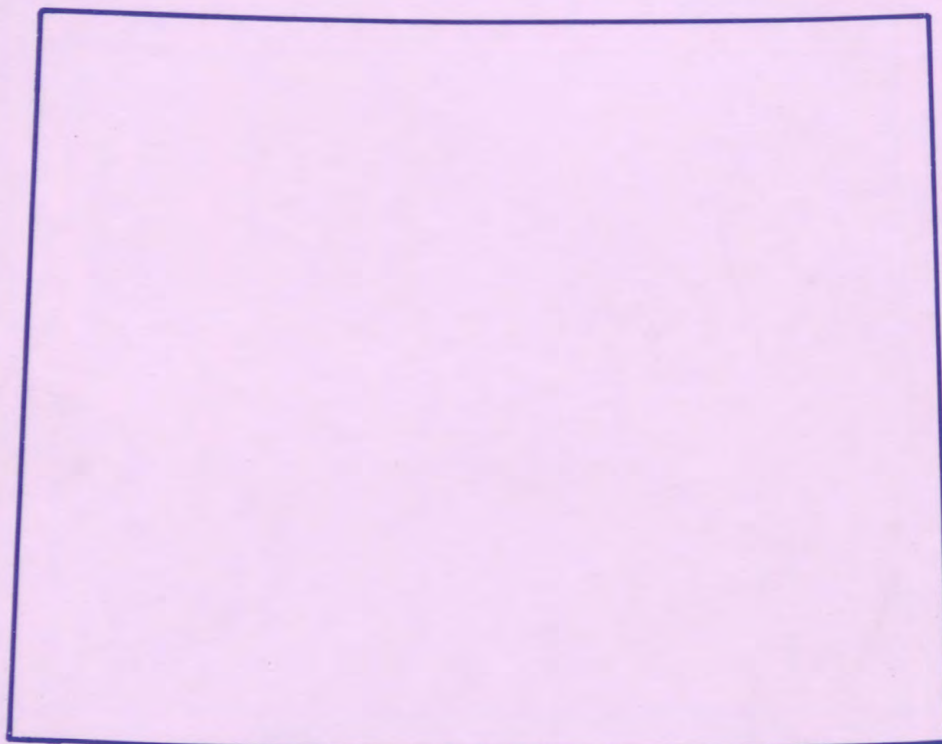


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Water Resources Data Wyoming Water Year 1986



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WY-86-1
Prepared in cooperation with the State of Wyoming
and with other agencies

FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

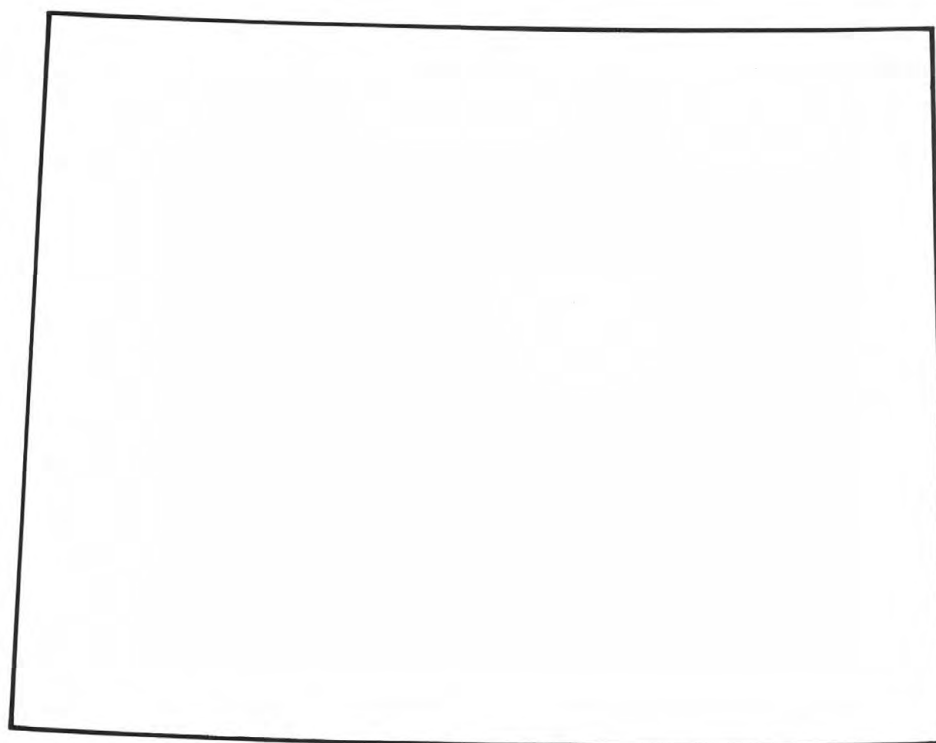
The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1	millimeters (mm)
	2.54×10^{-2}	meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3	square meters (m ²)
	4.047×10^{-1}	square hectometers (hm ²)
	4.047×10^{-3}	square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0	liters (L)
	3.785×10^0	cubic decimeters (dm ³)
	3.785×10^{-3}	cubic meters (m ³)
million gallons	3.785×10^3	cubic meters (m ³)
	3.785×10^{-3}	cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1	cubic decimeters (dm ³)
	2.832×10^{-2}	cubic meters (m ³)
cfs-days	2.447×10^3	cubic meters (m ³)
	2.447×10^{-3}	cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3	cubic meters (m ³)
	1.233×10^{-3}	cubic hectometers (hm ³)
	1.233×10^{-6}	cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1	liters per second (L/s)
	2.832×10^1	cubic decimeters per second (dm ³ /s)
	2.832×10^{-2}	cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2}	liters per second (L/s)
	6.309×10^{-2}	cubic decimeters per second (dm ³ /s)
	6.309×10^{-5}	cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1	cubic decimeters per second (dm ³ /s)
	4.381×10^{-2}	cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons



Water Resources Data Wyoming Water Year 1986

by S.A. Druse, W.R. Glass, P.B. McCollam, and H.I. Kennedy



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WY-86-1
Prepared in cooperation with the State of Wyoming
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

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1987

WATER RESOURCES DATA - WYOMING, 1986

PREFACE

This annual hydrologic data report of Wyoming is one of a series of annual reports that documents hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and the quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. The authors had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines.

Most of the data were collected, computed, and processed from the Casper Field Headquarters, W. R. Glass, Chief and the Riverton Field Headquarters, P. B. McCollam, Chief. The following personnel are recognized for their significant contributions to this report:

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H. I. Kennedy	F. J. Meyer	M. L. Smalley	T. F. Werth

S. L. Green typed and assembled the text of the report.

This report was prepared in cooperation with the State of Wyoming and with other agencies; and under the general supervision of R. M. Bloyd, District Chief, Wyoming.

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16. Abstract (Limit: 200 words) Water resources data for the 1986 water year for Wyoming consists of records of stage, discharge and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 195 gaging stations; stage and contents for 15 lakes and reservoirs; water quality for 79 gaging stations, and 69 ungaged stations; and water levels for 5 observation wells. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Wyoming.			
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WATER RESOURCES DATA - WYOMING, 1986

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State, municipal, county, and Federal agencies, obtains a large amount of data pertaining to the water resources of Wyoming each water year. The accumulation of this data constitutes a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - Wyoming" as part of the National Water Data System.

Water resources data for the 1986 water year for Wyoming consists of records of stage, discharge, and water quality of streams; stage and contents of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 195 gaging stations; stage and contents for 15 lakes and reservoirs; water quality for 79 gaging stations, and 69 ungaged stations; and water levels for 5 observation wells. Locations of streamflow-gaging stations, water-quality stations, and observation wells are shown in figure 1. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Books and Open-File Reports, U.S. Geological Survey, Box 25425, Federal Center, Denver, CO 80225.

For water years 1961 through 1970, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for the years 1964 through 1970 were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1971 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data report WY-86-1." Water-Data reports are for sale in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (307) 772-2153.

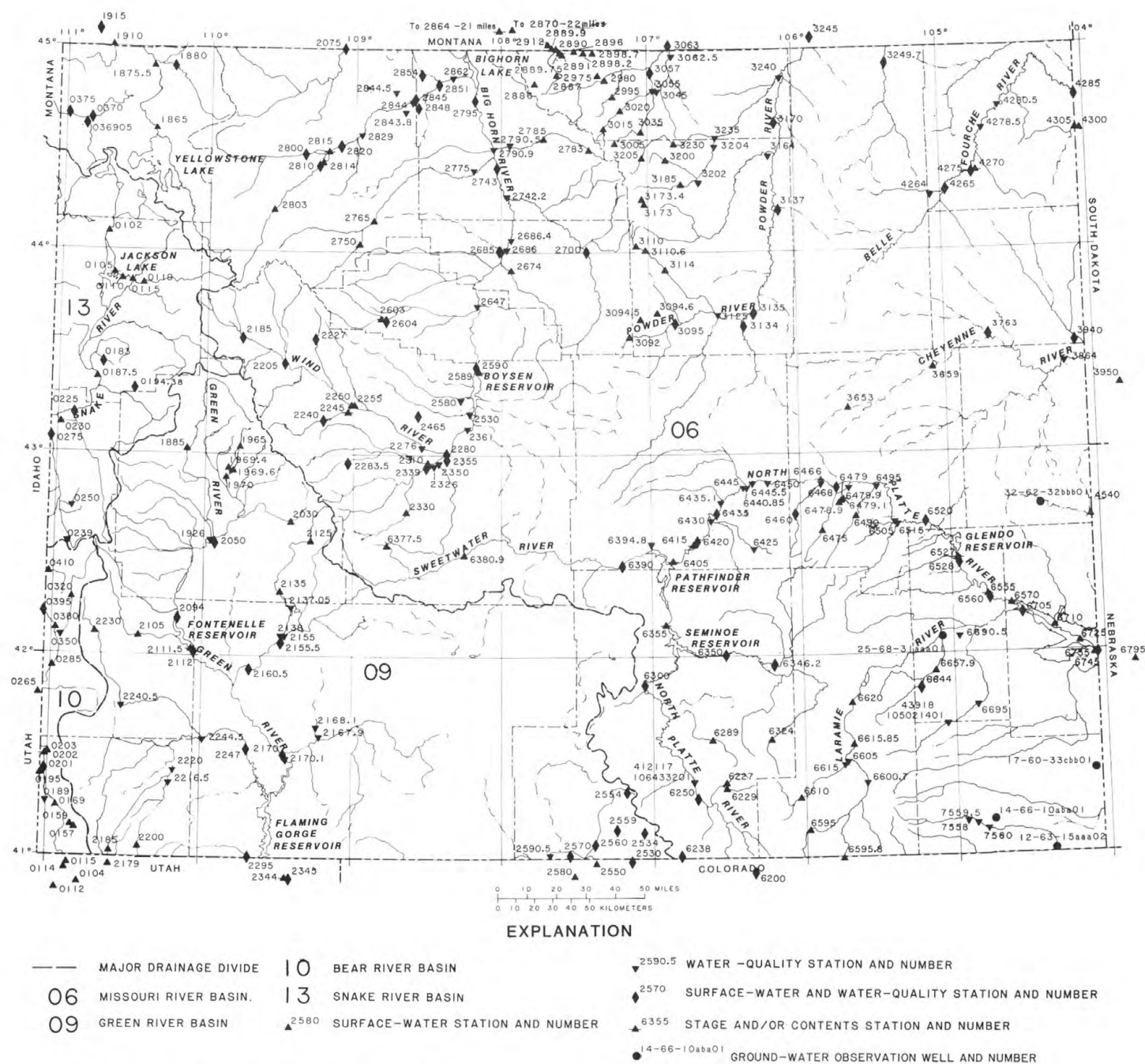


Figure 1.—Map showing locations of lake- and stream-gaging stations, water-quality stations, and ground-water observation wells, 1986 water year.

COOPERATION

The U.S. Geological Survey and agencies of the State of Wyoming have had cooperative agreements for the systematic collection of streamflow records since 1895, for ground-water levels since 1940, and for water-quality records since 1946. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Wyoming State Engineer, George L. Christopoulos

Wyoming Department of Agriculture, John Orton, Commissioner of Agriculture

Wyoming Water Development Commission, Michael K. Purcell, Administrator

Wyoming Department of Environmental Quality, Randolph Wood, Director

Wyoming Development and Stabilization Board, Paul C. Schwieger, Chief of Water Development

Wyoming Attorney General, A. G. McClintock

Wyoming Highway Department, Leno H. Menghini, Superintendent and Chief Engineer

Uinta County, County Commissioners

Assistance in the form of funds and services was given by the Bureau of Land Management, U.S. Department of the Interior for 5 streamflow-gaging stations and 2 water-quality stations; Bureau of Reclamation, U.S. Department of the Interior for 10 streamflow-gaging stations and 2 water-quality stations; by the Bureau of Indian Affairs, U.S. Department of the Interior for 3 streamflow-gaging stations and 7 water-quality stations; and by the Corps of Engineers, U.S. Army for 2 streamflow-gaging stations, published in this report.

SUMMARY OF HYDROLOGIC CONDITIONS

Precipitation and streamflow for water year 1986 were substantially greater than average in the Green and Snake River basins of Wyoming. Precipitation and streamflow were near average in drainage basins in northern Wyoming and were moderately greater than average in the Platte River basin. As a result of snowmelt runoff, record-high maximum discharge occurred at several streamflow-gaging stations in the Green River and Platte River basins. Specific-conductance data indicated that water quality during 1986 at seven selected stations was not significantly different from that during the previous 10 years at these stations. The seven stations were selected to represent water quality in the major drainage basins in Wyoming.

Precipitation

Precipitation in the major drainage basins exceeded the 1951-80 average except in the Wind River basin in west-central Wyoming, where precipitation was 83 percent of average (table 2). Precipitation and departures from normal (1951-80 average) for the major divisions (drainage basins) are published by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, in its monthly publication of climatological data. Total annual precipitation for water year 1986 was significantly greater than average in the Green/Bear River basins (141 percent) and the Snake River basin (123 percent), moderately above average in the Lower (113 percent) and Upper (104 percent) [North] Platte River basins, the Powder River basin (104 percent), and Bighorn River basin (102 percent) as indicated in table 1 and figure 1.

Drainage-basin precipitation and departures from average (table 1) are cumulated into three groups of months to reflect seasonal patterns of precipitation. Precipitation in the Green/Bear and Snake River basins was consistently greater than average through the fall and winter months (October to March), spring (April to June), and summer (July to September). Precipitation in most other basins was greater than average during the fall and winter. The drainage basins in northern Wyoming (Wind, Bighorn, and Powder River) had significantly less than average precipitation during the spring, as did both [North] Platte divisions during the summer months. Because most precipitation stations are in nonmountainous areas of the State, the records may not be indicative of precipitation in the mountains.

WATER RESOURCES DATA FOR WYOMING, 1986

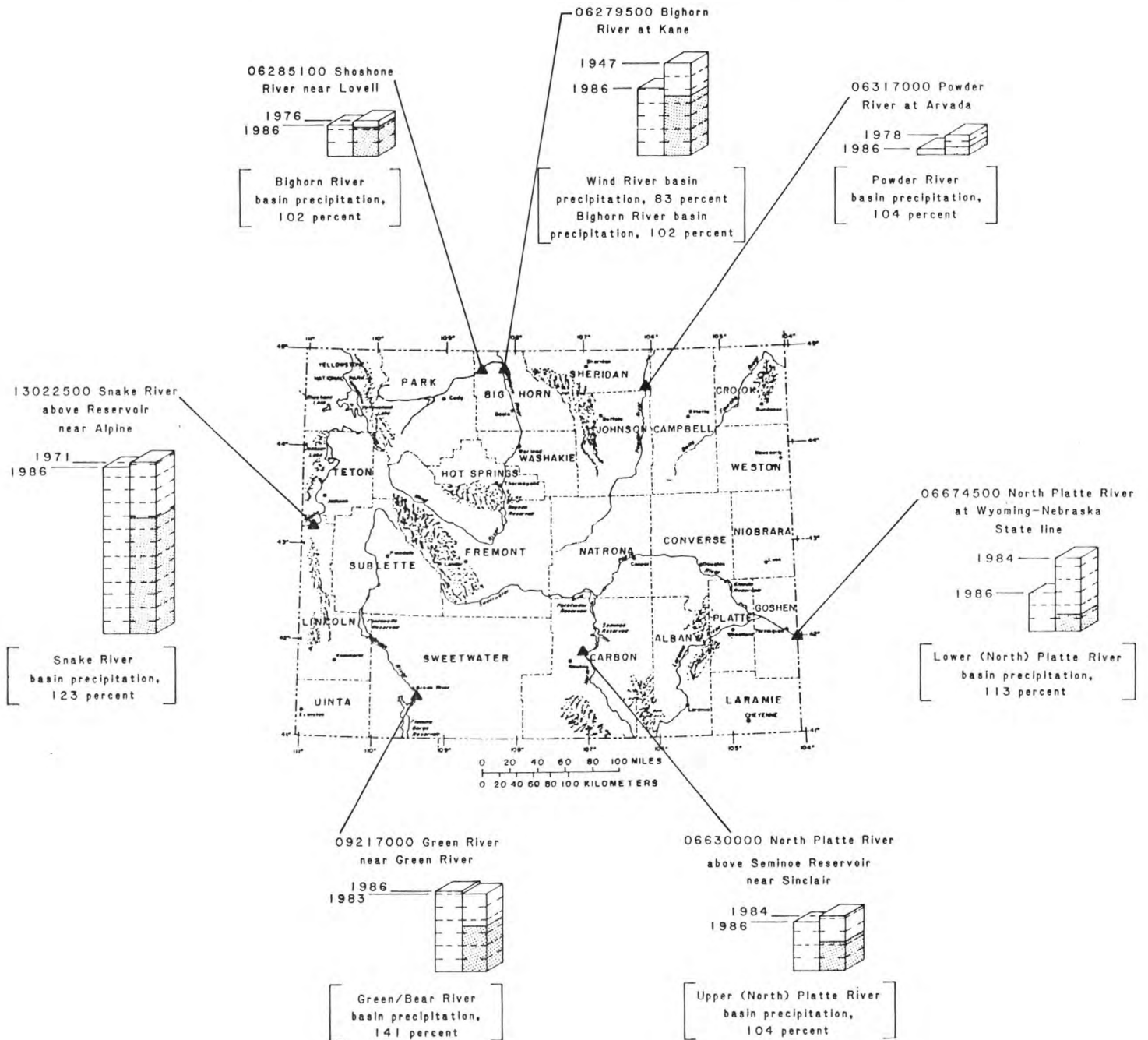
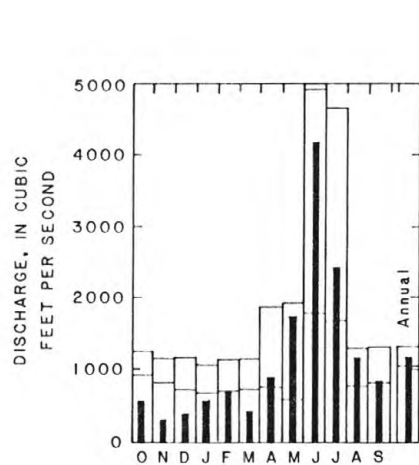
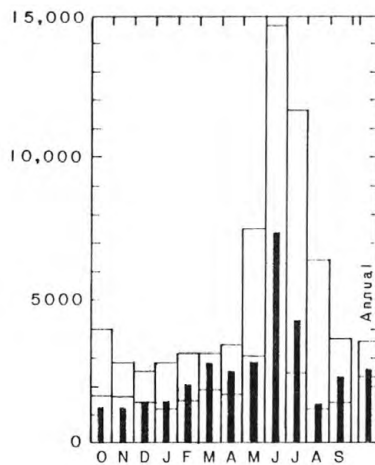


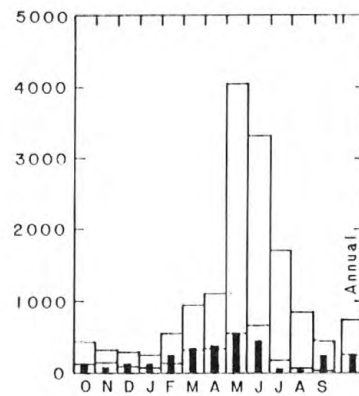
Figure 2.-- Percentage of average precipitation, monthly and annual average discharge of major rivers in Wyoming for water year 1986, and monthly and annual maximum and median discharge for period of record.



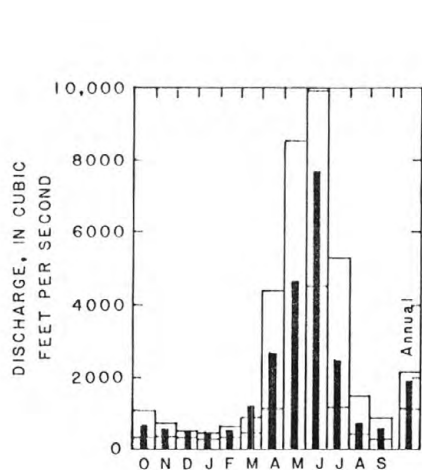
06285100 Shoshone River
near Lovell, 1967-86



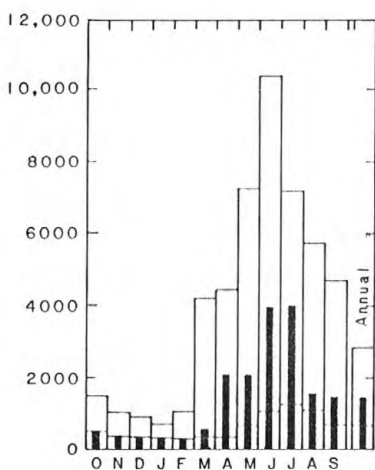
06279500 Bighorn River
at Kane 1930-86



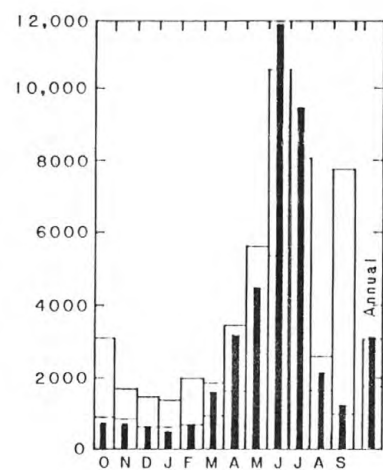
06317000 Powder River
at Arvada, 1931-86



06630000 North Platte River
above Seminole Reservoir
near Sinclair, 1939-86



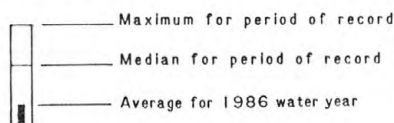
06674500 North Platte River
at Wyoming-Nebraska
State line, 1929-86



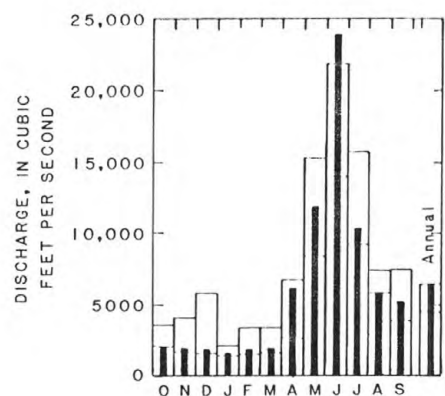
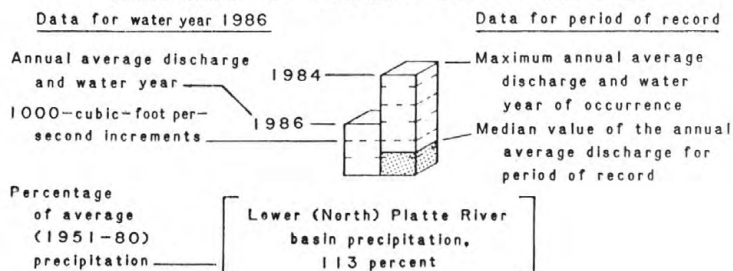
09217000 Green River near
Green River, 1952-86

EXPLANATION

MONTHLY OR ANNUAL DISCHARGE



COMPARISON OF ANNUAL AVERAGE DISCHARGE



13022500 Snake River
above Reservoir near
Alpine, 1954-86

▲ STREAMFLOW-GAGING STATION SELECTED
TO TYPIFY DRAINAGE BASIN--Station
number and name shown above bar graph

Table 1.--Precipitation for selected periods of water year 1986 and the departures from average (1951-80 average) by drainage basin

[Source: Monthly publications of climatic data by National Oceanic and Atmospheric Administration]

Drainage basin	Precipitation (inches)							
	October to March		April to June		July to September		Annual	
	Total	Departure	Total	Departure	Total	Departure	Total	Percent of average
Wind River	2.81	0.18	3.28	-1.52	1.77	-0.24	7.86	83
Bighorn River	3.16	.56	3.62	-.89	2.94	.48	9.72	102
Powder River	4.24	.12	5.70	-.90	4.70	1.34	14.64	104
Snake River	14.95	2.92	5.79	.15	5.74	1.91	26.48	123
Green/Bear River	5.77	1.95	3.57	.42	3.89	1.47	13.23	141
Upper [North] Platte River	4.43	-.03	4.97	.86	2.59	-.41	11.99	104
Lower [North] Platte River	4.42	.85	7.70	1.42	3.28	-.49	15.40	113

The snowfall accumulation in the mountains varied geographically similar to precipitation reported in table 1. The U.S. Department of Agriculture, Soil Conservation Service, predicted in the May and June issues of "Wyoming Water Supply Outlook" that streamflow from snowmelt runoff in the mountains would be from about average to much greater than average in the Snake, Green, and Bear River basins as well as in most of the North Platte, Wind, and Shoshone River basins. Elsewhere in the State, snowfall accumulation in the mountains was near average, except in North Platte River basin between Casper and Glendo Reservoir, where it was less than average.

Streamflow

Streamflow was greater than average throughout the State except in north-central Wyoming where streamflow generally was less than average. Most streams had near-average discharge throughout the fall and winter months, increasing to much greater than average during snowmelt runoff as indicated by discharge records from streamflow-gaging stations selected to typify flow in the major drainage basins (fig. 1). Record and near-record discharges were common during May through July at streamflow-gaging stations in the Green and Snake River basins, resulting in the average annual discharge at streamflow-gaging stations in these basins being record or near-record discharges. The average discharge for water year 1986 and the median and maximum annual average discharges for the period of record are compared graphically in figure 1. The bar graphs in figure 1 illustrate the monthly variation of streamflow and the average streamflow for water year 1986 as compared to the median and maximum monthly, and annual streamflow for the period of record.

Floods

Snowmelt runoff from mountain areas caused record or near record maximum discharges at several streamflow-gaging stations in the Wind, North Platte, and Green River basins in June. In south-central Wyoming, snowmelt runoff was augmented by 2 to 6 inches of rainfall on June 9-10, causing considerable flooding. The dam at Pierce Reservoir (36 miles northwest of Laramie) broke, causing flooding along the downstream reaches of Rock Creek and Medicine Bow River. Pierce Reservoir is an off-stream reservoir that receives inflow from two irrigation ditches and from local overland runoff. The storage capacity of the reservoir, according to the Wyoming State Engineer's office, is about 3,200 acre-feet. Descriptive data and statistics for selected streamflow-gaging stations having noteworthy maximum discharges are given in table 2.

Table 2.--Maximum discharge for water year 1986 and for the period of record at selected streamflow-gaging stations in the Wind, North Platte, and Green River basins

Station number	Station name	Water year 1986			Period of record prior to water year 1986	
		Date	Discharge (cubic feet per second)	Recurrence interval (years)	Date	Discharge (cubic feet per second)
<u>Wind River basin</u>						
06218500	Wind River near Dubois	June 3	1,910	25	June 8, 1972	1,940
06225500	Wind River near Crowheart	June 6	10,300	5	June 16, 1963	13,000
<u>North Platte River basin</u>						
06630000	North Platte River above Seminoe Reservoir	June 11	16,200	100	May 26, 1984	15,000
06637750	Rock Creek above Rock Creek Reservoir	June 1	218	40	June 9, 1965	214
06661585	Laramie River near Bosler	June 11	4,480	40	June 28, 1983	4,460
<u>Green River basin</u>						
09188500	Green River at Warren Bridge, near Daniel	June 6	5,490	>100	June 9, 1972	4,840
09203000	East Fork River near Big Sandy	June 2	2,330	>100	June 11, 1965	1,790
09205000	New Fork River near Big Piney	June 7	9,190	40	June 10, 1972	9,170
09212500	Big Sandy River at Leckie Ranch, near Big Sandy	June 2	1,670	40	June 10, 1965	1,580
09217000	Green River near Green River	June 21	14,400	15	Sept. 7, 1965	16,800

Chemical Quality of Streamflow

Data from seven water-quality sampling stations indicate that the specific conductance of streamflow during water year 1986 was not significantly different from that during the previous 10 years. Specific conductance was chosen as an indicator of dissolved-solids concentration in streamflow because specific conductance varies directly with the concentration of ions in the water. The seven stations selected to represent the major streams of Wyoming are listed in table 3.

For each station, the mean value of specific conductance for water year 1986 was compared to the mean value for water years 1976-85 using the Wilcoxon-Mann-Whitney rank sum test (table 3). This is a non-parametric counterpart to the common t-test and does not require that the data be normally distributed. The null hypothesis in each case is that the means are equal. A test statistic was calculated from the ranks and from a pooled standard deviation and was compared to a table value, t_{tab} , of Student's t-Distribution. The table value was chosen at $(1 - \alpha/2)$, where α (the level of significance) equals 0.05, and at the appropriate degrees of freedom for each sample size. At all seven stations, the test statistic was less than the table value, indicating the mean values for water year 1986 were not significantly different from those for the previous 10 years.

Table 3.--Results of t-tests comparing mean values of specific conductance for water year 1986 with mean values for water years 1976-85 at selected water-quality sampling stations

[Specific conductance, in microsiemens per centimeter at 25° Celsius. Abbreviations: t_R , calculated test statistic; t_{tab} , t-values from standard table]

Drainage basin and station number	Specific conductance						Wilcoxon-Mann-Whitney rank sum test		
	Water year 1986			Water year 1976-85			$t(R)$	$t(tab)$	Null hypothesis
	Number of values	Mean	Stan- dard devia- tion	Number of values	Mean	Stan- dard devia- tion			
Bighorn River 06279500	10	831	207	108	955	215	1.62	1.96	Accepted
Shoshone River 06285100	4	794	305	99	861	265	.01	1.96	Accepted
Powder River 06317000	10	3,080	1,370	87	2,990	985	.04	1.99	Accepted
Upper North Platte River 06630000	10	339	110	66	416	122	1.84	1.99	Accepted
Lower North Platte River 06674500	4	781	132	99	859	140	1.17	1.96	Accepted
Green River 09217000	6	571	206	155	621	180	.52	1.96	Accepted
Snake River 13022500	10	321	51	141	324	69	.26	1.96	Accepted

Ground-water Levels

Water levels in most wells in the observation-well network declined during water year 1986. Most of the 80 wells in the observation-well network are in areas of extensive ground-water withdrawal--principally in southeastern Wyoming. In Goshen, eastern Laramie, and Niobrara Counties, water is pumped from the High Plains aquifer for irrigation; in Platte County water is pumped from the alluvium for irrigation. In western Laramie County, there is extensive domestic use of water from the High Plains aquifer.

Measured changes in water levels in wells in Laramie County ranged from a 6-foot decline to an 11-foot rise; the median change for all wells was a 0.5-foot decline. Most water levels in wells in Goshen and Niobrara Counties had changes of less than 1 foot. In Platte County, water levels in most wells were higher during 1986 than 1985. Hydrographs for representative observation wells in southeastern Wyoming are shown in figure 2. Descriptions of all wells in the observation-well network and hydrographs of water levels are published in separate reports by the U.S. Geological Survey. The latest water-level report contains data from 1974 through 1983 and is available for inspection at the U.S. Geological Survey office in Cheyenne.

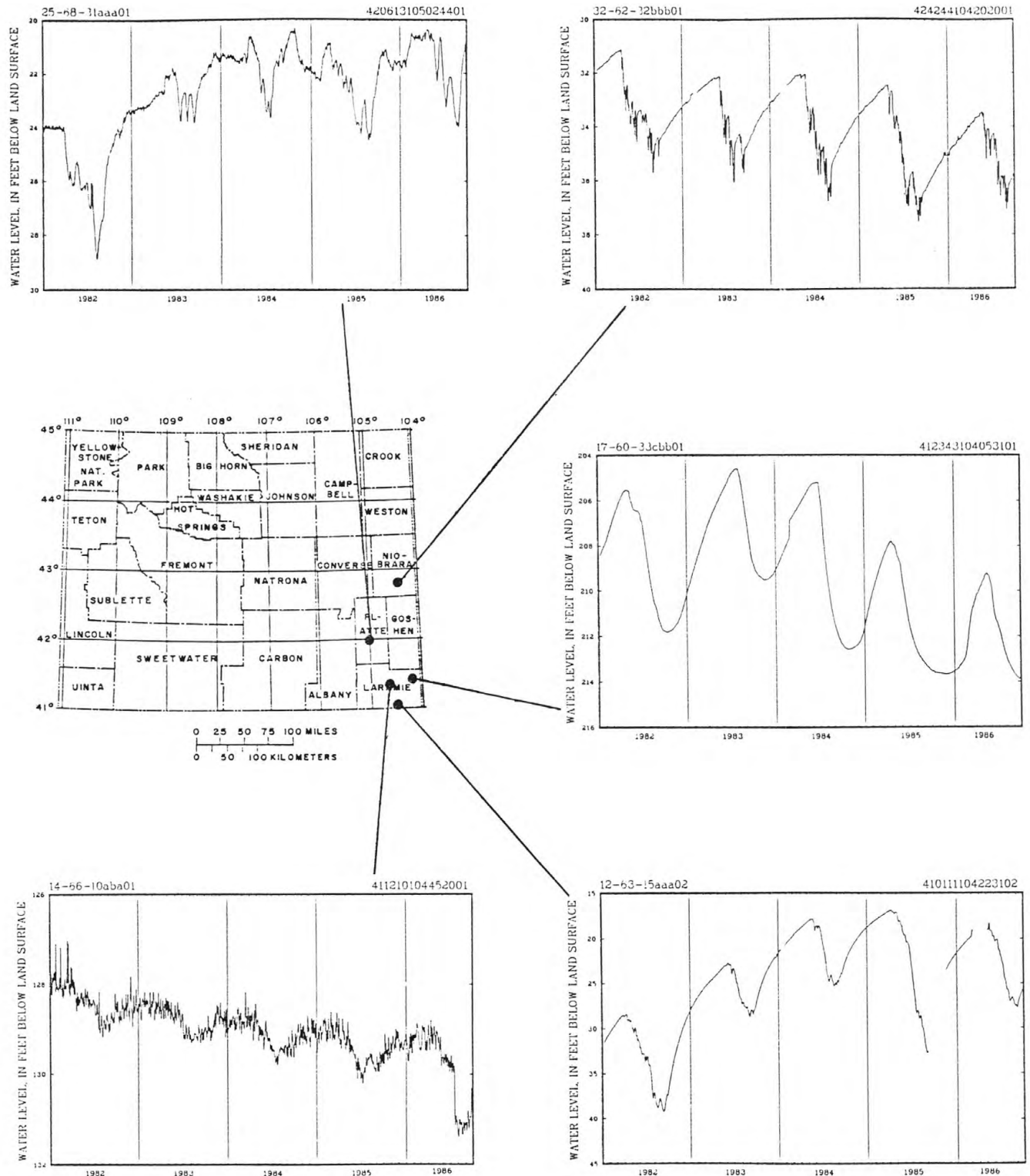


Figure 3.--Water-level hydrographs for observation wells located in areas of extensive ground-water withdrawals, January 1982 to September 1986.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 small sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1985 water year that began on October 1, 1984, and ended September 30, 1985. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The locations of the stations and wells where the data were collected are shown in figure 1. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Wyoming, for surface-water stations where only infrequent measurements are made.

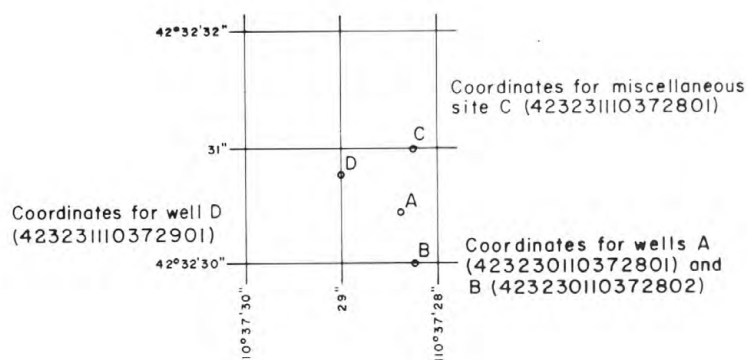
Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other 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 complete eight-digit number for each station, such as 06642000, which appears just to the left of the station name, includes the two-digit Part number "06" plus the six-digit downstream-order number "642000." The Part number designates the major river basin; for example, Part "06" is the Missouri River basin.

Latitude-Longitude System

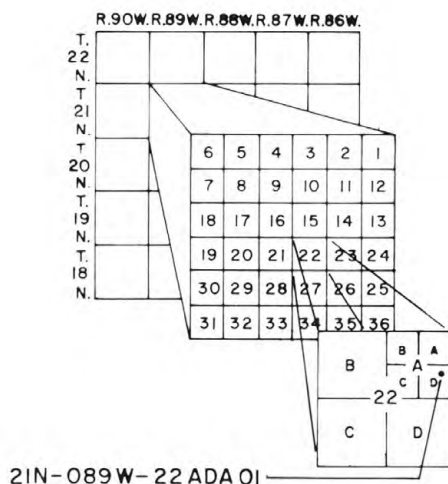
The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote the degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number, and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure below.)



System for numbering wells and miscellaneous sites
(latitude and longitude).

In order to compare data for wells in other publications, such as the county ground-water studies, the wells in this report are also numbered according to a system based on the location in the public land classification of the U.S. Bureau of Land Management. The system is illustrated in the following figure. The first numeral denotes the township north of a base line, the second numeral denotes the range west of the fifth principal meridian, and the third numeral denotes the section in which the well is located. The letters A, B, C, and D designate, respectively, the northeast, northwest, southwest, and southeast quarter section, quarter-quarter section, and quarter-quarter-quarter section (10-acre or 4-hectare tract). For example, well 26N-063W-32CDA is in the NE1/4 SE1/4 SW1/4 sec.32, T.26 N., R.63 W. Consecutive terminal numbers are added if more than one well is recorded within a 10-acre tract.

For a small irregularly-shaped area in west central Wyoming, the well numbers are based on the Wind River Meridian and Base Line system. The uppercase letter that begins the number designates the quadrant of the system. The quadrants are lettered A, B, C, and D in a counter-clockwise direction beginning with A in the northeast quadrant. Otherwise, the well numbers are the same as given in the preceding paragraph.



System for numbering wells and miscellaneous sites (township and range).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles. Records of miscellaneous discharge measurements or of measurements from special studies may be considered as partial records, but they are presented separately in this report. Location of all complete-record stations for which data are given in this report are shown in figure 1.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog records that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. 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 determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations the stage-discharge relation is affected by the 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.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves, or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

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 from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections. "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates 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 most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages and maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listed may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

The daily table for stream-gaging stations gives 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 is usually 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 or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

If applicable, data collected at partial-record stations follow the information for continuous-record sites. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times 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.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

The accuracy of streamflow records 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 measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true value; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for daily values less than 1 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures for more than 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges 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. 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.

Other Records Available

Records of daily diversions of water from streams by canals are collected by and published in Hydrographers Annual Reports of the Wyoming Board of Control. Included are discharge records for streams and storage records for reservoirs not published in reports of the Geological Survey.

The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of records of discharge collected by other agencies but not published by the Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the Wyoming District office. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 1.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references are listed on pages 30 and 31 of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey District office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the U.S.G.S. District Office whose address is given on the back of the title page of this report.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally, all other samples are analyzed in the Geological Survey laboratories in Arvada, Colo., or Doraville, Ga. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remarks codes may appear with the water-quality data in this report:

<u>PRINTED OUTPUT</u>	<u>REMARK</u>
E	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptable range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

Records of Ground-Water Levels

Only selected water-level data from Wyoming's network of observation wells are given in this report. These data are intended to provide a sampling and historical record of water-level changes in the more important aquifers. Locations of the observation wells in this network in Wyoming are shown in figure 1.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears to the upper left corner of the table. The secondary identification number is the local well number, an alphanumeric number, derived from the township-range location of the well.

Water-level records are obtained from direct measurements with a steel tape or from the graph or punched tape of a water-stage recorder. The water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given to a tenth of a foot or a larger unit.

Data Presentation

Each well record consists of two parts, the station description and the data table of water levels observed during the water year. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on weekly, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water-quality observation wells, and may be used to acknowledge the assistance of local (non-Survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of published record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. Water levels are reported in feet below land-surface datum and all taped measurements of water level are listed. For wells equipped with recorders, only abbreviated tables are published; generally, only water-level lows are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of water level.

Records of Ground-Water Quality

Records of ground-water quality in this report differ from other types of records in that for most sampling sites they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes only slowly; therefore, for most general purposes one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality statewide. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the "U.S. Geological Survey Techniques of Water-Resources Investigations" manuals listed on the following page. The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published in a section titled QUALITY OF GROUND WATER immediately following the ground-water-level records. Data for quality of ground water are listed alphabetically by County, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given for ground-water-quality records; however, the well number, depth of well, date of sampling, and other pertinent data are given in the table containing the chemical analyses of the ground water. The REMARK codes listed for surface-water-quality records are also applicable to ground-water-quality records.

ACCESS TO WATSTORE DATA

The National WATER Data STORAGE and RETRIEVAL System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide for more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, Virginia 22092

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C $\pm$ 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C $\pm$ 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as Gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organism which produce red or pink colonies with 48 hours at 35°C $\pm$ 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by micro-organisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

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 a 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.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic foot per second (ft³/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 or 0.02832 cubic meters per second.

Cubic feet per second per square mile [(ft³/s)/mi²] 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.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment) that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific time.

Instantaneous discharge is the discharge at a particular instant of time.

Dissolved refers to that material in a representative water sample which passes through a 0.45 µm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

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.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

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 hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate (CaCO_3).

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an eight-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each groundwater observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram ($\mu\text{g/g}$) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

Micrograms per liter ($\mu\text{g/L}$, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (mg/L , mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD of 1929) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

National Trends Network (NTN) is a 150-station network for sampling atmospheric deposition in the United States. The purpose of the network is to determine the variability, both in location and in time, of the composition of atmospheric deposition, which includes snow, rain, dust particles, aerosols, and gases. The core from which the NTN was built was the already-existing deposition-monitoring network of the National Atmospheric Deposition Program (NADP).

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meter (m²), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Parameter Code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

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

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter or particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with the recommendation made by the American Geophysical Unit Subcommittee on Sediment Terminology. The classification is as follows:

<u>Classification</u>	<u>Size (mm)</u>	<u>Method of analysis</u>
Clay.....	0.00024 - 0.004	Sedimentation
Silt.....	.004 - .062	Sedimentation
Sand.....	.062 - 2.0	Sedimentation or sieve
Gravel.....	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic matter is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native-water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population in terms of types, numbers, mass, or volume.

Periphyton is the assemblage of microorganisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is a community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton is dominated by small crustaceans and rotifers.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [$\text{mg C}/(\text{m}^2 \cdot \text{time})$] for periphyton and macrophytes and [$\text{mg C}/(\text{m}^3 \cdot \text{time})$] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [$\text{mg O}_2/(\text{m}^2 \cdot \text{time})$] for periphyton and macrophytes and [$\text{mg O}_2/(\text{m}^3 \cdot \text{time})$] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Return period is the average time interval between occurrences of a hydrological event of a given or greater magnitude, usually expressed in years. May also be called recurrence interval.

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.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft³/s) x 0.0027.

Suspended-sediment load is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry mass or volume, that passes a section during a given time.

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

7-day 10-year low flow ($7 Q_{10}$) is the discharge at the 10-year recurrence interval taken from a frequency curve of annual values of the lowest mean discharge for 7 consecutive days (the 7-day low flow).

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range in respect to sodium hazard from those which can be used for irrigation on almost all soils to those which generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

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

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is the part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 μ m membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituents.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 μ m membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom.....	Animal
Phylum.....	Arthropoda
Class.....	Insecta
Order.....	Ephemeroptera
Family.....	Ephemeridae
Genus.....	<u>Hexagenia</u>
Species.....	<u>Hexagenia limbata</u>

Thermograph is an instrument that continuously records variation of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of a substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample.)

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross-section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses, because different digestion procedures are likely to produce different analytical results.

Tritium Network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called the "1980 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

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

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 Pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. *Measurement of time of travel and dispersion in streams by dye tracing*, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

- 3-C1. *Fluvial sediment concepts* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
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MADISON RIVER BASIN

06036905 FIREHOLE RIVER NEAR WEST YELLOWSTONE, MT--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1983 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August 1983 to current year.

WATER TEMPERATURE: August 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since Aug. 30, 1983.

REMARKS.--No specific conductance record Feb. 19 to Mar. 17, Apr. 17-28, June 8, 9. No temperature record Feb. 6 to July 21.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 560 microsiemens, Nov. 16, Mar. 21, 1986; minimum, 140 microsiemens, June 5, 1986.

WATER TEMPERATURE: Maximum, 27.0°C, July 25, 1984; minimum, 1.0°C, Dec. 24, 1983, Feb. 1, 1985.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 560 microsiemens, Nov. 16, Mar. 21; minimum, 140 microsiemens, June 5.

WATER TEMPERATURE: Maximum, 24.5°C, Aug. 1, 4, 18; minimum, 3.5°C, Nov. 26, 27, Dec. 11.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	448	423	435	506	483	493	513	501	505	532	510	524
2	442	432	438	520	493	505	514	498	505	526	509	517
3	449	439	442	514	496	503	508	460	481	531	509	518
4	451	433	441	517	496	503	498	478	491	528	518	521
5	460	446	451	516	481	498	508	495	501	543	528	533
6	464	457	461	519	483	498	518	505	510	527	518	523
7	474	408	451	522	498	507	525	502	509	525	512	520
8	468	409	440	512	475	494	526	504	514	534	520	527
9	477	453	463	526	506	516	516	500	507	536	521	530
10	491	466	476	525	501	513	525	508	514	531	520	527
11	493	480	486	522	501	514	538	504	521	537	525	531
12	494	474	482	545	508	530	512	493	504	537	522	528
13	501	476	484	544	525	534	516	503	509	539	524	532
14	497	480	487	549	529	539	516	506	511	540	521	532
15	501	488	493	555	533	545	522	510	516	546	526	535
16	503	487	494	560	536	548	526	512	518	529	519	524
17	494	467	474	553	533	543	525	519	522	530	500	514
18	490	463	475	551	521	536	533	516	522	533	522	529
19	491	464	478	537	517	527	535	518	526	553	530	541
20	491	468	477	545	525	533	532	520	526	558	523	541
21	488	464	476	544	514	526	528	520	524	534	519	528
22	486	434	455	530	515	523	533	512	523	543	531	537
23	520	441	475	530	509	519	533	516	524	549	528	540
24	514	476	495	529	499	515	533	519	524	531	526	528
25	476	455	466	505	493	497	532	515	522	536	527	530
26	462	438	451	524	494	508	535	517	527	541	530	536
27	478	449	459	532	509	518	534	519	526	546	534	541
28	478	457	467	518	507	510	529	517	523	548	539	544
29	483	454	466	510	483	497	534	519	527	544	537	540
30	503	468	487	515	483	497	532	519	525	546	527	540
31	506	482	492				528	518	522	546	537	541
MONTH	520	408	468	560	475	516	538	460	515	558	500	531

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SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	548	527	536				467	429	449	462	409	431
2	540	536	538				475	466	471	435	415	425
3	546	530	539				497	472	483	444	380	393
4	542	535	539				497	481	490	397	350	375
5	543	517	534				507	488	496	416	398	408
6	517	501	508				492	474	484	420	410	415
7	520	500	510				468	446	455	423	414	419
8	532	495	508				462	434	447	425	414	419
9	514	478	496				448	430	440	430	419	425
10	500	485	494				460	442	450	427	416	422
11	514	491	498				463	429	445	414	405	410
12	501	481	492				458	441	450	419	408	413
13	498	465	476				455	423	437	419	403	410
14	487	469	478				484	452	467	407	386	396
15	479	447	460				496	470	481	406	389	396
16	468	457	463				480	469	474	397	389	392
17	462	447	456							390	382	385
18	467	451	457	545	531	537				384	366	370
19				546	524	535				366	342	350
20				555	528	540				338	304	316
21				560	532	544				293	277	281
22				547	531	538				277	261	266
23				544	518	534				286	268	278
24				526	497	513				280	270	275
25				524	489	505				267	239	252
26				527	512	519				237	213	222
27				519	490	511				210	190	199
28				493	443	478				231	175	197
29				454	421	439	467	393	418	173	155	163
30				434	406	423	456	406	427	168	150	157
31				429	390	407				162	148	155
MONTH	548	447	499	560	390	502	507	393	459	462	148	336
	JUNE			JULY			AUGUST			SEPTEMBER		
1	173	153	161	296	283	288	349	341	346	423	417	421
2	168	148	157	309	290	299	374	347	367	416	410	413
3	183	145	164	319	308	314	381	374	377	410	404	408
4	190	169	179	320	306	317	392	379	385	409	403	406
5	189	140	166	329	320	325	398	388	393	410	405	407
6	198	155	175	343	331	337	407	396	402	408	403	406
7	204	177	192	345	334	339	413	403	409	409	404	407
8				352	340	345	420	410	417	424	408	414
9				362	347	354	424	417	420	422	410	415
10	199	148	176	357	347	354	432	426	428	418	406	410
11	184	152	163	366	358	361	436	427	432	416	401	407
12	224	157	186	367	354	360	442	434	439	418	407	411
13	209	167	182	378	365	372	450	442	447	419	404	413
14	232	168	187	384	369	378	461	451	456	415	405	410
15	189	161	172	388	380	384	467	458	464	414	407	410
16	218	183	199	391	384	388	478	467	474	414	405	409
17	232	198	213	391	362	375	486	478	482	412	401	408
18	253	213	232	396	381	391	495	484	490	420	407	412
19	266	227	249	402	388	397	500	494	498	410	398	404
20	271	236	257	411	400	405	506	500	503	441	394	410
21	277	249	259	415	404	409	503	485	498	394	370	377
22	276	262	271	422	408	413	482	470	477	388	371	378
23	283	267	275	429	369	392	483	479	481	394	380	385
24	288	271	279	394	377	383	486	471	479	404	385	394
25	295	272	284	381	338	370	474	456	468	393	378	385
26	298	277	289	335	253	291	457	449	452	393	380	384
27	307	283	295	290	259	275	452	448	450	393	379	385
28	299	288	295	310	292	301	450	444	448	391	382	387
29	305	277	294	324	309	317	444	440	443	396	385	390
30	284	274	280	330	320	326	441	430	436	422	386	401
31				341	327	334	430	424	427			
MONTH	307	140	223	429	253	351	506	341	442	441	370	402
YEAR	560	140	432									

06036905 FIREHOLE RIVER NEAR WEST YELLOWSTONE, MT--Continued

TEMPERATURE, WATER (DEG C) WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN		MAX	MIN	MEAN		MAX	MIN	MEAN		MAX	MIN	MEAN
	OCTOBER				NOVEMBER				DECEMBER				JANUARY		
1	15.0	10.5	13.0		12.0	10.5	11.0		8.5	6.0	7.5		9.5	7.5	9.0
2	17.5	13.0	15.0		14.0	11.5	13.0		10.5	7.5	9.0		9.5	6.5	8.0
3	15.5	13.5	14.5		15.5	13.0	14.0		10.5	6.5	8.0		9.5	7.0	8.5
4	16.5	11.0	13.5		15.0	12.0	13.5		9.5	5.5	7.5		8.5	5.5	7.0
5	15.5	11.5	13.5		14.0	10.0	12.0		10.0	7.0	8.5		9.0	5.0	7.0
6	16.0	13.5	15.0		11.5	9.0	10.0		11.0	8.0	9.5		10.5	9.0	9.5
7	15.5	7.5	12.5		12.0	10.0	11.0		11.5	9.5	11.0		9.5	7.0	8.5
8	11.5	7.0	9.0		11.5	9.0	10.0		11.5	8.5	10.5		10.0	7.0	8.5
9	13.5	8.5	11.0		11.0	8.5	9.5		9.0	7.0	8.0		10.0	7.5	8.5
10	15.0	8.5	12.0		10.5	7.5	9.0		7.0	4.5	6.0		12.5	9.0	10.5
11	15.0	11.0	13.0		11.5	9.0	10.0		7.0	3.5	5.5		11.5	8.0	10.0
12	13.5	11.0	12.5		12.5	8.5	10.5		7.5	5.5	6.5		10.5	7.5	9.0
13	14.5	9.0	11.5		11.5	9.5	10.5		8.0	5.5	7.0		11.0	7.0	9.0
14	13.5	9.5	12.0		12.5	10.0	11.0		8.5	7.5	8.0		10.5	7.0	8.5
15	16.0	11.5	13.5		11.0	9.0	10.0		9.5	7.5	8.5		9.5	7.0	8.5
16	15.5	11.5	13.5		10.5	8.5	9.5		10.0	7.0	8.5		11.0	9.0	10.0
17	16.0	11.5	14.0		12.0	9.5	10.5		10.0	9.0	9.5		11.0	8.0	9.0
18	16.5	11.5	14.0		10.5	7.5	9.5		11.0	9.5	10.5		12.0	9.0	10.5
19	16.0	11.5	14.0		7.5	5.5	6.5		11.5	10.0	10.5		14.0	11.0	12.5
20	16.5	12.5	14.5		8.5	6.0	7.0		11.5	9.5	10.0		12.5	10.0	11.5
21	15.0	12.5	14.0		7.5	6.5	7.0		10.5	7.5	9.0		10.5	8.5	9.5
22	13.5	9.5	11.0		7.0	5.0	6.0		9.5	7.0	8.5		10.0	7.0	8.5
23	12.0	9.0	10.5		6.0	4.0	5.0		10.5	7.0	9.0		10.5	9.0	10.0
24	13.5	12.0	12.5		8.0	6.0	7.0		11.0	9.0	10.0		10.0	8.0	9.0
25	14.0	12.0	13.0		8.5	4.0	7.0		10.0	7.5	8.5		9.5	6.0	8.0
26	15.5	13.0	14.0		6.5	3.5	4.5		11.0	8.5	9.5		10.5	6.5	10.0
27	16.0	12.0	14.0		6.5	3.5	5.0		10.5	8.5	9.5		11.5	8.0	10.0
28	14.5	12.5	13.0		9.0	6.5	8.0		9.5	6.5	8.0		12.0	10.5	11.5
29	15.0	11.5	13.0		9.0	5.5	7.5		9.5	6.5	8.0		13.5	12.0	12.5
30	14.5	11.0	13.0		7.0	4.5	6.0		9.5	7.0	8.0		13.5	11.5	12.5
31	13.5	11.0	12.5						9.5	6.5	8.0		15.0	12.5	13.5
MONTH	17.5	7.0	13.0		15.5	3.5	9.0		11.5	3.5	8.5		15.0	5.0	9.5
	FEBRUARY				MARCH				APRIL				MAY		
1	13.5	12.0	13.0												
2	12.5	11.5	12.0												
3	12.5	11.0	12.0												
4	12.5	10.5	11.5												
5	10.5	10.0	10.0												
6															
7															
8															
9															
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23															
24															
25															
26															
27															
28															
29															
30															
31															
MONTH	13.5	10.0	11.5												

MADISON RIVER BASIN

06037000 GIBBON RIVER NEAR WEST YELLOWSTONE, MT

LOCATION.--Lat 44°38'58", long 110°47'02", Yellowstone National Park, Hydrologic Unit 10020007, on right bank, 0.6 mi downstream from Canyon Creek, 4.0 mi east of Madison Junction, 16.7 mi east of West Yellowstone, and at mile 5.6.

DRAINAGE AREA.--118 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1913 to September 1916 (incomplete record most years), October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,940 ft, from topographic map. Nonrecording gage at site 0.1 mi downstream at different datum, 1913-1916.

REMARKS.--Estimated daily discharges: Nov. 23, 30, Dec. 10-12, Feb. 8-12. Water-discharge records good except those for discharges over 300 ft³/s, which are fair. No regulation or diversions upstream of station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 809 ft³/s, May 30, 1986, gage height, 4.53 ft, corrected; minimum observed, 62 ft³/s, Mar. 10-17, 1915.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 809 ft³/s, May 30, gage height, 4.53 ft; minimum daily, 66 ft³/s, Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	82	82	73	79	90	132	184	543	177	130	112
2	83	85	83	74	78	89	125	202	535	176	127	113
3	86	87	87	75	79	86	116	235	576	173	125	103
4	84	87	82	73	78	86	117	251	550	174	124	100
5	84	90	82	74	78	84	117	225	492	166	121	99
6	84	85	82	76	77	82	127	220	470	164	120	98
7	104	83	84	75	72	83	140	208	433	166	118	97
8	95	90	86	72	72	99	146	196	406	164	119	97
9	92	88	81	73	70	98	161	185	430	189	123	99
10	91	84	80	74	70	91	156	188	387	205	125	98
11	95	89	78	74	66	91	164	183	343	212	118	96
12	96	87	80	71	71	88	158	174	311	178	121	94
13	89	87	77	72	78	87	144	166	293	161	118	95
14	88	84	77	71	77	85	131	173	271	153	115	97
15	88	81	78	72	83	84	127	162	293	148	112	98
16	89	80	78	74	78	83	140	158	255	149	110	96
17	89	84	78	77	78	85	124	164	233	160	110	96
18	86	85	78	75	80	80	116	181	222	135	108	103
19	84	78	78	76	79	79	112	205	204	132	108	107
20	85	79	78	79	78	79	115	237	201	140	111	126
21	86	81	74	78	80	80	135	287	210	139	137	112
22	91	80	72	74	82	84	182	323	204	135	141	101
23	88	80	73	79	83	84	220	269	203	141	114	96
24	89	80	74	78	85	87	199	265	201	137	111	96
25	89	85	72	73	95	87	177	300	197	147	116	98
26	89	81	73	74	96	83	167	351	196	164	118	97
27	86	79	73	76	92	90	152	428	195	148	113	98
28	86	82	72	78	91	106	157	507	193	137	107	94
29	84	85	70	78	---	124	154	645	186	133	105	92
30	82	80	71	79	---	138	160	673	180	131	103	95
31	82	---	69	79	---	149	---	588	---	135	114	---
TOTAL	2727	2508	2402	2326	2225	2841	4371	8533	9413	4869	3642	3003
MEAN	88.0	83.6	77.5	75.0	79.5	91.6	146	275	314	157	117	100
MAX	104	90	87	79	96	149	220	673	576	212	141	126
MIN	82	78	69	71	66	79	112	158	180	131	103	92
AC-FT	5410	4970	4760	4610	4410	5640	8670	16930	18670	9660	7220	5960
CAL YR 1985	TOTAL	40889	MEAN	112	MAX	472	MIN	65	AC-FT	81100		
WTR YR 1986	TOTAL	48860	MEAN	134	MAX	673	MIN	66	AC-FT	96910		

06037000 GIBBON RIVER NEAR WEST YELLOWSTONE, MT--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1983 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: September 1983 to current year.

WATER TEMPERATURE: August 1983 to current year.

INSTRUMENTATION.--Water-quality monitor since Aug. 31, 1983.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 538 microsiemens, Sep. 9, 1985; minimum, 77 microsiemens, May 30, 1986.

WATER TEMPERATURE: Maximum, 23.5°C, July 8, 1985; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 517 microsiemens, Feb. 7; minimum, 77 microsiemens, May 30.

