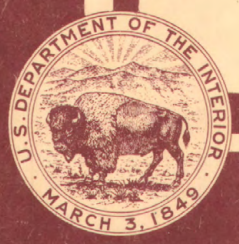
1973

Water Resources Data for North Dakota

Part 1. Surface Water Records



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the State of North Dakota
and with other agencies

CALENDAR FOR WATER YEAR 1973

1972

OCTOBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
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NOVEMBER

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31						

1973

JANUARY

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JUNE

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JULY

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AUGUST

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SEPTEMBER

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30						

1973

Water Resources Data for North Dakota

Part 1. Surface Water Records

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Prepared in cooperation with the State of North Dakota
and with other agencies

Prepared in cooperation with

North Dakota State Water Commission
North Dakota Highway Department
Oliver County, North Dakota
Corps of Engineers, U.S. Army
Bureau of Reclamation, U.S. Department of the Interior
International Joint Commission, U.S. Department of State
Fish and Wildlife Service, U.S. Department of the Interior
Soil Conservation Service, U.S. Department of Agriculture

Water resources records, 1973, for North Dakota are in the following reports of the U.S. Geological Survey:

1. Water Resources Data for North Dakota
   Part 1: Surface Water Records

2. Water Resources Data for North Dakota
   Part 2: Water Quality Records

Copies of this report may be obtained from
District Chief, Water Resources Division
U.S. Geological Survey
Room 332 - Federal Building
Bismarck, N. Dak. 58501

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Gaging-station records--Continued

MISSOURI RIVER BASIN--Continued

WATER RESOURCES DATA FOR NORTH DAKOTA, 1973

PART 1. SURFACE-WATER RECORDS

INTRODUCTION

Surface-water records for the 1973 water year for North Dakota including records of streamflow or reservoir storage at gaging stations, partial-record stations, and miscellaneous sites, are given in this report. The locations of the gaging stations are shown in figure 1. Records for a few pertinent gaging stations in bordering States and Provinces are also included. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of R. C. Williams, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in North Dakota.

Through September 30, 1960, the records of discharge and stage of streams and contents and stage of lakes or reservoirs were published in an annual series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States."

Beginning with the 1961 water year, surface-water records have been released by the Geological Survey in annual reports on a State-boundary basis. Distribution of these reports is limited; they are designed primarily for rapid release of data shortly after the end of the water year to meet local needs. The streamflow and reservoir storage records for 1961-70 are also published on a 5-year basis in the Geological Survey water-supply paper series entitled, "Surface Water Supply of the United States." There will be a similar series of water-supply papers for the water years 1971-75.

COOPERATION

The U.S. Geological Survey and organizations of the State of North Dakota have had cooperative agreements for the systematic collection of surface-water records since 1903. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreements with the Survey are:

North Dakota State Water Commission
M. W. Hoisveen, Chief Engineer.

North Dakota State Highway Department
W. R. Hjelle, Commissioner.

Oliver County Board of Commissioners
William R. Van Oosting, Chairman.

Assistance in the form of funds or services was given by other Federal agencies:

Corps of Engineers, U.S. Army
International Joint Commission, U.S. Department of State
Soil Conservation Service, U.S. Department of Agriculture
Bureau of Sport Fisheries and Wildlife, U.S. Department of the Interior
Bureau of Reclamation, U.S. Department of the Interior

Certain stations are maintained under agreement with Canada and the records are obtained and compiled in a manner equally acceptable in both countries. Most of these stations are designated as "International gaging stations."

DEFINITION OF TERMS

Definition of terms related to streamflow and other hydrologic data, as used in this report, are defined as follows:

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or 325,851 gallons.

Cfs-day is the volume of water represented by the flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.9835 acre-feet, or 646,317 gallons and represents a runoff of 0.0372 inch from 1 square mile.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic feet per second (FT^3/S, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute.

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is obtained.

Partial-record station is a particular site where limited streamflow data are collected systematically over a period of years for use in hydrologic analyses.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Stage-discharge relation is the relation between gage height and the volume of water per unit of time, flowing in a channel.

WRD is used as an abbreviation for "Water-Resources Data" in references to previously published reports.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from man-made changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report the rank of tributaries is indicated by indention, each indention representing one rank.

As an added means of identification, each gaging station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The comple 8-digit number for each station, such as 06330000, which appears to the left of the station name, includes the 2-digit part number "06" plus a 6-digit downstream order number "330000." In this report, the records are listed in downstream order by parts. All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

EXPLANATION OF SURFACE-WATER DATA

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage,

surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that gives a continuous graph of the fluctuations (for digital recorders, a tape punched at 15-, 30-, or 60-minute intervals) or from direct readings on a nonrecording gage. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888 and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curve are necessary to define the extremes of discharge, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), velocity-area studies, and logarithmic plotting. The application of the daily mean gage heights to the rating table gives the daily mean discharge, from which the monthly and the yearly mean discharge, are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to

the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. Discharge over spillways is computed from a stage-discharge relation curve defined by discharge measurements. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparisons with other station records from the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the 1973 water year is shown on the reverse side of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, general remarks, and notations of revisions of previously published records. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for

the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey, unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or minimum contents), and the minimum gage height if it is significant are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). In the first paragraph headed "Current year," the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record:" the data given are for the period of record given in PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by the use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge (or contents), it is given separately. Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS;" for reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISIONS (WATER YEARS)" has been added to the description of all stations for which revised records have been published. Listed therein are all reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number

is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge were revised, that fact is brought out by notations after the year date as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

Skeleton rating tables are published for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

Skeleton capacity tables are published for all reservoirs for which records of contents are published on a daily basis.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches.

In the yearly summary below the monthly summary, the figures following "MAX" are the maximum daily discharges for the calendar and water years; likewise, those following "MIN" are the minimum daily discharges.

Footnotes to the table of daily discharges are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of

indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subjected to substantial control by man. Time of day is expressed in 24-hour local time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations and miscellaneous sites are given in three tables at the end of the surface-water records in this report. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites.

Accuracy of Data

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

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharge is within 5 percent of true value; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Publications

Each volume of the 1960 series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States" contains a listing of the numbers of all water-supply papers in which records for surface-water data were published for the area covered by the individual volumes. Each volume also contains a list of water-supply papers that give detailed information on major floods for the area.

Records through September 1950 for the area covered by this report have been compiled and published in Water-Supply Papers 1308 (5) and 1309 (6); records for October 1950 to September 1960 have been compiled and published in Water-Supply Papers 1728 (5) and 1729 (6); records for October 1960 to September 1970 have been compiled and published in Water-Supply Papers 1913, 2113 (5) and 1917, 2117 (6). These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were re-examined and revised where warranted. Estimates of discharge were made to fill short gaps of the water-supply papers in which daily records were published for that station.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

Other Data Available

Data collected at partial-record stations and at miscellaneous sites are given in three tables at the end of the surface-water records in this report. The first is a table of discharge measurements at low-flow partial-record stations, the second is a table of annual maximum stage and discharge at crest-stage stations, and the third is a table of discharge measurements at miscellaneous sites.

More detailed information than that published for most of the gaging stations, such as discharge measurements, gage-height records, and rating tables, is on file in the district office. Many gaging-station records in North Dakota through 1968 have been analyzed to give several statistical summaries: (1) the number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest mean discharge for selected numbers of consecutive days in each year; and (3) the highest mean discharge for selected numbers of consecutive days in each year.

At or near some gaging stations, water-quality records also are collected. Data are obtained on the chemical quality of the stream water, on water temperature, on suspended-sediment concentration, and on the particle-size distribution of suspended sediment and bed material. These data are given in Part 2 of this report. Under the "REMARKS" paragraph of the gaging-station description, reference is made to water-quality records collected on a regular basis.

Hydrologic Conditions

Streamflow was below normal over most of the State. Precipitation was normal in the north central and northeastern parts of the State and below normal elsewhere.

Below normal snowfall resulted in virtually no spring flooding. However, thunderstorms during the summer caused localized flooding in several areas of the State.

Reservoirs in the State except for Lake Sakakawea were below desired operating levels at the end of the year.

For two key gaging stations, a comparison of monthly and yearly mean discharges for the 1973 water year with the median discharge for the 30 years (1931-60) is shown in figure 2.

SELECTED REFERENCES

Carter, R. W., and Davidian, Jacob, 1968, General procedures for gaging streams: U.S. Geol. Survey Techniques of Water-Resources Inv., book 3, chap. A6, 13 p.

Corbett, D. M. and others, 1943, reprinted 1957, Stream-gaging procedures, a manual describing methods and practices of the Geological Survey: U.S. Geol. Survey Water-Supply Paper 888, 245 p.

Langbein, W. B., and Iseri, K. T., 1960, General information and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.

Table 1.--Factors for converting English units to International System (SI) units

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
	Length	
feet(ft)	.3048	metres(m)
miles(mi)	1.609	kilometres(km)
	Area	
square miles(mi^2)	2.590	square kilometres(km^2)
	Volume	
cubic feet(ft^3)	28.32	cubic decimetres(dm^3)
	.02832	cubic metres(m^3)
cfs-day[(ft^3/s).day]	2447	cubic metres(m^3)
	2.447×10^{-3}	cubic hectometres(hm^3)
acre-feet(acre-ft)	1233	cubic metres(m^3)
	1.233×10^{-3}	cubic hectometres(hm^3)
	1.233×10^{-6}	cubic kilometres(km^3)
	Flow	
cubic feet per second(ft^3/s)	.02832	cubic metres per second(m^3/s)

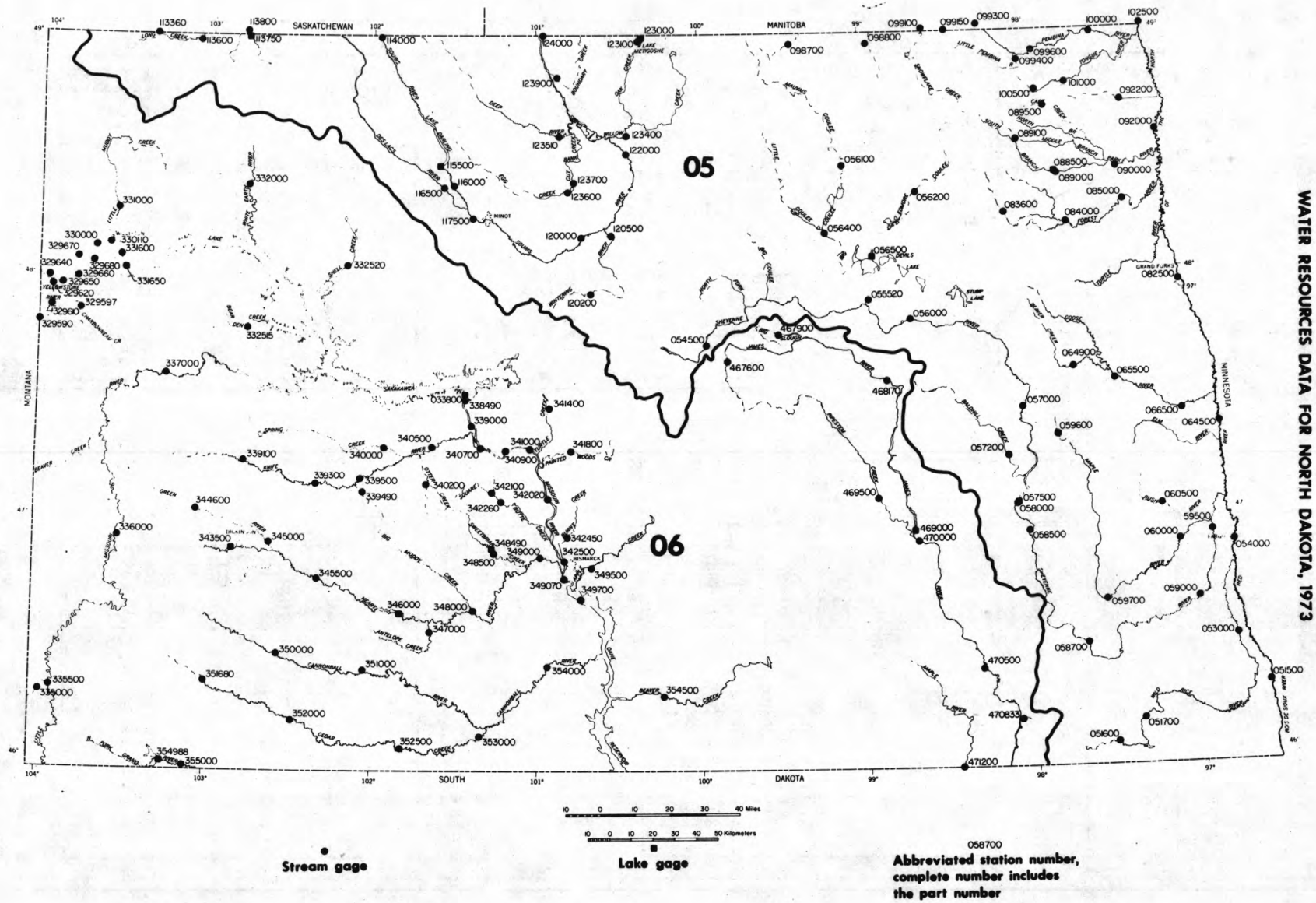

FIGURE 1.-- Locations of lake and stream gaging stations.

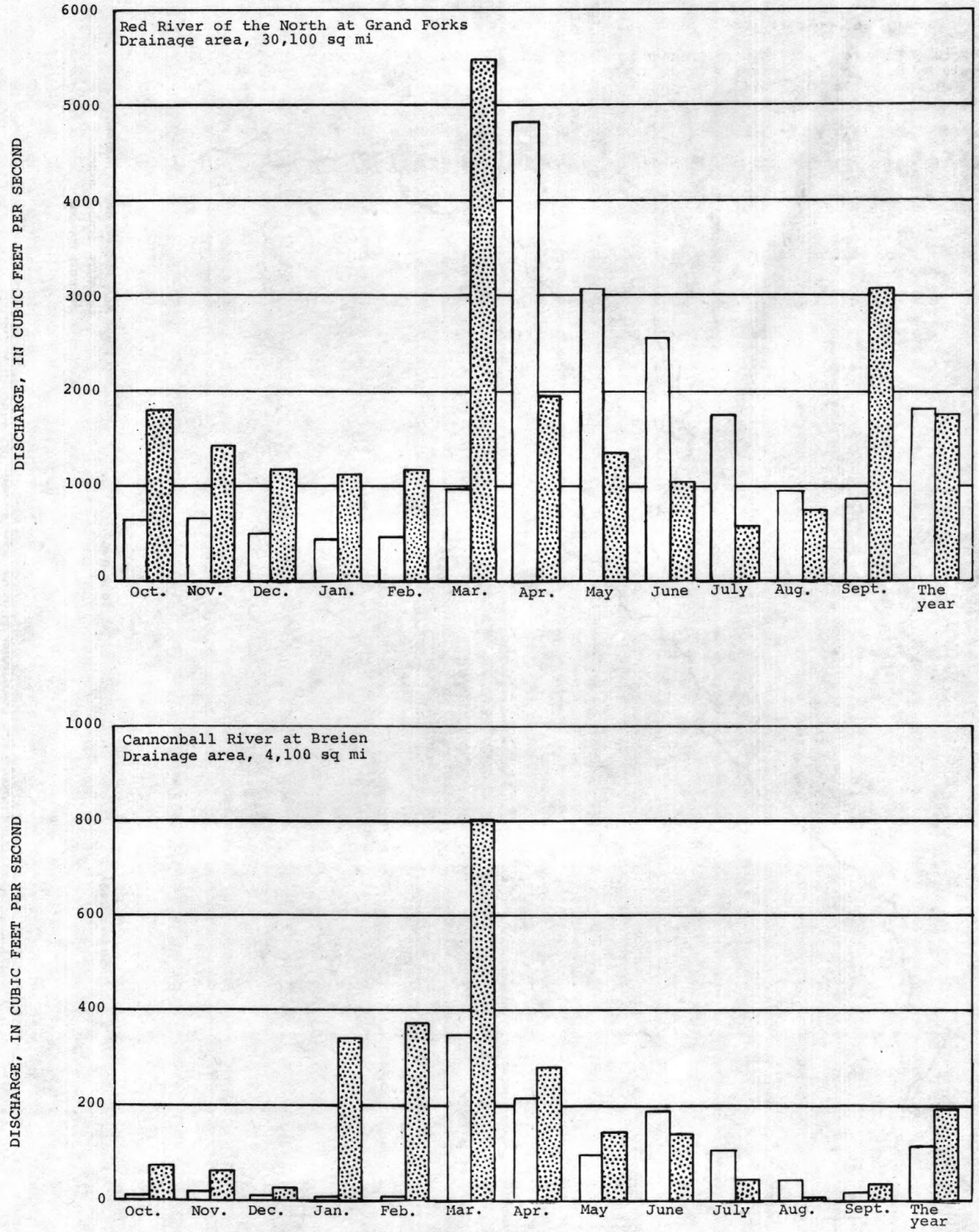

Figure 2.--RUNOFF DURING 1973 WATER YEAR COMPARED WITH MEDIAN RUNOFF FOR PERIOD 1931-60 FOR TWO REPRESENTATIVE GAGING STATIONS.

05050000 Bois de Sioux River near White Rock, S. Dak.

LOCATION.--Lat 45°51'45", long 96°34'25", in SW¼SW¼ sec.27, T.128 N., R.47 W., Roberts County, on left bank just downstream from Big Slough Outlet, 300 ft (91 m) downstream from White Rock Dam, 4 mi (6 km) south of White Rock, and 5 mi (8 km) northwest of Wheaton, Minn.

DRAINAGE AREA.--1,160 mi^2 (3,004 km^2), approximately.

PERIOD OF RECORD.--October 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 960.00 ft (292.61 m) above mean sea level, adjustment of 1912 (levels by Corps of Engineers). Prior to Jan. 14, 1943, nonrecording gage at same site at datum 0.11 ft (0.03 m) lower. Jan. 15, 1943, to Sept. 30, 1963, water-stage recorder at same site at datum 0.11 ft (0.03 m) lower.

AVERAGE DISCHARGE.--32 years, 81.8 ft^3/s (2.317 m^3/s), 59,260 acre-ft/yr (73.1 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 381 ft^3/s (10.8 m^3/s) Mar. 27, gage height, 7.00 ft (2.13 m); no flow for many days.
Period of record: Maximum discharge, 3,770 ft^3/s (107 m^3/s), occurred during period Apr. 19-21, 1969, gage height, 15.07 ft (4.59 m), from floodmark; no flow at times in most years.

REMARKS.--Records good except those for winter periods, which are fair. Flow regulated by Lake Traverse-Boise de Sioux Flood Control and Water Conservation project (available capacity for flood control, 137,000 acre-ft or 169 hm^3).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.20	.78	.76	6.3	12	295	2.2	57	.17	1.0	.10
2	0	.21	.75	.85	6.4	13	288	3.4	48	.13	5.0	.06
3	0	.29	.75	1.0	6.5	14	263	4.4	46	.10	1.5	.08
4	0	.36	.75	1.2	6.6	16	227	6.1	43	.02	.10	.06
5	.03	.40	.72	1.4	6.7	17	185	10	40	.13	.02	.01
6	.02	.45	.72	1.6	6.9	19	183	3.6	20	.20	0	0
7	.01	.48	.72	1.9	7.0	20	187	2.8	1.3	.20	0	0
8	.01	.50	.70	2.2	7.1	21	184	2.8	1.2	0	.04	0
9	.01	.52	.70	2.6	7.3	21	132	4.2	3.5	0	.04	.02
10	.02	.52	.68	3.1	7.4	22	72	2.6	.87	0	.01	.03
11	.02	.55	.68	3.5	7.5	22	76	1.8	.79	.09	.01	0
12	.03	.58	.68	4.2	7.6	22	69	1.5	.78	.04	.01	.01
13	.04	.58	.65	4.5	7.8	22	54	1.4	.94	.02	0	.01
14	.04	.60	.65	4.6	8.0	105	14	1.2	2.4	0	0	.01
15	.06	.62	.65	4.7	8.2	125	6.5	3.6	.90	0	.10	.12
16	.07	.62	.62	4.7	8.2	144	3.8	1.0	.52	0	.22	.09
17	.06	.65	.62	4.8	8.4	180	5.8	1.2	.57	.01	.16	.06
18	.07	.68	.61	4.9	8.6	142	10	1.1	4.7	0	.03	.02
19	.06	.68	.65	5.0	8.7	138	14	.88	6.3	0	0	.01
20	.07	.70	.65	5.1	8.9	155	20	.85	.31	0	0	.01
21	.07	.72	.65	5.2	9.0	167	10	1.0	.27	0	0	.07
22	.07	.72	.65	5.2	9.2	229	6.0	.85	.22	0	.06	.10
23	.09	.75	.68	5.3	9.4	294	3.6	.85	.21	.04	.06	.08
24	.11	.75	.65	5.4	9.6	295	3.8	3.6	.53	.01	.08	.10
25	.11	.78	.65	5.5	9.8	295	4.0	61	.46	.01	.08	.06
26	.13	.80	.65	5.6	10	294	4.1	138	.24	0	.05	.09
27	.15	.80	.65	5.7	10	327	4.4	76	.08	.01	.02	.09
28	.15	.81	.66	5.8	11	311	4.3	47	.03	0	0	.07
29	.16	.80	.67	6.0	------	289	3.4	51	.01	.02	0	.04
30	.15	.78	.68	6.0	------	290	2.4	51	.02	0	0	.02
31	.17	------	.71	6.2	------	293	------	62	------	.02	.07	------
TOTAL	1.98	17.90	21.03	124.51	228.1	4,314	2,335.1	548.93	281.15	1.22	8.66	1.42
MEAN	.064	.60	.68	4.02	8.15	139	77.8	17.7	9.37	.039	.28	.047
MAX	.17	.81	.78	6.2	11	327	295	138	57	.20	5.0	.12
MIN	0	.20	.61	.76	6.3	12	2.4	.85	.01	0	0	0
AC-FT	3.9	36	42	247	452	8,560	4,630	1,090	558	2.4	17	2.8

CAL YR 1972 TOTAL 43,612.61 MEAN 119 MAX 755 MIN 0 AC-FT 86,510
WTR YR 1973 TOTAL 7,884.00 MEAN 21.6 MAX 327 MIN 0 AC-FT 15,640

05051500 Red River of the North at Wahpeton, N. Dak.

LOCATION.--Lat 46°15'55", long 96°35'40", in NE¼ sec.8, T.132 N., R.47 W., Richland County, on left bank in Wahpeton, 800 ft (240 m) downstream from confluence of Bois de Sioux and Otter Tail Rivers and at mile 548.6 (kilometre 882.7).

DRAINAGE AREA.--4,010 mi^2 (10,390 km^2), approximately.

PERIOD OF RECORD.--April 1942 to current year. Gage-height records collected in this vicinity since 1917 are contained in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder and concrete and wooden dam. Datum of gage is 942.97 ft (287.417 m) above mean sea level. Prior to Aug. 6, 1943, U.S. Weather Bureau nonrecording gage 800 ft (240 m) upstream, converted to present datum. Aug. 6, 1943, to Oct. 27, 1950, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--30 years (1943-73), 532 ft^3/s (15.07 m^3/s) 385,400 acre-ft/yr (475.2 hm^3/yr); median of yearly mean discharges, 470 ft^3/s (13.3 m^3/s) 341,000 acre-ft/yr (420 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,220 ft^3/s (34.6 m^3/s) Mar. 15, gage height 6.08 ft (1.853 m); maximum gage height 6.41 ft (1.954 m) Mar. 13, backwater from ice; minimum, 44 ft^3/s (1.25 m^3/s) Sept. 10, gage height, 2.55 ft (0.777 m).
Period of record: Maximum discharge, 9,200 ft^3/s (261 m^3/s) Apr. 10, 1969, gage height, 16.34 ft (4.980 m); minimum, 8 ft^3/s (0.23 m^3/s) Aug. 25, 1961, gage height, 2.26 ft (0.689 m); minimum gage height, 1.76 ft (0.536 m) Sept. 8, 9, 1969 (gates open).
A stage of 17.0 ft (5.182 m), discharge, 10,500 cfs (297 m^3/s) occurred in the spring of 1897 and has not been exceeded since.

REMARKS.--Records good. Flow regulated by Orwell Reservoir, capacity, 14,100 acre-ft (17.4 hm^3) at elevation 1,070 ft (326.136 m) above mean sea level, adjustment of 1912; Lake Traverse, capacity, 137,000 acre-ft (169 hm^3), available for flood control; numerous other controlled lakes and ponds, and several powerplants. Records of chemical analyses for water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	395	423	410	361	364	361	869	352	466	208	115	129
2	394	373	430	360	363	395	857	394	480	229	112	104
3	407	396	410	358	360	408	844	403	457	202	109	91
4	441	393	380	355	358	406	825	394	434	201	106	86
5	448	393	410	351	357	399	793	376	403	204	118	82
6	465	384	420	349	355	420	724	355	380	202	133	84
7	451	389	415	347	352	462	691	361	381	199	133	80
8	451	387	412	346	350	504	698	358	372	205	133	74
9	458	387	408	345	349	622	689	358	355	213	121	64
10	448	387	406	345	345	818	647	361	335	231	124	56
11	448	387	402	350	345	890	564	364	333	185	157	51
12	460	387	400	350	349	890	551	364	300	147	199	54
13	454	387	398	350	348	1,080	551	370	265	146	208	56
14	453	380	396	345	340	1,040	534	370	262	154	208	57
15	455	334	395	345	336	1,180	506	361	259	164	217	63
16	447	370	393	344	350	1,200	484	352	260	155	178	66
17	440	350	390	342	383	1,110	471	328	269	127	169	64
18	409	340	388	340	409	979	466	295	279	94	127	91
19	417	335	387	335	394	902	449	301	276	86	110	143
20	434	335	385	330	393	819	448	304	284	84	106	135
21	441	335	380	335	360	774	394	301	246	86	103	146
22	433	330	378	340	360	777	403	310	209	94	84	152
23	431	436	375	340	380	788	406	310	210	109	76	150
24	429	447	374	340	365	891	418	352	206	142	76	163
25	428	345	370	370	350	891	433	370	211	121	77	164
26	425	300	370	378	350	906	400	361	211	109	87	203
27	422	290	368	380	350	906	349	469	216	106	80	214
28	426	280	367	370	350	921	334	519	230	115	69	206
29	428	275	365	370	------	956	316	471	234	133	68	191
30	440	300	365	367	------	939	319	449	219	121	71	211
31	443	------	364	365	------	899	------	449	------	115	106	------
TOTAL	13,521	10,855	12,111	10,903	10,065	24,533	16,433	11,482	9,042	4,687	3,780	3,430
MEAN	436	362	391	352	359	791	548	370	301	151	122	114
MAX	465	447	430	380	409	1,200	869	519	480	231	217	214
MIN	394	275	364	330	336	361	316	295	206	84	68	51
AC-FT	26,820	21,530	24,020	21,630	19,960	48,660	32,590	22,770	17,930	9,300	7,500	6,800

CAL YR 1972 TOTAL 313,776 MEAN 857 MAX 3,310 MIN 275 AC-FT 622,400
WTR YR 1973 TOTAL 130,842 MEAN 358 MAX 1,200 MIN 51 AC-FT 259,500

05051600 Wild Rice River near Rutland, N. Dak.

LOCATION.--Lat 46°01'20", long 97°30'40", in SE¼SE¼ sec.36, T.130 N., R.55 W., Sargent County, on right bank 1,000 ft (305 m) upstream from bridge on county highway, 2 mi (3.2 km) south of Rutland, and 10 mi (16 km) upstream from Lake Tewaukon.

DRAINAGE AREA.--546 mi^2 (1,410 km^2), of which about 250 mi^2 (648 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,197.73 ft (365.068 m) above mean sea level. Prior to Dec. 11, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--14 years, 10.4 ft^3/s (0.295 m^3/s), 7,530 acre-ft/yr (9.284 hm^3/yr); median of yearly mean discharges, 6.8 ft^3/s (0.19 m^3/s), 4,900 acre-ft/yr (6.04 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 13 ft^3/s (0.37 m^3/s) Mar. 26, gage height, 2.47 ft (0.753 m); no flow for several months.
Period of record: Maximum discharge, 1,270 ft^3/s (36.0 m^3/s) Apr. 8, 1969, gage height, 8.77 ft (2.673 m), backwater from ice; maximum gage height, 8.78 ft (2.676 m) Apr. 8, 1969, backwater from ice; no flow for several months each year.

REMARKS.--Records good. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	7.2	.14				
2						0	7.0	.02				
3						0	6.8	.02				
4						0	6.5	.01				
5						0	5.8	0				
6						0	5.5	0				
7						.01	4.3	0				
8						.01	3.4	0				
9						.02	2.5	0				
10						.06	2.1	0				
11						.08	1.8	0				
12						.14	1.5	0				
13						.26	1.3	0				
14						.94	1.1	0				
15						1.1	1.2	0				
16						1.8	.74	0				
17						7.8	.38	0				
18						9.5	.26	0				
19						9.8	.18	0				
20						8.0	.51	0				
21						8.9	.51	0				
22						11	.51	0				
23						12	.42	0				
24						12	.34	0				
25						13	.34	0				
26						13	.34	0				
27						13	.26	0				
28						12	.24	0				
29					------	9.8	.18	0				
30					------	8.0	.22	0				
31		------			------	7.5	------	0	------			------
TOTAL	0	0	0	0	0	159.72	63.45	.19	0	0	0	0
MEAN	0	0	0	0	0	5.15	2.12	.006	0	0	0	0
MAX	0	0	0	0	0	13	7.2	.14	0	0	0	0
MIN	0	0	0	0	0	0	.18	0	0	0	0	0
AC-FT	0	0	0	0	0	317	126	.4	0	0	0	0

CAL YR 1972 TOTAL 5,654.73 MEAN 15.5 MAX 319 MIN 0 AC-FT 11,220
WTR YR 1973 TOTAL 223.36 MEAN .61 MAX 13 MIN 0 AC-FT 443

PEAK DISCHARGE (BASE, 30 FT^3/S).--NO PEAK ABOVE BASE.

05051700 Wild Rice River near Cayuga, N. Dak.

LOCATION.--Lat 46°07'30", long 97°21'40", on line between secs.29 and 30, T.131 N., R.53 W., Sargent County, on left bank 20 ft (6 m) downstream from county highway bridge, 1.2 mi (1.9 km) downstream from Shortfoot Creek, 2.5 mi (4.0 km) downstream from Crooked Creek, and 3.5 mi (5.6 km) northeast of Cayuga.

DRAINAGE AREA.--955 mi^2 (2,473 km^2), of which about 390 mi^2 (1,010 km^2) is probably noncontributing.

PERIOD OF RECORD.--May 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,095.64 ft (333.951 m) above mean sea level, levels by Bureau of Reclamation. Prior to Oct. 9, 1957, nonrecording gage 0.8 mi (1.3 km) upstream at different datum.

AVERAGE DISCHARGE.--17 years, 20.3 ft^3/s (0.575 m^3/s), 14,710 acre-ft/yr (18.14 hm^3/yr); median of yearly mean discharges 10 ft^3/s (0.28 m^3/s), 7,200 acre-ft/yr (8.88 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 114 ft^3/s (3.23 m^3/s) July 1, gage height, 3.88 ft (1.183 m); no flow for many days.
Period of record: Maximum discharge, 1,710 ft^3/s (48.4 m^3/s) Apr. 12, 1969, gage height, 9.32 ft (2.841 m); maximum gage height, 10.90 ft (3.322 m), Apr. 7, 1969, backwater from ice; no flow at times each year.

REMARKS.--Records good. Some regulation by Fish and Wildlife Service reservoirs, of which Lake Tewaukon is the largest. Small diversions for irrigation. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.04	.01			0	4.6	.83	2.2	15		0
2	.02	.03	.01			0	4.3	.47	1.8	25		0
3	.02	.03	.01			0	4.3	.36	1.7	12		0
4	.01	.02	.01			.05	4.3	.27	1.2	5.9		0
5	.02	.02	.01			.10	4.0	.27	.60	2.8		0
6	.04	.02	.01			.20	4.0	.23	.47	1.2		0
7	.03	.02	.01			.20	3.8	.23	.31	.67		0
8	.02	.02	0			.20	3.6	.20	.23	.18		0
9	.03	.02	0			.20	3.6	.20	.17	.05		0
10	.03	.02	0			.20	3.0	.15	.12	.04		0
11	.03	.02	0			.20	2.6	.13	6.4	.03		0
12	.03	.02	0			.20	2.4	.13	16	.02		0
13	.03	.02	0			.17	2.2	.13	15	0		0
14	.02	.02	0			2.3	2.2	.12	15	0		0
15	.02	.02	0			5.7	1.8	.11	12	0		0
16	.02	.01	0			4.3	1.8	.09	11	0		0
17	.02	.01	0			3.3	1.8	.09	10	0		0
18	.02	.01	0			2.4	1.6	.09	12	0		0
19	.02	.01	0			1.4	1.4	.09	10	0		0
20	.03	.01	0			.93	2.4	.08	9.2	0		0
21	.03	.01	0			1.8	1.8	.07	8.3	0		0
22	.03	.01	0			2.4	1.2	.08	7.8	0		0
23	.03	.01	0			2.6	.93	.06	6.9	0		.01
24	.03	.01	0			3.6	1.0	.21	5.9	0		6.7
25	.03	.01	0			3.8	.93	.13	4.6	0		12
26	.03	.01	0			4.6	1.2	.10	4.6	0		3.5
27	.03	.01	0			5.0	1.2	.09	3.6	0		.47
28	.03	.01	0			5.3	1.0	.09	3.3	0		.20
29	.04	.01	0		------	5.3	.83	1.4	2.8	0		.07
30	.05	.01	0		------	5.0	.83	4.3	2.4	0		.05
31	.05	------	0		------	4.8	------	4.0	------	0		------
TOTAL	.86	.49	.07	0	0	66.25	70.62	14.80	175.60	62.89	0	23.00
MEAN	.028	.016	.002	0	0	2.14	2.35	.48	5.85	2.03	0	.77
MAX	.05	.04	.01	0	0	5.7	4.6	4.3	16	25	0	12
MIN	.01	.01	0	0	0	0	.83	.06	.12	0	0	0
AC-FT	1.7	1.0	.1	0	0	131	140	29	348	125	0	46

CAL YR 1972 TOTAL 11,330.68 MEAN 31.0 MAX 418 MIN 0 AC-FT 22,470
WTR YR 1973 TOTAL 414.58 MEAN 1.14 MAX 25 MIN 0 AC-FT 822

05053000 Wild Rice River near Abercrombie, N. Dak.

LOCATION.--Lat 46°28'05", long 96°47'00", in NE¼NE¼ sec.36, T.135 N., R.49 W., Richland County, on right bank 420 ft (130 m) upstream from bridge on county highway, 0.75 mi (1.2 km) upstream from rubble masonry dam which serves as control, 3.2 mi (5 km) northwest of Abercrombie, and 7 mi (11 km) downstream from Antelope Creek.

DRAINAGE AREA.--2,080 mi^2 (5,390 km^2), of which about 590 mi^2 (1,530 km^2) is probably noncontributing.

PERIOD OF RECORD.--April 1932 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder and masonry control. Datum of gage is 907.94 ft (276.740 m) above mean sea level. Prior to Dec. 7, 1939, nonrecording gage at site 420 ft (130 m) downstream at datum 5.0 ft (1.52 m) lower. Dec. 7, 1939, to Nov. 24, 1952, nonrecording gage at site 0.75 mi (1.2 km) downstream at present datum.

AVERAGE DISCHARGE.--41 years, 70.8 ft^3/s (2.005 m^3/s), 51,290 acre-ft/yr (63.24 hm^3/yr); median of yearly mean discharges, 29 ft^3/s (0.82 m^3/s), 21,000 acre-ft/yr (25.9 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 426 ft^3/s (12.1 m^3/s) Mar. 17, gage height, 3.67 ft (1.119 m), backwater from ice; no flow for many days.
Period of record: Maximum discharge, 9,540 ft^3/s (270 m^3/s) Apr. 11, 1969, gage height, 24.58 ft (7.492 m); no flow at times most years.
Flood in spring of 1897 reached a stage of 27.5 ft (8.38 m) present site and datum, from floodmarks pointed out by local residents.

REMARKS.--Records good. Some regulation by Fish and Wildlife Service reservoirs, of which Lake Tewaukon is the largest. Some small diversions for irrigation. Records of chemical analyses and water temperatures for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1388: 1939, 1941(M). WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	4.1	3.1	1.1	.98	50	17	39	1.1	.05	0
2		0	4.1	2.8	1.2	1.3	45	14	33	59	.04	0
3		0	3.3	2.8	1.2	1.8	44	12	29	66	.03	0
4		0	2.8	2.8	1.2	2.6	38	11	25	35	.02	0
5		0	2.6	2.8	1.2	6.0	36	10	22	34	.01	0
6		0	2.4	2.6	1.2	8.0	34	10	20	33	.01	0
7		0	2.1	2.6	1.1	11	31	8.6	16	24	.04	0
8		0	2.1	2.4	.83	20	29	8.6	14	17	.04	0
9		0	1.9	2.1	.83	27	27	8.6	12	11	.04	0
10		0	1.9	1.8	.69	65	26	8.0	8.6	8.6	.03	0
11		0	1.9	1.7	.55	83	24	7.5	7.0	4.8	.02	0
12		.48	1.8	1.6	.55	88	23	7.5	5.2	2.4	.01	0
13		4.4	1.7	1.6	.76	151	20	7.5	4.4	1.7	.01	0
14		5.2	1.7	1.6	.76	177	19	6.5	3.8	1.2	0	0
15		5.2	1.7	1.7	.62	279	20	5.6	3.6	.90	0	0
16		5.2	1.6	1.8	.55	353	19	4.1	3.1	.62	0	0
17		6.5	1.5	2.1	.36	324	18	3.3	2.2	.42	0	0
18		5.6	1.5	2.4	.42	233	16	2.8	2.1	.36	0	0
19		4.4	1.6	2.4	.55	208	14	2.8	1.8	.14	0	0
20		4.4	1.9	2.1	.55	155	16	3.3	1.8	.10	0	0
21		6.5	2.1	2.1	.55	121	17	3.3	1.5	.07	0	0
22		5.6	2.6	2.1	.48	118	19	4.1	1.3	.05	0	0
23		5.2	3.2	1.8	.62	102	19	3.8	1.1	.05	0	0
24		4.4	3.2	1.6	.62	92	18	6.5	.83	.05	0	0
25		4.4	3.2	1.6	.76	101	20	10	.90	.06	0	.02
26		4.1	3.1	1.6	.83	95	22	9.3	.90	.10	0	.12
27		4.4	3.2	1.5	.83	86	24	8.6	.76	.08	0	.76
28		4.4	3.2	1.4	.98	78	24	8.0	.90	.08	0	.98
29		4.1	3.2	1.2	------	70	21	26	.83	.09	0	.90
30		4.1	3.2	1.2	------	61	19	43	.76	.08	0	.76
31		------	3.2	1.1	------	55	------	43	------	.07	0	------
TOTAL	0	88.58	77.6	62.0	21.89	3,173.68	752	324.3	263.38	302.12	.35	3.54
MEAN	0	2.95	2.50	2.00	.78	102	25.1	10.5	8.78	9.75	.011	.12
MAX	0	6.5	4.1	3.1	1.2	353	50	43	39	66	.05	.98
MIN	0	0	1.5	1.1	.36	.98	14	2.8	.76	.05	0	0
AC-FT	0	176	154	123	43	6,290	1,490	643	522	599	.7	7.0

CAL YR 1972 TOTAL 47,496.18 MEAN 130 MAX 2,060 MIN 0 AC-FT 94,210
WTR YR 1973 TOTAL 5,069.44 MEAN 13.9 MAX 353 MIN 0 AC-FT 10,060

PEAK DISCHARGE (BASE, 300 FT^3/S).--MAR. 17, 426 FT^3/S.

05054000 Red River of the North at Fargo, N. Dak.

LOCATION.--Lat 46°51'40", long 96°47'00", in NW¼NE¼ sec.18, T.139 N., R.48 W., Cass County, at city waterplant on 4th St. S. in Fargo, 25 mi (40 km) upstream from mouth of Sheyenne River and at mile 453.0 (kilometre 728.9).

DRAINAGE AREA.--6,800 mi^2 (17,600 km^2), approximately.

PERIOD OF RECORD.--May 1901 to current year. Published as "at Moorhead, Minn." 1901. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 861.8 ft (262.68 m) above mean sea level. Oct. 1, 1960, to Sept. 30, 1962, water-stage recorder at present site at datum 5.6 ft (1.71 m) higher. See WSP 1728 or 1913 for history of changes prior to Oct. 1, 1960.

AVERAGE DISCHARGE (UNADJUSTED).--72 years, 539 ft^3/s (15.26 m^3/s), 390,500 acre-ft/yr (481.5 hm^3/yr); median of yearly mean discharges, 440 ft^3/s (12.5 m^3/s) 319,000 acre-ft/yr (393 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,950 ft^3/s (55.2 m^3/s) Mar. 15, gage height, 16.41 ft (5.002 m), backwater from ice; minimum daily discharge, 41 ft^3/s (1.16 m^3/s) Aug. 31, gage height, 13.46 ft (4.103 m). Period of record: Maximum discharge, 25,300 ft^3/s (716 m^3/s) Apr. 15, 1969, gage height, 37.34 ft (11.381 m); no flow for many days in each year for period 1932-41, Sept. 30, Oct. 1, 2, 1970. Flood of Apr. 7, 1897 reached a stage of 39.1 ft (11.92 m) present datum, discharge, 25,000 cfs (708 m) at site 1.5 mi (2.4 km) downstream.

REMARKS.--Records good. Flow regulated by Orwell Reservoir, capacity, 14,100 acre-ft (17.4 hm^3/yr) at elevation 1,070 ft (326.136 m) above mean sea level, adjustment of 1912; Lake Traverse, capacity, 137,000 acre-ft (169 hm^3/s), available for flood control; other controlled lakes and ponds and several powerplants. Some small diversions for municipal supply. Figures of daily discharge do not include diversion by cities of Fargo and Moorhead. Records of chemical analyses and water temperatures for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1308: 1902-4, 1906-7, 1910-14, 1916, 1918, 1924. WSP 1388: 1905-6, 1917-20(M), 1935(M), 1938-39(M), 1943.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	386	456	240	398	430	480	923	316	430	169	122	60
2	380	462	250	395	430	490	870	299	436	177	122	90
3	380	449	320	392	430	490	836	310	456	190	114	120
4	380	416	420	390	430	490	812	344	456	232	111	144
5	374	398	418	386	425	500	780	386	442	236	114	137
6	404	398	416	384	420	500	764	374	416	232	122	122
7	423	410	415	382	418	510	732	368	386	225	125	107
8	442	398	414	380	416	525	692	344	380	215	122	101
9	449	380	413	380	415	565	644	356	356	205	125	88
10	449	368	412	380	410	700	595	356	332	195	125	76
11	462	368	410	379	408	860	552	339	310	190	125	68
12	468	368	410	378	405	950	582	339	293	177	125	65
13	462	362	409	378	400	1,040	510	339	272	169	129	62
14	449	362	409	377	400	1,340	482	339	257	152	144	52
15	462	304	408	377	400	1,830	482	339	241	133	169	48
16	462	272	408	377	400	1,800	482	332	240	114	177	46
17	462	330	407	376	410	1,630	456	332	239	111	199	44
18	462	350	406	376	450	1,600	430	316	237	152	181	48
19	462	348	406	375	470	1,490	423	304	236	122	165	48
20	442	345	405	373	490	1,460	430	272	232	114	144	48
21	436	343	404	371	490	1,340	410	251	232	98	130	88
22	442	340	403	373	490	1,140	404	293	232	98	122	114
23	456	345	402	375	490	1,020	386	277	222	101	98	137
24	456	343	402	377	490	1,020	362	293	190	101	88	288
25	456	340	401	378	480	959	362	310	165	114	75	246
26	456	338	401	380	480	941	368	322	165	133	70	222
27	456	335	400	380	480	941	386	356	165	137	62	222
28	442	332	400	400	480	941	380	344	156	133	46	227
29	442	290	400	400	------	932	368	423	156	137	46	241
30	442	241	400	410	------	914	332	456	165	122	44	246
31	449	------	400	420	------	923	------	449	------	122	41	------
TOTAL	13,593	10,791	12,209	11,897	12,337	30,321	16,235	10,478	8,495	4,806	3,582	3,605
MEAN	438	360	394	384	441	978	541	338	283	155	116	120
MAX	468	462	420	420	490	1,830	923	456	456	236	199	288
MIN	374	241	240	371	400	480	332	251	156	98	41	44
AC-FT	26,960	21,400	24,220	23,600	24,470	60,140	32,200	20,780	16,850	9,530	7,100	7,150
(+)	990	916	978	1,010	900	978	988	1,320	1,390	1,570	1,370	1,010
MEAN*	454	375	410	400	457	994	558	359	306	181	138	137
AC-FT*	27,950	22,320	25,200	24,610	25,370	61,120	33,190	22,100	18,240	11,100	8,470	8,160

		OBSERVED				ADJUSTED	
CAL YR 1972	TOTAL 389,717	MEAN 1,065	MAX 7,080	MIN 240	AC-FT 773,000	MEAN 1,077	AC-FT 780,300
WTR YR 1973	TOTAL 138,349	MEAN 379	MAX 1,830	MIN 41	AC-FT 274,400	MEAN 398	AC-FT 288,400

\+ Diversions in acre-feet by cities of Fargo and Moorhead.
* Adjusted for diversion by Fargo and Moorhead.

05054500 Sheyenne River above Harvey, N. Dak.

LOCATION.--Lat 47°42'10", long 99°56'55", in SW¼SE¼ sec.24, T.149 N., R.73 W., Wells County, on right bank just downstream from county road, 2 mi (3.2 km) upstream from unnamed tributary and 4.5 mi (7.2 km) south of Harvey.

DRAINAGE AREA.--424 mi^2 (1,100 km^2), of which about 270 mi^2 (700 km^2) is probably noncontributing.

PERIOD OF RECORD.--September 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,547.30 ft (471.617 m) above mean sea level.

AVERAGE DISCHARGE.--18 years, 5.26 ft^3/s (0.149 m^3/s), 3,810 acre-ft/yr (4.698 hm^3/yr); median of yearly mean discharges, 3.6 ft^3/s (0.10 m^3/s), 2,600 acre-ft/yr (3.21 hm^3/yr).

EXTREMES.--Current year: Maximum discharge during year, 18 ft^3/s (0.51 m^3/s) Feb. 27, gage height, 9.41 ft (2.868 m), backwater from ice; minimum, 0.20 ft^3/s (0.006 m^3/s) July 23, gage height, 3.87 ft (1.180 m). Period of record: Maximum discharge, 410 ft^3/s (11.6 m^3/s), Mar. 15, 1966, gage height, 9.21 ft (2.807 m); maximum gage height, 10.30 ft (3.139 m) Apr. 1, 1971, backwater from ice; no flow at times most years.

REMARKS.--Records good except those for the winter period, which are fair. Records of chemical analyses for the 1973 water year are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	3.6	1.5	.50	4.0	13	6.0	2.6	1.1	.91	.76	.70
2	1.3	3.6	1.0	.50	5.0	12	5.7	3.1	1.6	.91	1.3	.80
3	1.1	3.1	.50	.50	5.0	10	5.5	3.1	3.3	.86	.67	1.0
4	1.1	3.3	.50	.50	5.0	8.0	6.0	2.8	2.0	.91	.60	1.0
5	1.9	4.2	.50	.50	5.0	6.0	5.7	2.4	1.5	.96	1.0	1.0
6	1.8	5.1	.50	.50	5.0	5.0	4.8	2.6	1.3	.91	.80	1.0
7	1.6	3.6	.50	.50	3.0	5.0	4.4	3.8	1.1	.86	.60	.81
8	1.3	2.6	.50	.50	3.0	5.0	4.6	2.5	1.1	.71	.70	.96
9	1.3	2.6	.50	.50	3.0	6.0	4.1	2.9	1.0	.56	.60	.81
10	1.3	2.3	.50	.50	3.0	7.0	4.1	2.8	.96	.56	.60	.71
11	1.3	1.8	.50	.50	3.0	5.0	3.9	2.8	.91	.59	.60	.63
12	1.2	2.4	.50	.50	3.0	5.0	4.1	2.6	.81	.71	.60	.59
13	1.2	2.1	.50	1.5	3.0	5.0	4.9	2.4	.76	1.4	.60	.63
14	1.1	1.9	.50	3.0	3.0	5.0	5.0	2.0	.76	1.2	.60	.59
15	1.1	2.0	.50	3.5	3.0	4.0	4.9	1.9	.76	.96	.60	.59
16	1.1	1.9	.50	4.0	3.0	4.0	4.7	1.6	.81	.81	.60	.59
17	.86	1.9	.50	4.0	3.0	5.0	5.1	1.7	1.5	.76	.60	.67
18	.86	1.8	1.0	3.0	4.0	5.0	5.1	1.6	3.2	.76	.60	.71
19	1.1	1.8	1.0	2.0	6.0	5.0	6.3	1.5	9.8	.38	.70	.76
20	1.1	1.7	1.0	2.0	6.0	6.0	8.0	1.6	7.4	.53	.70	.71
21	1.1	1.6	1.0	2.0	7.0	6.0	7.7	1.5	3.3	.53	.70	1.1
22	1.1	1.5	1.0	2.0	9.0	6.0	6.8	1.8	1.6	.44	.60	1.1
23	1.1	1.9	1.0	4.0	10	7.0	6.2	2.1	1.1	.35	.60	1.1
24	1.2	2.0	1.0	5.0	10	6.0	5.4	2.4	.96	.63	.60	2.4
25	1.3	1.7	1.0	5.0	11	6.0	4.4	2.1	.96	1.3	1.4	3.2
26	1.3	1.6	1.0	5.0	12	7.0	4.1	1.9	.91	.96	1.0	2.1
27	2.4	1.5	1.0	4.0	14	6.0	4.2	2.2	.96	.71	.80	1.6
28	2.3	1.5	1.0	4.0	13	4.7	3.8	2.8	.96	.67	.70	1.6
29	1.6	1.5	1.0	4.0	------	4.7	4.1	1.6	.96	.76	.70	1.6
30	5.9	1.5	.50	4.0	------	5.4	3.7	1.4	.91	.76	.70	1.5
31	4.2	------	.50	4.0	------	5.7	------	1.7	------	.81	.70	------
TOTAL	48.52	69.6	23.00	72.00	164.0	190.5	153.3	69.8	54.29	24.17	22.33	32.56
MEAN	1.57	2.32	.74	2.32	5.86	6.15	5.11	2.25	1.81	.78	.72	1.09
MAX	5.9	5.1	1.5	5.0	14	13	8.0	3.8	9.8	1.4	1.4	3.2
MIN	.86	1.5	.50	.50	3.0	4.0	3.7	1.4	.76	.35	.60	.59
AC-FT	96	138	46	143	325	378	304	138	108	48	44	65

CAL YR 1972 TOTAL 3,417.11 MEAN 9.34 MAX 153 MIN 0 AC-FT 6,780
WTR YR 1973 TOTAL 924.07 MEAN 2.53 MAX 14 MIN .35 AC-FT 1,830

PEAK DISCHARGE (BASE, 25 FT^3/S).--NO PEAK ABOVE BASE.

05055520 Big Coulee near Fort Totten, N. Dak.

LOCATION.--Lat 47°52'57", long 98°58'02", in NE¼SW¼ sec.22, T.151 N., R.65 W., Benson County, on right bank 30 ft (9 m) upstream from culvert on county highway, 7 mi (11 km) south of Fort Totten.

DRAINAGE AREA.--23.2 mi^2 (60.1 km^2) of which about 15.5 mi^2 (40.1 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Concrete culvert control. Altitude of gage is 1,480 ft (451 m), from topographic map.

AVERAGE DISCHARGE.--8 years, 1.93 ft^3/s (0.0547 m^3/s), 1,400 acre-ft/yr (1.726 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 7.6 ft^3/s (0.22 m^3/s) Mar. 11, gage height, 1.64 ft (0.500 m); minimum daily, 0.19 ft^3/s (0.005 m^3/s) Sept. 6, gage height, 0.93 ft (0.283 m).
Period of record: Maximum discharge, 270 ft^3/s (7.65 m^3/s) Apr. 10, 1969, gage height, 8.46 ft (2.579 m), from floodmark; no flow Dec. 25-29, 1965.

REMARKS.--Records fair except those for the winter period, which are poor. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.65	.74	.53	.30	.40	.40	1.4	1.5	1.5	.56	.41	.32
2	.62	.71	.40	.30	.70	2.5	1.4	1.5	1.4	.94	.41	.35
3	.59	.74	.30	.30	.70	3.5	1.3	1.4	1.4	.47	.38	.41
4	.62	.89	.30	.30	.40	3.5	1.3	1.4	1.3	.38	.38	.35
5	.71	.71	.30	.30	.40	4.0	1.2	1.5	1.2	.35	.35	.32
6	.71	1.4	.30	.30	.30	3.0	1.2	1.4	1.1	.35	.38	.19
7	.55	1.0	.30	.30	.30	3.5	1.1	1.5	1.1	.35	.41	.26
8	.65	.89	.30	.30	.30	4.4	1.1	1.8	1.0	.65	.41	.32
9	.65	.95	.30	.30	.30	3.4	1.1	3.1	.93	.44	.44	.32
10	1.3	.85	.30	.30	.30	3.6	1.1	3.6	.85	.29	.41	.32
11	.65	.85	.30	.30	.30	5.1	1.2	3.6	.74	.29	.41	.32
12	.71	.81	.30	.40	.30	4.0	1.2	3.1	.71	.29	.38	.29
13	.74	.71	.30	.40	.30	5.7	1.2	2.5	.71	.32	.35	.29
14	.71	.59	.30	.40	.30	3.1	1.1	2.2	.62	.32	.35	.29
15	.71	.56	.30	.40	.30	2.4	1.2	1.9	.50	.32	.35	.29
16	.74	.56	.30	.40	.30	1.5	1.2	1.7	.85	.32	.32	.29
17	.71	.56	.40	.40	.30	1.4	1.5	1.5	1.0	.32	.32	.29
18	.62	.59	.40	.40	.30	1.2	1.5	1.5	1.5	.32	.32	.29
19	.59	.62	.40	.40	.30	1.2	1.6	1.6	3.0	.32	.29	.29
20	.65	.62	.40	.40	.30	1.3	1.8	1.6	1.5	.35	.29	.29
21	.68	.62	.40	.40	.30	1.6	1.8	4.3	2.5	.35	.32	.32
22	.74	.62	.40	.40	.40	1.6	1.8	4.2	1.5	.35	.32	.32
23	.71	.62	.40	.70	.40	1.6	1.7	5.9	1.2	.35	.32	.32
24	.68	.65	.40	1.0	.40	1.6	1.5	5.5	1.0	.38	.35	.62
25	.74	.68	.40	1.0	.40	1.6	1.5	4.2	.90	.50	.35	.56
26	.85	.65	.40	.70	.40	2.0	1.5	3.7	.80	.44	.35	.56
27	.93	.68	.40	.40	.40	1.7	1.5	3.0	.71	.44	.35	.53
28	.85	.62	.30	.40	.40	1.4	1.6	2.5	.68	.44	.35	.53
29	.77	.62	.30	.40	------	1.3	1.6	2.1	.65	.44	.32	.53
30	.81	.53	.30	.40	------	1.3	1.5	1.8	.59	.44	.32	.53
31	.77	------	.30	.40	------	1.3	------	1.5	------	.41	.32	------
TOTAL	22.51	21.54	10.73	13.10	10.20	75.70	41.7	78.6	33.44	12.49	11.03	10.91
MEAN	.73	.72	.35	.42	.36	2.44	1.39	2.54	1.11	.40	.36	.36
MAX	1.3	1.4	.53	1.0	.70	5.7	1.8	5.9	3.0	.94	.44	.62
MIN	.59	.53	.30	.30	.30	.40	1.1	1.4	.50	.29	.29	.19
AC-FT	45	43	21	26	20	150	83	156	66	25	22	22

CAL YR 1972 TOTAL 764.79 MEAN 2.09 MAX 63 MIN .26 AC-FT 1,520
WTR YR 1973 TOTAL 341.95 MEAN .94 MAX 5.9 MIN .19 AC-FT 678

PEAK DISCHARGE (BASE, 10 FT^3/S).--NO PEAK ABOVE BASE.

05056000 Sheyenne River near Warwick, N. Dak.

LOCATION.--Lat 47°48'20", long 98°42'57", on south quarter of line between secs.15 and 16, T.150 N., R.63 W., Eddy County, on left bank on downstream side of county highway bridge, 3.3 mi (5.3 km) south of Warwick.

DRAINAGE AREA.--2,070 mi^2 (5,360 km^2), approximately, of which about 1,310 mi^2 (3,390 km^2) is probably non-contributing - includes 227 mi^2 (588 km^2) in closed basins.

PERIOD OF RECORD.--October 1949 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder and rubble masonry control. Altitude of gage is 1,370 ft (418 m) (by barometer).

AVERAGE DISCHARGE.--24 years, 49.5 ft^3/s (1.402 m^3/s), 35,860 acre-ft/yr (44.22 hm^3/yr); median of yearly mean discharges, 42 ft^3/s (1.19 m^3/s), 30,400 acre-ft/yr (37.5 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 170 ft^3/s (4.81 m^3/s) Mar. 13, gage height, 3.10 ft (0.945 m); minimum, 0.80 ft^3/s (0.023 m^3/s) July 14, Aug. 2; minimum gage height, 2.05 ft (0.625 m) Aug. 2.
Period of record: Maximum discharge, 4,660 ft^3/s (132 m^3/s) Apr. 14, 1969, gage height, 7.51 ft (2.289 m); maximum gage height, 7.83 ft (2.387 m) Apr. 18, 1956; no flow Aug. 7 to Sept. 1, Sept. 3-9, 1961.

REMARKS.--Records good. Records of chemical analyses and water temperatures for water year 1973 are published in Part 2 of this report. Records include flow of spring which enters below gage and just above control. Discharge measurements of spring inflow, in cubic feet per second, made during the year are listed below:

Nov. 1	1.2	May 29	0.9
Jan. 17	1.1	July 24	1.0
Mar. 8	1.2		

REVISIONS (WATER YEARS).--WSP 1438: 1952(M). WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	8.4	9.2	2.5	2.2	3.8	40	22	11	2.9	1.1	1.6
2	2.7	6.5	9.2	2.2	2.2	5.5	38	23	12	2.9	1.1	2.2
3	2.7	6.5	9.2	2.5	2.2	7.1	36	22	12	2.0	1.1	3.5
4	2.7	6.5	8.4	2.5	2.2	17	35	22	10	1.8	1.3	2.7
5	2.9	8.4	7.1	2.5	2.2	26	32	23	8.4	1.8	1.5	1.8
6	2.9	10	5.0	2.5	2.5	33	32	22	7.1	2.0	2.2	1.5
7	2.5	12	4.1	2.5	2.5	40	30	20	8.4	2.0	2.0	1.5
8	1.8	13	3.8	2.5	2.0	41	25	21	10	1.5	2.2	1.8
9	2.2	14	3.5	2.2	1.8	46	23	26	8.4	2.4	2.2	2.0
10	2.5	13	3.2	2.0	1.8	62	23	25	6.5	2.0	1.6	1.8
11	2.5	12	2.9	2.2	1.6	92	23	26	5.5	1.8	1.5	1.6
12	2.9	12	2.7	2.2	1.6	115	25	29	4.1	1.6	1.6	1.5
13	4.1	11	2.5	2.2	1.6	158	23	27	2.7	1.3	2.4	1.8
14	4.1	10	2.5	2.2	1.5	166	21	24	2.2	.80	2.7	1.6
15	4.1	7.7	2.2	2.5	1.5	142	21	20	1.8	.96	2.2	1.5
16	3.5	6.5	2.0	2.5	1.5	118	22	18	2.5	1.1	1.8	1.6
17	3.2	6.5	2.0	2.2	1.5	118	22	20	7.1	1.1	1.6	1.8
18	3.5	5.5	2.0	2.2	1.3	118	20	19	12	1.1	1.5	1.8
19	3.8	6.0	2.0	2.5	1.3	106	20	17	8.4	1.1	1.3	1.8
20	3.5	6.5	1.8	2.2	1.3	90	21	15	7.1	1.1	1.3	2.2
21	3.5	7.1	1.8	2.2	1.3	70	22	14	8.4	1.1	3.2	2.7
22	3.5	7.7	1.8	2.5	1.8	68	21	15	9.2	1.3	2.4	2.9
23	3.5	7.7	1.8	2.5	2.7	90	30	16	7.7	1.3	2.0	2.4
24	3.8	8.4	1.6	2.5	2.0	90	28	21	6.0	1.5	2.0	4.5
25	3.8	8.4	1.8	2.5	1.8	74	24	23	5.0	1.5	2.9	5.0
26	3.5	9.2	1.6	2.5	1.8	84	21	20	3.8	1.5	3.2	4.5
27	4.5	8.4	1.8	2.5	2.2	82	22	18	3.5	1.5	2.2	12
28	5.0	9.2	1.8	2.5	2.7	60	22	18	3.2	1.5	1.6	12
29	6.5	8.4	2.0	2.5	------	50	22	15	2.9	1.5	1.5	8.4
30	9.2	8.4	2.2	2.5	------	47	21	12	2.9	1.3	1.5	5.5
31	9.2	------	2.5	2.5	------	41	------	10	------	1.1	1.5	------
TOTAL	116.8	264.9	106.0	74.0	52.6	2,260.4	765	623	199.8	48.36	58.2	97.5
MEAN	3.77	8.83	3.42	2.39	1.88	72.9	25.5	20.1	6.66	1.56	1.88	3.25
MAX	9.2	14	9.2	2.5	2.7	166	40	29	12	2.9	3.2	12
MIN	1.8	5.5	1.6	2.0	1.3	3.8	20	10	1.8	.80	1.1	1.5
AC-FT	232	525	210	147	104	4,480	1,520	1,240	396	96	115	193

CAL YR 1972 TOTAL 19,007.94 MEAN 51.9 MAX 1,330 MIN .68 AC-FT 37,700
WTR YR 1973 TOTAL 4,666.56 MEAN 12.8 MAX 166 MIN .80 AC-FT 9,260

PEAK DISCHARGE (BASE, 200 FT^3/S).--NO PEAK ABOVE BASE.

05056100 Mauvais Coulee near Cando, N. Dak.

LOCATION.--Lat 48°26'53", long 99°06'08", in SE¼NE¼SE¼ sec.1, T.157 N., R.66 W., Towner County, on left bank 0.3 mi (0.5 km) upstream from highway bridge, about 4 mi (6 km) upstream from West Fork, 5.5 mi (9 km) southeast of Cando, and 7 mi (11 km) northeast of Maza.

DRAINAGE AREA.--387 mi^2 (1,000 km^2), of which about 10 mi^2 (25 km^2) is probably noncontributing.

PERIOD OF RECORD.--May 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,445 ft (440.4 m) above mean sea level (from topographic map). Prior to July 2, 1957, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--17 years, 14.9 ft^3/s (0.422 m^3/s), 10,890 acre-ft/yr (13.43 hm^3/yr); median of yearly mean discharges, 5.6 ft^3/s (0.16 m^3/s), 4,100 acre-ft/yr (5.06 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 23 ft^3/s (0.65 m^3/s) Mar. 22, gage height, 3.25 ft (0.991 m), backwater from ice; no flow for several months.
Period of record: Maximum discharge, 2,500 ft^3/s (70.8 m^3/s) Apr. 14, 1969, gage height, 11.16 ft (3.402 m); no flow at times each year.
Flood of June 16, 1954, reached a stage of 9.83 ft (2.996 m), and flood of Apr. 20, 1956, reached a stage of 10.71 ft (3.264 m), from floodmarks set by local resident.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.07	.12			0	5.0	.24	.07	.01	.08	.01
2	.07	.09	.11			0	3.7	.22	.08	.01	.07	.01
3	.08	.10	.09			0	3.0	.19	.09	.01	.06	.01
4	.07	.10	.07			0	2.5	.18	.10	0	.05	.01
5	.07	.11	.05			0	1.9	.18	.10	0	.05	.01
6	.07	.12	.05			0	1.6	.18	.09	0	.04	.01
7	.08	.10	.05			0	1.3	.18	.08	0	.04	.01
8	.07	.10	.05			0	.76	.26	.08	0	.03	.01
9	.07	.12	.05			.10	.52	.26	.07	0	.03	.01
10	.07	.12	.05			5.0	.39	.28	.07	0	.03	.01
11	.08	.11	0			20	.33	.46	.06	0	.03	.01
12	.07	.11	0			15	.26	.33	.06	0	.03	.01
13	.07	.10	0			11	.18	.28	.05	0	.03	.01
14	.06	.10	0			8.0	.16	.22	.04	0	.03	.01
15	.06	.10	0			4.6	.17	.19	.03	0	.02	.01
16	.07	.10	0			3.4	.20	.17	.03	0	.02	.01
17	.06	.10	0			2.3	.15	.17	.12	0	.02	.01
18	.06	.11	0			.77	.13	.16	.08	0	.02	.01
19	.07	.11	0			1.2	.16	.16	.10	0	.02	.02
20	.07	.11	0			.88	.28	.15	.09	.10	.02	.03
21	.07	.10	0			1.0	.19	.18	.06	.30	.01	.03
22	.07	.11	0			17	.16	.22	.05	.50	.01	.03
23	.07	.12	0			19	.17	.20	.05	.60	.01	.03
24	.06	.11	0			15	.22	.17	.04	.60	.01	.03
25	.07	.12	0			17	.22	.16	.03	.50	.01	.03
26	.07	.12	0			16	.26	.15	.03	.30	.01	.03
27	.09	.12	0			14	.22	.15	.03	.20	.01	.03
28	.07	.12	0			11	.22	.12	.02	.16	.01	.03
29	.07	.12	0		------	7.6	.22	.10	.02	.14	.01	.03
30	.08	.12	0		------	7.4	.22	.08	.02	.12	.01	.03
31	.07	------	0		------	6.2	------	.08	------	.10	.01	------
TOTAL	2.20	3.24	.69	0	0	203.45	24.79	6.07	1.84	3.65	.83	.53
MEAN	.071	.11	.022	0	0	6.56	.83	.20	.061	.12	.027	.018
MAX	.09	.12	.12	0	0	20	5.0	.46	.12	.60	.08	.03
MIN	.06	.07	0	0	0	0	.13	.08	.02	0	.01	.01
AC-FT	4.4	6.4	1.4	0	0	404	49	12	3.6	7.2	1.6	1.1

CAL YR 1972 TOTAL 9,578.49 MEAN 26.2 MAX 491 MIN 0 AC-FT 19,000
WTR YR 1973 TOTAL 247.29 MEAN .68 MAX 20 MIN 0 AC-FT 490

PEAK DISCHARGE (BASE, 24 FT^3/S).--NO PEAK ABOVE BASE.

05056200 Edmore Coulee near Edmore, N. Dak.

LOCATION.--Lat 48°20'14", long 98°39'33", on line between secs.17 and 18, T.156 N., R.62 W., Ramsey County, on left downstream wingwall of bridge on county highway, 11 mi (18 km) southwest of Edmore and about 13 mi (21 km) upstream from Sweetwater Lake.

DRAINAGE AREA.--382 mi^2 (989 km^2), of which about 100 mi^2 (259 km^2) is probably noncontributing.

PERIOD OF RECORD.--April to June 1956, June 1957 to current year.

GAGE.--Water-stage recorder. Prior to June 26, 1957, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--16 years (1957-73) 11.5 ft^3/s (0.326 m^3/s), 8,330 acre-ft/yr (10.27 hm^3/yr); median of yearly mean discharges, 8.7 ft^3/s (0.25 m^3/s), 6,300 acre-ft/yr (7.77 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 34 ft^3/s (0.96 m^3/s) Mar. 22, gage height, 2.63 ft (0.802 m), backwater from ice; no flow for several months.
Period of record: Maximum discharge, 875 ft^3/s (24.8 m^3/s) Apr. 23, 1956, gage height, 6.30 ft (1.920 m), backwater from ice; maximum gage height, 6.63 ft (2.021 m) Mar. 25, 1966, backwater from ice, no flow for several months each year.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	6.0	.16				
2						0	5.6	.14				
3						0	5.0	.11				
4						0	4.4	.09				
5						0	4.0	.08				
6						0	2.6	.07				
7						0	2.3	.05				
8						0	2.3	.04				
9						0	2.0	.04				
10						0	1.8	.05				
11						0	1.7	.05				
12						0	1.5	.05				
13						0	1.0	.03				
14						0	.88	.02				
15						0	.64	.01				
16						.10	.52	0				
17						1.0	.49	0				
18						8.0	.43	0				
19						15	.40	0				
20						20	.36	0				
21						34	.38	0				
22						34	.36	0				
23						30	.34	0				
24						26	.32	0				
25						21	.30	0				
26						19	.28	0				
27						14	.25	0				
28						12	.23	0				
29					------	8.0	.21	0				
30					------	7.0	.18	0				
31		------			------	6.4	------	0	------			------
TOTAL	0	0	0	0	0	255.50	46.77	.99	0	0	0	0
MEAN	0	0	0	0	0	8.24	1.56	.032	0	0	0	0
MAX	0	0	0	0	0	34	6.0	.16	0	0	0	0
MIN	0	0	0	0	0	0	.18	0	0	0	0	0
AC-FT	0	0	0	0	0	507	93	2.0	0	0	0	0

CAL YR 1972 TOTAL 6,451.93 MEAN 18.2 MAX 420 MIN 0 AC-FT 13,190
WTR YR 1973 TOTAL 303.26 MEAN .83 MAX 34 MIN 0 AC-FT 602

05056400 Big Coulee near Churchs Ferry, N. Dak.

LOCATION.--Lat 48°10'40", long 99°13'15", in NW¼NW¼ sec.12, T.154 N., R.67 W., Benson County, on right bank on downstream side of bridge on U.S. Highway 281, 1 mi (1.6 km) downstream from Little Coulee and 6 mi (10 km) south of Churchs Ferry.

DRAINAGE AREA.--2,510 mi^2 (6,500 km^2), approximately, of which about 690 mi^2 (1,790 km^2) is probably noncontributing.

PERIOD OF RECORD.--March 1950 to current year. Prior to October 1960, published as Mauvais Coulee near Churchs Ferry.

GAGE.--Water-stage recorder. Datum of gage is 1,432.65 ft (436.672 m) above mean sea level. Prior to June 21, 1950, reference marks, and June 21, 1950, to July 17, 1956, nonrecording gage at former bridge on U.S. Highway 281, 0.1 mi (0.2 km) upstream, at datum 0.70 ft (0.213 km) higher.

AVERAGE DISCHARGE.--23 years, 27.7 ft^3/s (0.784 m^3/s), 20,070 acre-ft/yr (24.75 hm^3/yr); median of yearly mean discharges, 1.3 ft^3/s (0.037 m^3/s), 940 acre-ft/yr (1.16 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 39 ft^3/s (1,10 m^3/s) Mar. 31, gage height, 1.88 ft (0.573 m), backwater from ice; maximum gage height, about 3.45 ft (1.052 m) Mar. 4, backwater from ice; no flow for several months.
Period of record: Maximum discharge, 964 ft^3/s (27.3 m^3/s) Apr. 27, 1969, gage height, 6.49 ft (1.978 m); no flow at times each year.

REMARKS.--Records good except those for the winter period, which are poor. Flow affected by many lakes on the mainstem and tributaries. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	5.0	16			0	37	16	2.6			
2	.19	5.0	14			1.0	36	16	2.8			
3	.22	6.0	10			5.0	37	12	1.9			
4	.13	7.0	9.0			5.0	34	10	.55			
5	.04	10	7.0			6.0	28	5.5	.07			
6	.13	13	5.0			7.0	30	2.8	0			
7	.04	11	4.0			8.0	21	9.5	0			
8	0	10	3.0			8.0	18	8.3	.22			
9	1.5	10	2.0			6.0	22	6.5	.28			
10	.90	12	1.0			5.0	22	9.5	.31			
11	.55	12	.50			6.0	24	9.1	.39			
12	.61	11	.20			3.0	24	11	.10			
13	.46	10	0			.50	24	9.5	.07			
14	.22	10	0			0	22	9.8	.02			
15	.16	10	0			0	22	2.8	0			
16	0	11	0			0	22	9.1	0			
17	0	12	0			.50	20	6.8	.19			
18	0	12	0			1.0	20	3.2	.46			
19	0	14	0			2.0	21	3.0	.50			
20	0	14	0			2.2	22	2.2	.67			
21	0	14	0			2.5	20	1.8	2.6			
22	0	12	0			2.8	18	1.9	2.6			
23	0	14	0			2.8	18	2.8	1.1			
24	0	18	0			2.2	18	3.2	.50			
25	0	17	0			2.2	17	11	.13			
26	.50	19	0			2.0	17	9.1	0			
27	1.0	19	0			2.0	17	4.7	0			
28	1.0	19	0			2.0	17	2.8	0			
29	3.0	19	0		------	10	16	3.4	0			
30	3.0	17	0		------	25	16	1.9	0			
31	4.0	------	0		------	30	------	2.8	------			------
TOTAL	17.87	373.0	71.70	0	0	149.70	680	208.0	18.06	0	0	0
MEAN	.58	12.4	2.31	0	0	4.83	22.7	6.71	.60	0	0	0
MAX	4.0	19	16	0	0	30	37	16	2.8	0	0	0
MIN	0	5.0	0	0	0	0	16	1.8	0	0	0	0
AC-FT	35	740	142	0	0	297	1,350	413	36	0	0	0

CAL YR 1972 TOTAL 23,759.99 MEAN 64.9 MAX 340 MIN 0 AC-FT 47,130
WTR YR 1973 TOTAL 1,518.33 MEAN 4.16 MAX 37 MIN 0 AC-FT 3,010

05056500 Devils Lake near Devils Lake, N. Dak.

LOCATION.--Lat 48°04'00", long 98°56'07", in SW¼ sec.18, T.153 N., R.64 W., Ramsey County, at Lakewood, on east bank of Creel Bay, 4.5 mi (7.2 km) southwest of city of Devils Lake. Creel Bay, which is 0.5 mi (0.8 km) wide, is an arm of Devils Lake and extends 2 mi (3.2 km) to the north of the lake.

DRAINAGE AREA.--3,130 mi^2 (8,110 km^2), approximately, of which about 1,000 mi^2 (2,590 km^2) is probably noncontributing.

PERIOD OF RECORD.--1867, 1879, 1883, 1887, 1890, 1896 (one gage height for each year), 1901-63 (fragmentary), 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,400.00 ft (426.72 m) above mean sea level; gage readings have been reduced to elevations above mean sea level. June 23, 1950, to June 6, 1963, nonrecording gage at present site and datum. See WSP 1913 for history of changes prior to June 23, 1950.

EXTREMES.--Current year: Maximum elevation, 1,420.68 ft (433.023 m) Oct. 7; minimum, 1,419.12 ft (432.548 m) Sept. 23, 24.
Period of record: Maximum elevation observed, 1,438.40 ft (438.424 m) in 1867, present datum; minimum observed, 1,400.87 ft (426.985 m) Oct. 24, 1940.
The lake level was about elevation 1,446 ft (441 m) about 1830 and lower thereafter, according to the tree growth noted 1885-89. Reference is Geological Survey monograph, volume XXV, the Glacial History of Lake Agassiz by Warren Upham.

REMARKS.--Elevation at gage frequently affected by wind. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1913: Drainage area.

MONTHEND ELEVATION, IN FEET, AT 2400, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Oct. 31	1,420.55	Jan. 31	1,420.45	Apr. 30	1,420.45	July 31	1,419.63
Nov. 30	1,420.47	Feb. 29	1,420.40	May 31	1,420.32	Aug. 31	1,419.60
Dec. 31	1,420.46	Mar. 31	1,420.59	June 30	1,420.19	Sept.30	1,419.29

05057000 Sheyenne River near Cooperstown, N. Dak.

LOCATION.--Lat 47°26'01", long 98°01'43", in NE¼NE¼SE¼ sec.27, T.146 N., R.58 W., Griggs County, on right bank 150 ft (46 m) downstream from county bridge and 5 mi (8 km) east of Cooperstown.

DRAINAGE AREA.--6,470 mi^2 (16,760 km^2), approximately, of which about 5,200 mi^2 (13,470 km^2) is probably non-contributing, includes 3,800 mi^2 (9,840 km^2) in closed basins.

PERIOD OF RECORD.--October 1944 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 1,271.04 ft (387.413 m) above mean sea level, Corps of Engineers benchmark. Prior to Aug. 3, 1950, nonrecording gage at site 150 ft (45.7 m) upstream at same datum.

AVERAGE DISCHARGE.--29 years, 100 ft^3/s (2.832 m^3/s), 72,450 acre-ft/yr (89.33 hm^3/yr); median of yearly mean discharges, 80 ft^3/s (2.27 m^3/s) 58,000 acre-ft/yr (71.5 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 260 ft^3/s (7.36 m^3/s) Mar. 15, gage height, 7.52 ft (2.292 m), backwater from ice; minimum discharge, 0.68 ft^3/s (0.019 m^3/s) Aug. 20, gage height, 3.46 ft (1.055 m).
Period of record: Maximum discharge, 7,830 ft^3/s (222 m^3/s) Apr. 17, 1950, gage height, 18.69 ft (5.697 m); no flow at times.

REMARKS.--Records good. Records of chemical analyses and water temperatures for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	17	21	15	10	9.0	154	54	42	15	1.5	3.2
2	10	18	20	15	10	9.5	137	51	38	15	1.1	3.9
3	11	18	20	15	10	10	114	48	34	15	1.0	5.8
4	12	20	19	14	9.5	12	104	46	30	14	1.1	5.5
5	10	20	19	13	9.0	13	96	45	28	12	1.2	4.3
6	9.4	21	19	12	9.0	15	93	45	30	10	1.2	3.2
7	10	22	19	12	9.0	45	88	44	29	8.2	1.0	3.0
8	14	22	19	12	9.0	60	84	42	25	7.0	5.1	3.7
9	8.2	24	19	12	9.0	65	80	44	23	16	2.9	4.3
10	7.6	25	19	12	9.0	80	73	43	22	14	1.7	3.2
11	8.2	25	19	12	9.0	115	70	46	22	8.7	1.2	2.7
12	12	21	19	12	9.0	125	68	46	21	8.2	1.7	2.3
13	15	19	19	12	8.5	155	64	45	19	11	2.0	2.3
14	29	24	18	12	8.0	200	61	43	17	7.8	1.5	2.7
15	27	21	18	12	8.0	250	61	46	16	4.6	2.0	2.5
16	23	22	18	12	8.0	235	58	48	17	2.3	1.4	1.7
17	18	22	18	12	8.0	225	58	48	20	1.9	1.1	2.3
18	16	22	18	12	8.0	215	57	49	26	1.4	.98	1.7
19	14	22	18	11	8.0	205	57	50	43	1.4	.98	2.0
20	15	22	17	11	8.0	210	57	48	84	1.4	.82	1.9
21	15	21	17	11	8.0	215	60	49	81	1.5	2.2	4.8
22	15	21	17	11	8.5	230	60	50	56	1.1	4.3	6.4
23	14	21	16	11	9.0	230	60	54	44	1.4	4.1	6.1
24	14	21	16	11	9.0	225	57	53	36	1.7	2.7	19
25	15	21	15	11	9.0	220	56	52	29	2.9	1.4	79
26	16	20	15	11	9.0	215	57	55	26	2.9	1.1	122
27	16	21	15	10	9.0	200	56	56	22	2.5	1.9	91
28	16	21	15	10	9.0	175	53	54	21	2.5	2.5	55
29	16	22	15	10	------	160	56	49	18	2.3	2.2	36
30	17	21	15	10	------	155	57	44	15	2.0	1.5	38
31	20	------	15	10	------	148	------	44	------	1.7	1.9	------
TOTAL	452.8	637	547	366	246.5	4,426.5	2,206	1,491	934	197.4	57.28	519.5
MEAN	14.6	21.2	17.6	11.8	8.80	143	73.5	48.1	31.1	6.37	1.85	17.3
MAX	29	25	21	15	10	250	154	56	84	16	5.1	122
MIN	7.6	17	15	10	8.0	9.0	53	42	15	1.1	.82	1.7
AC-FT	898	1,260	1,080	726	489	8,780	4,380	2,960	1,850	392	114	1,030

CAL YR 1972 TOTAL 44,393.30 MEAN 121 MAX 1,080 MIN 4.6 AC-FT 88,050
WTR YR 1973 TOTAL 12,080.98 MEAN 33.1 MAX 250 MIN .82 AC-FT 23,960

PEAK DISCHARGE (BASE, 200 FT^3/S).--MAR. 15, 260 FT^3/S.

05057200 Baldhill Creek near Dazey, N. Dak.

LOCATION.--Lat 47°13'45", long 98°07'28", in NW¼SE¼SW¼ sec.2, T.143 N., R.59 W., Barnes County, on left bank 500 ft (150 km) upstream from bridge on county highway, 4.5 mi (7.2 km) northeast of Dazey, and 14 mi (23 km) upstream from mouth.

DRAINAGE AREA.--691 mi^2 (1,790 km^2), of which about 340 mi^2 (880 km^2) is probably noncontributing.

PERIOD OF RECORD.--March 1956 to current year.

GAGE.--Water-stage recorder. Prior to Nov. 9, 1956, nonrecording gage 500 ft (150 m) downstream at same datum.

AVERAGE DISCHARGE.--17 years, 13.8 ft^3/s (0.391 m^3/s) 10,000 acre-ft/yr (12.33 hm^3/yr); median of yearly mean discharges, 11 ft^3/s (0.31 m^3/s), 8,000 acre-ft/yr (9.86 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 100 ft^3/s (2.83 m^3/s) Mar. 14, gage height 3.84 ft (1.170 m), backwater from ice; minimum daily discharge, 0.10 ft^3/s (0.003 m^3/s) Jan. 11-14.
Period of record: Maximum discharge, 2,510 ft^3/s (71.1 m^3/s) Apr. 11, 1969, gage height, 10.90 ft (3.322 m) backwater from ice; maximum gage height, 11.21 ft (3.417 m) Apr. 10, 1969, backwater from ice; no flow at times.

REMARKS.--Records good. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.5	2.8	1.4	1.5	1.8	12	6.3	4.6	1.6	.77	1.0
2	2.4	3.0	2.8	1.3	1.5	2.0	11	5.6	3.9	1.7	.67	1.2
3	2.4	3.0	2.8	1.2	1.7	4.0	9.0	5.4	4.6	1.4	.55	2.1
4	2.2	3.0	2.5	1.0	1.8	10	7.0	4.9	4.3	1.2	.47	2.3
5	2.5	3.0	2.5	.60	1.8	11	7.3	4.9	4.1	1.2	.47	2.1
6	3.1	3.2	2.2	.20	1.8	8.0	7.3	5.1	3.7	1.1	.55	1.7
7	3.6	3.5	2.0	.20	1.8	12	6.8	5.1	3.3	.97	.47	1.5
8	3.1	3.5	2.0	.16	1.8	12	6.5	4.9	3.5	.77	.43	1.3
9	2.6	3.1	2.0	.15	1.8	11	6.3	5.6	2.8	.67	.77	1.2
10	2.8	3.0	2.0	.15	1.8	15	6.0	6.6	2.5	.63	.92	1.1
11	3.0	3.0	1.9	.10	1.8	16	6.0	6.6	2.4	.55	.92	.97
12	2.8	2.8	1.9	.10	1.8	15	5.6	6.6	2.2	.47	.92	.97
13	2.8	2.5	1.9	.10	1.8	15	5.1	5.4	2.0	.34	.92	.97
14	3.0	2.5	1.9	.10	1.5	50	5.6	5.1	1.8	.31	.92	.92
15	2.8	2.5	1.8	.15	1.5	66	6.6	4.9	1.8	.28	1.1	.92
16	3.0	2.5	1.7	.25	1.5	65	6.0	4.6	3.0	.24	1.1	.92
17	2.5	2.5	1.7	.40	1.5	55	5.4	4.1	3.0	.22	1.0	.97
18	2.4	2.5	1.7	.54	1.5	45	5.1	4.1	3.5	.20	.97	1.0
19	2.2	2.5	1.7	.60	1.5	40	4.9	4.1	3.7	.20	.87	1.2
20	3.0	2.5	1.7	.60	1.5	35	8.1	3.7	3.5	.20	.77	1.2
21	3.3	2.5	1.6	.70	1.5	32	9.6	5.1	3.5	.22	.82	2.0
22	3.5	2.5	1.6	.60	1.8	29	8.7	13	2.8	.22	1.1	3.5
23	3.3	2.7	1.6	.60	2.0	21	7.5	10	2.3	.24	2.3	3.3
24	2.8	2.7	1.6	1.7	1.8	23	8.4	8.7	1.9	.26	2.0	7.2
25	2.8	2.8	1.6	1.9	1.8	22	8.4	7.5	1.8	.31	1.7	12
26	2.5	2.8	1.6	1.9	1.8	24	8.1	6.9	1.6	.37	1.3	11
27	2.5	3.0	1.6	1.8	1.8	22	7.5	6.9	1.7	.34	1.1	8.4
28	2.5	3.0	1.6	1.8	1.8	19	6.9	6.3	1.9	.47	.92	6.6
29	2.5	2.8	1.5	1.7	------	20	6.9	5.4	1.9	.82	.92	5.4
30	2.5	2.8	1.5	1.5	------	14	6.9	5.4	1.8	.82	.82	4.3
31	2.5	------	1.5	1.5	------	12	------	4.9	------	.82	.82	------
TOTAL	85.4	84.2	58.8	25.00	47.5	726.8	216.5	183.7	85.4	19.14	29.36	89.24
MEAN	2.75	2.81	1.90	.81	1.70	23.4	7.22	5.93	2.85	.62	.95	2.97
MAX	3.6	3.5	2.8	1.9	2.0	66	12	13	4.6	1.7	2.3	12
MIN	2.2	2.5	1.5	.10	1.5	1.8	4.9	3.7	1.6	.20	.43	.92
AC-FT	169	167	117	50	94	1,440	429	364	169	38	58	177

CAL YR 1972 TOTAL 6,400.39 MEAN 17.5 MAX 256 MIN .11 AC-FT 12,700
WTR YR 1973 TOTAL 1,651.04 MEAN 4.52 MAX 66 MIN .10 AC-FT 3,270

PEAK DISCHARGE (BASE, 60 FT^3/S).--MAR. 14, 100 FT^3/S.

05057500 Lake Ashtabula at Baldhill Dam, N. Dak.

LOCATION.--Lat 47°02'00", long 98°05'00", in NW¼ sec.18, T.141 N., R.58 W., Barnes County at Baldhill Dam on Sheyenne River, 8 mi (13 km) northwest of Valley City.

DRAINAGE AREA.--7,470 mi^2 (19,300 km^2), approximately, of which about 5,560 mi^2 (14,400 km^2) is probably non-contributing, includes 3,800 mi^2 (9,800 km^2) in closed basins.

PERIOD OF RECORD.--July 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is mean sea level.

EXTREMES.--Current year: Maximum contents, 69,760 acre-ft (86.0 hm^3) May 24, elevation, 1,265.85 ft (385.831 m); minimum, 55,550 acre-ft (68.5 hm^3) Mar. 2, elevation, 1,263.21 ft (385.026 m).
Period of record: Maximum contents, 91,400 acre-ft (113 hm^3) May 14, 1950, elevation, 1,269.46 ft (386.931 m); minimum since reservoir first reached spillway level, 6,660 acre-ft (8.21 hm^3) Aug. 11-14, 1950, elevation, 1,245.13 ft (379.516 m).

REMARKS.--Reservoir is formed by an earth-fill dam, 1,650 ft (503 m) long; storage began on July 30, 1949; dam completed September 1949. Usable capacity, 69,100 acre-ft (85.2 hm^3) between invert of outlet conduit, elevation, 1,238.0 ft (377.342 m), and normal pool level, elevation, 1,266.0 ft (385.877 m). Dead storage below elevation 1,238.0 ft (377.342 m), 1,500 acre-ft (1.85 hm^3). Maximum pool elevation, 1,273.2 ft (388.07 m), capacity, 116,500 acre-ft (144 hm^3). Low flows are controlled by 2 sluice gates 3 ft (0.914 m) in diameter. The spillway crest is 120 ft (36.6 m) long at elevation 1,252.0 ft (381.610 m), surmounted by 3 taintor gates, each 15 ft (4.572 m) high and 40 ft (12.192 m) long. The reservoir is operated for flood control and to increase low-water flow.

COOPERATION.--Records furnished by Corps of Engineers.

REVISIONS (WATER YEARS).--WSP 1238: 1950(M). WSP 1728: Drainage area.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	1,265.10	65,560	
Oct. 31	1,264.97	64,835	-725
Nov. 30	1,264.68	62,240	-2,595
Dec. 31	1,264.30	61,150	-1,090
CAL YR 1972	--	--	-2,250
Jan. 31	1,263.77	58,350	-2,800
Feb. 28	1,263.24	55,700	-2,650
Mar. 31	1,265.08	65,448	+9,748
Apr. 30	1,265.59	68,304	+2,856
May 31	1,265.56	68,136	-168
June 30	1,265.32	66,792	-1,344
July 31	1,264.73	63,515	-3,277
Aug. 31	1,264.22	60,710	-2,805
Sept. 30	1,264.25	60,825	+115
WTR YR 1973	--	--	-4,735

05058000 Sheyenne River below Baldhill Dam, N. Dak.

LOCATION.--Lat 47°01'50", long 98°05'50", in NW¼ sec.18, T.141 N., R.58 W., Barnes County, on right bank 600 ft (183 m) downstream from Baldhill Dam, 8 mi (13 km) northwest of Valley City, and at mile 270.5 (kilometre 435.2).

DRAINAGE AREA.--7,470 mi^2 (19,350 km^2), approximately, of which about 5,560 mi^2 (14,400 km^2) is probably non-contributing, includes 3,800 mi^2 (9,840 km^2) in closed basins.

PERIOD OF RECORD.--October 1949 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,200.00 ft (365.760 m) above mean sea level.

AVERAGE DISCHARGE (UNADJUSTED).--24 years, 115 ft^3/s (3.257 m^3/s), 83,320 acre-ft/yr (102.7 hm^3/yr); median of yearly mean discharges, 83 ft^3/s (2.35 m^3/s), 60,100 acre-ft/yr (74.1 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 90 ft^3/s (2.55 m^3/s) Mar. 29, gage height, 26.50 ft (8.077 m); minimum, 0.10 ft^3/s (0.003 m^3/s) Aug. 14, gage height, 25.13 ft (7.660 m).
Period of record: Maximum discharge, 4,580 ft^3/s (130 m^3/s) Apr. 19, 1969, gage height, 35.47 ft (10.811 m); no flow at times in 1950, 1952-53, 1970.

REMARKS.--Records good. Flow completely regulated by Lake Ashtabula (see station 05057500). Records 1955 to 1972 include releases at Baldhill Dam to the fish-rearing ponds of the Fish and Wildlife Service. Small diversions are still made but not published. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	16	49	48	63	48	89	10	20	10	17	18
2	12	17	48	48	63	40	89	10	20	10	18	17
3	12	17	49	48	63	29	87	10	20	13	18	17
4	12	17	49	46	63	29	85	11	20	11	18	17
5	11	17	49	46	63	29	76	11	20	9.8	18	16
6	11	36	49	45	63	29	65	12	20	8.8	18	16
7	12	51	49	47	63	29	63	12	20	8.5	19	14
8	12	51	49	47	63	29	62	12	18	8.2	18	11
9	12	51	49	46	63	29	61	13	13	8.8	18	13
10	12	51	49	47	63	29	40	14	14	9.5	15	13
11	13	51	49	47	63	29	22	13	14	10	16	14
12	13	51	49	47	63	29	17	15	14	10	17	14
13	13	50	49	47	63	29	14	15	14	9.2	17	15
14	13	50	49	47	63	53	13	15	15	9.2	8.1	15
15	13	50	49	54	63	78	11	16	15	9.5	19	15
16	13	50	49	62	63	79	10	16	15	9.5	15	15
17	13	50	49	62	63	86	10	17	15	9.5	19	15
18	14	50	49	62	63	87	9.8	18	13	9.2	17	15
19	14	50	49	62	63	85	10	18	14	7.9	16	15
20	14	50	49	62	63	85	10	18	13	9.2	17	15
21	14	50	49	62	63	85	10	18	13	8.8	18	15
22	14	50	49	62	63	85	10	18	13	9.2	17	13
23	15	50	49	62	63	85	9.8	19	13	9.5	17	13
24	15	50	49	63	63	85	9.9	18	13	9.8	18	14
25	15	51	49	63	63	85	10	18	13	9.8	20	14
26	15	50	49	63	63	85	11	18	13	10	21	14
27	15	50	49	63	63	85	10	19	14	10	19	14
28	15	50	50	63	55	85	10	19	14	10	19	14
29	15	48	51	63	------	89	10	19	13	10	21	15
30	16	49	49	63	------	89	10	19	11	9.8	23	15
31	16	------	48	63	------	89	------	20	------	17	21	------
TOTAL	416	1,324	1,520	1,710	1,756	1,907	944.5	481	457	304.7	552.1	441
MEAN	13.4	44.1	49.0	55.2	62.7	61.5	31.5	15.5	15.2	9.83	17.8	14.7
MAX	16	51	51	63	63	89	89	20	20	17	23	18
MIN	11	16	48	45	55	29	9.8	10	11	7.9	8.1	11
AC-FT	825	2,630	3,010	3,390	3,480	3,780	1,870	954	906	604	1,100	875

CAL YR 1972 TOTAL 56,933.9 MEAN 156 MAX 983 MIN 8.5 AC-FT 112,900
WTR YR 1973 TOTAL 11,813.3 MEAN 32.4 MAX 89 MIN 7.9 AC-FT 23,430

05058500 Sheyenne River at Valley City, N. Dak.

LOCATION.--Lat 46°54'50", long 98°00'30", in SE¼NW¼ sec.28, T.140 N., R.58 W., Barnes County, on left bank 100 ft (30 m) downstream from College Dam in Valley City, and at mile 253.0 (kilometre 407.1).

DRAINAGE AREA.--7,810 mi^2 (20,230 km^2), approximately, of which about 5,700 mi^2 (14,760 km^2) is probably non-contributing, includes 3,800 mi^2 (9,840 km^2) in closed basins.

PERIOD OF RECORD.--March to August 1919, March to June 1938, August 1938 to current year. Records for July 1938, published in WSP 855, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,199.27 ft (365.537 m) above mean sea level. March to August 1919, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum. March to Oct. 13, 1938, nonrecording gage at present site and datum.

AVERAGE DISCHARGE (UNADJUSTED).--35 years (1938-73), 119 ft^3/s (3.370 m^3/s) 86,220 acre-ft/yr (106.3 hm^3/yr); median of yearly mean discharges, 97 ft^3/s (2.75 m^3/s), 70,300 acre-ft/yr (86.7 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 761 ft^3/s (21.6 m^3/s) Mar. 14, gage height, 6.32 ft (1.926 m); minimum, 8.4 ft^3/s (0.24 m^3/s) July 11, gage height, 2.75 ft (0.838 m).
Period of record: Maximum discharge, 4,580 ft^3/s (130 m^3/s) Apr. 28, 1948, gage height, 17.51 ft (5.337 m); maximum gage height, 17.62 ft (5.371 m) Apr. 19, 1969; no flow during several periods in 1938-41.

REMARKS.--Records good. Flow regulated by Lake Ashtabula 13 mi (21 km) upstream (see station 05057500). Small Diversions above station for municipal supply. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1388: 1939(M). WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	22	57	48	63	66	92	15	16	11	13	21
2	15	22	54	48	63	65	90	13	16	11	18	38
3	15	22	52	48	63	70	88	12	17	9.1	19	33
4	15	23	52	48	63	88	85	11	16	8.7	19	22
5	22	22	50	48	63	90	86	10	16	8.8	21	18
6	20	24	49	48	62	69	73	9.9	16	9.4	22	16
7	20	37	49	48	62	72	64	11	15	10	21	16
8	18	48	49	48	62	74	60	12	17	9.8	20	17
9	17	54	49	48	62	70	59	14	12	9.4	20	15
10	19	55	49	47	62	90	56	15	11	9.1	19	13
11	21	54	49	47	62	84	41	14	10	8.7	18	12
12	19	54	49	47	62	65	28	14	10	8.7	19	14
13	20	52	49	47	62	60	23	15	10	8.9	20	16
14	19	51	49	47	62	398	21	15	11	9.1	21	17
15	17	52	49	50	62	263	21	15	16	9.3	21	18
16	18	52	49	56	62	114	18	15	19	9.4	17	18
17	16	52	49	62	62	96	15	15	16	10	17	17
18	16	52	49	62	62	102	14	17	16	12	18	16
19	16	52	49	62	62	98	15	17	19	11	23	18
20	19	51	49	63	62	96	21	16	18	11	19	17
21	21	52	50	63	62	94	20	22	16	10	18	28
22	21	52	50	63	76	102	14	25	14	9.9	19	22
23	21	52	50	63	84	102	12	26	14	9.5	19	15
24	21	52	50	63	65	108	11	27	15	9.6	19	26
25	21	53	50	63	65	104	10	22	15	13	19	22
26	22	53	51	63	65	98	13	20	14	13	19	19
27	23	53	51	63	65	98	14	23	14	12	18	16
28	21	52	51	63	65	94	13	25	15	13	17	17
29	21	51	51	63	------	92	15	22	14	15	17	18
30	22	51	51	63	------	90	16	19	13	14	17	18
31	23	------	50	63	------	90	------	18	------	13	19	------
TOTAL	595	1,372	1,555	1,715	1,792	3,202	1,108	524.9	441	326.4	586	573
MEAN	19.2	45.7	50.2	55.3	64.0	103	36.9	16.9	14.7	10.5	18.9	19.1
MAX	23	55	57	63	84	398	92	27	19	15	23	38
MIN	15	22	49	47	62	60	10	9.9	10	8.7	13	12
AC-FT	1,180	2,720	3,080	3,400	3,550	6,350	2,200	1,040	875	647	1,160	1,140

CAL YR 1972 TOTAL 60,898.0 MEAN 166 MAX 1,050 MIN 10 AC-FT 120,800
WTR YR 1973 TOTAL 13,790.3 MEAN 37.8 MAX 398 MIN 8.7 AC-FT 27,350

05058700 Sheyenne River at Lisbon, N. Dak.

LOCATION.--Lat 46°26'49", long 97°40'44", on line between secs.1 and 2, T.134 N., R.56 W., Ransom County, on left bank 150 ft (46 m) downstream from dam at State fish hatchery at north edge of city of Lisbon, 3 mi (5 km) upstream from Timber Coulee, and at mile 162.1 (kilometre 260.8).

DRAINAGE AREA.--8,190 mi^2 (21,210 km^2), approximately, of which about 5,700 mi^2 (14,760 km^2), is probably noncontributing, includes 3,800 mi^2 (9,840 km^2) in closed basins.

PERIOD OF RECORD.--September 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,066.46 ft (325.057 m) above mean sea level.

AVERAGE DISCHARGE.--17 years, 139 ft^3/s (3.936 m^3/s), 100,700 acre-ft/yr (124.2 hm^3/yr); median of yearly mean discharges, 120 ft^3/s (3.40 m^3/s), 86,900 acre-ft/yr (107 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 677 ft^3/s (19.2 m^3/s) Mar. 17, gage height, 5.29 ft (1.612 m); minimum, 2.6 ft^3/s (0.074 m^3/s) July 21, 22, 26, 27, gage height, 1.89 ft (0.576 m).
Period of record: Maximum discharge, 4,380 ft^3/s (124 m^3/s) Apr. 24, 1969, gage height, 16.54 ft (5.041 m); no flow Sept. 19-21, Oct. 23, 24, 1956, Aug. 16, 1961.

REMARKS.--Records good. Flow regulated by Lake Ashtabula 108.5 mi (174.6 km) upstream - see station 05057500. Records of chemical analyses and water temperatures for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	30	49	50	67	83	126	27	30	12	11	13
2	23	30	49	50	67	83	115	25	30	13	8.6	12
3	23	29	49	50	67	87	109	24	34	12	7.7	25
4	20	30	46	50	67	98	105	23	26	11	7.3	25
5	19	30	48	50	67	100	103	25	25	10	7.3	40
6	19	30	46	49	67	94	100	24	24	8.6	8.1	54
7	21	27	46	49	67	105	96	22	23	8.1	8.1	41
8	18	29	46	48	69	128	94	22	27	7.3	9.1	26
9	19	30	46	48	66	147	85	22	29	6.9	15	19
10	29	30	46	48	64	139	78	21	26	6.0	15	16
11	29	43	46	48	67	136	74	21	25	4.8	14	13
12	24	51	46	48	64	128	71	23	23	4.6	15	12
13	24	48	46	48	66	136	69	26	21	4.2	14	12
14	23	38	46	48	66	202	62	26	20	3.2	12	12
15	23	48	48	48	66	205	54	26	19	3.4	13	12
16	26	52	49	48	66	180	48	24	21	3.7	12	11
17	24	54	49	48	66	493	41	22	22	3.7	11	11
18	24	54	48	49	66	543	37	22	24	3.9	12	11
19	23	52	48	49	69	295	37	22	23	3.2	13	11
20	23	51	49	51	72	163	41	22	24	2.9	13	13
21	23	51	49	54	74	147	38	24	21	2.8	12	20
22	23	49	51	57	78	143	37	29	19	2.8	11	23
23	23	51	51	55	81	139	37	30	18	3.0	11	20
24	23	49	52	59	79	145	38	37	18	3.4	12	62
25	25	52	51	62	78	147	37	40	18	3.2	15	57
26	26	49	51	60	78	147	32	41	16	3.4	13	43
27	29	52	51	66	81	165	27	41	12	3.4	12	34
28	25	49	51	67	85	147	25	38	12	4.4	12	37
29	26	38	52	67	------	132	24	35	11	9.8	11	38
30	32	43	50	67	------	126	25	31	11	8.6	11	27
31	30	------	50	67	------	132	------	27	------	11	12	------
TOTAL	740	1,269	1,505	1,658	1,970	5,115	1,865	842	652	188.3	358.2	750
MEAN	23.9	42.3	48.5	53.5	70.4	165	62.2	27.2	21.7	6.07	11.6	25.0
MAX	32	54	52	67	85	543	126	41	34	13	15	62
MIN	18	27	46	48	64	83	24	21	11	2.8	7.3	11
AC-FT	1,470	2,520	2,990	3,290	3,910	10,150	3,700	1,670	1,290	373	710	1,490

CAL YR 1972 TOTAL 60,890.00 MEAN 166 MAX 105 MIN 0 AC-FT 120,800
WTR YR 1973 TOTAL 16,912.50 MEAN 46.3 MAX 543 MIN 2.8 AC-FT 33,550

05059000 Sheyenne River near Kindred, N. Dak.

LOCATION.--Lat 46°37'35", long 97°00'05", in NE¼NW¼ sec.5, T.136 N., R.50 W., Richland County, on right bank 25 ft (8 m) downstream from Burlington Northern Railway bridge, 1.5 mi (2.4 km) southeast of Kindred, and at mile 68.1 (kilometre 109.6).

DRAINAGE AREA.--8,800 mi^2 (22,790 km^2), approximately, of which about 5,780 mi^2 (14,970 km^2) is probably noncontributing, includes 3,800 mi^2 (9,840 km^2) in closed basins.

PERIOD OF RECORD.--July 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 925.55 ft (282.108 m) above mean sea level, datum of 1929. July 1949 to Sept. 30, 1962, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--24 years, 186 ft^3/s (5.268 m^3/s), 134,800 acre-ft/yr (166.2 hm^3/yr); median of yearly mean discharges, 130 ft^3/s (3.68 m^3/s) 94,200 acre-ft/yr (116 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 710 ft^3/s (20.1 m^3/s) Mar. 22, gage height, 6.19 ft (1.887 m); minimum, 17 ft^3/s (0.48 m^3/s) July 28, 29; minimum gage height, 2.64 ft (0.805 m) July 16, 17.
Period of record: Maximum discharge, 4,690 ft^3/s (133 m^3/s) Apr. 15, 1969, gage height, 21.03 ft (6.410 m); maximum gage height, 21.54 ft (6.565 m) Apr. 14, 1969, backwater from ice; minimum discharge, 13 ft^3/s (0.37 m^3/s) Nov. 13, 1955, Aug. 22-24, 1959; minimum gage height, 2.64 ft (0.805 m) July 16, 17,1973.
Spring flood in 1947 or 1948 reached a stage of 22.1 ft (6.74 m), from floodmarks, discharge about 3,600 ft^3/s (102 m^3/s).

REMARKS.--Records good. Flow regulated to a large degree by Lake Ashtabula 202 miles (325 km) upstream, see station 05057500, and several small reservoirs. Records of chemical analyses and water temperatures for water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	69	65	55	85	110	233	90	71	44	33	46
2	53	71	63	55	90	120	224	87	66	43	35	35
3	53	71	62	55	94	130	224	82	66	42	32	37
4	54	71	60	55	94	140	215	80	65	38	31	41
5	55	72	58	55	94	150	200	80	59	35	31	42
6	58	72	56	55	94	150	194	78	58	34	36	41
7	58	72	55	55	94	150	188	77	58	36	37	36
8	58	72	55	53	94	186	184	72	59	36	33	42
9	59	72	53	53	93	180	180	71	59	36	30	45
10	64	72	53	53	93	190	176	72	56	36	24	55
11	69	71	53	53	93	210	174	72	54	36	22	55
12	68	71	53	53	93	220	170	71	53	35	21	49
13	65	69	53	53	93	260	160	68	53	34	24	44
14	64	55	53	53	93	360	156	66	53	31	30	38
15	66	60	53	54	92	530	152	65	54	30	38	35
16	68	65	53	55	91	430	152	59	60	27	38	33
17	66	69	53	55	90	390	150	60	59	29	35	31
18	65	70	52	57	90	380	148	60	81	33	32	30
19	62	71	52	58	90	380	136	60	80	34	34	29
20	62	71	55	59	90	390	136	59	62	32	31	28
21	65	70	55	60	90	550	134	58	55	28	30	31
22	66	69	57	60	100	676	128	60	55	28	30	36
23	66	69	57	60	100	560	124	63	56	29	32	37
24	65	70	57	62	100	448	120	71	55	28	33	45
25	65	75	57	65	100	424	113	86	54	28	33	62
26	65	72	57	67	100	405	108	88	53	30	28	63
27	65	70	57	66	100	326	104	87	50	23	28	62
28	65	69	57	68	110	304	102	82	47	20	28	74
29	65	68	57	70	------	285	101	78	46	21	28	74
30	66	70	56	75	------	278	95	75	44	32	27	62
31	68	------	55	80	------	254	------	71	------	32	28	------
TOTAL	1,941	2,088	1,732	1,827	2,640	9,566	4,681	2,248	1,741	1,000	952	1,338
MEAN	62.6	69.6	55.9	58.9	94.3	309	156	72.5	58.0	32.3	30.7	44.6
MAX	69	75	65	80	110	676	233	90	81	44	38	74
MIN	53	55	52	53	85	110	95	58	44	20	21	28
AC-FT	3,850	4,140	3,440	3,620	5,240	18,970	9,280	4,460	3,450	1,980	1,890	2,650

CAL YR 1972 TOTAL 89,952 MEAN 246 MAX 1,490 MIN 49 AC-FT 178,400
WTR YR 1973 TOTAL 31,754 MEAN 87.0 MAX 676 MIN 20 AC-FT 62,980

05059500 Sheyenne River at West Fargo, N. Dak.

LOCATION.--Lat 46°53'28", long 96°54'24", in SE¼SE¼ sec.31, T.140 N., R.49 W., Cass County, on right bank at downstream side of county highway bridge, 1 mi (2 km) north of West Fargo, 3 mi (5 km) upstream from Maple River, and at mile 24.5 (kilometre 39.4).

DRAINAGE AREA.--8,870 mi^2 (22,970 km^2), approximately, of which about 5,780 mi^2 (14,970 km^2) is probably non-contributing, includes 3,800 mi^2 (9,840 km^2) in closed basins.

PERIOD OF RECORD.--March to November 1902 (gage heights only), April 1903 to October 1905, March to August 1919, September 1929 to current year. Published as "at or near Haggart" 1902-7, 1919. Records for March to November 1902 and November 1905 to June 1907, published in WSP 100, 171, 207, and 245, have been found to be unreliable and should not be used. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 877.19 ft (267.368 m) above mean sea level. June 27, 1933 to September 1969 on left bank about 600 ft (180 m) downstream on unimproved channel at same datum. See WSP 1728 or 1913 for history of changes prior to June 27, 1933.

AVERAGE DISCHARGE.--46 years (1903-5, 1929-73), 164 ft^3/s (4.644 m^3/s) 118,800 acre-ft/yr (146.5 hm^3/yr); median of yearly mean discharges, 140 ft^3/s (3.96 m^3/s) 101,000 acre-ft/yr (125 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 500 ft^3/s (14.2 m^3/s) Mar. 17, gage height, 13.14 ft (4.005 m) backwater from ice; minimum, 24 ft^3/s (0.68 m^3/s) Oct. 15.
Period of record: Maximum discharge, 3,110 ft^3/s (88.1 m^3/s) Apr. 4, 1966; maximum gage height, 21.70 ft (6.614 m) Apr. 16, 17, 1969, backwater from Red and/or Maple Rivers; minimum discharge, 2.0 ft^3/s (0.057 m^3/s) Dec. 14, 1936, gage height, 1.90 ft (0.579 m).

REMARKS.--Records good. Flow regulated to a large degree by Lake Ashtabula (see station 05057500). Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1388: 1904(M). WSP 1728: Drainage area. See also "PERIOD OF RECORD."

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	59	64	56	85	115	276	87	82	45	28	48
2	54	61	63	55	90	120	249	85	81	46	28	53
3	54	61	62	55	90	125	228	80	80	45	28	54
4	54	61	60	55	90	130	222	75	76	44	29	44
5	56	61	55	55	90	135	218	75	71	42	29	41
6	56	62	55	55	90	140	205	77	68	40	34	42
7	57	61	55	55	90	150	193	70	66	40	34	42
8	59	61	55	55	90	160	186	70	66	38	32	40
9	57	61	54	54	90	160	179	72	66	39	35	38
10	60	60	54	53	90	160	174	71	66	38	34	40
11	64	59	54	53	90	170	170	72	65	36	32	45
12	61	58	54	53	90	170	166	76	61	34	30	55
13	68	57	54	53	90	170	162	75	56	38	30	54
14	59	55	54	53	90	200	154	63	52	34	29	49
15	30	50	53	54	90	300	149	64	50	32	29	45
16	43	45	53	55	90	380	147	90	52	31	31	42
17	53	45	53	55	89	454	117	70	53	31	33	39
18	56	50	52	57	88	420	121	59	58	34	34	37
19	69	60	52	58	95	380	133	62	59	31	34	35
20	90	65	54	59	98	340	135	64	70	30	33	34
21	54	65	54	60	100	310	128	56	73	30	45	38
22	53	64	55	60	100	350	128	68	60	29	36	36
23	56	63	57	60	100	450	113	64	52	28	34	35
24	58	63	57	63	100	420	105	71	52	28	32	61
25	58	65	57	65	100	380	104	76	53	28	31	56
26	57	72	57	67	105	360	104	84	53	28	31	58
27	57	70	57	66	110	350	102	94	52	28	31	67
28	56	70	57	68	110	340	98	96	52	30	31	68
29	56	70	57	70	------	330	96	84	49	31	32	65
30	58	65	57	75	------	320	86	83	48	29	31	81
31	58	------	57	80	------	310	------	80	------	28	40	------
TOTAL	1,775	1,819	1,732	1,832	2,630	8,299	4,648	2,313	1,842	1,065	1,000	1,442
MEAN	57.3	60.6	55.9	59.1	93.9	268	155	74.6	61.4	34.4	32.3	48.1
MAX	90	72	64	80	110	454	276	96	82	46	45	81
MIN	30	45	52	53	85	115	86	56	48	28	28	34
AC-FT	3,520	3,610	3,440	3,630	5,220	16,460	9,220	4,590	3,650	2,110	1,980	2,860

CAL YR 1972 TOTAL 93,356 MEAN 255 MAX 1,490 MIN 26 AC-FT 185,200
WTR YR 1973 TOTAL 30,397 MEAN 83.3 MAX 454 MIN 28 AC-FT 60,290

05059600 Maple River near Hope, N. Dak.

LOCATION.--Lat 47°19'30", long 97°47'25", in NW¼NW¼ sec.4, T.144 N., R.56 W., Steele County, 100 ft (30 m) downstream from box culvert on State Highway 38, 500 ft (152 m) east of the intersection of State Highways 32 and 38, and 3 mi (5 km) west of Hope.

DRAINAGE AREA.--20.2 mi^2 (52.3 km^2), of which about 2.8 mi^2 (7.3 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,296.62 ft (395.210 m) above mean sea level.

AVERAGE DISCHARGE.--9 years, 3.74 ft^3/s (0.106 m^3/s), 2,710 acre-ft/yr (3.341 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 59 ft^3/s (1.67 m^3/s) Mar. 14, gage height, 2.92 ft (0.890 m); maximum gage height, 4.30 ft (1.311 m), Mar. 16, backwater from ice; no flow for many months.
Period of record: Maximum discharge, 734 ft^3/s (20.8 m^3/s) June 10, 1968, gage height, 4.78 ft (1.457 m); maximum gage height, 5.46 ft (1.664 m) Mar. 15, 1968, backwater from ice; no flow for many months each year.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	.12	.01			0	0
2						0	.10	0			0	0
3						0	.06	0			0	0
4						.01	.03	0			0	0
5						.02	.03	0			0	0
6						.02	.03	0			0	0
7						1.0	.03	0			0	0
8						2.5	.02	0			0	0
9						4.2	.02	0			0	0
10						3.7	.01	0			0	0
11						4.4	0	0			0	0
12						5.9	0	0			0	0
13						7.0	0	0			0	0
14						25	0	0			0	0
15						45	0	0			0	0
16						20	0	0			0	0
17						12	0	0			0	0
18						5.9	0	0			0	0
19						4.9	0	0			0	0
20						3.0	.02	0			0	0
21						1.7	.03	0			.40	0
22						1.2	.03	0			0	0
23						.78	.02	0			0	0
24						.60	.02	0			0	.02
25						.40	.01	0			0	0
26						.32	.01	0			0	0
27						.28	.01	0			0	0
28						.21	.01	0			0	0
29					------	.21	.01	0			0	0
30					------	.18	.01	0			0	0
31		------			------	.15	------	0	------		0	------
TOTAL	0	0	0	0	0	150.58	.63	.01	0	0	.40	.02
MEAN	0	0	0	0	0	4.86	.021	.0003	0	0	.013	.0007
MAX	0	0	0	0	0	45	.12	.01	0	0	.40	.02
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	299	1.2	.02	0	0	.8	.04

CAL YR 1972 TOTAL 1,177.89 MEAN 3.22 MAX 203 MIN 0 AC-FT 2,340
WTR YR 1973 TOTAL 151.64 MEAN .42 MAX 45 MIN 0 AC-FT 301

PEAK DISCHARGE (BASE, 50 FT^3/S).--MAR. 14 (1200) 59 FT^3/S (2.92 FT).

05059700 Maple River near Enderlin, N. Dak.

LOCATION.--Lat 46°37'18", long 97°34'25", on west line sec.2, T.136 N., R.55 W., Ransom County, on left bank 25 ft (8 m) downstream from county highway bridge, 1 mi (1.6 km) downstream from South Branch 1.2 mi (1.9 km) east of Enderlin.

DRAINAGE AREA.--843 mi^2 (2,180 km^2), of which about 47 mi^2 (122 km^2) is probably noncontributing.

PERIOD OF RECORD.--May 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,056.72 ft (322.088 m) above mean sea level. Sept. 21, 1956 to June 9, 1969, recording gage on right bank at same datum. Prior to Sept. 20, 1956, nonrecording gage at site 25 ft (8 m) upstream at same datum.

AVERAGE DISCHARGE.--17 years, 36.2 ft^3/s (1.025 m^3/s), 26,230 acre-ft/yr (32.3 hm^3/yr); median of yearly mean discharges, 23 ft^3/s (0.65 m^3/s) 16,700 acre-ft/yr (21 hm^3/s).

EXTREMES.--Current year: Maximum discharge, 1,400 ft^3/s (39.4 m^3/s) Mar. 17, gage height, 9.03 ft (2.752 m), backwater from ice; minimum, 0.85 ft^3/s (0.024 m^3/s) July 20, gage height, 3.29 ft (1.003 m).
Period of record: Maximum discharge, 5,750 ft^3/s (163 m^3/s) Apr. 11, 1969, gage height, 13.55 ft (4.130 m); minimum, 0.1 ft^3/s (0.003 m^3/s) Dec. 7-9, 1963; minimum gage height, 1.90 ft (0.579 m) Oct. 5, 1956.

REMARKS.--Records good except those for the period of no gage height record, which are fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	4.1	4.5	3.5	4.5	7.6	71	12	6.9	3.0	1.8	2.5
2	3.8	4.1	4.5	3.3	4.7	10	62	12	4.9	2.5	1.9	2.3
3	3.8	4.1	4.5	3.3	4.9	27	55	10	4.5	1.6	1.6	3.3
4	3.8	4.5	4.5	3.3	5.0	23	50	9.0	4.1	1.1	1.7	2.6
5	3.8	4.9	4.5	3.3	5.1	24	45	8.3	3.5	1.3	1.6	2.0
6	3.8	4.1	3.8	3.3	5.3	26	42	7.6	3.3	1.3	1.9	1.9
7	3.8	4.9	3.8	3.3	5.4	27	38	6.9	3.0	1.5	1.9	2.2
8	3.8	5.5	3.9	3.3	5.5	26	36	6.2	5.5	1.6	1.9	2.5
9	4.1	5.5	4.0	3.3	5.5	26	32	6.2	4.5	1.8	1.7	2.8
10	9.0	6.2	4.0	3.3	4.9	32	28	6.2	4.5	2.2	1.9	2.8
11	12	6.9	4.1	3.5	5.5	53	18	5.5	4.1	2.0	1.8	2.6
12	11	6.9	4.2	3.7	4.5	64	24	5.5	3.0	1.8	1.7	2.6
13	10	6.2	4.3	3.9	3.0	86	15	5.5	2.5	1.5	1.9	3.3
14	6.9	6.2	4.4	4.0	2.6	217	20	4.5	2.8	1.6	1.8	3.8
15	4.1	6.9	4.5	4.2	2.5	359	20	4.5	3.3	1.2	2.3	2.8
16	3.3	6.9	4.5	4.4	2.6	500	18	3.8	3.3	1.2	2.0	2.8
17	3.3	5.5	4.5	4.5	2.6	1,100	18	3.8	2.8	1.2	2.6	2.8
18	3.3	4.1	4.5	4.5	2.6	960	17	4.1	2.8	1.5	5.5	2.5
19	3.3	4.5	4.5	4.5	2.6	630	15	3.8	2.2	2.0	5.5	2.8
20	3.3	4.5	4.5	4.3	2.8	470	20	4.5	2.2	1.7	4.9	2.8
21	3.3	4.5	4.5	4.2	4.1	355	19	4.9	2.0	1.7	4.9	4.1
22	3.0	4.5	4.5	4.3	9.7	275	19	7.6	2.5	1.8	4.5	3.5
23	3.0	4.5	4.5	4.5	12	249	20	6.2	2.5	1.7	3.8	3.5
24	3.5	4.9	4.5	4.6	5.5	216	19	6.2	2.8	1.7	1.9	3.6
25	3.8	4.9	4.5	4.7	4.5	184	18	6.2	2.6	1.7	1.6	7.6
26	3.8	4.9	4.5	4.8	4.1	159	17	5.5	3.0	1.8	1.7	10
27	3.0	4.9	4.5	4.7	4.1	140	16	5.5	3.3	1.5	1.7	9.7
28	3.0	4.9	4.5	4.6	4.9	130	15	4.5	3.5	1.5	2.2	5.2
29	3.0	4.9	4.5	4.5	------	114	13	5.5	3.0	2.3	2.2	2.3
30	4.1	4.9	4.2	4.4	------	98	13	8.3	3.5	1.9	2.2	2.5
31	4.1	------	3.8	4.5	------	83	------	7.6	------	1.9	2.5	------
TOTAL	141.6	154.3	134.5	124.5	131.0	6,670.6	813	197.9	102.4	53.1	77.1	105.7
MEAN	4.57	5.14	4.34	4.02	4.68	215	27.1	6.38	3.41	1.71	2.49	3.52
MAX	12	6.9	4.5	4.8	12	1,100	71	12	6.9	3.0	5.5	10
MIN	3.0	4.1	3.8	3.3	2.5	7.6	13	3.8	2.0	1.1	1.6	1.9
AC-FT	281	306	267	247	260	13,230	1,610	393	203	105	153	210

CAL YR 1972 TOTAL 15,415.0 MEAN 42.1 MAX 674 MIN 2.8 AC-FT 30,580
WTR YR 1973 TOTAL 8,705.7 MEAN 23.9 MAX 1,100 MIN 1.1 AC-FT 17,270

PEAK DISCHARGE (BASE, 100 FT^3/S).--MAR. 17, 1,400 FT^3/S.

05060000 Maple River near Mapleton, N. Dak.

LOCATION.--Lat 46°51'40", long 97°06'10", in SW¼SE¼ sec.10, T.139 N., R.51 W., Cass County, on left bank 25 ft (8 m) upstream from dam, 3 mi (5 km) southwest of Mapleton, and 20 mi (32 km) upstream from mouth.

DRAINAGE AREA.--1,450 mi^2 (3,760 km^2), of which about 71 mi^2 (184 km^2) is probably noncontributing.

PERIOD OF RECORD.--April 1944 to current year. Prior to October 1958, published as "at Mapleton."

GAGE.--Water-stage recorder and rubble masonry dam. Datum of gage is 893.53 ft (272.348 m) above mean sea level (levels by Soil Conservation Service). Prior to Oct. 1, 1958, nonrecording gage at site 7 mi (11 km) downstream at different datum.

AVERAGE DISCHARGE.--29 years, 63.4 ft^3/s (1.795 m^3/s), 45,930 acre-ft/yr (56.63 hm^3/yr); median of yearly mean discharges, 38 ft^3/s (1.08 m^3/s), 27,500 acre-ft/yr (33.9 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,300 ft^3/s (36.8 m^3/s) Mar. 15; minimum, 0.70 ft^3/s (0.020 m^3/s) July 26, gage height,1.47 ft (0.448 m).
Period of record: Maximum discharge, 7,000 ft^3/s (198 m^3/s) Apr. 11, 1969, gage height, 14.00 ft (4.267 m); no flow at times in most years.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1175: 1947(M). WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	19	9.8	3.9	4.9	4.8	218	29	18	1.6	1.2	2.1
2	4.2	14	9.0	3.3	4.9	4.8	198	30	17	1.6	1.2	4.4
3	4.6	16	9.0	3.3	4.9	4.8	175	30	17	1.4	1.4	7.4
4	5.8	17	8.2	3.3	4.9	4.9	155	27	15	1.2	1.6	9.8
5	4.6	18	8.2	3.3	4.9	5.0	133	25	13	1.2	1.6	8.2
6	4.2	18	7.4	3.3	4.9	13	110	26	12	1.1	1.6	7.4
7	3.9	17	7.4	3.3	4.9	70	102	27	11	1.1	1.7	7.4
8	2.3	20	6.6	3.3	4.9	275	92	26	11	1.0	3.0	8.2
9	2.1	20	6.6	3.3	4.9	200	84	27	11	1.0	4.2	7.4
10	3.0	19	6.6	3.9	4.9	275	82	27	9.8	1.0	3.0	7.4
11	3.9	17	6.6	3.9	4.9	225	69	26	7.4	1.0	2.5	6.6
12	4.2	15	6.6	3.9	4.9	140	69	24	5.8	1.0	2.3	5.0
13	5.0	14	6.6	3.9	4.9	140	65	24	4.2	1.0	3.0	3.6
14	3.9	13	6.6	4.1	4.9	350	60	23	4.2	1.0	2.6	3.0
15	4.6	13	6.6	4.4	4.9	1,000	55	24	3.9	1.0	2.3	2.5
16	4.6	13	6.6	4.6	4.8	1,160	58	22	5.0	1.0	1.9	1.9
17	4.6	13	6.6	4.8	4.8	1,020	56	21	5.0	1.0	1.7	1.7
18	7.4	13	6.6	4.9	4.8	698	54	20	5.8	1.0	1.7	1.7
19	9.0	13	6.6	5.0	4.8	578	49	17	6.6	1.0	1.6	1.6
20	13	13	6.6	5.0	4.8	785	55	15	7.4	1.0	1.6	1.7
21	12	12	6.6	5.0	4.8	955	53	14	9.0	1.0	1.6	1.6
22	8.2	12	6.6	5.0	4.8	962	49	16	9.8	.90	1.7	1.7
23	8.2	12	6.6	5.0	4.8	740	51	20	9.0	.80	1.6	1.4
24	11	12	6.6	5.0	4.8	545	51	23	8.2	.80	1.6	14
25	13	12	5.8	5.0	4.8	440	49	21	5.8	.80	1.6	54
26	12	12	5.8	5.0	4.8	404	46	23	3.3	.80	1.6	62
27	8.2	12	5.0	5.0	4.8	362	45	28	2.5	.80	2.1	51
28	9.8	12	5.0	5.0	4.8	320	42	27	1.9	1.0	1.6	41
29	12	12	5.0	4.9	------	288	38	26	1.6	1.0	1.6	31
30	14	9.8	5.0	4.9	------	268	35	25	1.6	1.1	1.6	25
31	15	------	5.0	4.9	------	240	------	21	------	1.1	1.6	------
TOTAL	222.2	432.8	207.8	133.4	135.9	12,477.3	2,398	734	242.8	32.30	59.9	381.7
MEAN	7.17	14.4	6.70	4.30	4.85	402	79.9	23.7	8.09	1.04	1.93	12.7
MAX	15	20	9.8	5.0	4.9	1,160	218	30	18	1.6	4.2	62
MIN	2.1	9.8	5.0	3.3	4.8	4.8	35	14	1.6	.80	1.2	1.4
AC-FT	441	858	412	265	270	24,750	4,760	1,460	482	64	119	757

CAL YR 1972 TOTAL 42,650.20 MEAN 117 MAX 2,360 MIN .60 AC-FT 84,600
WTR YR 1973 TOTAL 17,458.10 MEAN 47.8 MAX 1,160 MIN .80 AC-FT 34,630

PEAK DISCHARGE (BASE, 300 FT^3/S).--MAR. 15, 1,300 FT^3/S; MAR. 22 (0200) 1,000 FT^3/S (6.77 FT).

05060500 Rush River at Amenia, N. Dak.

LOCATION.--Lat 47°01'00", long 97°12'50", in sec.24, T.141 N., R.52 W., Cass County, on left bank on downstream side of bridge on State Highway 18, 0.6 mi (1.0 km) north of Amenia.

DRAINAGE AREA.--116 mi^2 (300 km^2).

PERIOD OF RECORD.--July 1946 to current year.

GAGE.--Water-stage recorder. Altitude of gage is about 943 ft (287 m) above mean sea level, from topographic map. See WSP 1913 for history of changes prior to June 10, 1961.

AVERAGE DISCHARGE.--27 years, 7.93 ft^3/s (0.225 m^3/s), 5,750 acre-ft/yr (7.090 hm^3/yr); median of yearly mean discharges, 5.9 ft^3/s (0.17 m^3/s), 4,300 acre-ft/yr (5.30 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 200 ft^3/s (5.66 m^3/s) Mar. 15, gage height, 8.47 ft (2.582 m), backwater from ice; no flow for many days.
Period of record: Maximum discharge, 1,690 ft^3/s (47.9 m^3/s) Apr. 10, 1969; maximum gage height, 12.15 ft (3.703 m) Mar. 23, 1966, backwater from ice; no flow at times each year.

REMARKS.--Records good. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.89	.35			.50	7.3	2.0	.80		0	0
2	0	.98	.30			2.0	6.3	2.0	.80		0	.12
3	0	.98	.25			5.0	5.5	1.8	.89		0	2.9
4	0	.98	.20			10	4.5	1.7	.64		0	46
5	0	1.1	.15			18	4.5	1.5	.37		0	48
6	0	1.1	.05			19	4.4	1.3	.26		0	24
7	0	1.2	.02			20	3.8	1.3	.15		0	18
8	0	1.3	0			22	3.8	1.2	.12		0	16
9	0	1.4	0			23	3.8	1.2	.06		0	12
10	0	1.4	0			24	3.4	1.5	.03		0	5.9
11	0	1.4	0			25	3.2	1.4	.02		0	4.1
12	0	1.3	0			28	2.0	1.4	.01		0	3.0
13	0	1.2	0			25	1.9	1.3	0		0	2.4
14	0	1.0	0			65	1.5	1.4	0		0	2.0
15	0	1.1	0			180	1.9	1.3	0		0	1.8
16	0	1.0	0			100	2.0	1.2	.03		0	1.5
17	0	1.0	0			90	1.9	1.1	.02		0	1.1
18	0	1.0	0			75	1.6	.89	.02		0	.80
19	0	.89	0			65	1.8	.71	0		0	.71
20	0	.71	0			45	2.0	.64	.88		0	.64
21	.26	.71	0			40	2.4	.71	.57		.14	.64
22	.57	.71	0			31	2.6	1.1	.18		.50	.64
23	.57	.80	0			24	3.2	1.1	.09		.50	.64
24	.50	.89	0			20	3.2	1.2	.01		.15	6.3
25	.57	.98	0			20	2.7	1.5	0		.03	11
26	.64	.80	0			17	1.2	2.0	0		.02	3.8
27	.80	.80	0			16	2.2	2.2	0		0	6.8
28	.89	.71	0			13	2.0	2.0	0		0	7.8
29	.89	.64	0		------	8.7	2.0	1.8	0		0	4.4
30	.89	.40	0		------	9.4	1.9	1.5	0		0	3.4
31	.98	------	0		------	8.0	------	1.2	------		0	------
TOTAL	7.56	29.37	1.32	0	0	1,048.60	90.5	43.15	5.95	0	1.34	236.39
MEAN	.24	.98	.043	0	0	33.8	3.02	1.39	.20	0	.043	7.88
MAX	.98	1.4	.35	0	0	180	7.3	2.2	.89	0	.50	48
MIN	0	.40	0	0	0	.50	1.2	.64	0	0	0	0
AC-FT	15	58	2.6	0	0	2,080	180	86	12	0	2.7	469

CAL YR 1972 TOTAL 2,375.55 MEAN 6.49 MAX 213 MIN 0 AC-FT 4,710
WTR YR 1973 TOTAL 1,464.18 MEAN 4.01 MAX 180 MIN 0 AC-FT 2,900

PEAK DISCHARGE (BASE, 27 FT^3/S).--MAR. 15, 200 FT^3/S; SEPT. 4 (1900) 69 FT^3/S (6.07 FT).

05064500 Red River of the North at Halstad, Minn.

LOCATION.--Lat 47°21'10", long 96°50'50", on line between secs.24 and 25, T.145 N., R.49 W., Traill County, on left bank on upstream side of highway bridge, 0.5 mi (0.8 km) west of Halstad, 2.5 mi (4.0 km) downstream from Wild Rice River, and at mile 375.2 (kilometre 603.7).

DRAINAGE AREA.--21,800 mi^2 (56,500 km^2), approximately, includes 3,800 mi^2 (9,840 km^2) in closed basins.

PERIOD OF RECORD.--April 1936 to June 1937 (no winter records), April 1942 to September 1960 (spring and summer months only), May 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 826.65 ft (251.963 m) above mean sea level. Prior to July 17, 1961, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--12 years, 1,783 ft^3/s (50.49 m^3/s), 1,292,000 acre-ft/yr (1.593 km^3/yr); median of yearly mean discharges, 1,640 ft^3/s (46.4 m^3/s), 1,190,000 acre-ft/yr (1.47 km^3/yr).

EXTREMES.--Current year: Maximum discharge, 6,200 ft^3/s (176 m^3/s) Mar. 18, gage height, 17.71 ft (5.398 m), backwater from ice; minimum, 183 ft^3/s (5.18 m^3/s), Aug. 31, gage height, 2.29 ft (0.698 m).
Period of record: Maximum discharge, 35,700 ft^3/s (1,010 m^3/s) Apr. 18, 1969, gage height, 38.29 ft (11.671 m); minimum discharge observed, 5.4 ft^3/s (0.15 m^3/s) Oct. 8, 9, 12-14, 1936.
Flood in 1897 reached a stage of about 38.5 ft (11.73 m).

REMARKS.--Records good. Some regulation by many controlled lakes and reservoirs on tributaries. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1388: 1936, 1950. WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	602	690	430	450	500	613	2,200	929	853	431	272	206
2	579	690	430	450	600	609	2,080	879	838	423	257	382
3	564	693	430	450	620	623	1,960	838	801	404	257	963
4	564	700	440	450	630	654	1,900	805	790	396	253	1,540
5	564	708	440	440	630	750	1,820	798	790	391	248	1,860
6	567	690	450	440	630	850	1,760	805	787	415	250	1,980
7	573	682	450	430	619	950	1,720	826	772	429	269	1,940
8	585	682	450	430	613	1,050	1,680	819	733	412	284	1,740
9	596	686	450	430	609	1,150	1,600	812	697	391	296	1,540
10	599	690	450	430	588	1,440	1,530	805	672	385	274	1,450
11	630	686	450	430	567	1,850	1,450	794	630	402	267	1,360
12	650	682	450	430	561	2,300	1,420	805	599	370	267	1,290
13	664	646	450	430	558	2,460	1,360	826	576	354	267	1,230
14	672	585	450	430	550	2,820	1,300	876	543	329	272	1,180
15	668	580	450	430	540	4,630	1,220	872	516	322	267	1,110
16	664	590	450	430	530	5,610	1,180	849	525	299	267	1,050
17	647	600	450	430	530	6,070	1,160	838	522	269	286	982
18	609	610	450	430	525	6,120	1,160	826	501	253	306	936
19	606	610	450	430	510	5,820	1,110	830	495	243	314	883
20	623	600	440	430	528	5,500	1,090	780	555	284	309	834
21	640	590	440	430	567	5,300	1,090	726	567	262	299	798
22	679	590	440	430	592	5,020	1,120	711	561	229	289	798
23	668	580	440	430	596	4,800	1,120	690	567	208	362	805
24	657	570	440	430	596	4,280	1,120	715	570	196	332	925
25	675	560	450	430	602	3,460	1,100	736	540	192	255	1,420
26	679	550	450	430	599	3,000	1,070	772	495	199	224	2,150
27	675	530	450	430	606	2,770	1,060	780	462	213	208	2,050
28	675	445	450	430	613	2,710	1,050	780	431	245	201	1,840
29	668	440	450	440	------	2,600	1,030	790	429	253	190	1,700
30	675	430	450	450	------	2,400	990	787	431	257	185	1,600
31	679	------	450	470	------	2,270	------	808	------	269	187	------
TOTAL	19,596	18,385	13,820	13,500	16,209	90,479	41,450	24,907	18,248	9,725	8,214	38,542
MEAN	632	613	446	435	579	2,919	1,382	803	608	314	265	1,285
MAX	679	708	450	470	630	6,120	2,200	929	853	431	362	2,150
MIN	564	430	430	430	500	609	990	690	429	192	185	206
AC-FT	38,870	36,470	27,410	26,780	32,150	179,500	82,220	49,400	36,190	19,290	16,290	76,450

CAL YR 1972 TOTAL 841,795 MEAN 2,300 MAX 16,200 MIN 430 AC-FT 1,670,000
WTR YR 1973 TOTAL 313,075 MEAN 858 MAX 6,120 MIN 185 AC-FT 621,000

05064900 Beaver Creek near Finley, N. Dak.
(Hydrologic bench-mark station)

LOCATION.--Lat 47°35'40", long 97°42'18", in NE¼ sec.31, T.148 N., R.55 W., Steele County, on right bank 500 ft (152 m) upstream from bridge on county highway, 7 mi (11 km) northeast of Finley.

DRAINAGE AREA.--160 mi^2 (410 km^2), approximately.

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder and concrete broad-crested weir. Datum of gage is 1,170.08 ft (356.640 m) above mean sea level.

AVERAGE DISCHARGE.--9 years, 9.52 ft^3/s (0.270 m^3/s) 6,900 acre-ft/yr (8.508 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 170 ft^3/s (4.81 m^3/s) Mar. 14, gage height, 4.35 ft (1.326 m), backwater from ice; no flow for several months.
Period of record: Maximum discharge, 1,320 ft^3/s (37.4 m^3/s) Apr. 9, 1969, gage height, 6.55 ft (1.996 m); maximum gage height, 9.70 ft (2.957 m) Mar. 14, 1966, backwater from ice; no flow for several months each year.

REMARKS.--Records good. Records of chemical analyses and suspended sediment loads for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	1.0	6.2	.27	.18	2.8		
2					0	1.5	5.4	.24	.15	1.0		
3					0	3.0	4.6	.24	.15	.69		
4					0	5.0	3.8	.24	.07	.35		
5					0	12	3.0	.21	.02	.27		
6					0	4.6	2.8	.15	0	.18		
7					0	1.0	2.1	.15	0	.04		
8					0	1.3	1.5	.12	0	0		
9					0	8.9	1.3	.12	0	0		
10					0	5.7	1.1	.12	0	0		
11					0	10	.96	.21	0	0		
12					0	19	.69	.21	0	0		
13					0	16	.59	.15	0	0		
14					0	88	.55	.12	0	0		
15					0	38	.55	.09	0	0		
16					0	30	.55	.07	.02	0		
17					0	25	.55	.03	.43	0		
18					0	17	.55	.03	.64	0		
19					0	12	.59	.03	3.5	0		
20					.50	6.2	.59	.01	25	0		
21					.50	4.2	.59	.63	20	0		
22					.50	5.4	.59	4.0	16	0		
23					.50	16	.59	3.5	11	0		
24					.30	14	.59	3.7	7.9	0		
25					.20	14	.55	2.8	5.4	0		
26					.10	12	.51	2.3	4.0	0		
27					.10	13	.47	1.1	4.0	0		
28					.40	12	.43	.96	4.0	0		
29					------	11	.39	.82	4.0	0		
30					------	9.4	.35	.39	4.0	0		
31		------			------	6.8	------	.35	------	0		------
TOTAL	0	0	0	0	3.10	423.0	43.03	23.36	110.46	5.33	0	0
MEAN	0	0	0	0	.11	13.6	1.43	.75	3.68	.17	0	0
MAX	0	0	0	0	.50	88	6.2	4.0	25	2.8	0	0
MIN	0	0	0	0	0	1.0	.35	.01	0	0	0	0
AC-FT	0	0	0	0	6.1	839	85	46	219	11	0	0

CAL YR 1972 TOTAL 4,205.40 MEAN 11.5 MAX 458 MIN 0 AC-FT 8,340
WTR YR 1973 TOTAL 608.28 MEAN 1.67 MAX 88 MIN 0 AC-FT 1,210

PEAK DISCHARGE (BASE, 50 FT^3/S).--MAR. 14, 170 FT^3/S.

05065500 Goose River near Portland, N. Dak.

LOCATION.--Lat 47°32'20", long 97°27'20", in SE¼NE¼ sec.19, T.147 N., R.53 W., Traill County, on left bank 75 ft (23 m) upstream from bridge on State Highway 18, 1.2 mi (1.9 km) upstream from unnamed tributary, 4 mi (6 km) downstream from Beaver Creek, and 5 mi (8 km) northwest of Portland.

DRAINAGE AREA.--517 mi^2 (1,340 km^2), of which about 110 mi^2 (285 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1939 to current year.

GAGE.--Water-stage recorder and wooden control. Datum of gage is 967.48 ft (294.888 m) above mean sea level. Prior to Oct. 1, 1956, nonrecording gages at site 2 mi (3 km) upstream at datum 11.28 ft (3.438 m) higher.

AVERAGE DISCHARGE.--34 years, 29.2 ft^3/s (0.827 m^3/s), 21,160 acre-ft/yr (26.09 hm^3/yr); median of yearly mean discharges, 14 ft^3/s (0.40 m^3/s), 10,100 acre-ft/yr (12.5 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 247 ft^3/s (7.00 m^3/s) Mar. 17, gage height, 7.71 ft (2.350 m), backwater from ice; no flow for many days.
Period of record: Maximum discharge, 8,530 ft^3/s (242 m^3/s) May 9, 1950, gage height, 20.12 ft (6.133 m) on basis of contracted opening measurement, present site and datum; no flow at times most years.

REMARKS.--Records good. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	0	.10	.10		0	42	2.7	1.3	7.4		
2	.01	0	.10	.10		0	26	2.7	1.4	5.8		
3	.01	0	.10	.10		.18	22	1.7	1.5	4.0		
4	.01	0	.07	.10		3.2	19	1.5	.98	4.1		
5	.01	0	.05	.07		1.0	18	1.4	.58	2.1		
6	.01	0	.05	.06		1.5	16	2.3	.44	.84		
7	.01	0	.05	.02		2.0	13	2.3	.32	.57		
8	.01	0	.05	0		3.0	11	2.9	.17	.22		
9	.01	0	.05	0		12	9.9	1.6	.11	.15		
10	.01	0	.04	0		25	8.3	2.3	.09	.92		
11	.01	0	.04	0		25	7.2	2.3	.12	.71		
12	.01	0	.04	0		30	7.0	1.5	.13	.41		
13	.01	0	.04	0		40	7.2	1.1	.01	.13		
14	.01	0	.04	0		100	6.6	1.0	.05	.06		
15	.01	0	.04	0		140	5.5	1.4	.07	.03		
16	.01	0	.04	0		150	3.9	.99	.09	0		
17	.01	0	.04	0		157	2.8	.45	.16	0		
18	.01	0	.09	0		143	2.6	.18	.10	0		
19	0	0	.10	0		140	1.9	.19	.08	0		
20	0	0	.10	0		130	1.8	.24	.08	0		
21	0	0	.10	0		85	2.5	1.4	.05	0		
22	0	0	.10	0		79	2.9	2.5	4.9	0		
23	0	.01	.10	0		62	7.8	2.8	62	0		
24	0	.10	.10	0		67	12	6.9	49	0		
25	0	.15	.10	0		77	6.2	6.8	33	0		
26	0	.15	.10	0		100	5.3	6.5	25	0		
27	0	.15	.10	0		142	3.5	5.4	20	0		
28	0	.10	.10	0		81	2.3	5.2	15	0		
29	0	.10	.10	0	------	66	2.1	3.3	12	0		
30	0	.10	.10	0	------	74	2.2	3.9	10	0		
31	0	------	.10	0	------	56	------	2.3	------	0		------
TOTAL	.18	.86	2.33	.55	0	1,991.88	278.5	77.75	238.73	27.44	0	0
MEAN	.006	.029	.075	.018	0	64.3	9.28	2.51	7.96	.89	0	0
MAX	.01	.15	.10	.10	0	157	42	6.9	62	7.4	0	0
MIN	0	0	.04	0	0	0	1.8	.18	.01	0	0	0
AC-FT	.4	1.7	4.6	1.1	0	3,950	552	154	474	54	0	0

CAL YR 1972 TOTAL 19,198.05 MEAN 52.5 MAX 1,700 MIN 0 AC-FT 38,080
WTR YR 1973 TOTAL 2,618.22 MEAN 7.17 MAX 157 MIN 0 AC-FT 5,190

PEAK DISCHARGE (BASE, 200 FT^3/S).--MAR. 17, 247 FT^3/S.

05066500 Goose River at Hillsboro, N. Dak.

LOCATION.--Lat 47°24'20", long 97°03'40", in NW¼ sec.5, T.145 N., R.50 W., Traill County, on right bank 600 ft (180 m) upstream from Foogman Dam in Hillsboro 27.5 mi (44 km) upstream from mouth.

DRAINAGE AREA.--1,203 mi^2 (3,116 km^2), of which 110 mi^2 (285 km^2) is probably noncontributing.

PERIOD OF RECORD.--March 1931 to current year (no winter records 1932-34). Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder and masonry dam. Datum of gage is 879.52 ft (268.078 m) above mean sea level. Sept. 26, 1941, to Oct. 27, 1965, at site 600 ft (180 m) downstream at same datum. See WSP 1728 or 1913 for history of changes prior to Sept. 26, 1941.

AVERAGE DISCHARGE.--40 years (1931-32, 1934-73), 62.9 ft^3/s (1.781 m^3/s) 45,570 acre-ft/yr (56.19 hm^3/yr); median of yearly mean discharges, 36 ft^3/s (1.02 m^3/s) 26,100 acre-ft/yr (32.2 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,280 ft^3/s (36.2 m^3/s) Mar. 15, gage height 4.05 ft (1.234 m); minimum daily discharge, 0.18 ft^3/s (0.005 m^3/s) Oct. 17, 18, gage height 1.66 ft (0.506 m).
Period of record: Maximum discharge, 9,420 ft^3/s (267 m^3/s) Apr. 19, 1950; maximum gage height, 14.94 ft (4.554 m) Apr. 19, 1950; no flow at times.

