	3.35	19
					6-15-80	4.33	48
06396350	†Red Canyon Creek tributary near Pringle, SD	Lat 43°32'22", long 103°39'20", in SW¼ sec.9, T.6 S., R.4 E., Custer County, Hydrologic Unit 10120109, at culvert on State Highway 89, 0.5 mile northwest of Argyle, and 5.5 miles southwest of Pringle.	.20	1970-79	- -70	(c)	[b]5.0
					5- 3-71	4.01	30
					2-29-72	[a]3.81	[b]7.0
					9- 2-73	(c)	<12
					4- -74	[a]4.02	[b]5.0
					4- 8-75	[a]3.96	[b]7.0
					- -76	--	0
					- -77	(c)	[b]<1.0
					- -78	--	0
					- -79	(c)	[b]1.0

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Cheyenne River basin - Continued					
06399300	†Hat Creek tributary near Ardmore, SD	Lat 43°05'42", long 103°40'25", in NW¼ sec.16, T.11 S., R.4 E., Fall River County, Hydrologic Unit 10120108, at culvert on State Highway 71, 5.0 miles north of Ardmore.	3.74	1956-59, 1961-79	3- 1-56	[a]3.75	1.0
					5-25-57	5.12	270
					7-11-58	4.05	11
					7-13-59	3.70	8.0
					7-29-61	3.95	10
					6-16-62	5.05	265
					3-16-63	6.65	510
					6-21-64	5.47	320
					5-24-65	5.01	255
					8-13-66	3.53	6.0
					6-15-67	5.33	300
					6- 9-68	5.47	320
					3-19-69	3.70	45
					- -70	--	0
					5-23-71	[f]6.13	310
					5-10-72	3.33	0.5
					4-30-73	4.12	3.5
					4-11-74	4.65	94
					4-28-75	4.02	<5.0
					7-20-76	6.33	338
					4-12-77	4.33	19
					5- 7-78	4.46	50
					7- 5-79	4.66	96
06399700	Pine Creek near Ardmore, SD	Lat 43°11'14", long 103°38'24", in NW¼ sec.15, T.10 S., R.4 E., Fall River County, Hydrologic Unit 10120108, at bridge on State Highway 71, 11.5 miles north of Ardmore.	7.36	1956-74	6-17-56	7.17	1,110
					5-25-57	7.00	1,020
					7-12-58	6.17	590
					7-13-59	7.16	1,110
					4- -60	2.44	8.0
					7-29-61	5.32	295
					6-16-62	7.72	1,440
					7-23-63	5.43	325
					6-21-64	7.11	1,080
					7-23-65	7.88	1,540
					9- -66	6.84	930
					6-15-67	6.90	960
					6- 9-68	7.65	1,550
					7-21-69	5.44	330
					8-11-70	3.28	29
					5-23-71	6.78	900
					7-26-72	6.65	820
					7-20-73	6.44	710
					4-11-74	4.24	98
06400900	†Horsehead Creek tributary near Smithwick, SD	Lat 43°17'16", long 103°19'08", in NW¼ sec.8, T.9 S., R.7 E., Fall River County, Hydrologic Unit 10120106, at culvert on U.S. Highway 18 and 385, 12 miles southeast of Hot Springs, and 5.3 miles west of Smithwick.	1.52	1969-79	7-18-69	7.6	90
					6-12-70	3.09	2.8
					5-23-71	4.09	12
					7-21-72	2.76	1.0
					- -73	<3.66	<6.7
					- -74	<3.66	<6.7
					- -75	<3.66	<6.7
					2-10-76	[a]4.24	3.0
					8-22-77	4.23	15
					8-27-78	6.50	66
					- -79	--	0
06402100	†Fall River tributary at Hot Springs, SD	Lat 43°24'58", long 103°29'18", in NW¼NE¼ sec.26, T.7 S., R.5 E., Fall River County, Hydrologic Unit 10120109, at culvert on State Highway 71, 0.5 mile south of Hot Springs.	3.81	1970-79	7-27-70	4.17	40
					5-30-71	2.68	0.5
					6-25-72	2.82	2.5
					- -73	<3.25	<13
					- -74	<3.25	<13
					6-19-75	3.48	19
					7-31-76	3.48	19
					7- 4-77	4.60	53
					8-15-78	4.37	46
					6-16-79	3.80	29

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum: Date	Annual maximum: Gage height (feet)	Annual maximum: Discharge (ft^3/s)
		Cheyenne River basin - Continued					
06403800	Battle Creek tributary near Keystone, SD	Lat 43°55'28", long 103°27'44", in NW¼NE¼NE¼ sec.36, T.1 S., R.5 E., Pennington County, Hydrologic Unit 10120109, at culvert on U.S. Highway 16, 2.8 miles northwest of Keystone.	0.63	1956-80	6- -56	4.35	3.0
					6- 4-57	4.52	4.4
					- -58	--	0
					- -59	--	0
					5- -60	4.45	3.7
					5- -61	4.09	1.3
					6-16-62	4.60	5.2
					6-21-63	4.50	4.2
					4- 6-64	4.35	3.0
					5-25-65	4.90	8.6
					4-19-66	4.21	2.0
					6-23-67	5.41	16
					8-18-68	4.19	1.9
					4- 7-69	4.51	4.2
					6-12-70	<4.00	0.5
					5-31-71	4.50	4.2
					6- 9-72	18.80	1,330
					4-20-73	4.08	1.3
					- -74	<4.00	<1.0
					4- 8-75	4.25	2.2
					6-15-76	4.28	2.5
					5- -77	<4.00	<1.0
					5-30-78	4.10	1.4
					7- 4-79	5.36	15
					- -80	<4.00	<1.0
06406100	†Battle Creek tributary near Hermosa, SD	Lat 43°50'10", long 103°09'43", in SE¼NE¼ sec.33, T.2 S., R.8 E., Custer County, Hydrologic Unit 10120109, at culvert on county highway, 1.3 miles east of Hermosa.	3.49	1970-79	4- -70	(c)	[b]25
					4- -71	(c)	[b]15
					6-10-72	4.44	100
					4-20-73	(c)	[b]20
					- -74	(c)	[b]15
					- -75	(c)	<10
					6-15-76	2.81	20
					- -77	<2.64	<5.0
					4- -78	<3.26	[b]20
					- -79	<3.26	[b]20
06406750	Sunday Gulch near Hill City, SD	Lat 43°53'24", long 103°35'19", in NE¼NE¼SW¼ sec.12, T.2 S., R.4 E., Pennington County, Hydrologic Unit 10120109, at culvert on U.S. Highways 16 and 85A, 3 miles south of Hill City.	6.56	1956-69	- -56	(c)	<1.0
					4- -57	3.55	59
					8- -58	2.70	17
					- -59	(c)	<1.0
					7-11-60	2.36	7.0
					5- -61	2.46	9.0
					6-16-62	2.65	15
					4-10-63	3.32	45
					6- 9-64	2.88	24
					7-19-65	4.68	170
					4-19-66	2.18	2.0
					6-12-67	2.84	23
					- -68	(c)	2.0
					7-17-69	2.64	15
06406800	†Newton Fork near Hill City, SD	Lat 43°58'03", long 103°38'24", in NE¼NE¼ sec.16, T.1 S., R.4 E., Pennington County, Hydrologic Unit 10120109, at culvert on Forest Service Road 17, 3.9 miles northwest of Hill City.	8.17	1969-79	7-16-69	3.53	13
					5-13-70	3.47	8.3
					6- 6-71	3.62	21
					6-15-72	3.70	27
					5-28-73	3.44	6.5
					7-18-74	4.13	50
					4-28-75	3.51	11
					6-15-76	4.04	45
					7-27-77	4.27	58
					5-19-78	4.16	51
					7-28-79	3.47	8.3

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Cheyenne River basin - Continued					
06406900	Palmer Creek near Hill City, SD	Lat 43°56'12", long 103°30'36", in NE¼SE¼NW¼ sec.27, T.1 S., R.5 E., Pennington County, Hydrologic Unit 10120109, at culvert on U.S. Highway 16, 3.0 miles east of Hill City.	13.3	1956-80	5- -56	4.22	97
					6- 4-57	4.58	117
					6- -58	3.18	20
					6- 4-59	(c)	0.5
					5- -60	3.14	16
					7- -61	4.11	86
					6-16-62	7.55	385
					6- -63	3.70	58
					3- 6-64	2.85	<1.0
					5-25-65	4.82	140
					7- 2-66	3.17	18
					6-12-67	3.62	53
					6- 9-68	3.12	14
					7-17-69	6.29	265
					4-23-70	6.03	240
					5-10-71	4.06	84
					6- 9-72	17.06	4,370
					5-28-73	4.19	93
					7-18-74	3.73	59
					4- 8-75	[a]7.02	[b]100
					6-15-76	4.30	103
					8- 8-77	3.96	74
					5-30-78	4.01	67
					7-15-79	3.49	38
					5- -80	(c)	[b]7.0
06406950	Horse Creek at Highway 385, near Hill City, SD	Lat 43°59'19", long 103°29'33", in SW¼ sec.2, T.1 S., R.5 E., Pennington County, Hydrologic Unit 10120109, at culvert on U.S. Highway 385, 0.4 mile downstream from small right bank tributary and 6.4 miles northeast of Hill City.	10.1	1972	6- 9-72	6.65	1,830
06408850	Silver Creek near Rochford, SD	Lat 44°07'24", long 103°41'53", in NE¼NE¼ sec.24, T.2 N., R.3 E., Pennington County, Hydrologic Unit 10120110, at culvert on Forest Service Road 291, 0.3 mile upstream from mouth, and 1.1 miles east of Rochford.	6.23	1969-79	9- 9-69	4.17	13
					6-12-70	3.93	9.8
					5-10-71	3.64	6.3
					6-19-72	3.50	4.9
					5-10-73	3.44	4.3
					7-20-74	3.21	2.3
					4-28-75	3.60	5.9
					6-15-76	4.23	14
					4-27-77	3.68	6.9
					5-18-78	4.24	14
					7- 4-79	3.34	3.4
06408900	[†]Heeley Creek near Hill City, SD	Lat 43°58'57", long 103°50'02", in NW¼NW¼ sec.12, T.1 S., R.2 E., Pennington County, Hydrologic Unit 10120110, at culvert on Forest Service Road 291, 2.8 miles south of Deerfield, and 13.5 miles northwest of Hill City.	4.88	1969-79	5- 3-69	--	[b]15
					6-12-70	3.47	10
					4-17-71	--	[b]15
					5-11-72	3.11	5.0
					4-15-73	[a]4.33	[b]7.5
					5- -74	[a]5.01	[b]3.0
					4- 8-75	[a]5.88	[b]20
					6-15-76	3.14	5.5
					8- 8-77	3.08	4.6
					5-18-78	3.74	14
					4- -79	--	[b]5.0
06421750	Rapid Creek tributary near Farmingdale, SD	Lat 43°56'30", long 102°48'43", in SE¼SW¼ sec.21, T.1 S., R.11 E., Pennington County, Hydrologic Unit 10120110, at culvert on State Highway 40, 3.8 miles southeast of Farmingdale.	1.50	1970-79	4-25-70	3.87	35
					3-25-71	[a]4.35	[b]10
					3-12-72	[a]3.86	[b]7.5
					3-23-73	[a]4.02	[b]10
					2- -74	[a]3.81	[b]2.0
					4-28-75	[a]5.99	[b]10
					6-15-76	3.22	18
					4- 8-77	[a]3.51	[b]5.0
					4- -78	[a]5.20	[b]10
					7- 4-79	--	[b]2.0
06422395	Boxelder Creek at Benchmark near Nemo, SD	Lat 44°13'25", long 103°34'36", in NE¼NE¼ sec.13, T.3 N., R.4 E., Lawrence County, Hydrologic Unit 10120111, at bridge on Nemo Road, 0.3 mile downstream from Hay Creek and 4.3 miles northwest of Nemo.	37.2	1972	6- 9-72	8.40	1,180

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Cheyenne River basin - Continued					
06422400	Estes Creek near near Nemo, SD	Lat 44°10'21", long 103°29'35", in SE¼SE¼ sec.34, T.3 N., R.5 E., Lawrence County, Hydrologic Unit 10120111, at culvert on Forest Service Road 5081, 1.6 miles southeast of Nemo.	6.15	1969-72	5- 3-69	2.91	2.0
					1-12-70	5.41	102
					5-30-71	3.82	17
					6- 9-72	11.3	6,620
06423400	†Bull Creek tributary near Wall, SD	Lat 43°53'55", long 102°14'18", in NW¼SW¼ sec.5, T.2 S., R.16 E., Pennington County, Hydrologic Unit 10120111, at culvert on U.S. Highway 16A, 6.2 miles south of Wall.	.39	1970-78	5-30-70	2.92	0.5
					5-23-71	4.14	29
					5-11-72	3.66	15
					5-27-73	3.69	16
					4-11-74	(c)	<7.5
					4-28-75	[a]4.64	[b]20
					7-11-76	3.20	5.0
					4- 8-77	[a]3.61	[b]5.0
					5-27-78	3.83	19
06432200	Polo Creek near Whitewood, SD	Lat 44°27'49", long 103°43'41", in SW¼ sec.23, T.6 N., R.3 E., Lawrence County, Hydrologic Unit 10120203, at bridge on U.S. Highway 85, 4.3 miles west of Whitewood.	10.3	1956-72	- -56	--	0
					5-25-57	2.52	94
					7- 2-58	2.94	270
					- -59	--	0
					- -60	--	0
					- -61	--	0
					5-22-62	2.93	264
					4-29-63	2.94	270
					6- 9-64	3.77	794
					5-14-65	4.10	1,060
					- -66	--	0
					4-14-67	4.68	1,700
					- -68	--	0
					5- 4-69	2.73	168
					6-12-70	3.28	370
					5-10-71	2.78	190
					6-19-72	3.43	550
06432230	Miller Creek near Whitewood, SD	Lat 44°28'28", long 103°44'15", in SE¼ sec.15, T.6 N., R.3 E., Lawrence County, Hydrologic Unit 10120203, at culvert on U.S. Highways 14 and 85, 5 miles west of Whitewood.	5.23	1956-67	- -56	--	0
					- -57	--	0
					7- 2-58	2.90	127
					- -59	--	0
					- -60	--	0
					- -61	--	0
					5-22-62	3.10	180
					4-29-63	2.63	64
					6- 9-64	3.48	275
					5-14-65	3.68	330
					- -66	(c)	<7.0
					- -67	(c)	<11
06432250	Polo Creek tributary near Whitewood, SD	Lat 44°28'57", long 103°41'30", in NE¼ sec.13, T.6 N., R.3 E., Lawrence County, Hydrologic Unit 10120203, at culvert on U.S. Highway 14A, 3.5 miles northwest of Whitewood.	.06	1962	6-15-62	20.11	137
06434800	†Owl Creek tributary near Belle Fourche, SD	Lat 44°49'32", long 103°51'06", in NE¼SE¼ sec.15, T.10 N., R.2 E., Butte County, Hydrologic Unit 10120202, at culvert on U.S. Highway 85, 10.2 miles north of Belle Fourche.	3.06	1970-79	- -70	(c)	[b]10
					4-20-71	(c)	[b]20
					6-10-72	3.44	102
					- -73	(c)	[b]<50
					- -74	(c)	[b]<20
					6-26-75	2.91	47
					6-15-76	4.73	267
					6-21-77	2.72	30
					10- 1-77	3.17	73
					6-17-79	3.03	59
06436770	†Dry Creek tributary near Newell, SD	Lat 44°48'13", long 103°25'03", in NW¼ sec.29, T.10 N., R.6 E., Butte County, Hydrologic Unit 10120202, at culvert on State Highway 79, 5.8 miles north of Newell.	.20	1970-74	5-11-70	3.66	4.6
					8-29-71	3.38	2.1
					6-25-72	3.80	6.4
					4-20-73	[a]3.95	[b]4.0
					7-24-74	3.40	2.2

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Cheyenne River basin - Continued					
06437100	†Boulder Creek near Deadwood, SD	Lat 44°23'28", long 103°39'38", in NE¼SW¼ sec.17, T.5 N., R.4 E., Lawrence County, Hydrologic Unit 10120202, at culvert on U.S. Highway 14A, 3.5 miles east of Deadwood.	1.32	1956-80	- -56	(c)	<0.5
					5-25-57	4.50	24
					7- 2-58	7.22	139
					- -59	(c)	<0.5
					3- -60	4.13	10
					- -61	--	0
					6-15-62	8.46	210
					4-29-63	4.76	34
					6- 9-64	7.93	179
					5-14-65	8.32	202
					4-12-66	[a]4.49	[b]1.0
					6-15-67	5.66	68
					6-25-68	4.20	13
					5- 4-69	4.42	21
					6-12-70	8.38	206
					5-23-71	5.48	61
					6- 9-72	[g]5.59	59
					4-23-73	[a]5.93	[b]45
					4-20-74	[a]5.86	[b]30
					5- 8-75	4.85	32
					6-14-76	11.45	323
					4- 9-77	[a]4.61	35
					5-10-78	5.28	48
					4- -79	--	[b]40
					- -80	(c)	[b]<5.0
06439050	Cherry Creek tributary near Avance, SD	Lat 44°48'33", long 102°03'18", in SW¼ sec.21, T.10 N., R.17 E., Meade County, Hydrologic Unit 10120113, at culvert on State Highway 73, 12.5 miles southeast of Avance.	.60	1956-80	3- -56	[a]3.16	[b]5.0
					5-25-57	3.22	31
					- -58	--	0
					3- -59	[a]2.68	[b]2.0
					3-21-60	2.80	16
					7-27-61	3.20	30
					5-21-62	6.58	208
					4-10-63	3.27	32
					6- 8-64	2.99	23
					3-28-65	2.68	12
					4-12-66	[a]5.13	[b]50
					6-13-67	7.57	275
					6-25-68	2.85	18
					6-25-69	2.94	21
					8- 5-70	[h]3.19	20
					6-18-71	4.11	59
					5-22-72	3.07	15
					3- -73	[a]3.06	[b]10
					4-12-74	2.78	5.0
					4-28-75	7.19	215
					4-16-76	2.98	12
					8-27-77	4.12	60
					3- -78	[a]8.88	[b]30
					6-20-79	2.98	12
					8-20-80	6.27	160
06439060	Cherry Creek tributary No. 2 near Avance, SD	Lat 44°48'15", long 102°03'18", in NW¼ sec.28, T.10 N., R.17 E., Meade County, Hydrologic Unit 10120113, at culvert on State Highway 73, 12.5 miles southeast of Avance.	.11	1956-73	6- -56	2.28	7.5
					5-20-57	2.27	7.5
					- -58	--	0
					3- 9-59	[a]1.93	<2.0
					3-21-60	2.28	7.5
					7-27-61	1.98	3.5
					5-21-62	6.98	119
					7-15-63	1.83	2.2
					5- 6-64	1.72	1.2
					3-28-65	2.17	6.0
					4-12-66	1.67	0.8
					6-13-67	4.22	46
					6-25-68	2.09	5.0
					4-29-69	4.32	48
					5- 8-70	2.28	7.5
					5-23-71	4.18	45
					5-22-72	2.33	8.5
					- -73	(c)	<7.0