WATER TEMPERATURE: Maximum, 21.5°C, Aug. 18, 27, 28; minimum, 0.0°C on many days during winter period.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	422	398	407	413	399	409	460	434	446	420	404	412
2	414	401	409	441	402	423	444	430	436	417	401	409
3	415	399	405	440	421	427	442	417	430	407	396	402
4	412	388	394	420	398	409	438	424	428	397	384	389
5	414	398	404	447	409	424	438	423	431	404	389	397
6	424	411	416	427	390	410	447	433	441	402	379	390
7	458	419	440	431	414	423	450	442	446	380	358	365
8	435	415	426	439	408	425	460	445	454	370	364	367
9	436	416	424	456	431	439	458	438	448	386	359	371
10	442	408	422	453	423	434	466	404	439	373	353	363
11	445	417	425	448	422	437	475	451	461	376	359	366
12	434	406	417	443	420	431	467	448	461	376	353	364
13	431	403	415	443	416	424	460	448	456	408	353	384
14	428	406	412	427	408	418	468	454	459	432	389	410
15	428	413	419	447	421	430	467	457	463	448	405	435
16	416	400	410	455	432	445	469	457	465	461	422	442
17	412	391	399	451	430	441	488	466	479	472	414	448
18	397	384	392	455	441	445	473	455	465	495	435	466
19	407	388	394	452	435	445	462	448	454	495	439	477
20	460	405	428	464	431	447	455	445	450	483	450	469
21	422	403	410	459	448	454	456	438	449	476	452	462
22	439	397	418	458	442	450	469	432	449	473	449	461
23	429	394	414	469	430	454	460	434	445	485	438	463
24	425	402	413	457	430	445	450	426	434	476	449	462
25	407	399	403	471	434	457	441	423	430	495	456	471
26	400	385	390	460	443	452	471	431	461	492	452	468
27	398	386	391	463	449	457	482	417	442	475	436	455
28	411	397	403	469	451	462	445	421	432	478	416	445
29	404	392	397	479	461	469	435	415	423	430	402	415
30	419	400	408	483	449	472	430	406	419	420	404	412
31	419	411	416				415	404	409	456	386	414
MONTH	460	384	410	483	390	439	488	404	445	495	353	421

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	470	426	444	431	413	423	383	344	366	329	274	313
2	469	416	452	436	416	426	396	377	388	273	231	257
3	469	444	454	438	415	424	395	374	383	219	160	198
4	484	460	473	448	427	440	396	379	388	162	143	153
5	488	470	480	455	436	446	400	376	387	204	168	189
6	500	470	482	459	439	450	373	344	365	229	203	218
7	517	460	495	461	435	450	345	325	336	242	223	232
8	503	458	483	458	435	445	339	311	329	257	237	246
9	478	452	466	458	431	443	327	304	315	267	247	257
10	480	460	469	428	393	411	320	301	309	284	260	267
11	480	439	453	437	413	428	334	298	320	286	263	272
12	488	454	475	436	417	428	351	313	327	286	271	277
13	484	446	467	454	409	431	353	335	344	296	276	285
14	473	449	461	450	428	441	366	336	344	307	281	290
15	476	452	465	447	430	439	391	347	365	292	273	285
16	483	437	461	477	427	444	371	343	357	289	274	284
17	475	434	455	463	418	441	368	353	362	283	264	275
18	483	456	469	465	382	429	365	352	359	265	251	259
19	493	449	469	469	449	459	373	357	367	252	225	240
20	482	440	467	462	445	453	380	360	371	220	181	205
21	448	420	430	463	431	450	359	314	347	174	160	166
22	426	377	409	456	439	450	304	249	287	169	147	158
23	379	328	366	455	437	447	254	234	244	174	163	169
24	327	291	308	465	437	449	253	229	239	165	155	160
25	365	227	287	461	432	450	291	257	272	154	133	142
26	428	404	419	449	430	440	307	287	297	139	123	130
27	446	419	433	440	415	427	313	296	303	125	110	119
28	440	417	429	429	388	411	334	304	321	113	105	109
29				398	365	385	324	293	311	109	99	104
30				378	346	364	335	314	326	111	77	98
31				355	339	348				90	78	85
MONTH	517	227	444	477	339	431	400	229	334	329	77	208
	JUNE			JULY			AUGUST			SEPTEMBER		
1	127	83	93	225	217	222	289	278	284	333	321	324
2	98	84	90	230	219	225	289	278	284	348	328	335
3	137	99	123	234	221	229	290	280	286	332	326	329
4	140	130	136	238	224	232	290	280	287	338	326	334
5	145	123	140	235	228	232	292	284	288	340	331	337
6	145	122	138	240	226	234	295	285	290	339	330	334
7	147	132	142	243	230	238	294	285	290	340	332	336
8	148	142	146	245	235	240	296	286	292	342	330	338
9	159	143	149	273	238	248	301	290	295	351	336	342
10	151	142	147	263	238	244	365	296	312	343	333	339
11	151	146	149	268	241	248	302	295	298	339	332	336
12	152	148	150	246	237	242	313	295	302	341	330	336
13	158	150	154	250	238	245	311	295	303	342	333	338
14	169	159	165	252	241	247	306	298	302	345	331	339
15	187	162	169	255	246	251	308	296	301	346	336	341
16	175	166	171	258	247	253	308	296	302	344	333	338
17	181	173	177	269	248	254	306	294	302	344	331	339
18	185	174	179	260	247	255	308	297	302	365	332	345
19	184	175	180	260	251	257	308	296	303	343	325	336
20	185	178	182	266	255	262	314	304	308	368	324	344
21	186	178	183	271	261	266	334	295	307	333	326	328
22	190	181	186	273	263	268	335	294	308	337	326	332
23	194	183	190	274	265	270	315	307	312	345	328	337
24	203	191	197	274	264	270	319	312	316	351	334	344
25	210	200	205	293	267	277	329	310	315	350	338	344
26	213	202	210	289	272	279	337	309	316	343	332	338
27	217	206	212	279	273	276	325	315	321	342	332	337
28	218	211	215	283	270	277	327	319	323	344	335	339
29	222	212	217	284	269	279	327	320	324	342	334	339
30	224	214	219	284	273	280	326	322	324	352	339	343
31				289	280	284	333	318	324			
MONTH	224	83	167	293	217	254	365	278	304	368	321	337
YEAR	517	77	349									

06037000 GIBBON RIVER NEAR WEST YELLOWSTONE, MT--Continued

TEMPERATURE, WATER (DEG C) WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	9.5	5.5	8.0	7.0	5.5	6.5	3.0	1.0	2.0	4.0	3.0	3.5
2	12.5	8.0	10.0	9.5	6.5	8.0	4.5	2.0	3.5	4.0	1.5	3.0
3	11.5	8.5	10.0	10.5	8.0	9.0	5.5	2.0	4.0	4.5	2.5	3.5
4	11.5	5.5	8.5	10.0	6.5	8.0	4.0	1.0	2.5	3.0	.5	1.5
5	11.0	7.0	9.0	9.0	5.5	7.5	4.0	1.0	2.5	3.0	.0	1.0
6	11.0	8.5	10.0	6.5	4.5	5.5	5.5	2.0	4.0	5.5	3.5	4.5
7	10.5	4.0	7.5	7.0	5.0	6.0	6.5	5.0	5.5	4.5	2.5	3.5
8	6.5	3.5	4.5	6.0	4.0	5.0	6.0	3.5	5.0	4.0	1.0	2.5
9	8.0	3.5	5.5	5.0	2.5	4.0	3.5	1.0	2.5	5.0	1.5	3.0
10	9.5	3.0	6.0	4.5	1.0	3.0	1.0	.0	.0	6.0	2.5	4.0
11	10.5	5.5	8.0	5.5	2.5	3.5	.0	.0	.0	5.0	2.0	3.5
12	8.5	6.5	8.0	6.5	2.5	4.0	1.5	.0	.5	4.0	1.0	2.5
13	9.0	4.0	6.5	6.0	4.0	5.0	2.5	.0	1.5	4.5	1.0	2.5
14	8.5	5.0	7.0	6.5	4.0	5.0	3.5	2.0	3.0	4.5	.0	2.5
15	10.0	7.0	8.5	5.0	3.0	4.0	3.5	1.5	2.5	4.0	.5	2.5
16	11.0	7.0	9.0	5.0	2.5	4.0	4.5	3.0	4.0	5.5	4.0	4.5
17	11.0	7.0	8.5	6.0	4.0	5.0	4.5	4.0	4.5	5.0	3.5	4.5
18	11.5	6.5	8.5	5.0	2.5	4.0	5.0	4.0	4.5	6.5	3.5	5.0
19	11.0	6.5	8.5	2.0	.0	1.0	5.5	4.5	5.0	8.0	6.0	7.0
20	11.5	8.0	9.5	2.5	.5	1.5	5.5	4.0	4.5	7.0	4.5	5.5
21	10.5	7.5	9.0	2.5	1.0	1.5	4.5	2.0	3.0	5.0	3.5	4.0
22	9.0	5.5	7.0	1.5	.0	1.0	3.5	1.0	2.5	4.5	1.5	3.0
23	8.0	6.0	7.0	.5	.0	.0	4.5	1.5	3.0	5.5	4.0	4.5
24	9.0	7.5	8.5	2.5	.5	1.5	4.5	2.5	3.5	5.0	2.0	3.5
25	10.5	8.0	9.0	4.0	1.5	2.5	4.0	1.5	2.5	4.0	.5	2.0
26	11.0	9.0	9.5	1.5	.0	.5	5.0	2.5	3.5	4.5	.5	2.5
27	11.0	7.5	9.0	2.0	.0	1.0	5.0	3.0	4.0	5.5	1.5	3.5
28	10.5	8.0	9.0	4.0	1.0	2.5	3.5	.5	2.0	7.0	5.0	6.0
29	10.0	6.5	8.5	3.5	.0	2.0	3.5	.0	2.0	7.5	6.5	7.0
30	9.5	6.5	8.0	1.5	.0	.0	3.5	1.0	2.0	8.0	6.5	7.0
31	9.0	6.5	7.5				3.5	.5	2.0	8.5	7.0	8.0
MONTH	12.5	3.0	8.0	10.5	.0	3.5	6.5	.0	3.0	8.5	.0	4.0
FEBRUARY			MARCH			APRIL			MAY			
1	8.0	7.0	7.5	10.0	5.0	7.5	9.5	5.5	7.5	14.5	6.0	10.0
2	8.0	7.0	7.5	11.5	6.5	8.5	9.0	7.0	8.5	14.5	8.0	11.0
3	7.0	6.0	6.5	11.0	5.0	7.5	12.0	5.0	8.0	13.0	7.0	10.0
4	7.0	5.0	6.0	10.0	6.0	7.5	11.0	6.5	8.5	9.5	5.5	7.5
5	6.0	4.0	5.0	10.5	5.0	7.5	13.0	6.0	9.5	9.0	4.5	7.0
6	4.5	1.5	3.0	10.5	7.0	8.5	14.0	7.0	10.0	8.0	5.5	7.0
7	3.0	.0	1.0	9.0	8.0	8.5	12.0	6.5	9.5	8.5	6.0	7.0
8	1.0	.0	.0	7.5	5.5	6.5	13.5	7.5	10.0	8.0	5.5	6.5
9	2.0	.0	.5	8.5	5.5	7.0	11.0	8.0	9.5	8.0	6.0	7.0
10	3.0	.0	1.5	7.5	6.0	7.0	11.0	7.0	9.0	7.5	6.5	7.0
11	2.0	.0	.5	10.0	6.5	8.0	11.0	6.0	8.5	8.0	5.5	7.0
12	3.5	.0	2.0	9.0	7.0	8.0	8.5	4.5	7.0	10.0	6.0	8.0
13	3.5	1.0	2.5	8.5	6.0	7.5	7.5	3.5	5.0	9.0	6.5	8.0
14	4.5	2.5	3.5	8.0	4.5	6.0	9.5	3.0	6.0	11.0	5.5	8.0
15	5.0	3.5	4.5	9.0	5.0	7.0	12.5	5.0	8.5	11.0	6.0	9.0
16	5.5	4.0	4.5	9.0	3.0	6.0	9.5	7.5	8.5	13.0	8.0	10.5
17	5.0	3.5	4.0	8.5	5.5	7.0	11.5	6.5	8.5	13.0	7.0	10.0
18	4.5	4.0	4.5	8.5	3.5	6.0	10.0	6.0	8.0	11.5	7.5	10.0
19	5.0	3.5	4.0	9.5	5.5	7.5	10.0	6.0	8.0	14.0	8.0	11.0
20	8.5	4.0	5.5	12.5	5.5	8.5	13.0	8.5	10.5	14.5	8.5	11.5
21	6.5	4.0	5.0	11.5	7.0	8.5	15.0	8.5	11.5	12.0	7.0	9.5
22	5.0	3.0	4.5	11.5	7.0	9.0	13.5	8.5	10.5	9.0	4.5	6.5
23	7.0	4.0	5.5	11.0	7.0	9.0	10.5	7.5	9.0	12.0	4.5	8.5
24	10.0	7.0	8.0	10.5	6.5	8.5	9.0	6.5	7.5	14.0	7.0	11.0
25	10.5	8.5	9.0	9.5	5.0	7.0	8.5	6.5	7.5	15.5	8.0	12.0
26	9.5	7.0	8.5	12.5	5.5	8.5	9.5	6.0	7.5	16.5	8.5	13.0
27	9.5	4.0	7.0	14.0	6.5	10.0	7.5	6.0	7.0	17.0	8.5	13.0
28	10.0	4.0	7.0	14.0	7.5	10.0	11.0	6.5	8.5	17.5	9.0	13.5
29				13.0	7.5	10.0	8.5	3.0	5.0	17.5	9.0	13.5
30				11.5	7.0	9.0	11.5	3.0	7.0	18.0	8.5	13.5
31				11.0	6.0	8.5				16.5	9.5	13.5
MONTH	10.5	.0	4.5	14.0	3.0	8.0	15.0	3.0	8.5	18.0	4.5	9.5

06037500 MADISON RIVER NEAR WEST YELLOWSTONE, MT

LOCATION.--Lat 44°39'25", long 111°04'03", in NE1/4 NW1/4 SW1/4, revised, sec.36, T.13 S., R.5 E., Gallatin County, Hydrologic Unit 10020007, Yellowstone National Park, on left bank 0.7 mi downstream of Montana-Wyoming stateline, 1.5 mi east of West Yellowstone, 16.4 mi downstream from Gibbon River, and at mile 132.7.

DRAINAGE AREA.--420 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1913 to December 1917, July 1918 to October 1921, June 1922 to September 1973, August 1983 to September 1986 (discontinued). Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Elevation of gage is 6,650 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 20, 1918, nonrecording gage, and Oct. 20, 1918 to June 29, 1930, nonrecording gage or water-stage recorder at sites 2.5 mi upstream at different datums. Supplementary nonrecording gage at site 0.3 mi downstream at different datum used at times during 1927-30.

REMARKS.--Estimated daily discharges: Dec. 11-12. Water-discharge records good. No regulation or diversions upstream from station.

AVERAGE DISCHARGE.--61 years (1913-17, 1918-21, 1922-73, 1984-86), 491 ft³/s, 15.88 in/yr, 355,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,340 ft³/s, May 31, 1986, gage height, 3.56 ft, maximum gage height, about 10.0 ft, Jan. 8, 1937 (ice jam); minimum discharge, 100 ft³/s, Feb. 7, 1933, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,070 ft³/s, revised, and maximums (*)

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 4	0500	1,110	2.68	May 31	0800	*2,340	*3.56
May 22	0800	1,300	2.84				

Minimum discharge, 369 ft³/s, Feb. 8, 9, 11, gage height, 1.90 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	437	445	453	420	433	476	597	715	2150	708	581	570
2	439	452	460	422	428	471	574	783	2130	688	569	598
3	441	456	472	429	433	461	528	883	2050	678	561	558
4	433	450	453	420	425	457	534	1040	1840	674	560	543
5	433	480	448	413	422	450	520	956	1800	660	553	535
6	437	459	447	430	418	450	546	867	1710	651	552	526
7	515	449	454	419	401	464	596	825	1560	645	545	526
8	518	481	453	417	397	604	632	779	1440	650	545	528
9	486	469	443	417	402	580	659	742	1550	679	544	537
10	468	459	429	418	410	519	641	767	1530	759	564	535
11	479	471	420	418	393	500	700	773	1280	758	546	532
12	490	460	430	411	408	487	697	711	1280	744	558	524
13	461	456	446	412	430	472	689	686	1250	668	554	524
14	458	450	436	409	416	462	604	731	1180	635	545	533
15	455	443	435	413	450	455	586	682	1280	620	537	534
16	463	437	434	415	420	445	613	656	1200	620	528	526
17	467	445	436	428	422	454	576	643	1110	715	526	523
18	456	450	433	417	428	438	536	675	1070	653	522	553
19	451	430	435	426	438	433	516	736	1020	624	519	576
20	454	423	432	438	444	431	513	862	984	604	533	684
21	459	437	425	434	443	437	570	1090	940	596	565	645
22	493	432	421	421	452	458	687	1230	885	588	725	580
23	483	423	420	437	451	458	804	1050	858	608	596	557
24	495	439	421	427	461	479	758	988	841	604	585	559
25	512	467	417	414	503	482	706	1110	828	603	591	571
26	502	425	416	416	540	456	680	1350	841	744	620	573
27	484	457	419	420	504	472	633	1590	801	756	571	570
28	475	451	415	421	482	527	642	1830	782	637	552	556
29	466	476	410	429	---	593	645	2000	755	597	542	551
30	455	454	413	434	---	629	641	2100	732	584	545	556
31	452	---	408	432	---	678	---	2140	---	611	569	---
TOTAL	14517	13526	13434	13077	12254	15178	18623	31990	37677	20361	17403	16683
MEAN	468	451	433	422	438	490	621	1032	1256	657	561	556
MAX	518	481	472	438	540	678	804	2140	2150	759	725	684
MIN	433	423	408	409	393	431	513	643	732	584	519	523
AC-FT	28790	26830	26650	25940	24310	30110	36940	63450	74730	40390	34520	33090
CAL YR 1985	TOTAL	185054		MEAN	507	MAX	1240	MIN	370	AC-FT	367100	
WTR YR 1986	TOTAL	224723		MEAN	616	MAX	2150	MIN	393	AC-FT	445700	

MADISON RIVER BASIN

06037500 MADISON RIVER NEAR WEST YELLOWSTONE, MT--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1983 to current year (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1983 to July 1986 (discontinued).

WATER TEMPERATURE: July 1983 to July 1986 (discontinued).

INSTRUMENTATION.--Water-quality monitor since July 22, 1983. Equipment removed July 22, 1986.

REMARKS.--No temperature records Oct. 24 to Nov. 9 (erratic readings).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 558 microsiemens, Mar. 24, 25, 1986; minimum, 78 microsiemens, May 30, 1986.

WATER TEMPERATURE: Maximum, 25.5°C, Aug. 6, 9, 1983; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 558 microsiemens, Mar. 24, 25; minimum, 78 microsiemens, May 30.

WATER TEMPERATURE: Maximum, not determined; minimum, 0.0°C on many days during winter period.

DAY	SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986											
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	484	471	477	496	482	488	495	488	492	497	491	494
2	485	474	479	505	483	498	493	485	489	498	484	491
3	480	473	477	510	487	501	488	470	483	497	490	494
4	476	464	471	494	482	487	487	467	477	499	490	494
5	474	463	471	492	476	486	497	482	489	503	489	498
6	483	472	479	484	472	477	502	494	498	506	495	500
7	481	463	472	492	474	485	499	495	497	503	494	499
8	471	430	446	480	461	472	506	495	501	509	493	502
9	482	463	472	493	467	486	506	493	498	514	503	509
10	487	473	481	502	488	496	502	480	496	509	482	501
11	494	479	487	499	489	495	516	493	501	497	479	485
12	491	475	484	501	494	497	497	484	491	509	487	501
13	485	473	478	503	493	499	500	489	494	516	492	507
14	493	476	482	499	490	495	498	489	493	510	485	499
15	486	476	481	501	491	497	501	495	498	514	478	500
16	486	473	481	508	495	501	501	496	498	505	470	485
17	486	470	479	507	497	503	504	496	500	503	475	491
18	478	467	472	507	500	503	506	496	501	507	487	495
19	481	469	474	505	498	501	503	496	499	516	493	503
20	485	475	479	505	495	501	503	496	498	520	494	506
21	485	469	476	510	497	505	501	495	498	509	481	494
22	485	457	476	500	420	494	501	496	498	510	488	502
23	475	454	462	501	489	495	503	491	498	510	492	501
24	508	477	494	499	480	491	502	494	498	500	483	493
25	494	469	481	483	471	477	499	493	496	502	486	492
26	477	455	467	495	480	485	502	492	498	508	477	495
27	468	461	464	497	486	493	500	495	498	512	501	506
28	477	462	470	499	488	493	498	493	495	510	491	502
29	477	465	472	491	476	483	502	493	498	508	491	499
30	483	468	477	491	449	476	502	497	500	509	474	490
31	494	481	488				499	493	495	487	462	475
MONTH	508	430	476	510	420	492	516	467	496	520	462	497

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	506	481	490	474	468	471	456	427	440	420	389	401
2	508	483	497	476	467	472	472	445	458	408	340	359
3	513	484	500	478	472	475	494	461	479	360	299	329
4	512	480	496	481	472	478	501	452	479	325	239	267
5	505	487	497	482	472	479	485	455	474	309	269	281
6	505	480	494	485	469	479	485	449	466	328	305	315
7	509	485	497	486	472	480	475	410	438	350	332	338
8	510	466	492	475	417	443	435	401	423	367	347	356
9	519	476	496	439	419	428	432	380	409	389	364	379
10	501	477	490	447	438	441	426	398	412	394	381	386
11	494	465	481	456	443	450	426	385	408	393	374	382
12	490	475	483	455	445	450	431	411	416	407	388	397
13	490	462	475	456	450	453	427	394	409	411	398	405
14	493	456	478	469	449	458	444	413	429	418	395	406
15	485	461	473	468	457	463	462	429	446	423	400	407
16	487	456	471	493	463	471	462	417	444	425	413	418
17	477	459	471	515	486	499	454	417	446	429	411	416
18	483	438	466	522	490	508	465	455	459	421	394	407
19	477	421	436	532	500	515	467	458	463	400	367	383
20	496	437	472	524	501	512	474	466	471	373	320	343
21	500	456	484	541	494	519	474	438	452	328	260	283
22	482	469	475	551	510	537	447	374	403	274	235	252
23	496	472	486	555	497	525	380	339	356	282	247	265
24	494	476	486	558	533	546	349	330	338	280	264	273
25	480	469	474	558	520	532	368	348	357	279	240	256
26	468	451	457	551	525	539	383	368	376	257	192	213
27	468	457	461	550	514	536	390	383	388	207	157	174
28	471	465	468	529	494	508	409	389	396	182	134	155
29				497	447	462	414	382	394	119	81	90
30				478	420	445	412	371	393	92	78	86
31				459	384	419				92	79	86
MONTH	519	421	480	558	384	484	501	330	424	429	78	307
	JUNE			JULY			AUGUST			SEPTEMBER		
1	92	80	86	225	212	217						
2	92	80	86	253	221	243						
3	94	82	88	259	247	253						
4	101	94	96	259	242	251						
5	102	92	97	251	240	246						
6	106	97	101	254	241	248						
7	112	104	107	256	247	251						
8	115	111	113	255	244	251						
9	123	114	117	254	241	248						
10	121	105	112	248	233	241						
11	128	122	124	253	233	242						
12	129	122	125	244	236	240						
13	127	122	125	257	239	247						
14	161	128	142	254	245	249						
15	179	150	166	262	248	253						
16	171	151	162	367	358	363						
17	180	161	170	365	341	353						
18	195	167	185	363	343	354						
19	199	178	191	367	358	363						
20	196	183	190	376	364	370						
21	205	185	197	381	372	375						
22	199	187	193	382	374	378						
23	202	197	200									
24	206	197	201									
25	206	197	202									
26	206	199	202									
27	207	200	204									
28	210	204	208									
29	216	208	212									
30	216	208	213									
31												
MONTH	216	80	154	382	212	283						
YEAR	558	78	413									

MADISON RIVER BASIN

06037500 MADISON RIVER NEAR WEST YELLOWSTONE, MT--Continued

TEMPERATURE, WATER (DEG C) WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
OCTOBER			NOVEMBER			DECEMBER			JANUARY			
1	10.0	7.0	8.5				2.0	.0	1.0	4.0	3.0	3.5
2	12.5	9.0	10.5				4.5	1.5	3.0	4.0	2.0	3.0
3	11.5	9.0	10.5				5.5	2.0	4.0	4.0	3.0	3.5
4	11.5	7.0	9.0				2.5	1.5	2.0	2.5	.0	1.0
5	11.0	8.0	9.5				3.0	1.0	2.0	.0	.0	.0
6	11.5	9.0	10.5				4.5	2.0	3.5	5.0	.0	3.5
7	11.0	6.5	9.0				7.0	5.0	6.0	4.5	.0	3.0
8	6.0	4.0	5.0				6.5	4.0	6.0	3.5	1.5	2.0
9	8.0	4.5	6.0				4.5	1.5	3.0	4.5	2.0	3.0
10	9.0	4.5	6.5	4.5	2.5	3.5	1.5	.0	.0	6.0	3.0	4.5
11	10.0	6.5	8.5	5.5	3.5	4.0	.0	.0	.0	5.0	3.0	4.0
12	10.0	7.0	9.0	6.0	3.0	4.5	.0	.0	.0	3.5	1.5	2.5
13	8.5	5.0	7.0	6.5	4.5	5.5	1.5	.0	1.0	4.0	1.5	2.5
14	8.5	6.5	7.5	7.0	4.5	5.5	3.0	1.5	2.5	3.5	1.0	2.5
15	11.5	7.5	9.0	5.5	3.5	4.5	3.5	2.0	2.5	3.5	1.5	2.0
16	11.0	7.5	9.5	5.0	3.0	4.0	4.0	2.5	3.5	5.5	3.5	5.0
17	11.5	7.5	9.5	6.0	4.0	5.0	5.0	4.0	4.5	5.5	4.0	5.0
18	11.0	7.5	9.0	6.0	2.5	4.5	5.5	4.0	5.0	6.5	4.0	5.5
19	11.0	7.5	9.5	2.0	.5	1.5	6.0	4.0	5.5	9.0	6.5	7.5
20	12.0	8.5	10.0	2.5	.5	1.5	5.5	3.5	4.5	7.5	5.5	7.0
21	10.5	6.0	9.0	2.5	1.5	2.0	4.0	2.5	3.0	5.5	4.0	4.5
22	10.0	4.5	7.0	1.0	.0	.5	2.5	1.5	2.0	4.5	2.5	3.5
23	7.5	4.0	5.5	.0	.0	.0	3.5	1.0	2.0	5.5	4.0	4.5
24				2.0	.0	1.0	4.5	2.5	3.0	5.0	3.0	4.0
25				4.0	1.5	2.5	3.0	1.5	2.0	3.5	1.5	2.5
26				1.5	.0	.5	5.0	2.0	3.5	3.5	1.0	2.0
27				1.5	.0	.5	5.0	3.0	4.0	5.0	1.5	3.5
28				3.0	.5	2.0	2.5	1.0	1.5	7.5	5.0	6.5
29				3.5	1.0	2.5	2.5	.0	1.5	8.5	7.0	7.5
30				1.0	.0	.5	2.5	1.0	2.0	9.0	7.5	8.0
31							3.0	1.0	2.0	9.5	8.0	9.0
MONTH	12.5	4.0	8.5	7.0	.0	2.5	7.0	.0	3.0	9.5	.0	4.0
FEBRUARY			MARCH			APRIL			MAY			
1	9.5	8.0	8.5	10.0	6.5	8.0	10.0	7.5	9.0	15.5	8.5	12.5
2	9.5	8.0	8.5	11.5	8.0	9.5	11.0	8.5	10.0	17.0	12.5	15.0
3	8.5	7.0	7.5	11.0	7.0	9.0	12.5	6.0	9.0	15.5	12.0	14.0
4	8.0	6.0	7.0	10.5	7.5	8.5	11.5	9.0	10.0	14.0	10.0	11.5
5	6.5	5.0	6.0	10.0	6.5	8.5	13.5	8.0	11.0	11.0	8.5	9.5
6	6.0	1.5	4.0	11.0	8.5	9.5	15.0	9.5	12.0	10.5	9.0	9.5
7	2.0	.0	.5	10.0	9.0	9.5	13.0	10.0	11.5	10.0	9.0	9.5
8	1.5	.0	.0	9.0	6.5	7.5	15.0	11.0	12.5	10.0	8.0	9.0
9	1.0	.0	.5	9.5	6.0	7.5	13.0	11.0	12.0	10.5	8.0	9.0
10	2.5	.0	1.0	8.5	7.5	8.0	12.5	10.0	11.0	10.5	9.5	10.0
11	1.0	.0	.0	10.5	7.5	9.0	13.0	9.0	11.0	10.5	8.0	9.0
12	3.0	.0	1.0	10.5	8.0	9.0	11.5	6.0	9.5	12.5	8.5	10.5
13	3.5	2.0	2.5	10.0	7.0	8.5	9.0	5.0	6.5	12.0	10.0	10.5
14	4.5	2.5	3.5	9.5	6.5	7.5	10.5	4.5	7.5	11.5	8.5	10.0
15	6.0	4.0	4.5	9.5	6.5	7.5	13.0	7.5	10.5	13.0	8.5	11.0
16	5.0	3.5	4.0	9.0	5.0	7.0	12.0	9.5	10.5	15.0	10.5	12.5
17	4.5	3.0	3.5	10.0	7.0	8.5	13.0	8.5	10.5	14.0	10.5	12.5
18	5.0	3.5	4.0	8.5	5.0	7.0	11.5	8.0	10.0	15.0	11.5	13.0
19	5.0	3.5	4.0	10.0	6.0	8.0	12.0	8.0	10.0	17.0	11.5	14.5
20	7.0	4.0	5.5	12.0	7.0	9.5	14.0	10.0	11.5	17.5	13.5	15.5
21	6.5	4.5	5.5	13.0	8.5	10.0	17.0	11.0	14.0	15.0	11.0	13.0
22	5.5	3.5	4.5	12.0	9.0	10.5	15.5	12.5	14.0	12.0	8.5	10.0
23	7.5	5.0	6.5	11.5	8.5	10.0	13.0	10.5	11.5	13.5	7.5	10.5
24	11.0	7.0	9.0	11.5	7.5	9.5	10.5	9.5	10.0	15.5	11.0	13.5
25	12.0	9.0	10.0	9.5	6.0	7.5	10.5	9.5	9.5	16.5	13.0	15.0
26	11.0	8.0	9.5	12.0	6.5	9.5	10.0	8.5	9.5	16.5	13.0	15.0
27	9.5	6.0	8.0	13.5	8.5	11.0	9.5	8.0	8.5	16.0	12.0	14.5
28	9.5	6.0	8.0	14.0	9.5	12.0	13.5	8.0	10.5	16.0	12.0	14.5
29				13.5	10.0	12.0	11.0	5.5	8.5	16.0	11.5	14.5
30				13.0	10.0	11.5	12.5	4.5	8.5	16.0	11.5	14.5
31				11.5	8.5	10.0				16.0	12.0	14.5
MONTH	12.0	.0	5.0	14.0	5.0	9.0	17.0	4.5	10.5	17.5	7.5	12.0

YELLOWSTONE RIVER BASIN

06186500 YELLOWSTONE RIVER AT YELLOWSTONE LAKE OUTLET, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°34'03", long 110°22'48", Yellowstone National Park, Hydrologic Unit 10070001, on left bank 450 ft downstream from Fishing Bridge, 0.3 mi downstream from outlet of Yellowstone Lake, and at mile 616.4.

DRAINAGE AREA.--1,006 mi².

PERIOD OF RECORD.--December 1922 to September 1982, October 1983 to September 1986 (discontinued). Prior to October 1926, gage heights only. Monthly discharge only for winter periods in water years 1927-30, 1932-33, 1935-38, 1940, 1942-46 published in WSP 1309; figures of daily discharge for these months published in WSP 646, 666, 686, 701, 731, 746, 786, 806, 826, 856, 896, 956, 976, 1006, 1036, and 1056, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1309: See PERIOD OF RECORD. WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,729.58 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 2, 1928, nonrecording gage at site 450 ft upstream at datum 1.07 ft higher.

REMARKS.--Estimated daily discharges: Nov. 8 to Feb. 25. Records good except those for estimated daily discharges, which are fair. No artificial regulation.

AVERAGE DISCHARGE.--59 years (1927-82, 1984-86), 1,334 ft³/s, 18.01 in/yr, 966,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,170 ft³/s, June 28, 1974, gage height, 8.20 ft; minimum daily, 130 ft³/s, Mar. 1-31, 1934, but may have been less during periods of ice effect; minimum gage height, 1.45 ft, Dec. 17, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,370 ft³/s, June 20, gage height, 7.85 ft; minimum daily, 410 ft³/s, Jan. 13-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	759	627	450	430	500	702	677	818	2410	6740	3540	1900		
2	749	623	460	430	520	699	668	817	2760	6610	3460	1870		
3	736	619	470	430	530	693	670	820	3130	6480	3370	1840		
4	726	617	480	420	540	690	665	842	3500	6350	3290	1800		
5	719	621	490	420	530	682	666	878	3880	6190	3220	1760		
6	714	614	500	420	520	677	665	886	4340	6010	3130	1710		
7	727	604	500	430	500	682	662	897	4730	5840	3050	1690		
8	725	600	500	420	480	722	674	907	5060	5690	2980	1670		
9	728	580	500	420	460	737	683	924	5370	5550	2900	1650		
10	719	580	490	420	450	740	686	940	5630	5420	2850	1610		
11	718	580	480	420	450	742	697	949	5820	5320	2770	1590		
12	712	580	470	420	450	743	701	950	6000	5260	2710	1560		
13	706	560	470	410	450	736	726	948	6180	5160	2650	1520		
14	702	560	470	410	470	731	729	955	6340	5040	2590	1500		
15	693	560	490	410	480	728	727	944	6570	4940	2530	1480		
16	685	550	490	410	500	727	732	937	6760	4850	2460	1460		
17	676	540	490	410	500	721	738	939	6940	4780	2400	1430		
18	670	530	490	410	520	722	739	933	7130	4660	2350	1440		
19	666	520	490	410	540	712	737	934	7290	4550	2290	1440		
20	661	500	480	420	560	707	734	947	7360	4440	2250	1450		
21	661	500	480	420	560	707	736	981	7350	4330	2240	1440		
22	668	480	480	420	580	699	737	1060	7310	4250	2220	1420		
23	668	470	480	420	600	691	748	1110	7240	4170	2190	1390		
24	666	460	460	440	620	693	756	1150	7180	4080	2150	1370		
25	663	450	450	430	680	704	773	1190	7140	4030	2110	1360		
26	660	440	450	430	728	696	788	1260	7100	4040	2090	1340		
27	652	440	450	440	716	689	797	1370	7050	3980	2070	1320		
28	653	450	450	450	709	686	813	1540	7000	3900	2030	1300		
29	642	450	450	450	---	685	824	1730	6950	3800	1990	1280		
30	643	450	450	470	---	680	828	1940	6870	3710	1960	1270		
31	635	---	440	490	---	675	---	2190	---	3630	1940	---		
TOTAL	21402	16155	14700	13230	15143	21898	21776	33686	178390	153800	79780	45860		
MEAN	690	539	474	427	541	706	726	1087	5946	4961	2574	1529		
MAX	759	627	500	490	728	743	828	2190	7360	6740	3540	1900		
MIN	635	440	440	410	450	675	662	817	2410	3630	1940	1270		
CFSM	.69	.54	.47	.42	.54	.70	.72	1.08	5.91	4.93	2.56	1.52		
IN.	.79	.60	.54	.49	.56	.81	.81	1.25	6.60	5.69	2.95	1.70		
AC-FT	42450	32040	29160	26240	30040	43430	43190	66820	353800	305100	158200	90960		
CAL YR 1985	TOTAL	417039	MEAN	1143	MAX	3470	MIN	440	CFSM	1.14	IN.	15.42	AC-FT	827200
WTR YR 1986	TOTAL	615820	MEAN	1687	MAX	7360	MIN	410	CFSM	1.68	IN.	22.77	AC-FT	1221000

06187550 YELLOWSTONE RIVER AT TOWER JUNCTION, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°55'14", long 110°24'14", Yellowstone National Park, Hydrologic Unit 10070001, on left bank below bridge 0.7 mi east of Tower Junction on Cooke City highway, 0.8 mi upstream from Lamar River, 15 mi east of Mammoth, WY, and at mile 578.9.

DRAINAGE AREA.--1,342 mi².

PERIOD OF RECORD.--October 1983 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 6,010 ft, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 24-28, Dec. 1-3, 11-14, Feb. 8-13, and Sept. 9-30. Records fair except those for estimated daily discharges, which are poor. Natural storage in Yellowstone Lake 37.7 river miles upstream. No upstream regulation or diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft³/s, June 19, 1986, gage height, 9.80 ft; minimum, 465 ft³/s, Nov. 23, 1986, gage height, 2.80 ft, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,800 ft³/s, June 19, gage height, 9.80 ft; minimum, 465 ft³/s, Nov. 23, gage height, 2.80 ft, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	1040	881	555	622	784	1030	1060	1290	6540	9070	4940	2610		
2	1040	887	540	594	803	1030	1030	1480	6830	8780	4830	2570		
3	1040	877	560	610	808	1010	971	1860	7060	8660	4690	2500		
4	998	870	597	598	798	1010	999	2270	7350	8520	4570	2450		
5	995	891	613	594	799	999	994	2010	7780	8250	4480	2380		
6	992	868	632	614	770	1010	1010	1780	8260	8020	4380	2280		
7	1050	863	659	606	695	1020	1060	1670	8370	7830	4250	2230		
8	1010	872	675	602	670	1060	1100	1560	8610	7580	4160	2210		
9	1000	881	656	610	660	1060	1150	1530	9450	7510	4060	2220		
10	1000	866	628	610	650	1060	1130	1550	9420	7410	3960	2200		
11	1010	879	610	610	650	1060	1170	1550	9480	7270	3870	2200		
12	1010	854	600	606	660	1050	1150	1510	9590	7030	3790	2190		
13	978	860	610	610	680	1050	1120	1500	9730	6900	3690	2150		
14	981	850	620	602	714	1020	1090	1530	9900	6780	3590	2120		
15	981	844	631	602	750	1020	1090	1500	10500	6640	3530	2100		
16	971	843	630	602	765	990	1110	1480	10400	6570	3420	2080		
17	963	845	634	602	782	1010	1090	1520	10500	6530	3330	2080		
18	945	835	626	598	802	956	1060	1610	10600	6300	3240	2080		
19	935	795	630	610	824	996	1060	1780	10600	6170	3170	2050		
20	933	806	638	630	868	995	1070	2220	10500	6030	3090	2000		
21	927	777	630	622	916	997	1100	2770	10500	5890	3190	1950		
22	948	719	630	626	932	1010	1270	2880	10300	5770	3180	1920		
23	947	586	630	646	955	999	1490	2430	10100	5710	3010	1900		
24	947	540	634	646	1000	1000	1460	2520	9950	5600	2970	1890		
25	949	500	630	638	1080	1000	1340	3010	9900	5610	2930	1860		
26	950	505	630	650	1090	989	1300	3620	9850	5670	2890	1830		
27	932	510	630	663	1040	1010	1250	4180	9710	5580	2840	1820		
28	917	520	622	671	1020	1040	1270	4740	9550	5440	2770	1800		
29	914	560	622	693	---	1070	1280	5270	9400	5290	2710	1800		
30	897	562	622	728	---	1100	1270	5690	9200	5160	2700	1800		
31	900	---	618	765	---	1130	---	6020	---	5090	2730	---		
TOTAL	30100	22946	19242	19480	22965	31781	34544	76330	279930	208660	110960	63270		
MEAN	971	765	621	628	820	1025	1151	2462	9331	6731	3579	2109		
MAX	1050	891	675	765	1090	1130	1490	6020	10600	9070	4940	2610		
MIN	897	500	540	594	650	956	971	1290	6540	5090	2700	1800		
CFSM	.72	.57	.46	.47	.61	.76	.86	1.83	6.95	5.02	2.67	1.57		
IN.	.83	.64	.53	.54	.64	.88	.96	2.12	7.76	5.78	3.08	1.75		
AC-FT	59700	45510	38170	38640	45550	63040	68520	151400	555200	413900	220100	125500		
CAL YR 1985	TOTAL	595580	MEAN	1632	MAX	5000	MIN	500	CFSM	1.22	IN.	16.51	AC-FT	1181000
WTR YR 1986	TOTAL	920208	MEAN	2521	MAX	10600	MIN	500	CFSM	1.88	IN.	25.51	AC-FT	1825000

YELLOWSTONE RIVER BASIN

06188000 LAMAR RIVER NEAR TOWER FALLS RANGER STATION, YNP

LOCATION.--Lat 44°55'40", long 110°23'35", Yellowstone National Park, Hydrologic Unit 10070001, on left bank 0.5 mi north of the Cooke City highway, 1.6 mi northeast of Tower Falls Ranger Station, 2.7 mi downstream from Slough Creek, and at mile 0.5.

DRAINAGE AREA.--660 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1922, April 1923 to September 1969, May 1985 to current year (seasonal records only). Monthly discharges only for some periods, published in WSP 1309.

GAGE.--Nonrecording gage and crest-stage gage. Elevation of gage is 6,000 ft above National Vertical Datum of 1929, from topographic map. Prior to Sept. 16, 1925, nonrecording gage and Sept. 16, 1925 to July 29, 1927, water-stage recorder at same site at datum 1.00 ft higher. July 29, 1925 to Sept. 30, 1969, water-stage recorder at same site and datum.

REMARKS.--Estimated daily discharges: May 25. Seasonal water-discharge records fair. No regulation or diversions.

COOPERATION.--Gage-height record was collected in cooperation with National Park Service.

AVERAGE DISCHARGE.--46 years (1924-69), 829 ft³/s, 600,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s, May 25, 1928, gage height, 9.75 ft; minimum observed, 40 ft³/s (discharge measurement), Mar. 16, 1945, but may have been less during period of no gage-height record in winter.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,500 ft³/s and maximums (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 4	unknown	*11,000	*9.03	June 15	unknown	7,190	7.42
June 9	unknown	8,670	8.09				

Minimum discharge observed, 208 ft³/s Sept. 17, gage height, 1.44 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								781	8970	1890	591	270
2								1220	9030	1650	545	293
3								1710	9000	1500	507	256
4								2570	9080	1460	501	245
5								2130	8440	1360	475	234
6								1620	8390	1120	440	224
7								1410	7260	1070	420	217
8								1190	6620	994	406	217
9								1080	7700	1090	383	282
10								986	6430	1220	369	256
11								925	5660	1350	351	238
12								873	5990	1130	356	217
13								816	5570	995	356	211
14								774	5300	917	339	214
15								747	6290	851	318	234
16								721	5680	741	301	217
17								774	5530	823	286	214
18								901	5060	781	278	245
19								1080	4360	740	270	350
20								1740	4010	695	274	401
21								2740	3430	682	330	406
22								3300	2870	651	596	365
23								2340	2750	645	379	330
24								2210	2700	638	318	297
25								3710	2700	682	305	313
26								4840	2810	924	330	301
27								5800	2650	851	313	290
28								6880	2400	748	270	278
29								7580	2300	695	263	270
30								8110	2040	645	259	256
31								7980	---	626	278	---
TOTAL								79538	161020	30164	11407	8141
MEAN								2566	5367	973	368	271
MAX								8110	9080	1890	596	406
MIN								721	2040	626	259	211
CFSM								3.89	8.13	1.47	.56	.41
AC-FT								157800	319400	59830	22630	16150

YELLOWSTONE RIVER BASIN

06191000 GARDNER RIVER NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°59'35", long 110°41'25", Yellowstone National Park, Hydrologic Unit 10070001, on left bank at Wyoming-Montana state line, 400 ft upstream from highway bridge, 0.5 mi downstream from Hot River (formerly Boiling River), 1.5 mi north of Mammoth, and at mile 2.9.

DRAINAGE AREA.--202 mi².

PERIOD OF RECORD.--October 1938 to September 1972, April 1984 to current year. Prior to October 1959, published as Gardiner River near Mammoth.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,620 ft, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 28 to Dec. 4, Feb. 8-15. Records good except those for flows below 100 ft³/s, which are fair, and those for estimated daily discharges, which are poor. No regulation or diversion upstream of station.

AVERAGE DISCHARGE.--36 years (1938-72, 1985-86), 219 ft³/s, 14.72 in/yr, 158,700 acre ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,080 ft³/s, June 4, 1956, gage height, 4.46 ft; maximum gage height, 4.78 ft, June 16, 1962 (backwater from logs and debris); minimum discharge, 35 ft³/s, Mar. 28, 1942, gage height, 1.08 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximums (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 2	0330	*1,740	*4.65	No other peak greater than base discharge.			

Minimum discharge, 49 ft³/s, Feb. 7, gage height, 1.83 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	130	119	75	103	101	113	153	209	1550	376	191	155		
2	130	124	80	103	101	113	150	293	1630	355	187	157		
3	134	124	90	103	103	110	142	432	1580	348	186	149		
4	131	121	100	98	102	109	141	456	1470	359	182	146		
5	133	126	108	90	97	107	142	381	1470	328	176	144		
6	131	115	111	117	95	108	157	328	1480	306	172	144		
7	152	118	111	105	69	113	183	302	1300	295	169	143		
8	130	123	110	100	68	135	209	275	1170	292	168	143		
9	134	114	96	104	68	126	227	260	1250	342	167	146		
10	132	97	73	103	65	118	229	260	1110	334	166	148		
11	138	106	81	103	68	116	245	253	1020	306	164	149		
12	142	107	105	97	70	113	236	240	1090	283	166	147		
13	132	124	105	100	75	110	193	238	1030	265	166	148		
14	134	117	107	96	80	107	192	253	976	253	162	153		
15	133	106	103	101	90	107	187	239	1110	246	156	153		
16	134	111	110	102	95	104	189	244	996	253	153	149		
17	134	116	113	100	82	107	177	257	929	262	152	150		
18	131	109	110	101	85	104	168	270	870	240	151	158		
19	129	96	107	104	83	105	163	299	791	231	150	162		
20	130	99	107	103	86	106	165	385	711	224	153	184		
21	130	106	105	100	91	109	203	551	642	223	173	170		
22	137	93	104	98	92	111	286	650	582	219	185	158		
23	130	91	105	100	94	111	354	520	549	214	163	152		
24	132	105	104	98	107	115	294	492	527	216	158	151		
25	136	105	102	85	118	108	265	574	513	234	162	156		
26	137	104	104	83	123	108	242	739	505	230	162	158		
27	133	104	101	106	120	116	219	913	475	231	158	158		
28	129	90	98	108	115	131	216	1130	448	217	152	156		
29	125	85	103	101	---	144	213	1310	439	207	150	154		
30	124	80	103	101	---	157	204	1350	407	207	150	155		
31	123	---	100	101	---	165	---	1460	---	198	153	---		
TOTAL	4110	3235	3131	3114	2543	3606	6144	15563	28620	8294	5103	4596		
MEAN	133	108	101	100	90.8	116	205	502	954	268	165	153		
MAX	152	126	113	117	123	165	354	1460	1630	376	191	184		
MIN	123	80	73	83	65	104	141	209	407	198	150	143		
CFSM	.66	.53	.50	.50	.45	.57	1.01	2.49	4.72	1.33	.82	.76		
IN.	.76	.60	.58	.57	.47	.66	1.13	2.87	5.27	1.53	.94	.85		
AC-FT	8150	6420	6210	6180	5040	7150	12190	30870	56770	16450	10120	9120		
CAL YR 1985	TOTAL	66352	MEAN	182	MAX	1050	MIN	73	CFSM	.90	IN.	12.22	AC-FT	131600
WTR YR 1986	TOTAL	88059	MEAN	241	MAX	1630	MIN	65	CFSM	1.19	IN.	16.22	AC-FT	174700

06191500 YELLOWSTONE RIVER AT CORWIN SPRINGS, MT

LOCATION.--Lat 45°06'43", long 110°47'37", in NW1/4 SE1/4 NW1/4 sec.30, T.8 S., R.8 E., Park County, Hydrologic Unit 10070002, on left bank 20 ft downstream from county road bridge at Corwin Springs, 1.3 mi upstream from Mulherin Creek, 7 mi northwest of Gardiner, and at mile 549.7.

DRAINAGE AREA.--2,623 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1889 to November 1893 (published as "at Horr"), September 1910 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1912. WSP 1509: 1889-94, 1911, 1913, 1916-18, 1920-21, 1925, 1927. WSP 1559: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,079.09 ft above National Geodetic Vertical Datum of 1929. Aug. 12, 1889, to Nov. 4, 1893, nonrecording gages at site 2 mi upstream at different datums. Sept. 2, 1910, to Apr. 19, 1935, nonrecording gages on bridge at present datum.

REMARKS.--Estimated daily discharges: Nov. 20 to Dec. 4, Dec. 11-16, Feb. 9-15. Water-discharge records good except for periods of estimated record, which are poor. Natural storage in Yellowstone Lake. Diversions for irrigation of about 960 acres of which 40 acres are downstream from station.

AVERAGE DISCHARGE.--80 years (1890-93, 1911-86), 3,123 ft³/s, 16.17 in/yr, 2,263,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 32,000 ft³/s, June 14, 15, 1918, gage height, 11.5 ft, from rating curve extended above 18,000 ft³/s; minimum observed, 389 ft³/s, Feb. 23, Mar. 5, 9, 1937, gage height, 0.05 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 12,000 ft³/s and maximums (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 2	0230	*21,900	*9.00	No other peak greater than base discharge.			
Minimum discharge, 623 ft ³ /s, Nov. 24, gage height, 0.65 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	1530	1280	720	844	1010	1300	1910	2370	20200	9970	4960	2880		
2	1560	1290	720	828	1030	1310	1840	2830	20300	9600	4770	2850		
3	1560	1300	800	830	1050	1280	1660	4120	20200	9340	4670	2760		
4	1470	1280	860	824	1040	1280	1640	5890	19800	9180	4560	2640		
5	1440	1280	883	805	1010	1260	1630	5290	20300	8800	4450	2590		
6	1440	1250	892	842	1000	1290	1710	4370	20400	8310	4330	2500		
7	1530	1230	920	823	882	1300	1960	3880	18300	8000	4200	2440		
8	1490	1270	939	813	858	1400	2320	3490	17400	7800	4120	2420		
9	1410	1220	911	814	850	1410	2580	3230	19200	7820	4050	2460		
10	1410	1120	859	817	840	1370	2480	3090	17400	7990	3950	2410		
11	1470	1130	820	826	840	1360	2510	3000	16700	7970	3860	2330		
12	1500	1200	760	812	840	1350	2440	2850	17500	7620	3790	2280		
13	1410	1210	770	807	870	1340	2290	2740	16900	7140	3770	2230		
14	1420	1200	800	804	900	1280	2090	2790	16500	6880	3650	2200		
15	1420	1150	840	799	930	1300	2060	2670	18300	6690	3570	2210		
16	1400	1130	880	806	951	1220	2080	2590	17400	6590	3460	2150		
17	1410	1170	881	819	961	1300	2030	2610	16900	6840	3380	2110		
18	1380	1160	877	799	998	1210	1910	2760	16400	6360	3310	2160		
19	1350	1040	869	815	1000	1240	1850	3000	15300	6170	3240	2320		
20	1360	980	874	838	1040	1230	1820	4080	14500	5940	3210	2450		
21	1350	900	869	841	1100	1230	1910	6490	13600	5790	3220	2470		
22	1370	840	854	821	1130	1280	2490	7880	12500	5670	3910	2320		
23	1380	800	854	847	1150	1280	3620	6080	12200	5540	3310	2210		
24	1370	760	867	859	1220	1300	3520	5620	12100	5520	3190	2160		
25	1390	740	857	832	1330	1300	3050	6780	11900	5600	3090	2160		
26	1400	700	843	827	1400	1280	2790	9610	11900	5980	3150	2160		
27	1390	710	864	862	1350	1330	2560	12500	11500	5820	3030	2120		
28	1350	740	845	887	1310	1410	2490	15100	11100	5520	2950	2060		
29	1350	750	879	894	---	1600	2440	16600	10900	5350	2880	2030		
30	1320	730	850	936	---	1820	2340	17400	10500	5220	2850	2000		
31	1320	---	848	979	---	2050	---	18100	---	5110	2970	---		
TOTAL	43950	31560	26305	25950	28890	41910	68020	189810	478100	216130	113850	70080		
MEAN	1418	1052	849	837	1032	1352	2267	6123	15940	6972	3673	2336		
MAX	1560	1300	939	979	1400	2050	3620	18100	20400	9970	4960	2880		
MIN	1320	700	720	799	840	1210	1630	2370	10500	5110	2850	2000		
CFSM	.54	.40	.32	.32	.39	.52	.86	2.33	6.08	2.66	1.40	.89		
IN.	.62	.45	.37	.37	.41	.59	.96	2.69	6.78	3.07	1.61	.99		
AC-FT	87170	62600	52180	51470	57300	83130	134900	376500	948300	428700	225800	139000		
CAL YR 1985	TOTAL	955735	MEAN	2618	MAX	13400	MIN	700	CFSM	.00	IN.	13.55	AC-FT	1896000
WTR YR 1986	TOTAL	1334555	MEAN	3656	MAX	20400	MIN	700	CFSM	1.39	IN.	18.93	AC-FT	2647000

06191500 YELLOWSTONE RIVER AT CORWIN SPRINGS, MT--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965, 1969-74, 1977-1981, 1984 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1984 to September 1985.

WATER TEMPERATURE: June 1977 to September 1981, March 1984 to September 1985.

SUSPENDED-SEDIMENT DISCHARGE: May 1985 to September 1986, seasonal.

EXTREMES FOR PERIOD OF DAILY RECORDS.--

SPECIFIC CONDUCTANCE (water years 1984-85): Maximum, 311 microsiemens, Feb. 5, 1985; minimum, 71 microsiemens, June 21, 22, 1984.

WATER TEMPERATURE (water years 1977-81, 1984-85): Maximum, 21.5°C, July 22, 23, 1977; minimum, 0.0°C on many days during winter periods most years.

SEDIMENT CONCENTRATION: Maximum daily mean, 645 mg/L, May 28, 1986; minimum daily mean, 4 mg/L several days in September 1985 and 1986.

SEDIMENT LOAD: Maximum daily, 29,200 tons, June 3, 1986; minimum daily, 22 tons, Sep. 28-30, 1986.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 645 mg/L, May 28; minimum daily mean, 4 mg/L, Sept. 11, 12, 26-30.

SEDIMENT LOAD: Maximum daily, 29,200 tons, June 3; minimum daily, 22 tons, Sept. 28-30.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	CLOUD COVER (PER- CENT)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)
OCT							
04...	0845	1480	0	0	214	E-8.0	7.0
DEC							
17...	1715	877	100	3	300	-3.0	2.0
FEB							
06...	0900	1030	--	--	277	-6.0	1.0
MAY							
01...	1015	2400	--	--	217	4.5	5.0
28...	0900	15900	--	--	81	15.0	9.0
JUN							
04...	0830	20900	--	--	84	20.0	7.0
JUL							
22...	1515	5680	--	--	130	25.0	17.0
SEP							
03...	2030	2680	--	--	169	13.0	15.5

E Estimate.

DATE	TIME	TEMPER- ATURE (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM
MAY							
01...	1015	5.0	2400	23	149	--	--
28...	0900	9.0	15900	835	35800	13	19
JUN							
04...	0830	7.0	20900	483	27300	--	--
JUL							
22...	1515	17.0	5680	30	460	--	--
SEP							
03...	2030	15.5	2680	10	72	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
MAY						
01...	--	--	--	--	--	78
28...	41	74	83	93	100	--
JUN						
04...	--	--	--	--	--	64
JUL						
22...	--	--	--	--	--	66
SEP						
03...	--	--	--	--	--	72

06191500 YELLOWSTONE RIVER AT CORWIN SPRINGS, MT--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	25	129	23	147	474	25900	113	3040	21	281	8	62
2	21	104	40	306	512	28100	108	2800	20	258	9	69
3	17	76	146	1620	536	29200	103	2600	20	252	8	60
4	18	80	224	3560	436	23300	102	2530	16	197	8	57
5	13	57	99	1410	442	24200	96	2280	12	144	7	49
6	16	74	46	543	420	23100	88	1970	12	140	6	40
7	21	111	27	283	333	16500	78	1680	11	125	6	40
8	44	276	22	207	294	13800	72	1520	10	111	6	39
9	51	355	19	166	397	20600	220	4650	12	131	6	40
10	31	208	18	150	268	12600	178	3840	10	107	6	39
11	35	237	17	138	286	12900	110	2370	10	104	4	25
12	25	165	18	139	277	13100	74	1520	10	102	4	25
13	20	124	17	126	248	11300	51	983	9	92	6	36
14	17	96	19	143	233	10400	50	929	9	89	8	48
15	18	100	18	130	328	16200	45	813	9	87	8	48
16	20	112	13	91	278	13100	38	676	7	65	6	35
17	19	104	12	85	277	12600	48	886	8	73	5	28
18	16	83	15	112	267	11800	41	704	7	63	6	35
19	13	65	16	130	239	9870	34	566	7	61	6	38
20	12	59	52	573	223	8730	26	417	7	61	14	93
21	14	72	262	4590	204	7490	26	406	14	122	12	80
22	35	235	292	6210	186	6280	32	490	131	1380	8	50
23	114	1110	116	1900	183	6030	28	419	81	724	6	36
24	58	551	61	926	179	5850	30	447	17	146	5	29
25	26	214	131	2400	166	5330	32	484	12	100	6	35
26	18	136	404	10500	175	5620	61	985	11	94	4	23
27	19	131	628	21200	159	4940	54	849	13	106	4	23
28	20	134	645	26300	146	4380	34	507	14	112	4	22
29	10	66	589	26400	134	3940	28	404	10	78	4	22
30	9	57	538	25300	123	3490	22	310	8	62	4	22
31	---	---	436	21300	---	---	21	290	9	72	---	---
TOTAL	---	5321	---	157085	---	390650	---	42365	---	5539	---	1248

TOTAL LOAD FOR YEAR: 602208 TONS

YELLOWSTONE RIVER BASIN

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MT

LOCATION.--Lat 45°00'37", long 109°03'53", in NW1/4 SW1/4 NW1/4 sec.32, T.9 S., R.22 E., Carbon County, Hydrologic Unit 10070006, on left bank 0.2 mi upstream from county road bridge and Big Sand Coulee, 0.8 mi north of Wyoming-Montana State line, 9.5 mi southwest of Belfry, and at mile 71.2.

DRAINAGE AREA.--1,154 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1921 to current year. Monthly discharge only for some period, published in WSP 1309. Published as Clarks Fork at Chance prior to October 1956 and as Clarks Fork Yellowstone River at Chance, October 1956 to September 1968.

REVISED RECORDS.--WSP 1309: 1922 (M). WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,986.24 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Nov. 15, 1934, nonrecording gage, and Nov. 15, 1934, to July 26, 1951, water-stage recorder at bridge 0.4 mi downstream of different datum. July 27, 1951, to Sept. 30, 1953, water-stage recorder at present site at datum 0.98 ft higher.

REMARKS.--Estimated daily discharges: Nov. 10 to Jan. 7, Feb. 9-26, July 23 to Aug. 11, and Sept. 21-23. Water-discharge records good except those for July 23 to Aug. 11 and Sept. 21-23, which are fair, and Nov. 10 to Jan. 7 and Feb. 9-26, which are poor. Diversions for irrigation of about 11,100 acres upstream from station.

AVERAGE DISCHARGE.--65 years, 948 ft³/s, 686,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft³/s, June 9, 1981, gage height, 9.97 ft; minimum observed, 32 ft³/s, Apr. 26, 1961, result of discharge measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5,400 ft³/s and maximums (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 4	0830	*9,350	*7.79	June 16	0500	7,290	6.78

Minimum daily discharge, 110 ft³/s, Dec. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	308	249	110	180	225	340	550	534	7610	2790	1000	331
2	279	251	130	190	222	348	476	655	8080	2530	900	334
3	271	288	200	190	218	348	430	998	8350	2520	840	369
4	280	290	250	180	218	326	379	1420	8710	2620	800	328
5	250	285	280	190	209	331	372	1470	8720	2610	740	304
6	250	292	280	200	199	318	416	1230	8870	2130	680	288
7	258	270	270	210	198	308	532	1050	7340	1710	620	280
8	292	292	250	211	172	316	695	917	6290	1470	600	275
9	255	282	240	224	160	335	745	786	6780	1420	580	330
10	262	260	190	226	150	307	685	694	5590	1600	580	320
11	267	210	150	243	140	285	665	649	5050	2060	560	329
12	283	240	180	227	130	277	648	581	5620	2080	529	275
13	283	270	160	218	150	268	622	514	5780	1750	521	263
14	254	310	200	215	180	262	546	518	5450	1540	495	259
15	256	300	260	208	200	251	543	491	6250	1520	460	301
16	247	310	230	216	300	245	541	442	6640	1500	417	306
17	252	330	230	235	250	252	508	401	6330	1710	383	286
18	249	280	230	218	220	252	437	381	6110	1590	377	292
19	240	240	230	246	200	236	400	428	5340	1410	362	479
20	278	200	220	241	200	234	379	692	4800	1260	346	458
21	282	180	210	226	220	233	381	1370	4220	1210	339	450
22	268	170	220	198	260	234	610	2070	3430	1170	608	440
23	264	160	220	217	300	252	1090	1780	3100	1100	493	430
24	259	180	215	224	350	261	1040	1510	3290	940	467	427
25	260	180	210	202	400	285	835	1600	3620	960	420	423
26	268	150	200	196	400	279	803	2380	3820	1150	453	406
27	272	160	180	217	355	261	724	3540	3880	1400	423	396
28	267	170	170	233	339	291	639	4760	3640	1250	374	396
29	262	180	160	220	---	383	596	5430	3440	1100	334	381
30	257	160	180	221	---	524	556	6000	3230	1000	331	371
31	248	---	190	225	---	623	---	6380	---	950	331	---
TOTAL	8221	7139	6445	6647	6565	9465	17843	51671	169380	50050	16363	10527
MEAN	265	238	208	214	234	305	595	1667	5646	1615	528	351
MAX	308	330	280	246	400	623	1090	6380	8870	2790	1000	479
MIN	240	150	110	180	130	233	372	381	3100	940	331	259
AC-FT	16310	14160	12780	13180	13020	18770	35390	102500	336000	99270	32460	20880
CAL YR 1985	TOTAL	221819		MEAN	608	MAX	6270	MIN	110	AC-FT	440000	
WTR YR 1986	TOTAL	360316		MEAN	987	MAX	8870	MIN	110	AC-FT	714700	

YELLOWSTONE RIVER BASIN

06218500 WIND RIVER NEAR DUBOIS, WY

LOCATION.--Lat 43°34'43", long 109°45'33", in NW1/4 NE1/4 sec.25, T.42 N., R.108 W., Fremont County, Hydrologic Unit 10080001, on left bank 2.5 mi upstream from Warm Springs Creek and 6.7 mi northwest of Dubois.

DRAINAGE AREA.--232 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,188.71 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Estimated daily discharges: Nov. 7 to Jan. 18, Jan. 21-27, Feb. 2, 4-17, 20, 21, Feb. 28 to Mar. 3, and Mar. 6, 9, 10, 13, 14, 16, 18, 19. Records good except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 2,300 acres.

AVERAGE DISCHARGE.--41 years, 179 ft³/s, 129,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft³/s, June 8, 1972, gage height, 5.48 ft; maximum gage height, 5.66 ft, June 2, 1956; minimum daily discharge, 26 ft³/s, Feb. 5, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 850 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 3	0500	*1910	*5.62	No other peak greater than base discharge.			
Minimum daily discharge, 45 ft ³ /s, Feb. 10-12.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	72	64	54	61	80	118	131	1500	467	211	181
2	94	87	64	54	60	82	109	170	1670	446	205	182
3	90	84	68	54	60	84	94	243	1800	435	200	174
4	80	77	70	52	60	85	95	324	1780	450	201	169
5	83	86	72	50	60	81	100	284	1750	452	196	165
6	84	69	72	52	58	80	108	233	1760	365	191	164
7	91	73	70	52	56	78	131	215	1600	383	183	170
8	87	71	68	52	54	87	136	202	1440	370	192	171
9	86	67	64	54	50	86	145	180	1340	340	188	178
10	82	61	56	54	45	82	134	175	1260	329	199	178
11	87	71	48	54	45	80	127	173	1220	341	181	174
12	88	80	48	54	45	80	124	155	1250	362	179	168
13	75	86	49	54	47	84	127	149	1220	310	174	165
14	77	88	52	52	47	84	106	160	1210	299	171	180
15	84	84	52	56	49	84	108	151	1170	327	168	176
16	79	74	52	60	50	80	120	156	1170	316	163	166
17	81	66	52	60	54	72	113	146	1130	336	164	161
18	78	62	52	62	55	76	101	150	1060	283	160	168
19	80	62	52	61	53	74	100	178	911	267	156	190
20	79	62	52	62	50	70	103	242	875	255	156	182
21	31	58	54	62	52	76	133	402	806	243	161	171
22	86	54	54	60	52	82	189	498	705	244	169	161
23	82	52	54	60	52	84	249	362	685	241	165	157
24	88	50	56	58	55	88	270	353	675	236	184	163
25	95	54	58	62	61	80	210	440	674	330	167	179
26	93	64	56	60	67	74	173	641	630	312	175	166
27	88	70	52	60	72	88	154	892	627	283	188	163
28	89	72	50	61	76	108	142	1020	621	261	188	169
29	83	72	50	61	---	128	142	1170	565	238	180	162
30	81	70	50	61	---	135	128	1290	517	231	180	166
31	85	---	54	61	---	151	---	1370	---	218	186	---
TOTAL	2628	2098	1765	1769	1546	2703	4089	12255	33621	9970	5581	5119
MEAN	84.8	69.9	56.9	57.1	55.2	87.2	136	395	1121	322	180	171
MAX	95	88	72	62	76	151	270	1370	1800	467	211	190
MIN	75	50	48	50	45	70	94	131	517	218	156	157
AC-FT	5210	4160	3500	3510	3070	5360	8110	24310	66690	19780	11070	10150
CAL YR 1985	TOTAL	51237		MEAN	140	MAX	859	MIN	33	AC-FT	101600	
WTR YR 1986	TOTAL	83144		MEAN	228	MAX	1800	MIN	45	AC-FT	164900	

06218500 WIND RIVER NEAR DUBOIS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-48, 1950-51, 1953, 1965 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
DEC 16...	1245	52	218	0.0	87	25	6.0	8.6	0.4	1.9
MAY 28...	1030	1060	117	4.0	47	14	3.0	5.9	0.4	0.8
JUN 04...	1230	1810	111	8.0	47	14	3.0	5.4	0.4	0.9

DATE	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC 16...	91	11	0.7	0.2	24	130	0.18	19	0.10	0.24
MAY 28...	62	2.4	0.7	0.2	16	80	0.11	229	0.10	0.76
JUN 04...	59	3.5	0.5	0.1	12	75	0.1	365	0.10	0.62

YELLOWSTONE RIVER BASIN

06220500 EAST FORK WIND RIVER NEAR DUBOIS, WY

LOCATION.--Lat 43°27'16", long 109°27'57", in SE1/4 SW1/4 NW1/4 sec.34, T.6 N., R.6 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 1.0 mi upstream from mouth and 9.9 mi southeast of Dubois.