REMARKS.--Records good except those for periods of no gage height record, which are fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEAR).--WSP 925: 1935-36, 1939. WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	6.8	5.1	3.8	3.6	6.8	112	17	26	18	2.5	1.9
2	.48	6.8	4.7	3.8	3.6	7.7	103	18	20	14	2.4	4.5
3	.53	6.8	4.2	3.8	3.6	14	89	18	18	11	2.1	3.0
4	.24	5.6	4.1	3.7	3.6	17	87	18	17	9.4	2.0	1.9
5	.70	5.6	4.0	3.7	3.8	21	82	17	15	8.0	2.3	1.7
6	3.8	6.8	4.0	3.7	5.6	18	76	17	12	4.7	1.7	1.4
7	3.8	6.8	4.0	3.7	6.8	29	70	17	11	3.1	1.8	1.4
8	.62	8.0	4.0	3.7	7.1	45	63	17	10	3.1	1.9	1.9
9	.38	8.0	4.0	3.7	5.0	45	57	17	8.8	3.1	1.9	2.4
10	.38	8.0	4.0	3.7	4.7	61	52	16	6.9	2.2	.94	2.4
11	.94	8.0	4.0	3.7	4.7	114	50	17	6.9	1.7	.94	2.4
12	.62	7.1	4.0	3.7	4.7	132	48	18	6.4	1.3	.94	1.9
13	.62	6.8	4.0	3.7	6.4	193	46	17	6.3	1.2	1.4	1.4
14	.62	6.8	4.0	3.7	8.0	390	44	17	6.3	1.1	1.4	1.4
15	.62	6.8	3.9	3.7	8.0	1,090	46	12	5.3	1.1	1.4	.94
16	.38	6.8	3.9	3.7	6.8	1,220	42	14	5.1	1.0	1.4	.94
17	.18	6.8	3.8	3.7	7.6	1,100	38	17	4.6	.98	.94	1.4
18	.18	6.8	3.8	3.7	6.7	758	35	14	3.9	.96	.94	1.4
19	.38	6.8	3.8	3.6	7.5	590	33	14	4.7	.93	.94	1.4
20	.38	6.8	3.8	3.6	7.0	450	32	14	5.3	.90	.94	1.4
21	.62	6.8	3.8	3.6	6.8	361	40	14	4.9	.88	1.9	3.8
22	.62	6.8	3.8	3.6	6.7	292	37	15	4.4	.86	1.9	3.1
23	.62	6.8	3.8	3.6	8.0	237	35	14	4.7	1.7	1.9	1.9
24	.62	6.8	3.8	3.6	6.3	208	34	12	4.7	1.6	2.2	33
25	.62	6.8	3.8	3.6	6.0	191	31	17	6.8	1.9	2.2	20
26	.94	6.8	3.8	3.6	6.1	181	29	22	33	3.0	3.0	17
27	.94	8.0	3.8	3.6	5.6	160	28	28	35	3.4	2.7	8.0
28	.62	4.5	3.8	3.6	6.8	174	27	35	28	3.0	2.4	4.7
29	.62	5.2	3.8	3.6	------	174	25	33	24	2.8	2.2	1.9
30	5.6	5.2	3.8	3.6	------	142	24	30	20	2.7	2.0	1.9
31	5.6	------	3.8	3.6	------	117	------	28	------	2.6	1.9	------
TOTAL	33.89	202.4	122.9	113.7	167.1	8,538.5	1,515	574	365.0	112.21	55.08	132.38
MEAN	1.09	6.75	3.96	3.67	5.97	275	50.5	18.5	12.2	3.62	1.78	4.41
MAX	5.6	8.0	5.1	3.8	8.0	1,220	112	35	35	18	3.0	33
MIN	.18	4.5	3.8	3.6	3.6	6.8	24	12	3.9	.86	.94	.94
AC-FT	67	401	244	226	331	16,940	3,010	1,140	724	223	109	263

CAL YR 1972 TOTAL 47,594.89 MEAN 130 MAX 2,360 MIN .18 AC-FT 94,400
WTR YR 1973 TOTAL 11,932.16 MEAN 32.7 MAX 1,220 MIN .18 AC-FT 23,670

PEAK DISCHARGE (BASE, 200 FT^3/S).--MAR. 15 (2130) 1,280 FT^3/S (4.05 FT).

NOTE.--No gage-height record Nov. 29 to Feb. 4, Apr. 4-30, July 8 and Aug. 24 to Sept. 3.

05082500 Red River of the North at Grand Forks, N. Dak.

LOCATION.--Lat 47°56'34", long 97°03'10", in SW¼NE¼ sec.33, T.152 N., R.50 W., Grand Forks County, on left bank on second floor of old sewage plant in Grand Forks, 2.3 mi (3.7 km) downstream from Red Lake River, and at mile 296.0 (kilometre 476.3).

DRAINAGE AREA.--30,100 mi^2 (78,000 km^2), approximately, includes 3,800 mi^2 (9,840 km^2) in closed basins.

PERIOD OF RECORD.--April 1882 to current year. Monthly discharge only prior to May 1901, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 778.35 ft (237.241 m) above mean sea level. Nov. 3, 1933, to Apr. 13, 1965, water-stage recorder 0.3 mi (0.5 km) upstream at present datum. See WSP 1728 or 1913 for history of changes prior to Nov. 3, 1933.

AVERAGE DISCHARGE.--91 years, 2,455 ft^3/s (69.53 m^3/s) 1,779,000 acre-ft/yr (2.194 km^3/yr).

EXTREMES.--Current year: Maximum discharge, 11,300 ft^3/s (320 m^3/s) Mar. 20, gage height 27.32 ft (8.327 m); minimum observed discharge, 421 ft^3/s (11.9 m^3/s) July 24; minimum gage height, 3.4 ft (1.04 m) July 23-25. Period of record: Maximum discharge about 80,000 ft^3/s (2,270 m^3/s) Apr. 10, 1897, gage height, 50.2 ft (15.30 m), site and datum then in use, from rating curve extended above 54,000 ft^3/s (1,530 m^3/s) minimum, 2.4 ft^3/s (0.068 m^3/s) Feb. 3-5, 12, 14, 16-19, 1937, caused by unusual regulation during repair of dam at Grand Forks.

REMARKS.--Records good. Flow regulated by many lakes and reservoirs on tributaries. Records of chemical analysis and water temperatures for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 855: 1936(M). WSP 1115: 1942. WSP 1175: 1897(M). WSP 1388: 1904, 1914-15, 1917-19, 1921-22, 1927, 1950. WSP: 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,740	1,920	1,060	1,200	1,100	1,170	3,610	1,480	1,300	735	585	579
2	1,720	1,910	1,100	1,200	1,100	1,190	3,400	1,420	1,290	714	637	634
3	1,700	1,890	1,100	1,190	1,100	1,200	3,200	1,350	1,320	704	627	760
4	1,670	1,870	1,100	1,190	1,100	1,230	3,000	1,290	1,280	682	606	1,090
5	1,660	1,860	1,080	1,180	1,110	1,300	2,700	1,240	1,270	654	597	2,130
6	1,660	1,870	1,060	1,170	1,120	1,490	2,550	1,200	1,270	624	615	3,210
7	1,660	1,860	1,080	1,170	1,130	1,800	2,410	1,200	1,260	621	640	4,090
8	1,650	1,760	1,140	1,140	1,140	2,000	2,280	1,240	1,240	668	696	4,530
9	1,660	1,670	1,170	1,120	1,150	2,410	2,170	1,290	1,210	682	756	4,360
10	1,680	1,620	1,170	1,100	1,190	2,900	2,060	1,360	1,150	704	802	3,920
11	1,720	1,610	1,180	1,100	1,210	3,520	1,950	1,400	1,120	672	854	3,510
12	1,720	1,610	1,180	1,100	1,250	4,280	1,860	1,400	1,080	624	875	3,240
13	1,740	1,530	1,190	1,110	1,240	5,140	1,770	1,420	1,020	603	900	2,980
14	1,760	1,220	1,190	1,110	1,240	6,230	1,680	1,460	984	582	886	2,780
15	1,800	1,000	1,200	1,110	1,230	7,850	1,630	1,540	956	573	872	2,700
16	1,850	973	1,200	1,110	1,210	9,220	1,550	1,560	934	528	844	2,680
17	1,860	1,040	1,200	1,110	1,200	10,300	1,460	1,540	934	504	816	2,580
18	1,860	1,060	1,200	1,100	1,170	11,000	1,430	1,450	938	480	794	2,460
19	1,820	1,100	1,200	1,100	1,160	11,200	1,430	1,410	924	474	770	2,380
20	1,830	1,180	1,200	1,100	1,160	11,200	1,440	1,390	906	450	770	2,300
21	1,840	1,220	1,190	1,100	1,160	10,200	1,410	1,380	900	445	784	2,270
22	1,880	1,170	1,190	1,100	1,160	9,300	1,400	1,410	910	441	777	2,240
23	1,910	1,140	1,190	1,100	1,150	8,800	1,400	1,340	903	437	798	2,150
24	1,920	1,180	1,180	1,100	1,150	8,190	1,440	1,270	910	433	756	2,330
25	1,920	1,200	1,180	1,100	1,150	7,180	1,570	1,280	858	429	784	2,520
26	1,920	1,300	1,180	1,100	1,150	6,300	1,640	1,290	850	441	774	3,370
27	1,940	1,230	1,180	1,100	1,150	5,380	1,640	1,290	840	453	732	5,420
28	1,940	1,160	1,180	1,110	1,160	4,870	1,600	1,290	794	462	665	6,440
29	1,930	1,090	1,180	1,110	------	4,540	1,560	1,290	770	474	630	6,370
30	1,920	1,020	1,190	1,100	------	4,190	1,520	1,290	752	513	615	5,990
31	1,930	------	1,200	1,100	------	3,900	------	1,280	------	549	582	------
TOTAL	55,810	42,263	36,040	34,830	32,540	169,480	58,780	42,050	30,873	17,355	22,839	92,013
MEAN	1,800	1,409	1,163	1,124	1,162	5,467	1,959	1,356	1,029	560	737	3,067
MAX	1,940	1,920	1,200	1,200	1,250	11,200	3,610	1,560	1,320	735	900	6,440
MIN	1,650	973	1,060	1,100	1,100	1,170	1,400	1,200	752	429	582	579
AC-FT	110,700	83,830	71,490	69,090	64,540	336,200	116,600	83,410	61,240	34,420	45,300	182,500

CAL YR 1972 TOTAL 1,560,703 MEAN 4,264 MAX 30,800 MIN 973 AC-FT 3,096,000
WTR YR 1973 TOTAL 634,873 MEAN 1,739 MAX 11,200 MIN 429 AC-FT 1,259,000

05083600 Middle Branch Forest River near Whitman, N. Dak.

LOCATION---Lat 48°14'50", long 98°07'00", in SE¼NW¼ sec.16, T.155 N., R.58 W., Walsh County, 150 ft (46 m) downstream from bridge on State Highway 35, and 6 mi (10 km) north of Whitman.

DRAINAGE AREA.--73 mi^2 (189 km^2), approximately.

PERIOD OF RECORD.--October 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,510 ft (460.2 m) from topographic map.

AVERAGE DISCHARGE.--13 years, 2.39 ft^3/s (0.068 m^3/s), 1,730 acre-ft/yr (2.133 hm^3/yr); median of yearly mean discharges, 2.0 ft^3/s (0.057 m^3/s) 1,400 acre-ft (1.73 hm^3/yr.

EXTREMES.--Current year: Maximum discharge, about 4 ft^3/s (0.11 m^3/s) Mar. 12; no flow for many months. Period of record: Maximum discharge, 425 ft^3/s (12.0 m^3/s) Apr. 11, 1969, gage height, 6.82 ft (2.079 m), backwater from ice; no flow for many months each year.

REMARKS.--Records good. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0						
2						0						
3						.02						
4						.04						
5						.06						
6						.08						
7						.10						
8						.15						
9						.20						
10						.30						
11						.80						
12						2.5						
13						.70						
14						.60						
15						.55						
16						.50						
17						.45						
18						.40						
19						.40						
20						.40						
21						.45						
22						.45						
23						.50						
24						.50						
25						.30						
26						.10						
27						0						
28						0						
29					------	0						
30					------	0						
31		------			------	0	------		------			------
TOTAL	0	0	0	0	0	10.55	0	0	0	0	0	0
MEAN	0	0	0	0	0	.34	0	0	0	0	0	0
MAX	0	0	0	0	0	2.5	0	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	21	0	0	0	0	0	0

CAL YR 1972 TOTAL 795.45 MEAN 2.17 MAX 53 MIN 0 AC-FT 1,580
WTR YR 1973 TOTAL 10.55 MEAN .02 MAX 2.5 MIN 0 AC-FT 21

PEAK DISCHARGE (BASE, 70 FT^3/S).--NO PEAK ABOVE BASE.

05084000 Forest River near Fordville, N. Dak.

LOCATION.--Lat 48°11'50", long 97°43'49", on line between secs.32 and 33, T.155 N., R.55 W., Walsh County, on right bank 50 ft (15 m) upstream from highway bridge, 0.5 mi (0.8 km) downstream from South Branch, and 3 mi (5 km) southeast of Fordville.

DRAINAGE AREA.--456 mi^2 (1,181 km^2), of which about 120 mi^2 (311 km^2) is probably noncontributing.

PERIOD OF RECORD.--April 1940 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,040 ft (317 m), by barometer. Prior to July 21, 1951, nonrecording gage at site 50 ft (15 m) downstream at same datum.

AVERAGE DISCHARGE.--33 years, 36.4 ft^3/s (1.031 m^3/s) 26,370 acre-ft/yr (32.51 hm^3/yr); median of yearly mean discharges, 33 ft^3/s (0.93 m^3/s), 23,900 acre-ft/yr (29.5 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 384 ft^3/s (10.9 m^3/s) June 17, gage height 3.56 ft (1.085 m); minimum, 0.35 ft^3/s (0.010 m^3/s), Aug. 2, gage height 1.44 ft (0.439 m); minimum gage height, 1.36 ft (0.415 m) July 16, 17.
Period of record: Maximum discharge, 16,400 ft^3/s (464 m^3/s) Apr. 18, 1950, gage height, 14.48 ft (4.414 m), from floodmark, from rating curve extended above 5,600 ft^3/s (159 m^3/s) on basis of contracted-opening and slope-area measurements of peak flow; no flow Apr. 1-13, Sept. 3, 1940.

REMARKS.--Records good. Some regulation of high flows by temporary retention in several retarding basins above station. Retarding basins have a combined capacity of about 14,000 acre-ft (17.3 hm^3). Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1175: 1948. WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	7.0	8.3	7.0	12	8.0	20	12	13	13	1.8	4.0
2	7.4	8.3	7.8	7.0	12	8.0	20	12	12	12	1.8	5.1
3	7.0	8.7	7.0	7.5	12	10	20	12	14	9.1	2.7	5.1
4	7.0	9.6	6.5	7.5	11	15	19	12	9.6	9.6	3.3	4.7
5	7.0	9.6	6.5	8.0	11	20	18	12	9.1	10	3.0	4.7
6	7.0	11	5.5	8.0	11	25	18	13	9.6	8.7	3.3	4.4
7	7.4	9.1	4.5	8.5	12	35	16	13	8.3	8.7	3.7	4.4
8	8.3	9.1	4.0	9.0	11	30	16	13	9.1	6.6	3.3	4.4
9	7.8	9.1	5.0	9.0	11	35	16	14	8.3	5.8	5.1	4.4
10	7.4	10	5.0	9.0	12	75	16	19	8.3	5.1	5.8	4.0
11	7.8	10	5.0	8.5	10	135	16	19	9.6	4.7	5.8	4.0
12	7.8	8.3	5.0	8.0	9.5	100	16	17	7.8	3.6	5.1	4.0
13	7.8	7.0	5.0	8.0	9.0	90	15	15	5.8	2.7	5.1	4.4
14	8.3	8.3	5.0	7.5	9.5	110	14	14	5.4	2.7	4.7	4.0
15	8.3	8.7	5.0	7.5	10	75	14	13	4.0	2.4	4.7	4.4
16	8.7	9.1	4.5	7.5	10	45	13	13	6.8	1.8	5.1	5.4
17	7.8	9.1	4.0	8.0	9.5	40	12	14	197	1.8	5.1	7.0
18	6.2	9.1	4.0	8.0	9.5	35	11	13	100	1.8	4.7	6.6
19	6.2	9.1	4.5	8.5	9.5	35	11	13	57	1.8	4.7	5.8
20	8.3	9.1	5.0	9.0	9.0	35	14	13	53	1.8	5.1	6.6
21	8.3	8.7	5.0	9.5	9.0	35	13	15	44	1.8	5.8	8.7
22	8.7	9.1	5.0	9.5	9.5	55	13	25	31	1.8	5.1	7.8
23	7.8	9.6	5.5	9.5	9.5	100	12	25	23	1.8	5.1	7.4
24	8.3	9.6	5.5	10	9.0	70	12	23	18	2.4	4.7	10
25	8.3	8.7	5.5	10	8.5	46	11	22	15	3.6	4.4	11
26	8.7	9.1	6.0	11	8.5	41	11	18	14	4.7	5.1	9.1
27	8.7	8.3	6.0	12	8.0	36	11	18	14	5.4	3.0	7.8
28	9.6	7.0	6.5	12	8.0	26	11	18	14	5.4	4.0	6.6
29	9.1	8.3	6.5	13	------	21	11	17	14	4.4	4.0	6.2
30	10	9.1	7.0	13	------	21	11	15	14	3.3	3.0	8.3
31	8.3	------	7.0	13	------	20	------	14	------	4.5	3.3	------
TOTAL	247.1	266.8	172.6	283.5	280.5	1,432.0	431	486	748.7	152.8	131.4	180.3
MEAN	7.97	8.89	5.57	9.15	10.0	46.2	14.4	15.7	25.0	4.93	4.24	6.01
MAX	10	11	8.3	13	12	135	20	25	197	13	5.8	11
MIN	6.2	7.0	4.0	7.0	8.0	8.0	11	12	4.0	1.8	1.8	4.0
AC-FT	490	529	342	562	556	2,840	855	964	1,490	303	261	358

CAL YR 1972 TOTAL 16,530.8 MEAN 45.2 MAX 1,150 MIN 4.0 AC-FT 32,790
WTR YR 1973 TOTAL 4,812.7 MEAN 13.2 MAX 197 MIN 1.8 AC-FT 9,550

PEAK DISCHARGE (BASE, 200 FT^3/S).--JUNE 17 (1100) 384 FT^3/S (3.56 FT).

05085000 Forest River at Minto, N. Dak.

LOCATION.--Lat 48°16'10", long 97°22'10", in SE¼ sec.31, T.156 N., R.52 W., Walsh County, on right bank 30 ft (9 m) upstream from dam in Minto, 150 ft (45 m) upstream from Burlington Northern Railway bridge, and 900 ft (270 m) east of U.S. Highway 81.

DRAINAGE AREA.--740 mi^2 (1,920 km^2), of which about 120 mi^2 (310 km^2) is probably noncontributing.

PERIOD OF RECORD.--April 1944 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 806.95 ft (245.958 m) above mean sea level. Prior to July 15, 1954, nonrecording gage at site 400 ft (120 m) upstream at same datum.

AVERAGE DISCHARGE.--29 years, 48.0 ft^3/s (1.359 m^3/s) 34,780 acre-ft/yr (42.88 hm^3/yr); median of yearly mean discharges, 36 ft^3/s (1.02 m^3/s), 26,100 acre-ft/yr (32.2 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 208 ft^3/s (5.98 m^3/s) June 19, gage height, 1.93 ft (0.588 m); maximum gage height, 1.94 ft (0.591 m) Mar. 24; minimum daily discharge, 0.10 ft^3/s (0.003 m^3/s) Feb. 24 to Mar. 3.
Period of record: Maximum discharge, 16,600 ft^3/s (470 m^3/s) Apr. 18, 1950, gage height, 11.80 ft (3.597 m) from floodmarks, from rating curve extended above 7,200 ft^3/s (204 m^3/s) on basis of contracted-opening measurement of peak flow; no flow at times each year 1945-47, 1953-55, 1959-64.

REMARKS.--Records fair. Occasionally during high stages, particularly when the channel is filled with snow, overflow occurs 0.5 mi (0.8 km) below the municipality of Forest River and bypasses the gage 3 mi (5 km) south of Minto and flows into Lake Ardoch. Bypass flow is not included in computation of discharge record for station at Minto. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1438: 1948-50. WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	7.7	6.7	.40	.40	.10	57	18	15	20	4.6	.50
2	7.7	8.6	6.3	.40	4.0	.10	49	18	13	20	3.1	.50
3	7.7	7.7	6.0	.40	1.0	.10	60	18	14	19	2.0	.50
4	6.8	7.4	6.0	.40	.40	.40	48	17	12	20	1.4	.70
5	6.0	9.8	5.3	.40	.40	.40	80	15	11	16	1.0	4.8
6	6.8	9.7	5.0	.40	.40	7.0	70	15	11	16	.70	8.6
7	7.7	8.1	4.1	.40	.40	12	60	16	11	15	.60	6.6
8	8.6	9.2	3.1	.40	.40	7.7	53	16	11	11	.60	3.8
9	8.6	7.4	2.5	.40	.40	11	55	16	9.8	8.8	.70	2.9
10	6.0	7.2	2.3	.40	.40	20	51	18	9.8	8.0	1.4	2.6
11	6.0	7.0	2.0	.40	.40	44	51	21	9.7	6.8	2.3	3.0
12	6.0	6.8	1.7	.40	.67	70	42	23	9.7	4.3	5.9	2.5
13	6.0	6.7	1.5	.40	.70	131	37	24	8.2	3.2	5.6	1.4
14	6.8	6.5	1.3	.40	.65	128	37	22	9.1	2.2	3.8	1.6
15	6.8	6.3	1.2	.40	.60	125	37	20	9.1	1.4	2.5	2.0
16	8.6	6.9	1.0	.40	.40	117	30	17	11	1.0	1.7	1.2
17	11	7.9	.90	.40	.40	87	28	16	13	.70	.70	.44
18	8.6	8.2	.80	.40	.40	46	26	16	40	.70	.60	1.2
19	6.8	8.6	.60	.40	.40	63	21	13	167	.60	.50	1.2
20	6.0	8.5	.50	.40	.40	49	22	14	94	.60	.50	.60
21	11	8.6	.40	.40	.40	52	24	13	65	.50	.50	.45
22	10	8.1	.40	.40	.40	88	22	18	55	.40	.50	.45
23	8.6	8.2	.40	.40	.20	70	22	22	47	.40	.40	.45
24	9.5	8.4	.40	.40	.10	128	37	27	41	.40	.40	2.8
25	9.5	7.6	.40	.40	.10	153	46	27	33	.40	.50	11
26	9.5	7.6	.40	.40	.10	104	35	27	31	.40	.50	13
27	11	7.5	.40	.40	.10	114	30	24	25	.50	.50	14
28	10	7.5	.40	.40	.10	70	26	21	24	.60	.50	15
29	9.5	7.4	.40	.40	------	49	20	19	22	1.3	.50	15
30	8.6	7.4	.40	.40	------	49	20	18	21	3.6	.50	15
31	8.6	------	.40	.40	------	48	------	16	------	6.8	.50	------
TOTAL	250.4	234.5	63.20	12.40	14.72	1,843.80	1,196	585	852.4	190.60	45.50	133.79
MEAN	8.08	7.82	2.04	.40	.53	59.5	39.9	18.9	28.4	6.15	1.47	4.46
MAX	11	9.8	6.7	.40	4.0	153	80	27	167	20	5.9	15
MIN	6.0	6.3	.40	.40	.10	.10	20	13	8.2	.40	.40	.44
AC-FT	497	465	125	25	29	3,660	2,370	1,160	1,690	378	90	265

CAL YR 1972 TOTAL 23,380.91 MEAN 63.9 MAX 1,920 MIN .10 AC-FT 46,380
WTR YR 1973 TOTAL 5,422.31 MEAN 14.9 MAX 167 MIN .10 AC-FT 10,760

PEAK DISCHARGE (BASE, 200 FT^3/S).--MAR. 24 (2030) 201 FT^3/S (1.94 FT); JUNE 19 (0015) 208 FT^3/S (1.93 FT).

05088500 Homme Lake near Park River, N. Dak.

LOCATION.--Lat 48°24'20", long 97°47'10", in SE¼NW¼ sec.19, T.157 N., R.55 W., Walsh County, at Homme Dam on South Branch Park River, 2 mi (3 km) west of town of Park River.

DRAINAGE AREA.--226 mi^2 (585 km^2).

PERIOD OF RECORD.--September 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents during year, 3,747 acre-ft (4.62 hm^3) Mar. 24, elevation, 1,080.46 ft (329.342 m); minimum, 1,805 acre-ft (2.23 hm^3) Mar. 9-10, elevation, 1,069.5 ft (325.984 m).
Period of record: Maximum contents, 4,498 acre-ft (5.55 hm^3) Apr. 11, 1965, elevation, 1,083.70 ft (330.312 m); minimum since first reaching spillway level, 184 acre-ft (0.23 hm^3) Feb. 8, 1952, elevation, 1,051.22 ft (320.412 m).

REMARKS.--Reservoir is formed by an earth-fill dam, 865 ft (264 m) long; storage began in September 1949, dam completed in October 1950. Usable capacity between invert of outlet, elevation, 1,048.0 ft (319.430 m), and crest of spillway, elevation, 1,080 ft (329.184 m), is 3,550 acre-ft (4.38 hm^3). Dead storage is 100 acre-ft (0.12 hm^3). Low flows are controlled by two sluice gates 3 x 5 ft (0.914 x 1.524 m). The spillway, which is 150 ft (46 m) long, in uncontrolled. The records herein represent total contents. The reservoir is operated for flood control, water supply, and pollution abatement during low-flow periods.

COOPERATION.--Records furnished by Corps of Engineers.

REVISIONS.--WSP 1728: Drainage area.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	1,077.80	3,242	
Oct. 31	1,078.40	3,356	+114
Nov. 30	1,077.03	3,096	-260
Dec. 31	1,075.40	2,786	-310
CAL YR 1972	--	--	-416
Jan. 31	1,073.88	2,497	-289
Feb. 28	1,073.33	2,393	-104
Mar. 31	1,080.27	3,711	+1,318
Apr. 30	1,080.10	3,679	-32
May 31	1,080.08	3,675	-4
June 30	1,079.70	3,603	-72
July 31	1,079.12	3,493	-110
Aug. 31	1,078.76	3,424	-69
Sept. 30	1,078.79	3,430	+6
WTR YR 1973	--	--	+188

05089000 South Branch Park River below Homme Dam, N. Dak.

LOCATION.--Lat 48°24'07", long 97°46'55", in SE¼ sec.19, T.157 N., R.55 W., Walsh County, on right bank 0.5 mi (0.8 km) downstream from Homme Dam and 2 mi (3 km) west of town of Park River.

DRAINAGE AREA.--226 mi^2 (585 km^2).

PERIOD OF RECORD.--October 1949 to current year. Monthly discharge only for October and November 1949, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 1,000.00 ft (304.800 m) above mean sea level.

AVERAGE DISCHARGE.--24 years, 26.1 ft^3/s (0.739 m^3/s), 18,910 acre-ft/yr (23.32 hm^3/yr); median of yearly mean discharges, 21 ft^3/s (0.59 m^3/s), 15,200 acre-ft/yr (18.7 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 101 ft^3/s (2.86 m^3/s) Mar. 24, gage height 23.68 ft (7.218 m); maximum gage height 24.27 ft (7.397 m) Dec. 20, backwater from ice; minimum, 0.12 ft^3/s (0.003 m^3/s) Oct. 4, gage height, 22.33 ft (6.806 m).
Period of record: Maximum discharge, about 13,000 ft^3/s (368 m^3/s) Apr. 24, 1950, gage height, 37.52 ft (11.436 m), from rating curve extended above 5,500 ft^3/s (156 m^3/s), result of failure of emergency embankment at site of Homme Dam; no flow Oct. 1 to Dec. 3, 1949, Oct. 1-4, 1969, Sept. 21, 1970.

REMARKS.--Records good. Flow regulated by Homme Lake - see station 05088500. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.19	6.7	1.9	3.8	5.1	.91	15	3.2	2.3	1.8	1.3	2.6
2	.18	6.8	1.8	3.4	4.8	.86	13	2.1	3.2	2.7	1.6	2.7
3	.17	6.9	1.7	3.2	5.0	1.0	11	1.4	6.3	2.6	1.5	2.9
4	.13	6.8	1.7	3.1	5.0	1.1	10	1.4	13	2.2	1.6	2.4
5	.21	7.1	1.6	2.7	6.9	.97	14	2.5	5.7	1.6	3.0	2.4
6	.20	7.3	1.5	2.4	13	1.0	5.9	4.8	2.9	1.8	2.7	2.4
7	.21	6.0	1.5	1.9	13	1.0	6.1	1.5	2.9	3.0	2.4	2.0
8	.26	6.7	1.5	1.9	13	1.2	6.0	1.6	9.7	2.6	2.7	1.2
9	.29	6.8	1.6	1.9	13	1.1	5.5	8.4	2.9	2.1	2.8	1.2
10	.35	6.8	1.7	2.0	13	1.5	5.5	14	2.6	2.4	2.2	1.5
11	.49	6.6	1.8	2.4	13	1.5	5.2	10	2.4	2.5	2.2	1.3
12	.31	6.1	2.0	2.5	12	1.6	4.1	5.8	2.7	2.2	1.8	1.5
13	.31	6.2	2.1	2.6	12	.89	5.0	4.1	2.7	2.6	1.5	1.5
14	.31	5.3	1.6	2.6	12	.87	10	3.5	2.6	2.3	1.5	2.2
15	.33	3.0	6.5	2.7	11	.99	4.4	11	2.8	1.9	1.4	2.0
16	.34	2.9	15	2.7	10	.77	3.7	2.7	2.9	1.2	1.5	.97
17	.23	2.7	15	2.7	9.4	.71	2.3	2.0	3.5	.97	1.8	1.1
18	.20	2.1	14	2.7	9.0	5.5	3.4	1.5	2.9	.75	1.8	1.1
19	.21	2.0	13	2.6	8.1	49	4.7	1.1	2.8	.70	1.9	.71
20	.21	2.1	13	2.5	18	61	6.8	.86	3.6	.61	2.0	.66
21	.19	1.7	12	2.3	28	44	12	3.5	2.6	.63	2.6	.52
22	.18	1.4	12	2.1	28	48	8.3	16	2.6	.55	2.0	.22
23	.18	1.5	12	1.4	27	75	.80	13	2.6	.46	2.2	.15
24	.18	1.4	12	1.2	28	91	1.6	10	2.7	.39	2.3	.67
25	.18	1.5	12	1.6	27	88	2.7	7.2	2.1	1.9	2.1	.30
26	.20	1.6	12	1.6	12	71	5.3	6.2	3.2	2.1	1.9	1.1
27	.38	1.6	12	1.5	1.1	60	3.1	5.3	2.7	2.4	2.1	1.4
28	.24	2.1	12	1.9	.93	40	3.3	4.9	2.1	1.2	3.4	1.3
29	.22	2.3	7.4	2.3	------	30	3.0	3.3	2.1	1.4	3.0	1.2
30	3.7	1.9	4.6	4.5	------	22	2.8	8.0	1.8	1.6	2.6	1.3
31	6.5	------	4.0	5.3	------	18	------	1.6	------	1.6	2.4	------
TOTAL	17.28	123.9	212.5	78.0	358.33	720.47	184.50	162.46	104.9	52.76	65.8	42.50
MEAN	.56	4.13	6.85	2.52	12.8	23.2	6.15	5.24	3.50	1.70	2.12	1.42
MAX	6.5	7.3	15	5.3	28	91	15	16	13	3.0	3.4	2.9
MIN	.13	1.4	1.5	1.2	.93	.71	.80	.86	1.8	.39	1.3	.15
AC-FT	34	246	421	155	711	1,430	366	322	208	105	131	84

CAL YR 1972 TOTAL 9,079.66 MEAN 24.8 MAX 992 MIN .12 AC-FT 18,010
WTR YR 1973 TOTAL 2,123.40 MEAN 5.82 MAX 91 MIN .13 AC-FT 4,210

05089100 Middle Branch Park River near Union, N. Dak.

LOCATION.--Lat 48°32'32", long 98°01'10", on north line of sec.5, T.158 N., R.57 W., Walsh County, on left bank 20 ft (6 m) downstream from bridge on county highway between Walsh and Cavalier Counties, 3.5 mi (5.6 km) southwest of Union.

DRAINAGE AREA.--15.3 mi^2 (39.6 km^2).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder.

AVERAGE DISCHARGE.--8 years, 2.37 ft^3/s (0.067 m^3/s) 1,720 acre-ft/yr (2.121 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 51 ft^3/s (1.44 m^3/s) Mar. 13, gage height, 4.55 ft (1.387 m), backwater from ice; maximum gage height, 4.95 ft (1.509 m) Mar. 10, backwater from ice; no flow for several months.
Period of record: Maximum discharge, 687 ft^3/s (19.5 m^3/s) May 6, 1967, gage height, 7.22 ft (2.201 m), from floodmark; maximum gage height, 7.51 ft (2.289 m) May 4, 1966, from floodmark, backwater from snowdrift; no flow for several months each year.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.24				0	.80	.08	.01	.01	.03	.08
2	.02	.24				0	.50	.07	.01	.01	.02	.10
3	.02	.15				.05	.40	.06	.01	.01	.02	.83
4	.01	.15				.10	.35	.05	.02	.01	.01	.23
5	.01	.15				.40	.32	.05	.02	.01	.01	.17
6	.01	.15				.67	.30	.05	.02	.01	.03	.18
7	.01	.15				.72	.32	.05	.01	.01	.02	.23
8	.01	.02				.67	.30	.05	.01	.01	.03	.13
9	.01	.02				.64	.27	.04	.01	.01	.07	.12
10	.01	.02				4.7	.24	.07	.01	0	.04	.11
11	.07	.02				2.2	.25	.06	.01	0	.03	.10
12	.15	.02				2.1	.25	.06	.01	0	.03	.11
13	.15	.01				34	.25	.04	.01	0	.01	.10
14	.02	.01				15	.22	.04	.01	0	0	.10
15	.07	0				7.2	.21	.03	.01	0	0	.10
16	.01	0				7.4	.19	.03	.02	0	0	.10
17	.02	0				5.4	.19	.03	.04	0	.03	.10
18	.07	0				3.0	.19	.02	.05	0	.06	.10
19	.15	0				2.5	.18	.02	.05	0	.04	.10
20	.15	0				2.9	.18	.02	.05	0	.02	.10
21	.47	0				8.7	.18	.02	.04	0	.19	.12
22	.47	0				7.1	.18	.04	.02	0	.14	.12
23	.35	0				4.9	.18	.04	.01	0	.12	.12
24	.35	0				5.5	.17	.04	.01	0	.12	.31
25	.47	0				5.0	.17	.04	.01	.03	.12	.34
26	.47	0				4.0	.11	.03	.01	.03	.12	.28
27	.73	0				3.0	.10	.03	.01	.03	.12	.25
28	.47	0				2.0	.10	.02	.01	.02	.10	.22
29	.35	0			------	1.5	.09	.01	.01	.03	.09	.17
30	.24	0			------	1.0	.08	.01	.01	.04	.08	.14
31	.24	------			------	.90	------	.01	------	.03	.08	------
TOTAL	5.60	1.35	0	0	0	133.25	7.27	1.21	.53	.30	1.78	5.26
MEAN	.18	.045	0	0	0	4.30	.24	.039	.018	.010	.057	.18
MAX	.73	.24	0	0	0	34	.80	.08	.05	.04	.19	.83
MIN	.01	0	0	0	0	0	.08	.01	.01	0	0	.08
AC-FT	11	2.7	0	0	0	264	14	2.4	1.1	.6	3.5	10

CAL YR 1972 TOTAL 1,089.44 MEAN 2.98 MAX 190 MIN 0 AC-FT 2,160
WTR YR 1973 TOTAL 156.55 MEAN .43 MAX 34 MIN 0 AC-FT 311

PEAK DISCHARGE (BASE, 20 FT^3/S).--MAR. 10, 37 FT^3/S; MAR. 13, 51 FT^3/S.

05089500 Cart Creek at Mountain, N. Dak.

LOCATION.--Lat 48°40'37", long 97°51'41", in SW¼ sec.15, T.160 N., R.56 W., Pembina County, on right bank 50 ft (15 m) downstream from bridge on State Highway 32 and 0.7 mi (1.1 km) south of Mountain.

DRAINAGE AREA.--16.9 mi^2 (43.8 km^2).

PERIOD OF RECORD.--June 1954 to current year.

GAGE.--Water-stage recorder and wooden control. Datum of gage is 1,027.40 ft (313.152 m) above mean sea level.

AVERAGE DISCHARGE.--19 years, 2.76 ft^3/s (0.078 m^3/s) 2,000 acre-ft/yr (2.466 hm^3/yr); median of yearly mean discharges, 3.0 ft^3/s (0.085 m^3/s) 2,200 acre-ft/yr (2.7 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 36 ft^3/s (1.02 m^3/s) Mar. 24, gage height, 2.69 ft (0.820 m); no flow for many days.
Period of record: Maximum discharge, 1,300 ft^3/s (36.8 m^3/s) June 18, 1964, gage height, 9.18 ft (2.798 m); no flow at times in some years.

REMARKS.--Records good. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.28				0	3.6	.31	.58	.04	0	0
2	.08	.32				0	3.4	.34	.47	.11	0	0
3	.08	.24				0	2.2	.31	.58	0	0	0
4	.06	.28				.20	.95	.31	.47	0	0	.08
5	.06	.28				.50	1.6	.31	.34	.04	0	.02
6	.08	.32				.60	2.0	.31	.34	.08	0	.01
7	.08	.30				1.0	.95	.34	.34	.13	0	0
8	.06	.26				1.0	.47	.42	.34	.03	0	0
9	.08	.26				1.0	.47	.58	.25	0	.32	0
10	.12	.28				5.0	.71	1.8	.31	0	.11	0
11	.22	.28				8.0	.78	1.2	.31	0	0	0
12	.22	.32				10	.78	.86	.16	0	0	0
13	.22	.28				14	.71	.71	.09	0	0	0
14	.16	.20				9.5	.95	.58	.07	0	0	0
15	.19	.16				8.5	.71	.52	0	0	0	0
16	.22	.12				5.0	.95	.47	.11	0	0	0
17	.16	.06				6.0	.64	.42	5.4	0	0	0
18	.12	.08				7.5	.58	.42	1.6	0	0	0
19	.04	.10				10	.78	.42	1.4	0	0	0
20	.12	.10				4.6	3.6	.38	1.2	0	0	0
21	.20	.10				14	2.2	.64	.71	0	0	0
22	.12	.10				22	1.2	4.6	.58	0	0	0
23	.10	.10				18	.78	3.0	.31	0	0	0
24	.10	.10				30	.64	2.4	.22	.02	0	.65
25	.12	.10				27	.64	1.7	.16	.12	0	3.0
26	.10	.10				19	.64	1.6	.10	0	0	.38
27	.34	.08				15	.95	1.2	.16	.14	0	.22
28	.38	.04				7.8	.52	.86	.08	.16	0	.16
29	.16	.02			------	4.6	.47	.71	.14	.06	0	.12
30	.34	0			------	3.8	.42	.58	.08	0	0	.14
31	.32	------			------	3.8	------	.71	------	0	0	------
TOTAL	4.71	5.26	0	0	0	257.40	35.29	29.01	16.90	.93	.43	4.78
MEAN	.15	.18	0	0	0	8.30	1.18	.94	.56	.030	.014	.16
MAX	.38	.32	0	0	0	30	3.6	4.6	5.4	.16	.32	3.0
MIN	.04	0	0	0	0	0	.42	.31	0	0	0	0
AC-FT	9.3	10	0	0	0	511	70	58	34	1.8	.9	9.5

CAL YR 1972 TOTAL 949.15 MEAN 2.59 MAX 140 MIN 0 AC-FT 1,880
WTR YR 1973 TOTAL 354.71 MEAN .97 MAX 30 MIN 0 AC-FT 704

PEAK DISCHARGE (BASE, 30 FT^3/S).--MAR. 24 (0200) 36 FT^3/S (2.69 FT).

05090000 Park River at Grafton, N. Dak.

LOCATION.--Lat 48°25'24", long 97°24'30", in NE¼ sec.13, T.157 N., R.53 W., Walsh County, on right bank 30 ft (9 m) upstream from Wakeman Avenue Bridge in Grafton and 3.5 mi (5.6 km) downstream from South Branch.

DRAINAGE AREA.--695 mi^2 (1,800 km^2), approximately.

PERIOD OF RECORD.--April 1931 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 807.39 ft (246.092 m) above mean sea level. Prior to Sept. 30, 1940, nonrecording gage at site 30 ft (9 m) downstream at same datum. Oct. 1, 1940, to Sept. 17, 1946, nonrecording gage at site 2 mi (3 km) downstream above masonry dam at same datum. Sept. 18, 1946, to July 25, 1952, nonrecording gage at site 30 ft (9 m) downstream at same datum).

AVERAGE DISCHARGE (UNADJUSTED).--42 years (1931-73), 55.2 ft^3/s (1.563 m^3/s) 39,990 acre-ft/yr (49.31 hm^3/yr); median of yearly mean discharges, 32 ft^3/s (0.91 m^3/s) 23,200 acre-ft/yr (28.6 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 251 ft^3/s (7.11 m^3/s) Mar. 27, gage height, 8.82 ft (2.688 m) backwater from ice; no flow Jan. 20 to Feb. 26.
Period of record: Maximum discharge, 12,600 ft^3/s (357 m^3/s) Apr. 19, 1950, gage height, 20.13 ft (6.136 m) from rating curve extended above 9,000 ft^3/s (255 m^3/s); no flow at times in most years.

REMARKS.--Records good. Flow regulated by Homme Lake (see station 05088500) and several small reservoirs. Diversion by city of Grafton started in 1955. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 955: 1941. WSP 1438: 1932, 1933(M), 1936-37(M), 1939(M), 1944. WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.01	.10	6.0	0	9.6	72	11	8.4	1.1	.10	.20
2	.12	.01	.10	6.0	0	11	66	11	9.6	.72	.10	.20
3	.11	.01	.10	3.0	0	11	56	9.6	11	.20	.10	.20
4	.11	.01	.10	1.0	0	12	43	8.4	5.0	.10	.10	.20
5	.11	.01	.10	.90	0	9.6	41	7.2	5.0	.10	.23	.20
6	.10	.01	.10	.90	0	8.4	31	7.2	9.6	.10	1.1	.20
7	.10	.01	.10	.80	0	9.6	23	5.0	9.6	1.5	.20	.20
8	.10	.02	.10	.60	0	6.0	20	7.2	8.4	1.1	.20	.20
9	.10	.05	.10	.50	0	6.0	20	9.6	5.0	.36	6.0	.20
10	.05	.10	.10	.50	0	5.0	20	13	5.0	.08	2.9	.20
11	.05	.10	.10	.50	0	4.1	20	14	7.2	.08	4.1	.20
12	.02	.10	.10	.50	0	4.1	17	19	4.1	.08	.58	.20
13	.01	.10	.10	.40	0	6.0	20	14	2.4	1.3	2.1	.20
14	.01	.10	.10	.40	0	8.4	30	11	1.5	2.4	.58	.20
15	.01	.10	.10	.20	0	68	26	8.4	1.1	.86	.36	.10
16	.01	.10	.10	.10	0	85	30	6.0	15	.20	.20	.10
17	.01	.10	.10	.10	0	113	31	9.6	8.4	.20	.20	.10
18	.01	.10	1.0	.02	0	64	28	9.6	38	.10	1.8	.10
19	.01	.10	4.0	.01	0	113	26	4.1	40	.10	2.1	.10
20	.01	.10	6.0	0	0	88	33	4.1	23	.10	1.1	.10
21	.01	.10	10	0	0	34	27	9.6	13	.10	1.8	.20
22	.01	.10	9.0	0	0	96	26	20	13	.10	.72	.20
23	.01	.10	9.0	0	0	106	31	13	9.6	.10	.20	.20
24	.01	.10	9.0	0	0	104	26	20	8.4	.10	.20	.20
25	.01	.10	8.0	0	0	128	19	19	6.0	.10	.20	.20
26	.01	.10	8.0	0	0	211	14	34	6.0	.10	.20	.20
27	.01	.10	7.0	0	.72	211	13	26	5.0	.10	.20	2.1
28	.01	.10	7.0	0	8.0	152	14	17	2.1	.10	.20	5.0
29	.01	.10	7.0	0	------	96	13	14	1.5	.10	.20	2.9
30	.01	.10	7.0	0	------	90	11	12	1.5	.10	.20	2.4
31	.01	------	7.0	0	------	75	------	9.6	------	.10	.20	------
TOTAL	1.28	2.24	100.70	22.43	8.72	1,944.8	847	383.2	283.4	11.88	28.47	17.00
MEAN	.041	.075	3.25	.72	.31	62.7	28.2	12.4	9.45	.38	.92	.57
MAX	.12	.10	10	6.0	8.0	211	72	34	40	2.4	6.0	5.0
MIN	.01	.01	.10	0	0	4.1	11	4.1	1.1	.08	.10	.10
AC-FT	2.5	4.4	200	44	17	3,860	1,680	760	562	24	56	34
(+)	63	61	72	83	82	83	58	67	66	69	68	60
*MEAN	1.07	1.10	4.42	2.08	1.78	64.0	29.2	13.5	10.6	1.51	2.03	1.58
*AC-FT	66	66	272	127	99	3,940	1,740	827	628	93	124	94

	OBSERVED					ADJUSTED	
CAL YR 1972	TOTAL 24,811.84	MEAN 67.8	MAX 1,910	MIN 0	AC-FT 49,210	MEAN 68.9	AC-FT 50,040
WTR YR 1973	TOTAL 3,651.12	MEAN 10.0	MAX 211	MIN 0	AC-FT 7,240	MEAN 11.2	AC-FT 8,070

\+ Diversion in acre-feet by city of Grafton.
* Adjusted for diversion by city of Grafton.

05092000 Red River of the North at Drayton, N. Dak.

LOCATION.--Lat 48°34'20", long 97°08'50", in SE¼SE¼SE¼ sec.24, T.159 N., R.51 W., Pembina County, on downstream end of east pier of interstate highway bridge, 1.5 mi (2.4 km) northeast of Drayton and at mile 206.7 (kilometre 332.6).

DRAINAGE AREA.--34,800 mi^2 (90,130 km^2), approximately, includes 3,800 mi^2 (9,840 km^2) in closed basins.

PERIOD OF RECORD.--April 1936 to June 1937, April 1941 to current year (fragmentary prior to April 1949).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 755.00 ft (230.124 m) above mean sea level (Minnesota highway benchmark). Prior to Nov. 30, 1954, nonrecording gage at site 1.5 mi (2.4 km) upstream at datum 1.59 ft (0.485 m) higher.

AVERAGE DISCHARGE.--24 years (1949-73) 3,673 ft^3/s (104.0 m^3/s) 2,661,000 acre-ft/yr (3.281 km^3/yr); median of yearly mean discharges, 2,630 ft^3/s (74.5 m^3/s) 1,910,000 acre-ft/yr (2.36 km^3/yr).

EXTREMES.--Current year: Maximum discharge, 13,400 ft^3/s (379 m^3/s) Mar. 25, gage height, 24.49 ft (7.465 m); minimum discharge, 369 ft^3/s (10.5 m^3/s) July 23, gage height, 9.29 ft (2.832 m).
Period of record: Maximum discharge, 86,500 ft^3/s (2,450 m^3/s) May 12, 1950, gage height, 41.58 ft (12.674 m), former site and datum; minimum observed, 7.7 ft^3/s (0.22 m^3/s) Oct. 16, 1936, gage height, 1.75 ft (0.533 m), former site and datum.
Maximum discharge known since 1860, that of May 12, 1950. Flood of April 1897 reached a stage of about 41 ft (12.5 m), at site and datum in use prior to Nov. 30, 1954.

REMARKS.--Records good. Some regulation by reservoirs on tributaries. Records of chemical analyses and water temperatures for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1388: 1949-50. WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,710	1,990	990	1,200	1,100	1,170	4,900	1,750	1,510	830	446	730
2	1,710	1,970	920	1,210	1,100	1,170	4,820	1,700	1,500	784	468	718
3	1,710	1,970	990	1,220	1,100	1,170	4,150	1,660	1,510	766	514	757
4	1,660	1,960	1,000	1,200	1,100	1,170	3,840	1,600	1,490	766	586	766
5	1,640	1,950	1,100	1,200	1,120	1,170	3,510	1,510	1,460	766	658	850
6	1,610	1,930	1,150	1,200	1,140	1,200	3,280	1,440	1,440	739	718	1,330
7	1,560	1,960	1,150	1,200	1,150	1,210	3,090	1,390	1,430	706	682	2,580
8	1,600	1,960	1,150	1,150	1,160	1,240	2,900	1,350	1,390	682	658	3,770
9	1,610	1,910	1,150	1,120	1,170	1,300	2,740	1,330	1,400	622	694	4,910
10	1,570	1,800	1,150	1,100	1,180	1,400	2,600	1,370	1,370	670	757	5,180
11	1,580	1,700	1,150	1,100	1,200	1,700	2,460	1,450	1,320	694	811	4,910
12	1,640	1,650	1,160	1,100	1,240	2,180	2,350	1,530	1,260	682	840	4,220
13	1,650	1,580	1,160	1,100	1,220	2,830	2,350	1,580	1,220	706	910	3,760
14	1,700	1,320	1,170	1,100	1,220	3,970	2,270	1,620	1,170	670	960	3,410
15	1,730	1,190	1,180	1,100	1,220	4,900	2,060	1,600	1,100	646	970	3,190
16	1,750	1,120	1,170	1,100	1,220	7,100	1,960	1,700	1,060	598	970	3,030
17	1,840	1,060	1,180	1,100	1,210	8,600	1,860	1,760	1,190	574	950	2,960
18	1,840	1,050	1,180	1,100	1,200	9,800	1,780	1,750	1,090	526	940	2,890
19	1,840	1,110	1,180	1,100	1,220	11,000	1,740	1,710	1,080	479	880	2,770
20	1,820	1,140	1,180	1,100	1,280	11,800	1,700	1,650	1,090	457	870	2,660
21	1,820	1,160	1,180	1,100	1,280	12,400	1,660	1,620	1,090	446	850	2,540
22	1,830	1,220	1,180	1,100	1,280	12,700	1,660	1,730	1,060	402	840	2,420
23	1,830	1,190	1,180	1,100	1,280	13,000	1,640	1,730	1,040	380	890	2,370
24	1,900	1,140	1,180	1,100	1,280	13,200	1,600	1,660	1,020	413	920	2,320
25	1,930	1,200	1,200	1,100	1,260	13,300	1,580	1,570	1,010	413	910	2,340
26	1,950	1,290	1,220	1,100	1,220	12,000	1,660	1,500	980	402	900	2,470
27	1,970	1,250	1,210	1,100	1,190	10,100	1,800	1,500	960	424	920	2,940
28	1,990	1,190	1,200	1,100	1,170	8,300	1,870	1,500	950	424	900	4,790
29	2,000	1,130	1,200	1,100	------	7,000	1,860	1,530	930	413	860	6,090
30	2,000	1,100	1,200	1,100	------	6,000	1,800	1,530	880	424	811	6,580
31	2,020	------	1,200	1,100	------	5,200	------	1,520	------	435	775	------
TOTAL	55,010	44,190	35,610	34,900	33,510	189,280	73,490	48,840	36,000	17,939	24,858	90,251
MEAN	1,775	1,473	1,149	1,126	1,197	6,106	2,450	1,575	1,200	579	802	3,008
MAX	2,020	1,990	1,220	1,220	1,280	13,300	4,900	1,760	1,510	830	970	6,580
MIN	1,560	1,050	920	1,100	1,100	1,170	1,580	1,330	880	380	446	718
AC-FT	109,100	87,650	70,630	69,220	66,470	375,400	145,800	96,870	71,410	35,580	49,310	179,000

CAL YR 1972 TOTAL 1,805,270 MEAN 4,932 MAX 31,000 MIN 920 AC-FT 3,581,000
WTR YR 1973 TOTAL 683,878 MEAN 1,874 MAX 13,300 MIN 380 AC-FT 1,356,000

05092200 Pembina County drain 20 near Glasston, N. Dak.

LOCATION.--Lat 48°41'49", long 97°23'03", in NW¼ sec.8, T.160 N., R.52 W., Pembina County, on left bank 50 ft (15 m) downstream from bridge on county highway 3 mi (5 km) southeast of Glasston.

DRAINAGE AREA.--40.7 mi^2 (105 km^2).

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 808 ft (246 m) above mean sea level, from topographic map.

EXTREMES.--Current year: Maximum discharge, 4.6 ft^3/s (0.13 m^3/s) June 19, gage height, 3.94 ft (1.201 m); maximum gage height, 5.48 ft (1.670 m) Mar. 8, backwater from ice; no flow for many months.

REMARKS.--Records good. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	.01		0			
2						0	0		0			
3						0	0		0			
4						0	0		0			
5						0	0		0			
6						0	0		0			
7						0	0		0			
8						0	0		0			
9						0	0		0			
10						0	0		0			
11						0	0		0			
12						0	0		0			
13						0	0		0			
14						0	0		0			
15						0	0		0			
16						.50	0		0			
17						.90	0		0			
18						2.0	0		0			
19						1.0	0		2.6			
20						.44	0		3.4			
21						.30	0		.98			
22						.30	0		.15			
23						.25	0		.09			
24						.24	0		.02			
25						.21	0		.01			
26						.21	0		0			
27						.13	0		0			
28						.09	0		0			
29					------	.02	0		0			
30					------	.02	0		0			
31		------			------	.02	------		------			------
TOTAL	0	0	0	0	0	6.63	.01	0	7.25	0	0	0
MEAN	0	0	0	0	0	.21	.0003	0	.24	0	0	0
MAX	0	0	0	0	0	2.0	.01	0	3.4	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	13	.02	0	14	0	0	0

CAL YR 1972 TOTAL 237.79 MEAN .65 MAX 69 MIN 0 AC-FT 472
WTR YR 1973 TOTAL 13.89 MEAN .038 MAX 3.4 MIN 0 AC-FT 28

PEAK DISCHARGE (BASE, 10 FT^3/S).--NO PEAK ABOVE BASE.

05098700 Hidden Island Coulee near Hansboro, N. Dak.
(International gaging station)

LOCATION.--Lat 48°57'10", long 99°25'35", in SE¼SW¼ sec.11, T.163 N., R.68 W., Towner County, on right bank 400 ft (122 m) downstream from bridge on county highway 2.5 mi (4 km) west of Hansboro.

DRAINAGE AREA.--38 mi^2 (98 km^2), approximately.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Prior to May 20, 1962, nonrecording gage 400 ft (122 m) upstream at same datum.

AVERAGE DISCHARGE.--12 years, 3.02 ft^3/s (0.0855 m^3/s), 2,190 acre-ft/yr (2.700 hm^3/yr); median of yearly mean discharges, 2.2 ft^3/s (0.06 m^3/s), 1,600 acre-ft/yr (1.97 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 52 ft^3/s (1.47 m^3/s) June 20, gage height, 6.51 ft (1.984 m); no flow for several months.
Period of record: Maximum discharge, 700 ft^3/s (19.8 m^3/s) Apr. 12, 1969, gage height, 8.80 ft (2.682 m); no flow for several months each year.

REMARKS.--Records good. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

COOPERATION.--This station is one of the international gaging stations maintained by the United States under agreement with Canada.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	0	.12	.01	0	6.7		0
2					0	0	.12	.01	0	7.2		0
3					0	.30	.06	0	0	5.5		0
4					0	.50	.04	0	0	4.2		.12
5					0	.60	.04	0	0	4.4		2.3
6					0	.70	.02	.02	0	4.1		6.0
7					0	.64	.01	.02	0	4.0		4.5
8					0	.72	0	.02	0	3.6		2.4
9					0	.53	0	.08	0	3.0		1.6
10					0	1.4	0	.16	0	2.4		.97
11					0	4.0	0	.14	0	2.0		.60
12					0	2.0	0	.14	0	1.6		.35
13					0	2.0	0	.10	0	1.2		.24
14					0	1.8	0	.09	0	1.1		.14
15					0	1.3	0	.09	0	.86		.09
16					0	1.0	0	.07	.09	.64		.05
17					0	1.7	0	.07	.16	.50		.03
18					0	1.4	0	.05	2.8	.47		0
19					0	1.1	.01	.05	10	.41		0
20					0	1.0	.08	.04	42	.28		0
21					0	.72	.10	.07	45	.18		.03
22					0	1.0	.08	.14	36	.05		.08
23					.05	.97	.05	.16	26	0		.06
24					.05	.92	.04	.20	19	.08		.10
25					0	.72	.04	.16	15	.29		.28
26					0	.56	.04	.16	13	.50		.26
27					0	.50	.04	.14	10	.32		.20
28					0	.38	.03	.09	9.7	.24		.14
29					------	.30	.03	.04	8.8	.18		.09
30					------	.22	.02	.02	7.5	.10		.07
31		------			------	.16	------	.01	------	.05		------
TOTAL	0	0	0	0	.10	29.14	.97	2.35	245.05	56.15	0	20.70
MEAN	0	0	0	0	.004	.94	.032	.076	8.17	1.81	0	.69
MAX	0	0	0	0	.05	4.0	.12	.20	45	7.2	0	6.0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	.2	58	1.9	4.7	486	111	0	41

CAL YR 1972 TOTAL 1,238.08 MEAN 3.38 MAX 158 MIN 0 AC-FT 2,460
WTR YR 1973 TOTAL 354.46 MEAN .97 MAX 45 MIN 0 AC-FT 703

PEAK DISCHARGE (BASE, 25 FT^3/S).--JUNE 20 (0800) 52 FT^3/S (6.51 FT).

05098800 Cypress Creek near Sarles, N. Dak.
(Formerly published as Long River near Sarles)
(International gaging station)

LOCATION.--Lat 48°56'35", long 98°57'05", in SW¼SE¼ sec.9, T.163 N., R.64 W., Cavalier County, on right bank 150 ft (46 m) downstream from twin multiplate culverts on county highway, 2.5 mi (4.0 km) east of Sarles.

DRAINAGE AREA.--71 mi^2 (184 km^2), approximately.

PERIOD OF RECORD.--May 1961 to current year.

GAGE.--Water-stage recorder.

AVERAGE DISCHARGE.--12 years, 6.42 ft^3/s (0.182 m^3/s), 4,650 acre-ft/yr (5.733 hm^3/yr); median of yearly mean discharges, 4.9 ft^3/s (0.14 m^3/s), 3,600 acre-ft/yr (4.44 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, about 40 ft^3/s (1.13 m^3/s) Mar. 12, gage height, about 3.4 ft (1.036 m), backwater from ice; no flow for several months.
Period of record: Maximum discharge, 1,920 ft^3/s (54.4 m^3/s) Apr. 10, 1971, gage height, 8.56 ft (2.609 m); no flow for several months each year.

REMARKS.--Records good. Records of chemical analyses for water year 1973 are published in Part 2 of this report.

COOPERATION.--This station is one of the international gaging stations maintained by the United States under agreement with Canada.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	.10					
2						0	.12					
3						0	.16					
4						0	.16					
5						0	.14					
6						.05	.12					
7						.09	.10					
8						.02	.08					
9						0	.06					
10						.09	.04					
11						.16	.02					
12						5.7	0					
13						24	0					
14						13	0					
15						8.6	0					
16						5.0	0					
17						5.9	0					
18						4.3	0					
19						1.9	0					
20						.93	0					
21						1.6	0					
22						2.0	0					
23						1.8	0					
24						1.6	0					
25						.86	0					
26						.40	0					
27						.23	0					
28						.16	0					
29					------	.18	0					
30					------	.16	0					
31		------			------	.12	------		------			------
TOTAL	0	0	0	0	0	78.85	1.10	0	0	0	0	0
MEAN	0	0	0	0	0	2.54	.037	0	0	0	0	0
MAX	0	0	0	0	0	24	.16	0	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	156	2.2	0	0	0	0	0

CAL YR 1972 TOTAL 1,779.66 MEAN 4.86 MAX 221 MIN 0 AC-FT 3,530
WTR YR 1973 TOTAL 79.95 MEAN .22 MAX 24 MIN 0 AC-FT 159

PEAK DISCHARGE (BASE, 50 FT^3/S).--NO PEAK ABOVE BASE.

05099100 Snowflake Creek near Snowflake, Manitoba
(International gaging station)

LOCATION.--Lat 49°01'17", long 98°36'13", in SW¼ sec.10, T.1, R.9 W., 1st meridian, at traffic bridge, 2.5 mi (4.0 km) east and 1.5 mi (2.4 km) south of Snowflake.

DRAINAGE AREA.--348 mi^2 (901 km^2).

PERIOD OF RECORD.--March 1961 to current year.

GAGE.--Water-stage recorder since March 1968 and nonrecording gage prior thereto. Datum of gage is 1,222.63 ft (372.658 m) above mean sea level, Geodetic Survey of Canada datum. Prior to Apr. 2, 1964, nonrecording gage at present site and datum. Apr. 2, 1964, to May 10, 1965, nonrecording gage at site 0.5 mi (0.8 km) downstream at present datum.

AVERAGE DISCHARGE.--12 years, 14.0 ft^3/s (0.397 m^3/s) 10,140 acre-ft/yr (12.50 hm^3/yr); median of yearly mean discharges, 10 ft^3/s (0.28 m^3/s) 7,200 acre-ft/yr (8.88 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 21 ft^3/s (0.59 m^3/s) Mar. 18; maximum daily gage height, 1.79 ft (0.546 m) Mar. 11, backwater from ice; no flow for several months.
Period of record: Maximum daily discharge, 653 ft^3/s (18.5 m^3/s) Apr. 11, 1969, gage height, 7.39 ft (2.252 m); no flow for several months each year.

REMARKS.--Records good.

COOPERATION.--This station is one of the international gaging stations maintained by Canada under agreement with the United States.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	2.0	0				
2						0	.98	0				
3						0	.57	0				
4						0	.41	0				
5						0	.25	0				
6						.10	.09	0				
7						.20	.16	0				
8						.40	.21	0				
9						.50	.21	0				
10						6.3	.17	.10				
11						15	.07	.20				
12						13	0	.24				
13						8.6	0	.19				
14						9.1	0	.14				
15						7.4	0	.09				
16						7.7	0	.06				
17						8.8	0	0				
18						11	0	0				
19						7.0	0	0				
20						4.6	.10	0				
21						7.9	.19	0				
22						6.4	.18	.03				
23						8.4	.14	.20				
24						6.1	.12	.29				
25						5.0	.12	.32				
26						6.0	.14	.31				
27						6.2	.17	.23				
28						4.8	.19	.10				
29					------	2.9	.17	0				
30					------	5.3	.10	0				
31		------			------	4.1	------	0	------			------
TOTAL	0	0	0	0	0	162.80	6.74	2.50	0	0	0	0
MEAN	0	0	0	0	0	5.25	.22	.081	0	0	0	0
MAX	0	0	0	0	0	15	2.0	.32	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	323	13	5.0	0	0	0	0

CAL YR 1972 TOTAL 6,111.14 MEAN 16.7 MAX 341 MIN 0 AC-FT 12,120
WTR YR 1973 TOTAL 172.04 MEAN .47 MAX 15 MIN 0 AC-FT 341

05099150 Mowbray Creek near Mowbray, Manitoba

LOCATION.--Lat 49°00'00", long 98°27'15", in SE¼ sec.3, T.1, R.8 W., 1st meridian, on downstream side of bridge on Municipal Road on international boundary, 1.5 mi (2.4 km) east of Mowbray.

DRAINAGE AREA.--93.9 mi^2 (243.2 km^2).

PERIOD OF RECORD.--March to October, 1962 to current year.

GAGE.--Nonrecording gage.

EXTREMES.--Current year: Maximum daily discharge, 67 ft^3/s (1.90 m^3/s) Mar. 18; no flow for several months. Period of record: Maximum daily discharge, 630 ft^3/s (17.8 m^3/s) Apr. 12, 1971, gage height, 6.95 ft (2.118 m); maximum gage height, 7.88 ft (2.402 m) Mar. 29, 1966, backwater from ice; no flow for several months each year.

REMARKS.--Records good.

COOPERATION.--Records furnished by Inland Waters Branch, Water Survey of Canada.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	5.2	.06				
2						0	4.1	.04				
3						0	3.4	.03				
4						0	3.0	.04				
5						0	2.4	.05				
6						0	1.8	0				
7						0	1.3	.05				
8						0	1.1	0				
9						0	1.0	0				
10						.50	.90	0				
11						1.0	.80	0				
12						2.0	.66	0				
13						1.5	.70	0				
14						1.5	.62	0				
15						1.4	.46	0				
16						1.3	.36	0				
17						20	.31	0				
18						67	.29	0				
19						40	.33	0				
20						36	.50	0				
21						30	.46	0				
22						26	.34	0				
23						17	.25	0				
24						17	.23	0				
25						13	.24	0				
26						11	.23	0				
27						14	.18	0				
28						9.4	.14	0				
29					------	6.5	.10	0				
30					------	5.9	.10	0				
31		------			------	6.8	------	0	------			------
TOTAL	0					328.80	31.50	.27	0	0	0	0
MEAN	0					10.6	1.05	.009	0	0	0	0
MAX	0					67	5.2	.06	0	0	0	0
MIN	0					0	.10	0	0	0	0	0
AC-FT	0					652	62	.5	0	0	0	0

NOTE.--Differences between figures published herein and corresponding figures in reports of the Water Survey of Canada are due to variations in automated program techniques.

05099300 Pembina River near Windygates, Manitoba
(International gaging station)

LOCATION.--Lat 49°01'53", long 98°16'40", in SE¼ sec.13, T.1, R.7 W., 1st meridian, on left bank 0.2 mi (0.3 km) downstream from bridge, 3 mi (5 km) northeast of Windygates.

DRAINAGE AREA.--3,020 mi^2 (7,820 km^2).

PERIOD OF RECORD.--April 1962 to current year.

GAGE.--Water-stage recorder and nonrecording gage. Datum of recording gage is 1,102.02 ft (335.896 m) above mean sea level. Datum of nonrecording gage is 1,105.00 ft (336.804 m) above mean sea level, both gages referred to Geodetic Survey of Canada datum.

AVERAGE DISCHARGE.--11 years, 220 ft^3/s (6.230 m^3/s) 159,400 acre-ft/yr (196.5 hm^3/yr); median of yearly mean discharges, 130 ft^3/s (3.68 m^3/s) 94,200 acre-ft/yr (120 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 145 ft^3/s (4.11 m^3/s) Aug. 8; maximum gage height, 4.92 ft (1.500 m) Mar. 12, backwater from ice; minimum daily discharge, 1.0 ft^3/s (0.028 m^3/s) Jan. 8.
Period of record: Maximum discharge, 8,170 ft^3/s (231 m^3/s) Apr. 19, 1969, gage height, 17.29 ft (5.270 m); no flow in some years.

REMARKS.--Records good.

COOPERATION.--This station is one of the international gaging stations maintained by Canada under agreement with the United States.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	43	13	1.8	4.6	1.8	85	62	36	30	43	50
2	93	42	12	1.7	4.5	1.8	84	60	35	31	42	60
3	94	41	11	1.6	4.3	2.0	83	58	35	30	43	51
4	92	40	10	1.5	4.2	2.5	82	55	33	28	44	53
5	90	39	9.0	1.4	4.0	3.0	81	54	31	30	45	50
6	90	38	7.9	1.3	3.9	3.5	80	53	30	31	47	47
7	89	37	7.4	1.2	3.7	4.0	79	52	29	33	48	46
8	88	36	6.9	1.0	3.6	4.5	78	51	30	36	68	46
9	86	35	6.5	1.2	3.4	5.0	78	50	34	37	86	45
10	86	34	6.0	1.4	3.3	50	80	56	37	61	60	45
11	86	33	5.6	1.6	3.1	55	78	56	37	103	59	44
12	85	32	5.1	1.8	3.0	60	75	57	36	104	59	44
13	85	31	4.7	2.0	2.9	67	75	58	36	89	59	43
14	84	30	4.2	2.2	2.9	69	75	57	34	74	56	43
15	83	29	4.0	2.4	2.8	71	73	57	33	61	55	42
16	83	28	3.8	2.6	2.7	73	69	51	32	51	54	42
17	82	27	3.6	2.8	2.7	75	69	50	38	44	52	41
18	81	26	3.4	3.0	2.6	76	73	48	34	40	52	40
19	78	25	3.2	3.2	2.5	78	74	48	33	38	52	39
20	55	24	3.0	3.4	2.4	81	73	46	33	36	52	39
21	54	23	2.9	3.6	2.4	83	71	45	35	35	52	39
22	53	22	2.8	3.8	2.3	85	68	45	35	33	51	40
23	52	21	2.7	4.0	2.2	87	68	45	34	32	49	40
24	51	20	2.6	4.2	2.2	89	68	43	33	36	47	41
25	50	19	2.5	4.4	2.1	91	73	42	32	53	47	47
26	49	18	2.4	4.6	2.0	93	75	42	31	40	46	49
27	48	17	2.3	4.8	2.0	92	71	42	30	40	45	48
28	47	16	2.2	5.0	1.9	90	68	41	29	41	43	47
29	46	15	2.1	5.3	------	89	66	38	29	42	41	47
30	45	14	2.0	5.0	------	88	66	37	29	44	41	48
31	44	------	1.9	4.8	------	87	------	36	------	44	40	------
TOTAL	2,242	855	156.7	88.6	84.2	1,757.1	2,238	1,535	993	1,427	1,578	1,356
MEAN	72.3	28.5	5.05	2.86	3.01	56.7	74.6	49.5	33.1	46.0	50.9	45.2
MAX	94	43	13	5.3	4.6	93	85	62	38	104	86	60
MIN	44	14	1.9	1.0	1.9	1.8	66	36	29	28	40	39
AC-FT	4,450	1,700	311	176	167	3,490	4,440	3,040	1,970	2,830	3,130	2,690

CAL YR 1972 TOTAL 96,363.1 MEAN 263 MAX 1,620 MIN 1.9 AC-FT 191,100
WTR YR 1973 TOTAL 14,310.6 MEAN 39.2 MAX 104 MIN 1.0 AC-FT 28,390

05099400 Little Pembina River near Walhalla, N. Dak.

LOCATION.--Lat 48°51'55", long 98°00'20", in SW¼ sec.10, T.162 N., R.57 W., Cavalier County, on right bank 25 ft (8 m) upstream from county bridge, 3.5 mi (5.6 km) above mouth, and 6 mi (10 km) southwest of Walhalla.

DRAINAGE AREA.--182 mi^2, (471 km^2), of which 10 mi^2 (26 km^2) is noncontributing.

PERIOD OF RECORD.--April 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,099.48 ft (335.122 m) above mean sea level. Prior to Sept. 10, 1956, nonrecording gage at bridge 25 ft (8 m) downstream at same datum.

AVERAGE DISCHARGE.--17 years, 21.2 ft^3/s (0.600 m^3/s), 15,360 acre-ft/yr (18.94 hm^3/yr); median of yearly mean discharges, 19 ft^3/s (0.54 m^3/s), 13,800 acre-ft/yr (17.0 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 211 ft^3/s (5.98 m^3/s) Aug. 9, gage height, 7.02 ft (2.140 m); maximum gage height, 8.81 ft (2.685 m) Mar. 11, backwater from ice; no flow for many days.
Period of record: Maximum discharge, 6,600 ft^3/s (187 m^3/s) Apr. 25, 1970, gage height, 13.95 ft (4.252 m); no flow at times in some years.

REMARKS.--Records good. Flow regulated since March 1971 by Mt. Carmel Reservoir 30 mi (48 km) upstream, capacity, 4,200 acre-ft (5.18 hm^3). Records of chemical analyses and suspended sediment loads for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.32	1.4	.65			.26	9.5	2.2	1.8	.73	.26	.39
2	.32	1.4	.47			.50	9.5	2.2	1.8	1.2	.62	1.3
3	.26	1.8	.32			4.3	8.8	2.2	2.1	.83	.63	1.5
4	.22	1.6	.22			10	8.1	2.1	1.6	.56	.22	1.3
5	.26	1.8	.15			15	8.1	2.6	1.4	1.0	.22	.32
6	.32	1.9	.12			15	7.0	3.0	1.2	.83	.32	.22
7	.26	1.6	.12			15	5.4	2.8	1.2	.74	.22	.26
8	.32	1.6	.08			35	5.0	2.6	1.0	.47	5.0	.22
9	.32	1.4	.08			32	4.5	2.8	1.0	.32	54	.22
10	.39	1.4	.06			75	4.1	4.1	1.0	.32	3.3	.18
11	.56	1.4	.06			80	3.7	4.1	1.0	.32	1.4	.15
12	.83	1.4	.06			90	3.5	3.9	.83	.32	.92	.15
13	.92	1.4	.06			85	3.7	2.8	.74	.22	.56	.18
14	.74	.92	.04			40	4.1	2.2	.65	.32	.47	.22
15	.65	.74	.04			5.0	3.9	2.2	.56	.26	.32	.32
16	.65	.92	.04			4.0	3.7	2.1	.74	.22	.22	.32
17	.47	.83	.04			5.0	3.5	1.8	1.5	.22	.22	.32
18	.39	.83	.02			6.0	3.5	1.8	1.3	.32	.22	.32
19	.39	.83	.02			8.0	3.7	1.8	1.5	.26	.22	.32
20	.47	.83	.02			12	6.2	1.6	1.5	.22	.15	.32
21	.47	.92	.02			15	7.0	2.3	1.5	.22	.70	.83
22	.47	1.1	.02			20	6.2	7.3	1.3	.22	.39	.74
23	.47	.92	.02			60	4.3	4.7	1.0	.26	.32	.56
24	.56	1.0	.02			50	3.7	3.9	.83	.32	.18	1.9
25	.74	1.6	.02			40	3.2	3.9	.74	.74	.15	5.4
26	.74	1.1	.02			35	3.2	3.5	.65	.39	.65	2.8
27	1.9	1.2	.01			30	2.8	3.2	.74	.65	.15	1.9
28	2.0	.83	.01			25	2.8	2.6	.65	.39	.12	1.6
29	1.8	.56	.01		------	20	2.6	2.1	.65	.39	.08	1.4
30	1.8	.56	.01		------	15	2.4	1.9	.56	.39	.10	1.1
31	2.0	------	.01		------	12	------	1.9	------	.32	.39	------
TOTAL	22.01	35.79	2.84	0	0	859.06	147.7	88.2	33.04	13.97	72.72	26.76
MEAN	.71	1.19	.092	0	0	27.7	4.92	2.85	1.10	.45	2.35	.89
MAX	2.0	1.9	.65	0	0	90	9.5	7.3	2.1	1.2	54	5.4
MIN	.22	.56	.01	0	0	.26	2.4	1.6	.56	.22	.08	.15
AC-FT	44	71	5.6	0	0	1,700	293	175	66	28	144	53

CAL YR 1972 TOTAL 7,102.38 MEAN 19.4 MAX 446 MIN .01 AC-FT 14,090
WTR YR 1973 TOTAL 1,302.09 MEAN 3.57 MAX 90 MIN 0 AC-FT 2,580

05099600 Pembina River at Walhalla, N. Dak.

LOCATION.--Lat 48°54'50", long 97°55'00", in NE¼NE¼ sec.29, T.163 N., R.56 W., Pembina County, on left bank at downstream side of bridge on State Highway 32, at south edge of Walhalla, and 7 mi (11 km) downstream from Little Pembina River.

DRAINAGE AREA.--3,350 mi^2 (8,680 km^2), approximately.

PERIOD OF RECORD.--October 1939 to current year. Prior to October 1963, published as "near Walhalla."

GAGE.--Water-stage recorder. Altitude of gage is 934 ft (284.7 m), from topographic map. Prior to Nov. 10, 1943 nonrecording gage and Nov. 10, 1943, to Sept. 30, 1963, water-stage recorder at site 5.5 mi (8.8 km) upstream at different datum.

AVERAGE DISCHARGE.--34 years, 223 ft^3/s (6.315 m^3/s) 161,600 acre-ft/yr (199.3 hm^3/yr); median of yearly mean discharges, 170 ft^3/s (4.81 m^3/yr) 123,000 acre-ft/yr (152 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 358 ft^3/s (10.1 m^3/s) Aug. 9, gage height, 3.79 ft (1.155 m); maximum gage height, 5.20 ft (1.585 m) Mar. 11, backwater from ice; minimum daily discharge 2.7 ft^3/s (0.076 m^3/s) Jan. 4 to Feb. 19, Feb. 24 to Mar. 1.
Period of record: Maximum discharge, 20,400 ft^3/s (578 m^3/s) Apr. 18, 1950, gage height, 19.2 ft (5.85 m) former site and datum, from rating curve extended above 7,000 ft^3/s (198 m^3/s) on basis of contracted-opening measurement of peak flow; no flow at times in some years.

REMARKS.--Records good. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1388: 1943, 1950(P). WSP 1558: 1957. WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	49	15	3.4	2.7	2.7	95	78	53	27	54	47
2	78	60	15	3.1	2.7	4.0	111	75	46	25	53	212
3	78	52	14	2.8	2.7	5.0	101	74	41	30	50	116
4	76	54	14	2.7	2.7	5.3	98	72	40	40	47	95
5	75	56	12	2.7	2.7	5.7	95	70	35	40	47	87
6	74	54	11	2.7	2.7	6.3	93	70	34	40	52	78
7	72	54	11	2.7	2.7	7.7	90	70	33	40	52	69
8	70	45	10	2.7	2.7	9.0	87	70	27	40	56	63
9	68	47	10	2.7	2.7	30	87	70	32	45	238	60
10	66	47	9.5	2.7	2.7	90	81	70	42	55	119	57
11	70	47	9.0	2.7	2.7	230	81	70	46	64	74	56
12	70	45	8.5	2.7	2.7	220	78	70	42	114	70	54
13	64	40	7.0	2.7	2.7	210	74	70	41	122	68	52
14	60	35	5.5	2.7	2.7	170	78	70	40	114	66	49
15	60	33	5.5	2.7	2.7	130	78	0	39	98	63	49
16	57	30	4.6	2.7	2.7	80	77	70	39	82	60	49
17	54	30	4.3	2.7	2.7	75	74	69	35	75	59	47
18	50	30	4.1	2.7	2.7	90	75	68	36	68	59	45
19	47	30	3.9	2.7	2.7	85	78	64	36	60	57	44
20	56	30	3.8	2.7	3.5	75	84	60	35	52	56	44
21	56	32	3.7	2.7	3.5	100	88	62	31	46	63	45
22	60	32	3.6	2.7	4.5	160	86	82	33	44	64	49
23	56	32	3.5	2.7	3.5	170	84	75	33	41	60	47
24	53	30	3.5	2.7	2.7	155	81	72	32	39	57	59
25	50	30	3.5	2.7	2.7	140	78	69	26	44	56	114
26	50	30	3.5	2.7	2.7	145	80	66	32	78	56	72
27	53	25	3.5	2.7	2.7	165	81	63	36	68	54	59
28	54	20	3.5	2.7	2.7	130	81	62	36	60	53	54
29	53	18	3.5	2.7	------	115	82	59	36	57	50	50
30	59	16	3.5	2.7	------	105	80	56	35	57	49	49
31	53	------	3.5	2.7	------	95	------	56	------	57	47	------
TOTAL	1,922	1,133	216.5	84.9	79.8	3,010.7	2,534	2,122	1,102	1,822	2,009	1,971
MEAN	62.0	37.8	6.98	2.74	2.85	97.1	84.5	68.5	36.7	58.8	64.8	65.7
MAX	80	60	15	3.4	4.5	230	111	82	53	122	238	212
MIN	47	16	3.5	2.7	2.7	2.7	74	56	26	25	47	44
AC-FT	3,810	2,250	429	168	158	5,970	5,030	4,210	2,190	3,610	3,980	3,910

CAL YR 1972 TOTAL 106,845.5 MEAN 292 MAX 2,340 MIN 3.5 AC-FT 211,900
WTR YR 1973 TOTAL 18,008.9 MEAN 49.3 MAX 239 MIN 2.7 AC-FT 35,720

PEAK DISCHARGE (BASE, 400 FT^3/S).--NO PEAK ABOVE BASE.

05100000 Pembina River at Neche, N. Dak.
(International gaging station)

LOCATION.--Lat 48°59'20", long 97°33'05", in SEPNW¼ sec.31, T.164 N., R.53 W., Pembina County, on right bank 0.3 mi (0.5 km) east of State Highway 18, at north edge of Neche.

DRAINAGE AREA.--3,410 mi^2 (8,830 km^2), approximately.

PERIOD OF RECORD.--May 1903 to September 1908, June 1909 to September 1915, April 1919 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 809.69 ft (246.794 m) above mean sea level. Prior to May 24, 1932, nonrecording gage at Burlington Northern Railway bridge 1 mi (1.6 km) upstream, at same datum. May 25, 1932, to Apr. 17, 1939, nonrecording gage on bridge on State Highway 18, 500 ft (152 m) downstream from railway bridge, at same datum.

AVERAGE DISCHARGE.--65 years (1903-8, 1909-15, 1919-73), 180 ft^3/s (5.098 m^3/s), 130,400 acre-ft/yr (160.8 hm^3/yr); median of yearly mean discharges, 130 ft^3/s (3.68 m^3/s), 94,200 acre-ft/yr (116 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 224 ft^3/s (6.34 m^3/s) Mar. 27, gage height, 8.27 ft (2.521 m); maximum gage height, 9.13 ft (2.783 m) Aug. 11 (flashboards in place); minimum daily, 2.7 ft^3/s (0.076 m^3/s) Jan. 5 to Mar. 2.
Period of record: Maximum discharge, 10,700 ft^3/s (303 m^3/s) Apr. 20, 1950, gage height, 21.58 ft (6.578 m), backwater from ice, from rating curve extended above 5,300 ft^3/s (150 m^3/s); maximum gage height, 22.22 ft (6.773 m) Apr. 12, 1971; no flow at times each year 1932-41, 1953, 1960-62.

REMARKS.--Records good. Records of chemical analyses for the 1973 water year are published in Part 2 of this report.

COOPERATION.--This station is one of the international gaging stations maintained by the United States under agreement with Canada.

REVISIONS (WATER YEARS).--WSP 1308: 1904-8, 1910-15, 1920, 1921, 1923, 1924. WSP 1388: 1904(M), 1914, 1915(M), 1931(M), 1933, 1938(M). WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	30	20	4.0	2.7	2.7	159	82	60	41	68	28
2	98	40	20	3.5	2.7	2.7	136	82	54	36	66	32
3	98	40	18	3.5	2.7	3.1	130	82	57	34	63	38
4	95	45	16	3.1	2.7	3.5	124	79	54	34	60	132
5	92	50	15	2.7	2.7	4.5	118	77	54	36	60	114
6	92	55	15	2.7	2.7	4.5	116	74	54	38	57	92
7	89	36	14	2.7	2.7	4.5	113	74	51	36	57	86
8	86	38	13	2.7	2.7	4.5	110	71	43	34	57	77
9	83	38	13	2.7	2.7	4.5	104	68	43	34	63	71
10	83	48	9.7	2.7	2.7	4.5	99	66	43	34	95	66
11	83	50	9.0	2.7	2.7	5.5	99	66	41	34	190	60
12	86	45	9.0	2.7	2.7	7.0	99	66	41	36	121	57
13	86	30	9.0	2.7	2.7	43	96	71	48	48	80	57
14	89	28	8.5	2.7	2.7	190	94	71	48	105	71	57
15	89	28	6.5	2.7	2.7	180	89	68	48	124	66	54
16	86	28	5.0	2.7	2.7	169	89	66	51	127	63	51
17	83	30	4.5	2.7	2.7	136	89	68	57	117	60	51
18	50	30	4.5	2.7	2.7	102	89	68	60	102	54	51
19	45	30	4.5	2.7	2.7	94	86	66	57	89	60	51
20	50	30	4.5	2.7	2.7	116	89	63	63	83	57	48
21	55	30	4.0	2.7	2.7	118	92	63	63	71	60	48
22	70	32	4.0	2.7	2.7	118	96	68	60	63	54	48
23	65	32	4.0	2.7	2.7	146	102	71	60	57	43	48
24	65	32	4.0	2.7	2.7	180	99	77	54	63	41	57
25	65	32	4.0	2.7	2.7	173	92	77	51	63	38	63
26	62	32	4.0	2.7	2.7	180	86	77	48	57	38	66
27	60	32	4.0	2.7	2.7	214	86	77	46	66	38	74
28	60	30	4.0	2.7	2.7	159	86	71	43	77	36	68
29	60	30	4.0	2.7	------	159	86	66	43	80	34	60
30	60	25	4.0	2.7	------	130	86	63	43	77	32	54
31	40	------	4.0	2.7	------	153	------	63	------	71	28	------
TOTAL	2,323	1,054	262.7	87.0	75.6	2,811.5	3,039	2,201	1,538	1,967	1,910	1,859
MEAN	74.9	35.2	8.47	2.81	2.70	90.7	101	71.0	51.3	63.5	61.6	62.0
MAX	98	55	20	4.0	2.7	214	159	82	63	127	190	132
MIN	40	25	4.0	2.7	2.7	2.7	86	63	41	34	28	28
AC-FT	4,610	2,090	521	173	150	5,580	6,030	4,370	3,050	3,900	3,790	3,690

CAL YR 1972 TOTAL 110,021.7 MEAN 301 MAX 2,330 MIN 4.0 AC-FT 218,200
WTR YR 1973 TOTAL 19,129.8 MEAN 52.4 MAX 214 MIN 2.7 AC-FT 37,940

PEAK DISCHARGE (BASE, 400 FT^3/S).--NO PEAK ABOVE BASE.

05100500 Herzog Creek near Concrete, N. Dak.

LOCATION.--Lat 48°45'13", long 97°54'22", in SE¼ sec.20, T.161 N., R.56 W., Pembina County, on left bank 1.7 mi (2.7 km) northeast of Concrete and 1.7 mi (2.7 km) upstream from mouth.

DRAINAGE AREA.--18.9 mi^2 (49 km^2).

PERIOD OF RECORD.--June 1954 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,108.95 ft (338.008 m) above mean sea level (levels by Soil Conservation Service). Prior to Sept. 15, 1971, recording gage at site 0.5 mi (0.8 km) downstream at same datum.

AVERAGE DISCHARGE.--19 years, 3.15 ft^3/s (0.0892 m^3/s) 2,280 acre-ft/yr (2.811 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 16 ft^3/s (0.45 m^3/s) Aug. 9, gage height 9.89 ft (3.014 m), backwater from ice; maximum gage height, 10.73 ft (3.271 m) Mar. 7, backwater from ice; no flow for many days.
Period of record: Maximum discharge, 260 ft^3/s (7.36 m^3/s) Apr. 2, 1955, gage height, 9.74 ft (2.969 m), from floodmarks, backwater from ice; no flow at times each year.

REMARKS.--Record is good. Flood flow affected by temporary retention in four retarding basins above station. The farthest downstream retarding basin, located 0.8 mi (1.3 km) above station, is used to regulate summer flow. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.20	.02			0	.20	.02	.03	.03	.01	.01
2	1.1	.20	.02			0	.10	.02	.03	.03	.01	.01
3	.85	.20	.02			.20	.10	.02	.03	.03	.02	0
4	.55	.20	.01			1.0	.10	.02	.03	.03	.03	0
5	.35	.20	0			.50	.08	.02	.03	.03	.03	0
6	.20	.20	0			.10	.20	.02	.03	.02	.03	0
7	.08	.20	0			.08	.08	.02	.03	.02	.03	0
8	.08	.20	0			.03	.03	.02	.03	.02	.03	0
9	.08	.20	0			.03	.02	.02	.03	.02	3.0	0
10	.08	.20	0			.10	.02	.02	.03	.01	.60	0
11	.03	.20	0			.20	.02	.02	.02	.01	.02	0
12	.03	.20	0			.50	.02	.02	.02	.01	.02	0
13	.02	.20	0			.75	.02	.02	.02	.01	.01	0
14	.01	.10	0			.70	.02	.02	.03	.01	.01	0
15	.01	.10	0			.55	.02	.02	.08	.01	.01	0
16	.01	.10	0			.40	.01	.02	.08	.01	.01	0
17	.01	.10	0			.30	.01	.03	.08	.01	.01	0
18	.01	.10	0			.20	.01	.08	.08	.01	.01	0
19	.01	.10	0			.10	.01	.08	.03	0	.01	0
20	.01	.10	0			.10	.01	.02	.08	.01	.01	0
21	.01	.10	0			.30	.01	.08	.08	.01	.01	0
22	.01	.10	0			.35	.01	.03	.08	.01	.01	0
23	.05	.10	0			.55	.27	.03	.08	.01	.01	0
24	.10	.10	0			.55	.02	.03	.03	.01	.01	.05
25	.20	.10	0			.20	.02	.03	.03	.01	.01	.09
26	.20	.10	0			1.1	.02	.03	.03	.01	.01	.03
27	.20	.08	0			2.3	.02	.03	.03	.01	.01	.03
28	.20	.08	0			1.1	.02	.03	.03	.01	.01	.03
29	.20	.08	0		------	1.0	.02	.03	.03	.01	.01	.02
30	.20	.03	0		------	.50	.02	.03	.03	.01	.01	.02
31	.20	------	0		------	.30	------	.03	------	.01	.01	------
TOTAL	6.49	4.17	.07	0	0	14.09	1.51	.91	1.27	.44	4.02	.29
MEAN	.21	.14	.002	0	0	.45	.050	.029	.042	.014	.13	.010
MAX	1.4	.20	.02	0	0	2.3	.27	.08	.08	.03	3.0	.09
MIN	.01	.03	0	0	0	0	.01	.02	.02	0	.01	0
AC-FT	13	8.3	.1	0	0	28	3.0	1.8	2.5	.9	8.0	.6

CAL YR 1972 TOTAL 1,058.42 MEAN 2.89 MAX 76 MIN 0 AC-FT 2,100
WTR YR 1973 TOTAL 33.26 MEAN .09 MAX 3.0 MIN 0 AC-FT 66

05101000 Tongue River at Akra, N. Dak.

LOCATION.--Lat 48°46'42", long 97°42'43", in SW¼ sec.10, T.161 N., R.55 W., Pembina County, on left bank 300 ft (90 m) downstream from Renwick Dam, 0.9 mi (1.4 km) northwest of Akra, and 6 mi (10 km) west of Cavalier. Prior to Dec. 19, 1973, at site 2.7 mi (4.3 km) downstream.

DRAINAGE AREA.--160 mi^2 (414 km^2).

PERIOD OF RECORD.--April to June 1950 (in WSP 1137-B), October 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 930.00 ft (283.464 m) above mean sea level. Prior to July 10, 1954, nonrecording gage 1.2 mi (1.9 km) downstream at datum 30.00 ft (9.144 m) lower. July 23, 1954 to Dec. 19, 1973, water stage recorder 2.7 mi (4.3 km) downstream at datum 9.10 ft (2.774 m) lower.

AVERAGE DISCHARGE.--22 years (1951-73) 21.6 ft^3/s (0.612 m^3/s), 15,650 acre-ft/yr (19.30 hm^3/yr); median of yearly mean discharges, 20 ft^3/s (0.57 m^3/s) 14,500 acre-ft/yr (17.9 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 118 ft^3/s (3.34 m^3/s) Mar. 24, gage height, 9.85 ft (3.002 m); maximum gage height, 9.93 ft (3.027 m) Mar. 15; minimum daily discharge, 0.15 ft^3/s (0.004 m^3/s) Aug. 15.
Period of record: Maximum discharge, 11,800 ft^3/s (334 m^3/s) Apr. 18, 1950, gage height, 48.7 ft (14.844 m), from floodmarks, site and datum then in use, from rating curve extended above 1,500 ft^3/s (42.5 m^3/s) on basis of contracted-opening measurement of peak flow; no flow Dec. 1-27, 1952, Aug. 13, 14, 1961.
Flood of Apr. 18, 1950, is the highest known since settlement of the region (about 1860).

REMARKS.--Records fair. Flow regulated by temporary retention in ten retarding basins beginning 300 ft (90 m) above station, four of which have slow release outlet structures to regulate the flow. Retarding basins were completed during period 1955 to 1961 and have a combined capacity of 19,245 acre-ft (23.7 hm^3). Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	6.2	3.2	3.1	3.8	3.8	23	13	3.7	3.5	2.9	.43
2	7.0	5.8	3.2	3.2	3.8	3.8	21	10	4.0	3.3	2.9	.43
3	5.0	5.4	3.2	3.2	3.8	3.8	19	8.2	4.1	3.7	2.9	.43
4	4.0	5.2	3.2	3.2	3.8	3.9	18	76	3.8	4.2	2.9	.43
5	3.0	5.2	3.2	3.2	3.8	4.0	16	40	3.7	4.9	2.9	.43
6	2.5	4.9	3.2	3.2	3.8	4.2	15	20	3.7	4.8	2.9	.43
7	2.5	4.7	3.2	3.2	3.8	4.4	13	10	3.3	4.2	2.9	.43
8	2.0	4.3	3.2	3.2	3.8	4.6	12	7.0	3.5	3.8	2.7	.43
9	2.0	3.4	3.2	3.2	3.8	4.9	8.5	5.2	3.2	3.5	2.7	.43
10	2.0	4.1	3.2	3.2	3.8	5.4	7.8	4.8	3.2	3.7	2.3	.43
11	2.0	3.9	3.2	3.2	3.8	6.7	8.6	4.4	3.3	3.7	2.3	.39
12	2.0	3.5	3.2	3.2	3.8	11	8.7	4.0	3.5	3.6	2.0	.39
13	2.0	3.5	3.2	3.2	3.8	23	8.7	3.6	3.6	3.6	1.4	.43
14	2.0	3.5	3.1	3.2	3.8	53	8.2	3.2	3.8	3.5	.19	.43
15	4.0	3.5	3.1	3.2	3.8	108	8.2	2.8	3.8	3.5	.15	.43
16	6.0	3.4	3.1	3.3	3.8	64	8.2	2.4	3.9	3.4	.19	.39
17	6.0	3.4	3.1	3.3	3.8	38	8.4	2.3	4.5	3.4	.19	.39
18	7.0	3.4	3.1	3.4	3.8	29	8.3	2.3	4.5	3.4	.19	.39
19	7.8	3.3	3.1	3.5	3.8	27	8.5	2.3	4.4	3.4	.40	.39
20	8.4	3.3	3.1	3.5	3.8	36	9.2	2.3	4.9	3.4	.40	.39
21	8.6	3.3	3.1	3.6	3.8	28	12	2.3	5.5	3.4	.40	.39
22	9.4	3.3	3.1	3.7	3.8	26	9.5	2.5	5.6	3.1	.35	.39
23	9.8	3.3	3.1	3.7	3.8	52	14	2.9	5.3	3.1	.35	.39
24	9.2	3.3	3.1	3.8	3.8	100	16	3.9	4.7	2.9	.39	.51
25	8.4	3.3	3.1	3.8	3.8	109	19	4.8	4.6	3.1	.39	2.0
26	7.6	3.2	3.1	3.8	3.8	96	20	5.4	4.3	3.2	.39	2.9
27	9.2	3.2	3.1	3.8	3.8	97	20	5.4	3.7	3.4	.39	2.9
28	8.4	3.2	3.1	3.8	3.8	65	23	4.1	3.3	3.0	.39	2.9
29	7.2	3.2	3.1	3.8	------	44	22	3.0	3.8	3.0	.39	2.9
30	6.8	3.2	3.1	3.8	------	32	18	3.0	3.7	3.1	.39	2.9
31	6.8	------	3.1	3.8	------	27	------	3.3	------	2.9	.39	------
TOTAL	177.6	116.4	97.4	106.3	106.4	1,114.5	411.8	264.4	120.9	108.7	39.63	26.50
MEAN	5.73	3.88	3.14	3.43	3.80	36.0	13.7	8.53	4.03	3.51	1.28	.88
MAX	9.8	6.2	3.2	3.8	3.8	109	23	76	5.6	4.9	2.9	2.9
MIN	2.0	3.2	3.1	3.1	3.8	3.8	7.8	2.3	3.2	2.9	.15	.39
AC-FT	352	231	193	211	211	2,210	817	524	240	216	79	53

CAL YR 1972 TOTAL 6,631.05 MEAN 18.1 MAX 316 MIN .75 AC-FT 13,150
WTR YR 1973 TOTAL 2,690.53 MEAN 7.37 MAX 109 MIN .15 AC-FT 5,340

05102500 Red River of the North at Emerson, Manitoba
(International gaging station)

LOCATION.--Lat 49°00'30", long 97°12'40", in sec.2, T.1, R.2 E., on right bank 1,500 ft (460 m) downstream from Canadian National Railway bridge in Emerson, 0.8 mi (1.3 km) downstream from international boundary, 3.6 mi (5.8 km) downstream from Pembina River, and at mile 154.3 (kilometre 248.3).

DRAINAGE AREA.--40,200 mi^2 (104,100 km^2), approximately, includes 3,800 mi^2 (9,840 km^2) in closed basins.

PERIOD OF RECORD.--March to November 1902 (gage heights only), May 1912 to September 1929 (monthly discharge only, published in WSP 1308), October 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft (213.360 m) above mean sea level, datum of 1929, by Geodetic Survey of Canada. See WSP 1728 or 1913 for history of changes prior to Apr. 10, 1953.

AVERAGE DISCHARGE.--61 years (1912-73) 3,125 ft^3/s (88.50 m^3/s), 2,264,000 acre-ft/yr (2.792 km^3/yr); median of yearly mean discharges, 2,630 ft^3/s (74.5 m^3/s), 1,910,000 acre-ft/yr (2.36 km^3/s).

EXTREMES.--Current year: Maximum discharge, 14,700 ft^3/s (416 m^3/s) Mar. 27; maximum daily gage height, 67.32 ft (20.519 m) Mar. 26; minimum discharge, 443 ft^3/s (12.5 m^3/s),
Period of record: Maximum discharge, 95,500 ft^3/s (2,700 m^3/s) May 13, 1950, gage height, 90.89 ft (27.703 m); minimum observed, 0.9 ft^3/s (0.025 m^3/s) Feb. 6-8, 1937, gage height, 44.00 ft (13.411 m).

REMARKS.--Records good. Discharge partially regulated by reservoirs on tributaries.

COOPERATION.--This station is one of the international gaging stations maintained by Canada under agreement with the United States.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,820	2,010	1,520	1,170	1,080	1,090	5,610	1,940	1,630	883	478	710
2	1,820	1,990	1,450	1,170	1,080	1,100	4,910	1,900	1,610	838	487	684
3	1,820	1,980	1,250	1,170	1,090	1,110	4,480	1,860	1,610	778	503	672
4	1,810	1,970	1,150	1,180	1,100	1,120	4,190	1,820	1,600	742	527	669
5	1,800	1,960	1,090	1,180	1,120	1,120	3,970	1,760	1,580	733	577	688
6	1,770	1,950	1,090	1,170	1,140	1,130	3,770	1,690	1,560	730	623	759
7	1,750	1,940	1,110	1,160	1,140	1,140	3,550	1,620	1,540	724	660	1,100
8	1,720	1,930	1,120	1,150	1,140	1,160	3,340	1,570	1,510	713	668	2,110
9	1,710	1,930	1,120	1,130	1,150	1,190	3,140	1,520	1,480	682	659	3,040
10	1,720	1,920	1,100	1,110	1,150	1,270	2,960	1,490	1,470	645	664	3,970
11	1,720	1,870	1,080	1,100	1,160	1,560	2,800	1,500	1,440	638	695	4,150
12	1,720	1,790	1,080	1,090	1,150	2,090	2,670	1,530	1,390	651	789	4,070
13	1,730	1,720	1,100	1,090	1,150	2,860	2,550	1,590	1,340	664	886	3,820
14	1,740	1,760	1,110	1,080	1,160	3,760	2,420	1,660	1,280	683	915	3,490
15	1,760	1,740	1,120	1,080	1,160	4,870	2,290	1,700	1,220	687	946	3,180
16	1,790	1,650	1,130	1,090	1,140	6,040	2,200	1,720	1,150	693	975	3,000
17	1,800	1,520	1,140	1,090	1,110	6,760	2,120	1,760	1,330	675	990	2,860
18	1,820	1,400	1,150	1,090	1,100	7,520	2,030	1,810	1,480	643	985	2,780
19	1,850	1,340	1,150	1,090	1,090	8,130	1,970	1,840	1,400	606	985	2,700
20	1,870	1,320	1,160	1,090	1,100	8,500	1,920	1,850	1,330	566	938	2,630
21	1,880	1,370	1,160	1,090	1,110	8,880	1,880	1,800	1,250	527	917	2,550
22	1,890	1,450	1,160	1,080	1,120	9,660	1,840	1,810	1,170	488	886	2,510
23	1,890	1,530	1,150	1,080	1,110	10,500	1,820	1,850	1,130	460	857	2,470
24	1,900	1,590	1,140	1,090	1,090	10,800	1,800	1,860	1,070	449	848	2,440
25	1,920	1,620	1,130	1,090	1,080	12,200	1,770	1,820	1,030	457	842	2,420
26	1,930	1,630	1,120	1,100	1,070	13,500	1,750	1,740	997	476	835	2,430
27	1,950	1,630	1,120	1,100	1,070	14,200	1,770	1,670	966	495	829	2,590
28	1,970	1,610	1,120	1,100	1,080	12,400	1,840	1,630	932	489	829	3,090
29	1,980	1,590	1,130	1,100	------	10,000	1,910	1,620	916	490	821	4,200
30	2,000	1,570	1,140	1,090	------	8,050	1,950	1,630	906	494	796	5,220
31	2,010	------	1,160	1,080	------	6,630	------	1,650	------	483	753	------
TOTAL	56,860	51,280	35,750	34,480	31,240	180,340	81,220	53,210	39,317	19,282	24,163	77,002
MEAN	1,834	1,709	1,153	1,112	1,116	5,817	2,707	1,716	1,311	622	779	2,567
MAX	2,010	2,010	1,520	1,180	1,160	14,200	5,610	1,940	1,630	883	990	5,220
MIN	1,710	1,320	1,080	1,080	1,070	1,090	1,750	1,490	906	449	478	669
AC-FT	112,800	101,700	70,910	68,390	61,960	357,700	161,100	105,500	77,990	38,250	47,930	152,700

CAL YR 1972 TOTAL 1,924,260 MEAN 5,258 MAX 30,700 MIN 1,080 AC-FT 3,817,000
WTR YR 1973 TOTAL 684,144 MEAN 1,874 MAX 14,200 MIN 449 AC-FT 1,357,000

M - Expressed in thousands

NOTE.--Differences between figures published herein and corresponding figures in reports of the Water Survey of Canada are due to variations in automated program techniques.

05113360 Long Creek at western crossing of international boundary (International gaging station)

LOCATION.--Lat 49°00'01", long 103°21'08", in SE¼ sec.1, T.1, R.11 W., 2d meridian of right bank 10 mi (16 km) south of Outram, Saskatchewan.

DRAINAGE AREA.--1,320 mi^2 (3,420 km^2).

PERIOD OF RECORD.--March 1959 to current year.

GAGE.--Water-stage recorder and artificial control. Datum of gage is 1,894.00 ft (577.291 m) above mean sea level, international boundary survey.

AVERAGE DISCHARGE.--14 years, 28.8 ft^3/s (0.799 m^3/s) 20,900 acre-ft/yr (25.77 hm^3/yr); median of yearly mean discharges, 21 ft^3/s (0.59 m^3/s) 15,200 acre-ft/yr (18.7 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 9.4 ft^3/s (0.27 m^3/s) May 2; maximum gage height, 1.38 ft (0.421 m) Mar. 7, backwater from ice; no flow for several months.
Period of record: Maximum discharge, 3,970 ft^3/s (112 m^3/s) Apr. 10, 1969, gage height, 12.17 ft (3.709 m), backwater from ice; no flow for several months each year.

REMARKS.--Records good. Discharge affected by storage in upstream reservoirs.

COOPERATION.--This station is one of the international gaging stations maintained by Canada under agreement with the United States.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.20			0	4.9	9.2	2.0	0		
2		0	.15			0	4.6	9.0	1.8	.19		
3		0	.10			0	4.2	8.2	3.4	.07		
4		0	.10			0	3.9	7.6	7.1	.01		
5		0	.10			0	3.8	7.3	8.2	0		
6		.01	.10			0	3.5	7.3	7.3	0		
7		.02	.10			2.2	3.1	7.8	6.3	0		
8		.04	.10			3.1	2.7	7.2	6.1	0		
9		.06	.10			2.5	2.1	7.0	5.9	0		
10		.08	.10			3.1	1.7	6.6	5.3	0		
11		.10	0			4.0	1.7	6.4	5.1	0		
12		.15	0			4.4	1.6	6.4	4.8	0		
13		.20	0			4.2	1.8	6.1	4.2	0		
14		.25	0			4.2	2.0	5.9	3.7	0		
15		.25	0			4.3	3.8	5.6	2.9	0		
16		.25	0			3.8	3.6	5.2	2.1	0		
17		.25	0			3.5	2.6	4.6	2.0	0		
18		.25	0			3.3	1.9	3.9	2.1	0		
19		.25	0			3.2	2.2	3.6	2.4	0		
20		.25	0			3.3	3.5	3.6	2.2	0		
21		.25	0			3.5	5.4	4.1	1.7	0		
22		.25	0			4.5	6.2	3.9	1.2	0		
23		.25	0			5.2	6.2	4.1	.92	0		
24		.25	0			5.9	6.0	3.9	.74	0		
25		.25	0			5.7	5.9	3.9	.47	0		
26		.25	0			5.1	6.4	4.0	.33	0		
27		.25	0			5.2	7.2	4.1	0	0		
28		.25	0			5.5	7.3	3.9	0	0		
29		.25	0		------	5.6	8.2	3.3	0	0		
30		.25	0		------	5.3	9.0	2.9	0	0		
31		------	0		------	5.3	------	2.5	------	0		------
TOTAL	0	4.91	1.15	0	0	105.9	127.0	169.1	90.26	.27	0	0
MEAN	0	.16	.037	0	0	3.42	4.23	5.45	3.01	.009	0	0
MAX	0	.25	.20	0	0	5.9	9.0	9.2	8.2	.19	0	0
MIN	0	0	0	0	0	0	1.6	2.5	0	0	0	0
AC-FT	0	9.7	2.3	0	0	210	252	335	179	.5	0	0

CAL YR 1972 TOTAL 19,737.62 MEAN 53.9 MAX 1,650 MIN 0 AC-FT 39,150
WTR YR 1973 TOTAL 498.59 MEAN 1.37 MAX 9 MIN 0 AC-FT 989

NOTE.--Differences between figures published herein and corresponding figures in reports of the Water Survey of Canada are due to variations in automated program techniques.

05113600 Long Creek near Noonan, N. Dak.
(International gaging station)

LOCATION.--Lat 48°58'52", long 103°04'34", near north line of NE¼ sec.1, T.163 N., R.96 W., Divide County, on right bank 150 ft (46 m) upstream from county highway bridge, 1.5 mi (2.4 km) upstream from international boundary, and 7 mi (11 km) northwest of Noonan.

DRAINAGE AREA.--1,790 mi^2 (4,640 km^2), approximately, of which about 1,160 mi^2 (3,000 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,840 ft (561 m), from topographic map. Prior to Aug. 18, 1960, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--14 years, 36.2 ft^3/s (1.025 m^3/s), 26,230 acre-ft/yr (32.3 hm^3/yr); median of yearly mean discharges, 25 ft^3/s (0.71 m^3/s), 18,100 acre-ft/yr (22.3 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 17 ft^3/s (0.48 m^3/s) June 4, gage height, 4.12 ft (1.256 m), backwater from beaver dam; maximum gage height, 4.18 ft (1.274 m) Apr. 3, backwater from beaver dam; no flow for many days.
Period of record: Maximum discharge, 4,980 ft^3/s (141 m^3/s) Apr. 10, 1969, gage height, 16.23 ft (4.947 m); no flow for many days each year.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

COOPERATION.--This station is one of the international gaging stations maintained by the United States under agreement with Canada.

REVISIONS.--WSP 2113: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.8	1.0	.55	.60	.90	10	10	2.5	.18	.02	0
2	1.3	1.8	1.0	.55	.60	1.1	11	11	2.1	.26	.01	0
3	1.1	1.8	1.0	.55	.60	1.3	13	10	4.2	.18	0	0
4	1.3	1.8	1.0	.55	.60	1.4	12	9.6	12	.02	0	.02
5	1.3	1.6	1.0	.55	.65	1.8	8.9	9.6	6.6	0	0	.18
6	1.3	1.6	1.0	.55	.65	1.6	5.7	9.6	7.5	0	0	.10
7	1.3	1.4	.75	.55	.60	1.4	4.5	8.6	8.2	0	0	.10
8	1.3	1.4	.70	.55	.60	1.3	4.5	8.2	9.6	0	.18	.18
9	1.3	1.4	.75	.55	.60	1.4	4.0	8.2	8.6	0	.02	.10
10	1.3	1.4	.90	.55	.60	1.6	3.7	7.9	7.5	0	0	.10
11	1.3	1.4	.90	.55	.55	1.6	4.0	7.2	7.2	0	0	.02
12	1.3	1.4	.80	.55	.55	1.9	3.7	6.6	5.4	0	0	.02
13	1.4	1.4	.90	.55	.55	2.1	3.4	6.3	4.0	0	0	.02
14	1.3	1.4	.90	.55	.55	3.0	3.2	5.7	3.7	0	0	.02
15	1.3	1.4	.90	.55	.55	4.0	3.2	6.3	3.2	0	0	.02
16	1.3	1.4	.90	.55	.60	5.4	2.7	5.4	2.7	0	0	.02
17	1.3	1.4	.90	.55	.65	6.0	2.7	5.1	1.8	0	0	.02
18	1.4	1.4	.90	.55	.70	7.8	3.4	5.4	1.8	0	0	.02
19	1.4	1.3	.90	.55	.75	8.9	6.0	4.0	1.8	0	0	.02
20	1.3	1.3	.80	.55	.75	7.2	7.5	3.7	1.4	0	0	.02
21	1.3	1.1	.70	.60	.75	6.3	7.8	3.5	1.4	0	0	.18
22	1.3	1.1	.60	.60	.70	5.4	7.2	4.2	1.4	0	0	.18
23	1.3	1.1	.60	.60	.70	4.5	8.6	4.2	1.4	0	0	.10
24	1.3	1.3	.60	.60	.65	4.2	10	5.1	1.3	.02	0	.18
25	1.4	1.3	.60	.60	.60	6.3	11	4.8	1.3	.10	0	.18
26	1.6	1.2	.60	.60	.55	8.6	10	4.0	.88	.02	0	.18
27	1.6	1.1	.60	.60	.55	9.2	9.6	4.5	.44	.02	0	.18
28	1.6	1.1	.60	.60	.65	8.6	8.6	4.8	.26	.02	0	.10
29	1.6	1.1	.60	.60	------	8.2	11	5.1	.18	.02	0	.10
30	1.8	1.1	.60	.60	------	8.9	10	3.5	.18	.02	0	.10
31	1.6	------	.60	.60	------	11	------	3.2	------	.02	0	------
TOTAL	42.5	41.3	24.60	17.60	17.45	142.90	210.9	195.3	110.54	.88	.23	2.46
MEAN	1.37	1.38	.79	.57	.62	4.61	7.03	6.30	3.68	.028	.007	.082
MAX	1.8	1.8	1.0	.60	.75	11	13	11	12	.26	.18	.18
MIN	1.1	1.1	.60	.55	.55	.90	2.7	3.2	.18	0	0	0
AC-FT	84	82	49	35	35	283	418	387	219	1.7	.5	4.9

CAL YR 1972 TOTAL 24,708.01 MEAN 67.5 MAX 1,750 MIN 0 AC-FT 49,010
WTR YR 1973 TOTAL 806.66 MEAN 2.21 MAX 13 MIN 0 AC-FT 1,600

PEAK DISCHARGE (BASE, 17 FT^3/S).--NO PEAK ABOVE BASE.

05113750 East Branch Short Creek Reservoir near Columbus, N. Dak.

LOCATION.--Lat 48°59'26", long 102°47'07", in SW¼NW¼ sec.32, T.164 N., R.93 W., Burke County, on left bank of reservoir on East Branch Short Creek, 0.5 mi (0.8 km) south of international boundary, and 6.0 mi (9.7 km) north of Columbus.

DRAINAGE AREA.--280 mi^2 (725 km^2), of which 175 mi^2 (453 km^2) is noncontributing.

PERIOD OF RECORD.--April 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,860.00 ft (566.928 m) above mean sea level.

EXTREMES.--Current year: Maximum contents, 1,321 acre-ft (1.63 hm^3) Oct. 1, elevation, 28.01 ft (8.537 m); minimum, 1,122 acre-ft (1.38 hm^3) Sept. 18-20, elevation, 26.29 ft (8.013 m).
Period of record: Maximum contents, 1,705 acre-ft (2.10 hm^3) Apr. 6, 1969, elevation, 31.11 ft (9.482 m); minimum, 1,002 acre-ft (1.24 hm^3) Dec. 10-13, 1967.

REMARKS.--Reservoir is formed by earth-fill dam; storage began April 1963. Outlet of lake is a fixed-crest concrete dam; average crest elevation, 1,886.90 ft (575.127 m) above mean sea level. Reservoir capacity at crest elevation, 1,200 acre-ft (1.48 hm^3). The reservoir is operated for water supply and recreation.

MONTHEND GAGE HEIGHT AND CONTENTS AT 2400, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Gage height (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	28.00	1,320	-
Oct. 31	27.68	1,282	-38
Nov. 30	27.62	1,274	-8
Dec. 31	27.60	1,272	-2
CAL YR 1972	--	--	+149
Jan. 31	27.60	1,272	0
Feb. 28	27.60	1,272	0
Mar. 31	27.71	1,285	+13
Apr. 30	27.68	1,282	-3
May 31	27.44	1,253	-29
June 30	27.20	1,224	-29
July 31	26.72	1,169	-55
Aug. 31	26.32	1,125	-44
Sept. 30	26.40	1,134	+9
WTR YR 1973	--	--	-186

05113800 Short Creek below international boundary near Roche Percee, Saskatchewan
(International gaging station)

LOCATION.--Lat 49°01'42", long 102°51'00", in SW¼ sec.14, T.1, R.7 W., 2d meridian, 4 mi (6 km) southwest of Roche Percee and 5 mi (8 km) upstream from mouth.

DRAINAGE AREA.--480 mi^2 (1,240 km^2).

PERIOD OF RECORD.--March 1960 to current year.

GAGE.--Water-stage recorder.

AVERAGE DISCHARGE.--13 years, 7.77 ft^3/s (0.220 m^3/s) 5,630 acre-ft/yr (6.942 hm^3/yr); median of yearly mean discharges, 3.8 ft^3/s (0.11 hm^3/s) 2,800 acre-ft/yr (3.45 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 42 ft^3/s (1.11 m^3/s) Mar. 13, gage height, 4.46 ft (1.359 m); no flow for many days.
Period of record: Maximum discharge, 1,700 ft^3/s (48.1 m^3/s) Apr. 7, 1969, gage height, 14.33 ft (4.368 m); maximum gage height, 14.39 ft (4.386 m) Mar. 28, 1960; no flow on many days each year.

REMARKS.--Records excellent except those for the winter period, which are fair.

COOPERATION.--This station is one of the international gaging stations maintained by Canada under agreement with the United States.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	.55	.35	.05		0	4.3	3.0	.12	.06	0	0
2	5.5	.50	.35	.04		0	3.8	2.9	.12	.06	0	0
3	4.9	.45	.35	.04		0	3.4	2.7	.60	.02	0	.10
4	4.2	.42	.35	.04		0	3.5	2.8	.66	.01	0	.33
5	4.0	.40	.35	.04		2.0	3.5	2.6	.46	.01	0	.07
6	3.0	.39	.35	.04		4.0	3.2	2.2	2.3	.01	0	.05
7	3.1	.38	.35	.04		9.3	2.9	2.0	19	0	0	.05
8	3.3	.37	.35	.04		8.6	2.7	1.7	13	0	0	5.6
9	2.3	.37	.34	.04		7.8	2.9	1.5	8.9	0	0	12
10	2.0	.37	.32	.03		5.8	2.7	1.4	6.2	0	0	12
11	1.9	.36	.28	.03		5.4	2.3	1.1	4.3	0	0	11
12	2.2	.36	.26	.03		6.4	2.1	1.0	2.8	0	0	8.8
13	2.4	.36	.24	.03		19	1.9	.84	1.8	0	0	6.8
14	1.9	.36	.22	.03		23	1.7	.75	1.5	0	0	4.9
15	1.9	.36	.20	.03		23	1.5	.61	1.3	0	.05	3.7
16	1.7	.35	.18	.03		20	2.6	.51	1.2	0	0	2.8
17	1.3	.35	.16	.03		18	2.3	.44	.88	0	0	2.2
18	1.3	.35	.14	.02		14	1.9	.40	.47	0	0	1.9
19	1.1	.35	.10	.02		12	2.1	.30	.64	0	0	1.3
20	1.0	.35	.09	.02		13	3.3	.28	.46	0	0	1.1
21	1.0	.35	.08	.02		12	3.6	.32	.46	0	0	1.3
22	.95	.35	.07	.02		9.7	7.6	.32	.44	0	0	1.2
23	1.0	.35	.06	.02		8.2	12	.31	.24	0	0	.99
24	.92	.35	.05	.02		8.8	11	.24	.15	0	0	1.9
25	.90	.35	.05	.01		8.2	8.4	.23	.11	0	0	2.0
26	.85	.35	.05	.01		8.4	6.5	.21	.14	0	0	3.4
27	.80	.35	.05	.01		7.9	5.0	.24	.14	0	0	7.4
28	.75	.35	.05	.01		6.4	3.7	.24	.11	0	0	11
29	.70	.35	.05	.01	------	5.6	3.5	.22	.03	0	0	8.2
30	.65	.35	.05	.01	------	5.4	3.3	.20	.01	0	0	6.3
31	.60	------	.05	0	------	4.9	------	.16	------	0	0	------
TOTAL	63.52	11.25	5.94	.81	0	276.8	119.2	31.72	68.54	.17	.05	118.39
MEAN	2.05	.38	.19	.026	0	8.93	3.97	1.02	2.28	.006	.002	3.95
MAX	5.5	.55	.35	.05	0	23	12	3.0	19	.06	.05	12
MIN	.60	.35	.05	0	0	0	1.5	.16	.01	0	0	0
AC-FT	126	22	12	1.6	0	549	236	63	136	.3	.10	235

CAL YR 1972 TOTAL 8,861.01 MEAN 24.2 MAX 523 MIN 0 AC-FT 17,580
WTR YR 1973 TOTAL 696.39 MEAN 1.91 MAX 23 MIN 0 AC-FT 1,380

NOTE.--Differences between figures published herein and corresponding figures in reports of the Water Survey of Canada are due to variations in automated program techniques.

05114000 Souris (Mouse) River near Sherwood, N. Dak.
(International gaging station)

LOCATION.--Lat 48°59'24", long 101°57'28", in NW¼SE¼NE¼ sec.33, T.164 N., R.87 W., Renville County, on right bank 0.8 mi (1.3 km) downstream from international boundary and 16 mi (26 km) northwest of Sherwood and at mile 511.4 (kilometre 822.8).

DRAINAGE AREA.--8,940 mi^2 (23,150 km^2), approximately, of which about 5,900 mi^2 (15,300 km^2) is probably noncontributing.

PERIOD OF RECORD.--March 1930 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,603.73 ft (488.82 m) above mean sea level. Prior to Apr. 8, 1935, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--43 years, 107 ft^3/s (3.03 m^3/s), 77,520 acre-ft/yr (95.6 hm^3/yr); median of yearly mean discharges, 76 ft^3/s (2.15 m^3/s), 55,100 acre-ft/yr (67.9 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 150 ft^3/s (4.25 m^3/s) Mar. 16, gage height, 4.10 ft (1.250 m), backwater from ice; minimum, 0.48 ft^3/s (0.014 m^3/s) Sept. 17, gage height, 1.13 ft (0.344 m).
Period of record: Maximum discharge, 12,400 ft^3/s (351 m^3/s Apr. 11, 1969, gage height, 24.72 ft (7.535 m), backwater from ice; no flow at times in some years.
Flood in 1927 reached a stage of about 22 ft (6.7 m) from information by local residents.

REMARKS.--Records good. Some regulation at low flows by reservoirs in Canada. Some small diversions for irrigation and municipal supply. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

COOPERATION.--This station is one of the international gaging stations maintained by the United States under agreement with Canada.

REVISIONS (WATER YEARS).--WSP 1308: 1934, 1945. WSP 2113: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	10	18	8.0	3.0	3.0	32	41	11	11	1.8	1.1
2	12	11	14	8.3	3.0	5.0	30	39	11	11	1.8	1.3
3	11	31	12	9.7	3.0	14	30	35	14	10	1.9	1.1
4	10	40	9.0	16	3.0	16	27	31	18	10	2.0	1.3
5	10	36	7.8	25	3.0	18	31	29	22	9.9	2.0	1.2
6	9.7	34	6.6	16	3.0	14	33	28	35	9.9	2.0	1.3
7	9.4	38	6.6	10	3.0	10	28	27	41	8.3	1.4	1.5
8	9.2	35	5.7	8.0	3.0	60	27	27	44	7.1	1.0	1.8
9	9.4	40	5.1	8.0	3.0	80	24	27	61	6.3	1.1	1.8
10	9.9	33	5.2	6.0	3.0	70	22	28	62	5.8	1.2	1.7
11	14	33	5.8	5.5	3.0	65	22	30	53	5.6	1.2	1.8
12	14	31	6.2	5.0	3.0	60	20	31	43	4.7	1.2	1.5
13	15	26	6.2	5.0	3.0	80	19	28	35	3.9	1.0	1.2
14	15	24	6.2	4.5	3.0	75	18	26	30	2.8	1.0	1.1
15	13	33	6.2	4.0	3.0	105	17	26	30	2.6	1.2	.90
16	12	35	6.2	4.0	3.0	100	17	25	29	3.0	1.0	.68
17	12	33	6.3	4.0	3.0	115	17	22	29	3.6	1.0	.52
18	12	31	6.4	4.0	3.0	125	16	20	27	4.2	1.4	.56
19	12	31	6.3	4.0	3.0	110	19	18	23	3.5	1.8	.56
20	13	36	6.3	4.0	3.0	90	24	18	20	2.9	1.8	.60
21	12	35	6.3	4.0	3.0	71	31	17	20	2.7	2.3	.95
22	12	35	6.3	4.0	3.0	70	35	16	18	2.7	2.2	.76
23	12	35	6.3	4.0	3.0	69	40	16	16	2.2	2.2	.64
24	11	39	6.3	4.0	3.0	63	37	17	16	2.1	2.2	1.3
25	10	38	6.3	4.0	3.0	57	36	17	15	3.5	2.3	1.3
26	10	34	6.4	3.5	3.0	56	38	17	13	3.6	2.2	1.3
27	11	28	6.8	3.5	3.0	57	40	16	13	3.2	1.8	1.3
28	10	24	6.9	3.0	3.0	56	39	15	14	2.9	1.4	1.8
29	11	24	7.3	3.0	------	46	41	13	13	2.8	1.1	2.4
30	10	20	7.4	3.0	------	42	41	13	12	2.5	1.0	1.7
31	10	------	7.8	3.0	------	38	------	12	------	2.0	1.0	------
TOTAL	353.6	933	226.2	198.0	84.0	1,840.0	851	725	788	156.3	48.5	36.97
MEAN	11.4	31.1	7.30	6.39	3.00	59.4	28.4	23.4	26.3	5.04	1.56	1.23
MAX	15	40	18	25	3.0	125	41	41	62	11	2.3	2.4
MIN	9.2	10	5.1	3.0	3.0	3.0	16	12	11	2.0	1.0	.52
AC-FT	701	1,850	449	393	167	3,650	1,690	1,440	1,560	310	96	73

CAL YR 1972 TOTAL 80,836.20 MEAN 221 MAX 3,210 MIN 2.9 AC-FT 160,300
WTR YR 1973 TOTAL 6,240.57 MEAN 17.1 MAX 125 MIN .52 AC-FT 12,380

05115500 Lake Darling near Foxholm, N. Dak.

LOCATION.--Lat 48°27'27", long 101°35'14", in NE¼NE¼ sec.1, T.157 N., R.85 W., Ward County, on control structure of Lake Darling Dam, reservoir of Fish and Wildlife Service, on Souris River about 6 mi (10 km) north of Foxholm, and at mile 430.0 (kilometre 691.9).

DRAINAGE AREA.--9,450 mi^2 (24,480 km^2), approximately, of which about 6,200 mi^2 (16,100 km^2) is probably noncontributing.

PERIOD OF RECORD.--April 1936 to current year (no winter records 1936-39).

GAGE.--Water-stage recorder. Datum of gage is 1,577.00 ft (480.670 m) above mean sea level. April 1936 to Aug. 8, 1963, nonrecording gages at same site and datum.

EXTREMES.--Current year: Maximum contents, 94,100 acre-ft (116 hm^3) Oct. 1, gage height, 19.12 ft (5.828 m); minimum, 77,600 acre-ft (95.7 hm^3) Sept. 20, gage height, 17.25 ft (5.258 m).
Period of record: Maximum contents observed, 130,000 acre-ft (160 hm^3) Apr. 23, 24, 1943, gage height, 22.83 ft (6.959 m); minimum observed since April 1943 when reservoir was first filled to spillway level, 31,200 acre-ft (38.5 hm^3) Feb. 18, 25, 1963, gage height, 10.04 ft (3.060 m).

REMARKS.--Reservoir is formed by earth dam; storage began in April 1936; dam completed in July 1936. Usable capacity, 108,500 acre-ft (134 hm^3) between gage heights 0.0 ft, sill of control gates, and 21.0 ft (6.401 m), crest of spillway. Dead storage, 3,500 acre-ft (4.32 hm^3). Figures given herein represent total contents based on capacity table dated June 7, 1943. Water is used during periods of low flow at wildlife refuge downstream.

COOPERATION.--Supplementary gage readings furnished by Fish and Wildlife Service.

REVISIONS (WATER YEARS).--WSP 1338: 1942. WSP 2113: Drainage area.

MONTHEND GAGE HEIGHT AND CONTENTS AT 2400, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Gage height (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	19.12	94,100	
Oct. 31	18.37	87,300	-6,800
Nov. 30	18.29	86,600	-700
Dec. 31	18.08	84,700	-1,900
CAL YR 1972	--	--	+4,100
Jan. 31	17.83	82,600	-2,100
Feb. 28	17.55	80,200	-2,400
Mar. 31	17.80	82,300	+2,100
Apr. 30	17.86	82,800	+500
May 31	17.87	82,900	+100
June 30	*18.20	85,800	+2,900
July 31	17.75	81,900	-3,900
Aug. 31	17.50	79,800	-2,100
Sept. 30	17.35	78,500	-1,300
WTR YR 1973	--	--	-15,600

* Estimated

05116000 Souris (Mouse) River near Foxholm, N. Dak.

LOCATION.--Lat 48°22'20", long 101°30'18", in SW¼SE¼ sec.34, T.157 N., R.84 W., Ward County, on left bank 30 ft (9.1 m) upstream from county highway bridge, 3 mi (4.8 km) east of Foxholm, 19 mi (30.6 km) upstream from Des Lacs River, and at mile 414.5 (kilometre 666.9).

DRAINAGE AREA.--9,470 mi^2 (24,530 km^2), approximately, of which about 6,200 mi^2 (16,100 km^2) is probably noncontributing.

PERIOD OF RECORD.--June 1904 to November 1905, March to July 1906 (gage heights only), October 1936 to current year. Monthly discharge only for some periods, published in WSP 1308. Published as Mouse River near Foxholm, 1904-6.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,560.73 ft (475.711 m) above mean sea level. June 23, 1904, to July 31, 1906, nonrecording gage at site 3.2 mi (5.1 km) upstream at different datum. Apr. 1, 1937, to Mar. 25, 1938, nonrecording gage at site 600 ft (183 m) downstream at datum about 0.5 ft (0.15 m) higher.

AVERAGE DISCHARGE.--38 years, 107 ft^3/s (3.03 m^3/s), 77,520 acre-ft/yr (95.6 hm^3/yr); median of yearly mean discharges, 60 ft^3/s (1.70 m^3/s), 43,500 acre-ft/yr (53.6 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 424 ft^3/s (12.0 m^3/s) Apr. 6, gage height, 6.97 ft (2.124 m); minimum, 0.09 ft^3/s (0.003 m^3/s) June 1, gage height, 4.55 ft (1.387 m).
Period of record: Maximum discharge, 5,380 ft^3/s (152 m^3/s) Apr. 17, 18, 1969, gage height, 15.84 ft (4.828 m); maximum reverse flow, 25 ft^3/s (0.71 m^3/s) Apr. 4, 1949 caused by backwater from Des Lacs River; no flow at times in many years

REMARKS.--Records good. Flow completely regulated since 1936 by Lake Darling (see station 05115500) 15 mi (24.1 km) upstream and several small reservoirs, combined capacity, about 184,000 acre-ft (227 hm^3). Some small diversions for irrigation and municipal supply. Records of chemical analyses for the 1973 water year are published in Part 2 of this report.

REVISIONS.--WSP 1308: 1905. WSP 2113: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	61	51	51	49	49	6.0	2.1	.12	1.4	.38	3.8
2	45	61	52	51	49	49	8.7	1.8	.25	1.6	.48	2.6
3	69	61	52	51	49	49	8.2	1.3	13	1.4	.60	2.6
4	101	61	52	51	49	49	240	1.1	19	1.3	.60	4.2
5	112	61	52	51	49	49	414	1.8	14	1.3	.72	2.8
6	112	61	51	51	49	49	281	1.8	9.6	1.3	.72	2.1
7	120	61	51	51	49	49	4.5	.98	6.1	1.4	.38	1.8
8	118	59	51	51	49	49	3.5	.60	5.8	1.1	.30	1.1
9	120	52	51	51	49	49	3.5	2.0	4.5	1.1	.25	.98
10	123	52	49	51	49	31	3.2	3.0	4.5	1.1	.21	42
11	123	52	49	51	49	2.9	3.2	3.0	4.2	1.1	.25	102
12	123	52	49	51	49	1.8	2.8	2.3	2.6	.98	.25	102
13	123	49	49	51	49	1.4	2.8	1.8	1.6	.72	.17	100
14	123	47	49	51	49	1.4	3.0	.85	1.3	.38	.17	100
15	120	47	49	49	49	1.2	2.8	1.1	.98	.38	.17	98
16	120	47	49	49	49	1.2	2.6	1.3	.98	.30	.25	98
17	118	47	49	49	49	1.2	2.3	.85	.85	.38	.98	53
18	118	47	49	49	49	1.2	2.0	.98	7.3	.38	2.6	1.4
19	118	47	49	49	48	1.2	2.0	.38	38	.98	3.0	1.1
20	118	47	49	49	48	.98	2.0	.25	30	7.3	2.6	.38
21	118	47	49	49	48	.98	3.2	.30	22	7.8	2.8	.38
22	118	47	51	49	48	.98	2.6	.25	17	7.3	2.8	.30
23	118	48	51	51	48	.98	1.6	.25	11	7.8	3.0	.25
24	115	49	51	51	48	.98	1.6	.48	7.8	7.3	4.8	.60
25	112	49	51	51	48	1.2	1.8	.38	6.4	6.9	3.8	.60
26	112	49	51	51	48	1.8	1.8	.30	7.3	6.4	3.8	.38
27	112	49	51	49	48	4.2	1.4	.38	4.2	4.8	3.8	.30
28	112	49	51	49	48	6.0	1.4	.48	2.8	4.8	3.5	.21
29	112	49	51	49	------	4.5	1.6	.38	1.8	2.8	3.2	.17
30	90	49	51	49	------	4.8	1.4	.17	1.4	.98	3.5	.12
31	61	------	51	49	------	4.8	------	.12	------	.48	3.5	------
TOTAL	3,351	1,557	1,561	1,555	1,362	517.70	1,016.5	32.78	246.38	83.26	53.58	723.17
MEAN	108	51.9	50.4	50.2	48.6	16.7	33.9	1.06	8.21	2.69	1.73	24.1
MAX	123	61	52	51	49	49	414	3.0	38	7.8	4.8	102
MIN	45	47	49	49	48	.98	1.4	.12	.12	.30	.17	.12
AC-FT	6,650	3,090	3,100	3,080	2,700	1,030	2,020	65	489	165	106	1,430

CAL YR 1972 TOTAL 89,300.00 MEAN 244 MAX 1,790 MIN 37 AC-FT 177,100
WTR YR 1973 TOTAL 12,059.37 MEAN 33.0 MAX 414 MIN .12 AC-FT 23,920

05116500 Des Lacs River at Foxholm, N. Dak.

LOCATION.--Lat 48°22'14", long 101°34'11", in NW¼NE¼NW¼ sec.2, T.156 N., R.85 W., Ward County, on left bank 200 ft (61 m) upstream from county highway bridge in Foxholm and at mile 23.0 (kilometre 37.0).

DRAINAGE AREA.--939 mi^2 (2,430 km^2), of which about 400 mi^2 (1,040 km^2) is probably noncontributing.

PERIOD OF RECORD.--June 1904 to July 1906, October 1945 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 1,632.98 ft (497.73 m) above mean sea level. June 14 to Oct. 23, 1955, nonrecording gage at site 200 ft (61 m) downstream from present gage at same datum. See WSP 1728 to 1913 for history of changes prior to June 14, 1955.

AVERAGE DISCHARGE.--30 years, 24.6 ft^3/s (0.697 m^3/s), 17,820 acre-ft/yr (22.0 hm^3/yr); median of yearly mean discharges, 17 ft^3/s (0.48 m^3/s), 12,300 acre-ft/yr (15 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 529 ft^3/s (15.0 m^3/s) June 20, gage height, 10.49 ft (3.197 m); minimum, 1.4 ft^3/s (0.040 m^3/s); minimum gage height, 2.05 ft (0.625 m), Aug. 20.
Period of record: Maximum discharge, 3,660 ft^3/s (103.7 m^3/s) Apr. 30, 1970, gage height, 20.71 ft (6.312 m), from floodmark; no flow at times in some years.

REMARKS.--Records good except those for the winter period, which are fair. Some regulation at low flow by a series of wildfowl refuge ponds, beginning about 53 mi (85 km) upstream, combined capacity about 64,000 acre-ft (78.9 hm^3). Some small diversions for irrigation above station. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	36	5.6	1.8	3.0	20	14	17	6.3	9.8	3.2	4.6
2	74	36	5.2	1.8	3.0	30	14	17	7.1	9.8	2.8	26
3	71	36	4.5	1.8	3.0	40	14	14	34	8.8	2.6	93
4	69	36	3.8	1.8	3.0	90	13	13	78	8.4	2.6	44
5	67	36	3.2	1.8	3.0	90	12	13	90	8.0	2.6	42
6	64	36	2.8	1.8	3.0	70	11	13	53	7.7	2.6	35
7	64	36	2.6	1.8	3.0	50	11	12	29	7.4	2.7	18
8	62	35	2.4	1.6	3.0	45	10	12	19	6.9	2.9	11
9	60	34	2.1	1.4	3.0	40	10	12	15	6.4	2.7	8.4
10	57	27	1.8	1.4	2.5	85	9.6	12	13	6.3	2.6	7.1
11	55	23	1.7	1.4	2.5	200	9.8	12	12	6.2	2.6	6.0
12	53	14	1.7	1.4	2.5	130	9.4	12	11	5.6	2.7	5.1
13	51	12	1.7	1.4	2.5	90	9.2	11	10	4.7	3.3	4.0
14	49	12	1.7	1.4	2.5	55	9.2	10	9.2	4.7	3.2	4.0
15	49	11	1.7	1.6	2.5	25	9.0	9.6	8.4	4.5	3.0	3.8
16	48	10	1.7	1.8	2.5	30	8.4	9.0	7.8	4.0	2.9	3.6
17	48	9.6	1.7	2.0	3.0	30	8.6	8.4	7.7	4.0	2.5	3.5
18	48	9.0	1.7	4.0	3.5	35	8.4	8.0	21	4.0	2.4	3.4
19	47	8.8	1.8	6.0	3.0	30	11	7.7	314	3.9	2.1	3.3
20	47	8.4	1.9	4.5	2.5	30	24	7.7	512	4.0	1.9	3.2
21	46	8.2	2.0	6.5	2.5	20	34	7.7	312	3.8	2.0	3.1
22	46	7.8	2.0	14	3.5	25	41	7.7	104	3.5	2.0	3.0
23	46	7.2	2.0	6.0	5.5	25	29	7.5	55	3.9	1.9	3.4
24	46	7.4	2.0	5.5	4.5	25	22	7.8	35	5.1	5.7	5.9
25	44	6.8	2.0	7.0	4.5	25	18	7.8	25	6.8	6.9	6.6
26	43	6.6	2.0	9.0	5.0	25	17	7.4	18	5.8	24	5.8
27	42	6.6	2.0	6.0	5.0	21	16	7.2	15	4.4	17	5.2
28	41	6.4	2.0	5.2	10	17	15	6.9	13	3.7	8.6	5.6
29	40	6.2	1.9	3.5	------	14	15	6.9	11	3.9	6.3	3.8
30	38	5.8	1.9	3.5	------	15	15	6.4	10	3.5	5.1	3.6
31	38	------	1.8	3.0	------	15	------	6.2	------	3.4	4.4	------
TOTAL	1,630	534.8	72.9	111.7	97.0	1,442	447.6	309.9	1,855.5	172.9	137.8	375.0
MEAN	52.6	17.8	2.35	3.60	3.46	46.5	14.9	10.0	61.9	5.58	4.45	12.5
MAX	77	36	5.6	14	10	200	41	17	512	9.8	24	93
MIN	38	5.8	1.7	1.4	2.5	14	8.4	6.2	6.3	3.4	1.9	3.0
AC-FT	3,230	1,060	145	222	192	2,860	888	615	3,680	343	273	744

CAL YR 1972 TOTAL 32,213.26 MEAN 88.0 MAX 1,000 MIN 0 AC-FT 63,900
WTR YR 1973 TOTAL 7,187.10 MEAN 19.7 MAX 512 MIN 1.4 AC-FT 14,260

05117500 Souris (Mouse) River above Minot, N. Dak.

LOCATION.--Lat 48°14'45", long 101°22'15", in NW¼NW¼SE¼ sec.17, T.155 N., R.83 W., Ward County, on right bank 180 ft (54.9 m) downstream from county highway bridge 3.5 mi (5.6 km) west of Minot, 7 mi (11 km) downstream from Des Lacs River, and at mile 388.5 (kilometre 625.1).

DRAINAGE AREA.--10,600 mi^2 (27,450 km^2), approximately, of which about 6,700 mi^2 (17,400 km^2) is probably noncontributing.

PERIOD OF RECORD.--May 1903 to current year. Monthly discharge only for some periods, published in WSP 1308. Published as Mouse River at Minot 1903-24, Souris River at Minot, 1927-28, 1929-34, and Souris River near Minot 1928-29.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,545.75 ft (471.14 m) above mean sea level. May 5, 1903, to Sept. 30, 1928, Oct. 1, 1929, to Sept. 30, 1934, nonrecording gages at mile 377.6 (kilometre 607.6) in Minot, at datum 12.5 ft (3.81 m) lower, Oct. 1, 1928, to Sept. 30, 1929, nonrecording gages at Saugstad bridge at mile 366.8 (kilometre 590.2), 5 mi (8 km) southeast of Minot and at datum 19.2 ft (5.85 m) lower than present datum. Records equivalent except those for periods of extreme low flow, as some industrial and sanitary waste enters river between the sites.

AVERAGE DISCHARGE.--70 years, 143 ft^3/s (4.050 m^3/s), 103,600 acre-ft/yr (127.7 hm^3/yr); median of yearly mean discharges, 89 ft^3/s (2.52 m^3/s), 64,500 acre-ft/yr (79.5 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 721 ft^3/s (20.4 m^3/s) June 21, gage height, 7.43 ft (2.265 m); minimum, 0.28 ft^3/s (0.008 m^3/s) Aug. 23, 24, gage height, 4.08 ft (1.244 m).
Period of record: Maximum discharge, 12,000 ft^3/s (340 m^3/s) Apr. 20, 1904, gage height, 21.9 ft (6.675 m) at site in Minot, from rating curve extended above 8,100 ft^3/s (229 m^3/s); no flow at times in some years. Maximum stage at present site, about 23 ft (7.01 m) in April 1904. Maximum stage in Minot at least 3 ft (0.91 m) higher than 1904 peak, in 1881, according to Apr. 20, 1904 issue of Minot Daily Optic. This peak probably occurred in 1882.

REMARKS.--Records good. Flow almost completely regulated by Lake Darling (see station 05115500), 41 mi (66 km) upstream and several smaller reservoirs; combined capacity, about 248,000 acre-ft (305.8 hm^3). Some small diversions for irrigation and municipal supply. Records of chemical analyses for the 1973 water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1308: 1905, 1909-14, 1918, 1924-25, 1927. WSP 1338: 1903-4, 1906, 1917, 1928, 1929(M). WSP 2113: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	110	57	50	65	55	24	20	6.0	18	4.6	7.8
2	121	96	57	50	60	80	24	21	7.8	16	4.0	7.8
3	119	100	55	50	60	110	22	22	77	12	3.1	20
4	128	103	55	50	60	110	22	21	143	9.7	2.3	100
5	161	103	50	50	55	180	216	22	114	7.8	2.3	62
6	170	98	50	50	50	200	448	21	112	8.7	2.0	47
7	175	96	55	50	55	150	317	20	71	13	1.8	45
8	175	96	55	50	50	85	81	19	45	9.7	2.0	29
9	172	94	55	50	50	45	25	22	29	5.3	2.3	19
10	172	89	55	50	50	60	18	24	24	4.0	2.3	15
11	172	83	55	50	50	90	16	20	20	3.6	2.3	21
12	170	67	55	50	50	180	15	20	15	3.1	2.3	92
13	170	67	55	50	50	130	14	19	11	2.7	2.0	100
14	164	69	55	50	50	100	14	16	7.8	2.0	1.5	98
15	161	66	55	50	50	79	13	15	6.8	1.8	1.5	96
16	161	62	55	50	50	48	12	13	6.0	1.5	1.5	94
17	161	60	50	50	50	42	12	11	5.3	1.5	1.5	92
18	161	60	50	50	60	39	12	11	11	1.5	1.5	75
19	161	55	55	50	60	37	14	9.7	248	1.5	1.3	24
20	161	57	55	50	55	36	19	7.8	620	1.8	.85	8.7
21	164	57	55	50	50	33	28	7.8	703	1.5	.64	6.0
22	161	57	55	50	55	37	37	7.8	507	1.8	.50	6.0
23	161	58	55	55	60	37	44	7.8	192	2.0	.38	6.0
24	161	58	55	65	60	44	39	7.8	103	4.0	.38	7.8
25	159	58	55	60	55	35	32	8.7	66	25	.64	15
26	156	57	55	60	55	29	31	8.7	48	25	.85	11
27	154	57	50	60	55	33	24	9.7	37	18	4.6	8.7
28	151	57	50	55	55	31	21	9.7	31	13	24	7.8
29	148	57	50	55	------	26	22	15	24	9.7	15	6.0
30	148	57	50	60	------	24	22	11	20	7.8	8.7	5.3
31	128	------	50	65	------	22	------	8.7	------	5.3	9.7	------
TOTAL	4,852	2,204	1,664	1,635	1,525	2,207	1,638	457.2	3,310.7	238.3	108.34	1,132.9
MEAN	157	73.5	53.7	52.7	54.5	71.2	54.6	14.7	110	7.69	3.49	37.8
MAX	175	110	57	65	65	200	448	24	703	25	24	100
MIN	119	55	50	50	50	22	12	7.8	5.3	1.5	.38	5.3
AC-FT	9,620	4,370	3,300	3,240	3,020	4,380	3,250	907	6,570	473	215	2,250

CAL YR 1972 TOTAL 127,550.00 MEAN 348 MAX 2,370 MIN 50 AC-FT 253,000
WTR YR 1973 TOTAL 20,972.44 MEAN 57.5 MAX 703 MIN .38 AC-FT 41,600

05120000 Souris (Mouse) River near Verendrye, N. Dak.

LOCATION.--Lat 48°09'35", long 100°43'45", in NW¼SW¼ sec.17, T.154 N., R.78 W., McHenry County, on left bank 2.7 mi (4.3 km) north of Verendrye, 19 mi (31 km) upstream from mouth of Wintering River, and at mile 302.0 (kilometre 485.9).

DRAINAGE AREA.--11,300 mi^2 (29,300 km^2), approximately, of which about 6,900 mi^2 (17,900 km^2) is probably noncontributing.

PERIOD OF RECORD.--February to June 1933 (gage heights only), April 1937 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 1,464.87 ft (446.492 m) above mean sea level. February to June 1933, at site 4 mi (6.4 km) upstream at datum 1.65 ft (0.503 m) higher. April 1, 1937 to Mar. 3, 1938, nonrecording gage at present site, at datum 1.97 ft (0.600 m) higher.