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum: Date	Annual maximum: Gage height (feet)	Annual maximum: Discharge (ft^3/s)
		Cheyenne River basin - Continued					
06439080	Cherry Creek tributary No. 3 near Avance, SD	Lat 44°51'03", long 102°03'36", in SW¼ sec.3, T.10 N., R.17 E., Meade County, Hydrologic Unit 10120113, at bridge on State Highway 73, 11 miles southeast of Avance.	4.58	1956-80	3- -56	[a]4.51	[b]20
					5-25-57	4.32	360
					6- -58	2.30	1.0
					- -59	--	0
					3-21-60	3.53	125
					- -61	--	0
					5-21-62	6.96	2,280
					7-26-63	2.58	8.0
					6- 8-64	3.63	145
					5-24-65	3.65	150
					4-12-66	2.82	27
					6-13-67	5.31	850
					6-25-68	2.53	5.5
					7-17-69	4.14	290
					6-12-70	3.36	92
					5-23-71	5.48	980
					5- 2-72	3.11	55
					5-27-73	3.29	78
					4-12-74	3.58	140
					5- 9-75	5.19	780
					6-15-76	2.84	26
					6-22-77	2.76	20
					3- -78	[a]5.47	[b]25
					6-20-79	2.58	10
					6- 4-80	3.00	42
06439100	Beaver Creek near Faith, SD	Lat 44°56'21", long 102°02'37", in SW¼ sec.3, T.11 N., R.17 E., Meade County, Hydrologic Unit 10120113, at bridge on State Highway 73, 6 miles south of Faith.	37.1	1956-80	3- -56	[a]7.21	70
					8-21-57	5.97	115
					6- 8-58	6.63	160
					3-10-59	[a]4.67	35
					3-21-60	[a]8.15	170
					3- -61	[a]2.25	1.0
					5-21-62	11.85	3,300
					6-15-63	7.09	190
					6- 8-64	7.19	210
					6- 2-65	12.70	5,000
					7-21-66	4.33	26
					6-13-67	11.32	2,600
					6-25-68	7.25	220
					7-17-69	10.13	1,350
					4-24-70	[a]7.89	[b]175
					5-23-71	9.31	845
					5- 2-72	8.02	350
					5-27-73	6.55	135
					4-12-74	--	[b]50
					5- 9-75	8.22	400
					6-15-76	5.52	72
					5-21-77	4.97	48
					6-30-78	6.03	102
					6-20-79	6.22	70
					- -80	<2.64	<4.0
06439400	†Plum Creek tributary near Milesville, SD	Lat 44°21'34", long 101°25'42", in S½ sec.26, T.5 N., R.22 E., Haakon County, Hydrologic Unit 10120112, at culvert on State Highway 34, 14.5 miles southeast of Milesville.	0.5	1970-79	7-13-70	4.07	19
					6- 6-71	4.25	23
					5- 1-72	4.75	35
					6- 2-73	3.35	4.6
					5-19-74	12.13	265
					4- 9-75	[a]4.92	[b]10
					- -76	--	0
					3-12-77	[a]4.13	[b]7.0
					4-18-78	3.71	11
					6- -79	(c)	[b]3.0
		Bad River basin					
06440700	Brady Creek tributary near Philip, SD	Lat 43°55'14", long 101°39'40", in NE¼NE¼ sec.36, T.1 S., R.20 E., Jackson County, Hydrologic Unit 10140102, at culvert on State Highway 73, 8.1 miles south of Philip.	4.84	1970-78	- -70	(c)	[b]25
					4-20-71	4.47	404
					7-24-72	3.55	188
					5-27-73	4.25	360
					- -74	(c)	<50
					4- 8-75	[a]6.71	[b]100
					7- 2-76	4.61	432
					4- -77	(c)	[b]5.0
					4- -78	4.22	354

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Bad River basin - Continued					
06441200	†Powell Creek tributary near Fort Pierre, SD	Lat 44°22'39", long 100°35'16", in NW¼SW¼ sec.23, T.5 N., R.29 E., Stanley County, Hydrologic Unit 10140102, at culvert on U.S. Highway 14, 10.2 miles west of Fort Pierre.	0.40	1970-79	8-10-70	8.07	211
					4-21-71	3.94	24
					5- 1-72	4.23	33
					3-14-73	[a]4.99	[b]25
					4-20-74	5.39	76
					5-22-75	3.47	13
					3- 9-76	[a]4.80	[b]3.0
					6-21-77	5.37	75
					4- -78	5.79	92
					6- -79	(c)	[b]5.0
		Hilgers Gulch basin					
06441530	†Hilgers Gulch tributary near Pierre, SD	Lat 44°23'52", long 100°18'57", in SE¼SW¼SE¼ sec.22, T.111 N., R.79 W., Hughes County, Hydrologic Unit 10140101, at culvert on U.S. Highways 14 and 83, 1 mile upstream from mouth, and 3 miles northeast of Pierre.	1.33	1968-79	6- 9-68	5.47	102
					7-17-69	4.40	42
					8- 7-70	4.74	59
					6- 9-71	7.41	244
					7- 9-72	5.21	87
					- -73	(c)	[b]10
					5-31-74	3.35	1.0
					9-16-75	6.09	145
					- -76	--	0
					8- 4-77	3.47	2.2
					8-22-78	4.16	31
					7-23-79	5.17	84
06441580	†Hilgers Gulch at Pierre, SD	Lat 44°22'10", long 100°20'30", in SE¼SW¼ sec.33, T.111 N., R.79 W., Hughes County, Hydrologic Unit 10140101, on right bank at culvert on Church Street, 0.7 mile upstream from mouth, in city of Pierre.	6.49	1967-79	6-18-67	13.8	1,320
					6- 9-68	12.38	1,010
					7-17-69	9.23	455
					8- 7-70	8.44	344
					6- 9-71	9.50	498
					7- 9-72	6.40	42
					- -73	(c)	<160
					- -74	(c)	[b]<5.0
					9-16-75	10.11	596
					- -76	<5.73	[b]<3.0
					9-23-77	5.78	4.9
					4-17-78	[a]8.94	[b]75
					7-23-79	(c)	[b]25
		Mush Creek basin					
06441650	Mush Creek near Pierre, SD	Lat 44°20'13", long 100°12'42", in NE¼ sec.16, T.110 N., R.78 W., Hughes County, Hydrologic Unit 10140101, at bridge on State Highway 34, 7.5 miles east of Pierre.	14.2	1956-80	8-10-56	7.49	3,620
					11- 2-56	2.14	80
					3- -58	[a]2.32	20
					7-14-59	2.78	210
					5-18-60	6.30	2,070
					7-25-61	1.75	75
					6-15-62	5.82	1,680
					6- 6-63	4.20	686
					5- 2-64	3.15	300
					4-23-65	2.02	100
					7-13-66	6.08	1,900
					6-18-67	3.77	500
					6- 7-68	4.12	660
					6-25-69	6.42	2,320
					8- 7-70	6.08	1,990
					6- 9-71	5.86	1,770
					7-21-72	6.50	2,380
					- -73	(c)	<32
					- -74	(c)	<32
					8-28-75	4.66	920
					3-20-76	[a]4.02	[b]30
					7- 2-77	4.91	1,070
					4-17-78	--	[b]20
					6- -79	--	[b]10
					8-20-80	(c)	[b]15

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Unnamed Missouri River tributaries					
06441670	Missouri River tributary near Pierre, SD	Lat 44°20'09", long 100°11'39", in NE¼ sec.15, T.110 N., R.78 W., Hughes County, Hydrologic Unit 10140101, at culvert on State Highway 34, 7.8 miles east of Pierre.	0.42	1956-74	8-10-56	10.38	705
					6-10-57	2.53	43
					3- -58	[a]2.47	5.0
					5-30-59	2.97	62
					5-18-60	9.24	559
					6- -61	2.54	43
					6-15-62	4.43	147
					6- 6-63	3.86	110
					5- 2-64	2.10	24
					3- -65	[a]2.15	10
					7-13-66	4.62	160
					6-18-67	2.43	38
					4-22-68	2.34	34
					6-25-69	3.02	65
					8- 7-70	4.60	158
					7-10-71	2.32	33
					7-21-72	5.33	210
					5-27-73	1.80	7.2
					5-28-74	2.32	33
06441750	Missouri River tributary near Canning, SD	Lat 44°19'57", long 100°09'54", in NW¼ sec.13, T.110 N., R.78 W., Hughes County, Hydrologic Unit 10140101, at culvert on State Highway 34, 8 miles southwest of Canning.	.19	1956-74	8-10-56	6.40	172
					6-10-57	3.88	63
					3- -58	[a]2.45	1.0
					7-14-59	4.52	87
					5-18-60	7.40	284
					6- -61	3.97	66
					6-15-62	6.22	162
					6- 6-63	3.93	64
					7-10-64	4.59	88
					4-23-65	4.26	76
					7-13-66	6.90	198
					7-18-67	5.66	135
					6- 7-68	3.79	60
					7-17-69	3.29	43
					8- 7-70	5.32	120
					6- 9-71	3.27	43
					7-21-72	3.29	43
					5-27-73	1.91	8.0
					5-28-74	2.48	21
06442050	Missouri River tributary near DeGrey, SD	Lat 44°17'45", long 99°58'58", in SW¼ sec.28, T.110 N., R.76 W., Hughes County, Hydrologic Unit 10140101, at culvert on State Highway 34, 3.2 miles northwest of DeGrey.	1.73	1956-80	8- 7-56	6.99	976
					6-10-57	5.96	750
					3- -58	[a]1.50	10
					9-18-59	1.85	71
					8-24-60	4.60	485
					6- -61	1.81	67
					6-15-62	5.93	745
					6- 6-63	5.52	660
					7-10-64	3.60	310
					4-23-65	2.28	120
					7-13-66	3.12	240
					6-18-67	5.08	575
					4-22-68	2.05	91
					7-17-69	2.00	86
					6-15-70	5.09	580
					4-27-71	1.83	68
					7-21-72	2.28	118
					5-27-73	1.57	45
					5-28-74	1.50	38
					4-28-75	2.70	170
					3-20-76	<1.68	[b]20
					7- 2-77	3.51	295
					4-17-78	2.85	192
					6-19-79	4.04	385
					8-20-80	2.25	115

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Medicine Creek basin					
06442350	North Fork Medicine Creek near Vivian, SD	Lat 43°57'06", long 100°19'25", in SW¼ sec.28, T.106 N., R.79 W., Lyman County, Hydrologic Unit 10140104, at bridge on U.S. Highway 83, 2.5 miles northwest of Vivian.	47.0	1956-80	3-24-56	2.62	36
					4-18-57	3.83	195
					4- 7-58	2.92	56
					- -59	--	0
					4- 3-60	7.05	1,080
					6-14-61	3.79	61
					6-25-62	7.78	665
					6- 6-63	4.77	87
					4-27-64	4.47	95
					- -65	--	0
					3-14-66	[a]7.40	120
					5-30-67	2.48	15
					6- 9-68	5.87	230
					5-19-69	4.91	118
					5-28-70	7.39	550
					4-20-71	7.15	350
					5-13-72	3.83	60
					5-27-73	2.46	14
					- -74	(c)	[b]<5.0
					4-29-75	3.41	42
					3-20-76	<3.47	[b]15
					3-29-77	[a]6.06	[b]75
					- -78	[a]7.92	[b]50
					- -79	(c)	[b]5.0
					8-16-80	(c)	[b]30
06442380	Medicine Creek tributary near Vivian, SD	Lat 44°05'47", long 100°19'39", in SE¼ sec.5, T.107 N., R.79 W., Lyman County, Hydrologic Unit 10140104, at culvert on former U.S. Highway 83, 12 miles northwest of Vivian.	.29	1956-73	8-10-56	3.91	37
					4-18-57	7.81	202
					4- 6-58	4.32	50
					9- 1-59	8.03	214
					5-18-60	6.29	128
					6-14-61	3.20	18
					6-15-62	9.72	302
					3- -63	3.09	15
					5- 3-64	5.71	104
					4- 3-65	[a]3.50	[b]15
					3-14-66	[a]5.42	[b]25
					3-28-67	[a]3.70	[b]20
					4-22-68	3.35	23
					4- 1-69	(i)	[b]20
					5-28-70	3.87	38
					4-20-71	(i)	[b]10
					2- -72	(c)	[b]2.0
					- -73	(i)	[b]5.0
06442400	†Medicine Creek tributary No. 2 near Vivian, SD	Lat 44°02'03", long 100°19'28", in NE¼ sec.32, T.107 N., R.79 W., Lyman County, Hydrologic Unit 10140104, at culvert on U.S. Highway 83, 8 miles northwest of Vivian.	9.21	1956-80	3-19-56	[a]6.67	50
					4-18-57	4.58	340
					4- 6-58	4.00	120
					9-18-59	3.43	35
					3-26-60	4.80	475
					6-14-61	3.56	60
					3-27-62	[a]6.36	180
					6- 6-63	3.76	72
					5- 3-64	5.14	185
					4- 3-65	[a]2.52	12
					3-14-66	[a]7.43	95
					6- 9-67	3.22	47
					6- 7-68	4.88	180
					4- 1-69	4.20	115
					4-18-70	[a]4.16	[b]75
					4-20-71	[j]6.71	390
					5-13-72	4.66	136
					5-27-73	3.74	65
					5-28-74	3.74	65
					4-29-75	3.60	55
					- -76	<2.63	<3.0
					3-29-77	[a]5.74	[b]35
					- -78	[a]5.57	[b]40
					7-23-79	3.32	35
					8- -80	<2.87	[b]5.0

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Crow Creek basin					
06442850	†Elm Creek tributary near Ree Heights, SD	Lat 44°25'05", long 99°12'17", in NW¼SW¼ sec.13, T.111 N., R.70 W., Hand County, Hydrologic Unit 10140105, at culvert on county highway, 6.5 miles south of Ree Heights.	0.70	1969-79	4- 3-69	4.82	65
					4-25-70	2.19	1.0
					3-14-71	[a]4.06	[b]5.0
					3-20-72	[a]4.80	[b]20
					3-14-73	[a]5.63	[b]25
					- -74	(c)	<5.0
					6-20-75	2.68	5.7
					3-20-76	[a]3.79	[b]<3.0
					9-23-77	2.92	9.3
					- -78	[a]8.49	[b]15
					4- -79	[a]5.09	[b]5.0
06442960	†Smith Creek tributary near Gann Valley, SD	Lat 44°01'34", long 98°43'41", in NE¼SE¼ sec.34, T.107 N., R.66 W., Jerauld County, Hydrologic Unit 10140105, at culvert on county highway, 8.7 miles southwest of Wessington Springs and 13.0 miles east of Gann Valley.	5.85	1972-80	5- 5-72	5.81	88
					3-14-73	[a]4.52	[b]20
					4-12-74	3.91	21
					- -75	(c)	<8.0
					3-20-76	[a]4.02	[b]<5.0
					3-12-77	[a]6.94	[b]50
					- -78	[a]7.35	[b]40
					7-12-79	(c)	[b]2.5
					6-27-80	3.82	25
		White River basin					
06446250	†Porcupine Creek tributary near Rockyford, SD	Lat 43°26'05", long 102°25'45", in SE¼SE¼ sec.17, T.40 N., R.43 W., Shannon County, Hydrologic Unit 10140201, at culvert on county road, 5 miles southeast of village of Rockyford.	1.65	1968, 1970-79	6- -68	10.7	500
					6-12-70	3.03	41
					9- 5-71	3.37	58
					7-24-72	7.34	288
					3-14-73	6.15	217
					7-18-74	10.40	484
					6-16-75	7.00	268
					7-21-76	8.59	363
					8- 9-77	8.42	353
					8-27-78	8.16	338
					7- 4-79	8.30	346
06446300	†Big Hollow Creek tributary near Scenic, SD	Lat 43°42'25", long 102°31'25", in SE¼SE¼ sec.11, T.4 S., R.13 E., Pennington County, Hydrologic Unit 10140201, at culvert on county road, 4.9 miles south of Scenic.	2.71	1968, 1970-76, 1979	6- -68	10.7	570
					6-12-70	8.54	365
					5- 3-71	10.53	555
					7-24-72	13.99	939
					7-23-73	9.21	425
					7- 2-74	7.85	306
					6-18-75	11.92	696
					4-16-76	10.12	512
					6-18-79	11.73	675
06446400	Cain Creek tributary at Imlay, SD	Lat 43°42'59", long 102°23'23", in SE¼NW¼ sec.12, T.4 S., R.14 E., Pennington County, Hydrologic Unit 10140201, at bridge on State Highway 40, 0.5 mile east of Imlay.	15.8	1956-80	8- 8-56	4.90	320
					5-19-57	7.98	1,440
					7- 4-58	7.03	1,030
					5- 4-59	6.50	840
					8- -60	6.20	730
					8- -61	4.44	220
					6-15-62	11.57	3,300
					5-31-63	7.64	1,280
					6-17-64	9.34	2,110
					5-15-65	8.55	1,710
					8-20-66	8.61	1,750
					6-12-67	5.65	550
					6- 7-68	7.71	1,300
					7-20-69	5.93	630
					6-12-70	4.23	185
					5-23-71	4.95	350
					6-19-72	4.25	205
					5-27-73	4.61	275
					7-22-74	4.89	335
					6-18-75	6.13	710
					5-23-76	5.62	540
					4-12-77	4.61	275
					5- 7-78	5.70	570
					7- 4-79	7.24	1,120
					6-15-80	6.03	670