DRAINAGE AREA.--427 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1950 to September 1957, October 1975 to current year. Prior to October 1953, published as North Fork Wind River near Dubois.

GAGE.--Water-stage recorder. Elevation of gage is 6,440 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 30, 1957, at site 50 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 7, 9-18, Nov. 21 to Jan. 30, Feb. 3-6, 9-22, and July 13-15. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 2,000 acres upstream from station.

AVERAGE DISCHARGE.--18 years, 258 ft³/s, 186,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,980 ft³/s, June 9, 1981, gage height, 7.69 ft, from rating curve extended above 2,600 ft³/s; maximum gage height, 9.27 ft, June 30, 1957; minimum daily discharge, 18 ft³/s, Jan. 9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 4	0200	*3,290	*6.22	June 16	0200	2,760	5.82

Minimum daily discharge, 30 ft³/s, Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	71	50	52	54	84	202	169	2360	803	368	183
2	113	84	48	54	53	85	177	284	2370	771	349	207
3	101	84	50	54	50	85	128	552	2320	841	340	175
4	91	75	52	52	48	84	120	732	2540	931	305	153
5	90	83	55	50	45	88	156	446	2680	839	299	155
6	94	65	55	52	40	80	189	307	2410	542	313	155
7	100	75	55	52	37	94	284	270	2050	558	313	153
8	94	85	55	52	36	100	241	243	1820	469	312	153
9	81	80	55	54	35	101	260	216	1470	518	304	158
10	75	70	55	54	33	73	212	229	1280	521	420	150
11	97	73	50	54	32	71	213	207	1470	506	319	129
12	96	75	45	54	30	65	195	177	1600	740	335	132
13	81	75	48	54	33	56	182	169	1570	592	308	123
14	82	72	52	52	40	57	126	181	1700	506	296	123
15	89	68	52	54	50	57	129	172	1810	613	286	129
16	84	64	53	58	55	55	163	187	1920	593	277	120
17	84	66	52	60	60	61	137	176	1860	632	263	108
18	82	66	52	62	65	49	113	208	1740	525	256	120
19	82	47	52	60	60	54	110	257	1490	475	248	123
20	83	41	52	60	55	47	126	572	1350	461	231	133
21	85	40	54	60	50	56	316	1020	1100	453	214	126
22	84	42	54	60	55	78	546	840	1000	525	213	120
23	84	40	54	58	60	87	618	421	1050	485	204	105
24	89	40	54	56	60	105	440	413	1150	470	231	113
25	95	45	58	55	89	95	280	695	1160	476	201	108
26	96	50	56	54	105	72	225	1190	1050	467	204	108
27	94	55	54	54	86	97	197	1530	1160	442	321	104
28	96	55	52	56	79	144	185	1800	1110	442	208	102
29	88	55	50	56	---	191	189	2090	983	425	189	105
30	79	55	50	56	---	233	157	2110	924	414	181	102
31	83	---	52	57	---	262	---	2060	---	373	177	---
TOTAL	2773	1896	1626	1716	1495	2866	6616	19923	48497	17408	8485	3975
MEAN	89.5	63.2	52.5	55.4	53.4	92.5	221	643	1617	562	274	133
MAX	113	85	58	62	105	262	618	2110	2680	931	420	207
MIN	75	40	45	50	30	47	110	169	924	373	177	102
AC-FT	5500	3760	3230	3400	2970	5680	13120	39520	96190	34530	16830	7880
CAL YR 1985	TOTAL	55430		MEAN	152	MAX	1560	MIN	19	AC-FT	109900	
WTR YR 1986	TOTAL	117276		MEAN	321	MAX	2680	MIN	30	AC-FT	232600	

06220500 EAST FORK WIND RIVER NEAR DUBOIS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1975 to September 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 04...	1500	89	360	8.5	6	1.4
NOV 18...	1100	66	240	5.0	7	1.2
DEC 16...	1030	53	250	0.0	6	0.86
JAN 30...	1430	57	280	1.0	41	6.3
MAR 04...	1245	73	260	5.0	318	63
APR 14...	1000	116	174	2.5	36	11
MAY 30...	0935	2080	100	8.0	992	5570
JUN 12...	0900	1680	120	6.0	508	2300
JUL 15...	1350	591	155	15.0	70	112
AUG 27...	1050	276	200	9.0	534	398

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
MAY 30...	0935	25	35	48
AUG 27...	1050	76	87	96

YELLOWSTONE RIVER BASIN

06222700 CROW CREEK NEAR TIPPERARY, WY

LOCATION.--Lat 43°34'37", long 109°15'42", in sec.20, T.7 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank just above Crow Creek Canyon, 2.0 mi downstream from Trail Creek, 5.0 mi north of Tipperary, and 19 mi north of Crowheart.

DRAINAGE AREA.--30.2 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR-76-1: Drainage area. WDR WY-86: 1985(M).

GAGE.--Water-stage recorder. Elevation of gage is 8,600 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 27, 1983, at site 50 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 1, Nov. 5 to Mar. 19, Mar. 25, Apr. 1, 3, 14, 15, 18, 30, and May 30 to June 4. Records good except those for November to March, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--24 years, 21.4 ft³/s, 15,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 568 ft³/s, June 16, 1965, gage height, 5.20 ft, from rating curve extended above 220 ft³/s on basis of velocity-area study at site then in use; maximum gage height, 5.72 ft, Jan. 7, 1985 (backwater from ice); minimum daily discharge, 0.48 ft³/s, Jan. 9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 180 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 5	1800	*356	*5.66	No other peak greater than base discharge.			

Minimum daily discharge, 2.1 ft³/s, Feb. 12.

REVISIONS.--The maximum discharge for the water year 1985 was omitted in the 1985 data report. The maximum discharge for water year 1985 was 117 ft³/s, June 7, 1985, gage height, 4.73 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	3.7	3.4	3.7	3.5	3.5	10	16	192	70	20	9.7
2	4.8	3.8	3.4	3.6	3.6	3.5	10	26	206	69	19	8.8
3	4.4	3.8	3.5	3.6	3.6	3.5	9.7	53	208	71	20	7.6
4	3.9	3.5	3.6	3.7	3.5	3.6	9.4	75	236	68	19	7.2
5	4.1	3.5	3.7	3.6	3.5	3.7	9.6	53	281	58	18	7.0
6	4.0	3.3	3.6	3.6	3.3	3.9	11	37	265	48	17	6.7
7	4.3	3.2	3.6	3.6	3.0	4.2	13	31	217	47	16	7.1
8	4.4	3.2	3.6	3.6	2.7	4.5	13	25	194	42	15	7.0
9	4.2	3.2	3.7	3.6	2.5	5.0	12	22	150	44	16	6.9
10	4.3	3.0	3.7	3.3	2.4	4.8	12	20	142	40	17	6.9
11	4.2	3.3	3.2	3.4	2.2	4.5	12	19	158	39	15	6.3
12	4.7	3.5	3.2	3.4	2.1	4.5	11	17	156	40	15	5.9
13	3.7	3.5	3.2	3.4	2.2	4.5	11	17	155	40	14	5.6
14	4.0	3.5	3.3	3.4	2.4	4.5	10	18	154	43	12	5.9
15	4.3	3.5	3.3	3.5	2.7	4.5	9.6	16	176	45	11	6.5
16	4.0	3.5	3.3	3.4	3.0	4.5	9.5	16	184	40	11	6.0
17	4.0	3.5	3.3	3.6	3.2	4.5	8.6	15	170	40	11	5.9
18	3.9	3.5	3.3	3.7	3.4	4.5	8.4	17	158	35	10	6.3
19	3.8	3.5	3.4	3.6	3.2	4.6	8.1	21	149	33	10	6.8
20	3.9	3.5	3.4	3.4	3.0	4.8	12	50	137	34	9.6	6.7
21	3.8	3.5	3.4	3.1	2.8	4.9	23	100	111	34	9.7	6.7
22	3.8	3.5	3.4	3.0	2.8	5.3	37	98	102	32	9.2	5.7
23	3.4	3.4	3.4	3.1	3.0	5.4	46	74	102	30	11	5.7
24	2.9	3.3	3.4	3.2	3.2	5.6	42	66	103	30	11	6.0
25	3.8	3.3	3.7	3.1	3.5	5.7	30	97	96	29	9.7	6.6
26	4.2	3.5	3.6	3.0	3.9	5.8	22	140	98	28	9.7	5.9
27	4.2	3.5	3.5	3.1	3.7	6.1	20	169	95	26	9.3	5.3
28	4.1	3.6	3.5	3.2	3.5	8.3	17	198	87	24	8.2	5.2
29	3.6	3.6	3.5	3.3	---	8.6	16	221	85	24	8.2	5.1
30	4.0	3.5	3.5	3.2	---	10	15	214	77	22	7.9	5.2
31	3.7	---	3.6	3.2	---	10	---	200	---	20	8.2	---
TOTAL	124.9	103.7	107.2	105.2	85.4	161.3	477.9	2141	4644	1245	397.7	194.2
MEAN	4.03	3.46	3.46	3.39	3.05	5.20	15.9	69.1	155	40.2	12.8	6.47
MAX	4.8	3.8	3.7	3.7	3.9	10	46	221	281	71	20	9.7
MIN	2.9	3.0	3.2	3.0	2.1	3.5	8.1	15	77	20	7.9	5.1
AC-FT	248	206	213	209	169	320	948	4250	9210	2470	789	385
CAL YR 1985	TOTAL	3040.9		MEAN	8.33	MAX	58	MIN	1.3	AC-FT	6030	
WTR YR 1986	TOTAL	9787.5		MEAN	26.8	MAX	281	MIN	2.1	AC-FT	19410	

06222700 CROW CREEK NEAR TIPPERARY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)
OCT				
04...	1245	3.5	110	3.5
NOV				
24...	1205	3.3	86	0.0
JAN				
01...	1400	3.7	73	0.0
MAR				
03...	1300	3.5	89	1.0
MAY				
05...	1230	56	68	3.5
30...	1225	179	48	9.0
JUN				
04...	1805	257	42	7.0
JUL				
16...	1230	35	63	13.5
AUG				
27...	0855	9.7	60	7.0
SEP				
25...	1215	6.9	97	4.0

YELLOWSTONE RIVER BASIN

06224000 BULL LAKE CREEK ABOVE BULL LAKE, WY

LOCATION.--Lat 43°10'37", long 109°12'08", in NE1/4 SW1/4 sec.2, T.2 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 1.2 mi upstream from high-water line of Bull Lake and 9.0 mi south of Crowheart.

DRAINAGE AREA.--187 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1941 to December 1953, October 1966 to current year. Monthly discharge only for some periods, published in WSP 1309. Prior to October 1950, published as "above Bull Lake Reservoir."

GAGE.--Water-stage recorder. Elevation of gage is 5,874 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 8, 11-16, 21, 22, Jan. 22-24, and Feb. 6, 7. Records fair. No diversions upstream from station.

AVERAGE DISCHARGE.--32 years (water years 1942-53, 1967-86), 302 ft³/s, 218,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,470 ft³/s, June 9, 1981, gage height, 7.98 ft; minimum, 5.2 ft³/s, Jan. 28, 1970, gage height, 1.44 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 6	0700	*3,170	*6.92	June 17	1000	2,470	6.21

Minimum daily discharge, 20 ft³/s, Feb. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	139	72	60	28	29	65	81	262	2130	1800	570	393
2	138	71	60	28	28	67	75	298	2400	1570	566	359
3	129	69	63	27	28	69	69	430	2510	1500	569	315
4	125	66	66	25	27	68	66	584	2750	1740	584	284
5	114	64	63	28	24	64	64	536	2860	1980	584	272
6	115	62	63	29	23	62	66	458	2970	1580	570	266
7	109	61	61	29	21	61	81	450	2690	1180	557	267
8	94	58	60	29	20	66	89	419	2340	1130	574	259
9	108	56	65	30	21	68	110	371	2050	1130	566	259
10	99	59	67	29	25	62	104	339	1640	1310	543	264
11	95	62	52	29	24	60	103	327	1540	1130	505	246
12	99	64	60	27	24	59	99	297	1680	984	499	217
13	85	68	61	27	26	56	111	281	1900	883	512	195
14	92	70	62	26	27	54	104	284	2070	858	510	179
15	90	72	59	26	29	51	102	265	2180	954	479	163
16	73	74	59	26	30	47	112	266	2310	1090	453	151
17	77	75	56	27	33	51	122	252	2370	1150	446	137
18	76	73	52	26	39	49	123	252	2320	1100	452	125
19	72	59	48	26	44	45	123	291	2170	976	470	125
20	71	54	46	27	46	46	127	474	2150	875	482	121
21	69	52	43	25	47	46	173	708	2000	819	506	117
22	76	52	42	25	60	46	254	783	1800	812	549	108
23	77	52	39	24	64	45	441	641	1640	803	536	100
24	84	56	35	24	74	48	428	577	1620	826	502	95
25	86	63	34	23	78	48	356	624	1670	815	490	94
26	87	67	34	29	78	46	324	843	1610	802	511	91
27	86	63	28	29	72	48	303	1080	1690	742	513	90
28	84	62	32	29	66	51	288	1300	1900	647	484	95
29	81	60	31	28	---	65	275	1530	2060	616	455	93
30	77	60	31	30	---	76	265	1740	2100	598	429	93
31	75	---	28	29	---	91	---	1870	---	575	416	---
TOTAL	2882	1896	1560	844	1107	1780	5038	18832	63120	32975	15882	5573
MEAN	93.0	63.2	50.3	27.2	39.5	57.4	168	607	2104	1064	512	186
MAX	139	75	67	30	78	91	441	1870	2970	1980	584	393
MIN	69	52	28	23	20	45	64	252	1540	575	416	90
AC-FT	5720	3760	3090	1670	2200	3530	9990	37350	125200	65410	31500	11050
CAL YR 1985	TOTAL	73206		MEAN	201	MAX	1640	MIN	18	AC-FT	145200	
WTR YR 1986	TOTAL	151489		MEAN	415	MAX	2970	MIN	20	AC-FT	300500	

YELLOWSTONE RIVER BASIN

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06224000 BULL LAKE CREEK ABOVE BULL LAKE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)
OCT				
17...	1200	78	44	5.0
NOV				
26...	1240	69	50	0.0
JAN				
09...	0915	30	75	0.0
MAR				
11...	1150	54	71	0.5
APR				
12...	0920	122	52	4.0
MAY				
01...	1055	250	38	7.0
JUN				
07...	1325	2700	29	9.0
JUL				
16...	1105	1040	36	10.0
AUG				
28...	1120	486	31	14.5
SEP				
23...	1210	122	45	12.0

YELLOWSTONE RIVER BASIN

06225000 BULL LAKE CREEK NEAR LENORE, WY

LOCATION.--Lat 43°14'33", long 109°01'20", in NE1/4 NW1/4 sec.17, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 700 ft upstream from mouth, 2.8 mi downstream from Bull Lake, and 8.5 mi southeast of Lenore.

DRAINAGE AREA.--213 mi², of which 12 mi² is probably noncontributing.

PERIOD OF RECORD.--May 1918 to current year.

REVISED RECORDS.--WSP 1309: 1921 (M, date only), 1925(M), 1926(M), 1930(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,654 ft above National Geodetic Vertical Datum of 1929, from topographic map. May 18, 1918, to Sept. 30, 1922, at site 10 ft upstream at datum 0.86 ft higher; Oct. 1, 1922, to Oct. 3, 1934, at present site at datum 2.00 ft lower.

REMARKS.--Estimated daily discharges: Nov. 13-17, Nov. 19 to Dec. 25, Dec. 28 to Jan. 11, Jan. 24, 25, Feb. 8-15, July 21 to Aug. 14, and Sept. 11-17. Records good except those for estimated daily discharges, which are poor. Flow completely regulated by Bull Lake 2.8 mi upstream since April 1938. (See station 06224500.) Diversions upstream from station for irrigation of about 730 acres downstream. U.S. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--68 years, 280 ft³/s, 202,900 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,200 ft³/s, Aug. 8, 1951, gage height, 7.09 ft, result of automatic spillway gates releasing on Bull Lake Dam, from rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow; minimum prior to construction of Bull Lake Dam not determined, probably occurred during period of ice effect in March 1933; no flow Feb. 28 to Apr. 7, 1937 (result of regulation).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,780 ft³/s, July 3, gage height, 4.28 ft; minimum daily, 2.8 ft³/s, Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	238	33	26	17	13	32	23	33	39	1530	810	816
2	72	33	26	17	13	32	23	33	40	1740	800	811
3	35	33	27	17	13	38	24	32	40	1550	800	810
4	33	33	27	17	13	39	23	28	41	1370	800	790
5	33	33	27	17	13	39	23	27	44	1360	790	773
6	33	33	27	17	13	38	23	38	99	1410	790	773
7	33	33	27	17	13	29	24	59	373	1510	780	773
8	33	33	27	18	13	28	26	53	579	1250	780	769
9	32	33	27	18	13	29	25	49	626	830	780	765
10	33	33	28	18	13	28	23	49	671	669	770	760
11	33	33	28	18	14	27	23	48	720	756	770	480
12	33	33	29	18	14	27	24	48	721	848	770	340
13	33	33	29	17	14	27	24	48	726	882	760	510
14	32	33	29	17	15	27	25	48	733	882	760	700
15	33	32	29	17	15	27	43	48	740	898	760	700
16	33	32	29	17	15	26	45	49	766	898	814	690
17	32	32	29	18	15	25	47	49	842	894	897	670
18	32	33	28	18	15	10	48	48	933	921	882	637
19	32	28	25	17	15	3.9	46	48	987	966	826	632
20	32	28	23	16	18	2.8	39	48	1010	958	840	627
21	32	27	21	15	19	4.3	39	48	1180	941	835	624
22	32	25	20	16	26	8.0	39	49	1280	919	841	619
23	33	26	19	16	29	24	39	50	1330	904	853	616
24	33	26	18	16	29	26	39	51	1340	854	869	613
25	33	26	17	14	30	19	38	52	1280	830	869	610
26	33	25	16	14	32	31	37	52	1220	830	852	609
27	33	25	16	14	32	31	33	51	1220	820	854	578
28	33	26	16	14	32	23	33	48	1220	820	853	553
29	33	26	16	14	---	23	33	44	1230	820	842	552
30	33	26	17	14	---	23	33	41	1280	810	824	550
31	33	---	17	14	---	23	---	40	---	810	821	---
TOTAL	1261	905	740	507	509	770.0	964	1409	23310	31480	25292	19750
MEAN	40.7	30.2	23.9	16.4	18.2	24.8	32.1	45.5	777	1015	816	658
MAX	238	33	29	18	32	39	48	59	1340	1740	897	816
MIN	32	25	16	14	13	2.8	23	27	39	669	760	340
AC-FT	2500	1800	1470	1010	1010	1530	1910	2790	46240	62440	50170	39170
CAL YR 1985	TOTAL	99480		MEAN	273	MAX	1100	MIN	16	AC-FT	197300	
WTR YR 1986	TOTAL	106897.0		MEAN	293	MAX	1740	MIN	2.8	AC-FT	212000	

YELLOWSTONE RIVER BASIN

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06225500 WIND RIVER NEAR CROWHEART, WY

LOCATION.--Lat 43°14'33", long 109°00'35", in NW1/4 NW1/4 sec.16, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank 0.9 mi downstream from Bull Lake Creek and 9.0 mi southeast of Crowheart.

DRAINAGE AREA.--1,891 mi².

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1116: 1946-47. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,635 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 12 to Feb. 21 and July 6, 14. Records good except those for estimated daily discharges, which are poor. Some regulation by Bull Lake on Bull Lake Creek. (See station 06224500.) Diversions for irrigation of about 25,000 acres upstream from station. U.S. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--41 years, 1,241 ft³/s, 899,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s, June 16, 1963, gage height, 9.16 ft; maximum gage height, 9.59 ft, June 9, 1981; minimum daily discharge, 130 ft³/s, Feb. 5, 1982.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1927, reached a discharge of 13,000 ft³/s; discharge measurement made by Bureau of Reclamation at site 1.0 mi downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,300 ft³/s, June 6, gage height, 9.90 ft; minimum daily, 200 ft³/s, Feb. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	879	449	270	290	320	384	627	617	6020	5630	2000	1680
2	686	410	260	300	300	413	535	727	7220	5600	1940	1700
3	633	455	270	290	300	430	451	1160	8070	5260	1900	1540
4	615	446	280	290	280	412	403	1630	9110	5320	1940	1390
5	592	428	280	290	280	398	418	1560	9090	5680	1890	1300
6	588	424	290	290	270	391	466	1290	9460	5000	1860	1270
7	624	377	300	300	260	373	623	1330	8830	4670	1810	1300
8	668	452	300	290	250	390	728	1260	7760	4340	1790	1290
9	594	418	310	290	240	407	817	1110	6990	3320	1790	1270
10	574	346	310	300	230	381	733	1020	5960	2950	2030	1300
11	570	333	280	290	230	361	640	1060	5560	2990	1900	1010
12	586	370	260	290	220	348	596	859	5830	3410	1790	868
13	576	420	240	280	210	331	599	758	5730	3060	1750	1040
14	525	410	230	280	200	311	510	778	6170	2900	1680	1060
15	524	400	240	270	220	308	493	738	6530	3210	1560	1130
16	536	410	250	280	240	303	513	744	7480	3370	1570	1090
17	520	410	260	290	250	316	540	744	7990	3670	1650	1010
18	514	410	270	300	260	288	490	729	7980	3410	1640	949
19	495	350	270	310	280	252	441	810	7410	3120	1630	979
20	489	280	280	310	320	265	420	1140	7090	2990	1660	990
21	498	300	290	300	340	263	577	1900	6880	2870	1650	955
22	500	290	300	290	380	273	1070	2290	6290	2910	1700	907
23	501	260	300	280	356	322	1390	1810	6040	2710	1740	867
24	493	280	310	280	349	349	1460	1640	5960	2540	1860	868
25	511	320	320	280	392	350	1200	1860	6070	2650	1770	886
26	513	350	310	270	481	324	1000	2610	5740	2840	1800	886
27	504	350	310	290	428	313	871	3670	5980	2680	2170	863
28	495	350	300	310	388	361	780	4530	6120	2520	1980	844
29	502	330	290	320	---	472	707	5130	5880	2290	1810	832
30	483	290	290	330	---	578	658	5430	5790	2180	1690	821
31	471	---	290	330	---	668	---	5460	---	2090	1680	---
TOTAL	17259	11118	8760	9110	8274	11335	20756	56394	207030	108180	55630	32895
MEAN	557	371	283	294	296	366	692	1819	6901	3490	1795	1097
MAX	879	455	320	330	481	668	1460	5460	9460	5680	2170	1700
MIN	471	260	230	270	200	252	403	617	5560	2090	1560	821
AC-FT	34230	22050	17380	18070	16410	22480	41170	111900	410600	214600	110300	65250
CAL YR 1985	TOTAL	355008		MEAN	973	MAX	3620	MIN	170	AC-FT	704200	
WTR YR 1986	TOTAL	546741		MEAN	1498	MAX	9460	MIN	200	AC-FT	1084000	

YELLOWSTONE RIVER BASIN

06227600 WIND RIVER NEAR KINNEAR, WY

LOCATION.--Lat 43°08'34", long 108°42'32", in SW1/4 SE1/4 SW1/4 sec.13, T.2 N., R.1 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, at upstream side of bridge on Wyoming State Secondary Highway 132, and 1.7 mi southwest of Kinnear.

DRAINAGE AREA.--2,194 mi².

PERIOD OF RECORD.--October 1984 to current year.

RADIOCHEMICAL ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)
OCT 11...	1300	380	5.0	2.5	5.4	6.5
JAN 22...	1000	E286	0.0	2.6	4.3	<1.0
APR 24...	1100	1220	6.0	--	1.4	50
JUL 16...	1500	1620	19.0	--	<1.0	--

E-Estimate.

DATE	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 11...	5.5	4.3	4.0	3.4	0.12	3.0
JAN 22...	4.1	1.0	3.1	1.0	0.12	3.5
APR 24...	2.9	24	2.5	21	0.08	3.5
JUL 16...	--	--	2.6	--	0.6	1.0

06228000 WIND RIVER AT RIVERTON, WY

LOCATION.--Lat 43°00'38", long 108°22'32", in NE1/4 NW1/4 NW1/4 sec.2, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 265 ft downstream from bridge on State Highway 789, 1.1 mi southeast of post office in Riverton, and 1.5 mi upstream from Little Wind River.

DRAINAGE AREA.--2,309 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to August 1906, August to December 1907, May to October 1908, May 1911 to current year. Monthly discharge only for some periods, published in WSP 1309. Published as Big Wind River near Arapahoe Agency 1906 and as Big Wind River near Riverton 1907-08.

REVISED RECORDS.--WSP 1509: 1935. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,901.56 ft above National Geodetic Vertical Datum of 1929. See WSP 1729 for history of changes prior to Oct. 13, 1930. Oct. 13, 1930, to Apr. 15, 1968, water-stage recorder at site 280 ft upstream at datum 2.00 ft higher. Apr. 16 to Nov. 17, 1968, water-stage recorder at site 880 ft upstream at datum 2.00 ft higher. Nov. 18, 1968, to July 28, 1970, water-stage recorder at site 225 ft upstream at datum 2.00 ft higher. July 29, 1970, to Sept. 30, 1977, water-stage recorder at present site at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Nov. 11 to Mar. 9, Apr. 3-7, and May 12, 13. Records good except those for November to March, which are poor. Some regulation by Bull Lake beginning in 1938 (see station 06224500) and Pilot Butte Reservoir beginning in 1926, combined capacity, 182,000 acre-ft. Diversions upstream from station for irrigation of about 128,000 acres upstream and downstream from station. The Wyoming canal of the Riverton project is the major diversion. This diversion began in 1926 and part of it can be returned to the river upstream from station through Pilot wasteway. Additional waste water returns to river downstream from station through Fivemile and Muddy Creeks.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft³/s, June 15, 1935, gage height, 10.15 ft, present datum, from rating curve extended above 7,200 ft³/s; maximum gage height, 10.80 ft, Dec. 30, 1983 (backwater from ice); minimum daily discharge, 9.8 ft³/s, May 28, July 16, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,320 ft³/s, June 7, gage height, 9.56 ft; minimum daily, 53 ft³/s, May 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	530	300	380	380	350	676	101	4200	2620	329	454
2	136	501	270	370	370	350	547	79	4960	2590	250	473
3	118	514	280	360	370	350	480	224	5770	2390	236	435
4	117	535	300	360	360	360	420	774	6270	2150	232	409
5	486	523	320	360	350	370	350	915	6820	2330	219	395
6	621	514	320	350	340	400	300	534	6930	2150	187	339
7	617	483	340	350	320	450	250	450	6750	1800	168	341
8	651	489	350	350	300	470	310	510	6040	1630	161	344
9	646	520	360	350	280	460	330	480	5390	1260	151	327
10	485	465	370	340	270	448	343	318	4480	828	148	355
11	613	380	340	340	270	426	253	354	3840	695	158	378
12	615	340	320	330	260	422	223	272	3770	821	137	183
13	621	400	300	320	260	412	199	164	3970	873	120	141
14	587	450	300	320	270	393	269	98	4070	641	125	190
15	563	400	330	310	290	389	153	86	4150	633	134	182
16	575	370	350	310	320	376	148	89	4530	864	105	202
17	569	350	370	300	340	380	172	77	4700	978	114	211
18	564	330	390	310	350	382	164	70	4600	1060	129	194
19	558	310	400	320	370	328	143	53	4150	863	111	260
20	554	300	420	330	370	314	112	74	3730	747	106	280
21	553	300	430	340	350	313	108	647	3530	648	120	278
22	554	300	450	330	320	304	284	1330	3280	591	119	263
23	546	280	460	330	330	341	695	878	2970	560	129	254
24	546	280	470	330	360	370	861	330	2850	450	148	244
25	546	300	480	330	380	392	716	285	2880	409	146	242
26	566	330	480	330	400	381	431	844	2770	504	154	209
27	572	350	460	330	400	346	325	1640	2790	536	230	200
28	562	350	430	350	370	356	215	2330	2890	403	475	203
29	555	350	410	360	---	411	137	2930	2830	281	471	206
30	545	350	400	370	---	521	122	3480	2770	341	459	235
31	538	---	390	380	---	611	---	3850	---	328	457	---
TOTAL	15922	11894	11590	10540	9350	12176	9736	24266	128680	32974	6228	8427
MEAN	514	396	374	340	334	393	325	783	4289	1064	201	281
MAX	651	535	480	380	400	611	861	3850	6930	2620	475	473
MIN	117	280	270	300	260	304	108	53	2770	281	105	141
AC-FT	31580	23590	22990	20910	18550	24150	19310	48130	255200	65400	12350	16710
CAL YR 1985	TOTAL	111761		MEAN	306	MAX	1800	MIN	28	AC-FT	221700	
WTR YR 1986	TOTAL	281783		MEAN	772	MAX	6930	MIN	53	AC-FT	558900	

YELLOWSTONE RIVER BASIN

06228000 WIND RIVER AT RIVERTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-58, 1960 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	
DEC 23...	1245	461	470	0.0	190	53	15	26	0.8	2.6	
DATE	TIME	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC 23...	170		67	4.9	0.3	15	290	0.39	356	0.20	0.05

RADIOCHEMICAL ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	
OCT 10...	1105	430	4.0	2.5	3.3	3.6	
JAN 21...	1140	336	0.0	2.6	5.4	0.7	
APR 23...	0930	605	12.5	--	5.4	61	
JUL 23...	1035	576	18.0	--	5.9	--	
DATE		GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 10...		6.4	2.8	4.5	2.4	0.1	4.2
JAN 21...		4.0	2.3	3.1	2.3	0.1	4.7
APR 23...		4.0	26	3.4	22	0.09	1.8
JUL 23...		--	--	10	--	1.0	1.9

YELLOWSTONE RIVER BASIN

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06228000 WIND RIVER AT RIVERTON, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
MAY				
28...	1850	3120	5530	46600
28...	2200	3240	4850	42400
29...	0840	2650	1910	13700
30...	2030	3290	4010	35600
30...	2250	4250	4950	56800
31...	0830	3620	1860	18200
JUN				
02...	1520	4940	3050	40700
02...	2055	5590	3990	60200
03...	0810	5520	2630	39200
04...	2150	6720	2720	49400
05...	0530	7180	2080	40300
05...	1030	6340	1720	29400
12...	1625	4170	1890	21300
12...	2100	4570	1760	21700
13...	0735	3570	963	9280
24...	1650	3130	842	7120
24...	2000	3200	773	6680
25...	0820	2530	483	3300
26...	1600	2740	593	4390
26...	2120	2890	274	2140
27...	1015	2430	203	1330

YELLOWSTONE RIVER BASIN

06228350 SOUTH FORK LITTLE WIND RIVER ABOVE WASHAKIE RESERVOIR, NEAR FORT WASHAKIE, WY

LOCATION.--Lat 42°58'06", long 109°02'13", in SE1/4 SW1/4 sec.18, T.1 S., R.2 W., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 1.9 mi upstream from Washakie Dam and 8.0 mi southwest of Fort Washakie.

DRAINAGE AREA.--90.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 29 to Nov. 17, Nov. 26 to Dec. 1, and July 21. Records good.

AVERAGE DISCHARGE.--10 years, 132 ft³/s, 95,630 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,080 ft³/s, June 9, 1981, gage height, 8.21 ft; minimum daily, 4.5 ft³/s, Feb. 1-9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 740 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 6	0200	*1670	*7.43	July 3	1400	1060	6.13
June 17	0200	1440	6.97				

Minimum daily discharge, 16 ft³/s, Feb. 12-14.DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	32	43	19	18	44	54	67	1030	684	224	101
2	46	33	41	18	19	41	48	109	1120	776	214	94
3	44	34	40	19	19	38	42	180	1220	946	207	87
4	41	32	40	18	18	37	41	229	1320	759	204	80
5	40	32	42	18	18	36	43	171	1410	562	195	75
6	39	23	39	19	18	35	47	134	1470	602	183	71
7	43	22	37	19	18	34	57	123	1310	570	176	70
8	44	24	35	19	18	37	55	114	1250	605	189	66
9	44	22	36	19	17	36	65	98	1080	551	184	64
10	43	20	38	19	18	33	63	92	794	499	184	71
11	44	23	36	18	17	32	61	92	790	449	169	69
12	43	26	36	18	16	31	57	87	913	436	161	63
13	37	30	33	17	16	30	65	85	1050	479	156	62
14	39	32	32	17	16	28	54	91	1170	524	148	58
15	41	34	29	17	18	29	52	85	1230	545	139	55
16	39	35	29	17	18	26	56	85	1260	539	129	51
17	37	37	27	17	18	26	58	75	1270	492	126	48
18	36	40	26	17	21	26	53	81	1190	435	124	47
19	35	37	25	19	22	24	52	124	1140	390	123	47
20	35	36	26	19	24	25	55	220	1100	372	130	46
21	34	36	24	18	27	26	89	333	988	372	152	44
22	37	34	23	19	29	27	132	335	901	372	160	42
23	38	32	23	19	35	28	199	226	849	374	146	40
24	46	30	22	18	43	29	169	211	845	372	148	39
25	50	32	21	21	62	31	123	280	862	339	143	41
26	49	31	21	18	64	28	98	417	919	314	148	40
27	46	39	20	18	55	31	83	519	944	299	146	40
28	44	45	20	18	51	36	74	601	996	270	131	43
29	40	42	20	17	---	49	68	712	859	259	120	41
30	38	43	19	17	---	56	63	844	719	243	113	42
31	35	---	18	18	---	69	---	935	---	232	106	---
TOTAL	1275	968	921	564	733	1058	2176	7755	31999	14661	4878	1737
MEAN	41.1	32.3	29.7	18.2	26.2	34.1	72.5	250	1067	473	157	57.9
MAX	50	45	43	21	64	69	199	935	1470	946	224	101
MIN	34	20	18	17	16	24	41	67	719	232	106	39
AC-FT	2530	1920	1830	1120	1450	2100	4320	15380	63470	29080	9680	3450
CAL YR 1985	TOTAL	36876.8		MEAN	101	MAX	851	MIN	6.9	AC-FT	73150	
WTR YR 1986	TOTAL	68725		MEAN	188	MAX	1470	MIN	16	AC-FT	136300	

06228350 SOUTH FORK LITTLE WIND RIVER ABOVE WASHAKIE RESERVOIR, NEAR FORT WASHAKIE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 08...	1200	38	72	3.0	27	7.1	2.3	3.0	0.3	0.6
NOV 27...	1305	40	62	0.0	25	6.7	2.1	2.4	0.2	0.9
DEC 31...	1215	18	130	0.0	50	13	4.3	5.9	0.4	1.2
MAR 27...	1230	29	870	7.0	45	12	3.6	3.8	0.3	0.5
APR 22...	0930	112	56	6.0	23	4.6	2.7	1.1	0.1	0.6
JUN 06...	0935	1520	25	7.0	12	3.3	0.8	1.0	0.1	0.2
JUL 22...	0925	347	32	13.0	12	3.9	0.5	1.5	0.2	0.3
AUG 27...	1130	156	49	13.0	14	4.1	1.0	1.8	0.2	0.0
SEP 23...	1140	40	68	6.0	27	7.1	2.2	2.4	0.2	0.2

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 08...	22	4.1	4.8	<0.1	4.0	39	0.05	4.0	<0.10	0.02
NOV 27...	20	4.1	4.2	<0.1	4.2	37	0.05	4.0	<0.10	<0.01
DEC 31...	37	12	8.9	<0.1	6.2	74	0.1	3.6	0.13	<0.01
MAR 27...	32	3.6	10	0.1	2.7	55	0.08	4.3	0.20	0.03
APR 22...	19	1.9	2.3	0.1	6.0	31	0.04	9.3	0.10	0.01
JUN 06...	16	1.1	0.6	0.1	3.2	20	0.03	82	0.10	0.06
JUL 22...	16	0.9	1.5	0.1	1.2	19	0.03	18	0.10	0.04
AUG 27...	19	1.3	1.9	0.1	1.6	23	0.03	9.8	0.00	0.02
SEP 23...	29	2.6	3.1	0.1	3.6	39	0.05	4.2	0.00	0.00

YELLOWSTONE RIVER BASIN

06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WY

LOCATION.--Lat 42°57'35", long 108°29'51", in NW1/4 NW1/4 SW1/4 sec.23, T.1 S., R.3 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on left bank 0.4 mi southwest of Arapahoe school, 1.2 mi upstream from Popo Agie River, and 5.4 mi downstream from Seventeen Mile bridge.

DRAINAGE AREA.--660 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1906 to December 1909, May 1911 to November 1918, October 1979 to current year. Prior to October 1979, intermittent record. Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Elevation of gage is 4,990 ft above National Geodetic Vertical Datum of 1929, from topographic map. May 1906 to December 1909, nonrecording gage 300 ft upstream at different datum, and May 1911 to November 1918, nonrecording gage 0.3 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 19 to Mar. 5. Records fair except those for estimated daily discharges, which are poor. Some regulation by Washakie Reservoir, 34 mi upstream, capacity 7,940 acre-ft, and return flow from irrigation. Diversions for irrigation of about 26,000 acres upstream from station.

AVERAGE DISCHARGE.--7 years (water years 1980-86), 217 ft³/s, 157,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 3,840 ft³/s, June 17, 1911, gage height, 6.60 ft, datum then in use; maximum gage height, 12.15 ft, June 10, 1981, June 13, 1983; minimum daily discharge recorded, 14 ft³/s, May 18, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 7	1000	*2780	*11.79	June 18	0300	2320	11.29

Minimum daily discharge, 51 ft³/s, Aug 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	130	110	90	80	190	99	107	1380	1300	225	87
2	114	128	120	90	82	180	103	83	1670	1050	215	84
3	112	118	120	94	82	170	103	91	1870	882	198	86
4	102	124	120	90	84	160	103	129	2080	878	197	74
5	95	121	130	88	82	150	99	154	2350	1110	181	67
6	92	119	120	88	82	151	98	136	2570	1150	128	74
7	92	130	120	88	80	149	99	140	2690	823	98	77
8	89	109	110	88	82	148	108	220	2520	731	82	81
9	90	127	110	88	80	148	143	244	2310	746	94	77
10	101	98	110	88	76	151	180	217	1910	752	150	80
11	115	90	100	88	72	142	179	180	1320	755	169	101
12	126	100	90	84	72	130	176	157	1270	616	161	91
13	133	110	100	80	74	104	170	129	1470	567	137	90
14	132	110	110	78	74	100	164	124	1770	481	101	91
15	126	100	110	80	74	97	164	110	2040	440	93	91
16	131	110	100	80	76	92	166	100	2170	511	77	85
17	131	110	100	84	78	92	170	97	2220	596	67	70
18	128	110	100	88	82	93	179	95	2200	584	62	63
19	126	110	100	86	90	94	177	91	1990	554	51	64
20	123	100	100	84	100	94	164	94	1860	503	57	61
21	119	100	100	80	96	94	161	109	1750	469	75	61
22	125	96	110	80	92	92	177	117	1490	404	91	62
23	121	90	110	80	98	92	182	106	1250	366	75	55
24	125	88	110	82	100	92	247	72	1150	361	74	68
25	118	90	110	84	120	92	235	69	1130	415	87	72
26	122	100	100	82	140	92	209	76	1080	414	80	74
27	133	110	98	80	170	92	192	110	1060	390	116	72
28	135	120	96	76	200	90	180	188	1150	354	105	76
29	134	120	94	76	---	88	167	260	1290	289	89	80
30	132	120	92	76	---	94	132	576	1390	257	86	91
31	126	---	90	78	---	97	---	1140	---	231	85	---
TOTAL	3634	3288	3290	2598	2618	3650	4726	5521	52400	18979	3506	2305
MEAN	117	110	106	83.8	93.5	118	158	178	1747	612	113	76.8
MAX	135	130	130	94	200	190	247	1140	2690	1300	225	101
MIN	86	88	90	76	72	88	98	69	1060	231	51	55
AC-FT	7210	6520	6530	5150	5190	7240	9370	10950	103900	37640	6950	4570
CAL YR 1985	TOTAL	40158		MEAN	110	MAX	824	MIN	19	AC-FT	79650	
WTR YR 1986	TOTAL	106515		MEAN	292	MAX	2690	MIN	51	AC-FT	211300	

06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WY--Continued

WATER-QUALITY DATA

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
DEC 27...	1145	98	899	0.0	360	82	37	63	1	3.1
MAY 27...	0915	100	657	16.0	240	55	24	53	2	1.9
JUN 09...	1050	2150	193	10.0	78	22	5.7	10	0.5	1.2

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
DEC 27...	180	280	12	0.4	10	600	0.81	158	0.40	0.09
MAY 27...	120	230	7.6	0.3	1.2	440	0.61	120	0.00	0.15
JUN 09...	57	39	1.5	0.1	4.3	120	0.16	685	0.70	0.15

RADIOCHEMICAL ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 10...	1350	103	4.0	3.2	17	<1.1	11	<0.4	6.7	<0.4	0.26	7.5
JAN 23...	1115	79	0.0	2.2	8.9	<1.0	4.7	0.9	3.3	0.9	0.61	5.5
APR 16...	1200	158	5.0	--	12	4.6	5.0	4.7	3.8	4.2	0.42	5.1
JUL 17...	1120	599	18.0	--	<1.0	--	--	--	2.8	--	<0.7	2.0

YELLOWSTONE RIVER BASIN

06232600 POPO AGIE RIVER AT HUDSON SIDING, NEAR LANDER, WY

LOCATION.--Lat 42°51'59", long 108°41'04", in NW1/4 NE1/4 sec.30, T.2 S., R.2 E., Fremont County, Hydrologic Unit 10080003, Wind River Indian Reservation, on left bank at bridge on private road, 1.2 mi downstream from North Popo Agie River, and 3.2 mi northeast of Lander.

PERIOD OF RECORD.--October 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 09...	0905	125	660	8.2	2.0	628	11.4
DEC 02...	1435	93	555	8.1	0.0	622	12.5
JAN 02...	1145	78	530	8.1	0.0	638	12.6
FEB 12...	1500	69	420	8.2	0.0	620	12.6
MAR 12...	1230	99	500	8.1	7.0	620	11.6
APR 22...	1230	185	302	8.5	14.5	626	8.5
JUN 10...	1210	2200	280	8.0	10.0	628	9.4
JUL 22...	1145	520	250	8.2	14.0	643	9.5
AUG 27...	1350	122	565	8.2	17.5	638	11.8
SEP 23...	1400	68	730	8.6	13.0	623	10.9

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 09...	100	K40	0.10	0.09	0.31	0.4	0.05
DEC 02...	105	K23	0.30	0.14	0.26	0.4	0.05
JAN 02...	103	86	0.30	0.31	0.19	0.5	0.10
FEB 12...	106	87	0.40	0.43	0.37	0.8	0.19
MAR 12...	118	180	0.20	0.14	0.36	0.5	0.11
APR 22...	102	K11	<0.10	0.03	0.47	0.5	0.05
JUN 10...	101	110	<0.10	0.03	0.37	0.4	0.15
JUL 22...	110	K82	<0.10	0.01	0.39	0.4	0.05
AUG 27...	148	160	<0.10	<0.01	--	0.3	0.06
SEP 23...	127	27	<0.10	0.11	0.49	0.6	0.06

K-Results based on colony count outside the acceptable range (non-ideal colony count).

06233000 LITTLE POPO AGIE RIVER NEAR LANDER, WY

LOCATION.--Lat 42°43'00", long 108°38'34", in NE1/4 SE1/4 sec.27, T.32 N., R.99 W., Fremont County, Hydrologic Unit 10080003, on left bank 700 ft downstream from bridge on State Highway 28, 2.5 mi downstream from Red Canyon Creek, and 9.5 mi southeast of post office in Lander.

DRAINAGE AREA.--125 mi².

PERIOD OF RECORD.--March 1946 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,436.49 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 540 acres upstream from station. Slight regulation by Christina Lake, capacity, about 3,860 acre-ft.

COOPERATION.--Records provided by Office of Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--25 years (water years 1947-71), 80.3 ft³/s, 58,180 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft³/s, June 16, 1963, gage height, 6.64 ft; minimum daily, 12 ft³/s, Jan. 20, 21, Feb. 26 to Mar. 2, 1960, Jan. 10, 11, 18, 19, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 6	0430	*1,240	*5.57	No other peak greater than base discharge.			

Minimum daily discharge during period of operation, 46 ft³/s, Apr. 4, 5, and Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							48	140	996	505	105	76
2							51	170	1070	436	100	76
3							48	230	1070	427	96	74
4							46	295	1140	475	93	71
5							46	296	1100	476	91	67
6							50	265	1160	342	87	67
7							58	252	1100	317	83	67
8							59	234	1020	328	85	67
9							61	211	999	332	81	65
10							65	188	889	324	83	78
11							66	219	816	294	76	74
12							65	189	837	263	74	69
13							73	174	882	234	102	65
14							69	163	907	224	93	64
15							66	160	930	227	100	62
16							69	160	884	230	93	60
17							76	152	938	254	93	59
18							73	160	921	231	89	59
19							69	190	871	207	89	60
20							71	251	847	184	105	57
21							84	355	797	178	118	54
22							99	426	723	166	103	49
23							144	400	645	161	96	47
24							168	392	634	158	96	46
25							168	416	605	150	93	51
26							157	489	567	158	98	49
27							142	564	590	148	100	47
28							135	684	583	135	91	51
29							135	816	591	126	85	50
30							130	879	579	118	81	47
31							---	928	---	113	78	---
TOTAL							2591	10448	25691	7921	2857	1828
MEAN							86.4	337	856	256	92.2	60.9
MAX							168	928	1160	505	118	78
MIN							46	140	567	113	74	46

YELLOWSTONE RIVER BASIN

06233900 POPO AGIE RIVER NEAR ARAPAHOE, WY

LOCATION.--Lat 42°56'47", long 108°30'34", in NE1/4 NE1/4 SW1/4 sec.27, T.1 S., R.3 E., Fremont County, Hydrologic Unit 10080003, Wind River Indian Reservation, on left bank 1.4 mi southwest of Arapahoe school and 3.0 mi upstream from Little Wind River.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,995.72 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 10 to Mar. 4 and Mar. 23 to Apr. 16. Records good except those for November to April, which are poor. Diversions for irrigation of about 36,900 acres upstream from station.

AVERAGE DISCHARGE.--7 years, 390 ft³/s, 282,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD: Maximum discharge, 4,240 ft³/s, June 12, 1983, gage height, 9.93 ft; minimum daily, 28 ft³/s, Aug. 6, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 6	1600	*3,960	*9.62	No other peak greater than base discharge.			

Minimum daily discharge, 98 ft³/s, Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191	150	130	120	120	280	210	379	2910	2000	377	299
2	197	136	140	120	120	270	210	405	3170	1740	346	305
3	185	147	140	120	120	240	250	521	3370	1670	332	293
4	176	142	140	110	120	225	240	701	3610	1820	327	273
5	178	141	150	110	120	213	200	802	3710	2010	331	257
6	178	136	140	110	120	180	160	741	3800	1540	305	245
7	172	116	140	110	120	161	170	728	3750	1260	266	269
8	180	129	130	110	120	153	190	783	3470	1390	264	264
9	175	126	130	110	110	170	210	721	3400	1340	266	246
10	173	110	130	110	100	172	200	654	3080	1420	282	313
11	172	120	120	110	98	151	220	605	2550	1180	284	329
12	173	120	110	110	99	141	240	601	2580	1080	274	278
13	166	130	120	110	100	133	280	550	2790	969	260	259
14	160	120	130	110	110	128	300	502	3110	928	268	258
15	159	120	130	120	110	130	290	461	3310	989	259	252
16	154	110	120	120	120	124	268	437	3190	1050	230	246
17	150	110	120	120	130	123	290	428	3280	1060	233	226
18	145	110	120	130	140	125	325	423	3270	1060	229	227
19	140	110	120	120	150	116	281	448	3090	967	216	240
20	141	120	120	120	140	120	265	553	3000	859	231	241
21	143	110	120	120	140	116	281	811	2840	801	289	202
22	135	110	130	120	130	116	320	1120	2580	743	297	172
23	142	100	130	120	140	115	409	1010	2340	710	276	151
24	141	100	130	120	150	120	519	926	2260	665	293	144
25	156	100	130	130	160	130	518	918	2180	629	306	157
26	177	110	120	120	200	140	504	1150	2090	631	317	157
27	172	120	120	120	250	130	473	1410	2170	600	347	158
28	161	130	120	110	290	130	437	1670	2210	537	335	164
29	158	140	120	110	---	150	404	2040	2220	483	321	162
30	152	140	120	110	---	150	373	2330	2290	440	327	165
31	154	---	120	120	---	160	---	2670	---	399	312	---
TOTAL	5056	3663	3940	3600	3827	4812	9037	27498	87620	32970	9000	6952
MEAN	163	122	127	116	137	155	301	887	2921	1064	290	232
MAX	197	150	150	130	290	280	519	2670	3800	2010	377	329
MIN	135	100	110	110	98	115	160	379	2090	399	216	144
AC-FT	10030	7270	7810	7140	7590	9540	17920	54540	173800	65400	17850	13790
CAL YR 1985	TOTAL	76278		MEAN	209	MAX	1210	MIN	56	AC-FT	151300	
WTR YR 1986	TOTAL	197975		MEAN	542	MAX	3800	MIN	98	AC-FT	392700	

06233900 POPO AGIE RIVER NEAR ARAPAHOE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1980 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 10...	1455	435	887	4.0	390	91	39	68	2	2.2
NOV 20...	1210	115	911	0.0	340	83	33	55	1	2.4
DEC 24...	1230	128	856	0.0	350	85	34	56	1	2.0
JAN 23...	1300	119	976	0.0	390	91	39	65	1	2.5
MAR 06...	1130	186	848	6.5	360	86	35	56	1	2.5
MAY 27...	1200	1480	215	12.0	95	28	6.2	7.4	0.3	0.6
JUN 09...	1315	3610	188	9.0	72	19	6.0	11	0.6	0.9
JUL 17...	1340	1090	291	18.0	110	29	9.6	16	0.7	0.9
SEP 30...	1440	155	838	8.0	340	87	30	56	1	1.5

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 10...	154	300	6.4	0.3	7.0	610	0.82	712	<0.10	<0.01
NOV 20...	170	280	6.1	0.3	8.2	570	0.78	177	0.61	0.02
DEC 24...	166	280	6.3	0.3	11	570	0.78	198	0.68	0.06
JAN 23...	188	310	8.3	0.3	11	640	0.87	206	0.84	0.08
MAR 06...	160	310	7.3	0.3	6.1	600	0.81	301	0.50	0.14
MAY 27...	77	35	1.3	0.1	6.9	130	0.18	526	0.10	0.72
JUN 09...	59	39	1.0	0.1	5.2	120	0.16	1150	0.10	0.23
JUL 17...	70	73	2.0	0.2	4.8	180	0.24	522	0.10	0.14
SEP 30...	180	270	4.3	0.3	6.8	560	0.77	236	0.00	0.01

YELLOWSTONE RIVER BASIN

06233900 POPO AGIE RIVER NEAR ARAPAHOE, WY--Continued

RADIOCHEMICAL ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 10...	1455	435	4.0	2.2	12	0.8	11	0.9	6.5	0.9	0.15	8.1
JAN 23...	1300	119	0.0	2.3	11	<0.7	5.9	0.5	0.5	0.5	0.12	6.0
APR 16...	1000	272	5.0	--	10	6.1	3.8	4.7	2.9	4.2	0.08	4.3
JUL 17...	1340	1090	18.0	0.9	1.7	--	--	--	2.7	--	<0.5	1.5

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
APR 24...	1410	540	11.0	0.01	0.08	<0.01	<0.01	<0.01	<0.01
MAY 27...	1200	1480	12.0	0.01	0.11	<0.01	<0.01	<0.01	<0.01
JUN 09...	1315	3610	9.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
JUL 17...	1340	1090	18.0	0.01	0.03	0.02	<0.01	<0.01	<0.01
AUG 26...	1140	323	20.0	0.03	0.07	0.03	<0.01	<0.01	<0.01
SEP 30...	1440	155	8.0	0.03	0.04	<0.01	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN

79

06235000 BEAVER CREEK NEAR ARAPAHOE, WY

LOCATION.--Lat 42°57'16", long 108°25'39", in NW1/4 NE1/4 sec.29, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, at former gaging station, 1.0 mi upstream from mouth, and 3.8 mi east of Arapahoe.

DRAINAGE AREA.--354 mi².

PERIOD OF RECORD.--Water years 1950-53, 1968-81, October 1984 to current year.

RADIOCHEMICAL ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)
OCT 18...	1430	5.0	7.0	15	22	40
JAN 29...	1500	E2.0	0.0	17	<22	9.9
APR 30...	1550	81	16.0	--	14	300
JUL 23...	0815	E1.0	22.0	--	<3.0	--

E-Estimate.

DATE	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 18...	31	11	23	8.6	0.23	9.4
JAN 29...	25	7.3	16	7.0	0.16	14
APR 30...	7.4	68	5.8	55	0.14	4.9
JUL 23...	--	--	8.1	--	0.5	7.7

YELLOWSTONE RIVER BASIN

06235500 LITTLE WIND RIVER NEAR RIVERTON, WY

LOCATION.--Lat 42°59'51", long 108°22'29", in NE1/4 NW1/4 sec.11, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 1.8 mi upstream from mouth and 1.9 mi southeast of Riverton.

DRAINAGE AREA.--1,904 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to current year. Prior to October 1958, published as Popo Agie River near Riverton.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,901.84 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 19, 1956, at site 600 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 12 to Mar. 7. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 62,900 acres upstream from station. U.S. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--45 years, 592 ft³/s, 428,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft³/s, June 17, 1963, gage height, 10.85 ft; minimum daily, 41 ft³/s, Aug. 7, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 6	2400	*6,560	*7.99	June 18	2200	6,020	7.72

Minimum daily discharge, 190 ft³/s, Feb. 11-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	291	311	270	220	210	500	353	561	4160	3570	527	414
2	316	296	290	220	210	480	355	557	4500	2990	490	409
3	309	297	290	230	210	460	396	644	5010	2650	465	401
4	290	298	290	220	210	420	384	885	5470	2770	459	377
5	285	294	310	210	210	400	340	1110	5900	3270	462	351
6	286	287	290	210	210	400	296	1080	6220	2940	434	343
7	283	277	290	210	210	390	303	1010	6470	2210	388	361
8	285	270	270	210	210	379	330	1150	6080	2220	380	368
9	291	285	270	210	210	387	391	1140	5750	2190	378	352
10	292	245	270	210	200	393	419	1010	5270	2310	428	377
11	303	232	250	210	190	367	433	885	4120	2070	451	438
12	315	240	230	200	190	345	452	836	3900	1720	447	396
13	335	260	240	200	190	300	487	790	4230	1560	412	378
14	322	230	260	210	210	282	514	718	4620	1430	399	375
15	317	240	260	210	210	278	507	644	5140	1460	386	370
16	314	250	240	210	220	272	492	603	5410	1610	367	359
17	311	250	240	230	230	269	509	581	5400	1670	353	332
18	305	240	240	220	240	274	584	549	5720	1690	351	313
19	298	240	240	220	270	267	514	562	5560	1530	325	322
20	295	240	240	210	270	257	476	628	5350	1360	327	324
21	294	240	240	210	270	253	468	851	5190	1270	381	302
22	292	240	250	210	260	251	512	1170	4490	1140	418	274
23	295	230	250	210	270	249	563	1190	3970	1060	390	257
24	298	230	250	210	280	257	747	1060	3680	979	388	250
25	306	230	230	220	310	262	822	1000	3520	991	412	267
26	331	240	230	210	370	275	802	1150	3360	996	405	267
27	337	260	230	210	450	261	795	1400	3390	935	448	264
28	328	270	230	200	520	264	733	1680	3540	847	458	268
29	324	280	220	200	---	281	670	2090	3710	716	431	272
30	316	280	220	200	---	283	622	2560	3910	638	430	276
31	312	---	220	210	---	295	---	3630	---	556	423	---
TOTAL	9476	7782	7850	6560	7040	10051	15269	33724	143040	53348	12813	10057
MEAN	306	259	253	212	251	324	509	1088	4768	1721	413	335
MAX	337	311	310	230	520	500	822	3630	6470	3570	527	438
MIN	283	230	220	200	190	249	296	549	3360	556	325	250
AC-FT	18800	15440	15570	13010	13960	19940	30290	66890	283700	105800	25410	19950
CAL YR 1985	TOTAL	120855		MEAN	331	MAX	1890	MIN	94	AC-FT	239700	
WTR YR 1986	TOTAL	317010		MEAN	869	MAX	6470	MIN	190	AC-FT	628800	

YELLOWSTONE RIVER BASIN

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06235500 LITTLE WIND RIVER NEAR RIVERTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-58, 1960-64, 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
DEC 23...	1550	241	902	0.0	360	85	35	65	2	2.3	170
JUN 04...	1400	5620	224	12.5	92	27	6.0	9.9	0.5	1.6	70
10...	1515	5200	--	12.0	--	--	--	--	--	--	--

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	SELE- NIUM, TOTAL (UG/L AS SE)
DEC 23...	280	14	0.4	10	590	0.81	386	0.50	0.05	--
JUN 04...	41	1.8	0.1	5.4	130	0.18	2050	0.10	0.39	--
10...	--	--	--	--	--	--	--	--	--	<1

RADIOCHEMICAL ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)
OCT 10...	0935	293	3.0	2.8	11	<0.8
JAN 21...	1435	206	0.0	2.6	6.7	<0.5
APR 21...	1400	461	7.0	--	14	20
JUL 15...	0930	1360	17.0	--	3.6	--

DATE	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 10...	11	2.3	6.7	2.3	0.16	7.9
JAN 21...	4.2	<0.6	3.2	<0.6	0.2	6.0
APR 21...	6.0	15	4.6	14	0.19	4.9
JUL 15...	--	--	2.4	--	<0.5	1.7

YELLOWSTONE RIVER BASIN

06236100 WIND RIVER ABOVE BOYSEN RESERVOIR, NEAR SHOSHONI, WY

LOCATION.--Lat 43°07'43", long 108°13'28", in NW1/4 NE1/4 sec.25, T.2 N., R.5 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, 4.0 mi upstream from Muskrat Creek, 5.3 mi upstream from high-water line of Boysen Reservoir at elevation 4,725 ft, and 9.4 mi southwest of Shoshoni.

DRAINAGE AREA.--4,390 mi².

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT 09...	1120	1480	620	8.1	5.0	628	11.4	107
NOV 15...	1130	580	580	8.2	0.0	638	13.4	110
DEC 19...	1125	640	520	8.0	0.0	632	12.0	99
JAN 22...	1140	600	600	8.1	0.0	635	12.0	99
APR 23...	1300	1500	500	7.9	15.0	635	8.6	103
JUN 10...	0920	10000	450	8.0	9.0	632	9.8	102
JUL 23...	0735	1650	550	8.1	18.0	640	8.8	111
AUG 25...	1415	746	620	8.0	22.0	644	7.4	101
SEP 30...	1320	780	650	8.0	7.0	--	10.4	--

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	SELE- NIUM, TOTAL (UG/L AS SE)
OCT 09...	1700	0.10	0.14	0.66	0.8	0.14	--
NOV 15...	1200	0.20	0.07	0.53	0.6	0.03	--
DEC 19...	2300	0.40	0.15	0.15	0.3	0.05	--
JAN 22...	K11	<0.40	0.14	0.36	0.5	0.07	--
APR 23...	1200	<0.10	0.05	1.2	1.3	0.09	--
JUN 10...	K620	<0.10	0.03	0.47	0.5	0.17	<1
JUL 23...	1500	<0.10	<0.01	--	0.4	0.09	--
AUG 25...	K120	<0.10	<0.01	--	0.3	0.06	--
SEP 30...	290	<0.10	<0.01	--	0.5	0.02	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

LOCATION.--Lat 43°13'20", long 108°13'06", in NW1/4 SW1/4 sec.19, T.3 N., R.6 E., Fremont County, Hydrologic Unit 10080005, 1.2 mi upstream from normal high-water line of Boysen Reservoir at elevation 4,725 ft and 5.0 mi west of Shoshoni.

PERIOD OF RECORD.--Water years 1948 to July 1986 (discontinued).

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)
OCT 09...	1040	146	1790	4.0	460	130	33	240	5	3.7	240
DEC 19...	1215	43	2090	0.0	540	150	41	290	6	4.5	280
APR 23...	1145	141	1020	13.0	280	77	22	120	3	3.1	170
JUN 10...	0945	391	--	14.0	--	--	--	--	--	--	--

[illegible]

YELLOWSTONE RIVER BASIN

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY

LOCATION.--Lat 43°25'30", long 108°10'42", in NW1/4 SW1/4 sec.9, T.5 N., R.6 E., Fremont County, Hydrologic Unit 10080005, on right bank 0.6 mi downstream from Boysen Dam and 13 mi north of Shoshoni.

DRAINAGE AREA.--7,701 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,608.58 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: July 7-10, 17-23. Records good. Flow regulated by Boysen Reservoir (station 06258900) since October 1951. Natural flow also affected by Bull Lake, Pilot Butte Reservoir, and several small reservoirs, combined capacity, 190,000 acre-ft, and diversions for irrigation of about 196,000 acres upstream from station.

AVERAGE DISCHARGE.--35 years, 1,454 ft³/s, 1,053,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft³/s, July 7, 1967, gage height, 13.35 ft; minimum daily, 4.7 ft³/s, Apr. 3, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,520 ft³/s, June 17, gage height, 10.21 ft; minimum daily, 549 ft³/s, Oct. 11, 13, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	558	691	798	900	893	917	2170	2090	2240	4450	2370	1530
2	557	692	796	903	908	919	2180	2090	2440	4900	1910	1540
3	558	693	793	910	923	920	2130	2100	2710	4890	1600	1540
4	553	695	793	911	930	918	2130	2100	2720	4910	1110	1540
5	552	691	794	909	917	911	2140	2110	2990	4900	1090	1550
6	553	731	793	919	926	906	2120	2110	3830	4910	1090	1550
7	572	683	795	918	899	909	2120	2120	4470	4910	1090	1550
8	560	678	806	910	919	912	2120	2120	4540	4910	1080	1550
9	558	701	816	888	891	914	2110	2120	5160	4910	1090	1550
10	550	675	806	895	922	987	2110	2120	6200	4910	1100	1550
11	549	683	805	923	986	1410	2120	2120	7010	4920	1090	1540
12	553	695	806	914	995	1880	2110	2120	7210	4910	1150	1550
13	549	701	808	908	981	2240	2120	2110	7180	4910	1350	1550
14	550	689	807	906	969	2240	2100	2110	6520	4720	1380	1540
15	549	692	803	902	971	2230	2100	2110	6030	4080	1450	1530
16	635	697	820	911	971	2220	2100	2110	6080	3950	1570	1530
17	702	696	888	912	971	2250	2100	2110	6370	3950	1560	1520
18	700	697	887	912	970	2270	2090	2110	6680	3950	1550	1520
19	701	693	890	913	946	2260	2080	2110	6670	3950	1550	1540
20	705	776	887	916	939	2240	2090	2110	6410	3950	1550	1530
21	703	901	887	900	931	2200	2090	2120	5640	3950	1550	1530
22	689	1010	890	893	936	2200	2080	2110	5490	3950	1540	1530
23	691	1010	893	893	935	2210	2080	2110	4790	3800	1530	1530
24	691	1010	892	924	952	2220	2080	2120	3490	3750	1530	1520
25	695	972	894	895	927	2230	2080	2130	3060	3500	1540	1520
26	696	903	900	898	931	2180	2080	2150	3090	3180	1540	1530
27	690	909	899	915	923	2240	2080	2180	3110	3200	1550	1540
28	688	925	901	903	919	2180	2080	2190	3120	3000	1540	1540
29	686	906	903	907	---	2170	2080	2200	3130	2830	1540	1530
30	689	880	904	907	---	2170	2080	2210	3540	2850	1540	1530
31	690	---	898	903	---	2180	---	2230	---	2850	1530	---
TOTAL	19372	23375	26252	28118	26281	54633	63150	65950	141920	128750	44660	46100
MEAN	625	779	847	907	939	1762	2105	2127	4731	4153	1441	1537
MAX	705	1010	904	924	995	2270	2180	2230	7210	4920	2370	1550
MIN	549	675	793	888	891	906	2080	2090	2240	2830	1080	1520
AC-FT	38420	46360	52070	55770	52130	108400	125300	130800	281500	255400	88580	91440
CAL YR 1985	TOTAL	372224		MEAN	1020	MAX	1400	MIN	549	AC-FT	738300	
WTR YR 1986	TOTAL	668561		MEAN	1832	MAX	7210	MIN	549	AC-FT	1326000	

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954, 1961 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1953 to September 1954, December 1960 to September 1981.