AVERAGE DISCHARGE.--36 years, 167 ft^3/s (4.729 m^3/s), 121,000 acre-ft/yr (149.2 hm^3/yr); median of yearly mean discharges, 100 ft^3/s (2.83 m^3/s), 74,500 acre-ft/yr (91.9 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 600 ft^3/s (17.0 m^3/s) June 24, gage height, 6.57 ft (2.003 m); minimum, 6.1 ft^3/s (0.17 m^3/s) Aug. 19-24, gage height, 3.34 ft (1.018 m).
Period of record: Maximum discharge, 5,960 ft^3/s (169 m^3/s) Apr. 30, 1969, gage height, 17.05 ft (5.197 m); minimum recorded, 0.3 ft^3/s (0.008 m^3/s) Aug. 11-19, 1937, Oct. 10-21, 1939.

REMARKS.--Records good. Flow regulated by reservoirs on Souris and Des Lacs Rivers, the largest of which is Lake Darling, 128 mi (206 km) upstream (see station 05115500), combined capacity about 248,000 acre-ft (306 hm^3). Some small diversions for irrigation and municipal supply. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 2113: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	156	64	55	45	90	78	51	20	56	18	15
2	161	136	62	55	45	100	62	51	17	51	16	16
3	141	170	60	60	55	90	62	48	16	49	14	21
4	136	153	60	60	55	100	58	41	15	46	12	41
5	131	110	60	60	55	170	55	40	16	38	10	60
6	125	115	60	55	55	250	51	38	49	34	9.5	48
7	123	128	60	55	55	310	51	38	164	33	9.0	67
8	144	125	60	60	55	290	177	43	150	30	9.0	89
9	170	115	55	65	55	260	344	45	164	25	8.5	80
10	178	113	55	65	60	270	306	41	136	24	8.5	73
11	188	110	55	65	60	270	161	37	65	30	8.0	65
12	199	80	55	65	60	260	89	40	40	28	8.0	58
13	212	73	55	65	70	250	65	43	30	21	7.5	51
14	217	87	55	70	70	230	51	40	28	17	7.0	41
15	219	82	55	70	75	220	43	40	24	15	7.0	43
16	219	80	55	65	80	210	38	38	24	13	6.6	96
17	217	84	55	65	90	200	37	34	22	12	6.6	110
18	204	78	60	60	90	190	37	30	25	11	6.6	115
19	188	73	60	60	90	167	33	31	48	11	6.1	110
20	183	71	60	60	85	125	31	31	65	11	6.1	96
21	183	71	60	65	85	105	33	30	113	10	6.1	78
22	183	67	60	70	85	91	34	28	351	9.7	6.1	49
23	183	64	60	70	90	87	40	28	532	8.5	6.1	37
24	180	64	60	60	75	89	43	28	592	9.1	6.1	33
25	180	67	60	50	75	87	45	30	478	10	6.6	29
26	178	67	60	50	75	84	51	29	279	12	9.7	25
27	178	64	60	50	85	103	60	38	150	14	13	20
28	178	64	55	50	90	93	60	33	115	16	16	16
29	178	64	55	55	------	80	58	28	82	30	12	16
30	178	56	55	55	------	71	53	24	69	27	10	16
31	175	------	55	50	------	82	------	22	------	22	10	------
TOTAL	5,482	2,787	1,801	1,860	1,965	5,024	2,306	1,118	3,879	723.3	285.7	1,614
MEAN	177	92.9	58.1	60.0	70.2	162	76.9	36.1	129	23.3	9.22	53.8
MAX	219	170	64	70	90	310	344	51	592	56	18	115
MIN	123	56	55	50	45	71	31	22	15	8.5	6.1	15
AC-FT	10,870	5,530	3,570	3,690	3,900	9,970	4,570	2,220	7,690	1,430	567	3,200

CAL YR 1972 TOTAL 144,759.0 MEAN 396 MAX 2,450 MIN 55 AC-FT 287,100
WTR YR 1973 TOTAL 28,845.0 MEAN 79.0 MAX 592 MIN 6.1 AC-FT 57,210

05120200 Wintering River near Bergen, N. Dak.

LOCATION.--Lat 47°55'50", long 100°40'15", on west line of sec.4, T.151 N., R.78 W., McHenry County, on left bank, 6 mi (9.7 km) southeast of Bergen.

DRAINAGE AREA.--176 mi^2 (456 km^2), of which about 50 mi^2 (130 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,587.91 ft (483.995 m).

AVERAGE DISCHARGE.--17 years, 5.18 ft^3/s (0.147 m^3/s), 3,750 acre-ft/yr (4.624 hm^3/yr); median of yearly mean discharges, 4.0 ft^3/s (0.11 m^3/s), 2,900 acre-ft/yr (3.58 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 40 ft^3/s (1.13 m^3/s) Mar. 4, gage height, 3.25 ft (0.991 m), from floodmark, backwater from ice; no flow for several months.
Period of record: Maximum discharge, 900 ft^3/s (25.5 m^3/s) Apr. 10, 1969, gage height, 5.90 ft (1.798 m); no flow during several months each year.

REMARKS.--Records good. Some regulation by Fish and Wildlife Service dams on Cottonwood and Wintering Lakes; controlled capacity, about 850 acre-ft (1.05 hm^3). Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	1.9	.08	0	.07		
2						0	1.5	.07	0	.24		
3						10	1.2	.06	0	.10		
4						30	.92	.05	0	.06		
5						26	.60	.04	0	.06		
6						27	.48	.04	0	.05		
7						24	.42	.04	0	.05		
8						14	.37	.04	0	.03		
9						4.2	.32	.04	0	.02		
10						10	.28	.04	0	.01		
11						19	.20	.04	0	0		
12						25	.16	.04	0	0		
13						25	.16	.03	0	0		
14						21	.16	0	0	0		
15						14	.08	0	0	0		
16						13	.07	0	0	0		
17						12	.07	0	0	0		
18						10	.06	0	0	0		
19						8.5	.05	0	.07	0		
20						8.1	.06	0	.24	0		
21						6.4	.07	0	.48	0		
22						5.3	.06	0	.68	0		
23						4.5	.05	0	.76	0		
24						4.7	.06	0	1.0	0		
25						4.9	.07	0	.84	0		
26						5.8	.08	0	.37	0		
27						3.9	.08	0	.24	0		
28						3.5	.07	0	.12	0		
29					------	3.0	.08	0	.08	0		
30					------	2.7	.09	0	.06	0		
31		------			------	2.4	------	0	------	0		------
TOTAL	0	0	0	0	0	347.9	9.77	.61	4.94	.69	0	0
MEAN	0	0	0	0	0	11.2	.33	.020	.16	.022	0	0
MAX	0	0	0	0	0	30	1.9	.08	1.0	.24	0	0
MIN	0	0	0	0	0	0	.05	0	0	0	0	0
AC-FT	0	0	0	0	0	690	19	1.2	9.8	1.4	0	0

CAL YR 1972 TOTAL 2,873.58 MEAN 7.85 MAX 210 MIN 0 AC-FT 5,700
WTR YR 1973 TOTAL 363.91 MEAN 1.00 MAX 30 MIN 0 AC-FT 722

05120500 Wintering River near Karlsruhe, N. Dak.

LOCATION.--Lat 48°10'14", long 100°32'20", on line between secs.10 and 11, T.154 N., R.77 W., McHenry County, on left bank 30 ft (9.1 m) upstream from county highway bridge, 4 mi (6 km) upstream from mouth, and 7 mi (11 km) northeast of Karlsruhe.

DRAINAGE AREA.--705 mi^2 (1,826 km^2), of which about 420 mi^2 (1,090 km^2) is probably noncontributing.

PERIOD OF RECORD.--March 1937 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Altitude of gage is 1,480 ft (451.1 m) from river-profile map.

AVERAGE DISCHARGE.--36 years, 11.9 ft^3/s (0.34 m^3/s), 8,620 acre-ft/yr (10.6 hm^3/yr); median of yearly mean discharges, 10 ft^3/s (0.28 m^3/s), 7,200 acre-ft/yr (8.9 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 28 ft^3/s (0.79 m^3/s) Mar. 22, gage height, 4.99 ft (1.521 m), backwater from ice; maximum gage height, 6.16 ft (1.878 m) Mar. 10, backwater from ice; no flow Jan. 10-16, July 19-21.
Period of record: Maximum discharge, 3,000 ft^3/s (85.0 m^3/s) Apr. 7, 1949, by velocity-area studies; maximum gage height, 12.0 ft (3.658 m) Apr. 7, 1949 (channel choked by packed snow); no flow at times in many years.

REMARKS.--Records good except those for the winter period, which are poor. Some regulation by Fish and Wildlife Service dams on Cottonwood and Wintering Lakes; controlled capacity, about 850 acre-ft (1.05 hm^3). Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	4.6	3.0	1.0	.10	5.0	16	8.8	2.6	3.3	1.4	2.1
2	4.6	4.8	3.0	1.0	1.0	6.0	16	8.4	2.2	7.4	1.0	2.2
3	4.6	5.1	2.5	.50	2.0	8.0	15	7.7	2.6	7.4	.85	2.6
4	4.6	5.7	2.5	.50	5.0	8.0	14	7.4	4.6	5.4	.65	4.8
5	4.8	6.3	2.5	.20	5.0	9.0	14	7.4	3.6	3.8	.75	4.8
6	5.1	7.0	2.5	.20	4.5	8.0	14	7.4	2.4	3.3	1.2	4.0
7	4.8	6.0	2.5	.20	4.5	7.0	13	7.4	1.9	2.4	1.2	3.6
8	4.6	4.6	2.5	.10	4.0	10	12	7.4	1.6	1.9	3.0	2.8
9	4.6	6.3	2.5	.10	4.0	12	12	7.7	1.3	1.8	2.4	2.2
10	4.8	5.4	2.5	0	3.5	12	11	8.4	1.3	2.6	1.2	2.2
11	5.7	4.6	2.0	0	3.5	10	11	8.4	1.2	2.6	1.2	3.6
12	5.7	4.0	2.0	0	3.0	10	10	7.7	1.0	1.2	1.0	3.0
13	5.1	4.3	2.0	0	3.0	9.0	10	7.4	1.0	1.0	.85	1.8
14	5.1	4.0	2.0	0	2.5	9.0	10	6.7	.85	.75	.75	1.6
15	5.1	3.8	2.0	0	2.0	3.0	10	6.3	.65	4.4	.45	1.9
16	4.8	3.8	2.0	0	1.5	2.8	9.6	5.4	.65	5.0	.45	2.2
17	4.6	3.8	2.0	.10	1.0	2.8	9.2	5.1	1.2	2.5	.18	2.4
18	4.3	3.8	2.0	.10	.50	5.0	10	5.1	3.0	.18	.26	2.2
19	4.3	3.8	2.0	.10	.50	10	9.6	4.6	17	0	.10	2.1
20	5.7	4.0	2.0	.10	.50	20	11	4.8	17	0	.01	3.3
21	5.7	4.0	1.5	.10	.50	25	11	4.3	13	0	.05	4.0
22	5.4	4.3	1.5	.10	1.0	25	11	4.3	10	.05	.02	4.3
23	4.8	4.0	1.5	.10	4.0	20	10	4.3	8.8	.18	2.1	4.0
24	5.1	4.0	1.5	.10	4.5	20	9.2	4.3	6.3	.65	4.0	5.4
25	5.4	4.0	1.5	.10	3.5	18	9.2	6.6	4.0	1.6	7.4	6.0
26	5.4	3.5	1.0	.10	4.0	20	9.2	8.4	4.0	1.9	16	5.4
27	5.7	3.5	1.0	.10	5.0	21	8.8	6.3	4.3	1.8	8.4	4.3
28	5.7	3.5	1.0	.10	5.0	19	8.4	4.8	3.8	1.8	5.1	3.6
29	5.4	3.0	1.0	.10	------	18	8.8	3.8	2.8	1.9	3.8	2.8
30	4.3	3.0	1.0	.10	------	17	9.2	3.3	2.8	2.1	2.8	2.4
31	6.0	------	1.0	.10	------	16	------	3.3	------	1.6	2.4	------
TOTAL	156.6	132.5	59.5	5.30	79.10	385.6	332.2	193.2	127.45	70.51	70.97	97.6
MEAN	5.05	4.42	1.92	.17	2.83	12.4	11.1	6.23	4.25	2.27	2.29	3.25
MAX	6.0	7.0	3.0	1.0	5.0	25	16	8.8	17	7.4	16	6.0
MIN	4.3	3.0	1.0	0	.10	2.8	8.4	3.3	.65	0	.01	1.6
AC-FT	311	263	118	11	157	765	659	383	253	140	141	194

CAL YR 1972 TOTAL 4,755.55 MEAN 13.0 MAX 190 MIN 0 AC-FT 9,430
WTR YR 1973 TOTAL 1,710.53 MEAN 4.69 MAX 25 MIN 0 AC-FT 3,390

05122000 Souris (Mouse) River near Bantry, N. Dak.

LOCATION.--Lat 48°30'20", long 100°26'04", in SE¼NW¼SE¼ sec.14, T.158 N., R.76 W., McHenry County, on left bank 200 ft (61.0 m) upstream from Nelson bridge, 8 mi (13 km) east of Bantry, 18 mi (29 km) upstream from Willow Creek, and at mile 228.0 (kilometre 366.9).

DRAINAGE AREA.--12,300 mi^2 (31,860 km^2), approximately, of which about 7,600 mi^2 (19,680 km^2) is probably noncontributing.

PERIOD OF RECORD.--March 1937 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder. Datum of gage is 1,427.56 ft (435.120 m) above mean sea level. Prior to Mar. 16, 1938, nonrecording gage at same site at datum 0.17 ft (0.052 m) lower.

AVERAGE DISCHARGE.--36 years, 184 ft^3/s (5.211 m^3/s), 133,300 acre-ft/yr (164.4 hm^3/yr); median of yearly mean discharges, 120 ft^3/s (3.40 m^3/s), 86,900 acre-ft/yr (107 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 476 ft^3/s (13.5 m^3/s) June 27, gage height, 6.22 ft (1.896 m); minimum, 9.6 ft^3/s (0.27 m^3/s) Aug. 30, gage height, 1.16 ft (0.354 m).
Period of record: Maximum discharge, 5,660 ft^3/s (160 m^3/s) May 4, 1969, gage height, 13.80 ft (4.206 m); no flow at times each year 1937-40, 1963.

REMARKS.--Records good. Flow regulated by reservoirs on Souris, Des Lacs, and Wintering Rivers, total capacity, about 249,000 acre-ft (307 km). Diversions for irrigation of about 7,600 acres (30.8 km^2) at Eaton Dam about 42 mi (68 km) above station and other small diversions for irrigation and municipal supply. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 2113: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	204	70	60	70	65	58	70	57	254	19	14
2	162	237	65	60	70	65	56	68	54	186	20	20
3	164	217	60	60	70	65	56	63	55	134	22	25
4	161	178	55	60	70	65	56	59	54	99	24	28
5	153	170	55	60	65	70	56	62	50	80	23	26
6	149	174	55	60	65	70	54	152	46	67	23	24
7	144	178	55	60	65	70	51	283	43	58	21	24
8	134	168	55	60	65	70	50	346	42	52	20	31
9	125	150	55	60	60	70	50	359	40	48	20	41
10	122	145	55	60	60	60	50	355	59	41	19	48
11	122	141	55	60	60	50	50	326	90	35	18	56
12	132	146	55	60	60	50	49	303	115	32	17	65
13	151	140	55	60	60	45	50	309	126	32	17	68
14	169	140	55	60	60	40	50	286	119	31	16	66
15	185	140	55	60	60	40	50	260	98	30	16	63
16	200	140	55	60	60	50	50	229	73	30	15	60
17	207	135	55	60	60	60	54	200	60	28	15	56
18	215	120	60	60	55	65	58	171	54	27	14	52
19	220	110	60	60	55	60	63	146	65	26	13	53
20	222	105	60	65	55	50	68	122	71	24	13	66
21	218	90	60	65	55	45	70	105	90	22	12	85
22	212	85	60	65	55	40	78	94	113	20	12	94
23	204	75	60	65	55	45	81	86	126	22	11	96
24	200	80	60	65	55	50	80	78	156	24	13	98
25	194	75	60	65	60	55	80	72	277	26	13	91
26	192	75	60	65	60	70	78	68	401	26	14	76
27	192	75	60	70	60	70	74	64	467	24	13	64
28	192	70	60	70	60	65	71	62	462	22	13	55
29	198	70	60	70	------	65	71	60	414	21	11	48
30	193	70	60	70	------	60	71	60	334	19	10	42
31	193	------	60	70	------	58	------	59	------	19	11	------
TOTAL	5,479	3,903	1,805	1,945	1,705	1,803	1,833	4,977	4,211	1,559	498	1,635
MEAN	177	130	58.2	62.7	60.9	58.2	61.1	161	140	50.3	16.1	54.5
MAX	222	237	70	70	70	70	81	359	467	254	24	98
MIN	122	70	55	60	55	40	49	59	40	19	10	14
AC-FT	10,870	7,740	3,580	3,860	3,380	3,580	3,640	9,870	8,350	3,090	988	3,240

CAL YR 1972 TOTAL 155,270 MEAN 424 MAX 2,310 MIN 50 AC-FT 308,000
WTR YR 1973 TOTAL 31,353 MEAN 85.9 MAX 467 MIN 10 AC-FT 62,190

05123000 Lake Metigoshe near Bottineau, N. Dak.

LOCATION.--Lat 48°59'05", long 100°20'52", in SE¼SW¼ sec.35, T.164 N., R.75 W., Bottineau County, 25 ft (7.6 m) east from northeast corner of bridge over Lake Metigoshe, 11.7 (18.8 km) northeast of Bottineau.

DRAINAGE AREA.--59 mi^2 (153 km^2).

PERIOD OF RECORD.--June 1931 to September 1932, September 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,130.00 ft (649.22 m) above mean sea level. 1931-32, nonrecording gage on north abutment of bridge at datum 6.32 ft (1.93 m) lower (reduced to elevations above mean sea level). Sept. 4, 1953, to Jan. 19, 1955, nonrecording gage at present datum on east end of south abutment of bridge.

EXTREMES.--Current year: Maximum gage height, 8.17 ft (2.490 m); Sept. 4; minimum, 7.57 ft (2.307 m) Nov. 20,21. Period of record: Maximum gage height, 9.24 ft (2.816 m) Apr. 21-24, 1969; minimum, 4.28 ft (1.305 m) Sept. 17, 1932, present datum.

REMARKS.--Outlet of lake is a concrete dam with removable stoplogs; average crest elevation without stoplogs about 2,138.0 ft (651.66 m) above mean sea level. Lake level regulated since 1959 by dam and control works in the outlet of Sharpe Lake located on the principal tributary in Manitoba.

MONTHEND GAGE HEIGHT, IN FEET, AT 2400, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Oct. 31	7.60	Jan. 31	*7.66	Apr. 30	7.72	July 31	7.93
Nov. 30	7.59	Feb. 28	*7.67	May 31	7.68	Aug. 31	8.07
Dec. 31	*7.66	Mar. 31	7.71	June 30	*7.90	Sept. 30	8.03

* Estimated.

05123100 Oak Creek at Lake Metigoshe Outlet near Bottineau, N. Dak.

LOCATION.--Lat 48°57'56", long 100°21'47", in SE¼SE¼ sec.3, T.163 N., R.75 W., Bottineau County, at outlet of Lake Metigoshe, 10 mi (16 km) northeast of Bottineau.

DRAINAGE AREA.--59 mi^2 (153 km^2).

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder and concrete control with stoplogs. Datum of gage is 2,130.00 ft (649.22 m) above mean sea level. Prior to Jan. 20, 1955, nonrecording gage at same site and datum. Gage is located 1.5 mi (2.4 km) northeast of outlet of lake, and is same as that used for station on Lake Metigoshe.

AVERAGE DISCHARGE.--20 years, 3.37 ft^3/s (0.095 m^3/s), 2,440 acre-ft/yr (3.01 hm^3/yr); median of yearly mean discharges, 1.9 ft^3/s (0.054 m^3/s), 1,400 acre-ft/yr (1.7 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 2.2 ft^3/s (0.062 m^3/s) Sept. 4, gage height, 8.17 ft (2.490 m); no flow for several months; minimum gage height, 7.57 ft (2.307 m) Nov. 20, 21.
Period of record: Maximum discharge, 95 ft^3/s (2.69 m^3/s) June 10, 1963, gage height, 8.69 ft (2.649 m); maximum gage height, 9.25 ft (2.819 m) Apr. 20-24, 1969 (due to stoplogs); no flow at times each year.

REMARKS.--Records poor. Flow regulated since 1959 by dam and control works on the outlet of Sharpe Lake located on the principal tributary in Manitoba. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											0	.12
2											0	.42
3											0	.86
4											0	1.6
5											0	1.1
6											0	.86
7											0	.60
8											0	.60
9											.12	.42
10											.17	.28
11											.28	.12
12											.42	.07
13											.60	.03
14											.60	.02
15											.60	0
16											.60	0
17											.42	0
18											.28	0
19											.12	0
20											.03	0
21											.86	0
22											1.4	0
23											1.1	0
24											.60	0
25											.60	.03
26											.60	.01
27											.60	.02
28											.42	.02
29					------						.42	.01
30					------						.17	.01
31		------			------		------		------		.12	------
TOTAL	0	0	0	0	0	0	0	0	0	0	11.13	7.20
MEAN	0	0	0	0	0	0	0	0	0	0	.36	.24
MAX	0	0	0	0	0	0	0	0	0	0	1.4	1.6
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	0	0	22	14

CAL YR 1972	TOTAL 2,967.33	MEAN 8.11	MAX 54	MIN 0	AC-FT 5,890
WTR YR 1973	TOTAL 18.33	MEAN .05	MAX 1.6	MIN 0	AC-FT 36

05123400 Willow Creek near Willow City, N. Dak.

LOCATION.--Lat 48°35'20", long 100°26'30", in NE¼NW¼ sec.23, T.159 N., R.76 W., McHenry County, on left bank 50 ft (15 m) downstream from bridge on county road, 1.5 mi (2.4 km) upstream from Snake Creek, and 7 mi (11 km) west of Willow City.

DRAINAGE AREA.--1,160 mi^2 (3,000 km^2), approximately, of which about 430 mi^2 (1,110 km^2) is probably noncontributing.

PERIOD OF RECORD.--August 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,430 ft (436 m), from topographic map. Prior to Oct. 5, 1956, nonrecording gage at site 50 ft (15 m) upstream at same datum.

AVERAGE DISCHARGE.--17 years, 35.0 ft^3/s (0.991 m^3/s), 25,360 acre-ft/yr (31.27 hm^3/yr); median of yearly mean discharges, 13 ft^3/s (0.37 m^3/s), 9,400 acre-ft/yr (11.6 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 237 ft^3/s (6.71 m^3/s) Sept. 6, gage height, 9.98 ft (3.042 m); no flow on many days.
Period of record: Maximum discharge, 5,900 ft^3/s (167 m^3/s) Apr. 12, 1969, gage height, 16.76 ft (5.108 m); no flow at times each year.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.94	.05			0	7.1	9.6	1.9	16	2.7	32
2	.03	.88	.04			0	6.4	9.6	1.4	16	2.5	122
3	.03	.88	.02			0	5.7	9.6	1.6	13	2.2	125
4	.01	.88	.01			0	5.1	9.4	2.1	11	1.8	179
5	0	.94	0			0	4.8	9.9	1.9	8.7	1.4	229
6	0	1.0	0			0	4.2	11	1.4	7.3	1.0	234
7	0	1.0	0			0	3.9	12	1.0	5.9	.50	202
8	0	1.0	0			0	3.7	12	.76	4.8	.30	154
9	0	.94	0			0	3.6	12	.46	4.8	.30	104
10	0	.94	0			0	3.4	10	.51	3.8	.25	77
11	0	.82	0			0	3.1	9.9	.60	3.7	.25	57
12	0	.76	0			.02	2.9	10	.46	4.9	.20	46
13	0	.76	0			.05	2.9	9.6	.29	4.8	.20	36
14	0	.76	0			40	3.2	8.9	.13	4.5	.20	26
15	0	.70	0			30	3.6	7.3	.04	5.1	.15	20
16	0	.65	0			35	3.4	6.4	.01	4.6	.15	16
17	0	.60	0			30	3.6	5.7	.03	3.9	.10	12
18	0	.51	0			25	4.1	4.8	.10	3.8	.10	9.9
19	0	.46	0			25	4.4	3.9	1.5	3.0	.10	7.7
20	0	.41	0			20	5.1	3.6	3.0	2.2	.10	8.3
21	0	.37	0			15	6.2	3.7	3.1	1.7	.10	6.2
22	0	.33	0			15	6.7	3.7	3.6	1.3	.05	4.6
23	0	.29	0			13	7.1	3.5	7.3	1.0	.05	4.6
24	0	.26	0			12	7.1	3.2	9.1	1.3	.05	6.6
25	0	.23	0			12	7.7	3.2	15	1.8	.10	9.9
26	0	.20	0			8.9	8.1	3.7	21	2.4	.10	12
27	.26	.13	0			9.4	8.1	4.2	25	4.2	.05	15
28	.82	.10	0			9.9	8.7	3.9	22	4.5	.05	18
29	.88	.05	0		------	9.1	9.6	3.5	22	4.2	.05	18
30	1.1	.05	0		------	8.3	9.4	3.2	18	3.8	.05	18
31	.94	------	0		------	7.5	------	2.6	------	3.2	.05	------
TOTAL	4.11	17.84	.12	0	0	325.17	162.9	213.6	165.29	161.2	15.20	1,809.8
MEAN	.13	.59	.004	0	0	10.5	5.43	6.89	5.51	5.20	.49	60.3
MAX	1.1	1.0	.05	0	0	40	9.6	12	25	16	2.7	234
MIN	0	.05	0	0	0	0	2.9	2.6	.01	1.0	.05	4.6
AC-FT	8.2	35	.2	0	0	645	323	424	328	320	30	3,590

CAL YR 1972 TOTAL 36,676.61 MEAN 100 MAX 986 MIN 0 AC-FT 72,750
WTR YR 1973 TOTAL 2,875.23 MEAN 7.88 MAX 234 MIN 0 AC-FT 5,700

PEAK DISCHARGE (BASE, 50 FT^3/S).--MAR.14, 55 FT^3/S; SEPT. 6 (0600) 237 FT^3/S (9.98 FT).

05123510 Deep River near Upham, N. Dak.

LOCATION.--Lat 48°35'03", long 100°51'44", in SW¼NW¼ sec.22, T.159 N., R.79 W., McHenry County, 60 ft (18 m) downstream from county highway bridge, 0.8 mi (1.3 km) downstream from Little Deep River, and 6.3 mi (10 km) west of Upham.

DRAINAGE AREA.--975 mi^2 (2,530 km^2), of which 605 mi^2 (1,570 km^2) is probably noncontributing.

PERIOD OF RECORD.--September 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,430 ft (436 m), from topographic map.

AVERAGE DISCHARGE.--16 years, 9.71 ft^3/s (0.275 m^3/s), 7,030 acre-ft/yr (8.668 hm^3/yr); median of yearly mean discharges, 0.7 ft^3/s (0.020 m^3/s), 510 acre-ft/yr (629,000 m^3/yr).

EXTREMES.--Current year: Maximum discharge, 2.2 ft^3/s (0.062 m^3/s) May 9, gage height, 4.98 ft (1.518 m); maximum gage height, 5.07 ft (1.545 m) Apr. 11; no flow for several months.
Period of record: Maximum discharge, 6,760 ft^3/s (191 m^3/s) Apr. 12, 1969, gage height, 18.18 ft (5.541 m); no flow for part of all of each year.
Flood in April 1951 reached a stage of about 16 ft (4.88 m), discharge, 2,700 ft^3/s (76.5 m^3/s), from information by local resident.

REMARKS.--Records good.

REVISIONS.--WSP 1728: Drainage area. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	1.2	.69	.42	.40	.10
2							0	1.1	.66	.30	.35	.42
3							0	.84	.64	.24	.30	.35
4							0	.75	.64	.18	.26	.30
5							0	1.1	.64	.14	.22	.28
6							0	1.4	.61	.08	.20	.24
7							0	.84	.61	.33	.18	.22
8							0	1.4	.58	.50	.16	.18
9							0	1.6	.53	.55	.14	.16
10							.48	1.9	.50	.58	.10	.14
11							1.6	1.6	.45	.55	.10	.12
12							1.6	1.3	.42	.53	.08	.12
13							1.0	1.1	.33	.48	.07	.12
14							1.2	.93	.28	.45	.06	.10
15							1.2	.66	.26	.42	.06	.10
16							1.3	.58	.30	.40	.05	.08
17							.64	.53	.35	.38	.03	.08
18							.58	.61	.45	.38	.02	.07
19							1.0	.58	.66	.38	.02	.06
20							1.1	.50	.81	.35	.01	.06
21							1.6	.48	.93	.33	0	.10
22							1.2	.48	1.0	.30	0	.20
23							.87	.55	1.0	.28	0	.24
24							.87	.58	.97	.33	.03	.30
25							.84	.58	.84	.40	.24	.40
26							.87	.66	.78	.50	.24	.50
27							.48	.72	.75	.65	.20	.50
28							.61	.69	.69	.60	.12	.45
29					------		1.2	.66	.61	.55	.07	.45
30					------		1.4	.66	.53	.50	.04	.45
31		------			------		------	.61	------	.45	.03	------
TOTAL	0	0	0	0	0	0	21.64	27.19	18.51	12.53	3.78	6.89
MEAN	0	0	0	0	0	0	.72	.88	.62	.40	.12	.23
MAX	0	0	0	0	0	0	1.6	1.9	1.0	.65	.40	.50
MIN	0	0	0	0	0	0	0	.48	.26	.08	0	.06
AC-FT	0	0	0	0	0	0	43	54	37	25	7.5	14

CAL YR 1972 TOTAL 6,609.80 MEAN 18.1 MAX 620 MIN 0 AC-FT 13,110
WTR YR 1973 TOTAL 90.54 MEAN .25 MAX 1.9 MIN 0 AC-FT 180

PEAK DISCHARGE (BASE, 50 FT^3/S).--NO PEAK ABOVE BASE.

05123600 Egg Creek near Granville, N. Dak.

LOCATION.--Lat 48°21'18", long 100°49'19", on west line of sec.10, T.156 N., R.79 W., McHenry County, on right bank, near right downstream wingwall of bridge, 2 mi (3 km) downstream from Hay Coulee, 3.5 mi (6 km) upstream from North Lake, and 6 mi (10 km) northeast of Granville.

DRAINAGE AREA.--289 mi^2 (749 km^2), of which 150 mi^2 (388 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,478.14 ft (450.537 m) above mean sea level (levels by Bureau of Reclamation).

AVERAGE DISCHARGE.--17 years, 4.34 ft^3/s (0.124 m^3/s), 3,140 acre-ft/yr (3.872 hm^3/yr); median of yearly mean discharges, 3.2 ft^3/s (0.091 m^3/s), 2,300 acre-ft/yr (2.84 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 100 ft^3/s (2.83 m^3/s) June 25, gage height, 5.33 ft (1.625 m); no flow for several months.
Period of record: Maximum discharge, 1,710 ft^3/s (48.4 m^3/s) Apr. 10, 1969, gage height, 7.28 ft (2.219 m); maximum gage height, 8.10 ft (2.469 m) Apr. 9, 1969, from floodmark, backwater from snow; no flow most of the time each year.

REMARKS.--Records good. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	.85	.40			0	3.8	3.8	.45	27	.90	0
2	4.6	.95	.40			0	3.2	3.5	.24	24	.74	0
3	4.7	1.0	.30			0	2.8	3.1	.21	18	.64	0
4	4.6	1.0	.30			0	2.4	2.9	.22	15	.56	.14
5	4.5	1.3	.20			0	2.1	2.8	.14	14	.45	.45
6	4.4	1.3	.10			0	1.8	2.9	.08	12	.38	4.4
7	4.2	1.3	.04			0	2.0	2.9	.06	11	.27	5.6
8	2.4	1.4	0			0	2.0	2.8	.03	10	.25	5.6
9	1.5	1.4	0			0	2.0	2.6	.02	9.2	.27	5.4
10	1.6	1.3	0			1.0	2.1	2.4	.98	8.8	.28	5.0
11	1.7	1.3	0			2.0	2.1	2.4	11	8.5	.27	4.7
12	1.8	1.3	0			3.0	2.0	2.6	23	8.2	.17	4.3
13	1.8	1.1	0			4.0	2.1	2.6	25	7.4	.04	3.6
14	1.7	1.0	0			5.3	1.8	2.8	23	6.9	0	2.6
15	1.5	.90	0			6.0	1.5	2.8	20	6.6	0	2.0
16	1.0	.90	0			7.0	1.6	2.1	16	6.2	0	1.6
17	.90	.80	0			9.0	1.6	2.3	13	5.8	0	1.4
18	.85	.80	0			10	1.7	2.1	12	5.5	0	.95
19	.85	.80	0			11	1.7	2.1	17	5.2	0	.77
20	.85	.80	0			10	2.0	2.1	17	4.7	0	.74
21	.85	.80	0			8.0	2.8	1.7	16	4.2	0	.77
22	.80	.70	0			7.0	2.8	1.6	16	3.6	0	.77
23	.77	.70	0			5.4	2.8	1.4	38	3.2	0	.77
24	.77	.60	0			5.3	2.8	1.4	90	3.4	0	1.0
25	.77	.60	0			5.2	2.8	1.3	95	4.1	0	1.6
26	.77	.50	0			5.0	2.8	1.3	82	4.1	0	1.8
27	.80	.50	0			4.8	2.8	1.1	69	3.6	0	2.0
28	.80	.50	0			4.4	2.6	.95	55	3.5	0	2.0
29	.80	.50	0		------	4.3	3.5	.77	43	2.9	0	1.8
30	.85	.50	0		------	4.1	3.8	.62	33	1.6	0	1.7
31	.85	------	0		------	3.9	------	.62	------	1.1	0	------
TOTAL	58.88	27.40	1.74	0	0	125.7	71.8	66.36	716.43	249.3	5.22	63.46
MEAN	1.90	.91	.056	0	0	4.05	2.39	2.14	23.9	8.04	.17	2.12
MAX	4.7	1.4	.40	0	0	11	3.8	3.8	95	27	.90	5.6
MIN	.77	.50	0	0	0	0	1.5	.62	.02	1.1	0	0
AC-FT	117	54	3.5	0	0	249	142	132	1,420	494	10	126

CAL YR 1972 TOTAL 3,969.32 MEAN 10.8 MAX 310 MIN 0 AC-FT 7,870
WTR YR 1973 TOTAL 1,386.29 MEAN 3.80 MAX 95 MIN 0 AC-FT 2,750

PEAK DISCHARGE (BASE, 20 FT^3/S).--JUNE 13 (1200) 26 FT^3/S (4.53 FT), JUNE 25 (0500) 100 FT^3/S (5.33 FT).

05123700 Cut Bank Creek at North Lake Outlet near Granville, N. Dak.

LOCATION.--Lat 48°23'10", long 100°46'00", on south line of sec.29, T.157 N., R.78 W., McHenry County, on left bank near left downstream wingwall of bridge, 9 mi (14 km) northeast of Granville and 13.5 mi (22 km) east of Deering.

DRAINAGE AREA.--534 mi^2 (1,383 km^2), of which 290 mi^2 (751 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,477.25 ft (450.266 m) above mean sea level.

AVERAGE DISCHARGE.--17 years, 2.43 ft^3/s (0.0688 m^3/s), 1,760 acre-ft/yr (2.170 hm^3/yr); median of yearly mean discharges, no flow.

EXTREMES.--Current year: Maximum discharge, 8.7 ft^3/s (0.25 m^3/s) June 30, gage height, 1.96 ft (0.597 m); no flow for many days.
Period of record: Maximum discharge, 339 ft^3/s (9.60 m^3/s) Apr. 14, 1969, gage height, 3.78 ft (1.152 m); no flow for most of the time.

REMARKS.--Records fair. Records of chemical analyses for water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	3.4	2.2	.30		0	4.6	3.6	2.3	8.0	2.0	.06
2	4.6	3.5	2.2	.20		0	4.6	3.4	2.3	8.1	1.7	.13
3	4.5	3.5	2.2	.10		0	4.6	3.6	2.1	7.5	1.4	.24
4	4.3	3.6	2.2	.04		0	4.6	3.6	1.9	7.2	1.2	.32
5	4.1	3.6	2.2	0		0	4.6	3.6	1.7	6.9	1.1	.30
6	4.4	3.8	2.2	0		0	4.6	3.5	1.5	6.7	1.1	.22
7	4.1	3.7	2.2	0		0	4.2	3.6	1.1	6.1	1.0	.17
8	3.8	3.7	2.2	0		0	4.4	3.4	1.2	6.4	.81	.12
9	4.1	3.8	2.0	0		0	4.4	3.4	1.0	5.8	.60	.11
10	3.6	3.6	2.0	0		0	4.4	3.4	.81	5.7	.48	.12
11	3.5	3.6	1.8	0		0	4.1	3.2	.73	5.5	.45	.14
12	3.8	3.4	1.6	0		0	4.0	3.0	.63	5.1	.38	.24
13	3.5	3.4	1.5	0		.01	4.3	2.9	.67	4.1	.32	.22
14	3.4	3.4	1.4	0		.04	4.0	3.0	1.2	3.8	.30	.16
15	3.6	3.2	1.2	0		.50	3.7	3.1	1.7	4.0	.28	.14
16	3.0	3.1	1.1	0		1.0	3.6	3.0	1.7	3.4	.24	.18
17	3.1	3.1	1.0	0		3.0	3.1	3.0	2.0	3.5	.16	.18
18	3.2	2.9	.90	0		4.0	2.6	3.1	2.2	3.3	.14	.17
19	3.2	2.9	.80	0		6.0	3.1	3.2	4.1	3.0	.11	.17
20	3.2	2.8	.70	0		5.6	3.2	3.2	4.1	2.7	.09	.18
21	3.1	2.8	.70	0		5.4	3.3	3.2	4.9	2.7	.08	.16
22	2.9	2.7	.60	0		5.2	3.3	3.0	4.9	2.7	.06	.14
23	3.1	2.8	.60	0		5.0	3.4	2.8	5.1	2.5	.07	.16
24	3.2	2.5	.50	0		5.0	3.5	2.7	5.4	2.7	.09	.30
25	3.4	2.3	.50	0		4.8	3.5	2.5	6.1	2.9	.09	.38
26	3.2	2.3	.40	0		4.8	3.4	2.5	6.5	2.8	.07	.34
27	3.2	2.3	.40	0		4.8	3.5	2.5	6.3	2.5	.05	.30
28	3.3	2.3	.40	0		4.8	3.5	2.5	7.4	2.5	.04	.26
29	3.5	2.3	.30	0	------	4.7	3.5	2.5	7.7	2.3	.03	.26
30	3.5	2.3	.30	0	------	4.7	3.6	2.4	8.3	2.1	.03	.20
31	3.4	------	.30	0	------	4.6	------	2.4	------	2.1	.03	------
TOTAL	111.6	92.6	38.60	.64	0	73.95	115.2	94.8	97.54	134.6	14.50	6.07
MEAN	3.60	3.09	1.25	.021	0	2.39	3.84	3.06	3.25	4.34	.47	.20
MAX	4.8	3.8	2.2	.30	0	6.0	4.6	3.6	8.3	8.1	2.0	.38
MIN	2.9	2.3	.30	0	0	0	2.6	2.4	.63	2.1	.03	.06
AC-FT	221	184	77	1.3	0	147	228	188	193	267	29	12

CAL YR 1972 TOTAL 4,742.63 MEAN 13.0 MAX 110 MIN 0 AC-FT 9,410
WTR YR 1973 TOTAL 780.10 MEAN 2.14 MAX 8.3 MIN 0 AC-FT 1,550

05123900 Boundary Creek near Landa, N. Dak.

LOCATION.--Lat 48°48'46", long 100°51'46", at west line sec.26, T.162 N., R.79 W., Bottineau County, on right bank 80 ft (24.4 m) downstream from bridge on county road, 5 mi (8 km) upstream from mouth and 6 mi (9.7 km) southeast of Landa.

DRAINAGE AREA.--230 mi^2 (596 km^2), of which about 60 mi^2 (155 km^2) is probably noncontributing.

PERIOD OF RECORD.--September 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,420.03 ft (432.83 m) above mean sea level.

AVERAGE DISCHARGE.--16 years, 8.91 ft^3/s (0.252 m^3/s), 6,460 acre-ft/yr (7.965 hm^3/yr); median of yearly mean discharges, 5.1 ft^3/s (0.14 m^3/s), 3,700 acre-ft/yr (4.56 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 88 ft^3/s (2.49 m^3/s) Sept. 5, gage height, 8.08 ft (2.463 m); no flow for several months.
Period of record: Maximum discharge, 3,580 ft^3/s (101 m^3/s) Apr. 9, 1969, gage height, 12.70 ft (3.566 m); no flow for several months each year.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1728: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	9.2	0	0	2.6		2.7
2						.50	7.2	0	0	2.2		32
3						1.0	5.0	0	.42	1.3		44
4						2.5	5.0	0	.33	1.1		38
5						2.2	3.6	0	.20	1.0		76
6						2.0	2.2	0	.09	.92		56
7						1.8	1.1	0	.02	.84		43
8						1.6	.64	0	0	.76		34
9						1.5	.28	.20	0	.70		30
10						6.4	.02	.92	0	.64		28
11						16	0	1.6	0	.58		26
12						12	0	1.8	0	.52		25
13						9.2	0	1.8	0	.42		23
14						8.4	0	1.5	0	.33		21
15						1.9	0	1.0	0	.28		20
16						1.6	0	.64	0	.24		20
17						.84	0	.42	0	.12		19
18						.42	0	.20	0	.06		18
19						.70	0	.04	4.0	0		16
20						2.0	0	0	22	0		14
21						1.9	0	0	14	0		13
22						2.2	0	0	6.0	0		11
23						3.3	0	.04	5.3	0		10
24						5.7	0	.06	5.3	0		10
25						7.2	0	.09	5.0	0		9.2
26						8.4	0	.09	4.6	0		8.4
27						9.2	0	.06	4.3	0		6.8
28						9.2	0	.04	4.3	0		5.3
29					------	10	0	0	4.0	0		4.0
30					------	10	0	0	3.3	0		2.4
31		------			------	10	------	0	------	0		------
TOTAL	0	0	0	0	0	149.66	34.24	10.50	83.16	14.61	0	665.8
MEAN	0	0	0	0	0	4.83	1.14	.34	2.77	.47	0	22.2
MAX	0	0	0	0	0	16	9.2	1.8	22	2.6	0	76
MIN	0	0	0	0	0	0	0	0	0	0	0	2.4
AC-FT	0	0	0	0	0	297	68	21	165	29	0	1,320

CAL YR 1972 TOTAL 9,095.38 MEAN 24.9 MAX 950 MIN 0 AC-FT 18,040
WTR YR 1973 TOTAL 957.97 MEAN 2.62 MAX 76 MIN 0 AC-FT 1,900

PEAK DISCHARGE (BASE, 50 FT^3/S).--SEPT. 5, (0600) 88 FT^3/S (8.08 FT).

05124000 Souris (Mouse) River near Westhope, N. Dak.
(International gaging station)

LOCATION.--Lat 48°59'47", long 100°57'29", in SW¼SE¼ sec.30, T.164 N., R.79 W., Bottineau County, on left bank 1,200 ft (366 m) upstream from second crossing of international boundary, 1 mi (1.6 km) downstream from Fish and Wildlife Service Dam 357, 7 mi (11 km) northeast of Westhope, 11 mi (17.7 km) downstream from Boundary Creek, and at mile 154.5 (kilometre 248.6).

DRAINAGE AREA.--16,900 mi^2 (43,800 km^2), approximately, of which about 10,300 mi^2 (26,700 km^2) is probably noncontributing.

PERIOD OF RECORD.--July to October 1929, April 1930 to current year. Monthly discharge only for some periods, published in WSP 1308.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,402.52 ft (427.49 m) above mean sea level. Prior to Mar. 28, 1938, nonrecording gage at site 6.3 mi (10.1 km) upstream at datum 2.52 ft (0.768 m) higher.

AVERAGE DISCHARGE.--43 years (1930-72), 196 ft^3/s (5.551 m^3/s), 142,000 acre-ft/yr (175.1 hm^3/yr); median of yearly mean discharges, 83 ft^3/s (2.35 m^3/s), 60,100 acre-ft/yr (74.1 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 444 ft^3/s (12.6 m^3/s) May 20, gage height, 6.89 ft (2.100 m); minimum, 0.40 ft^3/s (0.011 m^3/s) Apr. 5-8; minimum gage height, 3.66 ft (1.116 m) Sept. 9.
Period of record: Maximum discharge, 6,400 ft^3/s (181 m^3/s) Apr. 18, 1949; maximum gage height, 17.56 ft (5.352 m) Apr. 19, 1969; maximum daily reverse flow, 35 ft^3/s (0.99 m^3/s) Apr. 8, 1943, caused by backwater from downstream tributary inflow; no flow at times in some years.

REMARKS.--Records good. Flow regulated by dams on Souris River and tributaries, combined capacity, about 321,000 acre-ft (3,960 hm^3). Diversion at Eaton Dam for irrigation of about 7,600 acres (30.8 km^2) and other small diversions for irrigation and municipal supply above station. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

COOPERATION.--This station is one of the international gaging stations maintained by the United States under agreement with Canada.

REVISIONS (WATER YEARS).--WSP 1338: 1932. WSP 2113: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	244	54	20	20	49	1.4	23	133	85	121	23
2	97	244	39	20	20	49	.90	23	51	85	121	23
3	97	244	32	20	20	49	.60	23	49	82	81	24
4	94	244	30	20	20	52	.40	25	43	85	29	24
5	91	244	28	20	20	56	.40	25	43	85	27	23
6	97	240	25	20	21	56	.40	23	43	97	26	23
7	94	244	20	20	22	56	.40	23	43	112	26	24
8	94	244	20	20	22	56	.40	23	44	118	25	24
9	97	244	21	20	35	34	.50	25	46	124	25	24
10	94	240	21	18	54	13	.60	25	47	133	25	23
11	94	240	21	18	54	12	.60	33	51	145	25	23
12	97	244	18	17	54	25	.60	82	47	166	25	23
13	94	244	18	17	54	29	1.0	82	25	187	25	24
14	94	244	18	17	54	26	1.0	85	22	193	24	56
15	97	240	18	17	54	25	1.0	85	22	190	24	100
16	94	244	18	17	54	25	1.0	106	22	187	24	103
17	94	240	18	17	54	23	1.0	304	22	187	25	103
18	169	240	19	17	54	22	.80	418	23	184	25	106
19	217	240	21	17	54	21	3.0	424	25	175	23	103
20	217	240	21	17	54	17	5.7	438	22	169	23	106
21	217	240	21	17	58	17	3.2	430	22	160	23	109
22	217	236	21	17	56	18	1.9	430	22	157	23	106
23	217	236	20	17	54	17	1.4	430	23	154	23	109
24	217	232	20	17	54	15	.98	424	22	154	24	112
25	220	228	20	19	52	15	.79	418	39	148	23	109
26	214	224	20	20	51	11	10	418	82	139	23	150
27	214	224	20	20	49	8.0	24	411	79	121	23	187
28	217	161	20	20	49	5.5	25	398	79	121	23	187
29	217	76	20	20	------	5.0	25	342	82	121	22	190
30	224	61	20	20	------	4.3	24	196	82	121	23	193
31	244	------	20	20	------	2.3	------	196	------	121	23	------
TOTAL	4,637	6,766	702	576	1,217	813.1	137.97	6,388	1,355	4,306	1,002	2,434
MEAN	150	226	22.6	18.6	43.5	26.2	4.60	206	45.2	139	32.3	81.1
MAX	244	244	54	20	58	56	25	438	133	193	121	193
MIN	91	61	18	17	20	2.3	.40	23	22	82	22	23
AC-FT	9,200	13,420	1,390	1,140	2,410	1,610	274	12,670	2,690	8,540	1,990	4,830

CAL YR 1972 TOTAL 193,968.00 MEAN 530 MAX 3,050 MIN 18 AC-FT 384,700
WTR YR 1973 TOTAL 30,334.07 MEAN 83.1 MAX 438 MIN .40 AC-FT 60,170

06185500 Missouri River near Culbertson, Mont.

LOCATION.--Lat 48°07'24", long 104°28'30", in SE¼NW¼ sec.3, T.27 N., R.56 E., Richland County, on right bank at downstream side of bridge on State Highway 16, 3 mi (5 km) southeast of Culbertson, 9.6 mi (15.4 km) downstream from Big Muddy Creek and at mile 1,620.76 (kilometre 2,607.80).

DRAINAGE AREA.--91,557 mi^2 (237,133 km^2).

PERIOD OF RECORD.--July 1941 to December 1951, April 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,883.4 ft (574.06 m) above mean sea level, datum of 1929 (Corps of Engineers bench mark). July 1 to Nov. 6, 1941, water-stage recorder at site 400 ft (120 m) upstream at datum 0.11 ft (0.034 m) higher. Nov. 7, 1941, to Aug. 17, 1950, water-stage recorder at site 580 ft (177 m) downstream at present datum. Aug. 18, 1950, to Dec. 31, 1951, nonrecording gage on bridge at present datum. Apr. 1, 1958, to Nov. 1, 1967, water-stage recorder at site 500 ft (150 m) downstream at present datum.

AVERAGE DISCHARGE.--23 years (1943-51, 1958-73, after operational level at Fort Peck Lake was reached), 10,280 ft^3/s (291 m^3/s), 7,448,000 acre-ft/yr (9.18 km^3/yr).

EXTREMES.--Current year: Maximum discharge, about 19,000 ft^3/s (538 m^3/s) Mar. 12; maximum gage height observed, 12.60 ft (3.840 m) Mar. 12 (backwater from ice); minimum daily discharge, 5,760 ft^3/s (163 m^3/s) May 7.
Period of record: Maximum discharge, 78,200 ft^3/s (2,210 m^3/s) Mar. 26, 1943, gage height, 14.80 ft (4.511 m), from rating curve extended above 30,000 ft^3/s (850 m^3/s); maximum gage height, 19.14 ft (5.834 m) Mar. 23, 1960 (backwater from ice); minimum daily discharge, 575 ft^3/s (16.3 m^3/s) Nov. 22, 1941.

REMARKS.--Records good except those for winter period, which are poor. Flow partly regulated by Fort Peck Lake and many other reservoirs above station. Diversions for irrigation of about 1,030,400 acres (4,170 km^2) above station.

REVISIONS.--WSP 1729: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8,890	8,340	10,400	11,500	12,000	16,000	9,450	7,980	5,910	6,560	7,280	7,900
2	8,790	8,400	9,800	11,500	12,000	16,000	9,750	6,160	5,930	6,540	7,380	8,020
3	8,820	8,380	7,800	11,000	12,000	16,000	9,800	5,980	6,040	6,620	7,380	8,240
4	8,750	8,580	7,200	11,800	12,000	16,500	8,700	5,930	6,300	6,600	7,380	9,000
5	8,750	8,630	7,000	10,500	12,000	17,000	10,300	5,840	6,440	6,720	7,520	8,950
6	8,790	8,640	6,900	10,000	12,200	17,000	10,900	5,840	6,380	7,060	7,500	8,450
7	8,890	8,650	6,800	9,800	12,400	16,500	10,800	5,760	6,300	6,920	7,500	8,180
8	8,700	8,530	6,700	9,700	13,000	17,000	10,800	5,790	6,240	6,760	7,540	8,280
9	8,830	8,340	6,600	9,800	12,500	17,000	10,700	7,820	6,260	6,920	7,640	8,200
10	8,890	8,400	6,500	9,860	12,000	17,000	11,000	9,030	6,360	6,660	7,720	7,940
11	8,860	8,480	6,400	10,000	12,500	17,500	10,400	8,530	6,340	6,400	7,720	8,020
12	9,070	8,780	6,300	10,500	13,000	18,000	10,400	7,580	6,040	6,360	7,660	8,020
13	8,890	8,700	7,000	10,800	13,000	15,300	10,300	6,960	6,150	6,260	7,680	7,860
14	9,090	8,790	8,000	11,000	12,500	14,800	8,530	6,320	6,560	6,400	7,680	7,920
15	9,280	8,590	9,000	11,000	12,000	15,300	8,300	6,150	6,400	6,340	7,680	7,980
16	9,000	8,620	9,800	11,200	11,500	14,900	8,260	6,070	6,060	6,020	7,600	7,840
17	8,730	8,760	11,000	11,400	12,000	14,300	7,900	5,980	6,040	6,020	7,540	7,760
18	8,630	8,710	11,600	11,600	13,000	14,400	8,000	6,130	6,280	5,980	7,580	7,500
19	8,930	8,700	12,000	11,800	14,000	14,400	8,140	6,150	6,640	6,090	7,600	6,980
20	9,150	8,620	12,000	12,000	14,500	14,700	7,900	6,020	7,380	6,160	7,700	6,840
21	9,080	8,600	12,200	12,000	15,000	14,800	8,000	6,000	7,600	6,060	7,660	6,740
22	9,330	8,930	12,400	12,100	15,200	14,800	7,400	6,180	6,960	6,380	7,760	6,720
23	9,280	9,650	12,500	12,000	15,200	14,900	6,880	6,130	7,000	6,720	7,760	6,720
24	8,980	9,850	13,000	12,000	15,200	14,800	8,280	6,400	6,680	7,040	7,820	6,640
25	8,730	10,200	12,600	12,000	15,200	14,600	6,460	6,300	6,180	7,320	8,040	6,440
26	8,680	9,900	12,200	12,000	15,400	13,900	6,460	6,160	5,930	7,420	8,000	6,200
27	8,600	9,900	11,800	12,000	15,600	13,200	8,260	6,110	5,790	7,260	7,960	6,380
28	8,650	10,200	11,700	12,000	16,000	11,000	8,100	6,200	6,480	7,260	7,880	6,440
29	8,550	10,300	11,600	12,000	------	9,430	8,080	6,260	6,400	7,300	7,760	6,320
30	8,650	10,400	11,600	12,000	------	9,280	8,020	6,180	6,320	7,380	7,960	6,240
31	8,240	------	11,600	12,000	------	9,350	------	6,110	------	7,360	7,860	------
TOTAL	274,500	269,570	302,000	348,860	372,900	459,660	266,270	200,050	191,390	206,890	237,740	224,720
MEAN	8,855	8,986	9,742	11,250	13,320	14,830	8,876	6,453	6,380	6,674	7,669	7,491
MAX	9,330	10,400	13,000	12,100	16,000	18,000	11,000	9,030	7,600	7,420	8,040	9,000
MIN	8,240	8,340	6,300	9,700	11,500	9,280	6,460	5,760	5,790	5,980	7,280	6,200
AC-FT	544,500	534,700	599,000	692,000	739,600	911,700	528,100	396,800	379,600	410,400	471,600	445,700

CAL YR 1972 TOTAL 4,380,070 MEAN 11,970 MAX 35,000 MIN 6,300 AC-FT 8,688,000
WTR YR 1973 TOTAL 3,354,550 MEAN 9,191 MAX 18,000 MIN 5,760 AC-FT 6,654,000

NOTE.--Stage-discharge relation affected by ice, Dec. 2 to Mar. 13.

06185600 Missouri River Stage Gage No. 4 near Nohly, Mont.

LOCATION.--Lat 48°02'10", long 104°09'40", in NE¼ sec. 1, T.26 N., R.58 E., Richland County, on right bank 4.5 mi (7.2 km) northwest of Nohly at mile 1,595.7 (kilometre 2,567.5).

DRAINAGE AREA.--93,000 mi^2 (241,000 km^2), approximately.

PERIOD OF RECORD.--March 1959 to current year (seasonal).

GAGE.--Water-stage recorder. Datum of gage is 1,860.00 ft (566.928 m) above mean sea level. Prior to Apr. 18, 1962 at datum 60.00 ft (18.288 m) lower.

EXTREMES.--Current year: Maximum daily gage height recorded, 10.92 ft (3.328 m) Apr. 11; minimum daily recorded, 8.40 ft (2.560 m) May 6.
Period of record: Maximum daily gage height recorded, 21.20 ft (6.462 m) Mar. 23, 1960, present datum; minimum daily recorded, 6.87 ft (2.094 m) Apr. 18, 1963.

REMARKS.--Records fair. Stage regulated by Fort Peck Reservoir.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1958 TO SEPTEMBER 1959

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							71.98	70.28	70.41	71.27	70.14	70.41
2							72.11	70.25	70.44	71.12	70.15	70.48
3							72.08	70.27	70.43	71.05	70.14	70.18
4							72.07	70.26	70.43	71.14	70.14	69.70
5						72.97	71.98	70.29	70.45	71.14	70.15	70.08
6						72.98	71.95	70.29	70.46	71.08	70.14	70.38
7						73.01	71.81	70.30	70.45	71.07	70.19	70.42
8						73.04	71.72	70.30	70.21	71.11	70.21	70.44
9						73.04	71.58	69.94	70.21	71.10	70.24	70.31
10						73.03	71.44	69.56	70.51	71.11	70.25	70.28
11						73.00	71.28	69.99	70.51	71.01	70.24	70.40
12						73.05	71.11	70.31	70.35	70.81	70.25	70.40
13						73.10	70.94	70.31	70.25	70.65	70.32	70.40
14						73.20	70.84	70.29	70.26	70.57	70.35	70.39
15						73.44	70.71	70.28	70.26	70.40	70.34	70.41
16						73.68	70.62	70.28	70.32	70.35	70.35	70.42
17						73.91	70.59	70.34	70.33	70.36	70.38	70.43
18						74.31	70.61	70.40	70.25	70.32	70.41	70.49
19						74.92	70.68	70.42	70.25	70.34	70.43	70.49
20						75.77	70.63	70.42	70.36	70.37	70.45	70.50
21						76.77	70.56	70.45	70.33	70.34	70.49	70.49
22						77.99	70.50	70.48	70.35	70.30	70.62	70.55
23						77.16	70.45	70.48	70.49	70.22	70.55	70.60
24						76.55	70.47	70.47	70.38	70.22	70.52	70.63
25						76.68	70.45	70.47	70.38	70.23	70.51	70.68
26						76.85	70.44	70.49	70.48	70.21	70.51	70.78
27						77.50	70.42	70.51	70.92	70.15	70.45	70.75
28						77.33	70.36	70.53	71.50	70.11	70.46	70.76
29					------	75.83	70.33	70.45	72.07	70.10	70.35	70.73
30					------	74.29	70.31	70.37	71.78	70.04	70.20	70.69
31		------			------	72.12	------	70.40	------	70.07	70.33	------
MEAN							71.03	70.32	70.53	70.59	70.33	70.46
MAX							72.11	70.53	72.07	71.27	70.62	70.78
MIN							70.31	69.56	70.21	70.04	70.14	69.70

06185600 Missouri River Stage Gage No. 4 near Nohly, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70.68	70.22					73.65	69.49		69.93	70.30	70.02
2	70.66	70.27					73.51	69.50	69.85	69.94	70.31	70.00
3	70.62	70.36					73.46	69.56	69.47	69.96	70.35	69.96
4	70.59	70.47					73.37	69.68	69.46	69.90	70.36	69.97
5	70.55	70.48					73.23	69.75	69.48	69.90	70.38	69.89
6	70.55						73.06	69.74	69.50	70.00	70.42	69.78
7	70.58						72.80	69.75	69.53	69.98	70.45	69.72
8	70.68	70.64					72.47	69.91	69.57	70.00	70.52	69.75
9	70.70	70.58					72.14	70.01	69.55	69.95	70.55	69.83
10	70.73	70.59					71.73	70.01	69.53	69.81	70.55	69.82
11	70.58	70.53					71.27	69.96	69.47	69.68	70.39	69.82
12	70.56	70.55					70.97	69.83	69.39	69.60	70.00	69.68
13	70.53						70.83	69.76	69.30	69.56	69.90	69.82
14	70.55						70.58	69.68	69.28	69.60	69.82	69.90
15	70.60						70.37	69.65	69.27	69.64	69.80	69.90
16	70.61						70.13	69.71	69.23	69.66	69.88	69.89
17	70.60						69.97	69.72	69.18	69.71	69.91	69.82
18	70.57						69.81	69.73	69.22	69.62	69.91	69.81
19	70.55						69.73	69.77	69.28	69.52	69.91	69.86
20	70.57						69.77	69.82	69.35	69.56	69.90	69.95
21	70.58						69.73		69.42	69.54	69.88	69.97
22	70.54					79.58	69.74		69.60	69.48	69.82	69.90
23	70.53					81.20	69.72		69.80	69.48	69.81	69.84
24	70.50					80.52	69.67		69.86	69.46	69.83	69.88
25	70.48					79.98	69.67		69.82	69.40	69.95	69.38
26	70.35					80.23	69.71		69.55	69.45	69.95	69.42
27	70.39					79.31	69.73		69.45	69.46	69.91	69.07
28	70.47					76.53	69.66		69.64	69.56	69.90	69.65
29	70.45					75.78	69.55		69.82	69.93	69.83	69.83
30	70.47				------	74.64	69.52		69.89	70.22	69.93	69.87
31	70.36	------			------	74.00	------		------	70.29	70.00	------
MEAN	70.55						70.99			69.74	70.08	69.80
MAX	70.73						73.65			70.29	70.55	70.02
MIN	70.35						69.52			69.40	69.80	69.07

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69.87	70.01				72.65	70.35	70.18	70.23	71.07	70.25	70.17
2	69.82	70.03				72.69	70.34	70.18	70.47	72.32	70.05	70.25
3	69.90	70.04				72.75	70.27	70.21	70.70	72.61	70.00	70.33
4	69.94	70.05				72.80	70.33	70.22	70.57	72.52	69.98	70.45
5	69.93	70.07				72.83	70.32	70.26	70.47	72.48	69.97	70.93
6	69.90	70.06				72.85	70.31	70.28	70.44	72.47	69.94	70.95
7	69.84	70.11				72.85	70.28	70.26	70.59	72.43	69.94	70.70
8	69.77	70.11				72.86	70.26	70.23	70.60	72.51	69.93	71.03
9	69.78	70.08				72.89	70.26	70.28	70.63	72.40	69.92	71.27
10	69.50	70.09				72.97	70.27	70.40	70.37	72.36	69.92	70.87
11	69.65	70.11				73.02	70.22	70.41	70.20	72.37	70.14	70.54
12	69.88	70.13				73.05	70.22	70.38	70.20	72.49	70.19	70.52
13	69.93	70.03				73.10	70.24	70.38	70.22	72.30	70.22	70.55
14	69.93	70.10				73.16	70.22	70.35	70.48	72.00	70.24	70.46
15	69.91	70.21				73.25	70.21	70.27	70.56	71.62	70.23	70.38
16	69.92	70.24				73.28	70.21	70.22	70.36	71.39	70.24	70.41
17	69.91	70.24				73.36	70.20	70.22	70.23	71.36	70.25	70.40
18	69.95	70.21				73.45	70.22	70.22	70.41	71.46	70.19	70.43
19		70.19				73.56	70.18	70.23	70.46	71.47	69.50	70.91
20		70.22				73.56	70.12	70.22	70.31	71.46	69.68	71.44
21		70.24				73.46	70.19	70.19	70.24	71.46	70.07	71.54
22		70.20				73.08	70.18	70.17	70.23	71.46	70.13	71.37
23		70.19				71.59	70.17	70.20	70.23	71.44	70.13	71.37
24	69.95	70.17				71.24	70.17	70.32	70.32	71.45	70.11	
25	69.95	70.20				70.64	70.32	70.26	70.34	71.46	70.09	
26	69.94	70.23				70.63	70.26	70.25	70.40	71.46	70.08	
27	69.96	70.23				70.61	70.00	70.24	70.44	71.47	69.95	
28	69.89	70.32				70.54	70.18	70.24	70.57	71.56	69.87	72.48
29	69.78				------	70.49	70.29	70.21	70.44	71.09	70.30	72.45
30	69.83				------	70.46	70.28	70.31	70.20	70.38	70.22	72.50
31	69.95	------			------	70.40	------	70.32	------	70.54	70.16	------
MEAN						72.39	70.24	70.26	70.40	71.77	70.06	
MAX						73.56	70.35	70.41	70.70	72.61	70.30	
MIN						70.40	70.00	70.17	70.20	70.38	69.50	

06185600 Missouri River Stage Gage No. 4 near Nohly, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								7.44	8.82	9.78	10.17	8.64
2								7.60	9.35	9.83	9.85	8.59
3								7.81	9.58	10.24	9.70	8.56
4								7.42	9.53	10.07	9.60	8.57
5								7.34	9.34	9.97	9.53	8.58
6								7.16	9.36	9.99	9.51	8.58
7								7.21	9.38	9.81	9.47	8.60
8								7.18	9.17	9.66	9.37	8.49
9								7.18	9.41	9.64	9.30	8.00
10								7.16	9.59	9.67	9.22	7.87
11								7.34	9.93	9.58	9.32	7.83
12								7.96	9.97	9.53	9.30	7.79
13								8.23	9.98	9.47	9.27	7.75
14								8.33	9.99	9.56	9.22	7.80
15								7.80	9.97	9.72	9.19	7.78
16								7.53	10.18	9.88	9.20	7.73
17								7.47	10.53	10.16	9.17	8.04
18							11.24	7.31	10.35	10.35	9.04	8.46
19							10.60	7.37	10.28	11.11	8.96	8.56
20							9.46	7.41	10.69	12.06	8.61	8.47
21							8.85	7.48	10.82	12.74	8.34	8.51
22							8.55	7.50	10.89	12.25	8.21	8.52
23							8.68	7.79	10.62	11.87	8.09	8.55
24							9.13	7.99	10.27	11.70	8.09	8.47
25							9.00	7.84	10.00	11.56	8.37	8.53
26							7.95	7.84	9.97	11.54	8.74	8.56
27							7.76	8.17	9.96	11.63	8.93	8.48
28							7.65	8.40	9.92	11.48	8.97	8.49
29					------		7.61	8.54	10.08	11.10	9.02	8.28
30					------		7.52	8.24	9.84	10.91	8.95	7.89
31		------			------		------	9.21	------	10.62	8.86	------
MEAN								7.72	9.93	10.56	9.08	8.30
MAX								9.21	10.89	12.74	10.17	8.64
MIN								7.16	8.82	9.47	8.09	7.73

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.76	7.64	10.78					8.02	7.14	9.29	7.53	8.64
2	7.76	7.73	10.80					7.72	7.14	8.34	7.61	8.39
3	7.71	7.71	10.79					7.65	7.13	7.93	7.66	7.96
4	7.65	7.50						7.62	7.22	7.87	7.45	7.73
5	7.69							7.56	7.47	8.19	7.37	7.58
6	7.67		10.69					7.46	7.74	8.64	7.36	7.53
7	7.72		10.56					7.45	8.26	8.78	7.32	7.52
8	7.73							7.38	8.64	8.56	7.31	7.49
9	7.72							7.39	9.71	8.18	7.37	7.47
10	7.69							7.40	9.50	7.82	7.40	7.49
11	7.67						8.14	7.34	9.70	8.88	7.34	7.50
12	7.63						8.06	7.42	10.48	9.76	7.32	7.44
13	7.63						8.03	7.50	10.72	9.82	7.30	7.48
14	7.61	7.68					8.03	7.52	10.57	9.10	7.31	7.50
15	7.80	7.63					8.00	7.58	9.97	8.80	7.29	7.47
16	7.97	7.62					7.70	7.52	9.42	9.05	7.27	7.68
17	8.00	7.72					6.98	7.44	8.95	8.89	7.37	8.38
18	8.06	7.72					6.87	7.47	8.54	8.31	7.42	8.68
19	7.95	7.80					7.45	7.56	8.30	7.92	7.36	8.72
20	7.79	8.12					7.71	7.60	8.29	7.99	7.37	8.79
21	7.73	8.52					7.74	7.52	9.26	8.28	7.41	8.76
22	7.80	8.69					7.73	7.44	9.62	8.82	7.28	8.69
23	7.74	9.76					7.88	7.40	9.10	9.03	7.62	8.62
24	7.65	10.36					8.63	7.41	8.06	7.87	7.84	8.65
25	7.54	10.20					8.33	7.31	7.94	8.02	7.71	8.64
26	7.57	10.06					7.75	7.30	8.04	9.15	7.77	8.63
27	7.71	10.07					8.03	7.27	8.34	9.63	7.90	8.70
28	8.02	10.32					8.88	7.34	9.15	8.33	7.91	8.69
29	8.11	10.62			------		8.89	7.40	9.98	7.58	8.12	8.65
30	8.13	10.72			------		8.63	7.42	9.92	7.49	8.05	8.64
31	7.95	------			------		------	7.19	------	7.46	8.27	------
MEAN	7.78							7.47	8.81	8.51	7.54	8.14
MAX	8.13							8.02	10.72	9.82	8.27	8.79
MIN	7.54							7.19	7.13	7.46	7.27	7.44

06185600 Missouri River Stage Gage No. 4 near Nohly, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.66	7.60						7.29	7.33	9.90	8.61	8.84
2	8.81	7.60						7.31	7.32	9.94	8.58	8.87
3	8.51	7.59						7.47	7.27	9.84	8.58	8.84
4	8.56	7.60						7.58	7.26	9.81	8.87	8.81
5	8.58	7.61						7.72	7.25	9.81	9.38	8.76
6	8.68	7.57						8.23	7.24	9.47	9.02	9.08
7	8.70	7.57						10.09	7.20	8.46	8.80	8.99
8	8.67	7.56						11.92	7.33	8.94	8.72	8.78
9	8.65	7.56						12.35	7.34	8.42	8.64	8.75
10	8.61	7.56						12.39	7.32	8.09	8.63	8.76
11	8.62	7.58						12.33	7.40	7.93	8.61	8.70
12	8.60	7.69						12.29	7.87	7.92	8.62	8.91
13	8.59	7.85						12.18	7.49	8.30	8.59	9.41
14	8.56	7.81						12.05	7.40	9.52	8.64	9.45
15	8.57	7.72						11.76	7.55	9.66	8.66	10.01
16	8.59	7.69					7.74	10.97	7.48	8.49	8.58	10.13
17	8.61	7.65					7.71	10.32	7.44	7.99	8.49	10.04
18	8.61	7.64					7.68	9.65	7.49	8.34	8.54	10.64
19	8.26	7.61					7.64	8.87	7.68	8.43	8.64	10.71
20	7.72	7.63					7.61	8.51	8.97	7.86	8.56	10.80
21	7.55	7.68					7.59	8.30	10.97	7.92	8.69	11.04
22	7.50	8.69					7.54	8.12	11.13	7.98	8.70	10.96
23	7.52	8.53					7.54	8.03	10.97	7.79	8.73	10.10
24	7.52	8.47					7.54	8.01	10.54	8.12	8.80	10.06
25	7.58	8.95					7.49	7.85	10.12	8.39	8.69	10.48
26	7.55	10.30					7.46	7.81	10.48	8.90	8.73	10.12
27	7.51						7.44	7.70	10.00	8.45	8.76	9.96
28	7.50						7.37	7.60	9.51	8.16	8.73	10.19
29	7.53						7.31	7.51	9.11	8.06	8.74	10.00
30	7.56				------		7.29	7.45	9.21	8.20	8.76	9.73
31	7.59	------			------		------	7.37	------	8.67	8.71	------
MEAN	8.20							9.26	8.39	8.64	8.70	9.66
MAX	8.81							12.39	11.13	9.94	9.38	11.04
MIN	7.50							7.29	7.20	7.79	8.49	8.70

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.22									12.83	12.30	12.54
2	10.15									13.02	12.36	12.52
3	9.29									13.03	12.49	12.41
4	9.00								12.22	12.99	12.61	12.44
5	8.96								12.30	13.02	12.51	12.51
6	8.95								12.20	13.12	12.45	12.56
7	8.93								12.20	13.24	12.52	12.56
8	8.93								12.31	13.33	12.65	12.53
9	8.93								12.46	13.46	12.68	12.53
10	8.89	8.88							12.49	13.91	12.66	12.49
11	8.88	8.88							12.46	13.93	12.89	12.22
12	8.92	8.86							12.43	13.78	12.98	12.17
13	8.91	8.88						13.12	12.39	13.88	12.85	12.37
14	8.98	8.89						13.03	12.40	13.82	12.74	12.55
15	8.87	8.89						13.06	12.55	13.67	12.75	12.60
16	8.90	8.59						13.37	12.79	13.55	12.71	12.60
17	8.90	8.08						13.40	13.04	13.28	12.66	12.58
18	8.89	7.70						13.30	13.30	13.22	12.63	12.61
19	8.81							13.29	12.97	13.16	12.63	12.58
20	8.85							13.40	12.79	13.08	12.61	12.55
21	8.86							13.56	12.83	13.10	12.57	12.53
22	8.92							13.56	12.96	13.10	12.53	12.53
23	9.35							13.37	13.00	13.03	12.50	12.52
24	10.37							12.97	12.87	12.65	12.52	12.55
25	10.79							12.83	12.75	12.50	12.53	12.53
26	10.79							12.90	12.81	12.64	12.57	12.51
27	10.57							12.83	12.94	12.56	12.51	
28								12.74	12.98	12.45	12.54	
29					------			12.62	12.85	12.37	12.57	
30					------			12.46	12.75	12.36	12.55	12.57
31		------			------		------		------	12.33	12.56	------
MEAN										13.11	12.60	
MAX										13.93	12.98	
MIN										12.33	12.30	

06185600 Missouri River Stage Gage No. 4 near Nohly, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.56	12.53						11.29	12.35	9.64	8.47	9.08
2	12.55	12.45						11.50	12.39	9.70	8.49	9.09
3	12.55	12.31						12.14	12.53	9.86	8.49	9.09
4	12.55	12.27						12.46	12.43	12.08	8.41	9.08
5	12.58	12.26						12.38	12.48	13.33	8.38	9.06
6	12.59	12.27						12.25	12.41	12.62	8.36	8.88
7	12.59						12.06	12.25	11.79	11.14	8.34	8.64
8	12.51						12.01	12.30	11.33	10.34	8.35	8.58
9	12.43						12.16	12.30	10.80	10.30	8.36	8.58
10	12.47						12.30	12.36	10.57	10.54	8.41	8.69
11	12.51						12.41	12.39	10.41	10.60	8.37	8.53
12	12.52						12.37	12.39	10.43	10.02	8.41	8.57
13	12.54						12.29	12.40	10.48	9.74	8.30	8.50
14							11.84	12.44	10.41	9.61	8.21	8.49
15							11.59	12.53	10.39	9.69	8.19	8.47
16							11.51	12.34	10.39	9.62	8.32	8.47
17	12.45	12.47					11.40	12.50	10.42	9.54	8.99	8.45
18	12.46	12.54					11.26	12.49	10.42	9.50	8.86	8.46
19	12.47	12.54					11.19	12.22	10.41	9.16	8.87	8.49
20	12.46	12.43					11.15	12.09	10.40	8.96	8.84	8.48
21	12.46	12.25					11.12	12.11	10.36	8.97	9.20	8.46
22	12.45	12.08					11.14	12.29	10.31	8.89	9.63	8.46
23	12.42	12.24					11.15	12.30	10.40	8.88	9.87	8.44
24	12.40	12.27					11.12	12.36	10.46	8.83	9.89	8.44
25	12.37	12.24					11.26	12.42	10.66	8.81	9.56	8.46
26	12.36	12.21					11.84	12.16	10.51	8.78	9.41	8.42
27	12.36	12.56					12.13	12.04	10.12	8.70	9.35	8.32
28	12.38	12.09					11.83	12.08		8.65	9.32	8.21
29	12.37	12.35			------		11.45	12.21	9.46	8.63	9.18	8.24
30	12.37	13.02			------		11.32	12.35	9.48	8.59	9.16	8.23
31	12.34	------			------		------	12.36	------	8.52	9.11	------
MEAN								12.25		9.75	8.81	8.58
MAX								12.53		13.33	9.89	9.09
MIN								11.29		8.52	8.19	8.21

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.24	8.20						11.97	13.03	11.84	11.11	11.29
2	8.19	8.21						11.74	13.10	11.99	11.02	11.21
3	8.15	8.60						11.67	13.12	12.01	11.19	11.26
4	8.15	9.27						11.85	13.06	11.88	11.50	11.28
5	8.17	9.56						11.93	12.91	11.78	11.45	11.31
6	8.15	9.72						12.07	12.68	11.89	11.43	10.89
7	8.12	9.76						12.39	12.49	11.82	11.34	10.97
8	8.12	9.82						12.85	12.49	11.74	10.94	11.20
9	8.18	10.27						13.14	12.45	11.86	11.19	11.58
10	8.17	10.59						13.14	12.48	11.78	11.25	11.76
11	8.11	10.59						13.09	12.43	11.55	10.99	11.98
12	8.10	10.65						13.00	12.38	10.88	11.01	11.98
13	8.16	10.96						13.04	12.20	9.68	11.33	11.63
14	8.17	11.14						13.10	12.23	9.60	11.60	11.80
15	8.15	10.58						13.09	12.24	8.78	11.65	11.98
16	8.17	10.50						12.79	12.21	9.48	11.66	12.01
17	8.18							12.46	12.12	10.49	11.65	11.93
18	8.20							12.52	12.26	10.34	11.44	11.86
19	8.23							12.63	12.44	10.58	10.86	12.01
20	8.23							12.71	12.42	10.46	11.18	12.18
21	8.21							12.77	11.90	10.46	11.30	11.94
22	8.30							12.84	11.47	9.87	11.26	11.97
23	8.29							13.04	11.80	10.02	11.14	12.00
24	8.31							13.21	11.46	10.06	11.21	12.08
25	8.28						12.13	13.28	11.33	10.25	10.92	12.20
26	8.25						12.11	13.28	11.32	10.01	10.87	11.79
27	8.25						12.12	13.03	11.70	10.18	11.52	11.44
28	8.21						12.19	13.00	12.02	10.76	11.57	11.48
29	8.20				------		12.22	13.02	12.02	10.58	11.10	11.17
30	8.22				------		12.16	12.95	11.98	10.82	11.11	11.12
31	8.17	------			------		------	12.98	------	11.13	11.14	------
MEAN	8.19							12.73	12.26	10.79	11.26	11.64
MAX	8.31							13.28	13.12	12.01	11.66	12.20
MIN	8.10							11.67	11.32	8.78	10.86	10.89

06185600 Missouri River Stage Gage No. 4 near Nohly, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.18	11.05					11.83	8.58	8.45	9.01	11.62	11.52
2	11.20	11.29					10.78	8.57	8.50	9.02	11.72	11.95
3	11.53	11.43					9.72	8.58	8.48	9.39	11.67	
4	11.31	11.67					9.41	8.58	8.43	10.35	11.43	
5	11.42	11.62					9.36	8.57	8.52	11.34	11.63	
6	11.79	11.74					9.31	8.59	8.60	11.56	11.80	
7	11.75	11.88					9.06	8.58	8.62		11.70	
8	11.70	12.04					9.04	8.68	8.65		11.77	
9	11.92	11.95					9.12	8.70	8.69		11.76	
10	11.71	11.85					9.19	8.61	8.84		11.60	11.54
11	11.30	11.85					9.15	8.62	8.91		11.14	
12	11.59	11.77					9.04	8.60	9.00	10.72	10.47	
13	11.86	11.78				14.90	9.02	8.63	9.03	10.67	9.32	
14	11.81	11.84				14.66	8.96	8.62	8.89	10.44	8.77	
15	11.65	11.98				14.54	8.92	8.64	8.85	10.63	9.71	
16	11.81	12.18				14.69	8.90	8.74	8.90	10.90	10.42	
17	11.50	12.29				15.06	8.87	8.74	8.89		10.59	
18	11.58	12.25				14.88	8.79	8.65	8.85	11.78	10.60	
19	11.95	12.14				14.93	8.74	8.77	8.87	11.98	10.64	
20	11.74	12.12				14.71	8.72	8.83	8.98	11.90	10.55	
21	11.80	12.30				14.52	8.69	8.83	8.95	11.78	10.37	
22	11.94	12.41				14.05	8.69	8.79	8.63	11.77	10.32	
23	11.92	12.46				13.68	8.67	8.76		11.76	10.83	
24	11.62	12.47				12.69	8.68	8.67		11.67	11.12	10.82
25	11.68	12.40				12.08	8.67	8.56	8.40	11.29	11.45	10.82
26	11.92	12.11				12.24	8.64	8.51	8.84	10.70	11.27	10.62
27	11.81	11.84				12.23	8.65	8.53	9.09	10.36	11.19	10.52
28	11.63	11.50				12.19	8.64	8.58	9.09	9.31	11.18	10.42
29	11.64	11.25				11.82	8.56	8.61	8.98	10.31	11.15	9.92
30	11.77				------	11.87	8.58	8.36	8.99	11.24	10.91	10.42
31	11.54	------			------	11.79	------	8.25	------	11.52	10.97	------
MEAN	11.66						9.08	8.62			10.96	
MAX	11.95						11.83	8.83			11.80	
MIN	11.18						8.56	8.25			8.77	

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.73						14.47	13.78		9.17	12.26	12.14
2	10.79						14.42	13.95		8.90	12.24	12.29
3	10.81						14.53	13.97		8.82	12.28	12.31
4	10.82						15.02	13.75		8.83	12.26	12.21
5	10.77	12.26					15.67	13.61		9.22	12.24	12.33
6	10.37	12.27					16.07	13.50		9.27	12.22	11.73
7	10.08	12.31						13.41		8.90	12.15	11.85
8	11.16	12.27						13.34		9.09	12.04	11.79
9	11.80	12.28						13.26		9.34	12.04	11.80
10	11.91	12.27						13.13		9.65	12.09	11.66
11	11.90	12.24						13.03		10.70	12.17	11.90
12	11.88	12.17						13.01		11.89	12.20	11.77
13	11.92	12.11						13.07		12.23	12.20	11.85
14	11.81	12.21						13.02		12.20	12.18	11.89
15	11.77	12.22						12.78		12.08	12.08	11.54
16	11.94	12.23						12.44		11.50	12.21	11.34
17	11.98	12.25						12.21		11.33	12.24	11.02
18	11.96	12.29						11.97		11.83	12.12	11.39
19	12.06	12.28						11.73	9.85	11.90	11.72	11.31
20	12.07	12.25							9.75	12.10	11.62	11.16
21	12.07								9.90	12.06	11.54	11.33
22	12.09								10.27	11.93	11.56	11.29
23	12.12					16.69			10.48	12.12	11.52	11.20
24	12.10					16.75			10.55	11.95	11.45	10.74
25	12.09					16.40	13.06		10.36	11.93	11.37	10.47
26	12.09					15.45	13.33		10.20	12.10	11.70	10.55
27	12.08					14.85	13.43		10.16	12.13	12.00	10.47
28						14.75	13.47		10.06	12.17	11.60	10.45
29					------	14.59	13.44		10.07	12.16	11.62	10.38
30					------	14.35	13.54		9.72	12.22	11.90	10.12
31		------			------	14.37	------		------	12.26	11.92	------
MEAN										11.03	11.96	11.39
MAX										12.26	12.28	12.31
MIN										8.82	11.37	10.12

MISSOURI RIVER MAIN STEM

06185600 Missouri River Stage Gage No. 4 near Nohly, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.98	10.79					12.44	11.86	12.79	13.51	12.25	12.19
2	9.93	10.75					12.54	11.61	12.61	13.58	12.24	11.83
3	10.14	10.94					12.64	11.73	12.25	13.42	12.21	12.18
4	10.35	11.27					12.86	12.21	12.38	13.19	12.25	12.17
5	10.04						13.32	11.85	12.45	12.99	12.29	12.27
6	10.03						13.52	11.13	12.49	12.95	12.32	12.30
7	10.40						13.53	11.51	12.48	12.99	12.37	12.30
8	10.62						13.03	11.50	12.51	12.94	12.48	12.32
9	11.16						12.91	11.12	12.57	12.90	12.48	12.38
10	11.50					14.77	10.98	11.53	12.59	12.69	12.39	12.36
11	11.59					14.02	10.58	12.24	12.60	12.56	12.33	12.39
12	11.65					13.28	10.39	11.85	12.52	12.51	12.31	12.38
13	11.64					13.27	10.14	11.18	12.57	12.47	12.35	12.38
14	11.63					13.20	9.82	11.71	12.91	12.50	12.31	12.40
15	11.33					13.26		12.53	12.96	12.48	12.31	12.41
16	11.33					13.27		12.96	12.98	12.38	12.31	12.40
17	11.55					12.74		13.06	13.09	12.37	12.31	12.40
18	11.60					12.03		13.14	13.33	12.31	12.29	12.38
19	11.67					11.63		13.52	13.49	12.30	12.25	12.22
20	11.70					11.48		13.52	13.52	12.31	12.23	12.18
21	11.52					11.23		13.38	13.69	12.34	12.24	12.29
22	11.15					11.12		13.25	13.80	12.34	12.21	12.39
23	10.83					11.14		13.21	13.89	12.35	12.20	12.41
24	10.73					11.20	12.46	13.20	13.86	12.40	12.21	12.35
25	10.72					11.30	12.48	12.90	13.78	12.12	12.22	12.29
26	10.74					11.53	12.36	12.24	13.58	12.14	12.19	12.26
27	10.69					11.69	12.41	11.90	13.49	12.20	12.08	12.27
28	10.64					11.54	12.51	11.75	13.46	12.28	12.20	12.26
29	10.69				------	11.54	12.63	11.88	13.51	12.37	12.26	12.25
30	10.74				------	11.80	12.24	12.43	13.53	12.31	12.28	12.26
31	10.78	------			------	12.13	------	12.78	------	12.25	12.30	------
MEAN	10.94							12.28	13.06	12.60	12.28	12.30
MAX	11.70							13.52	13.89	13.58	12.48	12.41
MIN	9.93							11.12	12.25	12.12	12.08	11.83

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.28	12.39					13.44	12.42	12.43	10.64	11.47	10.76
2	12.28	12.38					13.37	12.41	12.48	10.73	11.47	10.66
3	12.27	12.41					13.13	12.41	12.44	11.02	11.53	10.60
4	12.29	12.40				13.37	12.69	12.37	12.37	10.88	11.49	10.65
5	12.30	12.39				13.41	10.76	12.43	12.34	10.62	11.47	10.87
6	12.35	12.40				13.36	10.29	12.27	12.30	10.73	11.47	10.79
7	12.34	12.36				13.22	10.61	12.09	12.28	10.76	11.38	10.64
8	11.80	12.33				13.17	11.67	12.20	12.41	10.71	11.45	10.20
9	11.29	12.32				13.16	12.72	12.48	12.51	10.65	11.43	10.15
10	10.94	12.29				13.12	13.46	12.54	12.50	10.79	11.41	10.50
11	10.40	12.31				13.08	13.82	12.61	12.41	10.91	11.44	10.67
12	10.40	12.29				13.12	13.85	12.58	12.22	10.81	11.43	10.58
13	11.09					13.47	13.63	12.50	11.82	10.68	11.50	10.77
14	11.88					13.95	13.21	12.41	11.77	10.69	11.41	10.75
15	12.21					14.06	12.71	12.34	11.79	10.62	11.45	10.52
16	12.29					13.77	12.77	12.34	11.80	10.63	11.44	10.56
17	12.18					13.04	12.94	12.34	11.78	10.68	11.44	10.65
18	12.21					12.65	12.44	12.34	11.72	10.77	11.43	10.66
19	12.28					12.50	12.64	12.30	11.74	11.23	11.06	10.66
20	12.30					12.27	12.86	12.23	11.81	11.45	10.69	10.66
21	12.35					12.26	12.87	12.22	11.82	11.45	10.67	10.55
22	12.34					12.24	12.89	12.11	11.82	11.46	10.63	10.35
23	12.12					12.09	12.78	11.75	11.81	11.41	10.70	10.24
24	11.78					11.69	12.63	12.16	11.89	11.40	10.63	10.25
25	11.85					11.74	12.76	12.25	11.79	11.42	10.46	10.19
26	12.14					11.97	12.67	12.25	11.76	11.46	10.60	10.18
27	12.22					12.07	12.60	12.23	11.75	11.36	10.89	10.25
28	12.32					12.00	12.60	12.24	11.44	11.45	10.81	10.25
29	12.39				------	12.24	12.63	12.24	11.00	11.45	10.99	10.26
30	12.40				------	13.11	12.42	12.30	10.85	11.43	11.14	10.31
31	12.40	------			------	13.69	------	12.34	------	11.48	10.85	------
MEAN	11.99						12.66	12.31	11.96	11.02	11.17	10.50
MAX	12.40						13.85	12.61	12.51	11.48	11.53	10.87
MIN	10.40						10.29	11.75	10.85	10.62	10.46	10.15

06185600 Missouri River Stage Gage No. 4 near Nohly, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.38	10.09				15.58		11.93	11.68	10.25	10.32	10.20
2	10.45	9.98				15.47		11.99	11.71	10.24	10.30	10.20
3	10.48	9.83				15.55		12.14	11.78	10.15	10.28	10.21
4	10.45	9.99				15.84		12.24	11.52	10.04	10.27	10.23
5	10.42	10.01				15.79		12.36	11.51	9.99	10.48	10.20
6	10.13					15.86		12.39	11.53	9.81	10.48	10.25
7	10.03					16.05		12.37	11.52	9.75	10.53	10.22
8	9.96	10.49				16.23		12.27	11.77	9.80	10.47	10.22
9	9.94	11.98				16.58		12.28	12.18	9.83	10.51	10.28
10	9.94	11.15				16.52		12.34	12.40	9.81	10.49	10.26
11	9.94					16.50		12.31	13.13	10.04	10.39	10.21
12	9.95					16.74		12.37	13.58	9.97	10.43	10.24
13	9.90					17.35		12.47	14.25	9.79	10.40	10.22
14	9.85					18.47		12.50	14.37	9.78	10.40	10.18
15	9.84					19.17		12.49	13.75	9.78	10.42	10.20
16	9.82					18.96		12.45	13.70	9.89	10.40	10.25
17	9.85					19.22		12.39	13.98	9.88	10.40	10.20
18	9.91					19.44	12.41	12.41	13.80	9.85	10.41	10.20
19	10.07						12.41	12.17	13.10	9.83	10.44	10.26
20	10.21						12.40	11.64	11.85	9.80	10.41	10.19
21	10.49						12.14	11.41	11.11	9.92	10.40	10.15
22	10.58						11.63	11.23	10.81	10.00	10.39	10.19
23	10.40						11.64	11.09	10.76	10.10	10.34	10.19
24	10.38				16.52		12.06	11.20	10.74	10.18	10.37	10.21
25	9.99				16.39		12.20	11.55	10.71	10.32	10.33	10.15
26	10.00				16.67		12.05	11.93	10.83	10.31	10.37	10.19
27	10.01				16.77		11.43	12.00	10.65	10.32	10.31	10.23
28	9.96				16.66		11.12	11.95	10.42	10.30	10.29	10.17
29	9.99				16.27		11.04	12.08	10.45	10.30	10.28	10.16
30	10.00				------		11.32	11.94	10.30	10.30	10.29	10.20
31	10.03	------			------		------	11.70	------	10.32	10.22	------
MEAN	10.11							12.05	12.00	10.02	10.38	10.21
MAX	10.58							12.50	14.37	10.32	10.53	10.28
MIN	9.82							11.09	10.30	9.75	10.22	10.15

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.20	9.93							8.60		9.29	9.62
2	10.20	10.00							8.60		9.28	9.71
3	10.19	9.97						8.50	8.68		9.30	9.80
4	10.20	9.98						8.45	8.78		9.30	10.00
5	10.15	10.00						8.44	8.87		9.32	10.10
6	10.12	9.98						8.40	8.88		9.39	9.99
7	10.20	9.97						8.41	8.85		9.38	9.80
8	10.20	9.97						8.48	8.79		9.39	9.80
9	10.20	9.98						9.25	8.80		9.40	9.89
10	10.16	9.97						10.01	8.80		9.45	9.73
11	10.07	9.96					10.92	10.13	8.84		9.50	9.72
12	9.97	9.91					10.85	9.70	8.85		9.49	9.76
13	10.00	9.94						9.28	8.70		9.46	9.71
14	9.95	9.88						8.85	8.90		9.48	9.67
15	9.97							8.68	8.98		9.48	9.74
16	9.99							8.60	8.79		9.44	9.69
17	9.98							8.56	8.68		9.41	9.62
18	9.89							8.57	8.80	8.55	9.41	9.57
19	9.95							8.65	9.02	8.59	9.43	9.34
20	9.97							8.60	9.19	8.62	9.46	9.17
21	9.97							8.53	9.54	8.61	9.49	9.12
22	10.00							8.69	9.25	8.64	9.49	9.09
23	10.00							8.71	9.07	8.90	9.50	9.09
24	10.01							8.70	9.05	9.04	9.49	9.06
25	10.02							8.79	8.73	9.24	9.59	9.01
26	10.00							8.78	8.59	9.30	9.63	8.88
27	9.92							8.75	8.40	9.32	9.60	8.86
28	9.96							8.71	8.50	9.26	9.59	8.98
29	9.98				------			8.80	8.68	9.29	9.53	8.92
30	9.89				------			8.78	8.74	9.30	9.54	8.89
31	9.86	------			------		------	8.73	------	9.31	9.61	------
MEAN	10.04								8.83		9.46	9.48
MAX	10.20								9.54		9.63	10.10
MIN	9.86								8.40		9.28	8.86

06185650 Missouri River Stage Gage No. 5 at Nohly, Mont.

LOCATION.--Lat 48°00'10", long 104°05'30", in SE¼ sec.16, T.26 N., R.59 E., Richland County, on downstream side of bridge 0.2 mi (0.3 km) northwest of Nohly at mile 1,587.7 (kilometre 2,554.6).

DRAINAGE AREA.--93,000 mi^2 (241,000 km^2), approximately.

PERIOD OF RECORD.--April 1959 to current year (seasonal).

GAGE.--Water-stage recorder. Datum of gage is 1,800.00 ft (548.640 m) above mean sea level.

EXTREMES.--Current year: Maximum daily gage height recorded, 70.05 ft (21.351 m) Mar. 13; minimum daily recorded, 61.90 ft (18.867 m) July 18, 19.
Period of record: Maximum daily gage height recorded, 77.22 ft (23.537 m) Mar. 15, 1972; minimum daily recorded, 59.12 ft (18.020 m) Nov. 22, 1964.

REMARKS.--Records good. Stage regulated by Fort Peck Reservoir.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1958 TO SEPTEMBER 1959

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								62.72	62.95	64.53	62.86	62.95
2							64.60	62.66	63.00	64.19	62.91	63.02
3							64.62	62.64	63.00	64.02	62.89	63.06
4							64.53	62.72	62.98	64.00	62.87	62.41
5							64.43	62.74	62.96	64.14	62.88	62.61
6							64.25	62.76	63.03	64.04	62.85	62.96
7							64.14	62.77	63.05	64.00	62.84	63.04
8							64.01	62.80	62.95	63.95	62.94	63.02
9							63.84	62.71	62.83	64.00	62.94	62.98
10							63.66	62.03	63.15	64.02	62.92	62.85
11							63.53	62.18	63.33	63.96	62.93	63.00
12							63.35	62.36	63.37	63.79	62.91	62.95
13							63.20	62.81	63.15	63.56	62.99	63.02
14							62.96	62.82	63.27	63.50	63.04	63.04
15							62.94	62.75	63.15	63.34	62.99	62.95
16							62.82	62.83	63.27	63.21	63.00	62.92
17							62.93	62.83	63.50	63.21	63.00	62.97
18							62.92	62.91	63.67	63.18	63.06	63.12
19							62.97	62.92	63.99	63.18	63.05	63.02
20							63.00	62.98	64.71	63.19	63.12	63.13
21							62.91	63.01	64.09	63.17	63.10	63.15
22							62.87	63.02	63.94	63.13	63.33	63.20
23							62.81	63.05	64.04	63.04	63.19	63.25
24							62.78	63.03	63.85	63.01	63.17	63.26
25							62.81	63.01	63.84	63.01	63.17	63.32
26							62.79	63.03	63.88	63.00	63.14	63.37
27							62.81	63.02	64.18	62.95	63.15	63.36
28							62.73	63.12	64.35	62.88	63.14	63.35
29					------		62.78	63.09	65.02	62.84	63.11	63.40
30					------		62.70	62.92	65.16	62.81	62.83	63.36
31		------			------		------	62.93	------	62.81	62.96	------
MEAN								62.81	63.59	63.47	63.01	63.07
MAX								63.12	65.16	64.53	63.33	63.40
MIN								62.03	62.83	62.81	62.83	62.41

06185650 Missouri River Stage Gage No. 5 at Nohly, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63.37	62.95					65.44	62.02	62.10	62.36	62.83	62.56
2	63.34	62.95					65.30	61.97	61.94	62.33	62.85	62.57
3	63.34	63.06					65.28	62.08	61.75	62.42	62.86	62.53
4	63.31	63.14					65.07	62.21	61.74	62.36	62.82	62.51
5	63.19	63.15					64.93	62.29	61.80	62.38	62.90	62.51
6	63.22	63.04					64.78	62.28	61.81	62.39	62.95	62.40
7	63.23	63.25					64.47	62.23	61.88	62.44	62.92	62.32
8	63.33	63.21					64.15	62.35	62.04	62.44	62.96	62.27
9	63.25	63.35					63.79	62.47	61.96	62.43	62.94	62.37
10	63.35	63.38					63.46	62.46	61.94	62.31	63.03	62.41
11	63.28	63.29					63.13	62.35	61.83	62.19	62.99	62.31
12	63.27	63.28					63.07	62.23	61.80	62.08	62.58	62.15
13	63.26	63.25					63.05	62.16	61.80	62.04	62.42	62.33
14	63.27	61.85					62.89	62.04	61.85	62.02	62.33	62.44
15	63.26	61.64					62.64	62.05	61.89	62.11	62.32	62.47
16	63.30	63.70					62.65	62.15	61.79	62.12	62.42	62.43
17	63.33	64.33				65.99	62.52	61.98	61.74	62.16	62.43	62.39
18	63.29					66.00	62.40	62.16	61.86	62.11	62.44	62.33
19	63.28					66.06	62.24	62.17	62.02	61.99	62.44	62.39
20	63.20					66.65	62.31	62.27	62.13	62.02	62.45	62.46
21	63.28					70.38	62.19	62.28	62.09	62.02	62.45	62.52
22	63.23					72.58	62.29	62.24	62.45	61.94	62.23	62.46
23	63.19					73.90	62.21	62.21	62.50	61.88	62.37	62.37
24	63.21					71.34	62.16	62.26	62.45	61.87	62.37	62.37
25	63.19					70.54	62.17	62.24	62.31	61.91	62.46	62.16
26	63.10					69.24	62.23	62.29	62.12	61.94	62.50	61.10
27	63.06					71.57	62.26	62.41	61.96	61.91	62.47	61.35
28	63.16					68.53	62.16	62.35	62.02	62.00	62.49	62.15
29	63.16					67.98	62.08	62.28	62.25	62.57		62.30
30	63.17				------	66.40	61.99	62.21	62.32	62.84	62.47	62.36
31	63.14	------			------	65.79	------	62.16	------	62.84	62.54	------
MEAN	63.24						63.18	62.22	62.00	62.21		62.31
MAX	63.37						65.44	62.47	62.50	62.84		62.57
MIN	63.06						61.99	61.97	61.74	61.87		61.10

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.39	62.44	63.01				62.61	62.33	62.42	62.92	62.44	62.25
2	62.32	62.47	63.61				62.57	62.32	62.61	64.16	62.18	62.33
3	62.37	62.49					62.54	62.32	62.85	64.55	62.12	62.39
4	62.44	62.50					62.54	62.34	62.76	64.49	62.10	62.48
5	62.42	62.49					62.53	62.34	62.61	64.48	62.07	62.98
6	62.40	62.50					62.54	62.37	62.57	64.48	62.05	63.14
7	62.36	62.51					62.53	62.36	62.68	64.49	62.04	62.82
8	62.24	62.50					62.54	62.32	62.73	64.56	62.05	63.09
9	62.32	62.50					62.53	62.37	62.82	64.49	62.03	63.40
10	62.06	62.51					62.54	62.47	62.63	64.35	62.03	63.10
11	62.05	62.48					62.44	62.49	62.47	64.36	62.24	62.69
12	62.33	62.57					62.44	62.47	62.54	64.45	62.33	62.65
13	62.40	62.47						62.46	62.64	64.37	62.30	62.72
14	62.42	62.48						62.42	62.83	64.09	62.30	62.65
15	62.40	62.59						62.35	62.92	63.81	62.28	62.57
16	62.39	62.63						62.28	62.74	63.59	62.28	62.57
17	62.40	62.64						62.27	62.56	63.48	62.28	62.56
18	62.41	62.61						62.27	62.62	63.58	62.27	62.56
19	62.43	62.51						62.27	62.67	63.59	61.66	62.97
20	62.46	62.58						62.25	62.52	63.58	61.65	63.53
21	62.44	62.52						62.23	62.42	63.54	62.05	63.71
22	62.45	62.54						62.22	62.41	63.59	62.17	63.58
23	62.42	62.56						62.22	62.42	63.57	62.16	63.54
24	62.41	62.54						62.33	62.48	63.57	62.16	63.63
25	62.40	62.56						62.30	62.52	63.59	62.15	63.71
26	62.39	62.56					62.45	62.28	62.55	63.59	62.15	63.79
27	62.38	62.54					62.13	62.27	62.57	63.60	62.07	64.26
28	62.38	62.59					62.24	62.27	62.67	63.69	61.93	64.61
29	62.26	62.64			------	62.73	62.37	62.27	62.59	63.35	62.31	64.58
30	62.21	61.85			------		62.38	62.36	62.32	62.55	62.33	64.58
31	62.36	------			------		------	62.47	------	62.61	62.24	------
MEAN	62.36	62.51						62.33	62.60	63.84	62.14	63.18
MAX	62.46	62.64						62.49	62.92	64.56	62.44	64.61
MIN	62.05	61.85						62.22	62.32	62.55	61.65	62.25

06185650 Missouri River Stage Gage No. 5 at Nohly, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						67.16		60.44	61.57	63.33	62.66	61.17
2						67.12	68.43	60.50	61.92	63.18	62.32	61.09
3						66.83		60.81	62.30	63.27	62.16	61.05
4						66.91		60.44	62.19	63.05	62.08	61.06
5						67.25		60.23	62.20	62.86	62.00	61.09
6						67.33		60.16	62.51	62.90	61.94	61.09
7						67.22		60.17	62.57	62.70	61.90	61.09
8						67.15		60.15	62.46	62.49	61.84	61.04
9						67.37		60.14	62.25	62.40	61.78	60.67
10						67.50		60.14	62.27	62.38	61.74	60.54
11						67.40		60.24	62.25	62.30	61.84	60.47
12						67.33		60.73	62.54	62.23	61.84	60.43
13						67.34		61.07	62.59	62.16	61.81	60.42
14						67.44		61.27	62.77	62.14	61.77	60.45
15						67.18		60.96	63.24	62.39	61.72	60.44
16						66.68		60.68	63.54	62.64	61.73	60.39
17						66.59		60.58	63.66	63.03	61.73	60.58
18						66.61	63.54	60.41	63.51	63.18	61.62	60.94
19					67.52	66.54	63.16	60.38	63.82	63.54	61.49	61.06
20					67.68	66.56	62.17	60.45	64.29	64.33	61.21	61.01
21					67.64	66.77	61.64	60.48	64.33	64.92	60.96	61.02
22					67.42	67.15	61.34	60.46	64.10	64.60	60.84	61.05
23					66.95	60.84	61.37	60.62	64.03	64.33	60.72	61.06
24					67.03	68.14	61.73	60.96	63.77	64.16	60.71	61.00
25					67.05	68.13	61.88	60.86	63.40	64.03	60.91	61.02
26					67.07	68.13	60.87	60.84	63.27	63.94	61.20	61.09
27					67.25	68.18	60.68	61.32	63.26	64.01	61.38	61.02
28					67.17		60.59	61.42	63.24	63.94	61.45	61.02
29					------		60.56	61.55	63.35	63.54	61.49	60.90
30					------		60.51	61.64	63.36	63.35	61.46	60.55
31		------			------		------	61.41	------	63.08	61.37	------
MEAN								60.69	63.02	63.24	61.60	60.86
MAX								61.64	64.33	64.92	62.66	61.17
MIN								60.14	61.57	62.14	60.71	60.39

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.42	60.30	63.13					60.97	61.02			
2	60.40	60.32	63.13					60.71	61.13			
3	60.37	60.34	63.15					60.66	61.36			
4	60.30	60.22	63.16					60.63	61.46			60.48
5	60.31	60.18	63.05					60.59	61.91		60.15	60.33
6	60.30	60.21	63.06					60.50	62.47		60.20	60.27
7	60.33	60.22	62.97					60.48	63.91			
8	60.33	60.19	62.95					60.41	63.11			
9	60.33	60.19	62.94					60.44			60.15	
10	60.33	60.22	62.92					60.44		61.15		
11	60.31	60.30	62.92				61.16	60.41		61.76		
12	60.30	60.29					61.09	60.47	63.12	62.32	60.08	
13	60.30	60.27					61.03	60.55	63.33	62.53		
14	60.29	60.27					61.05	60.63	63.39	62.08		
15	60.40	60.26					61.03	60.65		61.71		
16	60.54	60.23					60.84	60.63		61.80		
17	60.58	60.29					60.30	60.55		61.72		
18	60.60	60.31					60.10	60.54		61.32		61.10
19	60.53	60.34					60.49	60.59		60.94		
20	60.43	60.57					60.73	60.63		60.94		
21	60.37	60.89					60.78	60.62			60.08	
22	60.39	61.07					60.76	60.57			60.02	
23	60.38	61.82					60.81	60.57		61.77		
24	60.31	62.48					61.37	60.60				
25	60.25	62.48					61.28	60.52				
26	60.27	62.42					60.81	60.54	62.88			
27	60.33	62.42					60.86	60.59				
28	60.57	62.59					61.49	60.69				
29	60.67	62.93			------		61.59	60.91				
30	60.69	63.09			------		61.44	61.16				
31	60.53	------			------		------	61.16	------			------
MEAN	60.40	60.92						60.63				
MAX	60.69	63.09						61.16				
MIN	60.25	60.18						60.41				

06185650 Missouri River Stage Gage No. 5 at Nohly, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61.17	60.16						60.26	60.91		61.31	61.43
2	61.24	60.16						60.20	61.00		61.27	61.49
3	61.09	60.16						60.25	60.87		61.27	61.44
4	61.06	60.16						60.29	60.77		61.44	61.43
5	61.10	60.16						60.39	60.65		61.86	61.34
6	61.10	60.16						60.68	60.56		61.70	61.58
7	61.19	60.15						62.33	60.69		61.46	61.64
8	61.16	60.13						63.92	61.17	62.97	61.41	61.39
9	61.15	60.13					61.42	64.72	61.42	62.60	61.28	61.34
10	61.11	60.10					61.12	64.87	61.74		61.25	61.29
11	61.15	60.11					61.02	64.80	62.03		61.23	61.29
12	61.11						60.95	64.76	62.44		61.23	61.39
13	61.11						60.80	64.68	62.57		61.19	61.86
14	61.06	60.37					60.69	64.57	62.05		61.26	61.91
15	61.06	60.26					60.62	64.35	61.86		61.26	62.36
16	61.07	60.23					60.50	63.62	61.56		61.21	62.65
17	61.10	60.21					60.40	63.00	61.55		61.10	62.56
18	61.10	60.21					60.36	62.36	61.99		61.13	62.97
19	60.89	60.19					60.33	61.63	62.84		61.17	63.16
20	60.44	60.20					60.29	61.30	63.36		61.16	63.23
21	60.25	60.13					60.26	61.12	64.27		61.26	63.43
22	60.19	59.68					60.22	61.03	64.29	60.98	61.29	62.97
23	60.18	59.74					60.21	61.02	63.95	60.88	61.30	62.36
24	60.15	60.00					60.18	61.20	63.59	61.05	61.37	62.47
25	60.18	60.26					60.14	61.33	63.20	61.18	61.29	62.95
26	60.14	61.07					60.10	61.40	63.70	61.56	61.26	62.72
27	60.12						60.12	61.24	64.12	61.33	61.34	62.51
28	60.11						60.08	61.01	64.45	61.03	61.33	62.45
29	60.11						60.20	60.83	64.39	60.93	61.30	62.59
30	60.11				------		60.32	60.73	64.22	60.96	61.36	62.53
31	60.16	------			------		------	60.78	------	61.32	61.33	------
MEAN	60.75							62.09	62.41		61.31	62.16
MAX	61.24							64.87	64.45		61.86	63.43
MIN	60.11							60.20	60.56		61.10	61.29

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.18	61.51						65.46	64.61	66.44	64.97	
2	62.67	61.50						65.52	64.63	66.50	64.99	
3	62.67	61.47						65.44	64.56	66.31	65.10	
4	61.82	61.55						65.41	64.58	66.15	65.20	
5	61.52	61.37						65.41	64.70	66.20	65.12	
6	61.46	61.35						65.32	64.68	66.32	65.00	
7	61.42	61.40						65.19	64.65	66.41	65.07	
8	61.39	61.42						65.83	64.78	66.48	65.19	64.95
9	61.37	61.40						66.08	64.96	66.53	65.28	
10	61.36	61.39						65.48	64.99	66.88	65.20	
11	61.31	61.38						65.59	65.01	66.95	65.48	
12	61.29	61.37						65.67	65.08	66.86	65.60	
13	61.32	61.38						65.66	65.09	67.11	65.50	
14	61.35	61.39						65.59	65.19	67.08	65.38	
15	61.34	61.38						65.53	65.39	66.84	65.37	
16	61.35	61.20						65.76	66.47	66.62	65.36	
17	61.35	60.67						65.79	66.07	66.34	65.29	
18	61.33	60.40						65.60	66.00	66.17	65.26	
19	61.25	60.05						65.47	65.80	66.12	65.26	
20	61.25	59.52						65.52	65.67	65.96	65.23	
21	61.30	59.15						65.76	65.50	65.96	65.17	
22	61.33	59.12						65.80	66.12	65.94	65.09	
23	61.61	59.16						65.66	66.03	65.87	65.04	
24	62.54							65.29	65.89	65.53	65.05	
25	63.04							65.14	65.89	65.26	65.06	
26	63.20							65.21	65.95	65.35	65.13	
27	62.88							65.14	66.14	65.27	65.07	
28	62.32							65.07	66.31	65.11	65.11	
29	62.32				------		65.26	64.96	66.29	65.05	65.19	64.46
30	62.51				------		65.32	64.81	66.31	65.04	65.15	64.47
31	61.87	------			------		------	64.69	------	65.02	65.20	------
MEAN	61.80							65.45	65.46	66.12	65.20	
MAX	63.20							66.08	66.47	67.11	65.60	
MIN	61.25							64.69	64.56	65.02	64.97	

06185650 Missouri River Stage Gage No. 5 at Nohly, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64.44	64.81						63.38	64.51			61.56
2	64.43	64.77						63.53	64.56			61.56
3	64.47	64.52						64.10	64.73			61.54
4	64.54	64.48						64.52	64.73			61.53
5	64.59	64.46						64.46	64.73			61.53
6	64.67	64.47						64.33	64.73			61.43
7	64.60	64.48					64.07	64.30	64.16			61.21
8	64.59	64.46					64.03	64.33	63.71			61.16
9	64.53	64.44					64.15	64.32	63.23			61.14
10	64.58	64.40					64.34	64.35	62.99			61.24
11	64.65	64.39					64.40	64.45	62.85			61.13
12	64.66	64.25					64.41	64.50	62.84			61.16
13	64.70	64.09					64.38	64.52	62.92	61.84		61.12
14	64.53	64.25					64.00	64.63	62.86			61.08
15	64.44						63.78	64.74	62.83			61.17
16	64.64						63.70	64.56				61.06
17	64.71	63.94					63.59	64.64				61.05
18	64.71	63.95					63.50	64.70				61.05
19	64.69	63.93					63.42	64.46				61.08
20	64.69	63.85					63.37	64.30				61.08
21	64.69	63.78					63.35	64.30				61.06
22	64.69	63.69					63.33	64.42				61.06
23	64.65	63.86					63.35	64.44				61.05
24	64.60	63.87					63.32	64.46				61.05
25	64.59	63.81					63.38	64.52			61.88	61.04
26	64.60	63.69					63.88	64.32			61.80	61.02
27	64.58	63.60					64.21	64.15			61.74	60.94
28	64.59	63.77					63.97	64.19	62.28		61.73	60.86
29	64.63	65.99			------		63.55	64.30	62.12		61.63	60.85
30	64.64	68.62			------		63.42	64.44			61.61	60.85
31	64.66	------			------		------	64.48	------		61.58	------
MEAN	64.61							64.36				61.16
MAX	64.71							64.74				61.56
MIN	64.43							63.38				60.85

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.85	60.78						64.15	65.45	65.82	63.87	63.86
2	60.82	60.80						63.96	65.54	66.01	63.77	63.79
3	60.77	61.01						63.86	65.61	66.09	63.84	63.81
4	60.77	61.50						63.99	65.60	66.10	64.12	63.83
5	60.79	61.79						64.10	65.54	66.10	64.11	63.88
6	60.78	61.95						64.20	65.44	66.10	64.09	63.52
7	60.77	62.03						64.51	65.27	65.97	64.01	63.50
8	60.76	62.09						64.97	65.35	65.84	63.64	63.72
9	60.77	62.51						65.34	65.57	65.83	63.82	64.07
10	60.79	62.87						65.36	65.70	65.85	63.89	64.28
11	60.74	63.03						65.28	65.40	65.78	63.70	64.45
12	60.73	63.24						65.18	65.34	65.40	63.63	64.49
13	60.77	64.06						65.23	65.17	64.63	63.92	64.20
14	60.78	64.77						65.31	65.19	64.48	64.17	64.33
15	60.76	64.67						65.36	65.42	63.80	64.22	64.52
16	60.78	63.49						65.11	65.46	63.94	64.22	64.56
17	60.78							64.74	65.60	64.62	64.21	64.53
18	60.79							64.78	65.92	64.38	64.08	64.43
19	60.82							64.91	66.39	64.40	63.51	64.56
20	60.84							65.01	66.66	64.17	63.74	64.71
21	60.87							65.08	66.22	64.06	63.88	64.57
22	60.89							65.15	65.49	63.61	63.88	64.49
23	60.89							65.32	65.77	63.64	63.72	64.58
24	60.91							65.53	65.67	63.60	63.77	64.63
25	60.89							65.58	65.65	63.65	63.57	64.74
26	60.87						64.40	65.61	65.71	63.42	63.43	64.42
27	60.86						64.48	65.48	66.01	63.40	64.00	64.06
28	60.82						64.44	65.44	66.11	63.73	64.17	64.07
29	60.81				------		64.41	65.57	65.58	63.61	63.71	63.85
30	60.81				------		64.35	65.48	65.74	63.67	63.66	63.71
31	60.77	------			------		------	65.44	------	63.91	63.78	------
MEAN	60.81							65.00	65.65	64.70	63.88	64.20
MAX	60.91							65.61	66.66	66.10	64.22	64.74
MIN	60.73							63.86	65.17	63.40	63.43	63.53

06185650 Missouri River Stage Gage No. 5 at Nohly, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63.78	63.74					64.31	61.48	61.29	63.35	64.13	64.37
2	63.75	63.88				68.14	63.66	61.46	61.34	63.53	64.21	64.51
3	64.05	64.04				68.17	62.71	61.46	61.46	63.46	64.21	64.58
4	63.94	64.23				68.19	62.42	61.45	61.68	63.68	64.04	64.50
5	63.91	64.24				68.34	62.30	61.45	61.80	64.14	64.13	64.52
6	64.30	64.31				68.66	62.24	61.44	62.18	64.33	64.28	64.40
7	64.28	64.47				68.95	62.05	61.44	62.84	64.37	64.30	64.19
8	64.20	64.59				69.25	62.00	61.52	63.08	64.42	64.27	64.21
9	64.38	64.55				69.33	62.03	61.54	63.02	64.53	64.30	64.23
10	64.28	64.38				69.03	62.08	61.48	63.33	64.58	64.19	64.25
11	63.98	64.23				68.65	62.06	61.49	63.55	64.20	63.88	64.22
12	64.03	64.29				68.34	61.97	61.47	63.73	63.76	63.29	64.15
13	64.35	64.28				68.03	61.93	61.47	64.02	63.69	62.46	
14	64.38	64.33				67.77	61.88	61.44	63.77	63.49	61.93	
15	64.20	64.44				67.61	61.84	61.45	63.65	63.56	62.51	
16	64.32	64.61				67.70	61.81	61.53	63.62	63.69	63.12	
17	64.17	64.71				68.12	61.79	61.56	63.70	64.01	63.26	
18	64.09	64.71				68.12	61.74	61.50	63.34	64.40	63.31	
19	64.22	64.61				68.07	61.69	61.62	63.00	64.55	63.36	
20	64.32	64.56				67.86	61.66	61.68	63.07	64.48	63.33	
21	64.34	64.71				67.63	61.64	61.67	63.25	64.38	63.22	
22	64.50	64.83				67.51	61.63	61.61	63.57	64.34	63.13	
23	64.50	64.88				66.86	61.60	61.57	63.62	64.34	63.51	
24	64.26	64.86				66.46	61.59	61.48	63.99	64.24	63.84	63.67
25	64.23	64.80				64.41	61.58	61.41	64.05	63.98	64.17	63.67
26	64.48	64.53				64.63	61.56	61.35	64.03	63.45	64.08	63.55
27	64.40	64.28				64.64	61.56	61.35	63.97	63.19	63.93	63.44
28	64.27	64.01				64.60	61.54	61.39	63.60	62.30	63.90	63.38
29	64.21					64.36	61.48	61.46	63.32	62.90	63.88	62.96
30	64.34				------	64.35	61.48	61.30	63.27	63.67	63.70	63.27
31	64.23	------			------	64.30	------	61.11	------	64.05	63.69	------
MEAN	64.21						61.99	61.47	63.14	63.91	63.66	
MAX	64.50						64.31	61.68	64.05	64.58	64.30	
MIN	63.75						61.48	61.11	61.29	62.30	61.53	

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63.54	64.90					67.35	66.10	64.34	63.97	65.15	
2	63.61	64.81					67.33	66.40	64.25	63.20	65.12	
3	63.66	64.77					67.37	66.41	63.99	62.94	65.14	
4	63.66	64.75					67.77	66.16	63.85	63.00	65.11	
5	63.64	64.77					68.42	65.99	63.84	63.39	65.06	
6	63.37	64.80					69.13	65.77	63.80	63.43	65.01	
7	63.03	64.85					69.70	65.75	63.50	63.38	64.94	
8	63.82	64.83					67.03	65.65	63.46	63.79	64.82	
9	64.53	64.82					67.04	65.55	63.56	63.70	64.79	
10	64.65	64.80					66.54	65.38	63.71	63.71	64.81	
11	64.64	64.77					65.75	65.30	63.46	64.19	64.83	
12	64.62	64.76					65.32	65.24	63.24	65.05	64.82	64.35
13	64.67	64.72					65.66	65.26	63.49	65.38	64.82	64.32
14	64.59	64.73					66.06	65.22	63.85	65.40	64.79	64.40
15	64.54	64.74					66.14	65.00	63.90	65.30	64.69	64.12
16	64.69	64.75					66.18	64.64	63.67	64.84	64.75	63.95
17	64.74	64.76					66.33	64.40	63.51	64.54	64.76	63.75
18	64.72	64.77					66.16	64.18	62.94	64.04	64.67	63.73
19	64.79	64.82					66.00	64.02	62.76	65.17	64.30	63.93
20	64.79	64.83					66.03	63.85	62.78	65.29	64.21	63.82
21	64.77						66.18	63.43	62.85	65.30	64.18	63.90
22	64.81						65.65	63.57	63.17	65.18	64.18	63.90
23	64.82					71.70	64.99	63.72	63.36	65.22	64.13	63.65
24	64.81					69.97	65.24	63.75	63.51	65.04	64.07	63.52
25	64.84					69.43	65.33	63.67	63.61	64.95	63.99	63.73
26	64.82					68.51	65.49	63.58	63.54	65.05	64.22	63.27
27	64.79					67.77	65.69	63.55	63.61	65.10	64.52	63.20
28	64.78					67.62	65.78	63.40	63.93	65.11		63.18
29	64.78				------	67.47	65.74	63.49	64.49	65.08		63.13
30	64.62				------	67.26	65.82	63.79	64.49	65.11		62.95
31	64.95	------			------	67.27	------	64.05	------	65.14		------
MEAN	64.43						66.44	64.72	63.62	64.54		
MAX	64.95						69.70	66.41	64.59	65.40		
MIN	63.03						64.99	63.40	62.76	62.94		

06185650 Missouri River Stage Gage No. 5 at Nohly, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62.78	63.57				68.99	66.19	64.58	66.09	67.28	64.99	64.68
2	62.73	63.55				68.90	66.24	64.18	65.85	67.39	64.97	
3	62.82	63.65				68.42	66.31	64.11	65.49	67.18	64.96	
4	63.05	63.91				67.51	66.48	64.44	65.41	66.70	64.97	
5	62.80	64.04				67.29	66.69	64.29	65.40	66.40	65.00	
6	62.72					67.78	66.68	63.55	65.48	66.30	65.04	
7	63.05					68.07	66.85	63.75	65.73	66.30	65.05	
8	63.20					68.39	66.60	63.89	66.10	66.29	65.15	
9	63.60					68.59	66.82	63.54	66.35	66.23	65.18	
10	63.96					68.54	66.40	63.90	66.48	65.95	65.07	64.80
11	64.06					67.78	63.08	64.55	66.49	65.68	65.00	64.80
12	64.12					67.08	62.91	64.48	66.44	65.55	64.98	64.80
13	64.11					67.02	62.76	63.75	66.48	65.46	64.97	64.80
14	64.13					66.91	62.51	64.02	66.48	65.45	65.00	64.81
15	63.90					66.93	62.68	64.82	66.25	65.46	64.96	64.82
16	63.82					66.92	63.12	65.29	66.11	65.36	64.97	64.82
17	64.04					66.48	64.10	65.46	66.18	65.30	64.97	64.82
18	64.10					65.96	64.74	65.52	66.28	65.21	64.93	64.82
19	64.17					65.70	64.82	65.95	66.41	65.15	64.84	64.71
20	64.23					65.56	64.79	66.06	66.42	65.16	64.83	64.65
21	64.12					65.32	64.80	65.94	66.58	65.17	64.82	64.79
22	63.90					65.21	64.85	65.85	66.71	65.17	64.80	64.90
23	63.58					65.21	64.91	65.89	66.90	65.12	64.75	64.95
24	63.49					65.22	64.98	66.07	67.14	65.18	64.79	64.90
25	63.49					65.30	64.95	66.11	67.20	64.97	64.75	64.82
26	63.51					65.42	64.89	65.62	67.26	64.88	64.74	64.80
27	63.50				68.86	65.57	64.89	65.38	67.29	64.97	64.61	64.81
28	63.44				68.97	65.49	65.05	65.07	67.32		64.72	64.83
29	63.47				------	65.42	65.19	65.17	67.50		64.75	64.84
30	63.51				------	65.66	64.97	65.65	67.42	65.02	64.78	64.85
31	63.57	------			------		------	66.08	------	64.98	64.75	------
MEAN	63.58						65.01	64.93	66.44		64.91	
MAX	64.23						66.85	66.11	67.50		65.18	
MIN	62.72						62.51	63.54	65.40		64.61	

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64.84	64.99				69.79	69.48	65.31	65.90	65.90	64.58	63.95
2	64.82	64.97				69.70	69.34	65.28	66.15	65.70	64.57	63.82
3	64.80	65.00				69.55	69.14	65.26	66.20	65.40	64.60	
4	64.81	65.06				69.52	69.09	65.20	66.10	65.05	64.58	
5	64.83					69.55	69.00	65.23	66.08	64.75	64.62	64.05
6	64.88					69.52	66.23	65.10	66.05	64.83	64.60	64.00
7	64.90					69.41	65.31	64.95	66.02	64.95	64.55	63.85
8	64.49					69.38	65.35	65.03	66.20	64.97	64.53	63.52
9	64.00					69.32	65.77	65.29	66.15	64.72	64.50	63.40
10	63.71					69.30	66.28	65.40	66.08	64.75	64.48	63.71
11	63.30					69.31	66.40	65.45	66.10	64.70	64.52	63.87
12	63.19					69.42	66.52	65.51	66.20	64.54	64.48	63.80
13	63.70					69.91	66.45	65.45	66.27	64.36	64.55	63.95
14	64.40					70.92	66.15	65.38	66.40	64.32	64.48	63.96
15	64.75					71.70	65.65	65.27	66.48	64.29	64.55	63.77
16	64.84					71.59	65.60	65.30	66.35	64.22	64.52	63.75
17	64.77					70.86	65.80	65.40	66.30	64.21	64.50	63.83
18	64.75				72.75	70.05	65.38	65.50	66.40	64.25	64.50	63.85
19	64.80				73.20	69.62	65.42	65.45	66.48	64.51	64.25	63.85
20	64.85				72.34	69.14	65.68	65.44	66.50	64.70	63.88	63.83
21	64.95				71.37	68.93	65.71	65.45	66.51	64.73	63.85	63.78
22	64.96				70.47	68.62	65.70	65.38	66.52	64.70	63.80	63.60
23	64.79				69.80	68.40	65.61	65.06	66.58	64.68	63.88	63.50
24	64.47				69.40	68.26	65.44	65.28	66.60	64.60	63.88	63.50
25	64.48				69.25	68.30	65.41	65.40	66.65	64.61	63.70	63.45
26	64.75				69.30	68.34	65.45	65.40	66.67	64.69	63.75	63.45
27	64.84				69.51	68.40	65.41	65.40	66.85	64.70	64.05	63.52
28	64.95				69.73	68.34	65.44	65.37	66.85	64.87	63.98	63.49
29	64.99				------	68.47	65.48	65.38	66.43	64.58	64.10	63.49
30	65.00				------	69.07	65.32	65.45	66.10	64.55	64.25	63.54
31	65.00	------			------	69.60	------	65.60	------	64.60	64.00	------
MEAN	64.60					69.43	66.30	65.33	66.34	64.71	64.29	
MAX	65.00					71.70	69.48	65.60	66.85	65.90	64.62	
MIN	63.19					68.26	65.31	64.95	65.90	64.21	63.70	

06185650 Missouri River Stage Gage No. 5 at Nohly, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63.61	63.45				67.19	65.16		65.00	64.33		
2	63.67	63.41				66.93	65.46		65.09	64.15		
3	63.79	63.25				67.23	65.59		65.21	63.99		
4	63.84	63.34				67.52	65.61		65.34	63.92		
5	63.77	63.35				67.66	65.60		65.65	63.86		
6	63.49	63.50				67.74	65.60		65.91	63.72		
7	63.34	64.03				67.84	65.53		66.00	63.61		
8	63.26	65.82				67.89	65.43		66.21	63.61		
9	63.27	67.39				68.03	65.38		66.64	63.66		
10	63.25	66.23				68.23	65.32	65.42	66.93	63.60		
11	63.27					68.53	65.34	65.49	67.26	63.64		
12	63.28					69.19	65.38	65.53	67.53			63.82
13	63.25					70.64	65.43	65.59	67.90			63.74
14	63.21					75.49	65.45	65.62	68.03			
15	63.19					77.22	65.43	65.61	67.68		64.30	
16	63.19					76.68	65.33	65.59	67.50		64.26	
17	63.23					76.43	65.28	65.51	67.51		64.38	
18	63.29					76.23	65.29	65.53	67.30		64.29	
19	63.44					74.58	65.34	65.37	66.81		64.41	
20	63.64					73.28	65.35	64.94	65.93		64.44	
21	63.87					71.23	65.22	64.74	65.38		64.46	63.49
22	63.94					68.77	64.79	64.71	65.28		63.55	63.58
23	63.77					68.12	64.71	64.68	65.16			63.54
24	63.78				68.27	66.89	65.04	64.87	64.97			
25	63.38				68.19	65.74		65.21	64.91			
26	63.39				68.44	65.84		65.47	65.00			
27	63.38				68.59	65.74	64.74	65.51	64.99	64.20		
28	63.36				68.39	65.59	64.54	65.39	64.91	64.45		
29	63.38				67.93	65.39	64.38	65.45	64.76	64.51		
30	63.37				------	65.27	64.37	65.33	64.56			63.48
31	63.40	------			------	65.14	------	65.07	------			------
MEAN	63.46					69.30			66.04			
MAX	63.94					77.22			68.03			
MIN	63.19					65.14			64.56			

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		63.22				68.54	63.68	62.11		62.76	62.45	
2		63.32				68.57	63.70	62.20		62.88	62.42	
3		63.31				68.58	63.55	62.18		63.10	62.47	
4		63.33				68.62	63.38	62.11		63.17	62.46	
5		63.39				68.75	63.56	62.09		63.00	62.48	
6		63.41				68.89	63.85	62.01		62.82	62.51	
7		63.41				68.98	63.85	62.01		62.67	62.50	
8		63.39				69.07	63.81	62.01		62.48	62.51	
9		63.36				69.17	63.76	62.46		62.44	62.52	
10		63.36				69.17	63.80	63.10		62.39	62.55	
11		63.40				69.44	63.80	63.24		62.25	62.54	
12	63.40	63.42				69.95	63.66	63.02		62.18	62.58	62.80
13	63.45	63.44				70.05	63.71	62.72		62.11	62.55	62.79
14	63.35	63.42				69.62	63.26	62.46		62.10	62.54	62.78
15	63.45					66.54	62.95	62.22		62.10	62.53	62.81
16	63.50					65.49	62.89	62.09		62.00	62.51	62.79
17	63.35					65.33	62.89	62.05		61.91	62.49	62.77
18	63.30					65.23	62.80	62.03		61.90	62.46	62.71
19	63.30					65.14	62.96	62.12	64.50	61.90	62.47	62.52
20	63.45					65.21	62.91	62.15	64.48	61.94	62.50	62.37
21	63.45					65.25	62.86	62.21	64.13	61.93	62.38	62.30
22	63.50					65.19	62.80	62.55	63.45	61.94		62.28
23	63.60					65.18	62.51	62.91	63.19	62.16		62.27
24	63.55					65.16	62.21	63.27	62.90	62.24		62.21
25	63.43					65.16	62.15	63.62	62.57	62.40		62.20
26	63.38					64.99	62.19	63.46	62.55	62.45		62.09
27	63.40					64.83	62.12	63.38	62.43	62.50		62.02
28	63.43				68.47	64.39	62.08		62.69	62.43		62.11
29	63.40				------	63.85	62.13		62.83	62.45		62.10
30	63.36				------	63.69	62.14		62.73	62.47		62.03
31	63.33	------			------	63.69	------		------	62.48		------
MEAN						66.83	63.07			62.37		
MAX						70.05	63.85			63.17		
MIN						63.69	62.08			61.90		

06329500 Yellowstone River near Sidney, Mont.

LOCATION.--Lat 47°40'42", long 104°09'22", in SW¼NE¼SW¼ sec.9, T.22 N., R.59 E., Richland County, on left bank at Montana-Dakota Utilities Company powerplant, 0.2 mi (0.3 km) downstream from bridge on State Highway 23, 2.5 mi (4.0 km) south of Sidney, 3.0 mi (4.8 km) downstream from Fox Creek, and 30 mi (48 km) upstream from mouth.

DRAINAGE AREA.--69,103 mi^2 (178,977 km^2). Area at site 4.5 mi (7.2 km) upstream, 68,812 mi^2 (178,223 km^2).

PERIOD OF RECORD.--October 1910 to September 1931 (published as "at Intake"), October 1933 to current year. If monthly figures of diversion to Lower Yellowstone Canal at Intake are added to records at this site, records equivalent to those published as Yellowstone River at Glendive (1898-1910, 1931-34) can be obtained. Monthly discharge only for some periods, published in WSP 1309. Monthly figures of diversions into Lower Yellowstone Canal prior to 1951 published in WSP 1309, 1951-60 published in WSP 1729, 1961-65 published in WSP 1916, and 1966 to current year are published in annual reports.

GAGE.--Water-stage recorder. Datum of gage is 1,881.3 ft (573.42 m) above mean sea level (levels by Corps of Engineers). Jan. 1, 1911, to Sept. 30, 1931, nonrecording gage at site 32 mi (51 km) upstream at different datum. Apr. 9, 1934, to May 16, 1945, water-stage recorder at two sites within 500 ft (150 m) of highway bridge 0.2 mi (0.3 km) upstream and May 17, 1945, to Apr. 3, 1952, nonrecording gage on same bridge at datum 1.36 ft (0.415 m) higher. Apr. 4, 1952, to Nov. 19, 1967, water-stage recorder at site 4.5 mi (7.2 km) upstream at different datum.

AVERAGE DISCHARGE.--61 years, 13,030 ft^3/s (369.0 m^3/s), 9,440,000 acre-ft/yr (11.6 km^3/yr).

EXTREMES.--Current year: Maximum discharge, 47,700 ft^3/s (1,350 m^3/s) June 13, gage height, 12.95 ft (3.947 m); minimum daily, 3,200 ft^3/s (90.6 m^3/s) Dec. 10.
Period of record: Maximum discharge observed, 159,000 ft^3/s (4,500 m^3/s) June 2, 1921, gage height, 12.6 ft (3.84 m), site and datum then in use; maximum gage height observed, 21.85 ft (6.660 m) Mar. 22, 1947, site and datum then in use (backwater from ice); minimum discharge, 470 ft^3/s (13.3 m^3/s) May 17, 1961, gage height, 2.73 ft (0.832 m), site and datum then in use.

REMARKS.--Records good except those for winter period, which are fair. Some regulation on tributary streams. Diversion for irrigation of about 1,250,000 acres (5,060 km^2) above station. Lower Yellowstone Project Main Canal diverts from left bank in NW¼ sec.36, T.18 N., R.56 E., at Lower Yellowstone diversion dam at Intake about 36.6 mi (58.9 km) upstream for irrigation of about 52,000 acres (210 km^2) of which about one third lies above station (see table below).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10,900	9,820	9,500	7,900	9,900	12,000	8,350	19,000	28,100	27,400	7,120	7,390
2	11,200	11,800	9,100	8,000	10,200	12,600	8,110	20,000	26,100	28,800	6,940	7,630
3	11,400	11,900	8,600	7,900	10,300	12,800	7,960	19,400	26,000	30,600	6,640	9,100
4	11,100	11,600	8,000	7,500	10,100	12,600	7,900	18,900	27,100	29,500	6,340	21,900
5	10,800	11,800	7,300	7,200	9,800	12,300	7,960	19,400	31,500	26,500	6,100	19,600
6	10,900	12,000	6,400	6,900	9,400	12,000	8,440	19,200	32,700	22,600	5,740	14,700
7	11,100	12,100	5,200	6,500	9,000	12,500	9,010	18,400	30,300	19,700	5,560	11,800
8	11,700	12,200	4,000	6,300	8,400	14,000	8,980	19,400	27,400	17,900	5,560	10,600
9	11,800	12,400	3,600	6,000	8,300	12,500	8,950	19,300	25,500	16,900	5,650	10,300
10	11,700	12,300	3,200	5,800	8,300	12,000	8,620	18,400	27,600	16,200	6,010	10,600
11	11,600	12,100	3,400	6,100	8,000	12,300	8,470	18,400	32,900	15,600	6,370	11,100
12	11,600	11,900	3,600	6,400	7,700	13,200	8,200	18,700	40,000	14,200	6,370	11,400
13	11,700	11,800	3,800	6,800	7,400	12,700	7,870	19,200	46,200	12,300	6,190	12,000
14	11,600	11,700	4,000	7,300	7,000	11,700	7,750	18,200	45,400	11,200	6,040	11,400
15	11,800	11,600	4,400	7,700	6,800	11,000	7,840	17,100	41,000	10,500	6,010	11,400
16	12,000	11,600	5,200	8,600	6,800	9,310	8,110	16,400	39,500	10,200	6,220	11,600
17	12,100	11,500	6,100	9,700	6,900	9,070	8,530	16,000	40,200	9,760	6,250	12,900
18	12,100	11,400	6,600	9,900	7,300	8,500	9,010	16,900	43,500	9,220	5,920	12,400
19	12,000	11,500	7,100	9,600	8,000	8,170	9,370	17,900	44,600	8,680	5,560	12,300
20	12,000	11,500	7,800	9,900	8,800	8,020	10,800	20,700	40,500	7,810	5,680	12,500
21	12,000	11,400	9,000	10,400	9,700	7,990	18,200	24,200	36,200	7,090	5,920	12,400
22	11,900	11,300	9,200	10,000	10,200	8,080	17,900	27,900	32,100	6,760	5,920	12,200
23	11,800	11,200	9,100	10,500	9,900	8,110	15,000	31,500	27,900	6,790	6,040	11,800
24	11,400	11,200	8,700	10,300	9,800	8,050	12,400	36,400	25,500	7,030	8,560	12,000
25	9,700	11,000	8,500	10,000	9,700	8,110	10,900	36,100	24,900	7,450	7,990	12,700
26	11,900	10,700	8,800	9,800	9,800	8,530	11,700	34,600	25,700	7,990	8,260	12,900
27	12,600	10,700	8,700	9,500	9,900	8,740	15,100	34,800	27,900	8,740	7,600	12,300
28	12,700	10,700	8,500	9,300	10,700	8,470	17,800	35,400	28,700	9,670	7,570	12,500
29	12,700	10,200	8,300	9,500	------	8,320	18,400	36,700	27,000	8,650	7,510	12,700
30	12,700	10,300	8,000	9,700	------	8,350	18,300	34,400	26,600	7,870	7,480	12,900
31	11,900	------	8,000	10,000	------	8,410	------	30,900	------	7,450	7,360	------
TOTAL	362,400	343,220	211,700	261,000	248,100	320,430	325,930	733,800	978,600	431,060	202,480	367,020
MEAN	11,690	11,440	6,829	8,419	8,861	10,340	10,860	23,670	32,620	13,910	6,532	12,230
MAX	12,700	12,400	9,500	10,500	10,700	14,000	18,400	36,700	46,200	30,600	8,560	21,900
MIN	9,700	9,820	3,200	5,800	6,800	7,990	7,750	16,000	24,900	6,760	5,560	7,390
AC-FT	718,800	680,800	419,900	517,700	492,100	635,600	646,500	1,455M	1,941M	855,000	401,600	728,000
(+)	3,180	3,810	3,960	3,960	2,410	0	0	64,080	72,010	79,510	77,350	59,290

CAL YR 1972 TOTAL 5,763,320 MEAN 15,750 MAX 59,300 MIN 3,200 AC-FT 11,430,000
WTR YR 1973 TOTAL 4,785,740 MEAN 13,110 MAX 46,200 MIN 3,200 AC-FT 9,493,000

M - Expressed in thousands.
(+)- Diversions, in acre-feet, by Lower Yellowstone Canal, furnished by Bureau of Reclamation.

06329590 Yellowstone River Stage Gage No. 1 near Fairview, Mont.

LOCATION.--Lat 47°48'34", long 104°02'36", on east line sec.29, T.24 N., R.60 E., Richland County, on left bank 3 mi (4.8 km) south of Fairview at mile 15.2 (kilometre 24.5).

DRAINAGE AREA.--70,000 mi^2 (181,000 km^2), approximately.

PERIOD OF RECORD.--March 1959 to current year (seasonal).

GAGE.--Water-stage recorder. Datum of gage is 1,860.00 ft (566.928 m) above mean sea level. Prior to Feb. 19, 1962 at datum 60.00 ft (18.288 m) lower.

EXTREMES.--Current year: Maximum daily gage height recorded, 18.73 ft (5.709 m) June 13; minimum daily recorded, 10.35 ft (3.155 m) Aug. 8, 19.
Period of record: Maximum daily gage height recorded, 23.78 ft (7.248 m) Mar. 21, 1960, present datum; minimum daily recorded, 9.10 ft (2.774 m) May 16-17, Aug. 12-13, 1961, present datum.