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum: Date	Annual maximum: Gage height (feet)	Annual maximum: Discharge (ft^3/s)
		White River basin - Continued					
06446430	White River tributary near Conata, SD	Lat 43°50'48", long 102°12'33", in NE¼NW¼ sec.28, T.2 S., R.16 E., Pennington County, Hydrologic Unit 10140202, in Badlands National Park, at culvert on U.S. Highway 16A, 8 miles northwest of Conata.	0.17	1956-58, 1960-73	7- 6-56	5.28	79
					5-20-57	5.75	103
					7- 4-58	7.41	196
					8- -60	4.90	73
					5-14-61	3.95	40
					6-15-62	7.18	182
					6-15-63	4.35	52
					6-17-64	10.27	329
					5-24-65	6.16	128
					8-20-66	8.00	240
					9-19-67	9.24	290
					6- 7-68	9.55	310
					7-20-69	4.91	73
					6-12-70	4.91	73
					5-23-71	5.58	102
					8-12-72	4.83	70
					5-27-73	4.76	67
06446550	White River tributary near Interior, SD	Lat 43°44'51", long 101°56'50", in SE¼ sec.27, T.3 S., R.18 E., Jackson County, Hydrologic Unit 10140202, in Badlands National Park, at culvert on U.S. Highway 16A, 2.3 miles northeast of Interior.	.32	1956-80	6- -56	8.17	490
					5-20-57	6.21	265
					7- 4-58	5.50	185
					6-26-59	7.22	380
					8- -60	4.30	57
					8- -61	4.76	105
					7-27-62	6.86	338
					6-15-63	4.95	125
					6- 8-64	8.76	558
					5-15-65	5.22	155
					7-28-66	5.27	160
					6-15-67	5.32	170
					6- 7-68	6.14	260
					7-20-69	5.72	213
					6-12-70	4.15	43
					5-23-71	3.94	27
					8- 2-72	4.81	112
					9- 2-73	5.45	183
					8-10-74	5.15	150
					7-31-75	6.05	250
					7-27-76	6.05	250
					5-26-77	4.65	82
					7-22-78	7.82	450
					6-17-79	8.80	570
					7-12-80	8.83	575
06446800	†Cottonwood Creek near Wanblee, SD	Lat 43°34'35", long 101°32'15", in NW¼NW¼ sec.31, T.42 N., R.35 W., Washabaugh County, Hydrologic Unit 10140202, at culvert on State Highway 40, 6.2 miles east of Wanblee.	1.7	1971-78	4- -71	(c)	[b]5.0
					7-24-72	(c)	[b]6.0
					9- 2-73	5.09	68
					4-20-74	11.24	[k]330
					7-31-75	4.87	46
					- -76	(c)	<5.0
					9-23-77	7.93	142
					4-18-78	[a]7.74	[b]70
06447200	†Black Pipe Creek tributary near Norris, SD	Lat 43°27'42", long 101°08'05", in NW¼NW¼ sec.8, T.40 N., R.32 W., Mellette County, Hydrologic Unit 10140202, at culvert on State Highway 63, 3.2 miles east of Norris.	4.19	1971-79	5-31-71	6.63	115
					7-25-72	8.15	175
					5-27-73	4.32	35
					- -74	<3.56	<17
					4-28-75	4.95	54
					7- 3-76	4.36	36
					7-24-77	8.59	192
					5-28-78	5.34	67
					7- 4-79	7.38	143
06447490	†Little White River tributary near Martin, SD	Lat 43°10'20", long 101°41'02", in SE¼SW¼ sec.15, T.37 N., R.37 W., Bennett County, Hydrologic Unit 10140203, at culvert on U.S. Highway 18, 2.3 miles east of Martin.	8.9	1971-80	2-15-71	[a]3.30	[b]5.0
					- -72	<3.28	<3.0
					- -73	<3.28	<20
					- -74	<3.28	<20
					- -75	<3.28	<20
					8- 5-76	4.03	46
					8-13-77	3.07	18
					3- -78	[a]8.14	[b]30
					- -79	<3.28	<20
					- -80	<3.28	<20

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		White River basin - Continued					
06449700	†Little Oak Creek near Mission, SD	Lat 43°19'45", long 100°42'33", in NW¼ sec.25, T.39 N., R.29 W., Todd County, Hydrologic Unit 10140203, at culvert on U.S. Highway 83, 3.2 miles northwest of Mission.	2.58	1956-80	3-19-56	[a]4.93	35
					6- -57	5.79	66
					6-24-58	5.01	180
					7- -59	3.40	10
					3-21-60	7.95	245
					5- 4-61	2.26	1.0
					6- -62	10.15	646
					2- -63	[a]4.55	[b]25
					7-30-64	5.12	45
					3- -65	[a]3.39	5.0
					8-31-66	3.61	13
					6-15-67	4.15	22
					6- 7-68	9.49	510
					5-21-69	3.11	7.0
					4-16-70	[a]3.83	15
					4-20-71	(c)	[b]45
					7-20-72	3.50	103
					5-27-73	2.20	30
					5-29-74	1.85	13
					- -75	--	[b]5.0
					7- 3-76	1.87	14
					5- 9-77	11.87	970
					4- -78	[a]4.94	[b]25
					6-16-79	3.99	134
					- -80	<2.23	[b]15
06449750	West Branch Horse Creek near Mission, SD	Lat 43°23'36", long 100°42'33", in SW¼ sec.36, T.40 N., R.29 W., Mellette County, Hydrologic Unit 10140203, at culvert on U.S. Highway 83, 6.8 miles northwest of Mission.	6.31	1956-70	3-19-56	[a]3.81	10
					6- -57	5.26	160
					6- -58	3.77	18
					- -59	--	0
					7-12-60	4.70	84
					5-14-61	3.15	2.5
					6- -62	5.02	122
					8- -63	3.55	10
					6-16-64	3.83	20
					3- -65	[a]3.56	8.0
					8-31-66	3.72	16
					6-15-67	4.44	59
					6- 7-68	7.05	548
					3- -69	[a]4.94	[b]25
					6-15-70	[1]4.90	390
06451750	†Cottonwood Creek tributary near Winner, SD	Lat 43°23'11", long 100°01'13", in NW¼ sec.24, T.99 N., R.78 W., Tripp County, Hydrologic Unit 10140204, at culvert on U.S. Highway 18, 7.5 miles west of Winner.	4.0	1971-80	3- -71	[a]4.00	[b]10
					7-25-72	4.86	180
					5-27-73	4.18	90
					4-12-74	3.70	28
					6-21-75	4.22	96
					- -76	--	0
					5- 6-77	4.93	184
					4-29-78	4.34	111
					6-16-79	4.34	111
					6- 7-80	3.79	40
		Fivemile Creek basin					
06452250	†Fivemile Creek tributary near Iona, SD	Lat 43°29'23", long 99°26'08", in SE¼ sec.11, T.100 N., R. 73 W., Gregory County, Hydrologic Unit 10140101, at culvert on State Highway 47, 3.8 miles south of Iona.	2.35	1970-79	6-11-70	3.34	65
					3- -71	(c)	<35
					5-11-72	3.43	70
					3-14-73	[a]3.60	30
					- -74	(c)	<35
					4- -75	(c)	[b]<10
					- -76	<1.64	<1.(
					4-20-77	2.72	36
					4-29-78	3.14	55
					6-16-79	3.36	66
		Choteau Creek basin					
06453150	†Choteau Creek tributary near Tripp, SD	Lat 43°14'20", long 98°02'35", in NE¼NW¼ sec.10, T.97 N., R.61 W., Hutchinson County, Hydrologic Unit 10170101, at culvert on U.S. Highway 18, 3.7 miles west of Tripp.	.54	1970-79	4-18-70	2.14	6.1
					6- 9-71	4.86	82
					5-22-72	7.14	177
					3-14-73	[a]4.28	[b]30
					6-21-74	4.78	79
					8-22-75	5.37	103
					2-15-76	[a]4.68	[b]5.(
					3-12-77	[a]3.22	[b]8.(
					5-28-78	3.30	29
					4-12-79	[a]4.18	[b]20

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Choteau Creek basin - Continued					
06453250	†Choteau Creek tributary near Wagner, SD	Lat 43°04'54", long 98°19'04", in NE¼NW¼ sec.5, T.95 N., R.63 W., Charles Mix County, Hydrologic Unit 10170101, at culvert on State Highway 46, 1.1 miles west of Wagner.	15.6	1970-79	4-15-70	2.39	7.5
					4-21-71	3.79	45
					2-28-72	[a]4.00	[b]25
					3-14-73	[a]5.36	[b]50
					2- -74	[a]3.01	[b]10
					8-22-75	4.08	56
					2-23-76	[a]3.00	[b]7.5
					8- 9-77	5.49	129
					5-28-78	6.23	174
					4- -79	3.80	45
		James River basin					
06471050	Elm River tributary near Leola, SD	Lat 45°50'40", long 98°46'03", in NE¼SE¼ sec.3, T.127 N., R.66 W., McPherson County, Hydrologic Unit 10160004, at culvert on county highway, 12.2 miles northeast of Leola.	18.0	1956-80	6-17-56	3.08	37
					8- 8-57	3.74	41
					6- -58	4.89	87
					3-25-59	2.10	0.2
					3-28-60	6.35	185
					4-23-61	2.63	6.0
					4- 2-62	3.85	42
					6- 9-63	4.10	52
					5- 3-64	8.62	418
					4- 6-65	3.79	41
					3-13-66	6.81	225
					4-30-67	4.15	52
					4-20-68	3.38	27
					4- 8-69	11.00	720
					4-18-70	3.64	36
					5-24-71	4.32	66
					3-18-72	[k]6.0	[b]130
					3-14-73	[a]3.77	[b]30
					5-21-74	3.87	46
					6-21-75	7.78	330
					3-12-76	[a]4.90	[b]20
					3-12-77	[a]4.59	[b]40
					6-30-78	3.91	46
					4- -79	3.90	[b]20
					3- -80	(c)	[b]<5.0
06471350	Maple River at Frederick, SD	Lat 45°49'57", long 98°30'45", in NE¼SW¼NW¼ sec.11, T.127 N., R.64 W., Brown County, Hydrologic Unit 10160004, at dam on Maple River in City Park at west edge of Frederick.	552	1956-69	5- -56	6.45	44
					7-31-57	6.47	48
					3- 4-58	7.18	250
					- -59	--	0
					3-30-60	8.14	770
					3-30-61	6.39	35
					7-10-62	9.72	2,800
					7-26-63	7.03	200
					6-27-64	7.74	500
					4- 4-65	7.40	325
					3-17-66	12.70	3,000
					4-30-67	7.06	220
					5-15-68	6.75	200
					4-11-69	13.2	6,000
06471400	Willow Creek tributary near Leola, SD	Lat 45°44'10", long 98°45'45", in SW¼ sec.11, T.126 N., R.66 W., McPherson County, Hydrologic Unit 10160004, at culvert on former State Highway 10, 8.5 miles northeast of Leola.	6.69	1956-80	- -56	--	0
					8- 8-57	1.85	15
					3- 4-58	2.18	23
					3- -59	[a]1.09	[b]<0.5
					3-30-60	2.25	25
					- -61	--	0
					7- 4-62	2.07	20
					6- 9-63	1.51	6.8
					5- 3-64	2.58	33
					4- 5-65	[a]2.82	[b]20
					3-13-66	[a]3.23	[b]30
					6- 6-67	1.67	11
					4-20-68	2.09	21
					4- 9-69	4.81	260
					4-18-70	1.54	7.6
					5-24-71	2.72	52
					3-18-72	[a]4.46	[b]30
					3-14-73	[a]1.65	[b]7.5
					5-21-74	1.70	12
					6-21-75	2.91	70
					3-12-76	[a]2.07	[b]5.0
					3-12-77	[a]2.60	[b]20
					3-26-78	2.60	58
					4- -79	1.46	5.8
					3- -80	[a]1.76	[b]10

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum: Date	Annual maximum: Gage height (feet)	Annual maximum: Discharge (ft^3/s)
		James River basin - Continued					
06471450	Willow Creek tributary near Barnard, SD	Lat 45°44'12", long 98°37'42", in SW¼ sec.11, T.126 N., R.65 W., Brown County, Hydrologic Unit 10160004, at culvert on former State Highway 10, 6.5 miles west of Barnard.	0.26	1956-76	- -56	--	0
					- -57	--	0
					3- 4-58	2.24	14
					2- -59	[a]1.47	1.0
					4- 5-60	2.59	20
					- -61	--	0
					7- 4-62	1.98	9.0
					6- 9-63	1.95	8.5
					5- 3-64	1.73	5.0
					4- 5-65	[a]1.93	[b]3.0
					3-13-66	[a]3.11	[b]15
					3- -67	[a]2.00	[b]4.0
					6-21-68	[m]3.44	5.0
					4- 9-69	6.93	78
					4-21-70	3.30	4.0
					4- -71	[a]4.87	[b]20
					3-18-72	[a]6.89	[b]25
					3-14-73	[a]4.76	[b]10
					3-29-74	[a]4.15	[b]5.0
					4- 8-75	[a]6.49	[b]25
					4- 3-76	[a]4.28	[b]1.0
06471750	†Snake Creek tributary near Leola, SD	Lat 45°41'01", long 98°55'55", in SE¼ sec.32, T.126 N., R.67 W., McPherson County, Hydrologic Unit 10160003, at culvert on State Highway 45, 2.5 miles south of Leola.	4.49	1971-78	3-17-71	--	<1.0
					3-18-72	[a]5.12	[b]5.0
					3-14-73	[a]3.88	[b]15
					5-20-74	3.06	23
					6-21-75	4.76	88
					7- 6-76	2.72	13
					3-11-77	[a]3.82	[b]20
					3- -78	[a]5.74	[b]30
06472200	Mud Creek tributary near Groton, SD	Lat 45°26'37", long 98°02'22", in SW¼ sec.22, T.123 N., R.60 W., Brown County, Hydrologic Unit 10160005, at culvert on U.S. Highway 12, 3.2 miles east of Groton.	56.7	1960-69, 1974-80	3-28-60	4.37	177
					3-15-61	[a]2.56	15
					7- 1-62	[a]4.60	140
					6- 9-63	1.99	8.0
					5- 3-64	[a]2.94	6.0
					5-23-65	[a]4.52	120
					3-12-66	[a]4.90	175
					4-20-67	4.05	66
					5-31-68	2.46	1.1
					4- 8-69	5.26	250
					- -74	(i)	[b]<10
					6-21-75	1.73	[b]<5.0
					3-12-76	[a]3.01	[b]<10
					3-12-77	[a]4.22	[b]<5.0
					3-28-78	4.38	208
					4-10-79	(i)	[b]50
					3- -80	[a]3.14	[b]15
06472250	Mud Creek tributary No. 2 near Groton, SD	Lat 45°26'36", long 98°02'52", in SE¼ sec.21, T.123 N., R.60 W., Brown County, Hydrologic Unit 10160005, at culvert on U.S. Highway 12, 2.7 miles east of Groton.	75.8	1960-80	3-28-60	5.42	235
					3-15-61	3.22	25
					3-29-62	5.08	167
					6- 9-63	1.99	3.5
					4- 5-64	[a]3.05	6.0
					5-23-65	4.78	102
					3-12-66	5.54	272
					4-20-67	4.20	60
					4-30-68	2.40	9.8
					4- 8-69	5.60	310
					4-27-70	3.19	25
					4- 8-71	4.48	78
					3-12-72	[a]4.51	[b]50
					5-24-73	4.15	56
					7- 2-74	2.63	14
					6-21-75	2.29	8.1
					3-12-76	[a]2.72	[b]7.0
					4-18-77	1.82	2.5
					3-28-78	5.40	270
					6-20-79	4.19	58
					6-13-80	3.06	22
06473300	†Preachers Run tributary at Ipswich, SD	Lat 45°27'08", long 99°01'45", in SE¼ sec.21, T.123 N., R.68 W., Edmunds County, Hydrologic Unit 10160008, at culvert on county highway, 0.3 mile north of U.S. Highway 12, at Ipswich.	7.88	1971-80	6-21-71	2.66	5.5
					3-17-72	[a]5.74	[b]25
					- -73	<3.80	<37
					5-21-74	3.71	33
					6-19-75	2.91	10
					- -76	<2.63	<5.0
					3-12-77	[a]<3.80	[b]15
					3-24-78	[a]7.42	[b]50
					6-20-79	<3.80	[b]15
					4- -80	<3.80	[b]3.0

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		James River basin - Continued					
06473350	†South Fork Snake Creek tributary near Seneca, SD	Lat 45°03'00", long 99°23'36", in SE¼NE¼ sec.9, T.118 N., R.71 W., Faulk County, Hydrologic Unit 10160008, at culvert on U.S. Highway 212, 5.3 miles east of Seneca.	4.54	1971-80	9- 4-71	3.17	21
					3-17-72	[a]7.39	[b]50
					3-14-73	[a]4.96	[b]30
					5-20-74	3.20	22
					6-19-75	2.84	12
					4-16-76	[a]4.26	[b]10
					3-12-77	[a]4.07	[b]25
					3- -78	[a]9.90	[b]40
					4- -79	[a]3.25	[b]5.0
					- -80	--	0
06473400	North Fork Snake Creek tributary near Wecota, SD	Lat 45°09'26", long 99°07'26", in NE¼NE¼ sec.3, T.119 N., R.69 W., Faulk County, Hydrologic Unit 10160008, at culvert on county highway, 1.1 miles south of Wecota.	2.69	1971-79	3-13-71	[a]4.08	[b]5.0
					3-17-72	[a]5.45	[b]15
					3-14-73	[a]5.01	[b]10
					5-21-74	4.31	20
					6-20-75	4.70	65
					4-16-76	[a]3.62	[b]<1.0
					3-12-77	[a]5.16	[b]30
					3- -78	[a]4.62	[b]50
					6-20-79	4.25	37
06473800	Matter Creek tributary near Orient, SD	Lat 44°48'08", long 99°04'06", in SE¼NE¼ sec.1, T.115 N., R.69 W., Hand County, Hydrologic Unit 10160009, at culvert on county highway, 6.8 miles southeast of Orient.	7.63	1956-71	6-15-56	3.08	9.0
					7- 3-57	4.83	53
					2-27-58	3.60	18
					- -59	--	0
					3-30-60	7.41	325
					- -61	--	0
					3-27-62	[a]6.34	80
					4-16-63	2.08	0.2
					5- 3-64	2.56	0.1
					5-15-65	2.78	2.5
					7- -66	6.10	210
					3- 8-67	[a]4.78	[b]35
					7-26-68	2.84	4.2
					4- 3-69	9.01	410
					4-20-70	3.74	60
					4- -71	[a]2.99	[b]3.0
06473820	Shaefer Creek near Orient, SD	Lat 44°46'46", long 99°02'39", in NW¼NW¼ sec.17, T.115 N., R.68 W., Hand County, Hydrologic Unit 10160009, on downstream side of bridge on county highway, 8.5 miles southeast of Orient.	51.3	1956-80	- -56	(c)	8.0
					7- 3-57	3.24	250
					2-27-58	2.64	68
					- -59	--	0
					3-30-60	5.12	870
					5-17-61	1.80	10
					3-27-62	[a]5.47	190
					7-26-63	1.98	18
					5- 3-64	2.76	82
					5-15-65	2.91	102
					7-13-66	4.18	550
					3-25-67	[a]3.72	[b]70
					7-26-68	2.26	35
					4- 3-69	5.98	1,280
					4-20-70	2.66	76
					4-27-71	1.98	18
					7- 8-72	4.21	555
					3-14-73	[a]3.50	150
					4- -74	(c)	[b]3.0
					4-17-75	[a]2.60	[b]50
					3-20-76	[a]2.40	[b]35
					3-12-77	<1.86	<11
					8-28-78	3.65	380
					6-20-79	2.84	105
					4- 8-80	1.82	10