WATER TEMPERATURES: December 1953 to September 1954, December 1960 to September 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)
OCT												
03...	1300	569	655	8.3	6.6	11.5	637	9.1	100	<1	K3	200
NOV												
06...	1100	714	790	8.4	--	9.0	636	10.6	109	<1	--	240
DEC												
04...	1115	778	770	7.8	1.2	4.0	648	11.3	101	K1	K4	240
JAN												
07...	1155	910	780	8.0	--	3.0	652	11.5	100	<1	--	250
FEB												
05...	1200	915	760	8.2	1.0	0.0	637	11.0	90	<1	<1	250
MAR												
05...	1130	865	720	8.4	--	3.5	670	11.9	102	<1	--	270
APR												
07...	1215	2110	800	8.1	1.4	5.5	644	13.4	126	<1	<1	250
MAY												
07...	1410	2070	795	8.2	--	9.0	637	9.1	94	<1	--	260
JUN												
09...	1245	5470	780	8.3	--	13.0	646	9.1	102	<1	86	--
JUL												
10...	0950	5250	375	7.9	--	17.0	644	8.0	98	K2	--	140
AUG												
06...	1130	1100	440	7.8	5.5	18.5	648	7.6	96	K5	K2	140
SEP												
04...	1100	1540	445	7.9	--	19.5	651	8.2	105	K3	--	120

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CAC03)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L - CAC03)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT											
03...	40	23	97	3	2.7	146	217	219	267	0	210
NOV											
06...	63	20	72	2	2.9	149	--	--	--	--	220
DEC											
04...	62	21	74	2	3.0	158	148	--	--	0	230
JAN											
07...	62	22	77	2	3.4	161	--	--	--	--	230
FEB											
05...	63	22	77	2	3.1	166	--	--	--	--	240
MAR											
05...	69	23	79	2	3.2	173	--	--	--	--	220
APR											
07...	64	22	72	2	3.2	170	178	179	218	0	260
MAY											
07...	66	23	78	2	3.1	166	--	--	--	--	250
JUN											
09...	--	--	--	--	--	--	--	--	--	--	--
JUL											
10...	37	11	35	1	1.8	100	--	--	--	--	98
AUG											
06...	38	11	35	1	2.2	99	--	--	--	--	98
SEP											
04...	30	10	36	2	2.4	102	--	--	--	--	100

YELLOWSTONE RIVER BASIN

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	CHLORIDE, DIS- SOLVED (MG/L AS CL)	FLUORIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
OCT 03...	8.8	0.4	16	495	530	0.67	760	--	0.13	0.12	0.11
NOV 06...	11	0.4	7.0	489	490	0.67	943	0.20	0.16	0.08	--
DEC 04...	8.9	0.4	6.0	496	490	0.67	1040	--	0.18	0.09	0.11
JAN 07...	8.8	0.4	6.0	522	510	0.71	1280	0.20	2.30	0.09	--
FEB 05...	9.2	0.4	6.6	528	520	0.72	1300	--	0.21	0.07	0.07
MAR 05...	9.0	0.4	7.9	524	520	0.71	1220	0.20	0.23	0.04	--
APR 07...	8.1	0.4	8.0	546	540	0.74	3110	--	0.27	0.06	0.06
MAY 07...	11	0.4	8.2	536	540	0.73	3000	0.20	0.21	0.11	--
JUN 09...	--	--	--	--	--	--	--	--	0.30	0.14	0.14
JUL 10...	4.4	0.2	8.9	--	260	0.35	3630	0.20	0.20	0.01	--
AUG 06...	4.2	0.2	9.9	268	260	0.36	796	--	0.20	0.05	0.06
SEP 04...	4.1	0.2	9.4	270	250	0.37	1120	0.10	0.13	<0.01	--

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 03...	0.14	0.38	0.5	0.05	0.05	0.04	0.12	34	52	--
NOV 06...	--	0.32	0.4	0.04	--	--	--	--	--	--
DEC 04...	0.14	0.31	0.4	0.01	0.01	0.01	0.03	4	8.4	82
JAN 07...	--	0.31	0.4	0.02	--	--	--	--	--	--
FEB 05...	0.09	0.43	0.5	0.02	0.01	<0.01	--	8	20	--
MAR 05...	--	0.26	0.3	0.02	--	--	--	--	--	--
APR 07...	0.08	0.54	0.6	0.03	0.02	0.01	0.03	32	182	--
MAY 07...	--	0.49	0.6	0.03	--	--	--	--	--	--
JUN 09...	0.18	0.36	0.5	0.04	0.03	0.02	0.06	20	295	--
JUL 10...	--	0.29	0.3	0.04	--	--	--	--	--	--
AUG 06...	0.08	0.25	0.3	0.04	0.17	0.16	0.49	8	24	--
SEP 04...	--	--	0.2	0.04	--	--	--	--	--	--

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 03...	1300	30	2	69	<0.5	<1	<1	<3	3	37	2
FEB 05...	1200	<20	3	75	<0.5	<1	<1	<3	<1	7	1
AUG 06...	1130	20	1	54	<0.5	<1	<1	<3	2	17	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 03...	15	6	--	<10	3	1	<1	500	7	14
FEB 05...	28	7	<0.1	<10	<1	1	<1	730	<6	4
AUG 06...	14	4	<0.1	<10	8	<1	<1	350	<6	14

YELLOWSTONE RIVER BASIN

06260400 SOUTH FORK OWL CREEK BELOW ANCHOR RESERVOIR, WY

LOCATION.--Lat 43°39'57", long 108°47'34", in sec.25, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, on left bank 1.6 mi downstream from Anchor Dam and 30 mi west of Thermopolis.

DRAINAGE AREA.--131 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,120 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 11 to Mar. 23 and Aug. 17-19. Records good except those for November to March, which are poor. Flow regulated by Anchor Dam (see station 06260300). No diversion upstream from station.

AVERAGE DISCHARGE.--27 years, 22.3 ft³/s, 16,160 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 373 ft³/s, May 26, 1967, gage height, 3.64 ft; maximum gage height, 3.72 ft, June 7, 1986; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 290 ft³/s, June 7, gage height, 3.72 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	1.4	.00	.00	.12	.20	17	19	210	166	25	12
2	8.0	4.1	.10	.00	.10	.20	14	44	218	149	25	14
3	7.6	4.4	.20	.00	.06	.19	7.4	62	219	137	25	12
4	5.2	3.4	.10	.00	.04	.20	8.6	87	242	128	24	10
5	4.6	4.3	.06	.00	.02	.20	8.5	135	269	119	22	9.5
6	5.5	1.9	.20	.00	.00	.19	14	58	277	91	21	9.9
7	6.0	1.3	.16	.00	.00	.25	24	38	274	69	20	10
8	5.4	3.0	.06	.00	.00	.35	18	30	256	57	20	9.4
9	4.5	2.8	.00	.00	.00	.60	15	25	242	58	20	8.9
10	4.5	.91	.00	.00	.00	.50	14	24	221	58	25	9.5
11	6.1	.94	.00	.00	.00	.40	17	23	216	52	24	8.8
12	7.8	1.0	.00	.00	.00	.35	13	20	200	58	21	7.7
13	4.5	1.1	.00	.00	.00	.30	12	20	200	53	20	7.7
14	3.6	1.2	.00	.00	.00	.26	12	21	200	53	19	7.6
15	5.7	1.4	.00	.00	.14	.23	12	20	200	63	18	8.3
16	4.6	1.6	.00	.00	.10	.21	12	21	203	58	17	7.5
17	5.0	1.8	.00	.00	.16	.18	9.4	18	205	57	16	7.1
18	4.5	1.6	.00	.00	.14	.14	7.6	22	207	53	14	7.5
19	4.6	1.0	.00	.00	.16	.10	7.3	30	248	44	13	9.7
20	4.9	.70	.00	.00	.12	.08	8.5	59	259	43	12	8.6
21	5.0	.50	.00	.00	.14	.20	25	114	258	44	12	8.2
22	5.0	.35	.00	.00	.16	.50	60	164	248	44	12	6.7
23	3.5	.25	.00	.04	.30	1.0	108	126	240	39	11	6.0
24	3.8	.20	.00	.02	.50	3.5	102	74	234	39	15	6.4
25	6.2	.10	.00	.00	.40	5.3	37	109	228	35	13	6.8
26	5.3	.00	.00	.00	.30	4.7	27	167	219	35	13	5.1
27	5.1	.00	.00	.00	.25	6.0	20	200	209	35	13	11
28	5.4	.00	.00	.06	.21	6.2	19	217	199	33	11	7.2
29	4.2	.00	.00	.10	---	14	18	213	190	31	10	6.3
30	4.2	.00	.00	.12	---	19	14	235	181	29	10	7.1
31	4.8	---	.00	.12	---	25	---	220	---	27	10	---
TOTAL	159.3	41.25	.88	.46	3.42	90.53	681.3	2615	6772	1957	531	256.5
MEAN	5.14	1.37	.03	.01	.12	2.92	22.7	84.4	226	63.1	17.1	8.55
MAX	8.0	4.4	.20	.12	.50	.25	108	235	277	166	25	14
MIN	3.5	.00	.00	.00	.00	.08	7.3	18	181	27	10	5.1
AC-FT	316	82	1.7	.9	6.8	180	1350	5190	13430	3880	1050	509

CAL YR 1985	TOTAL	4075.07	MEAN	11.2	MAX	103	MIN	.00	AC-FT	8080
WTR YR 1986	TOTAL	13108.64	MEAN	35.9	MAX	277	MIN	.00	AC-FT	26000

YELLOWSTONE RIVER BASIN

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06260400 SOUTH FORK OWL CREEK BELOW ANCHOR RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to September 1986 (discontinued).

REMARKS.--No flow observed Dec. 20, Jan. 14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)
OCT				
08...	1400	4.0	39	0.0
NOV				
18...	1300	1.7	54	0.0
DEC				
20...	1100	0.0	--	--
JAN				
14...	1200	0.0	--	--
FEB				
28...	0900	E0.25	170	0.0
APR				
04...	1100	12	140	2.5

E-Estimate.

YELLOWSTONE RIVER BASIN

06264700 BIGHORN RIVER AT LUCERNE, WY

LOCATION.--Lat 43°44'10", long 108°09'38", in SE1/4 sec.32, T.44 N., R.94 W., Hot Springs County, Hydrologic Unit 10080007, at bridge on Black Mountain road, 0.7 mi upstream from Kirby Creek, 0.8 mi east of Lucerne, and 1.0 mi downstream from Owl Creek.

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 09...	1330	671	840	8.5	11.0	647	10.6
NOV 19...	0900	720	850	8.4	0.0	651	12.9
DEC 18...	0930	E820	690	8.0	0.0	650	12.8
JAN 06...	1000	920	880	8.0	0.0	645	13.0
FEB 24...	1130	1060	940	8.0	5.0	660	11.3
MAR 31...	1000	2300	720	8.1	6.0	660	11.4
APR 07...	0730	2070	760	7.9	5.0	674	10.8
MAY 13...	1430	1790	860	8.1	10.0	647	10.0
JUN 27...	0750	4540	660	8.0	17.0	652	8.7
JUL 24...	1300	2380	720	8.0	19.0	653	8.0
AUG 29...	0720	1440	490	8.0	20.0	650	7.7

E-Estimate.

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 09...	114	52	<0.10	0.05	0.35	0.4	0.02
NOV 19...	104	45	<0.10	0.02	0.48	0.5	0.01
DEC 18...	103	410	0.20	0.08	0.42	0.5	0.03
JAN 06...	105	260	0.20	0.09	0.41	0.5	0.02
FEB 24...	103	67	0.20	0.06	0.24	0.3	0.07
MAR 31...	106	93	0.10	0.04	0.46	0.5	0.03
APR 07...	96	220	0.20	0.06	0.34	0.4	0.04
MAY 13...	105	310	0.20	0.03	0.37	0.4	0.03
JUN 27...	106	90	0.20	0.03	0.37	0.4	0.05
JUL 24...	101	240	0.10	0.07	0.83	0.9	0.04
AUG 29...	100	K67	<0.10	0.05	0.25	0.3	0.02

K-Results based on colony count outside the acceptable range (non-ideal colony count).

06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY

LOCATION.--Lat 43°54'55", long 107°55'46", in SE1/4 NE1/4 sec.31, T.46 N., R.92 W., Washakie County, Hydrologic Unit 10080007, on right bank 30 ft upstream from county road, 1.8 mi upstream from mouth, 5.2 mi southeast of Colter, and 7.0 mi south of Worland.

DRAINAGE AREA.--149 mi².

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

REVISED RECORDS.--WDR WY-75-1: 1972-73.

GAGE.--Water-stage recorder. Elevation of gage is 4,165 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-7, Feb. 2 to Apr. 1, May 30 to June 7, June 11-19, June 22 to Aug. 31, and Sept. 3-9, 13-23, 28-30. Records good except those prior to May 30, which are poor.

AVERAGE DISCHARGE.--15 years, 4.46 ft³/s, 3,230 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,040 ft³/s, May 18, 1978, gage height, 6.65 ft; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 9	0500	572	2.61	Sept. 25	0500	*627	*2.73

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	11	.00	.00	.00	.00	.00	23
2	.00	.00	.00	.00	.05	9.4	.00	.00	.00	.00	.00	1.4
3	.00	.00	.00	.00	.10	7.3	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.40	4.5	.00	.31	.00	.00	.00	.00
5	.00	.00	.00	.00	.40	1.6	.00	18	.00	.00	.00	.00
6	.00	.00	.00	.00	.20	.80	.00	.44	.00	.00	.00	.00
7	.00	.00	.00	.00	.10	.40	.00	21	.00	.00	.00	.00
8	.00	.00	.00	.00	.05	.10	.00	74	.47	.00	.00	.00
9	1.7	.00	.00	.00	.01	.00	.00	26	153	.00	.00	.00
10	3.2	.00	.00	.00	.00	.00	.00	1.4	2.2	.00	.00	13
11	2.0	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00	5.3
12	.97	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	1.4
13	.30	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.38
14	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05
15	.05	.00	.00	.00	.00	.00	7.6	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	4.1	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	1.2	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	52	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	1.7	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.6
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	211
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.2
27	.00	.00	.00	.00	22	.00	.00	.00	.00	.00	.00	.71
28	.00	.00	.00	.00	15	.00	.00	.00	.00	.00	.00	.02
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	8.31	.00	.00	.00	38.31	35.10	13.05	141.32	255.90	.00	.00	271.06
MEAN	.27	.00	.00	.00	1.37	1.13	.43	4.56	8.53	.00	.00	9.04
MAX	3.2	.00	.00	.00	22	11	7.6	74	153	.00	.00	211
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	16	.00	.00	.00	76	70	26	280	508	.00	.00	538
CAL YR 1985	TOTAL	590.08		MEAN	1.62	MAX	135	MIN	.00	AC-FT	1170	
WTR YR 1986	TOTAL	763.05		MEAN	2.09	MAX	211	MIN	.00	AC-FT	1510	

YELLOWSTONE RIVER BASIN

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY

LOCATION.--Lat 44°01'14", long 108°00'42", in NW1/4 NW1/4 NE1/4 sec.27, T.47 N., R.93 W., Washakie County, Hydrologic Unit 10080007, on left bank 300 ft upstream from Bighorn Canal spillway, 2.0 mi upstream from mouth, and 2.8 mi west of Worland.

DRAINAGE AREA.--518 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1951 to December 1972, June 1978 to September 1986 (discontinued). Occasional measurements and annual maximum, January 1973 to May 1978.

GAGE.--Water-stage recorder. Elevation of gage is 4,070 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1956, at site 400 ft upstream at datum 7.52 ft higher. Oct. 1, 1956, to Sept. 30, 1969, at present site at datum 2.00 ft higher. Jan. 1, 1973, to May 31, 1978, crest-stage gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 12 to Feb. 27. Records good except those for January and February, which are poor. Bureau of Land Management has extensive spreader systems on some of the tributaries upstream from station.

AVERAGE DISCHARGE.--29 years (water years 1952-72, 1979-86), 9.92 ft³/s, 7,190 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,270 ft³/s, May 18, 1978, gage height, 10.58 ft, from floodmarks, from rating curve extended above 1,700 ft³/s; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 14	0830	*449	*3.68	No other peak greater than base discharge.			
No flow for many days.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.76	.26	.00	.00	.14	66	.00	2.4	.18	34	1.1	103
2	1.2	.26	.00	.00	.12	54	.00	3.2	.17	32	1.1	175
3	.67	.26	.00	.00	.10	42	.00	2.8	.17	17	1.1	24
4	.76	.26	.00	.00	.10	26	.00	2.6	8.9	6.6	1.1	7.8
5	.20	.19	.00	.00	.10	9.4	.00	26	8.8	3.1	1.1	2.3
6	.17	.18	.00	.00	.10	4.9	.00	3.4	2.4	1.7	.89	.53
7	.16	.17	.00	.00	.10	2.6	.00	65	.62	1.4	.94	.23
8	.20	.17	.00	.00	.08	.73	.00	138	1.6	1.0	.84	.19
9	.32	.17	.00	.00	.08	.12	.00	174	58	.70	.88	109
10	.58	.17	.00	.00	.06	.02	.02	99	65	.66	.89	31
11	.50	.16	.00	.00	.04	.00	.00	62	16	8.2	.77	6.5
12	.94	.10	.00	.00	.02	.00	.00	34	8.9	11	.72	2.3
13	2.8	.05	.00	.00	.00	.00	6.8	15	5.3	22	.69	.85
14	2.9	.00	.00	.00	.00	.00	83	7.5	21	7.7	.70	.44
15	2.4	.00	.00	.00	.00	.00	8.5	4.8	10	5.3	.66	.31
16	1.8	.00	.00	.00	.00	.00	17	3.5	3.8	4.5	.60	.22
17	1.2	.00	.00	.00	.00	.00	4.1	3.0	1.5	15	.60	.20
18	.72	.00	.00	.00	.00	.00	1.7	2.7	.47	5.8	.65	.20
19	.53	.00	.00	.00	.00	.00	.34	1.6	.21	3.6	.67	.21
20	.50	.00	.00	.00	.00	.00	.16	.74	.22	3.4	.68	.26
21	.34	.00	.00	.10	.20	.00	.11	.40	7.1	3.9	1.2	.26
22	.25	.00	.00	.10	.50	.00	.09	.22	6.1	4.1	1.2	.26
23	.20	.00	.00	.12	1.0	.00	.09	.19	2.1	3.1	1.0	.26
24	.19	.00	.00	.14	2.0	.00	.09	.19	.75	1.1	.88	1.9
25	.21	.00	.00	.16	10	.00	.09	.19	.47	.20	.76	32
26	.20	.00	.00	.14	20	.00	12	.19	.34	.24	.70	12
27	.20	.00	.00	.14	140	.00	15	.19	.27	2.7	.74	4.6
28	.28	.00	.00	.16	88	.00	7.0	.19	.26	5.1	.63	2.8
29	.23	.00	.00	.18	---	.00	5.2	.19	.26	2.0	.49	2.0
30	.20	.00	.00	.20	---	.00	3.2	.19	72	1.1	.81	1.5
31	.27	---	.00	.20	---	.00	---	.19	---	1.1	1.9	---
TOTAL	21.88	2.40	.00	1.64	262.74	205.77	164.49	653.57	302.89	209.30	26.99	522.12
MEAN	.71	.08	.00	.05	9.38	6.64	5.48	21.1	10.1	6.75	.87	17.4
MAX	2.9	.26	.00	.20	140	66	83	174	72	34	1.9	175
MIN	.16	.00	.00	.00	.00	.00	.00	.19	.17	.20	.49	.19
AC-FT	43	4.8	.00	3.3	521	408	326	1300	601	415	54	1040
CAL YR 1985	TOTAL	690.80		MEAN	1.89	MAX	99	MIN	.00	AC-FT	1370	
WTR YR 1986	TOTAL	2373.79		MEAN	6.50	MAX	175	MIN	.00	AC-FT	4710	

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1949 to December 1972, June 1978 to September 1986 (discontinued).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: August 1949 to December 1972, June 1978 to September 1986 (discontinued).

INSTRUMENTATION.--Sediment pumping sampler since June 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily, 135,000 mg/L Apr. 16, 1952; no flow for many days each year.

SEDIMENT LOADS: Maximum daily, 418,000 tons, May 22, 1952; 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 60,200 mg/L June 9; no flow on many days.

SEDIMENT LOADS: Maximum daily, 16,100 tons, May 9; 0 tons on many days.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)						
	DATE	TIME								
	OCT									
	07...	0800	0.16	1120	6.0					
	FEB									
	27...	1500	151	334	3.0					
	MAR									
	06...	1430	4.5	980	3.5					
	APR									
	28...	1720	6.9	910	8.0					
	MAY									
	01...	0900	2.1	940	6.0					
	02...	0700	3.2	1240	5.0					
	12...	0900	35	560	9.0					
	13...	1350	12	720	10.5					
	22...	1100	0.19	1210	16.5					
	30...	1300	0.19	1200	30.0					
	JUN									
	10...	0910	83	640	14.0					
	13...	1310	4.8	740	21.0					
	27...	1300	0.28	1020	21.0					
	30...	1400	172	340	18.0					
	JUL									
	01...	0730	36	520	15.0					
	14...	1000	7.4	785	19.0					
	24...	0820	0.2	1150	20.0					
	AUG									
	28...	1700	0.81	1090	30.0					
	SEP									
	05...	0815	2.4	920	16.0					
			SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM					
	DATE	TIME								
	FEB									
	27...	1500	50	56	62					
	APR									
	28...	1720	99	99	99					
	JUN									
	30...	1400	54	69	80					
	SEP									
	05...	0815	97	98	98					
			BED MAT. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. SIEVE DIAM. % FINER THAN .125 MM	BED MAT. SIEVE DIAM. % FINER THAN .250 MM	BED MAT. SIEVE DIAM. % FINER THAN .500 MM	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
	DATE	TIME								
SEP	05...	0815	25	36	55	92	97	99	99	100

SPECIFIC CONDUCTANCE, LABORATORY (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---				---	---	---	940	---	857	---	989
2	---				---	---	---	1240	---	550	---	954
3	---				---	---	---	---	---	479	---	1090
4	---				---	---	---	---	---	---	---	---
5	---				---	---	---	---	---	---	---	811
6	---				---	980	---	---	---	---	---	---
7	1120				---	---	---	---	---	---	---	---
8	---				---	---	---	---	1040	---	---	---
9	---				---	---	---	---	850	---	---	944
10	---				---	---	---	---	699	---	---	922
11	---				---	---	---	---	850	476	---	---
12	---				---	---	---	560	---	481	---	---
13	---				---	---	---	720	740	760	---	---
14	---				---	---	---	---	962	881	---	---
15	---				---	---	---	---	1060	---	---	---
16	---				---	---	---	---	---	1050	---	---
17	---				---	---	---	---	---	1250	---	---
18	---				---	---	---	---	---	---	---	---
19	---				---	---	---	---	---	---	---	---
20	---				---	---	---	---	---	---	---	---
21	---				---	---	---	---	1150	---	---	---
22	---				---	---	---	1210	---	---	---	---
23	---				---	---	---	---	---	---	---	---
24	---				---	---	---	---	---	758	---	937
25	---				---	---	---	---	---	---	---	995
26	---				---	---	---	---	---	---	---	905
27	---				334	---	---	---	1020	---	---	---
28	---				---	---	910	---	---	---	673	---
29	---				---	---	---	---	---	---	---	---
30	---				---	---	---	1200	1040	---	---	---
31	---				---	---	---	---	---	---	963	---

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	.76	9900	20	.26	415	.29	.00	0	.00
2	1.2	9300	30	.26	415	.29	.00	0	.00
3	.67	6880	12	.26	415	.29	.00	0	.00
4	.76	6000	12	.26	417	.29	.00	0	.00
5	.20	2800	1.5	.19	416	.21	.00	0	.00
6	.17	800	.37	.18	413	.20	.00	0	.00
7	.16	89	.04	.17	410	.19	.00	0	.00
8	.20	55	.03	.17	410	.19	.00	0	.00
9	.32	108	.09	.17	410	.19	.00	0	.00
10	.58	120	.19	.17	410	.19	.00	0	.00
11	.50	117	.16	.16	408	.18	.00	0	.00
12	.94	111	.28	.10	400	.11	.00	0	.00
13	2.8	379	2.9	.05	200	.03	.00	0	.00
14	2.9	440	3.4	.00	0	.00	.00	0	.00
15	2.4	437	2.8	.00	0	.00	.00	0	.00
16	1.8	432	2.1	.00	0	.00	.00	0	.00
17	1.2	428	1.4	.00	0	.00	.00	0	.00
18	.72	425	.83	.00	0	.00	.00	0	.00
19	.53	421	.60	.00	0	.00	.00	0	.00
20	.50	420	.57	.00	0	.00	.00	0	.00
21	.34	416	.38	.00	0	.00	.00	0	.00
22	.25	410	.28	.00	0	.00	.00	0	.00
23	.20	410	.22	.00	0	.00	.00	0	.00
24	.19	410	.21	.00	0	.00	.00	0	.00
25	.21	410	.23	.00	0	.00	.00	0	.00
26	.20	410	.22	.00	0	.00	.00	0	.00
27	.20	410	.22	.00	0	.00	.00	0	.00
28	.28	412	.31	.00	0	.00	.00	0	.00
29	.23	415	.26	.00	0	.00	.00	0	.00
30	.20	415	.22	.00	0	.00	.00	0	.00
31	.27	415	.30	---	---	---	.00	0	.00
TOTAL	21.88	---	94.11	2.40	---	2.65	0.00	---	0.00
JANUARY			FEBRUARY			MARCH			
1	.00	0	.00	.14	560	.21	66	13300	2370
2	.00	0	.00	.12	480	.16	54	12200	1780
3	.00	0	.00	.10	400	.11	42	10000	1130
4	.00	0	.00	.10	400	.11	26	7800	548
5	.00	0	.00	.10	400	.11	9.4	3800	96
6	.00	0	.00	.10	400	.11	4.9	2210	29
7	.00	0	.00	.10	400	.11	2.6	1660	12
8	.00	0	.00	.08	320	.07	.73	1120	2.2
9	.00	0	.00	.08	320	.07	.12	551	.18
10	.00	0	.00	.06	240	.04	.02	75	.00
11	.00	0	.00	.04	160	.02	.00	0	.00
12	.00	0	.00	.02	80	.00	.00	0	.00
13	.00	0	.00	.00	0	.00	.00	0	.00
14	.00	0	.00	.00	0	.00	.00	0	.00
15	.00	0	.00	.00	0	.00	.00	0	.00
16	.00	0	.00	.00	0	.00	.00	0	.00
17	.00	0	.00	.00	0	.00	.00	0	.00
18	.00	0	.00	.00	0	.00	.00	0	.00
19	.00	0	.00	.00	0	.00	.00	0	.00
20	.00	0	.00	.00	0	.00	.00	0	.00
21	.10	400	.11	.20	800	.43	.00	0	.00
22	.10	400	.11	.50	2000	2.7	.00	0	.00
23	.12	480	.16	1.0	4000	11	.00	0	.00
24	.14	560	.21	2.0	7000	38	.00	0	.00
25	.16	640	.28	10	24300	656	.00	0	.00
26	.14	560	.21	20	28800	1560	.00	0	.00
27	.14	560	.21	140	19600	7410	.00	0	.00
28	.16	640	.28	88	14400	3420	.00	0	.00
29	.18	720	.35	---	---	---	.00	0	.00
30	.20	800	.43	---	---	---	.00	0	.00
31	.20	800	.43	---	---	---	.00	0	.00
TOTAL	1.64	---	2.78	262.74	---	13099.25	205.77	---	5967.38

YELLOWSTONE RIVER BASIN

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL									
1	.00	0	.00	2.4	17600	114	.18	60	.03
2	.00	0	.00	3.2	12200	105	.17	40	.02
3	.00	0	.00	2.8	10600	80	.17	50	.02
4	.00	0	.00	2.6	10000	70	8.9	14800	356
5	.00	0	.00	26	20300	1430	8.8	26000	618
6	.00	0	.00	3.4	12600	116	2.4	16200	105
7	.00	0	.00	65	21600	3790	.62	10100	17
8	.00	0	.00	138	31100	11600	1.6	10500	45
9	.00	0	.00	174	34200	16100	58	60200	9430
10	.02	63	.00	99	25500	6820	65	49400	8670
11	.00	0	.00	62	22500	3770	16	25000	1080
12	.00	0	.00	34	19300	1770	8.9	17900	430
13	6.8	68	1.2	15	10800	437	5.3	14000	200
14	83	455	102	7.5	5600	113	21	23300	1320
15	8.5	9480	218	4.8	3500	45	10	20800	562
16	17	16500	757	3.5	2500	24	3.8	12600	129
17	4.1	10000	111	3.0	2100	17	1.5	9900	40
18	1.7	3500	16	2.7	1900	14	.47	8900	11
19	.34	600	.55	1.6	1600	6.9	.21	8100	4.6
20	.16	400	.17	.74	1400	2.8	.22	7800	4.6
21	.11	200	.06	.40	930	1.0	7.1	16100	309
22	.09	100	.02	.22	230	.14	6.1	14000	231
23	.09	100	.02	.19	100	.05	2.1	9900	56
24	.09	100	.02	.19	100	.05	.75	5910	12
25	.09	100	.02	.19	100	.05	.47	2340	3.0
26	12	8660	281	.19	100	.05	.34	510	.47
27	15	22300	903	.19	80	.04	.27	100	.07
28	7.0	20500	387	.19	70	.04	.26	100	.07
29	5.2	19600	275	.19	60	.03	.26	100	.07
30	3.2	19500	168	.19	50	.03	72	31200	6070
31	---	---	---	.19	60	.03	---	---	---
TOTAL	164.49	---	3220.06	653.57	---	46426.21	302.89	---	29703.95
JULY									
1	34	33800	3100	1.1	410	1.2	103	29800	8290
2	32	19900	1720	1.1	200	.59	175	33400	15800
3	17	13100	601	1.1	200	.59	24	24000	1560
4	6.6	9200	164	1.1	200	.59	7.8	21100	444
5	3.1	8350	70	1.1	200	.59	2.3	19200	119
6	1.7	7150	33	.89	200	.48	.53	16900	24
7	1.4	6300	24	.94	200	.51	.23	14700	9.1
8	1.0	5800	16	.84	200	.45	.19	12100	6.2
9	.70	5400	10	.88	180	.43	109	36000	10600
10	.66	4850	8.6	.89	160	.38	31	13200	1100
11	8.2	7250	161	.77	140	.29	6.5	1300	23
12	11	15600	463	.72	100	.19	2.3	650	4.0
13	22	50400	2990	.69	80	.15	.85	550	1.3
14	7.7	41100	854	.70	100	.19	.44	500	.59
15	5.3	35200	504	.66	100	.18	.31	420	.35
16	4.5	31100	378	.60	120	.19	.22	400	.24
17	15	42800	1730	.60	120	.19	.20	400	.22
18	5.8	30500	478	.65	120	.21	.20	400	.22
19	3.6	26200	255	.67	100	.18	.21	400	.23
20	3.4	23100	212	.68	60	.11	.26	400	.28
21	3.9	19400	204	1.2	80	.26	.26	400	.28
22	4.1	8800	97	1.2	60	.19	.26	400	.28
23	3.1	1900	16	1.0	60	.16	.26	400	.28
24	1.1	200	.59	.88	60	.14	1.9	3820	20
25	.20	180	.10	.76	60	.12	32	44700	3860
26	.24	120	.08	.70	80	.15	12	22000	713
27	2.7	2680	20	.74	60	.12	4.6	15000	186
28	5.1	5100	70	.63	60	.10	2.8	12600	95
29	2.0	2800	15	.49	60	.08	2.0	10000	54
30	1.1	1900	5.6	.81	60	.13	1.5	7700	31
31	1.1	1140	3.4	1.9	100	.51	---	---	---
TOTAL	209.30	---	14203.37	26.99	---	9.65	522.12	---	42942.57
YEAR	2373.79		155671.98						

YELLOWSTONE RIVER BASIN

97

06268600 BIGHORN RIVER AT WORLAND, WY

LOCATION.--Lat 44°00'53", long 107°58'08", in SW1/4 NE1/4 sec.25, T.47 N., R.93 W., Washakie County, Hydrologic Unit 10080007, 40 ft downstream from former gaging station, at bridge on U.S. Highway 20 at Worland, and 0.5 mi downstream from Fifteen Mile Creek.

DRAINAGE AREA.--10,810 mi².

PERIOD OF RECORD.--Water years 1965 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 09...	0900	665	998	5.5	320	81	28	100	3	4.0
NOV 18...	1430	795	1010	1.5	320	80	30	98	2	5.3
JAN 06...	1200	1000	999	0.5	320	80	29	100	3	5.3
FEB 24...	1420	1380	933	4.5	280	70	25	100	3	4.5
APR 01...	1300	2080	857	5.5	280	69	25	80	2	3.2
MAY 13...	1240	1510	910	10.5	290	74	25	96	3	3.4
JUN 27...	0930	1920	629	17.0	210	56	17	59	2	2.9
JUL 14...	1110	3620	465	19.0	150	42	12	41	1	2.4

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 09...	190	320	18	0.4	7.0	670	0.91	1210	0.20	0.08
NOV 18...	180	330	27	0.4	4.8	680	0.93	1470	0.20	0.05
JAN 06...	190	310	22	0.5	7.0	670	0.91	1800	0.28	0.02
FEB 24...	160	280	18	1.3	6.5	600	0.82	2240	0.40	0.24
APR 01...	170	240	13	0.4	7.0	540	0.73	3030	0.20	0.06
MAY 13...	180	280	14	0.3	6.3	610	0.83	2470	0.20	0.13
JUN 27...	140	180	8.8	0.4	9.7	420	0.57	2170	0.40	0.27
JUL 14...	110	120	6.5	0.4	8.5	300	0.41	2920	0.30	0.11

YELLOWSTONE RIVER BASIN

06268640 SLICK CREEK NEAR WORLAND, WY

LOCATION.--Lat 44°03'30", long 107°55'59", in NE1/4 NW1/4 SE1/4 sec.7, T.47 N., R.92 W., Washakie County, Hydrologic Unit 10080007, at bridge on U.S. Highway 16-20, 0.4 mi upstream from mouth, and 2.5 mi northeast of Worland city limits.

PERIOD OF RECORD.--June 1981 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 09...	1100	9.2	1540	6.0	460	120	40	190	4	4.6
JAN 06...	1400	3.0	1530	0.0	430	99	44	190	4	4.2
MAR 31...	1100	2.1	1790	11.0	470	110	47	240	5	5.6
JUN 27...	1100	36	737	22.0	250	67	21	77	2	3.1

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 09...	310	470	27	0.5	18	1100	1.4	26	3.00	0.05
JAN 06...	310	450	26	0.5	19	1000	1.4	8.3	5.80	0.01
MAR 31...	300	590	33	0.5	15	1200	1.7	6.9	4.40	0.04
JUN 27...	170	230	11	0.4	12	520	0.71	51	1.60	0.32

06270000 NOWOOD RIVER NEAR TEN SLEEP, WY

LOCATION.--Lat 44°00'48", long 107°25'39", in SW1/4 NW1/4 sec.27, T.47 N., R.88 W., Washakie County, Hydrologic Unit 10080008, on right bank 1.7 mi southeast of Ten Sleep and 4.3 mi upstream from Tensleep Creek.

DRAINAGE AREA.--803 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1938 to September 1943, March 1950 to December 1955 (published as Nowood Creek near Tensleep), October 1972 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,420 ft above National Geodetic Vertical Datum of 1929, from topographic map. May 6, 1938, to Sept. 30, 1943, nonrecording gage at site 200 ft downstream at different datum. Mar. 17, 1950, to Dec. 31, 1955, water-stage recorder at site 100 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 1-7, 10-20, Nov. 1 to Mar. 6, and Apr. 13. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 550 acres upstream from station.

AVERAGE DISCHARGE.--24 years (water years 1939-43, 1951-55, 1973-86), 117 ft³/s, 84,770 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,380 ft³/s, May 19, 1978, gage height, 12.94 ft; maximum gage height observed, 13.0 ft, Mar. 12, 13, 1942 (ice jam), site and datum then in use; minimum daily discharge, 0.70 ft³/s, Aug. 13, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 24	2000	614	6.73	May 5	0500	*633	*6.80

Minimum daily discharge, 18 ft³/s, Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	82	60	70	85	170	117	316	130	62	21	84
2	99	80	70	70	85	150	117	312	118	57	22	57
3	98	81	80	70	85	140	112	362	117	58	26	55
4	94	79	80	65	85	130	104	496	115	53	22	55
5	90	75	85	65	85	115	99	606	112	58	20	54
6	88	70	80	65	85	106	94	501	103	50	22	52
7	86	64	80	65	85	101	93	391	107	49	21	53
8	88	65	75	65	85	108	101	352	125	48	18	52
9	87	63	75	65	80	108	130	356	184	49	19	71
10	88	60	75	65	75	112	195	324	170	53	19	78
11	88	66	70	65	75	112	201	302	196	53	21	63
12	87	70	65	65	75	108	206	354	137	56	22	63
13	86	70	70	65	75	110	193	329	124	56	21	57
14	84	70	75	65	80	108	202	300	128	53	21	56
15	84	72	74	70	85	104	175	294	121	47	23	56
16	82	68	74	70	100	99	172	278	113	47	25	56
17	80	68	74	72	110	99	191	276	102	47	23	56
18	78	68	74	72	120	110	228	259	95	46	24	57
19	76	68	74	72	140	113	201	244	86	47	24	61
20	77	68	74	70	137	113	183	244	115	46	23	65
21	77	68	74	70	133	110	183	261	92	42	28	65
22	78	66	75	70	130	113	222	276	91	42	24	63
23	79	60	75	70	140	117	345	266	82	42	23	62
24	83	60	75	70	150	115	522	230	76	41	23	75
25	87	60	75	70	160	113	568	204	76	34	22	137
26	87	66	70	70	200	115	501	197	76	30	22	95
27	83	72	70	70	250	117	455	188	72	32	24	87
28	82	70	70	75	200	122	399	175	69	32	24	89
29	80	70	70	70	---	113	358	162	62	31	24	87
30	87	65	70	78	---	110	339	148	61	28	24	85
31	83	---	70	85	---	117	---	142	---	25	26	---
TOTAL	2643	2064	2278	2149	3195	3578	7006	9145	3255	1414	701	2046
MEAN	85.3	68.8	73.5	69.3	114	115	234	295	109	45.6	22.6	68.2
MAX	99	82	85	85	250	170	568	606	196	62	28	137
MIN	76	60	60	65	75	99	93	142	61	25	18	52
AC-FT	5240	4090	4520	4260	6340	7100	13900	18140	6460	2800	1390	4060
CAL YR 1985	TOTAL	29434		MEAN	80.6	MAX	320	MIN	25	AC-FT	58380	
WTR YR 1986	TOTAL	39474		MEAN	108	MAX	606	MIN	18	AC-FT	78300	

YELLOWSTONE RIVER BASIN

06270000 NOWOOD RIVER NEAR TEN SLEEP, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 07...	1500	86	913	6.0	480	130	38	24	0.5	1.8
JAN 17...	1130	72	843	0.0	440	120	33	29	0.6	1.6
APR 01...	1030	116	822	7.5	390	100	33	24	0.6	1.8
JUN 25...	1430	75	887	23.0	420	110	36	29	0.6	2.1

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 07...	180	310	2.9	0.2	8.3	620	0.85	145	0.00	0.06
JAN 17...	200	250	2.8	0.1	11	570	0.77	110	0.50	2.50
APR 01...	170	260	3.5	0.2	8.7	530	0.73	167	0.10	0.33
JUN 25...	200	310	1.8	0.4	10	620	0.84	125	0.10	0.09

YELLOWSTONE RIVER BASIN

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06274220 NOWOOD RIVER AT MANDERSON, WY

LOCATION.--Lat 44°16'34", long 107°57'35", in NE1/4 SW1/4 sec.30, T.50 N., R.92 W., Big Horn County, Hydrologic Unit 10080008, at bridge on State Secondary Highway 0201, and 0.5 mi upstream from mouth near corporate limits of Manderson.

DRAINAGE AREA.--2,000 mi², approximately.

PERIOD OF RECORD.--Water years 1965 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT										
10...	0915	274	899	3.5	440	120	35	37	0.8	2.1
JAN										
10...	1030	175	897	0.0	400	100	36	30	0.7	1.5
MAR										
31...	0730	191	997	5.0	430	100	43	56	1	2.2
MAY										
13...	1120	530	512	9.0	220	58	18	22	0.7	1.5
JUN										
23...	0700	858	371	16.0	160	45	12	16	0.6	1.2
JUL										
14...	1630	328	676	22.0	290	75	24	41	1	1.7

DATE	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT										
10...	170	330	3.6	0.2	8.3	640	0.87	472	0.00	0.10
JAN										
10...	190	270	3.1	0.2	9.7	560	0.77	267	0.50	0.20
MAR										
31...	170	360	5.5	0.2	6.9	680	0.92	348	0.00	0.04
MAY										
13...	110	150	2.3	0.1	10	330	0.45	469	0.30	0.28
JUN										
23...	81	110	2.0	0.2	6.3	240	0.33	559	0.10	0.38
JUL										
14...	130	220	2.8	0.3	6.3	450	0.61	398	0.00	0.07

YELLOWSTONE RIVER BASIN

06274300 BIGHORN RIVER AT BASIN, WY

LOCATION.--Lat 44°23'00", long 108°02'08", in SE1/4 NW1/4 NE1/4 sec.21, T.51 N., R.93 W., Big Horn County, Hydrologic Unit 10080007, on left bank 10 ft downstream from county bridge on E Street, 0.2 mi northeast of Big Horn County Courthouse in Basin, and 1.8 mi downstream from Antelope Creek.

DRAINAGE AREA.--13,223 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,821.29 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 5-20 and Nov. 22 to Mar. 3. Records fair except those for estimated daily discharges, which are poor. Diversions for irrigation of about 226,000 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s, June 9, 1986, gage height, 8.54 ft; minimum daily, 578 ft³/s, Aug. 9, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,600 ft³/s, June 9, gage height, 8.54 ft; minimum daily, 578 ft³/s, Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	924	1090	1030	1150	1180	2500	2400	1990	4190	3480	2390	1360
2	951	1090	1060	1150	1180	1900	2410	1950	4830	4340	2030	1450
3	928	1090	1090	1150	1170	1600	2430	1950	4690	4680	1580	1420
4	938	1090	1110	1150	1180	1420	2330	2120	4920	4630	1360	1320
5	960	1080	1130	1160	1220	1400	2370	2710	5560	4730	934	1310
6	980	1080	1140	1170	1210	1520	2380	2700	4940	4730	664	1330
7	1000	1070	1140	1180	1210	1580	2340	2690	5790	4650	629	1400
8	1000	1100	1130	1180	1200	1580	2320	2920	6940	4600	585	1460
9	1020	1080	1130	1180	1180	1590	2320	3320	9830	4610	578	1470
10	1030	1070	1130	1180	1190	1560	2330	2880	8580	4680	602	1600
11	1070	1040	1130	1180	1180	1560	2500	2620	8890	4690	652	1630
12	1050	1040	1130	1180	1180	1890	2340	2470	9810	4880	603	1600
13	1050	1120	1130	1170	1180	2230	2440	2340	10400	4950	587	1600
14	1030	1120	1130	1170	1180	2460	2400	2270	10300	4820	715	1610
15	1020	1130	1130	1170	1180	2480	2430	2200	9360	4510	964	1600
16	1010	1140	1130	1170	1190	2470	2370	2120	8610	3890	924	1630
17	1000	1130	1130	1170	1200	2500	2310	2090	8320	3710	1090	1610
18	1050	1090	1130	1170	1280	2500	2310	2050	8520	3720	1180	1580
19	1090	971	1130	1170	1370	2490	2270	2030	8750	3730	1070	1590
20	1100	793	1130	1170	1420	2490	2230	2000	9090	3800	1070	1590
21	1120	795	1130	1180	1500	2440	2170	2080	8420	3810	1090	1600
22	1130	820	1130	1170	1600	2390	2040	2480	6790	3780	1110	1590
23	1130	840	1130	1170	1640	2350	2040	2750	6370	3740	1120	1600
24	1110	870	1130	1170	1770	2330	2170	2440	5190	3560	1170	1620
25	1110	890	1130	1170	2250	2330	2310	2220	3780	3460	1180	2130
26	1100	910	1130	1180	2900	2320	2380	2210	3220	3240	1160	1780
27	1150	930	1140	1170	2900	2330	2360	2460	3110	2930	1190	1660
28	1150	950	1140	1180	2750	2400	2230	2900	3200	2980	1180	1670
29	1110	980	1140	1180	---	2340	2110	3310	3170	2720	1160	1680
30	1090	1000	1140	1180	---	2350	2030	3650	3170	2450	1190	1690
31	1090	---	1150	1190	---	2370	---	3870	---	2400	1210	---
TOTAL	32491	30399	34880	36310	41590	65670	69070	77790	198740	122900	32967	47180
MEAN	1048	1013	1125	1171	1485	2118	2302	2509	6625	3965	1063	1573
MAX	1150	1140	1150	1190	2900	2500	2500	3870	10400	4950	2390	2130
MIN	924	793	1030	1150	1170	1400	2030	1950	3110	2400	578	1310
AC-FT	64450	60300	69180	72020	82490	130300	137000	154300	394200	243800	65390	93580
CAL YR 1985	TOTAL	428215		MEAN	1173	MAX	2510	MIN	634	AC-FT	849400	
WTR YR 1986	TOTAL	789987		MEAN	2164	MAX	10400	MIN	578	AC-FT	1567000	

06274300 BIGHORN RIVER AT BASIN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT							
21...	1300	1060	1080	8.4	11.0	670	10.0
NOV							
19...	1330	907	1050	8.3	0.0	353	12.6
JAN							
07...	1130	1180	770	8.0	0.0	690	12.8
MAR							
06...	0920	1390	810	7.9	5.0	694	11.4
31...	1245	2490	840	8.3	10.0	670	12.1
APR							
07...	1500	2450	810	8.2	10.0	677	10.5
MAY							
13...	0930	2360	970	8.3	10.0	655	10.2
JUN							
09...	1500	10500	680	7.6	14.0	662	9.7
JUL							
23...	1400	3810	760	8.0	20.0	659	8.0
AUG							
07...	1145	628	975	7.9	22.0	673	9.4
28...	1200	1180	595	7.9	20.0	662	8.1

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT							
21...	104	290	0.20	0.08	0.52	0.6	0.03
NOV							
19...	188	K55	0.20	0.04	0.56	0.6	0.09
JAN							
07...	97	44	--	--	--	0.5	0.05
MAR							
06...	98	K63	0.40	0.11	0.89	1.0	0.27
31...	122	K13	0.30	0.06	0.54	0.6	0.05
APR							
07...	105	K9	0.20	0.06	0.74	0.8	0.08
MAY							
13...	106	K53	0.30	0.05	0.55	0.6	0.14
JUN							
09...	109	K12	0.40	0.14	4.3	4.4	2.70
JUL							
23...	102	K35	0.40	0.09	0.41	0.5	0.11
AUG							
07...	123	190	1.20	0.05	0.45	0.5	0.15
28...	103	K90	0.70	0.13	0.37	0.5	0.33

K-Results based on colony count outside the acceptable range (non-ideal colony count).

YELLOWSTONE RIVER BASIN

06275000 WOOD RIVER AT SUNSHINE, WY

LOCATION.--Lat 44°02'15", long 108°58'24", in NW1/4 SW1/4 sec.15, T.47 N., R.101 W., Park County, Hydrologic Unit 10080009, on right bank at bridge on county road, 1.0 mi downstream from Ernest May Ranch, 5.2 mi downstream from Dick Creek, and 10 mi southwest of Meeteetse.

DRAINAGE AREA.--194 mi², approximately.

PERIOD OF RECORD.--August 1945 to current year.

REVISED RECORDS.--WSP 1309: 1947(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,450 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 18, 1952, and Oct. 28, 1953, to June 15, 1963, water-stage recorder at site 2.0 mi upstream at different datum. Sept. 18, 1952, to Oct. 27, 1953, nonrecording gage at site 2.0 mi upstream at different datum. June 16, 1963, to Aug. 13, 1967, water-stage recorder at site 1.4 mi upstream at different datum. Aug. 14 to Oct. 5, 1967, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Oct. 4, 8-11, 13, Nov. 6 to Mar. 6, Mar. 10, 11, 13, 14, 16, Mar. 18 to Apr. 8, May 3-21, and July 5-17. Records good except those for estimated daily discharges, which are poor. Water diverts upstream from station to Lower Sunshine Reservoir since 1972. Diversion upstream from station for irrigation of about 3,200 acres, of which about 1,000 acres are downstream from station.

AVERAGE DISCHARGE.--27 years (water years 1946-72), prior to Lower Sunshine diversion, 117 ft³/s, 84,770 acre-ft/yr; 14 years (water years 1973-86), 91.6 ft³/s, 66,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,080 ft³/s, June 15, 1963, gage height, 7.00 ft, from floodmark, site and datum then in use, from contracted-opening measurement of peak flow; maximum gage height, 8.57 ft, May 18, 1973; minimum daily discharge, 0.40 ft³/s, Mar. 13, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 599 ft³/s, June 3, gage height, 5.55 ft; minimum daily, 1.2 ft³/s, Feb. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	14	13	2.0	1.8	3.0	13	56	289	309	111	69
2	20	14	11	1.9	1.7	3.0	12	90	348	328	103	67
3	20	14	11	1.8	1.7	2.9	10	100	384	331	100	66
4	19	13	13	1.7	1.6	3.0	8.6	110	373	340	85	66
5	17	13	15	1.6	1.6	3.5	9.4	80	335	336	77	66
6	17	13	16	1.5	1.5	4.5	10	50	377	260	79	66
7	16	14	16	1.5	1.5	4.7	11	30	284	200	80	66
8	14	23	13	1.4	1.5	4.9	12	27	249	180	83	66
9	11	30	11	1.4	1.4	4.4	11	26	179	170	88	66
10	12	40	9.0	1.4	1.4	4.5	11	26	110	170	93	68
11	14	40	7.0	1.4	1.3	4.5	11	26	167	220	75	65
12	14	42	6.0	1.4	1.3	4.6	11	26	225	260	77	64
13	14	43	6.0	1.4	1.2	4.6	12	26	228	230	76	64
14	14	43	6.4	1.4	1.4	4.7	17	25	218	200	73	65
15	14	44	7.0	1.5	1.5	4.7	11	23	229	200	73	65
16	14	45	7.0	1.5	1.6	4.5	11	22	218	190	72	62
17	14	46	6.6	1.6	1.7	4.2	11	22	289	187	75	63
18	14	45	6.6	1.6	1.9	4.3	11	26	253	182	69	75
19	14	44	6.0	1.7	2.0	4.5	10	40	241	170	58	75
20	14	42	5.6	1.8	2.1	4.8	10	180	201	166	57	73
21	14	41	5.0	1.8	2.1	5.0	11	184	162	176	58	71
22	14	40	4.5	1.7	2.1	5.4	11	200	146	173	57	68
23	14	39	4.0	1.6	2.1	6.0	8.5	159	134	161	58	65
24	14	37	3.7	1.5	6.8	7.0	34	149	137	156	62	56
25	14	36	3.5	1.5	2.4	6.5	54	187	128	142	62	48
26	14	34	3.0	1.4	3.0	6.0	30	248	214	145	64	46
27	14	30	2.8	1.5	2.9	6.4	32	242	269	135	64	37
28	14	25	2.6	1.5	2.7	8.0	61	264	278	131	64	30
29	13	20	2.4	1.6	---	11	61	281	279	132	64	28
30	13	15	2.3	1.7	---	17	54	304	281	126	62	25
31	13	---	2.1	1.8	---	16	---	305	---	115	65	---
TOTAL	456	939	228.1	49.1	55.8	178.1	579.5	3534	7225	6221	2284	1811
MEAN	14.7	31.3	7.36	1.58	1.99	5.75	19.3	114	241	201	73.7	60.4
MAX	20	46	16	2.0	6.8	17	61	305	384	340	111	75
MIN	11	13	2.1	1.4	1.2	2.9	8.5	22	110	115	57	25
AC-FT	904	1860	452	97	111	353	1150	7010	14330	12340	4530	3590
CAL YR 1985	TOTAL	15155.1		MEAN	41.5	MAX	260	MIN	2.1	AC-FT	30060	
WTR YR 1986	TOTAL	23560.6		MEAN	64.5	MAX	384	MIN	1.2	AC-FT	46730	

06276500 GREYBULL RIVER AT MEETEETSE, WY

LOCATION.--Lat 44°09'20", long 108°52'35", in sec.4, T.48 N., R.100 W., Park County, Hydrologic Unit 10080009, on right bank at Meeteetse, 0.3 mi upstream from bridge on State Highway 120, and 3.0 mi upstream from Meeteetse Creek.

DRAINAGE AREA.--681 mi².

PERIOD OF RECORD.--June to December 1897, April to October 1903 (gage heights and discharge measurements only), July 1920 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1923(M), 1924, 1925(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,739.42 ft above National Geodetic Vertical Datum of 1929. See WSP 1916 for history of changes prior to Apr. 28, 1938. Apr. 28, 1938, to May 24, 1961, at site on left bank at datum 2.00 ft higher. May 25, 1961, to May 9, 1967, at site 100 ft downstream at present datum.

REMARKS.--No estimated daily discharges. Records good. Some regulation by Sunshine Reservoir beginning May 1940, capacity, 52,990 acre-ft, and Lower Sunshine Reservoir beginning December 1972, capacity, 58,900 acre-ft. Diversions for irrigation of about 10,600 acres upstream from station. Several diversions upstream from station for irrigation downstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--51 years (water years 1921-71), 347 ft³/s, 251,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft³/s, June 15, 1963, gage height, 9.20 ft, from floodmark, from rating curve extended above 4,600 ft³/s on basis of velocity-area study; minimum daily, 16 ft³/s, Mar. 4, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,570 ft³/s, June 4, gage height, 5.81 ft; minimum daily during period of operation, 44 ft³/s, Apr. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							48	164	1230	782	674	518
2							47	231	1270	806	638	458
3							47	452	1490	790	643	381
4							47	469	1620	799	625	364
5							47	407	1520	815	578	349
6							47	401	1420	641	572	344
7							47	360	1200	643	572	330
8							54	185	1160	584	618	335
9							54	65	728	732	648	335
10							52	57	476	765	680	308
11							49	57	673	782	626	277
12							49	80	837	790	602	253
13							49	207	936	599	567	252
14							52	279	1020	679	526	276
15							53	285	1110	788	506	256
16							48	302	1110	706	500	219
17							48	280	1120	741	506	207
18							48	302	1100	627	519	203
19							46	316	872	619	525	221
20							44	415	833	643	549	203
21							46	557	744	725	555	197
22							46	618	798	765	549	175
23							46	540	767	720	549	169
24							63	565	728	765	549	164
25							112	754	727	720	488	141
26							118	728	727	727	493	114
27							69	773	830	727	435	105
28							173	916	832	727	428	97
29							175	1030	824	727	451	95
30							164	1060	791	719	451	93
31							---	1120	---	690	457	---
TOTAL							1988	13975	29493	22343	17079	7439
MEAN							66.3	451	983	721	551	248
MAX							175	1120	1620	815	680	518
MIN							44	57	476	584	428	93

YELLOWSTONE RIVER BASIN

06277500 GREYBULL RIVER NEAR BASIN, WY

LOCATION.--Lat 44°24'24", long 108°11'10", in NE1/4 NW1/4 SW1/4 sec.8, T.51 N., R.94 W., Big Horn County, Hydrologic Unit 10080009, at former gaging station, at bridge on State Secondary Highway 0200, 3.0 mi upstream from Dorsey Creek, and 8.0 mi west of Basin.

DRAINAGE AREA.--1,115 mi².

PERIOD OF RECORD.--Water years 1951-53, 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 10...	1115	116	1000	4.0	340	82	33	99	2	3.8
JAN 09...	1400	54	1170	0.0	400	86	46	120	3	4.6
APR 03...	1130	71	1130	4.0	380	88	40	110	3	4.2
MAY 15...	1530	23	882	18.0	240	59	23	100	3	2.8
JUN 23...	0930	89	635	17.0	200	52	16	74	2	2.5
JUL 14...	1350	53	811	21.0	230	58	20	95	3	3.3

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 10...	280	260	8.9	0.4	16	670	0.91	210	0.50	0.13
JAN 09...	300	320	14	0.4	16	790	1.1	115	0.90	0.05
APR 03...	260	320	13	0.6	14	750	1.0	143	0.50	0.04
MAY 15...	210	250	8.9	0.5	11	580	0.79	36	0.40	0.26
JUN 23...	190	150	5.8	0.5	16	430	0.59	104	0.80	0.24
JUL 14...	220	180	8.5	0.6	17	510	0.7	74	0.80	0.29

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY 15...	1530	23	18.0	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
JUN 23...	0930	89	17.0	0.02	0.01	0.17	<0.01	<0.01	<0.01
JUL 14...	1350	53	21.0	0.05	--	0.1	<0.01	<0.01	<0.01
AUG 27...	1410	31	25.0	0.19	0.02	0.07	<0.01	<0.01	<0.01
SEP 30...	1500	43	9.0	0.02	<0.01	0.03	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN

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06278300 SHELL CREEK ABOVE SHELL RESERVOIR, WY

LOCATION.--Lat 44°30'29", long 107°24'11", in sec.1, T.52 N., R.88 W., Big Horn County, Hydrologic Unit 10080010, Bighorn National Forest, on right bank 0.2 mi upstream from Shell Reservoir, 1.1 mi downstream from Buckley Creek, 6.0 mi southeast of Shell Creek ranger station, and 19 mi east of Shell.

DRAINAGE AREA.--23.1 mi².

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1969, published as Shell Creek above Shell Creek Reservoir.

REVISED RECORD.--WSP 1629: 1958. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 9,050 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 25-30, Nov. 3, 8-14, Nov. 19 to May 1, and June 4. Records good except those for estimated daily discharges, which are poor. No diversions upstream from station.

AVERAGE DISCHARGE.--30 years, 35.7 ft³/s, 25,860 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,870 ft³/s, June 15, 1963, gage height, 7.84 ft, from floodmarks, from rating curve extended above 725 ft³/s on basis of velocity-area study; minimum daily discharge, 0.60 ft³/s, Mar. 7, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 8	unknown	*509	*5.02	No other peak greater than base discharge.			
Minimum daily discharge, 1.8 ft ³ /s, Feb. 12.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	7.1	4.0	3.0	2.4	2.5	3.8	6.0	458	57	17	8.0
2	7.4	7.0	4.2	3.0	2.5	2.5	4.0	8.0	446	50	16	9.4
3	7.6	7.0	4.5	3.0	2.6	2.4	3.8	19	431	46	12	8.8
4	7.6	6.8	4.5	2.9	2.5	2.4	3.8	48	441	43	9.8	8.1
5	7.8	6.9	4.5	2.8	2.4	2.4	3.8	40	429	43	10	9.1
6	7.9	6.9	4.5	2.8	2.2	2.3	3.9	33	410	38	9.9	10
7	7.7	7.0	4.4	2.8	2.1	2.2	3.9	43	357	34	9.9	11
8	7.6	6.8	4.2	2.8	2.0	2.2	3.9	34	480	32	9.7	10
9	7.1	6.6	4.0	2.8	2.0	2.2	4.0	30	320	36	10	12
10	7.0	6.6	3.8	2.9	1.9	2.1	4.0	26	205	39	10	12
11	7.4	6.4	3.7	2.9	1.9	2.1	4.1	23	209	50	9.7	14
12	7.6	6.4	3.6	3.0	1.8	2.1	4.1	21	228	58	9.6	14
13	7.9	6.4	3.6	3.0	1.9	2.1	4.0	20	236	42	9.4	13
14	7.9	6.2	3.7	3.0	2.0	2.0	4.0	18	230	35	9.4	13
15	7.9	6.1	3.8	3.0	2.0	2.1	3.9	18	220	34	9.1	12
16	7.7	5.9	3.9	3.1	2.1	2.0	3.9	20	195	34	8.5	11
17	7.6	5.6	3.8	3.2	2.1	1.9	4.0	20	177	33	8.1	11
18	7.8	5.4	3.7	3.2	2.2	1.9	4.1	15	154	31	7.9	11
19	8.4	5.2	3.6	3.3	2.2	2.0	4.2	18	142	27	7.5	11
20	8.8	5.0	3.5	3.3	2.2	2.0	4.3	30	151	26	7.5	11
21	8.4	4.8	3.4	3.3	2.3	2.1	4.4	56	120	24	7.6	11
22	7.8	4.7	3.3	3.1	2.4	2.1	4.6	105	96	22	8.3	10
23	7.6	4.6	3.2	2.9	2.3	2.1	5.0	110	83	21	7.8	10
24	7.4	4.5	3.2	2.8	2.3	2.2	5.8	86	79	20	7.7	10
25	7.5	4.4	3.1	2.8	2.4	2.2	6.6	75	77	20	7.3	11
26	7.4	4.3	3.0	2.9	2.5	2.3	6.6	112	73	21	7.4	12
27	7.4	4.2	2.9	2.8	2.5	2.5	6.4	205	69	20	7.1	12
28	7.2	4.1	2.8	2.7	2.5	2.7	6.2	284	67	18	6.9	11
29	7.2	4.0	2.8	2.6	---	3.0	5.8	344	65	17	6.7	11
30	7.2	4.0	2.8	2.5	---	3.2	5.5	379	66	16	6.7	12
31	7.2	---	2.9	2.4	---	3.5	---	399	---	17	7.8	---
TOTAL	236.2	170.9	112.9	90.6	62.2	71.3	136.4	2645.0	6714	1004	282.3	329.4
MEAN	7.62	5.70	3.64	2.92	2.22	2.30	4.55	85.3	224	32.4	9.11	11.0
MAX	8.8	7.1	4.5	3.3	2.6	3.5	6.6	399	480	58	17	14
MIN	7.0	4.0	2.8	2.4	1.8	1.9	3.8	6.0	65	16	6.7	8.0
AC-FT	469	339	224	180	123	141	271	5250	13320	1990	560	653
CAL YR 1985	TOTAL	8732.0		MEAN	23.9	MAX	265	MIN	1.2	AC-FT	17320	
WTR YR 1986	TOTAL	11855.2		MEAN	32.5	MAX	480	MIN	1.8	AC-FT	23510	

YELLOWSTONE RIVER BASIN

06278500 SHELL CREEK NEAR SHELL, WY

LOCATION.--Lat 44°33'54', long 107°42'44", in SE1/4 SW1/4 sec.17, T.53 N., R.90 W., Big Horn County, Hydrologic Unit 10080010, on right bank 0.9 mi upstream from White Creek and 5.0 mi northeast of Shell.