REMARKS.--Records good.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1958 TO SEPTEMBER 1959

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							73.27	72.71	73.46	78.61	72.69	
2							73.14	72.69	73.76	78.13	72.58	
3							72.98	72.59	73.70	77.74	72.47	
4							72.75	72.46	73.54	77.81	72.35	
5						75.77	72.68	72.39	73.35	77.36	72.26	
6						76.92	72.52	72.99	73.26	76.84	72.22	
7						76.07	72.49	73.69	74.03	76.84	72.27	71.19
8						78.68	72.66	73.84	75.73	76.81	72.21	71.14
9						78.23	72.61	73.94	77.19	76.16	72.07	71.04
10						77.81	72.59	73.63	78.22	75.84	71.92	71.04
11						78.10	72.86	73.28	78.31	75.84	71.78	71.01
12						78.92	72.96	73.07	77.92	75.64	71.69	70.97
13						79.62	72.78	72.99	78.04	75.17	71.62	71.01
14						79.88	72.61	73.16	78.16	74.92	71.54	71.01
15						80.22	72.52	73.26	78.05	74.85	71.40	71.97
16						80.55	72.44	73.08	78.64	74.75	71.30	71.97
17						80.06	72.47	72.81	79.19	74.65	71.30	71.83
18						80.07	72.51	73.15	79.45	74.61	71.31	71.11
19						81.43	72.57	74.26	79.63	74.51	71.45	71.11
20						83.10	72.72	75.46	79.39	74.33	71.52	71.51
21						82.87	72.85	75.27	79.27	74.16	71.43	72.97
22							72.85	74.84	79.19	73.99		72.37
23							72.83	74.48	79.14	73.87		72.35
24							72.71	74.11	79.09	73.68		72.35
25							72.61	73.72	79.17	73.49		72.44
26						75.02	72.54	73.33	79.35	73.31	71.44	72.73
27						74.65	72.74	73.07	79.44	73.08	71.43	72.90
28						74.24	73.03	73.07	78.89	72.93	71.34	72.73
29					------	73.95	72.96	72.90	78.80	72.85		72.68
30					------	73.69	72.84	73.00	79.00	72.90		72.68
31		------			------	73.48	------	73.43	------	72.81		------
MEAN							72.74	73.44	77.48	75.11		
MAX							73.27	75.46	79.63	78.61		
MIN							72.44	72.39	73.26	72.81		

06329590 Yellowstone River Stage Gage No. 1 near Fairview, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72.69	73.05					73.86	71.86	71.96	74.05	70.90	70.90
2	72.78	72.99				73.65	73.61	71.71	72.24	73.61	70.80	70.75
3	72.79	73.01				73.57	73.35	71.64	72.52	73.46	70.80	70.56
4	72.77	72.97				73.47	73.08	71.59	73.53	73.20	70.90	70.39
5	72.77	72.93				73.40	72.94	71.60	74.59	73.07	70.60	70.22
6	72.77	72.90				73.38	72.71	71.50	75.57	72.99	70.60	70.13
7	72.80	72.96				73.35	72.57	71.70	76.42	72.94	70.50	70.10
8	72.82	72.87				73.38	72.46	71.80	76.78	72.75	70.60	70.10
9	72.91	72.76				73.60	72.33	71.90	76.63	72.51	70.50	70.08
10	72.95	72.55				73.75	72.25	71.80	76.47	72.25	70.44	70.11
11	72.97	72.57				74.03	72.33	71.82	76.59	72.02	70.45	70.15
12	72.90	72.63				74.26	72.58	71.54	75.66	71.92	70.46	70.24
13	72.87					74.72	72.55	71.41	76.92	72.05	70.51	70.28
14	72.97					75.34		71.58	77.51	71.83	70.54	70.38
15	72.91					75.84		71.68	77.16	71.76	70.43	70.49
16	72.93					76.34		73.28	77.00	71.70	70.37	70.44
17	72.91					76.37		74.68	77.01	71.53	70.27	70.49
18	72.84					76.23	72.07	74.64	77.25		70.12	70.53
19	72.82					77.10	72.03	74.16	77.71		69.99	70.59
20	72.97					79.94	71.92	73.71			70.03	70.65
21	73.29					83.78	71.74	73.35	77.70		70.75	71.00
22	73.16					80.86	71.67	72.90	76.99		71.72	71.37
23	72.96					79.23	71.65	72.48	76.98		71.66	71.27
24	72.92					78.40		72.18	76.75		71.65	71.27
25	72.87					76.90		71.76	76.23		71.56	71.24
26	72.92					75.89	71.61	71.49	75.56		71.70	71.26
27	72.95					75.50	71.65	71.62	75.15	70.45	71.33	71.45
28	72.88					74.90	71.69	71.82	74.71	70.40	71.21	71.85
29	72.94					74.40	71.92	72.25	74.58	70.50	71.14	71.74
30	73.00				------	74.16	72.05	72.29	74.41	70.50	71.10	71.60
31	73.13	------			------	73.98	------	71.95	------	70.90	71.02	------
MEAN	72.91							72.25			70.80	70.72
MAX	73.29							74.68			71.72	71.85
MIN	72.69							71.41			69.99	70.08

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71.44	71.59	72.18				71.17	70.42	77.05	73.28	72.02	69.17
2	71.41	71.59					71.13	70.45	77.17	72.86	70.97	
3	71.41	71.60					71.12	70.29	77.13	72.66	70.63	
4	71.34	71.62					71.02	70.22	76.77	72.43	70.46	
5	71.29	71.62					71.03	70.14	76.60	72.27	70.30	
6	71.32	71.63					70.98	70.03	76.65	72.09	70.14	70.03
7	71.31	71.66					70.89	69.86	76.65	71.92	69.97	70.27
8	71.30	71.77				74.04	70.84	69.72	77.02	71.73	69.72	70.50
9	71.24	71.78				74.04	70.78	69.68	77.04	71.64	69.42	70.64
10	71.21	71.86				74.08	70.76	69.62	76.94	71.73	69.22	70.72
11	71.22	71.86				74.15	70.82	69.57	77.02	71.88	69.11	70.99
12	71.24	71.86				74.16	70.92	69.56	77.25	72.17	69.10	72.07
13	71.30	71.89				74.27	70.69	69.49	77.45	72.07	69.10	73.14
14	71.61	71.82				74.34	70.54	69.37	77.45	71.82	69.16	73.26
15	72.31	71.76				74.35		69.17	77.27	71.65	69.73	73.70
16	72.45	71.79				74.22		69.10	76.92	71.65	70.12	73.72
17	72.20	71.86				74.31		69.10	76.60	71.66	70.12	73.47
18	71.95	71.84				75.51		69.17	76.28	71.52	70.04	73.16
19	71.82	71.80				74.31	70.22	69.84	75.88	71.39	69.89	72.86
20	71.78	71.78				72.89	70.31	70.74	75.85	71.25	69.67	72.93
21	71.98	71.70				71.88	70.22	71.65	75.81	71.05		73.04
22	71.89	71.73				71.57	70.13	72.00	75.68	70.81	69.40	73.75
23	71.85	71.77				71.52	70.24	71.87	75.59	70.70	69.37	75.30
24	71.82	71.60				71.38	69.94	71.90	75.36	70.67	69.33	75.07
25	71.84	71.67				71.29	69.89	72.29	74.99	70.60	69.34	74.55
26	71.79	71.61				71.23	69.81	72.59	74.68	70.60	69.35	74.15
27	71.69	71.60				71.20	69.72	73.66	74.27	70.63	69.32	73.75
28	71.68	72.55				71.15	69.85	74.87	73.89	70.55	69.29	73.54
29	71.63	72.85			------	71.17	70.34	75.77	73.62	70.40	69.17	73.30
30	71.61	72.65			------	71.15	70.33	76.23	74.43	70.33	69.14	73.17
31	71.61	------			------	71.15	------	76.79	------	71.76	69.15	------
MEAN	71.83	71.82						71.13	76.18	71.52		
MAX	72.45	72.85						76.79	77.45	73.28		
MIN	71.21	71.59						69.10	73.62	70.33		

06329590 Yellowstone River Stage Gage No. 1 near Fairview, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						12.79	15.50	15.86	16.75	19.79	14.17	11.99
2						12.60	15.48	15.44		19.50	13.94	12.05
3						12.59	15.06	15.06		19.16	13.75	12.38
4						12.45	16.09	14.55		18.69	14.00	12.51
5						12.44	17.28	14.21		18.35	14.25	12.51
6						12.58	13.80	13.86			14.12	12.49
7						13.11	13.60	13.46			14.08	12.44
8						13.65	13.34	13.24			13.88	12.46
9						14.26	13.15	13.56			13.68	
10						14.69	13.05	14.33		16.83	13.54	
11						15.08	12.86	14.44		16.85	13.75	
12						15.09	12.76	14.65		16.31	13.27	
13						15.02	12.95	15.24	17.14	15.96		
14						15.00	12.93	16.06	17.98	16.07	13.54	
15						15.11	12.88	16.20	18.25	17.14	14.09	
16						15.29	12.81	16.40	18.98	17.70	13.74	
17						15.50	12.72	16.07	19.26	18.18	13.37	
18						15.56	12.75	15.88	19.21	17.97		13.13
19					16.10	15.49	12.92	15.60	19.81	17.71		
20					16.50	15.63	13.13	15.53		17.27		12.88
21					14.85	15.89	13.44	15.26		16.23	12.37	12.77
22					14.20	16.97	13.54	15.26		15.66	12.21	12.65
23					13.75	17.66	13.63	15.34		15.35	12.22	12.53
24					13.35	17.75	14.24	15.98		15.00	12.09	12.50
25					13.24	18.26	14.93	15.74		14.59		12.48
26					13.35	18.01	15.17	16.10	18.80	14.24	12.19	12.75
27					13.24	17.43	15.05	17.06	19.12	13.98	12.28	12.96
28					13.02	17.14	15.23	16.45	19.32	13.78	12.43	12.92
29					------	16.81	15.71	16.91	19.56	13.67	12.34	12.96
30					------	16.17	15.96	17.45	19.73	13.89	12.02	12.96
31		------			------	15.49	------	16.93	------	14.06	12.00	------
MEAN						15.21	14.07	15.42				
MAX						18.26	17.28	17.45				
MIN						12.44	12.72	13.24				

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.00	12.57	12.72					13.97	17.54	17.95	12.19	10.50
2	12.99	12.56	12.68					14.75	17.78	18.17	12.14	10.53
3	12.89	12.48	12.73					14.30	17.97	17.89	12.02	12.50
4	12.85	12.47	12.60					13.90	18.18	17.45	11.78	12.35
5	12.81	12.51	12.45					13.69	18.36	17.02	11.64	11.96
6	12.81	12.51	12.35					13.64	18.96	16.80	11.49	12.05
7	12.96	12.57	12.50					13.73	20.10	16.79	11.40	12.16
8	12.96	12.56	12.52					13.67	19.37	16.38	11.30	12.13
9	12.85	12.54	12.72					13.59	18.94	16.04	11.21	11.95
10	12.89	12.50	13.03						18.49	15.66	11.03	11.77
11	13.01	12.44	13.18						17.86	15.38	10.87	11.58
12	13.61	12.47							17.70	15.47	10.74	11.45
13	13.26	12.46							17.85	15.68	10.57	11.34
14	13.05	12.49						15.51	18.16	15.34	10.45	11.52
15	13.27	12.54						15.46	18.56	15.00	10.46	11.59
16	13.39	12.60						15.73	19.20	14.68	10.48	11.40
17	13.40	12.59						15.58	19.77	14.39	10.41	11.29
18	13.30	12.58					11.61	15.32	20.06	14.18	10.35	11.22
19	13.14	12.60						15.22	20.44	14.06	10.43	11.22
20		12.55						15.28	20.74	13.85	10.51	11.29
21		12.45						15.42	20.56	13.57	10.36	11.36
22		12.43						15.62	19.52	13.36	10.37	11.36
23		12.36						15.65	19.49	13.14	10.38	11.38
24		12.36						15.75	19.52	12.94	10.32	
25		12.43						15.89	19.41	12.75	10.34	
26		12.65					11.60	16.04	19.19	12.64	10.43	
27		12.63					11.54	16.28	18.93	12.49	10.74	
28		12.51					11.57	16.66	18.41	12.52	10.67	
29		12.52			------		11.79	17.20	18.14	12.29	10.58	12.71
30		12.69			------		12.11	17.60	18.03	12.18	10.53	12.61
31		------			------		------	17.63	------	12.18	10.52	------
MEAN		12.52							18.91	14.78	10.86	
MAX		12.69							20.74	18.17	12.19	
MIN		12.36							17.54	12.18	10.32	

06329590 Yellowstone River Stage Gage No. 1 near Fairview, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.36							14.41	17.10	19.56	13.09	13.87
2	12.20							13.68	17.13	19.66	12.91	14.17
3	12.07							13.22	16.89	19.46	12.97	
4	11.93							13.14	16.67	19.38	13.15	
5	11.80							13.31	16.33	19.37	12.99	
6	11.71							14.32	16.25	19.26	12.77	
7	11.66							14.89	16.85	18.96	12.63	
8	11.64							14.28	17.18	18.82	12.37	
9	11.63							13.73	17.55	18.48	12.11	
10	11.63							13.32	17.77	18.11	11.89	
11	11.62							13.16	18.08	17.78	11.85	
12	11.63							13.14	18.51	17.58	11.79	
13	11.80	12.27						13.06	18.58	17.40	11.73	
14	11.75							13.77	17.85	17.24	11.60	
15	11.73							14.80	17.61	17.13	11.54	11.54
16	11.72							14.37	17.47	16.96	11.42	11.55
17	11.73							13.87	17.60	17.00	11.55	11.52
18	11.68							13.62	18.16	17.08	11.27	11.42
19	11.65							13.94	19.10	16.75	11.12	11.33
20	11.76							14.42	19.01	16.36	10.95	11.27
21	11.76							15.14	19.05	16.05	10.91	11.20
22		12.49						15.65	18.84	15.75	11.38	11.13
23								16.05	18.25	15.55	11.75	11.14
24								16.64	18.00	15.20	12.15	11.21
25								17.09	18.04	14.79	12.34	11.32
26								17.14	18.62	14.48	12.40	11.34
27								16.93	18.57	14.21	12.36	11.44
28								16.52	18.65	14.01	12.27	11.45
29	11.67							16.42	19.06	13.77	12.19	11.44
30					------		15.04	16.46	19.24	13.56	14.18	11.48
31		------			------		------	16.56	------	13.30	14.27	------
MEAN								14.74	17.93	16.87	12.19	
MAX								17.14	19.24	19.66	14.27	
MIN								13.06	16.25	13.30	10.91	

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.56	11.84							15.80	20.22	15.40	13.68
2	11.67	11.83							16.37	20.05	15.21	13.43
3	11.68	11.78							16.60	19.35	14.81	13.24
4	11.68	11.84							17.27	19.10	14.56	13.04
5	11.63	12.09							17.32	19.32	14.31	12.87
6	11.59	12.10							17.29	19.40	14.16	12.81
7	11.56	12.03							17.62	19.26	14.10	12.70
8	11.55	11.99							17.87	19.28	13.92	12.59
9	11.49	11.97							17.85	19.03	13.87	12.46
10	11.48	11.95							18.07	18.94	13.77	12.41
11	11.62	11.96							18.47	19.34	13.60	12.40
12	11.58	11.85							18.76	19.45	13.38	12.45
13	11.53	11.81						14.68	18.92	19.98	13.18	12.56
14	11.48	11.87						14.57	19.12	19.62	13.03	12.75
15	11.53	12.00						14.33	19.23	19.15	12.89	12.98
16	11.58	11.96						14.17	20.60	18.77	12.77	12.98
17	11.57	11.84						14.32	19.18	18.44	12.72	13.03
18	11.56	11.83						14.93	18.58	18.07	12.77	13.09
19	11.57	11.57						15.28	18.56	17.83	12.74	13.35
20	11.57	11.46						15.67	18.98	17.72		13.83
21	11.73	11.42						15.99	19.40	17.63		14.10
22	11.80	11.36							19.33	17.55		14.03
23	11.88	11.36							18.92	17.48		13.99
24	11.92								19.03	17.47	14.00	13.94
25	11.88								19.37	17.20	14.89	13.98
26	11.89								19.57	16.94	15.10	14.13
27	11.86								19.81	16.60	14.78	14.03
28	11.90							16.28	19.85	16.23	14.43	13.93
29	11.88				------			16.23	19.88	16.20	14.20	13.87
30	11.85				------			16.15	20.09	15.81	14.10	13.84
31	11.89	------			------		------	16.03	------	15.53	13.96	------
MEAN	11.68								18.59	18.29		13.28
MAX	11.92								20.60	20.22		14.13
MIN	11.48								15.80	15.53		12.40

06329590 Yellowstone River Stage Gage No. 1 near Fairview, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.86	13.04						11.71	16.17	13.84	11.22	
2	13.93	12.94						11.76	16.39	13.73	11.06	
3		12.87						11.82	16.72	14.07		
4		12.87						11.74	16.92	14.21		
5		12.87						11.61	16.94	14.01		
6	13.90	12.75						11.42	16.44	13.97		
7	13.77	12.42						11.12	16.09	13.87		
8	13.73							11.01	15.53	13.43		
9	13.66							11.35	14.98	12.99		10.91
10	13.62							12.15	14.57	12.66		10.99
11	13.59							13.34	14.42	12.42		10.87
12	13.52							14.52	14.37	12.28		10.80
13	13.51							14.89	14.16	12.15		10.78
14	13.52							15.51	14.56	12.04		10.77
15	13.50							15.51	15.04	11.91		10.75
16	13.53							14.91	14.57	12.05		10.72
17	13.52							14.32	13.94	12.22		11.51
18	13.45							13.92	13.45	12.20		12.39
19	13.44							13.61	13.33	12.01		12.04
20	13.45						11.33	13.25	13.38	11.96		12.01
21	13.51						11.32	12.97	13.74	11.76		12.19
22	13.48						11.44	12.76	14.20	11.55		12.19
23	13.47						11.41	12.54	14.57	11.46		12.10
24	13.43						11.38	12.47	15.01	11.60		12.08
25	13.40						11.32	12.47	15.44	11.44	11.26	12.04
26	13.30						11.37	13.94	16.19	11.20	11.28	11.96
27	13.25						11.76	14.46	15.78	11.15	11.15	11.91
28	13.21						11.90	13.75	15.20	11.19		11.85
29	13.16				------		11.78	13.22	14.78	11.32		11.86
30	13.14				------		11.80	13.53	14.22	11.51		11.89
31	13.11	------			------		------	15.19	------	11.65		------
MEAN								13.12	15.04	12.38		
MAX								15.51	16.94	14.21		
MIN								11.01	13.33	11.15		

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.99	12.22						11.90	17.04	19.78	15.30	10.66
2	12.10	12.26						12.03	17.52	19.87	14.83	10.98
3	12.12	12.22						12.14	17.76	19.89	14.59	11.05
4	12.17	12.20						12.52	17.91	19.96	14.50	11.07
5	12.40	12.20						12.70	18.14	20.05	14.41	11.12
6	12.50	12.34						12.53	18.43	19.80	14.16	11.15
7	12.59	12.47						12.46	18.29	19.64	13.85	11.07
8	12.65							12.52	18.74	19.49	13.69	11.02
9	12.63							12.59	18.91	19.54	13.68	10.99
10	12.53							13.13	18.74	19.63	13.58	10.84
11	12.44							13.37	18.06	19.65	13.48	10.94
12	12.24							13.65	18.18	19.46	13.28	10.96
13	12.20							14.16	18.09	19.27	13.11	11.02
14	12.34							14.60	18.39	18.92	13.05	11.20
15	12.45							14.48	18.83	18.79	12.94	11.55
16	12.50							14.18	19.06	18.67	12.62	12.38
17	12.59							13.74	19.28	18.63	12.39	12.93
18	12.58							13.40	19.56	18.36	12.48	
19	12.50							13.15	20.07	18.06	12.47	
20	12.42							12.94	20.44	17.89	12.03	
21	12.39							12.80	20.08	17.86	11.68	
22	12.41							13.03	19.74	17.72	11.34	
23	12.40							13.82	19.84	17.63	11.28	12.30
24	12.38							14.27	19.91	17.53	11.01	12.37
25	12.32							14.25	19.93	17.36	10.95	12.42
26	12.32						12.21	15.16	19.99	17.20	11.26	12.18
27	12.31						12.10	16.49	20.29	16.77		12.15
28	12.31						11.87	17.24	19.80	16.10		12.11
29	12.29				------		11.76	17.70	19.17	16.10	10.90	11.98
30	12.07				------		11.82	17.34	19.48	16.06	10.88	11.98
31	12.13	------			------		------	17.00	------	15.79	10.52	------
MEAN	12.36							13.91	18.99	18.43		
MAX	12.65							17.70	20.44	20.05		
MIN	11.99							11.90	17.04	15.79		

06329590 Yellowstone River Stage Gage No. 1 near Fairview, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.21							11.72	14.05	18.18	12.54	13.80
2	12.30							11.53	14.21	18.12	12.79	
3	12.17							11.50	15.88	17.61	12.70	
4	12.08							11.32	16.35	17.17	12.51	
5	12.00							11.40	16.31	17.69	12.30	
6								11.84	17.14		12.16	
7								12.26			12.04	
8								12.24			11.91	
9							12.27	12.41			11.80	
10								13.03			11.72	13.24
11								13.24			11.65	13.10
12	12.75							12.93			11.62	13.00
13								12.41			11.66	12.93
14								12.20				12.84
15								12.82			12.19	12.75
16								12.82			12.29	12.71
17								12.70			12.23	12.73
18								13.86		15.48	12.65	12.70
19								14.35		15.45	12.99	12.68
20								14.11	17.01	15.43	13.72	12.73
21								13.85	17.43		13.40	12.80
22								13.67	18.18		13.28	12.83
23								13.42	18.53		13.46	12.80
24	12.86							13.17	18.66	14.12	15.20	13.20
25							11.98	13.48	18.36	13.80	16.03	13.57
26						12.31	11.97	13.32	18.07	13.56	15.57	13.54
27							11.77	13.44	18.10	13.36	15.13	13.43
28							11.78	13.90	17.95	13.19	14.91	13.30
29							11.81	14.77	17.95	13.18	14.47	13.21
30					------		11.76	14.53	17.89	13.10	14.16	13.20
31		------			------		------	14.31	------	13.21	13.93	------
MEAN								12.99				
MAX								14.77				
MIN								11.32				

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.17								17.21		12.94	
2	13.18								16.62	17.03	12.73	10.72
3	13.20								16.49	17.13	12.55	10.54
4	13.10								16.26	17.28	12.41	10.90
5	12.97								15.58	17.53	12.33	10.84
6	12.97								15.12		12.17	10.83
7	13.00							12.79	15.07		12.03	10.89
8	12.98							12.71			11.98	10.84
9	12.93							12.76	16.35		11.83	10.76
10	12.90							12.96	16.60	17.24	11.83	10.85
11	12.86							13.35	16.53	17.15	11.75	10.99
12	12.67							13.55	16.43	16.94		10.83
13	12.63							13.57	16.89	16.67		10.85
14	12.57							13.67	17.23	16.43		10.76
15	12.63							13.95	16.64	16.22		
16	12.62							14.13	16.26	16.17		10.74
17	12.67							14.20	15.83			10.75
18	12.78							14.45	15.37	16.52		10.83
19	12.86							15.16	15.05	16.38	11.57	10.87
20	12.91							14.74	14.84	16.21	11.46	11.03
21	12.83							14.31	14.84		11.38	11.13
22	12.75							14.48	15.32		11.27	11.15
23								15.37	15.54		11.14	11.09
24								15.81	15.96		11.07	11.09
25								15.51	16.30		11.02	11.22
26								15.15			10.82	11.46
27								14.96			10.77	11.70
28								15.27			10.76	11.61
29					------			16.13				11.53
30					------			16.75		13.31		11.55
31		------			------		------	17.27	------	13.20		------
MEAN												
MAX												
MIN												

06329590 Yellowstone River Stage Gage No. 1 near Fairview, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.52	12.08				15.28	14.20	12.77	18.78	19.68	13.05	10.32
2	11.50	12.11				15.22	14.22	12.82	18.54	19.77	13.06	10.42
3	11.50	12.04				15.04	14.04	12.87	18.26	19.24	13.16	10.48
4	11.46	11.94				14.80	14.27	12.77	17.86	18.66	12.95	10.45
5	11.58					14.80	14.00	12.70	17.60	18.37	12.81	10.50
6	11.84					14.91	12.92	12.54	17.91	18.29	12.64	10.55
7	11.97					14.81	11.94	12.44	18.66	18.27	12.88	10.70
8	12.14					14.82	11.73	12.45	19.24		12.66	10.81
9	12.13						11.16	13.89	19.44		12.19	11.06
10	11.66						11.14	15.06	19.60		11.98	11.19
11	11.14					15.02	11.45	15.08	19.56		11.95	11.31
12	11.02					15.26	11.82	15.31	19.51		11.88	11.40
13	11.55					15.30	11.74	15.08	19.53		11.81	11.74
14	11.96					15.11	11.46	14.90	18.93		11.66	11.95
15	12.16					14.91	11.61	14.49	18.56	16.41	11.40	12.02
16	12.22					14.68	11.97	14.21	18.26	16.16	11.20	12.08
17	12.25					14.53	11.90	14.10	18.17	15.68	11.06	12.22
18	12.24					14.55	11.64	13.98	17.94	15.26	10.94	12.31
19	12.18					14.46	11.47	13.95	17.75	14.88		12.30
20	12.20					14.29	11.62	13.85	17.67	14.54		12.26
21	12.08					14.24	11.84	14.34	17.67	14.31		12.13
22	12.02					14.27	11.77	15.76	17.90	14.19		12.02
23	12.00					14.22	11.67	16.46	18.44	14.07		11.99
24	12.01					14.17	11.67	17.41	18.93	13.95		12.09
25	12.01					14.22	11.62	17.73	19.25	13.78		12.14
26	11.96					14.20	11.54	17.74	19.61	13.80	10.46	12.20
27	11.94				15.32	14.19	11.52	17.88	19.86	13.91	10.47	12.20
28	11.92				15.34	14.50	11.66	17.81	19.95	13.54	10.46	12.20
29	11.86				------	14.51	12.00	18.18	19.94	13.33	10.40	12.21
30	11.93				------	14.60	12.59	18.64	19.79	13.16	10.33	12.14
31	11.94	------			------	14.44	------	18.94	------	13.06	10.30	------
MEAN	11.87						12.14	15.04	18.77			11.58
MAX	12.25						14.27	18.94	19.95			12.31
MIN	11.02						11.14	12.44	17.60			10.32

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.05							14.99	17.97	19.68	14.21	11.30
2	12.06							14.80	18.43	19.02	14.03	11.75
3	12.04							14.68	18.45	18.28	13.84	12.33
4	11.95	12.03				15.95		14.59	18.49	17.71	13.73	12.90
5	11.93	12.02				15.12		14.41	18.31	17.56	13.62	13.42
6	12.08	12.02				15.57		14.57	18.06	17.85	13.21	13.67
7	12.34	12.11				16.04		14.72	18.15	18.26		13.05
8	12.33	12.12				15.92	14.36	15.18	18.17	17.72		13.22
9	12.48	12.07				15.57	14.40	15.33	18.10	17.27		13.02
10	12.54	12.06				15.90	14.32	15.73	18.31	17.10		12.82
11	12.52	12.12				16.19	14.24	15.82	18.45	17.35		12.81
12	12.53	12.12				17.06	14.34	16.00	19.04	16.75		12.82
13	12.57					18.68	14.39	16.05	19.45	16.46		12.70
14	12.59					20.35	14.29	15.87	19.74	16.45		12.51
15	12.63					21.29	14.27	15.85	19.66	16.37		12.33
16	12.75					20.97	14.21	16.40	19.43	16.22		12.17
17	12.73					19.89	14.11	17.05	19.54	16.10		12.12
18	12.75					19.04	14.00	17.01	19.72	15.97	11.90	12.05
19	12.83						13.84	16.73	19.79	15.95	11.83	12.00
20	12.66						13.91	16.87	19.80	15.78	11.81	12.02
21	12.46						13.91	16.75	19.86	15.69	11.69	12.19
22	12.11						13.76	16.43	19.87	15.62	11.68	12.15
23	12.12						13.82	16.15	19.93	15.44	11.62	12.04
24	12.23						13.57	15.83	19.97	15.08	11.45	12.12
25	12.21						13.68	15.87	20.15	14.96	11.23	12.14
26	11.83						13.97	15.87	20.29	14.94	11.17	12.07
27	11.41						14.11	15.74	20.47	14.86	11.10	11.99
28							14.33	15.53	20.37	14.62	11.04	11.92
29					------		15.12	15.59	19.99	14.51	11.05	11.83
30					------		15.21	16.08	19.72	14.47	11.00	11.80
31		------			------		------	17.13	------	14.35	11.02	------
MEAN								15.79	19.26	16.40		12.38
MAX								17.13	20.47	19.68		13.67
MIN								14.41	17.97	14.35		11.30

06329590 Yellowstone River Stage Gage No. 1 near Fairview, Mont.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.80					17.20		12.90	15.48			
2	12.65					18.35		13.07	16.13			
3	15.29					19.14		13.23	17.10			
4	15.50					19.70		13.34	18.36			
5	14.74					20.30		13.42	19.06			
6	14.06						13.17		19.29			
7	13.59						13.12		19.32			
8	13.47						13.07		19.37			
9	13.43					19.58	13.07	13.43			13.00	
10	13.32					20.50	13.15	13.65		15.10	12.82	
11	13.27					21.90	13.19	13.91		15.15	12.68	
12	12.95					23.00	13.09	14.05			12.53	12.61
13	12.43						13.07	14.00			12.41	
14	12.41						13.07	14.16	19.49		12.34	
15	12.87						13.07	13.97			12.28	
16	12.90						13.08	13.62			12.21	
17	12.91						13.07	13.40				12.71
18	12.97						13.07	13.21				12.61
19	13.89						13.09	13.70				
20	15.50						13.08	14.78				
21	15.07						13.17	15.93				12.18
22	14.58						13.14	16.38				
23	14.12						13.09	16.92				
24							12.94	17.20			12.67	
25					18.80		12.97	17.34			12.63	
26					19.03		12.99	17.05			12.59	
27					18.44		12.99	16.62			12.78	
28					17.63		12.92	16.20			13.12	
29					17.14		12.86	16.02			12.90	
30					------		12.86	15.48			12.82	
31		------			------		------	15.12	------			------
MEAN												
MAX												
MIN												

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		12.16						14.39	16.10	15.99	11.00	10.99
2		12.60						14.68	15.70	16.18	10.91	
3		12.80						14.53	15.70	16.62	10.80	
4		12.70						14.30	15.80	16.50	10.70	
5		12.67						14.32	16.53	16.05	10.61	
6		12.72						14.22	17.00	15.35	10.45	
7		12.78						14.05	16.55	14.70	10.38	
8		12.80						14.17	16.05	14.30	10.35	
9		12.85						14.38	15.56	14.05	10.40	
10		12.85					11.39	14.18	15.79	13.88	10.56	
11	12.80	12.80					11.35	14.10	16.80	13.71	10.77	
12	12.80	12.72					11.27	14.19	17.88	13.40	10.82	12.68
13	12.80	12.70					11.08	14.30	18.73	12.93	10.73	12.83
14	12.80	12.64					10.97	14.20	18.55	12.57	10.61	12.63
15	12.81						11.00	13.90	17.95	12.32	10.59	12.57
16	12.90						11.09	13.69	17.66	12.20	10.65	12.54
17	12.94						11.30	13.50	17.69	12.12	10.68	12.90
18	12.98						11.50	13.70	17.79	11.90	10.53	12.82
19	12.91						11.69	14.00	17.80	11.78	10.35	12.74
20	12.91						11.89	14.50	17.68	11.49	10.37	12.83
21	12.90						14.03	15.31	17.07	11.19	10.52	12.80
22	12.85						14.40	16.15	16.60	11.02	10.52	12.71
23	12.79						13.75	16.81	16.00	11.00	10.59	12.58
24	12.71						13.02	17.45	15.55	11.04	11.32	12.58
25	12.13						12.37	17.53	15.40	11.18	11.48	12.82
26	12.62						12.25	17.17	15.52	11.34	11.53	12.91
27	13.01						13.10	17.13	15.93	11.53	11.25	12.81
28	13.13						14.03	17.19	16.20	12.00	11.17	12.78
29	13.12				------		14.38	17.37	15.93	11.70	11.12	12.87
30	13.16				------		14.30	17.13	15.82	11.33	11.11	12.91
31	13.00	------			------		------	16.59	------	11.16	11.06	------
MEAN								15.13	16.64	12.98	10.77	
MAX								17.53	18.73	16.62	11.53	
MIN								13.50	15.40	11.00	10.35	

06329597 Charbonneau Creek near Charbonneau, N. Dak.

LOCATION.--Lat 47°51'10", long 103°47'40", in SW¼ sec.31, T.151 N., R.102 W., McKenzie County, Custer National Forest, on right bank 45 ft (14 m) downstream from county highway bridge, 1.5 mi (2.4 km) west of Charbonneau.

DRAINAGE AREA.--149 mi^2 (386 km^2).

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder.

AVERAGE DISCHARGE.--7 years, 13.2 ft^3/s (0.374 m^3/s) 9,560 acre-ft/yr (11.79 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 460 ft^3/s (13.0 m^3/s) June 19, gage height, 5.17 ft (1.576 m); no flow Jan. 5-12.
Period of record: Maximum discharge, 4,880 ft^3/s (138 m^3/s) Mar. 13, 1972, gage height, 8.56 ft (2.609 m); no flow at times most years.

REMARKS.--Records good except those for the winter period, which are poor. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.71	.84	.62	.10	1.0	150	2.3	2.4	.77	1.3	.29	.28
2	.71	.84	.62	.10	1.0	150	1.6	2.3	.71	1.0	.27	.89
3	.71	.84	.80	.05	1.0	110	1.7	1.8	2.2	.84	.21	10
4	.66	.90	.70	.01	1.0	70	1.7	1.6	4.7	.77	.17	48
5	.62	.90	.70	0	1.0	40	1.6	1.4	2.6	.71	.15	30
6	.62	.97	.60	0	1.0	35	1.6	1.3	2.1	.62	.13	4.4
7	.62	.97	.60	0	.80	30	1.9	1.2	1.7	.53	.13	2.1
8	.62	.90	.50	0	.70	25	2.4	1.1	1.7	.53	.15	1.5
9	.62	.90	.40	0	.60	20	2.8	.97	1.3	.48	.17	1.5
10	.62	.90	.30	0	.60	15	2.6	.84	1.1	.44	.15	1.0
11	.57	.90	.20	0	.60	10	2.3	.77	.90	.35	.15	.77
12	.62	.90	.10	0	.50	10	2.3	.77	.77	.33	.15	.66
13	.62	.84	.10	.20	.50	10	2.3	.71	.66	.33	.15	.48
14	.62	.84	.10	.50	.40	12	2.3	.71	.66	.33	.13	.57
15	.62	.84	.10	1.0	.20	15	2.3	.66	.62	.29	.11	.41
16	.62	.84	.10	2.0	.20	6.3	2.1	.57	.57	.27	.11	.66
17	.57	.84	.10	2.0	.20	5.5	2.1	.57	.57	.27	.09	.77
18	.57	.77	.20	1.0	.30	4.4	2.1	.44	219	.25	.11	.71
19	.62	.77	.20	1.0	1.0	4.2	2.3	.44	253	.27	.09	.62
20	.62	.77	.30	1.0	10	4.2	2.8	.48	117	.27	.09	.66
21	.62	.77	.30	1.0	40	3.3	3.3	.44	52	.25	.09	.66
22	.62	.77	.40	2.0	100	3.5	3.5	.48	25	.23	.07	.77
23	.66	.77	.50	2.0	130	3.9	3.9	.48	11	2.8	.07	.62
24	.66	.77	.50	4.0	160	3.7	3.9	.48	6.7	.84	.07	.66
25	.66	.77	.40	8.0	150	3.7	3.0	.48	4.4	.41	.07	.66
26	.66	.77	.30	10	150	3.7	2.4	.53	3.0	.33	.07	.66
27	.66	.77	.40	7.0	150	3.9	2.1	.66	2.1	.29	.07	.77
28	.66	.71	.40	3.0	150	3.5	2.3	.71	1.6	.31	.07	.77
29	.71	.71	.40	2.0	------	3.3	2.6	.84	1.3	.33	.07	.71
30	.84	.66	.30	1.0	------	3.3	2.6	.90	1.1	.33	.05	.62
31	.84	------	.20	1.0	------	2.8	------	.90	------	.33	.03	------
TOTAL	20.15	24.74	11.44	49.96	1,052.60	765.2	72.7	27.93	720.83	16.63	3.73	112.88
MEAN	.65	.82	.37	1.61	37.6	24.7	2.42	.90	24.0	.54	.12	3.76
MAX	.84	.97	.80	10	160	150	3.9	2.4	253	2.8	.29	48
MIN	.57	.66	.10	0	.20	2.8	1.6	.44	.57	.23	.03	.28
AC-FT	40	49	23	99	2,090	1,520	144	55	1,430	33	7.4	224

CAL YR 1972 TOTAL 10,100.09 MEAN 27.6 MAX 2,520 MIN .10 AC-FT 20,030
WTR YR 1973 TOTAL 2,878.79 MEAN 7.89 MAX 253 MIN 0 AC-FT 5,710

PEAK DISCHARGE (BASE, 100 FT^3/S).--FEB. 24, 160 FT^3/S; JUNE 19 (0030) 460 FT^3/S (5.17 FT).

06329610 Yellowstone River Stage Gage No. 2 near Cartwright, N. Dak.

LOCATION.--Lat 47°51'50", long 103°58'06", on south line sec.26, T.151 N., R.104 W., McKenzie County, on bridge on State Highway 23, 2 mi (3.2 km) west of Cartwright at mile 8.6 (kilometre 13.8).

DRAINAGE AREA.--70,000 mi^2 (181,000 km^2), approximately.

PERIOD OF RECORD.--April 1959 to current year (seasonal).

GAGE.--Water-stage recorder. Datum of gage is 1,800.00 ft (548.640 m) above mean sea level.

EXTREMES.--Current year: Maximum daily gage height recorded, 72.20 ft (22.007 m) June 14; minimum daily recorded, 64.71 ft (19.724 m) Aug. 19, 20.
Period of record: Maximum daily gage height recorded, 82.70 ft (25.207 m) Mar. 15, 1972; minimum daily recorded, 63.85 ft (19.461 m) Aug. 30, 1961.

REMARKS.--Records fair.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1958 TO SEPTEMBER 1959

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							67.13	66.71	67.53	71.56	66.71	65.22
2							67.13	66.66	67.76	71.06	66.66	65.21
3							66.96	66.66	67.66	70.86	66.61	65.26
4							66.76	66.73	67.61	70.56	66.51	65.21
5							66.83	66.76	67.41	70.60	66.26	65.11
6							66.66	66.76	67.46	70.40	66.21	65.01
7							66.69	66.48	67.66	70.40	66.33	65.06
8							66.63	66.48	68.03	70.06	66.31	65.21
9							66.63	66.66	71.26	69.49	66.11	65.29
10							66.61	66.81	71.31	69.51	65.91	65.25
11							66.71	66.91	71.36	69.20	65.81	65.21
12							66.84	66.76	71.38	69.10	65.66	65.19
13							66.66	66.91	71.06	69.10	65.82	65.19
14							66.57	66.86	71.46	69.16	65.71	65.39
15							66.41	67.10	71.46	69.26	65.61	65.70
16							66.31	66.96	71.81	69.34	65.55	65.70
17							66.51	66.87	72.01	68.86	65.36	65.90
18							66.51	67.16	72.31	68.23	65.31	65.66
19							66.56	67.06	72.66	68.06	65.21	65.21
20							66.66	68.06	72.68	67.96	65.16	65.19
21							66.66	68.68	72.48	67.76	65.06	65.66
22							66.68	68.51	72.43	67.61	65.11	65.46
23							66.71	68.21	72.36	67.58	65.21	65.36
24							66.71	67.96	72.29	67.46	65.31	65.66
25							66.51	67.51	72.29	67.56	65.36	66.26
26							66.46	67.51	72.26	67.06	65.36	66.26
27							66.46	67.21	72.06	67.02	65.41	66.21
28							66.66	67.21	72.36	66.96	65.46	66.21
29					------		66.66	67.06	72.16	66.93	65.38	66.38
30					------		66.71	67.06	72.06	66.93	65.31	66.41
31		------			------		------	67.51	------	66.81	65.22	------
MEAN							66.67	67.15	70.82	68.79	65.71	65.53
MAX							67.13	68.68	72.68	71.56	66.71	66.41
MIN							66.31	66.48	67.41	66.81	65.06	65.01

06329610 Yellowstone River Stage Gage No. 2 near Cartwright, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66.37	66.56					67.50	66.15	66.00	67.80	65.20	65.00
2	66.46	66.56					67.30	66.00	66.20	67.70	65.20	64.95
3	66.46	66.51					67.15	65.85	66.25	67.50	65.15	64.85
4	66.46	66.51					67.05	65.81	66.45	67.20	65.10	64.85
5	66.46	66.50					66.95	65.85	67.92	67.00	65.10	64.80
6	66.48	66.51					66.85	65.85	68.42	66.90	65.05	64.70
7	66.51	66.51					66.70	65.85	69.30	66.80	65.00	64.65
8	66.48	66.52					66.50	65.85	69.80	66.10	64.95	64.60
9	66.44	66.52					66.40	65.83	69.65	66.60	64.90	64.70
10	66.46	66.46					66.44	65.80	69.45	66.55	64.85	64.50
11	66.46	66.35					66.50	65.75	69.50	66.53	64.80	64.45
12	66.49	66.26					66.55	65.65	69.65	66.20	64.80	64.50
13	66.51	66.28					66.55	65.65	69.80	66.10	64.80	64.60
14	66.53	66.26					66.56	65.62	70.65	66.05	64.90	64.60
15	66.54	66.31					66.58	65.69	70.45	66.00	64.85	64.55
16	66.56	67.21					66.75	66.45	70.05	65.90	64.80	64.55
17	66.56	67.21				69.37	66.65	68.10	70.00	65.80	64.70	64.55
18	66.53					69.22	66.55	68.12	70.30	65.65	64.60	64.65
19	66.51					70.05	66.46	68.25	70.60	65.60	64.55	64.75
20	66.47					72.47	66.37	68.35	70.62	65.55	64.50	64.90
21	66.51					79.27	66.26	67.80	70.70	65.45	64.50	65.05
22	66.53					74.45	66.15	66.70	70.15	65.35	64.10	65.05
23	66.56					72.55	66.05	66.40	70.05	65.20	65.60	65.10
24	66.56					72.27	66.00	66.20	70.00	65.00	65.60	65.10
25	66.58					70.55	66.00	66.80	69.60	64.95	65.60	65.13
26	66.61					69.45	66.00	65.40	69.10	64.90	65.55	65.20
27	66.60					69.40	65.98	65.60	68.65	64.85	65.35	65.20
28	66.61					68.50	66.05	65.85	68.50	64.80	65.25	65.23
29	66.62					68.05	66.10	66.05	68.35	64.80	65.25	65.23
30	66.60				------	67.50	66.20	66.30	68.20	64.90	65.20	65.25
31	66.58	------			------	67.65	------	66.20	------	65.05	65.20	------
MEAN	66.52						66.31	66.32	69.15	65.96	65.00	64.84
MAX	66.62						67.50	68.35	70.70	67.80	65.60	65.25
MIN	66.37						66.55	65.40	66.00	64.80	64.10	64.45

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65.25	65.30						64.62	70.08	67.24	65.87	63.88
2		65.27						64.62	70.28	66.85	65.22	63.97
3		65.27						64.54	70.28	66.70	64.90	64.10
4		65.30						64.50	69.94	66.51	64.77	64.18
5		65.25					64.88	64.48	69.75	66.35	64.65	64.22
6		65.25						64.46	69.83	66.20	64.55	64.35
7		65.25						64.38	69.83	66.05	64.45	64.42
8		65.27						64.29	70.18	65.88	64.30	64.48
9		65.30						64.27	70.26	65.79	64.13	64.66
10		65.25						64.24	70.20	65.83	64.00	64.84
11		65.28						64.25	70.26	65.95	63.88	64.97
12		65.35						64.23	70.45	66.17	63.81	65.80
13		65.42					64.73	64.21	70.70	66.11	63.78	66.46
14		65.38					64.67	64.14	70.72	65.89	63.89	66.64
15		65.40					64.62	64.03	70.64	65.75	64.19	66.95
16		65.40					64.55	63.92	70.33	65.74	64.44	66.98
17		65.35					64.51	63.78	69.98	65.75	64.48	66.83
18		65.35					64.40	63.80	69.67	65.66	64.42	66.60
19		65.30					64.39	64.35	69.32	65.56	64.35	66.34
20		65.30					64.54	64.81	69.23	65.46	64.23	66.30
21		65.30					64.50	65.30	69.26	65.29	64.14	66.36
22		65.28					64.43	65.53	69.12	65.11	64.02	66.80
23		65.25				64.12	64.40	65.47	69.03	65.02	64.00	
24		65.25					64.35	65.48	68.85	65.00	63.97	68.22
25		65.25					64.32	65.67	68.57	64.85	63.98	67.66
26		65.20					64.30	65.82	68.29		63.98	67.22
27		65.15					64.24	66.59	67.97		63.97	66.96
28		67.55					64.30	67.69	67.65		63.96	66.77
29					------		64.56	68.58	67.40		63.90	66.62
30					------		64.56	69.12	68.02		63.85	66.45
31		------			------		------	69.72	------		63.86	------
MEAN								65.19	69.54		64.26	
MAX								69.72	70.72		65.87	
MIN								63.78	67.40		63.78	

06329610 Yellowstone River Stage Gage No. 2 near Cartwright, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							71.39	69.00	70.12	72.76		65.90
2							70.68	68.72	70.08	72.52		65.94
3								68.47	70.55	72.19		66.16
4								68.12	70.12	71.75		66.27
5								68.75	70.97	71.45		66.28
6								67.48	71.43	71.43		66.22
7								67.18	71.35	71.11	67.73	66.17
8								66.96	71.19	70.73	67.57	66.22
9								67.18	70.66	70.26	67.36	66.25
10								67.86	70.38	70.08	67.22	66.32
11								68.07	70.14	69.97	67.68	66.42
12								68.37	70.06	69.61	67.72	66.57
13								68.88	70.26	69.24	66.88	66.72
14								69.54	71.05	69.25	67.09	66.89
15								69.71	72.34	70.23	67.77	66.89
16								69.88	72.62	70.84	67.42	66.84
17							66.42	69.68	72.19	71.59	67.07	66.77
18							66.42	69.43	72.19	71.36	66.89	66.79
19							66.57	69.26	72.80	71.09	66.65	66.75
20							66.79	69.07	73.12	70.83	66.44	66.63
21							67.03	68.85	73.02	69.86	66.32	66.54
22							67.15	69.03	72.65	69.50	66.17	66.42
23							67.27	69.08	72.80	69.15	66.17	66.34
24							67.69	69.67	72.70	68.84	66.12	66.29
25							68.36	69.32	72.53		65.98	66.26
26							68.52	69.54	72.42		65.76	66.26
27							68.35	70.60	72.58		66.00	66.37
28							68.41	70.26	72.72		66.09	66.55
29					------		68.90	70.68	72.74		66.09	66.55
30					------	72.42	69.08	70.98	72.77		65.99	66.54
31		------			------	71.38	------	70.47	------		65.92	------
MEAN								69.04	71.69			66.44
MAX								70.98	73.12			66.89
MIN								66.96	70.06			65.90

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66.54	66.28	66.26						70.65	71.53	66.35	
2	66.56	66.28	66.23						70.87	71.60		
3	66.52	66.22	66.31						71.05	71.30	65.61	66.78
4	66.47	66.12	66.23						71.30	70.74	65.60	
5	66.47	66.12	66.03						71.70	70.32	65.62	
6	66.48	66.12	66.18							70.30	65.74	
7	66.52	66.20	66.17							70.32		
8	66.57	66.17	66.27							69.99		
9	66.48	66.16	66.42							69.72		
10	66.48	66.12	66.68							69.33		
11	66.57	66.08	66.32					67.62	71.16	69.11		
12	66.72	66.08						68.15		69.19		
13	66.83	66.08						68.54				
14	66.66	66.06						68.77				
15	66.77	66.07						68.78				
16	66.83	66.09						68.98				
17	66.85	66.09						68.84				64.51
18	66.82										65.22	64.43
19	66.75									67.81	65.16	64.44
20	66.65									67.58	65.02	64.48
21	66.64									67.35		64.52
22	66.63									67.17		64.51
23	66.57						65.80			67.00		64.52
24	66.49							68.90		66.82		64.57
25	66.53							69.08	72.65	66.68		64.65
26	66.49							69.25		66.58		65.42
27	66.45	66.11						69.40		66.43		65.79
28	66.34	66.04						69.72		66.44		65.42
29	66.31	66.10			------			70.32		66.40		
30	66.29	66.20			------			70.66	71.70	66.37		
31	66.31	------			------		------	70.73	------	66.35		------
MEAN	66.57											
MAX	66.85											
MIN	66.29											

06329610 Yellowstone River Stage Gage No. 2 near Cartwright, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66.10	65.79						67.83	70.04	72.68	66.55	67.20
2	65.93	65.84						67.17	70.09	72.70	66.45	67.24
3								66.86	69.86	72.45	66.47	66.84
4								66.81	69.65	72.41	66.58	66.45
5								66.94	69.31	72.52	66.49	66.31
6		66.10						67.80	69.24	72.39	66.34	66.23
7		66.05						68.43	69.70	72.05	66.20	66.19
8		66.00						68.03	70.35	72.00	66.04	66.08
9		66.02					66.30	67.55	70.87	71.73	65.90	65.98
10		66.00					66.24	67.25	71.07	71.37	65.80	65.92
11		66.03					66.09	67.10	71.28	71.11	65.73	65.81
12		66.06					66.02	67.01	71.31	70.84	65.68	65.71
13		66.07					66.00	66.96	71.47	70.73	65.63	65.63
14		66.08					66.00	67.43	71.09	70.55	65.53	65.52
15	65.45						66.03	68.40	70.86	70.41	65.47	65.48
16	65.48						66.08	68.06	70.62	70.16	65.41	65.49
17	65.48						66.04	67.73	70.81	70.14	65.41	65.48
18	65.49						65.98	67.43	71.21	70.23	65.30	65.43
19	65.49						65.91	67.61	71.76	69.92	65.22	65.37
20	65.50						65.82	68.01	71.67	69.56	65.16	65.32
21	65.48						65.88	68.59	71.80	69.19	65.14	65.27
22	65.56	66.20					65.89	69.09	71.87	68.99	65.37	65.25
23	65.63						65.86	69.39	71.55	68.75	65.66	65.24
24	65.56						65.87	69.89	71.38	68.38	65.96	65.26
25	65.60						65.87	70.38	71.58	68.08	66.06	65.31
26	65.56						65.78	70.46	72.14	67.82	66.12	65.36
27	65.58						65.83	70.17	72.27	67.57	66.08	65.39
28	65.60						65.94	69.70	72.31	67.40	66.00	65.38
29	65.54						67.90	69.54	72.54	67.22	65.94	65.37
30	65.55				------		68.33	69.57	72.57	66.99		65.41
31	65.69	------			------		------	69.59	------	66.77		------
MEAN								68.28	71.08	70.10		65.76
MAX								70.46	72.57	72.70		67.24
MIN								66.81	69.24	66.77		65.24

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65.49	65.63						67.19	68.93	72.60	68.81	66.94
2	65.55	65.58						67.05	69.45	72.53	68.65	66.73
3	65.58	65.60						67.02	69.66	72.08	68.27	66.55
4	65.56	65.62						67.15	70.35	71.98	68.02	66.38
5	65.51	65.76						67.68	70.52	72.31	67.83	66.20
6	65.51	65.78						68.33	70.50	72.43	67.63	66.16
7	65.46	65.73						68.41	70.92	72.38	67.57	66.06
8	65.45	65.73						67.95	71.28	72.39	67.40	65.97
9	65.42	65.71						67.89	71.12	72.19	67.33	65.87
10	65.41	65.70						68.22	71.23	72.08	67.23	65.79
11	65.47	65.68						68.48	71.55	72.47	67.14	65.78
12	65.46	65.63						68.08	71.81	72.52	66.98	65.83
13	65.43	65.65						67.96	72.03	73.01	66.81	65.91
14	65.41	65.67						67.92	72.27	72.65	66.63	66.03
15	65.43	65.72						67.69	72.40	72.38	66.44	66.23
16	65.45	65.70						67.54	73.30	72.03	66.35	66.23
17	65.46	65.68						67.74	72.43	71.73	66.34	66.24
18	65.46	65.57						68.19	71.87	71.36	66.37	66.26
19	65.45	65.56						68.48	71.84	71.12	66.33	66.43
20	65.47	65.34						68.81	72.16	70.96	66.19	66.86
21	65.57	66.11						69.09	72.57	70.85	66.03	67.09
22	65.62	66.60					67.23	69.08	72.53	70.74	65.94	67.10
23	65.67	66.58					67.06	68.93	72.04	70.63	65.87	67.06
24	65.69						66.89	69.13	72.08	70.52	67.06	67.01
25	65.67						67.10	69.54	72.41	70.24	68.20	67.06
26	65.68						67.42	69.87	72.55	69.97	68.41	67.15
27	65.67						67.50	69.61	72.76	69.68	68.12	67.09
28	65.68						67.38	69.52	73.02	69.38	67.69	66.97
29	65.65				------		67.28	69.40	73.02	69.43	67.43	66.90
30	65.64				------		67.25	69.28	73.11	69.17	67.35	66.87
31	65.65	------			------		------	69.16	------	68.90	67.22	------
MEAN	65.54							68.40	71.72	71.38	67.21	66.49
MAX	65.69							69.87	73.30	73.01	68.81	67.15
MIN	65.41							67.02	68.93	68.90	65.87	65.78

06329610 Yellowstone River Stage Gage No. 2 near Cartwright, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66.88	66.37							69.17	67.41		
2	66.92	66.32							69.61	67.29		
3	67.14	66.29							69.91	67.54		
4	67.11	66.23						65.39	70.20	67.72		
5	67.05	66.22						65.31	70.15	67.58		
6	67.00	66.15					65.68	65.18	69.76	67.50		
7	66.95	65.90					65.68	65.01	69.40	67.43		
8	66.87						65.62	64.95	68.85	67.05		
9	66.84						65.54	65.06	68.38	66.67		
10	66.85						65.50	65.54	68.01	66.36		
11	66.81						65.45	66.42	67.89	66.17		
12	66.71						65.44	67.49	67.92	66.01		
13	66.71						65.45	67.88	67.69	65.85		
14	66.69						65.39	68.57	67.91	65.72		
15	66.68						65.41	68.84	68.40	65.62		
16	66.70						65.53	68.30	68.03	65.72		
17	66.68	65.43					65.56	67.79	67.51	65.93		
18	66.63						65.54	67.49	67.13	65.91		65.03
19	66.63						65.49	67.19	67.00	65.69		64.80
20	66.66						65.49	66.84	67.03	65.63		
21	66.68						65.49	66.54	67.28	65.50		
22	66.66						65.57	66.33	67.70	65.32		
23	66.67						65.57	66.11	67.97	65.17		
24	66.64						65.55	65.98	68.27	65.27		
25	66.63						65.49	65.97	68.69	65.27		
26	66.59						65.49	67.07	69.33	65.04		
27	66.59						65.78	67.72	69.09	64.99		
28	66.55						65.90	67.18	68.50	64.99		
29	66.53				------			66.71	68.18	65.12		
30	66.51				------			66.84	67.73	65.18		
31	66.42	------			------		------	68.23	------			------
MEAN	66.74								68.42			
MAX	67.14								70.20			
MIN	66.42								67.00			

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64.68	64.86						65.45	70.12	72.65	68.26	64.75
2	64.76	64.88							70.61	72.57	67.74	64.96
3	64.78	64.86							70.96	72.66	67.72	65.04
4	64.78	64.88							71.12	72.76	67.79	65.05
5	64.95	64.86							71.26	72.99	67.46	65.09
6	65.00	64.95							71.44	72.95	67.18	65.10
7	65.05	65.02							71.34	72.94	66.93	65.08
8	65.12	64.92							71.70	72.86	66.77	65.01
9	65.13								71.95	72.97	66.75	64.99
10	65.05								71.73	73.07	66.72	64.94
11	64.98								71.25	73.14	66.66	64.97
12	64.85							66.74	71.31	73.00	66.56	64.98
13	64.82							67.20	71.23	72.89	66.41	64.98
14	64.91							67.72	71.49	72.70	66.36	65.08
15	64.97							67.72	71.82	72.59	66.30	65.25
16	65.02							67.48	71.91	72.50	66.26	65.75
17	65.09							67.17	72.06	72.48	65.86	66.23
18	65.08							66.97	72.40	72.13	65.90	66.46
19	65.02							66.73	72.78	71.89	65.96	66.32
20	64.97							66.59	72.80	71.51	65.65	65.93
21	64.96							66.44	72.51	71.49	65.42	65.87
22	64.97							66.62	72.19	71.29	65.23	65.85
23	64.94							67.20	72.43	71.11	65.17	65.77
24	64.93							67.65	72.46	71.01	65.04	65.75
25	64.91							67.62	72.51	70.80	64.84	65.81
26	64.90						65.69	68.26	72.67	70.54	64.93	65.66
27	64.92						65.63	69.53	72.86	70.06	64.96	65.61
28	64.93						65.46	70.33	72.50	69.25	64.92	65.62
29	64.90				------		65.38	70.76	72.03	69.14	64.94	65.55
30	64.79				------		65.36	70.44	72.37	69.09	64.92	65.56
31	64.82	------			------		------	70.14	------	68.78	64.72	------
MEAN	64.93								71.86	71.80	66.13	65.43
MAX	65.13								72.86	73.14	68.26	66.46
MIN	64.68								70.12	68.78	64.72	64.75

06329610 Yellowstone River Stage Gage No. 2 near Cartwright, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65.68	65.79					66.06	65.59	67.59	71.09	66.52	67.41
2	65.75	65.61					66.00	65.47	67.64	70.98	66.44	67.38
3	65.68	65.57				71.80		65.44	69.11	70.64	66.32	67.26
4	65.62	65.47				71.59		65.33	69.63	70.29	66.20	67.01
5	65.53	65.28				71.29		65.37	69.64	69.85	66.00	66.88
6	65.55	65.42				71.00		65.36	70.50	69.55	65.88	66.81
7	65.55	65.84				70.94		65.89	71.23	69.35	65.80	66.85
8	65.52	65.84				71.06		65.96	71.15	69.47	65.70	66.84
9	65.75	65.96				70.78	66.00	66.01	70.92	69.62	65.59	66.84
10	66.01	65.84				70.63	65.92	66.46	71.31	69.67	65.50	66.86
11	66.16	65.82				70.37	65.96	66.66	71.45	69.74	65.42	66.74
12	66.07	65.80				70.45	65.87	66.45	71.66	69.66	65.47	66.68
13	66.00	65.80				70.16	65.77	66.17	71.98	69.57	65.51	66.60
14	65.92	65.75				69.94	65.73	65.96	71.91	69.41	65.66	
15	65.98	65.64				69.72	65.73	66.42	71.73	69.24	65.90	
16	66.01	65.90					65.76	66.42	71.81	69.17		
17	66.05	66.35					65.77	66.29	72.02	68.97		
18	65.96	66.42					65.78	67.17	71.53	68.68		
19	65.88	66.22					65.84	67.70	71.08	68.67		
20	65.78	66.25					65.73	67.55	71.19	68.71		
21	65.82	66.19					65.64	67.32	71.49	68.57		
22	65.70	66.08					65.63	67.20	72.19	68.25		
23	65.55	66.21					65.65	67.01	72.48	67.80		
24	65.47	66.30					65.67	66.77	72.50	67.46		66.67
25	65.48	66.34					65.68	67.04	72.16	67.27		66.98
26	65.49					66.19	65.70	66.94	71.88	67.12		66.95
27	65.72					66.22	65.55	66.99	71.61	66.90		66.90
28	65.69					66.27	65.56	67.32	71.24	66.75	68.34	66.79
29	65.91					66.25	65.69	68.11	70.89	66.74	67.98	66.71
30	65.85				------	66.10	65.61	67.99	70.84	66.67	67.68	66.70
31	65.83	------			------	66.12	------	67.80	------	66.76	67.51	------
MEAN	65.77							66.59	71.08	68.79		
MAX	66.16							68.11	72.50	71.09		
MIN	65.47							65.33	67.59	66.67		

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66.67	66.10					67.42	68.53	70.99	71.33	66.54	64.77
2	66.65	66.05					67.66	68.26	70.42	70.66	66.47	64.80
3	66.63	66.04					67.64	68.03	70.26	70.56	66.36	64.85
4	66.53	65.97					67.88	67.83	70.06	70.59	66.15	64.90
5	66.48	65.98					67.86	67.74	69.46	70.84	66.12	64.90
6	66.44	65.92					67.76	67.54	68.96	70.82	66.00	
7	66.46	65.96					67.76	67.15	68.86	71.28	65.84	
8	66.45	66.26					67.44	66.94	68.95	71.70	65.74	
9	66.40	66.28					67.16	66.91	69.72	71.30	65.66	
10	66.36	66.16					66.96	67.16	70.26	71.00	65.66	
11	66.37	66.05					66.86	67.48	70.23	70.94	65.58	65.04
12	66.21	66.00					66.96	67.76	70.21	70.66	65.52	64.88
13	66.21	65.92					66.78	67.76	70.60	70.34	65.44	64.90
14	66.16	65.91					66.66	67.85	70.98	70.12	65.28	64.80
15	66.21	65.99					66.76	68.06	70.36	69.77	65.26	64.78
16	66.18	65.90					66.81	68.23	69.96	69.66		64.78
17	66.18	66.14					66.82	68.24	69.78	69.43		64.78
18	66.25	66.15					66.84	68.45		69.48		64.79
19	66.33	66.30					66.88	69.06		70.04		64.80
20	66.38	66.19					66.66	68.76	68.86	70.16	65.30	64.87
21	66.34	66.08					66.46	68.36	68.86	69.86	65.27	64.95
22	66.24					76.00	66.43	68.46	69.34	70.37	65.20	64.99
23	66.21					72.62	66.44	69.26	69.55	69.79	65.09	64.94
24	66.14					71.37	66.40	69.74	69.66	69.26	65.02	64.98
25	66.22					69.83	66.24	69.53	70.36	68.86	64.94	65.04
26	66.21					68.86	65.90	69.16	70.54	68.16	64.84	65.08
27	66.16					68.16	67.78	68.96	70.35	67.72	64.80	65.30
28	66.11					68.66	68.36	69.24	71.36	67.36	64.80	65.30
29	66.13				------	67.46	68.37	70.16	71.89	67.15	64.77	65.26
30	65.98				------	67.36	68.55	70.62	71.78	66.98	64.76	65.27
31	65.94	------			------	67.36	------	71.06	------	66.86	64.77	------
MEAN	66.30						67.15	68.46		69.78		
MAX	66.67						68.55	71.06		71.70		
MIN	65.94						65.90	66.91		66.86		

06329610 Yellowstone River Stage Gage No. 2 near Cartwright, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65.25	65.67						66.00	72.12	73.18	66.90	64.61
2	65.20	65.68						66.08	71.90	73.35	66.50	64.68
3	65.21	65.65						66.11	71.70	72.87	66.97	64.71
4	65.20	67.57						66.05	71.23	72.24	66.85	64.70
5	65.24							66.00	70.98	71.89	66.72	64.70
6	65.44							65.89	71.20	71.78	66.59	64.75
7	65.53							65.82	71.91	71.74	66.73	64.82
8	65.68							65.81	72.50	71.80	66.63	64.90
9	65.70							66.81	72.82	71.62	66.22	65.08
10	65.38							68.09	73.05	70.92	66.04	65.21
11	65.01							68.20	73.07	70.35	65.99	65.28
12	64.93							68.49	73.00	70.11	65.96	65.38
13	65.24							68.30	72.89	70.04	65.89	65.60
14	65.54							68.13	72.34	70.05	65.77	65.83
15	65.69							67.80	71.98	69.99	65.56	65.88
16	65.73							67.55	71.76	69.68		65.91
17	65.77							67.48	71.70	69.25		66.01
18	65.79							67.45	71.45	68.88		66.07
19	65.75							67.39	71.21	68.51		66.05
20	65.74							67.32	71.10	68.21		66.01
21	65.68							67.67	71.09	68.01		65.94
22	65.63							68.88	71.28	67.89		65.80
23	65.60							69.75	71.85	67.79		65.85
24	65.60						65.24	70.92	72.38	67.69		65.79
25	65.60						65.22	71.53	72.73	67.54		65.80
26	65.59						65.19	71.41	73.07	67.53	64.72	65.80
27	65.59						65.14	71.50	73.27	67.64	64.73	65.80
28	65.57						65.21	71.24	73.37	67.33	64.70	65.80
29	65.52				------		65.44	71.52	73.52	67.16	64.68	65.78
30	65.56				------		65.88	71.90	73.35	67.01	64.64	65.78
31	65.58	------			------		------	72.25	------	66.93	64.61	------
MEAN	65.50							68.37	72.19	69.64		65.48
MAX	65.79							72.25	73.52	73.35		66.07
MIN	64.93							65.81	70.98	66.93		64.61

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65.72	65.71				65.83	69.67	68.22	71.41	72.65	68.14	65.79
2	65.70	65.70				67.42	68.99	68.03	71.87	72.18	67.98	66.10
3	65.70	65.70				68.96	68.55	67.92	71.89	71.64	67.81	66.48
4	65.65	65.70				69.99	68.29	67.86	71.79	71.24	67.75	67.03
5	65.61						67.96	67.83	71.64	71.07	67.64	67.40
6	65.68						67.73	67.88	71.36	71.30	67.33	67.78
7	65.74						67.50	68.13	71.28	71.69	67.09	67.13
8	65.70						67.54	68.42	71.33	71.25	67.05	67.25
9	65.68						67.51	68.55	71.22	70.91	67.00	67.08
10	65.68					70.57	67.49	68.96	71.39	70.79	66.92	66.88
11	65.69					70.86	67.41	69.10	71.54	71.02	66.88	66.85
12	65.72					71.64	67.44	69.23	72.03	70.63	66.84	66.84
13	65.74					73.60	67.50	69.28	72.44	70.31	66.75	66.76
14	65.76					75.67	67.43	69.18	72.69	70.34	66.61	66.63
15	65.77					76.49	67.44	69.09	72.72	70.28	66.54	66.52
16	65.85					75.81	67.44	69.57		70.14	66.52	66.41
17	65.90					74.79	67.35	70.11	72.51	70.04	66.37	66.35
18	65.89					73.66	67.28	70.24	72.61	69.94	66.28	66.30
19	65.85					72.59	67.21	69.99	72.71	69.92	66.27	66.26
20	65.75					71.65	67.24	70.11	72.68	69.75	66.26	66.28
21	65.70					70.70	67.41	70.09	72.79	69.66	66.17	66.39
22	65.58					70.03	67.19	69.86	72.82	69.60	66.14	66.38
23	65.59					69.44	67.18	69.61	72.87	69.40	66.13	66.31
24	65.78					68.94	67.08	69.30	72.86	69.10	66.02	66.32
25	65.79					68.45	67.20	69.29	73.07	68.95	65.85	66.35
26	65.56					68.02	67.32	69.31	73.25	68.89	65.76	66.32
27	65.24					68.09	67.58	69.22	73.43	68.83	65.72	66.25
28	65.47					69.27	67.71	69.00	73.27	68.59	65.65	66.21
29	65.72				------	69.83	68.28	69.09	72.94	68.47	65.63	66.15
30	65.75				------	70.25	68.51	69.46	72.70	68.41	65.57	66.14
31	65.72	------			------	70.23	------	70.47	------	68.28	65.57	------
MEAN	65.70						67.68	69.11		70.17	66.59	66.56
MAX	65.90						69.67	70.47		72.65	68.14	67.78
MIN	65.24						67.08	67.83		68.28	65.57	65.79

06329610 Yellowstone River Stage Gage No. 2 near Cartwright, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66.16	67.09					67.50	67.12	69.46	70.41	67.00	66.42
2	66.62	66.99					67.47	67.27	70.04	70.09	66.77	66.33
3	68.90	66.87					67.43	67.41	70.78	70.20	66.69	66.28
4	69.17	66.90					67.59	67.57	71.89	70.31	66.77	66.28
5	68.37	66.99					67.77	67.53	72.39	70.13	67.11	66.26
6	67.89	67.02					67.79	67.34	72.54	69.91	67.70	66.25
7	67.55	67.39					67.76	67.24	72.60	69.51	67.54	66.18
8	67.39	69.60					67.70	67.23	72.76	69.03	67.20	66.15
9	67.35	67.78				72.30	67.35	67.38	72.78	69.09	66.94	66.13
10	67.22	67.60				73.25	67.44	67.66	72.98	69.00	66.85	66.16
11	67.14					74.58	67.59	67.91	73.31	69.00	66.69	66.36
12	66.90					75.80	67.46	68.08	73.40	68.87	66.56	66.51
13	66.51					78.95	67.47	68.03	73.41	68.72	66.45	66.41
14	66.43					82.57	67.42	68.18	73.16	68.59	66.38	66.42
15	66.71					82.70	67.35	68.03	73.06	68.40	66.29	66.61
16	66.74					81.13	67.30	67.73	72.72	68.30	66.29	66.74
17	66.77					79.65	67.28	67.52	72.23	68.29	66.35	66.63
18	66.86					77.93	67.24	67.38	71.98	68.30	66.66	66.53
19	67.52					73.20	67.19	67.76	72.06	68.18	66.75	66.42
20	69.04					69.81	67.18	68.71	71.88	68.21	66.86	66.31
21	68.71					69.14	67.27	69.69	71.96	68.08	66.96	66.22
22	68.24					68.66	67.26	70.09	72.12	68.09	66.80	66.15
23	67.79					68.36	67.22	70.49	71.71	68.39	66.69	66.22
24	67.65					68.19	67.02	70.74	71.60	68.48	66.66	66.12
25	67.59					68.11	67.08	70.85	71.59	68.60	66.62	66.22
26	67.57					68.03	67.13	70.65	71.68	68.45	66.58	66.31
27	67.56					67.97	67.12	70.36	71.58	68.18	66.64	66.34
28	67.52					67.88	67.05	70.01	71.61	68.00	67.11	66.35
29	67.44					67.80	67.00	69.88	71.13	67.68	66.90	66.43
30	67.29				------	67.71	67.02	69.51	70.73	67.40	66.84	66.42
31	67.15	------			------	67.60	------	69.17	------	67.20	66.68	------
MEAN	67.48						67.35	68.53	72.04	68.74	66.78	66.34
MAX	69.17						67.79	70.85	73.41	70.41	67.70	66.74
MIN	66.16						67.00	67.12	69.46	67.20	66.29	66.12

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66.48								70.08	69.84	65.38	65.33
2	66.52							68.49	69.69	70.01	65.29	65.48
3	66.59							68.35	69.62	70.33	65.18	65.85
4	66.54							68.18	69.78	70.29	65.06	68.16
5	66.44							68.22	70.38	69.95	65.00	68.72
6	66.45							68.15	70.80	69.30	64.87	67.68
7	66.53							68.00	70.40	68.70	64.79	66.88
8	66.70							68.10	69.93	68.33	64.80	66.45
9	66.76							68.29	69.49	68.10	64.81	66.20
10	66.75						65.68	68.13	69.63	67.83	64.90	66.25
11	66.77							68.04	70.49	67.70	65.09	66.36
12	66.75							68.12	71.47	67.53	65.10	66.40
13	66.76							68.23	72.18	67.10	65.01	66.65
14	66.75	66.73						68.14	72.20	66.77	64.91	66.46
15	66.76							67.88	71.77	66.53	64.85	66.38
16	66.85							67.70	71.50	66.41	64.90	66.38
17	66.87							67.59	71.52	66.35	64.94	66.68
18	66.89							67.69	71.92	66.15	64.85	66.70
19	66.86							67.90	72.15	65.99	64.71	66.61
20	66.87							68.35	71.50	65.74	64.71	66.69
21	66.85					65.38		69.11	70.99	65.44	64.82	66.68
22	66.80							69.80	70.51	65.30	64.85	66.66
23	66.76							70.44	70.00	65.29	64.89	66.55
24	66.65							71.05	69.55	65.31	65.50	66.54
25	66.18							71.22	69.39	65.49	65.71	66.73
26	66.75							70.89	69.45	65.64	65.72	66.82
27								70.90	69.80	65.80	65.51	66.77
28								71.00	70.03	66.21	65.41	66.73
29					------			71.20	69.83	66.02	65.39	66.79
30					------			70.99	69.70	65.70	65.35	66.82
31		------			------		------	70.50	------	65.50	65.30	------
MEAN									70.53	67.12	65.08	66.65
MAX									72.20	70.33	65.72	68.72
MIN									69.39	65.29	64.71	65.33

06329620 Yellowstone River Stage Gage No. 3 near Buford, N. Dak.

LOCATION.--Lat 47°56'16", long 103°57'52", in SW¼ sec.35, T.152 N., R.104 W., McKenzie County, on left bank 4 mi (6.4 km) south of Buford at mile 3.3 (kilometre 5.3).

DRAINAGE AREA.--70,000 mi^2 (181,000 km^2), approximately.

PERIOD OF RECORD.--April 1959 to current year (seasonal).

GAGE.--Water-stage recorder. Datum of gage is 1,850.00 ft (563.880 m) above mean sea level. Prior to Apr. 19, 1962, at datum 50.00 ft (15.240 m) lower.

EXTREMES.--Current year: Maximum daily gage height recorded, 16.90 ft (5.151 m) June 19; minimum daily recorded, 8.81 ft (2.685 m).
Period of record: Maximum daily gage height recorded, 29.55 ft (9.007 m) Mar. 15, 1972; minimum daily recorded, 6.18 ft (1.884 m) Aug. 24, 1961, present datum.

REMARKS.--Records fair.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1958 TO SEPTEMBER 1959

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								60.94	62.00	65.98	60.80	59.09
2									61.96		60.67	59.14
3									62.00		60.51	59.19
4									61.86		60.43	59.21
5									61.84		60.36	59.24
6									61.66		60.33	59.25
7									62.08		60.31	59.25
8									63.50		60.18	59.26
9											60.06	59.25
10											59.94	59.25
11									65.71		59.75	59.08
12											59.57	
13											59.53	
14								61.28			59.45	
15								61.50			59.41	58.84
16								61.49	65.81		59.35	58.89
17							60.66	61.47	66.12			58.92
18							60.68	61.46	66.68			58.94
19							61.01	62.32	66.61			59.04
20							60.88	63.30	66.57		59.47	59.34
21							60.94	63.10	66.46			59.54
22							60.99	62.78	66.40			60.24
23							60.99	62.54	66.32			60.34
24							60.92	62.36	66.21			60.44
25							60.92	62.22	66.13			60.64
26							60.72	62.04	66.01			60.74
27							60.96	61.82	65.70		59.34	60.94
28							61.22	61.48			59.26	60.84
29					------		61.08	61.30			59.14	60.69
30					------		60.94	61.50		61.11	59.04	60.65
31		------			------		------	61.78	------	60.97	59.06	------
MEAN												
MAX												
MIN												

06329620 Yellowstone River Stage Gage No. 3 near Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.64	60.84						59.41	59.48	61.59	58.41	57.80
2	60.63	60.90						59.16	59.76	61.20	58.37	57.58
3	60.60	60.92						59.07	59.96	60.92	58.33	57.40
4	60.60	60.88						58.98	60.86	60.71	58.27	56.76
5	60.61	60.84						58.98	61.96	60.54	58.23	
6	60.58	60.84						58.91	62.65	60.50	58.21	57.61
7	60.62							58.98	63.59	60.43	58.17	57.52
8	60.60							59.12	63.93	60.26	58.13	57.56
9	60.59							59.29	63.94	60.04	58.09	57.54
10	60.60							59.22	63.62	59.78	58.03	57.58
11	60.60							59.21	63.48	59.58	58.03	57.62
12	60.58							59.05	63.64	59.40	58.01	57.67
13	60.58						59.97	58.84	63.87	59.57	57.99	57.71
14	60.68						60.00	58.99	64.37	59.39	57.97	57.79
15	60.69						60.18	59.03	64.23	59.35	57.97	57.87
16	60.70						60.32	59.99	64.01	59.38	57.86	57.87
17	60.72						60.20	61.78	63.94		57.76	57.85
18	60.70						59.95	62.05	64.17		57.72	57.87
19	60.80						59.76	61.59	64.51		57.58	57.96
20	60.86						59.64	61.11	64.55			58.15
21	60.98						59.43	60.76	64.64			58.26
22	61.04						59.23	60.39				58.62
23	60.93						59.11	59.98			59.14	58.54
24	60.76						58.97	59.82			59.09	58.54
25	60.74						58.84	59.24	63.54		59.07	58.54
26	60.74						58.93	58.78	63.09	58.14	59.07	58.54
27	60.73						59.01	58.76	62.37	58.01	58.58	58.57
28	60.72						59.08	58.98	62.23	57.95	58.46	58.59
29	60.72						59.29	59.43	61.99	58.03	58.33	58.59
30	60.77				------		59.57	59.79	61.88	58.10	58.18	58.59
31	60.82	------			------		------	59.68	------	58.21	57.98	------
MEAN	60.71							59.62				
MAX	61.04							62.05				
MIN	60.58							58.76				

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58.61	58.83					58.32	57.72	64.11	60.99		
2	58.61						58.36	57.76	64.25			
3	58.63						58.36	57.62	64.23			
4	58.59						58.36	57.52	63.96			
5	58.59						58.28	57.46	63.77			
6	58.53	58.85					58.24	57.42	63.83	59.53		
7	58.47	58.85					58.14	57.30	63.80	59.33		
8	58.47	58.85					58.10	57.08	64.14	59.14	56.58	
9	58.49	58.94					58.05	56.98	64.22	59.06		
10	58.53	58.85					57.95	56.89	64.19	59.08		
11	58.53	58.85					57.96	56.91	64.19	59.30		
12	58.53	58.85					58.13	56.90	64.40			
13	58.57	58.85					58.04	56.85	64.70			
14	58.62	58.85						56.70	64.79			
15	58.66	58.85						56.48	64.68			
16	58.70	58.85						56.20	64.37			
17	58.70	58.85						56.06	64.01			
18	58.70	58.85						56.05	63.69			
19	58.84						57.24	56.90	63.36			
20	58.88	58.85					57.40	57.96	63.27			60.18
21	58.94	58.85					57.30	58.88	63.31			
22	59.02	58.85					57.22	59.52	63.15		56.29	
23	59.02	58.84					57.22	59.37	63.03		56.24	
24		58.87					57.20	59.33	62.85		56.18	
25		58.87					57.10	59.68	62.52	57.76	56.19	
26	58.99						57.11	59.83	62.19		56.23	
27							56.92	60.75	61.79		56.19	
28							56.96	61.88	61.34			
29					------	58.33	57.58	62.75	60.96			
30					------	58.36	57.68	63.17	61.65			
31		------			------	58.34	------	63.78	------			------
MEAN								58.38	63.49			
MAX								63.78	64.79			
MIN								56.05	60.96			

06329620 Yellowstone River Stage Gage No. 3 near Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									13.53	16.15	11.85	9.25
2										15.95	11.83	9.53
3										15.81	11.82	9.64
4										15.91	11.74	9.86
5										15.56	11.63	9.85
6										15.61	11.52	9.67
7									15.11	15.27	11.61	9.63
8									15.11	14.60	11.37	9.69
9									15.11	14.37	11.25	9.77
10									14.75	14.21	10.91	9.95
11									13.95	14.09	10.67	10.05
12										13.87	10.39	10.35
13									14.25	13.41	10.05	10.43
14									14.73	13.29	10.27	10.51
15								13.59	16.79	14.33	10.83	10.55
16									16.65	14.41	10.73	10.51
17									16.15	15.15	10.62	10.47
18									16.25		10.51	10.38
19							10.55				10.34	10.33
20							10.67		16.97	15.12	9.90	10.25
21							11.04		16.93	14.11	9.59	10.03
22							11.15		16.56	13.95	9.46	9.91
23							11.22		16.46	13.44	9.55	9.85
24							11.45		16.19	12.97	9.47	9.81
25									16.02	12.55	9.33	9.77
26									15.96	12.39	9.15	9.99
27									16.25	12.15	9.25	10.20
28									16.46	12.05	9.51	10.17
29					------				16.44	11.99	9.53	10.21
30					------				16.41	11.95	9.39	10.25
31	58.79	------			------		------		------	11.89	9.33	------
MEAN											10.43	10.03
MAX											11.85	10.55
MIN											9.15	9.25

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.23	9.90										8.46
2	10.23	9.80										8.48
3	10.19	9.83										10.10
4	10.05	9.85										10.38
5	10.03	9.80										9.81
6	10.05	9.79										9.89
7	10.17	9.81										10.02
8	10.21	9.80										10.04
9	10.05	9.84									9.19	9.84
10	9.99	9.74									8.97	9.66
11	9.95	9.94	10.42								8.78	9.43
12	10.02	10.01									8.64	9.28
13	10.12	9.98									8.44	9.16
14	10.29	9.66									8.26	9.32
15	10.37										8.26	9.68
16	10.46										8.32	9.43
17	10.55										8.25	9.30
18	10.57										8.17	9.18
19	10.61										8.21	9.18
20	10.55										8.40	9.22
21	10.53										8.25	9.30
22	10.47										8.20	9.31
23	10.41										8.33	9.31
24	10.42										8.22	9.38
25	10.25										8.21	9.48
26	10.05										8.32	10.39
27	10.15										8.74	11.03
28	10.10										8.71	10.61
29	10.08				------						8.67	10.53
30	9.95				------						8.53	10.45
31	10.03	------			------		------		------		8.51	------
MEAN	10.23											9.66
MAX	10.61											11.03
MIN	9.95											8.46

06329620 Yellowstone River Stage Gage No. 3 near Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.21	9.77							13.68			11.12
2	10.02	9.79							13.76			11.26
3	9.90	9.84							13.48			10.93
4	9.77	9.88							13.18			10.52
5	9.68	9.98							12.91			10.32
6	9.61	9.89							12.93			10.18
7	9.58	9.78							13.29			10.10
8	9.56	9.72							13.93			9.93
9	9.55	9.74							14.47			9.81
10	9.55	9.72							14.53			9.74
11	9.52	9.72							14.82			9.61
12	9.50	9.78							15.26			9.45
13	9.58	9.81						10.80				9.36
14	9.58	9.80						11.22			9.47	9.24
15	9.55							12.49			9.40	9.15
16	9.58							12.06			9.29	9.17
17	9.63							11.51			9.31	9.17
18	9.59							11.21			9.16	9.11
19	9.57							11.37			9.07	8.99
20	9.62							11.88			8.92	8.95
21	9.60							12.44	15.79		8.93	8.90
22	9.61	9.72						12.94	15.80	13.38	9.20	8.87
23	9.67							13.28		13.20	9.72	8.86
24	9.65							13.77		12.82	10.00	8.88
25	9.62							14.30		12.47	10.25	8.98
26	9.60							14.88		12.18	10.33	9.91
27	9.60							14.01		11.92	10.27	9.08
28	9.63							13.48		11.74	10.17	9.07
29	9.51							13.29		11.51	10.08	9.06
30	9.50				------			13.30		11.27	11.30	9.11
31	9.65	------			------		------	13.21	------	11.03	11.63	------
MEAN	9.64											9.53
MAX	10.21											11.26
MIN	9.50											8.86

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.20	9.61						11.44	13.40			11.50
2	9.30	9.51						11.32	14.09			11.27
3	9.36	9.52						11.26				11.07
4	9.33	9.53						11.41	15.43			10.96
5	9.27	9.71						11.84	15.43			10.84
6	9.24	9.77						12.52	15.35			10.75
7	9.24	9.70						12.68	15.74			10.66
8	9.18	9.66						12.27	16.03			10.54
9	9.19	9.65						12.20	15.79			10.40
10	9.20	9.63						12.54	15.78			10.31
11	9.23	9.60						12.80	16.06	16.61	11.77	10.27
12	9.25	9.53						12.44	16.34	16.83	11.60	10.25
13	9.22	9.50						12.22	16.73	17.42	11.41	10.30
14	9.19	9.54						12.16		17.19	11.25	10.41
15	9.23	9.63						11.98		16.66	11.09	10.61
16	9.27	9.62						11.84		16.32	10.96	10.64
17	9.29							11.96		16.18	10.90	10.61
18	9.29							12.44		15.99	10.89	10.63
19	9.27							12.81		15.84	10.87	10.77
20	9.28							13.18			10.74	11.15
21	9.38							13.49			10.65	11.45
22	9.50							13.49			10.49	11.47
23	9.58							13.28			10.40	11.47
24	9.63							13.40			11.48	11.43
25	9.63							13.68			12.79	11.40
26	9.63							14.32			13.01	11.47
27	9.62							14.07		13.47	12.73	11.44
28	9.62						11.67	13.82		13.21	12.29	11.33
29	9.61				------		11.53	13.63			12.01	11.28
30	9.60				------		11.48	13.46			11.90	11.25
31	9.62	------			------		------	13.57	------		11.77	------
MEAN	9.37							12.70				10.93
MAX	9.63							14.32				11.50
MIN	9.18							11.26				10.25

06329620 Yellowstone River Stage Gage No. 3 near Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.24	10.53							13.48	11.44		8.12
2	11.25	10.46							13.84	11.31		8.02
3	11.46	10.40							14.16	11.54		
4	11.45	10.36							14.47	11.71		
5	11.37	10.35							14.40	11.83		
6	11.32	10.28							14.04	11.62		
7	11.26								13.64	11.52		
8	11.20								13.03	11.10		
9	11.14								12.46	10.71	8.29	7.75
10	11.11								12.07	10.41	8.16	7.92
11	11.09								11.89	10.21	8.10	7.80
12	11.00								11.94	10.07	8.06	7.75
13	10.96								11.79	9.95	8.04	7.70
14	10.95								11.91	9.81	7.96	7.69
15	10.92								12.47	9.70	7.90	7.64
16	10.93								12.23	9.75	7.90	7.62
17	10.92								11.69	9.98	7.95	8.02
18	10.96								11.26	9.98	7.93	9.11
19	10.83								11.07	9.77		8.82
20	10.83								11.11	9.71		8.74
21	10.85								11.47	9.56		8.93
22	10.83									9.36		8.98
23	10.80									9.19		8.89
24	10.78									9.29		8.85
25	10.73									9.33		8.85
26	10.73								13.53	9.06	9.10	8.78
27	10.71							12.03	13.31		9.02	8.74
28	10.71							11.50	12.67		8.83	8.68
29	10.66				------			11.01	12.26		8.64	8.67
30	10.63				------			11.03	11.81		8.45	8.67
31	10.60	------			------		------	12.38	------		8.27	------
MEAN	10.97											
MAX	11.46											
MIN	10.60											

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.78	8.89						10.01	14.60			9.30
2	8.88	8.90						10.06	15.10			9.58
3	8.93	8.89						10.10	15.53			9.70
4	8.96	8.88						10.32	15.59			9.68
5	9.13	8.86						10.50	15.74			9.74
6	9.25	8.95						10.40	15.94			9.75
7	9.28	9.12						10.45	15.82			9.71
8	9.36	9.16						10.46				9.65
9	9.37	9.31						10.56				9.61
10	9.31	9.25						10.92				9.53
11	9.23	9.30						11.12	16.24			9.57
12	9.38	10.01						11.28	16.20			9.66
13	9.01	11.45						11.74	16.12			9.75
14	9.10	11.21						12.25	16.30			9.79
15	9.18	11.08						12.26	16.58			10.07
16	9.24	11.27						11.97	16.51			10.66
17	9.29	11.43						11.63	16.74			11.31
18	9.35	11.32						11.38	17.27			11.52
19	9.27	11.77						11.17	17.61			11.46
20	9.18	11.65						11.05	17.91			10.99
21	9.15	11.77						10.92	17.49			10.91
22	9.17							11.05	16.98			10.90
23	9.15							11.59				10.79
24	9.14							12.10				10.75
25	9.10						10.25	12.07				10.78
26	9.08						10.21	12.68				10.69
27	9.08						10.16	13.99				10.52
28	9.07						9.99	14.83				10.51
29	9.04				------		9.93	15.34			9.54	10.42
30	8.88				------		9.93	15.02			9.54	10.38
31	8.86	------			------		------	14.63	------		9.30	------
MEAN	9.13							11.74				10.26
MAX	9.37							15.34				11.52
MIN	8.78							10.01				9.30

06329620 Yellowstone River Stage Gage No. 3 near Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.53	10.48						9.93			11.50	12.12
2	10.66	10.26						9.70		15.31	11.38	12.13
3	10.56	10.08						9.69		15.04	11.24	12.07
4	10.49	9.99						9.56		14.71	11.10	11.85
5	10.35	9.83						9.65		14.41	10.90	11.73
6	10.37	9.92						10.06		14.26	10.74	11.66
7	10.46	10.56						10.46		14.11	10.60	11.70
8	10.40							10.52		14.26	10.45	11.70
9	10.61						10.56	10.46		14.44	10.34	11.70
10	10.92						10.49	11.21		14.40	10.27	11.72
11	11.08						10.59	11.97		14.38	10.27	11.58
12	10.98						10.54	11.63		14.41	10.27	11.47
13	10.87						10.45	11.10		14.47	10.27	11.38
14	10.77						10.41			14.29	10.28	11.31
15	10.82						10.34			14.09	10.51	11.20
16	10.86						10.39			14.05	10.68	11.16
17	10.89						10.44				10.62	11.15
18	10.81						10.41			13.85	10.89	11.14
19	10.72						10.42			13.90	11.43	11.14
20	10.58						10.33			13.89	12.01	11.14
21	10.61						10.21			13.74	12.92	11.24
22	10.46						10.24			13.47	11.70	11.28
23	10.24						10.23			13.00	11.85	11.23
24	10.14						10.18			12.66	13.34	11.49
25	10.24						10.10			12.39	14.23	11.84
26	10.15						10.12			12.13	13.81	11.87
27	10.48						9.96			11.91	13.45	11.77
28	10.42						9.97			11.72	13.24	11.65
29	10.68						9.96			11.67	12.88	11.54
30	10.63				------		9.96			11.61	12.54	11.48
31	10.57	------			------		------		------	11.75	12.28	------
MEAN	10.59										11.55	11.55
MAX	11.08										14.23	12.13
MIN	10.14										10.27	11.14

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								13.93	15.43	16.17	11.68	9.70
2								13.73	15.02	15.25	11.52	9.70
3								13.45	14.79	14.96	11.35	9.80
4								13.20	14.63	15.18	11.24	9.85
5								13.02	12.96	15.24	11.13	9.81
6								12.81		15.22	11.00	
7								12.35		15.80	10.94	
8								12.06		16.20	10.82	
9								12.03		15.87	10.73	
10	11.20							12.19		15.50	10.72	
11	11.23						12.13	12.48		15.42	10.62	
12	11.03						12.11	12.73		15.40	10.56	9.80
13	10.99						12.02	12.74		15.20	10.51	9.75
14	10.93						11.99	12.74		14.95	10.37	
15	10.98						12.09	13.00		14.69	10.33	
16	10.99						12.20	13.18		14.61	10.41	
17	11.00						12.27	13.18		14.40		
18	11.10						12.20	13.30		14.39		
19	11.19						12.15	13.88	13.39	14.80	10.35	
20	11.22						11.88	13.65	13.05	14.65	10.28	
21	11.23						11.79	13.20	13.21	14.55	10.24	9.82
22							11.70	13.19	13.71	14.98	10.15	9.86
23							11.43	13.88	13.95	14.48	10.04	9.80
24							11.43	14.35	14.27	13.96	9.54	9.81
25							11.31	14.13		13.53	9.87	9.88
26							11.41	13.81		12.82	9.76	10.04
27							12.81	13.65		12.50	9.73	10.26
28							13.51	13.86		12.22	9.71	10.25
29					------		13.57	14.60		12.06	9.70	10.19
30					------		13.83	15.13	16.72	12.00	9.70	10.18
31		------			------		------	15.44	------	11.90	9.70	------
MEAN								13.38		14.48		
MAX								15.44		16.20		
MIN								12.03		11.90		

06329620 Yellowstone River Stage Gage No. 3 near Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.15	10.59					12.38	11.35	17.22		11.10	8.53
2	10.08	10.65					12.43	11.38	16.90		11.12	8.58
3	10.09	10.62					12.22	11.42	16.64		11.21	8.64
4	10.07	10.54					12.48	11.38	16.30		11.10	8.70
5	10.09						12.53	11.33	15.85		10.97	8.68
6	10.32						12.70	11.14	16.19		10.78	8.75
7	10.47						12.90	11.05	16.93		10.88	8.86
8	10.64						12.70	11.03	17.52	16.73	11.08	8.97
9	10.71						11.40	11.92	17.86	16.32	10.39	9.24
10	10.45						10.35	13.47	17.98	15.72	10.19	9.38
11	9.96						10.05	13.65		15.02	10.09	9.49
12	9.80						10.22	13.95		14.72	10.08	9.63
13	10.06						10.28	13.70		14.61	9.99	9.85
14	10.56						9.98	13.52	17.34	14.58	9.93	10.26
15	10.59						9.99	13.25	16.85	14.66	9.59	10.32
16	10.77						10.33	13.02	16.56	14.29	9.37	10.38
17	10.82						10.48	12.92	16.50	13.83	9.21	10.51
18	10.84						10.47	12.89	16.34	13.39	9.10	10.61
19	10.82						10.45	12.88	16.20	12.99	9.00	10.62
20	10.82						10.50	12.86	16.10	12.64	8.94	10.60
21	10.74						10.75	13.14	16.14	12.42	8.89	10.56
22	10.64						10.72	14.40	16.40	12.27	8.78	10.42
23	10.59						10.64	15.17	17.14	12.14	8.70	10.38
24	10.55						10.62	16.24	17.84	12.02	8.68	10.45
25	10.55						10.63	16.94	18.26	11.89	8.66	10.49
26	10.54					12.20	10.53	16.77	18.56	11.87	8.69	10.48
27	10.51					12.19	10.45	16.63	18.69	11.99	8.66	10.50
28	10.48					12.50	10.57	16.28	18.82	11.64	8.65	10.50
29	10.44				------	12.49	10.89	16.33	19.13	11.43	8.64	10.50
30	10.48				------	12.60	11.30	16.78	19.03	11.22	8.59	10.48
31	10.50	------			------	12.54	------	17.43	------	11.13	8.54	------
MEAN	10.46						11.06	13.68			9.66	9.85
MAX	10.84						12.90	17.43			11.21	10.62
MIN	9.80						9.98	11.03			8.54	8.53

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.40	10.45						12.89	16.05	17.63	12.82	9.94
2	10.42	10.43						12.56	16.59	16.59	12.69	10.31
3	10.36	10.42						12.25	16.53	16.98	12.52	10.78
4	10.32	10.39						12.14	16.35	16.64	12.49	11.43
5	10.31	10.36						12.06	16.23	16.43	12.37	11.75
6	10.37	10.36						12.10	15.95	16.63	12.05	12.28
7	10.48	10.42						12.28	15.90	16.90	11.80	11.51
8	10.38	10.41						12.62	15.99	16.65	11.72	11.63
9	10.27	10.41						12.86	15.95	16.30	11.70	11.69
10	10.25	10.40						13.26		16.13	11.61	11.32
11	10.26	10.42						13.50		15.53	11.60	11.30
12	10.28	10.44						13.70		15.28	11.55	11.29
13	10.32							13.78		14.87	11.45	11.22
14	10.40							13.64		14.86	11.29	11.07
15	10.48							13.55		14.83		10.92
16	10.60							14.00		14.70		10.80
17	10.65							14.65	17.27	14.59		10.72
18	10.65						12.69	14.83	17.39	14.45	10.76	10.66
19	10.60						12.38	14.55	17.50	14.40	10.71	10.61
20	10.50						12.25	14.65	17.49	14.31	10.67	10.62
21	10.42						12.35	14.62	17.56	14.21	10.53	10.72
22	10.40						12.04	14.29	17.51	14.20	10.48	10.73
23	10.38						11.80	14.00	17.61	14.03	10.43	10.63
24	10.43						11.57	13.63	17.76	13.72	10.30	10.66
25	10.45						11.65	13.63	17.93	13.57	10.04	10.69
26	10.23						11.77	13.67	18.07	13.51	9.95	10.65
27	9.88						12.03	13.62	18.31	13.45	9.87	10.60
28	10.11						12.15	13.37	18.27	13.22	9.81	10.52
29	10.45				------		12.72	13.43	17.70	13.10	9.78	10.47
30	10.49				------		13.23	13.87	17.57	13.07	9.75	10.43
31	10.45	------			------		------	14.99	------	12.97	9.74	------
MEAN	10.39							13.52		14.96		10.93
MAX	10.65							14.99		17.63		12.28
MIN	9.88							12.06		12.97		9.94

06329620 Yellowstone River Stage Gage No. 3 near Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.46							11.48	13.04	14.59	11.49	10.82
2	10.97							11.60	13.66	14.36	11.28	10.63
3	13.07							11.88	14.56	14.42	11.18	10.58
4	13.44							11.99	15.81	14.58	11.29	10.56
5	12.67							12.06	16.50	14.41	11.62	10.51
6	12.16							11.85	16.76	14.11	12.20	10.52
7	11.88						12.14	11.69	16.85	13.66	12.18	10.49
8	11.77	14.33					12.08	11.67	17.01	13.12	11.87	10.41
9	11.74	13.83				20.80	11.84	11.77	17.04	13.03	11.50	
10	11.63	14.26				21.40	11.60	11.99	17.19	13.10	11.28	
11	11.54					22.59	11.95	12.07	17.69	13.21	11.08	
12	11.40					23.64	11.87	12.15	17.84	13.10	10.90	11.06
13	10.94					25.34	11.85	11.95	17.94	12.99	10.78	10.92
14	10.80					27.92	11.85	12.10	17.62	12.87	10.65	10.89
15	11.15					29.55	11.77		17.46	12.68	10.51	11.11
16	11.26					28.00	11.67		17.08	12.61	10.50	11.30
17	11.31					26.57	11.63		16.58	12.61	10.60	11.20
18	11.42					24.79	11.72		16.29	12.69	10.98	11.10
19	11.95					19.13	11.61	11.60	16.33	12.55	11.20	10.93
20	13.28					14.09	11.55	12.39	16.05	12.58	11.29	10.78
21	13.00					13.33	11.61	13.56	16.02	12.52	11.49	10.60
22	12.63					12.10	11.55	13.99	16.15	12.47	11.31	10.51
23	12.32						11.47	14.43	15.79	12.82	11.14	10.49
24	12.17						11.36	14.73	15.63	12.99	11.09	10.43
25	12.08				19.80		11.42	14.90	15.69	13.14	11.03	10.58
26	12.01				20.31		11.50	14.74	15.87	13.02	11.00	10.71
27	12.00				20.33		11.47	14.40	15.94	12.69	11.03	10.79
28	11.94				19.81		11.39	13.91	15.89	12.53	11.58	10.74
29	11.91						11.30	13.70	15.30	12.19	11.46	10.83
30					------		11.33	13.24	15.00	11.87	11.29	10.85
31		------			------		------	12.78	------	11.68	11.08	------
MEAN									16.22	13.07	11.22	
MAX									17.94	14.59	12.20	
MIN									13.04	11.68	10.50	

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.93	10.68							14.32	14.20	9.44	9.73
2	11.01	10.82						68.49	13.89	14.40	9.32	9.90
3	11.07	11.21						12.88	13.82	14.83	9.21	10.14
4	11.04	11.14					9.71	12.75	14.00	14.81	65.06	12.31
5	10.89	11.09					9.73	68.22	14.59	14.45	65.00	13.30
6	10.87	11.14					9.92		15.15	13.70		12.43
7	10.93	11.21					10.24		14.84	12.99		11.58
8	11.16	11.28					10.33		14.35	12.56		11.06
9	11.29	11.32					10.32		13.79	12.29		10.73
10	11.30						10.28		13.85	12.12		10.70
11	11.28						10.10		14.68	12.00		10.83
12	11.28						10.00	68.12	15.80	11.73	65.10	10.86
13	11.29						9.87	68.23	16.62	11.28	65.01	11.14
14	11.28	11.04						68.14	16.80	10.85	9.01	11.01
15	11.29							12.33	16.35	10.60	9.00	10.91
16	11.37							12.19	15.98	10.46	9.06	10.91
17	11.40							12.00	15.99	10.34	9.11	11.20
18	11.41							12.05	16.42	10.19	9.04	11.30
19	11.40							12.28	16.90	10.06	8.85	11.18
20	11.38							12.71	16.56	9.79	8.81	11.28
21	11.37							13.51	15.80	9.46	9.00	11.31
22	11.30							14.20	15.14	9.29	9.05	11.25
23	11.23							14.83	14.39	9.24	9.09	11.13
24	11.18							15.45	13.83	9.29	9.67	11.07
25	10.60							15.74	13.63	9.40	10.15	11.23
26	10.80							15.46	13.69	9.60	10.12	11.33
27	11.36							15.46	14.04	9.79	9.91	11.30
28	11.57							15.49	14.33	10.35	9.80	11.23
29	11.59				------			15.68	14.21	10.20	9.79	11.32
30	11.61				------			15.50	14.10	9.81	9.79	11.33
31	11.49	------			------		------	14.90	------	9.60	9.76	------
MEAN	11.22								14.93	11.28		11.17
MAX	11.61								16.90	14.83		13.30
MIN	10.60								13.63	9.24		9.73

06329640 Missouri River Stage Gage No. 5A at Buford, N. Dak.

LOCATION.--Lat 47°59'06", long 103°59'05", in SE¼ sec.15, T.152 N., R.104 W., Williams County, on left bank 1.5 mi (2.4 km) southwest of Buford at mile 1,580.7 (kilometre 2,543.3).

DRAINAGE AREA.--164,000 mi^2 (425,000 km^2), approximately.

PERIOD OF RECORD.--April 1960 to current year (seasonal).

GAGE.--Water-stage recorder. Datum of gage is 1,850.00 ft (563.880 m) above mean sea level. Prior to Mar. 8, 1962 at datum 50.00 ft (15.240 m) lower.

EXTREMES.--Current year: Maximum daily gage height recorded, 13.66 ft (4.164 m) June 14; minimum daily recorded, 5.87 ft (1.789 m) Aug. 20.
Period of record: Maximum daily gage height recorded, 15.27 ft (4.654 m) June 28, 1971; minimum daily recorded, 2.63 ft (0.802 m) Aug. 15-16, 1966.

REMARKS.--Records good. Stage regulated by upstream reservoirs.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								55.12	55.11	58.62	55.25	54.75
2								55.02	55.14	58.33	55.18	
3								55.00	55.18	58.14	55.18	
4								54.93	55.60		55.13	
5								55.07	56.39		55.32	
6								55.07	57.04		55.12	
7								55.05	57.96	56.88	55.11	
8								55.18	58.48	56.77	55.13	
9								55.31	58.37	56.60	55.16	
10								55.29	58.20	56.33	55.13	
11								55.22	58.22	56.09	55.10	
12								55.05	58.28	55.90	54.83	
13								54.87	58.49	55.93	54.70	
14								54.89	58.99		54.69	
15							55.81	54.90	58.94		54.63	
16							55.82	55.35			54.59	
17							55.47	56.56			54.70	
18							55.49	56.90			54.62	
19							55.38	56.60			54.54	55.94
20							55.38	56.33			54.54	
21							55.27	56.10		54.65		
22							55.21	55.79		54.56		
23							55.18	55.59		54.41	54.96	
24							55.09	55.47		54.33		
25							55.00	55.22		54.23		
26							55.04	55.04		54.21		
27							55.10	55.09		54.16		
28							55.08	55.20	58.87	54.17		
29							55.11	55.35	58.82	54.58		
30					------		55.20	55.45	58.81	54.92		
31		------			------		------	55.27	------	55.08		------
MEAN								55.40				
MAX								56.90				
MIN								54.87				

06329640 Missouri River Stage Gage No. 5A at Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		54.94					54.97		59.16		55.74	
2		54.94					54.93		59.39		54.92	
3	54.88	54.95					54.92		59.47		54.54	
4		54.96					54.87		59.13		54.41	54.28
5		54.96					54.87		58.87		54.30	54.64
6		54.97					54.85		58.86	57.39	54.19	54.95
7		54.95					54.78	54.37	58.93	57.31	54.12	54.78
8		55.00					54.74	54.26	59.30	56.19	54.02	55.06
9		55.00					54.71	54.25	59.53	57.07	53.81	55.44
10		54.97					54.68	54.23	59.45	56.93	53.73	55.41
11	54.72	54.99					54.66	54.36	59.39	57.04	53.78	55.15
12		55.03					54.76	54.37	59.55	57.25	53.82	55.69
13	54.75	55.05					54.66	54.37	59.78	57.27	53.82	56.34
14		55.03					54.50	54.32	59.97	56.87	53.93	56.61
15		55.05					54.46	54.20	59.98	56.51	54.18	56.67
16		55.08					54.42	54.04	59.73	56.30	54.47	56.73
17		55.13					54.37	53.91	59.41	56.21	54.64	56.65
18		55.13					54.30	53.83	59.22	56.18	54.77	56.39
19		55.09					54.19	54.18	59.03	56.08	54.42	56.29
20		55.06					54.27	54.63	58.92	56.00	54.16	56.56
21		55.03					54.30	55.12	58.83	55.88	54.53	56.69
22		55.04					54.27	55.56	58.74	55.74		56.83
23		55.03					54.24	55.49	58.73	55.65		57.95
24		55.03				55.89	54.11	55.52	58.64	55.63		
25		55.02				55.33	54.14	55.72	58.45	55.57		
26	55.16	55.00				55.23	54.18	55.80	58.27	55.51		
27	55.07	54.68				55.18		56.33	57.97	55.54		
28	55.01	54.70				55.09		57.15	57.75	55.51		57.62
29	54.90				------			57.92	57.49	55.31		57.44
30	54.84				------	55.01		58.37	57.61	54.71		57.35
31	54.89	------			------	54.99	------	58.88	------	54.93		------
MEAN									58.99			
MAX									59.98			
MIN									57.49			

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							13.13	7.33	8.45	11.08	7.38	4.51
2							12.69	7.05	8.41	10.96	7.02	4.48
3							12.59	6.91	9.09	10.81	6.71	4.60
4							12.17	6.44	8.65	10.48	6.67	4.73
5							11.99	5.95	9.08	10.22	6.95	4.76
6							12.00	5.68	9.91	10.23	6.82	4.75
7							9.42	5.35	10.05	10.04	6.78	4.70
8						9.32	7.87	5.11	10.04	9.71	6.59	4.62
9						9.78	7.78	5.13	9.37	9.38	6.38	4.55
10						10.36	7.83	5.80	9.16	9.22	6.18	4.49
11						10.65	7.63	6.09	9.12	9.17	6.38	4.55
12						10.74	7.15	6.44	9.12	8.87	6.02	4.62
13						10.78	6.93	7.01	9.31	8.59	5.88	4.71
14						10.80	7.02	7.84	9.77	8.52	5.96	4.85
15						10.78	6.94	8.14	10.87	9.27	6.37	4.89
16						10.56	6.84	8.19	11.32	9.68	6.21	4.79
17						10.64	6.82	7.97	11.14	10.11	5.96	4.77
18						10.88	6.66	7.70	10.94	10.13	5.72	4.94
19						10.90	6.47	7.50	11.45	9.82	5.47	4.98
20						10.93	5.97	7.42	11.92	10.15	5.17	4.92
21							5.80	7.23	11.86	9.66	4.91	4.82
22							5.73	7.28	11.36	9.22	4.71	4.78
23							5.78	7.21	11.22	8.87	4.61	4.68
24							6.21	7.98	11.03	8.65	4.51	4.62
25							6.97	7.70	10.84	8.41	4.46	4.59
26							6.83	7.75	10.78	8.18	4.50	4.71
27							6.59	8.73	10.81	8.01	4.61	4.85
28							6.51	8.51	10.77	7.80	4.73	4.88
29					------		6.88	8.76	10.79	7.50	4.79	4.80
30					------	13.71	7.29	9.49	10.95	7.38	4.71	4.67
31		------			------	13.14	------	8.90	------	7.42	4.59	------
MEAN							8.02	7.24	10.25	9.28	5.73	4.72
MAX							13.13	9.49	11.92	11.08	7.38	4.98
MIN							5.73	5.11	8.41	7.38	4.46	4.48

06329640 Missouri River Stage Gage No. 5A at Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.58		5.49					4.86	8.56	9.67	5.28	4.29
2	4.59		5.47					5.89	8.73	9.69	5.42	4.30
3	4.53		5.52					5.44	9.00	9.47	5.21	4.97
4	4.40		5.46					5.07	9.17	9.09	4.99	5.41
5	4.38		5.33					4.75	9.50	8.90	4.80	4.87
6	4.39							4.59	10.07	8.90	4.66	4.84
7	4.47							4.58	11.49	9.01	4.59	4.91
8	4.50							4.59	10.91	8.79	4.49	4.93
9	4.43							4.58	10.61	8.54	4.37	4.81
10	4.40							4.68	10.35	8.30	4.25	4.69
11	4.46							5.03	9.88	8.18	4.10	4.51
12	4.74		7.79					5.73	9.53	8.39	4.01	4.40
13	4.72							6.29	9.52	8.69	3.88	4.31
14	4.47							6.63	9.71	8.54	3.76	4.32
15	4.63	3.89						6.57	9.87	8.13	3.73	4.60
16	4.78	3.88						6.74	10.15	7.89	3.74	4.46
17	4.82	3.92						6.63	10.60	7.68	3.74	4.51
18	4.80	3.93						6.39	10.88	7.36	3.72	4.66
19	4.72	3.93						6.30	11.29	7.06	3.72	4.68
20	4.59	4.03						6.32	11.66	6.92	3.83	4.72
21	4.55	4.09						6.48	11.73	6.62	3.76	4.80
22	4.54	4.23						6.66	11.47	6.54	3.70	4.80
23	4.48	4.48						6.81	11.28	6.50	3.84	4.75
24	4.42	4.94						6.91	11.09	6.13	3.95	4.77
25	4.38	5.06						7.03	10.91	5.84	3.92	4.85
26	4.36	5.08					3.68	7.18	10.64	6.02	3.92	5.34
27	4.31	5.10					3.59	7.36	10.38	6.21	4.17	5.99
28	4.35	5.09					3.93	7.64	10.17	5.95	4.22	5.76
29	4.34	5.23			------		4.22	8.15	10.10	5.48	4.20	5.66
30	4.36	5.41			------		4.30	8.66	9.90	5.29	4.16	5.66
31	4.30	------			------		------	8.73	------	5.18	4.17	------
MEAN	4.51							6.23	10.31	7.58	4.20	4.85
MAX	4.82							8.73	11.73	9.69	5.42	5.99
MIN	4.30							4.58	8.56	5.18	3.70	4.29

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.49	4.40									6.40	6.39
2	4.37	4.44									6.25	6.51
3	5.27	4.51									6.21	6.25
4	5.09										6.34	5.89
5	5.04										6.43	5.71
6	4.91										6.25	5.68
7	4.91										6.05	5.68
8	4.87										5.90	5.50
9	4.84										5.75	5.36
10	4.77											5.29
11	4.75											5.22
12												5.15
13								7.58				5.24
14								7.73				5.28
15	4.78							8.27				5.34
16	4.77							7.73				5.52
17	4.78							7.38				5.52
18	4.77							7.11			4.90	5.60
19	4.68							6.90			4.87	5.67
20	4.48							7.07			4.80	5.66
21	4.38							7.52			4.88	5.71
22	4.33							8.04			4.97	5.70
23	4.36							9.44			5.30	5.43
24	4.34										5.45	5.23
25	4.33									7.37	5.60	5.45
26	4.31	7.72								7.32	5.64	5.41
27	4.31									7.13	5.62	5.33
28	4.33									7.03	5.55	5.33
29	4.28									6.83	5.49	5.38
30	4.27				------					6.65	6.46	5.43
31	4.26	------			------		------		------	6.55	6.87	------
MEAN												5.56
MAX												6.94
MIN												5.18

06329640 Missouri River Stage Gage No. 5A at Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.27	5.24							8.68	12.96	8.99	7.50
2	5.52	5.15							9.02	12.91	8.92	7.28
3	5.58	5.13							9.21	12.45	8.66	7.11
4	5.27	5.15							9.84	12.19	8.45	6.94
5	5.04	5.22							10.05	12.30	8.25	6.87
6	4.99	5.26							9.96	12.47	8.03	6.83
7	4.91	5.22							10.15	12.51	7.96	6.73
8	4.91	5.20							10.53	12.48	7.83	6.60
9	4.86	5.19							10.43	12.32	7.81	6.47
10	4.84	5.16						8.88	10.46	12.22	7.68	6.39
11	4.86	5.13						8.89	10.72	12.45	7.67	6.24
12	4.86	5.09						8.77	11.01	12.51	7.66	6.16
13	4.84	5.09						8.65	11.20	13.07	7.50	6.33
14	4.82	5.14						8.59	11.37	12.87	7.35	6.61
15	4.83	5.22						8.49	11.60	12.43	7.19	6.77
16	4.85	5.25						8.56	12.99	12.08	7.05	6.68
17	4.85	4.75						8.62	12.16	11.75	6.95	6.65
18	4.83	4.64						8.78	11.45	11.42	6.92	6.77
19	4.80	4.16						9.00	11.35	11.18	6.93	6.90
20	4.78	5.18						9.20	11.54	11.00	6.85	7.06
21	4.91	5.28						9.54	12.11	10.92	6.75	7.34
22	4.99	5.32						9.63	12.23	10.82	6.65	7.24
23	5.12	5.30						9.45	11.84	10.70	6.56	7.25
24	5.55							9.33	11.85	10.57	7.17	7.28
25	5.92							9.47	12.07	10.30	8.33	7.29
26	6.06							9.75	12.18	10.17	8.64	
27	5.98							9.45	12.45	9.98	8.44	
28	5.63							9.23	12.57	9.62	8.12	
29	5.51				------			9.12	12.61	9.54	7.94	7.28
30	5.64				------			9.05	12.75	9.38	7.80	7.29
31	5.45	------			------		------	8.94	------	9.14	7.68	------
MEAN	5.17								11.21	11.51	7.70	
MAX	6.06								12.99	13.07	8.99	
MIN	4.78								8.68	9.14	6.56	

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.31	7.15						6.08	9.57		3.71	3.42
2	7.35	7.12						6.16	9.96	3.00	.48	3.36
3	7.52	6.99						6.56	10.28		3.38	3.26
4	7.56	6.93						6.88	10.54		3.19	3.15
5	7.52	6.91						6.86	10.24		3.07	3.14
6	7.51	6.86						6.68	10.07			3.06
7	7.44	6.69					6.46	6.48	9.61			2.91
8	7.50	6.38					6.47	6.35	8.99			2.87
9	7.48	6.17					6.60	6.49	8.30		2.96	2.88
10	7.45	6.11					6.75		7.81		2.96	3.08
11	7.43	6.08							7.54		2.90	2.97
12	7.35	6.00							7.55		2.83	2.91
13	7.34	5.92					6.79		7.49		2.82	2.87
14	7.27	5.99					6.52	7.92	7.50		2.69	2.84
15	7.19	6.05					6.20		7.96		2.63	2.82
16	7.25	5.97					6.18		7.83		2.63	2.79
17	7.31	6.02					6.13	8.47	7.39		2.98	2.91
18	7.28	6.04					6.00	8.32	7.00		3.11	3.83
19	7.24	6.07					5.87	8.09	6.83		3.03	3.73
20	7.26	6.09					5.82	7.79	6.80		3.00	3.62
21	7.30	6.02					5.84	7.57	6.95		3.15	3.77
22	7.26	5.92					5.86	7.49	7.23		3.65	3.84
23	7.24	5.99					5.87	7.39	7.57		3.97	3.76
24	7.24	5.99					5.85	7.29	7.85		4.11	3.69
25	7.20	5.97					5.79	7.32	8.31		4.30	3.74
26	7.21	5.97						7.77	8.85		4.39	3.65
27	7.21	5.96					6.14	8.44	8.76	3.79	4.29	3.55
28	7.19	5.96					6.16	8.10	8.00	3.73	4.14	3.42
29	7.17	5.97			------		6.28	7.75	7.57	3.83	3.94	3.42
30	7.13	6.00			------		6.18	7.80		3.78	3.72	3.44
31	7.12	------			------		------	8.73	------	4.00	3.57	------
MEAN	7.32	6.24										3.29
MAX	7.56	7.15										3.84
MIN	7.12	5.92										2.79

06329640 Missouri River Stage Gage No. 5A at Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.52	3.78						6.71			9.21	6.22
2	3.60	3.82						6.61		13.60		6.38
3	3.60	3.92						6.59		13.73		6.51
4	3.60							6.83		13.73	8.76	6.51
5	3.76							7.06		13.88	8.76	6.60
6	3.89							7.03		13.89	8.68	6.43
7	3.87							7.11	11.76	13.75		6.30
8	3.95							7.01		13.63		6.44
9	3.99							7.35	12.38	13.57		6.65
10	3.97							8.11	12.59	13.62		6.75
11	3.87							8.25	11.95	13.65		6.88
12	3.73							8.13	11.93	13.40	8.29	6.99
13	3.66							8.48	11.72	13.09	8.29	6.83
14	3.80							8.76	11.79	12.88	8.38	6.88
15	3.88							8.81	12.20	12.47	8.37	7.25
16	3.96							8.60	12.26	12.28	8.14	7.71
17	3.98							8.14	12.64	12.44	7.92	8.00
18	4.10							7.92	13.08	12.11	7.83	8.12
19	4.02							7.89	13.70	11.91	7.50	8.11
20	3.96							7.81	13.91	11.59	7.27	7.95
21	3.98							7.72	13.57	11.37	7.15	7.88
22	4.02							7.81	13.12	11.06	6.89	7.87
23	4.01							8.25	13.26	10.94	6.66	7.87
24	4.01							8.72	13.19	10.74	6.53	7.88
25	3.99								13.24	10.52	6.25	7.94
26	3.93								13.35	10.31		7.72
27	3.93								13.56	10.04		7.38
28	3.91								13.51	9.76		7.31
29	3.90				------				12.86	9.67	6.27	7.17
30	3.72				------						6.28	6.94
31		------			------		------		------	9.19	6.18	------
MEAN												7.18
MAX												8.12
MIN												6.22

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.08	6.94					6.98	5.02		11.50	8.08	8.73
2	7.15						6.55	4.96		11.66	8.04	8.93
3	7.29						5.82	4.90		11.38	7.96	8.90
4	7.22						5.63	4.91		11.15	7.77	8.71
5		6.70					5.62	4.90	9.14	10.93	7.65	8.60
6		6.72					5.60	5.11	9.87	10.74	7.67	8.47
7		7.24					5.46	5.44	10.93	10.64	7.59	8.34
8	7.28	7.45					5.37	5.60	11.19	10.74	7.48	8.34
9	7.46						5.37	5.65	10.90	10.98	7.40	8.36
10	7.80	7.52					5.35	5.91	11.17	11.04	7.29	8.36
11	7.66	7.21					5.42	6.29	11.33	10.95	7.12	8.25
12	7.59						5.41	6.12	11.48	10.75	6.69	8.14
13	7.72						5.33	5.82	11.81	10.71	6.28	8.04
14	7.70						5.21	5.55	11.56	10.53	5.96	8.01
15	7.62	7.24					5.16	5.86	11.33	10.33	6.47	7.85
16	7.68	7.43					5.15	6.16	11.30	10.33	7.06	7.72
17	7.64	7.88					5.24	5.98	11.55	10.40	7.20	7.92
18	7.48						5.21	6.58	11.30	10.25	7.34	8.06
19	7.40						5.21	7.22	10.93	10.28	7.74	8.10
20	7.41						5.14	7.30	11.07	10.21	8.11	8.11
21	7.45						5.07	7.13	11.40	10.05	8.11	8.15
22	7.42						5.04		11.97	9.81	7.83	8.12
23	7.27						5.08		12.29	9.45	8.14	7.70
24	6.92						5.12		12.60	9.14	9.17	7.71
25							5.10		12.55	8.81	10.15	8.02
26							5.10		12.37	8.30	9.87	8.01
27						7.33	5.04		12.25	8.04	9.53	7.88
28						7.31	4.98		11.83	7.45	9.38	7.76
29	7.36					7.15	4.98		11.42	7.59	9.18	7.38
30	7.39				------	7.00	5.05		11.38	7.86	8.87	7.50
31	7.37	------			------	6.99	------		------	8.21	8.65	------
MEAN							5.36			10.01	7.93	8.14
MAX							6.98			11.66	10.15	8.93
MIN							4.98			7.45	5.96	7.38

06329640 Missouri River Stage Gage No. 5A at Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.69	8.10							11.25		8.83	6.95
2	7.70	8.10							10.87	11.06	8.69	7.13
3	7.72	8.03							10.50	10.68	8.55	7.25
4	7.69	8.00							10.30	10.71	8.43	7.33
5	7.53	7.95							9.80	10.98	8.31	7.26
6	7.40	7.98							9.40	10.89	8.19	6.98
7	7.14	7.99							9.10	11.23	8.06	7.05
8	7.53	8.19							9.08	11.88	7.87	7.08
9	7.93	8.27							9.62	11.55	7.76	6.97
10	8.03	8.15						9.01	10.33	11.30	7.74	6.94
11	8.06	8.06						9.17	10.34	11.41	7.70	7.06
12	7.93	7.95						9.32	10.13	11.78	7.64	7.09
13	7.92	7.82						9.35	10.49	11.86	7.58	6.99
14	7.85	7.83						9.32	11.12	11.72	7.50	7.01
15	7.82	7.84						9.36	10.82	11.46	7.39	6.76
16	7.87	7.68						9.28	10.27	11.21	7.48	6.62
17	7.94	7.74						9.18	10.01	10.88	7.51	6.49
18	8.01	7.80						9.12	9.30	10.89	7.57	6.42
19	8.09	7.79						9.48	8.92	11.40	7.35	6.65
20	8.17	7.94						9.34	8.80	11.35	7.15	6.65
21	8.17							8.68	8.74	11.29	7.05	6.78
22	8.11							8.65	9.17	11.51	6.97	6.85
23	8.08							9.25	9.47	11.25	6.87	6.83
24	8.04							9.83	9.82	10.73	6.78	6.58
25	8.10							9.71	10.27	10.32	6.68	6.41
26	7.99							9.35	10.48	9.81	6.71	6.56
27	8.01							9.12	10.43	9.56	6.90	6.71
28	8.04							9.13	11.50	9.33	6.73	6.71
29	8.07				------			9.78	12.72	9.15	6.53	6.63
30	8.01				------			10.42	12.58	9.09	6.68	6.53
31	8.02	------			------		------	10.96	------	8.98	6.80	------
MEAN	7.89								10.19		7.48	6.84
MAX	8.17								12.72		8.83	7.33
MIN	7.14								8.74		6.53	6.41

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.36	7.21				13.04	10.07	8.40	13.26	14.75	8.55	6.57
2	6.27	7.23				12.93	10.13	8.18	12.94	14.81	8.56	6.37
3	6.30	7.26				12.63	10.06	8.13	12.66	14.43	8.59	6.61
4	6.50	7.35				11.84	10.23	8.30	12.43	13.86	8.53	6.72
5	6.30					11.46	10.44	8.31	12.30	13.55	8.40	6.77
6	6.44					11.69	10.58	7.67	12.49	13.40	8.31	6.89
7	6.81					11.92	10.90	7.70	13.12	13.33	8.32	6.96
8	7.11					12.13	10.74	7.85	13.73	13.37	8.60	7.06
9	7.42					12.37	10.11	8.16	14.11	13.32	8.09	7.28
10	7.51					12.42	8.65	9.67	14.23	12.75	7.89	7.39
11	7.19					11.97	7.12	10.12	14.23	12.02	7.80	7.44
12	7.06					11.50	6.89	10.33	14.14	11.69	7.76	7.52
13	7.21					11.49	6.84	10.02	14.16	11.53	7.71	7.70
14	7.61					11.37	6.44	9.91	13.85	11.49	7.60	7.97
15	7.60					11.20	6.49	10.03	13.37	11.60	7.39	8.04
16	7.57					11.07	6.88	10.04	13.10	11.30	7.21	8.09
17	7.74					10.71	7.55	10.07	13.00	10.91	7.11	8.21
18	7.80					10.37	8.11	10.06	12.95	10.48	7.06	8.29
19	7.81					10.09	8.23	10.30	12.87	10.10	6.95	8.29
20	7.85					9.87	8.28	10.42	12.84	9.83	6.85	8.27
21	7.74					9.68	8.45	10.50	12.93	9.63	6.83	8.29
22	7.56					9.54	8.43	11.29	13.13	9.50	6.74	8.28
23	7.30					9.57	8.34	11.99	13.63	9.41	6.66	8.27
24	7.18					9.50	8.32	12.65	14.13	9.36	6.69	8.28
25	7.15					9.49	8.31	13.18	14.40	9.17	6.66	8.25
26	7.13					9.59	8.19	12.94	14.67	9.05	6.63	8.26
27	7.13				12.89	9.60	8.06	12.87	14.81	9.23	6.54	8.26
28	7.05				13.02	9.81	8.17	12.47	14.92	9.07	6.59	8.25
29	7.04				------	9.77	8.44	12.59	15.08	8.89	6.63	8.23
30	7.08				------	9.91	8.58	12.98	14.93	8.74	6.63	8.20
31	7.13	------			------	10.04	------	13.32	------	8.59	6.62	------
MEAN	7.16					10.92	8.60	10.34	13.61	11.26	7.44	7.70
MAX	7.85					13.04	10.90	13.32	15.08	14.81	8.60	8.29
MIN	6.27					9.49	6.44	7.67	12.30	8.59	6.54	6.37

06329640 Missouri River Stage Gage No. 5A at Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.15	8.13						9.73	12.42	14.42	9.44	6.61
2	8.09	8.08						9.58	13.04	13.95	9.31	6.82
3	8.09	8.13						9.42	13.04	13.28	9.20	7.15
4	8.07	8.12						9.30	12.83	12.70	9.12	7.73
5	8.03	8.07						9.29	12.64	12.34	9.01	8.21
6	8.09	8.07						9.23	12.33	12.50	8.74	8.71
7	8.19	8.13						9.27	12.36	12.88	8.44	7.84
8	7.96	8.09						9.57	12.53	12.59	8.37	7.82
9	7.50	8.08						9.88	12.47	12.09	8.34	7.65
10	7.27	8.05						10.14	12.66	11.89	8.24	7.68
11	6.97	8.08						10.45	12.84	12.08	8.22	7.73
12	6.87	8.09						10.51	13.30	11.73	8.19	7.72
13	7.19							10.61	13.76	11.26	8.14	7.71
14	7.73							10.49	14.09	11.22	7.95	7.59
15	8.06						9.31	10.39	14.22	11.17	7.83	7.42
16	8.21						9.30	10.66	13.95	10.99	7.81	
17	8.23						9.47	11.21	13.96	10.86	7.64	
18	8.21						9.14	11.47	14.15	10.80	7.54	
19	8.23						9.03	11.28	14.32	10.85	7.41	
20	8.18						9.24	11.27	14.35	10.84	7.15	
21	8.13						9.39	11.26	14.40	10.74	7.13	
22	8.11						9.28	11.06	14.42	10.72	7.16	
23	8.05						9.15	10.65	14.55	10.57		
24	7.90						8.98	10.48	14.62	10.25		
25	7.87						8.95	10.49	14.77	10.10		
26	7.87						9.04	10.52	14.92	10.06	6.42	
27	7.62						9.19	10.51	15.17	9.94	6.53	
28	7.77						9.29	10.27	15.27	9.77	6.47	
29	8.12				------		9.60	10.31	14.98	9.64	6.55	
30	8.18				------		9.89	10.62	14.60	9.61	6.70	
31	8.13	------			------		------	11.50	------	9.54	6.54	------
MEAN	7.91							10.37	13.77	11.33		
MAX	8.23							11.50	15.27	14.42		
MIN	6.87							9.23	12.33	9.54		

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		7.76						8.85	10.31	11.13	8.06	7.23
2		7.67						8.99	10.81	10.68	7.87	7.05
3		7.50						9.24	11.61	10.60	7.78	6.99
4		7.53						9.35	12.69	10.72	7.85	7.11
5		7.57						9.45	13.47	10.60	8.01	7.07
6	8.64	7.72						9.37	13.93	10.28	8.46	7.05
7	7.94	10.32						9.24	14.03	9.86	8.53	6.86
8	7.66	11.86						9.14	14.18	9.33	8.15	6.87
9	7.70	12.90						9.21	14.40	9.17	7.88	6.87
10	7.62	13.63						9.36	14.51	9.15	7.71	6.86
11	7.61							9.64	14.96	9.27	7.57	7.15
12	7.52							9.81	15.10	9.10	7.45	7.49
13	7.20							9.83	15.16	9.01	7.34	7.36
14	7.04							9.91	14.96	8.88	7.35	7.27
15	7.33							9.85	14.81	8.65	7.30	7.44
16	7.51							9.58	14.59	8.72	7.27	7.62
17	7.52						9.57	9.30	14.32	8.94	7.38	7.62
18	7.60						9.56	9.15	14.03	9.00	7.56	7.33
19	7.99						9.48	9.22	13.87	8.98	7.77	7.14
20	9.55						9.42	9.66	13.43	8.94	7.86	
21	9.62						9.37	10.56	13.16	8.96	8.04	
22	9.13						9.09	11.07	13.27	8.91	7.91	
23	8.55						8.91	11.40	12.97	9.18	7.77	
24	8.32						9.04	11.83	12.66	9.31	7.78	
25	8.13						9.07	12.14	12.62	9.43	7.85	
26	8.11						9.08	12.17	12.69	9.35	7.97	
27	8.10						8.82	11.90	12.59	9.07	7.97	
28	8.04						8.53	11.43	12.67	9.11	8.17	
29	8.03						8.41	11.24	12.20	8.86	7.87	
30	7.93				------		8.45	10.88	11.68	8.47	7.64	
31	7.78	------			------		------	10.28	------	8.26	7.47	------
MEAN								10.10	13.39	9.35	7.79	
MAX								12.17	15.16	11.13	8.53	
MIN								8.85	10.31	8.26	7.27	

06329640 Missouri River Stage Gage No. 5A at Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		7.25							10.77	10.72	6.45	6.46
2		7.23							10.25	10.93	6.32	6.80
3		7.60						8.95	10.15	11.35		7.10
4		7.57						8.65	10.33	11.47		8.72
5		7.56						8.62	10.95	11.15		10.02
6		7.58						8.55	11.66	10.55		9.31
7		7.66						8.45	11.45	9.90		8.48
8		7.68						8.37	10.94	9.47		7.95
9		7.72						8.78	10.35	9.20		7.70
10		7.71						9.12	10.33	9.00		7.58
11	7.40	7.73					7.25	9.17	11.10	8.80		7.69
12	7.44	7.67					7.06	9.16	12.27	8.55		7.72
13	7.45	7.65					6.96	9.12	13.34	8.17		7.98
14	7.42	7.62					6.57	8.96	13.66	7.80	6.05	7.83
15	7.49						6.28	8.56	13.22	7.57	5.99	7.73
16	7.57						6.27	8.27	12.77	7.38	6.00	7.72
17	7.65						6.36	8.07	12.72	7.24	6.05	7.90
18	7.65						6.45	8.09	13.07	7.03	6.05	8.00
19	7.61						6.77	8.38	13.56	6.86	5.92	7.77
20	7.67							8.76	13.41	6.65	5.87	7.70
21	7.72							9.52	12.72	6.41	6.00	7.69
22	7.71							10.37	12.08		6.02	7.60
23	7.69							11.17	11.29		6.05	7.51
24	7.62							11.92	10.70	6.32	6.40	7.40
25	7.18							12.32	10.30	6.48	7.00	7.58
26	7.14							12.01	10.21	6.68	6.90	7.62
27	7.64							11.89	10.49	6.82	6.75	7.60
28	7.84							11.90	10.84	7.20	6.58	7.56
29	7.84				------			12.16	10.85	7.16	6.50	7.62
30	7.87				------			12.06	10.68	6.81	6.48	7.61
31	7.84	------			------		------	11.45	------	6.61	6.47	------
MEAN									11.55			7.80
MAX									13.66			10.02
MIN									10.15			6.46

06329650 Missouri River Stage Gage No. 6 near Buford, N. Dak.

LOCATION.--Lat 47°57'18", long 103°54'36", in SE¼ sec.30, T.152 N., R.103 W., Williams County, on right bank 5 mi (8 km) southeast of Buford at mile 1,576.0 (kilometre 2,535.8).

DRAINAGE AREA.--164,000 mi^2 (425,000 km^2), approximately.

PERIOD OF RECORD.--1959 to current year (seasonal).

GAGE.--Water-stage recorder. Datum of gage is 1,840.00 ft (560.832 m) above mean sea level. Prior to Apr. 17, 1962, at datum 40.00 ft (12.192 m) lower.

EXTREMES.--Current year: Maximum daily gage height recorded, 19.58 ft (5.968 m) June 21; minimum daily recorded, 12.62 ft (3.847 m) Aug. 20.
Period of record: Maximum daily gage height recorded, 22.06 ft (6.724 m) June 28, 1971; minimum daily recorded, 8.23 ft (2.509 m) Aug. 15 and 22, 1963.

REMARKS.--Records good. Stage regulated by upstream reservoirs.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1958 TO SEPTEMBER 1959

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								52.40	53.18	56.14	52.18	51.02
2								52.40	53.28	56.00	52.12	51.08
3								52.40	53.34	55.68	52.02	50.90
4								52.40	53.28	55.28	51.96	50.52
5								52.30	53.18	55.33	51.86	50.58
6								52.50	53.10	55.47	51.78	51.00
7								52.96	53.08	55.63	51.82	51.10
8								53.10	53.98	55.63	51.82	51.04
9									55.28	55.72	51.80	50.92
10										55.54	51.66	50.76
11								52.55		55.56	51.50	50.86
12								52.60			51.42	50.92
13								52.55			51.36	50.86
14								52.70			51.40	50.96
15								52.86			51.24	50.90
16								52.82		54.23	51.22	50.82
17								52.62		54.08	51.18	50.80
18								52.64		54.00	51.20	50.90
19								53.24		53.96	51.26	51.00
20								54.18		53.88	51.40	51.12
21								54.22		53.74	51.36	51.38
22								53.96		53.56	51.42	51.64
23								53.68		53.44	51.18	52.04
24							52.20	53.46		53.22	51.22	52.06
25							52.10	53.28		53.08	51.24	52.14
26							52.10	53.14		52.94	51.32	52.38
27							52.20	52.88		52.78	51.36	52.50
28							52.50	52.78		52.68	51.32	52.40
29					------		52.40	52.64		52.58	51.10	52.24
30					------		52.40	52.58		52.34	50.88	52.16
31		------			------		------	52.86	------	52.26	50.94	------
MEAN											51.47	51.30
MAX											52.18	52.50
MIN											50.88	50.52

06329650 Missouri River Stage Gage No. 6 near Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52.06	51.68						51.23	51.42	53.18	50.98	50.63
2	52.04	51.64						51.16	51.45	52.88	50.95	50.52
3	51.58	51.66						51.14	51.47	52.64	50.94	50.38
4	51.14	51.58						51.20	51.87	52.46	50.86	50.25
5	52.16	51.48						51.28	52.75	52.30	51.11	50.14
6	52.12	51.28						51.27	53.37	52.24	50.85	49.90
7	52.08	51.42						51.26	54.27	52.23	50.81	49.77
8	52.10	51.32						51.45	54.73	52.12	50.80	49.74
9	52.04	51.24						51.62	54.51	51.96	50.85	49.78
10	51.92	51.30						51.62	54.29	51.68	50.78	49.85
11	51.84	51.24						51.55	54.29	51.44	50.72	49.77
12	51.68	51.14						51.42	54.36	51.20	50.38	49.65
13	51.54	51.12						51.32	54.57	51.26	50.17	49.84
14	51.60	51.58						51.32	55.08	51.14	50.15	49.98
15	51.66	53.74						51.34	55.01	51.07	50.06	50.09
16	51.68	53.72						51.75	54.80	51.06	50.01	50.06
17	51.72	53.68						52.88	54.75	51.01	49.81	49.90
18	51.80							53.25	54.97	50.81	50.02	49.97
19	51.86							52.92	55.30	50.64	49.90	50.02
20	51.84							52.62	55.45	50.60	49.86	50.14
21	51.92							52.43	55.37	50.56	50.00	50.28
22	52.04							52.22	55.08	50.42	50.74	50.61
23	51.90							52.02	54.92	50.26	50.94	50.53
24	51.82							51.88	54.89	50.17	50.99	50.53
25	51.76							51.60	54.68	50.05	51.04	50.46
26	51.74							51.40	54.24	50.04	51.19	49.38
27	51.70							51.40	53.73	49.96	50.97	49.46
28	51.68						50.95	51.53	53.46	49.99	50.80	50.48
29	51.66						51.10	51.65	53.39	50.43	50.67	50.90
30	51.64				------		51.23	51.82	53.39	50.81	50.65	50.83
31	51.66	------			------		------	51.64	------	50.84	50.68	------
MEAN	51.81							51.72	54.06	51.21	50.60	50.13
MAX	52.16							53.25	55.45	53.18	51.19	50.90
MIN	51.14							51.14	51.42	49.96	49.81	49.38

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50.80	50.77						49.95		53.02	51.64	49.60
2	50.68	50.78						49.97		52.92	50.75	49.74
3	50.70	50.78						49.93		53.26	50.20	49.91
4	50.72	50.81					50.34	49.91		53.12	50.04	50.04
5	50.68	50.81					50.32	49.89		52.97	49.91	50.38
6	50.66	50.84					50.32	49.90		52.85	49.80	50.82
7	50.62	50.84					50.26	49.87		52.73	49.68	50.58
8	50.50	50.94					50.21	49.74		52.63	49.62	50.88
9	50.47	50.91					50.17	49.70		52.55	49.49	51.29
10	50.26	50.90					50.17	49.78		52.44	49.37	51.31
11	50.15	50.92					50.12	49.83		52.56	49.44	50.98
12	50.39	50.98					50.16	49.83		52.78	49.54	51.55
13	50.53	51.02					50.17	49.82	55.79	52.86	49.50	52.28
14	50.64	51.00					50.02	49.77		52.47	49.57	52.65
15	51.00	51.01					49.94	49.65		52.11	49.78	52.69
16	51.38	51.06					49.89	49.50		51.90	50.07	52.78
17	51.28	51.15					49.83	49.40		51.81	50.16	52.71
18	51.10	51.13					49.75	49.31		51.82	50.11	52.49
19	50.97	51.07					49.64	49.61		51.75	49.56	52.41
20	50.94	51.02					49.72	50.03		51.68	49.15	52.74
21	50.98	51.00					49.75	50.50	54.53	51.57	49.54	52.99
22	51.04	50.95					49.72	51.01	54.33	51.43	49.65	53.09
23	50.95	50.92					49.69	50.92	54.24	51.34	49.62	54.16
24	50.91	50.89					49.50	50.94	54.11	51.32	49.58	54.06
25	50.93	50.85					49.55	51.13	53.87	51.30	49.55	53.67
26	50.91	50.90					49.72	51.21	53.63	51.28	49.57	53.30
27	50.83	50.58					49.47	51.86	53.33	51.31	49.51	53.28
28	50.78	50.42					49.49	52.94	53.04	51.38	49.31	53.35
29	50.70	50.02			------		49.85	53.92	52.78	51.14	49.57	53.24
30	50.61	50.01			------		50.02	54.42	52.77	50.34	49.70	53.13
31	50.70	------			------		------	54.90	------	50.50	49.59	------
MEAN	50.77	50.84						50.62		52.04	49.76	52.07
MAX	51.38	51.15						54.90		53.26	51.64	54.16
MIN	50.15	50.01						49.31		50.34	49.15	49.50

06329650 Missouri River Stage Gage No. 6 near Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								13.39	14.33	17.35	13.18	10.20
2								13.03	14.43	17.18	12.76	10.21
3								12.82	15.41		12.41	10.37
4								12.25	14.90		12.42	10.59
5								11.70	15.44	16.33	12.80	10.64
6								11.37	16.30	16.34	12.62	10.59
7								11.07	16.25	16.18	12.56	10.53
8								10.81	16.01	15.82	12.35	10.50
9								10.86	15.35	15.36	12.11	10.34
10								11.77	15.15	15.06	11.90	10.25
11								12.00	15.23	14.97	12.17	10.33
12								12.42	15.22	14.68	11.75	10.49
13								13.13	15.47	14.27	11.54	10.64
14								14.07	15.99	14.16	11.73	10.88
15								14.34	17.35	15.14	12.33	10.93
16								14.33	17.62	16.02	12.14	10.79
17							12.36	14.05	17.26	16.54	11.79	10.74
18							12.37	13.65	17.04	16.52	11.49	10.99
19							12.25	13.37	17.63	16.13	11.14	11.05
20							11.82	13.21	18.12	16.48	10.70	10.91
21							11.66	12.96	18.04	15.89	10.35	10.77
22							11.60	13.07	17.55	15.47	10.11	10.68
23							11.66	13.07	17.45	15.17	9.98	10.61
24							12.20	14.08	17.29	14.88	9.90	10.57
25							13.09	13.72	17.05	14.53	9.86	10.54
26							12.95	13.71	16.95	14.19	10.01	10.74
27							12.68	14.91	17.09	13.96	10.29	10.96
28							12.64	14.88	17.27	13.69	10.50	11.01
29					------		13.07	14.88	17.33	13.32	10.59	10.94
30					------		13.42	15.43	17.34	13.15	10.46	10.80
31		------			------		------	14.79	------	13.22	10.30	------
MEAN								13.20	16.46		11.43	10.65
MAX								15.43	18.12		13.18	11.05
MIN								10.81	14.33		9.86	10.20

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.67	10.34	11.91					10.97	14.90		10.37	9.19
2	10.69	10.25	11.84					12.20	15.07		10.64	9.21
3	10.62	10.22	11.82					11.68	15.37		10.35	10.14
4	10.48	10.15	11.78					11.34	15.44		10.02	10.81
5	10.43	10.14	11.64					11.24	15.81		9.73	9.99
6	10.50	10.18	11.60					11.10	16.28		9.53	9.98
7	10.61	10.19	11.61					11.03	17.89		9.43	10.11
8	10.67	10.17	11.51					10.92	17.49		9.35	10.18
9	10.54	10.17	11.48					10.82	17.18	14.55	9.28	9.99
10	10.51	10.14	11.58					10.92	16.85	14.18	9.07	9.82
11	10.58	10.14	11.46					11.29	16.05	14.02	8.84	9.60
12	10.89	10.17					9.90	12.20	15.69	14.30	8.63	9.44
13	10.95	10.15					9.97	12.86	15.61	14.63	8.44	9.31
14	10.58	10.13					9.95	13.06	15.82	14.36	8.24	9.37
15	10.81	10.15					9.86	12.88	16.01	13.86	8.23	9.83
16	10.99	10.15					9.64	13.07	16.39	13.60	8.26	9.62
17	10.99	10.17					9.15	12.96	16.91	13.32	8.25	9.72
18	10.94	10.17					8.73	12.66	17.28	12.91	8.25	9.94
19	10.86	10.10					8.82	12.48		12.56	8.25	9.96
20	10.68	10.29					9.07	12.54		12.31	8.43	10.04
21	10.64	10.41					9.12	12.67		12.06	8.33	10.12
22	10.66	10.53					9.17	12.83		11.92	8.23	10.12
23	10.59	10.82					9.27	12.96		11.88	8.44	10.09
24	10.52	11.29					9.59	13.04		11.42	8.59	10.15
25	10.45	11.38					9.69	13.18	17.24	11.04	8.54	10.27
26	10.37	11.41					9.29	13.38		11.22	8.56	10.90
27	10.33	11.47					9.12	13.55		11.47	8.99	11.69
28	10.37	11.46					9.57	13.83		11.16	9.08	11.42
29	10.39	11.64			------		9.87	14.37		10.51	9.07	11.28
30	10.40	11.81			------		10.02	14.94		10.23	8.99	11.25
31	10.36	------			------		------	15.04	------	10.17	8.99	------
MEAN	10.62	10.53						12.52			8.95	10.12
MAX	10.99	11.81						15.04			10.64	11.69
MIN	10.33	10.10						10.82			8.23	9.19

06329650 Missouri River Stage Gage No. 6 near Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.03	9.96	10.94	16.87	14.84	14.75	12.40	12.65	14.98	17.62	12.04	11.92
2	10.89	9.99	10.93	16.69	14.81	14.50	13.92	11.86	15.24	17.66	11.82	12.21
3	10.73	10.08	10.98	16.65	14.64	13.92	14.90	11.51	14.98	17.40	11.78	11.15
4	10.52	10.10	10.98	16.56	14.43	13.46	14.73	11.42	14.80	17.28	11.98	11.80
5	10.45	10.22	10.86	16.41	14.26	13.28	14.95	11.61	14.43	17.33	12.16	11.64
6	10.29	10.21	10.97	16.18	14.18	12.97	13.94	12.35	14.22	17.27	11.98	11.62
7	10.30	10.08	10.99	16.08	14.35	12.81	13.58	13.61	14.60	16.86	11.60	11.67
8	10.21	10.00	10.79	16.00	14.14	12.64	12.13	13.90	15.47	16.88	11.39	11.40
9	10.17	10.05	10.50	15.82	13.64	12.41	11.46	13.87	16.13	16.83	11.10	11.23
10	10.11	10.03	10.15	15.61	14.00	12.32	11.07	13.74	15.47	16.61	10.89	11.12
11	10.09	10.03	11.57	15.06	14.21	12.43	10.84	13.66	16.49	16.39	10.73	11.02
12	10.06	10.13	13.20	14.49	14.21	12.57	10.76	13.60	15.71	16.20	10.68	10.90
13	10.16	10.23	12.88	14.42	14.18	12.62	10.70	13.58	16.96	16.15	10.57	11.06
14	10.17	10.22	12.81	14.41	14.30	12.63	10.66	13.72	15.34	16.25	10.49	11.08
15	10.11	9.79		14.20	14.33	12.82	10.75	14.48	15.90	16.25	10.40	11.13
16	10.11	9.57		14.18	14.25	12.75	10.76	14.09	15.57	15.84	10.30	11.38
17	10.18	9.52		14.26	14.21	12.90	10.73	13.55	15.64	15.58	10.23	11.33
18	10.16	9.68		14.26	14.07	13.00	10.68	13.22	16.34	15.70	10.10	11.46
19	10.05	9.92	12.68	14.31	14.13	12.87	10.53	12.99	17.19	15.58	10.00	11.58
20	9.77	10.03	13.10	14.40	14.08	13.07	10.36	13.16	17.54	15.07	9.87	11.56
21	9.62	10.01	13.52	14.40	14.06	13.39	10.38	13.62	17.69	14.68	9.92	11.65
22	9.53	9.77	13.82	14.35	14.16	13.50	10.49	14.18	17.65	14.50	10.20	11.59
23	9.64	12.45	14.17	14.26	14.16	12.77	10.51	14.50	16.95	14.24	10.82	11.35
24	9.64	12.98	14.79	14.29	14.26	12.37	10.48	14.95	16.39	13.93	11.10	10.88
25	9.64	13.09	15.59	13.95	14.07	12.43	10.12	15.43	16.26	13.62	11.33	11.28
26	9.63	13.37	16.33	13.72	14.19	11.31	10.28	15.50	16.91	13.47	11.39	11.31
27	9.52	14.24	16.85	14.06	14.59	10.87	10.37	15.21	17.21	13.20	11.39	11.16
28	9.67	11.57	17.14	14.45	14.45	10.87	10.56	14.81	17.07	12.84	11.27	11.16
29	9.61	10.98	17.19	14.75	14.66	10.81	12.30	14.62	17.28	12.59	11.18	11.19
30	9.61	10.94	16.91	14.76	------	11.04	13.27	14.63	17.43	12.31	12.17	11.27
31	9.74	------	16.75	14.80	------	11.46	------	14.65	------	12.18	12.63	------
MEAN	10.05	10.64		14.99	14.27	12.63	11.62	13.70	16.23	15.43	11.08	11.37
MAX	11.03	14.24		16.87	14.84	14.75	14.95	15.50	17.69	17.66	12.63	12.21
MIN	9.53	9.52		13.72	13.64	10.81	10.12	11.42	14.22	12.18	9.87	10.88

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.04	11.20						14.21		19.46	15.51	13.96
2	11.37	11.07						14.29		19.34	15.44	13.71
3	11.54	11.05						14.34		18.75	15.19	13.46
4	11.10	11.11						14.48	16.47	18.49	14.99	13.29
5	10.75	11.22						14.78	16.54	18.68	14.75	13.15
6	10.68	11.29						15.08	16.46	18.88	14.53	13.12
7	10.62	11.25						14.98	16.66	18.86	14.54	13.03
8	10.62	11.24						14.92	17.05	18.80	14.44	12.92
9	10.54	11.20						15.22	16.95	18.63	14.45	12.83
10	10.58	11.17						14.99	16.98	18.52	14.31	12.72
11	10.65	11.12						14.99	17.21	18.76	14.33	12.55
12	10.71	11.04						14.88	17.48	18.83	14.30	12.46
13	10.70	11.00						14.77	17.64	19.38	14.08	12.65
14	10.68	11.07						14.91	17.76	19.22	13.80	12.96
15	10.72	11.14						14.96	17.87	18.76	13.64	13.22
16	10.78	11.05						15.05	19.38	18.31	13.52	13.22
17	10.78	10.45						15.12	18.62	18.12	13.43	13.17
18	10.77	10.42						15.29	17.80	17.97	13.39	13.20
19	10.72	9.80						15.43	17.80	17.84	13.41	13.29
20	10.66							15.62	18.04	17.68	13.27	13.59
21	10.80	10.12						15.96	18.66	17.66	13.10	13.90
22	10.95	10.21						15.99	18.73	17.57	12.97	13.98
23	10.09	9.88						15.82	18.23	17.49	12.85	13.86
24	11.64							15.68	18.21	17.30	13.58	13.88
25	12.07							15.81	18.51	17.01	15.08	13.89
26	12.20						13.92	15.96	18.65	16.83	15.35	13.97
27	12.06						14.02	15.50	18.86	16.59	15.19	13.95
28	11.71						14.02	15.22	18.91	16.18	14.76	13.84
29	11.55				------		14.03	15.19	18.98	16.11	14.50	13.83
30	11.72				------		14.09	15.23	19.15	15.96	14.30	13.82
31	11.50	------			------		------		------	15.69	14.20	------
MEAN	11.04									17.99	14.23	13.38
MAX	12.20									19.46	15.51	13.98
MIN	10.09									15.69	12.85	12.46

06329650 Missouri River Stage Gage No. 6 near Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.79	13.44						12.50	15.86	13.38	10.29	9.75
2	13.76	13.34						12.55	16.26	13.26	9.97	9.64
3	13.91	13.20						12.92	16.54	13.46	9.89	9.54
4	13.96	13.15						13.25	16.78	14.38	9.67	9.41
5	13.88	13.14						13.23	16.67	15.78	9.54	9.38
6	13.81	13.11					12.99	13.04	16.44	15.25	9.41	9.28
7	13.80	12.97					12.98	12.84	15.90	14.47	9.38	9.11
8	13.67	12.68					12.88	12.70	15.41	13.43	9.36	9.10
9	13.56	12.45					12.92	12.78	14.75	12.94	9.34	9.08
10	13.53	12.42					13.04	13.16	14.22	12.77	9.38	9.28
11	13.54	12.43					13.10	13.77	13.95	12.65	9.34	9.18
12	13.48	12.38					13.09	14.55	13.95	12.27	9.30	9.12
13	13.49	12.26					13.07	14.90	13.92	11.89	9.29	9.07
14	13.40	12.37					12.76	15.30	13.90	11.63	9.13	9.03
15	13.24	12.47					12.44	15.57	14.44	11.55	9.08	9.01
16	13.37	12.36					12.30	15.09	14.37	11.51	9.08	8.99
17	13.48	12.37					12.29	14.70	13.94	11.70	9.50	9.08
18	13.47	12.51					12.27	14.57	13.55	11.73	9.64	10.12
19	13.46	12.52					12.19	14.30	13.40	11.44	9.52	9.96
20	13.45	12.50					12.14	14.04	13.40	11.16	9.46	9.80
21	13.49	12.46					12.17	13.82	13.45	11.03	9.63	9.94
22	13.49	12.28					12.22	13.74	13.88	10.77	10.13	10.01
23	13.44	12.37					12.29	13.64	14.24	10.58	10.52	9.93
24	13.37	12.44					12.27	13.52	14.49	10.54	10.65	9.85
25	13.40	12.34					12.23	13.57	14.95	10.74	10.81	9.89
26	13.41	12.29					12.55	14.00	15.54	10.40	10.89	9.80
27	13.41	12.57					13.05	14.76	15.45	10.26	10.77	9.68
28	13.35	16.44					13.13	14.47	14.65	10.19	10.58	9.56
29	13.32	17.69			------		12.73	14.11	14.15	10.34	10.33	9.54
30	13.33	17.91			------		12.57	14.11	13.70	10.30	10.09	9.56
31	13.52	------			------		------	14.98	------	10.62	9.91	------
MEAN	13.53	13.10						13.89	14.74	12.01	9.80	9.49
MAX	13.96	17.91						15.57	16.78	15.78	10.89	10.12
MIN	13.24	12.26						12.50	13.40	10.19	9.08	8.99

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.63	9.71						13.55	16.66		15.76	
2	9.72	9.76						13.47	16.99			
3	9.75	9.86						13.51	17.41			
4	9.72	10.23						13.64	17.61			
5	9.86	10.51						13.90	17.84	20.68		
6	10.05	10.72						13.87	18.13			
7	10.02	10.85						14.10	18.14			
8	10.09	10.75						14.37	18.49			
9	10.10	11.12						14.76	18.93			
10	10.07	12.06						15.04	19.13			
11	9.95	13.71						15.14	19.59			
12	9.81	15.44						15.09	18.57			
13	9.72	15.72						15.24	18.55			12.66
14	9.82	16.16						15.17	18.66			12.66
15	9.91	16.25						14.99	19.17			13.00
16	10.01	16.25						14.72	19.32			13.42
17	10.02	16.31						14.48	19.65			13.92
18	10.13	15.62						14.50	20.14			14.04
19	10.05	16.09						14.51	20.80			14.12
20	10.01	16.31							21.17			13.87
21	9.98	16.36							20.79			13.73
22	10.03								20.30			13.70
23	10.00								20.44			13.71
24	9.99							15.47	20.46			13.68
25	9.96							15.54	20.48			13.82
26	9.90						13.67	15.79				13.62
27	9.91						13.73	16.66				13.24
28	9.89						13.68	17.17				13.17
29	9.86				------		13.65	17.40				13.06
30	9.71				------		13.63	17.10				12.84
31	9.67	------			------		------	16.77	------			------
MEAN	9.91											
MAX	10.13											
MIN	9.63											

06329650 Missouri River Stage Gage No. 6 near Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.01	13.25						11.46	13.64	18.25	14.32	15.10
2	13.16	13.11						11.40	13.59	18.38	14.26	15.35
3	13.31	13.12							14.81	18.01	14.17	15.36
4	13.24	13.16							15.93	17.61	13.96	15.18
5	13.10	13.11							16.04	17.24	13.84	15.09
6	13.43	13.09							16.81	17.00	13.86	14.98
7	13.48								17.92	16.81	13.81	14.88
8	13.37								18.11	16.88	13.70	14.88
9	13.54							12.17	17.80	17.10	13.64	14.91
10	13.82						12.09	12.46		17.16	13.51	14.97
11	13.69						12.23	12.88		17.07	13.30	14.87
12	13.65						12.04	12.70		16.77	12.77	14.74
13	13.76					19.02	11.95	12.36		16.65	12.25	14.68
14	13.76					18.63	11.83	12.07		16.49	12.00	14.57
15	13.65					18.42	11.77	12.39			12.57	14.53
16	13.68					18.62	11.78	12.69			13.11	14.37
17	13.72					19.19	11.86	12.50			13.18	14.59
18	13.50						11.83	13.13			13.40	14.77
19	13.65						11.83	13.93	17.10	15.44	13.79	14.82
20	13.55						11.77	14.01	17.73	15.34	14.19	14.84
21	13.49						11.68	13.70	18.06	15.19	14.27	14.92
22	13.55						11.65	13.50	18.74	14.92	13.97	14.88
23	13.45						11.58	13.27	19.13	14.49	14.30	14.42
24	13.28						11.70	12.94	19.41	14.10	15.41	14.40
25	13.14					14.41	11.67	13.10	19.36	13.75	17.13	14.75
26	13.20					14.24	11.67	13.05	19.13	13.13	16.90	14.79
27	13.46						11.58	12.92	19.02		16.33	14.62
28	13.41						11.48	13.27	18.60		16.03	14.50
29	13.54						11.49	14.08	18.14		15.73	14.12
30	13.66				------		11.52	14.13	18.04	13.02	15.33	14.20
31	13.63	------			------		------	13.80	------	14.39	15.09	------
MEAN	13.48										14.20	14.77
MAX	13.82										17.13	15.36
MIN	13.01										12.00	14.12

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.40	14.68						17.11	18.65	19.15	15.50	13.60
2	14.42	14.66						17.17	18.18		15.36	13.66
3	14.46	14.60						17.22	17.72		15.24	13.76
4	14.41	14.58						17.04	17.51		15.13	13.71
5	14.18	14.51						16.93	16.98		15.05	13.51
6	14.14	14.55						16.86	16.48		14.81	13.39
7	13.85	14.57						16.66	16.13		14.68	13.50
8	14.20	14.75						16.41	16.06	19.05	14.57	13.45
9	14.67	14.91						16.32	16.62	18.71	14.49	13.39
10	14.79	14.80						16.35	17.45	18.26	14.48	13.36
11	14.81	14.69						16.51	17.57	18.26	14.45	13.44
12	14.65	14.59						16.66	17.23	18.56	14.37	13.47
13	14.60	14.48					15.99	16.68	17.49	18.57	14.28	13.35
14	14.52	14.51					16.25	16.67	18.20	18.39	14.23	13.38
15	14.46	14.63					16.51	16.72	17.91	18.12	14.15	13.15
16	14.54	14.64					16.67	16.66	17.35	17.83	14.25	13.02
17	14.59	14.71					16.77	16.52	16.88	17.47	14.20	12.93
18	14.67	14.83					16.71	16.45	16.07	17.53	14.27	12.82
19	14.77	14.72					16.50	16.83	15.58	18.04	14.09	13.03
20	14.81	14.82					16.44	16.78	15.49	18.00	13.89	13.17
21	14.80						16.50	16.05	15.41	17.95	13.70	13.24
22	14.74						16.21	15.90	15.88	18.18	13.65	13.21
23	14.68						15.40	16.57	16.31	17.88	13.55	13.17
24	14.61						15.37	17.21	16.65	17.32	13.43	12.95
25	14.67						15.52	17.13	17.16	16.87	13.39	12.75
26	14.67						15.64	16.71	17.50	16.30	13.57	12.86
27	14.61						16.42	16.42		16.08	13.44	12.97
28	14.60						16.61	16.43		15.92	13.22	12.99
29	14.60				------		16.59	17.04	19.62	15.76	13.27	12.89
30	14.57				------		16.92	17.79	19.62	15.70	13.39	12.82
31	14.57	------			------		------	18.38	------	15.63	13.44	------
MEAN	14.55							16.78			14.18	13.23
MAX	14.81							18.38			15.50	13.76
MIN	13.85							15.90			13.22	12.75

06329650 Missouri River Stage Gage No. 6 near Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.64	13.57								21.36		13.64
2	12.60	13.64								21.41		13.35
3	12.66	13.63								21.12		13.55
4	12.84	13.62								20.58		13.63
5	12.72									20.28		13.67
6	12.74									20.17		13.77
7	13.09							14.51		20.14		13.82
8	13.32							14.61		20.20		13.92
9	13.56							14.85		20.21		14.16
10	13.67							16.20		19.72		14.26
11	13.43							16.93		19.04		14.36
12	13.33							17.28		18.73		14.45
13	13.38							16.98		18.62		14.62
14	13.74							16.79		18.58		14.89
15	13.77							16.89		18.67		14.97
16	13.74							16.94		18.40		14.99
17	13.87							16.99		18.02		15.07
18	13.97							17.00	19.66			15.15
19	13.99							17.20	19.66			15.09
20	14.03							17.37	19.66			14.99
21	14.00							17.44	19.74			15.03
22	13.85							18.20	19.95			15.00
23	13.56							18.86	20.37			14.98
24	13.47							19.26	20.81			15.00
25	13.46								21.08			14.99
26	13.45								21.29			14.98
27	13.43								21.45		13.58	14.98
28	13.39								21.55		13.66	14.97
29	13.37				------				21.65		13.69	14.96
30	13.42				------				21.55		13.67	14.95
31	13.49	------			------		------		------		13.77	------
MEAN	13.42											14.54
MAX	14.03											15.15
MIN	12.60											13.35

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.87	14.89								21.29	15.91	13.27
2	14.84	14.88								20.94	15.80	13.44
3	14.81	14.88								20.25	15.65	13.75
4	14.77	14.88								19.60	15.59	14.30
5	14.76	14.83								19.18	15.49	14.82
6	14.80	14.82								19.27	15.28	15.40
7	14.90	14.87								19.76	14.93	14.60
8	14.68	14.87								19.55	14.85	14.47
9	14.18	14.83								19.00	14.83	14.27
10	13.97	14.82						17.22		18.75	14.63	14.26
11	13.67	14.83								18.98	14.70	14.35
12	13.54	14.87								18.78	14.67	14.28
13	13.88	14.80								18.17	14.65	14.29
14	14.41									18.08	14.60	14.18
15	14.78									18.04		13.94
16	14.93								21.01	17.81	14.44	13.79
17	14.97								21.00	17.68	14.32	13.78
18	14.93								21.14	17.56	14.17	13.75
19	14.97								21.29	17.61	14.06	13.73
20	14.92								21.28	17.63	13.77	13.76
21	14.88								21.36	17.47	13.67	13.78
22	14.87								21.36	17.39	13.59	13.75
23	14.77								21.46	17.22	13.58	13.60
24	14.63								21.52	16.88	13.48	13.60
25	14.59								21.67	16.60	13.23	13.63
26	14.60								21.81	16.59	13.16	13.57
27	14.37								22.00	16.51	13.30	13.52
28	14.48								22.06	16.30	13.25	13.49
29	14.86				------				21.78	16.17	13.30	13.49
30	14.97				------				21.43	16.12	13.42	13.50
31	14.91	------			------		------		------	16.04	13.23	------
MEAN	14.63									18.10		13.95
MAX	14.97									21.29		15.40
MIN	13.54									16.04		13.27

06329650 Missouri River Stage Gage No. 6 near Buford, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.50							13.96	15.65		15.50	14.90
2	13.92							14.14	16.17		15.33	14.73
3	16.11							14.39	16.93		15.25	14.79
4	17.09							14.54	17.98		15.34	14.81
5	16.65						15.16	14.69	18.75		15.55	14.80
6	15.81						15.21	14.64	19.17		15.95	14.78
7	15.08						15.18	14.47	19.33		16.06	14.61
8	14.66						15.09	14.36	19.45		15.69	14.64
9	14.61						14.88	14.37	19.63		15.45	14.72
10	14.48						14.52	14.65	19.73	16.22	15.30	14.78
11	14.39						14.89	14.95		16.31	15.14	14.87
12	14.30						14.85	15.14		16.18	15.06	15.12
13	13.88						14.85	15.16		16.05	14.99	15.01
14	13.71						14.80	15.23	21.36	15.98	15.06	14.87
15	13.97						14.72	15.22	21.25	15.75	14.99	15.04
16	14.11						14.62	14.95	21.08	15.80	14.96	15.18
17	14.10						14.56	14.65	20.83	16.08	15.04	15.19
18	14.19						14.52	14.47	20.53	16.19	15.21	14.95
19	14.55						14.45	14.55	20.34	16.11	15.46	14.75
20	16.37						14.39	15.00	19.80	16.07	15.48	14.46
21	16.68						14.37	15.90		16.19	15.49	14.41
22							14.12	16.45		16.13	15.49	14.48
23							13.94	16.77		16.38	15.44	14.47
24							14.06	17.17		16.52	15.45	14.41
25							14.14	17.45		16.70	15.50	14.51
26							14.18	17.54	19.23	16.62	15.62	14.54
27							13.91	17.26	19.18	16.37	15.60	14.58
28							13.58	16.84	19.23	16.47	15.41	14.58
29							13.45	16.62	18.81	16.26	15.56	14.58
30					------		13.50	16.29	18.33	15.88	15.29	14.57
31		------			------		------	15.70	------	15.67	15.14	------
MEAN								15.40			15.38	14.74
MAX								17.54			16.06	15.19
MIN								13.96			14.96	14.41

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.56						14.17	15.44		17.44	13.27	13.20
2	14.54						14.14	15.71		17.65	13.15	13.45
3	14.55						13.97	15.80		18.06	13.11	13.66
4	14.59						13.84	15.57		18.19	13.01	15.30
5	14.59						13.85	15.50		17.87	12.94	16.99
6	14.58						14.17	15.41		17.20	12.83	16.29
7	14.57						14.40	15.30			12.73	15.29
8	14.60						14.47	15.20			12.72	14.64
9	14.56						14.37	15.65			12.74	14.35
10	14.67						14.32	15.98			12.83	14.26
11	14.60						14.24	16.01			13.01	14.39
12	14.62						14.03	15.99			13.04	14.45
13	14.69						13.92	15.89			12.98	14.70
14	14.62						13.54	15.69			12.86	14.54
15	14.69						13.23	15.30			12.83	14.57
16	14.78						13.22	14.92			12.84	14.56
17	14.81						13.32	14.71			12.84	14.69
18	14.79						13.32	14.70		13.65	12.79	14.87
19	14.75						13.73	14.99		13.52	12.65	14.70
20	14.80						13.83	15.33		13.38	12.62	14.66
21	14.84						14.85	16.15	19.58	13.12	12.76	14.62
22	14.82					15.15	16.10	17.00	19.03	12.99	12.78	14.54
23	14.84					15.17	15.51	17.82	18.20	13.02	12.78	14.51
24						15.19	14.62	18.70	17.50	13.06	13.01	14.37
25						15.12	13.83		17.12	13.23	13.63	14.49
26						15.07	13.55			13.42	13.55	14.56
27						15.12	13.97		17.19	13.58	13.46	14.55
28						14.89	14.80		17.56	13.93	13.27	14.50
29					------	14.37	15.36		17.61	13.93	13.22	14.56
30					------	14.12	15.43		17.43	13.61	13.20	14.55
31		------			------	14.15	------		------	13.42	13.22	------
MEAN							14.20				12.99	14.63
MAX							16.10				13.63	16.99
MIN							13.22				12.62	13.20

06329660 Missouri River Stage Gage No. 7 near Trenton, N. Dak.

LOCATION.--Lat 47°59'21", long 103°47'57", in NE¼ sec.13, T.152 N., R.103 W., McKenzie County, on right bank 5 mi (8 km) south of Trenton and at mile 1,566.7 (kilometre 2,520.8).