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		James River basin - Continued					
06473850	†Shaefer Creek tributary near Orient, SD	Lat 44°43'49", long 98°59'17", in SE¼NE¼ sec.34, T.115 N., R.68 W., Hand County, Hydrologic Unit 10160009, at culvert on State Highway 45, 13 miles southeast of Orient.	5.17	1956-80	6-15-56	3.50	24
					7- 3-57	4.47	93
					2-27-58	3.37	15
					- -59	--	0
					3-30-60	6.12	221
					5-17-61	3.01	1.0
					3-27-62	[a]5.67	[b]100
					7-26-63	3.62	32
					5- 3-64	3.29	9.0
					5-15-65	3.70	38
					3-14-66	[a]9.94	[b]50
					6-18-67	3.74	42
					7-26-68	4.12	68
					4- 3-69	7.98	350
					4-20-70	3.36	15
					6- 7-71	3.22	--
					7- 8-72	4.92	130
					3-14-73	[a]5.77	[b]75
					- -74	(c)	8.0
					6-21-75	3.32	12
					4-16-76	[a]3.64	[b]5.0
					3-12-77	[a]4.83	[b]<20
					5- 7-78	3.91	55
					4-11-79	[a]5.21	[b]100
					6- -80	(c)	[b]<3.0
06473880	Shaefer Creek tributary near Miller, SD	Lat 44°42'20", long 98°59'17", in NE¼ sec.10, T.114 N., R.68 W., Hand County, Hydrologic Unit 10160009, at culvert on State Highway 45, 13 miles north of Miller.	5.95	1956-80	6-15-56	3.49	45
					5-20-57	3.04	10
					5- -58	3.04	10
					- -59	--	0
					3-30-60	4.61	120
					5-17-61	2.94	6.0
					6-16-62	3.53	50
					7-26-63	2.82	2.0
					5- 3-64	3.25	25
					5-15-65	2.91	4.5
					3-14-66	[a]3.72	[b]20
					6-15-67	4.61	120
					7-26-68	3.02	7.0
					4- 3-69	6.40	265
					4-20-70	3.24	23
					4-27-71	2.92	1.9
					7- 8-72	4.14	85
					5-27-73	3.07	10
					5-21-74	2.91	1.7
					4-17-75	[a]3.44	[b]20
					3-20-76	[a]3.15	[b]5.0
					3-12-77	[a]5.47	[b]35
					5- 7-78	4.70	125
					8-28-79	4.60	116
					6- 4-80	2.73	<1.0
06475500	Dry Run near Frankfort, SD	Lat 44°56'17", long 98°19'43", in NW¼NW¼ sec.20, T.117 N., R.62 W., Spink County, Hydrologic Unit 10160006, at highway bridge, 400 ft downstream from small right-bank tributary, 4.4 miles north of Frankfort, and 8.1 miles upstream from mouth.	225	1955-69‡, 1970-78	6-22-56	3.71	6.0
					4-21-57	3.60	6.0
					3-28-58	3.00	0.5
					6-17-59	3.77	7.0
					3-28-60	8.29	405
					- -61	--	0
					3-29-62	9.16	772
					- -63	--	0
					- -64	--	0
					6- 1-65	5.82	93
					7-14-66	7.17	142
					6-15-67	5.86	69
					4-24-68	3.32	1.7
					4- 7-69	8.81	465
					3-19-70	5.34	26
					3-17-71	--	[b]1.0
					3-17-72	[a]6.95	85
					3- -73	[a]5.23	[b]20
					- -74	--	0
					- -75	--	0
					- -76	--	0
					- -77	--	0
					3-29-78	8.79	700

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		James River basin - Continued					
06475550	†Dry Run tributary near Frankfort, SD	Lat 44°55'45", long 98°18'31", in W½NW¼SW¼ sec.21, T.117 N., R.62 W., Spink County, Hydrologic Unit 10160006, at culvert on county highway, 0.6 mile upstream from mouth, and 3.5 miles north of Frankfort.	4.19	1967-79	6- -67	8.66	135
					4-19-68	4.90	46
					6-25-69	5.41	59
					3- 3-70	2.93	7.2
					6-19-71	2.93	7.2
					3-17-72	[a]4.07	[b]15
					3- -73	[a]3.56	[b]10
					5-28-74	2.75	5.0
					5-22-75	3.14	10
					3-20-76	[a]3.53	[b]3.0
					3-12-77	[a]4.21	[b]20
					5-28-78	8.79	138
					4- -79	[a]3.40	[b]5.0
06475850	†Foster Creek tributary near Carpenter, SD	Lat 44°37'59", long 98°03'42", in SE¼SE¼ sec.32, T.114 N., R.60 W., Spink County, Hydrologic Unit 10160006, at culvert on State Highway 28, 7.3 miles west of Carpenter.	4.93	1972-80	5-13-72	5.21	89
					3-14-73	[a]4.21	[b]20
					2-27-74	[a]3.79	[b]8.0
					4-17-75	[a]3.84	[b]10
					3-20-76	[a]3.52	[b]3.0
					3-12-77	[a]5.41	[b]35
					3- -78	4.47	56
					4- -79	[a]4.00	[b]10
					7- 4-80	3.92	26
06475950	Shue Creek tributary near Yale, SD	Lat 44°27'48", long 97°59'18", in NW¼SW¼ sec.36, T.112 N., R.60 W., Beadle County, Hydrologic Unit 10160006, at culvert on county highway, 2 miles north of Yale.	6.90	1968-79	- -68	--	0
					4- 4-69	4.48	99
					6-16-70	3.52	29
					4-27-71	2.46	1.2
					5- 1-72	3.40	23
					3-14-73	[a]3.72	[b]10
					2- -74	[a]3.71	[b]7.5
					4-17-75	[a]3.78	[b]20
					3-19-76	[a]2.86	[b]2.0
					3-12-77	[a]4.50	[b]30
					4-18-78	4.06	66
					4- -79	(c)	[b]3.0
06477140	†Rock Creek tributary near Roswell, SD	Lat 44°02'24", long 97°42'34", in SW¼SW¼ sec.29, T.107 N., R.57 W., Miner County, Hydrologic Unit 10160011, at culvert on county highway, 2.2 miles north of Roswell.	5.67	1970-79	4-15-70	[a]4.89	[b]50
					3-13-71	[a]6.86	[b]150
					6-19-72	4.07	59
					3- -73	[a]5.60	[b]40
					2- -74	[a]4.17	[b]20
					6- 9-75	2.69	<1.0
					3-19-76	[a]4.34	[b]10
					3-12-77	[a]7.15	[b]180
					3- -78	4.86	110
					4- -79	[a]4.28	[b]25
06477150	Rock Creek near Fulton, SD	Lat 43°45'39", long 97°54'25", in NW¼NW¼ sec.3, T.103 N., R.59 W., Hanson County, Hydrologic Unit 10160011, near right bank on downstream wingwall of highway bridge, 4.9 miles northwest of Fulton and 9.5 miles upstream from mouth.	270	1967-72‡, 1973-79	6-17-67	7.22	625
					6- 8-68	2.42	5.6
					4- 7-69	10.21	2,040
					3- 7-70	5.23	199
					3-15-71	[a]9.18	900
					6-24-72	5.37	277
					3- 6-73	[a]7.03	[b]450
					- -74	<2.95	<3.0
					4-10-75	[a]4.25	[b]25
					3-12-76	<2.95	[b]5.0
					3-16-77	[a]9.20	[b]800
					3- -78	[a]9.13	[b]500
					4- -79	[a]4.31	[b]25
06477400	†Firesteel Creek tributary near Wessington Springs, SD	Lat 44°04'26", long 98°34'52", in NW¼ sec.13, T.107 N., R.65 W., Jerauld County, Hydrologic Unit 10160011, at culvert on State Highway 34, 0.8 mile west of Wessington Springs.	.22	1968-79	7-26-68	4.41	39
					4- 3-69	5.14	57
					3- 3-70	[a]4.17	[b]20
					3-18-71	4.00	30
					3-20-72	[a]4.06	[b]15
					3-14-73	[a]5.74	[b]25
					5-20-74	2.73	6.8
					4-10-75	[a]3.69	[b]10
					3-19-76	[a]3.31	[b]3.0
					3-12-77	[a]3.60	[b]15
					3- -78	[a]5.57	[b]30
					4- -79	[a]3.59	[b]10

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		James River basin - Continued					
06478050	†Enemy Creek tributary near Mount Vernon, SD	Lat 43°36'19", long 98°15'55", in NE¼SE¼ sec.28, T.102 N., R.62 W., Davison County, Hydrologic Unit 10160011, at culvert on county highway, 7.3 miles south of Mount Vernon.	3.38	1969-79	4- 8-69	5.0	43
					6-16-70	5.54	82
					6-28-71	4.97	41
					5-27-72	5.88	115
					3-14-73	[a]5.63	[b]15
					6- 9-74	4.44	14
					- -75	(c)	<5.0
					3-19-76	(i)	[b]20
					8-27-77	4.76	45
					7-21-78	4.68	24
					7-29-79	4.62	21
06478200	†Coffee Creek tributary near Parkston, SD	Lat 43°27'26", long 97°59'42", in SE¼SE¼ sec.24, T.100 N., R.61 W., Hutchinson County, Hydrologic Unit 10160011, at culvert on State Highway 37, 4.2 miles north of Parkston.	.81	1968-79	9-22-68	2.83	17
					4- 3-69	4.43	62
					4-23-70	2.29	7.2
					3-13-71	[a]4.05	[b]25
					5-22-72	2.94	19
					3-14-73	[a]4.71	[b]30
					2-28-74	[a]2.82	[b]8.0
					6-19-75	2.70	14
					3-12-76	(i)	[b]20
					6-17-77	2.75	15
					6-25-78	4.92	81
					9-12-79	4.74	74
06478250	North Branch Dry Creek tributary near Parkston, SD	Lat 43°22'10", long 97°55'16", in NE¼ sec.27, T.99 N., R.60 W., Hutchinson County, Hydrologic Unit 10160011, at culvert on county highway 3.8 miles southeast of Parkston.	3.19	1956-67	7- 7-56	4.32	17
					6-17-57	4.15	6.0
					3-28-58	4.47	27
					- -59	--	0
					3-27-60	6.52	340
					2-22-61	4.14	6.0
					7- -62	5.66	183
					3-20-63	4.02	0.5
					4- -64	(c)	<1.0
					7-11-65	5.04	91
					4-27-66	5.87	220
					6-19-67	4.73	55
06478260	North Branch Dry Creek near Parkston, SD	Lat 43°22'13", long 97°50'51", in NE¼NW¼ sec.29, T.99 N., R.59 W., Hutchinson County, Hydrologic Unit 10160011, at bridge on county highway, 7.5 miles southeast of Parkston.	54.1	1956-78	3- -56	2.59	26
					6-17-57	3.18	51
					3-26-58	4.50	182
					3- 3-59	[a]2.30	3.2
					3-27-60	8.55	1,470
					8-21-61	3.47	68
					7-14-62	8.76	1,540
					3-19-63	[a]3.94	[b]80
					3-11-64	1.30	1.0
					7-11-65	2.96	40
					3-10-66	[a]5.28	[b]280
					6-19-67	2.68	29
					6-25-68	2.68	29
					4- 8-69	10.28	3,200
					4-23-70	4.54	225
					6-10-71	3.99	145
					5-23-72	5.72	490
					3-14-73	[a]4.92	[b]200
					3- 3-74	[a]3.00	[b]15
					6-19-75	2.48	26
					3-12-76	[a]4.75	[b]50
					8-29-77	2.32	21
					5-29-78	5.23	370

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum: Date	Annual maximum: Gage height (feet)	Annual maximum: Discharge (ft^3/s)
		James River basin - Continued					
06478280	South Branch Dry Creek near Parkston, SD	Lat 43°21'22", long 97°49'35", in NW¼ sec.33, T.99 N., R.59 W., Hutchinson County, Hydrologic Unit 10160011, at bridge on county highway, 8.3 miles southeast of Parkston.	25.8	1956-80	3- -56	2.67	7.0
					6-17-57	3.42	27
					3-26-58	4.26	92
					5-31-59	4.45	130
					3-27-60	7.37	920
					8-21-61	4.69	160
					7-14-62	6.81	750
					3-19-63	4.30	115
					4- 3-64	1.24	0.3
					7-11-65	4.05	86
					3-11-66	[a]4.43	40
					6-19-67	3.94	80
					6-25-68	3.31	38
					4- 8-69	6.52	650
					4-23-70	4.11	94
					6-10-71	3.01	25
					5-23-72	5.60	380
					3-14-73	[a]3.92	[b]40
					3- 3-74	[a]2.95	[b]10
					4-16-75	--	<10
					3-12-76	[a]4.18	[b]30
					3-12-77	[a]2.54	[b]8.0
					7-22-78	3.41	44
					4- -79	[a]4.57	[b]30
					3- -80	[a]2.39	[b]5.0
06478300	Dry Creek near Parkston, SD	Lat 43°22'18", long 97°49'23", in SE¼ sec.21, T.99 N., R.59 W., Hutchinson County, Hydrologic Unit 10160011, at bridge on county highway, 8.5 miles southeast of Parkston.	99.2	1956-80	3- -56	3.27	24
					6-17-57	4.30	78
					3-26-58	5.62	234
					5-31-59	5.07	144
					3-27-60	12.70	4,210
					8-21-61	5.14	165
					7-14-62	10.70	2,450
					4-29-63	4.52	94
					4-27-64	3.37	28
					7-11-65	4.56	98
					3- 3-66	[a]6.66	225
					6-19-67	5.09	160
					6-25-68	4.15	68
					4- 8-69	9.08	1,500
					4-23-70	5.95	310
					6-10-71	6.17	360
					5-23-72	7.64	860
					3-14-73	[a]3.95	[b]45
					3- 3-74	[a]3.74	[b]15
					6-19-75	3.24	23
					3-12-76	[a]4.73	[b]40
					3-12-77	[a]3.73	[b]30
					5-29-78	6.22	380
					4- -79	[a]5.95	[b]50
					3- -80	[a]2.51	[b]2.0
06478400	[†]Lonetree Creek tributary near Kaylor, SD	Lat 43°17'18", long 97°50'10", in NE¼SE¼ sec.20, T.98 N., R.59 W., Hutchinson County, Hydrologic Unit 10160011, at culvert on county highway, 7.2 miles north of Kaylor.	3.65	1970-79	4-22-70	2.59	12
					6- 7-71	3.41	36
					3-15-72	[a]4.84	[b]15
					3-14-73	[a]4.22	[b]30
					10- 9-73	3.11	26
					8-22-75	4.89	104
					3-19-76	[a]4.90	[b]50
					6-22-77	3.33	33
					4- 1-78	3.75	48
					4- -79	[a]5.34	[b]30
		Vermillion River basin					
06478630	West Fork Vermillion River near DeSmet, SD	Lat 44°12'54", long 97°33'04", in NW¼SW¼ sec.27, T.109 N., R.56 W., Kingsbury County, Hydrologic Unit 10170102, at culvert on State Highway 25, 11.5 miles south of DeSmet.	5.34	1970-79	6-16-70	3.21	5.6
					3-13-71	[a]4.76	[b]10
					6-19-72	4.62	32
					3- -73	[a]3.84	[b]2.0
					2- -74	[a]3.92	[b]2.5
					4-17-75	3.80	13
					3-12-76	[a]3.92	[b]7.0
					3-12-77	[a]5.15	[b]40
					3- -78	[a]6.08	[b]50
					4- -79	[a]3.45	[b]3.0