DRAINAGE AREA.--145 mi².

PERIOD OF RECORD.--October 1940 to current year (no winter records since 1971). Prior to December 1940, monthly discharge only, published in WSP 1309.

REVISED RECORDS.--WSP 1239: 1941, 1945(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,370.05 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Some regulation by two small reservoirs, capacity, 3,650 acre-ft. Diversions upstream from station for irrigation of about 80 acres downstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--31 years (water years 1941-71), 119 ft³/s, 86,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,020 ft³/s, June 24, 1945, gage height, 7.49 ft, from rating curve extended above 1,600 ft³/s; minimum daily, 18 ft³/s, Mar. 5, 7, 1950, Jan. 30, 31, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 4	0400	*1,970	*5.55	June 8	1000	1,780	5.37

Minimum daily discharge during period of operation, 27 ft³/s, Apr. 3-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							28	48	1280	199	111	98
2							29	70	1290	194	108	102
3							27	129	1260	190	105	96
4							27	239	1860	178	128	93
5							27	221	1480	132	133	93
6							28	162	1320	129	124	102
7							32	150	1160	146	121	99
8							37	138	1570	146	119	93
9							40	136	1240	150	126	95
10							42	133	816	157	119	102
11							37	131	709	170	114	99
12							33	122	701	178	116	96
13							37	122	690	157	119	95
14							29	119	653	140	114	93
15							32	114	631	135	113	92
16							37	113	581	133	108	88
17							39	106	530	128	106	86
18							33	110	472	122	106	88
19							33	119	432	118	105	91
20							33	163	435	114	103	86
21							35	269	389	113	105	84
22							54	324	337	110	106	82
23							76	244	301	106	103	81
24							78	207	277	103	102	90
25							66	226	259	102	101	105
26							66	328	247	105	99	93
27							55	485	237	105	98	91
28							52	582	229	110	96	95
29							52	846	224	108	95	89
30							47	1130	214	106	93	88
31							---	1170	---	114	96	---
TOTAL							1241	8456	21824	4198	3392	2785
MEAN							41.4	273	727	135	109	92.8
MAX							78	1170	1860	199	133	105
MIN							27	48	214	102	93	81

06279050 SHELL CREEK AT PORTER GULCH, NEAR GREYBULL, WY

LOCATION.--Lat 44°31'25", long 107°55'29", in NE1/4 SE1/4 SE1/4 sec.33, T.53 N., R.92 W., Big Horn County, Hydrologic Unit 10080010, at bridge on county road, 0.2 mi north of U.S. Highway 14, 7.6 miles east of Greybull on U.S. Highway 14.

PERIOD OF RECORD.--October 1982 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY 15...	1410	38	14.0	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
JUL 14...	1510	76	19.0	0.01	--	0.04	<0.01	<0.01	<0.01

06279090 SHELL CREEK NEAR GREYBULL, WY

LOCATION.--Lat 44°30'34", long 108°02'52", in NW1/4 SW1/4 sec.4, T.52 N., R.93 W., Big Horn County, Hydrologic Unit 10080010, at bridge on county road, 0.4 mi upstream from mouth, and 1.5 mi north of post office in Greybull.

DRAINAGE AREA.--560 mi², approximately.

PERIOD OF RECORD.--Water years 1951, 1965 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 10...	1440	104	1030	5.0	430	110	37	66	1	1.8
JAN 07...	1400	57	887	0.0	390	98	35	47	1	1.7
APR 03...	0830	65	960	4.5	390	95	36	68	2	1.8
JUN 23...	0810	268	524	14.0	220	61	17	29	0.9	1.0

DATE	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 10...	190	370	2.9	0.2	8.5	710	0.97	199	0.50	0.10
JAN 07...	210	270	3.3	0.3	8.9	590	0.8	91	0.60	0.02
APR 03...	190	310	3.5	0.2	6.8	640	0.86	111	0.20	0.04
JUN 23...	130	150	1.8	0.3	7.3	350	0.47	250	0.20	0.11

YELLOWSTONE RIVER BASIN

06279500 BIGHORN RIVER AT KANE, WY

LOCATION.--Lat 44°45'31", long 108°10'51", in NW1/4 NE1/4 SW1/4 sec.9, T.55 N., R.94 W., Big Horn County, Hydrologic Unit 10080010, on right bank 180 ft upstream from Bighorn Canyon National Recreation Area boundary, 0.5 mi upstream from normal high-water line of Bighorn Lake at elevation 3,660 ft, 1.3 mi upstream from Five Springs Creek, and 5.9 mi south of Kane.

DRAINAGE AREA.--15,765 mi². Area at sites used prior to May 17, 1956, 15,846 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to current year.

REVISED RECORDS.--WSP 1309: 1929(M). WSP 1509: 1929. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,660 ft above National Geodetic Vertical Datum of 1929, from topographic map. Aug. 29, 1928, to Apr. 25, 1932, nonrecording gage, and Apr. 25, 1932, to May 16, 1956, water-stage recorder at site 12.5 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 13 to Feb. 21, Feb. 26-28. Records fair except those for estimated daily discharges, which are poor. Some regulation by Boysen Reservoir (station 06258900) since October 1951. Diversions for irrigation of about 376,000 acres upstream from station. U.S. Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--58 years, 2,287 ft³/s, 1,657,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,200 ft³/s, June 16, 1935, gage height, 11.10 ft, site and datum then in use; minimum daily, 179 ft³/s, July 22, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1923, 14.8 ft, Sept. 30, 1923, site and datum in use April 1932 to May 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,800 ft³/s, June 9, gage height, 7.08 ft; minimum daily, 911 ft³/s, Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1250	1200	1350	1430	1460	3770	2670	2110	4980	3570	2710	1740
2	1250	1200	1380	1440	1460	2870	2690	2030	5730	4250	2630	2230
3	1230	1200	1390	1440	1440	2490	2750	1990	5980	4890	2010	2290
4	1200	1210	1400	1440	1480	2310	2640	2140	6360	4820	1780	1950
5	1200	1210	1420	1440	1500	2400	2480	2810	7580	4930	1440	1850
6	1240	1210	1420	1440	1500	2470	2580	3050	6890	5030	1080	1840
7	1260	1210	1420	1440	1500	2540	2550	2750	7000	4940	965	1970
8	1250	1210	1420	1440	1500	2320	2490	3060	7990	4840	937	2140
9	1250	1220	1420	1440	1460	2250	2470	3530	10900	4810	911	2140
10	1260	1200	1420	1440	1480	2160	2480	3340	10300	4890	973	2280
11	1270	1180	1430	1440	1470	2080	2540	2970	9290	4990	1060	2430
12	1250	1170	1430	1440	1470	2290	2500	2790	9830	5170	1050	2310
13	1250	1190	1430	1440	1480	2970	2440	2640	10400	5350	1000	2280
14	1220	1190	1430	1440	1480	3510	2580	2520	10700	5160	1000	2310
15	1200	1190	1430	1440	1470	3460	2510	2490	10300	4910	1170	2330
16	1200	1200	1430	1450	1470	3440	2650	2420	9170	4400	1220	2310
17	1190	1200	1430	1450	1500	3420	2570	2340	8670	4030	1230	2290
18	1220	1200	1430	1450	1560	3440	2590	2300	8460	3980	1400	2270
19	1270	1200	1430	1450	1700	3440	2510	2240	8680	3950	1350	2290
20	1280	1200	1430	1450	1750	2700	2380	2210	8840	3990	1260	2350
21	1280	1200	1420	1450	2000	2720	2430	2230	8950	4030	1270	2340
22	1280	1210	1420	1450	2330	2610	2190	2590	7520	3980	1360	2330
23	1280	1220	1420	1450	2430	2620	2130	3140	6850	3980	1400	2290
24	1260	1240	1420	1450	2770	2610	2240	2930	6260	3890	1420	2280
25	1250	1260	1420	1450	3520	2750	2460	2580	4610	3690	1480	2820
26	1240	1270	1430	1470	4710	2650	2580	2490	3680	3760	1460	2950
27	1220	1280	1430	1420	4600	2600	2790	2730	3460	3260	1500	2470
28	1230	1300	1430	1460	4350	2670	2490	3140	3470	3340	1470	2450
29	1230	1310	1430	1460	---	2650	2290	3650	3540	3230	1440	2460
30	1210	1330	1430	1460	---	2550	2150	4290	3530	2840	1470	2420
31	1200	---	1430	1460	---	2710	---	4590	---	2760	1550	---
TOTAL	38420	36610	44020	44820	56840	85470	74820	86090	219920	131660	42996	68410
MEAN	1239	1220	1420	1446	2030	2757	2494	2777	7331	4247	1387	2280
MAX	1280	1330	1430	1470	4710	3770	2790	4590	10900	5350	2710	2950
MIN	1190	1170	1350	1420	1440	2080	2130	1990	3460	2760	911	1740
AC-FT	76210	72620	87310	88900	112700	169500	148400	170800	436200	261100	85280	135700
CAL YR 1985	TOTAL	510257		MEAN	1398	MAX	3050	MIN	686	AC-FT	1012000	
WTR YR 1986	TOTAL	930076		MEAN	2548	MAX	10900	MIN	911	AC-FT	1845000	

YELLOWSTONE RIVER BASIN

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06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)
OCT 15...	1100	1180	1060	8.0	380	95	34	90	2	4.1	200
DEC 05...	1300	1350	1070	0.0	370	94	33	97	2	4.3	210
JAN 08...	1200	1440	1040	0.0	370	89	35	98	2	4.0	200
FEB 26...	1630	4710	942	3.0	210	58	16	85	3	5.6	150
APR 02...	1300	2790	914	6.0	300	75	27	80	2	3.7	180
MAY 15...	1110	2560	861	10.0	270	70	24	83	2	3.0	160
JUN 06...	1520	6850	467	15.5	150	40	12	38	1	2.0	120
JUL 16...	1000	4720	--	20.0	--	--	--	--	--	--	--
AUG 25...	1030	1410	--	20.0	--	--	--	--	--	--	--
SEP 30...	1100	2420	--	11.0	--	--	--	--	--	--	--

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	SEDI- MENT, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)
OCT 15...	360	15	0.4	7.5	730	0.99	2310	0.40	0.08	146	465
DEC 05...	330	19	0.4	8.2	710	0.97	2590	0.60	0.30	128	467
JAN 08...	320	19	0.5	7.6	690	0.94	2690	0.50	0.08	208	809
FEB 26...	230	10	0.7	4.9	500	0.68	0.0	2.40	0.26	3490	44400
APR 02...	270	14	0.4	7.0	590	0.8	4410	0.30	0.12	234	1760
MAY 15...	270	12	0.2	7.1	570	0.77	3910	0.30	0.23	310	2140
JUN 06...	120	5.7	0.1	6.2	300	0.4	5470	0.20	0.62	1430	26400
JUL 16...	--	--	--	--	--	--	--	--	0.08	155	1980
AUG 25...	--	--	--	--	--	--	--	--	--	104	396
SEP 30...	--	--	--	--	--	--	--	--	--	299	1950

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 15...	1100	1180	1090	8.2	8.0	684	10.5
JAN 08...	1200	1440	920	8.2	0.0	689	13.6
APR 02...	1300	2790	940	8.1	6.0	673	11.2
MAY 15...	1110	2560	980	8.2	10.0	662	10.1
JUL 16...	1000	4720	565	8.0	20.0	660	7.8

YELLOWSTONE RIVER BASIN

06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 15...	99	530	0.40	0.11	0.49	0.6	0.08
JAN 08...	103	130	--	--	--	0.6	0.08
APR 02...	102	130	0.20	0.15	0.95	1.1	0.12
MAY 15...	103	150	0.30	0.06	0.54	0.6	0.23
JUL 16...	100	93	0.40	0.15	0.75	0.9	0.08

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY 15...	1110	2560	10.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
JUN 06...	1520	6850	15.5	0.04	0.01	0.26	<0.01	<0.01	<0.01
JUL 16...	1000	4720	20.0	0.03	0.02	0.05	<0.01	<0.01	<0.01
AUG 25...	1030	1410	20.0	0.02	0.02	0.04	<0.01	<0.01	<0.01
SEP 30...	1100	2420	11.0	0.01	0.01	0.02	<0.01	<0.01	<0.01

06280000 NORTH FORK SHOSHONE RIVER NEAR WAPITI, WY

LOCATION.--Lat 44°28'40", long 109°20'30", in SW1/4 NE1/4 SE1/4 sec.15, T.52 N., R.104 W., Park County, Hydrologic Unit 10080012, on right bank 300 ft downstream from Trout Creek, 1.7 mi upstream from normal high-water line of Buffalo Bill Reservoir at elevation 5,369 ft, 4.7 mi east of Wapiti, and 14 mi west of Cody.

DRAINAGE AREA.--775 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1921 to September 1926, May 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,400 ft above National Geodetic Vertical Datum of 1929, from topographic map. January 1921 to September 1926, water-stage recorder at site 0.7 mi downstream at different datum. May 1979 to November 1984, water-stage recorder at site 300 ft downstream at datum 4.00 ft lower.

REMARKS.--Estimated daily discharges: Nov. 20 to Feb. 3, Feb. 7-26, and July 28, 29. Records fair except those for estimated daily discharges, which are poor. Diversion for irrigation of about 2,700 acres upstream from station.

AVERAGE DISCHARGE.--12 years (water years 1922-26, 1980-86), 887 ft³/s, 642,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,000 ft³/s, June 9, 1981, gage height, 12.0 ft, from floodmarks, site and datum then in use; minimum daily, 94 ft³/s, Jan. 28, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 1	2300	*12,600	*6.34	June 15	2330	6,730	5.29

Minimum daily discharge, 160 ft³/s, Jan. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	303	287	180	190	320	539	1020	778	9440	2600	878	536
2	303	287	185	200	310	573	887	1140	9450	2490	819	519
3	303	289	190	195	320	576	756	1670	9030	2500	819	458
4	304	299	198	180	344	588	707	2010	9450	2450	816	440
5	304	309	190	160	318	555	749	1670	8410	2140	820	431
6	299	300	200	165	333	550	920	1390	7510	1810	785	423
7	304	293	200	180	290	548	1200	1200	5300	1730	740	418
8	304	306	200	190	270	668	1470	1070	4650	1640	713	413
9	316	278	195	200	270	644	1380	966	4620	1590	708	524
10	330	268	185	190	260	568	1130	902	3880	1570	706	486
11	378	264	180	195	260	520	1070	848	4340	1890	670	427
12	355	314	200	195	260	484	979	776	4900	1760	680	408
13	328	327	200	191	260	464	942	724	4910	1600	634	427
14	326	325	215	190	270	446	819	719	5080	1580	592	538
15	315	324	222	190	290	434	793	688	6010	1570	587	446
16	321	328	222	195	300	415	856	690	6030	1550	575	430
17	324	305	235	200	300	422	783	666	5900	1570	566	437
18	314	302	240	193	290	397	718	751	5790	1400	552	611
19	309	264	240	205	280	385	677	937	5110	1310	528	521
20	304	240	250	210	280	378	664	1620	4720	1260	503	567
21	304	220	240	200	290	414	876	2490	3870	1230	537	478
22	304	200	240	180	290	495	1510	2710	3250	1160	757	441
23	299	200	240	190	300	517	2050	1950	3370	1140	539	428
24	303	198	240	200	322	586	1690	1840	3560	1140	517	435
25	317	198	230	195	640	585	1340	2270	3600	1300	539	418
26	323	190	230	190	600	532	1140	3400	3860	1480	618	418
27	314	190	200	220	596	614	991	4570	3750	1180	530	421
28	309	190	200	250	520	893	922	6030	3570	980	501	413
29	308	195	200	285	---	1190	866	6320	3240	700	488	420
30	299	190	195	315	---	1390	775	6960	3030	907	488	405
31	294	---	180	320	---	1360	---	7250	---	959	514	---
TOTAL	9718	7880	6522	6359	9383	18730	30680	67005	159630	48186	19719	13737
MEAN	313	263	210	205	335	604	1023	2161	5321	1554	636	458
MAX	378	328	250	320	640	1390	2050	7250	9450	2600	878	611
MIN	294	190	180	160	260	378	664	666	3030	700	488	405
AC-FT	19280	15630	12940	12610	18610	37150	60850	132900	316600	95580	39110	27250
CAL YR 1985	TOTAL	242093		MEAN	663	MAX	6530	MIN	130	AC-FT	480200	
WTR YR 1986	TOTAL	397549		MEAN	1089	MAX	9450	MIN	160	AC-FT	788500	

YELLOWSTONE RIVER BASIN

06280000 NORTH FORK SHOSHONE RIVER NEAR WAPITI, WY--Continued

WATER-QUALITY DATA

PERIOD OF RECORD.--May 1979 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: May 1979 to current year.

INSTRUMENTATION.--Temperature recorder since May 1979.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURES: Maximum daily, 20.0°C, Aug. 16, 1981; minimum, 0.0°C many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum daily, 18.5°C, Aug. 18, minimum, 0.0°C many days in November, December, January, and February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 09...	1400	307	141	1.5	42	12	3.0	14	1	0.3
NOV 25...	1350	198	169	0.0	48	14	3.2	18	1	0.8
JAN 13...	1200	191	190	0.0	51	14	4.0	20	1	0.6
FEB 24...	1300	322	276	0.0	92	24	7.8	19	0.9	3.4
APR 08...	1400	1400	110	6.0	31	7.0	3.2	11	0.9	0.6
MAY 20...	1030	1550	95	7.0	27	7.3	2.2	9.3	0.8	0.2
JUN 06...	0730	9690	72	7.0	21	6.2	1.4	5.5	0.5	0.8
24...	1600	3300	69	10.0	22	5.9	1.7	5.0	0.5	0.4

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 09...	56	11	1.0	0.1	17	92	0.13	76	0.00	0.10
NOV 25...	67	14	1.2	0.1	20	110	0.15	60	0.10	0.10
JAN 13...	72	11	1.0	0.2	20	110	0.16	59	0.17	0.08
FEB 24...	79	49	2.3	0.2	3.8	160	0.21	136	0.20	0.46
APR 08...	46	4.3	0.5	0.1	15	69	0.09	262	0.20	0.41
MAY 20...	45	6.3	0.7	0.2	14	67	0.09	281	0.00	0.42
JUN 06...	34	2.0	0.4	0.1	13	50	0.07	1300	0.10	0.39
24...	33	0	0.9	0.1	13	47	0.06	417	0.10	0.16

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.0	2.5	3.0	1.5	.0	.0	.0	.0	.0	.0	5.0	.5
2	9.0	5.0	4.5	2.5	.0	.0	.0	.0	.0	.0	4.5	.5
3	7.5	5.5	6.5	3.5	.0	.0	.0	.0	.0	.0	4.0	1.0
4	7.0	3.5	5.5	3.0	.0	.0	.0	.0	.0	.0	5.0	.5
5	9.0	4.0	5.0	2.5	.0	.0	.0	.0	.0	.0	5.0	.5
6	8.0	5.5	2.5	1.0	.0	.0	.0	.0	.0	.0	5.5	1.0
7	7.5	3.0	2.0	1.0	.0	.0	.0	.0	.0	.0	5.5	2.0
8	2.5	1.5	1.0	.5	.0	.0	.0	.0	.0	.0	3.5	2.5
9	4.0	1.5	.5	.5	.0	.0	.0	.0	.0	.0	5.5	1.5
10	5.5	1.0	.5	.5	.0	.0	.0	.0	.0	.0	4.5	1.5
11	6.0	2.5	.5	.5	.0	.0	.0	.0	.0	.0	5.5	2.0
12	5.0	3.5	.5	.5	.0	.0	.0	.0	.0	.0	6.0	3.0
13	5.0	1.5	.5	.5	.0	.0	.0	.0	.0	.0	5.0	2.5
14	5.5	2.0	.5	.5	.0	.0	.0	.0	.0	.0	5.5	1.5
15	8.0	3.5	.0	.0	.0	.0	.0	.0	.0	.0	6.5	1.5
16	8.5	5.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	1.0
17	8.0	5.0	.0	.0	.0	.0	.0	.0	.0	.0	4.5	2.5
18	7.5	4.0	.0	.0	.0	.0	.0	.0	.0	.0	7.0	2.5
19	7.5	3.5	.0	.0	.0	.0	.0	.0	.0	.0	7.0	2.0
20	6.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	9.0	3.0
21	6.5	3.5	.0	.0	.0	.0	.0	.0	.0	.0	8.5	4.0
22	6.0	3.5	.0	.0	.0	.0	.0	.0	.0	.0	9.0	4.5
23	5.5	3.5	.0	.0	.0	.0	.0	.0	.0	.0	9.0	4.0
24	7.5	4.5	.0	.0	.0	.0	.0	.0	.0	.0	8.0	4.5
25	8.0	5.0	.0	.0	.0	.0	.0	.0	2.5	.0	6.0	2.5
26	7.5	4.5	.0	.0	.0	.0	.0	.0	3.5	.5	8.0	2.5
27	7.5	5.0	.0	.0	.0	.0	.0	.0	3.0	.5	9.0	4.5
28	7.5	4.0	.0	.0	.0	.0	.0	.0	4.0	.5	9.0	4.0
29	5.0	2.5	.0	.0	.0	.0	.0	.0	---	---	9.0	4.5
30	5.0	2.0	.0	.0	.0	.0	.0	.0	---	---	8.0	4.0
31	4.5	2.5	---	---	.0	.0	.0	.0	---	---	7.5	4.5
MONTH	9.0	1.0	6.5	.0	.0	.0	.0	.0	4.0	.0	9.0	.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	2.5	9.5	5.0	9.0	6.0	13.0	8.5	15.5	12.0	13.0	11.5
2	6.0	4.5	11.0	7.0	10.5	5.5	14.0	8.5	15.0	11.5	14.5	10.0
3	5.5	2.5	10.0	5.5	9.0	5.5	13.5	9.0	15.0	11.5	15.5	10.5
4	8.0	3.5	9.0	4.0	10.5	6.0	13.0	9.0	16.0	12.5	16.0	11.5
5	9.5	4.5	7.0	3.5	9.0	6.0	11.5	7.5	15.5	12.0	16.0	13.0
6	10.0	5.0	6.0	3.5	8.0	5.5	11.5	7.5	16.0	12.0	13.0	9.5
7	8.5	4.5	5.0	4.0	8.5	5.0	12.5	9.0	16.5	12.0	13.0	8.5
8	7.5	5.5	5.5	3.5	8.0	5.5	12.5	9.5	15.0	12.5	12.5	10.5
9	7.5	5.0	5.5	3.5	7.5	5.5	12.0	9.0	14.5	11.5	12.0	10.5
10	9.0	4.5	8.5	3.5	10.5	6.0	12.5	9.5	16.0	11.0	12.0	9.5
11	7.5	5.0	8.0	4.5	11.5	6.0	12.0	9.5	15.5	13.0	12.5	9.0
12	6.5	5.0	7.5	3.5	10.5	6.5	12.5	8.0	15.0	12.5	12.0	9.0
13	6.5	3.0	9.0	4.5	10.5	6.5	13.5	9.0	16.5	11.5	11.5	8.5
14	6.5	1.5	8.5	5.0	10.0	6.5	13.5	10.0	17.0	12.5	11.0	9.5
15	8.5	4.0	9.5	5.5	11.5	6.5	12.5	10.5	17.0	12.0	11.0	9.0
16	8.5	5.5	9.5	5.5	12.0	6.0	12.0	10.0	17.0	13.0	12.0	9.5
17	5.5	4.0	10.0	6.0	12.0	6.5	13.0	9.0	16.5	13.5	10.5	8.0
18	8.0	3.0	11.5	7.5	11.0	6.5	13.0	9.5	18.5	13.5	10.0	9.5
19	8.0	4.0	11.0	6.5	11.0	7.0	13.5	9.5	17.0	13.5	10.0	8.0
20	10.5	5.5	11.5	7.0	11.5	7.5	13.0	11.0	16.0	12.5	9.0	8.0
21	11.0	7.0	10.5	5.5	11.0	7.0	14.0	11.0	15.5	13.0	8.5	6.0
22	10.0	6.5	8.5	4.5	12.0	7.0	14.0	11.5	15.0	10.5	9.5	6.0
23	8.5	5.0	9.5	3.5	13.5	8.0	15.0	11.5	14.0	11.0	10.0	6.0
24	7.5	4.5	10.5	5.5	13.0	8.5	15.0	12.0	16.5	11.0	9.0	7.5
25	6.0	4.5	12.0	6.0	12.5	8.5	13.5	11.0	15.5	13.5	9.5	6.0
26	6.5	4.0	11.5	5.5	13.0	8.5	13.0	10.0	15.0	11.5	7.5	6.0
27	9.0	4.5	11.5	5.0	12.5	8.0	13.0	10.0	17.0	12.5	6.5	5.0
28	9.5	5.5	11.0	4.5	12.0	8.5	14.5	10.0	17.0	13.0	8.5	5.5
29	8.5	5.0	11.5	5.0	12.5	8.5	14.5	11.5	16.0	13.0	7.0	5.0
30	8.5	3.0	11.5	5.0	12.0	8.0	13.0	11.0	16.5	12.5	6.5	5.0
31	---	---	12.0	5.5	---	---	15.0	10.5	15.0	12.5	---	---
MONTH	11.0	1.5	12.0	3.5	13.5	5.0	15.0	7.5	18.5	10.5	16.0	5.0
YEAR	18.5	.0										

YELLOWSTONE RIVER BASIN

06280300 SOUTH FORK SHOSHONE RIVER NEAR VALLEY, WY

LOCATION.--Lat 44°12'30", long 109°33'15", in NE1/4 sec.24, T.49 N., R.106 W., Park County, Hydrologic Unit 10080013, Shoshone National Forest, on left bank 75 ft downstream from U.S. Forest Service bridge, 0.4 mi downstream from Boulder Creek, 3.2 mi northeast of Valley, and 34 mi southwest of Cody.

DRAINAGE AREA.--297 mi².

PERIOD OF RECORD.--October 1956 to September 1958, October 1959 to current year.

REVISED RECORDS.--WRD WY 1974: 1963.

GAGE.--Water-stage recorder. Elevation of gage is 6,200 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 22, 1961, at site 75 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 19, 20, Nov. 26 to Dec. 11, Dec. 31 to Jan. 14, Jan. 22, 25, Feb. 7-12, Apr. 22 to May 17. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 450 acres upstream from station.

AVERAGE DISCHARGE.--29 years, 428 ft³/s, 310,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,000 ft³/s, June 9, 1981, gage height, 9.24 ft, from floodmarks; minimum daily, 41 ft³/s, Feb. 27, 28, 1961, Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 3	2300	*4,500	*7.75	June 16	0200	3,530	7.15

Minimum daily discharge, 60 ft³/s, Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	140	74	86	86	133	222	170	3320	1660	709	340
2	163	143	76	90	82	139	210	300	3590	1570	681	309
3	160	144	78	88	82	141	176	500	3730	1720	671	281
4	153	144	82	80	81	138	163	840	3730	1820	669	270
5	155	148	80	70	76	116	177	700	3560	1670	608	262
6	166	136	82	74	76	110	210	430	3360	1200	590	260
7	171	141	84	78	69	106	312	280	2770	1210	569	253
8	163	148	82	84	65	133	294	270	2510	1090	558	249
9	158	128	80	88	63	135	334	250	2300	1130	593	267
10	161	108	76	84	62	116	268	250	2050	1130	614	341
11	177	115	74	86	62	108	254	260	2180	1400	550	284
12	171	117	86	88	60	104	240	250	2470	1650	567	258
13	159	126	85	86	62	98	243	260	2500	1280	514	246
14	157	115	95	84	63	97	213	250	2580	1310	472	273
15	156	111	100	84	72	93	208	230	2820	1300	446	272
16	158	112	100	87	73	88	224	220	2920	1250	436	244
17	155	105	104	89	73	93	205	220	2890	1250	425	235
18	154	98	107	86	67	89	187	227	2760	1100	418	248
19	153	78	107	92	64	87	177	394	2460	1040	410	281
20	153	76	111	94	66	86	171	1090	2310	1010	379	268
21	152	73	110	88	68	88	186	1680	2060	994	390	244
22	154	76	109	80	70	99	350	1630	1860	993	399	224
23	146	76	108	78	73	105	760	887	1910	930	367	217
24	141	77	108	81	195	120	740	843	2030	874	389	217
25	140	83	101	81	175	109	600	1300	2090	858	411	216
26	151	78	104	73	136	102	450	2050	2140	848	427	202
27	153	78	91	78	140	113	370	2530	2260	842	420	199
28	153	80	88	83	129	166	310	2780	2250	874	363	197
29	148	82	89	84	---	258	270	2840	2020	810	339	198
30	147	78	88	89	---	306	220	2970	1850	765	331	195
31	145	---	82	90	---	296	---	3010	---	718	323	---
TOTAL	4837	3214	2841	2603	2390	3972	8744	29911	77280	36296	15038	7550
MEAN	156	107	91.6	84.0	85.4	128	291	965	2576	1171	485	252
MAX	177	148	111	94	195	306	760	3010	3730	1820	709	341
MIN	140	73	74	70	60	86	163	170	1850	718	323	195
AC-FT	9590	6370	5640	5160	4740	7880	17340	59330	153300	71990	29830	14980
CAL YR 1985	TOTAL	123599		MEAN	339	MAX	3500	MIN	45	AC-FT	245200	
WTR YR 1986	TOTAL	194676		MEAN	533	MAX	3730	MIN	60	AC-FT	386100	

06281000 SOUTH FORK SHOSHONE RIVER ABOVE BUFFALO BILL RESERVOIR, WY

LOCATION.--Lat 44°25'58", long 109°15'06", in lot 46, sec.33, T.52 N., R.103 W., Park County, Hydrologic Unit 10080013, on left bank at bridge on county road, 1.0 mi upstream from normal high-water line of Buffalo Bill Reservoir at elevation 5,369 ft, 1.1 mi downstream from Cody Canal diversion, and 11.5 mi southwest of Cody.

DRAINAGE AREA.--585 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to November 1903, May 1905 to September 1908, January 1921 to September 1926, October 1973 to current year (gage heights only June to September 1908). No winter records 1906, 1908, 1922. Published as "at Marquette" 1903, 1905-8, and as Shoshone River above Shoshone Reservoir 1921-26.

REVISED RECORDS.--WSP 1309: 1907.

GAGE.--Water-stage recorder. Elevation of gage is 5,410 ft above National Geodetic Vertical Datum of 1929, from topographic map. Apr. 26 to Nov. 30, 1903, and May 1905 to May 30, 1908, nonrecording gages at sites within about 6.0 mi downstream at different datums.

REMARKS.--Estimated daily discharges: Nov. 19 to Feb. 24. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 11,000 acres upstream from station. U.S. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--18 years (water years 1907, 1923-26, 1974-86), 416 ft³/s, 301,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,960 ft³/s, June 9, 1981, gage height, 9.41 ft; minimum daily, 2.8 ft³/s, Oct. 24, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,720 ft³/s, June 4, gage height, 6.88 ft; minimum daily, 26 ft³/s, Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	155	125	105	105	167	329	152	3090	1550	281	81
2	34	154	130	110	104	173	311	279	3330	1420	243	79
3	32	154	130	110	103	169	279	569	3950	1540	239	50
4	31	154	136	100	100	174	245	807	4420	1740	256	38
5	27	151	130	90	100	171	258	608	4050	1610	210	33
6	26	148	130	90	100	162	291	357	4090	964	177	31
7	30	143	135	92	98	157	402	248	3480	905	148	32
8	43	190	135	96	94	185	432	241	3040	773	136	32
9	46	188	130	100	90	215	465	224	2970	789	140	79
10	45	164	125	98	89	170	393	193	2400	803	196	162
11	60	146	120	100	89	156	376	179	2530	920	139	147
12	59	157	125	100	89	144	362	136	2890	1470	158	117
13	56	166	130	98	90	133	361	105	2980	915	122	105
14	48	168	138	96	100	127	304	88	3110	898	103	111
15	61	166	142	96	100	124	245	77	3260	926	94	131
16	62	167	142	100	120	121	250	51	3490	854	79	110
17	61	155	150	100	120	130	241	30	3520	875	67	104
18	68	146	150	98	122	127	191	27	3350	676	59	105
19	70	130	150	98	120	125	166	53	2810	609	51	142
20	70	127	150	98	110	123	146	364	2600	574	41	135
21	61	120	145	98	114	124	151	855	2220	557	39	122
22	66	125	140	92	120	131	331	1070	1900	553	63	102
23	78	125	140	85	120	137	676	526	1930	472	43	92
24	107	126	140	87	290	152	658	387	2080	441	66	96
25	107	130	130	91	298	157	466	535	2240	400	80	111
26	108	127	130	88	251	140	376	1070	2190	416	133	109
27	111	130	120	92	191	152	306	1610	2300	394	100	108
28	142	132	110	96	162	202	260	2020	2390	438	75	115
29	164	135	110	100	---	314	229	2210	2030	368	58	114
30	164	130	110	105	---	397	169	2380	1820	333	50	99
31	162	---	100	105	---	421	---	2550	---	307	48	---
TOTAL	2235	4409	4078	3014	3589	5380	9669	20001	86460	25490	3694	2892
MEAN	72.1	147	132	97.2	128	174	322	645	2882	822	119	96.4
MAX	164	190	150	110	298	421	676	2550	4420	1740	281	162
MIN	26	120	100	85	89	121	146	27	1820	307	39	31
AC-FT	4430	8750	8090	5980	7120	10670	19180	39670	171500	50560	7330	5740
CAL YR 1985	TOTAL	71265.7		MEAN	195	MAX	2600	MIN	7.3	AC-FT	141400	
WTR YR 1986	TOTAL	170911		MEAN	468	MAX	4420	MIN	26	AC-FT	339000	

06281000 SOUTH FORK SHOSHONE RIVER ABOVE BUFFALO BILL RESERVOIR, WY--Continued

WATER-QUALITY DATA

PERIOD OF RECORD.--October 1981 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1981 to current year.

INSTRUMENTATION.--Temperature recorder since October 1981.

REMARKS.--Water-temperature recorder stopped Oct. 1 to 17 and Dec. 11 to Jan. 13. No record available July 16 to Sept. 30.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURES: Maximum, 25.0°C, July 16, 1985; minimum, 0.0°C on many days each year.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 16.0°C, July 2; minimum, 0.0°C on several days during November, December, January, and February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 17...	1130	57	270	5.0	92	26	6.5	21	1	1.4
JAN 14...	1530	96	301	0.0	86	24	6.3	33	2	2.0
APR 09...	1200	478	149	8.0	49	15	2.9	11	0.7	0.8
JUN 07...	0920	3670	82	7.0	30	8.2	2.2	5.0	0.4	0.5

DATE	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 17...	87	44	1.1	0.1	17	170	0.23	26	0.00	0.04
JAN 14...	100	42	1.4	0.1	18	190	0.25	48	0.00	2.49
APR 09...	55	15	0.5	0.1	15	93	0.13	120	0.10	0.31
JUN 07...	40	1.7	1.1	0.1	12	55	0.08	543	0.10	0.95

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	5.0	2.5	2.5	1.5	---	---	3.5	2.5	7.5	3.5
2	---	---	6.0	3.0	2.0	.5	---	---	3.0	1.0	7.5	4.5
3	---	---	7.5	4.0	.5	.0	---	---	2.0	1.0	7.5	3.5
4	---	---	7.5	4.0	.5	.0	---	---	1.5	1.0	8.0	4.5
5	---	---	6.0	3.0	.5	.0	---	---	1.0	.5	7.5	3.0
6	---	---	2.5	.5	.0	.0	---	---	1.0	.5	6.5	4.0
7	---	---	2.5	.5	.5	.0	---	---	1.0	.5	7.5	5.0
8	---	---	1.0	.0	.5	.5	---	---	2.0	.5	6.5	5.0
9	---	---	.0	.0	1.0	.5	---	---	1.5	.5	7.0	4.0
10	---	---	1.0	.0	2.0	.5	---	---	2.5	1.0	6.0	3.5
11	---	---	1.0	.5	---	---	---	---	2.5	.5	7.5	3.5
12	---	---	.5	.0	---	---	---	---	2.5	.5	7.5	4.5
13	---	---	.5	.0	---	---	---	---	1.0	.5	7.5	4.0
14	---	---	1.0	.0	---	---	.0	.0	1.0	.0	7.5	3.0
15	---	---	1.0	.0	---	---	.0	.0	.0	.0	6.5	3.0
16	---	---	.5	.0	---	---	.0	.0	.0	.0	6.0	2.0
17	9.0	---	.5	.0	---	---	.0	.0	.0	.0	5.5	3.0
18	9.0	4.5	2.5	.5	---	---	.0	.0	.0	.0	8.5	3.0
19	9.5	5.0	2.5	1.0	---	---	.0	.0	.0	.0	7.5	3.5
20	9.0	5.5	1.5	.0	---	---	.0	.0	.5	.0	10.5	4.0
21	8.5	5.5	1.5	.0	---	---	.5	.0	1.0	1.0	10.5	5.5
22	7.5	4.0	2.5	1.0	---	---	.0	.0	1.0	1.0	8.0	5.5
23	5.5	3.0	2.5	.0	---	---	.0	.0	1.0	.5	10.0	5.5
24	9.0	4.0	1.5	.0	---	---	.0	.0	3.0	1.0	11.0	6.5
25	9.5	5.0	2.0	.5	---	---	.5	.0	7.0	3.0	7.0	4.5
26	8.5	5.0	2.5	.0	---	---	.5	.0	7.0	4.5	9.5	3.5
27	8.5	5.5	.0	.0	---	---	.0	.0	6.0	3.5	11.5	5.5
28	9.0	6.0	1.0	.0	---	---	.0	.0	7.5	3.0	12.5	7.0
29	6.5	3.5	1.5	1.0	---	---	.0	.0	---	---	12.0	7.5
30	5.5	3.5	2.5	1.0	---	---	1.5	.0	---	---	11.5	7.0
31	5.5	4.0	---	---	---	---	3.5	2.0	---	---	10.0	6.5
MONTH	9.5	3.0	7.5	.0	2.5	.0	3.5	.0	7.5	.0	12.5	2.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	4.5	14.0	7.0	12.0	7.0	15.0	8.5				
2	8.5	6.0	14.5	9.5	13.0	7.0	16.0	9.0				
3	7.0	4.0	12.5	8.0	12.5	7.0	15.5	9.5				
4	10.5	5.0	12.5	7.0	13.5	7.5	14.5	9.0				
5	12.0	6.5	10.0	5.5	12.5	7.5	12.5	7.0				
6	13.0	7.5	8.0	5.0	12.0	7.0	13.5	7.5				
7	11.0	8.0	7.5	5.0	11.5	6.5	13.0	9.0				
8	11.0	7.0	7.5	3.5	10.0	8.0	12.5	9.5				
9	10.5	7.5	7.0	5.5	9.0	7.5	13.5	9.5				
10	11.0	7.0	12.5	5.5	14.0	7.5	14.0	9.5				
11	10.0	7.0	12.0	6.5	14.5	8.0	13.0	10.0				
12	9.5	6.0	9.5	5.5	13.5	8.0	14.0	8.0				
13	7.0	2.5	12.0	6.5	13.5	8.5	15.0	9.0				
14	8.5	2.0	12.5	7.5	13.0	8.0	14.5	10.0				
15	11.0	6.0	11.0	6.5	14.5	8.0	13.5	10.0				
16	10.0	6.5	12.5	7.0	15.0	8.0	---	---				
17	6.5	5.5	15.5	7.0	15.0	8.0	---	---				
18	10.5	4.5	14.0	8.5	12.5	8.0	---	---				
19	11.0	5.5	15.0	9.5	14.0	8.0	---	---				
20	12.0	6.5	14.5	9.0	12.5	8.5	---	---				
21	14.0	8.5	14.0	7.5	12.5	7.5	---	---				
22	13.5	9.5	12.0	6.0	14.0	7.5	---	---				
23	12.0	7.0	12.0	4.5	15.0	8.5	---	---				
24	9.5	6.0	13.0	7.0	14.5	9.0	---	---				
25	8.5	5.5	14.5	8.0	13.5	9.0	---	---				
26	8.5	5.5	14.0	7.5	15.0	9.0	---	---				
27	9.0	5.5	14.0	6.5	13.5	8.5	---	---				
28	13.5	7.0	14.0	6.0	13.0	9.0	---	---				
29	10.0	7.5	14.0	6.5	13.5	8.5	---	---				
30	10.5	5.0	13.5	6.5	14.0	8.0	---	---				
31	---	---	14.0	6.5	---	---	---	---				
MONTH	14.0	2.0	15.5	3.5	15.0	6.5	16.0	7.0				
YEAR	16.0	.0										

YELLOWSTONE RIVER BASIN

06281400 DIAMOND CREEK NEAR MOUTH, NEAR CODY, WY

LOCATION.--Lat 44°27'21", long 109°08'17", in SE1/4 NE1/4 NE1/4 sec.29, T.52 N., R.102 W., Park County, Hydrologic Unit 10080013, on left bank 40 ft downstream from Cody Canal crossing, 0.8 mi upstream from bridge on State Highway 291, 3.9 mi southeast of Buffalo Bill Dam, and 6.3 mi southwest of Cody.

DRAINAGE AREA.--7.34 mi².

PERIOD OF RECORD.--December 1980 to current year.

GAGE.--Water-stage recorder and wooden control. Elevation of gage is 5,420 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 25, 1985, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 9 to Feb. 25 and Sept. 7-30. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--5 years (water years 1982-86), 6.33 ft³/s, 4,590 acre ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43 ft³/s, July 8, 1986, gage height, 1.59 ft; maximum gage height, 1.65 ft, June 25, 1985; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43 ft³/s, July 8, gage height, 1.59 ft; minimum daily, 0.30 ft³/s, Feb. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	4.6	.52	.90	.60	.96	.33	3.4	8.4	23	20	11
2	4.7	5.1	.52	.90	.55	.84	.36	3.3	6.8	22	20	11
3	6.2	5.7	.60	.85	.50	.70	.37	2.9	8.8	21	19	10
4	5.8	5.7	.64	.80	.50	.67	.45	2.7	6.1	21	17	9.6
5	5.9	6.3	.60	.80	.50	.65	.45	2.9	9.4	22	16	9.0
6	5.9	6.3	.64	.90	.50	.61	.45	3.3	8.6	20	13	9.0
7	6.5	5.7	.62	.90	.45	.66	.34	3.4	8.6	17	16	8.8
8	7.8	4.1	.60	1.0	.45	.82	.45	4.4	11	21	18	8.6
9	7.3	2.5	.55	1.0	.45	.74	.38	5.0	10	26	17	8.4
10	6.0	2.3	.52	1.0	.45	.53	.33	5.1	9.7	20	17	8.4
11	6.1	2.0	.50	1.1	.40	.53	.43	4.5	9.5	22	18	8.3
12	6.5	1.7	.52	1.1	.35	.54	.40	4.3	12	20	18	8.1
13	6.5	1.5	.60	1.2	.30	.48	.34	3.7	9.8	19	19	8.0
14	6.4	1.2	.65	1.1	.33	.46	.50	4.1	11	17	20	8.0
15	5.6	1.0	.80	1.1	.45	.45	.45	4.8	9.3	18	18	7.8
16	6.2	.90	.90	1.1	.50	.43	.86	4.5	9.7	20	18	7.7
17	6.5	.80	.90	1.1	.55	.56	2.6	4.4	13	18	20	7.6
18	6.3	.74	.90	1.2	.60	.68	2.1	4.7	17	21	20	7.5
19	6.3	.70	.90	1.1	.70	.68	2.8	5.3	18	17	20	7.4
20	6.3	.70	.90	.90	.70	.56	2.8	6.0	19	14	21	7.3
21	5.7	.70	.90	.80	.80	.48	2.7	6.3	17	15	21	7.2
22	5.7	.64	.90	.80	.87	.41	3.6	7.5	13	15	18	7.1
23	5.1	.60	.90	.80	.95	.40	5.0	9.1	12	16	17	7.0
24	4.6	.64	.90	.80	1.0	.40	5.4	5.6	17	18	16	6.9
25	4.1	.64	.90	.70	2.0	.35	6.0	4.6	15	20	17	6.8
26	4.1	.62	.90	.70	2.5	.34	7.0	4.5	12	20	19	6.0
27	6.3	.66	.90	.70	1.2	.33	7.2	6.8	12	22	18	5.2
28	6.3	.68	.90	.70	1.2	.33	8.7	9.3	12	24	18	4.6
29	6.3	.64	.90	.70	---	.32	7.8	9.6	14	23	17	4.1
30	4.6	.58	.80	.70	---	.33	3.4	12	18	22	10	3.6
31	4.6	---	.80	.65	---	.33	---	9.1	---	20	11	---
TOTAL	181.6	65.94	23.08	28.10	20.35	16.57	73.99	167.1	357.7	614	547	230.0
MEAN	5.86	2.20	.74	.91	.73	.53	2.47	5.39	11.9	19.8	17.6	7.67
MAX	7.8	6.3	.90	1.2	2.5	.96	8.7	12	19	26	21	11
MIN	4.1	.58	.50	.65	.30	.32	.33	2.7	6.1	14	10	3.6
CAL YR 1985	TOTAL	2078.11		MEAN	5.69	MAX	25	MIN	.00			
WTR YR 1986	TOTAL	2325.43		MEAN	6.37	MAX	26	MIN	.30			

06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WY

LOCATION.--Lat 44°31'00", long 109°05'50", in lot 71, NE1/4 sec.3, T.52 N., R.102 W., Park County, Hydrologic Unit 10080014, on left bank 0.5 mi downstream from Trail Creek, 1.0 mi west of Cody city limits, and 5.5 mi downstream from Buffalo Bill Reservoir.

DRAINAGE AREA.--1,538 mi². Area at site prior to Oct. 1, 1949, 1,502 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1921 to current year. Prior to October 1944, published as "below Shoshone Reservoir".

GAGE.--Water-stage recorder. Elevation of gage is 4,900 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1949, at site 2.5 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 18 to Dec. 23. Records good. Flow completely regulated by Buffalo Bill Reservoir. (See station 06281500.) Diversions upstream from station for irrigation of about 56,100 acres, of which about 37,900 acres are downstream from station. Diversion, 2.1 mi upstream, to Heart Mountain Canal began in 1943.

AVERAGE DISCHARGE.--21 years (water years 1922-42), prior to Heart Mountain diversion, 1,256 ft³/s, 909,300 acre-ft/yr; 44 years (water years 1943-86), 1,127 ft³/s, 816,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,300 ft³/s, June 9, 1981, gage height, 11.57 ft; minimum daily, 14 ft³/s, Nov. 19, 1933.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since construction of Buffalo Bill Reservoir in 1909, 18,700 ft³/s, June 15, 1918, by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,310 ft³/s, June 18, gage height, 8.90 ft; minimum daily, 145 ft³/s, Dec. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	403	150	145	254	351	303	465	2300	2480	4480	1620	1450
2	389	150	147	276	352	304	465	2320	2830	4060	1650	1440
3	390	150	147	315	352	303	466	2340	2890	3790	1650	1430
4	386	150	147	315	351	305	465	2330	2880	3750	1640	1210
5	384	150	150	317	350	305	465	2070	3170	3750	1660	933
6	381	150	151	342	350	306	465	2100	3370	3210	1660	938
7	385	150	152	358	350	308	465	2020	3380	2930	1710	939
8	383	150	155	354	350	308	495	2020	3390	2960	1740	949
9	386	150	158	350	350	308	498	2380	3410	2950	1710	855
10	354	148	160	353	350	323	499	2840	3400	2980	1690	751
11	293	148	162	356	348	363	566	2830	3440	3040	1700	752
12	284	148	165	358	354	363	767	2830	4050	3110	1700	702
13	286	148	168	361	350	362	775	2810	4960	2990	1680	659
14	289	148	168	362	350	362	1010	2820	4970	3020	1690	665
15	282	148	170	362	350	362	1140	2790	4600	3020	1680	665
16	255	148	178	361	350	363	1080	2600	6650	3010	1500	667
17	260	148	198	359	351	364	1090	2790	7690	2990	1650	634
18	226	148	200	358	353	362	1210	2780	8110	3110	1650	579
19	166	148	198	358	354	362	1380	2770	7870	3090	1650	577
20	156	148	198	358	354	362	1380	2770	7470	3100	1640	577
21	154	148	198	358	353	381	1400	2810	6740	3040	1650	576
22	154	148	198	362	351	420	1640	2860	5930	2940	1640	577
23	153	147	261	362	355	420	1820	2650	5370	2610	1650	639
24	153	147	335	362	281	420	2030	2400	5170	2600	1640	577
25	152	147	290	362	231	410	2330	2390	5220	2280	1880	577
26	151	147	273	362	231	408	2300	2400	5320	2120	2060	576
27	151	147	256	314	246	411	2320	2420	5420	2150	2040	576
28	150	147	253	295	296	437	2320	2420	5430	2140	2040	576
29	150	147	248	245	---	465	2320	2440	5260	2120	1940	576
30	150	147	247	291	---	465	2290	2450	4970	2120	1680	576
31	150	---	251	348	---	465	---	2470	---	1800	1450	---
TOTAL	8006	4450	6127	10488	9364	11400	35916	78220	145840	91260	52940	23198
MEAN	258	148	198	338	334	368	1197	2523	4861	2944	1708	773
MAX	403	150	335	362	355	465	2330	2860	8110	4480	2060	1450
MIN	150	147	145	245	231	303	465	2020	2480	1800	1450	576
AC-FT	15880	8830	12150	20800	18570	22610	71240	155100	289300	181000	105000	46010
CAL YR 1985	TOTAL	241796		MEAN	662	MAX	1280	MIN	145	AC-FT	479600	
WTR YR 1986	TOTAL	477209		MEAN	1307	MAX	8110	MIN	145	AC-FT	946500	

YELLOWSTONE RIVER BASIN

06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-49, 1965 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT										
10...	1230	386	639	11.0	290	86	18	20	0.5	3.4
22...	1100	150	1330	6.0	720	180	66	26	0.4	9.8
APR										
03...	0900	449	564	8.0	260	75	17	21	0.6	3.0
JUN										
12...	0935	3950	176	9.5	73	22	4.4	10	0.5	1.0

DATE	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT										
10...	200	120	3.9	0.4	13	380	0.52	401	0.00	0.04
22...	510	250	11	1.1	15	860	1.2	350	0.00	0.02
APR										
03...	200	92	2.7	0.5	12	340	0.47	416	0.00	0.03
JUN										
12...	70	19	1.6	0.1	13	110	0.15	1210	0.10	0.30

06282900 SHOSHONE RIVER ABOVE DRY CREEK, NEAR CODY, WY

LOCATION.--Lat 44°34'37", long 108°58'18", in SE1/4 NW1/4 NW1/4 sec.13, T.53 N., R.101 W., Park County, Hydrologic Unit 10080014, at bridge on U.S. Highway 14A, 160 ft downstream from Dry Gulch, 480 ft upstream from Dry Creek, 0.4 mi south of Trotters Station, and 5.5 mi northeast of Cody.

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT							
09...	1600	398	670	8.3	11.0	652	9.3
NOV							
20...	0930	156	840	8.3	2.0	670	12.4
DEC							
19...	1300	E194	980	8.2	7.5	641	10.4
JAN							
09...	1120	352	740	8.2	5.0	663	11.3
FEB							
19...	1230	359	780	8.2	5.0	675	11.2
APR							
03...	1400	464	710	8.3	8.0	658	12.9
MAY							
14...	0900	2860	310	7.9	9.0	634	9.9
19...	1630	2820	330	7.9	10.0	639	10.8
JUN							
24...	1050	5240	285	7.8	10.0	656	10.9
JUL							
15...	1050	2900	192	7.7	12.0	644	10.0
AUG							
26...	1500	2140	305	7.5	18.0	645	8.4

E-Estimate.

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT							
09...	99	270	0.20	0.07	0.33	0.4	0.02
NOV							
20...	102	510	0.30	0.07	0.63	0.7	0.06
DEC							
19...	104	K12	0.40	0.09	0.31	0.4	0.05
JAN							
09...	102	320	--	--	--	0.2	0.04
FEB							
19...	99	390	0.10	0.09	0.31	0.4	0.06
APR							
03...	127	150	<0.10	0.07	0.23	0.3	0.04
MAY							
14...	103	K65	<0.10	0.05	0.35	0.4	0.07
19...	114	K9	<0.10	0.01	0.29	0.3	0.07
JUN							
24...	112	K22	<0.10	0.05	0.25	0.3	0.15
JUL							
15...	110	K54	<0.10	0.07	0.23	0.3	0.07
AUG							
26...	105	110	0.10	0.12	0.08	0.2	0.17

K-Results based on colony count outside the acceptable range (non-ideal colony count).

YELLOWSTONE RIVER BASIN

06284380 ROAN WASH NEAR GARLAND, WY

LOCATION.--Lat 44°43'55", long 108°37'11", in NE1/4 sec.23, T.55 N., R.98 W., Park County, Hydrologic Unit 10080014, at upstream end of bridge on county road, 0.4 mi upstream from mouth, 3.9 mi southwest of Garland, and 7.5 mi east of Powell.

PERIOD OF RECORD.--October 1984 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 23...	1130	35	16.5	0.16	<0.01	1.1	<0.01	<0.01	<0.01
JUL 15...	0900	41	18.0	0.03	<0.01	0.18	<0.01	<0.01	<0.01
AUG 26...	1200	85	16.0	0.01	<0.01	0.04	<0.01	<0.01	<0.01
SEP 30...	0640	23	8.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

06284400 SHOSHONE RIVER NEAR GARLAND, WY

LOCATION.--Lat 44°44'20", long 108°35'38", in SE1/4 SE1/4 sec.13, T.55 N., R.98 W., Park County, Hydrologic Unit 10080014, on right bank 50 ft downstream from bridge on county road, 600 ft downstream from Penrose Dam, 1.3 mi upstream from Bitter Creek, 4.3 mi southeast of Garland, and 8.0 mi east of Powell.

DRAINAGE AREA.--2,036 mi².

PERIOD OF RECORD.--Water years 1974 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY 14...	1500	1990	10.0	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
JUN 23...	1400	6120	16.0	0.01	<0.01	0.08	<0.01	<0.01	<0.01
JUL 15...	0940	2530	13.0	0.01	<0.01	0.12	<0.01	<0.01	<0.01
AUG 25...	1640	796	16.0	0.03	<0.01	0.04	<0.01	<0.01	<0.01
SEP 30...	0715	270	9.0	<0.01	<0.01	0.01	<0.01	<0.01	<0.01

06284450 BITTER CREEK BELOW SEWAGE LAGOON, NEAR POWELL, WY

LOCATION.--Lat 44°47'10", long 108°43'44", in SE1/4 NW1/4 SW1/4 sec.36, T.56 N., R.99 W., Park County, Hydrologic Unit 10080014, 0.7 mi upstream from bridge on County Road 7, 1.9 mi northeast of water tower in Powell, and 3.4 mi northwest of Garland.

PERIOD OF RECORD.--March 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 17...	1430	75	1040	8.3	9.0	664	10.7
NOV 20...	0720	13	1430	8.3	1.0	674	14.0
JAN 09...	1430	7.0	1490	7.9	2.0	674	12.4
FEB 27...	0830	7.5	1800	7.9	2.0	660	11.7
APR 01...	0830	4.0	1850	8.2	4.0	650	14.8
MAY 14...	1330	57	790	8.2	9.0	642	10.2
20...	1300	42	770	8.1	15.0	644	10.0
JUN 24...	0930	96	760	8.1	15.0	650	9.2
JUL 23...	0640	81	610	7.9	20.0	654	8.8
AUG 26...	1310	96	545	8.0	16.0	654	9.2
SEP 29...	1300	30	860	8.3	11.0	648	10.3

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 17...	107	700	1.20	0.07	0.53	0.6	0.10
NOV 20...	112	1700	4.10	0.09	0.71	0.8	0.24
JAN 09...	102	1500	0.40	0.38	0.92	1.3	0.48
FEB 27...	98	K90	2.70	1.30	1.3	2.6	0.93
APR 01...	133	K62	3.50	0.31	1.2	1.5	0.45
MAY 14...	105	530	0.80	0.07	0.63	0.7	0.24
20...	118	200	1.30	0.21	0.79	1.0	0.41
JUN 24...	108	230	1.80	0.15	0.85	1.0	0.29
JUL 23...	113	320	1.20	0.26	0.94	1.2	0.36
AUG 26...	109	700	1.30	0.20	0.4	0.6	0.35
SEP 29...	110	310	1.10	0.12	0.28	0.4	0.07

K-Results based on colony count outside the acceptable range (non-ideal colony count).

YELLOWSTONE RIVER BASIN

06284500 BITTER CREEK NEAR GARLAND, WY

LOCATION.--Lat 44°45'13", long 108°35'29", in SW1/4 SW1/4 SW1/4 sec.7, T.55 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on left bank 100 ft downstream from bridge on county road, 1.0 mi upstream from mouth, 4.0 mi southeast of Garland, and 5.0 mi southwest of Byron.

DRAINAGE AREA.--80.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1950 to December 1953, October 1957 to September 1960, October 1968 to current year.

REVISED RECORDS.--WSP 1709: Drainage area. WRD WY 1975: 1960(M), 1969(M), 1973(M).

GAGE.--Water-stage recorder. Elevation of gage is 4,080 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 19 to Feb. 26. Records good except those for estimated daily discharges, which are poor. Flow is mainly return from Garland Canal system of Shoshone irrigation project.

AVERAGE DISCHARGE.--24 years (water years 1951-53, 1958-60, 1969-86), 142 ft³/s, 102,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/s, July 4, 1975, gage height, 4.74 ft, from rating curve extended above 580 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft³/s, Jan. 30 to Feb. 3, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 612 ft³/s, Sept. 1, gage height, 3.32 ft; maximum gage height, 3.95, Jan. 6 (backwater from ice); minimum daily discharge, 10 ft³/s, Dec. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	34	12	17	16	30	16	219	206	252	313	438
2	243	33	10	18	16	30	16	220	201	233	316	429
3	245	32	15	17	16	29	15	208	189	227	352	359
4	242	31	22	16	16	28	16	236	213	242	360	382
5	235	30	22	16	16	28	16	235	220	243	327	378
6	227	30	22	16	16	28	16	222	251	232	295	361
7	213	30	21	16	16	27	16	279	274	233	303	369
8	213	28	20	16	15	26	16	302	315	226	316	338
9	214	26	19	16	15	26	16	306	395	267	308	320
10	213	23	18	16	15	25	16	304	362	313	326	344
11	223	22	17	17	15	25	18	301	363	347	303	305
12	226	22	18	17	14	24	18	291	384	368	294	282
13	229	22	19	17	14	24	17	311	398	371	303	268
14	245	23	20	17	15	24	22	312	367	361	310	297
15	246	25	21	17	16	23	19	306	344	352	296	344
16	252	26	22	17	17	23	76	305	301	360	283	350
17	233	26	23	17	18	23	193	290	252	336	294	328
18	218	27	23	17	19	22	169	275	221	304	305	275
19	200	27	22	17	19	21	158	257	235	303	301	270
20	170	27	22	17	20	21	174	243	248	315	286	278
21	82	26	21	17	21	20	153	241	266	328	292	282
22	56	26	20	17	22	20	152	252	286	312	293	279
23	49	25	19	17	23	20	180	262	287	291	309	269
24	44	23	19	17	25	19	216	260	288	275	331	277
25	41	23	18	17	35	19	222	259	276	301	331	272
26	39	21	18	17	32	18	276	253	264	317	327	268
27	38	19	18	17	32	18	231	237	271	348	325	267
28	37	17	17	17	31	18	210	228	279	340	332	276
29	37	16	17	17	---	18	230	214	273	320	315	279
30	35	14	17	16	---	18	219	184	263	323	321	274
31	35	---	17	16	---	17	---	186	---	323	350	---
TOTAL	5030	754	589	519	545	712	3112	7998	8492	9363	9717	9458
MEAN	162	25.1	19.0	16.7	19.5	23.0	104	258	283	302	313	315
MAX	252	34	23	18	35	30	276	312	398	371	360	438
MIN	35	14	10	16	14	17	15	184	189	226	283	267
AC-FT	9980	1500	1170	1030	1080	1410	6170	15860	16840	18570	19270	18760
CAL YR 1985	TOTAL	50852		MEAN	139	MAX	409	MIN	10	AC-FT	100900	
WTR YR 1986	TOTAL	56289		MEAN	154	MAX	438	MIN	10	AC-FT	111600	

YELLOWSTONE RIVER BASIN

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06284500 BITTER CREEK NEAR GARLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951-53, 1958-61, 1969 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1969 to September 1983.

WATER TEMPERATURES: July 1969 to September 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 15...	1500	245	1020	8.2	11.0	370
NOV 21...	1230	27	1360	8.3	0.0	--
DEC 17...	1100	23	1400	8.3	0.0	--
JAN 16...	0800	18	1630	8.0	0.0	K680
FEB 26...	1120	32	1740	8.3	5.0	--
APR 01...	1200	16	1600	8.4	7.5	K14
MAY 20...	1500	222	765	8.2	15.5	--
JUN 23...	1630	264	740	8.2	17.0	360
JUL 17...	0900	386	550	7.8	16.0	190
AUG 26...	0840	352	545	7.7	14.0	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 23...	1630	264	17.0	0.09	<0.01	0.26	<0.01	<0.01	<0.01
JUL 17...	0900	386	16.0	0.05	0.01	0.12	<0.01	<0.01	<0.01
AUG 26...	0840	352	14.0	0.06	<0.01	0.09	<0.01	<0.01	<0.01
SEP 30...	0750	275	10.0	<0.01	<0.01	0.01	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN

06284800 WHISTLE CREEK NEAR GARLAND, WY

LOCATION.--Lat 44°43'21", long 108°34'46", in NW1/4 NW1/4 NE1/4 sec.30, T.55 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on right bank 300 ft upstream from Elk-Lovell Canal, 5.6 mi southeast of Garland, and 6.3 mi southwest of Byron.

DRAINAGE AREA.--101 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1958 to May 1960, October 1968 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,150 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 31, 1960, at different datum.

REMARKS.--Estimated daily discharges: Oct. 9, Nov. 8-11, 15-17, Nov. 19 to Mar. 9, Apr. 1-11, 17-28, May 9-20, and June 4-9, 11-23. Records fair except those for estimated daily discharge, which are poor. Part of flow is return flow from areas irrigated by diversions from the Shoshone River.