DRAINAGE AREA.--164,000 mi^2 (425,000 km^2), approximately.

PERIOD OF RECORD.--March 1959 to current year (seasonal).

GAGE.--Water-stage recorder. Datum of gage is 1,840.00 ft (560.832 m) above mean sea level. Prior to Aug. 7, 1962, at site 0.8 mi (1.3 km) upstream. Prior to May 29, 1963, at datum 40.00 ft (12.192 m) lower.

EXTREMES.--Current year: Maximum daily gage height recorded, 15.10 ft (4.602 m) May 30; minimum daily recorded, 10.12 ft (3.085 m) Apr. 26.
Period of record: Maximum daily gage height recorded, 17.90 ft (5.456 m) April 9, 1972; minimum daily recorded, 4.34 ft (1.323 m) Aug. 19, 22, 1963.

REMARKS.--Records good. Stage regulated by upstream reservoirs.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1958 TO SEPTEMBER 1959

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								46.67	47.60	51.44	46.65	45.77
2								46.81	47.65	51.07	46.58	45.82
3							45.59	46.71	47.61	50.74	46.52	45.70
4							46.76	46.64	47.57	50.61	46.43	45.30
5							45.76	46.56	47.57	50.67	46.36	45.33
6						49.87	46.89	46.68	47.48	50.36	46.30	45.68
7						50.56	45.98	47.12	47.59	50.15	46.33	45.80
8						51.19	47.02	47.38	48.45	50.13	46.38	45.82
9						51.54	47.01	47.41	49.53	49.97	46.33	45.74
10						51.41	46.89	47.23	50.58	49.67	46.23	45.60
11						51.35	46.93	47.09	50.18	49.58	46.12	45.65
12						51.60	46.95	47.18	50.13	49.41	46.04	45.69
13						52.18	46.87	47.10		49.04	46.03	45.69
14						52.66	46.75	47.06		48.76	46.05	45.71
15						53.08	46.63	47.22		48.56	45.98	45.64
16						53.50	46.54	47.17		48.41	45.92	45.63
17						53.86	46.51	47.03		48.27	45.93	45.64
18						53.96	46.52	47.07	51.48	48.20	45.95	45.71
19						54.47	46.63	47.60	51.75	48.15	45.98	45.81
20						55.81	46.69	48.33	51.78	48.05	46.06	45.90
21						56.25	46.79	48.48	51.73	47.90	46.04	46.15
22						57.17	45.81	48.18	51.61	47.75		46.50
23						53.98	46.78	47.96	51.63	47.60		46.68
24						50.83	46.78	47.78	51.47	47.43	45.88	46.72
25						49.59	46.69	47.65	51.44	47.33	45.95	46.80
26						48.71	46.58	47.53	51.53	47.20	46.03	47.01
27						48.25	45.51	47.41	51.78	47.06	46.02	47.18
28							46.81	47.29	51.56	46.88	45.99	47.14
29					------		45.88	47.17	51.40	46.77	45.87	47.06
30					------		45.74	47.10	51.56	46.74	45.64	46.97
31		------			------		------	47.32	------	46.72	45.66	------
MEAN								47.29		48.73		46.06
MAX								48.48		51.44		47.18
MIN								46.56		46.72		45.30

06329660 Missouri River Stage Gage No. 7 near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.92	46.72						46.38	45.52	48.36	46.43	46.16
2	46.90	46.66						46.25	45.54	48.12	46.41	46.10
3	46.91	46.76						46.20	46.56	47.95	46.40	45.99
4	46.96	46.88						46.25	46.88	47.84	46.34	45.89
5	46.94	46.83						46.32	47.70	47.67	46.52	45.80
6	46.95	46.73						46.28	48.32	47.59	46.36	45.62
7	46.97	46.75						46.27	49.20	47.57	46.33	45.50
8	46.96	46.71						46.40	49.78	47.49	46.30	45.46
9	46.92	46.62						46.59	49.58	47.36	46.35	45.48
10	46.96	46.54						46.60	49.30	47.07	46.32	45.53
11	46.90	46.49						46.50	49.23	46.84	46.28	45.50
12	46.82	46.56						46.38	49.30		46.05	45.41
13	46.67	46.54						46.24	49.51		45.85	45.53
14	46.67	47.33						46.24	50.04		45.82	45.64
15	46.73	47.55						46.22	49.80		45.75	45.73
16	46.73	47.13						46.60			45.72	45.73
17	46.80	47.44						47.80			45.83	45.67
18	46.78							48.40	49.91		45.69	45.67
19	46.80							48.10	50.16		45.58	45.70
20	46.79						46.49	47.80	50.29	45.93	45.55	45.77
21	45.90						46.42	47.55	50.22		45.63	45.88
22	46.95						46.36	47.25	50.00		46.15	46.10
23	46.83						46.31	47.00	49.85		46.40	46.11
24	46.75						46.22	46.95	49.81		46.43	46.09
25	46.77						46.14	46.68	49.54		46.50	46.07
26	46.76						46.18	46.52	49.27		46.61	45.36
27	46.73						46.27	46.50	48.89		46.48	45.27
28	46.74						46.26	46.60	48.66	45.60	46.32	45.95
29	46.73						46.29	46.72	48.62	45.92	46.23	46.35
30	46.72				------		45.41	46.87	48.60	46.25	46.18	46.32
31	46.74	------			------		------	46.70	------	46.30	46.19	------
MEAN	46.83							46.75			46.16	45.78
MAX	46.97							48.40			46.61	46.35
MIN	45.57							46.20			45.55	45.27

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46.29	46.25	45.97				46.37	45.63	50.12	48.83	46.90	45.15
2	46.21	46.28					46.38	45.63	50.19	48.55	46.17	45.41
3	46.19	46.29					46.33	45.58	50.18	49.07	45.64	45.36
4	46.22	46.30					46.34	45.55	49.89	48.80	45.52	45.30
5	46.18	46.35					46.32	45.55	49.71	48.69	45.39	45.49
6	46.15	46.34					46.28	45.53	49.80	48.60	45.30	46.12
7	46.12	46.35					46.19	45.50	49.90	48.43	45.26	46.03
8	46.04	46.43					46.13	45.47	50.16	48.33	45.19	46.19
9	46.00	46.44				49.14	46.08	45.42	50.38	48.25	45.06	46.48
10	45.87	46.07				49.18	46.08	45.45	50.36	48.11	45.05	46.65
11	45.75	46.40				49.23	46.03	45.45	50.33		45.04	46.40
12	45.90	46.45				49.27	46.03	45.42	50.52		45.07	46.70
13	46.03	46.45				49.33	46.06	45.40	50.77		45.04	47.52
14	46.10	46.46				49.40	45.92	45.36	50.92		45.05	48.17
15	46.35	46.48				49.47	45.83	45.30	50.92		45.10	48.12
16	46.70	46.50				49.43	45.77	45.17	50.62		45.30	48.26
17	46.68	46.57				49.40	45.69	45.10	50.33		45.41	48.15
18	46.52	46.58				49.57	45.59	45.04	50.19		45.40	47.88
19	46.41	46.55				49.90	45.53	45.13	50.00		45.20	47.75
20	46.40	46.50				49.65	45.54	45.45	49.85	47.02	44.92	48.06
21	46.42	46.58				49.95	45.57	45.93	49.85	46.88	45.06	48.32
22	46.49	46.48				49.60	45.57	46.44	49.69	46.73	45.13	48.40
23	46.40	46.45				48.03	45.62	46.42	49.61	46.63	45.10	49.39
24	46.37	46.43				47.00	45.52	46.44	49.53	46.61	45.10	49.17
25	46.39	46.40				46.62	45.52	46.63	49.39	46.60	45.03	48.86
26	46.38	46.44				46.53	45.52	46.70	49.15	46.58	45.05	48.49
27	46.34	46.30				46.53	45.45	47.20	48.87	46.61	45.15	48.40
28	46.28	46.45				46.48	45.39	48.09	48.62	46.69	45.05	48.21
29	46.22	46.28			------	46.41	45.52	48.89	48.44	46.50	45.00	48.23
30	46.16	46.38			------	46.42	45.68	49.42	48.34	45.84	45.10	48.03
31	46.20	------			------	46.42	------	49.84	------	45.88	45.18	------
MEAN	46.25	46.41					45.86	46.13	49.89		45.26	47.36
MAX	46.70	46.58					46.38	49.84	50.92		46.90	49.39
MIN	45.75	46.07					45.39	45.04	48.34		44.92	45.15

06329660 Missouri River Stage Gage No. 7 near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48.08	47.79										
2	48.06	47.92										
3	48.14										47.75	
4	48.20										47.81	
5	48.34										48.18	
6	48.49										48.08	
7	48.42										48.04	
8	48.39										47.84	
9	48.29										47.61	
10	48.31										47.40	
11	48.30										47.71	
12	48.21									50.20	47.41	
13	48.23	48.40									47.26	
14	48.26	48.49									47.26	
15	48.51	48.42									47.69	
16	48.47	48.32						49.51			47.59	
17	48.55	48.26									47.81	
18	48.50	48.18					47.84					
19	48.11	48.04										
20	47.69	48.06										
21	47.59	48.00										
22	47.61											
23	47.65											
24	47.61											
25	47.56											
26	47.56											
27	47.61											
28	47.58								51.96			
29	47.46				------							
30	47.49				------							
31	47.70	------			------		------		------			------
MEAN	48.03											
MAX	48.55											
MIN	47.46											

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									9.42	10.88		4.95
2									9.56	10.88		4.99
3									9.90	10.74		5.52
4										10.36		6.26
5										10.13		5.66
6										10.08		5.61
7										10.28	5.26	5.68
8										10.03	5.18	5.71
9										9.62	5.09	5.57
10										9.32	4.96	5.45
11										9.15	4.83	5.28
12									9.96	9.28	4.71	5.14
13									10.02	9.58	4.57	5.05
14									10.38	9.37	4.44	5.04
15									10.76	9.08	4.39	5.36
16									11.26	9.05	4.39	5.24
17									11.81	8.97	4.36	5.28
18									12.03	8.93	4.36	5.44
19									12.18	8.83	4.34	5.46
20									12.18	8.66	4.45	5.51
21									12.13	8.58	4.40	5.55
22									11.88	8.38	4.34	5.55
23									11.73	8.20	4.45	5.55
24									11.63		4.55	5.58
25									11.56		4.54	5.65
26									11.48		4.51	6.12
27									11.31		4.78	6.81
28									11.27		4.90	6.62
29					------			8.91	11.35		4.86	6.47
30					------			9.43	11.23		4.83	6.47
31		------			------		------	9.53	------		4.82	------
MEAN												5.62
MAX												6.81
MIN												4.95

06329660 Missouri River Stage Gage No. 7 near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.35	5.50						7.80		12.38	7.29	7.46
2	6.22	5.79						6.98		12.42	7.10	7.51
3	6.08							6.56		12.25	7.04	7.40
4	6.00							6.44		12.18	7.14	6.94
5	6.02							6.57		12.28	7.29	6.73
6								7.21		12.30	7.18	6.68
7								8.49		11.89	6.87	6.73
8								8.59		11.89	6.70	6.53
9								8.68	10.51	11.86	6.53	6.41
10								8.66	10.77	11.62	6.41	6.34
11								8.55	10.97	11.37	6.30	6.25
12								8.47	11.07	11.15	6.22	6.15
13	6.03	5.76						8.40	11.29	11.04	6.16	6.21
14	5.67	5.69					5.76	8.43	10.90	11.11	6.09	6.23
15	5.65						5.82	9.22	10.40	11.12	6.03	6.28
16	5.61						5.83	8.88	10.18	10.78	5.94	6.45
17							5.76	8.26	10.33	10.50	5.88	
18							5.71	7.80	10.96	10.59	5.80	
19							5.59	7.48	11.65	10.54	5.75	
20							5.45	7.64	11.95	10.08	5.65	
21							5.40	8.07	11.93	9.69	5.69	
22							5.46		11.86	9.48	5.84	
23							5.45		11.34	9.23	6.19	
24							5.43		10.93	8.97	6.40	
25							5.36		10.90	8.68	6.54	
26							5.25		11.38	8.56	6.59	
27	5.19						5.29		11.67	8.30	6.62	
28							5.43		11.53	7.97	6.54	
29	5.20						7.07		11.87	7.75	6.48	
30					------		8.32		12.08	7.54	7.20	6.39
31		------			------		------		------	7.42	8.18	------
MEAN										10.42	6.50	
MAX										12.42	8.18	
MIN										7.42	5.65	

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.25	6.22								13.82	11.04	9.88
2	6.47	6.11								13.75	10.94	9.67
3	6.69	6.07								13.47	10.72	9.48
4	6.34	6.07							11.32	13.35	10.53	9.30
5	6.02	6.09							11.45	13.61	10.34	9.19
6	5.95	6.22							11.40	13.86	10.15	9.16
7	5.89	6.22							11.63	13.93	10.10	9.11
8	5.85	6.21							11.96	14.00	10.03	9.04
9	5.76	6.20							11.90	13.90	10.05	
10	5.77	6.19							11.96	13.83	9.90	
11	5.80	6.17							12.14	13.98	9.88	
12	5.80	6.12							12.23	14.09	9.86	
13	5.75	6.08							12.47	14.42	9.64	
14	5.70	6.12						9.80	12.54	14.38	9.40	
15	5.71	6.20						9.75	12.56	14.06	9.25	
16	5.73	6.16						9.79	13.42	13.76	9.15	
17	5.75	5.72						9.98	12.88	13.52	9.11	
18	5.76	5.69						10.06	12.50	13.27	9.08	
19	5.73	5.38							12.39	13.05	9.07	
20	5.72	5.77							12.57	12.87	8.98	
21	5.78	5.71							13.01	12.83	8.87	
22	5.92	5.88								12.75	8.76	
23	6.03	5.94							12.65	12.72	8.69	
24	6.48								12.61	12.55	9.13	
25	6.90								12.86	12.38	10.56	
26	7.06								13.04	12.17	10.86	
27	6.99								13.24	12.04	10.83	
28	6.69								13.30	11.81	10.49	
29	6.52				------				13.40	11.57	10.29	
30	6.64				------				13.59	11.34	10.11	
31	6.49	------			------		------		------	11.18	10.04	------
MEAN	6.13									13.17	9.87	
MAX	7.06									14.42	11.04	
MIN	5.70									11.18	8.69	

06329660 Missouri River Stage Gage No. 7 near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1												6.08
2												5.98
3												5.91
4												5.80
5												5.77
6												5.71
7												5.57
8												5.54
9												5.50
10											6.13	5.60
11											6.16	5.55
12											6.05	5.50
13											6.02	5.48
14											5.91	5.44
15											5.82	5.44
16											5.78	5.41
17											5.99	5.42
18											6.11	6.13
19											6.05	6.12
20											6.01	5.98
21											6.20	6.05
22											6.40	6.10
23											6.67	6.08
24											6.76	6.02
25											6.87	6.02
26											6.94	5.96
27											6.87	5.86
28											6.73	5.76
29					------						6.57	5.70
30					------						6.36	5.72
31		------			------		------		------		6.22	------
MEAN												5.77
MAX												6.13
MIN												5.41

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.74	5.70									12.69	9.28
2	5.82	5.75									12.19	9.39
3	5.85	5.83									12.02	9.41
4	5.82	6.08									12.06	9.39
5	5.89	6.35								16.10	12.14	9.42
6	6.05	6.55							13.33		11.99	9.31
7	6.02	6.69									11.88	9.11
8	6.08	6.66									11.44	9.18
9	6.12	7.64									11.44	9.36
10	6.10	10.04									11.46	9.42
11	6.02	11.99									11.35	9.46
12	5.89	11.67									11.17	
13	5.78	11.60									11.09	
14	5.83	12.09									11.12	
15	5.89	12.19									11.12	
16	5.97	12.20									10.93	
17	6.01										10.82	
18	6.10										10.75	
19	6.07											
20	6.02											
21	5.95											
22	5.97											
23	5.99							10.00				
24	5.98											
25	5.95											
26	5.90											10.07
27	5.90											9.73
28	5.90											9.64
29	5.85				------							9.53
30	5.78				------						9.39	9.30
31	5.72	------			------		------		------		9.30	------
MEAN	5.93											
MAX	6.12											
MIN	5.72											

06329660 Missouri River Stage Gage No. 7 near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.36	9.30						7.32	9.20	14.10	10.87	11.23
2	9.47	9.17						7.26	9.22	14.25	10.81	11.43
3	9.60	9.14						7.17	10.06	14.04	10.76	11.44
4	9.54	9.14						7.10	11.20	13.72	10.63	11.31
5	9.43	9.13						7.02		13.47	10.44	11.24
6	9.81	9.07						7.23		13.29	10.46	11.19
7	9.70	9.53						7.55		13.16	10.42	11.10
8	9.64	9.71						7.85		13.13	10.33	11.10
9	9.71	9.83						7.85		13.29	10.25	11.10
10	9.97	9.76					8.11	8.08		13.39	10.17	11.17
11	9.91	9.62					8.14	8.50		13.37	9.98	11.12
12	9.82	9.61					8.09	8.37		13.13	9.55	11.04
13	9.88	9.61				12.83	7.98	8.03		13.01	9.26	10.90
14	9.93	9.63				12.54	7.90	7.72		12.88	9.11	10.98
15	9.85	9.58				12.34	7.85			12.68	9.43	10.82
16	9.84	9.68				12.30	7.83			12.69	9.83	10.71
17	9.90	10.20					7.90			12.77	9.98	10.82
18	9.72	10.35					7.86			12.73	10.06	10.99
19	9.84	10.32					7.81		12.70	12.84	10.29	11.09
20	9.71	10.21					7.78		12.89	12.79	10.62	11.19
21	9.70	10.23					7.67		13.15	12.67	10.80	11.28
22	9.71	10.25				11.79	7.64	9.11	13.70	12.48	10.45	
23	9.64	10.28				11.58	7.66	8.92	14.12	12.15	10.67	
24	9.48	10.37				11.67	7.65	8.61	14.44	11.79	11.32	
25	9.37	10.46				10.90	7.61	8.69	14.53	11.49	13.12	10.87
26	9.47	10.18					7.57	8.67	14.46	11.06	13.07	10.95
27	9.63	10.80					7.48	8.52	14.50	10.75	12.51	10.88
28	9.60	14.20					7.38	8.81	14.29		12.15	10.81
29	9.58						7.36	9.49	13.99		11.84	10.48
30	9.66				------		7.37	9.68	13.92		11.48	10.42
31	9.64	------			------		------	9.38	------	10.84	11.24	------
MEAN	9.68										10.71	
MAX	9.97										13.12	
MIN	9.36										9.11	

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.59	10.70						13.21	14.39	15.56	12.90	11.03
2	10.54	10.72						13.27	14.11	14.65	12.81	11.16
3	10.59	10.70						13.28	13.74	14.07	12.74	11.20
4	10.61	10.68						13.16	13.54	14.02	12.66	11.20
5	10.43	10.62						12.95	13.12	14.29	12.68	
6	10.33	10.67						12.87	12.68	14.30	12.40	
7	10.09	10.67						12.71	12.36	14.60	12.24	
8	10.30	10.79						12.47	12.25	15.23	12.28	
9	10.63	10.98						12.42	12.64	15.13	12.19	
10	10.79	10.91						12.42	13.41	14.77	12.18	
11	10.79	10.82						12.51	13.60	14.71	12.15	
12	10.73	10.77						12.64	13.35	14.93	12.08	10.78
13	10.63	10.61					11.85	12.67	13.49	14.99	11.93	10.65
14	10.59	10.59					12.18	12.64	13.10	14.90	11.98	10.64
15	10.56	10.65					12.43	12.69	13.03	14.69	11.90	10.49
16	10.60	10.67					12.56	12.66	12.56	14.51	11.94	10.38
17	10.65	10.68					12.65	12.51		14.25	11.82	10.38
18	10.68	10.78					12.60	12.46		14.19	11.88	10.24
19	10.75	10.76					12.46	12.73		14.53	11.86	10.33
20	10.79	10.81					12.31	12.78	11.87	14.58	11.70	10.28
21	10.82						12.28	12.16	11.82	14.57	11.58	10.42
22	10.77						12.37	11.92	12.28	14.67	11.50	10.34
23	10.73						11.31	12.45	12.54	14.59	11.41	10.33
24	10.70						11.23	13.06	12.84	14.14	11.34	10.22
25	10.69						11.41	13.09	13.36	13.83	11.28	9.96
26	10.72						11.53	12.73	13.66	13.43	11.20	9.99
27	10.66						12.25	12.42	13.74	13.18	11.31	10.08
28	10.67						12.51	12.42	14.45	13.15	11.19	10.22
29	10.67				------		12.79	12.88	15.59	13.07	10.99	10.04
30	10.66				------		13.02	13.59	15.73	12.97	10.94	10.11
31	10.62	------			------		------	14.15	------	12.94	11.02	------
MEAN	10.63							12.77		14.30	11.87	
MAX	10.82							14.15		15.56	12.90	
MIN	10.09							11.92		12.94	10.94	

06329660 Missouri River Stage Gage No. 7 near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.90									16.98	12.37	10.83
2	9.84									17.01	12.37	10.62
3	9.78									16.86	12.41	10.68
4	9.89								15.23	16.52	12.45	10.76
5	9.87								15.16	16.34	12.35	10.79
6	9.84								15.24	16.19	12.27	10.81
7	10.10								15.70	16.13	12.22	10.85
8	10.37							10.42	16.31	16.16	12.42	10.91
9	10.55							10.60	16.60	16.19	12.05	11.11
10	10.72							12.28	16.66	15.90	11.90	11.12
11								12.90	16.58	15.30	11.84	11.28
12								13.21	16.44	14.90	11.77	11.24
13								12.90	16.35	14.78	11.79	11.32
14	10.72							12.61	16.13	14.72	11.71	11.52
15	10.74							12.69	15.75	14.82	11.50	11.57
16	10.64							12.69	15.52	14.67	11.48	11.58
17	10.75							12.68	15.49	14.29	11.43	11.60
18	10.85							12.67	15.47	13.91	11.31	11.62
19	10.85							12.80	15.50	13.59	11.18	11.59
20	10.88							13.00	15.50	13.35	11.13	11.53
21	10.80							12.99	15.59	13.21	11.12	11.49
22	10.74								15.76	13.04	11.01	11.50
23	10.48								16.14	12.97	11.00	11.51
24	10.38								16.58	12.89	11.00	11.53
25									16.85	12.83	10.95	11.49
26									17.05	12.66	10.94	11.47
27									17.26	12.79	10.85	11.48
28									17.33	12.76	10.91	11.45
29					------				17.33	12.61	10.93	11.44
30					------				17.28	12.51	10.86	11.43
31		------			------		------		------	12.40	10.89	------
MEAN										14.49	11.56	11.27
MAX										17.01	12.45	11.62
MIN										12.40	10.85	10.62

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.35	11.35						13.05	15.60	17.23	12.78	10.58
2	11.32	11.35						12.84	16.10	17.02	12.71	10.70
3	11.32	11.34						12.65	16.07	16.48	12.65	10.85
4	11.31	11.32						12.50	15.98	15.92	12.58	11.29
5	11.29	11.28						12.44	15.85	15.50	12.48	11.73
6	11.32	11.27						12.38	15.65	15.49	12.36	12.27
7	11.37	11.27						12.35	15.67	15.93	12.09	11.75
8	11.35	11.27					12.55	12.55	15.79	15.85	12.00	11.55
9	10.97	11.26					12.65		15.80	15.43	11.97	11.39
10	10.80	11.25					13.08		15.88	15.13	11.86	11.36
11	10.62	11.21					13.35	13.59	16.01	15.22	11.87	11.41
12	10.44	11.24					13.43	13.67	16.33	15.18	11.89	11.35
13	10.63	11.22					13.44	13.78		14.53	11.88	11.36
14	10.96						13.20	13.74		14.46	11.82	11.29
15	11.28						12.73	13.59		14.50		11.13
16	11.41						12.49	13.80	16.75	14.31	11.68	11.02
17	11.45						12.56	14.35	16.77	14.18	11.53	11.03
18	11.44						12.48	14.85	16.84	14.05	11.43	10.97
19	11.45						12.29	14.76	16.99	14.08	11.36	10.93
20	11.40						12.45	14.69	17.01	14.12	11.15	10.96
21	11.35						12.63	14.75	17.09	14.02	11.03	10.93
22	11.33						12.60	14.63	17.12	13.95	10.93	10.94
23	11.28						12.42	14.24	17.20	13.82	10.95	10.80
24	11.16						12.27	13.94	17.29	13.55	10.77	10.79
25	11.08						12.20	13.88	17.38	13.27	10.66	10.79
26	11.10						12.30	13.89	17.55	13.28	10.58	10.73
27	10.98						12.45	13.88	17.70	13.23	10.67	10.67
28	10.97						12.56	13.72	17.78	13.07	10.61	10.66
29	11.25				------		12.80	13.63	17.61	12.97	10.67	10.65
30	11.35				------		13.16	13.81	17.34	12.93	10.84	10.65
31	11.35	------			------		------	14.59	------	12.87	10.65	------
MEAN	11.18									14.57		11.08
MAX	11.45									17.23		12.27
MIN	10.44									12.87		10.58

06329660 Missouri River Stage Gage No. 7 near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.67	11.16							14.05		12.28	11.66
2	11.02	11.07							14.42		12.16	11.53
3	12.80	10.88							15.08		12.10	11.59
4	14.10	10.96					13.64		15.07		12.11	11.59
5	13.76	11.78					15.48		16.83		12.22	11.58
6	12.81						15.83		17.30		12.41	11.62
7	11.96						16.00		17.55		12.57	11.44
8	11.44	14.83					16.85		17.60		12.31	11.48
9	11.36	16.13					17.90	12.58	17.70		12.16	11.49
10	11.26	16.81						12.83	17.75		12.07	11.40
11	11.19							13.00		13.07	11.93	11.69
12	11.13							13.21		12.97	11.87	11.85
13	10.78							13.24		12.88	11.85	11.73
14	10.57							13.23	17.19	12.80	11.99	11.62
15	10.73							13.23	17.15	12.64	11.81	11.72
16	11.01							13.03	17.20	12.66	11.79	11.82
17	10.98							12.74	17.10	12.81	11.81	11.85
18	11.04							12.58	16.88	12.95	11.93	11.75
19	11.18							12.53	15.80	12.98	12.09	11.62
20	12.95							12.90	16.63	12.90	12.12	11.27
21	13.50							13.70	16.38	13.00	12.19	11.23
22	12.96							14.30	15.18	12.91	12.15	11.39
23	12.35							14.60	16.08	13.03	12.05	11.40
24	11.95							15.00	15.76	13.15	12.01	11.28
25	11.62							15.30	15.67	13.36	12.06	11.41
26	11.50							15.50	15.67	13.27	12.13	11.39
27	11.48							15.35	15.66	13.04	12.12	11.51
28	11.41							15.05	15.70	13.01	12.23	11.30
29	11.41							14.87	15.48	12.82	12.11	11.36
30	11.34				------			14.65	15.07	12.53	11.90	11.40
31	11.13	------			------		------	14.15	------	12.39	11.75	------
MEAN	11.72										12.07	11.53
MAX	14.10										12.57	11.85
MIN	10.57										11.75	11.23

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.42	11.40					11.60	11.93	14.05	13.85	10.78	10.45
2	11.43	11.19					11.45	12.07	13.55	14.01	10.68	10.63
3	11.43	11.45					11.30	12.20	13.39	14.40	10.64	10.80
4	11.52	11.51					11.22	12.00	13.50	14.60	10.55	11.85
5	11.48	11.46					11.26	11.91	13.95	14.40	10.58	13.50
6	11.39	11.43					11.48	11.87	14.63	13.85	10.44	12.97
7	11.40	11.50					11.56	11.74	14.62		10.35	12.17
8	11.51	11.56					11.69	11.62	14.16		10.29	11.52
9	11.65						11.37	11.95	13.60		10.30	11.23
10	11.63						10.95	12.29	13.32		10.35	11.11
11	11.56						10.76	12.41	13.90		10.46	11.19
12	11.58						10.58	12.39	14.90		10.49	11.22
13	11.62							12.30	15.85		10.43	11.37
14	11.55							12.15	16.31		10.37	11.33
15	11.58							11.80	15.17		10.35	11.29
16	11.63							11.45			10.38	11.28
17	11.72							11.24			10.38	11.34
18	11.67							11.16		11.20	10.29	11.50
19	11.64							11.34		11.15	10.18	11.39
20	11.66							11.60		11.11	10.21	11.41
21	11.70							12.26	15.77	10.90	10.31	11.31
22	11.72					12.58	12.84	13.01	15.35	10.88	10.29	11.20
23	11.73					12.61	12.43	13.81	14.68	10.84	10.30	11.29
24	11.62					12.91	11.45	14.55	14.05	10.79	10.45	11.11
25	11.36					12.59	10.48	15.01	13.61	10.82	10.83	11.10
26	11.25					12.52	10.12	14.94	13.50	10.95	10.75	11.17
27	11.58					12.60	10.33	14.84	13.60	11.06	10.70	11.15
28	11.79					12.45	11.43	14.88	13.93	11.29	10.50	11.10
29	11.88				------	11.95	12.08	15.02	14.05	11.30	10.47	11.15
30	11.82				------	11.66	11.94	15.10	13.89	11.05	10.48	11.14
31	11.76	------			------	11.65	------	14.60	------	10.91	10.49	------
MEAN	11.59							12.76			10.45	11.38
MAX	11.88							15.10			10.83	13.50
MIN	11.25							11.16			10.18	10.45

06329670 Missouri River Stage Gage No. 7A near Trenton, N. Dak.

LOCATION.--Lat 48°03'33", long 103°46'46", in SE¼ sec.22, T.153 N., R.102 W., Williams County, on left bank 3 mi (5 km) southeast of Trenton at mile 1,560.6 (kilometre 2,511.0).

DRAINAGE AREA.--164,000 mi^2 (425,000 km^2), approximately.

PERIOD OF RECORD.--April 1960 to June 1964 (seasonal).

GAGE.--Water-stage recorder. Datum of gage is 1,830.00 ft (557.784 m) above mean sea level. Prior to Apr. 16, 1963, at datum 30.00 ft (9.144 m) lower.

EXTREMES.--Period of record: Maximum daily gage height recorded, 18.72 ft (5.706 m) June 21, 1963; minimum daily recorded, 8.90 ft (2.713 m) Aug. 20, 1961.

REMARKS.--Records fair. Stage regulated by upstream reservoirs.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								40.69	41.39	42.69	40.57	40.45
2								40.56	41.38	42.38	40.57	40.37
3								40.53	41.43	42.14	40.57	40.25
4								40.60	41.67	41.95	40.50	40.14
5								40.71	42.40	41.79	40.67	40.05
6								40.72	43.03	41.70	40.55	39.88
7								40.74	43.78	41.73	40.50	39.75
8								40.90	44.37	41.68	40.48	39.71
9								41.07	44.38	41.54	40.48	39.75
10								41.14	44.22	41.26	40.51	39.81
11								41.08	44.22	40.98	40.48	39.79
12								41.04	44.29	40.74	40.26	39.67
13								40.92	44.46	40.75	40.02	39.77
14								40.93	44.85	40.66	40.00	39.91
15							41.10	40.94	45.00	40.57	39.96	40.01
16							41.16	41.19	44.72	40.58	39.89	39.99
17							41.13	42.19	44.59	40.59	40.04	39.97
18							40.95	42.74	44.76	40.44	39.92	39.96
19							40.82	42.50	45.25	40.22	39.82	39.98
20							40.77	42.29	45.39	40.18	39.74	40.05
21							40.68	42.17	45.23	40.15	39.81	40.17
22							40.65	41.97	45.08	40.07	40.35	40.48
23							40.64	41.84	44.82	39.99	40.68	40.52
24							40.55	41.72	44.94	39.87	40.74	40.43
25							40.44	41.54	44.47	39.74	40.81	40.43
26							40.48	41.32	43.89	39.71	40.93	39.60
27							40.55	41.31	43.35	39.68	40.83	39.27
28							40.54	41.42	42.98	39.66	40.62	40.14
29							40.53	41.53	42.86	39.92	40.53	40.72
30					------		40.65	41.68	42.87	40.38	40.45	40.75
31		------			------		------	41.58	------	40.41	40.47	------
MEAN								41.34	43.87	40.78	40.38	40.06
MAX								42.74	45.39	42.69	40.93	40.75
MIN								40.53	41.38	39.66	39.74	39.27

06329670 Missouri River Stage Gage No. 7A near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41.00	40.88					40.98	40.57	43.78	43.00	41.21	39.34
2	40.85						40.92	40.58	43.90	42.58	40.82	39.43
3	41.20						40.92	40.55	43.96	43.07	40.21	39.65
4							40.88	40.50	43.97	42.97	40.00	39.81
5							40.88	40.45	43.81	42.79	39.83	40.07
6							40.87	40.39	43.90	42.70	39.70	40.59
7							40.83	40.32	44.05	42.60	39.63	40.52
8							40.82	40.20	44.32	42.49	39.53	40.57
9		41.19					40.79	40.13	44.63	42.42	39.33	41.07
10							40.80	40.16	44.17	42.26	39.20	41.31
11	40.02						40.78	40.17	44.61	42.37	39.23	41.04
12							40.82	40.17	44.82	42.56	39.27	41.30
13	40.43						40.77	40.16	45.18	42.81	39.25	42.06
14	40.56						40.64	40.12	45.45	42.43	39.34	42.60
15	40.83						40.57	40.02	45.52	42.05	39.42	42.59
16	41.20	41.05					40.53	39.88	45.30	41.73	39.69	42.74
17	41.20						40.48	39.77	44.99	41.57	39.81	42.67
18	41.05						40.43	39.67	44.70	41.58	39.78	42.42
19	40.98						40.27	39.82	44.49	41.53	39.51	42.23
20	40.94						40.33	40.25	44.27	41.44	38.90	42.51
21	40.96						40.37	40.72	44.22	41.33	39.16	42.78
22	41.04						40.38	41.21	44.14	41.21	39.35	42.97
23	40.96	41.03					40.37	41.25	44.08	41.08	39.35	43.98
24	40.90						40.25	41.19	43.98	41.05	39.31	44.02
25	40.92						40.20	41.31	43.76	41.02	39.27	43.65
26	40.92						40.27	41.41	43.50	41.00	39.29	43.21
27	40.84						40.10	41.76	43.13	41.01	39.29	43.12
28	40.83						40.01	42.56	42.83	41.13	39.11	43.13
29	40.73				------		40.25	43.40	42.55	41.03	39.20	43.10
30	40.67				------	40.95	40.57	43.28	42.30	40.35	39.47	43.00
31		------			------	40.94	------	43.63	------	40.17	39.36	------
MEAN							40.57	40.83	44.14	41.85	39.54	41.92
MAX							40.98	43.63	45.52	43.07	41.21	44.02
MIN							40.01	39.67	42.30	40.17	38.90	39.34

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43.01	42.84										42.00
2	43.10	42.95										41.94
3	43.10	42.98										42.04
4	43.13	42.94										42.28
5	43.18	42.85										42.36
6	43.21	43.05										42.34
7	43.16	43.38										42.30
8	43.10	43.40									42.98	42.23
9	43.08	42.82									43.45	42.20
10	43.11										43.27	42.09
11	43.24										43.39	42.12
12	43.32									46.06	43.24	42.21
13	43.33										42.97	42.35
14	43.43										42.98	42.49
15	43.88										43.42	42.60
16	43.87							43.78			43.43	42.50
17	43.75										43.18	42.40
18	43.71										42.92	42.55
19	43.33										42.63	42.65
20	42.64										42.32	42.61
21	42.47										41.99	42.47
22	42.48										41.78	42.42
23	42.56										41.70	42.34
24	42.61										41.56	42.27
25	42.58										41.46	42.21
26	42.62										41.54	42.31
27	42.60										41.74	42.55
28	42.50										42.00	42.60
29	42.38				------						42.20	42.59
30	42.48				------						42.20	42.50
31	42.74	------			------		------		------		42.11	------
MEAN	43.02											42.35
MAX	43.88											42.65
MIN	42.38											41.94

06329670 Missouri River Stage Gage No. 7A near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								11.42			11.52	10.72
2								12.84			11.83	10.79
3								12.49			11.61	11.20
4								12.27			11.27	11.21
5								12.01				
6								11.96				
7								11.98				
8								11.94				
9								11.85			10.53	
10								11.89			10.34	
11								12.14		14.44	10.18	
12								12.88	16.10	14.71	10.05	
13								13.58	16.13	15.08	9.92	
14								13.93	16.50	15.01	9.77	
15								13.83	16.79	14.44	9.72	
16							10.39	13.90	17.21	14.14	9.78	
17							10.13	13.88	17.89	13.90	9.83	
18							9.73	13.63	18.24	13.57	9.81	11.36
19							9.72	13.41	18.40	13.23	9.79	11.33
20							9.88	13.38	18.51	13.01	9.96	11.34
21							10.02	13.51	18.72	12.80	10.04	
22							10.04	13.62	18.36	12.75	9.99	
23							10.13	13.73	18.13	12.72	10.11	
24							10.34	13.76	18.13	12.49	10.30	
25							10.57	13.85	18.04	12.11	10.29	
26							10.27	13.98	17.84	12.19	10.24	
27							9.98	14.18	17.54	12.44	10.41	
28							10.32	14.48	17.45	12.32	10.56	
29					------		10.71	14.98	17.51	11.79	10.65	
30					------		10.89	15.62	17.49	11.52	10.62	
31		------			------		------		------	11.43	10.60	------
MEAN												
MAX												
MIN												

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		11.08							15.59			
2	11.98	11.16							16.02			
3	11.92	11.27							15.71			
4		11.32							15.46			
5		11.42							15.08			
6									14.80			
7									15.01			
8									15.88			
9									16.70			
10									17.02			
11									17.24			
12									17.56			
13									17.91			
14								14.22				
15		11.13						15.15				
16	11.17	10.95						14.99				
17	11.22	10.90						14.38				
18		11.00						13.91				
19		11.28										
20												
21								13.92				
22								14.55				
23							11.37	14.91				
24		13.13					11.26		17.09			
25		13.35					11.18	16.12	16.93			
26		13.39					11.05	16.32	17.56			
27							11.04	16.03	16.06			
28							11.23	15.60				
29							12.63	15.32				
30	10.79				------		13.90	15.26				
31	10.88	------			------		------	15.30	------			------
MEAN												
MAX												
MIN												

06329680 Missouri River Stage Gage No. 8 near Trenton, N. Dak.

LOCATION.--Lat 48°03'10", long 103°42'54", in NE¼ sec.30, T.153 N., R.101 W., McKenzie County, on right bank 5.5 mi (8.8 km) southeast of Trenton at mile 1,557.2 (kilometre 2,505.5).

DRAINAGE AREA.--164,000 mi^2 (425,000 km^2), approximately.

PERIOD OF RECORD.--March 1959 to current year (seasonal).

GAGE.--Water-stage recorder. Datum of gage is 1,830.00 ft (557.784 m) above mean sea level. Prior to Jan. 4, 1962 at datum 30.00 ft (9.144 m) lower.

EXTREMES.--Current year: Maximum daily gage height recorded, 21.66 ft (6.602 m) June 20; minimum daily recorded, 16.37 ft (4.990 m) Apr. 16.
Period of record: Maximum daily gage height recorded, 22.92 ft (6.986 m) June 29, 1971; minimum daily recorded, 4.96 ft (1.512 m) Aug. 20, 1961, present datum.

REMARKS.--Records fair. Stage regulated by upstream reservoirs and backwater from Lake Sakakawea.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1958 TO SEPTEMBER 1959

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								37.59	38.42	42.31	37.20	36.28
2								37.53	38.59	41.78	37.13	36.44
3								37.54	38.56	41.62	37.08	36.27
4								37.45	38.50	41.64	36.99	35.83
5								37.34	38.37	41.64	36.92	35.84
6						41.18		37.44	38.26	41.24	36.85	36.22
7						41.90		37.97	38.25	41.24	36.85	36.32
8						42.57		38.38	39.01	41.29		36.46
9						43.03		38.47	40.30	41.07		36.30
10						42.99	37.96	38.28	41.63	40.78		36.12
11						42.74	37.92	37.92	42.26	40.67		36.16
12						42.89	37.98	37.99	41.70	40.46	36.56	36.17
13							37.87	37.89	41.41	40.08		36.19
14						43.97	37.75	37.83	41.66	39.77	36.55	36.19
15						44.45	37.62	38.01	41.52	39.55		36.12
16						44.92	37.53	38.02	41.92	39.38		36.14
17						45.34	37.51	37.83	42.61	39.23		36.18
18						45.47	37.51	37.75	43.00	39.12		36.19
19						45.80	37.61	38.30	43.30	39.04		36.39
20						46.95	37.67	39.32	43.38	38.94		36.42
21						48.38	37.75	39.91	43.24	38.75		
22						49.45	37.79	39.64	43.07	38.59		
23						48.68	37.74	39.36	42.87	38.41		
24						44.15	37.79	39.06	42.65	38.21	36.34	37.34
25						42.52	37.69	38.76	42.50	38.08	36.43	37.43
26						41.31	37.56	38.48	42.65	37.90	36.56	37.70
27						40.59	37.58	38.28	42.96	37.73	36.58	37.88
28						40.31	37.78	38.21	42.78	37.53	36.54	37.89
29					------		37.86	38.08	42.40	37.39	36.44	37.80
30					------		37.72	37.89	42.56	37.33	36.24	37.72
31		------			------		------	38.05	------	37.30	36.11	------
MEAN								38.21	41.34	39.62		
MAX								39.91	43.38	42.31		
MIN								37.34	38.25	37.30		

06329680 Missouri River Stage Gage No. 8 near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.71	37.89							36.80	39.18	36.78	36.77
2	37.71	37.79							36.88	38.90	36.82	36.68
3	37.71	37.82							36.90	38.63	36.82	36.56
4	37.71	37.96					39.52		37.30	38.44	36.71	36.43
5	37.69	37.94					39.43		38.30	38.27	36.91	36.34
6	37.67						39.29		38.94	38.18	36.82	36.15
7	37.70	37.85					39.02		39.90	38.16	36.75	35.99
8	37.78	37.90					38.52		40.45	38.04	36.70	35.93
9		37.83					38.04	36.96	40.42	37.89	36.77	35.96
10		37.70					37.63	36.92	40.18	37.55	36.75	36.02
11	37.86	37.56					37.36	36.80	40.18	37.24	36.74	36.02
12	37.83	37.55						36.70	40.27	36.94	36.53	35.92
13	37.74	37.59					37.66	36.52	40.32	36.94	36.24	36.01
14	37.79						37.32	36.46	40.79	36.90	36.19	36.15
15	37.88						37.35	36.48	41.02	36.78	36.15	36.26
16	37.83						37.34	36.75	40.69		36.11	36.30
17	37.86						37.26	38.16	40.52		36.27	36.25
18	37.80						37.12	39.05	40.62		36.14	36.22
19	37.75						36.92	38.83	40.92		36.03	36.25
20	37.72						36.87	38.45	41.15		35.97	36.34
21	37.90							38.06	41.13		36.01	36.45
22	38.04								41.07		36.52	36.71
23	37.94								40.90		37.00	36.78
24	37.81								40.90		37.05	36.72
25	37.83							36.96	40.57	35.80	37.17	36.72
26	37.76						36.62	36.76	40.13	35.76	37.28	36.03
27	37.72							36.75	39.69	35.74	37.22	35.59
28	37.75						36.68	37.06	39.46	35.71	36.97	36.32
29	37.76						36.68	37.06	39.37	36.00	36.85	36.98
30	37.79				------			37.30	39.36	36.52	36.76	37.04
31	37.87	------			------		------	37.00	------	36.60	36.78	------
MEAN									39.84		36.64	36.33
MAX									41.15		37.28	37.04
MIN									36.80		35.97	35.59

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.01	37.01					37.04	36.48	41.37	39.63	37.41	35.43
2	36.91	37.05					37.10	36.46	41.56	39.17	37.12	35.60
3	36.87	37.04					36.97	36.42	41.64	39.65	36.26	35.79
4	36.92	37.06					36.95	36.40	41.29	39.51	36.01	35.97
5	36.88	37.12					36.91	36.39	40.98	39.37	35.88	36.18
6	36.83	37.11					36.90	36.38	41.01	39.23	35.74	36.82
7	36.81	37.15					36.81	36.36	41.07	39.08	35.63	36.81
8	36.71	37.24					36.73	36.25	41.27	38.95	35.49	36.88
9	36.66	37.20					36.70	36.19	41.53	38.87	35.35	37.34
10	36.54	37.23				40.35	36.70	36.23	41.50	38.71	35.18	37.61
11	36.36	37.25				40.41	36.65	36.30	41.32	38.78	35.17	37.29
12	36.48	37.35				40.48	36.64	36.25	41.43	38.98	35.28	37.49
13	36.66	37.33				40.54	36.70	36.25	41.55	39.18	35.24	38.36
14	36.78	37.29				40.67	36.59	36.21	41.59	38.84	35.29	39.00
15	37.04	37.28				40.77	36.49	36.15	41.76	38.43	35.42	38.91
16	37.48	37.33				40.85	36.45	35.96	41.58	38.07	35.71	39.00
17	37.53	37.40				40.83	36.38	35.87	41.24	37.91	35.92	38.88
18	37.38	37.42				40.94	36.27	35.80	41.05	37.91	35.89	38.71
19	37.23	37.39				41.44	36.18	35.95	40.89	37.85	35.67	38.56
20	37.19	37.34				41.54	36.23	36.37	40.74	37.77	34.96	38.78
21	37.21	37.45				41.43	36.28	36.82	40.76	37.65	35.18	39.11
22	37.30	37.33				42.98	36.24	37.36	40.65	37.51	35.41	39.14
23	37.18	37.32				43.53	36.22	37.47	40.56	37.36	35.42	40.09
24	37.14	37.27				37.85	36.19	37.47	40.48	37.33	35.41	40.16
25	37.13	37.25				37.50	36.18	37.62	40.29	37.33	35.36	39.82
26	37.11	37.32				37.31	36.27	37.74	40.05	37.28	35.38	39.42
27	37.09	37.18				37.29	36.08	38.17	39.79	37.32	35.38	39.38
28	37.02	38.05				37.23	35.97	39.05	39.45	37.43	35.22	39.54
29	36.96	38.80			------	37.14	36.23	39.92	38.86	37.33	35.25	39.52
30	36.88	39.10			------	37.13	36.48	40.49	38.81	36.63	35.56	39.55
31	36.93	------			------	37.10	------	40.95	------	36.35	35.44	------
MEAN	36.97	37.39					36.52	37.02	40.87	38.24	35.60	38.17
MAX	37.53	39.10					37.10	40.95	41.76	39.65	37.41	40.16
MIN	36.36	37.01					35.97	35.80	38.81	36.35	34.96	35.43

06329680 Missouri River Stage Gage No. 8 near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					12.92			9.86		14.01	9.95	
2								9.51		13.88	9.56	
3								9.22		13.61	9.21	
4				13.84				8.79	11.01	13.19	9.07	
5				13.89				8.19	11.32	12.95	9.44	
6				13.92				7.73	12.27	13.01	9.39	
7				13.87				7.43	12.37	12.87	9.36	
8				13.71				7.08	12.31	12.57		
9				13.62				7.00	11.60	12.16		
10				13.68				7.71	11.10	11.89		
11				13.58				8.36	11.13	11.82		
12				12.96				8.80	11.23	11.64		
13				12.57				9.32	11.50	11.27		
14				12.72				10.22	11.88	11.06		
15				12.87				10.50	13.12	11.79		
16				12.81				10.43	13.70	12.73		
17				12.65				10.22	13.44	13.16		
18				12.49				9.79	13.14	13.22		
19				12.47				9.48	13.57	12.69		
20				12.47				9.34	14.23	13.21		
21				12.38				9.21	14.26	12.48		
22				12.54				9.33	13.88	12.04		
23				12.62				9.43	13.68	11.70		
24				12.64				10.13	13.52	11.38		
25				12.66				9.96	13.28	11.07		
26				12.68			9.42	9.87	13.13	10.78		
27				12.72			9.08	10.75	13.33	10.69		
28				12.80			8.91	11.05	13.64	10.43		
29				12.81	------		9.30	10.65	13.79	10.09		
30				12.79	------		9.45	9.89	13.92	9.89		
31		------		12.80	------		------		------	9.96		------
MEAN										12.04		
MAX										14.01		
MIN										9.89		

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		7.36	9.00	11.40	11.69	14.01	7.59	7.48	11.97	13.32	7.55	6.57
2	7.58	7.26	8.97	11.22	11.88	14.73	7.27	9.21	12.00	13.23	7.69	6.66
3	7.53	7.23	8.98	10.82	12.15	15.38	7.10	8.83	12.33	13.07	7.46	7.06
4	7.42	7.10	9.00	11.01	12.47	15.67	6.95	8.49	12.58	12.53	7.21	8.27
5	7.36	7.05	8.79	12.15	12.73	15.54	6.80	8.16	13.12	12.10	6.99	7.69
6	7.37	7.11	8.60	12.96	12.84	15.30	6.62	8.05	13.57	11.99	6.89	7.52
7	7.45	7.09	8.60	13.27	13.20	14.76	6.64	8.04	14.67	12.21	6.76	7.56
8	7.56	7.10	8.54	13.23	13.95	14.22	6.53	8.05	14.51	12.07	6.67	7.60
9	7.51	7.04	8.47	13.01	15.02	13.89	6.46	7.96	14.25	11.63	6.57	7.45
10	7.44	7.02	8.66	12.95	16.22	13.76	6.47	8.01	14.06	11.36	6.41	7.31
11	7.54	7.02	9.84	12.91	17.13	13.72	6.56	8.23	14.34	11.15	6.38	7.11
12	7.75	7.03	10.45	12.43	17.58	13.62	6.65	8.87	13.07	11.32	6.32	6.97
13	7.99	7.03	10.82	11.44	17.14	13.54	6.85	9.64	12.95	11.67	6.00	6.90
14	7.72	7.00	11.34	10.48	16.00	13.54	6.85	10.10	13.18	11.55	5.90	6.90
15	7.83	7.01	12.27	10.12	14.80	13.48	6.77	10.13	13.38	11.29	5.83	7.20
16	8.05	7.01	13.35	10.28	14.09	13.24	6.70	10.20	13.76	10.97	5.84	7.17
17	8.12	7.06	13.45	10.61	13.70	13.22	6.37	10.21	14.47	10.75	5.87	7.14
18	8.09	7.10	13.25	10.61	13.34	13.33	5.90	9.88	14.80	10.42	5.85	7.34
19	8.04	7.10	13.08	10.36	13.10	13.26	5.88	9.71	15.10	10.04	5.81	7.37
20	7.86	7.23	12.99	10.28	13.14	13.17	6.11	9.69	15.45	9.80	5.90	7.43
21	7.81	7.37	12.72	10.42	13.23	13.28	6.21	9.75	15.55	9.55	5.89	7.49
22	7.80	7.48	12.40	10.34	13.18	13.54	6.25	9.91	15.33	9.34	5.81	7.53
23	7.74	7.67	11.22	10.23	12.90	13.72	6.36	10.04	15.14	9.35	5.93	7.52
24	7.69	8.21	10.90	10.33	12.22	13.59	6.49	10.08	15.17	9.07	6.07	7.49
25	7.59	8.48	10.50	10.66	11.96	13.32	6.72	10.23	15.09	8.68	6.07	7.58
26	7.52	8.52	10.15	11.13	12.31	13.03	6.52	10.36	14.86	8.61	6.03	7.90
27	7.48	8.54	9.95	11.31	12.60	13.29	6.24	10.54	14.45	8.75	6.30	8.94
28	7.49	8.54	9.98	11.50	13.12	13.39	6.53	10.84	14.09	8.61	6.54	8.90
29	7.48	8.71	10.19	11.53	------	13.37	6.85	11.34	14.09	8.08	6.44	8.67
30	7.46	8.92	10.59	11.47	------	10.94	6.98	11.92	13.82	7.72	6.43	8.67
31	7.52	------	11.15	11.43	------	8.00	------	12.09	------	7.58	6.42	------
MEAN		7.48	10.59	11.35	13.70	13.58	6.61	9.55	14.04	10.57	6.38	7.53
MAX		8.92	13.45	13.27	17.58	15.67	7.59	12.09	15.55	13.32	7.69	8.94
MIN		7.00	8.47	10.12	11.69	8.00	5.88	7.48	11.97	7.58	5.81	6.57

06329680 Missouri River Stage Gage No. 8 near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.47	7.38	9.18	13.53	12.13	11.91	9.05				9.54	9.63
2	8.29	7.44	9.41	13.35	12.13	11.80	10.42				9.34	9.91
3	8.17	7.49	9.53	13.27	12.02	11.34	11.13				9.24	10.02
4	7.91	7.49	9.49	13.23	11.82	10.81	11.91				9.37	9.65
5	7.81	7.56	9.33	13.15	11.54	10.62	12.39		11.41		9.64	9.42
6	7.67	7.62	9.25	12.93	11.50	10.26	12.27		11.04		9.59	9.32
7	7.65	7.53	9.35	12.80	11.58	10.03	12.07		11.23	14.37	9.19	9.40
8	7.60	7.51	9.57	12.73	11.60	9.85	12.69		12.15	14.26	8.94	9.18
9	7.55	7.47	9.79	12.63	11.10	9.64	10.12		12.90	14.24	8.72	8.95
10	7.48	7.48	10.96	12.48	11.18	9.48	8.51		13.32	13.95	8.54	8.84
11	7.44	7.45	10.71	12.10	11.45	9.53	8.11		13.65	13.65	8.36	8.73
12	7.42	7.50	10.08	11.56	11.51	9.64	7.92			13.36	8.28	8.60
13	7.44	7.61	9.25	11.26	11.43	9.74	7.84			13.15	8.18	8.65
14	7.50	7.62	9.29	11.30	11.48	9.73	7.75			13.17	8.13	8.72
15	7.44	7.33	9.28	11.15	11.56	9.88	7.78			13.25	8.04	8.75
16	7.42	7.06	9.50	11.09	11.47	9.93	7.77			12.95	7.93	8.98
17	7.47	7.00	9.48	11.21	11.42	9.96	7.71			12.64	7.89	9.00
18	7.48	7.08	9.07	11.25	11.28	10.10	7.65			12.72	7.73	9.05
19	7.43	7.31	9.00	11.33	11.26	10.07	7.55			12.79	7.64	9.25
20	7.23	7.50	9.57	11.46	11.28	10.10	7.38			12.41	7.58	9.25
21	7.08	8.02	10.01	11.57	11.23	10.47	7.31			12.11	7.59	9.32
22	6.95	10.23	10.34	11.56	11.31	10.63	7.40	10.94		12.12	7.83	9.42
23	7.06	10.00	10.69	11.47	11.32	10.25	7.42		14.23	11.54	8.36	9.23
24	7.07	9.85	11.17	11.53	11.42	9.34	7.42		13.81	11.26	8.74	8.69
25	7.10	10.10	12.06	11.32	11.38	9.50	7.35			10.92	9.02	8.83
26	7.12	10.20	12.93	11.02	11.33	8.56	7.25			10.73	9.13	9.07
27	7.10	11.78	13.57	11.20	11.58	7.85	7.25			10.60	9.18	8.89
28	7.11	10.21	13.94	11.54	11.63	7.76	7.42			10.27	9.04	8.86
29	7.08	9.04	14.11	11.89	11.75	7.73	8.81			10.02	8.91	8.83
30	7.04	9.03	13.90	12.03	------	7.91	10.20			9.83	9.42	9.00
31	7.14	------	13.63	12.06	------	8.35	------		------	9.66	10.57	------
MEAN	7.44	8.23	10.56	11.97	11.51	9.77	8.86				8.70	9.11
MAX	8.47	11.78	14.11	13.53	12.13	11.91	12.69				10.57	10.02
MIN	6.95	7.00	9.00	11.02	11.10	7.73	7.25				7.58	8.60

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.82	8.80	9.64	13.91	12.68	13.52	12.87	12.14		17.13	14.98	14.68
2	8.97	8.60	9.83	14.03	12.68	13.59	13.37	12.16		17.03	15.00	14.48
3	9.33	8.53	9.89	13.88	12.88	13.81	14.32	11.99	13.32	16.75	14.84	14.73
4	8.99	8.56	9.90	13.69	13.04	14.04	15.30	11.97		16.46	14.69	14.54
5	8.49	8.68	10.07	13.60	13.08	14.25	16.57	12.16		16.65	14.50	14.45
6	8.36	8.78	10.46	13.52	13.04	14.18	19.59		13.93	17.03	14.37	14.48
7	8.28	8.81	11.19	13.36	12.98	13.88	21.99		14.12	17.20	14.32	14.46
8	8.23	8.79	11.90	13.21	12.99	13.55	21.84		14.43	17.06	14.28	14.53
9	8.17	8.75	12.42	13.07	13.02	13.30	20.13		14.60	17.06	14.29	14.35
10	8.15	8.75	12.68	12.98	13.13	13.31	20.76			16.96	14.30	14.44
11	8.17	8.72	12.92	13.01	13.58	13.54	19.65			17.03	14.24	14.57
12	8.20	8.68	13.02	13.11	13.99	13.88	15.00			17.12	14.27	14.45
13	8.17	8.61	13.09	13.18	13.92	14.04	12.10			17.69	14.08	14.55
14	8.14	8.65	12.95		13.72	13.92	11.64		14.95	17.95	13.84	14.76
15	8.15	8.72	12.72	13.20	13.50	13.85	11.36		15.21	17.58	13.83	14.90
16	8.19	8.77	12.41	13.23	13.28	13.84	11.46		16.76	17.20	13.73	14.69
17	8.25	8.28	12.14	13.22	13.09	13.74	11.48		16.67		13.69	14.73
18	8.30	8.02	11.72	13.26	12.92	13.56	11.16	11.99	15.61		13.69	14.91
19	8.27	8.03	11.03	13.40	12.89	13.19	11.14	12.18			13.74	15.07
20	8.23	8.08	10.21	13.48	12.99	12.83	11.25	12.41			13.75	15.24
21	8.27	7.51	10.25	13.57	13.16	12.85	11.22	12.80			13.77	15.43
22	8.47	7.75	10.98	13.72	13.58	12.82	11.25	12.88	15.93		13.66	15.09
23	8.59	7.95	11.57	13.81	14.20	12.64	11.48		15.59		13.69	15.19
24	9.03	8.74	11.78	13.77	14.17	12.45	11.36		15.49		13.83	15.04
25	9.63	8.86	11.81	13.65	13.98	12.53	11.37		15.73		14.80	15.70
26	9.88	9.46	11.85	13.54	13.88	12.76	11.65		16.02	15.77	15.14	15.88
27	9.87	10.00	11.67	13.46	13.88	12.74	12.04		15.23	15.69	15.34	15.77
28	9.52	10.46	11.47	13.39	13.72	12.65	12.08		16.38	15.43	15.33	15.69
29	9.22	10.26	11.74	13.21	------	12.65	11.97		16.59	15.30	14.83	15.69
30	9.28	9.81	12.94	12.99	------	12.66	12.01		16.82	15.31	14.64	15.66
31	9.18	------	13.58	12.85	------	12.72	------		------	15.11	14.54	------
MEAN	8.67	8.75	11.61		13.36	13.33	13.98				14.32	14.94
MAX	9.88	10.46	13.58		14.20	14.25	21.99				15.34	15.88
MIN	8.14	7.51	9.64		12.68	12.45	11.14				13.66	14.35

06329680 Missouri River Stage Gage No. 8 near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.66	14.91	16.52					11.55	14.80	14.91	13.78	12.21
2	15.51	14.86						11.40	15.24	15.03	13.73	12.14
3	15.87	14.59						11.72	15.61	15.09	13.63	12.02
4	15.92	14.82						12.05	15.99	15.21	13.67	11.86
5	15.80	14.59						12.12	16.02	15.81	13.54	11.92
6	15.49	14.57						12.05	16.01	15.77	13.29	11.96
7	15.33	14.55						11.97	15.74	15.73	13.39	11.85
8	15.54	14.26						11.88	15.39	15.26	13.29	11.73
9	15.54	14.17						11.94	14.94	15.05	13.31	11.65
10	15.37	14.02						12.35	14.52	15.00	13.38	11.97
11	15.37	13.99						12.72	14.18	14.99	13.51	11.89
12	15.51	13.66						13.27	13.99	14.95	13.05	11.53
13	15.47	13.70						13.92	14.11	15.06	13.17	11.54
14	15.44	13.86						14.38	14.24	14.91	13.08	11.37
15	15.46	13.77						14.85	14.48	14.78	12.80	11.44
16	15.26	13.50						14.45	14.60	14.72	12.94	11.30
17	15.30	13.73						14.02	14.46	14.58	12.48	11.20
18	15.33	13.71						13.81	14.28	14.62	12.84	11.58
19	15.28	13.67					10.92	13.57	14.13	14.64	13.00	11.58
20	15.21	13.52					10.88	13.31	14.24	14.74	12.85	11.36
21	15.30	13.43					10.93	13.08	14.28	14.35	12.96	11.27
22	15.19	13.25					10.96	12.97	14.53	14.38	12.58	11.31
23	15.20	13.34					10.96	12.78	14.60	14.29	12.67	11.42
24	15.15	13.16					10.95	12.80	15.00	14.38	12.62	11.66
25	15.05	13.26					11.02	12.90	14.93	14.67	12.67	11.38
26	15.09	13.33					11.60	13.06	15.57	14.12	12.74	11.26
27	15.17	15.93					11.74	13.81	15.88	13.95	12.75	11.20
28	15.13	16.07					11.82	13.81	15.49	13.95	12.35	10.94
29	14.93	16.13			------		11.70	13.65	15.20	13.92	12.72	10.99
30	14.84	16.25			------		11.52		14.99	13.91	12.53	10.92
31	14.81	------			------		------		------	14.13	12.32	------
MEAN	15.34	14.22							14.91	14.74	13.02	11.55
MAX	15.92	16.25							16.02	15.81	13.78	12.21
MIN	14.81	13.16							13.99	13.91	12.32	10.92

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.69								16.14	20.24	19.69	16.77
2	10.67								15.36	20.38	19.47	16.69
3	10.80								15.72	20.62	19.45	16.34
4	10.85								16.82	20.85	19.48	16.37
5	10.99								15.95	21.09	19.50	16.39
6	10.97								17.16	21.20	19.38	16.33
7	10.92								17.25		19.41	15.94
8	10.82								17.42		18.83	16.02
9	10.58								18.09		18.98	16.43
10	10.72								18.43		19.05	15.93
11	10.90								17.97		18.94	16.00
12	10.76							13.69	17.68	21.63		15.77
13	10.56							13.95	17.78	21.56		15.88
14	10.56							14.29		21.51		15.77
15	10.62							14.46		21.25		15.85
16	10.55							14.21		21.20		15.99
17	10.54							13.72		21.36		16.17
18	10.50							13.37		21.27		16.26
19	10.52							13.29		21.10		16.40
20								13.19		20.98		16.27
21								13.04		20.80		16.29
22								13.05	19.29	20.74		16.32
23								13.35	19.60	20.48		16.11
24								14.00	19.76	20.52		16.27
25								14.22	19.85	20.41		16.20
26								14.36	20.01	20.42		16.13
27								15.12	20.24	20.35		15.96
28								15.84	20.43	20.11		15.92
29					------			16.43	19.87	20.08	16.77	15.84
30					------			16.51	19.90	19.99	16.77	15.83
31		------			------		------	16.28	------	19.98	16.76	------
MEAN												16.15
MAX												16.77
MIN												15.77

06329680 Missouri River Stage Gage No. 8 near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.48	14.50							12.79	18.31	17.31	18.00
2	15.68	14.35				16.57			12.70	18.63	17.31	18.06
3	15.89	14.30				16.43			13.31	18.54	17.30	17.88
4	15.49	14.33				16.21			14.54	18.31	17.23	17.85
5	15.88	14.24				16.07			14.87	18.15	17.16	17.90
6	16.28	14.24				16.25			15.41	17.98	17.23	18.05
7	15.44	14.51				16.31			15.59	17.86	17.23	18.02
8	15.52	14.52				16.24			17.01	17.79	17.18	18.03
9	15.46	14.74				16.04	11.84	11.56	17.06	18.09	17.10	18.08
10	15.64	14.57				15.92			17.41	18.25	17.07	18.19
11	15.65	14.35				15.65			17.70	18.22	17.08	18.21
12	15.41	14.53				15.26			17.91	18.14	16.72	18.19
13	15.31	14.49				14.97			18.33	17.90	16.65	18.02
14	15.46	14.54				14.58		11.59	18.33	17.96	17.02	18.26
15	15.33	14.51				14.29		11.63	18.29	17.83	16.97	17.91
16	15.46	14.46				14.21		11.96	18.18	17.88	16.82	17.83
17	15.24	14.67				14.35		11.93	18.39	17.94	17.21	17.97
18	15.34	14.96				14.37		12.18	18.18	17.94	17.03	
19	15.13	15.12				14.33		12.95	17.68	18.09	16.87	
20	15.09	14.87				14.08		13.24	17.72	18.05	17.38	
21	15.23	14.88				13.95		13.09	17.86	17.75	17.53	
22	15.01	14.93				13.66		12.86	18.38	17.99	17.04	
23	15.03	14.70				13.32		12.63	18.80	17.84	17.24	
24	14.70	14.94				13.23		12.35	19.12		17.39	
25	14.87	14.93					11.27	12.33	19.13		18.64	17.87
26	14.73	14.59						12.33	18.99		18.81	17.86
27	15.00	16.45						12.14	18.93		18.51	17.99
28	15.00	17.78						12.34	18.58		18.20	17.92
29	14.62							12.87	18.30		17.94	17.54
30	14.82				------			13.28	18.21		17.92	17.41
31	14.76	------			------		------	12.96	------	17.24	17.80	------
MEAN	15.29								17.29		17.38	
MAX	16.28								19.13		18.81	
MIN	14.62								12.70		16.65	

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.48	16.36	15.77			17.98				20.83	20.71	18.65
2	17.09	16.44	15.84			17.98				20.33	20.66	18.65
3	17.19	16.45	15.84			17.99				20.00	20.61	18.74
4	17.48	16.50	15.53			17.99				19.82	20.56	18.55
5	16.85	16.43				18.02			17.78	20.28	20.69	18.33
6	17.01	16.46				18.04			17.62	20.49	20.11	18.15
7	16.84	16.41				18.03		17.09	17.49	20.82	20.10	18.13
8	16.91	16.50				18.01		16.79	17.33	20.83	20.25	18.26
9	16.87	16.65				17.95		16.68		20.95	20.20	18.13
10	17.20	16.54				17.93		16.67		20.90	20.20	17.97
11	16.98	16.52				17.88		16.73		20.93	20.16	17.96
12	17.20	16.71				17.87		16.88		21.04	20.04	17.90
13	16.86	16.27			17.99	17.91		16.92		21.06	19.72	17.84
14	16.81	16.28			17.99	17.89		16.92		21.31	20.02	17.61
15	16.79	16.47			17.92	17.82		16.96		21.15	19.94	17.66
16	16.62	16.45			17.84	17.79		16.92		21.13	19.84	17.65
17	16.61	16.28			17.96	17.79		16.94		21.14		17.94
18	16.64	16.36			18.07	17.83		16.85		21.15		17.66
19	16.58	16.39			18.09	17.97		17.02		21.19		17.57
20	16.64	16.40			18.11	18.62		17.15	17.70	21.31		17.40
21	16.58	16.22			18.11	20.47		16.78	17.82	21.35	19.49	17.50
22	16.61	16.04			18.07			16.52	17.90	21.23	19.46	17.10
23	16.45	15.86			18.03			16.79	18.09	21.31	19.41	17.46
24	16.51	15.85			18.01			17.32	18.33	21.19	19.36	17.14
25	16.50	15.95			18.01			17.50	19.06	21.18	19.37	16.82
26	16.19	15.83			17.97			17.24	18.97	20.63	19.12	17.03
27	16.00	15.68			17.95			16.99	18.87	20.79	19.13	17.11
28	16.46	15.71			17.95	19.36			19.46	20.93	19.06	17.31
29	16.38	15.80			------				20.33	20.86	18.70	16.92
30	16.43	15.70			------				20.75	20.61	18.66	17.30
31	16.34	------			------		------		------	20.72	18.65	------
MEAN	16.75	16.25								20.89		17.75
MAX	17.48	16.71								21.35		18.74
MIN	16.00	15.68								19.82		16.82

06329680 Missouri River Stage Gage No. 8 near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.83	16.11	15.26		20.63	19.85	17.20	15.59	19.97	21.11	19.56	17.73
2	16.84	16.13	15.22		20.43	19.86	17.27	15.39	19.76	21.23	19.58	17.49
3	16.49	16.14	15.23		20.28	19.72	17.28	15.25	19.54	21.28	19.66	17.59
4	16.45	16.14	15.34		20.15	19.24	17.33	15.30	19.38	21.02	19.68	17.67
5	16.55	16.19	15.21		19.88	18.65	17.56	15.43	19.30	20.93	19.66	17.63
6	16.39	16.17	15.25	19.04	19.55	18.58	17.72	15.01	19.32	20.73	19.62	17.55
7	16.29	16.27	15.65	18.89	19.33	18.80	17.99	14.76	19.73	20.78	19.48	17.56
8	16.79	16.25	16.89	18.58	19.37	19.03	17.99	14.98	20.26	20.88	19.63	17.64
9	16.72	16.23	19.97	18.21	19.58	19.22	17.76	15.11	20.50	20.98	19.26	17.68
10	16.74	16.19	20.27	17.94	19.74	19.45	17.79	16.52	20.60	20.94		17.71
11	16.64	16.07	20.25		19.79	19.34	17.99	17.40	20.68	20.53		18.03
12	16.54	16.09	20.25		19.80	18.85	15.52	17.59	20.73	20.25		17.65
13	16.43	15.74	20.33		19.80	18.61	14.39	17.45	20.97	20.18		17.80
14	16.48	15.80	20.14		19.79	18.54	14.09	17.17	20.78	20.15		18.02
15	16.60	15.90	19.64		19.71	18.36	13.98	17.19	20.38	20.26		17.93
16	16.45	15.98	19.54		19.57	18.23	14.19	17.19		20.26		17.98
17	16.48	15.91	19.81		19.43	17.98	14.71	17.17	19.82	20.16		17.94
18	16.55	16.24	20.00		19.39	17.60	15.02	17.18	19.78	20.05		18.00
19	16.60	16.55	20.70		19.42	17.27		17.21	19.78	19.95		17.97
20	16.61	16.25	21.19		19.53	17.04			19.78	19.95		17.91
21	16.51	15.94			19.46	16.82			19.79	19.88		17.58
22	16.71	15.63			19.42	16.68		17.98	19.97	19.68		17.87
23	16.59	15.47			19.58	16.62		18.46	20.23	19.53		17.93
24	16.33	15.35			19.65	16.61	15.51	18.88	20.54	19.56		17.88
25	16.27	15.38			19.68	16.59	15.51	19.18	20.88	19.63		17.71
26	16.05	15.37			19.67	16.64	15.42	19.11	20.96	19.53		17.81
27	16.05	15.32			19.69	16.71	15.32	19.22	21.13	19.72		17.81
28	16.36	15.25	18.80	20.13	19.76	16.85	15.41	19.08	21.17	19.80	18.11	17.85
29	16.16	15.31		20.46	------	16.87	15.50	19.16	21.18	19.63	17.91	
30	16.12	15.28		20.77	------	16.84	15.64	19.56	21.24	19.55	17.91	
31	16.11	------		20.79	------	17.08	------	19.93	------	19.48	17.91	------
MEAN	16.48	15.89			19.72	18.02				20.25		
MAX	16.84	16.55			20.63	19.86				21.28		
MIN	16.05	15.25			19.33	16.59				19.48		

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		16.98						18.11	20.34	22.59	19.69	17.56
2		17.01						18.02	20.48	22.58	19.77	17.60
3		17.03						17.83	20.66	22.02	19.83	17.63
4		16.97				19.53		17.68	20.87	21.47	19.79	18.04
5		17.02				19.54		17.58	20.62	21.00	19.68	18.27
6		16.96				19.52		17.53	20.43	21.25	19.60	18.42
7	17.63	16.98				19.61		17.58	20.56	21.24	19.40	18.02
8	17.67	16.97				19.70	17.65	17.72	20.60	21.45	19.25	18.08
9	17.37	16.96				19.72	17.76	17.99	20.62	21.34	19.21	18.00
10	17.22	16.93				19.68	17.99	18.21	20.64		19.11	18.12
11	17.10	16.94				19.76	18.16	18.59	20.56		19.13	17.89
12	17.01	17.11				19.91	18.34	18.81	20.45		19.21	17.94
13	17.05	17.04				20.21	18.45	18.94	19.96		19.18	17.76
14	17.15					20.89	18.37	18.93	19.76	20.47	19.33	17.55
15	17.37					21.69	18.02	18.78	20.81	20.55	19.05	17.51
16	17.43					21.85	17.71	18.84	21.35	20.52	18.98	17.63
17	17.42						17.93	19.20	21.21	20.53	18.87	17.65
18	17.52						17.87	19.68	21.45	20.30	18.85	17.62
19	17.50						17.47	19.68	21.52	20.34	18.69	17.59
20	17.40						17.70	19.56	21.55	20.42	18.66	17.57
21	17.41						17.83	19.59	21.59	20.37	18.45	17.62
22	17.36						17.76	19.57	21.93	20.30	18.41	17.51
23	17.32						17.59	19.25	22.32	20.28	18.41	17.53
24	17.26						17.53	18.95	22.48	20.00	18.07	17.60
25	17.00						17.45	18.86	22.65	19.77	18.21	17.47
26	17.06						17.50	18.83	22.75	19.93	18.19	17.27
27	16.93						17.58	18.86	22.67	19.85	18.17	17.34
28	16.85						17.64	18.76	22.79	19.81	18.04	17.25
29	16.94				------		17.83	18.66	22.92	19.76	17.92	17.48
30	17.15				------		18.05	18.81	22.50	19.79	18.12	17.20
31	17.04	------			------		------	19.45	------	19.71	17.86	------
MEAN								18.67	21.30		18.88	17.69
MAX								19.68	22.92		19.83	18.42
MIN								17.53	19.76		17.86	17.20

06329680 Missouri River Stage Gage No. 8 near Trenton, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.48	18.02						18.46	19.23	20.72	19.63	19.17
2	17.95	17.78						18.47	19.35	20.46	19.61	19.12
3	19.68	17.92						18.61	19.77	20.46	19.59	19.10
4		18.09						18.72	20.51	20.51	19.54	19.01
5		17.11					19.56	18.65	21.16	20.54	19.51	19.12
6	18.97	18.40					19.58	18.72	21.66	20.38	19.71	19.06
7	18.20	19.08					19.52	18.67	21.85	20.36	19.53	18.95
8	17.80	18.93					19.45	18.58	21.96	20.12	19.58	19.02
9	17.99	19.20					19.36	18.53	22.21	20.16	19.61	
10	17.94						19.20	18.65	22.26		19.53	
11	17.96	19.27					19.44	18.81	22.41	19.96	19.44	19.23
12	17.82						19.43	18.83	22.53	19.92	19.40	19.25
13	17.72						19.33	18.86	22.54	19.88	19.50	19.00
14	17.41						19.29	18.90	22.45	19.75	19.65	18.93
15	17.68						19.22	18.88	22.50	19.74	19.34	19.01
16	18.14						19.24	18.77	22.57	19.71	19.30	18.88
17	17.84						19.32	18.59	22.43	19.79	19.29	19.12
18	17.92						19.15	18.45	22.20	19.98	19.40	19.14
19	17.84						19.08	18.43	22.05	20.03	19.51	19.06
20	18.94						19.06	18.61	21.96	19.89	19.41	18.21
21	19.20						19.09	18.98	21.74	20.04	19.40	18.61
22	18.98						18.97	19.47	21.81	19.83	19.47	18.84
23	18.75						18.69	19.78	21.96	19.85	19.41	18.97
24	18.55						18.97	20.15	21.68	20.09	19.37	18.64
25	18.30						19.09	20.47	21.51	20.49	19.41	18.93
26	18.22						18.83	20.62	21.43	20.21	19.46	18.84
27	17.92						18.70	20.52	21.43	20.19	19.41	19.02
28	17.96						18.56	20.29	21.49	20.09	19.50	18.42
29	18.15						18.48	20.05	21.37	19.98	19.48	18.55
30	18.13				------		18.46	19.88	21.10	19.83	19.29	18.58
31	17.88	------			------		------	19.49	------	19.83	18.98	------
MEAN								19.13	21.64		19.46	
MAX								20.62	22.57		19.71	
MIN								18.43	19.23		18.98	

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.72	18.37					17.19	17.75	19.73	20.35	18.60	17.35
2	18.69	18.24					17.23	17.81	19.30	20.19	18.50	17.60
3	18.70	18.38					17.23	17.93	19.08	20.57	18.54	17.72
4	18.78	18.49					17.00	17.89	19.03	20.72	18.44	17.98
5	18.67	18.41					16.95	17.83	19.28		18.67	19.10
6	18.56	18.30					17.14	17.78	19.79		18.20	19.10
7	18.47	18.48					17.28	17.69	20.02		18.24	18.95
8	18.72	18.44					17.36	17.63	19.76		17.95	18.33
9	18.90	18.31					17.31	17.78	19.39		18.10	18.09
10	18.66	18.30					17.06	17.98	19.17		18.11	18.00
11	18.56	18.35					17.00	18.08	19.34		18.12	18.05
12	18.65	18.38					16.94	18.08	20.00		18.02	18.21
13	18.59	18.37					16.88	18.07	20.88		18.06	17.85
14	18.54	18.40					16.66	18.01	21.37		18.02	17.91
15	18.55						16.41	17.81	21.32		18.07	18.01
16	18.50						16.37	17.60	21.00		18.10	18.01
17	18.70						16.40	17.44	20.92		18.07	18.00
18	18.66						16.50	17.37	21.18	19.21	17.90	18.11
19	18.63						16.70	17.48	21.44	19.27	17.72	18.19
20	18.62						16.90	17.71	21.66	19.38	18.13	18.48
21	18.65						17.24	18.01	21.47	19.30	18.00	18.03
22	18.75					17.95	18.14	18.45	21.17	19.35	17.87	17.90
23	18.80					17.95	18.10	19.03	20.80	19.17	17.92	18.50
24	18.50					17.93	17.55	19.59	20.33	18.80	18.27	17.92
25	18.40					17.89	16.97	20.11	19.94	18.80	17.98	17.85
26	18.31					17.84	16.70	20.20	19.77	18.85	17.70	17.89
27	18.42					17.80	16.85	20.15	20.02	18.90	17.70	17.90
28	18.80					17.72	17.34	20.13	20.27	19.03	17.40	17.89
29	18.75				------	17.40	17.63	20.27	20.55	18.84	17.48	17.98
30	18.52				------	17.17	17.75	20.37	20.45	18.81	17.69	17.95
31	18.51	------			------	17.18	------	20.14	------	18.73	17.56	------
MEAN	18.62						17.09	18.46	20.28		18.04	18.10
MAX	18.90						18.14	20.37	21.66		18.67	19.10
MIN	18.31						16.37	17.37	19.03		17.40	17.35

06330000 Missouri River near Williston, N. Dak.

LOCATION.--Lat 48°06'40", long 103°43'00", in SE¼ sec.31, T.154 N., R.101 W., McKenzie County, on downstream end of right pier of Lewis and Clark Highway bridge 5 mi (8 km) southwest of Williston, 29.3 mi (47.1 km) downstream from Yellowstone River, and at mile 1,552.7 (kilometre 2,498.3).

DRAINAGE AREA.--164,500 mi^2 (426,000 km^2), approximately.

PERIOD OF RECORD.--April 1966 to current year. Operated as a stage-discharge station October 1897 to July 1965.

GAGE.--Water-stage recorder. Datum of gage is 1,830.20 ft (557.845 m) above mean sea level. See WSP 1917 for history of changes prior to April 1966.

EXTREMES.--Current year: Maximum daily gage height observed, 20.08 ft (6.120 m) Mar. 16; minimum daily recorded, 15.37 ft (4.685 m) Apr. 16.
April 1966 to current year: Maximum daily gage height recorded, 20.22 ft (6.163 m) July 20, 21, 23, 1969; minimum daily recorded, 7.80 ft (2.377 m) Nov. 2, 1966.

REMARKS.--Records fair. Stage regulated by upstream reservoirs and backwater from Lake Sakakawea.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								9.27	12.34	13.89		11.60
2								9.12	12.55	14.17		11.58
3								9.40	12.99	14.24		11.39
4								9.59	13.39	14.19		11.30
5								9.65	13.42	14.55		11.35
6							8.34	9.72	13.45	14.4[illegible]		11.44
7							8.40	9.72	13.12	14.49		11.34
8							8.44	9.71	13.16	14.44		11.22
9							8.36	9.75	13.08	14.32		11.12
10							8.17	10.31	12.88	14.31		11.46
11							8.17	10.40	12.56	14.24		11.41
12							8.12	10.67	12.27	14.26		10.91
13							8.18	11.30	12.48			11.02
14							8.27	11.65	12.75			10.86
15							8.50	11.85	12.88			10.94
16							8.62	11.86	13.01			10.79
17							8.72	11.40	13.04			10.68
18							8.64	11.18	12.99			10.91
19							8.63	11.19	12.91			10.89
20							8.63	11.15	13.06			10.64
21							8.58	11.06	13.15	13.97		10.49
22							8.70	10.94	13.17	14.11		10.47
23							9.65	10.72		14.04		10.68
24							8.72	10.88		14.16		10.97
25							9.00	11.07		14.37	11.98	10.72
26							9.78	11.18		13.86	12.02	10.56
27							9.27	11.77		13.69	12.04	10.57
28							8.94	11.80	14.07		11.58	10.29
29					------		9.11	11.92	13.98		12.09	10.45
30					------		9.19	12.04	13.90		11.90	10.36
31		------			------		------	12.22	------		11.69	------
MEAN								10.79				10.95
MAX								12.22				11.60
MIN								9.12				10.29

06330000 Missouri River near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.50	8.04						8.96		17.56		
2		7.80						8.80		17.97		
3		8.27						8.82				
4		8.39						8.93				
5	10.30	8.71						9.16	13.91			
6	10.21	8.69						9.22	14.19			
7	10.18	8.91						9.14	14.33	18.67		
8	9.84	9.28						9.49	14.45			
9	9.29	9.88						9.92	15.37			
10	9.67	10.68						10.31	15.48			
11	10.01	10.87						10.60	15.20		18.31	15.07
12	9.82	10.46						10.65	14.87			
13	9.73	10.22						10.87	14.89			
14	9.52	10.51						11.21	14.82			
15	9.59	10.63						11.44	15.23			
16	9.44	10.66						11.31	15.51		17.55	
17	9.24							10.88	15.88	19.58		
18	9.19							10.42	16.08			
19	9.31							10.38	16.54			
20	9.23							10.30	17.05			
21	8.96							10.22	17.06			
22	8.72							10.15	15.86			
23	8.96							10.38	16.81			
24	9.01							10.97	16.94			
25	8.88						9.00		17.08			14.56
26	8.95						8.98		17.24			
27	8.81						9.13		17.50			
28	8.75						9.25		17.65		16.15	
29	8.85				------		9.09		17.39			
30	8.21				------		9.08		17.54			
31	8.20	------			------		------		------	19.03		------
MEAN												
MAX												
MIN												

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								9.45	10.33		16.27	17.05
2						17.67		9.46	10.27	16.16	16.28	16.97
3						17.62		9.50	10.68	16.12	16.28	16.73
4						17.42		9.71	11.80	15.97	16.43	16.78
5						17.33		9.84	12.13	15.87	16.26	16.83
6						17.24		9.24	12.59	15.80	16.37	17.05
7						17.23		9.03	13.68	15.76	16.31	17.07
8		12.65				17.27		9.33	14.08	15.68	16.48	17.07
9						17.42	10.14	9.47	14.13	16.09	16.23	17.16
10						17.35	10.15	9.56	14.31	16.16	16.26	17.23
11						17.15	10.08	9.72	14.63	16.14	16.30	17.28
12	14.06					16.84	10.09	9.90	14.74	16.26	15.93	17.30
13						16.62	10.06	9.76	15.03	15.95	16.05	17.17
14						16.29	9.75	9.35	15.05	16.17	16.63	17.38
15						16.00	9.70	9.34	15.13	16.12	16.30	17.05
16						16.00	9.55	9.65	15.06	16.21	16.04	16.90
17						15.90	9.54	9.54	15.29	16.28	16.52	17.10
18						15.69	9.71	9.70	15.25	16.28	16.16	17.25
19						15.66	9.79	10.35	15.07	16.44	15.94	17.31
20						15.90	9.53	10.68	15.09	16.37	16.46	17.81
21						15.87	9.46	10.61	15.33	15.92	16.54	17.58
22						15.60	9.44	10.48	15.91	16.50	16.15	17.19
23						15.35	9.50	10.30	16.29	16.41	16.20	16.76
24						14.90	9.50	10.10		16.38	16.30	16.34
25	13.46					14.13	9.53	10.01		16.43	17.09	17.02
26						11.91	9.58	9.95		16.34	17.30	16.97
27						11.26	9.53	9.80		16.28	17.14	17.17
28						11.29	9.42	9.93		16.38	16.89	17.05
29						11.33	9.51	10.35		16.38	16.71	16.71
30					------	11.00	9.54	10.68		15.54	16.81	16.56
31		------			------		------	10.37	------	16.22	16.74	------
MEAN								9.84			16.43	17.06
MAX								10.68			17.30	17.81
MIN								9.03			15.93	16.34

06330000 Missouri River near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.55		14.55		14.79	15.18	16.88	15.10	15.82	18.63	20.00	18.10
2	16.03		14.50		14.78	15.20	15.75	15.21	15.97	18.51	19.98	18.05
3	16.23		14.51		14.77	15.22	14.45	15.38	15.82	18.49	19.94	18.25
4	16.57	15.23	13.85		14.78	15.24	14.00	15.14	15.75	18.40	19.92	17.82
5	15.91	15.17	14.69	14.57	14.83	15.26	14.17	14.90	15.67	18.96	20.09	17.62
6	16.09	15.18	15.98	14.76	14.90	15.29	14.39	14.77	15.73	19.23	19.36	17.48
7	14.94	15.11	16.11	14.93	14.97	15.30	15.19	14.60	15.73	19.54	19.49	17.43
8	15.90	15.22	15.82	15.15	15.04	15.29	15.47	14.45	15.58	19.25	19.66	17.60
9	15.78	15.29	15.68	15.42	15.08	15.26	15.24	14.32	15.64		19.63	17.43
10	16.12	15.14	15.73	15.66	15.05	15.25	15.25	14.43	15.89		19.62	17.25
11	15.85	15.25	15.65	15.93	15.01	15.23	14.95	14.51	15.91		19.59	17.22
12	16.12	15.50		16.07	14.99	15.23	14.48	14.64	15.97		19.45	17.14
13	15.72	14.97		15.98	15.00	15.26	14.38	14.69	16.05		19.05	17.10
14	15.70	14.99		15.84	15.03	15.24	14.46	14.72	16.28		19.45	16.79
15	15.69	15.26		15.60	14.99	15.21	14.52	14.74	16.38	19.90	19.45	16.92
16	15.41	15.12		15.38	14.94	15.19	14.60	14.68	16.28	19.95	19.29	16.92
17	15.38	14.85		15.25	15.00	15.18	14.72	14.85	16.31	20.08	18.98	17.32
18	15.44	14.99		15.15	15.10	15.22	14.74	14.73	16.25	19.99	19.19	17.03
19	15.29	15.05		15.24	15.10	15.34	14.56	14.81	16.37	20.05	19.39	16.84
20	15.41	15.02		15.42	15.11	15.88	14.42	14.92	16.29	20.22	19.23	16.68
21	15.27	14.91		15.52	15.15	17.38	14.43	14.75	16.52	20.22	18.99	16.70
22	15.36	14.83		15.49	15.15	20.51	14.47	14.64	16.50	20.00	18.94	16.22
23		14.68		15.37	15.13	21.88	14.38	14.80	16.56	20.22	18.88	16.72
24		14.72		15.24	15.15	21.32	14.31	15.24	16.81	20.19	18.86	16.32
25		14.84		15.14	15.18	20.29	14.02	15.35	17.55	20.27	18.91	16.03
26		14.68		15.10	15.18	19.54	14.41	15.15	17.06	19.58	18.60	16.23
27		14.52		15.00	15.16	18.96	14.32	15.07	16.99	20.01	18.58	16.35
28		14.53		14.90	15.14	18.55	15.04	14.72	17.53	20.20	18.55	16.48
29		14.67		14.85	------	18.00	15.06	15.13	18.08	20.11	18.15	16.11
30		14.52		14.82	------	17.58	15.02	15.38	18.53	19.77	18.02	16.54
31		------		14.80	------	17.42	------	15.50	------	20.02	18.09	------
MEAN					15.02	16.67	14.74	14.88	16.39		19.20	17.02
MAX					15.18	21.88	16.88	15.50	18.53		20.09	18.25
MIN					14.77	15.18	14.00	14.32	15.58		18.02	16.03

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.03	14.88	13.97	15.72	16.89	17.02	15.25		17.20	18.42	18.45	16.99
2	16.28	14.91	13.93	15.82	16.74	17.01	15.31		17.05	18.52	18.49	16.75
3	15.64	14.94	14.01	15.91	16.63	16.89	15.33		15.83	18.65	18.63	16.84
4	15.58	14.89	14.10	15.92	16.54	16.58	15.36		16.65	18.55	18.58	16.89
5	15.72	14.92	13.88	15.88	16.40	16.11	15.60	13.45	16.54	18.51	18.60	16.84
6	15.42	14.87	13.88	15.67	16.14	16.05	15.77	13.04	16.49	18.43	18.61	16.74
7	15.28	14.94	14.15	15.43	16.03	16.28	15.94	12.73	16.74	18.37	18.48	16.73
8	15.86	14.87	14.94	15.14	16.05	16.47	15.96	12.85	17.03	18.50	18.63	16.83
9	15.52	14.86	15.59	14.78	16.24	16.66	15.83	13.02	17.25	18.58	18.24	16.73
10	15.63	14.77	15.80	14.44	16.39	16.82	15.70	14.25	17.39	18.75	18.35	16.77
11	15.57	14.65	15.96	14.27	16.44	16.76	15.77	15.07	17.41	18.53	18.26	17.07
12	15.50	14.67	16.02	14.31	16.46	16.41		15.13	17.53	18.36	18.24	16.63
13	15.32	14.08	16.02	14.37	16.49	16.22		14.97	17.78	18.43	18.24	16.80
14	15.30	14.45	16.02	14.50	16.50	16.14		14.74	17.74	18.35	17.93	17.01
15	15.39	14.57	15.81	14.65	16.46	16.04		14.73	17.45	18.56	17.62	16.83
16	15.22	14.63	15.85		16.39	15.95		14.75	17.24	18.60	18.17	16.90
17	15.25	14.48	16.02		16.33	15.79		14.75	17.14	18.60	18.05	16.82
18	15.29	14.83	16.16		16.34	15.52		14.75	17.17	18.63	17.72	16.89
19	15.34	15.16	15.99		16.35	15.28		14.86	17.18	18.66	17.60	16.86
20	15.35	14.89	15.68		16.43	15.12		15.03	17.17	18.79	17.83	16.78
21	15.23	14.60	15.81		16.39	14.94		15.05	17.24	18.70	17.51	16.37
22	15.51	14.33	15.97		16.38	14.80		15.33	17.35	18.47	17.61	16.80
23	15.46	14.20	15.92		16.54	14.78		15.83	17.45	18.34	17.57	16.84
24	15.21	14.02	15.97		16.64	14.81		16.15	17.83	18.37	17.63	16.78
25	15.13	14.10	16.18		16.69	14.75		16.55	17.95	18.60	17.51	16.54
26	14.81	14.06	16.28		16.74	14.81		16.67	18.12	18.47	17.49	16.66
27	14.89	14.05	16.26	16.06	16.81	14.84		16.75	18.29	18.62	17.23	16.73
28	15.33	13.96	16.06	16.32	16.88	14.93		16.62	18.27	18.73	17.45	16.76
29	15.04	14.03	15.86	16.66	------	15.02		16.64	18.53	18.60	17.12	16.72
30	14.97	14.00	15.74	16.90	------	15.04		16.87	18.49	18.53	17.22	16.73
31	14.95	------	15.64	16.96	------	15.20	------	17.17	------	18.45	17.17	------
MEAN	15.39	14.55	15.47		16.48	15.78			17.42	18.54	17.94	16.79
MAX	16.28	15.16	16.28		16.89	17.02			18.53	18.79	18.63	17.07
MIN	14.81	13.96	13.88		16.03	14.75			16.49	18.34	17.12	16.37

06330000 Missouri River near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.44	15.66	16.48			19.00	17.31	15.99		19.70		16.98
2	16.28	15.70	16.78			18.85	16.99	16.00		19.86		17.05
3	16.75	15.72	16.98			18.56	16.69	15.82		19.53		16.78
4	16.65	15.65	17.05			18.25	16.41	15.71		19.19		16.93
5	16.60	15.71	16.92			18.20	16.31	15.70		19.22		17.24
6	16.27	15.60	16.65	16.98		18.18	16.21	15.67		19.38		17.46
7	16.41	15.61	16.31	16.80		18.15	16.01	15.62		18.95		17.23
8	16.58	15.61	16.21	16.43		18.22	15.84	15.71		19.30		17.31
9	16.35	15.61	16.18	16.10		18.35	15.93	15.81		19.47		17.35
10	16.27	15.58	16.22	15.91		18.33	16.00	15.92		19.73		17.28
11	16.20	15.60	16.48	15.83		18.40	16.11	16.11		19.46		17.48
12	16.11	15.79	16.63			18.53	16.28	16.21		18.85		17.03
13	16.14	15.69	16.67			18.92	16.32	16.30		19.01		17.09
14	16.04	15.55	16.59			19.54	16.31	16.25		18.98		16.82
15	16.23	15.52	16.58			20.33	16.02	16.14	18.49	19.08		16.68
16	16.25	15.58	16.69			20.69	15.77	16.20	18.48		18.02	16.85
17	16.20	15.38	16.71			20.60	16.04	16.38	18.42			16.89
18	16.38	15.45	16.68	17.12	20.11	20.31	16.03	16.75	18.60		18.01	16.88
19	16.29	15.48	16.59			20.05	15.70	16.79	18.70		17.81	16.87
20	16.20	15.49				19.63	15.98	16.74	18.78		17.90	16.84
21	16.20	15.65				19.38	16.05	16.79	18.81		17.65	16.77
22	16.18	15.96			20.59	19.11	15.89	16.80	18.90		17.70	16.79
23	16.18	17.05				18.85	15.77	16.54	19.11		17.45	16.78
24	16.14	16.82			20.60	18.67	15.73	16.33	19.22		17.30	16.91
25	15.81	16.93			19.40	18.52	15.65	16.25	19.38		17.49	16.79
26	15.88	17.48			18.97	18.48	15.70	16.28	19.31		17.48	16.63
27	15.74	17.42			18.90	18.49	15.70	16.32	19.45		17.41	16.64
28	15.61	17.15			18.93	18.74	15.72	16.20	19.68		17.25	16.54
29	15.58	16.82			------	19.85	15.82		19.77		17.39	16.85
30	15.86	16.54			------	20.15	15.90		19.53		17.72	16.57
31	15.71	------			------	17.89	------		------		17.40	------
MEAN	16.18	15.99				19.01	16.07					16.94
MAX	16.75	17.48				20.69	17.31					17.48
MIN	15.58	15.38				17.89	15.65					16.54

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.53		16.53		17.71	19.10	18.22	17.09	17.40		18.80	18.30
2	16.51		16.29		17.68		18.02	17.09	17.46		18.79	18.31
3	16.97		16.37		17.73		17.92	17.20	17.67		18.78	18.24
4	17.87		16.80		17.83		18.03	17.29	18.02		18.70	18.15
5	17.71		17.62		17.90		18.04	17.12	18.40		18.62	18.31
6	17.40		18.60	17.69	17.95		18.18	17.25	18.80		18.63	18.19
7	16.87		18.53	17.70	18.02		18.20	17.24	18.98		18.48	18.14
8	16.60		18.00	17.71	17.97		18.02	17.19	19.09		18.70	18.29
9	16.90		17.55	17.73	17.98		17.95	17.11	19.37		18.77	18.24
10	16.86			17.77	18.10	19.95	17.83	17.20	19.38		18.68	17.93
11	16.95	17.41		17.88	18.18	20.18	18.13	17.29	19.37		18.62	18.25
12	16.67	17.48		17.95	18.23	20.62	18.07	17.22	19.55		18.58	18.28
13	16.77	17.85		17.97	18.32	21.38	17.95	17.22	19.50		18.70	18.02
14	16.43	17.38		17.95	18.40	23.03	17.91	17.23	19.54	18.64	18.80	18.30
15		16.50		17.94	18.41	24.68	17.84	17.23	19.76	18.71	18.50	18.09
16		16.42		17.85	18.43	24.95	17.88	17.19	19.85	18.70	18.49	17.84
17		16.32		17.60	18.42	24.63	17.95	17.14	19.75	18.70	18.45	18.18
18		16.22		17.32	18.40	24.95	17.79	17.00	19.58	18.91	18.55	18.28
19		16.20		17.22	18.40	24.70	17.72	16.94	19.40	18.94	18.61	18.17
20		16.21		17.35	18.41	23.40	17.75	17.08		18.80	18.44	17.11
21		16.45		17.63	18.43	22.61	17.78	17.28		18.95	18.39	17.90
22		16.29		17.74	18.58	21.61	17.62	17.51		18.73	18.50	17.95
23		15.89		17.78	18.79	19.95	17.34	17.66		18.73	18.51	18.18
24		16.22		17.79	18.98	19.35	17.60	17.84		19.00	18.42	17.75
25		16.26			19.15	18.76	17.84	18.08		19.46	18.46	18.09
26		16.06			19.40	18.69	17.42	18.13	19.21	19.05	18.49	17.98
27		16.25			19.52	18.43	17.37	18.10		19.11	18.42	18.09
28		16.32			19.64	18.30	17.27	17.95		18.96	18.50	17.43
29		16.56			19.43	18.25	17.27	17.80		18.90	18.53	17.62
30		16.80		17.82	------	18.22	17.23	17.75		18.89	18.33	17.64
31		------		17.75	------	18.18	------	17.57	------	18.86	17.98	------
MEAN					18.43		17.80	17.39			18.56	18.03
MAX					19.64		18.22	18.13			18.80	18.31
MIN					17.58		17.23	16.94			17.98	17.11

06330000 Missouri River near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.76	17.40	18.10		18.45	19.39	15.71	16.49	17.72	18.97	18.20	16.61
2	17.74	17.34	18.55		18.47	19.42	15.88	16.46	17.36	18.73	18.11	16.85
3	17.77	17.38	18.20		18.47	19.48	15.85	16.58	17.18	19.14	18.09	16.88
4	17.84	17.52	18.09		18.47	19.42	15.75	16.62	17.23	19.36	18.05	16.81
5	17.76	17.40	17.95		18.49	19.40	15.62	16.55	17.41	19.34	18.32	17.61
6	17.70	17.25	17.89		18.60	19.41	15.81		17.83	19.37	17.76	17.73
7	17.58	17.50	17.90		18.77	19.50	15.93	16.51	17.96	18.97	17.84	17.89
8	17.84	17.39	17.95		18.81	19.52	16.00	16.40	17.79	19.24	17.52	17.37
9	18.00	17.27	17.93		18.69	19.61	16.03	16.43	17.67	19.23	17.68	17.16
10	17.61	17.25	17.80		18.52	19.80	16.02	16.34	17.56	19.24	17.71	17.08
11	17.55	17.32	17.73		18.48	19.95	15.97	16.68	17.63	19.11	17.68	17.16
12	17.66	17.38	17.67	17.82	18.42	19.77	15.83	16.76	18.02	18.72	17.52	17.33
13	17.59	17.36	17.68	17.82	18.40	19.75	15.80	16.72	18.51	18.68	17.60	16.74
14	17.53	17.41	17.78	17.85	18.45	19.92	15.57	16.59	18.79	18.90	17.52	16.90
15	17.57	17.20	17.82	17.90	18.49	19.99	15.42	16.47	18.77	19.04	17.59	17.06
16	17.44	17.08	18.08	18.00	18.50	20.08	15.37	16.33	18.60	18.79	17.62	17.04
17	17.69	17.12	18.20	18.17	18.41	19.90	15.39	16.18	18.64	18.69	17.53	17.03
18	17.64	17.14	18.30	18.30	18.59	18.33	15.44	16.17	18.80	18.62	17.34	17.10
19	17.62	17.10	18.43	18.42	18.68	16.68	15.44	16.27	18.80	18.74	17.19	17.23
20	17.61	17.10	18.52	18.51	18.79	16.53	15.92	16.47	19.03	18.89	17.64	17.64
21	17.61	17.05	18.60	18.61	18.95	16.53	15.77	16.57	19.03	18.84	17.44	17.02
22	17.77	17.04	18.68	18.66	19.09	16.47	16.70	16.87	18.94	18.94	17.31	16.94
23	17.82	17.06	18.77	18.70	19.28	16.43	16.92	17.27	18.97	18.71	17.38	17.74
24	17.46	16.95	18.80	18.69		16.42	16.49	17.62	18.73	18.29	17.36	16.99
25	17.47	16.90	18.82	18.65	19.43	16.40	16.00	17.96	18.44	18.27	17.11	16.92
26	17.40	16.98	18.82	18.60	19.51	16.40	15.70	18.01	18.34	18.29	17.02	16.91
27	17.41	16.88	18.80	18.60	19.48	16.32	15.77	17.95	18.67	18.34	17.05	16.94
28	17.90	17.10	18.80	18.54	19.41	16.29	16.15	17.89	18.91	18.37	16.74	16.94
29	17.70	17.32	18.80	18.57	------	15.96	16.28	17.99	19.23	18.16	16.84	17.03
30	17.45	17.80		18.53	------	15.87	16.19	18.07	19.11	18.31	17.07	17.00
31	17.48	------		18.47	------	15.94	------	17.96	------	18.34	16.82	------
MEAN	17.64	17.23				18.22	15.89		18.32	18.79	17.50	17.12
MAX	18.00	17.80				20.08	16.92		19.23	19.37	18.32	17.89
MIN	17.40	16.88				15.87	15.37		17.18	18.16	16.74	16.61

06330110 Missouri River Stage Gage No. 9 at Williston, N. Dak.

LOCATION.--Lat 48°08'13", long 103°36'16", in NE¼NE¼ sec.25, T.154 N., R.101 W., Williams County, on left bank levee at southeast edge of Williston 0.5 mi (0.8 km) upstream from Little Muddy Creek and at mile 1,546.2 (kilometre 2,487.8).

DRAINAGE AREA.--164,500 mi^2 (426,000 km^2), approximately.

PERIOD OF RECORD.--April 1959 to current year (seasonal).

GAGE.--Water-stage recorder. Datum of gage is 1,820.00 ft (554.736 m) above mean sea level. Prior to May 13, 1969, at site 900 ft (270 m) downstream. At datum 20.00 ft (6.096 m) lower prior to Apr. 7, 1962.

EXTREMES.--Current year: Maximum daily gage height recorded, 29.20 ft (8.900 m) July 9; minimum daily recorded, 23.99 ft (7.312 m) Apr. 15.
Period of record: Maximum daily gage height recorded, 30.50 ft (9.296 m) Mar. 15, 1972; minimum daily recorded, 5.44 ft (1.658 m) Aug. 20, 1961, present datum.

REMARKS.--Records fair. Stage regulated by upstream reservoirs and backwater from Lake Sakakawea.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1958 TO SEPTEMBER 1959

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								28.28	29.20	34.69	27.72	26.85
2								28.11	29.56	33.67	27.65	26.90
3								28.11	29.58	33.47	27.58	26.95
4								28.09	29.49	33.25	27.49	27.05
5								27.98	29.38	33.54	27.29	26.32
6								27.96	29.20	32.95	27.28	26.65
7								28.46	29.03	32.85	27.30	26.91
8								29.13	29.49	32.95	27.31	27.00
9								29.36	30.15	32.74	27.29	26.89
10								29.28	33.67	32.37	27.30	26.91
11								28.84	33.87	32.21	27.15	26.87
12								28.71	33.45	32.19	27.06	26.85
13								28.78	32.90		27.02	26.83
14								28.68	33.30		27.00	26.78
15								28.71	32.96		27.05	26.80
16							28.00	29.04	30.02		27.08	26.75
17							28.00	28.74	33.50	30.10	26.80	26.87
18							28.00	28.56	34.51	30.05	26.78	26.87
19							28.10	28.73	35.09	29.95	26.88	27.05
20							28.18	29.83	35.04	29.85	26.90	27.15
21							28.28	30.25	35.00	29.65	27.10	27.50
22							28.40	30.05	34.78	29.21	27.15	27.95
23							28.33	30.00	34.78	29.03	27.12	28.20
24							28.30	30.00	34.52	28.95	27.10	28.25
25							28.34	29.80	34.42	28.78	26.83	28.27
26							28.20	29.40	34.31	28.65	26.85	28.45
27							28.08	29.24	34.33	28.35	27.20	28.72
28							28.21	29.08	34.59	28.19	27.08	28.78
29					------		28.50	29.00	34.29	27.90	27.05	28.75
30					------		28.45	28.75	34.53	27.80	26.90	28.72
31		------			------		------	28.70	------	27.78	26.85	------
MEAN								28.96	32.63		27.13	27.36
MAX								30.25	35.09		27.72	28.78
MIN								27.96	29.03		26.78	26.32

06330110 Missouri River Stage Gage No. 9 at Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.65	29.08				29.90	32.35	27.42	27.89		27.11	27.17
2	28.64	29.00				29.71	32.25	27.56	27.79		27.18	27.11
3	28.64	28.88				29.64	32.10	27.61	27.86		27.18	26.97
4	28.63	29.05				29.71	31.81	27.60	28.04		27.11	26.82
5	28.63	29.02				29.80	31.52	27.52	28.99	29.00	27.19	26.72
6	28.64	29.00				29.84	31.35	27.54	29.93		27.24	26.53
7	28.60	29.00				29.82	31.10	27.52	30.97	28.90	27.09	26.33
8	28.62					29.80	30.58	27.67	31.82	28.75	27.06	26.26
9	28.80					29.89	30.40	27.85	32.10	28.60	27.13	26.29
10	28.81					30.06	29.87	27.97	32.40	28.28	27.11	26.34
11	28.80					30.20	29.50	27.89	32.53	27.95	27.08	26.37
12	28.81					30.41	29.23	27.78	32.48		26.91	26.25
13	28.82					30.63	29.23	27.55	32.31		26.56	26.27
14	28.82					30.97	29.00	27.45	32.94		26.50	26.44
15	28.82					31.42	28.88	27.07	31.65		26.46	26.57
16	28.85					31.80	28.80	27.65	32.00		26.40	26.60
17	28.84					32.14	28.80	28.81	32.18		26.48	26.60
18	28.92					32.36	28.55	29.91	31.99		26.43	26.59
19	28.80					32.60	28.35	29.87	31.65	26.93	26.32	26.59
20	28.82					33.43	28.20	29.55	31.27	26.79	26.20	26.63
21	28.90					36.00	28.12	29.28		26.75	26.19	26.73
22	28.98					44.67	27.98	28.92		26.67	26.61	27.02
23	29.05					42.15	27.88	28.60		26.50	27.25	27.24
24	29.02					41.90	27.80	28.44		26.38	27.34	27.13
25	29.00					41.50	27.70	28.14		26.23	27.50	27.14
26	28.88					40.00	27.71	27.86		26.16	27.64	26.60
27	28.82					40.10	27.52	27.74		26.13	27.64	25.81
28	28.86					37.00	27.60	27.88		26.07	27.39	26.61
29	28.86					34.95	27.51	28.02		26.23	27.28	27.44
30	28.88				------	33.45	27.47	28.25		26.80	27.15	27.54
31	28.92	------			------	32.75	------	28.20	------	26.95	27.17	------
MEAN	28.81					33.50	29.32	28.10			26.96	26.69
MAX	29.05					44.67	32.35	29.91			27.64	27.54
MIN	28.60					29.64	27.47	27.07			26.19	25.81

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		27.44							32.29	30.41	27.83	
2		27.55						27.06	32.48	29.44	27.98	
3	27.32	27.52					27.55	27.05	32.58	30.44	26.97	
4	27.32	27.50						27.02	32.24	30.44	26.58	
5	27.31							26.98	31.82	30.22	26.38	
6	27.30							26.95	31.79	30.05	26.25	
7		27.60						26.92	31.86	29.89	26.15	27.32
8									32.08	29.74	26.02	27.27
9		27.65							32.44	29.66	25.81	27.69
10	27.00	27.56						26.65	32.45	29.46		28.05
11	26.71							26.70	32.37	29.49		27.89
12	26.92						27.50	26.69	32.53	29.68		27.81
13	27.10						27.31	26.68	32.83	29.98		28.69
14	27.24	27.68						26.65	33.06	29.73		29.71
15		27.72						26.55	33.10	29.28	25.82	29.66
16		27.76						26.38	32.84	28.89	26.10	29.95
17	28.12						26.92	26.21	32.45	28.72	26.32	
18		27.85					26.87	26.07	32.18	28.66	26.32	
19	27.78						26.64	26.11	32.02	28.61	26.22	
20	27.70							26.60	31.76	28.48	25.44	
21	27.68							27.20	31.68	28.38	25.52	29.92
22		27.68						27.86	31.59	28.28	25.79	
23		27.64						28.14	31.53	28.08	25.83	
24	27.65							28.06	31.44	28.03	25.76	
25		27.61						28.17	31.30	27.98	25.72	
26		27.54						28.39	31.03	27.94	25.71	
27	27.65						26.62	28.66	30.79	27.97	25.74	
28		27.50						29.58	30.43	28.05	25.60	
29		29.40			------			30.69	30.03	28.02		
30		29.35			------			31.30	29.65	27.38		
31	27.42	------			------		------	31.84	------	26.89		------
MEAN									31.89	28.98		
MAX									33.10	30.44		
MIN									29.65	26.89		

06330110 Missouri River Stage Gage No. 9 at Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								10.13				
2								9.87			9.85	
3								9.50				
4								9.14				
5								8.61				
6										14.27		
7							15.22			14.04		
8							15.20			13.67		
9							15.01			13.30		
10							14.80			12.53		
11							13.97			12.30		
12							12.40					
13							11.13					7.76
14												7.97
15								11.45				
16								11.46				
17								11.38				
18								10.96				
19								10.50				
20								10.29				
21								10.05				
22								9.95	15.98			
23								10.07				
24								11.74				
25								10.97				
26												
27							9.05					8.21
28							9.13					8.27
29					------		9.36					8.22
30					------		9.92					8.11
31		------			------		------		------			------
MEAN												
MAX												
MIN												

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.92	7.85									11.70	10.57
2	7.90										11.67	10.64
3	7.91										11.64	10.49
4	7.88										11.59	10.91
5		7.25									11.53	10.92
6		7.37									11.47	10.73
7	8.31	7.53									11.41	10.66
8	8.10	7.69									11.37	10.66
9	7.99	7.62									11.32	10.64
10	7.99	7.57									11.28	10.67
11	7.88	7.60									11.24	10.74
12	8.07	7.62									11.15	11.12
13	8.37	7.66									11.13	11.20
14	8.13										11.08	11.01
15	8.07										11.03	10.71
16	8.37										10.95	11.59
17	8.51										10.92	11.13
18	8.49										10.85	11.08
19	8.47										10.81	11.11
20	8.31											11.03
21	8.17										10.72	11.32
22	8.17											11.38
23	8.16										10.86	11.28
24	8.04									12.14		11.01
25	8.05	8.24								12.10		10.82
26	7.98	8.29								11.86		10.68
27	7.92	8.33								11.93		11.37
28	7.92	8.35								11.94		11.43
29	7.91	8.42			------					11.80		11.42
30	7.93				------					11.73	10.53	11.38
31	7.91	------			------		------		------	11.69	10.46	------
MEAN												10.99
MAX												11.59
MIN												10.49

06330110 Missouri River Stage Gage No. 9 at Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.24	10.00								17.88		11.63
2	11.13	10.03								18.14		11.65
3	11.25	10.12										11.59
4	11.06	10.18										11.70
5	10.82	10.17										11.65
6	10.57	10.09										11.67
7	10.58	10.06										11.66
8	10.57	9.98										11.66
9	10.51	9.92								16.93		11.60
10	10.39	9.86								16.46		11.63
11	10.65	9.83								16.07		11.58
12	11.02	9.81								15.79		11.55
13	10.87	9.83								15.64		11.55
14	10.73	9.83								15.64		11.57
15	10.57	9.82								15.71		11.57
16	10.44	9.87								15.45		11.57
17	10.37	9.95								15.00		11.59
18	10.33	9.98								15.02		11.53
19	10.27	9.95								15.10		11.63
20	10.24	9.82								14.73	11.12	11.62
21	10.27	11.12								14.39	11.14	11.60
22	10.27	12.13								14.19	11.14	11.62
23	10.25	11.83								13.72	11.14	11.66
24	10.17	11.67							16.49	13.50	11.14	11.67
25	10.08	11.52							15.17	13.37	11.17	
26	10.02	11.62							16.48		11.17	
27	9.98								17.13		11.17	
28	9.98								16.89		11.36	
29	10.11								17.18		11.55	
30	10.16				------				17.49		11.68	
31	10.08	------			------		------		------		11.61	------
MEAN	10.49											
MAX	11.25											
MIN	9.98											

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		10.62							14.82	20.53	20.80	
2		10.54							14.83	20.59	20.84	
3		10.54							14.80	20.40	20.87	
4		10.51							14.80	20.13	20.87	
5		10.49							14.80	20.40	20.71	
6		10.50							14.77	20.80	20.94	
7		10.49							14.80	21.00	20.79	
8		10.49							14.83	21.00	20.83	
9		10.48								21.08	20.93	
10		10.47						14.71		20.97	21.07	
11		10.50						14.67		21.18	21.00	
12		10.54						14.69		21.34	21.20	
13		10.48						14.68		21.70	21.05	
14		10.47						14.67		22.24	20.95	
15		10.53						14.70		22.01	21.29	
16		10.46						14.70		21.52	21.24	
17		10.37						14.70		21.22	21.35	
18		10.36						14.74		20.98	21.40	
19		10.32						14.74		20.84	21.54	
20								14.69		20.74	21.60	
21								14.70		20.63	21.78	
22		10.28						14.72		20.73	21.77	
23		10.23						14.80	18.76	20.52	21.92	
24	10.48	10.29						14.83	18.78	20.56	22.09	
25	10.49	10.23						14.88	19.08	20.70	22.24	
26	10.49							15.03	19.35	20.78	22.36	
27	10.51							14.88	19.52	20.74	22.77	
28	10.52							14.80	19.77	20.70	23.31	
29	10.52				------			14.74	20.02	20.66	22.58	
30	10.49				------			14.72	20.22	20.60	22.25	
31	10.52	------			------		------	14.83	------	20.72	22.30	------
MEAN										20.90	21.50	
MAX										22.24	23.31	
MIN										20.13	20.71	

06330110 Missouri River Stage Gage No. 9 at Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								18.10	21.12	23.84	23.47	21.72
2								18.10	21.14	24.12	23.54	21.64
3								18.30	21.60	24.12	23.48	21.44
4								18.20	21.90	23.99	23.49	21.36
5								18.20	21.82	23.99	23.33	21.43
6								18.60	21.90	24.26	23.18	21.52
7								18.80	22.09	24.39	23.16	21.42
8								18.80	22.32	24.36	23.08	21.26
9								18.90	22.43	24.35	23.10	21.29
10								19.50	22.33	24.33	23.17	21.62
11								19.30	22.05	24.33	23.22	21.53
12								19.30	21.82	24.34	22.76	21.14
13								19.90	22.17	24.59	22.96	20.97
14								20.00	22.38	24.51	22.90	20.78
15								20.10	22.42	24.41	22.53	20.96
16								20.10	22.56	24.35	22.82	20.81
17								19.80	22.70	24.12	22.15	20.71
18								19.40	22.71	24.18	22.51	20.82
19								19.40	22.72	24.37	22.69	20.83
20								19.80	22.90	24.60	22.58	20.61
21							17.30	19.90	22.93	24.02	22.42	20.48
22							17.40	19.73	23.07	24.12	22.13	20.44
23							17.30	19.66	23.02	24.02	22.14	20.60
24							17.40	19.88	23.42	24.15	22.09	20.80
25							18.00	20.12	22.90	24.37	22.12	20.55
26							18.90	20.18	23.75	23.95	22.14	20.40
27							17.80	20.80	23.74	23.72	22.06	20.32
28							17.30	20.90	23.80	23.72	21.72	19.98
29					------		17.80	20.90	23.80	23.64	22.16	
30					------		18.10	21.60	23.81	23.61	21.98	
31		------			------		------	21.40	------	23.76	21.76	------
MEAN								19.60	22.58	24.15	22.67	
MAX								21.60	23.81	24.60	23.54	
MIN								18.10	21.12	23.61	21.72	

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.70	17.86								25.71		
2		18.10								26.14	28.25	
3		17.59								26.49		
4	20.10	17.58								26.87		
5	19.87	17.87								27.08		
6	19.77	17.66							21.82	27.28		
7	19.70	17.94								27.36		
8	19.45	18.36								27.68		
9	19.17	18.06								27.73		
10	20.47	17.97								27.92		
11	19.88	17.93								28.07		
12	19.60	17.79								28.37	28.18	
13	19.49	17.51								28.62		
14	19.23	17.83								28.73		
15	19.33	17.71								28.66		
16	19.12									28.84		
17	18.89									29.09		
18	18.72									29.00		
19	18.89											
20	18.88											
21	18.58								24.81			
22	18.17								24.57			
23	18.46								24.65			
24	18.54							18.04	24.86			
25	18.33								25.09			
26	18.49								25.35			24.42
27	18.19								25.56			
28	18.10								25.77			
29	18.34				------				25.51			
30	17.51				------				25.69		26.06	
31	17.48	------			------		------		------			------
MEAN												
MAX												
MIN												

06330110 Missouri River Stage Gage No. 9 at Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								17.39		24.00	26.15	26.91
2								17.39			26.11	26.91
3								17.13			26.15	26.65
4						22.58		17.55			26.30	26.76
5						22.56		18.15			26.18	26.85
6						22.56		17.54	19.46		26.28	27.01
7						22.55		17.23	20.51		26.18	27.05
8		21.69				22.63		18.13	21.09		26.35	27.11
9						22.77		17.51	21.37		26.18	27.19
10	23.87					22.83	18.49	17.52	21.75		26.19	27.22
11						22.72	18.27	17.63	22.09		26.27	27.29
12						22.46	18.26	18.00	22.45		25.90	27.27
13						22.13	18.37	17.87	22.70		26.00	27.16
14							17.99	17.29	22.76		26.62	27.36
15							17.96	17.26	22.80		26.16	27.09
16							17.66	17.45	22.94		25.99	26.92
17							17.90	17.17	23.17		26.44	27.21
18							18.00	17.29	23.01	25.78	26.05	27.31
19							18.09	17.74	22.89	26.01	25.94	27.30
20							17.61	17.98	22.72	26.42	26.45	27.99
21							17.63	18.08	22.85	25.39	26.27	27.59
22							17.64	18.14	23.28	26.21	26.19	27.10
23							17.66	18.04	23.70	26.10	26.01	26.79
24							17.83	17.99	24.10	26.21	26.52	26.31
25	22.94						17.60	17.83	24.26	26.26	26.86	26.92
26							17.60	17.62	24.36	26.35	26.93	26.88
27							17.57	17.56	24.38		26.91	27.09
28							17.47		24.04		26.72	26.99
29							17.52				26.59	26.66
30					------		17.53			25.40	26.77	26.51
31		------			------		------		------	26.07	26.69	------
MEAN											26.33	27.05
MAX											26.93	27.99
MIN											25.90	26.31

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.51	24.81						23.07	24.33	27.88	30.04	28.07
2	25.94	24.97						23.23	24.67	28.09	30.02	28.00
3	26.16	24.98						23.59	24.66	28.24	29.94	28.18
4	26.51	25.08						23.30	24.72	28.14	29.96	27.84
5	25.73	25.01						23.18	24.74	28.70	30.06	27.49
6	25.94	24.80						23.13	24.98	29.08	29.30	27.46
7	25.84	24.19						22.99	25.06	29.52	29.66	27.40
8	25.82	24.30						21.94	24.91	29.14	29.72	27.55
9	25.64	24.58						22.86	24.98	29.18	29.72	27.37
10	25.95	24.16						23.03	25.06	29.48	29.66	27.19
11	25.63	24.40						23.08	24.89	29.55	29.64	27.18
12	25.94	25.21						23.34	25.16	29.56	29.46	27.08
13	25.51	25.44					22.53	23.38	25.24	29.56	29.80	27.07
14	25.47	25.51					22.58	23.48	25.36	29.10	29.43	26.75
15	25.44	25.58					22.56	23.54	25.46	29.79	29.48	26.84
16	25.12	25.43					22.70	23.44	25.46	29.84	29.39	26.88
17	25.11	24.71					22.87	23.74	25.68	30.01	29.06	27.21
18	25.16	24.53					22.91	23.58	25.71	29.92	29.22	26.94
19	24.98						22.73	23.63	25.88	30.02	29.42	26.77
20	25.19						22.62	23.68	25.93	30.16	29.24	26.58
21	24.93						22.77	23.67	25.22	30.09	29.05	26.56
22	25.00						22.91	23.68	26.17	29.90	28.96	26.13
23	24.73						23.17	23.76	26.21		28.89	26.58
24	25.01						23.07	24.19	26.42		28.87	26.20
25	24.94						22.71	24.40	27.08		28.87	25.97
26	24.71						23.04	24.10	26.54		28.60	26.15
27	24.23						22.77	24.11	26.64		28.57	26.24
28	25.03						23.10	23.72	27.10		28.56	26.38
29	24.94				------		23.21	24.19	27.26		28.17	25.99
30	25.01				------		23.08	24.26	27.70	29.80	28.14	26.41
31	24.84	------			------		------	24.14	------	29.94	28.06	------
MEAN	25.37							23.53	25.67		29.26	26.95
MAX	26.51							24.40	27.70		30.06	28.18
MIN	24.21							21.94	24.33		28.06	25.97

06330110 Missouri River Stage Gage No. 9 at Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.94	24.27					21.59	20.57	24.01	26.28	28.39	26.97
2	26.19	24.31					21.59	20.37	23.90	26.50	28.43	26.76
3	25.59	24.37					21.56	20.27	23.73	26.80	28.53	26.84
4	25.48	24.22				23.23	21.69	20.28	23.55	27.09	28.53	26.90
5	25.59					22.80	21.90	20.60	23.43	27.16	28.58	26.83
6	25.27					22.67	22.06	20.14	23.37	27.18	28.59	26.68
7	25.07					22.80	22.11	19.78	23.60	27.18	28.51	26.67
8	25.69						22.15	20.04	23.82	27.40	28.60	26.78
9	25.26					23.24	21.94	20.01	24.13	27.57	28.40	26.58
10	25.28					23.43		20.74	24.32	27.72	28.39	26.61
11	25.26					23.39		22.01	24.46	27.85	28.36	26.93
12	25.20					23.06		22.01	24.67	27.74	28.30	26.51
13	24.99					22.82		21.89	24.91	27.82	28.29	26.71
14	24.88					22.72		21.58	25.00		28.00	26.84
15	24.93					22.64		21.66	24.77		27.61	26.64
16	24.74					22.56		21.70	24.66	28.16	28.24	26.73
17	24.76					22.44		21.70	24.58	28.26	28.01	26.54
18	24.80					22.16		21.56	24.54		27.71	26.71
19	24.83					21.88		21.78	24.70			26.67
20	24.84					21.74		21.95	24.74			26.54
21	24.62					21.56		21.82	24.80	28.36	27.46	27.03
22	25.14					21.36		22.04	24.98	28.29	27.57	26.53
23	24.98					21.27	20.47	22.43	24.91		27.68	26.67
24	24.75					21.28	20.51	22.72			27.61	26.56
25	24.65					21.21	20.53	23.03		28.52	27.55	26.26
26	24.25					21.14	20.43	23.35		28.53		26.45
27	24.37					21.25	20.23	23.44		28.35		26.56
28	24.91					21.31	20.38	23.28		28.17	27.49	26.57
29	24.54				------	21.40	20.27	23.26		28.36	27.08	26.54
30	24.46				------	21.44	20.38	23.54		28.47	27.24	26.53
31	24.40	------			------	21.53	------	23.84	------	28.40	27.19	------
MEAN	25.02							21.72				26.68
MAX	26.19							23.84				27.03
MIN	24.25							19.78				26.26

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.16	24.84				24.81	24.81	23.99	24.16	28.35	28.34	26.78
2	25.96	24.89				24.77	24.43	24.12	24.52	28.63	28.44	26.83
3	26.60	24.95				24.63	24.33	23.85	24.77	28.36	28.64	26.47
4	26.45	24.94				24.49	24.21	23.74	24.87	28.08	28.56	26.52
5	26.39	25.03				24.46	24.27	23.73	24.82	28.45	28.45	26.76
6	25.89					24.44	24.26	23.72	24.79	28.76	28.42	27.03
7	25.11					24.45	24.22	23.68	24.95	28.05	28.32	26.78
8	26.31					24.55	24.35	23.77	25.11	28.60	28.16	27.06
9	26.13					24.57	24.27	23.73	25.22	28.83	28.03	27.12
10	25.04					24.54	24.16	23.68	25.18	29.21	27.96	26.97
11	26.06					24.61	24.08	23.81	25.29	28.84	28.00	27.16
12	25.95					24.75	24.22	23.81	25.39	28.08	28.15	26.53
13	25.88					25.04	24.26	23.87	25.65	28.66	28.07	26.65
14	25.72					25.65	24.39	23.71	25.88	28.53	28.38	26.42
15	25.88					26.47	24.17	23.61	26.06	28.63	28.00	26.22
16	25.84					26.80	23.90	23.77	26.26	28.73	27.92	26.46
17	25.78					26.68	24.57	23.78	26.20	28.72	27.80	26.55
18	26.04				25.67	26.39	24.42	24.00	26.44	28.53	27.83	26.55
19	25.86				27.25	26.14	24.31	23.97	25.58	28.52	27.65	26.46
20	25.76				27.62	25.85		24.00	26.73	28.61	27.80	26.37
21	25.74				27.29	25.59		24.13	25.78	28.48	27.52	26.39
22	25.74				26.69	25.36	24.12	24.19	26.97	28.50	27.55	26.41
23	25.73				26.05	25.12	24.03	23.95	27.31	28.58	27.32	26.45
24	25.74				25.45	25.02	24.09	23.78	27.46	28.12	27.04	26.63
25	25.34				25.07	24.90	23.92	23.82	27.71	28.18	27.33	26.46
26	25.39				24.83	24.86	24.01	23.91	27.53	28.40	27.37	26.25
27	25.26				24.75	24.85	23.92	24.04	27.67	28.18	27.28	26.28
28	25.10				24.77	24.98	23.87	23.84	27.91	28.24	27.15	26.14
29	24.87				------	25.54	23.99	23.66	28.09	28.34	27.24	26.57
30	25.24				------	26.32	23.82	24.21	27.94	28.42	27.56	26.21
31	25.05	------			------	25.72	------	24.15	------	28.25	27.20	------
MEAN	25.81					25.24		23.87	26.14	28.48	27.85	26.59
MAX	26.60					26.80		24.21	28.09	29.21	28.64	27.16
MIN	24.87					24.44		23.61	24.16	28.05	27.04	26.14

06330110 Missouri River Stage Gage No. 9 at Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.08	26.31				26.68	27.34	25.95	25.80	28.45	28.72	28.32
2	25.82	25.69				26.50	27.04	25.90	25.80	28.47	28.72	28.41
3	25.98	26.08				26.64	26.97	26.08	26.02	28.60	28.78	28.28
4	26.41	26.05				26.82	27.12	26.15	25.13	28.69	28.69	28.20
5	26.46	24.46				27.00	27.25	25.74	26.18	28.73	28.55	28.40
6	26.61	25.54				27.20	27.28	26.05	26.42	28.60	28.62	28.13
7	26.02	26.17				27.23	27.27	26.03	26.60	28.74	28.30	28.17
8	26.00	25.81				27.19	27.12	25.97	26.85	28.65	28.67	28.32
9	26.50	25.86				27.12	27.05	25.85	27.47	28.88	28.80	28.28
10	26.40	25.84				27.20	26.99	25.96	27.38	28.50	28.61	27.91
11	26.55	25.83				27.35	27.20	25.90	27.11	28.62	28.68	28.21
12	26.13					27.70	27.13	25.74	27.24	28.63	28.63	28.16
13	26.38					28.30	27.00	25.72	27.22	28.55	28.70	27.93
14	25.93					29.45	26.96	25.75	27.35	28.45	28.68	27.95
15	26.25					30.50	26.89	25.73	27.80	28.53	28.49	28.02
16	26.74					30.46	27.00	25.70	28.04	28.51	28.53	27.62
17	26.26					29.88	27.03	25.82	28.00	28.50	28.45	28.08
18	26.13					29.78	26.90	25.63	27.83	28.70	28.50	28.17
19	25.83					29.82	26.84	25.48	27.73	28.65	28.57	28.02
20	26.31					29.42	26.90	25.68	27.95	28.65	28.28	26.70
21	26.34					28.74	26.92	25.67	28.17	28.78	28.35	27.79
22	26.56					28.82	26.70	25.68	28.40	28.57	28.42	27.58
23	26.75					28.30	26.45	25.65	28.99	28.61	28.46	28.00
24	26.61				26.60	27.84	26.80	25.80	28.58	28.85	28.37	27.59
25	26.41				26.65	27.55	27.04	26.03	28.44	29.23	28.39	27.70
26	26.38				26.80	27.57	26.40	25.90	28.29	28.87	28.39	27.80
27	25.65				26.91	27.34	26.42	26.00	28.37	28.98	28.33	27.80
28	26.04				26.96	27.33	26.42	25.92	28.52	28.80	28.43	27.18
29	26.35				26.87	27.32	26.48	25.95	28.55	28.73	28.44	27.40
30	26.30				------	27.28	26.41	26.03	28.67	28.69	28.19	27.40
31	26.11	------			------	27.33	------	25.95	------	28.81	27.90	------
MEAN	26.27					27.99	26.91	25.85	27.53	28.68	28.50	27.92
MAX	26.75					30.50	27.34	26.15	28.99	29.23	28.80	28.41
MIN	25.65					26.50	26.40	25.48	25.80	28.45	27.90	26.70

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.57	27.07				26.70	24.31	24.51	25.71	28.53	28.27	26.80
2	27.48	27.00				26.73	24.28	24.57	25.50	28.29	28.18	26.90
3	27.61	26.98				26.75	24.26	24.62	25.37	28.74	28.07	26.62
4	27.65	26.95				26.72	24.21	24.80	25.32	28.94	27.92	26.35
5	27.46	26.89				.00	24.14	24.66	25.68	28.95	28.03	26.68
6	27.44	26.71				26.65	24.15	24.61	26.03	28.90	27.80	27.00
7	27.30	26.69				26.70	24.22	24.59	26.19	28.80	27.90	27.40
8	27.62					26.75	24.30	24.58	26.16	29.10	27.70	26.84
9	27.75					26.78	24.29	24.52	26.15	29.20	27.68	26.73
10	27.23					26.80	24.30	24.63	26.23	29.15	27.70	26.61
11	27.31					26.75	24.27	24.58	26.24	29.00	27.60	26.71
12	27.38					26.69	24.29	24.70	26.55	28.55	27.45	27.00
13	27.24	27.01				26.71	24.26	24.74	26.97	28.63	27.60	26.53
14	27.26					26.73	24.09	24.75	27.15	28.80	27.50	26.32
15	27.27					26.70	23.99	24.65	27.10	29.00	27.58	26.75
16	26.95					26.72	24.00	24.64	27.15	28.77	27.58	26.72
17	27.35					26.69	24.00	24.50	27.32	28.65	27.50	26.72
18	27.38					26.40	24.00	24.61	27.30	28.67	27.30	26.74
19	27.41					25.15	24.15	24.66	27.02	28.78	27.10	26.70
20	27.29					24.83	24.25	24.89	27.44	28.88	27.60	27.11
21	27.31					24.78	24.21	24.74	27.84	28.88	27.40	26.41
22	27.43					24.67	24.56	24.87	28.04	28.93	27.40	26.28
23	27.52					24.57	24.61	25.08	28.35	28.71	27.18	26.85
24	27.15					24.58	24.50	25.28	28.25	28.30	27.10	26.62
25	27.17					24.59	24.29	25.55	28.05	28.34	27.20	26.24
26	27.16					24.58	24.18	25.60	27.85	28.30	27.20	26.29
27	26.99					24.49	24.39	25.59	28.27	28.37	27.10	26.30
28	27.45					24.46	24.53	25.53	28.43	28.14	26.80	26.37
29	27.28				------	24.39	24.55	25.66	28.80	28.11	26.80	26.50
30	26.89				------	24.33	24.60	25.73	28.72	28.30	26.93	26.47
31	26.95	------			------	24.38	------	25.71	------	28.39	26.80	------
MEAN	27.33					24.96	24.27	24.91	27.04	28.68	27.48	26.65
MAX	27.75					26.80	24.61	25.73	28.80	29.20	28.27	27.40
MIN	26.89					0	23.99	24.50	25.32	28.11	26.80	26.24

06331000 Little Muddy Creek below Cow Creek near Williston, N. Dak.

LOCATION.--Lat 48°17'04", long 103°34'21", in NE¼NW¼ sec.5, T.155 N., R.100 W., Williams County, on left bank 37 ft (11 m) downstream from centerline of highway, 1 mi (1.6 km) downstream from Cow Creek, 4 mi (6 km) upstream from Camp Creek, 10 mi (16 km) northeast of Williston, and 13 mi (21 km) upstream from mouth.