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Vermillion River basin - Continued					
06478650	†West Fork Vermillion River tributary near Monroe, SD	Lat 43°28'35", long 97°15'39", in SW¼SW¼ sec.17, T.100 N., R.54 W., Turner County, Hydrologic Unit 10170102, at culvert on county highway, 3.2 miles north of Marion, and 2.2 miles west of Monroe.	2.74	1969-79	4- 8-69	[a]11.65	[b]250
					3- 3-70	[a]5.29	[b]42
					5-23-71	4.11	22
					5-22-72	4.71	39
					3- -73	[a]5.76	[b]25
					6-21-74	4.25	26
					8-22-75	4.80	42
					3-20-76	[a]7.52	[b]40
					3-12-77	[a]4.36	[b]<5.0
					7-22-78	4.58	35
					4- -79	[a]12.10	[b]50
06478800	Saddlerock Creek near Canton, SD	Lat 43°12'20", long 96°43'37", in NW¼SW¼ sec.23, T.97 N., R.50 W., Lincoln County, Hydrologic Unit 10170102, at bridge on county highway, 9.6 miles southwest of Canton.	13.0	1956-78	7- 7-56	3.66	42
					6-17-57	5.38	205
					2-26-58	3.66	42
					5-28-59	5.14	175
					4- 1-60	7.83	650
					3-15-61	3.67	44
					5-18-62	7.57	610
					3-26-63	3.17	21
					7-30-64	3.89	38
					6-12-65	8.81	945
					3-10-66	[a]3.29	[b]6.0
					3- 2-67	[a]5.00	[b]15
					9-18-68	4.04	48
					4- 8-69	[a]8.80	[b]700
					4- 1-70	[a]4.05	[b]25
					7-10-71	4.3	66
					5- 1-72	5.88	255
					4-15-73	4.60	92
					6-22-74	3.69	28
					6-18-75	4.32	67
					3-12-76	[a]4.31	[b]50
					3- -77	<2.97	<5.0
					3- -78	[a]5.75	[b]100
06478820	†Saddlerock Creek tributary near Beresford, SD	Lat 43°12'21", long 96°45'51", in NE¼NW¼NW¼ sec.21, T.97 N., R.50 W., Lincoln County, Hydrologic Unit 10170102, at culvert on county highway, 9 miles north of Beresford.	2.22	1956-80	7- 7-56	3.25	2.7
					6-17-57	4.17	23
					2-26-58	4.06	20
					5-30-59	4.06	20
					4-12-60	5.93	72
					- -61	4.52	32
					5-18-62	6.69	94
					3-19-63	[a]3.58	4.0
					9-17-64	3.54	8.0
					6-12-65	6.79	97
					3-10-66	3.27	0.3
					6-19-67	4.02	19
					- -68	<3.61	<0.2
					4- 4-69	[an]4.39	32
					4-22-70	3.08	0.1
					6- 6-71	4.82	104
					5-13-72	3.23	5.8
					3-14-73	[a]4.27	15
					- -74	--	[b]5.0
					8-22-75	3.18	4.3
					3-12-76	[a]3.90	[b]25
					3-12-77	--	[b]<5.0
					7-22-78	5.05	120
					5-10-79	4.07	51
					3- -80	[a]3.77	[b]10

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum: Date	Annual maximum: Gage height (feet)	Annual maximum: Discharge (ft^3/s)
		Vermillion River basin - Continued					
06478840	Saddlerock Creek near Beresford, SD	Lat 43°12'55", long 96°49'33", in SE¼SE¼ sec.14, T.97 N., R.51 W., Lincoln County, Hydrologic Unit 10170102, at bridge on county highway, 9.5 miles northwest of Beresford.	23.1	1956-70, 1972-79	- -56	(c)	8.0
					6-17-57	4.91	140
					3-26-58	2.42	16
					5-28-59	3.70	57
					4- 1-60	--	[k]1,100
					2-14-61	[a]2.80	17
					6-16-62	6.32	340
					3-19-63	2.54	19
					5-12-64	2.30	13
					6-12-65	9.80	1,480
					3- 9-66	[a]2.50	15
					6-19-67	3.34	44
					- -68	(c)	6.0
					4- 8-69	8.39	900
					3-18-70	2.51	21
					5-13-72	3.93	68
					4-15-73	4.47	100
					6-22-74	6.60	390
					4-16-75	(c)	<10
					3-12-76	[a]4.63	[b]70
					5-22-77	3.26	41
					3- -78	[a]5.53	[b]200
					5-10-79	6.92	460
					4- 3-80	3.50	49
06478950	†Ash Creek near Beresford, SD	Lat 43°05'01", long 96°50'08", in NE¼NW¼ sec.2, T.95 N., R.51 W., Clay County, Hydrologic Unit 10170102, at culvert on State Highway 46, 2.1 miles west of Beresford.	5.00	1969-79	7-17-69	5.11	312
					6-18-70	2.87	73
					6- 6-71	10.45	1,050
					5-23-72	2.59	50
					3-14-73	[a]4.97	[b]240
					6-22-74	5.19	321
					6-21-75	4.47	242
					3-19-76	[a]4.51	[b]50
					9-12-77	5.03	303
					7-22-78	7.38	584
					5-10-79	5.58	365
06479020	†Smoky Run near Irene, SD	Lat 43°04'56", long 97°19'12", in SE¼SE¼SE¼ sec.34, T.96 N., R.55 W., Yankton County, Hydrologic Unit 10170102, at culvert on State Highway 46, 0.1 mile west of Mayfield, and 8.0 miles west of Irene.	4.96	1969-79	4- 3-69	[a]5.77	[b]75
					4-22-70	3.26	6.5
					6-14-71	4.36	35
					5- 1-72	4.66	46
					3-14-73	[a]5.46	[b]30
					6- 9-74	3.93	22
					4- -75	[a]3.85	[b]<5.0
					3-19-76	[a]3.90	[b]<10
					3-12-77	[a]3.65	[b]7.5
					7-21-78	4.01	23
					4- -79	[a]4.35	[b]10
		Big Sioux River basin					
06479200	Big Sioux River near Ortley, SD	Lat 45°13'30", long 97°09'35", in NW¼ sec.34, T.121 N., R.52 W., Grant County, Hydrologic Unit 10170202, at bridge on county highway, 7.5 miles southeast of Ortley and 9.5 miles southeast of Waubay.	53.8	1956-68	5-28-56	[a]4.25	56
					3-21-57	[a]5.02	110
					4- 6-58	[a]5.25	126
					5-30-59	[a]3.75	30
					3-29-60	5.39	495
					5-17-61	[a]3.97	41
					7- 1-62	5.73	950
					7-26-63	4.92	285
					4-16-64	4.21	66
					5-24-65	5.02	350
					3-12-66	5.52	660
					3-20-67	[a]5.42	150
					5- 8-68	[o]2.95	15
06479240	Big Sioux River tributary No. 2 near Summit, SD	Lat 45°13'45", long 97°06'05", in SW¼ sec.30, T.121 N., R.51 W., Grant County, Hydrologic Unit 10170202, at culvert on U.S. Highway 81, 5.8 miles southwest of Summit, 11.5 miles southeast of Waubay.	.26	1956-73	4- 2-56	[a]2.68	3.0
					3-20-57	[a]3.02	5.0
					4- 6-58	2.98	18
					3- 6-59	[a]2.02	0.5
					4- -60	3.47	26
					4- -61	1.76	2.6
					7- 1-62	5.16	53
					6- 9-63	1.99	4.6
					4- 5-64	2.70	13
					5-24-65	4.23	38
					3-13-66	2.06	5.6
					6-14-67	2.62	13
					- -68	--	0
					4- 6-69	4.32	40
					6-16-70	1.80	3.2
					6-29-71	4.97	50
					7-26-72	2.27	8.7
					3-14-73	[a]2.02	[b]2.5

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Big Sioux River basin - Continued					
06479260	Big Sioux River tributary No. 3 near Summit, SD	Lat 45°13'30", long 97°06'27", in SE¼ sec.25, T.121 N., R.52 W., Grant County, Hydrologic Unit 10170202, at culvert on county highway, 6.5 miles southwest of Summit, 11.5 miles southeast of Waubay.	6.61	1956-78	4- 2-56	[a]4.96	40
					5-21-57	4.40	105
					4- 6-58	4.82	175
					5-30-59	2.71	1.8
					3-30-60	5.17	255
					5-17-61	3.33	17
					7- 1-62	10.68	1,050
					6- 9-63	4.78	170
					4- 5-64	4.50	120
					5-24-65	6.15	365
					3-12-66	[a]4.66	75
					6-14-67	5.15	250
					5- 8-68	3.13	10
					4- 8-69	10.18	800
					6-16-70	3.90	52
					6-29-71	7.57	480
					7-26-72	5.72	330
					5-24-73	4.27	90
					3- 3-74	[a]4.75	[b]25
					4- -75	[a]6.14	[b]3.0
					3-12-76	[a]5.53	[b]15
					6-16-77	4.40	106
					5-29-78	4.44	112
06479350	†Soo Creek tributary near South Shore, SD	Lat 45°06'22", long 97°01'12", in NW¼NE¼ sec.24, T.119 N., R.52 W., Codington County, Hydrologic Unit 10170202, at culvert on State Highway 20, 3.8 miles west of South Shore.	1.56	1970-79	4-19-70	4.28	26
					6-29-71	4.61	38
					4-12-72	6.67	140
					3-14-73	[a]5.85	[b]50
					3- 3-74	[a]6.65	[b]20
					4- -75	[a]7.87	[b]15
					3-12-76	[a]5.14	[b]5.0
					6-16-77	8.80	279
					7- 6-78	8.82	280
					4- -79	[a]7.42	[b]25
06479550	†Dolph Creek tributary near Lake Norden, SD	Lat 44°35'15", long 97°19'37", in SW¼SW¼ sec.16, T.113 N., R.54 W., Hamlin County, Hydrologic Unit 10170201, at culvert on State Highway 28, 5.4 miles west of Lake Norden.	5.91	1970-79	6-16-70	3.78	24
					3-13-71	[a]4.65	[b]9.0
					7-21-72	4.46	64
					3- -73	[a]4.90	[b]20
					3- -74	[a]3.68	[b]5.0
					4- -75	2.84	<1.0
					3-12-76	[a]4.23	[b]10
					6-16-77	4.07	23
					4-18-78	3.93	32
					6-16-79	3.77	24
06479750	Peg Munky Run near Estelline, SD	Lat 44°34'22", long 96°51'15", in N½ sec.29, T.113 N., R.50 W., Deuel County, Hydrologic Unit 10170202, at bridge on State Highway 28, 2.5 miles east of Estelline.	25.2	1956-80	8- 2-56	6.02	667
					3-21-57	[a]4.68	80
					7-13-58	4.42	202
					3- 7-59	5.34	390
					4- 6-60	6.68	1,080
					6- 7-61	5.50	440
					3-27-62	6.58	1,010
					7-28-63	4.43	208
					4- 1-64	3.26	73
					5-24-65	7.29	1,540
					3-10-66	[a]6.90	130
					3- 2-67	[a]5.38	[b]200
					4-23-68	3.60	50
					4- 7-69	7.25	1,480
					5-29-70	5.42	505
					6-29-71	4.73	310
					5-30-72	6.64	1,070
					3- -73	[a]6.00	[b]125
					3- -74	[a]4.36	[b]40
					5-10-75	3.16	13
					3-12-76	[a]6.50	[b]15
					6-16-77	3.50	25
					5-28-78	6.84	670
					4- -79	[a]8.13	[b]400
					6- 3-80	7.59	1,200

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Big Sioux River basin - Continued					
06479800	North Deer Creek near Estelline, SD	Lat 44°27'44", long 96°47'13", in SE¼ sec.35, T.112 N., R.50 W., Brookings County, Hydrologic Unit 10170202, at bridge on U.S. Highway 77, 9.8 miles southeast of Estelline.	48.3	1956-80	7-26-56	6.30	218
					6-16-57	4.10	29
					3-25-58	3.91	22
					3- 9-59	[a]3.63	12
					4- 6-60	7.40	520
					6- 7-61	6.04	175
					7- 4-62	7.61	820
					7-28-63	7.52	660
					4-27-64	4.70	56
					5- 9-65	6.46	250
					3-10-66	[a]7.48	425
					6-15-67	5.40	104
					4-23-68	3.95	14
					4- 7-69	8.45	3,550
					6-16-70	8.79	5,000
					3-14-71	[a]6.90	[b]175
					5-30-72	8.35	3,100
					7- 2-73	5.56	112
					3- -74	[a]6.49	[b]50
					6- 9-75	4.00	16
					3-12-76	[a]6.48	[b]100
					6-16-77	5.02	65
					4-23-78	5.43	100
					4- -79	[a]7.74	[b]300
					6-25-80	7.45	620
06479810	†North Deer Creek tributary near Brookings, SD	Lat 44°22'44", long 96°47'14", in NW¼SW¼NW¼ sec.36, T.111 N., R.50 W., Brookings County, Hydrologic Unit 10170202, at culvert on U.S. Highway 77, 4.5 miles north of Brookings.	.33	1969-79	4- 8-69	7.73	106
					6-15-70	8.65	134
					3-14-71	[a]5.38	[b]5.0
					5-24-72	7.77	108
					3-14-73	[a]5.43	[b]15
					2- -74	[a]4.62	[b]7.0
					4-22-75	3.43	0.3
					3-12-76	[a]5.95	[b]11
					6-15-77	9.7	170
					3- -78	[a]5.44	[b]10
					4- -79	[a]6.38	[b]20
06479900	†Sixmile Creek tributary near Brookings, SD	Lat 44°22'57", long 96°40'48", in NE¼NW¼ sec.35, T.111 N., R.49 W., Brookings County, Hydrologic Unit 10170202, at bridge on county highway, 7.3 miles northeast of Brookings.	9.78	1956-76	6-15-56	3.88	56
					3-21-57	[a]4.83	[b]40
					3-25-58	[a]3.80	10
					3- 9-59	[a]3.78	11
					4- 6-60	6.16	595
					6- 7-61	6.29	656
					7- 4-62	6.68	840
					7-28-63	6.64	820
					4-27-64	4.85	214
					4- 6-65	[a]7.68	[b]400
					3-10-66	[a]6.66	65
					6-15-67	4.74	192
					- -68	--	0
					4- 8-69	[a]9.08	[b]1,000
					6-16-70	6.30	660
					3-14-71	[a]5.24	[b]100
					5-30-72	4.76	196
					3-14-73	[a]5.30	[b]100
					3- -74	[a]4.49	[b]20
					- -75	--	<10
					3-12-76	--	<10
06479950	Deer Creek near Brookings, SD	Lat 44°23'03", long 96°37'19", in SW¼ sec.29, T.111 N., R.48 W., Brookings County, Hydrologic Unit 10170202, at culvert on county highway, 9.8 miles northeast of Brookings.	4.04	1956-80	6-15-56	2.66	0.4
					3-19-57	[a]4.79	30
					3-25-58	2.79	1.8
					3- 9-59	[a]3.46	10
					4- 6-60	5.74	325
					6- 7-61	5.83	360
					7- 4-62	5.74	325
					7-28-63	5.76	330
					4- 1-64	3.68	170
					4- 3-65	[a]5.40	70
					3-10-66	[a]4.53	40
					6-15-67	4.33	68
					- -68	--	0
					4- 8-69	[a]7.72	[b]750
					6-16-70	5.43	250
					3-14-71	[a]3.91	[b]20
					7-26-72	4.56	95
					3-14-73	[a]3.91	[b]20
					- -74	--	[b]5.0
					- -75	[ap]1.81	[b]<2.0
					3-12-76	[a]5.57	[b]5.5
					6-16-77	7.23	350
					3- -78	[a]3.47	[b]30
					5-30-79	4.40	117
					6-25-80	9.57	540

See footnotes at end of table, p. 47.

Table 1.--Annual maximum discharge at crest-stage partial-record stations.--Continued

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Big Sioux River basin - Continued					
06480720	†Bachelor Creek tributary near Wentworth, SD	Lat 44°00'28", long 97°00'02", in NE¼NE¼NW¼ sec.7, T.106 N., R.51 W., Lake County, Hydrologic Unit 10170203, at culvert on State Highway 34, 1.8 miles northwest of Wentworth.	1.03	1969-79	4- 8-69	[a]7.83	[b]100
					4-23-70	3.71	1.0
					7- 3-71	3.80	2.3
					7-14-72	5.10	38
					3-14-73	[a]5.68	[b]25
					8- 9-74	4.13	16
					5-11-75	3.99	6.7
					3-12-76	[a]7.20	[b]10
					3-12-77	[a]5.37	[b]5.0
					3- -78	[a]8.75	[b]15
					4- -79	[a]8.70	[b]20
06482600	†West Pipestone Creek tributary near Garretson, SD	Lat 43°42'12", long 96°36'43", in SE¼SE¼ sec.20, T.103 N. R.48 W., Minnehaha County, Hydrologic Unit 10170203, at culvert on county highway, 5.3 miles west of Garretson.	2.16	1969-79	6-29-69	9.21	393
					5-28-70	12.52	792
					6-29-71	4.04	7.0
					3- 8-72	[a]9.03	[b]150
					3-13-73	5.16	59
					10- 9-73	10.71	566
					6- 3-75	5.29	66
					3-11-76	[a]7.56	[b]10
					7-24-77	6.39	141
					8- 1-78	7.32	216
					3-20-79	[a]10.26	[b]250
06482870	Little Beaver Creek tributary near Canton, SD	Lat 43°15'27", long 96°37'59", in NE¼ sec.4, T.97 N., R.49 W., Lincoln County, Hydrologic Unit 10170203, at culvert on county highway, 4.0 miles southwest of Canton.	.31	1956-73	6- 4-56	2.04	11
					7-27-57	2.60	23
					2-27-58	1.98	10
					5-21-59	3.78	51
					4- 1-60	2.49	20
					3-15-61	2.03	11
					6-16-62	3.49	44
					9- 4-63	2.56	22
					5-12-64	2.78	27
					6-12-65	2.90	30
					8-20-66	1.98	10
					8-24-67	2.62	24
					6-25-68	3.54	45
					4- 8-69	[a]4.91	[b]65
					6-16-70	2.49	20
					7-10-71	5.54	104
					6-18-72	2.48	20
					3-14-73	[a]3.06	[b]25
06485550	†West Union Creek near Alcester, SD	Lat 42°56'18", long 96°38'00", in SW¼SE¼ sec.21, T.94 N., R.49 W., Union County, Hydrologic Unit 10170203, at culvert on county highway, 5.7 miles south of Alcester.	3.48	1969-79	6-27-69	8.95	2,100
					5-27-70	6.39	640
					6- 6-71	7.50	940
					6- 7-72	7.31	905
					6-18-73	4.60	425
					6-22-74	5.28	566
					4-16-75	3.14	128
					3-12-76	[a]5.28	[b]50
					9-12-77	3.93	276
					7-22-78	3.91	272
					4- -79	[a]7.47	[b]100

† Rainfall-runoff model calibrated and used for this site (Becker, 1980).
‡ Operated as a continuous-record gaging station.
< Less than.
a Backwater from ice.
b Estimated.
c Peak stage did not reach bottom of gage.
d Backwater from vegetation.
e Prior to Apr. 28, 1970, at datum 0.32 ft lower.
f Prior to Apr. 28, 1970, at datum 0.74 ft higher.
g Prior to Sept. 30, 1971, at same datum but on culvert wingwall.
h Prior to July 15, 1969, at same datum but on culvert wingwall.
i Peak stage not determined.
j Prior to May 14, 1970, at datum 0.24 ft higher.
k Approximate.
l Prior to Apr. 22, 1970, at datum 1.40 ft lower.
m Prior to Oct. 24, 1967, at datum 2.00 ft higher.
n Prior to Aug. 7, 1968, at site 1,000 ft downstream at datum 6.60 ft lower.
o Site and datum destroyed by flood, April 1969.
p Prior to Oct. 1, 1974, gage heights refer to different stage-discharge relationship.