AVERAGE DISCHARGE.--19 years (water years 1959, 1969-86), 26.1 ft³/s, 18,910 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,780 ft³/s, July 3, 1975, gage height, 12.44 ft, from floodmarks, on basis of slope-area measurement of peak flow; minimum daily, 0.05 ft³/s, Jan. 12, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 19, 1961, reached a discharge of 4,260 ft³/s, at site 6.5 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 460 ft³/s, June 9, gage height, 3.79 ft; minimum daily, 0.52 ft³/s, Dec. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	2.3	.56	.72	.66	25	1.2	40	42	42	36	38
2	44	2.4	.52	.74	.66	23	1.2	42	46	41	36	67
3	45	2.4	.90	.68	.66	22	1.1	44	67	34	29	33
4	40	2.5	1.1	.66	.66	20	1.2	41	66	29	29	28
5	38	2.6	1.1	.64	.66	18	1.2	33	66	34	24	27
6	51	2.5	1.1	.64	.66	17	1.2	29	68	30	24	30
7	61	2.5	1.0	.66	.66	16	1.2	42	50	28	24	30
8	62	2.5	.97	.66	.65	15	1.2	66	40	33	29	31
9	44	2.5	.94	.66	.64	14	1.2	68	123	37	32	30
10	40	2.4	.86	.68	.64	14	1.2	66	50	33	33	28
11	15	2.3	.82	.68	.63	19	5.6	58	38	39	32	28
12	6.0	2.3	.84	.68	.62	2.8	21	50	40	44	29	26
13	5.4	2.5	.90	.68	.60	2.6	28	50	42	50	29	27
14	6.2	2.4	.92	.68	.66	2.4	30	49	43	48	32	31
15	4.5	2.4	.96	.68	.71	2.3	28	49	43	44	33	36
16	3.4	2.4	1.0	.68	.74	2.1	28	49	43	40	28	36
17	2.4	2.4	1.0	.68	.77	2.5	28	47	40	41	22	33
18	2.4	2.4	1.0	.68	.81	2.5	26	44	38	36	27	32
19	2.4	2.2	.98	.68	.82	3.0	26	43	38	23	21	31
20	2.4	1.7	.95	.67	.86	3.6	26	42	39	26	20	28
21	2.4	1.6	.92	.67	.90	3.4	26	40	41	28	22	28
22	2.4	1.6	.90	.67	.92	2.8	26	43	42	33	25	27
23	2.5	1.4	.88	.67	.95	2.3	27	43	42	34	29	26
24	2.3	1.2	.86	.67	1.0	2.0	28	43	30	32	37	26
25	2.3	1.2	.80	.67	3.5	1.8	29	44	39	62	36	26
26	2.3	1.1	.82	.67	35	1.9	33	49	43	40	32	26
27	2.3	.94	.80	.67	30	1.8	32	56	42	32	26	25
28	2.3	.92	.78	.67	27	1.7	31	46	44	34	29	23
29	2.3	.84	.74	.67	---	1.8	29	52	44	27	28	22
30	2.3	.66	.72	.66	---	1.8	34	64	43	28	28	22
31	2.3	---	.72	.66	---	1.9	---	58	---	34	27	---
TOTAL	551.8	59.06	27.36	20.88	113.04	250.0	553.5	1490	1432	1116	888	901
MEAN	17.8	1.97	.88	.67	4.04	8.06	18.4	48.1	47.7	36.0	28.6	30.0
MAX	62	2.6	1.1	.74	35	25	34	68	123	62	37	67
MIN	2.3	.66	.52	.64	.60	1.7	1.1	29	30	23	20	22
AC-FT	1090	117	54	41	224	496	1100	2960	2840	2210	1760	1790
CAL YR 1985	TOTAL	8133.17		MEAN	22.3	MAX	207	MIN	.15	AC-FT	16130	
WTR YR 1986	TOTAL	7402.64		MEAN	20.3	MAX	123	MIN	.52	AC-FT	14680	

YELLOWSTONE RIVER BASIN

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06284800 WHISTLE CREEK NEAR GARLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-60, 1969 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1969 to September 1983.

WATER TEMPERATURES: July 1969 to September 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)
OCT				
16...	1600	2.9	3750	12.0
NOV				
22...	1200	1.6	4740	0.0
DEC				
17...	1340	1.0	5200	0.0
JAN				
15...	1600	0.68	3680	0.0
FEB				
26...	1640	35	960	1.0
APR				
01...	1330	1.2	5100	10.5
29...	0930	31	960	8.0
MAY				
20...	1610	42	820	18.0
JUN				
23...	1330	42	620	18.0
JUL				
17...	1115	48	560	16.0
AUG				
26...	1030	45	440	16.0

YELLOWSTONE RIVER BASIN

06285100 SHOSHONE RIVER NEAR LOVELL, WY

LOCATION.--Lat 44°50'20", long 108°26'00", in NW1/4 NW1/4 sec.16, T.56 N., R.96 W., Big Horn County, Hydrologic Unit 10080014, on right bank 30 ft upstream from bridge on U.S. Highway 310 and 1.5 mi west of Lovell.

DRAINAGE AREA.--2,350 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,850 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1976, at datum 2.00 ft higher. Oct. 1, 1976 to Sept. 30, 1980, at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 5 to Mar. 1. Records fair except those for estimated daily discharges, which are poor. Flow regulated by Buffalo Bill Reservoir. (See station 06281500.) Natural flow of stream affected by storage reservoirs, power development, diversions upstream from station for irrigation of about 143,000 acres, of which about 8,000 acres are downstream from station, and return flow from irrigated areas.

AVERAGE DISCHARGE.--20 years, 997 ft³/s, 722,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,400 ft³/s, June 10, 1981, gage height, 9.16 ft, present datum; maximum gage height, 10.09 ft, Feb. 3, 1972 (backwater from ice), present datum; minimum daily discharge, 27 ft³/s, May 31, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,700 ft³/s, June 18, gage height, 6.65 ft; minimum daily, 285 ft³/s, Dec. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	876	302	285	440	600	600	525	1640	1270	3950	1040	1370
2	915	302	291	450	600	590	528	1620	1300	3450	1110	1680
3	905	302	294	500	595	566	525	1510	1890	3140	1200	1340
4	905	302	295	500	595	516	524	1450	1880	3030	1210	1250
5	900	302	290	500	595	497	518	1580	1930	3100	1120	1010
6	880	302	295	520	565	453	472	1410	2460	2810	1060	982
7	880	300	300	550	540	435	456	1270	2530	2290	1080	1040
8	860	300	300	550	520	454	499	1320	2680	2190	1110	1050
9	800	300	302	550	500	472	495	1500	3650	2260	1070	1010
10	680	300	316	560	480	433	387	2360	3190	2430	1150	975
11	600	300	315	570	465	448	354	2440	3030	2550	1190	889
12	560	300	320	575	460	467	542	2320	3310	2720	1190	833
13	560	300	325	575	450	485	739	2270	4350	2680	1180	743
14	560	298	330	575	470	472	666	2220	4710	2720	1140	739
15	540	295	340	575	500	407	892	2170	4120	2670	1100	837
16	519	295	350	573	560	345	818	2130	5530	2720	1040	809
17	510	295	390	573	620	354	898	2070	6730	2640	1030	776
18	460	295	400	573	680	366	825	2050	7230	2630	1070	717
19	355	294	400	573	720	358	978	1980	7330	2690	1000	667
20	320	293	400	575	700	360	901	1910	6760	2670	955	631
21	317	293	400	580	720	356	864	1900	6300	2700	967	648
22	312	293	410	585	800	340	693	1860	5680	2550	1000	645
23	310	293	470	585	900	327	967	1900	5080	2200	1050	632
24	310	292	520	585	1100	338	1010	1480	4730	1960	1130	662
25	310	292	490	585	1250	333	1550	1430	4620	1800	1160	662
26	308	292	450	580	1200	327	1800	1420	4660	1410	1570	600
27	306	292	440	500	1100	339	1860	1360	4700	1400	1550	598
28	304	292	440	470	700	361	1830	1290	4740	1390	1580	612
29	302	291	440	400	---	450	1820	1220	4640	1340	1540	649
30	302	290	430	500	---	499	1750	1170	4390	1390	1290	645
31	302	---	430	600	---	526	---	1310	---	1460	1200	---
TOTAL	16968	8897	11458	16827	18985	13274	26686	53560	125420	74940	36082	25701
MEAN	547	297	370	543	678	428	890	1728	4181	2417	1164	857
MAX	915	302	520	600	1250	600	1860	2440	7330	3950	1580	1680
MIN	302	290	285	400	450	327	354	1170	1270	1340	955	598
AC-FT	33660	17650	22730	33380	37660	26330	52930	106200	248800	148600	71570	50980
CAL YR 1985	TOTAL	182703		MEAN	501	MAX	1210	MIN	34	AC-FT	362400	
WTR YR 1986	TOTAL	428798		MEAN	1175	MAX	7330	MIN	285	AC-FT	850500	

06285100 SHOSHONE RIVER NEAR LOVELL, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1966 to September 1983.

WATER TEMPERATURES: October 1966 to September 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)
OCT 16...	1300	519	1010	8.0	330	84	30	95	2	4.0	191
JAN 16...	1500	572	959	0.0	370	96	31	74	2	5.1	240
APR 02...	1400	534	863	8.0	300	74	28	66	2	4.3	190
JUL 22...	1510	2530	346	13.0	110	29	8.8	27	1	1.6	99

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 16...	310	15	0.7	12	670	0.9	932	1.20	<0.01	<0.01
JAN 16...	260	14	0.5	13	640	0.87	985	0.90	0.30	--
APR 02...	220	13	0.5	11	530	0.72	765	0.40	0.08	--
JUL 22...	72	2.5	0.2	15	220	0.29	1470	0.50	0.06	0.05

YELLOWSTONE RIVER BASIN

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEAVER, WY

LOCATION.--Lat 44°53'08", long 108°33'01", in NE1/4 NE1/4 NW1/4 sec.34, T.57 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on left bank 300 ft downstream from Polecat Creek, 800 ft upstream from Sidon Canal crossing, and 2.4 mi east of Deaver.

DRAINAGE AREA.--341 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1958 to May 1960, October 1968 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,020 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 10 to Apr. 2 and Sept. 27-29. Records fair except those for estimated daily discharge, which are poor. Flow is mostly return flow from land irrigated by canals diverting water from Shoshone River.

AVERAGE DISCHARGE.--19 years (water years 1959, 1969-86), 65.0 ft³/s, 47,090 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,250 ft³/s, June 8, 1958, gage height, 9.22 ft, from floodmark, from rating curve extended above 500 ft³/s on basis of slope-area measurement of peak flow; minimum daily discharge, 0.50 ft³/s, Feb. 2-6, Feb. 21 to Mar. 5, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 237 ft³/s, Sept. 10, gage height, 3.86 ft; minimum daily, 6.0 ft³/s, Dec. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	43	7.0	9.6	9.0	27	13	102	63	77	101	124
2	154	35	6.0	10	9.0	27	13	103	70	78	110	133
3	130	29	8.0	9.8	9.0	26	12	91	75	75	120	142
4	141	27	11	9.4	9.0	25	12	86	79	76	121	153
5	137	28	12	9.0	9.0	24	12	87	73	83	121	159
6	148	29	12	9.0	8.8	23	12	83	74	77	123	163
7	119	32	12	9.0	8.8	22	13	102	71	71	116	157
8	112	29	11	9.0	8.6	21	12	112	83	75	110	150
9	119	31	11	9.0	8.4	21	12	105	122	85	105	179
10	143	28	10	9.0	8.4	21	12	139	129	96	106	192
11	162	25	10	9.4	8.2	20	12	144	118	120	113	177
12	138	23	11	9.4	8.0	20	13	138	117	144	123	154
13	138	22	11	9.4	8.0	20	12	126	110	132	127	162
14	147	22	12	9.4	8.4	20	14	114	118	127	126	175
15	146	22	13	9.4	8.8	19	15	106	122	121	125	176
16	142	22	13	9.4	9.4	19	22	101	132	125	127	159
17	132	20	14	9.4	10	19	59	92	124	114	130	152
18	131	17	14	9.4	11	18	106	104	122	99	132	143
19	134	14	14	9.4	13	17	96	106	125	95	119	147
20	104	14	13	9.4	14	17	88	92	115	96	109	158
21	50	14	13	9.4	16	16	100	79	104	94	115	140
22	32	14	12	9.4	18	16	75	74	106	93	112	144
23	26	13	11	9.4	20	16	46	88	107	87	117	144
24	24	13	11	9.4	27	16	57	95	97	86	111	149
25	23	12	10	9.4	32	16	73	97	73	88	103	147
26	25	11	10	9.4	30	15	98	102	66	79	102	130
27	23	10	10	9.4	30	15	97	96	68	83	98	128
28	47	9.5	10	9.4	28	15	82	83	87	81	94	127
29	50	9.0	9.6	9.4	---	15	69	69	75	84	97	125
30	52	8.2	9.6	9.0	---	15	93	63	71	78	103	123
31	47	---	9.6	9.0	---	14	---	66	---	77	108	---
TOTAL	3121	625.7	340.8	289.4	387.8	595	1350	3045	2896	2896	3524	4512
MEAN	101	20.9	11.0	9.34	13.8	19.2	45.0	98.2	96.5	93.4	114	150
MAX	162	43	14	10	32	27	106	144	132	144	132	192
MIN	23	8.2	6.0	9.0	8.0	14	12	63	63	71	94	123
AC-FT	6190	1240	676	574	769	1180	2680	6040	5740	5740	6990	8950
CAL YR 1985	TOTAL	21702.4		MEAN	59.5	MAX	162	MIN	3.8	AC-FT	43050	
WTR YR 1986	TOTAL	23582.7		MEAN	64.6	MAX	192	MIN	6.0	AC-FT	46780	

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEAYER, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-60, 1969 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1969 to September 1983.

WATER TEMPERATURES: July 1969 to November 1976, September 1977 to September 1983.

REMARKS.--Daily temperature readings not available for water year 1980.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
OCT 16...	0920	117	1290	6.0	450	110	43	110	2	4.5	227
JAN 09...	1000	9.0	3270	0.0	1100	220	130	460	6	5.3	350
APR 02...	0930	14	3440	5.5	1200	230	140	440	6	5.7	300
JUL 23...	0805	95	1190	16.0	400	96	38	110	2	3.7	173

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 16...	460	11	0.7	13	890	1.2	281	0.70	0.09	<0.01
JAN 09...	1600	23	0.6	9.6	2700	3.7	65	2.90	0.08	--
APR 02...	1700	33	0.6	6.9	2700	3.7	103	1.80	0.05	--
JUL 23...	490	8.4	0.5	14	860	1.2	222	0.77	0.12	0.08

YELLOWSTONE RIVER BASIN

06286200 SHOSHONE RIVER AT KANE, WY

LOCATION.--Lat 44°51'31", long 108°19'52", in NE1/4 SE1/4 SE1/4 sec.6, T.56 N., R.95 W., Big Horn County, Hydrologic Unit 10080014, at bridge on county road, 3.4 mi northeast of Lovell, 6.5 mi west of Kane, 6.6 mi upstream from high-water line of Bighorn Lake at elevation 3,640 ft, and 7.8 mi upstream from former discharge station.

DRAINAGE AREA.--2,989 mi², at former discharge station.

PERIOD OF RECORD.--Water years 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 16...	1030	636	1170	8.3	8.0	678	10.8
FEB 26...	0800	1280	1000	8.3	2.5	670	12.7
APR 02...	1500	550	940	8.0	8.5	668	11.7
JUL 22...	1640	2540	370	8.2	13.0	659	9.5

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 16...	103	130	1.20	0.10	0.5	0.6	0.10
FEB 26...	106	510	0.80	0.35	6.5	6.8	4.20
APR 02...	115	K50	0.40	0.06	0.44	0.5	0.04
JUL 22...	105	270	0.50	0.09	0.51	0.6	0.11

K-Results based on colony count outside the acceptable range (non-ideal colony count).

06286400 BIGHORN LAKE NEAR ST. XAVIER, MT

LOCATION.--Lat 45°18'27", long 107°57'26", in SW1/4 SE1/4 sec.18, T.6 S., R.31 E., Big Horn County, Hydrologic Unit 10080010, in block 13 of Yellowtail Dam on Bighorn River, 1.3 mi upstream from Grapevine Creek, 15.5 mi southeast of St. Xavier, and at mile 86.6.

DRAINAGE AREA.--19,626 mi².

PERIOD OF RECORD.--November 1965 to current year (monthend contents only). Prior to October 1969, published as "Yellowtail Reservoir." Records of daily elevations and contents on file in Helena district office.

GAGE.--Water-stage recorder in powerhouse control room. Datum of gage is referenced to National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Reservoir is formed by thin concrete-arch dam; construction began in 1961; completed in 1967. Storage began Nov. 3, 1965. Usable capacity, 1,356,000 acre-ft between elevation 3,296.50 ft, river outlet invert, and 3,657.00 ft, top of flood control. Elevation of spillway crest, 3,593.00 ft. Normal maximum operating level, 1,097,000 acre-ft, elevation, 3,640.00 ft. Minimum operating level, 483,400 acre-ft, elevation, 3,547.00 ft. Dead storage, 16,010 acre-ft, revised, below elevation 3,296.50 ft. Figures given herein represent usable contents. Water is used for power production, flood control, irrigation, and recreation.

COOPERATION.--Elevations and capacity table furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,346,000 acre-ft, July 6, 1967, elevation, 3,656.43 ft; minimum since first filling, 660,700 acre-ft, Mar. 11, 1970, elevation 3,584.45 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,064,000 acre-ft, July 22, elevation, 3,640.77 ft; minimum, 669,800 acre-ft, Apr. 25, elevation, 3,588.87 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	3,614.94	*820,200	---
Oct. 31	3,616.16	828,900	+8,700
Nov. 30	3,609.41	783,500	-45,400
Dec. 31	3,599.59	726,300	-57,200
CAL YR 1985			-209,300
Jan. 31	3,593.48	693,500	-32,800
Feb. 28	3,593.90	695,800	+ 2,300
Mar. 31	3,589.81	674,500	-21,300
Apr. 30	3,589.72	674,100	- 400
May 31	3,602.12	740,400	+66,300
June 30	3,638.74	1,038,000	+297,600
July 31	3,639.19	1,044,000	+ 6,000
Aug. 31	3,637.61	1,025,000	-19,000
Sept. 30	3,637.60	1,025,000	0
WTR YR 1986			+204,800

*From revised capacity table dated February 18, 1986.

YELLOWSTONE RIVER BASIN

06287000 BIGHORN RIVER NEAR ST. XAVIER, MT

LOCATION.--Lat 45°19'00", long 107°55'05", in NW1/4 NW1/4 NE1/4 sec.16, T.6 S., R.31 E., Big Horn County, Hydrologic Unit 10080015, on right bank 800 ft downstream from Yellowtail afterbay dam, 1,500 ft downstream from Lime Kiln Creek 14 mi southwest of St. Xavier, and at mile 83.9.

DRAINAGE AREA.--19,667 mi². Area at site used prior to Apr. 16, 1963, 19,626 mi².

PERIOD OF RECORD.--October 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,158.38 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Apr. 16, 1963, and June 13, 1964, to Mar. 31, 1965, water-stage recorder at site 1.2 mi upstream at different datum. Apr. 1, 1965, to July 31, 1966, water-stage recorder at site 1,300 ft downstream at present datum.

REMARKS.--No estimated daily discharges during year. Records good. Figures of discharge given herein are sum of river flow and flow of Bighorn Canal. Some regulation by 14 reservoirs in Wyoming with combined capacity of 1,400,000 acre-ft and complete regulation by Bighorn Lake (see preceding page) since Nov. 3, 1965. Diversions for irrigation of about 375,000 acres upstream from station.

AVERAGE DISCHARGE.--52 years, 3,593 ft³/s, 2,603,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,400 ft³/s, June 16, 1935; minimum observed, 49 ft³/s, Mar. 29, 1966, result of discharge measurement (dam closure); minimum daily, 112 ft³/s, Apr. 2, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,790 ft³/s, June 11; minimum daily, 1,070 ft³/s, Oct. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2190	2160	2870	2860	2380	3170	3340	4260	4090	6600	5200	3240
2	2190	2140	2890	2850	2380	3160	3350	4240	4090	7090	4270	3230
3	2180	2140	2890	2860	2380	3650	3330	3850	4080	7100	4170	3230
4	2180	2140	2880	2850	2520	4120	3340	3850	4050	7090	3300	3230
5	2190	2140	2890	2840	2520	4110	3340	3610	4650	7070	3270	3230
6	2190	2140	2890	2840	2520	4360	3330	3180	4620	7070	3280	3170
7	2160	2140	2890	2830	2520	4530	3350	3450	5250	7060	3290	3190
8	2180	2140	2880	2830	2520	4530	3350	3460	5240	7050	3280	3300
9	2180	2130	2880	2640	2530	4550	3360	3460	5250	7040	3290	3330
10	2180	2130	2880	2630	2540	4110	3650	3860	5820	7050	3270	3630
11	2180	2130	2880	2610	2530	3880	3650	3860	7020	7050	3270	3650
12	2180	2130	2880	2610	2550	3650	3650	3850	7500	7060	3280	3650
13	2180	2130	2880	2620	2560	3360	3650	4550	7490	7050	3270	3670
14	2180	2150	2880	2620	2560	3360	3650	4150	7510	7020	3280	3680
15	2180	2180	2880	2620	2570	3370	3650	4160	7500	6540	3270	3700
16	1890	2180	2880	2620	2570	3380	3660	4150	7480	6520	3260	3710
17	1070	2180	2870	2610	2580	3380	3960	4170	7500	6690	3260	3720
18	2140	2180	2880	2400	2580	3370	3930	4180	7730	6680	3260	3730
19	2160	2180	2870	2390	2580	3770	3920	4170	7740	6700	3240	3750
20	2160	2180	2890	2390	2590	4120	3940	4140	7730	6700	3240	3760
21	2160	2580	2910	2390	2590	4130	4210	4130	7730	6690	3270	3780
22	2170	2880	2890	2390	2600	3750	4230	4120	7720	6680	3270	3800
23	2170	2880	2880	2380	2600	3750	4230	4140	7720	6680	3260	3810
24	2170	2880	2870	2370	2610	3750	4240	4140	7700	6680	3260	3830
25	2170	2880	2880	2370	2610	3340	4250	4140	6680	6690	3250	3840
26	2170	2880	2880	2370	2610	3340	4250	4140	6630	6170	3250	3850
27	2170	2870	2870	2380	2610	3340	4240	4130	6640	6160	3240	3870
28	2170	2870	2860	2370	2930	3330	4260	4100	6630	6160	3240	3880
29	2140	2870	2870	2360	---	3340	4250	4110	6620	6150	3250	3890
30	2160	2870	2860	2360	---	3330	4250	4100	6600	6140	3240	3900
31	2160	---	2870	2360	---	3330	---	4090	---	6150	3230	---
TOTAL	65950	71480	89270	79620	71640	114660	113810	123940	193010	208580	105010	108250
MEAN	2127	2383	2880	2568	2559	3699	3794	3998	6434	6728	3387	3608
MAX	2190	2880	2910	2860	2930	4550	4260	4550	7740	7100	5200	3900
MIN	1070	2130	2860	2360	2380	3160	3330	3180	4050	6140	3230	3170
AC-FT	130800	141800	177100	157900	142100	227400	225700	245800	382800	413700	208300	214700
CAL YR 1985	TOTAL	930630		MEAN	2550	MAX	3410	MIN	1070	AC-FT	1846000	
WTR YR 1986	TOTAL	1345220		MEAN	3686	MAX	7740	MIN	1070	AC-FT	2668000	

06288600 LITTLE BIGHORN RIVER BELOW DAYTON GULCH, NEAR BURGESS JUNCTION, WY

LOCATION.--Lat 44°50'23", long 107°45'18", in SW1/4 SE1/4 SW1/4 sec.12, T.56 N., R.91 W., Sheridan County, Hydrologic Unit 10080016, Big Horn National Forest, on left bank 150 ft downstream from Dayton Gulch, and 12 mi northwest of Burgess Junction.

DRAINAGE AREA.--15.9 mi².

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,240 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1, 4, 5, 7-14, 18, 19, 22-24, 29, 30, Nov. 1, 2, 5-15, 18, Dec. 18, 19, 24, Jan. 21, Mar. 14-19, Apr. 1-3, 13-15, and May 1, 6, 12, 17. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 373 ft³/s, June 2, 1986, gage height, 3.63 ft; minimum daily, 2.3 ft³/s, Mar. 27, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 373 ft³/s, June 2, gage height, 3.63 ft; minimum daily, 2.7 ft³/s, Apr. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	4.6	3.8	3.5	3.0	2.9	2.9	6.4	230	35	14	15
2	6.4	5.1	3.7	3.3	3.0	2.9	2.7	11	286	33	14	12
3	6.3	5.4	3.8	3.3	3.1	2.8	3.1	18	277	31	14	9.5
4	6.3	5.2	3.8	3.2	3.2	2.9	3.0	32	319	31	14	8.8
5	6.5	5.0	4.1	3.3	3.0	2.8	3.2	30	286	29	13	8.5
6	6.7	4.7	4.1	3.4	3.3	2.8	3.6	22	265	27	13	8.5
7	6.4	4.8	3.9	3.3	3.2	2.8	3.9	18	211	27	12	8.6
8	6.0	4.7	3.9	3.3	3.0	2.8	4.1	16	195	26	12	8.5
9	6.2	4.5	3.9	3.2	3.0	2.8	4.6	15	195	28	12	8.9
10	6.1	3.7	3.8	3.1	3.0	2.7	4.1	14	157	26	11	9.5
11	5.8	4.1	3.8	3.2	2.8	2.7	3.8	13	141	30	11	9.0
12	5.5	4.2	3.9	3.1	2.9	2.7	3.6	12	133	25	11	8.5
13	5.3	4.3	3.9	3.3	3.0	2.7	3.4	12	121	23	11	8.3
14	5.5	4.4	3.9	3.3	3.0	2.7	3.3	12	112	22	11	8.3
15	5.5	4.5	3.9	3.3	2.9	2.7	3.4	11	104	22	11	8.0
16	5.5	4.6	3.9	3.2	3.0	2.7	3.6	11	94	21	10	7.9
17	6.0	4.7	3.9	3.1	3.0	2.7	3.8	10	86	20	10	7.9
18	6.0	4.7	3.9	3.1	2.8	2.7	3.5	11	80	20	9.8	8.1
19	6.3	4.6	3.8	3.4	2.8	2.7	3.4	15	74	19	9.7	9.4
20	6.4	4.4	3.8	3.2	3.2	2.7	3.5	26	73	19	9.6	10
21	6.0	4.5	4.0	3.1	2.8	2.7	4.2	48	64	19	9.6	8.7
22	6.0	4.7	3.8	3.2	2.8	2.7	5.7	56	59	18	9.6	8.2
23	5.7	4.5	3.8	3.3	2.8	2.7	7.4	43	55	17	9.3	8.0
24	5.7	4.4	3.7	3.1	2.8	2.8	7.9	39	52	17	9.0	8.2
25	5.7	4.3	3.8	3.0	2.9	2.7	7.6	49	48	16	8.9	8.1
26	5.9	4.3	3.8	3.0	3.0	2.7	7.0	70	46	17	8.8	9.4
27	5.4	4.2	3.5	3.1	2.8	3.1	6.2	96	43	16	8.6	9.2
28	5.5	4.1	3.5	3.1	2.9	3.4	6.1	125	42	16	8.5	9.0
29	6.0	4.1	3.5	3.1	---	3.6	6.0	153	39	15	8.6	8.9
30	5.6	3.9	3.5	3.1	---	3.5	5.8	171	36	15	9.7	9.1
31	5.5	---	3.3	3.1	---	3.3	---	193	---	15	9.8	---
TOTAL	184.1	135.2	117.7	99.3	83.0	88.4	134.4	1358.4	3923	695	333.5	270.0
MEAN	5.94	4.51	3.80	3.20	2.96	2.85	4.48	43.8	131	22.4	10.8	9.00
MAX	6.7	5.4	4.1	3.5	3.3	3.6	7.9	193	319	35	14	15
MIN	5.3	3.7	3.3	3.0	2.8	2.7	2.7	6.4	36	15	8.5	7.9
AC-FT	365	268	233	197	165	175	267	2690	7780	1380	661	536
CAL YR 1985	TOTAL	4133.8	MEAN	11.3	MAX	81	MIN	2.3	AC-FT	8200		
WTR YR 1986	TOTAL	7422.0	MEAN	20.3	MAX	319	MIN	2.7	AC-FT	14720		

YELLOWSTONE RIVER BASIN

06288700 DRY FORK BELOW LICK CREEK, NEAR BURGESS JUNCTION, WY

LOCATION.--Lat 44°53'06", long 107°36'48", in SW1/4 NW1/4 SE1/4 sec.28, T.57 N., R.89 W., Sheridan County, Hydrologic Unit 10080016, Bighorn National Forest, on left bank 15 ft downstream from Lick Creek, 5.2 mi upstream from mouth, and 9 mi northwest of Burgess Junction.

DRAINAGE AREA.--54.1 mi².

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,100 ft above National Geodetic Vertical Datum of 1929, from topographic map. Supplementary gage on right bank 15 ft downstream at datum 0.49 ft higher.

REMARKS.--No estimated daily discharges. Records good. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 429 ft³/s, May 31, 1984, gage height, 3.23 ft; minimum daily, 14 ft³/s, Apr. 26, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 296 ft³/s, June 4, gage height, 2.23 ft, supplementary gage datum; minimum daily, 16 ft³/s, Mar. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	22	24	23	20	18	22	36	193	86	45	38
2	25	24	24	23	20	19	22	42	218	82	44	34
3	25	24	23	23	20	18	20	58	226	81	44	33
4	23	23	21	18	20	18	21	82	276	81	43	33
5	23	22	21	18	20	19	20	91	263	78	42	32
6	24	21	21	20	20	19	21	71	253	74	42	33
7	23	23	21	21	18	19	23	62	234	72	41	32
8	21	24	21	22	19	19	25	56	229	70	41	32
9	22	21	21	22	20	18	25	52	256	71	41	32
10	23	17	21	22	19	18	25	51	244	68	40	34
11	24	18	20	22	19	18	25	49	231	69	40	32
12	24	20	21	22	19	18	24	47	217	65	39	31
13	22	23	22	22	20	18	24	45	205	62	39	30
14	23	22	22	21	20	17	23	47	194	61	38	30
15	23	22	22	21	20	17	24	45	185	60	38	30
16	23	23	22	21	20	16	25	44	173	60	37	29
17	23	25	22	21	19	18	26	43	163	58	37	29
18	23	24	22	21	19	17	24	44	154	57	36	30
19	23	20	22	21	19	18	24	49	147	55	36	30
20	23	20	22	21	19	17	24	63	141	54	36	30
21	24	20	22	21	19	17	25	90	131	54	36	29
22	24	19	22	21	19	17	31	106	123	53	35	29
23	22	19	22	21	18	17	44	87	117	52	35	29
24	23	20	22	21	18	19	41	79	113	51	35	32
25	24	23	22	21	19	19	39	85	109	51	34	32
26	24	23	22	20	19	18	38	99	105	50	34	30
27	24	24	22	20	18	19	35	118	101	49	34	29
28	24	24	22	20	18	21	34	139	96	48	34	30
29	23	24	22	20	---	22	35	153	94	47	34	29
30	23	24	23	20	---	23	35	164	90	47	34	29
31	24	---	23	20	---	23	---	176	---	46	34	---
TOTAL	722	658	679	650	538	574	824	2373	5281	1912	1178	932
MEAN	23.3	21.9	21.9	21.0	19.2	18.5	27.5	76.5	176	61.7	38.0	31.1
MAX	25	25	24	23	20	23	44	176	276	86	45	38
MIN	21	17	20	18	18	16	20	36	90	46	34	29
AC-FT	1430	1310	1350	1290	1070	1140	1630	4710	10470	3790	2340	1850
CAL YR 1985	TOTAL	10706	MEAN	29.3	MAX	79	MIN	17	AC-FT	21240		
WTR YR 1986	TOTAL	16321	MEAN	44.7	MAX	276	MIN	16	AC-FT	32370		

06288975 ELKHORN CREEK ABOVE FULLER RANCH DITCH, NEAR PARKMAN, WY

LOCATION.--Lat 44°59'01", long 107°36'53", in SE1/4 NE1/4 SW1/4 sec.21, T.58 N., R.89 W., Sheridan County, Hydrologic Unit 10080016, on right bank 68 ft upstream from Fuller Ranch Ditch, 1.5 mi upstream from mouth, and 15 mi west of Parkman.

DRAINAGE AREA.--4.58 mi².

PERIOD OF RECORD.--October 1982 to current year (no winter records during 1985).

GAGE.--Water-stage recorder. Elevation of gage is 4,840 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 11-15, 23-25, 28-30, Dec. 1-5, 27-29, Jan. 1, 2, 4-6, 21-23, 26-28, Feb. 4, 5, 7-22, Mar. 7-24. Records good except those for November to March, which are poor. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 82 ft³/s, May 15, 1984, gage height, 2.40 ft, from floodmarks; maximum gage height, 3.19 ft, Apr. 28, 1984 (backwater from ice); minimum daily discharge, 0.82 ft³/s, Nov. 24, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23 ft³/s, June 10, gage height, 1.59 ft; minimum daily, 0.82 ft³/s, Nov. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.3	.92	1.2	1.2	1.3	2.2	3.3	9.2	3.3	1.9	1.9
2	1.3	1.3	.92	1.2	1.2	1.3	2.2	3.3	9.5	3.3	1.9	1.9
3	1.3	1.3	1.1	1.2	1.2	1.3	2.1	3.9	10	3.3	1.9	1.7
4	1.4	1.3	1.2	1.2	1.2	1.3	1.9	5.1	14	3.3	1.9	1.7
5	1.3	1.3	1.2	1.2	1.2	1.3	1.8	6.7	12	3.0	1.8	1.7
6	1.3	1.3	1.2	1.2	1.2	1.3	1.8	6.5	10	2.8	1.8	1.7
7	1.3	1.3	1.2	1.2	1.2	1.3	1.8	5.5	8.6	2.8	1.8	1.6
8	1.3	1.3	1.2	1.2	1.2	1.4	1.8	4.9	7.8	2.7	1.8	1.6
9	1.3	1.3	1.2	1.2	1.1	1.5	1.8	4.5	12	2.7	1.8	1.6
10	1.3	1.3	1.1	1.2	.96	1.5	1.9	4.3	21	2.7	1.8	1.9
11	1.3	1.1	.95	1.2	.94	1.5	2.1	4.3	14	2.7	1.8	1.7
12	1.3	1.0	1.1	1.2	.92	1.5	2.2	4.1	12	2.6	1.9	1.6
13	1.3	1.1	1.1	1.2	.94	1.4	2.1	4.1	9.5	2.6	1.9	1.6
14	1.3	1.2	1.1	1.2	1.0	1.3	1.9	4.7	8.3	2.6	1.9	1.6
15	1.3	1.3	1.1	1.2	1.0	1.3	1.9	4.7	7.7	2.6	1.9	1.6
16	1.3	1.3	1.1	1.2	1.1	1.3	2.1	4.7	7.0	2.4	1.9	1.6
17	1.3	1.3	1.1	1.2	1.1	1.2	2.2	4.5	6.5	2.4	1.9	1.5
18	1.3	1.1	1.1	1.2	1.1	1.2	2.2	4.5	6.0	2.4	1.9	1.5
19	1.3	1.1	1.1	1.2	1.1	1.3	2.2	4.5	5.5	2.4	1.9	1.5
20	1.3	1.0	1.1	1.2	.96	1.4	2.3	5.1	5.3	2.3	1.8	1.5
21	1.3	.95	1.1	1.2	1.1	1.6	2.3	7.0	4.9	2.3	1.8	1.5
22	1.3	.88	1.1	1.2	1.2	1.8	2.4	9.5	4.5	2.3	1.8	1.5
23	1.3	.84	1.1	1.2	1.2	1.7	3.3	8.6	4.5	2.3	1.8	1.5
24	1.3	.82	1.1	1.2	1.3	1.7	3.3	7.0	4.1	2.3	1.8	1.6
25	1.3	.86	1.1	1.1	1.5	1.6	3.3	6.0	3.9	2.3	1.8	1.7
26	1.3	.88	1.1	.98	1.5	1.5	3.3	5.8	3.9	2.2	1.8	1.6
27	1.3	.88	1.1	1.1	1.3	1.5	3.2	6.5	3.8	2.1	1.7	1.6
28	1.3	.88	1.0	1.2	1.3	1.6	3.3	7.7	3.6	2.1	1.6	1.6
29	1.3	.88	1.1	1.2	---	1.8	3.3	8.9	3.6	2.1	1.6	1.5
30	1.3	.90	1.2	1.2	---	1.9	3.1	9.2	3.6	2.1	1.6	1.5
31	1.3	---	1.2	1.2	---	2.1	---	9.5	---	1.9	1.6	---
TOTAL	40.4	33.27	34.29	36.78	32.22	45.7	71.3	178.9	236.3	78.9	56.1	48.6
MEAN	1.30	1.11	1.11	1.19	1.15	1.47	2.38	5.77	7.88	2.55	1.81	1.62
MAX	1.4	1.3	1.2	1.2	1.5	2.1	3.3	9.5	21	3.3	1.9	1.9
MIN	1.3	.82	.92	.98	.92	1.2	1.8	3.3	3.6	1.9	1.6	1.5
AC-FT	80	66	68	73	64	91	141	355	469	156	111	96
WTR YR 1986	TOTAL	892.76		MEAN	2.45	MAX	21	MIN	.82	AC-FT	1770	

YELLOWSTONE RIVER BASIN

06288990 WEST FORK LITTLE BIGHORN RIVER NEAR PARKMAN, WY

LOCATION.--Lat 44°59'54", long 107°37'58", in SW1/4 NW1/4 SE1/4 sec.17, T.58 N., R.89 W., Sheridan County, Hydrologic Unit 10080016, on right bank 0.3 mi upstream from mouth and 16 mi west of Parkman.

DRAINAGE AREA.--38.2 mi².

PERIOD OF RECORD.--October 1969 to September 1972, October 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,430 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1969 to September 1972, at site 0.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 10-15, 18-24, 27-30, Dec. 1-4, 11-17, 27-31, Jan. 3 to Feb. 25, and Apr. 14. Records good except those for estimated daily discharges, which are poor. No diversions upstream from station.

AVERAGE DISCHARGE.--7 years (water years 1970-72, 1983-86), 29.0 ft³/s, 21,010 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge observed, 395 ft³/s, June 10, 1970, gage height, 2.65 ft, site and datum then in use; maximum gage height recorded, 3.09 ft (backwater from ice, site and datum then in use) from recorded range in stage, during period Dec. 26, 1971 to Jan. 11, 1972, but may have been higher during periods of no gage-height record; minimum daily discharge, 6.0 ft³/s, Jan. 5, 1970, Feb. 8, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 210 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 4	1830	*213	*2.80	No other peak greater than base discharge.			
Minimum daily discharge, 7.6 ft ³ /s, Nov. 20.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	12	9.8	9.6	10	11	12	20	162	28	18	17
2	12	12	10	9.8	10	10	12	21	194	27	17	16
3	12	12	11	9.8	10	10	11	28	193	26	17	15
4	11	12	11	9.8	10	10	11	45	209	25	17	15
5	11	12	11	10	10	10	11	61	206	25	17	15
6	11	11	11	10	10	10	11	51	197	23	17	15
7	11	12	11	10	10	10	11	44	185	23	16	15
8	10	12	11	10	9.4	11	12	39	161	21	16	15
9	11	11	11	10	9.4	11	13	36	147	22	16	15
10	11	9.6	10	10	9.6	10	13	33	138	21	16	15
11	12	9.4	9.6	10	9.6	10	14	32	127	21	16	15
12	11	9.8	9.8	10	9.8	9.8	13	30	115	21	16	14
13	11	10	10	10	9.8	11	13	29	106	21	16	14
14	12	10	10	10	10	10	12	29	97	20	16	14
15	12	11	10	10	10	9.7	13	28	90	20	16	14
16	12	11	10	10	10	9.7	13	28	81	20	16	14
17	12	11	10	10	10	10	14	27	73	20	16	15
18	12	10	10	10	10	9.7	13	27	67	19	15	15
19	12	8.3	10	10	10	10	13	27	62	19	15	15
20	12	7.6	11	10	10	9.8	13	32	57	19	15	15
21	12	7.9	10	10	10	10	13	47	52	19	15	14
22	12	8.3	10	10	10	10	14	70	46	19	15	14
23	12	8.9	10	10	9.8	10	21	64	42	19	15	14
24	12	8.7	10	10	10	10	22	54	39	19	15	15
25	12	8.7	10	10	11	11	21	51	37	18	15	16
26	12	8.8	10	9.5	11	10	21	60	34	18	15	15
27	12	9.4	9.8	9.8	11	10	20	76	33	18	15	15
28	12	10	9.4	9.8	10	11	20	92	31	18	15	14
29	12	11	9.6	10	---	12	20	121	31	18	15	14
30	12	10	9.6	10	---	12	20	152	29	18	15	14
31	12	---	9.6	10	---	13	---	154	---	18	15	---
TOTAL	362	305.4	315.2	308.1	280.4	321.7	440	1608	3041	643	489	443
MEAN	11.7	10.2	10.2	9.94	10.0	10.4	14.7	51.9	101	20.7	15.8	14.8
MAX	12	12	11	10	11	13	22	154	209	28	18	17
MIN	10	7.6	9.4	9.5	9.4	9.7	11	20	29	18	15	14
AC-FT	718	606	625	611	556	638	873	3190	6030	1280	970	879
CAL YR 1985	TOTAL	5148.3		MEAN	14.1	MAX	49	MIN	7.6	AC-FT	10210	
WTR YR 1986	TOTAL	8556.8		MEAN	23.4	MAX	209	MIN	7.6	AC-FT	16970	

06289000 LITTLE BIGHORN RIVER AT STATE LINE, NEAR WYOLA, MT

LOCATION.--Lat 45°00'25", long 107°36'52", in SW1/4 NW1/4 sec.36, T.9 S., R.33 E., Bighorn County, Hydrologic Unit 10080016, on right bank 20 ft downstream from county bridge, 0.5 mi north of Wyoming-Montana State line, 1 mi downstream from West Fork, 13 mi southwest of Wyola, and at mile 115.2.

DRAINAGE AREA.--193 mi².

PERIOD OF RECORD.--March 1939 to current year. Prior to October 1940, published as Little Horn River at State Line, near Wyola.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,350 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges this year. Records good. Diversions for irrigation of 163 acres upstream from station.

AVERAGE DISCHARGE.--47 years, 154 ft³/s, 111,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,730 ft³/s, June 3, 1944, gage height, 4.87 ft, from rating curve extended above 1,400 ft³/s; maximum gage height recorded, 5.93 ft, June 9, 1944 (log jam); minimum discharge, 21 ft³/s, Dec. 27, 1954, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 510 ft³/s and maximums (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 3	2030	*1,650	*4.21	No other peak greater than base discharge.			

Minimum discharge, 24 ft³/s, Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	64	52	57	53	54	65	116	920	241	118	88
2	74	70	51	56	53	54	66	146	1100	232	113	88
3	75	68	65	57	54	53	62	209	1150	225	112	88
4	68	65	67	47	56	54	63	288	1320	224	113	89
5	68	68	67	51	53	55	62	313	1160	222	110	90
6	70	59	66	62	52	54	64	248	1030	207	109	91
7	72	70	62	56	37	54	72	217	844	202	107	90
8	62	70	60	57	37	56	81	198	781	196	105	89
9	67	64	59	56	32	56	86	185	818	200	108	91
10	68	46	55	56	33	54	86	175	716	197	105	97
11	71	38	42	56	29	54	85	172	655	203	104	90
12	72	41	55	54	38	55	79	163	627	192	106	87
13	65	51	59	54	47	56	80	158	596	180	104	86
14	69	59	63	54	54	53	76	162	559	174	101	86
15	69	71	59	56	60	53	75	154	535	168	97	87
16	69	72	59	55	66	52	78	150	493	163	100	85
17	69	69	59	56	66	55	84	145	461	159	103	86
18	66	58	58	55	61	54	77	148	435	153	101	83
19	67	40	59	56	54	55	76	168	414	149	98	84
20	68	38	58	57	52	53	76	229	400	147	99	86
21	69	38	58	55	54	53	84	327	376	145	100	81
22	74	34	58	53	53	54	115	392	346	142	101	79
23	68	37	58	56	53	54	153	320	324	138	95	78
24	70	45	57	55	57	56	143	290	308	136	94	81
25	70	51	57	54	59	58	131	312	293	135	93	95
26	70	50	57	51	59	55	132	382	282	134	93	83
27	69	53	56	57	55	56	119	442	275	132	91	80
28	69	57	56	56	53	60	116	513	268	124	90	82
29	68	57	57	54	---	67	117	601	260	121	89	78
30	67	55	57	53	---	69	115	715	251	121	89	79
31	71	---	56	53	---	72	---	782	---	118	88	---
TOTAL	2145	1658	1802	1705	1430	1738	2723	8820	17997	5280	3136	2577
MEAN	69.2	55.3	58.1	55.0	51.1	56.1	90.8	285	600	170	101	85.9
MAX	75	72	67	62	66	72	158	782	1320	241	118	97
MIN	62	34	42	47	29	52	62	116	251	118	88	78
AC-FT	4250	3290	3570	3380	2840	3450	5400	17490	35700	10470	6220	5110
CAL YR 1985	TOTAL	34686		MEAN	95.0	MAX	376	MIN	34	AC-FT	68800	
WTR YR 1986	TOTAL	51011		MEAN	140	MAX	1320	MIN	29	AC-FT	101200	

YELLOWSTONE RIVER BASIN

06289100 RED CANYON CREEK NEAR PARKMAN, WY

LOCATION.--Lat 44°58'42", long 107°35'09", in NW1/4 NE1/4 NE1/4 sec.27, T.58 N., R.89 W., Sheridan County, Hydrologic Unit 10080016, on right bank 0.2 mi upstream from bridge on county road, 1.7 mi upstream from Fuller Ranch, 2.1 mi upstream from the Wyoming-Montana State line, 2.5 mi upstream from mouth (Powers Upper Ditch), and 13 mi west of Parkman.

DRAINAGE AREA.--3.20 mi².

PERIOD OF RECORD.--October 1982 to current year (no winter records during 1985).

GAGE.--Water-stage recorder. Elevation of gage is 4,810 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 10-14, 20-30, Dec. 1-4, 31, Jan. 1, 2, 4, 22, 25, 26, Feb. 5-15, 18-22, and Mar. 17-19. Records good except those November to February, which are poor. No diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90 ft³/s, May 15, 1984, gage height, 2.45 ft, from floodmarks; minimum daily, 0.14 ft³/s, Dec. 19, 28-31, 1985, and Jan. 1-7, 16, 17, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15 ft³/s, June 9, gage height, 1.59 ft; minimum daily, 0.14 ft³/s, Dec. 19, 28-31, Jan. 1-7, 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.36	.36	.22	.14	.17	.57	3.5	3.3	4.5	1.2	.71	.45
2	.47	.35	.22	.14	.17	.57	3.1	3.2	4.5	1.1	.64	.47
3	.57	.35	.23	.14	.17	.57	2.9	3.5	4.9	1.1	.64	.35
4	.41	.35	.23	.14	.17	.58	2.7	4.8	7.4	1.1	.64	.35
5	.35	.35	.23	.14	.17	.64	2.7	5.9	5.3	1.1	.57	.31
6	.38	.35	.23	.14	.17	.64	2.3	4.5	4.2	.96	.57	.35
7	.40	.35	.23	.14	.17	.64	2.3	3.7	3.5	.96	.51	.35
8	.35	.35	.23	.16	.16	.69	2.5	3.5	3.5	.96	.51	.35
9	.31	.27	.23	.20	.16	.71	2.7	3.3	9.8	1.1	.40	.35
10	.31	.25	.20	.17	.15	.71	2.9	3.3	12	1.1	.40	.51
11	.31	.23	.17	.19	.15	.71	3.1	3.3	8.6	1.1	.40	.40
12	.35	.24	.17	.15	.16	.71	3.1	3.3	7.4	.96	.40	.33
13	.36	.26	.17	.17	.16	.71	3.1	3.5	6.3	.87	.37	.31
14	.35	.29	.17	.17	.19	.66	2.7	3.7	5.3	.78	.35	.31
15	.37	.31	.17	.15	.21	.64	2.5	3.7	5.1	.78	.35	.31
16	.40	.32	.17	.14	.23	.60	2.7	3.7	4.2	.78	.35	.31
17	.40	.33	.18	.14	.20	.58	2.7	3.5	3.7	.84	.35	.31
18	.40	.29	.18	.15	.18	.54	2.7	3.3	3.5	.87	.35	.31
19	.40	.29	.14	.19	.17	.58	2.7	3.3	3.3	.87	.31	.31
20	.40	.28	.16	.27	.19	.61	2.7	3.5	2.9	.87	.31	.31
21	.40	.21	.17	.17	.20	.68	2.7	4.8	2.7	.87	.31	.31
22	.42	.18	.17	.17	.21	.83	3.1	6.6	2.5	.87	.31	.27
23	.45	.19	.17	.17	.21	.87	4.2	4.5	2.1	.87	.28	.27
24	.40	.19	.17	.17	.56	1.0	4.2	3.7	2.0	.87	.27	.29
25	.40	.20	.17	.16	.98	1.2	4.2	3.3	2.0	.87	.27	.40
26	.40	.19	.17	.16	.87	1.2	4.0	3.3	1.8	.87	.27	.40
27	.40	.20	.15	.16	.64	1.3	3.2	4.0	1.5	.87	.27	.31
28	.40	.20	.14	.20	.55	1.8	3.1	4.5	1.4	.78	.27	.35
29	.40	.21	.14	.15	---	2.5	3.1	4.8	1.4	.78	.27	.35
30	.40	.21	.14	.17	---	3.1	3.3	4.8	1.3	.78	.27	.35
31	.40	---	.14	.17	---	3.5	---	4.8	---	.71	.31	---
TOTAL	12.12	8.15	5.66	5.08	7.72	30.64	90.7	122.9	128.6	28.54	12.23	10.35
MEAN	.39	.27	.18	.16	.28	.99	3.02	3.96	4.29	.92	.39	.34
MAX	.57	.36	.23	.27	.98	3.5	4.2	6.6	12	1.2	.71	.51
MIN	.31	.18	.14	.14	.15	.54	2.3	3.2	1.3	.71	.27	.27
AC-FT	24	16	11	10	15	61	180	244	255	57	24	21
WTR YR 1986	TOTAL	462.69		MEAN	1.27	MAX	12	MIN	.14	AC-FT	918	

06289600 WEST PASS CREEK NEAR PARKMAN, WY

LOCATION.--Lat 44°59'16", long 107°28'56", in NE1/4 NE1/4 SE1/4 sec.21, T.58 N., R.88 W., Sheridan County, Hydrologic Unit 10080016, on right bank, anchored to concrete headwall of culvert on county road and 7.6 mi northwest of Parkman. Prior to Mar. 27, 1986, at site 300 ft upstream.

DRAINAGE AREA.--15.4 mi².

PERIOD OF RECORD.--October 1982 to current year (no winter records since 1985).

GAGE.--Water-stage recorder. Elevation of gage is 4,550 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 2, 1985, at site 100 ft north (on abandoned channel) at datum 3.28 ft lower. Apr. 2, 1985 to Mar. 27, 1986, at site 300 ft upstream at datum 1.95 ft higher.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by diversions for irrigation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 195 ft³/s, May 16, 1984, gage height, 4.62 ft, site and datum then in use; maximum gage height, 4.76 ft, Apr. 28, 1984 (backwater from ice and snow), site and datum then in use; minimum daily discharge, 3.8 ft³/s, Aug. 26, 27, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 45 ft³/s, June 4, gage height, 1.73 ft; minimum daily during period of operation, 5.0 ft³/s, Aug. 16, 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						7.8	10	16	25	14	9.0	6.9
2						7.5	11	17	25	13	8.9	6.7
3						7.4	11	20	28	13	8.8	6.0
4						7.5	11	21	33	13	8.6	6.0
5						7.8	11	23	28	13	8.3	6.1
6						7.4	11	21	27	13	8.2	6.9
7						7.4	11	22	25	12	8.2	6.2
8						7.5	11	22	26	12	7.6	6.1
9						7.4	11	22	36	12	7.6	6.2
10						7.4	12	23	35	12	7.8	7.6
11						7.6	13	21	31	12	7.4	6.1
12						7.4	12	19	29	12	6.8	5.8
13						7.5	12	18	28	11	5.3	5.9
14						7.2	12	19	26	11	5.3	6.1
15						6.9	12	18	24	11	5.1	6.1
16						6.6	13	17	22	11	5.0	6.1
17						6.8	14	16	21	11	5.1	6.8
18						6.6	13	16	20	11	5.1	6.3
19						7.0	13	16	19	10	5.0	6.3
20						7.1	13	16	18	10	5.0	6.2
21						8.7	13	19	18	11	5.2	5.9
22						10	14	23	17	9.9	5.1	5.8
23						8.0	16	21	16	9.7	5.1	5.6
24						7.6	17	20	16	9.9	5.1	6.1
25						7.1	17	19	15	9.9	5.1	6.5
26						6.7	20	20	15	9.8	5.1	5.6
27						6.7	18	22	15	9.7	5.1	5.9
28						7.5	17	23	15	9.4	5.3	9.0
29						8.5	17	24	14	9.2	5.5	8.0
30						9.3	17	25	14	9.2	5.5	7.9
31						10	---	25	---	9.1	5.9	---
TOTAL						235.9	403	624	681	343.8	196.1	192.7
MEAN						7.61	13.4	20.1	22.7	11.1	6.33	6.42
MAX						10	20	25	36	14	9.0	9.0
MIN						6.6	10	16	14	9.1	5.0	5.6
AC-FT						468	799	1240	1350	682	389	382

YELLOWSTONE RIVER BASIN

06289820 EAST PASS CREEK NEAR DAYTON, WY

LOCATION.--Lat 44°59'23", long 107°25'20", in SE1/4 SE1/4 NE1/4 sec.24, T.58 N., R.88 W., Sheridan County, Hydrologic Unit 10080016, on left bank 0.3 mi downstream from bridge on county road, 5.0 mi northwest of Parkman, and 11.2 mi northwest of Dayton.

DRAINAGE AREA.--21.7 mi².

PERIOD OF RECORD.--October 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,410 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 10-15, 18-30, Dec. 1-3, 11-14, 27-31, Jan. 4-6, 21-23, 26, and Feb. 3-22. Records good except those for estimated daily discharges, which are poor. Several small reservoirs upstream from station, combined capacity, 415 acre-ft, for irrigation. Diversions for irrigation of about 2,900 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 197 ft³/s, May 16, 1984, gage height, 3.14 ft; maximum gage height, 3.47 ft, Dec. 18, 1984 (backwater from ice); minimum daily discharge, 3.6 ft³/s, Aug. 18, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 104 ft³/s, June 9, gage height, 2.42 ft; minimum daily, 5.6 ft³/s, Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	6.8	7.8	7.5	7.9	11	11	12	48	18	7.5	9.3
2	9.5	6.7	8.2	7.6	7.8	11	11	12	52	16	7.3	8.4
3	11	6.8	8.4	7.5	7.6	11	11	14	55	15	7.3	7.3
4	9.9	6.9	8.2	7.2	7.6	10	11	18	71	15	7.3	5.7
5	8.8	6.9	8.3	6.8	7.4	11	11	23	66	15	7.9	7.8
6	8.4	6.6	8.2	8.0	7.4	10	9.9	22	58	15	7.5	6.8
7	8.5	6.6	8.2	7.9	6.8	10	9.9	22	50	14	6.2	5.9
8	8.3	6.7	8.1	7.9	6.8	10	10	21	48	13	6.1	5.7
9	8.2	6.6	8.1	8.1	6.6	10	11	20	72	13	6.7	6.3
10	8.2	6.1	7.8	8.2	6.6	9.6	11	20	100	13	6.3	7.9
11	8.0	5.8	7.4	8.9	6.8	9.6	11	20	91	13	6.4	6.4
12	8.2	5.8	7.1	8.5	6.8	9.3	11	19	76	13	6.4	5.6
13	8.0	6.4	7.4	8.1	7.4	9.4	11	19	63	12	6.5	5.7
14	7.7	7.1	7.6	7.9	7.6	9.0	11	19	54	11	6.2	7.8
15	7.5	7.5	8.0	7.8	7.8	8.4	10	18	48	9.3	6.3	9.4
16	7.4	7.8	7.8	7.8	8.5	8.0	10	18	43	9.8	6.6	8.9
17	7.7	7.9	8.0	8.1	8.7	8.2	11	16	39	11	6.7	8.6
18	7.7	7.2	8.0	8.1	7.9	8.7	11	16	36	10	6.5	8.7
19	7.4	6.5	8.2	8.8	6.0	8.3	11	17	34	10	8.5	8.4
20	7.2	6.2	8.5	8.5	7.4	8.4	11	20	32	11	9.8	8.5
21	6.9	6.1	8.3	8.4	8.1	9.0	11	29	30	10	9.9	8.9
22	6.7	6.0	8.3	8.0	8.4	11	11	44	28	10	9.4	8.5
23	6.9	6.3	8.4	8.0	8.7	10	14	40	26	9.8	7.4	8.5
24	6.6	7.1	8.1	8.1	20	9.8	15	34	23	13	6.3	8.5
25	6.6	7.5	8.1	8.1	23	9.9	14	30	23	12	7.4	8.9
26	7.1	7.4	8.0	8.0	17	9.6	15	31	22	9.9	9.1	9.1
27	6.7	7.8	7.8	8.0	13	9.7	14	37	21	9.6	9.1	10
28	6.9	7.8	7.4	8.3	12	9.8	13	43	21	9.2	8.6	10
29	6.5	8.1	7.4	8.2	---	10	13	46	20	8.1	7.0	10
30	6.6	8.0	7.4	8.0	---	10	13	48	19	7.5	6.2	9.6
31	6.9	---	7.4	7.9	---	12	---	48	---	7.6	7.1	---
TOTAL	241.5	207.0	245.9	248.2	257.6	301.7	347.8	796	1369	363.8	227.5	241.1
MEAN	7.79	6.90	7.93	8.01	9.20	9.73	11.6	25.7	45.6	11.7	7.34	8.04
MAX	11	8.1	8.5	8.9	23	12	15	48	100	18	9.9	10
MIN	6.5	5.8	7.1	6.8	6.0	8.0	9.9	12	19	7.5	6.1	5.6
AC-FT	479	411	488	492	511	598	690	1580	2720	722	451	478
CAL YR 1985	TOTAL	3128.1		MEAN	8.57	MAX	23	MIN	3.6	AC-FT	6200	
WTR YR 1986	TOTAL	4847.1		MEAN	13.3	MAX	100	MIN	5.6	AC-FT	9610	

06289870 TWIN CREEK NEAR PARKMAN, WY

LOCATION.--Lat 44°59'37", long 107°21'18", in SE1/4 NW1/4 NW1/4 sec.22, T.58 N., R.87 W., Sheridan County, Hydrologic Unit 10080016, on right bank 0.5 mi downstream from bridge on county road, 0.7 mi northwest of intersection of county road and U.S. Highway 87, and 2.8 mi north of Parkman.

DRAINAGE AREA.--27.0 mi².

PERIOD OF RECORD.--October 1982 to current year (no winter records since 1985).

REVISED RECORDS.--WDR WY-86: 1984(M).

GAGE.--Water-stage recorder. Elevation of gage is 4,120 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by diversions for irrigation upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 377 ft³/s, Feb. 24, 1986, gage height, 7.44 ft (affected by backwater from trash and snow), from floodmark, from rating curve extended above 160 ft³/s on basis of culvert measurement of peak flow; minimum daily, 0.23 ft³/s, Aug. 8, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 377 ft³/s, Feb. 24, gage height, 7.44 ft (affected by backwater from trash and snow), from floodmark, from rating curve extended above 160 ft³/s on basis of culvert measurement of peak flow; minimum daily during period of operation, 0.46 ft³/s, Aug. 22.

REVISIONS.--The maximum discharge for calendar and water year 1984 has been revised to 337 ft³/s, May 10, 1984, gage height, 5.91 ft; revised daily discharges, in cubic feet per second, for high-water period in May 1984, revised monthly, and revised yearly are given below. These figures supersede those published in the report for 1984.

May 4 155	May 6 144	May 8 176	May 10 211
5 160	7 139	9 214	

MONTH/YEAR	TOTAL	MEAN	MAX	AC-FT
May 1984	2478	79.9	214	4920
Water Year 1984	5025.90	13.7	214	9970

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					---	10	5.1	6.1	3.9	1.6	.71	.73
2					---	8.7	2.9	5.5	3.6	1.2	.71	.70
3					---	7.5	2.9	5.2	4.0	.93	.71	.84
4					---	5.5	3.0	5.1	25	1.6	.59	.78
5					---	6.6	3.0	6.1	15	.85	.56	.76
6					---	5.1	2.8	6.5	8.0	1.1	.56	.79
7					---	3.8	2.6	8.1	4.6	.77	.56	.78
8					---	3.4	2.5	17	3.5	.70	.52	.81
9					---	3.3	2.5	26	5.5	.67	.48	.88
10					---	3.0	2.5	30	12	1.9	.48	2.3
11					---	2.9	2.8	33	6.8	1.5	.48	1.6
12					---	2.6	2.9	20	4.2	1.4	.48	.77
13					---	2.6	3.1	12	3.1	1.2	.50	.53
14					---	2.5	2.9	12	2.6	1.2	.47	1.4
15					---	2.4	3.6	12	3.0	1.4	.47	1.1
16					---	2.5	5.5	10	2.3	1.7	.58	1.7
17					---	2.6	7.9	9.4	3.1	2.4	.53	2.3
18					---	2.7	8.6	8.6	2.5	2.3	.55	2.2
19					---	3.2	7.0	8.0	1.9	2.4	.52	1.8
20					---	4.4	5.7	7.4	1.1	2.2	.50	1.6
21					---	8.9	5.0	6.9	1.1	1.1	.47	1.5
22					---	16	4.7	7.1	2.0	2.4	.46	1.4
23					---	19	4.5	9.0	1.8	1.9	.49	1.3
24					---	14	4.7	7.9	.76	1.4	.54	1.4
25					---	11	5.3	6.9	1.7	.88	.52	1.8
26					61	8.1	7.3	6.0	1.2	.90	.52	1.6
27					29	7.0	13	4.4	2.1	.77	.51	1.5
28					15	6.4	11	3.6	1.3	.72	.49	1.8
29					---	6.0	8.7	3.9	1.8	.69	.49	1.6
30					---	5.4	7.0	2.6	2.7	.72	.59	1.1
31					---	5.5	---	4.0	---	.69	.65	---
TOTAL					---	192.6	151.0	310.3	132.16	41.19	16.69	39.37
MEAN					---	6.21	5.03	10.0	4.41	1.33	.54	1.31
MAX					---	19	13	33	25	2.4	.71	2.3
MIN					---	2.4	2.5	2.6	.76	.67	.46	.53
AC-FT					---	382	300	615	262	82	33	78

YELLOWSTONE RIVER BASIN

06291200 LODGE GRASS CREEK AT STATE LINE, NEAR WYOLA, MT

LOCATION.--Lat 45°00'21", long 107°46'27", in NW1/4 NW1/4 SE1/4 sec.34, T.9 S., R.32 E., Big Horn County, Hydrologic Unit 10080016, on left bank 4.2 mi upstream from North Fork Lodge Grass Creek, 25 mi southwest of Wyola, 32 mi southwest of Lodge Grass, and at mile 58.4.

DRAINAGE AREA.--16.7 mi².

PERIOD OF RECORD.--October 1982 to current year (no winter record in water year 1986).