DRAINAGE AREA.--875 mi^2 (2,266 km^2), approximately, of which about 100 mi^2 (259 km^2) is probably noncontributing.

PERIOD OF RECORD.--May 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,863.18 ft (567.897 m) above mean sea level.

AVERAGE DISCHARGE.--19 years, 31.3 ft^3/s (0.886 m^3/s), 22,680 acre-ft/yr (27.96 hm^3/yr); median of yearly mean discharges, 27 ft^3/s (0.76 m^3/s), 19,600 acre-ft/yr (24.2 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 126 ft^3/s (3.57 m^3/s) Mar. 4, gage height, 7.04 ft (2.146 m); minimum, 2.4 ft^3/s (0.068 m^3/s) Aug. 23, gage height, 5.65 ft (1.722 m).
Period of record: Maximum discharge, 6,910 ft^3/s (196 m^3/s) Mar. 27, 1960, gage height, 13.57 ft (4.136 m); minimum, 0.2 ft^3/s (0.006 m^3/s) Nov. 27, 1960, Feb. 5, 1963, and June 4, 1968; minimum gage height, 2.26 ft (0.689 m) July 26, 1954.

REMARKS.--Records good. Some small diversions for irrigation. Some regulation by Lake Zahl, Fish and Wildlife Service reservoir 22 mi (35 km) upstream. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	18	17	13	14	22	29	40	14	6.1	5.0	3.1
2	20	18	15	13	14	33	28	36	13	6.4	5.0	4.0
3	19	18	13	12	14	45	27	32	23	6.0	4.5	11
4	18	18	12	12	14	98	25	29	33	6.2	4.1	21
5	18	19	11	12	14	75	24	26	51	6.5	4.0	28
6	17	20	9.4	12	13	69	23	24	49	5.6	4.2	25
7	17	20	8.2	11	13	50	21	22	35	5.7	4.5	15
8	17	20	7.5	9.8	12	47	21	21	25	5.4	4.8	11
9	17	20	7.0	9.1	12	45	20	22	19	5.1	4.8	9.1
10	16	20	6.1	9.4	12	46	20	21	17	4.7	4.6	7.8
11	16	19	6.2	9.4	11	44	20	20	15	4.6	4.9	6.5
12	16	18	6.9	9.7	11	47	19	19	13	4.6	5.2	5.2
13	17	19	8.4	10	10	49	19	18	12	4.0	4.9	5.9
14	16	17	8.5	10	10	54	19	18	10	3.8	4.6	5.4
15	16	16	9.0	11	9.9	47	19	17	9.4	4.3	4.0	5.8
16	17	16	8.9	12	9.7	41	19	16	11	4.0	3.7	6.4
17	17	16	9.5	14	9.8	39	19	15	9.6	4.0	3.8	5.9
18	16	16	10	14	9.7	38	20	13	9.9	4.4	4.1	6.0
19	17	15	11	14	11	34	26	14	9.7	4.3	3.8	6.0
20	17	15	11	14	11	33	35	13	9.8	4.3	3.3	7.0
21	17	17	11	15	12	34	44	13	9.2	4.2	3.2	7.8
22	17	17	12	15	14	39	45	13	8.7	4.7	2.9	7.9
23	17	17	13	15	16	40	42	16	8.1	6.5	2.5	8.4
24	18	17	13	15	18	40	38	17	7.6	7.7	2.6	11
25	18	17	12	15	22	39	36	18	7.0	6.1	3.0	9.8
26	18	18	12	16	26	38	32	19	6.2	5.9	3.0	9.8
27	18	16	13	16	29	37	30	20	6.0	6.4	3.0	9.4
28	18	18	14	16	23	33	29	19	5.6	7.0	4.3	9.3
29	18	18	15	15	------	30	39	19	5.5	6.7	4.6	8.7
30	18	17	14	14	------	29	40	18	5.6	6.3	3.8	7.9
31	18	------	14	14	------	29	------	16	------	5.7	3.3	------
TOTAL	540	530	338.6	397.4	395.1	1,344	828	624	457.9	167.2	124.0	285.1
MEAN	17.4	17.7	10.9	12.8	14.1	43.4	27.6	20.1	15.3	5.39	4.00	9.50
MAX	21	20	17	16	29	98	45	40	51	7.7	5.2	28
MIN	16	15	6.1	9.1	9.7	22	19	13	5.5	3.8	2.5	3.1
AC-FT	1,070	1,050	672	788	784	2,670	1,640	1,240	908	332	246	565

CAL YR 1972 TOTAL 25,534.4 MEAN 69.8 MAX 3,620 MIN 3.4 AC-FT 50,650
WTR YR 1973 TOTAL 6,031.3 MEAN 16.5 MAX 98 MIN 2.5 AC-FT 11,960

PEAK DISCHARGE (BASE, 250 FT^3/S).--NO PEAK ABOVE BASE.

06331600 Missouri River Stage Gage No. 10 near Williston, N. Dak.

LOCATION.--Lat 48°04'50", long 103°32'44", in NE¼ sec.16, T.153 N., R.100 W., Williams County, on left bank 6 mi (9.7 km) southeast of Williston at mile 1,540.7 (kilometre 2,479.0).

DRAINAGE AREA.--165,000 mi^2 (427,000 km^2), approximately.

PERIOD OF RECORD.--April 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,820.00 ft (554.736 m) above mean sea level. Prior to Apr. 6, 1962, at datum 20.00 ft (6.096 m) lower.

EXTREMES.--Current year: Maximum daily gage height recorded, 29.23 ft (8.909 m) July 10; minimum daily recorded, 22.00 ft (6.706 m) Apr. 21.
Period of record: Maximum daily gage height recorded, 30.22 ft (9.211 m) July 25, 1969; minimum daily recorded, 0.84 ft (0.256 m) May 19, Aug. 21, 1961, present datum.

REMARKS.--Records fair. Stage regulated by upstream reservoirs and backwater from Lake Sakakawea.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1958 TO SEPTEMBER 1959

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								22.82	23.40	28.90	23.21	21.95
2								22.75	23.68	28.44	23.12	22.15
3								22.72	23.45	28.21	23.07	22.17
4							23.55	22.65	23.70	27.97	22.97	22.10
5							23.45	22.58	24.27	28.37	22.86	21.70
6							23.55	22.52	24.17	27.15	22.77	21.90
7							23.54	22.80	24.17	27.50	22.71	22.05
8							23.48	23.42	24.32	27.59	22.76	22.15
9							23.55	23.61	25.45	27.29	22.78	22.10
10							23.46	23.55	26.79	26.84	22.71	22.05
11							23.30	23.20	27.97	26.59	22.61	22.10
12							23.42	23.00	27.67	26.45	22.51	22.10
13								23.10	27.38	26.09	22.45	22.05
14							23.18	23.05	27.67	25.65	22.42	21.96
15							22.95	23.00	27.61	25.40	22.39	22.10
16							22.84	23.25	27.62	25.21	22.34	21.95
17							22.40	23.10	28.27	25.04	22.25	21.98
18							22.41	22.90	28.80	24.93	22.27	22.10
19							22.72	23.05	29.17	24.83	22.20	22.05
20							22.85	23.90	29.32	24.60	22.25	22.15
21							22.90	24.90	29.02	24.65	22.37	22.25
22							23.00	24.90	28.27	24.49	22.37	
23							22.95	24.57	28.97	24.29	22.35	22.90
24							22.91	24.32	28.78	24.18	22.19	23.05
25							22.89	24.05	28.80	23.98	22.20	23.10
26							22.80	23.71	28.87	23.89	22.34	23.29
27							22.70	23.49	29.32	23.72	22.43	23.45
28							22.40	23.34	28.97	23.52	22.40	23.50
29					------		23.05	23.31	28.70	23.35	22.32	23.45
30					------		23.00	23.15	28.27	23.26	22.20	23.36
31		------			------		------	23.10	------	23.25	22.10	------
MEAN								23.35	27.10	25.67	22.51	
MAX								24.90	29.32	28.90	23.21	
MIN								22.52	23.40	23.25	22.10	

06331600 Missouri River Stage Gage No. 10 near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.34	23.73				24.50	26.72	23.15	22.86	25.10	22.42	22.19
2	23.34	23.63				24.40	26.55	23.02	22.68	24.66	22.49	22.15
3	23.35	23.54				24.35	26.36	22.95	22.75	24.38	22.47	22.15
4	23.36	23.62				24.38	26.21	22.95	22.76	24.14	22.41	21.91
5	23.37	23.62				24.40	26.03	22.97	23.35	23.94	22.45	21.94
6	23.30	23.70				24.48	25.90	23.00	24.22	23.82	22.53	21.70
7	23.31	23.54				24.48	25.65	22.92	25.97	23.79	22.39	21.56
8	23.40	23.75				24.46	25.34	23.00	26.22	23.72	22.37	21.50
9	23.48	23.63				24.51	25.00	23.16	25.35	23.58	22.41	21.52
10	23.65	23.58				24.63	24.63	23.11	26.10	23.36	22.41	21.54
11	23.57	23.45				24.72	24.37	22.81	25.96	23.09	22.37	21.57
12	23.62	23.30				24.88	24.22	22.70	26.06	22.86	22.25	21.50
13	23.56	23.20				25.04	24.34	22.55	26.12	22.74	21.97	21.52
14	23.56	23.10				25.28	24.19	22.45	25.75	22.78	21.88	21.62
15	23.65	22.51				25.62	24.15	22.43	27.10	22.66	21.86	21.71
16	23.65	22.36				25.91	24.03	22.50	26.62	22.63	21.81	21.73
17	23.72	22.35				26.14	23.98	23.42	26.35	22.62	21.85	21.72
18	23.74	22.35				26.32	23.79	24.52	26.44	22.53	21.82	21.71
19	23.65					26.45	23.59	24.50	26.67	22.36	21.71	21.72
20	23.62					27.00	23.48	24.24	27.15	22.25	21.63	21.75
21	23.70					28.74	23.42	23.92	27.15	22.20	21.58	21.80
22	23.92					37.11	23.22	23.65	27.15	22.12	21.84	21.96
23	23.92					37.98	23.15		26.77	22.00	22.37	22.14
24	23.75					37.90	23.07		26.77	21.90	22.43	22.10
25	23.71					37.95	23.02	23.09	26.46	21.80	22.54	22.10
26	23.64					36.73	23.00	22.81	26.10	21.72	22.62	21.80
27	23.55					35.58	23.05	22.65	25.65	21.69	22.62	21.23
28	23.60					30.70	23.05	22.13	25.22	21.64	22.43	21.58
29	23.59					28.61	23.01	22.85	25.10	21.74	22.32	22.13
30	23.64				------	27.62	23.11	23.10	25.10	22.18	22.22	22.32
31	23.68	------			------	27.04	------	23.10	------	22.33	22.19	------
MEAN	23.58					28.00	24.32		25.67	22.85	22.21	21.80
MAX	23.92					37.98	26.72		27.15	25.10	22.62	22.32
MIN	23.30					24.35	23.00		22.68	21.64	21.58	21.23

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.31						22.45	21.61	26.22	25.03	22.59	21.11
2	22.27						22.37	21.59	26.50	24.64	22.95	21.19
3	22.23						22.37	21.58	26.78	25.00	22.13	21.37
4	22.25						22.32	21.55	26.70	25.02	21.76	21.54
5	22.24						22.30	21.54	26.35	24.82	21.62	21.69
6	22.22						22.26	21.53	26.30	24.67	21.47	22.14
7	22.20						22.21	21.49	26.35	24.54	21.35	22.35
8	22.15						22.12	21.40	26.46	24.42	21.24	22.32
9	22.05						22.09	21.32	26.80	24.36	21.11	22.64
10	22.03						22.04	21.32	26.91	24.23	20.98	22.96
11	21.87						22.03	21.37	26.83	24.23	20.90	22.85
12	21.90						21.99	21.33	26.94	24.37	20.98	22.75
13	22.03						22.03	21.32	27.24	24.63	20.97	23.45
14	22.12						21.91	21.29	27.48	24.45	20.99	24.28
15	22.27						21.79	21.22	27.57	24.05	21.08	24.33
16	22.58						21.74	21.11	27.38	23.72	21.29	24.51
17	22.82						21.67	20.96	27.01	23.54	21.53	24.49
18	22.73						21.58	20.87	26.72	23.49	21.57	24.26
19	22.63						21.45	20.84	26.53	23.46	21.53	24.09
20	22.57						21.45	21.14	26.29	23.37	20.89	24.23
21							21.49	21.57	26.23	23.27	20.84	24.55
22		22.45					21.46	22.11	26.13	23.15	21.07	24.72
23		22.43					21.44	22.46	25.97	23.02	21.15	25.40
24	22.75	22.39					21.47	22.44	25.99	22.94	21.10	26.02
25	22.75	22.35					21.38	22.51	25.81	22.92	21.07	25.77
26	22.75	22.36				22.81	21.45	22.71	25.52	22.86	21.07	25.37
27	22.75	22.35				22.69	21.37	22.96	25.24	22.86	21.08	25.17
28	22.70	22.20				22.62	21.20	23.75	24.97	22.95	20.97	25.20
29	22.60	21.90			------	22.58	21.29	24.73	24.65	22.93	20.90	25.22
30		22.28			------	22.51	21.53	24.37	24.39	22.49	21.16	25.05
31		------			------	22.48	------	24.84	------	22.00	21.16	------
MEAN							21.81	21.96	26.34	23.79	21.31	23.70
MAX							22.45	24.84	27.57	25.03	22.95	26.02
MIN							21.20	20.84	24.39	22.00	20.84	21.11

06331600 Missouri River Stage Gage No. 10 near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								5.33	6.67	10.18	5.99	3.25
2								5.13	6.52	10.09	5.77	3.15
3								4.80	7.26	9.80	5.35	3.17
4								4.49	7.09	9.56	5.09	3.40
5								3.88	7.11	9.22	5.34	3.52
6							10.74	3.44	7.93	9.08	5.42	3.52
7							10.52	3.15	8.33	8.99	5.34	3.47
8							10.42	2.83	8.36	8.54	5.23	3.39
9							10.14	2.67	7.94	8.20	5.00	3.39
10								3.07	7.39	7.74	4.79	3.29
11								3.69	7.14	7.64	4.83	3.28
12							7.25	4.02	7.02	7.46	4.86	3.34
13							5.83	4.54	7.13	7.07	4.49	3.48
14							5.48	5.48	7.42	6.84	4.44	3.60
15							5.29	6.12	8.55	7.25	4.75	3.79
16							5.07	6.15	9.52	8.36	5.02	3.75
17							4.90	6.06	9.46	8.82	4.76	3.56
18							4.77	5.67	9.18	9.26	4.48	3.75
19							4.55	5.24	9.54	8.86	4.16	3.92
20							4.21	5.00	10.21	9.27	3.87	3.95
21							3.80	4.83	10.34	8.87	3.52	3.84
22							3.74	4.76	10.14	8.35	3.26	3.76
23							3.68	4.89	9.98	7.96	3.15	3.69
24							3.89	5.40	9.87	7.67	3.06	3.60
25							4.55	5.70	9.73	7.33	2.94	3.53
26							4.95	5.43	9.69	7.01	2.94	3.55
27							4.72	6.00	9.75	6.71	3.11	3.74
28							4.53	6.92	9.92	6.49	3.29	3.87
29					------		4.69	6.73	9.98	6.20	3.48	3.88
30					------		5.13	7.46	10.06	5.91	3.49	3.81
31		------			------		------	7.24	------	6.02	3.36	------
MEAN								5.04	8.64	8.09	4.34	3.58
MAX								7.46	10.34	10.18	5.99	3.95
MIN								2.67	6.52	5.91	2.94	3.15

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.67	3.34	5.95					3.40	8.63	12.32	11.26	10.70
2	3.65	3.31	5.12					5.98	8.62	12.39	10.85	10.50
3	3.60	3.29	5.12					5.79	9.00	12.41	11.20	10.61
4	3.52	3.30	5.12				3.73	5.45	9.33	12.09	11.15	10.68
5	3.44	3.18	5.08				3.54	4.94	9.91	11.78	11.10	10.66
6	3.41	3.11	5.03				3.38	4.64	10.45	11.63	11.07	10.66
7	3.45	3.13	4.88				3.30	4.48	11.58	11.93	11.08	10.72
8	3.54	3.21	5.06				3.18	4.43	11.76	12.09	11.07	10.75
9	3.52	3.17	5.44				3.08	4.35	11.70	12.04	10.99	10.77
10	3.47	3.18	5.47				3.05	4.38	11.74	12.13	11.01	10.84
11	3.50	3.11					3.05	4.56	11.28	11.77	11.05	10.80
12	3.67	3.16	6.54				3.11	5.12	11.01	11.83	10.61	11.07
13	3.90	3.17					3.31	5.96	10.91	11.99	10.84	11.08
14	3.74	3.12					3.32	6.60	11.10	12.27	10.81	10.58
15	3.64						3.27	6.73	11.23	12.13	10.77	10.68
16	3.90						3.15	6.67	11.51	11.81	10.63	11.36
17	4.03						2.94	6.66	12.14	11.86	10.80	10.58
18	4.05						2.55	6.47	12.66	11.80	10.56	10.78
19	4.02	3.25					2.34	6.27	13.05	11.65	10.60	10.70
20	3.88	3.24					2.46	6.15	13.48	11.65	10.63	10.70
21	3.77	3.29					2.62	6.28	13.78	11.58	10.40	11.00
22	3.72	3.47					2.61	6.42	13.72	11.69	10.54	10.94
23	3.71	3.61					2.66	6.56	13.57	11.45	10.55	10.75
24	3.62	4.00					2.77	6.59	13.75	11.41	10.61	10.46
25	3.60	4.36					3.01	6.68	13.76	11.43	10.89	10.58
26	3.53	4.45					2.89	6.74	13.69	11.14	10.52	10.60
27	3.47	4.50					2.58	6.97	13.31	11.19	10.53	10.85
28	3.47	4.54					2.64	7.26	12.89	11.30	10.33	10.64
29	3.47	4.67			------		2.99	7.67	12.72	11.26	10.39	10.73
30	3.45	4.90			------		3.21	8.32	12.50	11.17	10.50	10.71
31	3.45	------			------		------	8.66	------	11.14	10.51	------
MEAN	3.64							6.04	11.83	11.75	10.77	10.75
MAX	4.05							8.66	13.78	12.41	11.26	11.36
MIN	3.41							3.40	8.52	11.14	10.33	10.46

06331600 Missouri River Stage Gage No. 10 near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.57	10.23						7.40	8.13	13.08	11.24	11.05
2	10.58	10.23						6.54	8.60	13.37	10.70	10.53
3	10.70	10.13						6.05	8.50	13.36	10.93	10.10
4	10.56	10.21						5.82	8.24	13.27	11.22	10.50
5	10.59	10.08						5.79	7.98	13.31	10.97	10.66
6	10.49	10.24						6.01	7.70	13.37	10.60	10.67
7	10.46	10.13						7.26	7.74	13.06	11.00	10.78
8	10.54	10.21						7.92	8.46	12.80	11.24	10.97
9	10.62	10.05						7.99	9.07	12.80	10.84	10.37
10	10.52	10.01						7.93	9.81	12.54	9.86	10.25
11	10.72	9.94						7.74	10.44	12.32	10.46	10.49
12	10.65	9.89						7.68	11.10	12.20	10.74	10.41
13	10.57	10.24						7.63	11.73	12.14	10.89	10.48
14	10.49	10.13						7.49	11.60	12.18	10.60	10.81
15	10.49	9.88						8.07	11.16	12.22	10.51	10.49
16	10.53	9.70						8.14	10.78	12.08	10.70	10.30
17	10.55	9.77						7.59	10.37	11.77	10.57	10.40
18	10.56	9.72						7.07	10.91	11.99	10.96	10.11
19	10.53	9.93						6.68	11.62	12.03	10.51	10.09
20	10.65	9.41						6.62	12.72	11.86	10.33	10.27
21	10.42							6.84	12.76	11.83	10.23	10.13
22	10.43							7.27	12.87	11.76	10.21	9.64
23	10.42						5.11	7.69	12.41	11.35	10.19	9.51
24	10.10						5.13	8.11	11.88	11.42	10.04	9.86
25	10.18						5.05	8.66	11.66	11.34	10.30	10.36
26	9.94						4.99	8.94	11.88	11.43	10.33	9.60
27	10.11						4.87	8.82	12.41	11.49	10.15	9.78
28	10.38						4.93	8.48	12.25	11.19	10.38	9.74
29	10.24						5.78	8.10	12.47	11.46	10.73	10.01
30	10.10				------		7.65	7.98	12.77	11.35	10.53	9.82
31	10.10	------			------		------	7.98	------	11.22	11.67	------
MEAN	10.44							7.49	10.67	12.18	10.63	10.27
MAX	10.72							8.94	12.87	13.37	11.67	11.05
MIN	9.94							5.79	7.70	11.19	9.86	9.51

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.10	8.97						9.38	10.60	16.43	20.04	22.15
2	9.33	8.82						9.38	10.58	16.57	20.05	21.97
3	8.76	8.41						9.32	11.06	16.60	20.12	22.63
4	9.18	8.74						9.32	11.30	16.51	20.12	22.05
5	9.24	8.68						9.47	11.66	16.78	19.96	22.38
6	9.23	8.61						9.92	11.64	17.11	20.19	22.48
7	9.01	8.59						9.99	11.62	17.35	20.13	22.52
8	9.28	8.65						9.96	12.00	17.44	20.19	22.65
9	9.31	8.59						10.41	12.18	17.66	20.33	22.38
10	9.10	8.57						10.58	12.18	17.81	20.45	22.66
11	8.91	8.34						10.52	12.34	18.01	20.43	22.88
12	9.00	8.30						10.42	12.70	18.19	20.65	22.78
13	9.01	8.45						10.14	12.98	18.41	20.44	22.89
14	8.95	8.36						9.95	13.11	18.85	20.39	23.01
15	8.87	8.13						9.92	13.37	18.89	20.76	22.99
16	8.80	8.03						9.98	14.43	18.78	20.70	22.65
17	8.59	7.78						10.04	14.99	18.77	20.78	22.87
18	8.54	7.90						9.98	14.14	18.85	20.82	23.14
19	8.88	7.88						10.36	13.70	18.83	20.98	23.28
20	8.58	7.47						10.50	13.75	18.92	21.06	23.40
21	9.17	7.30						10.70	14.44	18.98	21.18	23.46
22	8.93	7.28						10.84	14.80	19.19	21.20	22.56
23	8.84	7.21						10.88	14.78	19.00	21.29	23.15
24	8.87	7.19						10.72	14.73	19.26	21.24	23.54
25	9.03	7.10						10.68	15.05	19.41	21.43	23.74
26	9.23							10.96	15.30	19.57	21.41	24.08
27	8.88						9.59	10.99	15.36	19.62	21.84	23.78
28	9.19						9.57	10.75	15.61	19.76	22.44	23.76
29	9.06				------		9.40	10.62	15.95	19.76	21.74	23.76
30	9.07				------		9.36	10.58	15.21	19.70	21.60	23.77
31	8.96	------			------		------	10.70	------	19.91	21.63	------
MEAN	9.00							10.26	13.42	18.42	20.83	22.98
MAX	9.33							10.99	16.21	19.91	22.44	24.08
MIN	8.54							9.32	10.58	16.43	19.96	21.97

06331600 Missouri River Stage Gage No. 10 near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.75	22.94						17.26	20.37	23.48	23.29	21.53
2	24.14	22.86						17.18	20.40	23.76	23.37	21.45
3	23.67	22.45						17.46	20.77	23.71	23.30	21.28
4	23.69	22.87						17.52	20.97	23.56	23.31	21.18
5	23.85	22.61						17.80	20.88	23.54	23.20	21.23
6	23.69	22.56						17.99	21.02	23.85	22.94	21.29
7	23.22	22.48						18.20	21.38	24.00	22.98	21.23
8	23.71	22.41						18.20	21.70	23.99	22.90	21.12
9	23.75	22.33						18.26	21.78	24.02	22.92	20.98
10	23.53	22.21						18.87	21.79	24.03	22.99	21.25
11	23.51	22.11						18.53	21.58	24.01	23.03	21.18
12	23.66	21.65						18.43	21.32	24.05	22.64	20.76
13	23.59	21.82						18.87	21.68	24.32	22.78	20.81
14	23.63	21.95						18.99	21.98	24.18	22.68	20.74
15	23.65	21.50						18.96	21.99	24.08	22.38	20.78
16	23.37	21.33						19.06	22.11	24.06	22.55	20.63
17	23.42	21.59						18.80	22.30	23.84	21.93	20.54
18	23.44	21.41						18.71	22.34	23.88	22.32	20.53
19	23.36	21.39						19.21	22.40	24.04	22.44	20.60
20	23.31	21.31					16.73	19.46	22.57	24.15	22.28	20.41
21	23.36	21.20					16.73	19.55	22.52	23.70	22.26	20.15
22	23.24	21.05					16.68	19.34	22.64	23.79	21.97	19.76
23	23.27	21.15					16.52	19.22	22.66	23.76	21.98	19.78
24	23.19	20.75					16.40	19.53	22.96	23.82	21.93	19.65
25	23.11	20.95					16.35	19.75	22.29	24.07	21.93	20.16
26	23.17	20.50					17.10	19.82	23.31	23.58	21.94	19.97
27	23.30	20.25					16.90	20.18	23.30	23.49	21.88	19.63
28	23.16	20.31					16.54	20.20	23.40	23.50	21.53	19.56
29	22.97	20.33			------		17.11	20.51	23.45	23.44	21.92	19.48
30	22.76	20.23			------		17.40	20.68	23.46	23.46	21.78	19.88
31	22.87	------			------		------	20.69	------	23.54	21.57	------
MEAN	23.43	21.62						18.94	22.04	23.83	22.48	20.58
MAX	24.14	22.94						20.69	23.46	24.32	23.37	21.53
MIN	22.76	20.23						17.18	20.37	23.44	21.53	19.48

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.92	17.69										26.16
2	19.60	17.81										26.00
3	19.61	17.33										25.61
4	19.70	17.30									28.73	25.64
5	19.51	17.53									28.64	25.65
6	19.48	17.42									28.56	25.56
7	19.24	17.47									28.65	25.12
8	18.89	17.32									28.29	25.20
9	18.22	17.20									28.35	25.55
10	18.48	16.98									28.40	25.08
11	19.02	17.02									28.31	25.02
12	18.86	16.98									28.22	24.62
13	18.38	16.69									27.96	24.85
14	18.63	16.96									27.99	24.66
15	18.83	16.71									27.77	24.65
16	18.66										27.66	24.68
17	18.32										27.69	24.69
18	18.33										27.56	24.68
19	18.36										27.42	24.79
20	18.40										27.46	24.72
21	17.96										27.51	25.08
22	17.98										27.17	24.94
23	18.18										27.05	24.93
24	18.17										26.85	24.98
25	17.92										26.49	24.66
26	17.89										26.49	24.66
27	17.52										26.43	24.68
28	17.97										26.18	24.69
29	18.12				------						26.16	24.51
30	17.30				------						26.18	24.68
31	17.44	------			------		------		------		26.15	------
MEAN	18.54											25.02
MAX	19.92											26.16
MIN	17.30											24.51

06331600 Missouri River Stage Gage No. 10 near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.14	22.04					18.19	16.65	16.33	22.89	26.09	27.01
2	24.29	21.78					18.47	16.60	16.53	23.60	26.13	26.87
3	24.38	21.84					17.96	16.40	16.46	23.80	26.15	26.60
4	23.96	21.80				18.91	17.90	16.85	16.80	23.92	26.26	26.62
5	24.54	21.68				18.94	17.92	17.45	17.05	24.12	26.20	26.67
6	24.57	21.80				19.04	17.80	16.83	17.37	24.16	26.24	26.95
7	23.57	21.77				19.04	17.75	16.41	17.89	24.14	26.14	26.92
8	23.75	21.53				19.13	17.62	16.26	18.25	24.32	26.31	26.97
9	23.63	21.78				19.28	17.63	16.57	18.66	24.76	26.06	27.03
10	23.68	21.60				19.32	17.61	16.63	18.88	24.83	26.13	27.16
11	23.69	21.17				19.21	17.43	16.64	19.15	24.92	29.19	27.22
12	23.34	21.61				19.10	17.50	16.92	19.51	25.12	25.94	27.23
13	23.13	21.61				18.97	17.53	16.88	19.69	24.82	25.99	27.13
14	23.29	21.70				18.85	17.19	16.36	20.09	25.21	26.52	27.35
15	23.14	21.58				18.69	17.21	16.27	20.35	25.32	26.09	27.02
16	23.10	21.44				18.68	16.94	16.45	20.47	25.29	26.01	26.87
17	22.78	20.92				18.70	17.10	16.28	20.81	25.42	26.39	27.10
18	23.26	21.67				18.67	17.16	16.33	20.90	25.49	26.10	27.21
19	22.28	21.84				18.61	17.31	16.47	21.02	25.73	25.79	27.25
20	22.90	21.47				18.64	16.86	16.62	20.90	25.56	26.31	27.69
21	23.10	21.45				18.60	16.83	16.80	21.08	25.25	26.49	27.36
22	22.62	21.50				18.45	16.82	16.96	21.40	25.95	26.12	27.10
23	22.73	20.90				18.35	16.84	16.82	21.79	25.89	26.16	26.71
24	22.28	21.39				18.20	17.03	16.85	22.28	25.95	26.21	26.31
25	22.77	20.92				18.17	16.69	16.67	22.40	26.08	26.58	26.91
26	22.34	20.52				18.09	16.83	16.49	22.62	26.08	26.90	26.91
27	22.66	21.06				17.71	16.79	16.39	22.85	26.08	26.85	27.09
28	22.61					17.68	16.61	16.41	22.40	26.21	26.68	26.96
29	22.01					17.90	16.80	16.50	22.98	26.20	26.55	26.68
30	22.25				------	17.79	16.83	16.33	22.95	25.26	26.78	26.53
31	22.14	------			------	17.98	------	15.96	------	26.00	26.71	------
MEAN	23.19						17.31	16.58	20.00	25.11	26.39	26.98
MAX	24.57						18.47	17.45	22.98	26.21	29.19	27.59
MIN	22.01						16.61	15.96	16.33	22.89	25.79	26.31

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.53	24.38					20.47	22.04		28.00	30.02	28.11
2	25.98	24.53					20.72	22.35		28.15	30.02	28.07
3	26.05	24.53					20.87	22.78		28.27	29.99	28.18
4	26.45	24.57					20.43	22.57	24.43	28.20	29.98	27.75
5	25.80	24.45					20.26	22.41	24.55	28.55	30.05	27.34
6	25.90	24.28					20.39	22.44	24.77	28.93	29.43	27.36
7	24.80	24.15					20.53	22.38	24.78	29.24	29.61	27.39
8	25.73	24.09					20.36	22.41	24.76	28.97	29.72	27.30
9	25.55	24.41					20.47	22.30	24.80	29.16	29.71	27.40
10	25.82	24.06					21.00	22.59	24.86	29.37	29.70	27.59
11	25.50	24.25					21.18	22.71	24.77	29.48	29.66	27.69
12	25.80	24.66					21.28	22.85	24.91	29.53	29.50	27.16
13	25.42	24.05					21.60	22.94	25.05	29.50	29.15	27.14
14	25.36	23.65					21.69	22.99	25.17	29.82	29.53	26.81
15	25.30	23.79					21.68	23.01	25.25	29.79	29.48	26.95
16	24.96	23.74					21.81	22.97	25.29	29.78	29.35	26.92
17	25.00	23.10					22.00	23.23	25.51	29.92	29.03	27.20
18	25.01	23.05					22.13	23.15	25.61	29.86	29.23	26.94
19	24.79	23.18					21.96	23.19	25.77	29.94	29.32	26.71
20	24.99	23.68					21.99	23.21	25.76	30.08	29.21	26.69
21	24.75						22.06		26.06	30.09	29.05	26.66
22	24.78						22.26		25.04	29.88	29.01	26.16
23	24.55						22.22		26.08	30.13	29.04	26.62
24	24.72					23.49	22.48		25.26	30.12	28.89	26.37
25	24.67					22.79	22.47		26.92	30.22	28.88	26.76
26	23.59					21.98	22.78		25.37	29.54	28.66	26.20
27	23.93					21.37	22.00		26.46	30.04	28.59	26.27
28	24.63					20.90	22.19		26.95	30.17	28.60	26.34
29	24.57				------	20.65	22.39		27.26	30.15	28.18	26.03
30	24.60				------	20.01	22.13		27.63	29.78	28.16	26.37
31	24.42	------			------	20.44	------		------	30.05	28.05	------
MEAN	25.16						21.53			29.51	29.25	27.02
MAX	26.53						22.78			30.22	30.05	28.18
MIN	23.59						20.26			28.00	28.05	26.03

06331600 Missouri River Stage Gage No. 10 near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.98	24.14					18.15	17.50	20.85	25.61	28.29	26.89
2	26.20	24.15					18.11	17.42	21.03	26.23	28.33	26.69
3	25.38	24.20					18.15	17.45	21.11	26.33	28.43	26.79
4	24.85	24.20					18.21	17.58	21.09	26.68	28.39	26.83
5	24.92						18.36	17.90	21.09	26.83	28.41	26.74
6	24.73						18.61	17.52	21.14	26.91	28.41	26.64
7	24.61						18.68	17.48	21.38	26.92	28.35	26.57
8	25.00						18.67	17.68	21.50	27.22	28.43	26.68
9	25.22						18.59	17.78	21.88	27.34	28.15	26.52
10	25.20						18.41	18.35	21.92	27.65	28.29	26.61
11	25.21						18.43	19.10	22.31	27.59	28.23	26.76
12	25.23					18.71	18.52	18.85	22.79	27.60	28.17	26.41
13	24.91					18.60	17.71	18.79	23.13	27.68	28.17	26.56
14	24.80					18.59	17.41	18.71	23.35	27.59	27.83	26.66
15	24.78					18.52	17.31	18.66		27.91	27.61	26.53
16	24.57					18.51	17.18	18.76		28.05	28.09	26.63
17	24.55					18.45	17.34	18.75	23.07	28.13	27.99	26.53
18	24.66					18.31	17.49	18.76	23.51	28.18	27.68	26.61
19	24.72					18.22	17.51	19.16	23.63	28.25	27.59	26.58
20	24.72					18.20	17.50	19.21	23.68	28.37	27.77	26.42
21	24.50					18.10	17.49	19.07	23.81	28.39	27.43	25.99
22	24.95					18.02	17.53	19.13	24.03	28.19	27.61	26.46
23	24.88					18.03	17.51	19.30	23.83	28.03	27.54	26.57
24	24.56					18.09	17.54	19.29	24.53	28.17	27.57	26.43
25	24.54					18.08	17.50	19.61	24.43	28.38	27.44	26.21
26	24.15					18.08	17.52	20.11	24.89	28.35	27.38	26.29
27	24.30					18.11	17.57	20.22	25.20	28.44	27.16	26.39
28	24.73					18.15	17.86	20.09	25.00	28.49	27.31	26.46
29	24.43				------	18.12	17.42	20.14	25.81	28.43	26.99	26.41
30	24.35				------	18.11	17.39	20.38	25.56	28.36	27.09	26.39
31	24.29	------			------	18.13	------	20.56	------	28.33	27.06	------
MEAN	24.84						17.86	18.82		27.70	27.84	26.54
MAX	26.20						18.68	20.56		28.49	28.43	26.89
MIN	24.15						17.18	17.42		25.61	26.99	25.99

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.05	24.77					23.74	23.40	22.85	28.21	28.35	26.77
2	25.85	24.86					23.50	23.52	23.05	28.48	28.45	26.85
3	25.39	24.82					23.51	23.27	23.29	28.27	28.57	26.50
4	26.32	24.69					23.57	23.21	23.43	28.07	28.49	26.54
5	26.26	24.79				21.24	23.69	23.19	23.28	28.44	28.41	26.75
6		24.63				21.20	23.75	23.14	23.60	28.69	28.40	26.97
7		24.64				21.23	23.78	23.07	24.07	28.00	28.31	26.80
8	26.18	24.62				21.32	23.65	23.10		28.51	28.22	26.99
9	25.99	24.61				21.31	23.81	23.04		28.73		27.06
10	25.90	24.51				21.31	23.68	22.93		29.10		26.98
11	25.92	24.62				21.33	23.61	23.02		28.83		27.10
12	25.83	24.73				21.41	23.73	22.87		28.10		26.60
13	25.81	24.72				21.61	23.75	22.99		28.69		26.62
14	25.60					22.05	23.87	22.64		28.52		26.43
15	25.71					22.80	23.75	22.57		28.59		26.19
16	25.70					23.38	23.47	22.75		28.69		26.45
17	25.62					23.45	24.12	22.71	25.60	28.69	27.72	26.49
18	25.82					23.32	23.90	22.83	25.97	28.50	27.83	26.50
19	25.66					23.10	23.68	22.79	26.08	28.53	27.66	26.49
20	25.61					22.98	24.04	22.89	26.30	28.59	27.75	26.44
21	25.60					22.73	24.03	23.09	26.38	28.54	27.57	26.36
22	25.57					22.61	23.70	23.11	25.61	28.50	27.59	26.35
23	25.55					22.58	23.60	22.81	26.98	28.55	27.24	26.43
24	25.53					22.52	23.68	22.78	27.13	28.13	27.15	26.50
25	25.14					22.48	23.51	22.84	27.37	28.18	27.38	26.38
26	25.24					22.47	23.61	22.90	27.25	28.37	27.39	26.20
27	25.06					22.51	23.41	23.05	27.39	28.15	27.31	26.22
28	24.95					22.68	23.39	22.78	27.65	28.25	27.16	26.09
29	24.81				------	23.15	23.40	22.68	27.95	28.30	27.27	26.38
30	24.98				------	23.99	23.27	23.48	27.78	28.40	27.46	26.12
31	24.81	------			------	24.35	------	23.14	------	28.27	27.10	------
MEAN							23.67	22.99		28.45		26.55
MAX							24.12	23.52		29.10		27.10
MIN							23.27	22.57		28.00		26.09

06331600 Missouri River Stage Gage No. 10 near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.04	26.56						25.99	25.58	28.45	28.67	28.32
2	25.93	25.83						25.89	25.55	28.50	28.70	28.40
3	25.87	26.26						25.99	25.59	28.61	28.68	28.27
4	26.27	26.28						26.06	25.64	28.70	28.67	28.15
5	26.53	24.44						25.71	25.66	28.74	28.58	28.32
6	26.65	25.54					27.29	25.90	25.85	28.62	28.57	28.14
7	26.15	26.34					27.26	25.87	25.02	28.76	28.31	28.10
8	26.25	25.97					27.19	25.82	26.31	28.67	28.66	28.24
9	26.61	26.02					27.13	25.70	26.92	28.87	28.74	28.20
10	26.52	25.97					27.10	25.79	26.77	28.50	28.67	27.88
11	26.60	25.95					27.26	25.67	26.57	28.61	28.62	28.12
12	26.23						27.18	25.51	26.64	28.64	28.60	28.08
13	26.45						27.11	25.56	26.58	28.59	28.69	28.03
14	26.13						27.10	25.57	26.85	28.51	28.70	27.84
15	26.42						27.03	25.51	27.44	28.60	28.48	27.90
16	26.79						27.07	25.55	27.69	28.58	28.50	27.55
17	26.33						27.05	25.64	27.74	28.57	28.42	27.94
18	26.25						26.92	25.47	27.61	28.79	28.49	28.05
19	25.97						26.84	25.37	27.60	28.73	28.51	27.88
20	26.45						26.85	25.47	27.85	28.70	28.26	26.67
21	26.38						26.85	25.44	28.03	28.81	28.25	27.75
22	26.60						26.66	25.38	23.24	28.65	28.38	27.70
23	26.84						26.51	25.29	28.62	28.67	28.42	27.91
24	26.78						26.59	25.44	23.45	28.87	28.34	27.48
25	26.63						26.83	25.62	28.36	29.15	28.37	27.80
26	26.61						26.45	25.47	28.26	28.88	28.40	27.72
27	25.96						26.39	25.60	28.37	29.00	28.35	27.52
28	26.37						26.37	25.61	28.48	28.82	28.46	27.15
29	26.59						26.40	25.60	28.53	28.80	28.48	27.34
30	26.51				------		26.26	25.76	28.67	28.81	28.27	27.37
31	26.32	------			------		------	25.69	------	28.80	27.98	------
MEAN	26.39							25.64	27.22	28.71	28.49	27.86
MAX	26.84							26.06	28.67	29.15	28.74	28.40
MIN	25.87							25.29	25.55	28.45	27.98	26.67

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.48	26.79					23.14	23.19	25.27	28.55	28.30	26.50
2	27.45	26.80					23.01	23.14	25.13	28.41	28.24	26.72
3	27.50	26.70					22.95	23.32	24.77	28.83	28.15	26.63
4	27.57	26.90					22.94	23.68	25.03	29.03	28.13	26.30
5	27.42	26.70					22.86	23.77	25.47	29.05	28.30	26.77
6	27.39	26.55					22.85	23.75	25.94	29.13	27.83	27.29
7	27.28	26.79					22.79	23.76	26.06	28.83	27.94	27.72
8	27.51	26.61					22.88	23.94	26.10	29.17	27.65	27.22
9	27.57	26.51					22.80	23.55	26.19	29.18	27.72	26.95
10	27.17	26.44					22.74	23.74	26.18	29.23	27.80	26.78
11	27.12	26.55					22.68	23.63	26.21	29.11	27.70	26.90
12	27.24	26.59					22.84	24.00	26.46	28.79	27.54	27.10
13	27.12	26.57					22.77	24.19	26.78	28.80	27.62	26.50
14	27.11						22.28	24.20	26.89	29.03	27.58	26.42
15	27.08						22.42	24.12	26.80	29.15	27.64	26.59
16	26.93						22.55	24.28	26.89	28.93	27.67	26.57
17	27.17						22.52	24.07	27.10	28.83	27.65	16.54
18	27.13						22.50	24.36	27.20	28.78	27.47	26.56
19	27.14						22.85	24.33	26.93	28.88	27.32	26.77
20	27.12						22.88	24.52	27.48	28.95	27.67	26.99
21	27.12						22.00	24.02	27.84	28.93	27.45	26.44
22	27.22					23.33	22.56	24.11	28.11	28.92	27.35	26.43
23	27.23					23.22	22.98	24.41	28.35	28.74	27.40	27.09
24	26.91					23.23	23.02	24.50	28.30	28.44	27.33	26.56
25	26.94					23.31	22.90	24.73	28.07	28.38	27.09	26.45
26	26.98					23.32	22.95	24.74	27.94	28.34	27.05	26.46
27	26.82					23.03	23.25	24.69	28.33	28.38	27.09	26.49
28	27.28					23.16	23.25	24.60	28.56	28.34	26.76	26.48
29	27.00				------	23.20	23.07	24.90	28.77	28.17	26.84	26.56
30	26.76				------	23.24	23.24	25.02	28.74	28.35	27.00	26.58
31	26.78	------			------	23.24	------	25.17	------	28.40	26.75	------
MEAN	27.18						22.82	24.14	26.93	28.78	27.55	26.38
MAX	27.57						23.25	25.17	28.77	29.23	28.30	27.72
MIN	26.76						22.00	23.14	24.77	28.17	26.75	16.54

06331650 Missouri River Stage Gage No. 11 near Williston, N. Dak.

LOCATION.--Lat 48°01'55", long 103°31'23", in SE¼ sec.34, T.153 N., R.100 W., Williams County, on left bank 10 mi (16 km) southeast of Williston at mile 1,534.4 (kilometre 2,468.8).

DRAINAGE AREA.--165,000 mi^2 (427,000 km^2), approximately.

PERIOD OF RECORD.--May 1959 to current year (seasonal).

GAGE.--Water-stage recorder. Datum of gage is 1,810.00 ft (551.688 m) above mean sea level. Prior to Apr. 25, 1962, at datum 10.00 ft (3.048 m) lower.

EXTREMES.--Current year: Maximum daily gage height recorded, 38.87 ft (11.848 m) July 10; minimum daily recorded, 31.73 ft (9.671 m) Apr. 21.
Period of record: Maximum daily gage height recorded, 39.96 ft (12.180 m) July 25, 1969; minimum daily recorded, 5.49 ft (1.673 m) Apr. 29, 1960, present datum.

REMARKS.--Records fair. Stage regulated by upstream reservoirs and Lake Sakakawea.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1958 TO SEPTEMBER 1959

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									18.86	23.45		17.46
2									19.06	22.98		17.48
3									19.09	22.69		17.56
4									19.06	22.52		17.44
5									19.00	22.71		17.12
6								18.10	18.91	22.23		17.28
7								18.38	18.84	22.03		17.48
8								18.84	19.15	22.04		17.54
9								18.95	20.21	21.82		17.42
10								18.88	21.27	21.47		17.42
11								18.60	21.85	21.26	17.94	17.38
12								18.50	22.00	21.10		17.42
13								18.58	21.97	20.80	18.00	17.38
14								18.56	22.11	20.48	17.88	17.36
15								18.58	21.98	20.35	17.84	17.36
16								18.68	21.95	20.21	17.76	17.32
17								18.58	22.50	20.13	17.70	17.34
18								18.44	23.02	20.04	17.70	17.36
19								18.58	23.38	19.98	17.70	17.46
20								19.25	23.59	19.92	17.76	17.52
21								19.96	23.43	19.80	17.82	17.58
22								19.92	23.32	19.65	17.80	17.94
23								19.72	23.30	19.51	17.80	18.14
24								19.50	23.18	19.38	17.68	18.28
25								19.29	23.12	19.23	17.62	18.32
26								19.07	23.26	19.12	17.24	18.42
27								18.94	23.44	18.97	17.78	18.54
28								18.83	23.34		17.78	18.60
29					------			18.78	23.26		17.70	18.58
30					------			18.66	23.43		17.58	18.54
31		------			------		------	18.66	------		17.40	------
MEAN									21.70			17.70
MAX									23.59			18.60
MIN									18.84			17.12

06331650 Missouri River Stage Gage No. 11 near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1959 TO SEPTEMBER 1960

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.50	18.56							18.04	20.04	17.76	17.62
2	18.50	18.48							17.95	19.84	17.80	17.58
3	18.52	18.46							17.97	19.60	17.80	17.48
4	18.50	18.50							18.04	19.40	17.74	17.38
5	18.50	18.54						17.76	18.53	19.25	17.72	17.28
6	18.40	18.58							19.27	19.12	17.76	17.17
7	18.46	18.30							19.95	19.07	17.70	17.03
8	18.48	18.30							20.78	19.03	17.68	16.95
9	18.56	18.14							21.02	18.92	17.76	16.95
10	18.54	18.02							21.16	18.75	17.78	16.96
11	18.58	17.96						17.95	21.26	18.55	17.72	16.99
12	18.58	17.94						17.93	21.21	18.35	17.60	16.96
13	18.52	17.94						17.80	21.15	18.17	17.40	16.92
14	18.50	17.94						17.77	20.88	18.20	17.32	17.02
15	18.56	17.94							20.50	18.17	17.28	17.10
16	18.56	17.94							20.73	18.05	17.24	17.14
17	18.58	17.94							20.88	18.02	17.24	17.14
18	18.58	17.94							21.17	17.96	17.24	17.14
19	18.50					21.50			21.42	17.88	17.18	17.13
20	18.50					21.88		19.20	21.75	17.68	17.10	17.16
21	18.54					23.38			21.70	17.64	17.08	17.18
22	18.76					31.44			21.70	17.57	17.34	17.35
23	18.64					37.41			21.44	17.44	17.72	17.53
24	18.58					37.61			21.42	17.32	17.82	17.49
25	18.54					38.02		18.26	21.20	17.27	18.02	17.48
26	18.50					36.88		18.02	20.84	17.12	18.00	17.29
27	18.44					35.62		17.95	20.50	17.10	18.00	17.23
28	18.48							18.00	20.22	17.06	17.82	16.93
29	18.48						15.49	18.09	20.10	17.04	17.74	17.45
30	18.50				------			18.22	20.10	17.52	17.62	17.69
31	18.54	------			------		------	18.22	------	17.68	17.62	------
MEAN	18.53								20.43	18.22	17.60	17.22
MAX	18.76								21.75	20.04	18.02	17.69
MIN	18.40								17.95	17.04	17.08	16.92

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1960 TO SEPTEMBER 1961

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.67	17.59					17.50	17.10	21.18	19.89	17.65	16.22
2	17.65	17.63					17.53	17.09	21.42	19.64	18.09	16.25
3	17.00	17.64					17.54	17.07	21.64	19.88	17.34	16.36
4	17.58	17.64					17.51	17.04	21.59	19.98	16.96	16.55
5	17.57	17.63					17.48	17.00	21.27	19.83	16.82	16.66
6	17.56	17.64					17.47	16.99	21.13	19.71	16.68	17.00
7	17.56	17.66					17.45	16.95	21.18	19.61	16.58	17.34
8	17.49	17.63					17.41	16.87	21.26	19.50	16.49	17.23
9	17.40	17.72					17.37	16.82	21.52	19.41	16.35	17.54
10	17.36	17.87					17.35	16.81	21.54	19.31	16.25	17.89
11	17.25	17.89					17.34	16.83	21.45	19.25	16.28	17.82
12	17.21	17.97					17.36	16.81	21.53	19.41	16.34	17.63
13	17.33	18.04					17.36	16.79	21.76	19.63	16.37	18.20
14	17.39	17.98					17.28	16.76	21.99	19.52	16.37	19.18
15	17.00	17.87					17.18	16.70	22.04	19.14	16.42	19.32
16	17.79	17.80					17.13	16.63	21.88	18.80	16.58	19.48
17	18.01	17.84					17.11	16.51	21.60	18.63	16.82	19.50
18	17.94	17.87					17.07	16.41	21.41	18.55	16.86	19.24
19	17.83	17.88					16.98	16.38	21.27	18.54	16.77	18.97
20	17.76	17.84					16.96	16.60	20.94	18.45	16.19	19.00
21	17.76	17.82					16.97	16.94	20.91	18.37	16.05	19.28
22	17.78	17.79					16.99	17.40	20.89	18.25	16.24	
23	17.80	17.78					17.04	17.75	20.86	18.11	16.33	
24	17.75	17.78					16.98	17.75	20.81	18.04	16.30	
25	17.70	17.73					16.88	17.77	20.69	18.02	16.25	
26	17.73	17.72					16.88	17.94	20.48	17.96	16.25	
27	17.69	17.90					16.86	18.10	20.28	17.99	16.24	
28	17.67	18.42					16.71	18.72	20.00	18.07	16.20	
29	17.63	19.65			------		16.76	19.65	19.77	18.06	16.09	
30	17.53				------		16.99	20.28	19.46	17.70	16.28	
31	17.53	------			------	17.61	------	20.72	------	17.18	16.32	------
MEAN	17.58						17.18	17.39	21.13	18.85	16.54	
MAX	18.01						17.60	20.72	22.04	19.98	18.09	
MIN	17.00						16.71	16.38	19.46	17.18	16.05	

06331650 Missouri River Stage Gage No. 11 near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1961 TO SEPTEMBER 1962

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								10.20	11.97	15.57	11.25	9.58
2								10.06	11.68	15.43	11.11	9.53
3								9.84	12.23	15.13	10.81	9.46
4								9.60	12.18	14.86		9.61
5								9.09	12.03	14.52		9.75
6								8.76	12.92	14.31		9.76
7								8.47	13.28	14.17		9.80
8								8.24	13.41	13.77		9.71
9								8.07	13.19	13.36		9.68
10								8.35	12.68	12.95		9.68
11								8.98		12.85		9.61
12								9.24		12.70		9.56
13								9.73	12.58	12.38		9.55
14								10.50	12.78	12.15		9.68
15									13.57	12.45		9.75
16									14.57	13.55		9.59
17								11.15	14.79	13.98		9.64
18										14.54		9.74
19									14.93	14.24		9.95
20									15.50	14.50		9.97
21									15.51	14.17		9.80
22									15.46	13.52		9.87
23									15.32	12.98		9.75
24								10.73	15.31	12.65		9.68
25							9.85	11.08	15.21	12.35		9.66
26							10.18	10.85	15.14	12.06		9.74
27								11.31	15.14	11.84		9.92
28								12.27	15.26	11.69		
29					------			11.97	15.37	11.46		
30					------			12.75	15.49	11.22		
31		------			------		------	12.49	------	11.28		------
MEAN										13.31		
MAX										15.57		
MIN										11.22		

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1963

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		9.92	11.06					10.40	14.84	20.13	21.03	20.60
2		10.04	11.16					12.38	14.84	20.63	20.64	20.45
3		10.03	11.09					12.50	15.29	20.72	20.94	20.55
4		10.31	10.88				10.67	12.08	15.47	20.64	20.95	20.56
5		10.07	11.12				10.64	11.62	15.13	20.58	20.96	20.53
6		9.70	11.16				10.59	11.39	16.62	20.60	20.90	20.54
7		9.88	10.89				10.58	11.24	15.98	20.85	20.90	20.63
8		10.00	11.11				10.49	11.19	17.34	21.06	20.95	20.63
9		9.98	11.96				10.39	11.37	17.55	21.11	20.84	20.67
10		10.06	12.96				10.44	11.25	17.68	21.13	20.87	20.75
11	10.32	9.89					10.39	11.52	17.32	21.07	20.93	20.67
12	10.06	9.97	13.27				10.42	11.74	15.94	21.00	20.49	20.92
13	9.99	10.04					10.54	12.12	15.84	21.19	20.72	20.98
14	9.87	9.99					10.59	12.80	15.98	21.46	20.69	20.49
15	9.79	10.09					10.56	13.05	17.08	21.48	20.69	20.58
16	9.78	10.15					10.29	13.06	17.30	21.20	20.53	21.20
17	10.06	10.05					9.94	12.98	17.80	21.33	20.68	20.51
18	9.94	10.16					10.08	12.85	18.28	21.38	20.43	20.65
19	10.00	10.12					9.87	12.62	18.79	21.28	20.47	20.55
20	9.96	9.83					9.94	12.57	19.34	21.32	20.51	20.54
21	9.94	9.70					10.00	12.78	19.73	21.27	20.22	20.84
22	9.87	10.21					10.00	12.91	19.75	21.34	20.45	20.73
23	9.95	10.25					9.92	13.05	19.68	21.13	20.45	20.61
24	9.89	10.51					10.02	13.08	20.02	21.10	20.52	20.31
25	9.97	10.71					10.22	13.08	19.99	21.13	20.71	20.39
26	9.94	10.75					10.21	13.17	20.15	20.87	20.46	20.39
27	9.87	10.78					10.04	13.36	20.12	20.88	20.45	20.52
28	9.98	10.76					10.04	13.58	20.07	21.02	20.29	20.34
29	9.95	10.89			------		10.29	13.93	20.11	21.02	20.36	20.41
30	9.98	11.04			------		10.40	14.55	19.90	20.95	20.46	20.39
31	10.02	------			------		------	14.91	------	20.90	20.45	------
MEAN		10.20						12.55	17.96	21.02	20.64	20.60
MAX		11.04						14.91	20.15	21.48	21.03	21.20
MIN		9.70						10.40	14.84	20.13	20.22	20.31

06331650 Missouri River Stage Gage No. 11 near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1964

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.27	20.02						12.79	14.05	19.05	20.77	20.59
2	20.37	19.97						12.09	14.42	19.36	20.18	20.02
3	20.53	19.85						11.54	14.35	19.45	20.42	19.52
4	20.42	19.95						11.17	14.15	19.49	20.76	20.14
5	20.43	19.78						11.15	13.91	19.53	20.50	20.37
6	20.28	19.97						11.31	13.73	19.61	20.03	20.39
7	20.23	19.86						12.44	13.80	19.61	20.57	20.49
8	20.34	19.98						13.18	14.54	19.46	20.87	20.70
9	20.38	19.79					15.49	13.26	14.91	19.66	20.48	20.01
10	20.28	19.77					14.91	13.19	15.49	19.61	19.37	19.26
11	20.43	19.73					11.38	13.08	15.94	19.56	19.25	19.59
12	20.40	19.68					11.11	13.04	16.33	19.68	19.99	20.12
13	20.30	19.97					11.00	13.02	16.81	19.81	20.58	20.18
14	20.20	19.87					10.91	12.84	17.02	19.98	20.34	20.52
15	20.22	19.64					10.90	13.28	17.13	20.02	20.27	20.19
16	20.27	19.49					10.88	13.50	16.91	20.06	20.47	19.95
17	20.30	19.56					10.81	13.03	16.54	20.06	20.33	20.06
18	20.32	19.46					10.79	12.48	16.90	20.48	20.72	19.74
19	20.31						10.68	12.19	17.38	20.39	20.28	19.71
20	20.42						10.55	12.17	18.14	20.46	20.15	19.90
21	20.23						10.44	12.33	18.32	20.62	20.08	19.75
22	20.19						10.54	12.74	18.57	20.67	20.03	19.22
23	20.20						10.63	13.10	18.40	20.29	19.97	19.05
24	19.85						10.57	13.47	18.10	20.43	19.76	19.50
25	19.92						10.56	13.96	17.84	20.48	20.08	20.02
26	19.69						10.43	14.30	17.94	20.61	20.09	19.24
27	19.90						10.22	14.44	18.45	20.83	19.87	19.41
28	20.19						10.32	14.29	18.30	20.51	20.08	19.38
29	20.04						11.10	13.95	18.47	20.93	20.46	19.66
30	19.90				------		13.11	13.85	18.72	20.77	20.22	19.41
31	19.87	------			------		------	13.89	------	20.66	20.90	------
MEAN	20.22							12.94	16.52	20.07	20.25	19.87
MAX	20.53							14.44	18.72	20.93	20.90	20.70
MIN	19.69							11.15	13.73	19.05	19.25	19.05

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1964 TO SEPTEMBER 1965

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.68	18.51						15.61	17.28		29.74	32.15
2	18.89	18.43						15.56	17.17		29.80	32.02
3	18.18	17.92						15.63	17.49		29.97	32.68
4	18.69	18.35						15.75			29.99	32.13
5	18.89	18.24						15.89			29.91	32.41
6	18.87	18.13						16.20		24.49	30.11	32.51
7	18.67	18.11						16.24	17.92	24.71	30.03	32.57
8	18.97	18.19						16.30	18.25	24.93	30.10	32.68
9	18.99	18.13						16.53	18.50	25.24	30.26	32.48
10	18.79	18.08						16.69	18.58	25.61	30.41	32.70
11	18.56	17.85						16.70	18.75	25.59	30.37	32.97
12	18.68	17.76						16.77	19.18	25.87	30.52	32.83
13	18.65	17.96						16.53		25.95	30.35	32.97
14	18.60	17.89						16.42		26.53	30.35	33.07
15	18.51	17.53						16.32		26.83	30.76	33.05
16	18.46	17.41						16.25		27.03	30.70	32.78
17	18.31	17.22						16.06	21.19	27.35	30.75	32.95
18	18.19	17.44						15.98	20.75	27.69	30.81	33.17
19	18.52	17.59						16.55		27.81	31.03	33.35
20	18.26	16.82						16.55		28.03	31.00	33.47
21	18.90	16.83						16.64		28.14	31.23	33.52
22	18.57	16.67						16.91	21.29	28.45	31.25	32.73
23	18.45	16.58						17.17	21.41	28.23	30.34	33.27
24	18.40	16.41					15.40	16.88		28.58	30.30	33.65
25	18.46	16.04					15.40	16.73		28.82	30.41	32.83
26	18.67							17.15		29.06	31.43	34.09
27	18.16						15.76	17.39		29.15	31.85	33.85
28	18.63						15.76	17.35		29.37	32.27	33.85
29	18.52				------		15.67	17.25		29.34	31.77	33.87
30	18.54				------		15.64	17.32		29.34	31.63	33.80
31	18.45	------			------		------	17.32	------	29.58	31.67	------
MEAN	18.58							16.54			30.68	33.01
MAX	18.99							17.39			32.27	34.09
MIN	18.16							15.56			29.74	32.02

06331650 Missouri River Stage Gage No. 11 near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33.85	32.92						27.20	30.16	33.39	33.24	31.46
2	34.21	32.87						27.21	30.20	33.65	33.27	31.38
3	33.73	32.44						27.40	30.58	33.61	33.23	31.22
4	33.77	32.89						27.32	30.74	33.47	33.20	31.15
5	33.96	32.62						27.40	30.70	33.47	33.13	31.16
6	33.83	32.58						27.58	30.84	33.73	32.87	31.24
7	33.25	32.51					25.42	27.82	31.25	33.75	32.89	31.17
8	33.72	32.48					25.51	27.80	31.56	33.72	32.83	31.07
9	33.77	32.36					25.72	27.85	31.65	33.77	32.85	30.95
10	33.55	32.24					25.86	28.45	31.66	33.85	32.91	31.14
11	33.53	32.16					25.89	28.11	31.49	33.84	32.91	31.11
12	33.68	31.67					26.00	27.99	31.26	33.97	32.58	30.75
13	33.61	31.86					25.93	28.36	31.61	34.18	32.69	30.79
14	33.64	31.97					26.05	28.48	31.88	34.08	32.60	30.70
15	33.67	31.57					26.16	28.38	31.91	33.99	32.34	30.72
16	33.41	31.37					26.14	28.54	32.02	33.96	32.47	30.59
17	33.42	31.61					26.06	28.36	32.21	33.94	31.92	30.50
18	33.48	31.43					26.33	28.31	32.26	33.89	32.26	30.57
19	33.41	31.38					26.31	28.89	32.32	33.91	32.35	30.53
20	33.36	31.31					26.44	29.13	32.47	34.03	32.24	30.36
21	33.38	31.20					26.53	29.24	32.45	33.67	32.23	30.18
22	33.28	31.06					26.54	29.08	32.52	33.70	31.89	30.14
23	33.32	31.16					26.46	28.97	32.57	33.68	31.89	30.33
24	33.17	30.78					26.67	29.31	32.79	33.81	31.84	30.44
25	33.11	30.96					27.13	29.52	32.17	33.97	31.84	30.23
26	33.18	30.41					27.79	29.62	33.10	33.54	31.84	30.07
27	33.30	30.24					26.60	29.95	33.18	33.45	31.76	30.05
28	33.14	30.35					26.16	29.99	33.30	33.46	31.45	29.76
29	32.98	30.34			------		26.80	30.28	33.34	33.39	31.78	29.87
30	32.78	30.23			------		27.22	30.44	33.37	33.39	31.67	29.81
31	32.86	------			------		------	30.46	------	33.43	31.48	------
MEAN	33.46	31.63						28.63	31.92	33.73	32.40	30.65
MAX	34.21	32.92						30.46	33.37	34.18	33.27	31.46
MIN	32.78	30.2						27.20	30.16	33.39	31.45	29.76

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29.91	27.50						22.49	27.44	34.62	38.95	36.37
2	29.80	27.58						22.45	27.45	35.23	38.78	36.21
3	29.46	27.15						22.55	27.24	35.59	38.98	35.85
4	29.64	27.14						22.71	27.59	36.08	39.09	35.89
5	29.68	27.33						22.80	27.98	36.32	38.93	35.90
6	29.61	27.23						22.71	28.11	36.63	38.82	35.83
7	29.56	27.24						22.24	28.61	36.76	38.87	35.42
8	29.24	27.09						23.11	28.81	37.24	38.51	35.48
9	28.68	27.01						23.45	29.13	37.35	38.58	35.78
10	29.06	26.77						23.97	29.29	37.61	38.61	35.36
11	29.44	26.82						23.55	29.54	37.77	38.54	35.27
12	29.26	26.80						23.62	29.68	38.17	38.44	34.88
13	29.16	26.49						23.75	29.82	38.45	38.21	35.07
14	28.96	26.72						23.96	29.98	38.63	38.23	34.93
15	28.99	26.46						24.33	30.25	38.65	38.02	34.92
16	28.80	26.46						24.53	30.43	38.96	37.90	34.90
17	28.56							24.68	30.85	39.06	37.95	34.91
18	28.44							24.57	31.04	39.01	37.83	34.92
19	28.57							25.08	30.88	39.09	37.68	34.99
20	28.49							25.20	31.24	39.19	37.72	34.86
21	28.11							25.41	31.91	39.15	37.74	35.21
22	27.86							25.39	32.19	39.04	37.44	35.13
23	28.12							25.51	32.49	39.17	37.29	35.03
24	28.17							25.73	32.79	39.30	37.08	35.20
25	28.04							25.79	33.23	39.17	36.78	34.91
26	28.10							25.65	33.63	39.32	36.73	34.90
27	27.91						22.41	26.21	33.89	39.34	36.67	34.91
28	27.85						23.38	26.47	34.08	39.20	36.46	34.89
29	27.91				------		23.10	27.03	34.28	39.26	36.42	34.84
30	27.13				------		22.98	27.28	34.75	39.28	36.44	34.85
31	27.28	------			------		------	27.41	------	39.20	36.39	------
MEAN	28.70							24.50	30.62	38.12	37.87	35.25
MAX	29.91							27.41	34.75	39.34	39.09	36.87
MIN	27.13							22.24	27.24	34.62	36.39	34.84

06331650 Missouri River Stage Gage No. 11 near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34.48	32.47					27.92	26.44	26.06			36.57
2	34.59	32.19					28.25	26.43	26.15			36.48
3	34.65	32.23					27.77	26.44	25.09			36.26
4	34.31	32.23					27.72	26.74	26.24			36.32
5	34.82	32.11					27.73	27.15	26.49			36.44
6	34.80	32.18					27.62	26.52	26.71			36.58
7	33.95	32.16					27.62	26.27	26.92			36.66
8	34.10	31.95					27.43	26.22	27.08			36.68
9	33.99	32.09					27.49	26.40	27.50			36.75
10	34.04	31.91					27.44	26.45	27.68			36.85
11	34.04	31.53					27.30	26.47	27.88			36.91
12	33.70	31.93					27.39	26.66	28.23			36.95
13	33.53	31.98					27.34	26.67	28.40			37.07
14	33.66	32.01					27.12	26.30	28.74			37.22
15	33.51	31.91					27.13	26.25	29.04		35.93	36.98
16	33.39	31.79				26.71	26.77	26.28	29.26		35.77	36.83
17	33.08	31.21				26.72	27.00	26.21	29.70		36.04	37.05
18	33.61	32.03				26.72	27.02	26.23	29.95		35.78	37.14
19	32.79	32.19				26.72	27.09	26.26	30.35		35.66	37.18
20	33.59	31.85				26.83	26.66	26.30	30.31		36.01	37.68
21	33.75	31.89				26.89	26.72	26.48			35.96	37.23
22	33.22	31.89				27.02	26.70	26.55				37.00
23	33.33	31.41				27.10	26.72	26.51				36.66
24	32.95	31.85				27.15	26.83	26.52				36.42
25	33.46	31.38				27.26	26.63	26.35				36.87
26	33.00	31.03				27.42	26.72	26.22				36.73
27	33.31	31.52				27.34	26.67	26.13				36.90
28	33.21					27.41	26.58	26.12			36.27	36.79
29	32.68					27.53	26.62	26.20			36.17	36.51
30	32.64				------	27.48	26.67	25.89			36.37	36.39
31	32.52	------			------	27.67	------	25.85	------		36.32	------
MEAN	33.64						27.16	26.37				36.80
MAX	34.82						28.25	27.15				37.68
MIN	32.52						26.58	25.85				36.26

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36.30	34.31	33.78	31.66		27.57	28.81	31.58	33.58	37.31	39.72	37.87
2	35.85	34.39	33.65	31.51		27.48	29.01	31.90	33.87	37.61	39.75	37.86
3	35.97	34.43	33.59	31.48		27.45	29.20	32.21	33.91	37.77	39.77	37.93
4	36.23	34.51	32.68	31.45		27.39	29.31	32.12	34.01	37.76	39.69	37.52
5	35.58	34.44	33.35	31.37		27.32	29.45	31.98	34.18	38.23	39.72	37.42
6	35.84	34.44	33.38	31.28		27.24	29.68	32.04	34.40	38.50	39.20	37.42
7	35.69	34.25	33.33	31.28		27.17	29.95	31.95	34.44	38.78	39.31	37.34
8	35.63	34.50	33.27	31.10		27.11	30.25	32.01	34.42	38.59	39.43	37.40
9	35.50	34.50	32.92	31.11		27.07	30.41	31.95	34.45	38.79	39.47	37.25
10	35.67	34.35	32.91	31.12		27.01	30.68	32.20	34.54	39.01	39.46	37.09
11	35.41	34.29	32.72	31.12		26.96	30.86	32.34	34.46	39.13	39.41	37.04
12	35.63	34.69	32.37	30.99		26.89	30.93	32.46	34.58	39.21	39.27	36.97
13	35.31	34.20	32.44	30.98	28.55	26.83	31.14	32.52	34.68	39.16	39.91	36.96
14	35.30	34.26	32.61	30.90	28.45	26.79	31.20	32.57	34.81	39.47	39.27	36.66
15	35.21	34.41	32.46	30.80	28.37	26.77	31.20	32.65	34.87	39.46	39.24	36.76
16	34.93	34.35	32.40	30.77	28.30	26.69	31.31	32.56	34.96	39.46	39.13	36.78
17	34.93	34.05	32.21	30.73	28.21	26.65	31.46	32.72	35.18	39.61	38.87	36.98
18	34.92	34.28	32.21	30.58	28.13	26.59	31.60	32.68	35.34	39.57	39.05	36.73
19	34.75	34.27	32.11	30.55	28.09	26.56	31.40	32.70	35.49	39.61	39.14	36.56
20	34.88	34.17	32.06	30.44	28.02	26.61	31.40	32.78	35.47	39.74	39.07	36.51
21	34.66	34.05	32.02	30.38	27.94	26.93	31.60	32.82	35.74	39.77	38.90	36.40
22	34.67	34.13	31.99	30.29	27.87	28.11	31.77	32.84	35.67	39.57	38.87	36.06
23	34.35	34.03	32.00	30.25	27.83	29.50	32.00	32.90	35.74	39.84	38.81	36.49
24	34.64	34.05	32.01		27.80	29.72	32.04	32.68	35.92	39.87	38.75	36.27
25	34.62	34.16	32.02		27.79	29.23	31.82	32.72	36.62	39.96	38.69	36.02
26	33.76	34.01	31.93		27.73	28.95	32.43	32.70	36.11	39.35	38.47	36.16
27	33.95	33.86	31.86		27.63	28.82	31.62	32.67	36.17	39.77	38.39	36.24
28	34.50	33.81	31.82		27.59	28.71	31.74	32.85	36.53	39.89	38.37	36.12
29	34.24	33.94	31.72		------	28.71	31.90	33.52	36.62	39.85	38.00	36.00
30	34.44	33.81	31.71		------	28.71	31.65	33.50	37.11	39.52	37.94	36.29
31	34.34	------	31.65		------	28.77	------	33.36	------	39.76	37.86	------
MEAN	35.09	34.23	32.49			27.62	30.93	32.53	35.13	39.16	39.06	36.84
MAX	36.30	34.69	33.78			29.72	32.43	33.52	37.11	39.96	39.91	37.93
MIN	33.76	33.81	31.65			26.56	28.81	31.58	33.58	37.31	37.86	36.[illegible]

06331650 Missouri River Stage Gage No. 11 near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.95			29.45					29.55	35.14	38.14	36.72
2	36.14			29.47					29.78	35.44	38.16	36.51
3	35.55			29.46					30.01	35.89	38.25	36.61
4	35.54			29.36					30.13	36.28	38.20	36.65
5	35.61			29.31					30.22	36.47	38.21	36.58
6	35.26			29.27				26.82	30.34	36.59	38.23	36.48
7	35.09			29.20				26.96	30.57	36.61	38.17	36.38
8	35.32			29.14				27.19	30.58	36.90	38.21	36.52
9	35.17			29.24				27.28	30.90		38.00	
10	35.17			29.10				27.58	30.86		38.11	33.35
11	35.16			28.94				28.10	31.29		38.07	
12	35.04			28.84				27.86	31.96		38.00	
13	34.84			28.81				27.89	32.19		38.01	
14	34.64			28.72				27.87	32.53		37.69	
15	34.81			28.57				27.82	32.47		37.48	
16	34.60			28.48				27.94	32.57		37.86	
17	34.59			28.43				27.88	32.63	37.96	37.77	
18	34.51							27.97	33.02	37.92	37.49	
19	34.51							28.31	33.18	38.02	37.40	
20	34.58							28.26	33.26	38.11	37.52	
21	34.38							28.14	33.40	38.13	37.23	35.74
22								28.17	33.62	37.97	37.27	36.28
23								28.29	33.45	37.81	37.30	36.36
24								28.15	34.08	37.93	37.32	36.25
25								28.36	33.94	38.14	37.23	36.04
26								28.86	34.40	38.14	37.16	36.12
27								28.89	34.60	38.21	36.95	36.22
28								28.83	34.41	38.28	37.12	36.28
29				27.63	------			28.90	35.34		36.80	36.19
30					------			29.10	35.02	38.17	36.91	36.20
31		------			------		------	29.23	------	38.17	36.86	------
MEAN									32.34		37.65	
MAX									35.34		38.25	
MIN									29.55		36.80	

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1971

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.89	34.65					32.92					36.60
2	35.74	34.72					33.14					36.41
3	36.18	34.68					33.29					36.32
4	36.12	34.55				30.21	33.39					36.54
5	36.08	34.62				30.20	33.50					36.58
6	35.65	34.49				30.19	33.59					36.79
7	35.84	34.48				30.20	33.71					36.56
8	35.98	34.45				30.28	33.53					36.72
9	35.86	34.45				30.22	33.63					36.71
10	35.75	34.39				30.25	33.60					36.71
11	35.74	34.46				30.25						36.79
12	35.66	34.57				30.27	33.60	32.37				36.33
13	35.67	34.58				30.30	33.64					36.49
14	35.48					30.44	33.67					36.12
15	35.57					30.72	33.60					36.06
16	35.49					31.03	33.39					36.30
17	35.43					31.27	33.93					36.32
18	35.60					31.38						36.29
19	35.50					31.45						36.30
20	35.42					31.51						36.28
21	35.43					31.52						36.19
22	35.41					31.57						36.19
23	35.36					31.64			36.90			36.22
24	35.38					31.70			37.06			36.28
25	34.99					31.67					37.27	36.18
26	35.10					31.72					37.19	36.00
27	34.95					31.77					37.10	36.03
28	34.83					31.90					36.98	35.90
29	34.70				------	32.06					37.12	36.16
30	34.84				------	32.43					37.16	35.94
31	34.70	------			------	32.79	------		------		36.92	------
MEAN	35.49											36.34
MAX	36.18											36.79
MIN	34.70											35.90

06331650 Missouri River Stage Gage No. 11 near Williston, N. Dak.--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35.82	35.97						35.85	35.45	38.33	38.47	38.01
2	35.93	35.69						35.78	35.39	38.40	38.54	38.05
3	35.56	35.48						35.79	35.47	38.48	38.49	38.00
4	35.90	35.91						35.82	35.50	38.53	38.44	37.85
5	35.94	35.07						35.55	35.58	38.60	38.36	38.00
6	36.19	34.64					37.05	35.70	35.70	38.50	38.38	37.87
7	36.01	35.71					37.05	35.68	35.89	38.60	38.11	37.83
8	35.78	35.74					37.00	35.58	36.05	38.53	38.32	37.95
9	36.16	35.62					36.93	35.50	36.41	38.70	38.40	37.95
10	36.12	35.59					36.95	35.58	36.55	38.41	38.32	37.64
11	36.30	35.57					37.10	35.38	36.28	38.50	38.31	37.83
12	35.96						37.05	35.28	36.30	38.46	38.32	37.84
13	36.10						36.95	35.31	36.34	38.32	38.43	37.65
14	35.88						36.95	35.29	36.41	38.25	38.44	37.63
15	36.11						36.88	35.30	37.11	38.31	38.26	37.66
16	36.41						37.00	35.30	37.40	38.29	38.20	37.35
17	36.03						36.90	35.44	37.50	38.30	38.10	37.74
18	36.03						36.75	35.30	37.43	38.52	38.14	37.81
19	35.60						36.75	35.40	37.48	38.46	38.20	37.63
20	36.12						36.75	35.20	37.70	38.41	38.00	36.45
21	36.08						36.73	35.28	37.90	38.51	37.99	37.49
22	36.18						36.50	35.15	38.05	38.35	38.10	37.41
23	36.30						36.40	35.17	38.40	38.38	38.12	37.61
24	36.29						36.55	35.33	38.26	38.60	38.04	37.28
25	36.12						36.50	35.48	38.22	38.82	38.05	37.60
26	36.14						36.30	35.38	38.12	38.60	38.09	37.50
27	35.54						36.28	35.52	38.25	38.70	38.00	37.40
28	35.71						36.22	35.57	38.33	38.55	38.11	37.00
29	36.01						36.18	35.56	38.38	38.55	38.17	37.18
30	36.09				------		36.05	35.67	38.49	38.59	37.95	37.21
31	35.70	------			------		------	35.60	------	38.58	37.65	------
MEAN	36.01							35.48	37.01	38.49	38.21	37.61
MAX	36.41							35.85	38.49	38.82	38.54	38.05
MIN	35.56							35.15	35.39	38.25	37.65	36.45

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37.29	36.71				32.24	32.80	32.84	34.93	38.17	38.34	
2	37.30	36.72				32.35	32.70	32.75	34.95	37.99	38.29	
3	37.32	36.60				32.31	32.65	33.04	34.53	38.46	38.25	
4	37.42	36.78				32.54	32.60	33.06	34.60	38.62	38.21	
5	37.32	36.61				32.41	32.52	33.07	35.15	38.67	38.32	
6	37.25	36.46				32.49	32.51	32.93	35.48	38.77	37.93	
7	37.16	36.61			32.70	32.67	32.45	32.92		38.50	38.02	
8	37.37	36.48			32.70	32.66	32.50	33.06		38.82	37.65	
9	37.40	36.38			32.70	32.67	32.45	32.92		38.82	37.35	
10	37.10	36.22			32.72	32.73	32.40	33.12		38.87	37.35	
11	37.09				32.60		32.35			38.77	37.28	
12	37.15				32.57		32.45			38.47	37.15	
13	37.05	36.55			32.52		32.38			38.52	37.20	35.71
14	37.01				32.50		31.93	33.41		38.71	37.18	36.12
15	36.98				32.50		32.13	33.40		38.82	37.20	36.21
16	36.88				32.50		32.23	33.43		38.65	37.17	36.15
17	37.10				32.35		32.18			38.55	37.15	36.09
18	37.07				32.30		32.19			38.54	36.97	36.18
19	37.04				32.30		32.44			38.61	36.91	36.29
20	37.02				32.30		32.51			38.65	37.28	
21	37.02				32.30		31.73		37.70	38.68		36.00
22	37.09				32.28	32.65	32.15		37.84	38.69		36.08
23	37.10				32.20	32.86	32.48		38.04	38.55		
24	36.82				32.20	32.85	32.53	33.70	38.03	38.27		36.03
25	36.83				32.25	32.93	32.48	34.02	37.85	38.28		36.01
26	36.90				32.22	32.94	32.51	34.01		38.25		36.02
27	36.78				32.19	32.95	32.76	34.17	38.00	38.31		36.07
28	37.14				32.20	32.96	32.53	34.20	38.17	38.28		36.06
29	36.92				------	32.89	32.62	34.43	38.32	38.18		36.10
30	36.68				------	32.85	32.88	34.56	38.34	38.32		36.12
31	36.69	------			------	32.86	------	34.89	------	38.39		------
MEAN	37.07						32.44			38.52		
MAX	37.43						32.88			38.87		
MIN	36.68						31.73			37.99		

06332000 White Earth River at White Earth, N. Dak.

LOCATION.--Lat 48°22'35", long 102°46'00", in SE¼SW¼ sec.36, T.157 N., R.94 W., Mountrail County, 35 ft (10.7 m) upstream from bridge on county highway, 0.2 mi (0.3 km) east of White Earth.

DRAINAGE AREA.--780 mi^2 (2,020 km^2), approximately, of which about 290 mi^2 (751 km^2) is probably noncontributing.

PERIOD OF RECORD.--August 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,070.00 ft (630.936 m) above mean sea level. Prior to Oct. 25, 1959, nonrecording gages at site 0.2 mi (0.3 km) upstream at datum 1.64 ft (0.500 m) higher.

AVERAGE DISCHARGE.--19 years, 21.4 ft^3/s (0.606 m^3/s), 15,500 acre-ft/yr (19.11 hm^3/yr); median of yearly mean discharges, 14 ft^3/s (0.396 m^3/s), 10,100 acre-ft/yr (12.5 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 217 ft^3/s (6.145 m^3/s) Mar. 2, gage height, 6.55 ft (1.996 m), backwater from ice; minimum, 0.21 ft^3/s (0.006 m^3/s) Aug.20, gage height, 0.37 ft (0.113 m).
Period of record: Maximum discharge, 2,370 ft^3/s (67.1 m^3/s) Mar. 16, 1972, gage height, 18.19 ft (5.544 m); no flow at times in some years.
Flood of 1929 reached a stage of 21.8 ft (6.64 m) former site and datum, from information by local residents.

REMARKS.--Records fair. Flow regulated by White Earth Reservoir 12 mi (19 km) upstream beginning August 1970, capacity, 1,600 acre-ft (1.97 hm^3). Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 2117: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	14	4.5	1.2	2.0	11	32	24	3.5	2.6	1.1	.95
2	18	14	4.0	1.1	2.0	60	30	22	3.2	2.8	.82	1.7
3	17	13	3.5	1.0	2.0	155	28	21	21	2.6	.45	3.5
4	17	13	3.0	1.0	2.0	107	27	20	23	2.5	.45	11
5	16	13	2.4	.98	1.8	70	27	19	24	2.3	.70	7.0
6	15	13	1.8	.98	1.5	52	25	19	31	2.4	.95	4.6
7	14	12	1.4	.96	1.7	57	23	18	47	2.3	.82	3.4
8	14	12	1.3	.96	1.7	60	22	18	55	2.0	1.2	2.9
9	13	11	1.2	.94	1.5	85	21	18	50	2.0	1.6	3.2
10	13	10	1.1	.94	1.4	135	21	17	44	2.0	1.3	3.5
11	13	9.5	1.1	.96	1.4	138	20	17	36	2.1	1.1	3.1
12	12	9.0	1.1	.96	1.4	121	19	16	28	2.3	1.1	2.9
13	12	8.5	1.2	1.0	1.6	109	18	15	23	2.1	.82	3.1
14	12	8.5	1.2	1.6	1.4	107	18	15	20	2.2	.58	3.4
15	11	8.5	1.3	1.5	1.6	102	18	14	17	2.1	.70	3.4
16	11	8.0	1.3	1.5	1.9	95	17	14	15	2.0	.45	3.4
17	11	8.0	1.3	1.5	2.1	92	16	13	13	2.1	.58	3.5
18	11	7.5	1.4	1.4	1.9	82	17	13	13	2.0	.45	3.4
19	11	7.5	1.4	1.4	1.7	69	25	13	16	1.8	.45	3.4
20	9.8	7.0	1.5	1.4	1.8	65	33	13	15	1.6	.35	4.1
21	11	7.0	1.5	1.4	1.7	62	36	13	12	1.4	.45	4.2
22	11	7.0	1.6	1.5	2.5	64	29	13	10	1.4	.70	4.2
23	11	6.5	1.6	1.7	5.3	59	28	15	9.5	1.5	1.1	4.2
24	11	6.5	1.5	1.7	18	57	28	15	8.8	1.9	1.1	14
25	11	6.0	1.5	1.7	16	56	28	14	8.2	2.1	7.0	11
26	10	5.5	1.5	1.8	10	52	27	14	8.2	2.1	5.9	5.2
27	10	5.0	1.4	1.7	3.6	49	25	15	8.0	2.1	2.9	3.4
28	10	5.0	1.3	1.8	2.6	41	23	13	7.1	2.0	1.9	2.8
29	12	5.0	1.3	1.9	------	39	27	13	4.1	2.0	1.2	2.5
30	13	4.5	1.2	1.9	------	36	26	15	2.3	1.6	1.1	1.9
31	14	------	1.2	2.0	------	35	------	7.0	------	1.3	.95	------
TOTAL	393.8	265.0	52.6	42.38	94.1	2,322	734	486.0	575.9	63.2	40.27	128.85
MEAN	12.7	8.83	1.70	1.37	3.36	74.9	24.5	15.7	19.2	2.04	1.30	4.30
MAX	19	14	4.5	2.0	18	155	36	24	55	2.8	7.0	14
MIN	9.8	4.5	1.1	.94	1.4	11	16	7.0	2.3	1.3	.35	.95
AC-FT	781	526	104	84	187	4,610	1,460	964	1,140	125	80	256

CAL YR 1972 TOTAL 25,100.74 MEAN 68.6 MAX 1,760 MIN 0 AC-FT 49,790
WTR YR 1973 TOTAL 5,198.10 MEAN 14.2 MAX 155 MIN .35 AC-FT 10,310

06332515 Bear Den Creek near Mandaree, N. Dak.
(Hydrologic bench-mark station)

LOCATION.--Lat 47°47'14", long 102°46'05", in NW¼ sec.30, T.150 N., R.94 W., McKenzie County, on right bank 0.5 mi (0.8 km) upstream from county highway culvert and 5.5 mi (9 km) northwest of Mandaree.

DRAINAGE AREA.--74 mi^2 (192 km^2).

PERIOD OF RECORD.--June 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,947.58 ft (593.622 m) above mean sea level.

AVERAGE DISCHARGE.--7 years, 8.96 ft^3/s (0.254 m^3/s), 6,490 acre-ft/yr (8.002 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 500 ft^3/s (14.2 m^3/s) Mar. 2, gage height,6.06 ft (1.847 m), backwater from ice; minimum, 0.06 ft^3/s (0.002 m^3/s) July 5, 6, 8-15, gage height, 2.15 ft (0.655 m).
Period of record: Maximum discharge, 2,840 ft^3/s (80.4 m^3/s) Mar. 13, 1972, gage height, 9.02 ft (2.749 m); maximum gage height, 10.03 ft (3.057 m) Apr. 6, 1969; no flow for several months most years.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.43	.65	.37	.12	.18	90	.80	.80	.37	.29	.17	.12
2	.43	.61	.34	.12	.20	190	.86	.61	1.2	.25	.15	.25
3	.46	.65	.34	.11	.24	540	.80	.61	16	.15	.14	2.6
4	.49	.65	.31	.11	.28	270	.80	.89	15	.13	.12	5.2
5	.53	.65	.29	.10	.32	170	.80	11	7.6	.07	.12	9.0
6	.57	.70	.27	.10	.35	80	.75	6.5	2.7	.06	.11	13
7	.57	.75	.25	.10	.35	80	.70	2.2	1.4	.15	.11	12
8	.57	.80	.20	.10	.35	75	.75	1.1	1.1	.07	.14	12
9	.53	.61	.15	.10	.30	90	.86	1.2	.80	.06	.18	10
10	.49	.61	.12	.09	.25	220	.75	.86	.70	.06	.18	9.5
11	.49	.61	.10	.09	.20	120	.61	1.9	.86	.06	.16	8.5
12	.49	.57	.08	.09	.18	40	.61	1.2	1.1	.06	.15	7.5
13	.57	.53	.08	.09	.16	10	.61	.61	1.3	.06	.15	6.8
14	.61	.46	.08	.10	.14	7.0	.57	.61	1.3	.06	.14	6.4
15	.61	.46	.08	.11	.10	6.0	.53	.57	1.4	.07	.14	6.0
16	.65	.43	.08	.13	.10	5.5	.57	.53	1.7	.09	.12	5.6
17	.65	.43	.08	.17	.10	5.5	.57	.49	2.8	.09	.12	5.2
18	.65	.43	.08	.25	.10	5.0	1.0	.61	52	.09	.11	.50
19	.65	.40	.08	.25	.10	5.0	7.3	.61	47	.09	.10	4.8
20	.61	.40	.10	.25	.10	5.0	11	.57	24	.13	.10	4.6
21	.43	.40	.12	.25	.15	5.0	7.5	.65	12	.15	.09	4.4
22	.43	.37	.14	.25	.25	4.9	5.4	.57	6.2	.17	.08	4.4
23	.43	.40	.16	.20	45	4.5	1.8	.53	3.0	1.0	.08	4.4
24	.43	.40	.17	.18	60	3.8	1.2	.49	.86	.61	.17	4.5
25	.46	.40	.17	.18	50	3.2	1.1	.37	.57	.57	.23	4.7
26	.49	.43	.15	.18	25	3.0	.80	1.3	.34	.61	.19	.95
27	.49	.40	.14	.22	30	2.3	.75	1.8	.25	.57	.17	.31
28	.43	.40	.13	.22	55	1.8	.61	.86	.17	.57	.17	.15
29	.46	.34	.13	.20	------	1.1	.75	.70	.11	.65	.15	.09
30	.46	.37	.13	.18	------	.75	.75	.62	.15	.57	.14	.07
31	1.0	------	.13	.18	------	.70	------	.40	------	.17	.13	------
TOTAL	16.56	15.31	5.05	4.82	269.50	2,045.05	51.90	41.76	203.98	7.73	4.31	153.54
MEAN	.53	.51	.16	.16	9.63	66.0	1.73	1.35	6.80	.25	.14	5.12
MAX	1.0	.80	.37	.25	60	540	11	11	52	1.0	.23	13
MIN	.43	.34	.08	.09	.10	.70	.53	.37	.11	.06	.08	.07
AC-FT	33	30	10	9.6	535	4,060	103	83	405	15	8.5	305

CAL YR 1972 TOTAL 7,213.06 MEAN 19.7 MAX 1,110 MIN 0 AC-FT 14,310
WTR YR 1973 TOTAL 2,819.51 MEAN 7.72 MAX 540 MIN .06 AC-FT 5,590

PEAK DISCHARGE (BASE, 100 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
3- 2	--	--	500	6-18	1700	3.60	118
3-10	--	--	300				

06332520 Shell Creek near Parshall, N. Dak.

LOCATION.--Lat 48°03'11", long 102°08'10", in SE¼NE¼ sec.29, T.153 N., R.89 W., Mountrail County, on left bank 800 ft (244 m) downstream from bridge on county highway 6 mi (10 km) northwest of Parshall.

DRAINAGE AREA.--465 mi^2 (1,204 km^2).

PERIOD OF RECORD.--August 1965 to current year.

GAGE.--Water-stage recorder.

AVERAGE DISCHARGE.--8 years, 11.5 ft^3/s (0.326 m^3/s), 8,330 acre-ft/yr (10.3 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 196 ft^3/s (5.55 m^3/s) June 3, gage height, 4.58 ft (1.396 m); maximum gage height, 4.69 ft (1.430 m) Mar. 3, backwater from ice; no flow Jan. 5 to Feb. 24.
Period of record: Maximum discharge, 2,270 ft^3/s (64.3 m^3/s) Apr. 6, 1969, gage height, 7.60 ft (2.316 m); no flow at times each year.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	5.6	3.0	.06	0	20	12	12	2.3	11	2.4	3.1
2	5.3	5.5	2.8	.05	0	30	11	11	3.8	10	2.4	2.7
3	5.3	5.5	2.5	.03	0	40	11	9.8	104	8.8	2.5	3.8
4	5.1	5.5	2.0	.01	0	40	10	9.4	74	6.7	2.5	5.4
5	5.0	5.5	1.5	0	0	35	9.8	9.8	31	6.9	2.4	4.8
6	5.0	5.5	1.0	0	0	25	9.4	8.8	18	5.8	2.5	3.5
7	5.0	5.4	.80	0	0	24	9.2	7.7	13	5.3	2.3	2.8
8	5.1	5.4	.60	0	0	23	8.6	7.3	11	4.4	2.7	2.6
9	5.3	5.3	.40	0	0	46	7.7	7.1	9.6	4.2	2.8	2.7
10	5.4	5.2	.20	0	0	95	7.1	7.1	8.1	3.7	2.4	2.6
11	5.4	5.0	.10	0	0	91	6.5	6.7	7.3	3.7	2.6	2.3
12	5.0	4.6	.10	0	0	60	6.0	6.7	6.5	3.3	2.8	2.2
13	5.0	4.4	.10	0	0	49	5.8	6.4	5.8	3.2	2.5	2.2
14	4.9	4.0	.10	0	0	53	5.8	6.2	5.0	3.1	2.4	2.2
15	4.9	4.0	.10	0	0	28	5.3	6.0	4.2	3.0	2.2	2.2
16	4.9	3.9	.10	0	0	29	5.0	5.6	3.7	3.0	2.2	2.2
17	4.8	3.8	.10	0	0	23	4.5	5.6	3.4	2.7	2.0	2.4
18	4.8	3.8	.10	0	0	26	5.9	5.1	79	2.5	2.0	2.4
19	4.8	3.7	.10	0	0	21	19	5.0	141	2.5	2.1	2.3
20	4.8	3.7	.15	0	0	19	21	5.0	112	2.5	2.0	2.5
21	4.8	3.6	.20	0	0	22	17	4.8	71	2.3	1.9	2.8
22	4.8	3.6	.20	0	0	22	15	4.7	49	2.3	1.9	2.8
23	4.8	3.6	.20	0	0	18	15	4.5	46	2.7	1.9	2.7
24	4.8	3.7	.15	0	0	19	15	4.7	41	2.8	2.0	3.3
25	4.8	4.0	.15	0	.60	17	14	4.5	32	2.8	2.1	3.1
26	4.9	3.9	.20	0	.40	16	13	4.5	26	2.8	2.2	3.1
27	5.0	3.7	.20	0	7.0	15	12	5.1	20	2.6	2.4	2.9
28	5.1	3.6	.20	0	14	14	11	4.5	17	2.6	2.3	2.8
29	5.2	3.4	.15	0	------	13	13	3.7	14	2.7	2.0	2.6
30	5.4	3.2	.10	0	------	12	13	3.1	12	2.4	1.9	2.5
31	5.6	------	.08	0	------	12	------	2.5	------	2.4	1.9	------
TOTAL	156.1	131.6	17.68	.15	22.00	957	318.6	194.9	970.7	124.7	70.2	85.5
MEAN	5.04	4.39	.57	.005	.79	30.9	10.6	6.29	32.4	4.02	2.26	2.85
MAX	5.6	5.6	3.0	.06	14	95	21	12	141	11	2.8	5.4
MIN	4.8	3.2	.08	0	0	12	4.5	2.5	2.3	2.3	1.9	2.2
AC-FT	310	261	35	.3	44	1,900	632	387	1,930	247	139	170

CAL YR 1972 TOTAL 8,861.44 MEAN 24.2 MAX 730 MIN 0 AC-FT 17,580
WTR YR 1973 TOTAL 3,049.13 MEAN 8.35 MAX 141 MIN 0 AC-FT 6,050

PEAK DISCHARGE (BASE, 150 FT^3/S).--JUNE 3 (0730) 196 FT^3/S (4.58 FT); JUNE 19 (0100) 156 FT^3/S (4.37 FT).

06334500 Little Missouri River at Camp Crook, S. Dak.

LOCATION.--Lat 45°32'49", long 103°58'23", in SW¼ sec.2, T.18 N., R.1 E., Harding County, on left bank 15 ft (5 m) upstream from bridge on State Highway 20 at east edge of Camp Crook.

DRAINAGE AREA.--1,970 mi^2 (5,100 km^2), approximately.

PERIOD OF RECORD.--September 1903 to November 1906, May 1956 to current year. Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 3,110.98 ft (948.227 m) above mean sea level. Prior to Nov. 30, 1906, nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum. May 1956 to Oct. 8, 1957, nonrecording gage at site 15 ft (5 m) downstream at present datum.

AVERAGE DISCHARGE.--20 years, 139 cfs (3.936 m^3/s), 100,700 acre-ft/yr (124 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,790 cfs (50.7 m^3/s) June 21, gage height, 6.63 ft (2.021 m); minimum daily, 0.22 cfs (0.006 m^3/s) Aug. 19.
Period of record: Maximum discharge, 7,600 cfs (215 m^3/s) May 28, 1962, gage height, 13.07 ft (3.984 m); no flow at times.
Flood of 1952 reached a stage of about 16 ft (4.9 m), from information by local residents.

REMARKS.--Records good except those for winter periods, which are poor. Small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1309: 1904. WSP 1729: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	12	9.0	10	17	124	40	254	247	105	16	2.9
2	6.3	12	8.5	12	18	170	44	185	144	88	15	4.0
3	6.7	12	8.0	11	18	228	37	140	120	68	16	5.6
4	8.5	12	7.5	11	18	311	32	136	363	80	13	15
5	9.5	12	7.0	9.0	17	294	28	105	848	86	12	9.5
6	20	12	6.0	9.0	15	366	24	90	444	78	9.0	5.1
7	14	11	5.0	9.0	10	105	22	79	379	62	7.8	4.6
8	9.5	11	4.0	9.0	9.0	76	20	68	240	51	4.3	3.8
9	8.1	12	4.0	9.0	9.0	78	15	57	133	40	4.3	3.4
10	8.1	12	4.5	9.5	9.0	72	12	45	90	32	5.3	2.3
11	7.8	12	5.0	10	10	56	16	37	71	25	4.0	2.3
12	8.1	10	5.0	12	9.0	51	17	32	57	19	4.0	2.5
13	9.0	9.0	5.0	14	8.0	43	17	28	49	17	3.7	1.9
14	9.0	8.0	5.0	16	7.0	42	16	25	40	16	3.2	1.6
15	10	8.0	5.0	18	7.0	39	17	23	37	14	1.8	4.4
16	10	8.0	5.0	18	9.0	37	17	22	40	10	1.6	5.2
17	9.0	8.0	7.0	17	10	38	19	21	42	12	1.4	5.4
18	11	8.0	9.0	16	11	38	19	19	91	12	.67	3.5
19	9.5	8.0	9.0	14	12	32	24	17	125	14	.22	3.3
20	9.5	8.0	9.0	12	13	28	44	16	614	13	.83	2.1
21	9.5	8.5	10	12	15	31	45	15	1,670	12	1.2	2.0
22	9.0	9.0	15	12	17	36	470	13	1,270	11	.67	1.9
23	9.5	10	12	12	20	35	1,160	10	1,170	18	4.6	1.8
24	9.0	10	10	14	20	42	1,080	10	1,000	18	8.1	1.6
25	9.0	9.5	10	16	25	40	701	10	631	15	5.6	.73
26	9.0	9.5	11	15	40	44	401	35	340	104	4.3	.71
27	10	9.5	12	12	100	54	425	67	219	99	3.4	.94
28	10	9.0	11	10	110	49	474	266	170	54	2.9	1.0
29	11	9.0	10	14	------	47	454	536	140	34	2.9	1.2
30	10	9.0	9.5	18	------	40	356	494	127	23	2.6	1.5
31	12	------	9.5	18	------	35	------	369	------	18	2.3	------
TOTAL	298.3	298.0	247.5	398.5	583.0	2,681	6,046	3,224	10,911	1,248	162.69	101.78
MEAN	9.62	9.93	7.98	12.9	20.8	86.5	202	104	364	40.3	5.25	3.39
MAX	20	12	15	18	110	366	1,160	536	1,670	105	16	15
MIN	6.3	8.0	4.0	9.0	7.0	28	12	10	37	10	.22	.71
AC-FT	592	591	491	790	1,160	5,320	11,990	6,390	21,640	2,480	323	202

CAL YR 1972 TOTAL 82,081.65 MEAN 224 MAX 3,520 MIN .15 AC-FT 162,800
WTR YR 1973 TOTAL 26,199.77 MEAN 71.8 MAX 1,670 MIN .22 AC-FT 51,970

PEAK DISCHARGE (BASE, 1,000 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4-24	0030	5.09	1,200	6-21	1045	6.63	1,790
6- 5	0515	4.85	1,120				

06334630 Box Elder Creek near Webster, Mont.

LOCATION.--Lat 45°54'25", long 104°03'30", in NE¼ sec.30, T.2 N., R.62 E., Fallon County, on left bank at Wayne Cox Ranch, 0.5 mi (0.8 km) west of Montana-South Dakota State line, 2 mi (3.2 km) upstream from Coal Bank Creek, 17 mi (27 km) southeast of Webster, and 33 mi (53 km) southeast of Baker.

DRAINAGE AREA.--1,092 mi^2 (2,828 km^2).

PERIOD OF RECORD.--September 1959 to September 1973 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 2,950 ft (900 m), from topographic map. Prior to Nov. 8, 1960, nonrecording gage at site 300 ft (90 m) upstream at different datum.

AVERAGE DISCHARGE.--14 years, 89.1 ft^3/s (2.52 m^3/s), 64,550 acre-ft/yr (79.6 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,000 ft^3/s (28.3 m^3/s) June 23, gage height, 4.72 ft (1.439 m); minimum daily, 0.8 ft^3/s (0.023 m^3/s) Aug. 29.
Period of record: Maximum discharge, 7,340 ft^3/s (208 m^3/s) May 9, 1967, gage height, 10.26 ft (3.127 m); maximum gage height, 13.09 ft (3.990 m) Mar. 25, 1969, from floodmark (ice jam); no flow at times.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 14,000 acres (56.7 km^2) above station.

REVISIONS.--WSP 1729: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	8.5	10	5.8	12	155	8.5	74	162	81	8.5	6.9
2	4.7	10	10	5.9	12	120	7.0	79	152	72	4.7	22
3	4.2	15	8.0	6.4	14	97	5.5	106	216	69	3.3	87
4	4.2	12	6.4	6.0	15	87	5.5	81	276	63	3.3	63
5	27	10	4.8	5.8	11	77	4.7	67	331	56	2.3	27
6	51	10	3.6	5.4	8.6	67	4.7	61	334	45	2.3	15
7	21	10	2.8	5.2	7.8	77	4.7	47	343	36	2.3	4.7
8	15	10	2.3	5.0	7.6	70	4.7	43	205	33	2.3	2.6
9	10	10	2.2	4.8	7.8	60	7.0	35	124	32	2.3	4.2
10	8.5	10	2.3	4.7	8.6	38	5.5	32	87	32	2.3	4.7
11	7.0	8.0	2.4	4.6	8.8	32	4.7	30	70	27	2.6	4.7
12	7.0	8.8	2.5	5.6	8.6	28	4.2	25	60	19	2.9	4.7
13	7.0	10	2.7	8.4	8.0	27	4.2	22	51	19	2.6	4.2
14	7.0	8.5	2.8	25	7.4	25	3.7	22	45	19	2.6	4.2
15	7.0	7.0	3.1	22	6.8	24	3.3	22	40	16	2.6	43
16	7.0	5.5	3.4	24	7.6	24	3.3	18	35	13	2.6	56
17	7.0	5.5	4.0	15	8.6	21	3.3	18	38	10	2.3	25
18	7.0	5.5	4.4	13	7.8	19	3.3	4.7	79	13	2.3	12
19	7.0	5.5	5.0	10	7.2	16	31	3.3	198	15	2.3	5.5
20	5.5	5.5	5.5	9.6	8.0	16	147	3.3	403	18	2.3	5.5
21	5.5	8.5	6.4	9.2	9.4	13	186	3.7	612	18	2.3	4.2
22	5.5	7.0	6.0	9.4	10	12	171	4.7	825	66	2.3	3.7
23	5.5	6.8	5.9	11	9.8	10	210	5.5	984	30	4.2	4.2
24	7.0	6.6	7.2	14	9.6	18	279	4.7	920	19	4.7	2.9
25	7.0	6.0	7.0	12	13	24	268	7.4	629	19	4.7	2.9
26	7.0	6.2	8.6	10	19	16	251	62	276	15	4.7	3.3
27	13	6.0	8.0	9.6	23	12	260	157	171	12	2.8	2.9
28	12	5.8	7.4	10	50	12	205	161	126	4.7	1.6	2.9
29	15	6.2	6.8	12	------	12	152	319	101	2.9	.80	2.9
30	13	9.2	6.2	13	------	12	101	325	94	16	1.2	2.9
31	10	------	5.8	11	------	10	------	240	------	16	1.0	------
TOTAL	319.3	243.6	163.5	313.4	327.0	1,231	2,348.8	2,083.3	7,987	906.6	89.00	434.7
MEAN	10.3	8.12	5.27	10.1	11.7	39.7	78.3	67.2	266	29.2	2.87	14.5
MAX	51	15	10	25	50	155	279	325	984	81	8.5	87
MIN	4.2	5.5	2.2	4.6	6.8	10	3.3	3.3	35	2.9	.80	2.6
AC-FT	633	483	324	622	649	2,440	4,660	4,130	15,840	1,800	177	862

CAL YR 1972 TOTAL 51,957.70 MEAN 142 MAX 4,020 MIN 2.0 AC-FT 103,100
WTR YR 1973 TOTAL 16,447.20 MEAN 45.1 MAX 984 MIN .80 AC-FT 32,620

PEAK DISCHARGE (BASE, 1,000 FT^3/S).--JUNE 23 (1200) 1,000 FT^3/S (4.72 FT).

NOTE.--Stage-discharge relation affected by ice Nov. 23 to Mar. 11 (no gage height record Jan. 15-22).

06335000 Little Beaver Creek near Marmarth, N. Dak.

LOCATION.--Lat 46°16'29", long 103°58'33", in NE¼ sec.7, T.132 N., R.106 W., Bowman County, on right bank 150 ft (46 m) downstream from concreted ford, 0.8 mi (1.3 km) downstream from Corral Creek, 3 mi (5 km) southwest of Marmarth, and 5 mi (8 km) upstream from mouth.

DRAINAGE AREA.--587 mi^2 (1,520 km^2), approximately.

PERIOD OF RECORD.--April 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,733.14 ft (833.061 m) above mean sea level. June 28, 1951 to May 17, 1968, water-stage recorder 300 ft (91 m) upstream at datum 10.00 ft (3.048 m) higher. See WSP 1729 or 1917 for history of changes prior to June 28, 1951.

AVERAGE DISCHARGE.--35 years, 44.4 ft^3/s (1.257 m^3/s), 32,170 acre-ft/yr (39.7 hm^3/yr); median of yearly mean discharges, 31 ft^3/s (0.88 m^3/s), 22,500 acre-ft/yr (28 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 3,530 ft^3/s (100 m^3/s) June 19, gage height, 18.44 ft (5.621 m); minimum daily, 2.0 ft^3/s (0.057 m^3/s) Feb. 13-16.
Period of record: Maximum discharge, 12,700 ft^3/s (360 m^3/s) Apr. 6, 1952, gage height, 13.9 ft (4.24 m), from floodmark, site and datum then in use, from rating curve extended above 4,500 ft^3/s (127 m^3/s) on basis of slope-area measurement of peak flow; no flow at times in most years.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1279: 1939(M), 1940, 1943-44(M), 1945, 1948.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	6.7	5.2	2.5	45	120	16	45	44	37	6.4	6.4
2	6.4	7.3	4.0	2.5	40	110	14	40	77	32	5.5	12
3	6.4	7.8	3.2	2.5	35	80	14	35	272	29	5.5	1,730
4	6.4	7.0	3.6	2.5	30	65	14	31	161	28	4.6	450
5	8.3	7.0	4.0	2.5	25	55	12	28	116	25	4.6	118
6	16	6.7	4.0	2.5	15	40	14	24	78	22	5.5	74
7	22	6.7	4.0	2.5	9.0	45	15	13	65	18	5.2	40
8	12	7.0	3.8	2.5	7.0	40	16	16	55	16	6.1	18
9	8.3	6.7	3.6	2.5	6.0	36	15	16	42	15	6.7	13
10	7.3	6.4	3.8	2.5	5.0	34	14	14	31	14	7.8	11
11	6.7	7.3	3.8	2.5	4.0	40	14	12	23	11	6.7	10
12	6.7	6.1	2.5	2.5	3.0	38	13	12	19	9.8	7.0	9.8
13	6.4	7.0	2.8	2.5	2.0	36	12	10	16	9.3	6.4	8.8
14	6.1	6.4	2.9	2.5	2.0	28	12	9.3	13	8.8	6.4	9.3
15	8.8	6.7	2.4	10	2.0	27	12	8.3	12	8.8	6.4	20
16	5.8	7.0	2.3	70	2.0	29	11	7.3	15	8.3	5.8	46
17	5.8	6.7	2.1	190	3.5	27	11	7.0	21	7.8	5.5	25
18	5.8	6.4	2.3	150	5.0	25	10	6.7	828	7.3	5.2	16
19	5.8	6.4	2.5	125	10	23	45	6.1	2,050	6.4	4.9	13
20	5.8	6.4	3.0	100	20	22	906	5.8	957	6.4	5.2	11
21	6.1	6.4	3.0	70	30	18	457	6.1	362	6.4	5.5	10
22	6.1	5.2	3.5	65	90	22	230	5.8	175	54	7.5	9.3
23	6.1	5.2	3.5	50	150	30	140	5.5	124	490	10	8.8
24	6.1	5.8	3.5	45	125	23	100	5.5	100	29	8.3	23
25	6.1	11	3.5	100	90	23	84	5.5	80	12	7.8	18
26	6.1	6.4	4.0	125	100	22	84	12	67	10	7.0	10
27	6.4	7.8	4.0	90	150	20	68	279	58	9.3	6.4	8.3
28	6.4	9.5	3.5	75	125	18	62	141	50	7.8	6.1	7.3
29	6.7	5.2	3.0	65	------	18	57	100	43	7.0	6.1	7.8
30	6.7	4.9	3.0	65	------	16	50	67	40	7.0	5.8	7.0
31	6.4	------	3.0	55	------	16	------	51	------	6.7	5.8	------
TOTAL	232.7	203.1	103.3	1,485.0	1,130.5	1,146	2,522	1,024.9	5,994	959.1	193.7	2,750.8
MEAN	7.51	6.77	3.33	47.9	40.4	37.0	84.1	33.1	200	30.9	6.25	91.7
MAX	22	11	5.2	190	150	120	906	279	2,050	490	10	1,730
MIN	5.8	4.9	2.1	2.5	2.0	16	10	5.5	12	6.4	4.6	6.4
AC-FT	462	403	205	2,950	2,240	2,270	5,000	2,030	11,890	1,900	384	5,460

CAL YR 1972 TOTAL 37,503.1 MEAN 102 MAX 3,900 MIN 2.1 AC-FT 74,390
WTR YR 1973 TOTAL 17,745.1 MEAN 48.6 MAX 2,050 MIN 2.0 AC-FT 35,200

PEAK DISCHARGE (BASE, 2,000 FT^3/S).--JUNE 19 (0200) 3,530 FT^3/S (18.44 FT); SEPT. 3 (1300) 3,250 FT^3/S (18.17 FT).

06335500 Little Missouri River at Marmarth, N. Dak.

LOCATION.--Lat 46°17'44", long 103°55'06", in SW¼ sec.30, T.133 N., R.105 W., Slope County, on left bank 90 ft (27.4 m) downstream from bridge on U.S. Highway 12 in Marmarth and 1.5 mi (2.4 km) downstream from Little Beaver Creek.

DRAINAGE AREA.--4,640 mi^2 (12,020 km^2), approximately.

PERIOD OF RECORD.--March 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,686.32 ft (818.790 m) above mean sea level. Prior to June 23, 1950, various nonrecording gages on former highway bridge at present site and datum. June 23, 1950, to Sept. 2, 1957, nonrecording gage at site 90 ft (27.4 m) upstream at present datum.

AVERAGE DISCHARGE.--35 years, 340 ft^3/s (9.629 m^3/s), 246,300 acre-ft/yr (303.7 hm^3/yr); median of yearly mean discharges, 280 ft^3/s (7.93 m^3/s), 203,000 acre-ft/yr (250 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 5,660 ft^3/s (160 m^3/s) June 19, gage height, 7.84 ft (2.390 m); maximum gage height, 8.52 ft (2.597 m) Jan. 18, backwater from ice; minimum discharge, 7.2 ft^3/s (0.20 m^3/s) Aug. 19, gage height 1.51 ft (0.460 m).
Period of record: Maximum discharge, 45,000 ft^3/s (1,270 m^3/s) Mar. 23, 1947, gage height, 21.7 ft (6.61 m); maximum gage height, 23.4 ft (7.13 m) Mar. 31, 1952, backwater from ice; no flow for part of most years.
According to local residents, the greatest known flood prior to 1953 occurred in June 1907 (stage unknown). Other major floods occurred in March 1913, May 1929, and March 1920 and reached stages of about 21.5 ft (6.55 m), 20.2 ft (6.16 m), and 19.7 ft (6.00 m), respectively. These stages are not comparable to stages during period of record, owing to construction of levees.

REMARKS.--Records fair. Small diversions for irrigation above station. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 896: 1938-39. WSP 1086: 1943-44. WSP 1279: 1943(M), 1945-46, 1948. WSP 1439: 1950 (calendar year figures).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	40	24	150	180	450	95	662	834	320	79	105
2	33	40	23	130	110	430	88	566	684	283	70	89
3	31	44	21	110	100	410	80	426	1,020	245	51	2,160
4	31	62	19	70	90	400	77	388	818	211	37	1,450
5	40	68	17	30	100	390	81	330	650	181	31	436
6	73	65	15	16	70	470	87	265	754	148	28	203
7	128	58	13	12	50	450	86	236	1,180	134	38	120
8	86	48	12	10	40	502	83	190	929	124	33	81
9	76	42	11	9.0	40	507	77	163	716	111	30	59
10	48	42	10	9.0	35	539	70	141	477	91	27	42
11	42	42	9.5	10	35	533	68	118	318	76	27	33
12	38	33	9.0	12	35	658	63	96	223	68	23	27
13	37	33	9.0	12	30	632	59	86	161	55	19	21
14	35	26	8.5	12	30	503	52	74	122	48	18	47
15	33	25	8.5	15	30	401	51	61	100	42	16	66
16	33	25	8.5	170	25	346	51	50	96	38	14	107
17	31	24	8.0	710	25	161	51	44	94	33	12	192
18	31	24	9.0	890	30	126	50	37	975	30	10	98
19	27	23	10	770	45	109	117	35	4,130	27	8.2	64
20	27	23	20	650	70	93	2,230	33	1,910	23	9.6	46
21	27	22	50	470	90	89	1,630	27	1,190	24	9.6	32
22	27	22	70	450	200	82	929	25	1,650	44	10	28
23	27	23	75	430	530	90	572	26	2,770	614	24	29
24	27	23	80	420	830	97	698	23	2,540	288	17	27
25	27	24	85	470	470	135	1,370	24	2,310	124	16	28
26	27	26	100	530	360	141	1,260	103	1,680	76	15	20
27	28	27	180	420	530	118	942	782	1,020	62	15	18
28	40	26	170	340	470	101	776	858	680	53	13	17
29	58	25	200	270	------	96	728	798	500	68	13	15
30	37	25	180	250	------	101	734	755	382	128	12	14
31	40	------	170	220	------	98	------	903	------	98	11	------
TOTAL	1,280	1,030	1,625.0	8,067.0	4,650	9,258	13,255	8,325	30,913	3,867	736.4	5,674
MEAN	41.3	34.3	52.4	260	166	299	442	269	1,030	125	23.8	189
MAX	128	68	200	890	830	658	2,230	903	4,130	614	79	2,160
MIN	27	22	8.0	9.0	25	82	50	23	94	23	8.2	14
AC-FT	2,540	2,040	3,220	16,000	9,220	18,360	26,290	16,510	61,320	7,670	1,460	11,250

CAL YR 1972 TOTAL 217,616.0 MEAN 595 MAX 14,000 MIN 1.6 AC-FT 431,600
WTR YR 1973 TOTAL 88,680.4 MEAN 243 MAX 4,130 MIN 8.0 AC-FT 175,900

PEAK DISCHARGE (BASE, 3,000 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
4-20	1130	6.44	3,660	9- 3	2000	6.61	3,890
6-19	0745	7.84	5,660				

06336000 Little Missouri River at Medora, N. Dak.

LOCATION.--Lat 46°55'10", long 103°31'40", in NE¼ sec.27, T.140 N., R.102 W., Billings County, on left bank 600 ft (183 m) downstream from bridge on county highway and 1 mi (1.6 km) upstream from Andrews Creek and bridge on I-94.

DRAINAGE AREA.--6,190 mi^2 (16,030 km^2), approximately.

PERIOD OF RECORD.--May 1903 to October 1908, October to November 1921, March to June and November to December 1922, May 1923 to September 1924, September 1928 to September 1934, October 1945 to current year. Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder, and supplemental nonrecording gage on downstream side of highway bridge. Datum of gage is 2,246.75 ft (684.809 m) above mean sea level. Prior to Oct. 9, 1945, nonrecording gages at several sites within 0.2 mi (0.3 km) upstream from present site at various datums. Oct. 9, 1945, to Aug. 22, 1951, nonrecording gage at site 600 ft (183 m) upstream at same datum.

AVERAGE DISCHARGE.--40 years (1903-08, 1923-24, 1928-34, 1945-73), 474 ft^3/s (13.42 m^3/s) 343,400 acre-ft/yr (423.4 hm^3/yr); median of yearly mean discharges, 420 ft^3/s (11.9 m^3/s) 304,000 acre-ft/yr (375 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 3,820 ft^3/s (108 m^3/s) June 20, gage height, 5.72 ft (1.744 m); maximum gage height, 7.7 ft (2.35 m) Mar. 1, backwater from ice; minimum daily discharge, 6.0 ft^3/s (0.17 m^3/s) Dec. 17-19.
Period of record: Maximum discharge, 65,000 ft^3/s (1,841 m^3/s) Mar. 23, 1947, gage height, 20.5 ft (6.25 m); no flow at times.

REMARKS.--Records good except those for the winter period, which are poor. Small diversions above station for irrigation. Records of chemical analyses for the 1973 water year are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 546: Drainage area. WSP 1279: 1903-7, 1923-24, 1930-31, 1934(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	85	40	10	250	2,200	184	823	704	674	70	26
2	82	85	35	10	240	2,080	180	770	755	548	62	47
3	69	89	35	8.0	230	1,600	172	728	951	445	82	96
4	58	91	30	8.0	220	1,300	164	644	1,230	370	82	1,290
5	70	91	30	7.0	210	1,040	156	548	1,150	345	72	2,460
6	101	96	25	7.0	200	847	168	472	935	295	68	1,250
7	87	100	25	8.0	190	770	176	430	728	236	60	620
8	127	110	20	8.0	170	762	176	370	674	204	60	365
9	126	108	20	7.0	150	728	176	320	1,100	176	52	236
10	121	93	15	7.0	140	839	172	280	1,010	156	50	156
11	123	93	15	7.0	140	770	160	232	839	142	47	119
12	118	70	15	7.0	130	839	150	200	662	125	52	96
13	103	30	10	7.0	110	823	136	180	518	110	49	89
14	85	40	10	7.0	90	839	125	156	405	102	42	52
15	76	40	8.0	8.0	70	792	122	139	320	94	34	58
16	74	40	8.0	30	50	704	113	122	270	86	33	56
17	69	40	6.0	110	40	584	102	113	245	77	27	56
18	65	40	6.0	560	30	494	96	102	275	70	24	99
19	60	45	6.0	700	30	415	105	94	854	64	21	113
20	56	45	7.0	800	35	365	184	84	3,160	58	18	119
21	58	45	8.0	500	40	325	1,140	77	2,430	52	20	136
22	58	45	15	500	50	295	2,050	70	1,780	52	20	105
23	58	45	14	220	130	290	1,630	68	1,300	58	18	77
24	58	50	12	230	430	270	1,110	66	1,770	66	20	72
25	58	50	12	230	640	250	793	62	2,330	56	18	64
26	63	50	15	180	910	240	668	66	2,160	360	18	56
27	65	45	15	180	2,130	236	1,220	91	2,050	245	16	49
28	69	45	15	200	2,370	250	1,260	136	1,630	172	15	49
29	71	45	12	200	------	250	1,090	739	1,200	128	16	44
30	63	45	12	200	------	222	935	975	895	102	16	36
31	80	------	10	200	------	200	------	847	------	84	16	------
TOTAL	2,458	1,896	506.0	5,156.0	9,425	21,619	14,913	10,004	34,330	5,752	1,198	8,091
MEAN	79.3	63.2	16.3	166	337	697	497	323	1,144	186	38.6	270
MAX	127	110	40	800	2,370	2,200	2,050	975	3,160	674	82	2,460
MIN	56	30	6.0	7.0	30	200	96	62	245	52	15	26
AC-FT	4,880	3,760	1,000	10,230	18,690	42,880	29,580	19,840	68,090	11,410	2,380	16,050

CAL YR 1972 TOTAL 330,827.0 MEAN 904 MAX 31,400 MIN 6.0 AC-FT 656,200
WTR YR 1973 TOTAL 115,348.0 MEAN 316 MAX 3,160 MIN 6.0 AC-FT 228,800

PEAK DISCHARGE (BASE, 4,000 FT^3/S).--NO PEAK ABOVE BASE.

06337000 Little Missouri River near Watford City, N. Dak.

LOCATION.--Lat 47°35'25", long 103°15'05", in NW¼SE¼SE¼ sec.35, T.148 N., R.99 W., McKenzie County, at bridge on U.S. Highway 85, 17 mi (27 km) upstream from Cherry Creek, and 17.5 mi (28.2 km) south of Watford City.

DRAINAGE AREA.--8,310 mi^2 (21,520 km^2), approximately.

PERIOD OF RECORD.--October 1934 to current year.

GAGE.--Water-stage recorder and supplemental nonrecording gage. Datum of gage is 1,929.03 ft (587.968 m) above mean sea level. Oct. 2, 1959, to June 17, 1963, water-stage recorder at present site and datum. June 18, 1963, to Nov. 28, 1964, at site 700 ft (210 m) upstream at present datum. See WSP 1729 or 1917 for history of changes prior to Oct. 2, 1959.

AVERAGE DISCHARGE.--39 years, 605 ft^3/s (17.13 m^3/s), 438,300 acre-ft/yr (540 hm^3/yr); median of yearly mean discharges, 470 ft^3/s (13.3 m^3/s), 341,000 acre-ft/yr (419 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 7,500 ft^3/s (212 m^3/s) Feb. 28, gage height, 6.42 ft (1.957 m) backwater from ice; minimum daily, 10 cfs Dec. 10-23.
Period of record: Maximum discharge, 110,000 ft^3/s (3,120 m^3/s) Mar. 25, 1947, gage height, 24.0 ft (7.32 m) from floodmark, site then in use; no flow at times in most years.

REMARKS.--Records poor. Records of chemical analyses and suspended sediment loads for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 926: 1935. WSP 1270: 1943.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	66	40	11	350	7,230	305	1,150	940	1,140	125	21
2	72	80	35	11	450	6,480	272	920	626	875	93	159
3	72	90	30	11	600	6,000	261	812	384	634	74	483
4	80	90	25	11	500	4,460	230	794	803	554	63	1,830
5	106	100	25	11	450	3,360	220	776	1,110	490	66	1,220
6	93	103	24	12	400	2,340	215	713	1,070	420	63	1,540
7	87	106	18	12	350	1,880	210	668	970	355	87	1,310
8	87	110	14	12	300	1,670	215	570	848	316	83	803
9	90	110	11	12	250	1,730	230	427	610	289	77	554
10	110	110	10	12	200	2,520	225	349	434	250	72	366
11	110	93	10	12	200	2,520	220	366	950	225	74	278
12	172	90	10	12	175	1,860	230	327	930	195	69	210
13	159	80	10	12	150	2,010	240	311	785	172	66	172
14	142	50	10	12	125	1,970	225	272	642	168	63	142
15	134	35	10	12	100	1,480	200	250	469	150	63	117
16	134	37	10	12	85	1,310	200	245	355	163	63	110
17	129	40	10	12	80	1,050	163	245	338	163	58	100
18	110	40	10	13	75	902	134	225	695	154	58	97
19	100	40	10	15	75	812	195	230	1,470	146	52	87
20	80	40	10	15	70	704	225	186	1,340	129	50	87
21	72	45	10	15	55	626	360	154	1,820	121	48	77
22	69	45	10	15	44	538	618	146	2,000	110	48	103
23	66	45	10	20	210	469	1,760	142	586	113	48	134
24	66	45	11	400	634	469	1,560	138	1,470	121	77	253
25	63	50	11	400	930	420	1,420	129	1,460	97	60	159
26	55	50	11	375	1,130	378	1,040	138	1,890	103	46	129
27	58	45	11	500	4,080	349	830	200	2,010	113	37	125
28	60	45	11	475	6,980	333	839	200	2,040	154	28	87
29	63	40	11	450	------	305	1,360	245	1,890	278	17	46
30	80	40	11	425	------	294	1,420	267	1,510	245	15	30
31	100	------	11	400	------	311	------	355	------	168	13	------
TOTAL	2,916	1,960	450	3,717	19,048	56,780	15,622	11,950	32,445	8,611	1,856	10,829
MEAN	94.1	65.3	14.5	120	680	1,832	521	385	1,082	278	59.9	361
MAX	172	110	40	500	6,980	7,230	1,760	1,150	2,040	1,140	125	1,830
MIN	55	35	10	11	44	294	134	129	338	97	13	21
AC-FT	5,780	3,890	893	7,370	37,780	112,600	30,990	23,700	64,350	17,080	3,680	21,480

CAL YR 1972 TOTAL 498,279 MEAN 1,361 MAX 49,400 MIN 10 AC-FT 988,300
WTR YR 1973 TOTAL 166,184 MEAN 455 MAX 7,230 MIN 10 AC-FT 329,600

PEAK DISCHARGE (BASE, 8,000 FT^3/S).--NO PEAK ABOVE BASE.

06338000 Lake Sakakawea near Riverdale, N. Dak.

LOCATION.--Lat 47°30'10", long 101°25'50", in S½ sec.31, T.147 N., R.84 W., Mercer County, in control structure of Garrison Dam, 2.5 mi (4.0 km) west of Riverdale and 14 mi (23 km) upstream from Knife River at mile 1,389.9 (kilometre 2,236.3).

DRAINAGE AREA.--181,400 mi^2 (469,800 km^2), approximately.

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1966, published as Garrison Reservoir near Riverdale.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 22,457,000 acre-ft (27.7 km^3) July 10, elevation, 1,849.5 ft (563.73 m); minimum, 20,075,000 acre-ft (24.8 km^3) Feb. 28, elevation, 1,842.8 ft (561.68 m).
Period of record: Maximum contents, 23,092,000 acre-ft (28.5 km^3) July 23, 1969, elevation, 1,850.7 ft (564.09 m); minimum contents since reaching maximum shown above, 18,427,000 acre-ft (22.7 km^3) Apr. 4, 1970, elevation, 1,837.2 ft (559.979 m).

REMARKS.--Reservoir is formed by earth-fill dam; storage began in November 1953. Maximum capacity, 24,790,000 acre-ft (30.6 km^3) below elevation 1,854.0 ft (565.10 m), top of 29-ft (8.84 m) gates. Normal maximum, 22,640,000 acre-ft (27.9 km^3) below elevation 1,850.0 ft (563.88 m), of which about 4,250,000 acre-ft (5.24 km^3) is designated for flood control. Elevation of crest of spillway, 1,825.0 ft (556.26 m), surmounted by radial gates. Inactive storage, 4,881,000 acre-ft (6.02 km^3) below elevation 1,775.0 ft (541.02 m). Dead storage, zero at elevation 1,672.0 ft (509.63 m). Snake Creek arm of the reservoir has connecting gate to main reservoir, with sill at elevation, 1,810 ft (551.69 m). Figures herein represent total contents.

COOPERATION.--Elevation and contents furnished by Corps of Engineers from capacity table dated July 1971. Elevations are those observed; contents are adjusted for wind effect.

REVISIONS (WATER YEARS).--WSP 1559: 1957(M).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	1,847.9	21,908,000	
Oct. 31	1,847.3	21,636,000	-272,000
Nov. 30	1,846.7	21,446,000	-190,000
Dec. 31	1,845.3	20,932,000	-514,000
CAL YR 1972	--	--	+654,000
Jan. 31	1,843.6	20,362,000	-570,000
Feb. 28	1,842.8	20,075,000	-287,000
Mar. 31	1,843.4	20,300,000	+225,000
Apr. 30	1,843.2	20,217,000	-83,000
May 31	1,845.5	20,994,000	+777,000
June 30	1,848.9	22,253,000	+1,259,000
July 31	1,848.7	22,188,000	-65,000
Aug. 31	1,847.2	21,585,000	-603,000
Sept. 30	1,846.8	21,472,000	-113,000
WTR YR 1973	--	--	-436,000

06338490 Missouri River at Garrison Dam, N. Dak.

LOCATION.--Lat 47°30'08", long 101°25'50", in S½ sec.31, T.147 N., R.84 W., Mercer County, in control structure of Garrison Dam, 2.5 mi (4.0 km) west of Riverdale and 14 mi (23 km) upstream from Knife River at mile 1,389.9 (kilometre 2,236.3).

DRAINAGE AREA.--181,400 mi^2 (469,800 km^2), approximately.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Flow meter and gate readings.

EXTREMES.--Current year: Maximum daily discharge, 30,700 ft^3/s (869 m^3/s) Jan. 9; minimum daily discharge, 13,900 ft^3/s (394 m^3/s) Apr. 29.
Period of record: Maximum daily discharge, 39,300 ft^3/s (1,110 m^3/s) May 24, 1971; minimum daily discharge, 11,400 ft^3/s (323 m^3/s) Mar. 18, 1972.

REMARKS.--Records good. Many diversions above station. Flow regulated by Lake Sakakawea - see station 06338000. Prior to October 1969 records were obtained at a site 9.1 mi (14.6 km) downstream. Discharges at the downstream site were generally about 7 percent greater than those furnished by the Corps of Engineers for the present site.

COOPERATION.--Records furnished by the Corps of Engineers. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19,800	24,600	20,600	28,200	24,300	24,500	19,900	16,200	17,700	18,400	19,800	20,000
2	20,000	24,500	20,700	28,600	25,000	27,000	24,400	16,100	17,800	19,700	20,100	20,700
3	19,800	24,600	20,800	28,500	24,400	25,900	25,300	15,800	17,700	19,800	20,300	19,500
4	19,800	24,600	19,900	29,500	24,500	24,400	24,000	15,800	17,700	19,600	19,900	20,400
5	19,800	24,500	17,100	29,500	24,400	25,200	23,200	16,100	17,900	22,200	20,200	20,200
6	20,400	24,500	17,000	30,100	25,400	25,400	22,900	14,100	17,800	22,300	20,300	20,600
7	20,000	24,500	17,000	29,600	25,700	25,100	23,200	16,000	18,500	20,400	20,500	20,400
8	19,600	24,800	17,800	30,500	26,500	25,200	23,600	15,800	19,400	19,500	22,500	20,300
9	20,200	24,600	17,000	30,700	25,900	25,600	23,300	15,900	17,900	20,300	22,200	20,300
10	20,100	23,200	16,900	30,600	25,000	25,600	24,100	15,800	18,200	20,500	20,600	20,300
11	21,100	23,600	17,100	30,000	24,800	24,700	25,100	15,900	19,300	20,300	20,100	20,100
12	21,100	23,400	18,500	28,500	25,500	25,100	23,700	15,800	17,800	20,400	20,200	20,100
13	20,800	23,400	20,300	26,400	25,200	26,900	24,200	14,100	18,000	20,200	19,900	20,000
14	21,100	21,000	20,600	24,900	25,100	25,900	23,600	15,800	18,100	20,100	20,100	20,000
15	20,700	21,100	21,300	25,600	25,200	26,400	20,100	16,300	19,900	19,900	20,000	20,000
16	21,100	21,100	22,100	25,100	25,500	26,400	19,900	16,300	18,000	20,100	20,200	20,100
17	20,800	21,400	23,500	25,100	25,100	26,300	19,900	18,000	17,800	20,200	20,300	20,000
18	20,600	20,900	24,500	25,500	24,500	24,800	19,700	18,000	17,900	20,300	20,300	20,300
19	20,800	20,900	25,800	26,000	25,300	26,200	17,600	18,000	17,600	20,000	20,300	18,200
20	21,400	21,000	25,600	25,300	25,000	24,800	16,300	18,400	17,900	19,300	20,300	18,100
21	20,900	21,100	26,100	24,300	25,400	25,600	15,800	18,800	19,800	19,900	20,100	18,100
22	20,900	20,900	27,000	25,600	24,100	25,600	16,100	17,600	19,700	18,800	20,100	18,400
23	21,000	20,300	26,900	26,800	24,300	25,800	16,500	17,900	19,500	19,500	20,100	18,200
24	21,200	20,900	26,400	25,200	25,700	24,800	16,200	18,100	18,300	18,000	20,200	18,100
25	21,800	20,900	26,300	25,400	25,300	21,000	16,000	18,200	18,800	18,900	21,100	18,000
26	22,000	20,800	26,600	25,400	24,700	23,200	16,000	18,000	19,400	19,900	20,800	18,300
27	23,300	21,000	27,900	22,300	25,800	23,300	15,800	17,700	19,700	19,800	23,300	18,300
28	24,400	20,100	29,000	23,800	24,700	23,300	15,900	18,400	19,400	19,900	22,500	18,000
29	24,300	20,100	28,500	23,700	------	25,000	13,900	18,000	19,400	19,400	21,300	18,000
30	24,500	20,100	29,100	24,400	------	27,500	16,100	17,700	19,600	19,800	21,600	18,200
31	24,500	------	28,300	24,200	------	24,300	------	18,000	------	20,100	20,000	------
TOTAL	657,800	668,400	706,200	829,300	702,300	780,800	602,300	522,600	556,500	617,500	639,200	581,200
MEAN	21,220	22,280	22,780	26,750	25,080	25,190	20,080	16,860	18,550	19,920	20,620	19,370
MAX	24,500	24,800	29,100	30,700	26,500	27,500	25,300	18,800	19,900	22,300	23,300	20,700
MIN	19,600	20,100	16,900	22,300	24,100	21,000	13,900	14,100	17,600	18,000	19,800	18,000
AC-FT	1,305M	1,326M	1,401M	1,645M	1,393M	1,549M	1,195M	1,037M	1,104M	1,225M	1,268M	1,153M

CAL YR 1972 TOTAL 10,175,100 MEAN 27,800 MAX 38,800 MIN 11,400 AC-FT 20,180,000
WTR YR 1973 TOTAL 7,864,100 MEAN 21,550 MAX 30,700 MIN 13,900 AC-FT 15,600,000

MISSOURI RIVER MAIN STEM

06339000 Missouri River below Garrison Dam, N. Dak.

LOCATION.--Lat 47°23'08", long 101°23'36", in NE¼NW¼NW¼ sec.16, T.145 N., R.84 W., Mercer County, on right bank 4.3 mi (6.9 km) north of Stanton, 5.1 mi (8.2 km) upstream from Knife River, 9.1 mi (14.6 km) downstream from Garrison Dam at mile 1,380.8 (kilometre 2,221.7).

DRAINAGE AREA.--181,400 mi^2 (469,800 km^2), approximately.

PERIOD OF RECORD.--October 1969 to current year. Operated as a stage-discharge station April 1948 to September 1969.

GAGE.--Water-stage recorder. Datum of gage is at 1,600.00 ft (487.680 m) above mean sea level.

EXTREMES.--Current year: Maximum daily gage height recorded, 74.14 ft (22.598 m) Jan. 4; minimum daily recorded, 68.71 ft (20.943 m) May 13.
Period of record: Maximum daily gage height recorded, 76.24 ft (23.238 m) Feb. 1, 1971; minimum daily recorded, 68.06 ft (20.745 m) Mar. 24, 1970.

REMARKS.--Records good. Stage regulated by Lake Sakakawea (see station 06338000). Gage height record not published April 1948 to September 1969.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70.30	71.10	70.22	72.62	70.93	71.09	70.16	69.05	69.54	69.70	69.94	69.81
2	70.20	71.09	70.10	72.56	71.07	71.52	70.83	69.28	69.52	69.85	69.96	70.02
3	70.23	71.10	70.25	72.79	70.86	71.39	71.06	69.14	69.56	69.94	69.96	69.79
4	70.20	71.09	70.34	74.14	70.99	71.26	70.83	69.22	69.39	69.68	69.88	69.95
5	70.18	71.14	69.70	73.42	71.08	71.23	70.62	69.13	69.52	70.28	69.98	69.86
6	70.32	71.05	69.55	73.86	71.01	71.22	70.59	68.85	69.77	70.45	69.98	70.03
7	70.26	71.14	69.45	73.62	71.21	71.30	70.64	69.06	69.59	70.12	70.02	69.97
8	70.26	71.07	69.55	73.37	71.37	71.16	70.77	69.08	69.98	69.63	70.24	69.86
9	70.22	71.14	69.54		71.22	71.27	70.61	68.99	69.27	70.09	70.46	69.87
10	70.27	70.86	69.54		71.18	71.32	70.85	69.05	69.58	70.20	70.17	69.95
11	70.37	70.82	69.55		71.02	70.56	71.00	69.06	69.86	69.88	69.88	69.87
12	70.79	71.01	69.73	72.60	71.15	71.44	70.83	69.04	69.55	69.96	69.67	69.88
13	69.96	70.74	69.93	71.95	71.15	71.05	70.92	68.71	69.48	70.04	70.19	69.84
14	70.56	70.41	70.46	71.43	71.05	71.17	70.65	69.09	69.68	69.80	69.88	69.87
15	70.43	70.41	70.38	71.37	71.12	71.27	70.16	69.05	69.97	69.65	69.88	69.82
16	70.42	70.33	71.09	71.20	71.32	71.34	70.18	69.34	69.65	70.13	69.98	69.81
17	70.41	70.49	71.73	71.07	71.09	71.19	70.03	69.47	69.58	69.82	69.96	70.05
18	70.35	70.24	71.41	71.01	70.99	71.01	69.90	69.60	69.53	69.89	69.89	69.96
19	70.42	70.60	71.45	71.28	71.12	71.31	69.68	69.53	69.37	69.93	69.82	69.59
20	70.34	70.38	71.42	71.08	71.02	71.17	69.33	69.77	69.47	69.83	70.04	69.60
21	70.53	70.14	71.41	70.92	71.10	71.16	69.07	69.62	69.70	69.86	69.92	69.45
22	70.41	70.35	71.57	71.17	70.92	71.14	69.15	69.59	69.87	69.41	69.94	69.48
23	70.46	70.22	71.27	71.24	70.96	71.04	69.25	69.88	69.88	70.12	69.90	69.56
24	70.31	70.23	71.63	71.38	71.21	70.91	69.32	69.39	69.58	69.90	70.00	69.63
25	70.57	70.29	71.26	70.92	71.21	70.28	69.33	69.51	69.73	69.27	70.11	69.58
26	70.76	70.23	71.42	71.11	71.00	70.64	69.15	69.64	69.75	69.83	69.96	69.59
27	70.78	70.36	71.44	70.52	71.25	70.75	69.20	69.63	69.93	69.88	70.35	69.59
28	71.13	70.27	71.80	70.88	71.05	70.61	69.18	69.55	69.80	69.83	70.55	69.44
29	70.91	70.06	71.75	70.89	------	70.85	68.97	69.59	69.89	69.75	70.14	69.51
30	71.10	70.06	71.90	71.04	------	71.42	69.10	69.61	69.76	70.05	70.19	69.52
31	71.14	------	72.08	70.96	------	70.90	------	69.64	------	69.82	70.06	------
MEAN	70.47	70.61	70.74		71.09	71.10	70.05	69.33	69.66	69.89	70.03	69.76
MAX	71.14	71.14	72.08		71.37	71.52	71.06	69.88	69.98	70.45	70.55	70.05
MIN	69.96	70.06	69.45		70.86	70.28	68.97	68.71	69.27	69.27	69.67	69.44

06339100 Knife River at Manning, N. Dak.

LOCATION.--Lat 47°14'10", long 102°46'10", in SE¼NW¼ sec.6, T.143 N., R.95 W., Dunn County, on left bank 50 ft (15 m) downstream from bridge on State Highway 22, 0.4 mi (0.6 km) north of Manning.

DRAINAGE AREA.--205 mi^2 (531 km^2), approximately.

PERIOD OF RECORD.--July 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,156.55 ft (657.316 m) above mean sea level.

AVERAGE DISCHARGE.--6 years, 26.7 ft^3/s (0.756 m^3/s) 19,340 acre-ft/yr (23.85 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,230 ft^3/s (34.8 m^3/s) Mar. 3, gage height, 14.46 ft (4.407 m), backwater from ice; no flow Aug. 17-23, Aug. 25 to Sept. 2.
Period of record: Maximum discharge 2,940 ft^3/s (83.3 m^3/s) June 15, 1970, gage height, 16.20 ft (4.938 m); no flow at times.