Table 2.--Peak-frequency data and selected basin characteristics for crest-stage partial-record stations.

U.S. Geological Survey station number	Station name	Basin characteristics			Flood characteristics					
		Drainage area (square miles)	Channel slope (feet per mile)	Soil infiltration index (inches)	Peak discharge, in cubic feet per second, for indicated recurrence interval, in years					
					2	5	10	25	50	100
05289950	†L Minnesota R trib at Sisseton, SD	4.21	167.8	2.99	104	226	333	497	639	800
05290300	†N Fk Whetstone R trib nr Wilmot, SD	.96	69.80	2.99	25	46	63	89	112	137
05292600	†N Fk Yellow Bank R trib nr Stockholm, SD	8.15	53.00	2.99	278	504	695	984	1,230	1,500
06354845	†Spring Cr trib nr Greenway, SD	.99	101.0	3.51	37	108	194	365	546	785
06355400	†N Fk Grand R trib nr Lodgepole, SD	3.07	69.20	3.16	151	296	414	596	762	955
06356150	†N Jack Cr nr Ludlow, SD	1.69	77.20	2.66	32	62	85	119	147	178
06356600	†S Fk Grand R trib nr Bison, SD	1.00	--	3.16	29	62	92	144	193	251
06358520	†Deadman Cr trib nr Mobridge, SD	.30	157.7	3.51	53	103	146	209	263	325
06358540	†Blue Blanket Cr trib nr Glenham, SD	.62	46.70	3.51	6.5	13	20	32	45	65

See footnote at end of table, p. 60.

Table 2.--Peak-frequency data and selected basin characteristics for crest-stage partial-record stations.--Continued

U.S. Geological Survey station number	Station name	Basin characteristics			Flood characteristics					
		Drainage area (square miles)	Channel slope (feet per mile)	Soil infiltration index (inches)	Peak discharge, in cubic feet per second, for indicated recurrence interval, in years					
					2	5	10	25	50	100
06358550	†Battle Cr trib nr Castle Rock, SD	1.57	93.30	2.50	154	326	474	701	902	1,120
06358600	S Fk Moreau R trib nr Redig, SD	2.33	48.00	2.50	54	124	192	302	405	526
06358620	Sand Cr trib nr Redig, SD	.04	100.0	2.50	21	36	46	61	73	85
06359300	†Deep Cr trib nr Maurine, SD	1.26	85.00	2.50	13	40	81	190	344	600
06359700	†Thunder Butte Cr trib nr Meadow, SD	3.00	--	2.50	22	54	88	148	207	281
06359800	†Thunder Butte Cr trib nr Glad Valley, SD	8.00	--	2.50	351	901	1,680	3,510	5,790	9,140
06359850	†Elm Cr trib nr Dupree, SD	4.16	30.60	2.50	209	393	531	720	869	1,020
06360350	†Little Moreau R trib nr Firesteel, SD	2.09	31.40	2.50	107	198	270	381	484	608
06361020	Swan Lake Cr trib nr Bowdle, SD	27.1	23.50	3.51	20	54	87	142	192	249

See footnote at end of table, p. 60.

Table 2.--Peak-frequency data and selected basin characteristics for crest-stage partial-record stations.--Continued

U.S. Geological Survey station number	Station name	Basin characteristics			Flood characteristics					
		Drainage area (square miles)	Channel slope (feet per mile)	Soil infiltration index (inches)	Peak discharge, in cubic feet per second, for indicated recurrence interval, in years					
					2	5	10	25	50	100
06396200	Fiddle Cr nr Edgemont, SD	0.64	68.97	1.76	14	46	90	195	327	529
06396300	†Cottonwood Cr trib nr Edgemont, SD	.09	282.0	1.76	24	46	64	92	116	145
06396350	†Red Canyon Cr trib nr Pringle, SD	.20	171.0	5.38	26	61	92	141	185	235
06399300	†Hat Cr trib nr Ardmore, SD	3.74	28.74	1.76	137	257	408	794	1,360	2,350
06399700	Pine Cr nr Ardmore, SD	7.36	56.70	1.76	709	1,060	1,340	1,760	2,130	2,540
06400900	†Horsehead Cr trib nr Smithwick, SD	1.52	59.20	1.76	15	34	56	102	159	250
06402100	†Fall R trib at Hot Springs, SD	3.81	167.5	5.38	29	49	63	83	100	119
06403800	Battle Cr trib nr Keystone, SD	.63	476.8	5.38	2.2	5.1	8.1	14	19	26
06406100	†Battle Cr trib nr Hermosa, SD	3.49	59.90	5.38	27	53	79	126	175	239
06406750	Sunday Gulch nr Hill City, SD	6.56	237.4	5.38	10	38	81	186	322	536

See footnote at end of table, p. 60.

Table 2.--Peak-frequency data and selected basin characteristics for crest-stage partial-record stations.--Continued

U.S. Geological Survey station number	Station name	Basin characteristics			Flood characteristics					
		Drainage area (square miles)	Channel slope (feet per mile)	Soil infiltration index (inches)	Peak discharge, in cubic feet per second, for indicated recurrence interval, in years					
					2	5	10	25	50	100
06406800	†Newton Fork nr Hill City, SD	8.17	177.3	5.38	24	45	62	90	114	143
06406900	Palmer Cr nr Hill City, SD	13.3	--	5.38	54	215	458	1,050	1,830	3,030
06408850	Silver Cr nr Rochford, SD	6.23	144.3	5.38	6.3	11	15	21	25	31
06408900	†Heeley Cr nr Hill City, SD	4.88	145.8	5.38	8.0	18	28	44	61	80
06421750	Rapid Cr trib nr Farmingdale, SD	1.50	84.5	1.76	7.6	16	26	41	57	77
06423400	†Bull Cr trib nr Wall, SD	.39	62.00	1.76	31	46	54	65	73	81
06432200	Polo Cr nr Whitewood, SD	10.30	173.3	8.18	189	515	868	1,510	2,160	2,980
06432230	Miller Cr nr Whitewood, SD	5.23	233.1	8.18	13	79	201	541	1,020	1,810
06434800	†Owl Cr trib nr Belle Fourche, SD	3.06	55.70	1.90	105	174	225	296	356	422
06436770	†Dry Cr trib nr Newell, SD	.20	129.3	1.90	7.0	15	23	35	47	61

See footnote at end of table, p. 60.

Table 2.--Peak-frequency data and selected basin characteristics for crest-stage partial-record stations.--Continued

U.S. Geological Survey station number	Station name	Basin characteristics			Flood characteristics					
		Drainage area (square miles)	Channel slope (feet per mile)	Soil infiltration index (inches)	Peak discharge, in cubic feet per second, for indicated recurrence interval, in years					
					2	5	10	25	50	100
06437100	†Boulder Cr nr Deadwood, SD	1.32	218.3	1.90	44	92	136	210	281	366
06439050	Cherry Cr trib nr Avance, SD	.60	80.00	2.50	23	72	131	246	370	534
06439060	Cherry Cr trib No. 2 nr Avance, SD	.11	80.00	2.50	6.4	24	47	98	155	235
06439080	Cherry Cr trib No. 3 nr Avance, SD	4.58	23.33	2.50	60	290	661	1,590	2,800	4,650
06439100	Beaver Cr nr Faith, SD	37.1	225.8	2.50	148	734	1,680	4,060	7,150	11,900
06439400	†Plum Cr trib nr Milesville, SD	.50	--	1.76	48	106	160	259	367	517
06440700	Brady Cr trib nr Philip, SD	4.84	47.40	1.76	103	395	838	1,940	3,400	5,700
06441200	†Powell Cr trib nr Fort Pierre, SD	.40	88.90	1.76	50	111	171	273	373	496
06441530	†Hilgers Gulch trib nr Pierre, SD	1.33	83.60	3.51	34	88	148	265	388	550

See footnote at end of table, p. 60.

Table 2.--Peak-frequency data and selected basin characteristics for crest-stage partial-record stations.--Continued

U.S. Geological Survey station number	Station name	Basin characteristics			Flood characteristics					
		Drainage area (square miles)	Channel slope (feet per mile)	Soil infiltration index (inches)	Peak discharge, in cubic feet per second, for indicated recurrence interval, in years					
					2	5	10	25	50	100
06441580	†Hilgers Gulch at Pierre, SD	6.49	81.40	3.51	149	567	1,280	3,210	5,960	10,500
06441650	Mush Cr nr Pierre, SD	14.2	41.27	3.51	369	1,300	2,520	5,130	8,100	12,300
06441670	Missouri R trib nr Pierre, SD	.42	272.7	3.51	58	177	318	593	886	1,270
06441750	Missouri R trib nr Canning, SD	.19	408.3	3.51	77	134	178	241	293	349
06442050	Missouri R trib nr DeGrey, SD	1.73	97.78	3.51	163	453	773	1,370	1,980	2,760
06442350	N Fk Medicine Cr nr Vivian, SD	47.0	24.40	1.90	59	202	393	814	1,320	2,040
06442380	Medicine Cr trib nr Vivian, SD	.29	50.00	1.76	31	97	179	348	539	802
06442400	†Medicine Cr trib No. 2 nr Vivian, SD	9.21	28.23	1.90	152	320	475	729	966	1,250
06442850	†Elm Cr trib nr Ree Heights, SD	.70	61.70	3.33	7.3	17	27	45	65	88
06442960	†Smith Cr trib nr Gann Valley, SD	5.85	35.90	3.33	37	71	102	156	207	270

See footnote at end of table, p. 60.

Table 2.--Peak-frequency data and selected basin characteristics for crest-stage partial-record stations.--Continued

U.S. Geological Survey station number	Station name	Basin characteristics			Flood characteristics					
		Drainage area (square miles)	Channel slope (feet per mile)	Soil infiltration index (inches)	Peak discharge, in cubic feet per second, for indicated recurrence interval, in years					
					2	5	10	25	50	100
06446250	†Porcupine Cr trib nr Rockyford, SD	1.65	74.10	1.90	280	426	533	676	789	904
06446300	†Big Hollow Cr trib nr Scenic, SD	2.71	41.60	1.90	623	941	1,140	1,380	1,540	1,720
06446400	Cain Cr trib at Imlay, SD	15.8	17.01	1.90	635	1,280	1,900	2,960	4,000	5,290
06446430	White R trib nr Conata, SD	.17	168.8	1.76	109	197	275	401	518	658
06446550	White R trib nr Interior, SD	.32	309.7	1.90	179	365	545	855	1,160	1,540
06446800	†Cottonwood Cr nr Wanblee, SD	1.70	75.00	1.90	278	477	642	974	1,400	2,120
06447200	†Black Pipe Cr trib nr Norris, SD	4.19	32.00	1.90	53	110	170	279	394	545
06447490	†Little White R trib nr Martin, SD	8.90	35.00	3.33	24	54	86	149	218	314
06449700	†Little Oak Cr nr Mission, SD	2.58	23.67	2.50	33	112	241	601	1,150	2,140

See footnote at end of table, p. 60.

Table 2.--Peak-frequency data and selected basin characteristics for crest-stage partial-record stations.--Continued

U.S. Geological Survey station number	Station name	Basin characteristics			Flood characteristics					
		Drainage area (square miles)	Channel slope (feet per mile)	Soil infiltration index (inches)	Peak discharge, in cubic feet per second, for indicated recurrence interval, in years					
					2	5	10	25	50	100
06449750	West Branch Horse Cr nr Mission, SD	6.31	50.14	2.50	29	111	245	610	1,140	2,060
06451750	†Cottonwood Cr trib nr Winner, SD	4.00	--	2.05	98	193	278	413	536	680
06452250	†Fivemile Cr trib nr Iona, SD	2.35	159.6	3.16	51	89	125	188	250	329
06453150	†Choteau Cr trib nr Tripp, SD	.54	95.20	3.33	55	131	211	355	499	681
06453250	†Choteau Cr trib nr Wagner, SD	15.6	45.00	3.33	29	84	155	316	519	835
06471050	Elm R trib nr Leola, SD	18.0	32.27	2.99	50	158	275	478	669	895
06471350	Maple R at Frederick, SD	552	4.08	2.99	272	1,410	3,100	6,790	11,000	16,500
06471400	Willow Cr trib nr Leola, SD	6.69	10.00	2.99	15	43	72	120	163	213
06471450	Willow Cr trib nr Barnard, SD	.26	--	2.99	6.5	18	30	50	68	89
06471750	†Snake Cr trib nr Leola, SD	4.49	41.10	2.99	71	175	284	476	668	906

See footnote at end of table, p. 60.

Table 2.--Peak-frequency data and selected basin characteristics for crest-stage partial-record stations.--Continued

U.S. Geological Survey station number	Station name	Basin characteristics			Flood characteristics					
		Drainage area (square miles)	Channel slope (feet per mile)	Soil infiltration index (inches)	Peak discharge, in cubic feet per second, for indicated recurrence interval, in years					
					2	5	10	25	50	100
06472200	Mud Cr trib nr Groton, SD	56.7	20.45	2.82	30	114	215	405	594	826
06472250	Mud Cr trib No. 2 nr Groton, SD	75.8	19.44	2.82	39	129	227	401	565	760
06473300	†Preachers Run trib at Ipswich, SD	7.88	24.90	3.16	23	58	101	199	326	527
06473350	†S Fk Snake Cr trib nr Seneca, SD	4.54	11.50	3.16	24	37	48	65	81	100
06473400	N Fk Snake Cr trib nr Wecota, SD	2.69	19.60	3.16	17	48	79	133	184	243
06473800	Matter Cr trib nr Orient, SD	7.63	19.90	3.33	15	91	223	564	1,010	1,670
06473820	Shaefer Cr nr Orient, SD	51.3	23.12	3.33	64	269	550	1,140	1,810	2,700
06473850	†Shaefer Cr trib nr Orient, SD	5.17	20.00	3.33	76	163	241	366	479	608
06473880	Shaefer Cr trib nr Miller, SD	5.95	16.52	3.33	16	664	126	253	392	575
06475500	Dry Run nr Frankfort, SD	225	2.01	2.34	9.1	106	347	1,140	2,370	4,450

See footnote at end of table, p. 60.

Table 2.--Peak-frequency data and selected basin characteristics for crest-stage partial-record stations.--Continued

U.S. Geological Survey station number	Station name	Basin characteristics			Flood characteristics					
		Drainage area (square miles)	Channel slope (feet per mile)	Soil infiltration index (inches)	Peak discharge, in cubic feet per second, for indicated recurrence interval, in years					
					2	5	10	25	50	100
06475550	†Dry Run trib nr Frankfort, SD	4.19	4.86	2.34	21	51	83	140	198	274
06475850	†Foster Cr trib nr Carpenter, SD	4.93	11.30	2.66	47	109	169	273	371	492
06475950	Shue Cr trib nr Yale, SD	6.90	6.91	2.66	12	39	69	123	176	241
06477140	†Rock Cr trib nr Roswell, SD	5.67	12.40	2.99	32	108	204	402	624	930
06477150	Rock Cr nr Fulton, SD	270	--	2.99	124	781	1,960	5,050	9,150	15,500
06477400	†Firesteel Cr trib nr Wessington Springs, SD	.22	92.90	3.33	14	30	45	71	98	133
06478050	†Enemy Cr trib nr Mount Vernon, SD	3.38	30.00	3.33	24	52	80	132	186	257
06478200	†Coffee Cr trib nr Parkston, SD	.81	15.40	3.33	25	54	79	121	158	201
06478250	N Branch Dry Cr trib nr Parkston, SD	3.19	7.64	3.33	21	110	257	629	1,110	1,850

See footnote at end of table, p. 60.

Table 2.--Peak-frequency data and selected basin characteristics for crest-stage partial-record stations.--Continued

U.S. Geological Survey station number	Station name	Basin characteristics			Flood characteristics					
		Drainage area (square miles)	Channel slope (feet per mile)	Soil infiltration index (inches)	Peak discharge, in cubic feet per second, for indicated recurrence interval, in years					
					2	5	10	25	50	100
06478260	N Branch Dry Cr nr Parkston, SD	54.1	12.06	3.33	86	420	946	2,210	3,800	6,140
06478280	S Branch Dry Cr nr Parkston, SD	25.8	14.60	3.33	49	195	395	831	1,330	2,030
06478300	Dry Cr nr Parkston, SD	99.2	6.73	3.33	122	506	1,040	2,220	3,590	5,510
06478400	†Lonetree Cr trib nr Kaylor, SD	3.65	22.60	3.33	35	64	93	147	206	288
06478630	W Fk Vermillion R nr DeSmet, SD	5.34	7.31	3.33	10	25	40	62	81	103
06478650	†W Fk Vermillion R trib nr Monroe, SD	2.74	17.60	3.33	30	61	91	139	186	243
06478800	Saddlerock Cr nr Canton, SD	13.0	22.62	3.33	77	245	431	767	1,100	1,500
06478820	†Saddlerock Cr trib nr Beresford, SD	2.22	41.30	3.33	39	91	149	258	372	522
06478840	Saddlerock Cr nr Beresford, SD	23.1	15.85	3.33	72	270	516	999	1,500	2,150
06478950	†Ash Cr nr Beresford, SD	5.00	54.50	3.33	158	371	581	945	1,310	1,770

See footnote at end of table, p. 60.