GAGE.--Water-stage recorder. Elevation of gage is 6,060 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 8-10, Mar. 18, 19, Apr. 14, 30, and May 1-3. Records good except those for May 20 to June 10, which are fair. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 349 ft³/s, June 4, 1986, gage height, 2.84 ft; minimum daily, 2.0 ft³/s, Dec. 11, 1982, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 349 ft³/s, June 4, gage height, 2.84 ft; minimum daily during period of operation, 4.5 ft³/s, Mar. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7					---	7.3	23	174	33	13	13
2	7.0					---	7.0	36	209	30	13	10
3	6.7					---	6.4	52	210	29	12	9.3
4	6.1					---	7.0	51	240	29	12	8.8
5	6.4					---	7.0	46	196	28	12	8.7
6	6.4					---	7.6	40	223	27	12	8.7
7	6.7					---	8.3	36	172	26	12	8.7
8	6.6					---	9.9	30	173	25	12	8.7
9	6.2					---	11	27	143	25	11	9.7
10	6.4					---	11	26	127	24	12	9.2
11	6.4					---	11	26	114	23	11	8.7
12	6.3					---	10	25	107	23	11	8.5
13	6.1					---	11	24	99	22	11	8.3
14	5.8					4.7	9.4	24	88	21	11	8.5
15	6.1					5.3	9.9	23	79	21	10	8.3
16	5.8					5.3	10	23	75	19	10	8.2
17	5.8					5.0	9.9	23	79	19	10	8.6
18	5.5					4.8	9.5	23	81	18	10	8.3
19	5.3					4.5	9.5	26	75	18	9.9	8.3
20	5.3					4.8	9.5	38	66	17	9.9	8.5
21	5.3					4.8	13	57	59	17	9.9	8.0
22	5.8					4.8	17	63	51	17	9.8	8.0
23	5.0					4.8	20	46	50	15	9.5	7.7
24	5.5					5.0	18	35	46	16	9.5	8.3
25	5.5					5.0	17	37	43	15	9.3	9.7
26	5.3					5.0	17	51	40	15	9.3	8.3
27	5.3					5.3	17	71	38	15	9.1	7.9
28	5.3					6.1	16	106	36	14	9.0	8.3
29	5.0					7.0	15	112	35	14	8.8	8.1
30	5.0					7.3	15	127	34	14	8.7	8.1
31	5.0					7.6	---	142	---	13	9.0	---
TOTAL	181.6					---	347.2	1469	3162	642	326.7	261.4
MEAN	5.86					---	11.6	47.4	105	20.7	10.5	8.71
MAX	7.0					---	20	142	240	33	13	13
MIN	5.0					---	6.4	23	34	13	8.7	7.7
AC-FT	360					---	689	2910	6270	1270	648	518

06298000 TONGUE RIVER NEAR DAYTON, WY

LOCATION.--Lat 44°50'58", long 107°18'14", in NE1/4 NE1/4 NE1/4 sec.11, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, on left bank 0.5 mi upstream from Crystal Draw, 0.6 mi downstream from intake of Highline ditch, and 2.5 mi southwest of Dayton.

DRAINAGE AREA.--204 mi².

PERIOD OF RECORD.--October 1918 to September 1929, October 1940 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1921.

GAGE.--Water-stage recorder. Elevation of gage is 4,060 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-4, Nov. 9 to Dec. 4, and Feb. 8-14. Records good except those for estimated daily discharges, which are poor. Small diversion upstream from station for Dayton municipal supply. Figures of daily discharge do not include water diverted 0.6 mi upstream from station by Highline ditch for irrigation downstream from station.

AVERAGE DISCHARGE.--57 years (water years 1919-29, 1941-86), 186 ft³/s, 134,800 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft³/s, June 3, 1944, gage height, 6.45 ft; minimum daily, 18 ft³/s, Nov. 29, 1919.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 980 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 4	0830	*2,120	*5.23	No other peak greater than base discharge.			

Minimum daily discharge, 27 ft³/s, Feb. 7.

CORRECTIONS.--The October diversion for Highline ditch, for water year 1961, is 876 acre-ft. Monthly and annual discharge for Tongue River, adjusted for diversion by Highline ditch for the water year 1961, superseding those published in the report for 1961 are given below.

ADJUSTED FOR DIVERSION BY HIGHLINE DITCH

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	66.0	54.8	52.5	47.8	46.2	46.5	66.8	393	378	125	72.6	74.9
AC-FT	4060	3260	3230	2940	2560	2860	3970	24200	23820	7670	4470	4460

	ADJUSTED	
WTR YR 1961	MEAN 119	AC-FT 86150

YELLOWSTONE RIVER BASIN

06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	52	44	47	44	44	72	194	1110	282	119	83
2	72	69	45	46	42	45	76	313	1230	267	116	101
3	69	67	46	47	42	43	65	482	1300	254	114	86
4	67	57	47	43	44	46	63	633	1800	247	114	80
5	67	66	49	46	42	46	62	528	1430	261	111	80
6	81	38	49	47	42	44	67	382	1320	231	105	88
7	86	59	49	46	27	45	82	333	1170	221	101	93
8	62	62	48	46	30	47	104	293	1280	216	99	88
9	65	51	48	46	31	48	122	264	1440	215	117	90
10	68	41	48	46	35	46	120	258	1130	222	105	118
11	76	43	46	46	39	46	109	271	943	235	99	112
12	80	47	48	43	42	46	99	240	911	225	101	93
13	59	51	48	43	46	49	106	232	892	192	101	91
14	70	56	48	42	48	45	93	247	809	179	99	90
15	75	60	49	43	51	42	89	226	774	175	92	88
16	70	62	49	43	50	39	99	214	700	172	86	86
17	74	64	50	45	47	48	109	206	647	169	83	90
18	67	57	48	44	45	45	98	236	597	160	81	89
19	68	51	49	47	43	45	92	294	556	157	78	94
20	73	47	50	47	42	46	92	424	550	152	80	91
21	74	44	49	42	41	46	113	556	503	156	80	87
22	77	42	49	38	41	48	223	637	460	157	82	84
23	67	43	49	45	40	44	319	501	427	146	78	83
24	63	45	47	47	46	51	247	449	401	140	76	85
25	71	48	47	43	49	53	232	489	381	135	73	112
26	73	48	48	40	50	46	235	598	360	136	76	95
27	69	50	45	45	44	53	192	710	338	138	73	88
28	68	51	45	47	39	60	186	810	328	126	71	91
29	66	50	47	44	---	74	197	882	317	120	69	87
30	59	48	49	46	---	79	184	936	301	118	69	84
31	71	---	46	46	---	83	---	985	---	118	80	---
TOTAL	2172	1569	1479	1386	1182	1542	3947	13823	24405	5722	2828	2727
MEAN	70.1	52.3	47.7	44.7	42.2	49.7	132	446	814	185	91.2	90.9
MAX	86	69	50	47	51	83	319	985	1800	282	119	118
MIN	59	38	44	38	27	39	62	194	301	118	69	80
AC-FT	4310	3110	2930	2750	2340	3060	7830	27420	48410	11350	5610	5410
†	42	0	0	0	0	0	0	633	1080	1390	1230	308
ADJUSTED FOR DIVERSION BY HIGHLINE DITCH												
MEAN	70.7	52.3	47.7	44.7	42.2	49.7	132	456	832	207	111	96.1
AC-FT	4350	3110	2930	2750	2340	3060	7830	28050	49490	12740	6840	5720
UNADJUSTED												
CAL YR 1985	TOTAL	39436	MEAN	108	MAX	717	MIN	38	AC-FT	78220	MEAN	118
WTR YR 1986	TOTAL	62782	MEAN	172	MAX	1800	MIN	27	AC-FT	124500	MEAN	178
										AC-FT	85420	
										AC-FT	129200	

† Diversion, in acre-ft, upstream from station by Highline Ditch.

YELLOWSTONE RIVER BASIN

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06299500 WOLF CREEK AT WOLF, WY

LOCATION.--Lat 44°46'21", long 107°14'01", in NE1/4 SW1/4 NW1/4 sec.4, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, on left bank at Wolf and 0.5 mi downstream from Red Canyon Creek.

DRAINAGE AREA.--37.8 mi².

PERIOD OF RECORD.--January 1945 to current year (no winter records since 1971). Monthly discharge for January to March 1945, published in WSP 1309.

GAGE.--Water-stage recorder. Elevation of gage is 4,525 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 26, 1945, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. No diversion upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--26 years (water years 1946-71), 29.3 ft³/s, 21,230 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130 ft³/s, June 15, 1963, gage height, 4.60 ft, from rating curve extended above 500 ft³/s; no flow for part of each day Jan. 13, 15, 29, 30, Feb. 26, 1947, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 5.0 ft, May 18, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base discharge of 180 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 4	0800	312	2.88	June 9	0300	*352	*3.00

Minimum daily discharge during period of operation, 6.5 ft³/s, Apr. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							7.9	27	173	47	16	11
2							8.3	35	220	45	16	13
3							6.7	44	220	42	16	11
4							7.0	56	286	41	16	9.5
5							6.5	65	249	42	15	9.9
6							7.3	56	238	37	14	11
7							8.3	55	207	36	14	11
8							10	53	236	35	13	11
9							12	50	307	34	16	10
10							13	49	253	36	15	16
11							13	53	228	38	13	15
12							13	50	212	36	13	11
13							14	49	198	31	14	11
14							13	50	182	29	13	10
15							13	48	162	28	12	10
16							15	47	144	27	11	9.5
17							15	45	129	26	11	9.2
18							13	50	115	25	11	9.2
19							13	54	104	24	10	10
20							14	67	102	23	11	9.2
21							15	90	87	24	11	8.6
22							22	108	79	24	11	8.6
23							28	93	72	22	10	8.3
24							27	90	67	21	9.9	8.9
25							26	96	63	21	9.5	14
26							28	107	59	21	9.5	11
27							26	115	56	21	9.2	9.6
28							26	125	54	19	8.6	9.5
29							27	138	51	16	8.3	9.2
30							27	146	50	16	8.3	9.0
31							---	153	---	16	9.2	---
TOTAL							475.0	2264	4603	903	374.5	314.2
MEAN							15.8	73.0	153	29.1	12.1	10.5
MAX							28	153	307	47	16	16
MIN							6.5	27	50	16	8.3	8.3
AC-FT							942	4490	9130	1790	743	623

YELLOWSTONE RIVER BASIN

06300500 EAST FORK BIG GOOSE CREEK NEAR BIG HORN, WY

LOCATION.--Lat 44°32'18", long 107°13'33", in SE1/4 SE1/4 NW1/4 sec.28, T.53 N., R.86 W., Johnson County, Hydrologic Unit 10090101, Bighorn National Forest, on right bank 0.7 mi upstream from Park Reservoir and 16 mi southwest of Big Horn.

DRAINAGE AREA.--20.1 mi².

PERIOD OF RECORD.--October 1953 to current year (no winter records since 1973). Prior to October 1960, published as East Goose Creek near Big Horn.

GAGE.--Water-stage recorder. Elevation of gage is 8,320 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 28, 1960, water-stage recorder at site 1.1 mi downstream at different datum. June 28, 1960, to July 14, 1970, water-stage recorder at site 0.9 mi downstream at different datums and July 15 to Oct. 7, 1970, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: May 1-5 and Sept. 30. Records fair except those for estimated daily discharges, which are poor. No diversion upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--20 years (water years 1954-73), 32.6 ft³/s, 23,620 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/s, June 15, 1963, gage height, 4.59 ft, site and datum then in use, from rating curve extended above 250 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 1.0 ft³/s, Dec. 11-14, 1963, Mar. 24, 25, Nov. 14, 15, 1964, Mar. 18, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 782 ft³/s, June 4, gage height, 5.85 ft; minimum daily during period of operation, 6.9 ft³/s, Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								35	339	84	22	9.5
2								45	468	73	21	11
3								55	417	69	19	9.8
4								70	629	72	18	8.5
5								55	398	73	18	11
6								53	360	55	17	14
7								36	303	47	16	16
8								28	440	45	16	16
9								22	345	53	17	15
10								21	225	53	16	19
11								16	197	75	14	24
12								15	211	69	13	22
13								15	228	50	13	21
14								16	226	45	12	18
15								14	226	45	11	17
16								15	205	49	10	15
17								15	192	54	9.8	14
18								16	175	45	9.5	13
19								22	164	37	9.2	14
20								42	182	34	9.8	13
21								113	143	30	10	12
22								138	114	29	11	11
23								88	107	26	9.5	11
24								72	108	25	9.0	11
25								79	106	24	8.2	15
26								125	104	25	8.2	14
27								164	100	24	8.0	13
28								209	99	21	7.4	12
29								241	100	19	6.9	12
30								267	97	18	7.1	12
31								280	---	20	7.8	---
TOTAL								2382	7008	1388	384.4	423.8
MEAN								76.8	234	44.8	12.4	14.1
MAX								280	629	84	22	24
MIN								14	97	18	6.9	8.5
AC-FT								4720	13900	2750	762	841

06301500 WEST FORK BIG GOOSE CREEK NEAR BIG HORN, WY

LOCATION.--Lat 44°36'47", long 107°17'49", in NE1/4 SE1/4 NE1/4 sec.35, T.54 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, on left bank 0.3 mi downstream from Twin Lakes Branch and 16 mi west of Big Horn.

DRAINAGE AREA.--24.4 mi².

PERIOD OF RECORD.--October 1953 to current year (no winter records since 1971). Prior to October 1960, published as West Goose Creek near Big Horn.

GAGE.--Water-stage recorder. Elevation of gage is 8,420 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 1-5, 9-13, and Sept. 1-9, 19. Records fair except those for estimated daily discharges, which are poor. Some regulation by Twin Lakes, capacity, 1,200 acre-ft, and Dome Lake, capacity, 1,800 acre-ft. No diversion upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--18 years (water years 1954-71), 34.4 ft³/s, 24,920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft³/s, June 15, 1963, gage height, 5.37 ft, from rating curve extended above 410 ft³/s on basis of velocity-area study; minimum daily, 0.80 ft³/s, Dec. 14, 26, 1963, Jan. 15, 16, Feb. 26, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 646 ft³/s, June 4, gage height, 4.47 ft; minimum daily during period of operation, 9.8 ft³/s, May 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								10	391	86	23	19
2								12	472	77	21	20
3								13	488	68	20	22
4								14	606	64	22	23
5								13	543	65	32	23
6								12	495	61	36	24
7								13	444	49	30	25
8								12	491	33	27	25
9								12	531	32	29	26
10								11	368	41	29	27
11								12	283	53	27	32
12								12	287	65	27	38
13								11	296	56	28	27
14								12	285	48	28	23
15								11	283	43	28	23
16								9.8	266	42	29	21
17								11	243	41	29	20
18								11	231	38	29	19
19								13	175	36	33	19
20								18	142	34	35	19
21								27	173	36	32	18
22								39	148	33	31	17
23								46	126	30	33	16
24								57	119	28	33	16
25								62	117	27	32	19
26								79	116	27	31	19
27								103	103	27	29	18
28								132	100	24	26	18
29								147	99	23	22	17
30								194	94	21	20	13
31								312	---	23	18	---
TOTAL								1440.8	8515	1331	869	646
MEAN								46.5	284	42.9	28.0	21.5
MAX								312	606	86	36	38
MIN								9.8	94	21	18	13
AC-FT								2860	16890	2640	1720	1280

YELLOWSTONE RIVER BASIN

06302000 BIG GOOSE CREEK NEAR SHERIDAN, WY

LOCATION.--Lat 44°42'08", long 107°10'51", in NW1/4 NE1/4 sec.35, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, on right bank 0.4 mi upstream from Cave Creek and 14 mi southwest of Sheridan.

DRAINAGE AREA.--120 mi².

PERIOD OF RECORD.--September 1929 to current year (no winter records since 1971). Prior to October 1960, published as Goose Creek near Sheridan. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1006: Drainage area. WSP 1509: 1930(M), 1931.

GAGE.--Water-stage recorder. Elevation of gage is 4,505 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Sept. 25, 29, 30. Records good. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation of about 20 acres and to Sheridan Filtration plant, and return flow from irrigated areas. PK ditch diverts water 0.6 mi upstream from station for irrigation of lands downstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--42 years (water years 1930-71), 79.6 ft³/s, 57,670 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,160 ft³/s, June 15, 1963, gage height, 5.83 ft, from rating curve extended above 1,600 ft³/s; minimum daily, 1.6 ft³/s, Nov. 29, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,140 ft³/s, June 9, gage height, 4.12 ft; minimum daily during period of operation, 14 ft³/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							25	33	557	93	28	22
2							25	47	664	77	25	21
3							23	69	688	63	24	19
4							23	93	926	59	25	16
5							22	73	860	58	33	16
6							23	69	788	49	40	19
7							27	68	701	40	34	18
8							32	78	871	26	26	22
9							38	69	971	25	31	22
10							39	78	763	35	28	31
11							37	90	650	49	26	25
12							36	72	610	66	26	36
13							39	67	574	49	30	27
14							33	68	548	37	27	20
15							32	61	524	32	28	18
16							37	58	490	28	22	17
17							39	55	445	29	19	15
18							33	48	394	25	20	15
19							32	48	286	23	35	15
20							32	65	262	22	27	20
21							37	80	277	26	24	19
22							58	110	237	40	23	18
23							88	121	199	31	24	15
24							56	126	158	27	23	16
25							57	139	148	28	24	27
26							57	167	133	32	27	21
27							51	192	116	32	26	18
28							37	229	113	28	24	18
29							34	254	108	25	22	17
30							32	296	105	24	19	14
31							---	432	---	26	20	---
TOTAL							1134	3455	14166	1204	810	597
MEAN							37.8	111	472	38.8	26.1	19.9
MAX							88	432	971	93	40	36
MIN							22	33	105	22	19	14
AC-FT							2250	6850	28100	2390	1610	1180

06303500 LITTLE GOOSE CREEK IN CANYON, NEAR BIG HORN, WY

LOCATION.--Lat 44°35'46", long 107°02'22", in SE1/4 SW1/4 NE1/4 sec.1, T.53 N., R.85 W., Sheridan County, Hydrologic Unit 10090101, on left bank 100 ft upstream from headgate of Lower Peralta ditch and 6.5 mi southwest of Big Horn.

DRAINAGE AREA.--51.6 mi².

PERIOD OF RECORD.--April 1941 to current year (no winter records since 1971).

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,860 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Three small reservoirs upstream from station, combined capacity, 860 acre-ft, two of which store some imported water. Water imported into drainage basin upstream from station from East Goose Creek basin is diverted downstream from station for irrigation.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--30 years (water years 1942-71), 63.4 ft³/s, 45,930 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,350 ft³/s, June 15, 1963, gage height, 6.78 ft, from rating curve extended above 900 ft³/s; minimum recorded, 2.2 ft³/s, Dec. 4, 1949, gage height, 0.71 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 730 ft³/s, June 4, gage height, 5.10 ft; minimum daily during period of operation, 17 ft³/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							29	78	267	113	88	92
2							30	87	308	105	88	90
3							27	106	289	94	89	81
4							27	133	527	100	90	72
5							25	148	353	97	90	72
6							27	134	333	85	89	61
7							31	126	293	84	90	55
8							37	119	347	84	88	54
9							44	111	437	87	82	49
10							46	107	369	95	80	68
11							47	107	333	99	77	59
12							46	100	355	110	77	47
13							47	96	350	95	79	34
14							45	95	328	96	76	32
15							44	90	308	99	74	31
16							47	87	283	99	69	29
17							47	85	263	109	68	29
18							45	87	248	95	67	29
19							44	88	236	101	69	27
20							45	100	240	103	72	20
21							48	125	227	107	69	19
22							59	151	208	107	71	19
23							78	130	187	100	77	18
24							75	118	158	95	78	19
25							79	119	133	88	80	27
26							80	134	128	87	82	20
27							77	156	123	86	81	19
28							79	177	120	85	79	18
29							79	195	115	84	79	18
30							77	208	117	83	81	17
31							---	222	---	87	85	---
TOTAL							1511	3819	7983	2959	2464	1225
MEAN							50.4	123	266	95.5	79.5	40.8
MAX							80	222	527	113	90	92
MIN							25	78	115	83	67	17
AC-FT							3000	7570	15830	5870	4890	2430

YELLOWSTONE RIVER BASIN

06304500 LITTLE GOOSE CREEK AT SHERIDAN, WY

LOCATION.--Lat 44°48'10", long 106°57'10", in NE1/4 NW1/4 SW1/4 sec.26, T.56 N., R.84 W., Sheridan County,
Hydrologic Unit 10090101, at bridge on Sheridan Avenue in Sheridan and 0.6 mi upstream from mouth.

PERIOD OF RECORD.--March 1979 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
NOV 01...	1550	41	640	8.3	6.0	670	12.0	110	K26
JAN 06...	1515	33	670	8.5	0.0	660	11.2	89	K7
JUN 05...	1600	292	220	8.4	15.0	660	10.0	115	<1
AUG 05...	0715	13	870	8.0	15.0	660	7.9	91	K1000

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN- (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY 05...	0750	93	11.0	<0.01	0.04	<0.01	<0.01	<0.01	<0.01
JUN 05...	1600	292	15.0	<0.01	0.03	<0.01	<0.01	<0.01	<0.01
JUL 09...	1600	12	24.5	0.01	0.29	0.03	<0.01	<0.01	<0.01
AUG 05...	0715	13	15.0	0.01	0.18	0.05	<0.01	<0.01	<0.01
SEP 29...	1440	51	11.0	0.01	0.1	<0.01	<0.01	<0.01	<0.01

PERIOD OF RECORD.--Water years 1959-65, 1968 to current year.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CAC03)
NOV 01...	1320	87	710	8.6	6.0	670	13.4	123	86	380
27...	1030	54	880	8.3	0.0	670	12.0	94	400	400
JAN 06...	0815	62	805	8.8	0.5	660	11.3	91	3100	400
FEB 19...	1640	67	890	8.6	0.0	660	13.1	104	520	380
MAR 24...	1200	104	770	8.5	10.0	660	13.0	133	K14000	400
MAY 05...	1000	210	325	8.3	8.0	650	9.9	98	590	150
JUN 05...	1320	1170	150	8.4	13.5	660	9.5	106	5600	69
JUL 09...	1345	40	760	8.4	20.0	660	8.0	102	K150	380
AUG 05...	0815	36	880	8.1	16.5	660	8.9	106	K400	--
SEP 15...	1715	122	700	8.3	16.0	660	10.0	118	190	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

[illegible]

YELLOWSTONE RIVER BASIN

06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
NOV									
01...	470	0.64	111	0.60	0.50	0.04	0.36	0.4	0.26
27...	500	0.68	73	1.00	1.00	0.18	0.42	0.6	0.35
JAN									
06...	500	0.68	84	0.90	0.80	0.13	0.37	0.5	0.19
FEB									
19...	510	0.69	92	0.50	0.50	0.64	0.46	1.1	0.36
MAR									
24...	510	0.7	144	<0.10	0.30	0.45	0.75	1.2	0.33
MAY									
05...	190	0.25	106	<0.10	0.00	0.05	0.95	1.0	0.18
JUN									
05...	94	0.13	--	<0.10	0.10	0.09	0.61	0.7	0.12
JUL									
09...	500	0.68	54	--	0.00	0.04	0.76	0.8	0.41
AUG									
05...	--	--	--	0.10	--	0.01	0.59	0.6	0.32
SEP									
15...	--	--	--	0.20	--	0.02	0.58	0.6	0.17

06305700 GOOSE CREEK NEAR ACME, WY

LOCATION.--Lat 44°53'11", long 106°59'18", in SE1/4 SE1/4 NE1/4 sec.28, T.57 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, on right bank 0.2 mi north of county road, 1.6 mi south of Acme, and 3.4 mi upstream from mouth.

DRAINAGE AREA.--411 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,620 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 10 to Feb. 25. Records good except those for estimated daily discharges, which are poor. Some regulation by many small reservoirs, combined capacity, about 15,000 acre-ft. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,150 ft³/s, June 17, 1984, gage height, 6.13 ft, maximum gage height, 7.65 ft, Feb. 25, 1986, from floodmarks (backwater from ice); minimum daily discharge, 13 ft³/s, July 12, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,770 ft³/s, Feb. 25, gage height, 5.68 ft; maximum gage height, 7.65 ft, Feb. 25, from floodmarks (backwater from ice); minimum daily discharge, 34 ft³/s, July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	84	47	52	57	135	110	144	476	138	38	121
2	112	78	48	52	59	126	103	148	622	121	38	129
3	115	82	52	52	58	116	108	165	687	106	40	128
4	107	79	56	51	57	108	101	164	1130	96	43	116
5	92	76	52	50	56	118	95	200	1120	85	42	100
6	94	78	52	53	53	106	90	170	941	81	42	121
7	93	72	54	52	44	97	91	159	832	73	51	130
8	92	81	52	54	46	94	96	193	908	64	50	132
9	96	82	50	55	46	93	106	234	1320	48	49	131
10	99	64	47	56	43	90	120	200	1370	53	55	132
11	95	59	41	56	45	86	126	202	1090	67	54	132
12	98	62	44	54	47	85	122	196	964	89	49	132
13	101	67	46	53	50	83	127	167	929	91	48	134
14	97	73	48	51	52	82	122	159	871	70	56	134
15	100	76	51	50	55	79	131	139	804	62	50	133
16	94	77	55	51	59	77	131	119	735	61	51	129
17	88	76	57	52	56	79	133	110	666	58	47	118
18	85	66	62	54	54	94	128	99	603	56	47	124
19	87	56	63	56	55	97	118	86	506	53	43	134
20	87	47	64	52	54	107	114	82	459	51	41	128
21	87	45	67	50	56	121	114	83	457	65	45	121
22	86	46	67	47	57	132	125	125	442	60	56	118
23	87	47	64	50	65	121	179	204	369	57	53	114
24	87	49	62	51	208	108	183	170	296	46	63	116
25	84	49	59	48	1150	102	158	167	236	42	58	147
26	83	50	57	51	667	98	190	177	201	40	61	135
27	82	51	55	54	245	93	198	202	173	45	58	121
28	81	49	54	53	161	92	175	254	161	43	58	115
29	77	48	52	50	---	96	159	286	156	39	56	114
30	77	47	52	52	---	101	150	293	150	35	58	113
31	80	---	51	54	---	107	---	372	---	34	69	---
TOTAL	2854	1916	1681	1616	3655	3123	3903	5469	19674	2029	1569	3752
MEAN	92.1	63.9	54.2	52.1	131	101	130	176	656	65.5	50.6	125
MAX	115	84	67	56	1150	135	198	372	1370	138	69	147
MIN	77	45	41	47	43	77	90	82	150	34	38	100
AC-FT	5660	3800	3330	3210	7250	6190	7740	10850	39020	4020	3110	7440
CAL YR 1985	TOTAL	29161	MEAN	79.9	MAX	254	MIN	13	AC-FT	57840		
WTR YR 1986	TOTAL	51241	MEAN	140	MAX	1370	MIN	34	AC-FT	101600		

YELLOWSTONE RIVER BASIN

06305700 GOOSE CREEK NEAR ACME, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
NOV							
01...	1015	82	750	8.4	4.0	670	14.3
27...	0900	51	900	8.3	0.0	670	12.2
JAN							
06...	1000	53	840	8.5	0.0	660	11.4
FEB							
19...	1430	55	870	8.4	0.0	660	12.8
MAR							
24...	1530	108	780	8.7	11.0	660	12.0
MAY							
05...	1330	235	360	8.3	12.0	655	9.2
JUN							
05...	1130	1170	170	8.4	14.0	660	9.2
JUL							
09...	1050	48	775	8.4	20.0	660	7.5
AUG							
05...	1020	41	900	8.4	19.5	670	9.2
SEP							
15...	1445	133	710	8.4	14.0	660	11.6

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
NOV							
01...	124	50	0.30	0.06	0.24	0.3	0.22
27...	95	130	0.90	0.12	0.38	0.5	0.35
JAN							
06...	90	K2500	1.20	0.10	0.4	0.5	0.29
FEB							
19...	101	820	0.50	0.35	0.75	1.1	0.23
MAR							
24...	126	500	<0.10	0.03	0.97	1.0	0.21
MAY							
05...	100	770	<0.10	0.06	0.74	0.8	0.18
JUN							
05...	103	K6200	<0.10	0.06	0.64	0.7	0.15
JUL							
09...	96	250	<0.10	<0.01	--	0.4	0.23
AUG							
05...	115	280	<0.10	<0.01	--	0.6	0.36
SEP							
15...	131	190	0.10	<0.01	--	0.6	0.17

K-Results based on colony count outside the acceptable range (non-ideal colony count).

06306250 PRAIRIE DOG CREEK NEAR ACME, WY

LOCATION.--Lat 44°59'02", long 106°50'21", in NE1/4 SW1/4 SW1/4 sec.23, T.58 N., R.83 W., Sheridan County, Hydrologic Unit 10090101, on right bank 600 ft upstream from county bridge, 0.9 mi upstream from mouth, 2.8 mi downstream from Coutant Creek, and 7.6 mi northeast of Acme.

DRAINAGE AREA.--358 mi².

PERIOD OF RECORD.--Water years 1976 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 23...	1400	56	21.0	<0.01	0.05	<0.01	<0.01	<0.01	<0.01
JUL 09...	0810	20	18.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SEP 29...	1230	68	10.0	<0.01	0.04	<0.01	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT

LOCATION.--Lat 45°00'32", long 106°50'08", in NW1/4 NW1/4 NE1/4 sec.33, T.9 S., R.40 E., Big Horn County, Hydrologic Unit 10090101, on left bank 1 mi north of Wyoming-Montana State line, 1.4 mi southeast of Decker, 1.6 mi upstream from Badger Creek, and at mile 200.9.

DRAINAGE AREA.--1,477 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1960 to current year. Records published as "near Decker" May 1928 to September 1938, not equivalent owing to intervening drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,429.14 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Nov. 8 to Feb. 27. Water-discharge records good except those for estimated daily discharges, which are poor. Flow regulated by many small reservoirs in Wyoming, combined capacity, about 15,000 acre-ft. Diversions for irrigation of about 64,300 acres upstream from station.

AVERAGE DISCHARGE.--26 years, 486 ft³/s, 352,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft³/s, May 19, 1978, gage height, 14.25 ft; minimum, 3.0 ft³/s, Aug. 23, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximums (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb 25	1730	ice jam	*9.71	June 10	0900	3,610	7.55
June 5	0230	*3,670	7.60				

Minimum daily discharge, 80 ft³/s, Dec. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	238	199	80	150	190	608	283	407	1550	508	148	217
2	249	195	90	140	200	503	269	414	1800	460	150	333
3	280	194	110	130	200	437	270	547	2060	425	150	318
4	289	199	120	110	190	396	267	758	2840	394	150	284
5	257	191	110	100	180	389	256	940	3400	383	153	265
6	242	188	120	110	170	397	243	804	2780	369	147	261
7	251	179	120	120	160	358	237	668	2530	340	133	319
8	248	170	110	130	150	332	246	642	2390	320	139	342
9	233	150	110	130	140	315	267	669	3110	290	136	322
10	233	130	100	140	120	306	302	651	3400	263	153	359
11	234	120	90	150	100	290	314	619	2690	261	161	459
12	242	130	100	150	90	271	315	610	2350	285	150	402
13	246	140	100	160	100	260	302	563	2250	292	152	351
14	225	150	110	160	110	257	319	527	2110	264	150	336
15	224	160	110	170	120	248	297	523	1970	237	162	323
16	231	170	120	170	140	238	302	474	1840	216	149	317
17	219	180	130	180	150	234	320	442	1660	207	146	309
18	217	170	140	180	140	254	331	424	1500	202	145	303
19	212	160	150	190	130	255	308	442	1330	189	140	323
20	211	140	160	170	120	269	292	487	1210	189	135	329
21	214	120	170	150	130	289	283	607	1170	198	127	320
22	218	110	180	130	150	304	297	767	1100	199	131	307
23	219	100	190	140	200	311	445	895	987	191	138	300
24	214	110	190	150	300	297	555	791	871	169	143	295
25	207	120	200	160	1000	281	481	730	759	154	151	322
26	208	110	190	150	2000	272	493	798	684	154	145	360
27	204	100	170	160	1400	257	545	927	622	167	151	337
28	203	110	160	170	867	248	493	1060	583	165	148	314
29	196	110	150	160	---	248	450	1190	560	154	151	308
30	194	100	140	170	---	260	429	1300	536	143	156	301
31	195	---	140	180	---	273	---	1380	---	140	166	---
TOTAL	7053	4405	4160	4660	8947	9657	10211	22056	52642	7928	4556	9636
MEAN	228	147	134	150	320	312	340	711	1755	256	147	321
MAX	289	199	200	190	2000	608	555	1380	3400	508	166	459
MIN	194	100	80	100	90	234	237	407	536	140	127	217
AC-FT	13990	8740	8250	9240	17750	19150	20250	43750	104400	15730	9040	19110
CAL YR 1985	TOTAL	79187		MEAN	217	MAX	803	MIN	60	AC-FT	157100	
WTR YR 1986	TOTAL	145911		MEAN	400	MAX	3400	MIN	80	AC-FT	289400	

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE: Maximum daily, 1,010 microsiemens, Nov. 24, Mar. 8, 9, 24; minimum daily, 226 microsiemens, June 3.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	CLOUD COVER (PER- CENT)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 16...	1215	240	--	--	862	19.0	8.0	--	--	--	--
NOV 04...	1420	207	50	1	798	15.0	7.0	673	12.8	120	K6
DEC 18...	1110	141	100	2	733	8.0	0.0	681	10.4	80	34
JAN 28...	1500	172	--	--	830	9.5	0.0	--	--	--	--
MAR 06...	0845	412	--	--	991	13.0	4.5	--	--	--	--
APR 15...	0840	292	--	--	628	2.0	4.5	--	--	--	--
MAY 30...	0930	1190	0	0	259	17.0	14.5	678	7.9	87	130
JUN 03...	0905	1840	--	--	197	24.0	15.0	--	--	--	--
05...	1325	3410	--	--	248	22.5	14.5	--	--	--	--
11...	0905	2760	--	--	271	14.5	13.0	--	--	--	--
25...	0800	779	0	0	--	25.0	19.0	--	--	--	--
JUL 16...	0830	222	0	0	644	23.5	20.0	670	7.0	88	K110
AUG 11...	1430	166	--	--	785	31.0	23.5	--	--	--	--
SEP 22...	1325	311	50	1	702	15.5	12.5	--	--	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

[illegible]

YELLOWSTONE RIVER BASIN

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
NOV 04...	3.7	0.2	4.2	490	0.66	271	<0.10	--	0.05	0.45	0.5
DEC 18...	3.3	0.3	8.8	470	0.64	179	0.40	0.60	0.21	0.39	0.6
MAY 30...	3.6	0.1	6.5	170	0.23	532	<0.10	0.10	0.07	0.73	0.8
JUL 16...	--	--	--	--	--	--	<0.10	--	0.05	0.45	0.5

DATE	PHOSPHORUS, TOTAL (MG/L AS P)	ARSENIC, DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MERCURY, DIS-SOLVED (UG/L AS HG)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)
NOV 04...	0.06	<1	55	<1	<1	<3	1	--	<1	<1
DEC 18...	0.08	<1	76	2	<1	170	2	--	<1	<1
MAY 30...	0.14	<1	39	<1	<1	23	<1	0.1	<1	<1
JUL 16...	0.05	<1	62	<1	<1	6	<5	<0.1	<1	<1

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L) (82052)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L) (39720)	2,4-D, TOTAL (UG/L) (39730)	2, 4-DP TOTAL (UG/L) (82183)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)
JUN 25...	0800	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
JUL 16...	0830	0.01	0.02	0.02	<0.01	<0.01	<0.01
SEP 22...	1325	0.01	0.04	0.01	<0.01	<0.01	<0.01

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	823	792	832	846	790	770	809	497	274	442	806	791
2	816	797	826	838	806	762	749	502	258	512	815	822
3	812	796	820	820	803	861	750	475	226	514	814	761
4	770	789	816	818	797	915	754	392	244	514	788	759
5	754	789	824	846	789	989	768	335	280	512	815	729
6	766	806	821	879	804	990	780	347	288	574	813	716
7	769	794	806	826	808	985	802	373	296	566	822	721
8	781	795	804	807	864	1010	798	360	265	575	810	672
9	780	790	799	793	896	1010	770	428	250	555	837	663
10	794	784	789	781	897	1000	716	456	296	577	840	658
11	800	812	784	769	927	1000	670	502	287	573	827	664
12	804	903	816	766	946	1000	651	487	306	630	805	667
13	772	949	849	760	963	1000	649	501	277	625	825	683
14	771	909	842	779	960	1000	627	473	280	675	833	689
15	792	927	808	789	932	998	649	482	278	655	829	705
16	806	906	788	797	900	967	681	496	274	647	812	695
17	810	817	766	793	862	995	668	509	284	671	828	695
18	798	811	763	775	839	961	689	529	291	665	869	708
19	793	840	762	747	806	967	680	533	315	704	874	709
20	791	860	763	777	827	960	679	513	310	712	881	706
21	793	948	778	731	865	990	685	440	329	726	874	704
22	794	980	775	757	866	960	633	366	328	706	874	715
23	792	1000	768	802	857	966	631	311	351	714	867	716
24	770	1010	774	802	837	1010	471	378	381	712	892	719
25	768	991	798	813	444	1000	434	378	373	765	891	715
26	764	937	815	795	369	995	446	366	387	787	877	687
27	761	910	852	820	463	949	487	337	401	785	889	682
28	780	901	854	824	563	972	466	330	412	773	884	665
29	782	881	855	813	---	930	488	300	425	776	943	673
30	797	855	868	781	---	908	494	299	434	785	857	670
31	771	---	865	788	---	860	---	261	---	823	833	---
MEAN	786	869	809	798	803	957	652	418	313	653	846	705
WTR YR 1986	MEAN	718	MAX	1010	MIN	226						

YELLOWSTONE RIVER BASIN

06309200 MIDDLE FORK POWDER RIVER NEAR BARNUM, WY

LOCATION.--Lat 43°34'40", long 107°08'16", in SE1/4 SW1/4 NE1/4 sec.26, T.42 N., R.86 W., Washakie County, Hydrologic Unit 10090201, on left bank 1,100 ft downstream from Rock Creek and 13 mi southwest of Barnum.

DRAINAGE AREA.--45.2 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 7,220 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1970, at site 900 ft upstream at different datum. Since Sept. 15, 1983, supplementary water-stage recorder at site 100 ft downstream at datum 6.78 ft lower.

REMARKS.--Estimated daily discharges: Nov. 10-30, Dec. 1-4, 9-14, Feb. 7-15, 27, 28, Mar. 1-3, 6, 16, 18-20, 23, 26, and Apr. 1-3, 14, 15. Records good except those for November to March, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--25 years, 31.3 ft³/s, 22,690 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,110 ft³/s, June 15, 1963, gage height, 12.6 ft, from floodmark, site and datum then in use, on basis of slope-area measurement of peak flow; minimum daily discharge, 1.0 ft³/s, Dec. 15, 16, 1964, Jan. 24-27, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 23	1730	348	(a)7.59	June 5	2100	204	(a) 6.96
May 4	1830	554	(a)8.27	June 9	2030	*663	(a)*8.59
May 21	1830	356	(a)7.61				

(a) Supplementary gage datum.

Minimum daily discharge, 4.5 ft³/s, Dec. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	5.5	4.5	6.0	5.5	5.5	18	120	98	19	8.3	11
2	7.9	5.7	4.6	6.0	5.3	5.7	15	169	93	18	8.2	11
3	8.1	5.7	4.8	6.0	5.3	5.6	14	263	84	18	8.0	7.7
4	8.0	5.6	5.0	6.0	5.1	5.5	13	385	82	17	8.0	7.2
5	7.2	5.5	5.3	6.0	5.0	5.5	14	266	89	17	8.0	6.8
6	8.2	5.7	5.3	6.0	5.0	5.4	17	167	84	16	7.7	7.1
7	8.6	5.9	5.3	6.0	4.9	5.2	24	122	63	16	7.2	7.1
8	8.0	6.1	5.3	6.0	4.9	5.7	32	104	72	15	7.2	7.0
9	8.5	6.0	5.1	5.7	4.8	6.5	47	80	181	15	7.3	6.9
10	7.6	5.5	5.0	5.7	4.8	7.3	50	81	156	15	7.3	15
11	7.4	5.0	4.9	5.7	4.8	6.6	49	106	94	14	7.0	10
12	7.3	4.8	4.8	5.7	4.9	5.8	48	102	88	14	7.1	7.9
13	5.7	4.9	5.0	5.7	5.0	5.8	42	96	80	13	6.9	7.4
14	5.3	5.5	5.3	5.7	5.1	5.6	40	99	65	12	6.8	7.4
15	5.8	5.9	5.7	5.7	5.2	5.6	45	100	58	12	6.5	7.3
16	5.9	6.3	5.7	5.6	5.5	5.8	44	100	52	13	6.2	7.0
17	6.0	6.1	5.7	5.5	5.5	6.1	45	92	48	12	6.1	6.8
18	6.0	5.6	5.7	5.4	5.1	5.2	39	103	44	11	5.9	7.0
19	6.0	5.2	5.7	5.5	5.0	5.8	39	131	41	11	5.9	7.8
20	6.1	5.1	5.7	5.3	5.5	6.6	39	179	42	11	6.3	7.1
21	6.2	4.9	5.7	5.0	5.6	7.2	58	258	36	11	6.3	6.8
22	6.4	4.8	5.7	5.5	4.9	7.3	106	200	32	11	6.0	6.7
23	6.4	5.0	5.7	5.5	5.0	8.4	210	136	30	11	5.9	6.4
24	6.5	5.0	5.7	5.5	5.0	10	241	120	27	10	5.9	13
25	6.5	5.0	5.7	5.5	5.1	10	217	121	26	11	9.1	17
26	6.5	5.0	5.7	5.5	5.3	8.8	171	125	25	9.8	8.2	11
27	6.5	5.1	5.8	5.5	5.4	9.5	130	123	23	9.3	7.0	8.7
28	6.5	4.9	6.0	5.5	5.1	13	114	119	23	8.8	6.7	8.5
29	6.4	4.7	6.0	5.5	---	18	115	114	23	8.4	6.7	8.1
30	6.2	4.6	6.0	5.5	---	22	112	106	21	8.0	7.4	7.7
31	6.2	---	6.0	5.5	---	22	---	101	---	8.2	9.0	---
TOTAL	210.7	160.6	168.4	175.2	143.6	253.0	2148	4388	1880	395.5	220.1	256.4
MEAN	6.80	5.35	5.43	5.65	5.13	8.16	71.6	142	62.7	12.8	7.10	8.55
MAX	8.6	6.3	6.0	6.0	5.6	22	241	385	181	19	9.1	17
MIN	5.3	4.6	4.5	5.0	4.8	5.2	13	80	21	8.0	5.9	6.4
AC-FT	418	319	334	348	285	502	4260	8700	3730	784	437	509
CAL YR 1985	TOTAL	5441.6		MEAN	14.9	MAX	170	MIN	4.0	AC-FT	10790	
WTR YR 1986	TOTAL	10399.5		MEAN	28.5	MAX	385	MIN	4.5	AC-FT	20630	

06309450 BEAVER CREEK BELOW BAYER CREEK, NEAR BARNUM, WY

LOCATION.--Lat 43°39'55", long 107°03'48", in SE1/4 SE1/4 NW1/4 sec.28, T.43 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on left bank 0.2 mi downstream from Bayer Creek and 7.7 mi west of Barnum.

DRAINAGE AREA.--10.9 mi².

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR WY-79-1: 1975.

GAGE.--Water-stage recorder. Elevation of gage is 7,030 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Mar. 30, 1978, at site 300 ft downstream at datum 3.95 ft lower.

REMARKS.--Estimated daily discharges: Oct. 29 to Dec. 3, Dec. 9-15, Jan. 1,2, 20-23, Feb. 5-7, 10-15, 18-21, 28, Apr. 14, and May 5. Records good except November to February, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--12 years, 7.02 ft³/s, 5,090 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 186 ft³/s, July 6, 1978, gage height, 2.72 ft; maximum gage height, 3.19 ft, Apr. 20, 1984 (backwater from snow); minimum daily discharge, 0.80 ft³/s, Dec. 30, 31, 1974, Jan. 2, 10-12, 1975, Feb. 10, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 5	1045	ice jam	*2.19	No peak greater than base discharge.			
June 9	2330	*48	1.74				

Minimum daily discharge, 1.1 ft³/s, Mar. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.9	1.7	1.7	1.6	1.8	4.1	15	15	8.0	4.2	3.9
2	2.3	1.9	1.7	1.7	1.6	1.9	3.7	17	15	7.7	4.1	3.6
3	1.9	2.0	1.7	1.6	1.6	1.9	2.9	19	16	7.5	4.2	3.4
4	1.9	2.0	1.7	1.6	1.4	1.8	2.8	19	16	7.4	4.2	3.4
5	2.3	1.8	1.7	1.6	1.6	1.8	2.8	17	15	7.3	4.0	3.3
6	2.3	1.6	1.7	1.5	1.7	1.7	3.9	15	14	7.1	4.0	3.7
7	2.1	1.9	1.7	1.5	1.6	2.0	6.3	13	14	7.2	3.9	3.6
8	1.7	2.0	1.6	1.5	1.6	3.0	9.7	14	19	7.2	3.8	3.5
9	2.1	1.8	1.6	1.5	1.6	3.1	16	9.3	22	7.1	3.8	3.4
10	2.1	1.6	1.5	1.5	1.5	2.1	14	17	18	7.0	3.8	5.1
11	2.0	1.7	1.3	1.6	1.6	2.0	9.1	22	14	7.3	3.7	3.5
12	2.1	1.9	1.4	1.6	1.6	1.9	8.4	21	14	7.1	3.7	3.3
13	2.1	1.9	1.5	1.6	1.6	1.8	4.7	20	14	6.4	3.7	3.3
14	2.0	1.8	1.5	1.6	1.6	1.8	6.0	20	13	6.2	3.6	3.3
15	2.1	1.8	1.6	1.6	1.5	1.7	7.7	18	12	6.7	3.5	3.2
16	2.2	1.9	1.7	1.7	1.5	1.7	7.2	18	12	6.2	3.5	3.2
17	2.2	1.9	1.7	1.6	1.5	1.7	7.0	18	11	5.8	3.4	3.2
18	2.2	1.9	1.7	1.6	1.5	1.5	5.8	19	11	5.6	3.3	3.3
19	2.1	1.7	1.6	1.6	1.4	1.1	5.8	19	11	5.5	3.2	3.5
20	2.0	1.5	1.8	1.6	1.3	1.7	6.9	20	11	5.4	3.3	3.4
21	2.0	1.5	1.7	1.4	1.5	1.9	13	21	11	5.3	3.3	2.9
22	2.1	1.5	1.8	1.6	1.6	1.9	23	19	11	5.4	3.2	3.0
23	1.9	1.5	1.8	1.6	1.6	2.0	25	17	10	5.2	3.2	2.8
24	2.0	1.5	1.8	1.7	1.9	2.7	20	17	9.8	5.2	3.2	4.8
25	1.9	1.4	1.8	1.6	2.2	2.5	17	18	9.7	5.1	3.8	4.5
26	1.9	1.5	1.8	1.5	2.0	2.2	13	18	9.4	5.0	3.3	3.0
27	1.9	1.5	1.8	1.5	1.8	2.8	13	17	9.1	4.7	3.4	3.0
28	1.9	1.5	1.7	1.5	1.7	4.2	14	17	9.5	4.6	3.3	3.2
29	1.9	1.6	1.7	1.5	---	5.6	15	17	9.0	4.4	3.3	3.1
30	1.9	1.6	1.7	1.5	---	6.6	14	16	8.3	4.3	3.4	3.1
31	1.9	---	1.6	1.5	---	5.8	---	16	---	4.3	3.7	---
TOTAL	63.0	51.6	51.6	48.7	45.2	76.2	301.8	543.3	383.8	189.2	112.0	103.5
MEAN	2.03	1.72	1.66	1.57	1.61	2.46	10.1	17.5	12.8	6.10	3.61	3.45
MAX	2.3	2.0	1.8	1.7	2.2	6.6	25	22	22	8.0	4.2	5.1
MIN	1.7	1.4	1.3	1.4	1.3	1.1	2.8	9.3	8.3	4.3	3.2	2.8
AC-FT	125	102	102	97	90	151	599	1080	761	375	222	205
CAL YR 1985	TOTAL	1208.6		MEAN	3.31	MAX	19	MIN	1.3	AC-FT	2400	
WTR YR 1986	TOTAL	1969.9		MEAN	5.40	MAX	25	MIN	1.1	AC-FT	3910	

YELLOWSTONE RIVER BASIN

06309460 BEAVER CREEK ABOVE WHITE PANTHER DITCH, NEAR BARNUM, WY

LOCATION.--Lat 43°41'52", long 106°56'52", in SE1/4 SW1/4 NW1/4 sec.16, T.43 N., R.84 W., Johnson County, Hydrologic Unit 10090201, on right bank 0.1 mi upstream from White Panther Ditch and 3.0 mi northwest of Barnum.

DRAINAGE AREA.--24.2 mi².

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR WY-78-1: 1975-77(M). WDR WY-79-1: 1975. WDR WY-83: 1979, 1982(M).

GAGE.--Water-stage recorder. Elevation of gage is 5,350 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 11-17. Records good. No diversion upstream from station.

AVERAGE DISCHARGE.--12 years, 14.7 ft³/s, 10,620 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 797 ft³/s, July 6, 1978, gage height, 5.94 ft, from floodmarks, from rating curve extended above 140 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 5.2 ft³/s, Mar. 21, Apr. 8, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 10	0230	*45	*0.89	No peak greater than base discharge.			
Minimum daily discharge, 6.4 ft ³ /s, Dec. 11.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	8.0	7.6	7.2	7.5	7.5	10	21	22	14	10	9.8
2	8.4	8.2	7.4	7.2	7.5	7.5	10	22	23	13	10	9.7
3	8.8	8.1	7.2	7.5	7.5	7.5	9.3	24	24	13	10	9.2
4	7.8	8.0	7.2	7.5	7.3	7.4	9.0	24	25	13	10	9.1
5	8.6	8.1	7.2	7.4	7.4	7.3	8.7	24	23	13	10	9.1
6	8.6	7.1	7.1	7.4	7.6	7.2	9.2	23	22	13	10	9.5
7	8.8	7.8	7.0	7.2	7.1	7.5	11	22	21	13	9.9	9.5
8	6.9	8.6	7.1	7.4	7.7	8.4	14	22	25	13	9.9	9.2
9	8.2	7.9	7.0	7.2	7.6	9.6	21	16	27	13	9.9	9.0
10	8.3	6.7	7.2	7.2	7.4	8.2	20	24	28	13	9.9	11
11	8.6	7.7	6.4	7.2	7.6	8.0	17	28	22	13	9.7	9.6
12	8.6	8.0	6.8	7.2	7.6	8.0	14	29	21	13	9.7	9.2
13	8.4	8.1	7.1	7.2	7.6	7.9	13	28	23	13	9.7	9.1
14	8.3	7.5	7.5	7.2	7.4	7.7	9.6	28	21	12	9.7	9.3
15	8.6	7.9	7.5	7.2	7.3	7.6	15	26	19	13	9.5	9.1
16	8.6	8.4	7.3	7.1	7.3	7.1	13	26	19	12	9.3	9.0
17	8.7	8.4	7.3	7.3	7.2	7.8	14	25	18	12	9.5	8.9
18	8.6	8.0	7.3	7.1	7.3	7.2	12	25	18	12	9.4	9.0
19	8.5	7.3	7.3	7.3	7.4	6.6	12	26	17	12	9.3	9.2
20	8.5	7.2	7.3	7.3	7.0	6.9	13	26	18	12	9.5	9.0
21	8.4	7.2	7.2	6.6	6.8	8.0	17	27	17	12	9.4	9.3
22	8.6	7.2	7.1	7.4	7.3	8.0	27	26	16	12	9.3	9.4
23	8.6	7.2	7.1	7.4	7.2	7.9	32	25	16	11	9.3	9.4
24	8.6	7.2	7.2	7.6	7.2	8.2	27	25	16	11	9.2	10
25	8.2	7.3	7.2	7.5	7.9	9.0	24	25	15	11	9.7	14
26	8.1	7.4	7.1	7.4	7.9	7.8	21	25	15	11	10	10
27	8.1	7.3	7.2	7.3	7.3	8.2	19	25	15	11	9.4	9.7
28	8.0	7.2	7.2	7.3	7.3	9.5	20	25	15	11	9.2	9.9
29	8.1	7.3	7.2	7.4	---	11	21	24	15	10	9.1	9.8
30	8.1	7.6	7.2	7.6	---	12	21	24	14	10	9.3	9.6
31	8.2	---	7.2	7.6	---	13	---	23	---	10	9.8	---
TOTAL	259.1	229.9	222.7	226.4	207.2	255.5	483.8	763	590	375	298.6	287.6
MEAN	8.36	7.66	7.18	7.30	7.40	8.24	16.1	24.6	19.7	12.1	9.63	9.59
MAX	8.8	8.6	7.6	7.6	7.9	13	32	29	28	14	10	14
MIN	6.9	6.7	6.4	6.6	6.8	6.6	8.7	16	14	10	9.1	8.9
AC-FT	514	456	442	449	411	507	960	1510	1170	744	592	570
CAL YR 1985	TOTAL	3672.2	MEAN	10.1	MAX	26	MIN	6.4	AC-FT	7280		
WTR YR 1986	TOTAL	4198.8	MEAN	11.5	MAX	32	MIN	6.4	AC-FT	8330		

06309500 MIDDLE FORK POWDER RIVER ABOVE KAYCEE, WY

LOCATION.--Lat 43°38'51", long 106°48'29", in SW1/4 SW1/4 sec.34, T.43 N., R.83 W., Johnson County, Hydrologic Unit 10090201, on right bank 680 ft upstream from bridge on county road, 3.5 mi upstream from Red Fork Powder River, 4 mi downstream from Beaver Creek, and 10 mi southwest of Kaycee.

DRAINAGE AREA.--450 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1949 to September 1970, April 1984 to current year.

REVISED RECORDS.--WSP 1916: 1955, 1957(P), 1958, 1959(P).

GAGE.--Water-stage recorder. Datum of gage is 4,874.76 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 10-29, Dec. 3-22, Jan. 9-28, Feb. 6-21, and Apr. 15. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation upstream from station (for details on adjudication, see Remarks for this station in WSP 1209).

AVERAGE DISCHARGE.--23 years (water years 1950-70, 1985-1986), 70.8 ft³/s, 51,320 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,750 ft³/s, June 8, 1968, gage height, 8.74 ft; minimum daily, 12 ft³/s, Aug. 28, 29, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage for undetermined period, about 11.7 ft, date unknown.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 23	2330	451	4.21	May 22	0100	393	3.96
May 4	2200	*668	*5.08	June 10	0300	594	4.82

Minimum daily discharge, 26 ft³/s, Aug. 19-24, 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	44	33	47	47	46	60	181	140	55	34	37
2	51	44	33	45	46	45	63	215	140	53	35	40
3	51	44	38	44	45	44	58	297	128	50	34	34
4	49	44	42	42	45	44	56	464	136	47	35	32
5	49	44	46	41	44	44	54	412	121	48	35	29
6	50	42	47	42	43	43	54	274	144	47	31	32
7	50	42	47	43	41	44	60	250	113	47	32	35
8	48	46	46	44	40	46	73	218	116	47	31	33
9	48	44	44	46	39	51	93	172	132	45	33	31
10	48	43	43	48	38	48	108	170	286	43	30	70
11	49	40	40	50	36	47	114	186	145	45	34	65
12	48	39	40	48	38	47	101	204	136	49	35	49
13	47	40	42	50	40	47	112	181	133	44	33	46
14	46	42	44	50	42	46	85	182	111	41	30	47
15	46	46	45	49	48	46	96	181	103	42	29	47
16	45	48	46	48	54	44	103	183	95	43	27	46
17	45	46	46	49	56	47	112	171	87	40	27	46
18	45	43	48	47	55	46	102	172	80	37	27	46
19	45	32	48	52	44	44	96	193	82	36	26	47
20	45	35	49	50	41	42	96	227	81	34	26	47
21	44	35	49	46	43	46	104	286	74	36	26	45
22	45	34	49	43	45	47	165	296	68	36	26	46
23	45	36	49	45	46	45	288	207	64	35	26	45
24	45	37	48	44	46	46	352	190	62	33	26	46
25	44	38	49	43	47	49	317	182	62	37	28	70
26	44	37	49	43	48	47	263	187	62	34	33	56
27	44	39	47	45	46	47	214	181	55	33	28	51
28	44	38	46	46	43	48	188	173	54	32	26	50
29	44	36	44	45	---	54	188	164	63	30	26	49
30	44	35	46	46	---	60	187	156	59	28	30	48
31	44	---	47	49	---	67	---	141	---	30	35	---
TOTAL	1440	1213	1390	1430	1246	1467	3962	6696	3132	1257	934	1365
MEAN	46.5	40.4	44.8	46.1	44.5	47.3	132	216	104	40.5	30.1	45.5
MAX	51	48	49	52	56	67	352	464	286	55	35	70
MIN	44	32	33	41	36	42	54	141	54	28	26	29
AC-FT	2860	2410	2760	2840	2470	2910	7860	13280	6210	2490	1850	2710
CAL YR 1985	TOTAL	19189		MEAN	52.6	MAX	229	MIN	25	AC-FT	38060	
WTR YR 1986	TOTAL	25532		MEAN	70.0	MAX	464	MIN	26	AC-FT	50640	

YELLOWSTONE RIVER BASIN

06309500 MIDDLE FORK POWDER RIVER ABOVE KAYCEE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-54, May 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT 28...	1130	44	950	8.6	8.0	640	22	11.0	111	K12	490
DEC 02...	1500	76	1000	7.9	0.0	627	95	--	--	28	500
JAN 09...	1300	46	940	8.8	0.0	640	60	12.8	105	K11	460
FEB 18...	1000	51	900	8.5	1.5	620	550	13.0	114	98	440
MAR 26...	1300	50	830	8.2	8.0	638	20	11.4	115	93	420
APR 23...	1310	265	295	8.6	11.0	630	800	8.8	97	460	160
MAY 05...	1150	356	285	8.4	5.5	635	600	10.8	103	390	130
JUN 18...	1130	77	445	8.4	15.0	630	22	10.4	125	93	210
JUL 29...	0930	32	980	8.1	17.0	635	60	8.1	101	20	450
AUG 28...	0830	26	950	8.3	16.0	645	65	7.8	94	260	490

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT 28...	130	39	22	0.5	2.3	165	310	18	0.3	8.0
DEC 02...	130	42	24	0.5	2.2	202	350	13	0.3	10
JAN 09...	120	40	22	0.5	1.8	184	300	8.9	0.3	9.4
FEB 18...	120	34	20	0.4	2.2	175	330	11	0.3	10
MAR 26...	110	36	20	0.4	1.7	170	270	12	0.2	5.0
APR 23...	47	10	6.7	0.2	1.4	96	65	3.1	0.1	7.0
MAY 05...	36	9.5	6.5	0.3	1.5	80	63	3.1	0.1	5.7
JUN 18...	54	19	11	0.3	1.0	120	110	5.2	0.2	8.0
JUL 29...	120	36	26	0.6	2.9	160	310	12	0.3	8.0
AUG 28...	130	40	26	0.5	2.1	170	330	11	0.3	10

06309500 MIDDLE FORK POWDER RIVER ABOVE KAYCEE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 28...	662	630	0.9	79	0.30	0.27	0.07	0.23	0.3	0.01
DEC 02...	718	690	0.98	147	0.60	0.65	0.09	0.31	0.4	0.03
JAN 09...	667	610	0.91	83	0.60	0.60	0.14	0.26	0.4	0.07
FEB 18...	657	630	0.89	90	0.50	0.50	0.09	0.61	0.7	0.27
MAR 26...	--	560	0.76	75	0.20	0.20	0.03	0.37	0.4	0.02
APR 23...	--	200	0.27	142	0.30	0.30	0.11	2.0	2.1	0.21
MAY 05...	--	170	0.24	167	0.20	0.20	0.19	1.7	1.9	0.11
JUN 18...	--	280	0.38	58	<0.10	0.10	0.05	0.35	0.4	0.08
JUL 29...	--	610	0.83	53	<0.10	0.00	0.11	0.69	0.8	0.07
AUG 28...	--	650	0.89	46	<0.10	0.00	0.08	0.32	0.4	0.04

YELLOWSTONE RIVER BASIN

06311000 NORTH FORK POWDER RIVER NEAR HAZELTON, WY

LOCATION.--Lat 44°01'40", long 107°04'49", in SW1/4 SE1/4 NW1/4 sec.21, T.47 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on left bank 0.6 mi downstream from Twin Creek, 0.5 mi upstream from Dullknife Reservoir, 7.2 mi southwest of Hazelton, and 19 mi northwest of Mayoworth. Prior to Aug. 26, 1986, at site 0.1 mi upstream.

DRAINAGE AREA.--24.5 mi².

PERIOD OF RECORD.--September 1946 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1279: 1947-48(M), 1949, 1950-51(M), 1952.

GAGE.--Water-stage recorder. Elevation of gage is 8,180 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1966, at site 0.7 mi downstream at different datum. Oct. 1, 1966 to Aug. 26, 1986, at site 0.1 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 1, 3-6, 8-11, 13, 14, 17-21, 23-26, 30, 31, Nov. 1 to Apr. 17, Apr. 22-24, and May 9, 10. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--40 years, 14.8 ft³/s, 10,720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 886 ft³/s, June 15, 1953, gage height, 4.34 ft, site and datum then in use, from rating curve extended above 110 ft³/s, on basis of slope-area measurement of peak flow; maximum gage height, 6.21 ft, May 14, 1984 (backwater from ice) site and datum then is use; minimum daily discharge, 0.60 ft³/s, Oct. 30, 1960, Apr. 9, 12, 15-17, 1961, but may have been less during winter months of water years 1947-48.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 190 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 23	0130	ice jam	*4.77	May 21	2000	274	3.60
May 4	1800	*283	3.64				

Minimum daily discharge, 1.8 ft³/s, Feb. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	4.6	2.2	2.2	2.2	2.3	11	40	96	15	6.2	6.6
2	6.0	4.8	2.2	2.2	2.2	2.3	7.4	80	98	15	6.2	5.8
3	7.1	5.4	2.2	2.2	2.2	2.2	5.6	140	79	14	5.9	4.4
4	6.5	5.1	2.2	2.2	2.2	2.2	4.8	181	105	14	6.2	3.9
5	6.1	5.6	2.3	2.2	2.0	2.2	4.2	94	81	25	5.6	3.7
6	6.9	4.7	2.3	2.1	2.0	2.2	4.9	51	74	15	5.3	3.9
7	7.4	4.8	2.3	2.1	2.0	2.2	7.3	30	70	14	5.1	4.4
8	6.6	4.2	2.2	2.1	2.0	2.4	13	25	139	14	4.8	4.1
9	6.0	3.9	2.2	2.1	1.9	2.5	24	23	104	13	5.1	4.1
10	6.3	3.6	2.1	2.1	1.8	2.3	31	22	68	13	5.6	8.8
11	6.6	3.5	2.0	2.2	1.8	2.3	22	21	59	13	5.3	8.3
12	7.4	3.5	2.2	2.2	1.9	2.2	16	21	54	14	5.3	5.8
13	6.9	3.5	2.2	2.2	2.0	2.2	12	20	53	11	5.1	4.8
14	6.7	3.5	2.2	2.2	2.1	2.2	9.3	22	46	11	5.1	4.8
15	6.5	3.6	2.4	2.2	2.3	2.1	8.0	24	44	12	4.8	4.6
16	6.8	3.6	2.4	2.2	2.4	2.1	11	22	38	12	4.6	4.1
17	6.1	3.6	2.4	2.2	2.5	2.1	15	21	35	11	4.3	3.9
18	5.7	3.4	2.4	2.2	2.4	2.0	16	32	33	9.5	4.3	3.7
19	5.5	3.2	2.4	2.2	2.3	1.9	14	62	31	9.9	4.1	4.1
20	5.4	2.9	2.5	2.2	2.4	2.3	11	115	33	8.8	5.3	4.1
21	5.4	2.7	2.4	2.0	2.4	2.3	15	165	27	9.1	5.1	3.7
22	5.3	2.5	2.5	2.0	2.4	2.3	30	118	26	9.1	4.6	3.5
23	5.1	2.5	2.5	2.1	2.3	2.5	68	57	24	9.1	4.3	3.3
24	5.1	2.3	2.5	2.1	2.2	3.0	49	48	22	8.8	4.1	4.4
25	5.1	2.2	2.5	2.1	2.2	2.8	32	71	21	8.8	4.3	6.8
26	5.2	2.2	2.5	2.0	2.2	2.7	24	95	20	8.8	4.7	6.0
27	5.3	2.1	2.4	2.0	2.0	3.2	22	116	19	10	3.9	5.1
28	5.6	2.1	2.3	2.0	2.2	3.6	25	113	18	8.0	3.9	5.8
29	5.1	2.1	2.3	2.0	---	4.1	30	109	18	7.1	3.7	5.3
30	5.0	2.1	2.3	2.0	---	5.2	27	96	17	6.8	3.7	5.1
31	4.9	---	2.2	2.1	---	8.1	---	93	---	6.5	4.4	---
TOTAL	184.8	103.8	71.7	65.9	60.5	84.0	569.5	2127	1552	356.3	150.9	146.9
MEAN	5.96	3.46	2.31	2.13	2.16	2.71	19.0	68.6	51.7	11.5	4.87	4.90
MAX	7.4	5.6	2.5	2.2	2.5	8.1	68	181	139	25	6.2	8.8
MIN	4.9	2.1	2.0	2.0	1.8	1.9	4.2	20	17	6.5	3.7	3.3
AC-FT	367	206	142	131	120	167	1130	4220	3080	707	299	291
CAL YR 1985	TOTAL	3492.7		MEAN	9.57	MAX	82	MIN	1.7	AC-FT	6930	
WTR YR 1986	TOTAL	5473.3		MEAN	15.0	MAX	181	MIN	1.8	AC-FT	10860	

06311060 NORTH FORK POWDER RIVER BELOW BULL CREEK, NEAR HAZELTON, WY

LOCATION.--Lat 44°00'29", long 107°01'08", in NE1/4 SE1/4 SW1/4 sec.25, T.47 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on right bank 60 ft downstream from Bull Creek, 2.1 mi downstream from Dullknife Reservoir, and 6.8 mi southwest of Hazelton.