REMARKS.--Records fair except those for the winter period, which are poor. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	4.5	1.4	1.8	13	559	11	6.7	2.7	1.1	.14	0
2	2.5	3.7	1.5	1.8	8.0	885	8.6	6.1	2.2	1.1	.12	0
3	1.6	3.7	1.5	1.8	6.0	1,160	6.7	6.7	2.9	1.1	.14	.02
4	1.6	3.1	1.4	1.8	4.0	880	6.1	6.7	6.1	.96	.08	.04
5	1.9	3.2	1.4	1.8	3.0	521	4.8	6.7	22	.96	.22	.19
6	2.2	3.5	1.3	1.8	2.5	241	4.3	48	25	.91	.22	.16
7	4.8	3.7	1.3	1.5	2.4	86	4.5	34	16	.58	.19	.08
8	7.8	3.5	1.2	1.0	2.2	94	4.5	21	10	.55	.12	.03
9	6.1	2.5	1.1	1.0	2.0	94	5.5	15	6.7	.58	.14	.03
10	5.3	2.3	1.1	1.0	1.8	354	5.5	13	3.7	.61	.14	.04
11	5.5	2.2	1.1	1.0	1.7	368	5.0	9.0	2.6	.58	.14	.04
12	5.0	2.0	1.0	1.0	1.6	163	4.8	6.1	2.3	.58	.12	.04
13	4.5	1.8	1.0	1.0	1.6	97	5.0	5.3	1.9	.52	.10	.03
14	4.1	1.8	.90	1.0	1.5	78	4.8	5.0	1.7	.43	.05	.03
15	3.7	1.8	.90	1.0	1.5	71	4.5	3.3	1.3	.40	.04	.03
16	3.5	1.5	.90	6.0	1.5	57	4.1	3.2	1.3	.40	.02	.03
17	3.7	1.5	1.2	20	1.5	56	3.7	2.7	1.3	.31	0	.03
18	3.7	1.5	1.5	20	1.5	31	3.5	2.7	1.3	.31	0	.03
19	3.7	1.6	1.7	35	1.5	27	9.4	2.8	1.7	.28	0	.02
20	3.7	1.7	1.8	25	1.5	23	14	2.9	2.1	.34	0	.02
21	3.9	1.6	1.9	15	1.6	21	20	2.7	2.1	.31	0	.02
22	3.9	1.7	2.0	6.0	2.0	21	25	2.6	6.4	.31	0	.04
23	4.1	1.8	2.2	5.0	2.4	21	23	2.6	13	.31	0	.05
24	3.5	1.8	2.0	7.0	1.7	20	18	2.7	7.8	.31	.02	.16
25	4.3	1.8	1.8	35	1.6	19	14	2.9	4.5	.28	0	.31
26	4.5	1.4	1.8	45	2.5	18	11	3.3	2.7	.25	0	.16
27	5.0	1.4	1.9	37	23	16	9.4	4.3	1.6	.22	0	.06
28	5.0	1.4	1.9	30	146	17	7.4	4.5	1.4	.25	0	.02
29	4.3	1.3	1.8	29	------	11	8.2	2.8	1.4	.28	0	.02
30	3.9	1.3	1.8	27	------	9.7	8.6	3.2	1.2	.25	0	.02
31	4.3	------	1.8	21	------	10	------	3.2	------	.22	0	------
TOTAL	123.9	66.6	46.10	383.3	241.1	6,028.7	264.9	241.7	156.9	15.59	2.00	1.75
MEAN	4.00	2.22	1.49	12.4	8.61	194	8.83	7.80	5.23	.50	.065	.058
MAX	7.8	4.5	2.2	45	146	1,160	25	48	25	1.1	.22	.31
MIN	1.6	1.3	.90	1.0	1.5	9.7	3.5	2.6	1.2	.22	0	0
AC-FT	246	132	91	760	478	11,960	525	479	311	31	4.0	3.5

CAL YR 1972 TOTAL 15,512.28 MEAN 42.4 MAX 2,400 MIN 0 AC-FT 30,770
WTR YR 1973 TOTAL 7,572.54 MEAN 20.7 MAX 1,160 MIN 0 AC-FT 15,020

PEAK DISCHARGE (BASE, 100 FT^3/S).--MAR. 3, 1,230 FT^3/S; MAR. 10 (2200) 588 FT^3/S (10.15 FT).

06339300 Knife River at Marshall, N. Dak.

LOCATION.--Lat 47°08'17", long 102°20'00", NW¼ sec.10, T.142 N., R.92 W., Dunn County, on right bank 250 ft (75 m) downstream from bridge on State Highway 8 in Marshall.

DRAINAGE AREA.--722 mi^2 (1,870 km^2).

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder.

EXTREMES.--Current year: Maximum discharge, 2,430 ft^3/s (68.8 m^3/s) Mar. 5, gage height, 13.08 ft (3.987 m); minimum, 0.18 ft^3/s (0.005 m^3/s) July 19, 20, gage height, 2.48 ft (0.756 m).
Period of record: Maximum discharge, 9,080 ft^3/s (257 m^3/s) Mar. 14, 1972, gage height, 19.37 ft (5.904 m); minimum, 0.18 ft^3/s (0.005 m^3/s) July 19, 20, 1973, gage height, 2.48 ft (0.756 m).
Flood of March 1943 reached a stage of at least 18.5 ft (5.639 m) prior to dike construction and is believed to be highest stage experienced since 1915.

REMARKS.--Records good. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	10	7.1	6.2	67	1,340	29	28	19	6.6	6.2	1.5
2	9.3	10	6.0	6.4	51	1,850	28	29	19	6.2	6.2	1.2
3	9.3	11	5.4	6.2	42	2,260	27	28	31	6.6	6.8	1.6
4	9.3	10	4.5	5.2	35	2,210	25	23	52	6.0	6.0	2.0
5	9.3	10	4.0	4.5	26	2,250	24	23	66	5.0	4.7	1.6
6	9.7	10	3.1	4.0	25	1,340	24	22	43	3.7	3.6	1.9
7	13	10	2.9	3.9	30	620	23	20	42	2.4	4.9	2.0
8	12	10	2.7	3.6	20	370	27	36	43	2.2	6.4	2.1
9	12	10	2.5	3.1	18	230	21	48	32	2.5	4.3	1.9
10	11	10	2.2	3.1	16	130	24	37	23	2.4	2.7	2.1
11	9.3	10	2.3	3.2	12	130	24	27	17	2.9	1.8	1.9
12	8.8	9.5	2.4	3.5	10	350	24	19	10	2.6	2.0	1.6
13	9.0	8.4	2.7	3.9	9.0	253	23	16	9.7	2.5	2.5	1.6
14	7.5	9.0	2.9	4.2	7.1	170	22	13	7.7	2.1	2.1	1.8
15	7.1	8.4	3.1	4.3	6.8	136	21	11	5.2	1.8	2.5	2.0
16	6.6	7.9	3.1	4.5	7.5	113	19	8.6	4.5	1.7	2.3	1.9
17	6.8	7.9	3.3	5.0	8.2	97	19	8.4	4.3	1.7	1.8	2.0
18	6.8	7.9	3.9	85	9.0	84	19	6.4	4.9	.98	1.4	1.9
19	7.1	7.5	4.5	160	10	68	20	6.0	6.0	.34	1.5	2.2
20	7.1	7.3	5.2	80	10	57	26	5.4	5.8	.92	1.5	2.0
21	7.1	7.3	5.8	35	10	52	39	5.6	5.8	2.0	1.1	2.1
22	7.3	6.8	6.6	28	18	49	61	5.8	5.8	2.6	1.2	2.4
23	7.5	7.3	6.8	26	30	48	68	7.7	5.4	4.2	1.4	2.5
24	8.4	7.5	6.8	20	120	46	57	8.8	5.8	5.0	1.5	3.0
25	9.0	7.5	6.8	18	140	45	50	7.9	15	5.8	1.6	3.1
26	10	7.5	6.8	20	110	45	39	9.0	17	6.2	1.5	3.6
27	10	6.8	6.8	110	420	44	35	11	14	6.2	1.3	4.2
28	10	6.8	6.8	260	530	39	31	14	10	6.2	1.2	3.2
29	10	7.1	6.8	190	------	36	30	18	9.0	6.6	1.4	4.9
30	11	7.3	6.8	165	------	34	30	17	7.1	6.6	1.5	4.5
31	11	------	6.4	95	------	31	------	18	------	6.4	1.5	------
TOTAL	281.6	256.7	147.0	1,366.8	1,797.6	14,527	907	537.6	540.0	118.94	86.4	70.3
MEAN	9.08	8.56	4.74	44.1	64.2	469	30.2	17.3	18.0	3.84	2.79	2.34
MAX	13	11	7.1	260	530	2,260	68	48	66	6.6	6.8	4.9
MIN	6.6	6.8	2.2	3.1	6.8	31	19	5.4	4.3	.34	1.1	1.2
AC-FT	559	509	292	2,710	3,570	28,810	1,800	1,070	1,070	236	171	139

CAL YR 1972 TOTAL 49,737.70 MEAN 136 MAX 7,790 MIN 2.2 AC-FT 98,650
WTR YR 1973 TOTAL 20,636.94 MEAN 56.5 MAX 2,260 MIN .34 AC-FT 40,930

PEAK DISCHARGE (BASE, 750 FT^3/S).--FEB. 27, 900 FT^3/S; MAR. 5 (0500) 2,430 FT^3/S (13.08 FT).

06339490 Elm Creek near Golden Valley, N. Dak.

LOCATION.--Lat 47°06'25", long 102°03'05", in SE¼NW¼ sec.23, T.142 N., R.90 W., Mercer County, on right bank 60 ft (18 m) upstream from highway bridge 13.5 mi (21.7 km) south of Golden Valley.

DRAINAGE AREA.--82 mi^2 (212 km^2), approximately.

PERIOD OF RECORD.--August 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,915.17 ft (583.744 m) above mean sea level.

AVERAGE DISCHARGE.--6 years, 9.13 ft^3/s (0.259 m^3/s), 6,610 acre-ft/yr (8.15 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 285 ft^3/s (8.07 m^3/s) Mar. 1, gage height, 10.89 ft (3.319 m) backwater from ice; no flow for many days.
Period of record: Maximum discharge, 10,000 ft^3/s (283 m^3/s) May 9, 1970, gage height, 23.55 ft (7.178 m); no flow for several months each year.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.26	.02	0	10	220	.68	.73	.01			
2	.04	.26	.02	0	8.0	210	.59	.54	.07			
3	.05	.23	.03	0	7.0	140	.41	.45	2.1			
4	.05	.23	.02	0	6.0	100	.41	.33	1.0			
5	.13	.23	.01	0	5.0	70	.68	.21	2.3			
6	.45	.23	0	0	5.0	35	.89	.14	1.4			
7	.59	.23	0	0	4.0	40	.29	.08	1.3			
8	.41	.26	0	0	3.0	45	.16	.11	.63			
9	.29	.26	0	0	2.0	40	.16	.11	.23			
10	.23	.26	0	0	1.5	35	.16	.10	.11			
11	.18	.26	0	0	1.5	25	.21	.08	.04			
12	.14	.26	0	0	1.5	20	.21	.07	.02			
13	.13	.23	0	0	1.0	15	.18	.05	.02			
14	.11	.18	0	0	1.0	10	.16	.04	.01			
15	.08	.14	0	0	.50	8.3	.21	.02	.01			
16	.08	.11	0	.01	.50	6.0	.21	.02	.05			
17	.10	.10	0	1.0	0	5.5	.18	.02	.05			
18	.10	.08	0	2.0	0	3.5	.18	.02	.08			
19	.10	.07	0	2.0	0	3.2	.41	.02	1.3			
20	.10	.06	0	3.5	0	2.9	.73	.02	1.1			
21	.10	.05	0	3.0	0	2.6	1.1	.02	.68			
22	.11	.05	.01	3.0	2.0	2.3	1.0	.02	.54			
23	.13	.05	.03	2.5	45	2.2	1.4	.02	.41			
24	.14	.05	.02	2.0	40	2.1	1.4	.04	.18			
25	.14	.05	0	6.0	30	1.8	1.6	.02	.07			
26	.14	.05	0	25	90	2.3	1.6	.04	.03			
27	.23	.05	0	30	250	1.5	1.4	.08	.02			
28	.26	.05	0	30	200	1.3	1.1	.06	.02			
29	.26	.04	0	20	------	.89	1.1	.02	.01			
30	.26	.02	0	25	------	.95	.83	.02	.01			
31	.26	------	0	15	------	.68	------	.01	------			------
TOTAL	5.43	4.40	.16	170.01	714.50	1,053.02	19.64	3.51	13.80	0	0	0
MEAN	.18	.15	.005	5.48	25.5	34.0	.65	.11	.46	0	0	0
MAX	.59	.26	.03	30	250	220	1.6	.73	2.3	0	0	0
MIN	.04	.02	0	0	0	.68	.16	.01	.01	0	0	0
AC-FT	11	8.7	.3	337	1,420	2,090	39	7.0	27	0	0	0

CAL YR 1972 TOTAL 5,874.28 MEAN 16.0 MAX 680 MIN 0 AC-FT 11,650
WTR YR 1973 TOTAL 1,984.47 MEAN 5.44 MAX 250 MIN 0 AC-FT 3,940

PEAK DISCHARGE (BASE, 100 FT^3/S).--MAR. 1, 285 FT^3/S.

06339500 Knife River near Golden Valley, N. Dak.

LOCATION.--Lat 47°09'40", long 102°03'39", in SE¼ sec.34, T.143 N., R.90 W., Mercer County, on left bank 6 ft (2 m) downstream from highway bridge, 4.5 mi (7 km) downstream from Elm Creek, and 9 mi (14 km) south of Golden Valley.

DRAINAGE AREA.--1,230 mi^2 (3,190 km^2), approximately.

PERIOD OF RECORD.--May 1903 to November 1906, April 1907 to November 1915, April 1916 to October 1919, and October 1921 to September 1924 (published as "at Broncho" or "near Broncho"), and April 1943 to current year. Monthly discharge only for some periods published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 1,847.13 ft (563.005 m) above mean sea level. See WSP 1729 or 1917 for history of changes prior to May 1, 1946.

AVERAGE DISCHARGE.--47 years, 96.9 ft^3/s (2.744 m^3/s), 70,200 acre-ft/yr (86.56 hm^3/yr); median of yearly mean discharges, 86 ft^3/s (2.44 m^3/s), 62,300 acre-ft/yr (76.8 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 2,560 ft^3/s (72.5 m^3/s) Mar. 3, gage height, 19.22 ft (5.858 m), backwater from ice; minimum daily discharge, 0.12 ft^3/s (0.003 m^3/s); minimum gage height, 2.20 ft (0.671 m) Nov. 28.
Period of record: Maximum discharge, 11,200 ft^3/s (317 m^3/s) May 9, 1970, gage height, 25.84 ft (7.876 m); maximum gage height, 26.7 ft (8.14 m) Mar. 26, 27, 1943, from floodmark; no flow at times in some years.
The flood in 1943 was the only major flood in the period 1930-49, according to local residents.

REMARKS.--Records good. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1006: Drainage area. WSP 1279: 1904, 1914-19(M), 1922-24(M), 1944.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	20	14	16	105	1,690	50	46	17	8.9	11	.12
2	13	20	13	16	54	2,150	47	44	17	8.9	10	.34
3	13	19	13	15	35	2,190	44	43	50	7.7	9.5	2.1
4	13	19	12	14	35	1,830	43	41	48	6.9	9.2	2.5
5	15	20	11	14	36	1,520	41	37	84	6.1	8.0	3.8
6	16	19	11	14	35	1,380	39	35	103	6.3	7.2	3.6
7	15	20	11	14	33	1,040	39	33	71	5.5	7.2	3.6
8	16	20	9.9	14	28	733	38	31	65	4.5	7.7	3.3
9	23	21	11	14	32	493	37	43	63	4.0	7.7	3.6
10	22	20	12	12	20	358	37	57	50	4.0	7.4	4.3
11	21	20	9.9	9.2	16	359	38	48	38	4.5	7.4	4.5
12	20	20	8.6	7.4	14	415	38	37	31	4.0	8.0	5.0
13	18	17	8.9	6.3	13	564	37	31	25	3.8	7.7	4.7
14	16	18	12	5.2	11	328	35	26	21	3.3	7.4	4.5
15	16	18	14	4.7	8.3	224	34	23	19	3.6	6.6	5.0
16	15	17	14	6.1	7.4	178	34	21	17	3.1	6.1	4.7
17	14	16	13	8.9	7.4	154	33	20	16	3.3	5.8	4.5
18	14	15	9.2	170	8.0	136	32	18	15	3.3	5.2	4.5
19	14	14	9.5	360	9.2	117	37	17	16	4.0	4.5	4.0
20	14	14	10	440	11	100	43	17	16	4.7	3.6	4.0
21	14	13	11	217	13	92	49	16	16	5.5	3.3	4.0
22	14	13	12	103	17	83	69	16	16	6.6	2.3	4.0
23	14	13	14	84	100	80	92	15	17	8.0	2.7	3.8
24	14	13	18	86	655	77	102	15	16	8.3	2.5	3.8
25	14	13	20	64	622	73	88	15	13	8.9	2.5	4.0
26	15	13	18	63	600	75	78	16	12	11	2.1	4.0
27	18	13	18	132	960	73	66	17	15	9.9	1.5	4.5
28	18	11	18	160	1,400	69	58	17	15	10	1.0	5.2
29	18	14	19	189	------	63	54	17	12	11	.34	5.8
30	19	14	20	246	------	57	48	17	11	11	.34	5.5
31	19	------	18	183	------	54	------	19	------	11	.22	------
TOTAL	498	497	413.0	2,687.8	4,885.3	16,755	1,480	848	925	201.6	166.00	117.26
MEAN	16.1	16.6	13.3	86.7	174	540	49.3	27.4	30.8	6.50	5.35	3.91
MAX	23	21	20	440	1,400	2,190	102	57	103	11	11	5.8
MIN	13	11	8.6	4.7	7.4	54	32	15	11	3.1	.22	.12
AC-FT	988	986	819	5,330	9,690	33,230	2,940	1,680	1,830	400	329	233

CAL YR 1972 TOTAL 79,108.60 MEAN 216 MAX 9,620 MIN 5.0 AC-FT 156,900
WTR YR 1973 TOTAL 29,473.96 MEAN 80.8 MAX 2,190 MIN .12 AC-FT 58,460

PEAK DISCHARGE (BASE, 1,500 FT^3/S).--MAR. 3, 2,560 FT^3/S.

06340000 Spring Creek at Zap, N. Dak.

LOCATION.--Lat 47°17'10", long 101°55'31", in SW¼ sec.14, T.144 N., R.89 W., Mercer County, on right bank 250 ft (76 m) downstream from Burlington Northern Railway bridge in Zap and 9 mi (14 km) upstream from mouth.

DRAINAGE AREA.--549 mi^2 (1,422 km^2).

PERIOD OF RECORD.--March to September 1924, October 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,819.39 ft (554.550 m) above mean sea level. Mar. 4 to Sept. 30, 1924, nonrecording gage at site 250 ft (76 m) upstream at different datum. Oct. 1, 1945, to Sept. 30, 1947, nonrecording gage 250 ft (76 m) upstream at datum 1.12 ft (0.341 m) higher.

AVERAGE DISCHARGE.--28 years, 43.8 ft^3/s (1.24 m^3/s), 31,730 acre-ft/yr (39.1 hm^3/yr); median of yearly mean discharges, 39 ft^3/s (1.10 m^3/s), 28,300 acre-ft/yr (34.9 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,170 ft^3/s (33.1 m^3/s) Mar. 2, gage height, 12.75 ft (3.886 m), backwater from ice; minimum daily discharge, 2.4 ft^3/s (0.068 m^3/s) Feb. 21; minimum gage height, 2.48 ft (0.756 m) July 16.
Period of record: Maximum discharge, 6,130 ft^3/s (174 m^3/s) Apr. 7, 1952, gage height, 20.03 ft (6.105 m); maximum gage height, 20.70 ft (6.309 m) Mar. 15, 1972; no flow at times.
Maximum stage known occurred in about 1902, from ice jam. Floods of February 1913 and March 1943 reached a stage of about 20 ft (6.10 m) and 19.5 ft (5.94 m), respectively, from information by local residents.

REMARKS.--Records good. Flow slightly regulated by Lake Ilo 56 mi (90 km) upstream, capacity, 7,130 acre-ft (8.79 hm^3). Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	35	31	17	67	906	23	22	13	6.5	4.1	3.7
2	25	34	24	17	56	1,040	21	21	12	6.5	3.9	4.1
3	19	35	23	16	40	1,060	19	21	23	6.2	3.7	4.5
4	14	33	23	16	42	630	19	21	35	6.2	3.9	6.0
5	13	31	22	15	46	327	20	20	47	6.9	4.1	10
6	14	31	22	14	66	196	19	19	37	5.9	4.1	9.0
7	31	30	22	13	67	115	19	19	29	5.9	4.1	8.0
8	36	27	22	13	30	70	19	18	25	5.1	4.3	7.5
9	37	28	22	12	16	53	18	18	19	5.1	4.3	7.0
10	36	26	22	13	12	52	18	18	15	4.9	4.1	6.5
11	34	24	21	12	7.9	90	18	18	12	4.9	3.9	6.0
12	26	31	21	13	6.2	78	18	18	10	4.7	4.1	6.0
13	20	40	21	14	5.4	66	18	20	9.5	4.3	4.3	5.5
14	23	33	21	15	4.9	55	18	20	8.7	4.1	4.3	5.5
15	33	21	21	16	4.3	46	17	17	7.9	3.9	4.1	5.0
16	34	15	20	18	4.1	42	17	16	8.3	4.1	3.9	5.0
17	35	14	20	18	3.9	35	17	14	9.5	4.1	3.7	4.9
18	35	14	20	21	3.7	34	16	12	10	4.3	3.5	5.1
19	34	23	20	38	3.4	33	20	10	11	4.1	3.8	4.7
20	28	24	20	42	2.9	32	24	10	12	4.3	4.2	4.5
21	23	23	15	23	2.4	30	27	10	13	4.1	4.6	4.5
22	16	29	16	19	3.5	29	31	10	12	4.3	4.1	4.5
23	16	33	19	19	24	30	32	10	12	4.7	4.3	4.7
24	14	35	21	19	51	30	31	12	11	4.9	4.5	5.1
25	14	33	24	23	76	30	31	11	10	4.9	4.5	4.9
26	13	32	27	48	83	30	29	11	9.1	4.7	4.5	5.1
27	14	32	25	76	476	30	24	14	8.3	4.5	4.3	4.9
28	28	27	19	112	477	27	23	15	7.9	4.5	3.9	5.1
29	32	27	18	101	------	25	23	15	7.6	4.5	3.9	5.1
30	33	36	18	84	------	23	23	15	6.9	4.5	3.9	6.2
31	33	------	17	73	------	23	------	15	------	4.5	3.9	------
TOTAL	790	856	657	950	1,681.6	5,267	652	490	451.7	152.1	126.8	168.6
MEAN	25.5	28.5	21.2	30.6	60.1	170	21.7	15.8	15.1	4.91	4.09	5.62
MAX	37	40	31	112	477	1,060	32	22	47	6.9	4.6	10
MIN	13	14	15	12	2.4	23	16	10	6.9	3.9	3.5	3.7
AC-FT	1,570	1,700	1,300	1,880	3,340	10,450	1,290	972	896	302	252	334

CAL YR 1972 TOTAL 37,523.7 MEAN 103 MAX 5,370 MIN 6.1 AC-FT 74,430
WTR YR 1973 TOTAL 12,242.8 MEAN 33.5 MAX 1,060 MIN 2.4 AC-FT 24,280

PEAK DISCHARGE (BASE, 50 FT^3/S).--MAR. 2, 1,170 FT^3/S.

06340200 West Branch Otter Creek near Beulah, N. Dak.

LOCATION.--Lat 47°08'05", long 101°39'35", in NW¼NW¼SW¼ sec.12, T.142 N., R.87 W., Oliver County, on right bank 10 mi (16 km) southeast of Beulah.

DRAINAGE AREA.--26.5 mi^2 (68.6 km^2).

PERIOD OF RECORD.--April 1965 to current year.

GAGE.--Water-stage recorder.

AVERAGE DISCHARGE.--8 years, 4.08 ft^3/s (0.116 m^3/s), 2,960 acre-ft/yr (3.650 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 80 ft^3/s (2.27 m^3/s) Mar. 1, gage height, 5.03 ft (1.533 m), backwater from ice; maximum gage height, 5.04 ft (1.536 m) Feb. 27, backwater from ice; no flow on many days.
Period of record: Maximum discharge, 23,700 ft^3/s (671 m^3/s) June 24, 1966, gage height, 17.2 ft (5.243 m), from floodmark, from rating curve extended above 77 ft^3/s (2.18 m^3/s) on basis of slope-area measurement of peak flow; no flow at times in some years.

REMARKS.--Records fair except those for the winter period, which are poor. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.01	.05	0	.20	30	.91	.50	.04	0	0	
2	.01	.01	.04	0	.30	25	.85	.41	.01	0	0	
3	.02	.01	.03	0	.40	20	.85	.36	.10	0	0	
4	.03	.01	.02	0	.50	20	.85	.30	.12	0	0	
5	.07	.01	.01	0	.40	15	.85	.30	.20	0	.65	
6	.07	.01	0	0	.30	12	.74	.33	.14	0	.55	
7	.06	.01	0	0	.20	10	.74	.33	.01	0	.14	
8	.03	0	0	0	.10	9.0	.69	.30	.12	0	.08	
9	.02	.02	0	0	.05	8.0	.64	.30	0	0	0	
10	.02	.03	0	0	.02	7.0	.60	.25	0	0	0	
11	.01	.03	0	0	0	6.0	.60	.18	0	0	0	
12	.01	.03	0	.10	0	5.0	.56	.18	0	0	0	
13	.01	.02	0	.20	0	4.0	.56	.16	0	0	0	
14	.01	.02	0	.50	0	2.9	.53	.14	0	0	0	
15	.01	.02	0	1.0	0	2.4	.50	.10	0	0	0	
16	.01	.02	0	1.5	0	1.8	.44	.06	0	0	0	
17	.01	.01	0	2.0	0	1.2	.44	.06	0	.01	0	
18	.01	.01	0	2.5	.10	1.2	.47	.02	0	.02	0	
19	.01	.01	0	1.5	.10	1.1	.60	.01	.16	.01	0	
20	.01	.01	0	1.0	.05	.97	1.2	.01	.20	0	0	
21	.01	.01	0	.80	.05	.97	1.1	.01	.18	0	0	
22	.02	.01	0	.60	1.0	1.0	1.3	.02	.14	0	0	
23	.01	.02	0	.80	12	1.2	1.8	.04	.18	0	0	
24	.02	.02	0	1.0	5.0	1.3	1.3	.08	.16	.04	0	
25	.02	.03	0	1.5	1.0	1.2	1.1	.06	.16	.02	0	
26	.02	.05	0	2.0	3.0	1.4	.85	.12	.12	0	0	
27	.06	.06	0	1.5	20	1.4	.69	.20	.01	0	0	
28	.04	.06	0	1.0	25	1.3	.69	.18	0	0	0	
29	.02	.06	0	.50	------	1.3	.64	.14	0	.01	0	
30	.03	.06	0	.30	------	1.1	.56	.10	0	.01	0	
31	.02	------	0	.20	------	.91	------	.06	------	0	0	------
TOTAL	.71	.68	.15	20.50	69.77	195.65	23.65	5.31	2.05	.12	1.42	0
MEAN	.023	.023	.005	.66	2.49	6.31	.79	.17	.068	.004	.046	0
MAX	.07	.06	.05	2.5	25	30	1.8	.50	.20	.04	.65	0
MIN	.01	0	0	0	0	.91	.44	.01	0	0	0	0
AC-FT	1.4	1.3	.3	41	138	388	47	11	4.1	.2	2.8	0

CAL YR 1972 TOTAL 1,402.92 MEAN 3.83 MAX 210 MIN 0 AC-FT 2,780
WTR YR 1973 TOTAL 320.01 MEAN .88 MAX 30 MIN 0 AC-FT 635

PEAK DISCHARGE (BASE, 100 FT^3/S).--NO PEAK ABOVE BASE.

06340500 Knife River at Hazen, N. Dak.

LOCATION.--Lat 47°17'06", long 101°37'26", in SE¼ sec.18, T.144 N., R.86 W., Mercer County, on right bank at upstream side of highway bridge, 0.5 mi (0.8 km) south of Hazen and 2 mi (3 km) upstream from Antelope Creek.

DRAINAGE AREA.--2,240 mi^2 (5,800 km^2), approximately.

PERIOD OF RECORD.--October to November 1928, March 1929 to September 1933, August 1937 to current year. Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 1,712.35 ft (521.924 m) above mean sea level. Prior to Sept. 25, 1947, nonrecording gages at same site and datum.

AVERAGE DISCHARGE.--40 years (1929-33, 1937-73), 181 ft^3/s (5.126 m^3/s), 131,100 acre-ft/yr (161.6 hm^3/yr); median of yearly mean discharges, 150 ft^3/s (4.25 m^3/s), 109,000 acre-ft/yr (134 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 3,900 ft^3/s (110 m^3/s) Mar. 2, gage height, 21.44 ft (6.535 m), backwater from ice; minimum daily, 4.3 ft^3/s (0.12 m^3/s) Feb. 20-21.
Period of record: Maximum discharge, 35,300 ft^3/s (1,000 m^3/s) June 24, 1966, gage height, 27.01 ft (8.233 m); no flow at times in 1933, 1959, 1962.
According to local residents, the floods of 1943 and 1950 were not exceeded during the period 1884 to 1942.

REMARKS.--Records good except those for the winter period, which are fair. Small diversions above station. Slight regulation by Lake Ilo 81 mi (130 km) upstream, capacity, 7,130 acre-ft (8.79 hm^3). Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1146: 1943. WSP 1279: 1930-31, 1932-33(M). WSP 1917: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	76	35	30	160	2,220	126	102	54	34	20	14
2	61	85	30	30	125	3,150	120	97	53	32	20	16
3	57	81	30	30	100	3,680	115	96	85	30	19	22
4	54	77	25	30	82	3,240	110	95	109	30	18	28
5	54	76	20	30	70	2,460	106	92	117	26	20	23
6	60	76	20	30	62	1,910	104	86	124	22	20	22
7	64	76	20	30	58	1,590	101	82	145	23	19	21
8	73	76	20	25	47	1,230	100	79	115	20	19	20
9	74	76	20	20	39	848	98	78	100	20	19	20
10	73	75	20	17	32	676	95	75	94	20	18	20
11	78	75	20	17	24	592	94	90	86	20	17	20
12	74	71	22	16	18	548	93	91	72	19	17	18
13	68	70	25	17	14	582	91	82	63	19	17	15
14	61	70	25	12	9.8	708	90	76	49	19	16	18
15	62	65	25	11	7.7	452	88	67	40	19	17	19
16	71	60	25	11	6.5	343	85	60	35	20	19	17
17	72	55	25	13	6.2	287	83	56	42	20	19	17
18	72	50	30	60	5.5	259	65	50	42	21	18	17
19	72	48	30	68	4.5	234	90	46	51	20	17	16
20	70	54	33	115	4.3	214	101	41	52	19	16	17
21	64	55	33	140	4.3	198	110	40	49	19	16	18
22	57	55	35	133	8.3	190	113	41	53	19	15	18
23	52	50	35	100	420	181	125	44	49	21	16	18
24	50	50	35	80	440	173	142	51	45	24	18	18
25	49	50	35	100	360	168	151	50	45	26	19	18
26	49	50	35	150	630	160	146	51	39	25	17	18
27	55	50	40	135	770	157	130	62	33	22	17	18
28	54	40	40	125	1,160	152	120	66	29	21	15	18
29	73	40	40	135	------	145	115	64	35	22	15	18
30	77	40	40	135	------	138	109	59	35	21	14	18
31	74	------	30	150	------	130	------	55	------	20	14	------
TOTAL	1,987	1,872	898	1,995	4,668.1	27,015	3,216	2,124	1,940	693	541	560
MEAN	64.1	62.4	29.0	64.4	167	871	107	68.5	64.7	22.4	17.5	18.7
MAX	78	85	40	150	1,160	3,680	151	102	145	34	20	28
MIN	49	40	20	11	4.3	130	65	40	29	19	14	14
AC-FT	3,940	3,710	1,780	3,960	9,260	53,580	6,380	4,210	3,850	1,370	1,070	1,110

CAL YR 1972 TOTAL 141,552.0 MEAN 387 MAX 15,900 MIN 14 AC-FT 280,800
WTR YR 1973 TOTAL 47,509.1 MEAN 130 MAX 3,680 MIN 4.3 AC-FT 94,230

PEAK DISCHARGE (BASE, 1,500 FT^3/S).--MAR. 2, 3,900 FT^3/S.

06340700 Missouri River near Stanton, N. Dak.

LOCATION.--Lat 47°17'14", long 101°20'25", in SW¼ sec.16, T.144 N., R.84 W., McLean County, on right bank 3 mi (5 km) southeast of Stanton, 0.1 mi (0.2 km) below Ft Clark irrigation pumping station, 0.4 mi (0.6 km) above the United Power Association power plant at mile 1,372 (kilometre 2,208).

DRAINAGE AREA.--182,000 mi^2 (471,400 km^2), approximately.

PERIOD OF RECORD.--October 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,650.00 ft (502.920 m) above mean sea level (levels by Corps of Engineers). Prior to Sept. 30, 1964, at datum 20 ft (6.096 ft) lower.

EXTREMES.--Current year: Maximum daily gage height recorded, 21.52 ft (6.559 m) Jan. 5; minimum daily recorded, 13.13 ft (4.002 m) May 13.
Period of record: Maximum daily gage height recorded, 24.56 ft (7.486 m) Feb. 22, 1965; minimum daily recorded, 11.97 ft (3.648 m) Mar. 28, 1963.

REMARKS.--Records good. Stage regulated by Lake Sakakawea (see station 06338000).

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.63	15.62	14.77	19.94	15.51	15.94	14.93	13.29	13.95	14.39	14.64	14.59
2	14.47	15.61	14.61	19.58	15.66	16.48	15.38	13.72	13.85	14.42	14.62	14.80
3	14.56	15.64	14.76	19.38	15.43	16.50	15.66	13.35	13.99	14.61	14.60	14.59
4	14.54	15.63	14.77	21.22	15.59	16.42	15.40	13.50	13.77	14.18	14.59	14.73
5	14.53	15.70	14.17	21.52	15.68	16.26	15.22	13.45	14.01	14.91	14.67	14.65
6		15.61	13.89	20.74	15.65	16.17	15.18	13.21	14.34	15.21	14.64	14.81
7		15.72	13.85	20.47	15.83	16.20	15.22	13.31	14.00	14.88	14.73	14.76
8		15.61	13.97	20.35	16.00	15.93	15.36	13.40	14.56	14.30	14.91	14.59
9		15.71	14.12	20.58	15.79	15.94	15.18	13.21	13.77	14.79	15.23	14.67
10		15.44	14.21	20.24	15.75	16.06	15.46	13.40	14.09	14.92	15.00	14.78
11		15.40	14.29	20.12	15.64	15.22	15.57	13.40	14.39	14.56	14.64	14.64
12		15.59	14.54	19.43	15.71	16.30	15.46	13.41	14.14	14.65	14.24	14.65
13		15.32	14.93	18.56	15.74	15.70	15.55	13.13	13.97	14.75	15.00	14.64
14	14.90	14.99	16.04	17.63	15.64	16.08	15.13	13.64	14.26	14.43	14.58	14.66
15	14.87	14.97	16.34	17.10	15.75	16.09	14.76	13.44	14.48	14.28	14.63	14.61
16	14.71	14.91	17.50	16.62	15.97	16.12	14.73	13.87	14.35	14.82	14.69	14.53
17	14.84	15.05	18.43	16.19	15.81	15.95	14.40	13.83	14.12	14.48	14.71	14.91
18	14.77	14.80	17.75	15.94	15.60	15.78	14.33	14.05	14.07	14.57	14.66	14.76
19	14.79	15.14	17.48	16.19	15.64	15.93	14.23	13.93	13.86	14.62	14.58	14.41
20	14.67	14.88	17.35	15.96	15.58	15.88	13.77	14.22	14.02	14.54	14.84	14.32
21	15.06	14.69	17.08	15.75	15.63	15.77	13.34	14.16	14.13	14.50	14.69	14.11
22	14.84	14.91	16.96	15.98	15.48	15.84	13.43	14.08	14.57	14.08	14.71	14.16
23	14.91	14.77	16.44	16.02	15.54	15.75	13.59	14.46	14.53	14.80	14.64	14.27
24	14.71	14.74	16.91	16.27	15.80	15.67	13.69	13.68	14.19	14.65	14.75	14.36
25	15.04	14.85	16.48	15.62	15.82	15.05	13.73	13.92	14.29	13.61	14.85	14.26
26	15.24	14.83	16.49	15.90	15.55	15.19	13.47	14.17	14.32	14.44	14.76	14.24
27	15.24	14.93	16.47	15.40	15.88	15.41	13.51	14.17	14.55	14.56	15.07	14.30
28	15.62	14.82	16.77	15.50	15.80	15.23	13.45	13.89	14.35	14.48	15.44	14.12
29	15.42	14.64	16.72	15.52	------	15.43	13.37	14.11	14.50	14.44	14.98	14.21
30	15.62	14.62	17.15	15.66	------	16.14	13.28	14.17	14.30	14.65	15.01	14.21
31	15.63	------	18.31	15.57	------	15.72	------	14.07	------	14.49	14.94	------
MEAN		15.17	15.92	17.77	15.70	15.88	14.53	13.73	14.19	14.55	14.78	14.51
MAX		15.72	18.43	21.52	16.00	16.50	15.66	14.46	14.57	15.21	15.44	14.91
MIN		14.62	13.85	15.40	15.43	15.05	13.28	13.13	13.77	13.61	14.24	14.11

06340900 Missouri River near Hensler, N. Dak.

LOCATION.--Lat 47°16'45", long 101°11'03", in SW¼ sec.22, T.144 N., R.83 W., McLean County, on left bank about 7.5 mi (12 km) west of Washburn at mile 1,362 (kilometre 2,191).

DRAINAGE AREA.--183,000 mi^2 (474,000 km^2), approximately.

PERIOD OF RECORD.--May 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,640.00 ft (499.872 m) above mean sea level (levels by Corps of Engineers). Prior to Sept. 30, 1964, at datum 40 ft (12.192 m) lower.

EXTREMES.--Current year: Maximum daily gage height recorded, 25.28 ft (7.705 m) Jan. 10; minimum daily recorded, 16.86 ft (5.139 m) Apr. 30.
Period of record: Maximum daily gage height recorded, 27.77 ft (8.464 m) Mar. 20, 1965; minimum daily recorded, 15.52 ft (4.730 m) May 10, 1966.

REMARKS.--Records good. Stage regulated by Lake Saskakawea (see station 06338000).

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18.35	19.28	18.44		19.29	19.71	18.82	17.13	17.92	18.37	18.53	18.75
2	18.07	19.27			19.42	20.22	19.10	17.52	17.68	18.19	18.47	18.38
3	18.21	19.29			19.18	20.33	19.48	17.14	17.88	18.52	18.44	18.52
4	18.20	19.26			19.33	20.29	19.20	17.23	17.68	18.07	18.47	18.39
5	18.21	19.35			19.41	20.05	19.01	17.27	17.96	18.60	18.54	18.42
6	18.24	19.23			19.44	20.00	18.96	17.09	18.22	19.05	18.48	18.37
7	18.28	19.38			20.13	20.06	19.02	17.00	17.91	18.79	18.55	18.50
8	18.54	19.22			20.25	19.71	19.17	17.27	18.30	18.23	18.69	18.52
9	17.83	19.35			19.68	19.68	18.94	16.98	17.83	18.60	19.02	18.29
10	18.30	19.07		25.28	19.61	19.77	19.31	17.25	18.00	18.67	18.90	18.42
11	18.38	19.00		25.21	19.81	18.95	19.35	17.29	18.29	18.42	18.59	18.51
12	19.07	19.21		24.95	19.55	19.98	19.35	17.29	18.12	18.48	18.10	18.36
13	17.97	18.92		24.48	19.57	19.35	19.45	17.12	17.82	18.62	18.75	18.37
14	18.40	18.58		24.01	19.68	19.83	18.88	17.03	18.16	18.27	18.35	18.35
15	18.71	18.53		23.58	20.34	19.78	18.73	17.30	18.30	18.19	18.48	18.38
16	18.21	18.48		22.82	21.04	19.81	18.54	17.84	18.38	18.59	18.46	18.36
17	18.49	18.60		22.02	21.32	19.63	18.07	17.62	18.06	18.34	18.46	18.20
18	18.46	18.38		21.44	20.15	19.71	18.03	17.96	17.99	18.44	18.43	18.58
19	18.44	18.80		21.24	19.52	19.45	18.07	17.83	17.78	18.48	18.37	18.45
20	18.25	18.40		20.87	19.35	19.64	17.59	18.04	17.93	18.43	18.61	18.26
21	18.70	18.25		20.47	19.37	19.36	17.09	18.20	17.91	18.32		18.04
22	18.50	18.54		20.39	19.21	19.49	17.14	18.15	18.40	18.07		17.83
23	18.52	18.41		20.34	19.27	19.43	17.33	18.47	18.51	18.55	18.47	17.88
24	18.36	18.30		20.47	19.54	19.36	17.45	17.52	18.15	18.81	18.39	17.94
25	18.75	18.46		19.60	19.57	18.91	17.54	17.86	18.16	17.31	18.47	18.05
26	18.79	18.46		19.69	19.27	18.72	17.25	18.18	18.17	18.24	18.56	18.00
27	18.90	18.55		19.32	19.62	19.07	17.33	18.21	18.48	18.47	18.59	17.89
28	19.28	18.45		19.36	19.56	18.95	17.15	17.71	18.26	18.34	18.65	17.96
29	19.13	18.29		19.34	------	19.07	17.25	17.99	18.35	18.43	19.18	17.80
30	19.31	18.23		19.47	------	19.74	16.86	18.29	18.13	18.40	18.77	17.87
31	19.30	------		19.38	------	19.60	------	18.03	------	18.39	18.70	------
MEAN	18.52	18.78			19.70	19.60	18.32	17.61	18.09	18.41		18.25
MAX	19.31	19.38			21.32	20.33	19.48	18.47	18.51	19.05		18.75
MIN	17.83	18.23			19.18	18.72	16.86	16.98	17.68	17.31		17.80

06341000 Missouri River at Washburn, N. Dak.

LOCATION.--Lat 47°17'20", long 101°02'15", in SE¼SW¼ sec.14, T.144 N., R.82 W., McLean County, on left bank near municipal water plant in Washburn at mile 1,355 (kilometre 2,180).

DRAINAGE AREA.--184,000 mi^2 (476,600 km^2), approximately.

PERIOD OF RECORD.--August 1960 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,640.00 ft (499.872 m) above mean sea level. Prior to Sept. 30, 1964, at datum 40 ft (12.192 m) lower.

EXTREMES.--Current year: Maximum daily gage height recorded, 20.87 ft (6.361 m) Jan. 2; minimum daily recorded, 11.87 ft (3.618 m) Apr. 30, May 14.
Period of record: Maximum daily gage height recorded, 22.76 ft (6.937 m) Jan. 11, 1964; minimum daily recorded, 10.62 ft (3.237 m) Mar. 26, 1968.

REMARKS.--Records good. Gage readings Oct. 11-25, Feb. 16-18, May 3-7 observed at 0830. Stage regulated by Lake Sakakawea (see station 06338000).

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.45	14.21	13.48	20.58	14.58	14.62	13.90	12.19	12.71	13.17	13.27	13.25
2	13.18	14.20	13.36	20.87	14.61	15.04	13.95	12.42	12.48	12.92	13.22	13.30
3	13.32	14.23	13.67	20.52	14.36	15.19	14.32	12.32	12.68	13.25	13.19	13.30
4	13.30	14.22	13.29	20.06	14.44	15.18	14.14	13.02	12.50	12.96	13.24	13.22
5	13.25	14.29	13.17	20.70	14.48	14.91	13.98	13.03	12.72	13.24	13.29	13.21
6	13.39	14.19	12.78	20.49	14.52	14.88	13.88	12.82	12.90	13.73	13.24	13.29
7	13.19	14.31	12.93	20.39	15.67	14.91	13.93	12.59	12.72	13.57	13.28	13.33
8	13.13	14.19	13.13	20.30	16.44	14.62	14.05	12.20	13.04	13.13	13.41	13.18
9	13.38	14.31	14.53	20.55	15.52	14.62	13.86	11.97	12.74	13.27	13.71	13.25
10	13.01	14.10	17.11	20.46	15.39	14.65	14.18	12.14	12.73	13.36	13.67	13.31
11	14.05	14.00	17.19	20.35	16.24	14.05	14.17	12.17	12.95	13.25	13.40	13.21
12	14.29	14.17	17.41	20.19	15.40	14.77	14.25	12.16	12.88	13.25	13.01	13.21
13	13.80	13.96	17.31	19.92	15.03	14.30	14.30	12.08	12.60	13.36	13.41	13.21
14	13.69	13.70	17.59	19.71	15.92	14.67	13.85	11.87	12.88	13.06	13.20	13.22
15	14.37	13.60	17.70	19.50	17.79	14.65	13.76	12.15	12.98	13.06	13.29	13.20
16	13.71	13.59	17.64	19.45	18.64	14.68	13.53	12.61	13.14	13.27	13.27	13.09
17	14.07	13.67	18.12	18.91	19.77	14.58	13.17	12.40	12.82	13.15	13.28	13.36
18	14.03	13.52	18.50	18.32	17.98	14.66	13.12	12.73	12.73	13.22	13.28	13.30
19	14.13	13.87	18.55	18.14	16.52	14.32	13.18	12.64	12.61	13.23	13.24	13.19
20	14.00	13.51	18.68	17.88	14.82	14.58	12.78	12.76	12.68	13.19	13.33	12.91
21	14.22	13.40	18.54	17.43	14.55	14.34	12.37	12.96	12.67	13.09	13.20	12.76
22	14.00	13.62	18.73	17.17	14.34	14.41	12.31	12.92	13.10	13.00	13.25	12.80
23	14.06	13.52	18.30	16.99	14.29	14.37	12.39	13.09	13.27	13.19	13.21	12.84
24	13.97	13.41	18.25	16.90	14.48	14.29	12.49	12.32	12.98	13.60	13.27	12.93
25	14.23	13.51	18.32	15.87	14.55	13.98	12.52	12.60	12.89	12.29	13.34	12.89
26	13.73	13.51	18.22	15.53	14.30	13.78	12.32	12.88	12.90	12.96	13.42	12.80
27	13.85	13.59	18.14	15.04	14.53	14.07	12.38	12.92	13.20	13.21	13.37	12.87
28	14.15	13.50	18.10	15.15	14.49	13.95	12.20	12.48	13.02	13.10	13.91	12.78
29	14.08	13.39	18.32	14.96	------	14.01	12.30	12.68	13.06	13.21	13.61	12.81
30	14.22	13.32	20.83	14.96	------	14.56	11.87	13.05	12.94	13.10	13.49	12.82
31	14.22	------	20.66	14.80	------	14.55	------	12.77	------	13.16	13.58	------
MEAN	13.79	13.82	16.86	18.45	15.49	14.52	13.32	12.55	12.85	13.18	13.35	13.09
MAX	14.37	14.31	20.83	20.87	19.77	15.19	14.32	13.09	13.27	13.73	13.91	13.36
MIN	13.01	13.32	12.78	14.80	14.29	13.78	11.87	11.87	12.48	12.29	13.01	12.76

WTR YR 1973 MEAN 14.27 MAX 20.87 MIN 11.87

06341400 Turtle Creek near Turtle Lake, N. Dak.

LOCATION.--Lat 47°27'30", long 100°55'15", on north line of sec.19, T.146 N., R.80 W., McLean County, on downstream end of twin culverts on State Highway 20, 2.5 mi (4.0 km) downstream from Lake Ordway, and 4 mi (6.4 km) southwest of Turtle Lake.

DRAINAGE AREA.--310 mi^2 (803 km^2), approximately, of which about 195 mi^2 (505 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,805 ft (550 m) (from topographic map).

AVERAGE DISCHARGE.--17 years, 0.59 ft^3/s (0.017 m^3/s), 427 acre-ft/yr (526,000 m^3/yr); median of yearly mean discharges, 0.5 ft^3/s (0.014 m^3/s), 360 acre-ft/yr (440,000 m^3/yr).

EXTREMES.--Current year: Maximum discharge, 48 ft^3/s (1.36 m^3/s) Mar. 2, gage height, 5.10 ft (1.554 m) backwater from ice; maximum gage height, 5.50 ft (1.676 m) Feb. 23, backwater from ice; no flow for several months.
Period of record: Maximum discharge, 410 ft^3/s (11.6 m^3/s) June 13, 1972, gage height, 5.13 ft (1.564 m); maximum gage height, 6.2 ft (1.890 m) Mar. 2, 1967 from floodmark, backwater from snow; no flow most of time each year.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	1.4	1.5	.10	1.7	21	5.5	1.9	0			
2	0	1.1	1.4	.10	1.7	26	5.3	1.8	0			
3	0	1.1	1.4	.09	1.7	31	4.9	1.7	0			
4	0	1.1	1.2	.08	2.0	18	4.5	1.5	0			
5	0	1.1	1.2	.07	4.0	7.0	4.4	1.2	0			
6	0	1.5	1.1	.06	5.0	7.0	4.2	1.2	0			
7	.01	1.6	1.1	.05	3.0	7.0	3.8	1.2	0			
8	.75	1.6	1.0	.05	2.0	6.0	3.8	1.2	0			
9	.75	1.6	.80	.04	1.0	15	4.0	1.2	0			
10	.63	1.6	.60	.04	1.0	14	3.4	1.1	0			
11	.71	1.6	.40	.04	.90	11	3.4	1.2	0			
12	.67	1.6	.20	.04	.90	17	3.1	1.0	0			
13	.63	1.6	.10	.04	.80	11	2.8	.90	0			
14	.80	1.6	.04	.04	.70	16	2.8	.67	0			
15	.75	1.6	.02	.04	.70	5.0	2.8	.52	0			
16	.90	1.6	.01	.04	.60	6.0	2.7	.40	0			
17	.90	1.5	0	.03	.60	13	2.5	.29	0			
18	.90	1.5	0	.03	.60	11	2.3	.25	0			
19	1.0	1.5	0	.02	.50	7.0	2.1	.21	.17			
20	1.0	1.5	0	.02	.50	7.0	2.5	.11	.19			
21	.95	1.5	0	.02	.50	7.0	2.5	.04	.17			
22	.90	1.5	0	.01	10	8.6	2.6	.03	.06			
23	.90	1.8	0	.01	29	8.6	2.7	.03	.02			
24	.90	2.0	0	.20	25	7.3	2.8	.05	.01			
25	.90	1.8	0	.50	5.0	5.5	2.8	.04	0			
26	1.0	1.5	0	1.0	6.0	6.0	2.7	.02	0			
27	1.5	1.5	0	3.0	15	7.6	2.5	.06	0			
28	1.6	1.5	.02	5.0	20	6.2	2.2	.04	0			
29	1.8	1.5	.06	8.0	------	6.0	2.2	.03	0			
30	1.9	1.5	.10	2.8	------	5.8	2.1	.01	0			
31	1.8	------	.10	1.7	------	5.8	------	0	------			------
TOTAL	24.55	45.4	12.35	23.26	140.40	330.4	95.9	19.90	.62	0	0	0
MEAN	.79	1.51	.40	.75	5.01	10.7	3.20	.64	.021	0	0	0
MAX	1.9	2.0	1.5	8.0	29	31	5.5	1.9	.19	0	0	0
MIN	0	1.1	0	.01	.50	5.0	2.1	0	0	0	0	0
AC-FT	49	90	24	46	278	655	190	39	1.2	0	0	0

CAL YR 1972 TOTAL 798.29 MEAN 2.18 MAX 84 MIN 0 AC-FT 1,580
WTR YR 1973 TOTAL 692.78 MEAN 1.90 MAX 31 MIN 0 AC-FT 1,370

PEAK DISCHARGE (BASE, 10 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
2-23	--	--	30	3-2	--	--	48
2-28	--	--	25				

06341800 Painted Woods Creek near Wilton, N. Dak.

LOCATION.--Lat 47°16'30", long 100°47'30", in SW¼SW¼ sec.23, T.144 N., R.80 W., McLean County, on right bank 600 ft (180 m) upstream from county highway bridge, 7 mi (11 km) upstream from Yanktonai Creek, and 8 mi (13 km) north of Wilton.

DRAINAGE AREA.--427 mi^2 (1,110 km^2), approximately, of which about 310 mi^2 (800 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,760 ft (536 m), from topographic map.

AVERAGE DISCHARGE.--16 years, 7.51 ft^3/s (0.213 m^3/s), 5,540 acre-ft/yr (6.831 hm^3/yr); median of yearly mean discharges, 5.8 ft^3/s (0.16 m^3/s), 4,200 acre-ft/yr (5.18 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 93 ft^3/s (2.63 m^3/s) Mar. 1, gage height, 5.37 ft (1.637 m); no flow July 12-25.
Period of record: Maximum discharge, 1,800 ft^3/s (51.0 m^3/s) Apr. 9, 1969, gage height, 8.12 ft (2.475 m), backwater from ice; maximum gage height, 8.67 ft (2.643 m) Mar. 15, 1966, backwater from ice; no flow for many days each year.

REMARKS.--Records good. Several peaks above base experienced during October and November due to aquifer dewatering for the McClusky Canal. Records of chemical analyses for the 1973 water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	20	1.0	.18	.20	81	2.5	1.3	.30	.13	.06	.09
2	9.5	36	1.0	.18	.24	58	2.3	1.2	.30	.17	.04	.18
3	6.1	40	.86	.20	.67	53	2.1	1.1	.24	.12	.03	.38
4	4.4	38	.72	.18	.72	44	2.0	1.2	.18	.11	.03	.34
5	17	37	.62	.18	.36	44	1.8	.88	.14	.09	.05	.23
6	23	36	.57	.16	.27	31	1.8	.76	.13	.07	.05	.17
7	11	35	.48	.16	.22	27	1.7	.69	.12	.05	.05	.15
8	6.8	32	.40	.14	.22	22	1.6	.64	.12	.04	.04	.16
9	22	31	.36	.14	.20	19	1.4	.73	.10	.03	.05	.16
10	39	31	.44	.13	.22	29	1.4	.71	.08	.02	.04	.14
11	41	28	.44	.13	.20	20	1.2	.64	.08	.01	.04	.13
12	41	11	.36	.12	.18	16	1.3	.60	.08	0	.05	.13
13	41	10	.33	.12	.18	17	1.2	.57	.07	0	.05	.13
14	41	6.4	.30	.12	.27	15	1.1	.51	.06	0	.12	.13
15	40	4.2	.27	.18	.40	11	.81	.45	.04	0	.16	.14
16	40	3.4	.27	.24	.48	10	.91	.43	.06	0	.10	.15
17	40	2.9	.20	.27	.44	10	.99	.38	.12	0	.34	.16
18	37	2.6	.22	.24	.67	7.7	1.0	.33	.12	0	.29	.18
19	34	2.3	.24	.22	.62	8.2	1.4	.29	.30	0	.23	.19
20	42	2.1	.22	.20	.33	6.4	1.7	.27	.33	0	.17	.21
21	41	2.0	.22	.18	.36	6.4	1.3	.23	.30	0	.12	.20
22	40	1.8	.20	.20	5.5	5.8	1.2	.23	.19	0	.10	.22
23	40	1.7	.24	.20	17	5.3	1.4	.23	.15	0	.09	.27
24	39	1.7	.22	.27	10	5.1	1.9	.24	.13	0	.10	.38
25	38	1.4	.20	.52	7.7	4.7	1.8	.25	.11	0	.10	.67
26	39	1.6	.18	.57	12	4.2	1.6	.29	.09	.01	.11	.52
27	40	1.4	.18	.36	40	4.1	1.8	.47	.08	.01	.10	.36
28	39	1.3	.20	.27	48	2.9	1.7	.49	.08	.02	.07	.31
29	37	1.1	.24	.22	------	3.4	1.6	.48	.07	.05	.06	.25
30	24	1.0	.24	.22	------	3.0	1.6	.44	.07	.06	.06	.24
31	30	------	.20	.22	------	2.4	------	.36	------	.06	.05	------
TOTAL	960.8	423.9	11.62	6.72	147.65	576.6	46.11	17.39	4.24	1.05	2.95	6.97
MEAN	31.0	14.1	.37	.22	5.27	18.6	1.54	.56	.14	.034	.095	.23
MAX	42	40	1.0	.57	48	81	2.5	1.3	.33	.17	.34	.67
MIN	4.4	1.0	.18	.12	.18	2.4	.81	.23	.04	0	.03	.09
AC-FT	1,910	841	23	13	293	1,140	91	34	8.4	2.1	5.9	14

CAL YR 1972 TOTAL 9,126.51 MEAN 24.9 MAX 386 MIN 0 AC-FT 18,100
WTR YR 1973 TOTAL 2,206.00 MEAN 6.04 MAX 81 MIN 0 AC-FT 4,380

PEAK DISCHARGE (BASE, 30 FT^3/S).--MAR. 1 (0345) 93 FT^3/S (5.37 FT).

06342020 Missouri River at Price, N. Dak.

LOCATION.--Lat 47°04'47", long 100°55'55", in NW¼ sec.34, T.142 N., R.81 W., Oliver County, on right bank, 0.5 mi (0.8 km) south of Price at mile 1,338 (kilometre 2,153).

DRAINAGE AREA.--185,000 mi^2 (479,200 km^2), approximately.

PERIOD OF RECORD.--November 1959 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,620.00 ft (493.776 m) above mean sea level (levels by Corps of Engineers). Prior to Sept. 30, 1964, at datum 20 ft (6.096 m) lower.

EXTREMES.--Current year: Maximum daily gage height recorded, 28.03 ft (8.544 m) Feb. 9; minimum daily recorded, 19.32 ft (5.889 m) Apr. 30.
Period of record: Maximum daily gage height recorded, 30.12 ft (9.181 m) Jan. 22, 1967; minimum daily recorded, 17.76 ft (5.413 m) Mar. 31, 1968.

REMARKS.--Records good. Stage regulated by Lake Sakakawea (see station 06338000).

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		22.00	21.07	26.11	24.98	22.01	21.35	19.66	20.43	20.87	20.97	21.12
2		21.98	21.08	26.68	24.99	22.19	20.94	19.75	20.22	20.65	20.99	21.05
3		21.99	21.31	26.91	24.77	22.47	21.42	19.81	20.29	20.90	20.98	21.19
4		21.98	21.02	26.41	24.12	22.47	21.46	19.71	20.21	20.89	21.02	20.96
5		22.02	21.04	26.80	23.58	22.23	21.28	19.78	20.33	20.78	21.04	21.02
6		21.93	20.46	27.14	24.91	22.13	21.15	19.67	20.47	21.39	21.02	21.02
7		22.00	21.60	27.05	27.99	22.10	21.17	19.37	20.50	21.45	21.04	21.07
8		21.95	25.24	27.00	28.00	21.89	21.30	19.71	20.58	21.09	21.14	21.05
9		21.99	25.18	27.33	28.03	21.78	21.17	19.58	20.70	20.85	21.42	21.01
10		21.88	25.30	27.39	27.36	21.77	21.39	19.61	20.37	21.04	21.54	21.02
11		21.69	25.38	27.10	27.07	21.43	21.47	19.68	20.55	21.09	21.25	21.02
12		21.80	25.66	26.87	27.46	21.58	21.61	19.70	20.69	20.97	20.95	20.96
13		21.69	25.79	26.62	27.17	21.57	21.60	19.71	20.37	21.06	20.93	20.98
14		21.46	25.88	26.35	26.02	21.66	21.37	19.38	20.51	20.90	21.09	20.99
15		21.25	26.22	26.03	26.24	21.72	21.25	19.68	20.64	20.86	21.01	20.97
16		21.22	26.17	26.01	26.43	21.77	20.83	20.00	20.92	20.84	21.01	20.91
17		21.26	26.44	25.84	26.63	21.74	20.57	20.01	20.65	20.97	21.02	21.00
18		21.20	27.04	25.65	27.01	21.79	20.50	20.30	20.44	20.95	21.05	21.10
19		21.41	27.22	25.63	26.88	21.37	20.56	20.35	20.38	20.98	21.05	21.05
20		21.19	27.31	25.64	26.55	21.67	20.23	20.34	20.36	20.94	21.04	20.65
21		21.06	27.24	25.47	25.89	21.47	19.82	20.55	20.39	20.82	21.12	20.54
22		21.20	27.30	25.40	25.22	21.52	19.71	20.61	20.72	20.86	21.05	20.53
23		21.18	27.27	25.52	23.86	21.53	19.75	20.59	21.02	20.72	21.04	20.53
24		21.03	26.96	25.71	23.18	21.46	19.90	20.28	20.89	21.27	21.04	20.64
25		21.12	27.06	25.35	22.96	21.32	19.93	20.22	20.58	20.42	21.15	20.65
26		21.17	26.92	25.25	22.47	20.84	19.82	20.45	20.62	20.53	21.28	20.56
27	21.77	21.19	26.94	25.24	22.19	21.11	19.83	20.55	20.86	20.90	21.11	20.60
28	22.07	21.17	26.97	24.70	22.09	21.14	19.68	20.28	20.85	20.89	21.65	20.58
29	22.07	21.06	26.90	24.89	------	21.11	19.75	20.26	20.75	20.97	21.61	20.55
30	21.96	20.95	26.25	24.89	------	21.50	19.32	20.64	20.77	20.83	21.32	20.58
31	21.99	------	26.06	24.97	------	21.87	------	20.48	------	20.97	21.39	------
MEAN		21.50	25.23	26.06	25.50	21.68	20.67	20.02	20.57	20.92	21.14	20.86
MAX		22.02	27.31	27.39	28.03	22.47	21.61	20.64	21.02	21.45	21.65	21.19
MIN		20.95	20.46	24.70	22.09	20.84	19.32	19.37	20.21	20.42	20.93	20.53

06342100 Square Butte Creek tributary No. 2 near Center, N. Dak.

LOCATION.--Lat 47°06'40", long 101°15'05", in NE¼NE¼ sec.24, T.142 N., R.84 W., Oliver County, on right bank 60 ft (18.3 m) upstream from county highway bridge, 2.1 mi (3.4 km) southeast of Center.

DRAINAGE AREA.--13.0 m^2 (33.7 km^2).

PERIOD OF RECORD.--December 1954 to April 1965 (annual maximum only), May 1965 to current year.

GAGE.--Water-stage recorder. Prior to May 1965, crest-stage gage only at site 1,000 ft (305 m) upstream at datum 1.48 ft (0.451 m) higher.

AVERAGE DISCHARGE.--8 years, 1.11 ft^3/s (0.031 m^3/s), 804 acre-ft/yr (0.991 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, about 5 ft^3/s (0.14 m^3/s) Feb. 22, gage height, 3.75 ft (1.143 m), backwater from ice; no flow on many days.
Period of record: Maximum discharge, 2,500 ft^3/s (70.80 m^3/s) July 16, 1957, gage height, 7.98 ft (2.432 m), site and datum then in use; no flow for several months each year.

REMARKS.--Records poor. Flow regulated by Soil Conservation Service dam 1.5 mi (2.4 km) upstream since August 1972; capacity, 1,225 acre-ft (1.51 hm^3). Records of chemical analyses for the 1973 water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.09	.03	0	.10	1.3	.50	.35	.10	.08		
2	0	.09	.03	0	.10	1.3	.40	.35	.10	.10		
3	0	.09	.02	0	.20	1.2	.30	.25	.25	.06		
4	0	.09	.02	0	.35	1.2	.40	.25	.30	.06		
5	.50	.09	.02	0	.30	1.1	.50	.25	.20	.05		
6	.50	.09	.02	0	.25	1.4	.40	.25	.15	.05		
7	.40	.09	.01	0	.20	1.3	.25	.20	.10	.04		
8	.40	.09	.01	0	.15	1.3	.35	.20	.10	.03		
9	.40	.08	.01	0	.10	1.2	.35	.25	.10	.02		
10	.35	.08	.01	0	.05	1.2	.40	.25	.10	.01		
11	.35	.08	0	0	.10	1.1	.45	.20	.10	0		
12	.35	.08	0	0	.05	1.1	.40	.15	.09	0		
13	.30	.08	0	0	.02	1.2	.40	.10	.09	0		
14	.30	.08	0	.02	0	1.2	.45	.10	.09	0		
15	.30	.08	0	.05	0	1.1	.45	.10	.08	0		
16	.25	.08	0	.10	0	1.2	.45	.10	.08	0		
17	.25	.07	0	.10	0	1.3	.45	.10	.12	0		
18	.25	.07	0	.10	0	1.3	.40	.10	.10	0		
19	.20	.07	.05	.05	0	1.3	.40	.10	.25	0		
20	.20	.07	.10	.10	0	1.3	.70	.10	.15	0		
21	.20	.07	.10	.15	.05	1.3	.50	.10	.10	0		
22	.15	.07	.15	.15	1.5	1.3	.40	.10	.10	0		
23	.15	.07	.15	.15	.80	1.3	.30	.15	.09	0		
24	.15	.06	.10	.20	.50	1.3	.35	.30	.08	0		
25	.10	.06	.05	.30	.40	1.3	.50	.15	.07	0		
26	.10	.06	.05	.30	1.4	1.3	.45	.15	.06	0		
27	.10	.05	.05	.20	1.3	1.2	.40	.20	.06	0		
28	.10	.05	.04	.15	1.4	.90	.25	.20	.06	0		
29	.10	.04	.03	.10	------	.40	.45	.25	.06	0		
30	.10	.04	.02	.10	------	.45	.45	.20	.06	0		
31	.10	------	.01	.10	------	.50	------	.15	------	0		------
TOTAL	6.65	2.21	1.08	2.42	9.32	35.85	12.45	5.70	3.39	.50	0	0
MEAN	.21	.074	.035	.078	.33	1.16	.42	.18	.11	.016	0	0
MAX	.50	.09	.15	.30	1.5	1.4	.70	.35	.30	.10	0	0
MIN	0	.04	0	0	0	.40	.25	.10	.06	0	0	0
AC-FT	13	4.4	2.1	4.8	18	71	25	11	6.7	1.0	0	0

CAL YR 1972 TOTAL 678.71 MEAN 1.85 MAX 113 MIN 0 AC-FT 1,350
WTR YR 1973 TOTAL 79.57 MEAN .22 MAX 1.5 MIN 0 AC-FT 158

PEAK DISCHARGE (BASE, 50 FT^3/S).--NO PEAK ABOVE BASE.

06342260 Square Butte Creek below Center, N. Dak.

LOCATION.--Lat 47°03'25", long 101°11'35", in SE¼ sec.4, T.141 N., R.83 W., Oliver County, on right bank at southeast corner of farmyard, 6 mi (10 km) southeast of Center.

DRAINAGE AREA.--146 mi^2 (378 km^2).

PERIOD OF RECORD.--May 1965 to current year.

GAGE.--Water-stage recorder.

AVERAGE DISCHARGE.--8 years, 14.2 ft^3/s (0.402 m^3/s), 10,290 acre-ft/yr (12.69 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 572 ft^3/s (16.2 m^3/s) Mar. 1, gage height, 6.39 ft (1.948 m), backwater from ice; minimum daily discharge, 1.0 ft^3/s (0.028 m^3/s) Nov. 11-23, 29, Dec. 9 to Jan. 11, July 22; minimum gage height, 1.09 ft (0.332 m) Apr. 2, July 10.
Period of record: Maximum discharge, 9,700 ft^3/s (275 m^3/s) June 24, 1966, gage height, 14.35 ft (4.374 m); no flow Feb. 14-26, 1966.

REMARKS.--Records fair. Flow regulated by Nelson Lake 1.5 mi (2.4 km) upstream beginning Aug. 24, 1967, capacity, 5,000 acre-ft (6.16 hm^3). Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	1.4	1.4	1.0	2.0	370	1.8	1.8	1.3	1.6	1.7	1.9
2	2.3	1.4	1.4	1.0	2.0	54	1.7	1.7	1.3	1.5	1.1	2.0
3	2.3	1.2	1.4	1.0	2.0	89	1.7	1.7	1.3	1.2	1.3	2.1
4	2.1	1.2	1.4	1.0	2.0	101	1.8	1.6	1.3	1.2	1.3	1.9
5	3.4	1.4	1.4	1.0	2.0	87	1.8	1.5	1.3	1.3	1.7	1.8
6	2.5	1.4	1.4	1.0	2.0	52	1.8	1.5	1.3	1.2	1.6	1.8
7	2.3	1.2	1.4	1.0	2.0	9.4	1.8	1.5	1.3	1.2	1.9	1.8
8	2.3	1.2	1.4	1.0	2.0	5.8	1.7	1.5	1.3	1.2	2.0	1.8
9	2.5	1.2	1.0	1.0	2.0	5.7	1.7	1.5	1.3	1.2	2.0	1.8
10	2.3	1.2	1.0	1.0	2.0	5.8	1.7	1.4	1.3	1.2	2.1	1.8
11	2.1	1.0	1.0	1.0	2.0	5.7	1.8	1.4	1.3	1.2	2.0	1.8
12	1.9	1.0	1.0	1.5	2.0	5.8	1.7	1.4	1.3	1.2	2.0	1.8
13	1.7	1.0	1.0	1.5	2.0	5.7	1.7	1.4	1.3	1.2	2.0	1.8
14	1.6	1.0	1.0	2.0	2.0	5.9	1.7	1.4	1.3	1.2	1.9	1.7
15	1.6	1.0	1.0	2.0	2.0	5.9	1.7	1.4	1.3	1.2	1.6	1.7
16	1.6	1.0	1.0	2.0	2.0	5.9	1.7	1.4	1.3	1.2	1.4	1.8
17	1.6	1.0	1.0	2.0	2.0	5.6	1.8	1.4	1.3	1.2	1.2	1.7
18	1.6	1.0	1.0	2.0	2.0	5.7	1.8	1.4	1.3	1.2	1.3	1.7
19	1.6	1.0	1.0	2.0	1.5	5.8	1.9	1.4	1.3	1.2	1.4	1.7
20	1.6	1.0	1.0	2.0	1.5	5.8	2.0	1.4	1.3	1.2	1.2	1.8
21	1.6	1.0	1.0	2.0	1.5	5.5	1.8	1.4	1.3	1.1	1.2	1.8
22	1.4	1.0	1.0	2.0	2.5	33	1.7	1.4	1.3	1.0	1.3	1.7
23	1.4	1.0	1.0	2.0	1.5	31	1.9	1.4	1.3	1.2	1.7	1.5
24	1.4	1.2	1.0	2.0	1.5	5.6	1.9	1.3	1.3	1.2	1.9	1.6
25	1.4	1.2	1.0	2.0	1.5	5.4	1.8	1.3	1.4	1.1	1.9	1.6
26	1.4	1.4	1.0	2.0	2.5	5.4	1.8	1.3	1.4	1.4	1.9	1.7
27	1.7	1.2	1.0	2.0	50	5.4	1.8	1.3	1.5	1.3	1.7	1.6
28	1.4	1.2	1.0	2.0	140	3.6	1.8	1.3	1.4	1.3	1.7	1.6
29	1.6	1.0	1.0	2.0	------	1.7	1.8	1.3	1.6	1.4	1.6	1.6
30	1.5	1.2	1.0	2.0	------	1.8	1.7	1.3	1.5	1.2	1.6	1.7
31	1.4	------	1.0	2.0	------	1.8	------	1.3	------	1.3	1.6	------
TOTAL	57.4	34.2	34.2	50.0	240.0	937.7	53.3	44.3	40.0	38.3	50.8	52.6
MEAN	1.85	1.14	1.10	1.61	8.57	30.2	1.78	1.43	1.33	1.24	1.64	1.75
MAX	3.4	1.4	1.4	2.0	140	370	2.0	1.8	1.6	1.6	2.1	2.1
MIN	1.4	1.0	1.0	1.0	1.5	1.7	1.7	1.3	1.3	1.0	1.1	1.5
AC-FT	114	68	68	99	476	1,860	106	88	79	76	101	104

CAL YR 1972 TOTAL 6,835.0 MEAN 18.7 MAX 1,200 MIN 1.0 AC-FT 13,560
WTR YR 1973 TOTAL 1,632.8 MEAN 4.47 MAX 370 MIN 1.0 AC-FT 3,240

06342450 Burnt Creek near Bismarck, N. Dak.

LOCATION.--Lat 46°54'54", long 100°48'48", in SW¼NW¼SW¼ sec.29, T.140 N., R.80 W., Burleigh County, on left bank on upstream side of county highway bridge, 7 mi (11 km) northwest of Bismarck.

DRAINAGE AREA.--108 mi^2 (280 km^2).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder.

AVERAGE DISCHARGE.--6 years, 8.84 ft^3/s (0.250 m^3/s), 6,400 acre-ft/yr (7.891 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 158 ft^3/s (4.47 m^3/s), Feb. 27, gage height, 8.05 ft (2.454 m), backwater from ice; no flow for several months.
Period of record: Maximum discharge, 3,000 ft^3/s (85.0 m^3/s) Apr. 8, 1969, gage height, 14.80 ft (4.511 m); no flow for several days each year.

REMARKS.--Records poor. Records of chemical analyses for water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.26		0	110	.93	1.9	2.4			
2		0	.20		0	50	.90	1.6	1.4			
3		0	.13		0	40	.93	1.4	.86			
4		0	.10		0	26	.96	1.4	.66			
5		0	.06		0	13	1.1	1.2	.38			
6		0	.04		0	7.0	1.1	1.1	.30			
7		0	.03		0	6.0	1.1	.93	.35			
8		0	.02		0	5.0	1.2	.86	.35			
9		0	.01		0	6.0	1.2	.70	.20			
10		0	0		0	7.0	1.2	.66	.15			
11		.10	0		0	8.0	1.0	.62	.11			
12		.28	0		0	9.0	.86	.74	.07			
13		.30	0		0	7.0	.90	.58	.05			
14		.32	0		0	6.0	.96	.47	.03			
15		.30	0		0	5.0	1.1	.38	.03			
16		.26	0		0	7.0	1.2	.41	.03			
17		.30	0		0	6.0	1.4	.38	.03			
18		.30	0		0	5.0	1.4	.32	.03			
19		.35	0		0	5.0	1.6	.30	.03			
20		.35	0		0	5.0	2.3	.26	.02			
21		.38	0		1.0	4.0	2.5	.22	0			
22		.40	0		3.0	3.5	3.1	.20	0			
23		.50	0		14	3.0	3.2	.25	.02			
24		.50	0		16	3.0	3.0	.71	.04			
25		.60	0		12	2.5	2.7	2.8	.04			
26		.50	0		15	2.0	2.5	4.8	.04			
27		.40	0		70	1.5	2.5	3.5	.02			
28		.30	0		116	1.5	2.6	2.6	0			
29		.30	0		------	1.2	2.5	3.8	0			
30		.30	0		------	1.1	2.4	5.4	0			
31		------	0		------	1.1	------	3.9	------			------
TOTAL	0	7.04	.85	0	247.0	357.4	50.34	44.39	7.64	0	0	0
MEAN	0	.23	.027	0	8.82	11.5	1.68	1.43	.25	0	0	0
MAX	0	.60	.26	0	116	110	3.2	5.4	2.4	0	0	0
MIN	0	0	0	0	0	1.1	.86	.20	0	0	0	0
AC-FT	0	14	1.7	0	490	709	100	88	15	0	0	0

CAL YR 1972 TOTAL 4,444.46 MEAN 12.1 MAX 660 MIN 0 AC-FT 8,820
WTR YR 1973 TOTAL 714.66 MEAN 1.96 MAX 116 MIN 0 AC-FT 1,420

PEAK DISCHARGE (BASE, 20 FT^3/S).--FEB. 27, 158 FT^3/S.

06342500 Missouri River at Bismarck, N. Dak.

LOCATION.--Lat 46°48'51", long 100°49'12", in SE¼NW¼SE¼ sec.31, T.139 N., R.80 W., Burleigh County, on left bank 40 ft (12 m) upstream from Bismarck city waterplant, 2,100 ft (640 m) downstream from Burlington Northern Railway bridge, 1.6 mi (2.6 km) northwest of Bismarck Post Office, 3.5 mi (5.6 km) upstream from Heart River and at mile 1,314.5 (kilometre 2,115.0).

DRAINAGE AREA.--186,400 mi^2 (482,800 km^2), approximately.

PERIOD OF RECORD.--October to November 1927, April 1928 to current year. See WSP 1729 or 1917 for history of data prior to April 1928.

GAGE.--Water-stage recorder. Datum of gage is 1,618.38 ft (493.282 m) above mean sea level. See WSP 1729 or 1917 for history of changes prior to Sept. 30, 1937.

AVERAGE DISCHARGE.--45 years (1928-73), 21,720 ft^3/s (615.1 m^3/s), 15,740,000 acre-ft/yr (19.41 km^3/yr).

EXTREMES.--Current year: Maximum discharge, 31,800 ft^3/s (901 m^3/s) Jan. 25, gage height, 11.54 ft (3.517 m); backwater from ice; maximum gage height, 12.84 ft (3.914 m) Dec. 23, backwater from ice; minimum discharge, 14,300 ft^3/s (405 m^3/s) May 15, gage height, 4.43 ft (1.350 m).
Period of record: Maximum discharge, 500,000 ft^3/s (14,200 m^3/s) Apr. 6, 1952, gage height, 27.90 ft (8.504 m); minimum, about 1,800 ft^3/s (51.0 m^3/s) Jan. 3, 1940; minimum gage height, 1.35 ft (0.411 m) Sept. 4, 1934, present site and datum.
Maximum stage known, 31.6 ft (9.632 m) Mar. 31, 1881 (ice jam), present site and datum.

REMARKS.--Records good. Many diversions from tributaries. Flow regulated by Lake Sakakawea 75.4 mi (121.3 km) upstream -- see station 06338000. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21,500	27,400	21,700	24,200	28,500	30,700	27,500	16,700	19,500	20,500	20,800	23,000
2	21,700	27,400	22,000	26,500	28,800	29,800	23,800	17,200	19,000	21,100	21,200	21,800
3	21,100	27,400	22,000	26,000	29,100	29,600	25,400	18,200	18,400	20,700	21,100	22,600
4	21,500	27,400	22,000	26,000	28,500	30,200	26,900	17,200	19,000	21,700	21,100	21,800
5	21,800	27,500	22,000	26,800	28,700	29,700	26,200	17,300	18,200	20,400	21,200	21,700
6	21,700	27,700	21,000	27,500	26,400	29,000	25,200	17,200	18,900	22,700	21,500	21,400
7	22,000	27,400	20,000	27,700	21,700	28,500	25,000	16,100	19,800	24,700	21,400	21,800
8	22,100	27,700	19,000	27,900	24,100	28,500	25,500	16,400	19,200	23,600	21,800	21,900
9	22,200	27,500	18,000	28,100	27,800	27,800	25,700	16,900	20,700	21,200	22,700	21,400
10	20,800	27,700	17,000	28,300	27,600	28,300	25,300	16,200	18,800	22,300	24,100	21,600
11	21,700	26,300	17,000	28,500	23,300	28,500	26,600	16,700	18,900	22,900	23,300	21,900
12	22,600	26,100	17,000	28,700	26,700	26,700	27,100	16,800	20,200	22,100	21,900	21,400
13	24,700	26,600	17,000	28,900	27,600	29,100	27,200	16,700	19,400	22,200	20,200	21,400
14	21,200	25,500	17,000	29,100	24,000	28,100	27,200	15,700	18,500	22,400	22,100	21,500
15	22,700	23,900	18,000	29,100	21,900	28,700	25,600	15,900	19,500	21,100	21,200	21,600
16	23,200	23,600	19,000	29,100	23,900	29,000	23,900	16,600	20,700	20,600	21,300	21,300
17	22,000	23,300	20,000	29,600	24,300	29,000	22,800	18,100	20,800	21,900	21,300	20,900
18	22,800	23,600	21,000	29,200	27,500	28,600	21,600	18,100	19,400	21,200	21,400	22,200
19	22,800	23,200	21,800	28,700	29,500	27,700	21,300	19,200	19,400	21,500	21,400	21,900
20	22,600	23,900	22,200	29,400	29,600	27,800	20,600	18,800	18,600	21,500	21,100	20,700
21	22,200	22,800	22,400	29,100	28,800	27,700	19,000	19,600	18,800	21,100	21,800	19,800
22	23,300	22,400	21,900	28,400	29,000	27,300	17,700	20,200	19,200	20,900	21,500	19,100
23	22,900	23,000	22,700	28,900	28,500	27,400	17,600	20,100	21,000	20,000	21,400	19,100
24	23,000	22,500	23,100	30,100	28,100	27,200	18,100	20,900	21,600	22,000	21,200	19,500
25	22,800	22,400	23,600	31,200	28,900	26,700	18,500	18,100	20,200	22,300	21,800	19,900
26	23,900	22,800	23,300	29,300	29,400	23,900	18,500	18,800	20,000	17,800	22,300	19,600
27	24,600	22,800	24,400	29,700	29,400	24,200	17,900	20,000	20,200	20,300	22,200	19,300
28	25,300	23,000	24,900	26,700	30,500	25,100	17,700	19,900	21,300	21,200	23,200	19,600
29	27,000	22,600	25,700	26,700	------	24,700	17,500	18,700	20,600	21,000	25,200	19,000
30	26,900	21,900	26,100	27,000	------	25,600	16,800	19,400	20,900	20,900	23,500	19,200
31	27,400	------	25,000	27,600	------	28,500	------	20,300	------	21,000	23,100	------
TOTAL	712,000	747,300	657,800	874,000	762,100	863,600	679,700	558,000	590,700	664,800	679,300	627,900
MEAN	22,970	24,910	21,220	28,190	27,220	27,860	22,660	18,000	19,690	21,450	21,910	20,930
MAX	27,400	27,700	26,100	31,200	30,500	30,700	27,500	20,900	21,600	24,700	25,200	23,000
MIN	20,800	21,900	17,000	24,200	21,700	23,900	16,800	15,700	18,200	17,800	20,200	19,000
AC-FT	1,412M	1,482M	1,305M	1,734M	1,512M	1,713M	1,348M	1,107M	1,172M	1,319M	1,347M	1,245M

CAL YR 1972 TOTAL 11,199,300 MEAN 30,600 MAX 44,100 MIN 17,000 AC-FT 22,210,000
WTR YR 1973 TOTAL 8,417,200 MEAN 23,060 MAX 31,200 MIN 15,700 AC-FT 16,700,000

06343500 Edward Arthur Patterson Lake near Dickinson, N. Dak.

LOCATION.--Lat 46°52'11", long 102°49'37", in NE¼NW¼SW¼ sec.8, T.139 N., R.96 W., Stark County, at left edge of spillway, 2 mi (3 km) southwest of Dickinson.

DRAINAGE AREA.--400 mi^2 (1,040 km^2), approximately.

PERIOD OF RECORD.--May 1950 to current year. Prior to October 1958, published as Dickinson Reservoir near Dickinson.

GAGE.--Water-stage recorder. Datum of gage is 2,400.00 ft (731.520 m) above mean sea level, levels by Bureau of Reclamation; gage readings have been reduced to elevations above mean sea level. Prior to Jan. 4, 1961, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 8,129 acre-ft (10.0 hm^3) Mar. 2, elevation, 2,418.12 ft (737.043 m); minimum, 4,762 acre-ft (5.87 hm^3) Sept. 23, elevation 2,413.78 ft (735.720 m).
Period of record: Maximum contents, 11,180 acre-ft (13.8 hm^3) May 9, 1970, elevation, 2,420.81 ft (737.863 m); minimum since initial filling of reservoir, 2,950 acre-ft (3.64 hm^3) Mar. 16, 1962, elevation, 2,410.41 ft (734.693 m).

REMARKS.--Reservoir is formed by earthfill dam; storage began May 23, 1950; dam completed Aug. 9, 1950. Total capacity is 24,600 acre-ft (30.3 hm^3) at maximum pool, elevation, 2,428.9 ft (740.329 m). Dead storage is 1,000 acre-ft (1.23 hm^3) below lowest point of outlet, elevation, 2,404.0 ft (732.739 m). Conservation storage is 5,600 acre-ft (6.90 hm^3) between elevation, 2,404.0 ft (732.739 m) and 2,416.5 ft (736.549 m), crest of spillway. Figures given herein represent total contents based on capacity table dated Jan. 1, 1965. The reservoir is for flood control, irrigation, and municipal supply.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2,416.06	6,315	
Oct. 31	2,416.02	6,282	-33
Nov. 30	2,416.10	6,348	+66
Dec. 31	2,416.21	6,438	+90
CAL YR 1972	--	--	-147
Jan. 31	2,416.66	6,807	+369
Feb. 28	2,417.96	7,969	+1,162
Mar. 31	2,416.58	6,741	-1,228
Apr. 30	2,416.66	6,807	+66
May 31	2,416.28	6,495	-312
June 30	2,416.21	6,438	-57
July 31	2,415.13	5,635	-803
Aug. 31	2,413.91	4,839	-796
Sept. 30	2,413.84	4,798	-41
WTR YR 1973	--	--	-1,517

06344600 Green River near New Hradec, N. Dak.

LOCATION.--Lat 47°01'40", long 103°03'10", Billings County, on left bank below county highway bridge on line between secs.13 and 14, T.141 N., R.98 W., 8 mi (13 km) west of New Hradec.

DRAINAGE AREA.--152 mi^2 (394 km^2), approximately.

PERIOD OF RECORD.--February 1964 to current year.

GAGE.--Water-stage recorder.

AVERAGE DISCHARGE.--9 years, 19.1 ft^3/s (0.541 m^3/s), 13,840 acre-ft/yr (17.06 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,260 ft^3/s (35.7 m^3/s) Mar. 2, gage height, 13.62 ft (4.151 m), backwater from ice; minimum, 0.01 ft^3/s (0.0003 m^3/s) Aug. 19-27.
Period of record: Maximum discharge, 4,120 ft^3/s (117 m^3/s) May 9, 1970, gage height, 16.88 ft (5.145 m); maximum gage height, 16.93 ft (5.160 m) July 5, 1964; no flow at times.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.4	1.5	1.4	4.3	900	2.7	5.6	1.4	.83	.25	.20
2	.96	1.4	1.4	1.4	4.1	1,100	2.8	5.9	1.4	.87	.25	.50
3	.93	1.6	1.4	1.4	5.2	672	3.1	5.4	3.5	.82	.25	1.8
4	.95	1.7	1.4	1.3	5.9	436	3.0	4.9	9.3	.72	.25	5.3
5	1.1	1.7	1.2	1.2	6.2	268	2.8	5.4	6.0	.51	.25	5.1
6	1.5	1.9	1.1	1.1	3.9	111	3.0	15	6.0	.42	.30	2.9
7	1.8	2.0	.98	1.1	2.8	44	3.3	15	4.3	.33	.35	1.7
8	1.6	2.0	.93	1.0	2.8	47	3.8	9.4	2.8	.32	.43	1.4
9	1.6	2.0	.88	1.0	2.7	59	3.6	4.6	1.9	.25	.32	1.2
10	1.5	2.0	.83	.99	2.3	256	3.7	6.1	1.7	.16	.25	.90
11	1.5	1.9	.78	1.1	2.2	137	3.8	4.9	1.7	.12	.20	.90
12	1.7	1.7	.83	1.2	2.0	62	4.3	4.1	1.6	.20	.15	1.0
13	1.6	1.6	.83	1.4	1.7	36	4.1	3.4	1.4	.20	.10	1.5
14	1.5	1.5	.78	1.4	1.4	25	3.7	3.6	.92	.18	.08	2.0
15	1.5	1.3	.83	1.8	1.4	20	3.7	3.2	.88	.14	.06	1.0
16	1.6	1.3	.78	2.3	1.4	15	3.6	2.9	1.1	.06	.04	.90
17	1.6	1.9	.83	2.7	1.5	11	3.6	2.7	1.6	.04	.03	.80
18	1.6	1.7	.93	2.9	1.6	9.0	4.5	2.7	3.5	.06	.02	.70
19	1.7	1.4	1.1	3.1	1.4	7.0	4.7	2.4	11	.06	.01	.70
20	1.8	1.4	1.3	3.4	1.4	6.0	4.9	2.3	13	.12	.01	1.0
21	1.9	1.6	1.4	3.6	1.4	5.5	7.4	2.2	9.2	.10	.01	1.0
22	2.3	1.7	1.6	2.2	1.8	5.0	11	2.0	7.8	.26	.01	1.5
23	2.3	1.8	1.6	2.0	2.0	4.7	8.7	1.8	7.1	.56	.01	1.5
24	2.4	1.7	1.4	2.5	2.2	4.3	7.4	1.6	4.8	.68	.01	2.0
25	2.6	1.4	1.4	3.9	1.8	4.3	6.8	1.5	3.3	.42	.01	1.5
26	2.5	1.3	1.4	7.6	3.0	4.3	5.6	1.7	2.4	.27	.01	1.0
27	2.7	1.4	1.5	11	50	3.9	5.6	2.1	1.8	.31	.01	1.0
28	3.0	1.4	1.5	27	350	3.9	5.6	2.5	1.6	.21	.02	1.0
29	2.9	1.6	1.5	14	------	3.2	5.9	2.5	1.3	.22	.03	1.0
30	2.5	1.5	1.3	9.0	------	3.3	6.4	2.2	1.1	.28	.05	1.0
31	1.5	------	1.4	5.2	------	2.9	------	1.7	------	.30	.10	------
TOTAL	55.74	48.8	36.61	121.19	468.4	4,266.3	143.1	131.3	115.40	10.02	3.87	44.00
MEAN	1.80	1.63	1.18	3.91	16.7	138	4.77	4.24	3.85	.32	.12	1.47
MAX	3.0	2.0	1.6	27	350	1,100	11	15	13	.87	.43	5.3
MIN	.93	1.3	.78	.99	1.4	2.9	2.7	1.5	.88	.04	.01	.20
AC-FT	111	97	73	240	929	8,460	284	260	229	20	7.7	87

CAL YR 1972 TOTAL 12,662.81 MEAN 34.6 MAX 2,700 MIN .48 AC-FT 25,120
WTR YR 1973 TOTAL 5,444.73 MEAN 14.9 MAX 1,100 MIN .01 AC-FT 10,800

PEAK DISCHARGE (BASE, 100 FT^3/S).--MAR. 2, 1,260 FT^3/S; MAR. 10, 330 FT^3/S.

06345000 Green River near Gladstone, N. Dak.

LOCATION.--Lat 46°53'40", long 102°37'25", in SW¼ sec.36, T.140 N., R.95 W., Stark County, on right bank 0.5 mi (1 km) upstream from county highway bridge, 3.5 mi (6 km) northwest of Gladstone, 4.5 mi (7 km) upstream from mouth, and 8 mi (13 km) downstream from Russian Spring Creek.

DRAINAGE AREA.--356 mi^2 (922 km^2).

PERIOD OF RECORD.--October 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,311.55 ft (704.560 m) above mean sea level. See WSP 1729 or 1917 for history of changes prior to June 27, 1953.

AVERAGE DISCHARGE.--28 years, 35.8 ft^3/s (1.014 m^3/s), 25,940 acre-ft/yr (31.98 hm^3/yr); median of yearly mean discharges, 36 ft^3/s (1.02 m^3/s), 26,100 acre-ft/yr (32.2 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,800 ft^3/s (51.0 m^3/s) Mar. 2, gage height, 11.75 ft (3.581 m); backwater from ice; minimum, 0.67 ft^3/s (0.019 m^3/s) Sept. 1, gage height, 0.77 ft (0.235 m).
Period of record: Maximum discharge, 5,330 ft^3/s (151 m^3/s) Mar. 14, 1972, gage height, 16.55 ft (5.044 m); maximum gage height, 18.3 ft (5.578 m) Apr. 15, 1950, from floodmark, site and datum then in use; no flow at times in some years.

REMARKS.--Records good except those for the winter period, which are fair. A few diversions above station for irrigation of hay meadows and washing of sand and gravel. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1917: 1954(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	10	8.0	3.0	50	760	20	21	8.9	5.1	1.8	.82
2	7.3	12	8.0	3.0	51	1,150	19	19	9.4	4.5	1.2	1.8
3	6.4	14	7.5	3.0	52	1,510	18	20	17	3.4	1.0	2.9
4	6.8	12	7.0	3.0	59	1,220	16	17	17	3.7	1.0	2.9
5	9.2	11	6.5	3.0	47	646	16	16	18	4.1	1.0	7.0
6	13	11	6.0	3.0	34	388	18	16	15	3.2	1.7	6.0
7	9.4	10	5.5	2.0	24	223	18	14	20	3.1	2.2	5.3
8	8.9	10	5.0	2.0	15	153	18	13	15	2.9	2.3	3.6
9	8.3	10	5.0	2.0	10	129	17	26	11	2.9	2.0	3.1
10	8.6	9.0	5.0	2.0	8.6	133	17	23	11	2.6	1.6	2.8
11	9.4	9.0	4.5	2.0	9.4	170	17	18	8.6	2.5	1.3	2.2
12	8.9	9.0	4.5	2.0	7.6	210	16	15	7.6	2.3	1.4	2.0
13	8.1	9.0	4.5	5.0	8.1	145	15	13	6.8	2.0	3.2	1.8
14	8.3	9.0	4.0	10	8.0	101	15	12	6.1	2.0	2.6	1.8
15	8.3	9.0	4.0	20	7.5	78	14	9.7	6.1	2.0	2.1	2.1
16	8.3	9.0	4.0	40	7.5	63	13	9.4	5.3	2.3	1.7	2.5
17	8.1	9.0	4.5	60	7.0	53	13	8.3	6.1	2.1	1.3	2.9
18	8.3	9.0	5.7	52	7.0	45	13	8.3	6.4	2.0	.90	2.6
19	8.6	9.0	6.4	62	7.0	39	21	8.3	8.3	2.0	1.2	2.3
20	8.9	9.0	4.9	70	8.0	34	42	8.1	8.9	2.0	1.7	2.3
21	8.1	9.0	4.9	64	10	31	47	8.1	9.2	1.8	1.3	2.8
22	8.6	9.0	4.5	48	40	31	55	8.1	11	1.4	1.2	3.1
23	8.3	9.0	7.6	27	181	31	44	7.3	14	2.2	1.2	2.8
24	7.6	9.0	5.0	16	165	31	42	6.4	12	2.5	1.1	4.1
25	8.0	9.0	5.0	62	155	29	39	6.6	9.4	2.0	1.0	4.1
26	8.0	8.0	4.0	86	177	35	32	8.1	8.9	1.8	1.0	5.4
27	8.0	8.0	4.0	70	274	32	26	12	7.6	2.2	1.4	6.6
28	8.0	8.0	4.0	62	300	26	24	12	5.9	2.3	1.7	5.3
29	8.0	8.0	4.0	58	------	23	26	10	5.5	2.2	1.3	4.1
30	8.0	8.0	4.0	47	------	21	25	8.9	4.9	3.1	.90	4.3
31	8.0	------	4.0	47	------	21	------	8.9	------	2.3	.82	------
TOTAL	259.3	284.0	161.5	936.0	1,729.7	7,561	716	391.5	300.9	80.5	46.12	101.32
MEAN	8.36	9.47	5.21	30.2	61.8	244	23.9	12.6	10.0	2.60	1.49	3.38
MAX	13	14	8.0	86	300	1,510	55	26	20	5.1	3.2	7.0
MIN	6.4	8.0	4.0	2.0	7.0	21	13	6.4	4.9	1.4	.82	.82
AC-FT	514	563	320	1,860	3,430	15,000	1,420	777	597	160	91	201

CAL YR 1972 TOTAL 26,607.40 MEAN 72.7 MAX 4,770 MIN 4.0 AC-FT 52,780
WTR YR 1973 TOTAL 12,567.84 MEAN 34.4 MAX 1,510 MIN .82 AC-FT 24,930

PEAK DISCHARGE (BASE, 500 FT^3/S).--MAR. 2, 1,800 FT^3/S.

06345500 Heart River near Richardton, N. Dak.

LOCATION.--Lat 46°44'46", long 102°18'27", in NE¼ sec.29, T.138 N., R.92 W., Stark County, on right bank 5 ft (1.5 m) upstream from bridge on State Highway 8, 0.5 mi (0.8 km) downstream from Plum Creek, and 9.5 mi (15.3 km) south of Richardton.

DRAINAGE AREA.--1,240 mi^2 (3,210 km^2), approximately.

PERIOD OF RECORD.--May 1903 to September 1922, April 1943 to current year. Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 2,153.67 ft (656.439 m) above mean sea level. May 18, 1903, to Sept. 30, 1922, nonrecording gage at 3 sites in 1 mi (1.6 km) reach below present site at different datums. Apr. 14, 1943, to July 7, 1947, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--49 years, 104 ft^3/s (2.945 m^3/s), 75,350 acre-ft/yr (92.91 hm^3/yr); median of yearly mean discharges, 99 ft^3/s (2.80 m^3/s), 71,700 acre-ft/yr (88.4 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 3,890 ft^3/s (110 m^3/s) Mar. 3, gage height, 22.09 ft (6.733 m); backwater from ice; minimum daily, 1.1 ft^3/s (0.031 m^3/s) Aug. 8, 10, 11; minimum gage height, 4.57 ft (1.393 m) July 18.
Period of record: Maximum discharge, 23,400 ft^3/s (663 m^3/s) Apr. 16, 1950, gage height, 28.05 ft (8.550 m), from high-water mark in gage well; no flow at times in some years.
Flood of July 5, 1938, reached a stage of about 26 ft (7.9 m), from information by local residents, discharge, 16,000 ft^3/s (453 m^3/s); flood of Mar. 25, 1943, reached a stage of 24.2 ft (7.38 m) from floodmarks, discharge, 11,700 ft^3/s (331 m^3/s).

REMARKS.--Records good except those for the winter period, which are fair. Flow regulated by Edward Arthur Patterson Lake 59 mi (95 km) upstream, see station 06343500. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1209: Drainage area. WSP 1239: 1906, 1918(M), 1947(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV.	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	31	25	28	400	1,600	95	106	25	16	7.8	3.0
2	28	32	23	28	140	3,200	95	91	25	15	7.3	4.0
3	28	32	24	27	130	3,300	92	80	92	15	7.8	7.8
4	27	33	24	27	90	2,400	89	73	91	15	5.4	8.8
5	30	35	22	26	80	1,500	86	69	167	14	4.0	7.8
6	36	36	20	25	65	1,000	88	62	152	13	2.5	9.2
7	41	35	19	25	60	870	92	54	104	12	2.0	12
8	40	33	18	24	50	465	88	53	77	12	1.1	9.2
9	34	33	18	23	50	335	90	52	60	11	1.6	7.8
10	31	33	18	20	50	337	88	53	49	10	1.1	6.4
11	30	32	17	17	50	301	86	62	43	9.2	1.1	4.0
12	29	28	16	16	50	355	88	57	35	8.0	2.5	2.5
13	30	28	16	16	40	339	87	48	29	6.8	3.0	1.6
14	30	28	16	18	40	275	86	42	25	5.9	2.5	1.6
15	29	28	17	37	30	219	83	40	23	5.4	4.0	1.6
16	28	27	17	110	30	197	81	37	23	5.4	4.0	1.6
17	28	27	16	190	35	176	83	32	23	5.4	4.0	2.5
18	28	27	16	180	35	162	79	31	23	4.4	4.4	3.5
19	28	26	17	170	35	147	89	29	31	5.4	4.4	5.4
20	29	26	19	150	40	139	148	28	44	11	4.0	5.9
21	29	26	23	140	40	131	175	26	50	12	3.5	5.9
22	30	26	32	120	80	127	207	25	44	12	3.0	6.4
23	29	26	40	110	300	125	205	25	33	14	2.5	5.9
24	29	26	47	120	460	122	184	24	27	15	2.0	5.9
25	30	26	42	140	420	123	167	24	27	16	2.5	6.8
26	30	26	33	150	240	121	161	25	23	16	2.0	9.2
27	33	26	30	160	680	117	155	31	21	14	2.0	9.2
28	35	26	28	240	1,000	117	134	36	19	12	2.5	9.7
29	35	26	27	320	------	111	118	35	18	12	3.5	11
30	37	26	27	380	------	103	118	31	18	10	3.5	11
31	33	------	27	420	------	98	------	28	------	8.3	3.0	------
TOTAL	962	870	734	3,457	4,720	18,612	3,437	1,409	1,421	341.2	104.5	187.2
MEAN	31.0	29.0	23.7	112	169	600	115	45.5	47.4	11.0	3.37	6.24
MAX	41	36	47	420	1,000	3,300	207	106	167	16	7.8	12
MIN	27	26	16	16	30	98	79	24	18	4.4	1.1	1.6
AC-FT	1,910	1,730	1,460	6,860	9,360	36,920	6,820	2,790	2,820	677	207	371

CAL YR 1972 TOTAL 93,105.0 MEAN 254 MAX 10,600 MIN 7.0 AC-FT 184,700
WTR YR 1973 TOTAL 36,254.9 MEAN 99.3 MAX 3,300 MIN 1.1 AC-FT 71,910

PEAK DISCHARGE (BASE, 1,500 FT^3/S).--MAR. 3, 3,890 FT^3/S.

06346000 Lake Tschida near Glen Ullin, N. Dak.

LOCATION.--Lat 46°35'48", long 101°48'34", in SW¼NE¼ sec.13, T.136 N., R.89 W., Grant County, 10 mi (16 km) upstream from Heart Butte Creek, 14 mi (23 km) north of Elgin.

DRAINAGE AREA.--1,710 mi^2 (4,430 km^2), approximately.

PERIOD OF RECORD.--August 1949 to current year. Prior to October 1957, published as Heart Butte Reservoir near Glen Ullin.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level, levels by Bureau of Reclamation.

EXTREMES.--Current year: Maximum contents, 93,002 acre-ft (115 hm^3) Mar. 5, elevation, 2,069.30 ft (630.723 m); minimum, 55,042 acre-ft (67.9 hm^3) Sept. 23, elevation, 2,057.93 ft (627.257 m).
Period of record: Maximum contents, 174,000 acre-ft (215 hm^3) Apr. 9, 1952, elevation, 2,086.23 ft (635.883 m); minimum since first reaching spillway level, 40,840 acre-ft (50.4 hm^3) Mar. 6, 1962, elevation, 2,052.5 ft (625.602 m).

REMARKS.--Reservoir is formed by earthfill dam; storage began Sept. 29, 1949; dam completed Dec. 9, 1949. Total capacity is 430,000 acre-ft (530 hm^3) at maximum pool, elevation, 2,118.2 ft (645.627 m). Dead storage is 6,750 acre-ft (8.32 hm^3) below lowest point of outlet, elevation, 2,030.0 ft (618.744 m). Active conservation storage is 69,030 acre-ft (85.1 hm^3) between elevation 2,030.0 ft (618.744 m) and 2,064.5 ft (629.260 m), crest of spillway. Figures given herein represent total contents. Controlled releases are through 4 by 5 ft (1.219 by 1.524 m) slide gate. The spillway is uncontrolled "glory hole" type and discharges through a conduit 14 ft (4.267 m) in diameter. The reservoir is for flood control, irrigation, and incidental water supply.

COOPERATION.--Record of elevations and contents furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2,062.40	68,811	
Oct. 31	2,063.10	71,094	+2,283
Nov. 30	2,063.25	71,593	+499
Dec. 31	2,063.05	70,928	-665
CAL YR 1972	--	--	+9,854
Jan. 31	2,065.25	78,351	+7,423
Feb. 28	2,066.28	81,950	+3,599
Mar. 31	2,065.38	78,803	-3,147
Apr. 30	2,065.50	79,220	+417
May 31	2,064.68	76,396	-2,824
June 30	2,064.15	74,596	-1,800
July 31	2,061.15	64,809	-9,787
Aug. 31	2,058.80	57,605	-7,204
Sept. 30	2,058.04	55,361	-2,244
WTR YR 1973	--	--	-13,450

06347000 Antelope Creek near Carson, N. Dak.

LOCATION.--Lat 46°31'50", long 101°38'25", in NW¼NE¼ sec.8, T.135 N., R.87 W., Grant County, on right bank 800 ft (244 m) upstream from county highway bridge, 4 mi (6 km) upstream from mouth and 8 mi (13 km) northwest of Carson.

DRAINAGE AREA.--221 mi^2 (572 km^2).

PERIOD OF RECORD.--June 1948 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,974 ft (602 m),by barometer. Prior to June 23, 1958, wire-weight gage at site 800 ft (244 m) downstream at same datum.

AVERAGE DISCHARGE.--25 years, 16.1 ft^3/s (0.456 m^3/s), 11,660 acre-ft/yr (14.38 hm^3/yr); median of yearly mean discharges, 12 ft^3/s (0.34 m^3/s), 8,700 acre-ft/yr (10.7 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 230 ft^3/s (6.51 m^3/s) Feb. 28, gage height unknown; maximum gage height, 9.2 ft (2.80 m) Feb. 23, backwater from ice; minimum discharge, 0.01 ft^3/s (0.0003 m^3/s Sept. 1, gage height, 3.16 ft (0.963 m).
Period of record: Maximum discharge, 11,100 ft^3/s (314 m^3/s) Apr. 16, 1950, gage height, 17.95 ft (5.471 m), former site, from floodmark, from rating curve extended above 1,100 ft^3/s (31.2 m^3/s) on basis of slope-area measurement of peak flow; no flow at times.
Flood of Mar. 25, 1943 at 17.1 ft (5.21 m), 7,650 ft^3/s (217 m^3/s), was the highest between 1943 and 1950.

REMARKS.--Records good except those for the winter period, which are fair. Records of chemical analyses for the 1973 water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	9.0	4.8	2.5	36	190	12	13	7.3	1.7	.15	.01
2	3.1	8.2	4.0	2.5	24	220	11	12	6.5	2.0	.15	.10
3	3.1	7.6	3.0	2.5	17	210	10	12	12	1.4	.10	1.6
4	3.1	9.1	3.0	2.5	32	200	9.7	11	9.3	1.1	.10	1.1
5	12	11	3.0	2.5	25	140	9.7	9.6	7.2	1.0	.15	1.0
6	16	12	3.0	2.5	49	110	13	9.1	6.6	.86	.26	.68
7	11	12	3.0	2.5	13	106	14	8.8	6.5	.74	.26	.50
8	9.6	11	3.0	2.5	3.2	102	14	8.1	5.6	.56	.20	.44
9	8.9	11	3.0	2.5	3.7	90	14	8.2	4.7	.50	.20	.50
10	7.9	9.5	3.0	2.5	8.4	56	14	7.4	4.0	.38	.15	.50
11	6.9	8.9	3.0	2.5	2.4	53	14	6.6	3.5	.26	.15	.38
12	6.4	8.2	3.0	2.5	1.0	49	13	6.2	3.3	.15	.15	.32
13	5.7	13	3.0	2.5	1.0	42	12	5.5	2.9	.10	.20	.32
14	5.5	8.7	3.0	2.5	1.0	34	12	5.3	2.6	.10	.15	.32
15	5.2	6.8	3.0	2.5	1.0	29	12	5.1	2.6	.07	.10	.74
16	5.6	6.3	3.0	2.5	1.0	28	10	4.8	2.9	.04	.07	.86
17	5.2	6.2	3.0	19	1.0	37	10	4.5	2.8	.07	.04	.86
18	5.2	5.9	3.0	37	1.0	27	10	4.3	2.6	.07	.04	.80
19	5.3	5.7	3.0	72	1.0	24	13	4.1	3.7	.07	.04	.74
20	5.4	5.5	3.0	47	1.0	32	25	4.0	4.1	.04	.04	.74
21	4.9	7.4	3.0	52	1.0	21	25	3.9	3.8	.04	.02	.74
22	5.0	9.2	3.0	65	10	18	24	3.6	3.8	.07	.04	.74
23	5.0	12	3.0	51	130	18	23	3.5	3.8	.50	.04	.80
24	5.0	11	3.0	39	160	18	27	4.4	3.6	1.1	.10	1.2
25	5.0	18	3.0	40	150	17	27	4.2	3.0	.67	1.9	1.9
26	5.2	11	3.0	64	130	17	25	7.2	2.7	.58	.56	1.7
27	6.5	13	3.0	96	180	16	23	14	2.1	.50	.32	1.5
28	6.4	14	3.0	108	220	14	20	12	1.9	.38	.15	1.3
29	6.8	6.2	2.5	116	------	13	17	12	1.6	.38	.07	1.1
30	7.9	4.9	2.5	105	------	13	15	12	1.4	.26	.04	.93
31	7.4	------	2.5	61	------	12	------	9.5	------	.20	.02	------
TOTAL	199.5	282.3	94.3	1,012.0	1,203.7	1,956	478.4	235.9	128.4	15.89	5.96	24.42
MEAN	6.44	9.41	3.04	32.6	43.0	63.1	15.9	7.61	4.28	.51	.19	.81
MAX	16	18	4.8	116	220	220	27	14	12	2.0	1.9	1.9
MIN	3.1	4.9	2.5	2.5	1.0	12	9.7	3.5	1.4	.04	.02	.01
AC-FT	396	560	187	2,010	2,390	3,880	949	468	255	32	12	48

CAL YR 1972 TOTAL 12,183.66 MEAN 33.3 MAX 1,450 MIN .96 AC-FT 24,170
WTR YR 1973 TOTAL 5,636.77 MEAN 15.4 MAX 220 MIN .01 AC-FT 11,180

PEAK DISCHARGE (BASE, 200 FT^3/S).--FEB. 28, 230 FT^3/S.

06348000 Heart River near Lark, N. Dak.

LOCATION.--Lat 46°36'37", long 101°22'54", in NW¼NW¼SW¼ sec.9, T.136, T., R.85 W., Grant County, on right bank 20 ft (6 m) downstream from bridge on State Highway 31, 0.6 mi (1 km) downstream from Big Muddy Creek, and 10 mi (16 km) north of Lark.

DRAINAGE AREA.--2,750 mi^2 (7,120 km^2), approximately.

PERIOD OF RECORD.--June 1946 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,802.83 ft (549.503 m) above mean sea level (levels by Corps of Engineers). Prior to Nov. 16, 1948, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--27 years, 219 ft^3/s (6.202 m^3/s), 158,700 acre-ft/yr (195.7 hm^3/yr); median of yearly mean discharges, 170 ft^3/s (4.81 m^3/s), 123,000 acre-ft/yr (152 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 3,400 ft^3/s (96.3 m^3/s) Mar. 3, gage height, 14.91 ft (4.545 m), backwater from ice; minimum daily, 13 ft^3/s (0.37 m^3/s) Dec. 29 to Jan. 12; minimum gage height, 2.23 ft (0.680 m) Oct. 4, Sept. 30.
Period of record: Maximum discharge, 29,200 ft^3/s (827 m^3/s) Apr. 17, 1950, gage height, 20.70 ft (6.309 m), from rating curve extended above 11,000 ft^3/s (312 m^3/s) on basis of contracted-opening measurement of peak flow; no flow Jan. 16 to Mar. 4, 1950, Jan. 17-26, 1962.

REMARKS.--Records fair except those for the winter period, which are poor. Flow regulated by Lake Tschida 45 mi (72 km) upstream - see station 06346000. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	36	40	13	242	1,500	205	209	78	68	124	62
2	17	28	40	13	222	2,200	197	200	73	61	131	62
3	17	24	30	13	213	3,350	189	192	98	50	127	76
4	16	47	20	13	206	3,300	182	183	142	38	123	78
5	26	55	15	13	211	3,240	173	166	130	34	130	69
6	33	57	15	13	204	2,900	178	170	114	34	130	65
7	46	57	15	13	176	2,360	181	160	116	97	133	64
8	36	57	15	13	173	1,930	178	153	99	88	138	64
9	29	57	15	13	162	1,620	172	145	92	87	120	66
10	26	56	15	13	167	1,440	168	153	85	93	85	65
11	24	55	15	13	147	1,280	164	131	87	92	80	68
12	22	46	15	13	121	1,150	163	126	83	79	74	41
13	21	46	15	55	108	1,010	154	108	79	69	77	47
14	20	55	15	83	100	922	147	99	72	68	76	76
15	19	55	15	77	100	812	153	91	69	72	73	81
16	19	55	15	90	90	710	150	86	76	72	75	80
17	18	50	15	91	90	621	139	79	88	91	66	78
18	19	43	15	83	82	551	138	72	86	122	69	75
19	18	30	15	143	88	483	143	70	98	126	69	42
20	18	25	15	163	86	431	182	61	118	131	67	26
21	19	42	15	247	80	384	205	54	105	130	68	20
22	19	44	15	245	70	352	245	49	101	136	71	17
23	19	49	15	165	350	330	240	50	97	150	69	16
24	19	66	15	135	900	314	250	60	94	160	75	18
25	18	66	15	101	1,000	298	265	128	93	161	83	18
26	19	67	15	127	800	281	264	128	86	156	84	17
27	23	60	15	163	1,000	266	256	147	81	139	80	16
28	21	56	15	231	1,200	253	242	142	80	114	77	16
29	24	50	13	224	------	238	231	136	73	119	81	15
30	27	40	13	223	------	227	227	124	72	122	78	15
31	27	------	13	273	------	215	------	104	------	121	76	-----
TOTAL	697	1,474	529	3,075	8,388	34,968	5,781	3,776	2,765	3,080	2,809	1,453
MEAN	22.5	49.1	17.1	99.2	300	1,128	193	122	92.2	99.4	90.6	48.4
MAX	46	67	40	273	1,200	3,350	265	209	142	161	138	81
MIN	16	24	13	13	70	215	138	49	69	34	66	15
AC-FT	1,380	2,920	1,050	6,100	16,640	69,360	11,470	7,490	5,480	6,110	5,570	2,880

CAL YR 1972 TOTAL 171,102 MEAN 467 MAX 6,500 MIN 10 AC-FT 339,400
WTR YR 1973 TOTAL 68,795 MEAN 188 MAX 3,350 MIN 13 AC-FT 136,500

06348490 Sweetbriar Reservoir near Judson, N. Dak.

LOCATION.--Lat 46°51'55", long 101°15'35", in SE¼SE¼ sec.10, T.139 N., R.84 W., Morton County, on south shore of reservoir 700 ft (210 m) west of spillway and 2.5 mi (4 km) northeast of Judson.

DRAINAGE AREA.--152 mi^2 (394 km^2).

PERIOD OF RECORD.--July 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,900.00 ft (579.120 m) above mean sea level; gage readings have been reduced to elevations above mean sea level.

EXTREMES.--Current year: Maximum contents, 3,560 acre-ft (4.39 hm^3) Mar. 1, elevation, 1,940.80 (591.556 m); minimum, 2,614 acre-ft (3.22 hm^3) Sept. 23, elevation, 1,937.36 ft (590.507 m).
Period of record: Maximum contents, 5,215 acre-ft (6.43 hm^3) Apr. 7, 1969, elevation, 1,944.97 ft (592.827 m); minimum since initial filling of reservoir, 2,614 acre-ft (3.22 hm^3) Sept. 23, 1973, elevation, 1,937.36 ft (590.507 m).

REMARKS.--Reservoir is formed by an earth-fill dam on Interstate 94; storage began April 1964. Capacity at spillway elevation, 1,940.00 ft (591.312 m) is 3,320 acre-ft (4.09 hm^3). Controlled releases are through a 12-inch (0.305 m) pipe. The spillway is an uncontrolled drop-inlet type. Figures herein represent total contents based on capacity table dated June 13, 1967. The reservoir is for recreation.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	1,938.86	3,004	
Oct. 31	1,938.98	3,035	+31
Nov. 30	1,939.21	3,099	+64
Dec. 31	1,939.40	3,152	+53
CAL YR 1972	--	--	+200
Jan. 31	1,940.02	3,326	+174
Feb. 28	*1,940.60	3,500	+174
Mar. 31	1,939.98	3,314	-186
Apr. 30	1,939.48	3,174	-140
May 31	1,939.24	3,107	-67
June 30	1,939.05	3,054	-53
July 31	1,938.34	2,868	-186
Aug. 31	1,937.66	2,692	-176
Sept. 30	1,937.42	2,629	-63
WTR YR 1973	--	--	-375

* Estimated.

06348500 Sweetbriar Creek near Judson, N. Dak.

LOCATION.--Lat 46°51'06", long 101°15'10", in SW¼ sec.14, T.139 N., R.84 W., Morton County, on right bank 80 ft (24 m) downstream from bridge on county highway, 2 mi (3 km) northeast of Judson, and 16 mi (26 km) upstream from mouth.

DRAINAGE AREA.--157 mi^2 (407 km^2).

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,886.42 ft (574.981 m) above mean sea level. Prior to July 20, 1955, nonrecording gage 80 ft (24 m) upstream at same datum.

AVERAGE DISCHARGE.--22 years, 10.9 ft^3/s (0.309 m^3/s), 7,900 acre-ft/yr (9.741 hm^3/yr); median of yearly mean discharges, 8.8 ft^3/s (0.25 m^3/s), 6,400 acre-ft/yr (7.89 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 266 ft^3/s (7.53 m^3/s) Mar. 1, gage height, 4.63 ft (1.411 m); minimum, 0.12 ft^3/s (0.003 m^3/s) Aug. 2-4, gage height, 1.28 ft (0.390 m); minimum gage height, 1.27 ft (0.387 m) Aug. 2-4, 20, 21, Sept. 7, 8.
Period of record: Maximum discharge, 4,200 ft^3/s (119 m^3/s) Apr. 7, 1969, gage height, 11.28 ft (3.438 m); no flow at times.
Maximum stage known, 12.5 ft (3.81 m) Apr. 17, 1950, from floodmarks at present site, discharge, 5,910 ft^3/s (167 m^3/s) from rating curve extended above 2,000 ft^3/s (56.6 m^3/s) on basis of contracted-opening measurement of peak flow.

REMARKS.--Records fair. Flow regulated by Sweetbriar Reservoir 2 mi (3 km) upstream since April 1964 - see station 06348490. Records of chemical analyses for water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1439: 1955(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.55	.35	.30	.70	225	4.1	3.9	.29	.26	.18	.82
2	1.0	.55	.35	.30	.80	166	5.3	3.7	.28	.25	.14	.32
3	1.0	.55	.30	.30	1.0	99	4.5	3.7	.36	.24	.12	.31
4	1.0	.50	.30	.25	2.0	72	3.9	3.7	.31	.25	.13	.25
5	1.4	.50	.30	.25	3.0	54	3.9	3.7	.29	.25	.17	.21
6	1.1	.50	.30	.25	4.0	40	4.1	3.7	.31	.25	.18	.19
7	1.1	.50	.30	.25	3.0	31	4.3	3.7	.29	.25	.18	.18
8	1.0	.50	.30	.25	2.5	23	3.9	3.4	.29	.24	.18	.18
9	1.0	.45	.30	.20	2.0	21	4.1	.51	.26	.25	.18	.21
10	1.0	.45	.30	.20	2.0	21	3.9	.32	.26	.28	.17	.21
11	.90	.45	.30	.20	1.9	19	4.3	.29	.26	.31	.17	.21
12	.90	1.5	.30	.20	1.8	19	3.7	.37	.28	.29	.18	.19
13	1.1	.40	.30	.20	1.8	18	3.6	.31	.26	.29	.17	.18
14	.90	.40	.30	.25	1.7	15	4.1	.32	.25	.32	.17	.21
15	2.0	1.5	.30	.25	1.7	12	3.9	.37	.25	.37	.18	.24
16	.90	.40	.30	.30	1.7	10	3.9	.37	.44	.34	.17	.24
17	.90	.40	.30	.30	1.7	8.5	3.6	.37	.36	.34	.14	.22
18	.90	.35	.30	.30	1.7	7.1	3.6	.36	.29	.34	.17	.21
19	.80	.35	.30	.25	1.7	6.3	3.9	.36	.34	.37	.18	.21
20	.80	.35	.30	.25	1.7	5.7	3.9	.37	.31	.39	.15	.24
21	.70	.35	.30	.25	2.0	5.1	4.1	.39	.26	.37	.15	.26
22	.70	.35	.30	.25	15	4.7	3.9	.36	.24	.36	.15	.28
23	.70	1.0	.30	.25	50	5.7	3.9	.43	.24	.39	.15	.28
24	.60	.35	.30	.80	100	5.5	4.1	.46	.25	.34	.17	.32
25	1.0	.35	.30	1.3	75	5.3	3.9	.36	.24	.26	.17	.32
26	2.0	.35	.30	1.3	40	4.7	3.9	.41	.22	.25	.18	.28
27	.60	.35	.30	1.0	100	7.6	4.1	.39	.22	.28	.17	.25
28	.60	.35	.30	.90	182	6.8	4.1	.32	.25	.25	.35	.26
29	.60	.35	.30	.80	------	4.5	4.1	.32	.26	.22	.89	.26
30	.60	.35	.30	.70	------	4.3	4.1	.31	.25	.21	.89	.26
31	.55	------	.30	.70	------	4.1	------	.29	------	.19	.89	------
TOTAL	29.35	15.30	9.40	13.30	602.40	930.9	120.7	37.86	8.41	9.00	7.47	7.80
MEAN	.95	.51	.30	.43	21.5	30.0	4.02	1.22	.28	.29	.24	.26
MAX	2.0	1.5	.35	1.3	182	225	5.3	3.9	.44	.39	.89	.82
MIN	.55	.35	.30	.20	.70	4.1	3.6	.29	.22	.19	.12	.18
AC-FT	58	30	19	26	1,190	1,850	239	75	17	18	15	15

CAL YR 1972 TOTAL 8,436.80 MEAN 23.1 MAX 1,230 MIN .04 AC-FT 16,730
WTR YR 1973 TOTAL 1,791.89 MEAN 4.91 MAX 225 MIN .12 AC-FT 3,550

06349000 Heart River near Mandan, N. Dak.

LOCATION.--Lat 46°50'02", long 100°58'27", in NW¼NE¼ sec.25, T.139 N., R.82 W., Morton County, on left bank near downstream wingwall of bridge on county highway, 3 mi (5 km) west of Mandan and 4 mi (6 km) downstream from Sweetbriar Creek.

DRAINAGE AREA.--3,310 mi^2 (8,570 km^2), approximately.

PERIOD OF RECORD.--April to September 1924, March 1928 to June 1933, August 1937 to current year. Published as "at Sunny" 1924, 1928-33.

GAGE.--Water-stage recorder. Datum of gage is 1,638.70 ft (499.476 m) above mean sea level, and 1,623.03 ft (494.700 m) above Burlington Northern Railway datum. See WSP 1729 to 1917 for history of changes prior to June 30, 1958.

AVERAGE DISCHARGE.--40 years (1928-32, 1937-73), 257 ft^3/s (7.278 m^3/s), 186,200 acre-ft/yr (229.6 hm^3/yr); median of yearly mean discharges, 200 ft^3/s (5.66 m^3/s), 145,000 acre-ft/yr (179 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 3,500 ft^3/s (99.1 m^3/s) Mar. 5, gage height, 17.59 ft (5.361 m), backwater from ice; maximum gage height, 18.40 ft (5.608 m) Mar. 4, backwater from ice; minimum discharge, 18 ft^3/s (0.51 m^3/s) Jan. 11-13; minimum gage height, 2.44 ft (0.744 m) Oct. 23-26.
Period of record: Maximum discharge, about 30,500 ft^3/s (864 m^3/s) Apr. 19, 1950, gage height, 23.64 ft (7.205 m); maximum gage height, 25.75 ft (7.849 m) Apr. 4, 1952, ice jam; no flow for many days in some years.

REMARKS.--Records good. Flow regulated by Lake Tschida 105 mi (169 km) upstream (see station 06346000). Some diversions above station. Records of chemical analyses, water temperatures, and suspended sediment loads for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 926: 1938. WSP 1209: Drainage area. WSP 1239: 1924, 1928-29, 1948.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	35	52	28	130	3,000	235	245	145	71	103	68
2	41	35	50	28	130	2,800	220	230	115	70	103	76
3	38	40	48	28	130	3,100	208	215	92	67	105	78
4	44	50	46	26	125	3,200	198	208	97	61	113	78
5	51	45	44	24	125	3,450	190	193	118	53	113	73
6	53	40	42	24	125	3,400	183	180	153	46	110	74
7	54	45	40	24	125	3,100	178	168	143	39	113	71
8	47	50	38	24	125	2,500	175	168	130	33	115	66
9	51	50	36	22	115	2,300	175	160	125	56	130	64
10	55	50	34	20	110	2,000	163	150	105	64	135	63
11	50	50	32	18	105	1,740	153	143	99	64	110	63
12	46	50	32	18	95	1,530	145	145	99	61	81	66
13	44	50	32	18	90	1,370	138	125	90	55	74	64
14	41	50	32	20	80	1,240	130	120	79	53	71	61
15	38	50	32	22	70	1,130	118	103	74	49	68	51
16	38	52	32	22	60	985	115	90	76	48	73	68
17	36	54	34	22	55	877	123	82	97	46	71	78
18	37	56	36	32	50	787	113	78	99	48	66	76
19	37	56	36	40	55	708	105	73	99	54	64	73
20	35	56	36	45	50	644	113	67	101	79	63	71
21	35	54	36	50	45	584	145	66	110	84	63	62
22	35	54	36	50	55	532	180	58	123	86	63	46
23	33	54	34	50	75	489	230	74	113	105	60	40
24	33	54	34	55	125	447	258	133	105	130	63	42
25	33	54	34	75	200	415	258	101	97	135	61	41
26	33	54	34	125	1,000	377	273	99	92	145	64	40
27	36	54	34	140	2,000	342	279	163	79	148	68	37
28	35	52	34	150	2,500	318	276	170	78	140	71	36
29	35	52	32	145	------	297	264	215	78	130	68	35
30	35	52	30	140	------	273	253	185	76	99	66	34
31	35	------	28	135	------	253	------	168	------	101	67	------
TOTAL	1,259	1,498	1,130	1,620	7,950	44,188	5,594	4,375	3,087	2,420	2,595	1,795
MEAN	40.6	49.9	36.5	52.3	284	1,425	186	141	103	78.1	83.7	59.8
MAX	55	56	52	150	2,500	3,450	279	245	153	148	135	78
MIN	33	35	28	18	45	253	105	58	74	33	60	34
AC-FT	2,500	2,970	2,240	3,210	15,770	87,650	11,100	8,680	6,120	4,800	5,150	3,560

CAL YR 1972 TOTAL 198,527 MEAN 542 MAX 8,250 MIN 10 AC-FT 393,800
WTR YR 1973 TOTAL 77,511 MEAN 212 MAX 3,450 MIN 18 AC-FT 153,700

06349070 Missouri River below Mandan, N. Dak.

LOCATION.--Lat 46°44'32", long 100°49'54", at midsection of west half sec.30, T.138 N., R.80 W., Morton County, on right bank 1 mi (1.6 km) south of Fort Lincoln State Park and 6 mi (10 km) southeast of Mandan at mile 1,309 (kilometre 2,106).

DRAINAGE AREA.--189,800 mi^2 (491,600 km^2), approximately.

PERIOD OF RECORD.--September 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,600.00 ft (487.680 m) above mean sea level (Corps of Engineers bench mark).

EXTREMES.--Current year: Maximum daily gage height recorded, 27.46 ft (8.370 m) Dec. 23; minimum daily recorded, 20.54 ft (6.261 m) May 14, 15.
Period of record: Maximum daily gage height recorded, 29.71 ft (9.056 m) Mar. 17, 1972; minimum daily recorded, 17.40 ft (5.304 m) Apr. 1, 1968.

REMARKS.--Records good. Stage regulated by Lake Sakakawea (see station 06338000).

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.00	22.93	21.75	25.88	25.95	26.90	23.21	20.70	21.36	21.65	21.92	22.37
2	22.08	22.92	21.85	26.08	26.00	25.51	22.60	20.80	21.28	21.76	21.99	22.17
3	21.95	22.92	22.02	26.57	26.12	24.81	22.76	21.02	21.08	21.67	21.99	22.29
4	22.02	22.94	22.33	26.47	26.08	24.70	23.01	20.83	21.24	21.88	21.99	22.15
5	22.08	22.94	22.77	26.20	26.18	24.63	22.90	20.86	21.12	21.63	22.01	22.11
6	22.04	22.96	25.23	26.71	25.91	24.44	22.75	20.85	21.29	21.99	22.05	22.09
7	22.09	22.91	24.71	26.78	24.99	24.33	22.68	20.62	21.47	22.39	22.04	22.14
8	22.12	22.82	24.89	26.74	25.31	24.21	22.74	20.62	21.36	22.24	22.10	22.16
9	22.18	22.89	25.25	26.76	26.03	23.94	22.78	20.76	21.64	21.82	22.26	22.07
10	21.89	22.93	25.25	27.12	26.00	23.85	22.69	20.61	21.31	21.97	22.50	22.10
11	22.03	22.73	25.46	27.10	25.36	23.78	22.91	20.74	21.33	22.12	22.43	22.16
12	22.15	22.66	25.59	26.99	25.92	23.31	22.97	20.76	21.58	21.99	22.19	22.08
13	22.53	22.74	25.86	26.85	26.16	23.67	23.00	20.75	21.46	22.01	21.86	22.07
14	21.98	22.56	25.98	26.59	25.52	23.51	23.00	20.54	21.26	22.08	22.18	22.09
15	22.13	22.30	26.15	26.33	25.06	23.55	22.72	20.54	21.45	21.85	22.04	22.11
16	22.29	22.21	26.35	26.19	25.34	23.60	22.46	20.71	21.68	21.76	22.06	22.06
17	22.03	22.14	26.28	26.16	25.46	23.60	22.25	21.06	21.77	21.98	22.07	21.98
18	22.17	22.16	26.63	26.03	25.99	23.52	21.97	21.06	21.49	21.88	22.08	22.21
19	22.16	22.08	27.14	25.93	25.42	23.42	21.89	21.30	21.44	21.95	22.09	22.19
20	22.16	22.22	27.35	26.01	26.51	23.34	21.77	21.23	21.30	21.96		22.00
21	22.06	22.02	27.43	25.95	26.40	23.35	21.40	21.34	21.33	21.89		21.80
22	22.25	21.92	27.35	25.81	26.42	23.25	21.05	21.45	21.38	21.84		21.65
23	22.18	22.02	27.46	25.90	26.42	23.26	21.01	21.47	21.74	21.70		21.65
24	22.19	21.92	27.24	26.05	26.38	23.23	21.09	21.67	21.87	22.03		21.71
25	22.13	21.88	26.97	26.30	26.54	23.14	21.17	21.04	21.61	22.16	22.11	21.81
26	22.34	21.96	26.90	26.06	26.68	22.72	21.20	21.20	21.56	21.28	22.21	21.75
27	22.44	21.95	26.79	26.16	26.80	22.65	21.01	21.48	21.60	21.75	22.21	21.68
28	22.57	22.01	26.82	25.78	27.33	22.78	21.00	21.46	21.80	21.93	22.31	21.73
29	22.84	21.92	26.92	25.69	------	22.73	20.91	21.22	21.69	21.91	22.70	21.63
30	22.83	21.81	26.78	25.76	------	22.85	20.82	21.31	21.72	21.92	22.46	21.66
31	22.91	------	26.18	25.87	------	23.31	------	21.52	------	21.91	22.36	------
MEAN	22.22	22.41	25.67	26.28	26.01	23.74	22.12	21.02	21.47	21.90		21.99
MAX	22.91	22.96	27.46	27.12	27.33	26.90	23.21	21.67	21.87	22.39		22.37
MIN	21.89	21.81	21.75	25.69	24.99	22.65	20.82	20.54	21.08	21.28		21.63

06349500 Apple Creek near Menoken, N. Dak.

LOCATION.--Lat 46°47'40", long 100°39'25", in NW¼NE¼ sec.9, T.138 N., R.79 W., Burleigh County, on left bank 75 ft (23 m) downstream from bridge on county highway, 4 mi (6 km) upstream from Hay Creek, 6.3 mi (10 km) west of Menoken, and 6.4 mi (10 km) east of Bismarck.

DRAINAGE AREA.--1,680 mi^2 (4,350 km^2), approximately, of which about 500 mi^2 (1,300 km^2) is probably non-contributing.

PERIOD OF RECORD.--March to June 1905, October 1945 to current year. Published as "near Bismarck" 1905.

GAGE.--Water-stage recorder. Datum of gage is 1,638.61 ft (499.448 m) above mean sea level. See WSP 1729 or 1917 for history of changes prior to Sept. 30, 1953.

AVERAGE DISCHARGE.--28 years, 35.6 ft^3/s (1.008 m^3/s), 25,790 acre-ft/yr (31.80 hm^3/yr); median of yearly mean discharges, 19 ft^3/s (0.54 m^3/s), 13,800 acre-ft/yr (17.0 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 79 ft^3/s (2.24 m^3/s) Mar. 7, gage height, 4.72 ft (1.439 m), backwater from ice; maximum gage height, 6.55 ft (1.996 m) Mar. 2, backwater from ice; minimum daily discharge, 0.03 ft^3/s (0.001 m^3/s) Aug. 26-29, 31, Sept. 1, 11, 13; minimum gage height, 0.46 ft (0.140 m) Aug. 26, 27, 31, Sept. 1.
Period of record: Maximum discharge, 6,750 ft^3/s (191 m^3/s) Apr. 18, 1950, gage height, 17.07 ft (5.203 m); no flow at times in some years.

REMARKS.--Records good. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1209: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	1.5	1.5	1.5	1.5	13	6.9	4.4	1.3	.27	.12	.03
2	.09	1.5	1.5	1.5	1.5	40	6.6	3.9	1.4	.49	.12	.09
3	.09	1.5	1.5	1.5	1.5	60	6.3	3.9	1.1	.71	.12	.27
4	.09	1.7	1.5	1.0	1.5	55	5.8	3.7	.69	.84	.09	.12
5	.27	1.7	1.5	1.0	1.5	50	5.4	3.4	.64	.71	.12	.09
6	.54	1.8	1.5	1.0	1.0	50	5.6	3.2	.71	.54	.12	.09
7	.49	2.3	4.5	1.0	1.0	75	5.7	2.9	.78	.49	.12	.09
8	.49	6.3	2.5	1.0	1.0	55	5.5	2.7	.58	.44	.12	.06
9	.59	4.2	2.0	1.0	1.0	50	5.1	2.5	.44	.23	.09	.06
10	.59	3.2	2.0	1.0	1.0	44	4.9	2.3	.35	.23	.09	.06
11	1.1	2.6	2.0	1.0	.90	34	4.9	2.2	.42	.19	.09	.03
12	1.5	2.4	2.0	1.0	.90	24	4.8	2.1	.33	.19	.09	.06
13	1.4	2.2	2.0	1.0	.90	25	4.8	2.3	.40	.15	.09	.03
14	1.3	2.0	1.5	1.0	.90	26	4.3	2.3	.30	.15	.09	.06
15	1.2	1.8	1.5	1.5	.90	19	4.3	2.2	.26	.15	.06	.09
16	1.2	1.7	1.5	1.5	.80	17	4.3	1.8	.25	.15	.06	.06
17	1.1	1.7	1.5	2.0	.80	17	4.2	1.8	.24	.15	.06	.09
18	.91	1.7	1.5	1.5	.80	16	4.2	1.6	.28	.12	.06	.06
19	.84	1.6	1.5	1.5	.80	17	4.3	1.8	.33	.12	.06	.09
20	.84	1.7	1.5	1.5	.90	14	4.8	1.5	.60	.12	.06	.09
21	.77	1.7	1.5	1.5	1.0	13	4.5	.97	.71	.12	.06	.09
22	.77	1.8	1.5	1.5	2.0	13	4.3	.81	.65	.09	.06	.09
23	.65	1.9	1.5	1.5	5.0	12	4.4	.84	.59	.12	.06	.09
24	.59	1.9	1.5	1.5	4.0	11	4.7	2.2	.49	.15	.06	.12
25	.54	1.8	1.5	2.0	5.0	10	4.8	2.4	.23	.12	.09	.12
26	.54	1.8	1.5	2.5	5.0	9.4	4.8	2.5	.15	.15	.03	.12
27	.68	1.8	1.5	2.5	5.0	8.9	4.9	2.9	.15	.15	.03	.12
28	1.1	1.8	1.5	2.0	8.0	8.5	4.9	2.6	.15	.15	.03	.12
29	1.5	1.8	1.5	1.5	------	8.0	4.7	2.2	.15	.15	.03	.15
30	1.8	1.7	1.5	1.5	------	7.7	4.6	1.9	.12	.12	.06	.15
31	1.7	------	1.5	1.5	------	7.1	------	1.5	------	.12	.03	------
TOTAL	25.36	63.1	53.0	44.5	56.10	809.6	149.3	73.32	14.79	7.88	2.37	2.79
MEAN	.82	2.10	1.71	1.44	2.00	26.1	4.98	2.37	.49	.25	.077	.093
MAX	1.8	6.3	4.5	2.5	8.0	75	6.9	4.4	1.4	.84	.12	.27
MIN	.09	1.5	1.5	1.0	.80	7.1	4.2	.81	.12	.09	.03	.03
AC-FT	50	125	105	88	111	1,610	296	145	29	16	4.7	5.5

CAL YR 1972 TOTAL 15,411.60 MEAN 42.1 MAX 1,350 MIN .09 AC-FT 30,570
WTR YR 1973 TOTAL 1,302.11 MEAN 3.57 MAX 75 MIN .03 AC-FT 2,580

PEAK DISCHARGE (BASE, 200 FT^3/S).--NO PEAK ABOVE BASE.

06349700 Missouri River near Schmidt, N. Dak.

LOCATION.--Lat 46°39'22", long 100°44'18", in sec.26, T.137 N., R.80 W., Morton County, on right bank 2 mi (3.2 km) southeast of railroad siding in Schmidt and 13 mi (21 km) southeast of Mandan at mile 1,298 (kilometre 2,088).

DRAINAGE AREA.--191,700 mi^2 (496,500 km^2), approximately.

PERIOD OF RECORD.--September 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,600.00 ft (487.680 km) above mean sea level.

EXTREMES.--Current year: Maximum daily gage height recorded, 20.33 ft (6.197 m) Dec. 23; minimum daily recorded, 12.99 ft (3.959 m) May 15.
Period of record: Maximum daily gage height recorded, 22.13 ft (6.745 m) Dec. 17, 1971; minimum daily recorded, 7.92 ft (2.414 m) May 30, 1967.

REMARKS.--Records good. Stage regulated by Lake Sakakawea (see station 06338000). Records of water temperature for the water year 1973 are published in Part 2 of this report.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.43	15.15	14.04	19.15	18.32	19.78	15.51	13.01	13.87	14.01	14.29	14.79
2	14.55	15.11	14.18	19.19	18.33	20.03	15.03	13.17	13.85	14.16	14.34	14.59
3	14.33	15.11	14.18	19.63	18.43	19.74	14.98	13.39	13.56	14.06	14.35	14.68
4	14.41	15.10	15.03	19.75	18.37	18.29	15.29	13.45	13.70	14.25	14.33	14.60
5	14.50	15.09	17.75	19.41	18.45	17.14	15.30	13.39	13.59	14.09	14.38	14.48
6	14.43	15.12	17.77	19.76	18.39	16.55	15.16	13.24	13.74	14.24	14.41	14.46
7	14.44	15.05	17.12	19.97	17.50	16.30	15.06	13.15	13.88	14.73	14.41	14.48
8	14.48	15.09	17.06	19.93	17.62	16.15	15.11	13.02	13.79	14.72	14.47	14.52
9	14.57	15.02	17.53	19.90	18.27	15.87	15.15	13.15	14.00	14.30	14.60	14.43
10	14.16	15.04	17.71	20.16	18.54	15.78	15.04	13.03	13.78	14.28	14.85	14.44
11	14.35	14.88	17.92	20.16	17.90	15.69	15.22	13.11	13.68	14.41	14.88	14.49
12	14.56	14.77	18.11	20.04	18.09	15.21	15.30	13.17	13.91	14.34	14.63	14.43
13	14.78	14.82	18.38	19.88	18.46	15.47	15.40	13.18	13.96	14.31	14.26	14.41
14	14.27	14.67	18.61	19.61	18.11	15.41	15.41	13.08	13.74	14.42	14.46	14.44
15	14.67	14.39	18.74	19.33	17.29	15.41	15.14	12.99	13.85	14.21	14.44	14.49
16	14.42	14.26	19.04	19.07	17.47	15.44	14.95	13.11	13.92	14.11	14.41	14.44
17	14.45	14.23	19.08	19.00	17.64	15.46	14.64	13.46	14.16	14.26	14.42	14.32
18		14.29	19.24	18.83	18.09	15.40	14.33	13.43	13.94	14.24	14.41	14.50
19		14.21	19.77	18.66	18.57	15.32	14.36	13.64	13.78	14.27	14.44	14.55
20		14.39	20.11	18.68	18.69	15.18	14.20	13.74	13.64	14.43	14.42	14.28
21		14.24	20.29	18.62	18.64	15.32	13.78	13.77	13.66	14.27	14.49	14.15
22		14.12	20.29	18.45	18.59	15.21	13.47	13.90	13.68	14.18	14.51	13.97
23		14.27	20.33	18.47	18.62	15.19	13.42	13.97	14.01	14.13	14.45	13.93
24		14.20	20.32	18.56	18.57	15.21	13.49	14.10	14.26	14.30	14.42	13.99
25		14.22	20.06	18.77	18.72	15.17	13.58	13.59	14.05	14.60	14.48	14.10
26		14.24	20.01	18.55	18.89	14.88	13.60	13.65	13.88	13.68	14.58	14.04
27		14.25	19.89	18.57	19.04	14.70	13.46	13.88	13.90	13.97	14.63	13.94
28	14.80	14.29	19.89	18.39	19.43	14.94	13.56	13.93	14.12	14.26	14.60	13.97
29	15.07	14.22	19.97	18.14	------	14.94	13.35	13.69	14.06	14.26	15.08	13.89
30	15.11	14.10	19.98	18.19	------	15.00	13.33	13.73	14.05	14.30	14.96	13.89
31	15.15	------	19.49	18.26	------	15.37	------	14.00	------	14.24	14.74	------
MEAN		14.60	18.45	19.13	18.32	15.99	14.52	13.46	13.87	14.26	14.52	14.32
MAX		15.15	20.33	20.16	19.43	20.03	15.51	14.10	14.26	14.73	15.08	14.79
MIN		14.10	14.04	18.14	17.29	14.70	13.33	12.99	13.56	13.68	14.26	13.89

06350000 Cannonball River at Regent, N. Dak.

LOCATION.--Lat 46°25'36", long 102°33'05", in NE¼NE¼ sec.13, T.134 N., R.95 W., Hettinger County, on right bank 400 ft (120 m) upstream from bridge on county highway 0.3 mi (0.5 km) north of Regent.

DRAINAGE AREA.--580 mi^2 (1,500 km^2), approximately.

PERIOD OF RECORD.--September 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,422.90 ft (738.500 m) above mean sea level.

AVERAGE DISCHARGE.--23 years, 45.1 ft^3/s (1.277 m^3/s), 32,670 acre-ft/yr (40.28 hm^3/yr); median of yearly mean discharges, 27 ft^3/s (0.76 m^3/s), 19,600 acre-ft/yr (24.2 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 620 ft^3/s (17.6 m^3/s) Feb. 26, gage height, 7.74 ft (2.359 m), backwater from ice; minimum, 2.3 ft^3/s (0.065 m^3/s) Aug. 29-31, gage height, 1.87 ft (0.570 m).
Period of record: Maximum discharge, 7,430 ft^3/s (210 m^3/s) Mar. 12, 1972, gage height, 19.49 ft (5.941 m), from floodmark, backwater from ice; no flow at times.
Maximum stage known since 1914, 26.1 ft (7.955 m) Apr. 16, 1950, from floodmarks, discharge, 20,300 ft^3/s (575 m^3/s), on basis of slope-area measurement at site 4 mi (6.4 km) downstream.