Table 2.--Peak-frequency data and selected basin characteristics for crest-stage partial-record stations.--Continued

U.S. Geological Survey station number	Station name	Basin characteristics			Flood characteristics					
		Drainage area (square miles)	Channel slope (feet per mile)	Soil infiltration index (inches)	Peak discharge, in cubic feet per second, for indicated recurrence interval, in years					
					2	5	10	25	50	100
06479020	†Smoky Run nr Irene, SD	4.96	6.98	3.33	22	37	50	70	88	107
06479200	Big Sioux R nr Ortley, SD	53.8	9.62	3.70	146	396	638	1,030	1,370	1,760
06479240	Big Sioux R trib No. 2 nr Summit, SD	.26	53.16	3.70	8.5	26	44	75	103	135
06479260	Big Sioux R trib No. 3 nr Summit, SD	6.61	26.65	3.70	90	330	614	1,140	1,650	2,280
06479350	†Soo Cr trib nr South Shore, SD	1.56	55.60	3.70	51	139	235	407	582	804
06479550	†Dolph Cr trib nr Lake Norden, SD	5.91	18.20	3.16	24	54	86	146	212	300
06479750	Peg Munky Run nr Estelline, SD	25.2	24.81	3.16	254	792	1,360	2,340	3,250	4,310
06479800	North Deer Cr nr Estelline, SD	48.3	18.11	3.16	192	728	1,370	2,590	3,800	5,290
06479810	†North Deer Cr trib nr Brookings, SD	.33	54.20	3.16	35	101	175	311	447	615

See footnote at end of table, p. 60.

Table 2.--Peak-frequency data and selected basin characteristics for crest-stage partial-record stations.--Continued

U.S. Geological Survey station number	Station name	Basin characteristics			Flood characteristics					
		Drainage area (square miles)	Channel slope (feet per mile)	Soil infiltration index (inches)	Peak discharge, in cubic feet per second, for indicated recurrence interval, in years					
					2	5	10	25	50	100
06479900	†Sixmile Cr trib nr Brookings, SD	9.78	23.41	3.16	278	700	1,140	1,900	2,640	3,520
06479950	Deer Cr nr Brookings, SD	4.04	47.43	3.16	57	242	484	964	1,470	2,100
06480720	†Bachelor Cr trib nr Wentworth, SD	1.03	31.60	3.16	11	28	47	81	117	163
06482600	†West Pipestone Cr trib nr Garretson, SD	2.16	49.50	3.33	116	339	582	1,010	1,430	1,940
06482870	Little Beaver Cr trib nr Canton, SD	.31	122.2	3.33	26	44	57	74	86	99
06485550	†West Union Cr nr Alcester, SD	3.48	37.50	3.33	337	807	1,260	2,000	2,680	3,490

† Rainfall-runoff model calibrated and used for this site (Becker, 1980).

Table 3.--Maximum observed discharges at crest-stage partial-record stations.

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
Minnesota River basin								
05289950	†L Minnesota R trib at Sisseton, SD	4.21	1970-79	6-20-79	393	93.4	14	0.62
05290300	†N Fk Whetstone R trib nr Wilmot, SD	.96	1970-79	6-20-79	53	55.2	6.5	.47
05292600	†N Fk Yellow Bank R trib nr Stockholm, SD	8.15	1970-79	6-29-71	510	62.6	5.0	.42
Spring Creek basin								
06354845	†Spring Cr trib nr Greenway, SD	.99	1970-79	6-17-71	188	190	9.5	.34
Grand River basin								
06355400	†N Fk Grand R trib nr Lodgepole, SD	3.07	1970-79	8-27-79	847	276	68	1.11
06356150	†N Jack Cr nr Ludlow, SD	1.69	1970-79	6-25-78	145	85.8	48	.99
06356600	†S Fk Grand R trib nr Bison, SD	1.00	1970-79	6-29-78	183	183	44	.95

See footnotes at end of table, p. 75.

Table 3.--Maximum observed discharges at crest-stage partial-record stations.--Continued

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
Deadman Creek basin								
06358520	†Deadman Cr trib nr Mobridge, SD	0.30	1956-79	6-17-64	180	600	17	0.68
Blue Blanket Creek basin								
06358540	†Blue Blanket Cr trib nr Glenham, SD	.62	1970-79	6-26-78	21	33.9	11	.47
Moreau River basin								
06358550	†Battle Cr trib nr Castle Rock, SD	1.57	1969-79	5- 9-75	580	369	15	.64
06358600	S Fk Moreau R trib nr Redig, SD	2.33	1956, 1958-80	7- 8-69	450	193	67	1.11
06358620	Sand Cr trib nr Redig, SD	.04	1956, 1958-72	7- 8-69	64	1,600	30	.88
06359300	†Deep Cr trib nr Maurine, SD	1.26	1970-79	5-30-71	188	149	25	.55
06359700	†Thunder Butte Cr trib nr Meadow, SD	3.0	1970-79	5- 7-70	145	48.3	24	.70

See footnotes at end of table, p. 75.

Table 3.--Maximum observed discharges at crest-stage partial-record stations.--Continued

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
			Moreau River basin - Continued					
06359800	†Thunder Butte Cr trib nr Glad Valley, SD	8.0	1970-77	6- 8-70	1,130	141	6.3	0.20
06359850	†Elm Cr trib nr Dupree, SD	4.16	1970-79	4-28-75	494	119	8.5	.57
06360350	†Little Moreau R trib nr Firesteel, SD	2.09	1970-79	4- -78	78	37.3	1.5	.16
			Swan Creek basin					
06361020	Swan Lake Cr trib nr Bowdle, SD	27.1	1970-79	5-12-78	91	3.36	10	.47
			Cheyenne River basin					
06396200	Fiddle Cr nr Edgemont, SD	.64	1956-80	6-15-80	275	430	39	.84
06396300	†Cottonwood Cr trib nr Edgemont, SD	.09	1956-80	7-19-65	86	956	21	.74
06396350	†Red Canyon Cr trib nr Pringle, SD	.20	1970-79	5- 3-71	30	150	2.2	.16

See footnotes at end of table, p. 75.

Table 3.--Maximum observed discharges at crest-stage partial-record stations.--Continued

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
Cheyenne River basin - Continued								
06399300	†Hat Cr trib nr Ardmore, SD	3.74	1956-59, 1961-79	3-16-63	510	136	13	0.38
06399700	Pine Cr nr Ardmore, SD	7.36	1956-74	6- 9-68	1,550	211	15	.73
06400900	†Horsehead Cr trib nr Smithwick, SD	1.52	1969-79	7-18-69	90	59.2	20	.57
06402100	†Fall R trib at Hot Springs, SD	3.81	1970-79	7- 4-77	53	13.9	5.8	.53
06403800	Battle Cr trib nr Keystone, SD	.63	1956-80	6- 9-72	1,330	2,110	--	--
06406100	†Battle Cr trib nr Hermosa, SD	3.49	1970-79	6-10-72	100	28.7	15	.57
06406750	Sunday Gulch nr Hill City, SD	6.56	1956-69	7-19-65	170	25.9	23	.53
06406800	†Newton Fork nr Hill City, SD	8.17	1969-79	7-27-77	58	7.10	8.5	.51
06406900	Palmer Cr nr Hill City, SD	13.3	1956-80	6- 9-72	4,370	329	*1.44	2.39
06406950	Horse Cr at Highway 385, nr Hill City, SD	10.1	1972	6- 9-72	1,830	181	--	--

See footnotes at end of table, p. 75.

Table 3.--Maximum observed discharges at crest-stage partial-record stations.--Continued

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
	Cheyenne River basin - Continued							
06408850	Silver Cr nr Rochford, SD	6.23	1969-79	6-15-76	14	2.25	8.2	0.56
06408900	†Heeley Cr nr Hill City, SD	4.88	1969-79	4- 8-75	20	4.10	5.5	.33
06421750	Rapid Cr trib nr Farmingdale, SD	1.50	1970-79	4-25-70	35	23.3	18	.61
06422395	Boxelder Cr at Benchmark, nr Nemo, SD	37.2	1972	6- 9-72	1,180	31.7	--	--
06422400	Estes Cr nr Nemo, SD	6.15	1969-72	6- 9-72	6,620	1,080	--	--
06423400	†Bull Cr trib nr Wall, SD	.39	1970-78	5-23-71	29	74.4	1.8	.40
06432200	Polo Cr nr Whitewood, SD	10.3	1956-72	4-14-67	1,700	165	32	.79
06432230	Miller Cr nr Whitewood, SD	5.23	1956-67	5-14-65	330	63.1	15	.32
06432250	Polo Cr trib nr Whitewood, SD	.06	1962	6-15-62	137	2,280	--	--
06434800	†Owl Cr trib nr Belle Fourche, SD	3.06	1970-79	6-15-76	267	87.2	17	.75

See footnotes at end of table, p. 75.

Table 3.--Maximum observed discharges at crest-stage partial-record stations.--Continued

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
Cheyenne River basin - Continued								
06436770	†Dry Cr trib nr Newell, SD	0.20	1970-74	6-25-72	6.4	32.0	1.9	0.14
06437100	†Boulder Cr nr Deadwood, SD	1.32	1956-80	6-14-76	323	245	72	1.15
06439050	Cherry Cr trib nr Avance, SD	.60	1956-80	6-13-67	275	458	30	.74
06439060	Cherry Cr trib No. 2 nr Avance, SD	.11	1956-73	5-21-62	119	1,080	33	.77
06439080	Cherry Cr trib No. 3 nr Avance, SD	4.58	1956-80	5-21-62	2,280	498	40	.81
06439100	Beaver Cr nr Faith, SD	37.1	1956-80	6- 2-65	5,000	135	32	.70
06439400	†Plum Cr trib nr Milesville, SD	.50	1970-79	5-19-74	265	530	25	.72
Bad River basin								
06440700	Brady Cr trib nr Philip, SD	4.84	1970-78	7- 2-76	432	89.3	5.2	.13
06441200	†Powell Cr trib nr Fort Pierre, SD	.40	1970-79	8-10-70	211	528	15	.57

See footnotes at end of table, p. 75.

Table 3.--Maximum observed discharges at crest-stage partial-record stations.--Continued

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
Hilgers Gulch basin								
06441530	†Hilgers Gulch trib nr Pierre, SD	1.33	1968-79	6- 9-71	244	183	22	0.63
06441580	†Hilgers Gulch at Pierre, SD	6.49	1967-79	6-18-67	1,320	203	10	.22
Mush Creek basin								
06441650	Mush Cr nr Pierre, SD	14.2	1956-80	8-10-56	3,620	255	15	.45
Unnamed Missouri River tributaries								
06441670	Missouri R trib nr Pierre, SD	.42	1956-74	8-10-56	705	1,680	34	.80
06441750	Missouri R trib nr Canning, SD	.19	1956-74	5-18-60	284	1,490	44	.97
06442050	Missouri R trib nr DeGrey, SD	1.73	1956-80	8- 7-56	976	564	14	.49
Medicine Creek basin								
06442350	N Fk Medicine Cr nr Vivian, SD	47.0	1956-80	4- 3-60	1,080	23.0	38	.82
06442380	Medicine Cr trib nr Vivian, SD	.29	1956-73	6-15-62	302	1,040	20	.56

See footnotes at end of table, p. 75.

Table 3.--Maximum observed discharges at crest-stage partial-record stations.--Continued

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
			Medicine Creek basin - Continued					
06442400	†Medicine Cr trib No. 2 nr Vivian, SD	9.21	1956-80	3-26-60	475	51.6	10	0.49
			Crow Creek basin					
06442850	†Elm Cr trib nr Ree Heights, SD	.70	1969-79	4- 3-69	65	92.9	50	1.00
06442960	†Smith Cr trib nr Gann Valley, SD	5.85	1972-80	5- 5-72	88	15.0	7.3	.43
			White River basin					
06446250	†Porcupine Cr trib nr Rockyford, SD	1.65	1968, 1970-79	6- -68	500	303	8.0	.63
06446300	†Big Hollow Cr trib nr Scenic, SD	2.71	1968, 1970-76, 1979	7-24-72	939	346	5.0	.61
06446400	Cain Cr trib at Imlay, SD	15.8	1956-80	6-15-62	3,300	209	32	.83
06446430	White R trib nr Conata, SD	.17	1956-58, 1960-73	6-17-64	329	1,940	15	.64

See footnotes at end of table, p. 75.

Table 3.--Maximum observed discharges at crest-stage partial-record stations.--Continued

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
White River basin - Continued								
06446550	White R trib nr Interior, SD	0.32	1956-80	7-12-80	575	1,800	12	0.50
06446800	†Cottonwood Cr nr Wanblee, SD	1.7	1971-78	4-20-74	330	194	2.6	.24
06447200	†Black Pipe Cr trib nr Norris, SD	4.19	1971-79	7-24-77	192	45.8	12	.49
06447490	†Little White R trib nr Martin, SD	8.9	1971-80	8- 5-76	46	5.17	4.1	.21
06449700	†Little Oak Cr nr Mission, SD	2 58	1956-80	5- 9-77	970	376	42	.84
06449750	West Branch Horse Cr nr Mission, SD	6.31	1956-70	6- 7-68	548	86.9	23	.48
06451750	†Cottonwood Cr trib nr Winner, SD	4.0	1971-80	5- 6-77	184	46.0	4.5	.34
Fivemile Creek basin								
06452250	†Fivemile Cr trib nr Iona, SD	2.35	1970-79	5-11-72	70	29.8	3.1	.28

See footnotes at end of table, p. 75.

Table 3.--Maximum observed discharges at crest-stage partial-record stations.--Continued

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
			Choteau Creek basin					
06453150	†Choteau Cr trib nr Tripp, SD	0.54	1970-79	5-22-72	177	328	7.5	0.36
06453250	†Choteau Cr trib nr Wagner, SD	15.6	1970-79	5-28-78	174	11.2	12	.34
			James River basin					
06471050	Elm R trib nr Leola, SD	18.0	1956-80	4- 8-69	720	40.0	60	1.08
06471350	Maple R at Frederick, SD	552	1956-69	4-11-69	6,000	10.9	21	.55
06471400	Willow Cr trib nr Leola, SD	6.69	1956-80	4- 9-69	260	38.9	*1.22	1.60
06471450	Willow Cr trib nr Barnard, SD	.26	1956-76	4- 9-69	78	300	72	1.15
06471750	†Snake Cr trib nr Leola, SD	4.49	1971-78	6-21-75	88	19.6	2.4	.13
06472200	Mud Cr trib nr Groton, SD	56.7	1960-69, 1974-80	4- 8-69	250	4.41	12	.42
06472250	Mud Cr trib No. 2 nr Groton, SD	75.8	1960-80	4- 8-69	310	4.09	16	.55

See footnotes at end of table, p. 75.

Table 3.--Maximum observed discharges at crest-stage partial-record stations.--Continued

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
James River basin - Continued								
06473300	†Preachers Run trib at Ipswich, SD	7.88	1971-80	3-24-78	50	6.35	4.3	0.15
06473350	†S Fk Snake Cr trib nr Seneca, SD	4.54	1971-80	3-17-72	50	11.0	12	.62
06473400	N Fk Snake Cr trib nr Wecota, SD	2.69	1971-79	6-20-75	65	24.2	7.5	.35
06473800	Matter Cr trib nr Orient, SD	7.63	1956-71	4- 3-69	410	53.7	18	.41
06473820	Shaefer Cr nr Orient, SD	51.3	1956-80	4- 3-69	1,280	25.0	29	.71
06473850	†Shaefer Cr trib nr Orient, SD	5.17	1956-80	4- 3-69	350	67.7	23	.73
06473880	Shaefer Cr trib nr Miller, SD	5.95	1956-80	4- 3-69	265	44.5	27	.68
06475500	Dry Run nr Frankfort, SD	225	1955-69;‡ 1970-78	3-29-62	772	3.43	18	.33
06475550	†Dry Run trib nr Frankfort, SD	4.19	1967-79	5-28-78	138	32.9	25	.70

See footnotes at end of table, p. 75.

Table 3.--Maximum observed discharges at crest-stage partial-record stations.--Continued

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
	James River basin - Continued							
06475850	†Foster Cr trib nr Carpenter, SD	4.93	1972-80	5-13-72	89	18.0	3.9	0.24
06475950	Shue Cr trib nr Yale, SD	6.90	1968-79	4- 4-69	99	14.4	17	.56
06477140	†Rock Cr trib nr Roswell, SD	5.67	1970-79	3-12-77	180	31.8	8.6	.29
06477150	Rock Cr nr Fulton, SD	270	1967-72,‡ 1973-79	4- 7-69	2,040	7.56	10	.22
06477400	†Firesteel Cr trib nr Wessington Springs, SD	.22	1968-79	4- 3-69	57	259	16	.58
06478050	†Enemy Cr trib nr Mount Vernon, SD	3.38	1969-79	5-27-72	115	34.0	19	.62
06478200	†Coffee Cr trib nr Parkston, SD	.81	1968-79	6-25-78	81	100	10	.51
06478250	N Branch Dry Cr trib nr Parkston, SD	3.19	1956-67	3-27-60	340	107	13	.31
06478260	N Branch Dry Cr nr Parkston, SD	54.1	1956-78	4- 8-69	3,200	59.2	41	.84

See footnotes at end of table, p. 75.

Table 3.--Maximum observed discharges at crest-stage partial-record stations.--Continued

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
	James River basin - Continued							
06478280	S Branch Dry Cr nr Parkston, SD	25.8	1956-80	3-27-60	920	35.7	29	0.69
06478300	Dry Cr nr Parkston, SD	99.2	1956-80	3-27-60	4,210	42.4	65	1.17
06478400	†Lonetree Cr trib nr Kaylor, SD	3.65	1970-79	8-22-75	104	28.5	13	.50
	Vermillion River basin							
06478630	W Fk Vermillion R nr DeSmet, SD	5.34	1970-79	3- -78	50	9.36	15	.62
06478650	†W Fk Vermillion R trib nr Monroe, SD	2.74	1969-79	4- 8-69	250	91.2	*1.03	1.34
06478800	Saddlerock Cr nr Canton, SD	13.0	1956-78	6-12-65	945	72.7	38	.86
06478820	†Saddlerock Cr trib nr Beresford, SD	2.22	1956-80	7-22-78	120	54.1	7.3	.32
06478840	Saddlerock Cr nr Beresford, SD	23.1	1956-70, 1972-79	6-12-65	1,480	64.1	50	.99

See footnotes at end of table, p. 75.