REMARKS.--Records good except those for the winter period, which are fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	17	13	9.9	77	523	30	36	46	8.5	3.7	2.8
2	8.2	17	9.9	9.5	60	518	28	33	38	8.0	3.1	3.4
3	8.2	17	8.9	9.5	45	426	26	31	68	6.9	2.9	5.3
4	8.2	17	8.0	11	36	366	23	28	150	6.6	3.1	6.4
5	11	17	8.2	11	32	248	22	26	103	6.4	3.1	6.2
6	13	17	8.2	9.9	26	204	25	24	101	5.5	3.1	6.0
7	13	17	8.5	9.2	18	156	28	22	74	5.3	3.2	6.0
8	14	18	8.9	8.2	13	129	27	20	58	4.7	3.5	5.5
9	13	18	8.9	7.4	9.5	112	27	20	46	4.7	3.5	4.9
10	13	18	8.9	6.6	7.7	111	28	18	36	4.5	3.5	4.2
11	13	18	8.5	6.0	7.7	94	29	18	28	4.2	3.2	4.0
12	13	16	8.0	5.3	7.2	87	29	16	23	3.8	3.4	4.0
13	13	15	7.2	4.7	6.6	84	29	15	19	3.7	3.5	3.7
14	14	15	6.6	4.2	5.7	73	29	14	17	3.1	4.2	3.8
15	14	15	6.6	4.0	6.0	58	28	13	16	3.1	3.7	4.4
16	14	15	6.6	10	5.1	49	27	12	16	3.1	3.5	4.7
17	14	15	6.6	66	5.3	49	25	12	15	3.1	3.7	4.7
18	13	15	6.6	167	4.7	44	25	11	17	2.9	3.4	4.9
19	13	15	6.6	153	4.0	40	30	11	21	3.2	3.1	4.9
20	13	15	8.0	113	3.5	37	40	11	21	3.2	3.5	4.9
21	14	15	9.9	118	4.2	35	63	11	20	3.2	3.5	4.9
22	14	15	9.9	101	7.7	34	89	10	23	3.8	3.7	5.1
23	14	15	9.9	85	60	33	76	10	26	5.5	3.7	5.7
24	14	15	9.9	79	410	33	80	11	23	5.7	3.7	6.2
25	14	16	9.9	75	386	32	76	10	22	5.5	3.4	7.4
26	14	18	9.9	126	503	32	63	14	18	5.5	2.9	8.2
27	15	20	9.9	180	406	32	54	20	15	4.7	2.5	6.9
28	15	22	9.9	174	372	32	49	20	13	4.5	2.8	6.0
29	16	20	9.9	152	------	33	46	20	12	4.4	2.6	5.5
30	17	16	9.9	131	------	33	41	22	11	3.8	2.5	5.3
31	17	------	9.9	113	------	32	------	35	------	3.8	2.5	------
TOTAL	408.1	499	271.6	1,959.4	2,528.9	3,769	1,192	574	1,096	144.9	101.7	155.9
MEAN	13.2	16.6	8.76	63.2	90.3	122	39.7	18.5	36.5	4.67	3.28	5.20
MAX	17	22	13	180	503	523	89	36	150	8.5	4.2	8.2
MIN	8.2	15	6.6	4.0	3.5	32	22	10	11	2.9	2.5	2.8
AC-FT	809	990	539	3,890	5,020	7,480	2,360	1,140	2,170	287	202	309

CAL YR 1972 TOTAL 52,093.1 MEAN 142 MAX 4,500 MIN 4.5 AC-FT 103,300
WTR YR 1973 TOTAL 12,700.5 MEAN 34.8 MAX 523 MIN 2.5 AC-FT 25,190

PEAK DISCHARGE (BASE, 400 FT^3/S).--FEB. 26, 620 FT^3/S.

06351000 Cannonball River below Bentley, N. Dak.

LOCATION.--Lat 46°21'30", long 102°02'30", in SW¼SW¼ sec.6, T.133 N., R.90 W., Grant County, on left bank 0.25 mi (0.4 km) downstream from Thirty Mile Creek, 2 mi (3 km) northeast of Bentley.

DRAINAGE AREA.--1,140 mi^2 (2,950 km^2), approximately.

PERIOD OF RECORD.--April 1943 to current year. Published as "near New Leipzig" 1943 to June 1952. Records published for both sites October 1951 to June 1952.

GAGE.--Water-stage recorder at present site and datum since Oct. 1, 1951. Datum of gage is 2,252.09 ft (686.437 m) above mean sea level. Prior to Nov. 7, 1947, nonrecording gage and Nov. 7, 1947, to June 16, 1952, water-stage recorder, at site 8 mi (13 km) downstream at different datum.

AVERAGE DISCHARGE.--30 years, 88.6 ft^3/s (2.509 m^3/s), 64,190 acre-ft/yr (79.15 hm^3/yr); median of yearly mean discharges, 69 ft^3/s (1.95 m^3/s), 50,000 acre-ft/yr (61.6 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 800 ft^3/s (22.7 m^3/s) Feb. 28, gage height, 9.47 ft (2.886 m), backwater from ice; minimum daily, 3.8 ft^3/s (0.11 m^3/s) Sept. 1.
Period of record: Maximum discharge, 51,800 ft^3/s (1,467 m^3/s) Apr. 17, 1950, gage height, 34.0 ft (10.363 m), from floodmark in well, site and datum then in use, from rating curve extended above 12,000 ft^3/s (340 m^3/s) on basis of slope-area measurement at gage height 26.9 ft (8.199 m) and slope-area and contracted-opening measurements at gage height 34.0 ft (10.363 m); no flow at times.
Maximum stage known since at least 1889 that of Apr. 17, 1950. Flood of Mar. 25 and 26, 1943, reached a stage of 26.9 ft (8.199 m), site and datum then in use - discharge 15,000 ft^3/s (425 m^3/s) by slope-area measurement.

REMARKS.--Records good except those for the winter period, which are fair. Some diversions and some storage in small lakes above the station. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1729: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	29	24	20	110	600	63	82	36	20	7.5	3.8
2	16	29	24	19	100	555	60	72	43	18	7.0	5.0
3	16	28	23	18	80	634	57	64	74	17	6.6	12
4	17	30	22	17	70	565	54	58	70	16	6.2	11
5	28	32	21	16	60	412	51	52	121	14	5.9	10
6	35	33	20	16	50	330	57	49	170	13	5.8	7.0
7	33	35	19	15	45	250	61	45	158	11	5.6	6.9
8	34	34	18	14	30	240	61	42	139	9.5	5.5	7.1
9	33	34	17	13	25	210	62	38	111	8.6	5.8	6.8
10	31	34	16	13	20	195	62	37	92	7.7	5.8	6.7
11	27	34	15	12	20	175	63	33	74	6.7	6.3	6.5
12	25	33	14	12	20	165	60	32	59	6.1	7.9	6.5
13	30	32	14	13	15	160	58	30	46	6.8	7.5	7.4
14	44	34	14	15	10	160	56	27	41	5.8	8.0	7.7
15	30	27	14	20	10	140	57	25	39	5.4	8.3	8.4
16	25	29	14	50	10	130	55	23	41	5.4	8.2	9.2
17	24	29	15	175	10	130	53	22	43	5.1	8.7	9.1
18	23	28	16	225	10	110	54	21	43	5.1	9.1	9.4
19	22	27	17	252	10	111	66	21	51	5.4	8.6	9.4
20	22	26	20	438	15	103	89	20	44	5.4	7.0	9.4
21	22	25	22	345	15	94	103	18	47	5.4	6.8	9.8
22	22	24	25	221	40	87	113	18	44	7.2	6.0	10
23	22	24	26	136	50	84	128	18	38	9.9	5.8	11
24	21	24	26	160	68	82	154	19	35	11	5.6	11
25	21	24	26	180	142	80	142	19	37	12	5.2	11
26	22	24	26	240	409	76	137	25	35	12	5.0	12
27	23	24	27	180	478	73	124	35	33	11	4.8	12
28	24	24	29	160	642	70	109	42	30	10	4.6	12
29	27	24	29	140	------	68	98	44	25	9.0	4.4	13
30	31	24	28	140	------	62	90	41	22	8.5	4.2	13
31	30	------	24	130	------	51	------	38	------	8.0	4.0	------
TOTAL	796	858	645	3,405	2,564	6,202	2,397	1,110	1,841	296.0	197.7	274.1
MEAN	25.7	28.6	20.8	110	91.6	200	79.9	35.8	61.4	9.55	6.38	9.14
MAX	44	35	29	438	642	634	154	82	170	20	9.1	13
MIN	16	24	14	12	10	51	51	18	22	5.1	4.0	3.8
AC-FT	1,580	1,700	1,280	6,750	5,090	12,300	4,750	2,200	3,650	587	392	544

CAL YR 1972 TOTAL 87,777.0 MEAN 240 MAX 8,030 MIN 9.0 AC-FT 174,100
WTR YR 1973 TOTAL 20,585.8 MEAN 56.4 MAX 642 MIN 3.8 AC-FT 40,830

PEAK DISCHARGE (BASE, 500 FT^3/S).--FEB. 28, 800 FT^3/S.

06351680 White Butte Fork Cedar Creek near Scranton, N. Dak.

LOCATION.--Lat 46°19'20", long 102°59'45", in NW¼ sec.21, T.133 N., R.98 W., Slope County, on left bank 1,200 ft (366 m) downstream from county highway bridge and 13 mi (21 km) northeast of Scranton.

DRAINAGE AREA.--42.9 mi^2 (111 km^2).

PERIOD OF RECORD.--March 1965 to current year.

GAGE.--Water-stage recorder.

AVERAGE DISCHARGE.--8 years, 5.54 ft^3/s (0.157 m^3/s), 4,010 acre-ft/yr (4.94 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 75 ft^3/s (2.12 m^3/s) Jan. 18, gage height, 5.08 ft (1.548 m), backwater from ice; no flow on many days.
Period of record: Maximum discharge, 645 ft^3/s (18.3 m^3/s) May 8, 1970, gage height, 7.20 ft (2.19 m); maximum gage height, 7.76 ft (2.365 m) May 8, 1967; no flow for many days each year.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.31	1.9	1.5	.65	.60	35	2.8	2.6	4.2	.60	.01	0
2	.27	1.9	1.5	.35	.50	30	2.8	2.5	2.9	.43	.01	0
3	.31	1.8	1.3	.39	.50	25	2.6	2.5	5.4	.21	.01	0
4	.31	1.8	1.2	.31	.50	20	1.9	2.1	7.4	.07	.01	0
5	.65	1.8	1.2	.30	.45	18	1.8	1.8	9.6	.05	.01	.01
6	1.4	1.7	.92	.25	.30	12	2.4	1.3	14	.03	.01	.01
7	1.2	1.7	.75	.25	.35	10	3.1	.98	6.5	.02	.01	0
8	.92	1.7	.43	.20	.85	12	3.1	.70	4.6	.02	.01	0
9	.98	1.6	.43	.20	.60	10	3.1	.86	3.1	.02	.01	0
10	.86	1.6	.51	.20	.55	7.9	3.4	.92	2.4	.02	.01	0
11	.60	1.5	.55	.20	.50	51	3.2	.86	1.6	.01	.01	0
12	.60	1.5	.39	.20	.45	4.9	4.3	.80	1.3	.01	.01	0
13	.60	1.5	.27	.20	.25	4.5	3.1	.60	1.0	.01	0	0
14	.55	1.3	.43	.20	.25	4.3	2.5	.51	.75	.01	0	.01
15	.55	1.2	.51	1.0	.20	5.1	2.4	.47	.60	.01	0	.02
16	.55	1.3	.60	2.5	.10	3.7	2.4	.43	.70	.01	0	.02
17	.50	1.3	.75	20	.10	3.1	2.1	.39	.86	.01	0	.03
18	.50	1.2	.75	60	.10	2.9	2.0	.60	1.2	.01	0	.03
19	.50	1.2	.75	45	.08	2.8	3.1	.60	2.0	.01	0	.03
20	.50	1.2	.80	20	.05	2.6	7.2	.21	3.4	.01	0	.04
21	.50	1.2	.80	12	.40	2.4	16	.18	5.0	.01	0	.04
22	.45	1.2	.80	10	10	2.3	18	.07	5.6	.01	0	.04
23	.45	1.1	.92	4.5	20	2.8	11	.07	6.5	.02	0	.04
24	.45	1.2	.80	4.5	50	4.5	8.3	.07	5.0	.01	0	.05
25	.45	1.2	.80	7.0	40	4.5	6.5	.70	3.1	.01	0	.05
26	.40	1.3	1.2	7.0	40	6.5	4.9	.65	2.3	.01	0	.05
27	.60	1.3	1.4	8.0	40	5.7	3.9	7.6	1.6	.01	0	.05
28	1.0	1.5	1.2	8.0	35	5.1	3.4	13	1.2	.01	0	.05
29	2.0	1.8	1.2	6.5	------	3.7	3.4	17	.98	.01	0	.05
30	2.0	1.7	.92	2.2	------	2.9	2.8	11	.75	.01	0	.05
31	2.0	------	.92	1.0	------	2.8	------	6.3	------	.01	0	------
TOTAL	22.96	44.2	26.50	223.10	242.68	308.0	137.5	78.37	105.54	1.69	.12	.67
MEAN	.74	1.47	.85	7.20	8.67	9.94	4.58	2.53	3.52	.055	.004	.022
MAX	2.0	1.9	1.5	60	50	51	18	17	14	.60	.01	.05
MIN	.27	1.1	.27	.20	.05	2.3	1.8	.07	.60	.01	0	0
AC-FT	46	88	53	443	481	611	273	155	209	3.4	.2	1.3

CAL YR 1972 TOTAL 3,253.59 MEAN 8.89 MAX 460 MIN 0 AC-FT 6,450
WTR YR 1973 TOTAL 1,191.33 MEAN 3.26 MAX 60 MIN 0 AC-FT 2,360

PEAK DISCHARGE (BASE, 50 FT^3/S).--JAN. 18, 75 FT^3/S; FEB. 26, 65 FT^3/S.

06352000 Cedar Creek near Haynes, N. Dak.

LOCATION.--Lat 46°09'15", long 102°28'25", in W½ sec.20, T.131 N., R.94 W., Adams County, on left bank 30 ft (9 m) downstream from bridge on State Highway 8 and 12.5 mi (20 km) north of Haynes.

DRAINAGE AREA.--553 mi^2 (1,430 km^2).

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,472.90 ft (753.740 m) above mean sea level, North Dakota Highway Department benchmark. Prior to May 20, 1951, nonrecording gage on former bridge 400 ft (120 m) upstream at same datum.

AVERAGE DISCHARGE.--23 years, 33.6 ft^3/s (0.952 m^3/s), 24,340 acre-ft/yr (689.3 hm^3/yr); median of yearly mean discharge, 30 ft^3/s (0.85 m^3/s), 21,700 acre-ft/yr (615 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 450 ft^3/s (12.7 m^3/s) Mar. 2, gage height, 10.38 ft (3.164 m), backwater from ice; minimum, 0.50 ft^3/s (0.014 m^3/s) Jan. 12, 13.
Period of record: Maximum discharge, 7,870 ft^3/s (223 m^3/s) Apr. 7, 1952, gage height, 21.25 ft (6.477 m); no flow at times in some years.
Flood of Apr. 17, 1950 reached a stage of about 23 ft (7.0 m), discharge, 26,900 ft^3/s (762 m^3/s), by slope-area measurement at site 9 mi (14 km) upstream.

REMARKS.--Records good except those for the winter period, which are fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	16	14	2.5	71	340	39	38	92	12	1.7	.84
2	7.0	15	13	2.0	56	399	34	35	81	9.8	1.5	.94
3	7.3	16	13	2.0	43	358	31	30	185	8.1	1.2	1.7
4	6.7	17	11	2.0	39	320	28	26	132	6.9	1.1	3.4
5	12	18	10	1.5	33	268	26	24	91	6.3	1.1	2.5
6	14	20	10	1.5	30	197	26	22	126	5.5	1.0	1.8
7	14	22	9.5	1.5	26	166	27	21	82	4.7	1.1	1.5
8	16	23	8.5	1.5	19	149	26	19	69	3.8	1.0	1.5
9	15	22	9.0	1.0	16	134	28	19	65	3.3	1.0	3.0
10	14	21	8.5	1.0	14	115	29	17	53	2.8	1.0	2.9
11	14	21	7.0	1.0	13	95	28	15	39	2.3	1.1	2.3
12	13	21	7.0	.50	12	90	29	14	30	1.8	1.4	1.9
13	12	21	6.0	.50	9.0	88	31	14	23	1.6	1.5	1.7
14	12	25	5.5	2.0	7.0	77	30	12	19	1.4	1.1	1.8
15	12	22	6.0	5.0	6.0	69	28	11	18	1.3	1.1	2.2
16	12	18	6.0	15	5.0	63	27	9.7	20	1.3	1.1	2.5
17	11	17	6.0	100	5.0	58	25	8.9	14	1.2	1.1	2.2
18	11	17	6.0	190	7.0	53	24	8.2	15	1.2	.99	2.0
19	11	17	7.0	210	8.0	48	26	7.8	21	1.2	.99	1.9
20	11	16	8.0	180	8.0	43	32	7.5	82	1.1	.99	2.0
21	11	16	7.0	150	8.0	37	52	7.3	82	1.2	1.0	2.1
22	11	16	7.0	130	10	35	74	6.9	49	1.4	1.0	2.2
23	11	16	7.0	110	28	34	89	6.6	43	2.5	1.0	2.3
24	11	16	6.0	100	50	32	111	6.6	55	5.2	1.1	2.4
25	11	21	5.0	100	200	31	109	6.6	62	4.3	.98	2.7
26	11	17	4.0	110	250	33	96	9.4	50	8.2	.99	3.0
27	11	22	4.0	87	300	37	80	14	38	4.8	.98	5.3
28	12	15	3.5	88	280	40	64	16	28	3.7	.91	8.2
29	14	16	4.0	87	------	49	54	23	20	3.0	.99	6.5
30	15	14	3.5	83	------	49	44	44	15	2.5	.94	5.1
31	16	------	3.0	76	------	42	------	76	------	1.9	.86	------
TOTAL	366.0	554	225.0	1,841.50	1,553.0	3,549	1,347	575.5	1,699	116.3	33.82	80.38
MEAN	11.8	18.5	7.26	59.4	55.5	114	44.9	18.6	56.6	3.75	1.09	2.68
MAX	16	25	14	210	300	399	111	76	185	12	1.7	8.2
MIN	6.7	14	3.0	.50	5.0	31	24	6.6	14	1.1	.86	.84
AC-FT	726	1,100	446	3,650	3,080	7,040	2,670	1,140	3,370	231	67	159

CAL YR 1972 TOTAL 44,415.20 MEAN 121 MAX 5,120 MIN 3.0 AC-FT 88,100
WTR YR 1973 TOTAL 11,940.50 MEAN 32.7 MAX 399 MIN .50 AC-FT 23,680

PEAK DISCHARGE (BASE, 400 FT^3/S).--MAR. 2, 450 FT^3/S.

06352500 Cedar Creek near Pretty Rock, N. Dak.

LOCATION.--Lat 46°01'55", long 101°49'55", in S½ sec.33, T.130 N., R.89 W., Grant County, on left bank on downstream side of county highway bridge, 7 mi (11 km) north of Keldron, S. Dak., 10.5 mi (17 km) south of abandoned townsite of Pretty Rock, and 15 mi (24 km) downstream from Timber Creek.

DRAINAGE AREA.--1,340 mi^2 (3,470 km^2), approximately.

PERIOD OF RECORD.--April 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,155.17 ft (656.896 m) above mean sea level, levels by Corps of Engineers. Prior to Oct. 17, 1947, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--30 years, 74.2 ft^3/s (2.101 m^3/s), 53,760 acre-ft/yr (66.29 hm^3/yr); median of yearly mean discharges, 56 ft^3/s (1.59 m^3/s), 40,600 acre-ft/yr (50.1 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 800 ft^3/s (22.7 m^3/s) Jan. 26, gage height, 6.18 ft (1.884 m), backwater from ice; maximum gage height, 6.18 ft (1.884 m) Jan. 26, Mar. 2; minimum, 0.40 ft^3/s (0.11 m^3/s) Aug. 31, gage height, 2.72 ft (0.829 m).
Period of record: Maximum discharge, 48,000 ft^3/s (1,360 m^3/s) Apr. 17, 1950, gage height, 26.5 ft (8.077 m), from floodmark in gage house, from rating curve extended above 7,800 ft^3/s (221 m^3/s) on basis of slope-area measurement of peak flow; no flow at times.
Flood of Mar. 24, 1943, reached a stage of 21.8 ft (6.645 m), from floodmarks, discharge, 14,300 ft^3/s (405 m^3/s).

REMARKS.--Records good. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISION (WATER YEARS).--WSP 1146: 1944, 1947. WSP 1209: Drainage area. WSP 1389: 1951.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	22	24	19	194	380	65	100	36	44	4.2	.54
2	11	25	23	18	173	590	68	84	41	37	6.6	.80
3	12	26	23	16	175	580	62	75	63	31	5.7	1.2
4	13	26	24	16	188	500	58	67	82	25	4.4	1.3
5	21	27	23	16	172	520	58	64	83	19	3.6	1.1
6	23	28	21	11	110	510	59	59	173	16	3.0	1.2
7	27	30	18	6.7	91	430	61	54	124	13	2.8	1.2
8	24	32	16	4.5	81	340	62	48	100	10	2.4	1.1
9	27	33	15	2.6	78	300	60	45	108	10	2.2	1.5
10	32	35	15	1.9	58	290	58	43	83	9.9	2.1	2.8
11	28	35	14	1.2	44	240	56	40	72	8.6	2.0	2.4
12	24	36	13	1.0	27	210	53	37	66	7.3	1.9	2.2
13	24	29	13	1.0	20	190	49	35	62	6.0	2.0	2.1
14	23	33	13	1.0	17	160	48	33	54	5.1	2.1	2.2
15	22	32	13	1.0	14	130	46	30	48	4.7	2.0	2.8
16	22	28	13	1.9	12	170	52	28	55	4.3	1.8	3.0
17	20	29	13	68	10	180	52	26	44	3.7	1.5	3.3
18	19	29	13	190	8.0	180	51	25	36	2.9	1.3	3.7
19	19	28	14	340	7.0	170	52	23	35	2.6	1.2	3.7
20	19	25	15	680	6.0	130	60	21	43	2.6	1.0	3.5
21	18	26	16	540	6.0	120	76	19	39	2.0	1.0	3.7
22	18	24	17	350	8.0	138	81	18	36	2.0	1.0	4.5
23	17	24	19	240	20	138	89	16	46	3.1	.92	4.5
24	18	24	20	260	60	120	109	17	84	5.0	.92	4.7
25	18	23	21	350	40	98	151	17	64	3.6	.87	4.9
26	19	22	21	710	50	88	177	22	52	4.7	.82	4.6
27	20	22	21	640	110	82	178	30	49	4.5	.64	4.3
28	20	21	21	390	150	76	163	39	56	3.5	.58	4.9
29	20	19	21	309	------	70	139	44	55	3.3	.49	4.5
30	22	23	20	274	------	66	119	41	50	3.0	.46	4.5
31	23	------	19	214	------	62	------	39	------	2.4	.44	------
TOTAL	634	816	552	5,673.8	1,929.0	7,258	2,412	1,239	1,939	299.8	61.94	86.74
MEAN	20.5	27.2	17.8	183	68.9	234	80.4	40.0	64.6	9.67	2.00	2.89
MAX	32	36	24	710	194	590	178	100	173	44	6.6	4.9
MIN	11	19	13	1.0	6.0	62	46	16	35	2.0	.44	.54
AC-FT	1,260	1,620	1,090	11,250	3,830	14,400	4,780	2,460	3,850	595	123	172

CAL YR 1972 TOTAL 73,814.10 MEAN 202 MAX 4,900 MIN 5.5 AC-FT 146,400
WTR YR 1973 TOTAL 22,901.28 MEAN 62.7 MAX 710 MIN .44 AC-FT 45,420

PEAK DISCHARGE (BASE, 500 FT^3/S)

DATE	TIME	G. H.	DISCHARGE	DATE	TIME	G. H.	DISCHARGE
1-20	--	--	750	3-2	--	--	650
1-26	--	--	800				

06353000 Cedar Creek near Raleigh, N. Dak.

LOCATION.--Lat 46°05'30", long 101°20'00", in NE¼SE¼ sec.8, T.130 N., R.85 W., Grant County, on left bank at upstream side of bridge on N. D. Highway 31, 6 mi (10 km) upstream from mouth, and 19 mi (30 km) south of Raleigh.

DRAINAGE AREA.--1,750 mi^2 (4,530 km^2), approximately.

PERIOD OF RECORD.--April to September 1939, March 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,881.23 ft (573.399 m) above mean sea level. Prior to June 6, 1962, nonrecording gage at same site and datum, and June 6, 1962, to Sept. 7, 1972, at site 1 mi (2 km) upstream at datum 9.58 ft (2.920 m) higher.

AVERAGE DISCHARGE.--11 years (1962-73) 104 ft^3/s (2.945 m^3/s), 75,350 acre-ft/yr (92.91 hm^3/yr); median of yearly mean discharges, 82 ft^3/s (2.32 m^3/s), 59,400 acre-ft/yr (73.2 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 750 ft^3/s (21.2 m^3/s) Mar. 4, gage height, 7.61 ft (2.320 m), backwater from ice; minimum, 0.22 ft^3/s (0.006 m^3/s) Sept. 1.
Period of record: Maximum discharge, 6,000 ft^3/s (170 m^3/s) Mar. 15, 1966, gage height, 12.32 ft (3.755 m), backwater from ice; no flow at times in most years.
Maximum stage known since 1950, about 18 ft (5.486 m) Apr. 18, 1950, discharge 45,000 ft^3/s (1,270 m^3/s), on basis of slope-area measurement 5 mi (8 km) upstream.

REMARKS.--Records good. Records of chemical analyses for water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	25	24	8.0	360	340	97	135	46	50	3.2	.22
2	8.0	35	22	8.0	160	350	93	121	44	47	3.0	2.7
3	9.5	40	20	7.0	100	500	95	107	52	42	2.5	295
4	9.5	40	18	6.0	80	700	92	92	48	36	2.1	159
5	42	35	16	5.0	50	650	84	83	63	32	1.9	39
6	52	35	16	5.0	40	550	93	76	81	27	1.9	20
7	32	35	16	5.0	60	400	107	71	92	23	1.8	12
8	25	35	16	4.0	80	380	95	66	144	19	2.0	7.2
9	22	30	16	4.0	60	500	90	59	109	16	2.5	4.8
10	23	30	16	4.0	50	420	88	52	101	14	2.4	3.2
11	22	30	16	4.0	50	355	86	48	99	12	2.3	2.1
12	23	30	16	5.0	45	284	83	46	81	12	2.1	1.9
13	26	30	16	10	40	257	77	44	73	8.3	1.9	1.7
14	25	30	16	40	35	266	74	41	69	7.2	1.7	1.7
15	25	30	16	80	30	214	69	39	63	6.2	1.6	2.4
16	25	30	16	100	30	245	66	38	69	5.6	1.4	2.1
17	24	29	16	150	30	242	63	35	65	4.8	1.1	1.8
18	23	29	16	200	30	245	66	34	59	4.0	1.0	1.8
19	23	28	16	280	30	336	69	33	59	3.8	.95	1.0
20	23	28	16	300	30	333	76	31	49	3.2	.88	.95
21	22	28	16	320	25	284	76	30	42	3.0	.81	.81
22	22	28	16	470	60	330	79	28	44	2.9	.81	.81
23	22	28	30	440	350	274	97	27	42	27	.74	.81
24	22	28	20	420	400	245	113	27	38	37	.74	27
25	22	28	18	430	200	221	123	26	41	15	.74	19
26	22	26	16	600	220	186	135	25	77	12	.67	17
27	22	26	14	600	380	152	159	95	63	7.2	.55	20
28	22	26	14	600	330	137	172	81	50	5.3	.40	18
29	22	26	12	650	------	123	166	47	47	4.0	.36	9.5
30	22	26	10	550	------	113	152	42	50	3.0	.32	5.3
31	22	------	8.0	420	------	105	------	47	------	3.0	.25	------
TOTAL	712.0	904	514.0	6,725.0	3,355	9,737	2,935	1,726	1,960	492.5	44.62	678.80
MEAN	23.0	30.1	16.6	217	120	314	97.8	55.7	65.3	15.9	1.44	22.6
MAX	52	40	30	650	400	700	172	135	144	50	3.2	295
MIN	8.0	25	8.0	4.0	25	105	63	25	38	2.9	.25	.22
AC-FT	1,410	1,790	1,020	13,340	6,650	19,310	5,820	3,420	3,890	977	89	1,350

CAL YR 1972 TOTAL 88,502.80 MEAN 242 MAX 4,750 MIN 3.5 AC-FT 175,500
WTR YR 1973 TOTAL 29,783.92 MEAN 81.6 MAX 700 MIN .22 AC-FT 59,080

PEAK DISCHARGE (BASE, 700 FT^3/S).--JAN. 26, 700 FT^3/S; MAR. 4, 750 FT^3/S.

06354000 Cannonball River at Breien, N. Dak.

LOCATION.--Lat 46°22'33", long 100°56'03", in sec.36, T.134 N., R.82 W., Morton County, on left bank at downstream side of bridge on State Highway 6, 1,500 ft (457 m) downstream from Louise Creek and 0.6 mi (1.0 km) southeast of Breien. Prior to June 12, 1973, at site 600 ft (183 m) upstream on right bank.

DRAINAGE AREA.--4,100 mi^2 (10,600 km^2), approximately.

PERIOD OF RECORD.--August 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,675.54 ft (510.70 m) above mean sea level. Prior to June 12, 1973, at site 600 ft (183 m) upstream at datum 1 ft higher.

AVERAGE DISCHARGE.--39 years, 246 ft^3/s (6.967 m^3/s), 178,200 acre-ft/yr (220 hm^3/yr); median of yearly mean discharges, 190 ft^3/s (5.38 m^3/s), 138,000 acre-ft/yr (170 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 2,500 ft^3/s (70.8 m^3/s) Mar. 4, gage height, 10.57 ft (3.222 m), backwater from ice; minimum, 1.4 ft^3/s (0.040 m) Sept. 1, gage height, 0.73 ft (0.223 m).
Period of record: Maximum discharge, 94,800 ft^3/s (2,680 m^3/s) Apr. 19, 1950, gage height, 22.30 ft (6.797 m), from floodmarks, from rating curve extended above 16,000 ft^3/s (453 m^3/s) on basis of slope-area and contracted-opening of peak flow, site and datum then in use; no flow at times in some years.

REMARKS.--Records good except those for the winter period, which are poor. Some storage in several small lakes above station. Records of chemical analyses and suspended sediment loads for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 786: 1934. WSP 1146: 1943. WSP 1279: 1936-37(M), 1947(M). WSP 1509: 1955(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	58	25	15	1,100	500	257	306	109	111	15	1.6
2	33	61	25	16	900	540	250	278	116	115	13	1.9
3	33	68	20	16	800	650	274	251	114	88	12	20
4	33	61	20	16	550	1,500	278	233	123	85	12	264
5	95	68	20	16	500	2,000	280	209	116	78	12	173
6	277	71	20	15	400	1,760	288	198	118	70	12	75
7	188	75	20	16	400	1,340	292	185	150	62	11	42
8	130	71	20	16	500	1,100	298	172	165	54	9.9	26
9	96	69	20	14	600	1,000	295	165	242	45	9.1	19
10	80	71	20	14	600	946	292	152	248	40	7.6	13
11	77	75	20	14	500	880	284	140	230	34	7.0	10
12	77	77	20	14	350	836	278	132	221	29	6.7	8.3
13	73	44	25	12	300	775	274	125	183	26	7.9	9.1
14	73	44	25	12	200	852	270	118	178	25	7.3	9.9
15	73	68	25	12	70	775	267	111	148	22	7.0	8.7
16	69	90	30	12	50	655	257	104	145	19	6.7	10
17	68	98	35	15	50	685	250	100	172	17	6.7	13
18	66	88	35	100	50	690	254	94	150	15	5.4	11
19	69	92	40	350	50	745	245	92	135	14	3.9	8.7
20	73	84	40	470	50	852	251	86	138	13	3.7	8.3
21	68	75	30	480	50	770	251	80	122	12	3.2	7.9
22	64	59	30	350	90	730	245	77	109	12	3.0	7.3
23	61	56	25	350	190	725	245	73	103	12	3.0	7.3
24	59	62	25	650	270	635	254	77	101	24	3.0	11
25	58	61	20	900	570	589	298	73	96	97	3.0	44
26	58	50	20	1,200	450	526	302	92	90	55	2.8	90
27	58	40	20	1,100	390	450	326	198	107	36	2.5	68
28	58	35	18	1,000	430	385	348	192	107	24	2.0	51
29	58	30	18	1,100	------	344	351	162	95	20	1.9	36
30	56	30	18	1,100	------	309	330	128	88	15	1.7	32
31	47	------	18	1,200	------	274	------	114	------	15	1.6	------
TOTAL	2,361	1,931	747	10,597	10,520	24,818	8,414	4,517	4,220	1,284	203.6	1,087.0
MEAN	76.2	64.4	24.1	342	376	801	280	146	141	41.4	6.57	36.2
MAX	277	98	40	1,200	1,100	2,000	351	306	248	115	15	264
MIN	33	30	18	12	50	274	245	73	88	12	1.6	1.6
AC-FT	4,680	3,830	1,480	21,020	20,870	49,230	16,690	8,960	8,370	2,550	404	2,160

CAL YR 1972 TOTAL 239,064.0 MEAN 653 MAX 18,700 MIN 14 AC-FT 474,200
WTR YR 1973 TOTAL 70,699.6 MEAN 194 MAX 2,000 MIN 1.6 AC-FT 140,200

PEAK DISCHARGE (BASE, 1,000 FT^3/S).--JAN. 26, 1,400 FT^3/S; MAR. 4, 2,500 FT^3/S.

06354500 Beaver Creek at Linton, N. Dak.

LOCATION.--Lat 46°15'27", long 100°13'58", on line between secs.17 and 18, T.132 N., R.76 W., Emmons County, on left bank 60 ft (18 m) downstream from bridge on U.S. Highway 83, 0.7 mi (1.1 km) south of railway station in Linton, and 1 mi (1.6 km) upstream from Spring Creek.

DRAINAGE AREA.--717 mi^2 (1,857 km^2), of which about 100 mi^2 (259 km^2) is probably noncontributing.

PERIOD OF RECORD.--August 1949 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,690.55 ft (515.280 m) above mean sea level. Prior to June 1, 1958, nonrecording gage at site 60 ft (18 m) upstream at same datum.

AVERAGE DISCHARGE.--23 years, 42.4 ft^3/s (1.20 m^3/s), 30,720 acre-ft/yr (37.8 hm^3/yr); median of yearly mean discharges, 27 ft^3/s (0.76 m^3/s), 19,600 acre-ft/yr (24 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 400 ft^3/s (11.3 m^3/s) Mar. 18, gage height, 8.50 ft (2.591 m), backwater from ice; minimum, 0.01 ft^3/s (0.003 m^3/s) on many days.
Period of record: Maximum discharge, 9,800 ft^3/s (278 m^3/s) Apr. 8, 1952, gage height, 17.50 ft (5.334 m); no flow at times in some years.

REMARKS.--Records poor. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1209: Drainage area. WSP 1239: 1950(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	1.9	2.5	1.8	1.3	45	22	8.0	10	1.1	.01	.01
2	.12	1.9	2.4	1.7	1.3	60	20	7.2	6.2	1.1	.01	.01
3	.08	1.8	2.4	1.7	1.3	110	13	5.9	4.7	.92	.01	.05
4	.02	1.8	2.4	1.7	1.3	100	17	5.6	4.0	.66	.01	2.0
5	.04	1.8	2.4	1.7	1.2	95	16	5.4	3.3	.30	.02	110
6	.14	1.6	2.3	1.7	1.2	80	16	4.5	3.0	.04	.04	120
7	.12	2.5	2.3	1.7	1.3	75	16	4.5	2.6	.02	.04	40
8	.12	2.1	2.3	1.6	1.3	70	15	4.2	2.6	.02	.04	20
9	.10	2.1	2.3	1.5	1.3	70	14	4.2	2.5	.02	.04	3.0
10	.08	2.1	2.3	1.4	1.3	60	14	4.0	2.3	.02	.03	1.0
11	.10	2.0	2.2	1.3	1.3	50	12	3.8	2.1	.02	.03	.50
12	.22	2.0	2.2	1.3	1.4	60	11	3.7	1.9	.01	.03	.20
13	.34	2.0	2.1	1.3	2.0	50	10	3.4	1.8	.01	.03	.04
14	.46	2.0	2.1	1.3	1.6	50	9.9	3.4	1.7	.06	.02	.03
15	.51	2.0	2.0	1.3	1.8	55	9.9	3.3	1.7	1.8	.02	.01
16	.92	2.2	2.0	1.3	2.0	80	9.9	3.3	1.6	.14	.02	1.1
17	.78	2.2	2.0	1.3	2.2	115	9.4	3.2	1.5	.01	.02	5.0
18	.78	2.4	2.0	1.3	2.3	125	8.8	3.1	1.4	.01	.01	4.0
19	.78	2.8	2.0	1.3	2.4	65	9.4	3.1	2.6	.01	.01	3.0
20	.78	3.0	2.0	1.3	2.4	52	12	2.8	44	.01	.01	2.0
21	.78	3.0	1.9	1.2	2.3	42	14	2.7	26	.01	.01	1.5
22	.99	3.0	1.9	1.2	3.4	41	12	2.6	13	.01	.01	1.0
23	1.1	3.0	1.9	1.2	24	37	10	2.5	6.2	.01	.01	.80
24	1.1	3.0	1.9	1.2	53	33	11	2.6	4.0	.01	.01	.72
25	1.1	2.9	1.9	1.2	44	31	13	2.5	3.0	.01	.01	.78
26	.46	2.8	1.8	1.2	35	27	14	3.2	2.6	.01	.01	1.1
27	.66	2.8	1.8	1.3	27	28	13	4.2	2.1	.01	.01	1.1
28	1.1	2.7	1.8	1.4	29	26	12	19	1.9	.01	.01	10
29	2.3	2.7	1.8	1.4	------	24	10	33	1.7	.01	.01	17
30	1.9	2.6	1.8	1.4	------	24	8.8	23	1.4	.01	.01	17
31	1.8	------	1.8	1.3	------	23	------	17	------	.01	.01	------
TOTAL	19.92	70.7	64.5	43.5	249.9	1,803	383.1	198.9	163.4	6.39	.56	362.95
MEAN	.64	2.36	2.08	1.40	8.93	58.2	12.8	6.42	5.45	.21	.018	12.1
MAX	2.3	3.0	2.5	1.8	53	125	22	33	44	1.8	.04	120
MIN	.02	1.6	1.8	1.2	1.2	23	8.8	2.5	1.4	.01	.01	.01
AC-FT	40	140	128	86	496	3,580	760	395	324	13	1.1	720

CAL YR 1972 TOTAL 18,383.58 MEAN 50.2 MAX 2,840 MIN .02 AC-FT 36,460
WTR YR 1973 TOTAL 3,366.82 MEAN 9.22 MAX 125 MIN .01 AC-FT 6,680

PEAK DISCHARGE (BASE, 500 FT^3/S).--NO PEAK ABOVE BASE.

06354860 Spring Creek near Herreid, S. Dak.

LOCATION.--Lat 45°58'52", long 100°06'28", in SW¼ sec.13, T.127 N., R.77 W., Campbell County, on left bank 0.5 mi (0.8 km) upstream from county highway bridge, 2.4 mi (3.9 km) southwest of Herreid and 13.2 mi (21.2 km) upstream from high-water line of Lake Oahe.

DRAINAGE AREA.--440 mi^2 (1,140 km^2), approximately, of which about 220 mi^2 (570 km^2) is probably non-contributing.

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,653.80 ft (504.078 m) above mean sea level.

AVERAGE DISCHARGE.--11 years, 10.6 ft^3/s (0.300 m^3/s), 7,680 acre-ft/yr (9.47 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 21 ft^3/s (0.59 m^3/s) June 17, gage height, 4.53 ft (1.381 m); no flow for many days.
Period of record: Maximum discharge, 1,160 ft^3/s (32.9 m^3/s) Mar. 17, 1966, gage height, 11.60 ft (3.536 m); no flow for several months each year.

REMARKS.--Records fair.

Rating table (gage height, in feet, and discharge, in cubic feet per second)

3.0	0	3.5	1.6
3.1	.03	3.7	3.8
3.2	.10	3.9	6.8
3.3	.40	4.1	10
3.4	.90		

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	.34	.44	.72	2.5	.52	.56	.25			
2		0	.34	.48	.78	2.6	.72	.60	.25			
3		0	.28	.56	.78	2.7	.96	.60	.19			
4		0	.25	.72	.78	2.5	.72	.48	.09			
5		0	.22	.72	.72	1.9	.52	.25	.06			
6		0	.22	.66	.72	1.7	.48	.25	.05			
7		0	.13	.60	.66	1.7	1.0	.13	.05			
8		0	.10	.66	.56	1.5	1.2	.09	.03			
9		0	.16	.60	.56	1.5	.96	.06	.01			
10		0	.22	.56	.56	1.6	.90	.04	0			
11		0	.22	.56	.52	1.5	.60	.06	0			
12		0	.16	.56	.52	1.4	.84	.09	0			
13		0	.16	.60	.56	1.4	.66	.09	0			
14		0	.13	.60	.56	5.9	.37	.08	0			
15		0	.10	.66	.48	4.4	.48	.06	0			
16		0	.13	.66	.44	2.6	.84	.05	0			
17		0	.16	.66	.37	1.9	.60	.04	9.1			
18		0	.22	.66	.44	1.8	.52	.04	2.6			
19		0	.31	.72	.52	1.9	.66	.04	1.0			
20		0	.31	.72	.56	1.6	1.1	.04	.66			
21		0	.37	.66	.72	1.4	.96	.03	.40			
22		0	.44	.72	1.1	1.2	.90	.01	.22			
23		0	.48	.56	1.2	1.1	.84	0	.09			
24		0	.48	.72	1.2	1.3	.84	.03	.05			
25		0	.48	.78	1.5	1.6	1.1	.03	.03			
26		0	.48	.84	1.9	1.1	1.0	.05	0			
27		0	.48	.84	2.1	.90	.96	.09	0			
28		0	.48	.78	2.2	.90	.72	.22	0			
29		.01	.52	.78	------	.72	.48	.48	0			
30		.37	.60	.72	------	.60	.52	.37	0			
31		------	.56	.72	------	.52	------	.34	------			------
TOTAL	0	.38	9.53	20.52	23.73	55.94	22.97	5.30	15.13	0	0	0
MEAN	0	.013	.31	.66	.85	1.80	.77	.17	.50	0	0	0
MAX	0	.37	.60	.84	2.2	5.9	1.2	.60	9.1	0	0	0
MIN	0	0	.10	.44	.37	.52	.37	0	0	0	0	0
AC-FT	0	.8	19	41	47	111	46	11	30	0	0	0

CAL YR 1972 TOTAL 8,148.65 MEAN 22.3 MAX 1,060 MIN 0 AC-FT 16,160
WTR YR 1973 TOTAL 153.50 MEAN .42 MAX 9 MIN 0 AC-FT 304

PEAK DISCHARGE (BASE, 40 FT^3/S).--NO PEAK ABOVE BASE.

06354988 Bowman-Haley Lake near Haley, N. Dak.

LOCATION.--Lat 45°59'06", long 103°14'43", in NE¼ sec.24, T.129 N., R.101 W., Bowman County, at dam on North Fork Grand River 6 mi (10 km) west of Haley.

DRAINAGE AREA.--446 mi^2 (1,155 km^2), approximately.

PERIOD OF RECORD.--August 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level.

EXTREMES.--Current year: Maximum contents, 22,724 acre-ft (28.0 hm^3) Apr. 22, elevation, 2,756.39 ft (840.148 m); minimum, 18,480 acre-ft (22.8 hm^3) Sept. 1, elevation, 2,754.04 ft (839.431 m).
Period of record: Maximum contents, 27,133 acre-ft (33.5 hm^3) Mar. 13, 1972, elevation, 2,758.50 ft (840.791 m); minimum since first reaching spillway level, 17,363 acre-ft (21.4 hm^3) Dec. 3, 1969, elevation, 2,753.34 ft (839.218 m).

REMARKS.--Reservoir is formed by a rolled earth-fill dam; storage began Aug. 22, 1966; dam completed April 1967. Total capacity is 93,000 acre-ft (115 hm^3) at maximum pool, elevation, 2,777.0 ft (846.430 m). Dead storage is 4,280 acre-ft (5.28 hm^3) below lowest point of outlet, elevation, 2,740.0 ft (835.152 m). Normal operating storage is 20,100 acre-ft (24.8 hm^3) at elevation 2,755.0 ft (839.724 m), crest of spillway. Figures given herein represent total contents. Controlled releases are through a 30-inch (0.762 m) or 8-inch (0.203 m) gate valve. The spillway is uncontrolled "glory hole" type and discharges through a conduit 9 ft (2.743 m) in diameter. The reservoir is for flood control, water supply, and recreation.

COOPERATION.--Records of elevations and contents furnished by Corps of Engineers from capacity table dated August 1966. Elevations affected by wind.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	2,754.26	18,860	
Oct. 31	2,754.26	18,860	0
Nov. 30	2,754.24	18,820	-40
Dec. 31	2,754.45	19,180	+360
CAL YR 1972	--	--	-390
Jan. 31	2,755.39	20,840	+1,660
Feb. 28	2,755.68	21,370	+530
Mar. 31	2,755.20	20,490	-880
Apr. 30	2,755.60	21,220	+730
May 31	2,755.27	20,620	-600
June 30	2,755.19	20,470	-150
July 31	2,754.60	19,440	-1,030
Aug. 31	2,754.08	18,550	-890
Sept. 30	2,754.19	18,740	+190
WTR YR 1973	--	--	-120

06355000 North Fork Grand River at Haley, N. Dak.

LOCATION.--Lat 45°57'39", long 103°07'09", at southwest corner of sec.30, T.129 N., R.99 W., Bowman County, on left bank 10 ft (3 m) downstream from county highway bridge, 300 ft (91 m) south of post office at Haley, and 1 mi (1.6 km) north of South Dakota state line.

DRAINAGE AREA.--509 mi^2 (1,318 km^2).

PERIOD OF RECORD.--May 1908 to September 1917, October 1945 to current year. Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 2,658.60 ft (810.341 m) above mean sea level. Oct. 23, 1945, to June 18, 1951, nonrecording gage on downstream side of bridge near left abutment at present datum. See WSP 1729 or 1917 for history of changes prior to Oct. 23, 1945.

AVERAGE DISCHARGE.--37 years, 29.9 ft^3/s (0.847 m^3/s), 21,690 acre-ft/yr (26.7 hm^3/yr); median of yearly mean discharges, 23 ft^3/s (0.651 m^3/s), 16,700 acre-ft/yr (20.6 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 306 ft^3/s (8.67 m^3/s) Apr. 23, gage height, 7.66 ft (2.335 m); maximum gage height, 8.25 ft (2.515 m) Jan. 21, backwater from ice; no flow Jan. 1-13.
Period of record: Maximum discharge, 14,100 ft^3/s (399 m^3/s) Apr. 7, 1952, gage height, 17.03 ft (5.191 m), from rating curve extended above 4,500 ft^3/s (127 m^3/s) on basis of discharge measurement at gage height 15.09 ft (4.599 m), half of which was indirect measurement of flow over roadway outside of main channel; maximum gage height, 17.10 ft (5.212 m) Apr. 15, 1950; no flow at times.

REMARKS.--Records fair. Flow regulated by Bowman-Haley Lake 14 mi (22.5 km) upstream--see station 06354988. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1239: 1908-10, 1913-15(M), 1917(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	2.5	3.5	.50	57	150	19	78	28	20	2.7	1.1
2	2.2	2.3	3.6	0	46	170	18	66	30	19	2.3	1.3
3	2.1	2.4	3.8	0	39	160	17	58	43	15	2.1	2.4
4	2.2	2.2	3.5	0	43	130	16	50	50	13	1.9	2.4
5	1.6	2.2	2.9	0	37	124	15	46	49	11	1.8	2.0
6	1.8	2.1	2.1	0	27	113	15	40	48	10	1.6	1.8
7	1.9	1.9	1.8	0	45	101	15	37	47	8.9	1.4	1.5
8	1.5	1.8	1.6	0	32	89	14	34	46	8.9	1.6	1.4
9	1.4	1.8	1.5	0	26	82	13	33	41	6.0	1.6	1.4
10	1.5	1.7	1.3	0	22	75	12	31	36	5.5	1.6	1.2
11	1.4	1.7	1.1	0	18	68	12	19	32	4.7	1.9	1.3
12	1.6	1.6	1.1	0	15	63	12	17	28	4.5	2.1	1.2
13	1.8	1.7	1.0	0	11	57	11	16	26	3.9	1.8	1.4
14	1.7	1.6	1.0	.99	20	52	11	16	24	4.0	1.7	1.8
15	1.6	1.7	.90	3.9	14	46	16	14	23	3.7	1.6	2.4
16	1.7	1.8	.80	4.8	10	42	11	15	22	2.6	1.4	2.4
17	1.7	1.9	.80	12	9.6	39	10	14	21	3.1	1.3	2.3
18	1.7	2.0	.90	89	8.0	37	9.1	11	31	3.3	1.3	2.0
19	1.8	2.3	1.0	148	5.9	34	13	12	46	3.9	1.2	2.0
20	1.9	2.3	1.0	185	4.4	31	25	9.6	33	3.9	1.2	2.0
21	1.9	2.4	1.5	181	6.6	29	109	10	38	4.2	1.2	2.1
22	1.9	2.3	2.0	167	26	28	273	16	49	4.5	1.3	2.2
23	1.7	2.4	2.5	153	57	27	300	12	53	6.5	1.4	2.2
24	1.7	2.6	2.0	117	69	27	279	10	51	6.5	1.4	4.1
25	1.8	2.6	1.8	104	95	27	237	9.4	46	4.4	1.3	2.8
26	2.0	2.8	1.8	87	112	26	199	11	42	4.6	1.3	2.3
27	2.3	2.9	2.0	84	98	27	163	16	35	3.8	1.3	2.0
28	2.3	3.1	2.0	136	115	25	133	19	27	3.6	1.2	1.9
29	2.6	3.2	1.8	118	------	21	116	23	24	3.4	1.1	1.9
30	2.2	3.4	1.5	88	------	20	92	26	21	3.1	1.1	1.7
31	2.4	------	1.0	69	------	20	------	28	------	2.8	1.2	------
TOTAL	58.1	67.2	55.10	1,748.19	1,068.5	1,940	2,185.1	797.0	1,090	202.3	47.9	58.5
MEAN	1.87	2.24	1.78	56.4	38.2	62.6	72.8	25.7	36.3	6.53	1.55	1.95
MAX	2.6	3.4	3.8	185	115	170	300	78	53	20	2.7	4.1
MIN	1.4	1.6	.80	0	4.4	20	9.1	9.4	21	2.8	1.1	1.1
AC-FT	115	133	109	3,470	2,120	3,850	4,330	1,580	2,160	401	95	116

CAL YR 1972 TOTAL 24,042.84 MEAN 65.7 MAX 1,490 MIN .05 AC-FT 47,690
WTR YR 1973 TOTAL 9,317.89 MEAN 25.5 MAX 300 MIN 0 AC-FT 18,480

06355500 North Fork Grand River near White Butte, S. Dak.

LOCATION.--Lat 45°48'10", long 102°21'45", in NE¼NE¼ sec.10, T.21 N., R.14 E., Perkins County, on left bank 100 ft (30 m) upstream from highway bridge, 0.2 mi (0.3 km) upstream from nearest tributary and 9.8 mi (15.8 km) south of White Butte.

DRAINAGE AREA.--1,190 mi^2 (3,080 km^2), approximately.

PERIOD OF RECORD.--October 1945 to current year. Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 2,275 ft (693 m), by barometer. Prior to Aug. 29, 1947, and Apr. 17, 1950, to June 11, 1951, nonrecording gage, and Aug. 29, 1947, to Apr. 16, 1950, water-stage recorder, all at site 100 ft (30 m) downstream at same datum.

AVERAGE DISCHARGE.--28 years, 58.4 cfs (1.654 m^3/s), 42,310 acre-ft/yr (52.2 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 289 cfs (8.18 m^3/s) Apr. 24; maximum gage height, 5.10 ft (1.554 m) Feb. 26, backwater from ice; minimum daily discharge, 2.5 cfs (0.071 m) Aug. 29.
Period of record: Maximum discharge, 30,900 cfs (875 m^3/s) Apr. 16, 1950, gage height, 20.0 ft (6.10 m), from floodmarks, from rating curve extended above 19,000 cfs (538 m^3/s) on basis of slope-area measurement of peak flow; no flow at times.

REMARKS.--Records good except those for winter periods, which are poor. Flow regulated by Bowman-Haley reservoir, capacity, 93,000 acre-ft (115 hm^3), 71 mi (114 km) upstream, beginning August 1966.

REVISIONS (WATER YEARS).--WSP 1279: 1947, 1950.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	15	10	8.5	70	100	51	165	75	69	11	3.1
2	5.9	15	9.0	9.0	80	120	49	148	75	59	9.3	3.3
3	5.7	15	8.0	8.5	70	140	47	131	96	51	7.1	4.3
4	5.7	17	7.0	8.0	50	140	44	114	163	44	6.5	5.7
5	8.9	15	6.5	7.5	45	140	41	102	177	39	7.3	6.7
6	11	15	6.5	7.0	45	150	41	94	169	35	6.5	6.1
7	12	15	6.5	6.5	45	150	41	83	142	24	4.4	5.5
8	13	14	6.5	6.0	50	170	38	77	125	17	3.8	5.5
9	12	14	6.5	6.5	50	190	36	71	109	14	5.1	5.5
10	12	14	6.5	6.5	50	202	33	59	94	13	5.1	5.9
11	12	14	6.5	7.0	55	194	30	54	88	11	5.7	5.3
12	11	13	6.5	8.0	50	167	29	46	78	9.1	6.3	4.6
13	11	12	6.5	8.0	45	136	28	44	68	8.9	5.1	4.6
14	12	12	6.5	7.0	35	185	26	36	60	8.7	5.1	4.4
15	12	11	6.5	20	30	169	25	33	67	7.7	5.1	4.9
16	11	11	7.0	50	30	96	25	27	59	8.0	4.9	4.9
17	11	11	8.0	100	35	86	23	22	50	6.5	4.6	4.6
18	10	11	8.0	200	40	83	20	19	53	4.9	4.3	4.4
19	11	11	8.0	150	40	75	35	16	65	5.1	3.6	4.9
20	11	11	8.0	100	40	72	62	15	85	4.8	3.3	5.5
21	11	11	9.0	90	45	66	104	14	116	3.8	3.5	6.5
22	11	11	9.0	90	50	62	196	13	157	3.3	3.1	7.1
23	11	10	10	100	60	57	213	13	138	5.1	3.0	6.9
24	11	10	12	150	55	57	279	12	121	8.0	3.1	7.7
25	11	10	15	200	55	54	286	12	121	8.0	3.6	7.3
26	12	10	15	150	60	53	272	18	116	109	3.6	8.2
27	12	10	15	100	70	51	251	25	106	88	3.4	8.0
28	12	10	12	60	80	51	229	26	98	44	2.8	7.3
29	13	10	9.0	70	------	51	207	38	90	20	2.5	6.7
30	13	10	8.0	80	------	51	183	68	80	14	3.1	7.1
31	12	------	8.5	80	------	54	------	90	------	11	3.1	------
TOTAL	333.3	368	267.0	1,894.0	1,430	3,372	2,944	1,685	3,041	753.9	148.9	172.5
MEAN	10.8	12.3	8.61	61.1	51.1	109	98.1	54.4	101	24.3	4.80	5.75
MAX	13	17	15	200	80	202	286	165	177	109	11	8.2
MIN	5.7	10	6.5	6.0	30	51	20	12	50	3.3	2.5	3.1
AC-FT	661	730	530	3,760	2,840	6,690	5,840	3,340	6,030	1,500	295	342

CAL YR 1972 TOTAL 45,390.8 MEAN 124 MAX 3,000 MIN 1.0 AC-FT 90,030
WTR YR 1973 TOTAL 16,409.6 MEAN 45.0 MAX 286 MIN 2.5 AC-FT 32,550

06439980 Lake Oahe near Pierre, S. Dak.

LOCATION.--Lat 44°27'30", long 100°23'29", in NE¼ sec.1, T.111 N., R.80 W., 5th principal meridian, Hughes County, in Pier A of Control Tower No. 1 of powerhouse intake structure of dam on Missouri River, 6.0 mi (9.7 km) northwest of Pierre, 7.1 mi (11.4 km) upstream from Bad River, and at mile 1,072.3 (kilometre 1,725.3)

DRAINAGE AREA.--243,500 mi^2 (630,700 km^2), approximately.

PERIOD OF RECORD.--August 1958 to current year. Prior to October 1967, published as Oahe Reservoir near Pierre.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level. Prior to Jan. 14, 1959, nonrecording gages at various locations upstream from outlet works, Jan. 14, 1959, to Sept. 30, 1962, recorder in Tower No. 1 of outlet works, all at same datum.

EXTREMES.--Current year: Maximum contents, 19,625,000 acre-ft (24,200 hm^3) Apr. 29; maximum elevation, 1,608.8 ft (490.36 m) Apr. 30, affected by wind; minimum contents, 16.500,000 acre-ft (20,300 hm^3) Dec. 21, elevation, 1,598.2 ft (487.13 m).
Period of record: Maximum contents, 22,397,000 acre-ft (27,600 hm^3) May 31, 1970, elevation, 1,616.7 ft (492.77 m), affected by wind; minimum since initial filling, 16,500,000 acre-ft (20,300 hm^3) Dec. 21, 1972, elevation, 1,599.2 ft (487.31 m).

REMARKS.--Reservoir is formed by an earthfill dam; storage began in August 1958. Maximum capacity, 23,630,000 acre-ft (29,100 hm^3) below elevation 1,620.0 ft (493.78 m), top of spillway gates. Normal maximum, 22,530,000 acre-ft (27,800 hm^3) below 1,617.0 ft (492.86 m), of which about 2,390,000 acre-ft (2,950 hm^3) is designated for flood control. Inactive storage, 5,538,000 acre-ft (6,830 hm^3) below elevation 1,540.0 ft (469.39 m). Dead storage, 2,000 acre-ft (2.47 hm^3) below elevation 1,425.0 ft (434.34 m), invert of lowest outlet tunnel. Figures given herein represent elevations at powerhouse intake structure and total contents adjusted for wind effect.
The spillway consists of a gated chute with flat crest at elevation 1,596.5 ft (486.61 m), 8 gates, 50 by 23.5 ft (15.2 x 7.2 m) each; design capacity, 300,000 cfs (8,500 m^3/s). The outlet works consist of 7 turbines with a generating capacity of 85,000 kilowatts each. Water is used for flood control, navigation, power, and incidental uses.

COOPERATION.--Elevation and contents furnished by Corps of Engineers.

MONTHEND ELEVATION AND CONTENTS AT 2400 HOURS, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	1,606.4	18,848,000	-
Oct. 31	1,602.6	17,749,000	-1,099,000
Nov. 30	1,601.0	17,325,000	-424,000
Dec. 31	1,599.9	16,944,000	-381,000
CAL YR 1972	-	-	-505,000
Jan. 31	1,602.3	17,683,000	+739,000
Feb. 28	1,603.1	17,920,000	+237,000
Mar. 31	1,607.3	19,167,000	+1,247,000
Apr. 30	1,608.8	19,615,000	+448,000
May 31	1,608.5	19,544,000	-71,000
June 30	1,607.8	19,328,000	-216,000
July 31	1,606.1	18,801,000	-527,000
Aug. 31	1,603.4	17,908,000	-893,000
Sept. 30	1,602.4	17,742,000	-166,000
WTR YR 1973	-	-	-1,106,000

06467600 James River near Manfred, N. Dak.

LOCATION.--Lat 47°38'40", long 99°49'40", near midpoint of north line sec.15, T.148 N., R.72 W., Wells County, on left upstream wingwall of bridge on county highway, 5 mi (8 km) southwest of Manfred.

DRAINAGE AREA.--253 mi^2 (655 km^2), of which about 197 mi^2 (510 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1954 to August 1957 (annual maximum only), September 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,605.73 ft (489.427 m) above mean sea level. Prior to Sept. 16, 1957, crest-stage gage only on downstream side of bridge at same datum.

AVERAGE DISCHARGE.--16 years (1957-73), 2.42 ft^3/s (0.0685 m^3/s), 1,750 acre-ft/yr (2.158 hm^3/yr); median of yearly mean discharges, 1.5 ft^3/s (0.042 m^3/s), 1,100 acre-ft/yr (1.36 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 0.08 ft^3/s (0.002 m^3/s) June 19, gage height, 0.73 ft (0.223 m); maximum gage height, 0.74 ft (0.226 m) May 1, 2, 4; no flow for several months.
Period of record: Maximum discharge, 900 ft^3/s (25.5 m^3/s) Apr. 10, 1969, gage height, 7.70 ft (2.347 m); no flow for many days in each year.

REMARKS.--Records good. Records of chemical analyses for the 1973 water year are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0			0	0	.01	.06	.01	.04		
2		0			0	0	.01	.06	.01	.03		
3		0			0	0	.01	.06	.01	.01		
4		0			0	0	.01	.06	0	0		
5		0			0	.01	0	.06	0	0		
6		.02			0	.01	0	.06	0	0		
7		.02			0	.01	.01	.05	0	0		
8		.02			0	.01	0	.03	0	0		
9		.02			0	0	0	.03	0	0		
10		.02			0	0	0	.03	0	0		
11		.01			0	.01	0	.04	0	0		
12		.01			0	.01	0	.04	0	0		
13		.01			0	.01	0	.04	0	0		
14		.01			0	.03	0	.04	0	0		
15		.01			0	.05	0	.05	0	0		
16		.01			0	.05	0	.05	0	0		
17		.01			.01	.03	.01	.03	0	0		
18		.01			.01	.03	.01	.03	.06	0		
19		.01			.03	.03	.03	.03	.07	0		
20		.01			.03	.01	.05	.03	.06	0		
21		.01			.02	.01	.05	.01	.06	0		
22		.01			.05	.01	.03	.05	.06	0		
23		.01			.05	.01	.03	.05	.05	0		
24		.01			.03	.01	.03	.06	.04	0		
25		0			.01	.01	.03	.06	.03	0		
26		0			0	.01	.03	.05	.02	0		
27		0			0	.01	.03	.05	.04	0		
28		0			0	.01	.05	.05	.05	0		
29		0			------	.01	.05	.03	.05	0		
30		0			------	.01	.06	.03	.05	0		
31		------			------	.01	------	.01	------	0		------
TOTAL	0	.24	0	0	.24	.41	.54	1.33	.67	.08	0	0
MEAN	0	.008	0	0	.009	.013	.018	.043	.022	.003	0	0
MAX	0	.02	0	0	.05	.05	.06	.06	.07	.04	0	0
MIN	0	0	0	0	0	0	0	.01	0	0	0	0
AC-FT	0	.5	0	0	.5	.8	1.1	2.6	1.3	.2	0	0

CAL YR 1972 TOTAL 909.78 MEAN 2.49 MAX 111 MIN 0 AC-FT 1,800
WTR YR 1973 TOTAL 3.51 MEAN .01 MAX .07 MIN 0 AC-FT 7.0

PEAK DISCHARGE (BASE, 30 FT^3/S).--NO PEAK ABOVE BASE.

06467900 Big Slough at Hamberg, N. Dak.

LOCATION.--Lat 47°45'20", long 99°30'42", on line between secs.4 and 5, T.149 N., R.69 W., Wells County, on right bank 30 ft (9 m) upstream from bridge on State Highway 30 and 0.5 mi (0.8 km) south of Hamberg.

DRAINAGE AREA.--60 mi^2 (155 km^2), approximately, of which about 18 mi^2 (47 km^2) is probably noncontributing.

PERIOD OF RECORD.--September 1957 to September 1968, October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,532.71 ft (467.170 m) above mean sea level.

AVERAGE DISCHARGE.--15 years, 1.21 ft^3/s (0.0343 m^3/s), 880 acre-ft/yr (1.085 hm^3/yr); median of yearly mean discharges, 0.2 ft^3/s (0.006 m^3/s), 140 acre-ft/yr (173,000 m^3/yr).

EXTREMES.--Current year: Maximum discharge, 0.05 ft^3/s (0.001 m^3/s) Apr. 20, 21, 29, 30, May 21; maximum gage height observed, 1.73 ft (0.527 m) Apr. 30; no flow for several months.
Period of record: Maximum discharge, 170 ft^3/s (4.81 m^3/s) July 22, 1965; maximum gage height, 5.46 ft (1.664 m) July 23, 1965; no flow for long periods each year.
Flood of 1969 reached a stage of about 5.7 ft (1.74 m) according to local residents.

REMARKS.--Records poor. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	.01	.04				
2						0	.01	.03				
3						0	.01	.02				
4						0	.01	.02				
5						0	.01	.03				
6						0	.01	.02				
7						0	.02	.02				
8						0	.01	.02				
9						0	.01	.03				
10						0	.01	.03				
11						0	.01	.02				
12						0	.01	.01				
13						0	.01	.01				
14						0	.01	.01				
15						0	.01	.01				
16						0	.01	.01				
17						0	.01	.01				
18						0	.01	.01				
19						.01	.01	.01				
20						.01	.05	.01				
21						.02	.05	.05				
22						.02	.04	.04				
23						.02	.03	.04				
24						.02	.03	.04				
25						.01	.04	.03				
26						.01	.03	.02				
27						.01	.03	.01				
28						.01	.03	.01				
29					------	.01	.05	0				
30					------	.01	.05	0				
31		------			------	.01	------	0	------			------
TOTAL	0	0	0	0	0	.17	.63	.61	0	0	0	0
MEAN	0	0	0	0	0	.006	.021	.020	0	0	0	0
MAX	0	0	0	0	0	.02	.05	.05	0	0	0	0
MIN	0	0	0	0	0	0	.01	0	0	0	0	0
AC-FT	0	0	0	0	0	.3	1.2	1.2	0	0	0	0

CAL YR 1972 TOTAL 357.00 MEAN .98 MAX 22 MIN 0 AC-FT 708
WTR YR 1973 TOTAL 1.41 MEAN .004 MAX .05 MIN 0 AC-FT 2.8

PEAK DISCHARGE (BASE, 20 FT^3/S).--NO PEAK ABOVE BASE.

06468170 James River near Grace City, N. Dak.

LOCATION.--Lat 47°33'29", long 98°51'45", in NW¼NW¼NW¼ sec.17, T.147 N., R.64 W., Foster County, on left bank on downstream side of county highway bridge and 2.5 mi (4.0 km) northwest of Grace City.

DRAINAGE AREA.--1,060 mi^2 (2,750 km^2), approximately, of which about 650 mi^2 (1,680 km^2) is probably non-contributing.

PERIOD OF RECORD.--June 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,460 ft (445 m), from topographic map.

AVERAGE DISCHARGE.--5 years, 25.8 ft^3/s (0.73 m^3/s), 18,600 acre-ft/yr (22.9 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 4.2 ft^3/s (0.12 m^3/s) Mar. 10, gage height, 4.79 ft (1.460 m), backwater from ice; maximum gage height, 5.34 ft (1.628 m), Mar. 3, backwater from ice; no flow Jan. 6 to Apr. 2, July 7-23, Aug. 18-20, Sept. 15-20.
Period of record: Maximum discharge, 3,100 ft^3/s (87.8 m^3/s) Apr. 13, 1969, gage height, 12.00 ft (3.658 m); no flow at times.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.36	.31	.04		0	1.0	.14	.06	.04	.04	.01
2	.23	.36	.31	.02		0	1.0	.12	.06	.06	.02	.04
3	.23	.41	.23	.02		1.6	.93	.10	.14	.02	.01	.27
4	.23	.41	.23	.02		2.0	1.0	.12	.10	.01	.01	.19
5	.23	.46	.16	.01		1.6	.93	.23	.08	.01	.01	.12
6	.31	.46	.16	0		1.4	.77	.12	.06	.01	.02	.08
7	.31	.41	.16	0		1.6	.70	.10	.08	0	.04	.04
8	.31	.41	.16	0		1.8	.77	.10	.14	0	.06	.04
9	.31	.41	.14	0		1.8	.77	.16	.10	0	.08	.04
10	.31	.41	.14	0		3.4	.77	.27	.06	0	.06	.02
11	.27	.36	.14	0		3.2	.85	.46	.06	0	.04	.02
12	.27	.31	.14	0		2.5	.77	.51	.04	0	.06	.01
13	.23	.31	.14	0		2.9	.70	.46	.01	0	.06	.01
14	.16	.27	.12	0		2.6	.70	.36	.01	0	.04	.01
15	.16	.27	.12	0		2.7	.51	.36	.01	0	.04	0
16	.16	.27	.12	0		1.8	.46	.27	.02	0	.02	0
17	.16	.27	.12	0		1.6	.46	.16	.23	0	.01	0
18	.16	.27	.12	0		1.4	.31	.12	.16	0	0	0
19	.16	.27	.12	0		1.2	.31	.10	.23	0	0	0
20	.16	.27	.10	0		1.1	.57	.06	.36	0	0	0
21	.16	.27	.10	0		1.6	.46	.10	.41	0	.02	.01
22	.16	.27	.10	0		2.2	.41	.14	.31	0	.02	.04
23	.16	.27	.10	0		2.0	.31	.16	.19	0	.04	.04
24	.16	.27	.10	0		1.8	.27	.14	.12	.02	.04	.81
25	.16	.27	.10	0		1.8	.27	.14	.10	.08	.04	.46
26	.16	.27	.08	0		1.6	.27	.12	.06	.10	.04	.36
27	.23	.31	.08	0		1.5	.23	.12	.06	.08	.04	.41
28	.27	.31	.06	0		1.2	.23	.12	.06	.08	.06	.46
29	.31	.31	.06	0	------	1.2	.19	.10	.06	.08	.04	.46
30	.36	.31	.04	0	------	1.2	.16	.10	.06	.06	.04	.31
31	.36	------	.04	0	------	1.1	------	.08	------	.04	.01	-----
TOTAL	7.12	9.83	4.10	.11	0	53.4	17.08	5.64	3.44	.69	1.01	4.26
MEAN	.23	.33	.13	.004	0	1.72	.57	.18	.11	.022	.033	.14
MAX	.36	.46	.31	.04	0	3.4	1.0	.51	.41	.10	.08	.81
MIN	.16	.27	.04	0	0	0	.16	.06	.01	0	0	0
AC-FT	14	19	8.1	.2	0	106	34	11	6.8	1.4	2.0	8.4

CAL YR 1972 TOTAL 6,099.60 MEAN 16.7 MAX 212 MIN 0 AC-FT 12,100
WTR YR 1973 TOTAL 106.68 MEAN .29 MAX 3.4 MIN 0 AC-FT 212

PEAK DISCHARGE (BASE, 200 FT^3/S).--NO PEAK ABOVE BASE.

06469000 Jamestown Reservoir near Jamestown, N. Dak.

LOCATION.--Lat 46°55'50", long 98°42'23", in SE¼NW¼ sec.24, T.140 N., R.64 W., Stutsman County, on left bank in control house below Jamestown Dam on James River, 1.7 mi (2.7 km) north of Jamestown Post Office, and 3.3 mi (5.3 km) upstream from Pipestem Creek.

DRAINAGE AREA.--1,760 mi^2 (4,560 km^2), approximately, of which about 1,010 mi^2 (2,620 km^2) is probably noncontributing.

PERIOD OF RECORD.--November 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,400.00 ft (426.720 m) above mean sea level; gage readings have been reduced to elevations above mean sea level. June 22, 1959 to June 3, 1971 at site 0.2 mi (0.3 km) upstream at same datum. Prior to June 22, 1959, nonrecording gages at different locations.

EXTREMES.--Current year: Maximum contents, 29,870 acre-ft (36.8 hm^3) Apr. 7, elevation, 1,430.25 ft (435.940 m); minimum, 24,280 acre-ft (29.9 hm^3) Sept. 20, 21, elevation, 1,427.40 ft (435.072 m).
Period of record: Maximum contents, 103,100 acre-ft (127 hm^3) May 1, 1969, elevation, 1,443.60 ft (440.009 m).

REMARKS.--Reservoir is formed by earth-fill dam, completed Oct. 1, 1953. Closure made May 7, 1953, and filling of dead storage started. Gates initially closed Feb. 8, 1954. Usable capacity, 229,470 acre-ft (283 hm^3) between elevations 1,400 ft (426.720 m), sill of outlet and 1,454 ft (443.179 m), crest of spillway. Dead storage below elevation 1,400 ft (426.720 m), 820 acre-ft (1.01 hm^3). Maximum design pool, 389,000 acre-ft (480 hm^3), elevation, 1,464.6 ft (446.410 m). Figures given herein represent total contents based on capacity table dated Oct. 1, 1965. Reservoir is used for flood control and municipal supply. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	1,430.20	29,760	
Oct. 31	1,429.36	28,010	-1,750
Nov. 30	1,429.25	27,780	-230
Dec. 31	1,429.27	27,830	+50
CAL YR 1972	--	--	-360
Jan. 31	1,429.18	27,640	-190
Feb. 28	1,429.20	27,680	+40
Mar. 31	1,430.13	29,600	+1,920
Apr. 30	1,430.19	29,740	+140
May 31	1,429.84	28,990	-750
June 30	1,429.46	28,220	-770
July 31	1,428.54	26,390	-1,830
Aug. 31	1,427.85	25,090	-1,300
Sept. 30	1,427.87	25,120	+30
WTR YR 1973	--	--	-4,660

06469500 Pipestem Creek near Buchanan, N. Dak.

LOCATION.--Lat 47°03'59", long 98°55'07", on north line sec.4, T.141 N., R.65 W., Stutsman County, on left bank 30 ft (9 m) downstream from bridge on county highway and 4.5 mi (7 km) west of Buchanan.

DRAINAGE AREA.--758 mi^2 (1,960 km^2), of which about 460 mi^2 (1,190 km^2) is probably noncontributing.

PERIOD OF RECORD.--March 1950 to September 1973, discontinued .

GAGE.--Water-stage recorder. Datum of gage is 1,467.01 ft (447.145 m) above mean sea level. Prior to July 11, 1950, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--23 years, 19.5 ft^3/s (0.552 m^3/s), 14,130 acre-ft/yr (17.42 hm^3/yr); median of yearly mean discharges, 14 ft^3/s (0.40 m^3/s), 10,100 acre-ft/yr (12.5 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 33 ft^3/s (0.93 m^3/s) Mar. 14, gage height, 3.70 ft (1.128 m), backwater from ice; no flow for several months.
Period of record: Maximum discharge, 6,080 ft^3/s (172 m^3/s) Apr. 10, 1969, gage height, 12.08 ft (3.682 m); no flow at times.

REMARKS.--Records fair. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1917: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.77	.50		0	1.0	9.0	3.6	.68	.28	0	0
2	.16	.95	.42		0	1.0	9.0	3.2	.77	.22	0	0
3	.22	1.2	.35		0	1.0	9.0	3.2	.68	.22	0	.42
4	.28	1.0	.30		0	1.0	8.4	3.0	.35	.10	0	.01
5	.59	1.0	.30		0	1.0	7.6	2.5	.22	.28	.01	0
6	1.2	1.0	.25		0	5.0	6.3	1.9	.16	.28	.01	0
7	1.2	.90	.20		0	5.0	6.0	1.9	.16	.16	0	0
8	.95	.90	.20		0	5.0	4.8	1.9	.22	.01	0	0
9	.85	.90	.05		0	10	4.8	2.0	.28	0	0	0
10	.77	.90	0		0	10	4.6	3.2	.22	0	0	0
11	.59	.90	0		0	15	4.4	5.1	.22	0	0	0
12	.59	.80	0		0	20	3.6	2.6	.22	0	0	0
13	.59	.80	0		0	22	4.6	2.6	.22	0	.01	0
14	.50	.80	0		0	20	4.1	1.9	.42	0	.01	0
15	.50	.80	0		0	18	3.0	1.6	.42	0	.10	0
16	.42	.80	0		0	16	2.8	1.6	.59	0	.01	0
17	.40	.80	0		0	16	3.6	1.4	1.2	0	.01	0
18	.40	.70	0		0	14	4.6	1.2	1.3	0	.01	0
19	.40	.70	0		0	14	5.7	.85	3.2	0	.01	0
20	.45	.70	0		0	12	5.7	1.3	3.0	0	0	0
21	.60	.70	0		0	12	5.4	1.0	2.8	0	0	0
22	.60	.70	0		.50	10	4.8	.95	3.0	0	0	0
23	.70	.70	0		.50	10	4.8	.95	2.8	0	0	0
24	.95	.70	0		.50	10	4.8	.85	2.2	0	0	2.2
25	.95	.70	0		.50	10	3.8	.77	1.6	0	.01	2.0
26	.95	.70	0		.50	10	5.1	.68	.85	0	.01	1.0
27	.85	.68	0		.50	10	5.4	1.0	.50	0	.01	.59
28	.68	.59	0		1.0	10	5.1	1.0	.35	0	0	.42
29	.68	.59	0		------	10	3.8	.85	.22	0	0	.35
30	.77	.50	0		------	10	3.6	.77	.28	0	0	.35
31	.85	------	0		------	10	------	.68	------	0	0	------
TOTAL	19.80	23.88	2.57	0	4.00	319.0	158.2	56.05	29.13	1.55	.21	7.34
MEAN	.64	.80	.083	0	.14	10.3	5.27	1.81	.97	.050	.007	.24
MAX	1.2	1.2	.50	0	1.0	22	9.0	5.1	3.2	.28	.10	2.2
MIN	.16	.50	0	0	0	1.0	2.8	.68	.16	0	0	0
AC-FT	39	47	5.1	0	7.9	633	314	111	58	3.1	.4	15

CAL YR 1972 TOTAL 7,353.32 MEAN 20.1 MAX 350 MIN 0 AC-FT 14,590
WTR YR 1973 TOTAL 621.73 MEAN 1.70 MAX 22 MIN 0 AC-FT 1,230

PEAK DISCHARGE (BASE, 200 FT^3/S).--NO PEAK ABOVE BASE.

06470000 James River at Jamestown, N. Dak.

LOCATION.--Lat 46°53'22", long 98°40'58", in NW¼NE¼ sec.6, T.139 N., R.63 W., Stutsman County, on left bank 100 ft (30 m) upstream from Interstate 94 bridge at southeast corner of Jamestown and 3 mi (5 km) downstream from Pipestem Creek.

DRAINAGE AREA.--2,820 mi^2 (7,300 km^2), approximately, of which about 1,650 mi^2 (4,270 km^2) is probably noncontributing.

PERIOD OF RECORD.--June 1929 to September 1934, March to May 1935, August 1937 to September 1939, March 1943 to current year. Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 1,373.27 ft (418.573 m) above mean sea level. Oct. 1, 1949 to Sept. 30, 1965, at former bridge 0.5 mi (0.8 km) upstream at datum 2.00 ft (0.610 m) higher. See WSP 1729 or 1917 for history of changes prior to Oct. 1, 1949.

AVERAGE DISCHARGE.--38 years (1928-34, 1937-39, 1943-73) 55.6 ft^3/s (1.575 m^3/s), 40,280 acre-ft/yr (49.67 hm^3/yr); median of yearly mean discharges, 24 ft^3/s (0.68 m^3/s), 17,400 acre-ft/yr (21.5 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 334 ft^3/s (9.46 m^3/s) Mar. 16, gage height, 5.71 ft (1.740 m), backwater from ice; minimum daily, 0.67 ft^3/s (0.019 m^3/s) Feb. 14; minimum gage height recorded, 2.07 ft (0.631 m) Sept. 20.
Period of record: Maximum discharge, 6,390 ft^3/s (181 m^3/s), May 13, 1950, gage height, 15.82 ft (4.822 m), site and datum then in use; no flow at times in 1933.

REMARKS.--Records good. Flow regulated by Arrowwood and Jim Lakes and Jamestown Reservoir, combined capacity, 246,000 acre-ft (303 hm^3), the largest of which is Jamestown Reservoir, 6 mi (10 km) upstream - see station 06469000. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

REVISIONS (WATER YEARS).--WSP 1239: 1938(M). WSP 1917: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	4.5	2.8	.97	1.7	4.8	12	7.5	4.8	4.4	11	1.7
2	44	4.4	2.6	.82	1.8	6.3	12	7.8	7.4	4.4	12	2.2
3	44	4.4	2.0	.80	2.0	7.5	11	8.0	5.9	3.9	11	3.7
4	44	4.4	1.6	.80	2.1	10	10	8.0	4.9	4.0	11	2.2
5	55	4.4	1.2	.75	1.4	13	10	7.8	4.4	3.9	12	1.8
6	49	4.4	.97	.75	1.2	14	9.0	7.8	4.2	3.8	12	1.6
7	48	4.4	.70	.70	1.1	23	9.0	7.5	4.1	3.9	11	1.6
8	48	4.4	.73	.75	1.0	27	8.0	7.3	4.2	3.8	11	1.6
9	47	4.4	.73	.75	1.0	29	7.8	7.1	4.1	3.7	11	1.6
10	50	4.4	.76	.80	.97	52	7.8	6.9	4.0	4.2	10	1.6
11	47	4.4	.82	.90	1.0	54	7.5	6.7	3.9	3.7	10	1.5
12	24	4.4	.82	1.0	1.0	46	7.5	6.5	3.8	3.6	14	1.5
13	19	4.4	.79	1.5	.79	42	7.3	6.3	3.7	3.6	14	1.5
14	17	4.4	.79	2.5	.67	130	7.1	6.1	3.7	3.6	11	1.5
15	16	4.4	.79	3.7	.70	120	8.0	5.7	3.5	3.5	13	1.5
16	17	4.4	.85	3.2	.94	188	7.8	5.4	12	3.4	11	1.4
17	17	4.4	.91	2.6	1.3	89	7.3	5.2	18	3.3	10	1.4
18	17	4.4	.97	2.1	2.4	73	7.1	5.2	14	3.4	10	1.4
19	16	4.4	.91	2.0	3.8	59	7.3	5.4	10	3.4	11	1.4
20	10	4.4	.91	2.0	2.8	47	8.8	5.5	7.5	3.7	18	1.4
21	7.1	4.4	.94	2.0	3.2	20	8.0	5.9	6.1	6.7	33	2.3
22	5.9	4.4	.94	1.9	3.6	13	7.3	6.1	5.7	9.8	4.9	1.5
23	5.2	4.4	.88	1.8	4.0	21	6.9	6.1	5.5	12	2.8	1.3
24	5.2	4.4	.88	2.2	4.4	22	6.7	8.0	5.4	15	2.1	8.7
25	4.9	4.4	.91	2.8	4.8	20	7.1	6.9	5.1	16	2.0	3.4
26	4.8	4.5	.85	3.6	5.4	17	8.0	6.3	4.6	15	1.9	3.3
27	4.6	4.5	.91	2.7	4.0	15	7.8	5.9	4.5	13	1.8	1.8
28	4.6	4.1	.85	2.2	3.4	13	7.3	5.5	4.5	14	1.8	1.3
29	4.6	3.7	.85	1.9	------	13	7.5	5.4	4.4	15	1.8	1.2
30	4.6	3.3	.88	1.8	------	12	7.5	5.1	4.4	12	1.7	1.3
31	4.6	------	1.2	1.8	------	12	------	4.9	------	10	1.6	------
TOTAL	729.1	130.2	32.74	54.09	62.47	1,212.6	246.4	199.8	178.3	213.7	289.4	60.2
MEAN	23.5	4.34	1.06	1.74	2.23	39.1	8.21	6.45	5.94	6.89	9.34	2.01
MAX	55	4.5	2.8	3.7	5.4	188	12	8.0	18	16	33	8.7
MIN	4.6	3.3	.70	.70	.67	4.8	6.7	4.9	3.5	3.3	1.6	1.2
AC-FT	1,450	258	65	107	124	2,410	489	396	354	424	574	119

CAL YR 1972 TOTAL 19,036.24 MEAN 52.0 MAX 760 MIN .70 AC-FT 37,760
WTR YR 1973 TOTAL 3,409.00 MEAN 9.34 MAX 188 MIN .67 AC-FT 6,760

06470500 James River at La Moure, N. Dak.

LOCATION.--Lat 46°21'20", long 98°18'15", in NE¼NE¼ sec.11, T.133 N., R.61 W., LaMoure County, on left bank 80 ft (24 m) downstream from bridge on State Highway 13, 0.5 mi (0.8 km) west of LaMoure, and 12 mi (19 km) upstream from Cottonwood Creek.

DRAINAGE AREA.--4,390 mi^2 (11,370 km^2), approximately, of which about 2,600 mi^2 (6,730 km^2) is probably non-contributing.

PERIOD OF RECORD.--April to July 1903 (gage-height record only), April 1950 to current year. Gage-height records for 1902-11 are contained in reports of the U.S. Weather Bureau.

GAGE.--Water-stage recorder and rubble-masonry control. Datum of gage is 1,290.00 ft (393.192 m) above mean sea level. See WSP 1729 or 1917 for history of changes prior to Apr. 19, 1950.

AVERAGE DISCHARGE.--23 years (1950-73), 82.1 ft^3/s (2.325 m^3/s), 59,480 acre-ft/yr (73.34 hm^3/yr); median of yearly mean discharges, 53 ft^3/s (1.50 m^3/s), 38,400 acre-ft/yr (47.3 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 286 ft^3/s (8.10 m^3/s) Mar. 19, 20, gage height, 7.99 ft (2.435 m); no flow June 9, 13, 14, 18, 27, July 1, 5-9, 11-29; minimum gage height, 6.70 ft (2.042 m) July 16, caused by wind.
Period of record: Maximum discharge, 6,800 ft^3/s (193 m^3/s) Apr. 14, 1969, gage height, 16.17 ft (4.929 m); no flow at times.
Prior to flood of Apr. 14, 1969, a long-time resident said that the flood of May 16, 1950 was the highest since 1881, with stage in either 1942 or 1943 being almost as high owing to large ice jam.

REMARKS.--Records good. Flow regulated by Arrowwood and Jim Lakes, and Jamestown Reservoir with combined capacity of 246,000 acre-ft (303 hm^3), the largest of which is Jamestown Reservoir 85 mi (137 km) upstream -- see station 06469000. Records of chemical analyses and water temperatures for the water year 1973 are published in Part 2 of this report.

REVISIONS.--WSP 1917: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	15	14	14	16	13	56	27	9.3	4.8	9.0	4.7
2	50	16	14	14	16	13	54	19	12	6.2	9.4	5.1
3	47	13	12	15	18	16	47	14	17	4.4	7.6	2.1
4	47	14	11	14	18	20	33	9.8	13	3.8	7.6	11
5	54	14	11	14	16	23	40	24	9.9	1.5	7.0	15
6	43	21	12	12	16	26	39	19	8.2	3.2	9.3	11
7	54	11	12	12	16	29	37	16	6.6	6.2	12	7.0
8	52	11	11	12	15	33	29	17	12	.28	12	8.0
9	45	17	11	11	15	38	35	25	7.0	.72	11	8.2
10	60	14	11	12	14	43	24	22	12	.95	9.4	9.6
11	60	15	11	11	14	48	38	19	7.0	.89	8.7	4.1
12	45	13	11	11	14	54	19	13	5.1	1.3	8.7	2.7
13	57	22	11	12	14	57	19	13	2.8	1.8	7.6	4.4
14	57	14	11	14	12	83	32	10	3.4	.22	5.7	5.2
15	47	12	11	12	12	94	31	16	6.4	0	11	4.6
16	54	12	11	12	11	90	19	14	11	.01	8.1	2.3
17	27	12	10	11	11	90	24	6.5	4.2	0	6.9	3.3
18	27	12	11	14	11	149	17	13	2.3	.05	9.7	2.7
19	21	12	11	14	11	260	21	10	8.9	0	13	4.4
20	31	12	12	14	11	276	27	7.9	9.1	0	5.8	1.6
21	34	12	12	14	11	234	43	13	7.4	0	7.8	6.4
22	34	12	12	15	11	198	29	10	12	0	9.8	6.0
23	29	12	14	14	12	184	25	10	8.6	0	6.7	1.9
24	31	13	14	14	12	167	28	17	7.8	.02	8.2	20
25	25	14	14	15	12	130	26	11	12	.33	27	35
26	27	13	14	16	11	97	26	11	14	.73	18	88
27	29	13	14	16	11	111	21	17	4.3	.15	8.9	81
28	12	12	15	16	12	105	18	14	3.9	0	10	82
29	15	12	16	16	------	76	28	13	2.7	7.2	4.6	83
30	23	13	16	16	------	63	25	14	3.2	7.6	3.6	66
31	14	------	16	16	------	58	------	11	------	7.6	2.9	------
TOTAL	1,201	408	386	423	373	2,878	910	456.2	243.1	59.95	287.0	586.3
MEAN	38.7	13.6	12.5	13.6	13.3	92.8	30.3	14.7	8.10	1.93	9.26	19.5
MAX	60	22	16	16	18	276	56	27	17	7.6	27	88
MIN	12	11	10	11	11	13	17	6.5	2.3	0	2.9	1.6
AC-FT	2,380	809	766	839	740	5,710	1,800	905	482	119	569	1,160

CAL YR 1972 TOTAL 30,294.00 MEAN 82.8 MAX 1,850 MIN 10 AC-FT 60,090
WTR YR 1973 TOTAL 8,211.55 MEAN 22.5 MAX 276 MIN 0 AC-FT 16,290

06470833 Pilot drain at Oakes, N. Dak.

LOCATION.--Lat 46°07'30", long 98°05'49", in SW¼SE¼ sec.29, T.131 N., R.59 W., Dickey County, on left bank 1 mi (1.6 km) south and 0.4 mi (0.6 km) west of Oakes.

DRAINAGE AREA.--5.1 mi^2 (13.2 km^2).

PERIOD OF RECORD.--October 1971 to current year.

GAGE.--Water-stage recorder.

EXTREMES.--Current year: Maximum discharge, 6.2 ft^3/s (0.18 m^3/s), Mar. 24, gage height, 2.11 ft (0.643 m); minimum 0.21 ft^3/s (0.006 m^3/s) Sept. 15, 16, gage height, 1.60 ft (0.488 m).
Period of record: Maximum discharge, that of Mar. 24, 1973; minimum, 0.16 ft^3/s (0.005 m^3/s), Jan. 10 to Mar. 12, 1972; minimum gage height, 1.54 ft (0.469 m) Jan. 10 to Feb. 29, 1972.

REMARKS.--Records good. Records of chemical analyses for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.6	2.3	1.2	.32	.44	3.3	2.4	1.8	1.3	1.1	.26
2	2.8	2.5	2.3	.98	.32	.44	3.3	2.4	1.8	1.3	.98	.81
3	2.8	2.5	2.3	.98	.32	.51	3.3	2.4	1.7	1.3	.98	.81
4	2.6	2.5	2.2	.98	.32	.51	3.3	2.4	1.7	1.3	.98	.65
5	2.6	2.5	2.2	.89	.32	.58	3.2	2.3	1.7	1.2	.98	.65
6	2.6	2.5	2.1	.89	.32	.65	3.2	2.2	1.7	1.2	.98	.65
7	2.6	2.5	2.0	.73	.32	.73	3.2	2.2	1.7	1.3	.98	.65
8	2.6	2.5	1.8	.44	.32	.81	3.2	2.2	1.6	1.2	.89	.65
9	2.6	2.5	1.8	.44	.32	.98	3.2	2.1	1.6	1.2	.89	.65
10	2.5	2.5	1.7	.44	.32	1.2	3.0	2.1	1.6	1.1	.89	.58
11	2.5	2.5	1.5	.44	.32	1.6	3.4	2.1	1.6	1.2	.89	.58
12	2.5	2.5	1.3	.44	.32	1.6	3.0	2.1	1.6	1.2	.89	.51
13	2.5	2.5	1.2	.44	.32	2.3	2.9	2.1	1.6	1.1	.81	.51
14	2.5	2.4	.89	.44	.32	3.3	2.9	2.1	1.6	.98	.81	.51
15	2.6	2.4	.81	.44	.32	3.2	2.8	2.0	1.5	.81	.81	.38
16	2.6	2.4	.65	.44	.32	2.9	2.6	1.8	1.4	1.1	.81	.21
17	2.6	2.4	.58	.44	.32	3.5	2.6	2.0	1.4	1.3	.89	.44
18	2.5	2.3	.58	.51	.32	5.3	2.5	1.8	1.4	1.1	.89	.38
19	2.5	2.3	.58	.51	.32	5.7	2.5	1.8	1.4	.98	.73	.44
20	2.5	2.2	.58	.44	.32	5.3	2.8	1.8	1.4	1.1	.73	.44
21	2.6	2.2	.81	.38	.32	4.8	2.6	1.8	1.3	1.1	.73	.58
22	2.7	2.2	1.2	.38	.32	4.6	2.6	2.0	1.3	1.1	.58	.73
23	2.8	2.2	1.2	.32	.32	5.6	2.6	2.0	1.3	1.1	.51	.65
24	2.9	2.2	.81	.32	.32	5.7	2.5	2.0	1.3	1.1	.58	.81
25	2.9	2.2	.89	.32	.32	4.8	2.5	2.1	1.2	.98	.65	.73
26	2.9	2.2	.89	.32	.32	4.1	2.4	2.1	1.2	.98	.65	.81
27	2.9	2.2	.98	.32	.38	4.0	2.5	2.1	1.2	.98	.65	.81
28	2.9	2.3	1.1	.32	.44	3.7	2.5	2.1	1.2	.89	.58	.81
29	2.8	2.3	1.2	.32	------	3.5	2.5	1.8	1.2	.98	.51	.73
30	2.8	2.3	1.2	.32	------	3.5	2.4	1.8	1.3	.98	.51	.73
31	2.6	------	1.2	.32	------	3.4	------	1.8	------	.98	.58	------
TOTAL	82.6	71.3	40.85	16.15	9.14	89.25	85.3	63.9	44.3	34.44	24.44	18.15
MEAN	2.66	2.38	1.32	.52	.33	2.88	2.84	2.06	1.48	1.11	.79	.61
MAX	2.9	2.6	2.3	1.2	.44	5.7	3.4	2.4	1.8	1.3	1.1	.81
MIN	2.5	2.2	.58	.32	.32	.44	2.4	1.8	1.2	.81	.51	.21
AC-FT	164	141	81	32	18	177	169	127	88	68	48	36

CAL YR 1972 TOTAL 838.68 MEAN 2.29 MAX 5.4 MIN .16 AC-FT 1,660
WTR YR 1973 TOTAL 579.82 MEAN 1.59 MAX 5.7 MIN .21 AC-FT 1,150

06471000 James River at Columbia, S. Dak.

LOCATION.--Lat 45°37'05", long 98°19'30", in NE¼NW¼ sec.29, T.125 N., R.62 W., Brown County, on left bank 10 ft (3 m) downstream from highway bridge, 0.8 mi (1.3 km) northwest of Columbia, 2.4 mi (3.9 km) upstream from Chicago and North Western Transportation Co. bridge, 3.6 mi (5.8 km) upstream from Elm River, and 9.4 mi (15.1 km) downstream from Columbia Road Dam.

DRAINAGE AREA.--7,050 mi^2 (18,300 km^2), approximately.

PERIOD OF RECORD.--October 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,275.01 ft (388.623 m) above mean sea level. Prior to Oct. 5, 1957, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--28 years, 103 cfs (2.917 m^3/s), 74,620 acre-ft/yr (92.0 hm^3/yr).

EXTREMES.--Current year: Maximum daily discharge, 80 cfs (2.27 m^3/s) Nov. 18; maximum gage height, 7.00 ft (2.134 m) Nov. 27, backwater from ice; no flow for many days.
Period of record: Maximum discharge, 5,420 cfs (153 m^3/s) May 24, 25, 1950, gage height, 16.89 ft (5.148 m), from graph based on gage readings; maximum gage height, 17.09 ft (5.209 m) Apr. 22, 1969; maximum daily reverse flow, 1,860 cfs (52.7 m^3/s) Apr. 8, 1952, backwater from Elm River.

REMARKS.--Records fair. Flow regulated by Arrowwood and Jim Lakes, and Jamestown Reservoir, combined capacity, 246,000 acre-ft (303 hm^3). Regulation by Jamestown Reservoir, capacity, 229,470 acre-ft (283 hm^3), 168 mi (270 km) upstream, since May 1953. Water-quality records for the water year 1973 are published in Part 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.86	62	15	2.0		0	1.4	.77	2.6	.40	.40	
2	.77	59	10	1.0		0	1.4	2.5	2.3	.70	.40	
3	.68	58	9.0	.50		0	1.3	3.0	2.8	1.0	.52	
4	.38	58	8.0	0		0	1.2	2.5	2.8	1.5	.68	
5	.68	58	7.0	0		0	.95	1.6	3.0	2.0	.77	
6	1.2	59	6.0	0		10	1.1	1.2	3.6	3.0	.60	
7	1.1	60	6.0	0		18	1.2	.68	3.7	3.0	.38	
8	.77	61	6.0	0		20	1.2	.25	5.8	3.5	.52	
9	.45	61	6.5	0		20	.95	.04	8.9	3.0	.45	
10	.45	61	6.5	0		21	.95	.04	9.7	3.0	.25	
11	.68	61	6.5	0		21	.95	.09	8.7	2.5	0	
12	.52	57	7.0	0		21	.95	.25	8.0	2.5	0	
13	.52	34	7.0	0		20	.86	.45	8.0	2.0	.19	
14	1.7	57	7.0	0		18	.60	.52	17	2.0	.19	
15	30	70	7.0	0		5.6	.68	.38	16	1.5	.52	
16	40	75	7.5	0		.09	.86	.09	5.4	1.5	.31	
17	43	78	7.5	0		0	.68	0	2.5	1.0	0	
18	45	80	7.5	0		0	.68	0	3.4	1.0	0	
19	45	78	8.0	0		0	.60	0	2.8	.90	0	
20	45	75	8.0	0		0	2.3	0	1.9	.80	0	
21	45	75	8.0	0		0	2.3	0	1.4	.80	0	
22	46	79	7.5	0		0	1.7	0	1.4	.70	0	
23	47	79	7.5	0		0	1.4	.19	1.4	.70	0	
24	48	76	7.5	0		.52	1.4	1.4	1.3	.60	0	
25	48	78	7.0	0		1.9	1.7	4.3	1.2	.60	0	
26	49	68	7.0	0		1.7	1.6	3.9	1.1	.60	0	
27	62	60	6.5	0		1.6	1.4	4.1	1.0	.50	0	
28	69	50	6.5	0		1.6	1.2	5.0	.80	.50	0	
29	73	35	6.0	0	------	1.5	.86	4.3	.60	.50	0	
30	75	25	4.0	0	------	1.4	.68	4.5	.50	.40	0	
31	71	------	3.0	0	------	1.4	------	3.7	------	.40	0	------
TOTAL	891.76	1,887	223.5	3.50	0	186.31	35.05	45.75	129.60	43.10	6.18	0
MEAN	28.8	62.9	7.21	.11	0	6.01	1.17	1.48	4.32	1.39	.20	0
MAX	75	80	15	2.0	0	21	2.3	5.0	17	3.5	.77	0
MIN	.38	25	3.0	0	0	0	.60	0	.50	.40	0	0
AC-FT	1,770	3,740	443	6.9	0	370	70	91	257	85	12	0

CAL YR 1972 TOTAL 38,415.61 MEAN 105 MAX 705 MIN -1,180 AC-FT 76,200
WTR YR 1973 TOTAL 3,451.75 MEAN 9.4 MAX 80 MIN 0 AC-FT 6,850

06471200 Maple River at North Dakota-South Dakota State line

LOCATION.--Lat 45°56'20", long 98°27'08", in SW¼SE¼ sec.33, T.129 N., R.62 W., Dickey County, N. Dak., on left bank 0.4 mi (0.6 km) upstream from State line, 7.8 mi (12.6 km) northeast of Frederick, S. Dak. and 15.7 mi (25.3 km) upstream from mouth.

DRAINAGE AREA.--750 mi^2 (1,940 km^2), approximately, of which about 270 mi^2 (699 km^2) is probably noncontributing.

PERIOD OF RECORD.--June 1956 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 1,365 ft (416 m), from topographic map. Prior to June 14, 1962, nonrecording gage at site 0.4 mi (0.6 km) downstream at datum 0.94 ft (0.286 m) lower.

AVERAGE DISCHARGE.--17 years, 18.8 cfs (0.532 m^3/s), 13,620 acre-ft/yr (16.8 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 131 cfs (3.71 m^3/s), Sept. 28, gage height, 5.19 ft (1.582 m); maximum gage height, 5.79 ft (1.765 m) Feb. 18, backwater from ice; no flow for many days.
Period of record: Maximum discharge, 5,930 cfs (168 m^3/s) Apr. 11, 1969, gage height, 15.22 ft (4.639 m); maximum gage height, 16.05 ft (4.892 m) Apr. 11, 1969, backwater from ice; no flow for long periods in each year.

REMARKS.--Records good except those for winter periods, which are poor.

Rating table (gage height, in feet, and discharge, in cubic feet per second)
(Stage-discharge relation affected by ice Feb. 18 to Mar. 28)

2.92	0	3.3	3.1	4.0	26
3.0	.14	3.4	4.9	4.5	59
3.1	.70	3.7	13	5.0	114
3.2	1.7				

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	.22	6.7	1.6		.79		0
2					0	.21	6.1	1.1		2.6		0
3					0	.21	5.8	.70		1.2		0
4					0	.20	4.3	.49		.63		0
5					0	.20	3.1	.49		.22		0
6					0	.18	3.4	.70		.09		0
7					0	.16	3.4	.70		.09		0
8					0	.14	3.1	.70		0		0
9					0	.10	3.4	.70		0		0
10					0	.05	2.6	.78		0		0
11					0	0	3.1	.63		0		0
12					0	0	2.2	.49		0		0
13					0	0	1.8	.37		0		0
14					0	0	2.1	.14		0		0
15					0	0	2.9	.11		0		0
16					0	.05	2.1	.11		0		0
17					0	.10	2.2	.02		0		0
18					.10	.25	2.1	.01		0		0
19					.25	.50	1.8	.01		0		0
20					.25	1.0	1.9	0		0		0
21					.22	2.0	2.3	0		0		0
22					.22	3.5	2.1	.02		0		0
23					.20	5.0	2.2	.01		0		0
24					.20	9.0	2.2	.27		0		0
25					.20	12	2.1	.27		0		0
26					.21	12	2.1	.22		0		0
27					.21	11	1.6	.32		0		0
28					.22	11	1.2	.14		0		71
29					------	9.6	1.2	.09		0		109
30					------	8.6	1.5	.02		0		64
31		------			------	7.2	------	0	------	0		------
TOTAL	0	0	0	0	2.28	94.47	82.6	11.21	0	5.62	0	244
MEAN	0	0	0	0	.081	3.05	2.75	.36	0	.18	0	8.13
MAX	0	0	0	0	.25	12	6.7	1.6	0	2.6	0	109
MIN	0	0	0	0	0	0	1.2	0	0	0	0	0
AC-FT	0	0	0	0	4.5	187	164	22	0	11	0	484

CAL YR 1972 TOTAL 9,759.16 MEAN 26.7 MAX 2,000 MIN 0 AC-FT 19,360
WTR YR 1973 TOTAL 440.18 MEAN 1.21 MAX 109 MIN 0 AC-FT 873

PEAK DISCHARGE (BASE, 50 FT^3/S).--SEPT. 28 (2000) 131 FT^3/S (5.19 FT).

06471500 Elm River at Westport, S. Dak.

LOCATION.--Lat 45°39'22", long 98°29'48", in SW¼NW¼ sec.12, T.125 N., R.64 W., Brown County, on right bank 12 ft (3.7 m) downstream from highway bridge, 0.5 mi (0.8 km) north of Westport, 0.7 mi (1.1 km) upstream from Chicago, Milwaukee, St. Paul and Pacific Railroad bridge, 9.3 mi (15.0 km) downstream from Willow Creek, and 30.4 mi (48.9 km) upstream from mouth.

DRAINAGE AREA.--1,680 mi^2 (4,350 km^2), approximately.

PERIOD OF RECORD.--October 1945 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,309.3 ft (399.07 m) above mean sea level. Prior to Aug. 6, 1951, and Apr. 8 to Sept. 9, 1952, nonrecording gage 12 ft (3.7 m) upstream at same datum. Aug. 6, 1951, to Apr. 7, 1952, water-stage recorder at present site and datum.

AVERAGE DISCHARGE.--28 years, 47.1 cfs (1.334 m^3/s), 34,120 acre-ft/yr (42.1 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 24 cfs (0.68 m^3/s) July 1, gage height, 4.77 ft (1.454 m); maximum gage height, 4.79 ft (1.460 m) Mar. 26; minimum daily discharge, 1.3 cfs (0.037 m^3/s) Dec. 31, Jan. 8, 9, Sept. 29, 30.
Period of record: Maximum discharge, 12,600 cfs (357 m^3/s) Apr. 10, 1969, gage height, 22.11 ft (6.739 m); no flow for many days in most years prior to 1960.

REMARKS.--Records good. Flow regulated for Aberdeen municipal water supply by Elm Lake and other small reservoirs upstream, combined capacity, about 16,000 acre-ft (19.7 hm^3).

Rating table (gage height, in feet, and discharge, in cubic feet per second)

4.2	0.78	4.5	7.6
4.3	2.0	4.6	12
4.4	4.2	4.8	24

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	4.9	4.6	5.2	2.4	6.1	15	3.8	8.4	11	5.2	16
2	7.2	5.2	4.6	3.8	2.4	7.6	13	3.5	8.8	9.6	8.8	15
3	7.2	5.2	4.3	3.5	2.6	8.0	11	3.0	9.6	8.0	8.8	17
4	7.2	5.2	4.6	2.6	2.6	8.4	9.2	2.4	9.2	9.6	8.8	17
5	8.0	5.2	4.6	2.2	2.2	8.8	9.6	2.8	9.2	10	8.8	10
6	8.4	5.2	4.6	1.7	2.2	12	8.8	2.8	9.2	10	7.2	4.0
7	7.6	4.9	4.6	1.4	2.0	13	7.2	2.8	8.4	9.6	4.9	4.0
8	7.6	4.9	4.9	1.3	1.9	12	6.1	2.8	8.4	9.2	5.2	4.9
9	7.2	4.6	4.9	1.3	1.9	10	7.2	2.8	8.0	9.2	4.6	4.9
10	8.0	4.6	4.6	1.7	1.9	10	5.8	2.8	8.0	8.8	6.4	4.6
11	7.6	4.6	4.6	2.0	1.9	11	6.8	3.0	7.6	8.8	13	3.3
12	7.2	4.6	4.6	2.6	2.0	11	4.0	2.8	7.2	8.8	13	3.3
13	7.2	5.8	4.6	3.3	2.6	9.6	4.0	2.4	7.6	9.2	12	4.6
14	6.8	4.6	4.6	3.3	1.9	13	4.0	2.2	8.0	9.6	12	9.2
15	6.5	4.6	4.3	2.8	1.7	14	5.5	3.5	8.0	10	12	9.6
16	6.5	4.9	4.3	2.6	1.4	14	3.8	3.3	7.6	10	12	9.6
17	5.5	4.9	4.6	2.4	1.4	14	3.0	3.5	7.6	10	11	9.2
18	5.2	4.9	4.6	2.4	2.0	14	4.0	3.5	8.4	10	11	8.8
19	5.2	4.9	4.9	2.4	2.2	14	4.6	3.5	7.6	5.5	10	9.2
20	5.5	4.9	4.6	2.0	2.2	12	6.1	3.3	7.2	5.2	9.2	9.2
21	5.2	4.6	4.3	2.2	2.2	9.6	5.8	3.5	6.8	5.2	6.5	11
22	5.2	4.6	4.3	2.4	3.5	8.8	4.6	3.5	6.8	4.9	6.5	8.8
23	5.2	4.6	3.8	2.2	4.3	8.4	4.0	8.0	6.8	5.2	6.1	7.6
24	5.2	4.6	3.5	2.2	4.3	10	5.8	8.8	7.2	5.2	5.8	12
25	5.5	4.6	3.8	2.2	5.8	17	6.1	8.4	6.8	5.2	5.5	8.4
26	5.5	4.3	3.8	2.4	4.3	22	5.8	8.4	6.8	4.9	5.8	8.0
27	5.2	4.6	3.8	2.6	3.8	22	5.5	8.8	6.8	4.3	9.2	4.0
28	4.9	4.6	2.6	2.2	4.3	20	4.9	8.0	7.2	4.3	17	2.0
29	5.2	4.6	2.6	2.0	------	20	4.9	8.0	8.4	4.6	16	1.3
30	5.2	4.6	3.0	2.0	------	19	4.6	8.0	8.8	4.6	16	1.3
31	4.9	------	1.3	2.4	------	16	------	8.4	------	4.6	16	------
TOTAL	196.0	144.3	128.8	75.3	73.9	395.3	190.7	142.3	236.4	235.1	294.3	237.8
MEAN	6.32	4.81	4.15	2.43	2.64	12.8	6.36	4.59	7.88	7.58	9.49	7.93
MAX	8.4	5.8	4.9	5.2	5.8	22	15	8.8	9.6	11	17	17
MIN	4.9	4.3	1.3	1.3	1.4	6.1	3.0	2.2	6.8	4.3	4.6	1.3
AC-FT	389	286	255	149	147	784	378	282	469	466	584	472

CAL YR 1972 TOTAL 23,186.9 MEAN 63.4 MAX 3,500 MIN 1.2 AC-FT 45,990
WTR YR 1973 TOTAL 2,350.2 MEAN 6.44 MAX 22 MIN 1.3 AC-FT 4,660

PEAK DISCHARGE (BASE, 100 FT^3/S).--NO PEAK ABOVE BASE.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. 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. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are usually made in time of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are prepared in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. 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. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1973

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Red River of the North basin					
05051800	Grass Lake tributary near Lidgerwood, N. Dak.	Lat 46°04'45", long 97°11'40", at west line sec.15, T.130 N., R.52 W., Richland County, at culvert on county highway just off State Highway 11, 2 miles west of Lidgerwood.	0.61	1958-73	3- -73	[a]1.73	0.5
05051900	Wild Rice River tributary near Mantador, N. Dak.	Lat 46°10'15", long 97°04'15", at east line sec.9, T.131 N., R.51 W., Richland County, at bridge on county highway 4.5 miles west of Mantador.	15.7	1958-73	3- -73	[a]4.40	2
05052000	Wild Rice River near Mantador, N. Dak.	Lat 46°10'21", long 97°00'37", on south half of east line of sec.12, T.131 N., R.51 W., Richland County, at county highway bridge 1.5 miles west of Mantador.	1,360	[b]1944-50 1952-73	3- -73	[a]4.38	75
05052500	Antelope Creek at Dwight, N. Dak.	Lat 46°18'52", long 96°44'13", SE¼ sec. 20, T.133 N., R.48 W., Richland County, at bridge on former U.S. Highway 81 about 0.5 mile north of Dwight.	294	[b]1944-49 1950-73	3-15-73	[a]5.75	169
05055200	Big Coulee near Maddock, N. Dak.	Lat 47°57'30", long 99°34'53", on north line sec.11, T.151 N., R.70 W., Benson County, at culvert on county highway, 3.5 miles southwest of Maddock.	140	[b]1957-67 1969-73	3- 9-73	[a]6.95	10
05056020	Mauvais Coulee tributary near Bisbee, N. Dak.	Lat 48°31'00", long 99°23'10", in SE¼SE¼ sec.11, T.158 N., R.68 W., Towner County, at bridge on county highway, 7.5 miles south of Bisbee.	[c]8.92	1955-73	-73	1.91	4
05056040	Mauvais Coulee tributary No.2 near Cando, N. Dak.	Lat 48°29'10", long 99°24'20", in SW¼SW¼ sec.23, T.158 N., R.68 W., Towner County, at culvert on State Highway 17, 9 miles west of Cando.	[c]17.1	1955-73	-73	2.26	43
05056060	Mauvais Coulee tributary No.3 near Cando, N. Dak.	Lat 48°27'20", long 99°12"40", in NW¼NW¼ sec.5, T.157 N., R.66 W., Towner County at bridge on U.S. Highway 281, 2.2 miles south of Cando.	[c]129	1955-73	-73	4.35	140
05056080	Mauvais Coulee tributary No.4 near Bisbee, N. Dak.	Lat 48°29'10", long 99°26'50", in SW¼SW¼ sec.21, T.158 N., R.68 W., Towner County, at culvert on State Highway 17, 10 miles southwest of Bisbee.	[c]59.6	1955-73	3-15-73	[a]3.03	.2

a Backwater from ice or vegetation.
b Operated as a continuous-record station.
c Revised.

Annual maximum discharge at crest-stage partial-record stations during water year 1973--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Red River of the North basin--Continued					
05056300	Little Coulee at Leeds, N. Dak.	Lat 48°17'15", long 99°26'55", in center of sec.31, T.156 N., R.68 W., Benson County, at culverts on U.S. Highway 2, 0.2 mile west of Leeds.	280	[a]1956-67 1969-73	3- 8-73	[b]5.60	17
05056900	Sheyenne River tributary near Cooperstown, N. Dak.	Lat 47°27'25", long 98°00'25", at sec. corner 13-14-23-24, T.146 N., R.58 W., Griggs County, on county highway, 1.4 miles north of State Highway 7, and 5 miles east of Cooperstown.	15.2	1959-73	3- 5-73	[b]3.50	5
05056950	Sheyenne River tributary No. 2 near Cooperstown, N. Dak.	Lat 47°26'20", long 98°01'35", on east line sec.27, T.146 N., R.58 W., Griggs County, at culvert on county highway 0.1 mile south of State Highway 7, and 4 miles east of Cooperstown.	.08	1959-73	3- -73	[b]3.92	1.0
05059800	Swan Creek near Absaraka, N. Dak.	Lat 46°58'30", long 97°21'30", on north line sec.3, T.140 N., R.53 W., Cass County, at bridge on county highway 1.8 miles east of Absaraka.	32.9	1955-73	3-14-73	4.02	260
05059850	Swan Creek tributary near Ayr, N. Dak.	Lat 46°58'30", long 97°30'00", in NE¼ sec.4, T.140 N., R.54 W., Cass County, at culvert on county highway, 4.5 miles south of Ayr.	4.24	1955-73	3-19-73	4.88	55
05059900	Swan Creek near Casselton, N. Dak.	Lat 46°55'00", long 97°15'30", in NW¼ sec.28, T.140 N., R.52 W., Cass County, at bridge on county highway, 2.6 miles northwest of Casselton.	56.6	1955-73	3-14-73	6.55	355
05059950	Swan Creek tributary near Casselton, N. Dak.	Lat 46°53'10", long 97°12'40", near center sec.2, T.139 N., R.52 W., Cass County, at culverts on State Highway 18, 1 mile south of Casselton.	14.1	1955-73	3-14-73	4.99	213
05062200	Elm River near Kelso, N. Dak.	Lat 47°17'30", long 97°06'50", on west line sec.14, T.144 N., R.51 W., Traill County, on downstream side of county highway bridge, 5 miles southwest of Kelso, and 14 miles upstream from North Branch.	193	[a]1955-63 1964-73	3- -73	8.58	265
05065700	Middle Branch Goose River near Finley, N. Dak.	Lat 47°33'25", long 97°45'00", in SE¼SE¼ sec.11, T.147 N., R.56 W., Steele County, at bridge on county highway, 4.5 miles northeast of Finley.	49.0	1965-73	3- 5-73	[b]7.00	10
05065800	Middle Branch Goose River tributary near Finley, N. Dak.	Lat 47°28'05", long 97°46'20", NW¼NW¼ sec.14, T.146 N., R.56 W., Steele County, on downstream left wingwall of bridge on county highway, 4.5 miles southeast of Finley.	26.3	1965-73	3-14-73	4.20	360
05082600	English Coulee tributary near Grand Forks, N. Dak.	Lat 47°55'05", long 97°10'40", in SE¼SE¼ sec.4, T.151 N., R.51 W., Grand Forks County, at bridge on county highway at Powell, 7 miles west of Grand Forks.	4.68	1955-73	3-14-73	2.48	1.0
05082680	Saltwater Coulee tributary near Emerado, N. Dak.	Lat 47°53'00", long 97°21'55", on west line sec.19, T.151 N., R.52 W., Grand Forks County, at bridge on county highway, 2.5 miles south of Emerado.	22.0	1955-73	3-13-73	[b]2.81	.5
05082700	Saltwater Coulee near Emerado, N. Dak.	Lat 47°55'55", long 97°15'40", in NW¼NW¼ sec.1, T.151 N., R.52 W., Grand Forks County, at bridge on county highway 0.1 mile south of U.S. Highway 2, and 5.5 miles east of Emerado.	110	1955-73	3- -73	1.06	1.5
05082900	Freshwater Coulee near Emerado, N. Dak.	Lat 47°56'00", long 97°14'00", in SW¼ sec.31, T.152 N., R.51 W., Grand Forks County, at bridge on U.S. Highway 2, 6.5 miles east of Emerado.	31.0	1955-73	3- -73	[b]2.65	25

a Operated as a continuous-record station.
b Backwater from ice or vegetation.

Annual maximum discharge at crest-stage partial-record stations during water year 1973--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Red River of the North basin--Continued					
05083000	Turtle River at Manvel, N. Dak.	Lat 48°04'43", long 97°11'03", in SE¼ sec.10, T.153 N., R.51 W., Grand Forks County, at bridge on State Highway 33, 0.3 mile west of Manvel.	613	[a]1946-70 1971-73	3-12-73	[b]8.69	150
05089200	North Branch Park River at Gardar, N. Dak.	Lat 48°35'30", long 97°52'50", at west line sec.16, T.159 N., R.56 W., Pembina County, at bridge on county highway at northwest corner of Gardar.	34.7	1955-73	3-22-73	[b]1.5	50
05089700	Cart Creek at Crystal, N. Dak.	Lat 48°35'20", long 97°39'55", on east line sec.13, T.159 N., R.55 W., Pembina County, at bridge on county highway, 0.6 mile south of post office at Crystal.	74.0	1955-73	3-15-73	[b]3.35	44
05089800	Cart Creek tributary near Crystal, N. Dak.	Lat 48°34'35", long 97°41'15", on east line sec.23, T.159 N., R.55 W., Pembina County, at culvert on county highway, 1.6 miles southwest of Crystal.	3.77	1955-73	3-14-73	2.11	5
05113450	Long Creek tributary No. 2 near Crosby, N. Dak.	Lat 48°57'29", long 103°18'57", on east line sec.7, T.163 N., R.97 W., Divide County, at culverts on county highway, 3.4 miles north of junction of State Highway 5 and 42 at Crosby.	6.69	1960-73	6- 3-73	3.53	4
05113520	Long Creek tributary near Crosby, N. Dak.	Lat 48°50'11", long 103°19'19", on north line sec.30, T.162 N., R.97 W., Divide County, 0.5 mile west of State Highway 42, and 5 miles south of Crosby.	.35	1960-73	-73		0
05116100	Souris River tributary near Burlington, N. Dak.	Lat 48°18'04", long 101°25'13", in SW¼ sec.25, T.156 N., R.83 W., Ward County, at culvert on county highway, 1.8 miles north of Burlington.	.13	1959-73	6- -73	7.94	29
05116200	Des Lacs River tributary near Donnybrook, N. Dak.	Lat 48°29'35", long 101°51'20", in NE¼ SW¼ sec.24, T.158 N., R.87 W., Ward County, at culvert on Minneapolis, St. Paul, Sault Ste. Marie Railroad, 1.8 miles southeast of Donnybrook.	3.82	1956-73	6- -73	3.76	36
05116550	Fuller Coulee at Foxholm, N. Dak.	Lat 48°21'45", long 101°34'00", in NE¼SW¼ sec.2, T.156 N., R.85 W., Ward County, at culvert on U.S. Highway 52, 0.4 mile southeast of Foxholm.	12.8	1955-73	6- -73	3.08	40
05117200	Souris River tributary No. 2 near Burlington, N. Dak.	Lat 48°15'17", long 101°22'48", in NW¼ NW¼ sec.17, T.155 N., R.83 W., Ward County, at culvert on county highway, 2.6 miles southeast of Burlington.	2.04	1960-73	3- -73	5.00	90
05122500	Willow Creek at Dunseith, N. Dak.	Lat 48°49'12", long 100°03'45", in NE¼NW¼ sec.35, T.162 N., R.73 W., Rolette County, at bridge on county highway, 0.4 mile northwest of railway station in Dunseith.	142	[ø]1953-70 1973	3- -73	11.94	54
05123300	Oak Creek tributary near Bottineau, N. Dak.	Lat 48°49'14", long 100°24'38", 0.4 mile west of sec. corner 28, 29, 32, 33, T.162 N., R.75 W., Bottineau County, on State Highway 5, 1.5 miles east of Bottineau.	3.1	1955, 1959-73	-73	10.33	150
05123350	Oak Creek tributary No. 5 near Bottineau, N. Dak.	Lat 48°49'14", long 100°20'42", on south line sec.26, T.162 N., R.75 W., Bottineau County, 1 mile north of State Highway 5, and 4.5 miles east of Bottineau.	.73	1959-73	6- -72 7- -73	2.66 2.63	[c]28 28
05123520	Egg Creek near Glenburn, N. Dak.	Lat 48°29'15", long 101°24'15", in SW¼ SW¼ sec.21, T.158 N., R.83 W., Renville County, at culvert on county highway, 8.5 miles west of Glenburn.	20.9	1955-73	6- 3-73	5.20	137

a Operated as a continuous-record station.
b Backwater from ice or vegetation.
ø Revised.

Annual maximum discharge at crest-stage partial-record stations during water year 1973--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Red River of the North basin--Continued					
05123540	Egg Creek near Ruthville, N. Dak.	Lat 48°26'25", long 101°17'55", in SW¼ NW¼ sec.8, T.157 N., R.82 W., Ward County, at bridge on U.S. Highway 83, 4.7 miles north of Ruthville.	108.4	1955-73	6- 2-73	4.53	280
05123560	Egg Creek tributary near Deering, N. Dak.	Lat 48°22'15", long 101°09'10", in SE¼ sec.32, T.157 N., R.81 W., Ward County, at culvert on county highway, 5 miles southwest of Deering.	4.25	1955-73	6- -73	1.81	.1
05123580	Egg Creek near Deering, N. Dak.	Lat 48°20'35", long 101°07'20", in SE¼ SE¼ sec.7, T.156 N., R.81 W., Ward County, at culvert on county highway, 5 miles southwest of Deering.	132.0	1955-73	6- -73	5.37	116
		Painted Woods Creek basin (upper)					
06329700	Painted Woods Creek tributary near Williston, N. Dak.	Lat 48°12'20", long 103°53'00", in SE¼ NE¼ sec.35, T.155 N., R.103 W., Williams County, at culvert on county highway 13 miles west of Williston.	.35	1955-73	3- -73	1.90	1
06329800	Painted Woods Creek near Williston, N. Dak.	Lat 48°11'55", long 103°52'05", in NW¼ NE¼ sec.1, T.154 N., R.103 W., at bridge on county highway 12 miles west of Williston.	17.4	1955-73	6- 3-73	3.64	17
06329900	Painted Woods Creek tributary No. 2 near Williston, N. Dak.	Lat 48°13'55", long 103°49'10", in SW¼ SW¼ sec.21, T.155 N., R.102 W., Williams County, at culvert on county highway, 10.5 miles northwest of Williston.	8.30	1955-73	3- -73	2.52	6
		Sand Creek basin					
06330100	Sand Creek at Williston, N. Dak.	Lat 48°08'50", long 103°39'10", in NW¼ SE¼ sec.22, T.154 N., R.101 W., Williams County, at bridge on U.S. Highways 2 and 85, 1.5 miles west of post office at Williston.	38.2	1955-73	3- -73	[a]4.10	50
		White Earth River basin					
06331900	White Earth River tributary near Tioga, N. Dak.	Lat 48°21'20", long 102°54'20", on north line sec.9, T.156 N., R.95 W., Williams County, at culvert on county highway, 1 mile north of U.S. Highway 2, and 2 miles southeast of Tioga.	9.55	1960-73	2-24-73	2.91	8
06332150	White Earth River tributary near White Earth, N. Dak.	Lat 48°19'55", long 102°45'10", in south ½ sec.15, T.156 N., R.94 W., Mountrail County, at culvert on U.S. Highway 2, 3 miles south of White Earth.	--	1960-73	8-20-72 9- 2-73	[b]6.06 5.33	[b]31 7
		Little Missouri River basin					
06335700	Deep Creek near Bowman, N. Dak.	Lat 46°13'55", long 103°22'05", in NW¼ NW¼ sec.30, T.132 N., R.101 W., Bowman County, at culvert on U.S. Highway 85, 3.8 miles north of Bowman.	.20	1955-73	-73	4.07	6
06336100	Sheep Creek tributary near Medora, N. Dak.	Lat 46°54'00", long 103°26'53", in SE¼ NW¼SE¼ sec.29, T.140 N., R.101 W., Billings County, at culvert on Interstate Highway 94, 4.0 miles east of Medora.	.29	1955-73	-73	8.28	14
06336200	Sheep Creek tributary No. 2 near Medora, N. Dak.	Lat 46°55'32", long 103°28'23", near center of sec.19, T.140 N., R.101 W., Billings County, at culvert on Theodore Roosevelt National Park highway, 3 miles east of Medora.	.42	1955-73	2-28-73	[a]4.27	5.0

a Backwater from ice or vegetation.
b Revised.

Annual maximum discharge at crest-stage partial-record stations during water year 1973--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Little Missouri River basin--Continued					
06336300	Little Missouri River tributary near Medora, N. Dak.	Lat 46°57'05", long 103°30'20", in SE¼ sec.11, T.140 N., R.102 W., Billings County, at culvert on Theodore Roosevelt National Park highway, 3 miles north of Medora.	0.32	1955-73	2-28-73	[a]3.85	2.0
06336400	Jules Creek near Medora, N. Dak.	Lat 46°59'39", long 103°29'13", in NW¼ sec.33, T.141 N., R.101 W., Billings County, at bridge on Theodore Roosevelt National Park highway, 6 miles north of Medora.	3.80	1955-73	2-28-73	6.20	55
06336980	Little Missouri River tributary near Watford City, N. Dak.	Lat 47°36'07", long 103°16'41", in NW¼ NE¼ sec.34, T.148 N., R.99 W., McKenzie County, at bridge on Theodore Roosevelt Park highway, 1.8 miles west of U.S. Highway 85 and 14 miles south of Watford City.	2.02	1960-73	6-18-73	4.09	160
06337100	Spring Creek near Watford City, N. Dak.	Lat 47°41'18", long 103°15'53", in NE¼ NE¼ sec.31, T.149 N., R.98 W., McKenzie County, at bridge on county highway, 1 mile east of U.S. Highway 85 and 8 miles south of Watford City.	22.7	1960-73	3- 1-73	[a]3.76	33
		Douglas Creek basin					
06337600	East Branch Douglas Creek tributary near Garrison, N. Dak.	Lat 47°38'37", long 101°31'09", in SW¼ NE¼NW¼ sec.16, T.148 N., R.85 W., McLean County, at culvert on State Highway 37, 5 miles west of Garrison.	1.39	1957, 1959-73	2-22-73	[a]6.02	10
		Snake Creek basin					
06337900	Snake Creek tributary near Garrison, N. Dak.	Lat 47°37'55", long 101°21'00", on south line sec.14, T.148 N., R.84 W., McLean County, at culvert on county highway, 1 mile south of State Highway 37 and 3 miles southeast of Garrison.	1.22	1959-73	-73	2.55	8.8
		Knife River basin					
06340300	Otter Creek near Hannover, N. Dak.	Lat 47°06'40", long 101°35'55", in NE¼ NE¼ sec.20, T.142 N., R.86 W., Oliver County, on downstream left wingwall of county highway bridge, 8 miles west of Hannover.	42.9	1965-73	2- -73	[a]5.40	100
		Square Butte Creek basin					
06342050	Square Butte Creek at Center, N. Dak.	Lat 47°06'40", long 101°17'55", at sec. corner 14, 15, 22, 23, T.142 N., R.84 W., Oliver County, at bridge on State Highway 25, in Center.	56.8	1956-73	3-1 -73	.70	250
06342150	Square Butte Creek tributary near Center, N. Dak.	Lat 47°06'20", long 101°15'30", on south line sec.13, T.142 N., R.84 W., Oliver County, at culvert on State Highway 25, 1.7 miles east of Center.	.19	1955-73	6-17-73	4.21	15
06342250	Square Butte Creek tributary No. 3 near Center, N. Dak.	Lat 47°06'20", long 101°10'35", in SE¼ sec.15, T.142 N., R.83 W., Oliver County, at culvert on State Highway 25, 6 miles east of Center.	1.68	1955-73	3- -73	3.73	33
		Burnt Creek basin					
06342300	Burnt Creek tributary near Baldwin, N. Dak.	Lat 47°01'25", long 100°47'30", 0.2 mile south of sec. corner 14, 15, 22, 23, T.141 N., R.80 W., Burleigh County, at culvert on U.S. Highway 83, 2 miles west of Baldwin.	2.98	1956-73	2- -73	[a]7.70	20

a Backwater from ice or vegetation.

Annual maximum discharge at crest-stage partial-record stations during water year 1973--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Burnt Creek basin--Continued					
06342350	Burnt Creek tributary No. 2 near Baldwin, N. Dak.	Lat 46°59'05", long 100°47'25", in SW¼SW¼ sec.35, T.141 N., R.80 W., Burleigh County, at culvert on U.S. Highway 83, 3.5 miles southwest of Baldwin.	2.12	1956-73	-73	[a]4.9	10
		Heart River basin					
06343000	Heart River near South Heart, N. Dak.	Lat 46°51'50", long 102°57'15", in SW¼ sec.8, T.139 N., R.97 W., Stark County, 2 miles east of South Heart.	315	[b]1947-70 1973	3- -73		c
06343200	Heart River tributary near South Heart, N. Dak.	Lat 46°52'35", long 102°55'10", in SE¼ sec.4, T.139 N., R.97 W., Stark County, at culvert on U.S. Highway 10, 3.5 miles northwest of South Heart.	.13	1955-73	2-28-73	[a]11.80	10
06344200	Heart River tributary near Dickinson, N. Dak.	Lat 46°50'21", long 102°47'22", in NW¼ SW¼ sec.22, T.139 N., R.96 W., Stark County, at culverts on State Highway 22, 3 miles south of Dickinson.	1.72	1955-73	2-26-73	[a]4.60	24
06345100	Antelope Creek near Dickinson, N. Dak.	Lat 46°43'15", long 102°47'25", in NW¼ SW¼ sec.34, T.138 N., R.96 W., Stark County, at bridge on State Highway 22, 11 miles south of Dickinson.	69.2	1955-73	2-26-73	[a]6.04	60
06345200	Antelope Creek tributary near New England, N. Dak.	Lat 46°40'05", long 102°47'25", in SW¼ NW¼ sec.22, T.137 N., R.96 W., Stark County, at culvert on State Highway 22, 9.5 miles northwest of New England.	13.0	1955-73	2-26-73	[a]3.65	12
06345300	Antelope Creek tributary (site No. 2) near New England, N. Dak.	Lat 46°41'20", long 102°47'25", in SW¼ SW¼ sec.10, T.137 N., R.96 W., Stark County, at culvert on State Highway 22, 11 miles northwest of New England.	22.4	1955-73	6- -73	[a]2.52	50
06345700	Government Creek near Richardton, N. Dak.	Lat 46°48'15", long 102°18'35", in NE¼ NE¼ sec.5, T.138 N., R.92 W., Stark County, at bridge on county highway, 5.4 miles south of Richardton.	33.4	1950, 1955-73	2-26-73	[a]6.95	120
06347200	Hailstone Creek near Blue Grass, N. Dak.	Lat 46°55'20", long 101°38'15", in SW¼ SW¼ sec.23, T.140 N., R.87 W., Morton County, on right wingwall of county highway bridge 3 miles southwest of Blue Grass.	38.7	1965-73	3- 8-73	[a]5.34	15
06347500	Big Muddy Creek near Almont, N. Dak.	Lat 46°41'30", long 101°28'10", in SW¼ sec.7, T.137 N., R.85 W., Morton County, 3 miles southeast of Almont.	456	[b]1946-70 1971-73	3-15-73	[a]14.50	1,000
		Apple Creek basin					
06349100	Dead Buffalo Lake tributary near Steele, N. Dak.	Lat 46°53'03", long 99°49'34", on east line sec.1, T.139 N., R.73 W., Kidder County, at culverts on county highway 1.3 miles north of U.S. Highway 10 and 4.5 miles northeast of Steele.	5.92	1960-73	-73	3.54	40
06349200	West Branch Long Lake Creek near Hazelton, N. Dak.	Lat 46°29'10", long 100°09'20", on south line sec.19, T.135 N., R.75 W., Emmons County, at culverts on State Highway 34, 5.9 miles east of Hazelton.	16.5	1955-73	2-28-73	[a]4.55	10
		Cannonball River basin					
06351650	Middle Fork Cedar Creek near Buffalo Springs, N. Dak.	Lat 46°15'55", long 103°13'30", in SW¼ SW¼ sec.8, T.132 N., R.100 W., Bowman County, on downstream right corner of bridge on county highway, 6.3 miles north of Buffalo Springs.	32.9	1965-73	6-19-73	5.80	55

a Backwater from ice or vegetation.
b Operated as a continuous-record station.
c Not determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1973--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Cannonball River basin--Continued					
06353600	Louise Creek tributary near Brisbane, N. Dak.	Lat 46°22'25", long 101°29'20", in SW¼ SW¼SW¼ sec.34, T.134 N., R.86 W., Grant County, at culvert on county highway 2 miles north of Brisbane.	.29	1955-73	3- -73	2.68	0.5
06353700	Louise Creek tributary near Lark, N. Dak.	Lat 46°26'30", long 101°25'00", at center of NW¼ sec.7, T.134 N., R.85 W., Grant County, at culvert on State Highway 21, 1.3 miles southwest of Lark.	.76	1956-73	2- -73	[a]2.79	6
06353800	Louise Creek tributary No. 2 near Lark, N. Dak.	Lat 46°26'35", long 101°19'55", on south line sec.2, T.134 N., R.85 W., Grant County, at culvert on State Highway 21, 3.4 miles east of Lark.	7.70	1956-73	3- -73	1.45	30
06353900	Louise Creek above Flasher, N. Dak.	Lat 46°27'15", long 101°14'55", in SW¼ NE¼ sec.4, T.134 N., R.84 W., Grant County, at bridge on Burlington Northern Railway, 0.7 mile west of Flasher.	110	1955-73	3- -73	3.73	54
		Beaver Creek basin					
06354700	Spring Creek near Linton, N. Dak.	Lat 46°18'40", long 100°13'50", in NE¼ NE¼ sec.28, T.133 N., R.76 W., Emmons County, at bridge on county highway 3 miles north of Linton.	22.9	1955-73	2- -73	4.9	20
06354750	Sand Creek tributary near Hazelton, N. Dak.	Lat 46°25'50", long 100°17'50", in SE¼ SE¼ sec.12, T.134 N., R.77 W., Emmons County, at culvert on county highway 1.1 miles west of U.S. Highway 83 and 3.5 miles south of Hazelton.	2.96	1960-73	2- -73	[a]3.37	2
06354800	Sand Creek near Temvik, N. Dak.	Lat 46°22'20", long 100°20'40", on north line sec.3, T.133 N., R.77 W., Emmons County, at bridge on county highway, 4.2 miles west of Temvik.	23.3	1955-73	2- -73	.20	10
		Grand River basin					
06354885	North Fork Grand River tributary near Bowman, N. Dak.	Lat 45°59'20", long 103°28'55", on north line sec.19, T.129 N., R.102 W., Bowman County, on downstream wingwall of county highway bridge 14 miles south of Bowman.	36.7	1965-73	6-19-73	8.82	190
06354900	Spring Creek near Bowman, N. Dak.	Lat 46°07'30", long 103°24'35", in NW¼ SW¼ sec.35, T.131 N., R.102 W., Bowman County, at bridge on U.S. Highway 85, 4 miles south of Bowman.	51.2	1955-73	-73	2.65	63
06354950	Spring Creek tributary near Bowman, N. Dak.	Lat 46°08'55", long 103°24'35", in SW¼ SW¼ sec.23, T.131 N., R.102 W., Bowman County, at bridge on U.S. Highway 85, 2.3 miles south of Bowman.	11.4	1955-73	-73	[a]4.81	14
06354985	Alkali Creek near Bowman, N. Dak.	Lat 46°00'00", long 103°22'05", on west line sec.18, T.129 N., R.101 W., Bowman County, on right bank on downstream side of county highway bridge 12 miles south of Bowman.	58.1	1965-73	4-20-73	6.59	375
06355200	Buffalo Creek tributary near Buffalo Springs, N. Dak.	Lat 46°10'30", long 103°16'35", in NE¼ NW¼ sec.14, T.131 N., R.101 W., Bowman County, at culverts on U.S. Highway 12, 2 miles west of Buffalo Springs.	3.39	1955-73	2- -73	[a]2.66	50
		James River basin					
06467650	James River tributary near Manfred, N. Dak.	Lat 47°38'50", long 99°54'20", in SW¼ sec.7, T.148 N., R.72 W., Wells County, at bridge on county highway, 8 miles southwest of Manfred.	90.2	1955-73	2- -73	--	1

a Backwater from ice or vegetation.

Annual maximum discharge at crest-stage partial-record stations during water year 1973--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		James River basin--Continued					
06467800	James River tributary No. 3 near Manfred, N. Dak.	Lat 48°38'40", long 99°45'30", in NE¼NE¼ sec.18, T.148 N., R.71 W., Wells County, at culvert on U.S. Highway 52, 3.5 miles south of Manfred.	23.5	1955-73	2- -73	[a]2.14	0.3
06468000	James River at New Rockford, N. Dak.	Lat 47°41'05", long 99°07'30", on east line sec.32, T.149 N., R.66 W., Eddy County, at bridge on U.S. Highway 281 at New Rockford.	714	[a]1951-69 1970-73	3- -72 -73	-- --	[b]1,000 0
06469600	Minneapolis Flats Creek tributary near Eldridge, N. Dak.	Lat 46°53'25", long 98°55'30", on west line sec.5, T.139 N., R.65 W., Stutsman County, at culverts on county highway, 3.5 miles west of Eldridge.	9.91	1955-73	3- -73	2.6	25
06470200	Beaver Creek tributary near Eldridge, N. Dak.	Lat 46°52'15", long 98°55'30", on east line sec.7, T.139 N., R.65 W., Stutsman County, at culvert on county highway 4 miles southwest of Eldridge.	.19	1955-73	-73	5.88	49
06470300	Beaver Creek near Sydney, N. Dak.	Lat 46°45'00", long 98°47'50", in SW¼SW¼ sec.20, T.138 N., R.64 W., Stutsman County, at bridge on county highway 2 miles northwest of Sydney.	224	1955-73	-73	2.9	143
06470400	Buffalo Creek tributary near Sydney, N. Dak.	Lat 46°42'40", long 98°50'20", in SW¼NW¼ sec.1, T.137 N., R.65 W., Stutsman County, at bridge on county highway 3.5 miles southwest of Sydney.	23.7	1955-73	-73	2.80	35

a Operated as a continuous-record station.
b Not previously published.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*); measurements of peak flow by a dagger (†).

Discharge measurements made at miscellaneous sites during water year 1973

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Red River of the North basin						
Antelope Creek	Wild Rice River	Lat 46°23'01", long 96°58'11", in SE¼SE¼ sec.28, T.134 N., R.50 W., Richland County, at bridge on county highway 8 miles west of Galchutt.	--	1972	4- 5-73	0
Pitcairn Creek	Wild Rice River	Lat 46°27'24", long 96°47'03", in SW¼SE¼ sec.36, T.135 N., R.49 W., Richland County, at bridge on county highway 2 miles northwest of Abercrombie	--	1971-72	4- 5-73	[a].02
Big Coulee	Devils Lake	Lat 48°02'25", long 99°02'50", in NW¼SW¼ sec.29, T.153 N., R.65 W., Benson County, at culvert on county highway 9 miles east of Minnewaukan.	--	1966-68 1970-72	11-13-72	16.0
Lower Branch Rush River	Sheyenne River	Lat 46°56'31", long 96°59'17", in NE¼SE¼ sec.16, T.140 N., R.50 W., Cass County, at bridge on county highway 2 miles southeast of Prosper.	--	1965-67 1970-72	4- 3-73	[a]2.0
Sheyenne River	Red River of the North	Lat 47°00'04", long 96°53'42", in NW¼ SE¼NW¼ sec.28, T.141 N., R.49 W., Cass County, at bridge on U.S. Highway 81 about 1.6 miles northwest of Harwood.	--	1969-72	11-28-72	93.6
Des Lacs River	Souris River	Lat 48°40'35", long 102°05'36", in NE¼ NE¼NW¼ sec.19, T.160 N., R.88 W., Ward County, at bridge on county highway at Kenmare.	--	1968-72	3- 6-73 3-21-73 4- 3-73 5- 8-73	[a]25 2.90 [a]6.3 [a]2.0
Gassman Coulee	Souris River	Lat 48°13'54", long 101°22'20", in NE¼ SW¼ sec.20, T.155 N., R.83 W., Ward County, at culvert on U.S. Highways 2 and 52, 2 miles west of Minot.	61	1969-72	3-12-73 3-13-73 4-11-72 5-11-73	[a]11 90.2 [a].16 [a].84
Souris River	Red River of the North	Lat 48°14'23", long 101°17'30", in NE¼ NW¼NW¼ sec.24, T.155 N., R.83 W., Ward County, at bridge on Main Street at Minot.	--	1968-72	4-11-73	12.9
Larson Coulee	Souris River	Lat 48°11'47", long 101°13'51", in NE¼ NE¼NE¼ sec. 5, T.154 N., R.82 W., Ward County, at bridge on U.S. Highway 52, 4 miles southeast of Minot.	--	1971-72	3-15-73 4-11-72	[a]10 0
Souris River	Red River of the North	Lat 48°09'11", long 101°09'00", on north line sec.24, T.154 N., R.82 W., Ward County, at bridge on county highway at Logan.	--	1971-72	4-11-73	26.7
Bonnes Coulee	Souris River	Lat 48°03'30", long 100°57'00", in NE¼ SW¼ sec.21, T.153 N., R.80 W., McHenry County, at culvert on U.S. Highway 52, 0.5 mile west of Velva.	53	1962, 1965, 1971-72	3-14-73 4-10-73	[a]4.3 [a]1.2
Souris River	Red River of the North	Lat 48°03'50", long 100°55'42", in NE¼ NE¼ sec.22, T.153 N., R.80 W., Ward County, at bridge on county highway in Velva.	--	1966-72	4- 6-73	36.8
Souris River	Red River of the North	Lat 48°21'05", long 48°25'08", in SW¼NE¼ sec.10, T.156 N., R.76 W., McHenry County, at bridge on State Highway 14, 0.5 mile northwest of Towner	--	1971-72	4-10-73	22.1
Ox Creek	Willow Creek	Lat 48°35'58", long 100°08'44", on west line sec.13, T.159 N., R.74 W., Bottineau County, at bridge on county highway, 7 miles east of Willow City.	--	1969-72	4-10-73	3.13
Willow Creek	Souris River	Lat 48°36'33", long 100°17'44", in NW¼ SW¼ sec.12, T.159 N., R.75 W., Bottineau County, at bridge on State Highway 60 at Willow City.	--	1969-72	4-10-73 5- 9-73	1.9 [a]6.0
Oak Creek	Willow Creek	Lat 48°45'53", long 100°28'02", in SW¼ SW¼ sec.13, T.161 N., R.76 W., Bottineau County, at bridge on county highway, 4 miles east of Bottineau.	--	1969-72	4- 9-73 9- 4-73	2.62 [a]13

a Estimated.

Discharge measurements made at miscellaneous sites during water year 1973--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Cannonball River basin						
Cannonball River	Missouri River	Lat 46°11'55", long 101°10'20", in NE¼ sec.3, T.131 N., R.84 W., Sioux County, 9 miles southeast of Raleigh.	--	--	8-14-73	7.41
Cannonball River	Missouri River	Lat 46°13'15", long 101°06'40", in SE¼ sec.30, T.132 N., R.83 W., Sioux County, at county highway bridge, 11 miles southeast of Raleigh.	--	--	8-14-73	6.97
Cannonball River	Missouri River	Lat 46°15'55", long 101°05'25", in SE¼ sec.8, T.132 N., R.83 W., Sioux County, 10 miles southeast of Raleigh.	--	--	8-14-73	6.68
Badger Creek basin						
Badger Creek	Missouri River	Lat 46°30'10", long 100°27'40", in NE¼ sec.22, T.135 N., R.78 W., Emmons County, near bridge on county highway 9 miles west of Hazelton.	--	--	4-16-73	.53
Badger Creek	Missouri River	Lat 46°30'05", long 100°31'35", in NE¼ sec.19, T.135 N., R.78 W., Emmons County, near bridge on county highway 12 miles west of Hazelton.	--	--	4-16-73	.58
Horsehead Creek basin						
Horsehead Creek	Missouri River	Lat 46°22'10", long 100°31'10", in NW¼ sec.5, T.133 N., R.78 W., Emmons County near bridge on county highway 12 miles west of Temvik.	--	--	4-16-73	.33
Beaver Creek basin						
Beaver Creek	Missouri River	Lat 46°13'25", long 100°06'40", in SE¼ sec.30, T.132 N., R.75 W., Emmons County, at bridge on county highway 6 miles southeast of Linton.	--	--	4-16-73	6.01
Beaver Creek	Missouri River	Lat 46°15'50", long 100°24'05", in SE¼ sec.11, T.132 N., R.78 W., Emmons County, at bridge on county highway 8 miles west of Linton.	--	--	4-16-73	14.3
Little Beaver Creek basin						
Little Beaver Creek	Missouri River	Lat 46°11'30", long 100°27'40", in SE¼ sec.5, T.131 N., R.78 W., Emmons County, at bridge on county highway 12 miles southwest of Linton.	--	--	4-16-73	.32
Little Beaver Creek	Missouri River	Lat 46°12'25", long 100°31'10", in SW¼ sec.36, T.132 N., R.79 W., Emmons County,at bridge on county highway 14 miles southwest of Linton.	--	--	4-16-73	.52
Cattail Creek basin						
Cattail Creek	Missouri River	Lat 46°01'55", long 100°22'20", in SW¼ sec.31, T.130 N., R.77 W., Emmons County, at bridge on county highway 8 miles west of Westfield.	--	--	4-16-73	.08
Cattail Creek	Missouri River	Lat 46°05'55", long 100°31'40", in NW¼ sec.11, T.130 N., R.79 W., Emmons County, at bridge on county highway 16 miles northwest of Westfield.	--	--	4-16-73	1.32

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