Table 3.--Maximum observed discharges at crest-stage partial-record stations.--Continued

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
			Vermillion River basin - Continued					
06478950	†Ash Cr nr Beresford, SD	5.00	1969-79	6- 6-71	1,050	210	32	0.80
06479020	†Smoky Run nr Irene, SD	4.96	1969-79	4- 3-69	75	15.1	31	.85
			Big Sioux River basin					
06479200	Big Sioux R nr Ortley, SD	53.8	1956-68	7- 1-62	[a]950	17.7	21	.69
06479240	Big Sioux R trib No. 2 nr Summit, SD	.26	1956-73	7- 1-62	53	204	14	.52
06479260	Big Sioux R trib No. 3 nr Summit, SD	6.61	1956-78	7- 1-62	1,050	159	22	.64
06479350	†Soo Cr trib nr South Shore, SD	1.56	1970-79	7- 6-78	280	179	13	.48
06479550	†Dolph Cr trib nr Lake Norden, SD	5.91	1970-79	7-21-72	64	10.8	6.5	.30
06479750	Peg Munky Run nr Estelline, SD	25.2	1956-80	5-24-65	1,540	61.1	12	.47
06479800	North Deer Cr nr Estelline, SD	48.3	1956-80	6-16-70	5,000	104	90	1.32

See footnotes at end of table, p. 75.

Table 3.--Maximum observed discharges at crest-stage partial-record stations.--Continued

Station number	Station name	Drainage area (square miles)	Period of record, water years	Maximum discharge				
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years	Ratio to 50-year flood
	Big Sioux River basin - Continued							
06479810	†North Deer Cr trib nr Brookings, SD	0.33	1969-79	6-15-77	170	515	9.5	0.38
06479900	†Sixmile Cr trib nr Brookings, SD	9.78	1956-76	4- 8-69	1,000	102	8.0	.38
06479950	Deer Cr nr Brookings, SD	4.04	1956-80	4- 8-69	750	186	17	.51
06480720	†Bachelor Cr trib nr Wentworth, SD	1.03	1969-79	4- 8-69	100	97.1	38	.86
06482600	†West Pipestone Cr trib nr Garretson, SD	2.16	1969-79	5-28-70	792	367	16	.55
06482870	Little Beaver Cr trib nr Canton, SD	.31	1956-73	7-10-71	104	335	*1.05	1.21
06485550	†West Union Cr nr Alcester, SD	3.48	1969-79	6-27-69	2,100	603	28	.78

† Rainfall-runoff model calibrated and used for this site (Becker, 1980).
‡ Operated as a continuous record-gaging station.
* Ratio to 100-year flood.
a Flood exceeded in 1969, discharge not determined.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
Red River of the North basin							
05050000	Bois de Sioux R nr White Rock, SD	1,160	1942-79	4- -69	3,770	3.25	--
Little Minnesota River basin							
05290000	L Minnesota R nr Peever, SD	447	1940-79	4- 8-52	4,730	10.6	27
05290500	Whetstone R nr Corona, SD	170	1953-57	5-21-57	1,140	6.71	--
05291000	Whetstone R nr Big Stone City, SD	389	1910-12, 1931-79	4- 8-69	6,870	17.7	22
Little Missouri River basin							
06334500	L Missouri R at Camp Crook, SD	1,970	1956-80	3-24-78	9,420	4.78	35
Spring Creek basin							
06354860	Spring Cr nr Herreid, SD	220	1963-80	3-29-78	1,340	6.09	12
06354880	Spring Cr nr Pollock, SD	1,310	1960-62	4- 2-60	606	.46	--

See footnotes at end of table, p. 90.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.--Continued

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
Grand River basin							
06355500	N Fk Grand R nr White Butte, SD	1,190	1946-80	4-16-50	30,900	26.0	--
06356000	S Fk Grand R at Buffalo, SD	148	1956-80	6-14-63	2,780	18.8	16
06356500	S Fk Grand R nr Cash, SD	1,350	1946-80	4-15-50	27,000	20.0	*1.54
06357500	Grand R at Shadehill, SD	3,120	1944-80	4-16-50	58,000	18.6	--
06357800	Grand R at Little Eagle, SD	5,370	1959-80	3-23-78	19,000	3.54	--
06358000	Grand R nr Wakpala, SD	5,510	1914-16, 1929-64	4-18-50	82,200	14.9	--
Moreau River basin							
06359000	Moreau R at Bixby, SD	1,570	1949-73	4- 1-52	15,300	9.75	55
06359500	Moreau R nr Faith, SD	2,660	1944-80	4- 9-44	26,000	9.77	30
06360000	Moreau R nr Eagle Butte, SD	4,320	1944-58	6-15-53	30,300	7.01	12

See footnotes at end of table, p. 90.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.--Continued

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
Moreau River basin - Continued							
06360500	Moreau R nr Whitehorse, SD	4,880	1955-80	3-24-78	25,600	5.25	18
06361000	Moreau R at Promise, SD	5,223	1929-58	4- 5-52	36,900	7.06	24
Cheyenne River basin							
06394500	Beaver Cr nr Burdock, SD	1,540	1905-06, 1929-32	5-31-29	4,000	2.60	--
06395000	Cheyenne R at Edgemont, SD	7,143	1905, 1929-32, 1947-80	5-20-78	28,000	3.92	68
06400000	Hat Cr nr Edgemont, SD	1,044	1905, 1951-80	6-16-67	13,300	12.7	63
06400500	Cheyenne R nr Hot Springs, SD	8,710	1915-20, 1943-72	5-12-20	114,000	13.1	*1.67
06401500	Cheyenne R blw Angostura Dam, SD	9,100	1946-80	5-20-78	30,300	3.33	--
06402000	Fall R at Hot Springs, SD	137	1938-80	9- 4-38	13,100	95.6	--

See footnotes at end of table, p. 90.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.--Continued

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
Cheyenne River basin - Continued							
06402500	Beaver Cr nr Buffalo Gap, SD	130	1938-80	9- 4-38	11,700	90.0	95
06402600	Cheyenne R nr Buffalo Gap, SD	9,810	1969-80	5-21-78	25,000	2.55	--
06404000	Battle Cr nr Keystone, SD	66	1946-47, 1962-80	6- 9-72	26,200	397	*2.72
06405000	Grace Coolidge Cr nr Custer, SD	25.3	1946-47, 1967-80	6-15-76	980	38.7	20
06406000	Battle Cr at Hermosa, SD	178	1950-80	6- 9-72	21,400	120	*3.73
06408500	Spring Cr nr Hermosa, SD	199	1950-80	6-10-72	13,400	67.3	*1.05
06409000	Castle Cr abv Deerfield Reservoir, nr Hill City, SD	83	1949-80	5-22-52	1,120	13.5	*1.84
06410000	Castle Cr blw Deerfield Dam, SD	96	1947-80	5-22-52	200	--	--

See footnotes at end of table, p. 90.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.--Continued

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
Cheyenne River basin - Continued							
06410500	Rapid Cr abv Pactola Reservoir, at Silver City, SD	292	1954-80	5-15-65	2,060	7.05	--
06411500	Rapid Cr blw Pactola Dam, SD	320	1929-42, 1947-80	5-22-52	2,170	6.78	--
06412500	Rapid Cr abv Canyon Lake, nr Rapid City, SD	371	1947-80	6- 9-72	[a]31,200	[b]600	--
06414000	Rapid Cr at Rapid City, SD	410	1905-06, 1943-80	6- 9-72	[a]50,000	[c]549	--
06421500	Rapid Cr nr Farmingdale, SD	602	1947-80	6-10-72	[a]7,320	[d]25.9	--
06422500	Boxelder Cr nr Nemo, SD	96	1946-47, 1966-80	6- 9-72	30,100	314	*4.52
06423500	Cheyenne R nr Wasta, SD	12,800	1915, 1929-32, 1934-80	5- 6-32	46,300	3.62	--
06425500	Elk Cr nr Elm Springs, SD	540	1950-80	3-29-52	8,540	15.8	31

See footnotes at end of table, p. 90.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.--Continued

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
Cheyenne River basin - Continued							
06428500	Belle Fourche R at Wyoming-South Dakota State line	3,280	1947-80	6-18-62	4,400	1.34	--
06430500	Redwater Cr at Wyoming-South Dakota State line	471	1929-31, 1936-37, 1955-80	8-22-73	2,440	5.18	30
06431500	Spearfish Cr at Spearfish, SD	168	1947-80	5-15-65	[e]4,240	25.2	47
06433000	Redwater Cr abv Belle Fourche, SD	920	1946-80	6-16-62	16,400	17.8	*1.52
06433500	Hay Cr at Belle Fourche, SD	121	1954-80	6-19-72	930	7.69	42
06435500	Belle Fourche R nr Belle Fourche, SD	4,310	1924, 1927-43	4- 9-24	22,400	5.20	--
06436000	Belle Fourche R nr Fruitdale, SD	4,540	1946-80	6-15-76	12,200	2.69	--
06436500	Horse Cr nr Newell, SD	67	1962-69	5-25-65	3,070	45.8	--

See footnotes at end of table, p. 90.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.--Continued

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
Cheyenne River basin - Continued							
06436700	Indian Cr nr Arpan, SD	315	1962-80	6-15-76	16,700	53.0	80
06436800	Horse Cr nr Vale, SD	530	1962-80	6-16-76	11,600	21.9	73
06437000	Belle Fourche R nr Sturgis, SD	5,870	1946-80	6-15-76	19,100	3.25	--
06437200	Bear Butte Cr nr Galena, SD	47.6	1966-69	6-13-67	1,000	21.0	--
06437500	Bear Butte Cr nr Sturgis, SD	192	1946-72	6-16-62	12,700	66.1	58
06438000	Belle Fourche R nr Elm Springs, SD	7,210	1929-32, 1934-80	6- 8-64	45,100	6.26	--
06438500	Cheyenne R nr Plainview, SD	21,600	1951-80	5-26-57	41,700	1.93	--
06439000	Cherry Cr nr Plainview, SD	1,190	1946-80	4- 1-52	17,500	14.7	64
06439300	Cheyenne R at Cherry Creek, SD	23,900	1961-80	6-16-67	43,800	1.83	--

See footnotes at end of table, p. 90.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.--Continued

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
Cheyenne River basin - Continued							
06439500	Cheyenne R nr Eagle Butte, SD	24,500	1929-67	5-24-33	104,000	4.24	--
Bad River basin							
06440500	N Fk Bad R at Philip, SD	164	1939-44	6- 4-42	1,640	10.0	--
06441000	Bad R nr Midland, SD	1,460	1946-80	6-15-67	29,400	20.1	93
06441500	Bad R nr Fort Pierre, SD	3,107	1929-80	6-18-67	[f]43,800	14.1	40
Medicine Knoll Creek basin							
06442000	Medicine Knoll Cr nr Blunt, SD	317	1950-80	4- 5-52	1,830	5.77	15
Medicine Creek basin							
06442500	Medicine Cr at Kennebec, SD	465	1955-80	3-28-60	8,970	19.3	60
Crow Creek basin							
06442950	Crow Cr nr Gann Valley, SD	670	1972-80	3-22-78	3,900	5.82	--

See footnotes at end of table, p. 90.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.--Continued

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
	White River basin						
06445700	White R at Slim Butte, SD	1,500	1962-73	6-13-62	14,400	9.60	27
06445980	White Clay Cr nr Oglala, SD	340	1966-80	6-16-67	659	1.94	9
06446000	White R nr Oglala, SD	2,200	1944-80	6-21-47	5,200	2.36	60
06446200	White R nr Rockyford, SD	3,000	1965-73	6-17-67	11,800	3.93	--
06446500	White R nr Interior, SD	4,120	1905-06, 1912-18, 1929-32, 1940-42	5- 1-42	17,100	4.15	14
06447000	White R nr Kadoka, SD	5,000	1942-80	6- 4-42	32,000	6.40	58
06447500	L White R nr Martin, SD	230	1938-40, 1962-80	7-19-65	1,190	5.17	29
06448000	Lake Cr abv refuge, nr Tuthill, SD	23	1938-40, 1963-78	3- 9-66	154	6.70	28

See footnotes at end of table, p. 90.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.--Continued

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
White River basin - Continued							
06449000	Lake Cr blw refuge, nr Tuthill, SD	60	1938-40, 1963-80	6-18-67	178	2.97	--
06449100	L White R nr Vetal, SD	415	1960-80	3-13-66	1,330	3.20	24
06449250	Spring Cr nr St. Francis, SD	10	1960-74	6-21-62	65	6.50	16
06449400	Rosebud Cr at Rosebud, SD	51	1975-80	7-27-76	643	12.6	--
06449500	L White R nr Rosebud, SD	760	1944-80	6-11-67	4,640	6.11	28
06450500	L White R blw White River, SD	1,310	1930-32, 1939-40, 1951-80	6-12-67	13,700	10.5	46
06451500	White R at Westover, SD	7,850	1913-18	4- 4-15	15,200	1.94	--
06452000	White R nr Oacoma, SD	10,200	1929-80	3-30-52	51,900	5.09	*1.05

See footnotes at end of table, p. 90.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.--Continued

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
			Niobrara River basin				
06464000	Keya Paha R nr Hidden Timber, SD	320	1948-53	3-30-52	2,710	8.47	--
06464500	Keya Paha R at Wewela, SD	1,070	1939-40, 1950-80	3-31-52	5,430	5.07	30
			James River basin				
06471000	James R at Columbia, SD	4,050	1946-80	5-24-50	5,420	1.34	--
06471200	Maple R at North Dakota-South Dakota State line	480	1957-80	4-11-69	5,930	12.4	32
06471500	Elm R at Westport, SD	1,170	1947-80	4-10-69	12,600	10.8	34
06471898	Moccasin Cr nr Warner, SD	256	1977-80	4- 1-78	387	1.51	--
06472000	James R nr Stratford, SD	6,070	1950-77	5-14-50	5,580	.92	--
06472500	Mud Cr nr Stratford, SD	460	1956-77	4-10-69	1,180	2.57	23
06473000	James R at Ashton, SD	6,810	1946-80	4-24-69	5,680	.83	--

See footnotes at end of table, p. 90.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.--Continued

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
James River basin - Continued							
06473500	S Fk Snake Cr nr Athol, SD	1,090	1950-73	4- 7-69	6,810	6.25	39
06473700	Snake Cr nr Ashton, SD	1,770	1956-72, 1978-79	4-10-69	6,980	3.94	33
06473750	Wolf Cr nr Ree Hights, SD	265	1960-80	4- 5-69	990	3.74	20
06474000	Turtle Cr nr Tulare, SD	1,120	1954-56, 1966-80	4- 5-69	6,000	5.36	23
06474300	Medicine Cr nr Zell, SD	210	1960-80	4- 5-69	2,210	10.5	20
06474500	Turtle Cr at Redfield, SD	1,540	1946-72	4- 7-69	7,660	4.97	36
06475000	James R nr Redfield, SD	10,200	1950-79	4-13-69	7,310	.72	--
06476000	James R at Huron, SD	12,010	1929-32, 1944-80	4-13-69	9,000	.75	--
06476500	Sand Cr nr Alpena, SD	240	1950-80	3-28-60	2,240	9.33	19

See footnotes at end of table, p. 90.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.--Continued

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
James River basin - Continued							
06477000	James R nr Forestburg, SD	13,810	1950-80	4- 9-69	12,500	0.91	--
06477500	Firesteel Cr nr Mount Vernon, SD	540	1956-80	4- 4-69	6,610	12.2	30
06478000	James R nr Mitchell, SD	15,010	1954-58, 1966-72	4-11-69	13,800	.92	--
06478500	James R nr Scotland, SD	16,760	1929-80	4- 3-62	15,200	.91	--
Vermillion River basin							
06478540	L Vermillion R nr Salem, SD	51.0	1967-80	3-21-78	676	13.3	13
06478690	W Fk Vermillion R nr Parker, SD	370	1962-80	3-28-62	4,340	11.7	25
06479000	Vermillion R nr Wakonda, SD	1,680	1946-80	4- 8-69	9,880	5.88	33
Big Sioux River basin							
06479438	Big Sioux R nr Watertown, SD	241	1973-80	3-30-78	3,720	15.4	--

See footnotes at end of table, p. 90.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.--Continued

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
Big Sioux River basin - Continued							
06479500	Big Sioux R at Watertown, SD	400	1946-72	4- 9-52	2,220	5.55	15
06479515	Willow Cr nr Watertown, SD	125	1972-80	3-31-78	2,930	23.4	--
06479529	Stray Horse Cr nr Castlewood, SD	73.7	1969-80	4- 7-69	14,000	190	--
06479640	Hidewood Cr nr Estelline, SD	164	1969-80	4- 7-69	3,630	22.1	39
06479910	Sixmile Cr nr Brookings, SD	54.0	1971-80	3-28-78	936	17.3	11
06480000	Big Sioux R nr Brookings, SD	2,450	1954-80	4- 9-69	33,900	13.8	*1.32
06480500	Big Sioux R nr Flandreau, SD	2,610	1929-32	3-15-29	5,200	1.99	--
06481000	Big Sioux R nr Dell Rapids, SD	3,090	1949-80	4- 9-69	41,300	13.4	*1.28
06481500	Skunk Cr at Sioux Falls, SD	[g]520	1949-80	6-17-57	[g]29,400	51.6	*1.41
06482000	Big Sioux R at Sioux Falls, SD	3,780	1944-60	6-17-57	16,200	4.29	19

See footnotes at end of table, p. 90.

Table 4.--Maximum observed discharges at selected continuous-record gaging stations.--Continued

Station number	Station name	Contributing drainage area (square miles)	Period of record, water year	Maximum discharge			
				Date	Cubic feet per second	Cubic feet per second per square mile	Recurrence interval, in years
Big Sioux River basin - Continued							
06482020	Big Sioux R at North Cliff Ave., at Sioux Falls, SD	3,800	1969, 1972-80	4-10-69	40,700	10.7	--
06482100	Big Sioux R nr Brandon, SD	3,840	1960-72	4-10-69	36,800	9.58	*1.18
06482610	Split Rock Cr at Corson, SD	475	1966-80	4- 8-69	17,800	37.5	*1.06
06485500	Big Sioux R at Akron, IA	7,060	1929-80	4- 9-69	80,800	11.4	*1.09

* Ratio of maximum discharge to that of 100-year flood.
a None of drainage area above Pactola Reservoir (319 mi^2) contributed to flood.
b Based on contributing drainage area of 52 mi^2.
c Based on contributing drainage area of 91 mi^2.
d Based on contributing drainage area of 283 mi^2.
e Flood of June 5, 1904, estimated as 5,000 ft^3/s, 29.8 $ft^3/s/mi^2$.
f Flood of July 1905 estimated as 70,000 ft^3/s, 22.5 $ft^3/s/mi^2$.
g At site then in use.

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