DRAINAGE AREA.--32.3 mi².

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,840 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 8-10, 13, 14, Oct. 29 to Nov. 1, Nov. 4, 7-13, Dec. 1 to Mar. 23, and Apr. 3-7, 12-14, 18, 19. Records good except those for estimated daily discharges, which are poor. Flow regulated by Dullknife Reservoir 2.1 mi upstream, capacity, 4,350 acre-ft.

AVERAGE DISCHARGE.--12 years, 18.5 ft³/s, 13,400 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 458 ft³/s, May 27, 1983, gage height, 4.48 ft, from floodmarks; minimum daily, 0.50 ft³/s, Jan. 24-30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 178 ft³/s, May 10, gage height, 3.59 ft; minimum daily, 0.56 ft³/s, Feb. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	.84	.72	.64	.62	1.0	8.0	9.6	102	16	47	17
2	1.7	.92	.72	.64	.60	1.0	3.3	13	104	15	42	17
3	1.5	.86	.72	.64	.60	1.1	2.8	14	87	14	36	16
4	1.5	.90	.76	.64	.60	1.1	2.3	14	105	15	36	16
5	1.9	.86	.76	.64	.60	1.1	2.7	10	92	23	36	16
6	1.7	.80	.76	.64	.60	1.0	3.7	8.4	82	16	36	12
7	1.8	.78	.76	.64	.58	1.2	5.3	6.4	75	15	36	3.7
8	1.2	.90	.76	.64	.58	1.4	12	6.2	126	15	31	3.6
9	1.3	.86	.76	.64	.58	1.5	19	5.7	124	15	24	3.6
10	1.3	.76	.70	.64	.58	1.4	12	69	79	13	24	5.4
11	1.2	.80	.64	.66	.58	1.3	6.5	128	66	14	24	3.9
12	1.2	.80	.66	.68	.58	1.3	6.0	127	50	15	24	3.7
13	1.2	.80	.68	.68	.60	1.3	4.5	125	58	12	24	3.8
14	1.1	.83	.70	.68	.60	1.3	5.0	95	52	11	24	4.0
15	1.1	.80	.70	.68	.62	1.2	5.8	58	50	13	21	3.9
16	1.1	.77	.70	.68	.64	1.1	4.0	57	42	13	18	3.8
17	.94	.84	.70	.66	.62	1.1	3.9	57	37	12	21	3.8
18	.94	.87	.70	.64	.62	1.0	3.4	58	34	27	21	3.8
19	.95	.79	.72	.64	.60	.90	3.0	59	32	57	21	3.9
20	.94	.74	.74	.64	.56	1.2	3.5	56	35	57	21	3.6
21	.83	.74	.74	.60	.62	1.3	17	48	31	56	21	2.8
22	1.0	.74	.76	.64	.70	1.5	32	47	26	56	22	2.7
23	1.1	.73	.76	.62	.74	1.8	19	46	24	56	23	2.7
24	.94	.72	.76	.62	.90	2.3	15	45	23	55	23	4.5
25	.91	.73	.76	.60	1.2	2.4	11	46	21	53	23	5.0
26	.85	.79	.74	.60	1.1	2.8	9.0	49	21	49	23	3.3
27	.78	.77	.70	.62	1.0	1.6	6.6	60	19	49	22	3.1
28	.79	.73	.64	.64	1.0	2.3	7.6	115	19	48	22	3.6
29	.82	.72	.68	.64	---	3.2	8.5	120	19	48	22	3.3
30	.80	.72	.68	.64	---	4.8	7.4	111	18	48	19	3.1
31	.76	---	.68	.64	---	4.2	---	102	---	47	17	---
TOTAL	36.05	23.91	22.26	19.90	19.22	51.70	249.8	1765.3	1653	953	804	182.6
MEAN	1.16	.80	.72	.64	.69	1.67	8.33	56.9	55.1	30.7	25.9	6.09
MAX	1.9	.92	.76	.68	1.2	4.8	32	128	126	57	47	17
MIN	.76	.72	.64	.60	.56	.90	2.3	5.7	18	11	17	2.7
AC-FT	72	47	44	39	38	103	495	3500	3280	1890	1590	362
CAL YR 1985	TOTAL	4630.24		MEAN	12.7	MAX	92	MIN	.64	AC-FT	9180	
WTR YR 1986	TOTAL	5780.74		MEAN	15.8	MAX	128	MIN	.56	AC-FT	11470	

YELLOWSTONE RIVER BASIN

06311400 NORTH FORK POWDER RIVER BELOW PASS CREEK, NEAR MAYOWORTH, WY

LOCATION.--Lat 43°54'41", long 106°53'20", in NW1/4 NE1/4 SE1/4 sec.36, T.46 N., R.84 W., Johnson County, Hydrologic Unit 10090201, on left bank 0.8 mi downstream from Pass Creek, 1.2 mi upstream from Hat Ranch, 7.2 mi northwest of Mayoworth, and 13 mi downstream from Dullknife Reservoir.

DRAINAGE AREA.--100 mi².

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,700 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 15, 1983, at site 60 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 10, Nov. 18 to Dec. 17, and Feb. 7-16. Records good except those for estimated daily discharges, which are fair. Some regulation for irrigation by Dullknife Reservoir 13 mi upstream, capacity, 4,350 acre-ft.

AVERAGE DISCHARGE.--13 years, 34.9 ft³/s, 25,290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,590 ft³/s, Aug. 1, 1984, gage height, 8.89 ft, from floodmarks, from rating curve extended above 400 ft³/s, on basis of slope-area measurement of peak flow; minimum daily discharge, 13 ft³/s, Feb. 5, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 246 ft³/s, July 26, gage height, 4.89 ft; minimum daily, 15 ft³/s, Dec. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	20	17	18	17	17	25	27	122	26	60	32
2	24	20	17	18	17	17	25	31	124	25	59	30
3	24	20	18	18	17	17	22	38	111	24	53	29
4	22	20	18	18	17	17	20	43	121	25	52	28
5	22	20	18	18	17	17	19	35	117	29	51	28
6	22	19	18	18	17	17	19	29	106	28	50	28
7	22	19	18	18	16	17	22	25	97	27	49	23
8	22	20	18	18	16	17	39	23	137	26	47	21
9	22	20	18	18	16	17	77	22	156	26	39	20
10	21	19	17	18	16	18	56	42	110	25	37	23
11	21	19	16	18	16	18	39	127	92	25	36	20
12	21	20	17	18	17	18	29	131	74	25	35	19
13	21	20	18	18	17	19	30	132	75	24	35	18
14	21	20	18	18	17	18	22	119	70	22	35	18
15	21	20	18	18	17	18	22	78	67	22	34	19
16	21	20	18	18	17	18	21	76	60	23	29	18
17	21	20	18	18	18	18	25	75	52	22	30	18
18	21	19	19	18	18	18	22	75	46	21	31	18
19	21	18	19	18	18	17	21	77	45	50	30	18
20	20	17	19	18	18	17	21	77	47	58	31	18
21	21	17	19	17	17	17	36	67	44	61	31	18
22	21	17	19	17	17	17	82	65	39	62	30	18
23	21	16	19	18	17	17	70	63	35	62	32	18
24	21	17	19	18	17	17	52	62	34	63	32	19
25	20	18	19	17	18	17	47	60	34	62	32	21
26	20	18	19	17	17	17	37	61	33	63	33	19
27	20	18	17	18	17	17	30	67	31	57	32	19
28	20	18	15	18	17	18	28	119	30	56	32	19
29	20	18	20	18	---	21	31	134	30	56	32	20
30	20	18	20	18	---	21	28	131	28	60	32	19
31	20	---	18	18	---	28	---	122	---	60	29	---
TOTAL	659	565	561	554	476	557	1017	2233	2167	1215	1170	636
MEAN	21.3	18.8	18.1	17.9	17.0	18.0	33.9	72.0	72.2	39.2	37.7	21.2
MAX	25	20	20	18	18	28	82	134	156	63	60	32
MIN	20	16	15	17	16	17	19	22	28	21	29	18
AC-FT	1310	1120	1110	1100	944	1100	2020	4430	4300	2410	2320	1260
CAL YR 1985	TOTAL	11122	MEAN	30.5	MAX	122	MIN	15	AC-FT	22060		
WTR YR 1986	TOTAL	11810	MEAN	32.4	MAX	156	MIN	15	AC-FT	23430		

06312500 POWDER RIVER NEAR KAYCEE, WY

LOCATION.--Lat 43°41'35", long 106°31'48", in NE1/4 NW1/4 SW1/4 sec.13, T.43 N., R.81 W., Johnson County, Hydrologic Unit 10090202, at former gaging station at D Ranch, 600 ft downstream from headgate of Sussex Irrigation Canal, 2.0 mi downstream from confluence of North and Middle Forks, and 6.0 mi east of Kaycee.

DRAINAGE AREA.--980 mi², approximately.

PERIOD OF RECORD.--Water years 1946-47, 1949-54, 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CAC03)
OCT 03...	1115	77	1320	--	8.4	8.5	629	9.5	98	66	520
DEC 02...	1230	140	--	1230	--	0.0	--	--	--	--	480
JAN 08...	1330	91	1120	--	8.4	0.0	640	12.8	105	K21	480
FEB 18...	1345	160	--	1090	--	0.5	--	--	--	--	390
MAR 26...	1000	105	1150	--	8.2	6.0	647	11.2	105	600	470
MAY 05...	1530	E709	360	--	8.5	11.5	--	9.4	--	1900	210
JUN 02...	1910	157	--	574	--	22.5	--	--	--	--	210
JUN 20...	0830	37	--	900	--	19.0	--	--	--	--	340
AUG 04...	1000	0.46	--	1580	--	20.5	--	--	--	--	570
AUG 28...	1300	0.65	1520	--	8.3	23.0	650	8.8	122	K31	570

E-Estimate.

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT 03...	130	48	100	2	3.4	200	430	55	0.4	8.2
DEC 02...	120	45	85	2	2.7	221	370	60	0.3	10
JAN 08...	120	45	84	2	2.5	200	360	51	0.3	8.7
FEB 18...	97	35	87	2	3.4	159	380	37	0.4	9.2
MAR 26...	120	42	77	2	2.8	180	350	50	0.3	3.4
MAY 05...	54	19	39	1	1.5	130	140	24	0.3	8.5
JUN 02...	54	19	39	1	1.5	130	140	24	0.3	8.5
JUN 20...	85	31	70	2	2.1	170	250	39	0.3	8.0
AUG 04...	140	53	150	3	4.3	200	530	75	0.4	5.7
AUG 28...	140	54	150	3	4.3	200	540	81	0.5	8.6

YELLOWSTONE RIVER BASIN

06312500 POWDER RIVER NEAR KAYCEE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 03...	1060	890	1.4	220	0.20	0.18	0.17	0.43	0.6	0.10
DEC 02...	855	830	1.2	323	--	0.57	--	--	--	--
JAN 08...	--	790	1.1	194	0.60	0.50	0.13	0.27	0.4	0.07
FEB 18...	755	740	1.0	326	--	0.89	--	--	--	--
MAR 26...	--	750	1.0	214	<0.10	0.00	0.03	0.27	0.3	0.03
MAY 05...	--	360	0.5	--	0.30	0.10	0.08	2.1	2.2	0.51
JUN 02...	--	360	0.5	154	--	0.10	--	--	--	0.36
20...	--	590	0.8	59	--	0.10	--	--	--	0.29
AUG 04...	--	1100	1.5	1.3	--	0.00	--	--	--	0.08
28...	--	1100	1.5	1.9	<0.10	0.00	0.05	0.25	0.3	0.04

YELLOWSTONE RIVER BASIN

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06313400 SALT CREEK NEAR SUSSEX, WY

LOCATION.--Lat 43°37'19", long 106°22'04", in NE1/4 NE1/4 SE1/4 sec.8, T.42 N., R.79 W., Johnson County, Hydrologic Unit 10090204, on left bank 200 ft upstream from bridge on West Sussex Dugout oil field road, 6.3 mi southwest of Sussex, and 12.6 mi upstream from mouth.

DRAINAGE AREA.--769 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1976 to September 1981, October 1982 to current year.

REVISED RECORDS.--WDR WY-85-1: 1981.

GAGE.--Water-stage recorder. Elevation of gage is 4,480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 9 to Feb. 19. Records fair, except those for estimated daily discharges, which are poor. Some regulation by Lower Salt Creek Reservoir, capacity, 2,710 acre-ft.

AVERAGE DISCHARGE.--9 years (water years 1977-81, 1983-86), 49.2 ft³/s, 35,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,200 ft³/s, May 18, 1978, gage height, 9.88 ft, from floodmark, from rating curve extended above 2,300 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 12 ft³/s, Aug. 21-25, Sept. 5, 6, 17, 18, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 18	2100	ice jam	*4.79	No other peaks greater than base discharge.			
Sept. 10	2100	*1410	4.72				

Minimum daily discharge, 19 ft³/s, Nov. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	39	25	33	51	60	45	50	38	33	32	34
2	37	40	28	32	55	58	45	50	36	33	30	162
3	35	41	30	32	59	54	44	46	34	33	31	62
4	38	41	33	32	59	53	50	44	38	32	31	42
5	35	40	35	28	53	52	51	45	40	31	31	39
6	37	40	37	32	46	56	51	52	243	31	30	37
7	36	38	36	33	39	58	50	208	85	34	31	38
8	35	39	34	34	35	63	134	224	56	34	31	39
9	37	34	32	36	32	74	62	187	83	33	31	40
10	37	27	30	37	31	73	50	72	48	44	31	330
11	37	23	28	39	31	67	45	54	41	35	31	502
12	37	25	29	38	33	65	45	42	37	32	32	70
13	37	27	31	38	37	66	45	40	37	31	32	48
14	37	32	33	38	43	66	49	38	38	30	33	43
15	37	36	35	38	50	69	86	38	33	30	35	43
16	37	38	35	38	79	79	86	37	33	32	32	41
17	37	34	36	38	96	75	58	42	32	30	31	41
18	37	30	37	40	113	70	108	42	32	43	32	40
19	37	22	35	44	178	61	61	42	32	33	31	39
20	37	21	34	43	97	66	54	41	90	34	30	39
21	38	20	35	42	77	67	53	45	96	56	31	39
22	38	19	35	40	72	59	52	44	44	48	32	39
23	36	22	36	42	82	57	50	44	40	36	32	38
24	37	23	35	43	72	55	56	43	41	34	33	40
25	35	22	36	42	87	54	70	43	34	36	34	147
26	37	21	35	41	82	52	60	42	33	35	33	60
27	39	23	34	42	69	51	60	41	32	34	32	44
28	39	24	33	42	61	50	53	41	33	33	31	38
29	38	23	32	42	---	49	53	40	61	31	32	35
30	38	24	32	43	---	47	52	40	39	31	32	34
31	38	---	33	47	---	46	---	40	---	31	42	---
TOTAL	1147	888	1029	1189	1819	1872	1778	1857	1559	1073	992	2243
MEAN	37.0	29.6	33.2	38.4	65.0	60.4	59.3	59.9	52.0	34.6	32.0	74.8
MAX	39	41	37	47	178	79	134	224	243	56	42	502
MIN	35	19	25	28	31	46	44	37	32	30	30	34
AC-FT	2280	1760	2040	2360	3610	3710	3530	3680	3090	2130	1970	4450
CAL YR 1985	TOTAL	14094		MEAN	38.6	MAX	630	MIN	19	AC-FT	27960	
WTR YR 1986	TOTAL	17446		MEAN	47.8	MAX	502	MIN	19	AC-FT	34600	

YELLOWSTONE RIVER BASIN

06313400 SALT CREEK NEAR SUSSEX, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949, 1952, 1968 to 1981, October 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)
OCT 01...	1000	36	6620	5.5	270	49	35	1400	38	12	838
NOV 07...	1200	37	6670	4.0	230	34	35	1500	44	13	918
DEC 16...	0930	35	6340	0.0	190	35	25	1500	48	16	958
JAN 21...	1200	42	6250	0.0	260	40	38	1400	39	11	787
FEB 19...	1100	178	3770	3.0	390	77	49	730	16	8.8	330
APR 07...	0845	48	6550	10.0	420	60	65	1400	30	12	790
MAY 07...	1150	335	2920	6.5	410	87	48	510	11	7.2	200
JUN 02...	1345	36	6410	24.5	230	33	35	1400	41	14	830
JUL 17...	1100	31	6400	22.0	180	29	27	1500	49	13	920
AUG 29...	1040	31	6350	18.5	150	22	22	1400	51	13	990

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 01...	670	1200	2.3	21	4060	3900	5.5	395	<0.10	--
NOV 07...	760	1400	2.3	22	4060	4300	5.5	406	<0.10	--
DEC 16...	550	1400	2.4	21	3800	4100	5.2	359	<0.10	--
JAN 21...	810	1300	2.2	20	3870	4100	5.3	439	<0.10	--
FEB 19...	1100	410	1.0	7.7	2430	2600	3.3	1170	0.32	--
APR 07...	1100	1000	1.6	23	--	4100	5.6	536	0.00	0.10
MAY 07...	1000	170	0.3	5.1	--	1900	2.6	1760	0.50	10.9
JUN 02...	750	1200	2.3	25	--	4000	5.4	385	0.10	0.13
JUL 17...	560	1300	2.4	23	--	4000	5.4	335	0.10	0.13
AUG 29...	500	1100	2.1	28	--	3700	5.0	308	0.10	0.03

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
DEC 16...	0930	35	0.0	170	16

06313500 POWDER RIVER AT SUSSEX, WY

LOCATION.--Lat 43°41'44", long 106°18'24", in SW1/4 SW1/4 NW1/4 sec.13, T.43 N., R.79 W., Johnson County, Hydrologic Unit 10090202, on left bank 0.5 mi upstream from bridge on State Highway 192, 0.6 mi west of Sussex, and 2.7 mi downstream from Salt Creek.

DRAINAGE AREA.--3.090 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to June 1940, February 1950 to September 1957, October 1977 to September 1984, October 1985 to September 1986.

REVISED RECORDS.--WDR WY-80-1: 1979(M), 1979.

GAGE.--Water-stage recorder. Elevation of gage is 4,365.28 ft above National Geodetic Vertical datum of 1929. Prior to June 30, 1940, nonrecording gage about 500 ft downstream from State Highway 192 at datum 4,363.23 ft, National Geodetic Vertical Datum of 1929. Feb. 8, 1950, to Sept. 30, 1957, water-stage recorder about 600 ft downstream from State Highway 192 at datum 4,362.16 ft. Oct. 1977, to Apr. 8, 1983, water-stage recorder 10 ft downstream from State Highway 192 at datum 4,362.95 ft.

REMARKS.--Estimated daily discharges: Oct. 5 to Nov. 6, Nov. 9 to Feb. 24, May 10 to June 1, June 19 to July 16, and Sept. 29, 30. Records fair except those for estimated daily discharges, which are poor. Numerous small reservoirs and diversions for irrigation of about 17,000 acres upstream from station.

AVERAGE DISCHARGE.--16 years (water years 1939, 1951-57, 1978-84, 1986), 199 ft³/s, 144,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,500 ft³/s, May 23, 1952, elevation, 4,374.76 ft, from floodmarks, site then in use, from rating curve extended above 1,500 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 1.5 ft³/s, Aug. 25, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1923, reached an elevation of 4,375.75 ft at site about 600 ft downstream from State Highway 192, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Sept. 11	0500	*2,000	*6.43	No other peak greater than base discharge.			
Minimum daily discharge, 33 ft ³ /s, Aug. 8.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	131	84	113	198	200	170	408	272	62	40	129
2	122	131	83	118	210	192	168	413	201	57	38	137
3	125	131	95	119	220	185	167	467	194	52	42	117
4	134	131	105	109	201	175	184	570	284	45	42	62
5	137	130	112	99	180	178	200	694	251	41	44	50
6	144	128	124	91	158	173	194	583	417	40	36	47
7	143	129	132	98	138	166	191	835	405	39	37	48
8	137	133	138	100	117	164	333	950	233	39	33	47
9	137	122	130	104	99	169	287	846	406	39	37	44
10	141	96	123	109	86	180	326	695	385	39	42	136
11	148	92	113	111	83	173	332	580	368	43	40	1230
12	146	90	101	118	104	155	303	525	215	44	36	301
13	142	92	103	121	112	160	287	545	190	41	37	155
14	141	95	110	129	118	157	298	520	168	40	38	120
15	140	113	116	132	145	160	319	495	149	38	41	109
16	136	121	119	139	230	160	341	440	133	36	42	106
17	134	124	126	141	259	160	308	445	118	38	40	101
18	133	107	130	146	330	162	375	430	103	44	41	101
19	134	77	138	150	500	157	319	420	90	53	38	106
20	140	74	141	156	365	157	294	420	84	40	37	124
21	141	70	142	162	288	169	296	440	80	60	49	121
22	138	66	140	159	318	171	306	470	98	81	37	114
23	131	70	142	147	340	158	451	405	110	87	38	111
24	129	77	147	149	280	151	625	350	94	70	40	111
25	130	82	146	151	398	145	674	305	83	54	39	207
26	131	81	147	146	361	141	605	275	70	58	44	221
27	130	85	140	140	275	145	521	255	65	49	39	172
28	125	90	134	149	232	137	463	238	64	45	36	153
29	124	89	116	169	---	139	422	235	62	41	36	140
30	126	87	107	170	---	146	419	300	58	38	37	130
31	129	---	110	182	---	151	---	380	---	41	42	---
TOTAL	4176	3044	3794	4127	6345	5036	10178	14934	5450	1494	1218	4750
MEAN	135	101	122	133	227	162	339	482	182	48.2	39.3	158
MAX	148	133	147	182	500	200	674	950	417	87	49	1230
MIN	122	66	83	91	83	137	167	235	58	36	33	44
AC-FT	8280	6040	7530	8190	12590	9990	20190	29620	10810	2960	2420	9420
WTR YR 1986	TOTAL	64546		MEAN	177	MAX	1230	MIN	33	AC-FT	128000	

YELLOWSTONE RIVER BASIN

06313500 POWDER RIVER AT SUSSEX, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-53, 1967-68, 1976 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1983 to September 1984.

WATER TEMPERATURE: October 1982 to September 1984.

SUSPENDED-SEDIMENT DISCHARGE: May 1983 to September 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT 03...	1330	129	7.0	510	120	50	540	11	6.8	378	610
NOV 07...	1615	135	6.0	420	90	48	550	12	6.1	408	530
DEC 16...	1340	119	0.0	410	100	39	480	11	6.2	378	450
JAN 21...	1500	163	0.0	450	110	43	440	9	5.7	345	590
FEB 25...	1320	396	2.5	580	130	62	420	8	7.1	273	940
APR 07...	1230	188	14.0	160	42	14	93	3	2.1	140	140
MAY 05...	1820	838	13.0	160	42	14	93	3	2.1	140	140
JUN 02...	1700	211	26.0	250	59	25	300	9	4.2	260	330
JUL 17...	1440	43	29.0	290	50	39	1200	32	13	650	660
AUG 29...	1415	38	26.0	210	31	33	1300	39	14	850	660
SEP 11...	1250	1370	14.0	--	--	--	--	--	--	--	--

DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 03...	430	0.9	11	1960	2000	2.7	683	0.16	--	--	--
NOV 07...	510	1.0	10	1880	2000	2.6	685	<0.10	478	174	--
DEC 16...	430	0.9	13	1670	1700	2.3	537	0.52	258	83	--
JAN 21...	360	0.8	11	1700	1800	2.3	748	0.65	477	210	--
FEB 25...	280	0.8	10	2050	2000	2.8	2190	0.64	8850	9460	--
APR 07...	68	0.2	7.5	--	450	0.61	229	0.30	926	470	--
MAY 05...	68	0.2	7.5	--	450	0.61	1020	0.30	6480	14700	--
JUN 02...	200	0.5	12	--	1100	1.5	619	0.10	1460	832	--
JUL 17...	1000	1.7	19	--	3400	4.6	392	0.00	460	53	--
AUG 29...	1000	2.0	25	--	3600	4.9	367	0.00	408	42	97
SEP 11...	--	--	--	--	--	--	--	--	42300	156000	--

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
FEB 25...	1320	44	55	69
MAY 05...	1820	29	36	46
JUN 09...	0930	55	67	80

06313700 DEAD HORSE CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°12'54", long 106°06'41", in NW1/4 SE1/4 SW1/4 sec.15, T.49 N., R.77 W., Johnson County, Hydrologic Unit 10090202, on right bank 250 ft downstream from bridge on dirt road, 0.8 mi upstream from Interstate Highway 90, 5.3 mi upstream from mouth, and 31 mi east of Buffalo.

DRAINAGE AREA.--151 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum, water years 1958-71. October 1971 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,970 ft above National Geodetic Vertical Datum of 1929, from topographic map. Oct. 1, 1958, to Sept. 30, 1971, crest-stage gage at site 250 ft upstream at present datum. Nov. 24, 1971, to July 15, 1976, water-stage recorder at site 0.3 mi upstream at different datum. July 16, 1976, to July 18, 1984, at site 250 ft upstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 10 to May 12, and Sept. 20-30. Records poor.

AVERAGE DISCHARGE.--15 years, 2.49 ft³/s, 1,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,460 ft³/s, Sept. 18, 1986, gage height, 10.95 ft, from floodmarks, from rating curve extended above 640 ft³/s on basis of contracted-opening and flow-over-road measurement of peak flow; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 5	2300	a1,400	b9.72	Sept. 18	1900	a*3,460	b*10.95

a-From rating curve extended above 640 ft³/s on basis of contracted opening and flow-over-road measurement of peak flow.

b-From floodmarks.

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.05	.00	.00	.06	.42	.16	.05	.12	.03	.04	5.1
2	.02	.05	.01	.00	.07	.32	.16	.05	.22	.00	.04	28
3	.03	.05	.02	.00	.09	.29	.14	.05	.14	.00	.03	5.9
4	.03	.05	.04	.00	.08	.26	.13	.04	3.6	.00	.05	.20
5	.03	.07	.04	.00	.06	.23	.16	.04	70	.00	.07	.79
6	.03	.09	.03	.00	.03	.20	.12	.04	39	.00	.04	.22
7	.02	.09	.01	.00	.00	.17	.10	.03	.22	.00	.01	.12
8	.02	.11	.00	.00	.00	.15	.08	.12	54	.01	.00	.11
9	.02	.11	.00	.02	.00	.13	.07	.27	31	.01	.01	.46
10	.02	.09	.00	.04	.00	.12	.06	1.8	2.0	.01	.02	12
11	.02	.08	.00	.10	.00	.12	.05	.48	.36	.02	.01	2.6
12	.02	.06	.00	.07	.00	.10	.04	.14	.09	.02	.01	.14
13	.02	.04	.00	.06	.00	.09	.05	.06	.07	.01	.01	.09
14	.02	.04	.00	.07	.00	.08	.05	.05	.06	.01	.01	.18
15	.02	.06	.00	.08	.04	.08	.05	.04	.06	.02	.01	.07
16	.02	.08	.01	.10	.05	.08	.05	.04	.07	.02	.00	.08
17	.02	.09	.01	.08	.05	.07	.05	.04	.09	.03	.00	.03
18	.02	.06	.01	.07	.05	.09	.05	.04	.08	.02	.00	280
19	.02	.04	.01	.09	.05	.08	.05	.04	.09	.02	.00	26
20	.02	.03	.01	.08	.05	.10	.05	.04	.09	.01	.00	1.2
21	.03	.01	.01	.04	.05	.12	.04	.04	.08	.02	.00	.17
22	.04	.00	.01	.00	.04	.10	.04	.05	.07	.03	.00	.07
23	.04	.00	.01	.00	.05	.09	.04	.06	.07	.02	.00	.05
24	.04	.00	.00	.00	.21	.08	.04	.05	.06	.02	.00	2.5
25	.04	.00	.00	.00	2.2	.08	.05	.05	.05	.03	.00	32
26	.04	.00	.00	.02	4.9	.07	.06	.05	.05	.04	.00	3.1
27	.04	.00	.00	.04	2.2	.07	.08	.04	.05	.11	.00	.35
28	.04	.00	.00	.02	.67	.07	.08	.04	.04	.05	.00	.16
29	.04	.00	.00	.00	---	.08	.07	.05	.04	.02	.00	.06
30	.05	.00	.00	.02	---	.11	.06	.06	11	.00	.00	.02
31	.05	---	.00	.04	---	.14	---	.07	---	.00	.00	---
TOTAL	.89	1.35	.23	1.04	11.00	4.19	2.23	4.02	212.87	.58	.36	401.77
MEAN	.03	.04	.01	.03	.39	.14	.07	.13	7.10	.02	.01	13.4
MAX	.05	.11	.04	.10	4.9	.42	.16	1.8	70	.11	.07	280
MIN	.02	.00	.00	.00	.00	.07	.04	.03	.04	.00	.00	.02
AC-FT	1.8	2.7	.5	2.1	22	8.3	4.4	8.0	422	1.2	.7	797
CAL YR 1985	TOTAL	142.97		MEAN	.39	MAX	52	MIN	.00	AC-FT	284	
WTR YR 1986	TOTAL	640.53		MEAN	1.75	MAX	280	MIN	.00	AC-FT	1270	

YELLOWSTONE RIVER BASIN

06313700 DEAD HORSE CREEK NEAR BUFFALO, WY--Continued

WATER-QUALITY DATA

PERIOD OF RECORD.--Water year 1981, June 1986.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
JUN				
05...	2312	28	48	62
30...	0548	56	75	89

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY

LOCATION.--Lat 44°29'28", long 106°10'38", in NE1/4 SW1/4 SW1/4 sec.7, T.52 N., R.77 W., Johnson County, Hydrologic Unit 10090205, 1.1 mi upstream from Jewell Draw, 5.0 mi upstream from mouth, and 11 mi south of Arvada.

DRAINAGE AREA.--945 mi², approximately.

PERIOD OF RECORD.--Water years 1967 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 12...	1815	159	20.0	<0.01	0.06	<0.01	<0.01	<0.01	<0.01
JUL 09...	1215	11	20.5	0.03	0.08	<0.01	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN

06317000 POWDER RIVER AT ARVADA, WY

LOCATION.--Lat 44°39'00", long 106°07'37", in SW1/4 SE1/4 sec.16, T.54 N., R.77 W., Sheridan County, Hydrologic Unit 10090202, on right bank 0.1 mi downstream from bridge on county road, 0.2 mi southeast of Arvada, and 0.2 mi upstream from Wild Horse Creek.

DRAINAGE AREA.--6,050 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1919 to current year (no winter records in water years 1919-30, 1934). Records for Feb. 16-23, 1930, published in WSP 701, are unreliable and should not be used.

REVISED RECORDS.--WSP 1509: 1921(M), 1923(M), 1924-26, 1927-28(M), 1929, 1930(M), 1931, 1932(M), 1933, 1934(M), 1935-36. See PERIOD OF RECORD.

GAGE.--Water-stage recorder. Elevation of gage is 3,620 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 24, 1938, nonrecording gage at bridge 0.2 mi upstream at datum 3,621.87 ft. Oct. 24, 1938 to Apr. 27, 1983, at site 0.7 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 9 to Mar. 11, and Aug. 17-30. Records fair except those for estimated daily discharges, which are poor. Numerous small reservoirs and diversions for irrigation of about 29,000 acres upstream from station.

AVERAGE DISCHARGE.--55 years (water years 1931-33, 1935-86), 279 ft³/s, 202,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 100,000 ft³/s, Sept. 29, 1923, gage height, 23.7 ft, from floodmarks, site and datum then in use, from rating curve extended above 20,000 ft³/s; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 23	2330	ice jam	*5.43	June 9	0830	*3,510	5.26
June 4	1230	2,830	4.82				

Minimum daily discharge, 8.3 ft³/s, Aug. 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	124	58	130	180	665	183	423	294	87	33	67
2	134	124	55	121	186	638	194	414	635	76	33	192
3	134	134	56	110	196	576	235	407	343	73	26	233
4	134	120	62	107	205	522	255	371	1170	87	23	144
5	129	124	70	103	212	488	287	459	568	80	20	120
6	160	139	77	108	225	450	248	615	542	67	18	95
7	177	154	146	111	225	480	236	765	508	61	17	87
8	188	171	181	111	220	445	242	850	818	53	20	70
9	135	149	152	106	198	414	224	1160	2460	49	20	67
10	124	112	129	100	173	408	327	1170	1150	48	17	106
11	149	79	110	103	156	410	356	845	853	48	16	144
12	154	60	95	106	130	423	399	608	696	48	16	675
13	149	66	94	110	114	364	459	492	534	48	18	805
14	149	72	98	113	100	301	421	551	400	48	18	425
15	139	79	101	119	82	231	385	590	336	55	16	237
16	134	92	106	128	91	247	392	561	314	55	14	178
17	129	118	110	130	109	242	422	508	294	50	12	144
18	120	137	113	136	128	255	474	488	248	50	11	134
19	120	107	120	141	153	261	442	499	218	45	10	1070
20	115	77	127	144	187	255	475	483	188	41	9.6	292
21	124	62	131	149	236	255	444	475	154	48	9.3	160
22	124	50	138	153	260	261	386	481	149	39	9.1	154
23	120	53	144	159	495	274	336	515	205	61	9.0	149
24	124	56	146	163	636	274	345	538	218	48	9.0	154
25	115	60	144	169	445	255	521	484	155	39	8.8	239
26	120	58	144	162	480	242	692	392	120	43	8.7	287
27	124	54	147	156	540	218	694	343	102	50	8.4	165
28	127	58	149	153	600	212	650	307	95	64	8.3	217
29	115	63	148	159	---	206	559	281	91	48	8.3	224
30	115	60	140	161	---	188	484	261	87	39	10	188
31	120	---	134	161	---	183	---	261	---	33	17	---
TOTAL	4103	2812	3625	4082	6962	10643	11767	16597	13945	1681	473.5	7222
MEAN	132	93.7	117	132	249	343	392	535	465	54.2	15.3	241
MAX	188	171	181	169	636	665	694	1170	2460	87	33	1070
MIN	102	50	55	100	82	183	183	261	87	33	8.3	67
AC-FT	8140	5580	7190	8100	13810	21110	23340	32920	27660	3330	939	14320
CAL YR 1985	TOTAL	49243		MEAN	135	MAX	682	MIN	15	AC-FT	97670	
WTR YR 1986	TOTAL	83912.5		MEAN	230	MAX	2460	MIN	8.3	AC-FT	166400	

06317000 POWDER RIVER AT ARVADA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-57, 1968 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: March 1949 to September 1957, October 1967 to September 1978.

SUSPENDED-SEDIMENT DISCHARGE: April 1946 to September 1957, October 1967 to September 1971, January 1975 to September 1978, April 1983 to September 1984.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)
OCT 21...	1230	129	3000	9.0	550	120	61	490	9	7.7	290
DEC 02...	1630	54	4200	0.0	840	180	94	690	11	7.9	548
JAN 16...	1100	128	2700	0.0	510	120	52	470	9	5.8	390
FEB 21...	1030	236	3080	0.0	600	150	55	550	10	7.8	386
APR 07...	1415	224	2450	17.0	440	93	50	360	8	6.2	270
MAY 06...	1400	703	1480	13.5	290	66	30	230	6	4.5	210
12...	1400	613	2020	8.5	380	89	38	320	7	5.7	150
JUN 12...	1630	730	1760	21.5	450	120	36	220	5	5.7	180
JUL 09...	0920	50	4150	19.0	770	170	83	710	11	11	260
AUG 18...	1430	11	6000	32.0	600	90	90	1100	20	13	338

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 21...	740	370	0.7	7.7	--	2000	2.7	686	0.00	1.10
DEC 02...	970	650	0.9	14	2760	2900	3.8	402	0.53	--
JAN 16...	590	370	0.5	12	--	1900	2.5	641	0.30	0.26
FEB 21...	760	420	0.8	12	2150	2200	2.9	1370	0.51	--
APR 07...	510	280	0.6	7.9	--	1500	2.0	889	0.20	0.67
MAY 06...	340	140	0.3	5.9	--	940	1.3	1790	0.30	2.78
12...	770	86	0.3	7.6	--	1400	1.9	2330	0.90	1.90
JUN 12...	550	94	0.2	7.1	--	1100	1.6	2250	0.30	4.10
JUL 09...	1400	440	0.9	10	--	3000	4.1	402	0.60	0.75
AUG 18...	1200	860	0.9	7.5	4150	3600	5.6	123	<0.10	--

YELLOWSTONE RIVER BASIN

06317300 SOURDOUGH CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°14'11", long 106°58'06", in NW1/4 NE1/4 sec.9, T.49 N., R.84 W., Johnson County, Hydrologic Unit 10090206, Big Horn National Forest, on left bank 1.7 mi upstream from culvert on U.S. Highway 16, 4.7 mi upstream from mouth, and 15.4 mi southwest of Buffalo.

DRAINAGE AREA.--5.80 mi².

PERIOD OF RECORD.--January 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,980 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 8-13, 19-23, 25-28, Feb. 11-26, Mar. 28-31, Apr. 7-10, 12, 13, 27, 28, 30, and May 8, 10. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62 ft³/s, June 8, 1986, gage height, 2.84 ft, from rating curve extended above 24 ft³/s on basis of indirect measurement of peak flow; minimum daily discharge, 0.29 ft³/s, Jan. 11, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 62 ft³/s, June 8, gage height, 2.84 ft, from rating curve extended above 24 ft³/s on basis of indirect measurement of peak flow; minimum daily discharge, 0.30 ft³/s, Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.0	.69	.68	.51	.41	.94	2.6	21	9.7	2.3	3.1
2	1.4	1.0	.68	.68	.51	.41	.75	4.8	24	9.3	2.4	2.1
3	1.4	1.0	.74	.68	.51	.41	.62	7.2	24	8.6	2.2	1.7
4	1.2	1.0	.79	.66	.51	.41	.56	9.0	41	8.9	2.3	1.6
5	1.2	1.0	.78	.63	.47	.40	.56	6.8	30	10	2.1	1.6
6	1.3	.89	.78	.65	.47	.38	.82	4.4	29	7.7	2.1	1.7
7	1.5	.94	.78	.66	.47	.38	1.4	4.0	28	6.6	2.0	2.0
8	1.3	.83	.78	.63	.43	.38	2.2	3.8	49	6.3	2.0	1.9
9	1.2	.71	.78	.63	.38	.38	2.0	3.6	34	5.8	2.6	1.9
10	1.1	.77	.74	.63	.33	.38	1.4	4.0	27	5.5	2.1	6.2
11	1.0	.83	.74	.63	.30	.38	.87	5.0	24	5.7	1.9	3.4
12	.96	.89	.73	.63	.33	.38	.80	4.8	24	5.6	1.8	2.2
13	.98	.95	.69	.63	.34	.38	.76	4.5	23	4.8	1.9	2.2
14	.98	1.0	.68	.69	.36	.35	.61	4.8	22	4.4	1.8	2.2
15	.97	1.0	.68	.75	.39	.34	.62	4.6	21	4.6	1.6	2.0
16	1.0	1.0	.68	.60	.44	.34	1.0	4.2	20	4.3	1.5	1.7
17	1.0	1.0	.72	.59	.49	.35	.94	4.5	18	3.8	1.5	1.6
18	.99	1.0	.73	.55	.53	.35	.63	5.1	17	3.5	1.5	1.6
19	.98	.92	.73	.55	.49	.35	.61	6.1	16	3.5	1.4	1.7
20	.99	.89	.74	.55	.47	.35	.78	7.8	16	3.3	1.7	1.6
21	.99	.85	.78	.55	.44	.37	1.2	11	15	3.4	1.6	1.6
22	1.1	.81	.78	.55	.45	.40	2.7	11	14	3.2	1.5	1.6
23	1.1	.82	.80	.55	.45	.38	3.4	8.8	13	3.1	1.4	1.6
24	1.1	.84	.78	.55	.46	.43	3.3	7.7	12	3.3	1.4	1.7
25	1.1	.81	.75	.51	.44	.50	3.0	8.2	13	3.1	1.4	2.5
26	1.1	.78	.75	.48	.43	.44	2.3	9.9	12	3.0	1.5	1.8
27	1.1	.79	.69	.47	.41	.45	2.0	11	11	2.9	1.5	1.7
28	1.3	.79	.65	.49	.40	.66	2.1	12	11	2.7	1.4	1.7
29	1.1	.78	.66	.51	---	.93	2.3	13	11	2.6	1.4	1.7
30	1.0	.74	.68	.51	---	1.2	2.4	15	11	2.3	1.4	1.7
31	1.1	---	.68	.51	---	1.1	---	17	---	2.4	2.0	---
TOTAL	34.84	26.63	22.66	18.38	12.21	14.37	43.57	226.2	631	153.9	55.2	61.6
MEAN	1.12	.89	.73	.59	.44	.46	1.45	7.30	21.0	4.96	1.78	2.05
MAX	1.5	1.0	.80	.75	.53	1.2	3.4	17	49	10	2.6	6.2
MIN	.96	.71	.65	.47	.30	.34	.56	2.6	11	2.3	1.4	1.6
AC-FT	69	53	45	36	24	29	86	449	1250	305	109	122
CAL YR 1985	TOTAL	554.74		MEAN	1.52	MAX	6.6	MIN	.29	AC-FT	1100	
WTR YR 1986	TOTAL	1300.56		MEAN	3.56	MAX	49	MIN	.30	AC-FT	2580	

06317340 LITTLE SOURDOUGH CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°15'53", long 106°55'05", in NW1/4 NW1/4 sec.36, T.50 N., R.84 W., Johnson County, Hydrologic Unit 10090206, Big Horn National Forest, on left bank 0.8 mi downstream from Rabbit Creek, 0.9 mi upstream from mouth, and 12.3 mi southwest of Buffalo.

DRAINAGE AREA.--4.53 mi².

PERIOD OF RECORD.--January 1985 to current year.

GAGE.--Water-stage recorder and concrete crest. Elevation of gage is 7,750 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1 to Apr. 16. Records good except those for estimated daily discharges, which are poor. No diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17 ft³/s, Apr. 22, May 11, and June 8, 1986, gage height, 5.34 ft; maximum gage height unknown, sometime during period April 1-16, 1986 (backwater from ice); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17 ft³/s, Apr. 22, May 11, and June 8, gage height, 5.34 ft; maximum gage height unknown, sometime during period Apr. 1-16 (backwater from ice); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.01	.00	.00	.00	.00	1.1	1.7	1.7	.64	.24	1.5
2	.02	.01	.00	.00	.00	.01	.62	2.4	1.6	.53	.54	1.2
3	.07	.01	.00	.00	.00	.02	.35	3.0	1.8	.42	.27	.72
4	.09	.01	.00	.00	.00	.02	.24	3.4	7.8	.46	.28	.40
5	.05	.01	.00	.00	.00	.02	.34	3.0	3.5	.89	.35	.44
6	.09	.01	.00	.00	.00	.02	.70	2.4	2.3	.65	.15	.56
7	.12	.01	.00	.00	.00	.02	1.2	2.8	2.1	.33	.10	.83
8	.09	.01	.00	.00	.00	.02	1.8	2.6	13	.35	.37	.54
9	.07	.00	.00	.00	.00	.02	2.5	2.5	8.8	.35	1.1	.67
10	.06	.00	.00	.00	.00	.02	2.2	3.5	4.0	.39	.46	4.7
11	.04	.00	.00	.00	.00	.01	1.9	9.3	2.4	.59	.25	1.8
12	.03	.00	.00	.00	.00	.01	1.6	6.0	2.1	.61	.14	.71
13	.03	.00	.00	.00	.00	.00	1.5	3.9	2.1	.34	.14	.53
14	.03	.00	.00	.00	.00	.00	1.8	3.5	1.9	.21	.13	.45
15	.03	.00	.00	.00	.00	.00	2.1	2.8	1.7	.20	.10	.43
16	.03	.00	.00	.00	.00	.00	3.1	2.8	1.5	.26	.07	.34
17	.03	.00	.00	.00	.00	.00	2.5	2.7	1.2	.23	.04	.30
18	.02	.00	.00	.00	.00	.00	1.8	2.7	1.1	.13	.05	.32
19	.02	.00	.00	.00	.00	.00	1.5	2.8	1.1	.12	.01	.46
20	.02	.00	.00	.00	.00	.00	1.4	3.0	1.6	.12	.02	.34
21	.02	.00	.00	.00	.00	.01	2.4	3.1	1.2	.25	.04	.25
22	.02	.00	.00	.00	.00	.02	7.2	3.0	1.2	.37	.05	.23
23	.01	.00	.00	.00	.00	.03	6.2	2.7	.96	.28	.03	.28
24	.01	.00	.00	.00	.00	.03	3.7	2.6	.81	.55	.01	.33
25	.01	.00	.00	.00	.00	.04	4.3	2.6	.80	.46	.01	1.0
26	.01	.00	.00	.00	.00	.07	3.3	2.4	1.0	.54	.04	.48
27	.01	.00	.00	.00	.00	.10	2.8	2.2	.75	.61	.25	.37
28	.01	.00	.00	.00	.00	.20	2.3	2.2	.74	.26	.15	.34
29	.01	.00	.00	.00	---	.39	2.3	1.9	.81	.16	.04	.32
30	.01	.00	.00	.00	---	.83	1.9	1.9	.85	.08	.05	.30
31	.01	---	.00	.00	---	1.5	---	1.8	---	.15	.63	---
TOTAL	1.07	.08	.00	.00	.00	3.41	66.65	93.2	72.42	11.53	6.11	21.14
MEAN	.03	.00	.00	.00	.00	.11	2.22	3.01	2.41	.37	.20	.70
MAX	.12	.01	.00	.00	.00	1.5	7.2	9.3	13	.89	1.1	4.7
MIN	.00	.00	.00	.00	.00	.00	.24	1.7	.74	.08	.01	.23
AC-FT	2.1	.2	.00	.00	.00	6.8	132	185	144	23	12	42
CAL YR 1985	TOTAL	130.43	MEAN	.36	MAX	7.1	MIN	.00	AC-FT	259		
WTR YR 1986	TOTAL	275.61	MEAN	.76	MAX	13	MIN	.00	AC-FT	547		

YELLOWSTONE RIVER BASIN

06318500 CLEAR CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°19'58", long 106°46'36", in SE1/4 SW1/4 NW1/4 sec.6, T.50 N., R.82 W., Johnson County, Hydrologic Unit 10090206, on left bank 500 ft upstream from abandoned Pacific Power & Light Company powerplant, 2.0 mi downstream from Mosier Gulch, and 4.0 mi west of Buffalo.

DRAINAGE AREA.--120 mi².

PERIOD OF RECORD.--April to September 1894, May to September 1896, May 1897 to December 1899, June 1917 to October 1927, April 1938 to current year. Published as "at Buffalo" 1897-98. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1896, 1898, 1938, 1939(M), 1945(M). WSP 1729: 1921.

GAGE.--Water-stage recorder. Elevation of gage is 5,184.83 ft above National Geodetic Vertical Datum of 1929. See WSP 1916 for history of changes prior to 1961.

REMARKS.--Estimated daily discharges: Nov. 11-13, 18-30, Dec. 1-3, 9-13, Jan. 26, and Feb. 8-16, 25, 26. Records good except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 330 acres, of which about 320 acres are downstream from station.

AVERAGE DISCHARGE.--60 years (water years 1898-99, 1918-27, 1939-86), 63.6 ft³/s, 46,080 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,420 ft³/s, June 15, 1963, gage height, 6.19 ft, from rating curve extended above 900 ft³/s on basis of velocity-area study; no flow Feb. 14-16, 1939, Nov. 12, 13, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 4	1100	*852	*4.27	June 9	0300	791	4.16

Minimum daily discharge, 7.7 ft³/s, Nov. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	18	13	12	11	13	21	42	441	160	44	45
2	32	21	14	12	11	13	21	52	547	135	46	44
3	31	20	14	12	11	12	16	77	518	126	43	38
4	27	19	15	12	11	12	16	133	726	121	42	34
5	26	19	15	12	11	12	15	183	573	165	42	34
6	26	11	14	12	11	12	16	125	477	121	38	39
7	35	17	14	12	11	12	26	97	437	100	37	43
8	31	17	14	12	10	13	50	82	637	89	37	43
9	26	10	13	12	9.7	13	54	70	605	83	45	40
10	30	7.7	12	12	9.3	12	44	63	338	79	42	79
11	32	13	12	12	9.0	11	32	80	267	88	39	70
12	30	15	12	12	9.1	11	24	77	271	115	38	55
13	26	16	12	11	9.3	11	31	65	285	82	38	51
14	27	17	13	11	9.5	11	25	63	288	71	36	49
15	29	18	13	11	9.7	11	25	58	311	76	33	47
16	27	19	13	11	9.9	10	30	55	302	71	30	44
17	27	20	13	11	10	12	40	51	287	69	29	43
18	25	18	13	11	10	11	26	53	273	64	28	42
19	24	14	13	11	10	11	24	58	260	60	26	42
20	24	11	13	12	10	10	23	64	303	58	31	40
21	24	10	13	12	10	11	26	131	275	56	33	38
22	24	11	13	12	10	11	43	253	218	55	32	36
23	22	12	13	12	11	11	67	176	178	52	30	34
24	22	13	13	11	12	12	53	133	172	51	29	34
25	22	14	13	11	13	14	66	114	177	50	29	46
26	22	14	13	11	14	12	61	162	165	48	33	40
27	22	14	13	11	13	13	50	226	165	48	34	36
28	22	14	13	11	12	17	47	290	166	44	30	35
29	21	14	13	11	---	25	49	326	168	42	28	34
30	20	13	13	11	---	29	45	327	189	40	28	33
31	22	---	12	11	---	30	---	353	---	43	33	---
TOTAL	811	449.7	407	357	297.5	418	1066	4039	10019	2462	1083	1288
MEAN	26.2	15.0	13.1	11.5	10.6	13.5	35.5	130	334	79.4	34.9	42.9
MAX	35	21	15	12	14	30	67	353	726	165	46	79
MIN	20	7.7	12	11	9.0	10	15	42	165	40	26	33
AC-FT	1610	892	807	708	590	829	2110	8010	19870	4880	2150	2550
CAL YR 1985	TOTAL	13090.5		MEAN	35.9	MAX	300	MIN	6.2	AC-FT	25970	
WTR YR 1986	TOTAL	22697.2		MEAN	62.2	MAX	726	MIN	7.7	AC-FT	45020	

06320000 ROCK CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°27'22", long 106°52'42", in NW1/4 NW1/4 NW1/4 sec.29, T.52 N., R.83 W., Johnson County, Hydrologic Unit 10090206, on left bank 300 ft downstream from confluence of North and South Forks and 11.5 mi northwest of Buffalo.

DRAINAGE AREA.--60.0 mi².

PERIOD OF RECORD.--April to August 1941, April to December 1942, May 1943 to November 1944, April 1945 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Elevation of gage is 5,280 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 8, 1944, nonrecording gages 600 ft upstream on North and South Forks at different datums. Jan. 8, 1944, to Sept. 30, 1952, water-stage recorder at present site at datum 0.72 ft lower.

REMARKS.--Estimated daily discharges: Sept. 1-5. Records good. Water is imported into drainage basin upstream from station from South Piney Creek. Diversions for irrigation of about 250 acres upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--27 years (water years 1944, 1946-71), 36.4 ft³/s, 26,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft³/s, June 15, 1963, gage height, 7.98 ft, from rating curve extended above 450 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft³/s, Sept. 19, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1941, about 8.05 ft, probably during 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 448 ft³/s, June 4, gage height, 5.89 ft; minimum daily during period of operation, 9.1 ft³/s, Apr. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							12	27	238	58	37	42
2							12	33	250	53	38	43
3							9.9	52	233	53	37	44
4							9.6	83	366	53	36	46
5							9.1	97	249	64	38	47
6							9.6	68	221	48	36	50
7							14	60	189	45	34	50
8							22	53	237	49	33	48
9							25	47	235	50	35	46
10							25	44	162	50	35	57
11							22	52	148	57	33	51
12							18	51	148	69	32	44
13							21	46	143	52	32	42
14							19	50	136	48	31	40
15							17	48	134	54	30	38
16							19	43	118	49	30	38
17							23	41	105	50	30	34
18							19	44	93	47	30	28
19							18	46	86	44	30	22
20							18	60	114	34	30	21
21							22	98	93	34	30	20
22							30	146	71	36	29	19
23							39	112	62	32	28	17
24							29	93	60	31	28	18
25							32	85	57	31	28	27
26							34	117	55	37	30	22
27							30	148	55	36	40	19
28							28	171	54	35	41	10
29							29	181	53	34	41	9.6
30							27	189	59	33	41	9.9
31							---	209	---	33	43	---
TOTAL							642.2	2594	4224	1399	1046	1002.5
MEAN							21.4	83.7	141	45.1	33.7	33.4
MAX							39	209	366	69	43	57
MIN							9.1	27	53	31	28	9.6
AC-FT							1270	5150	8380	2770	2070	1990

YELLOWSTONE RIVER BASIN

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY

LOCATION.--Lat 44°21'44", long 106°39'13", in SW1/4 SE1/4 NW1/4 sec.30, T.51 N., R.81 W., Johnson County, Hydrologic Unit 10090206, 100 ft downstream from bridge on county road, 0.5 mi downstream from Rock Creek, and 2.5 mi northeast of Buffalo.

DRAINAGE AREA.--322 mi².

PERIOD OF RECORD.--Water years 1976 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 31...	0815	40	790	8.2	5.0	650	10.7
NOV 27...	1400	35	800	8.0	0.0	650	11.8
JAN 07...	1050	31	840	8.5	0.0	650	17.0
FEB 20...	0940	26	850	8.3	0.0	640	12.0
MAR 24...	0850	47	1100	8.2	5.0	640	14.0
MAY 05...	1650	207	220	8.3	3.0	635	11.4
JUN 03...	1045	E760	118	8.1	12.0	640	9.3
JUL 07...	1545	60	460	8.6	20.0	640	7.4
AUG 04...	1530	14	980	8.4	20.5	650	10.7
SEP 30...	0815	74	700	8.5	5.0	640	12.6

E-Estimate.

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 31...	98	76	<0.10	0.07	0.23	0.3	0.01
NOV 27...	95	87	0.10	0.08	0.22	0.3	0.08
JAN 07...	137	K42	0.20	0.08	0.32	0.4	0.05
FEB 20...	98	K29	0.20	0.07	0.53	0.6	0.02
MAR 24...	131	140	<0.10	0.05	0.45	0.5	0.02
MAY 05...	107	300	<0.10	0.02	0.78	0.8	0.15
JUN 03...	103	250	<0.10	0.04	0.56	0.6	0.10
JUL 07...	97	130	<0.10	0.03	0.37	0.4	0.03
AUG 04...	140	130	<0.10	0.04	0.66	0.7	0.03
SEP 30...	118	120	<0.10	0.03	1.1	1.1	0.02

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 03...	1045	E760	12.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
JUL 07...	1545	60	20.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SEP 30...	0815	74	5.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01

E-Estimate.

06320400 CLEAR CREEK AT UCROSS, WY

LOCATION.--Lat 44°33'09", long 106°32'06", in NE1/4 SW1/4 NE1/4 sec.19, T.53 N., R.80 W., Johnson County, Hydrologic Unit 10090206, at former gaging station, 0.5 mi upstream from Sheridan-Johnson County line, 0.7 mi south of Ucross, and 1.6 mi upstream from Piney Creek.

DRAINAGE AREA.--409 mi².

PERIOD OF RECORD.--Water years 1976 to September 1981, October 1982 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 23...	1200	168	17.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
JUL 07...	1355	71	20.5	0.01	0.03	0.04	<0.01	<0.01	<0.01
SEP 29...	1705	83	11.0	<0.01	0.03	<0.01	<0.01	<0.01	<0.01

06320500 SOUTH PINEY CREEK AT WILLOW PARK, WY

LOCATION.--Lat 44°27'59", long 107°02'03", in NW1/4 sec.24, T.52 N., R.85 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, on left bank about 300 ft downstream from Willow Park Dam, 1.4 mi upstream from Kearny Creek, and 10 mi southwest of Story.

DRAINAGE AREA.--33.6 mi².

PERIOD OF RECORD.--September 1945 to September 1957 (no winter records prior to 1948), October 1959 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1309: 1949(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,540 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1957, at site about 600 ft upstream at different datum. Oct. 1, 1959, to Sept. 30, 1965, at present site at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: May 1-10 and Aug. 8. Records good except those for May 1 to July 8, which are poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft, and Willow Park Reservoir, capacity, 4,457 acre-ft. Storage began in Willow Park Reservoir in April 1959. Cloud Peak Reservoir enlarged December 1958. Water released from storage in Cloud Peak Reservoir is diverted just downstream from station into Rock Creek basin.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--22 years (water years 1948-57, 1960-71), 42.4 ft³/s, 30,720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,620 ft³/s, June 15, 1963, gage height, 5.68 ft, present datum, from rating curve extended above 360 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 0.30 ft³/s, Nov. 19-21, 1966, but may have been less on individual days of no gage-height record; minimum daily determined prior to construction of Willow Park Reservoir, 4.5 ft³/s, Mar. 1 to Apr. 5, 1955, but may have been less during years of no winter records.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 495 ft³/s, June 9, gage height, 4.25 ft; minimum daily during period of operation, 1.9 ft³/s, May 11, 17-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								2.0	221	141	80	89
2								2.0	219	127	79	89
3								2.0	215	114	79	89
4								2.0	373	107	80	87
5								2.0	274	124	82	85
6								2.0	230	128	88	85
7								2.0	215	110	88	84
8								2.0	309	88	84	81
9								2.0	439	76	84	80
10								2.0	305	71	86	80
11								1.9	228	77	86	78
12								2.1	206	107	85	75
13								2.0	213	107	86	74
14								2.1	219	89	88	71
15								2.1	223	83	89	68
16								2.0	219	81	89	67
17								1.9	219	87	88	64
18								1.9	213	91	88	57
19								1.9	197	89	89	52
20								1.9	219	82	88	51
21								2.0	238	76	87	50
22								2.2	223	76	86	48
23								2.2	172	71	87	44
24								2.1	130	68	85	41
25								2.2	128	66	82	40
26								16	128	64	86	39
27								69	133	62	91	24
28								129	137	64	93	5.3
29								145	144	69	93	5.3
30								167	149	72	91	5.3
31								190	---	74	90	---
TOTAL								766.5	6538	2741	2677	1807.9
MEAN								24.7	218	88.4	86.4	60.3
MAX								190	439	141	93	89
MIN								1.9	128	62	79	5.3
AC-FT								1520	12970	5440	5310	3590

06323000 PINEY CREEK AT KEARNY, WY

LOCATION.--Lat 44°32'08", long 106°49'18", in NE1/4 NE1/4 SW1/4 sec.26, T.53 N., R.83 W., Johnson County, Hydrologic Unit 10090206, on right bank at Kearny, 300 ft northeast of Historical Monument and 2.0 mi upstream from Little Piney Creek.

DRAINAGE AREA.--118 mi².

PERIOD OF RECORD.--September 1902 to June 1906, June to August 1910, May 1911 to July 1917, May 1919 to September 1923 (no winter records), October 1940 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1176: 1944. WSP 1309: 1913(M). WSP 1509: 1906, 1920(M), 1941(M), 1942, 1943(M). WSP 1916: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,655.11 ft above National Geodetic Vertical Datum of 1929. Sept. 6, 1902, to June 30, 1906, nonrecording gage at site 50 ft upstream at different datum. May 14, 1911, to July 31, 1917, and May 1, 1919, to Sept. 30, 1923, nonrecording gage at site 50 ft upstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 7 to Jan. 29, Feb. 5-27, and Sept. 13-30. Records good except those for estimated daily discharges, which are poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft, Willow Park Reservoir, capacity, 4,457 acre-ft, and Kearny Lake, capacity, 1,860 acre-ft. Diversion upstream from station from South Piney Creek into Rock Creek basin for irrigation. Diversions upstream from station for irrigation of about 240 acres, of which about 90 acres are downstream from station. Record includes flow in bypass channel (Spring Creek), 300 ft left of main channel.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--46 years (water years 1941-86), 86.2 ft³/s, 62,450 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,410 ft³/s, June 15, 1963, gage height, 6.05 ft, from rating curve extended above 1,800 ft³/s; minimum daily, 1.9 ft³/s, Oct. 3, 1981, Sept. 14-18, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,280 ft³/s, June 9, gage height, 4.87 ft; minimum daily, 8.0 ft³/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	38	16	18	18	30	61	119	320	152	25	18
2	38	41	15	19	18	30	65	109	344	113	22	19
3	40	38	17	18	18	27	61	132	340	97	22	18
4	38	38	19	16	17	27	62	190	710	92	22	18
5	35	40	18	15	17	32	63	221	501	123	19	19
6	19	33	19	17	16	29	66	175	414	128	19	28
7	19	30	19	17	15	29	69	160	391	78	19	51
8	22	29	19	18	15	32	78	138	572	63	19	66
9	22	28	18	19	15	31	92	134	1020	43	19	70
10	24	24	17	18	15	31	95	136	810	30	18	135
11	26	24	15	20	15	32	99	150	561	30	18	103
12	40	25	15	18	16	33	92	123	446	49	21	55
13	39	27	16	19	16	32	95	99	427	63	21	26
14	41	26	17	17	17	30	87	105	413	41	17	19
15	41	27	18	18	18	30	83	94	422	33	18	19
16	42	28	19	18	20	27	85	87	408	30	17	17
17	44	28	20	19	21	29	88	78	377	25	17	15
18	42	26	21	18	20	27	80	78	336	24	17	16
19	35	24	20	20	18	30	75	85	291	21	17	21
20	29	23	21	19	18	30	75	99	302	31	17	20
21	28	21	20	17	19	30	85	143	309	31	17	19
22	29	18	20	16	20	32	109	180	276	27	18	18
23	29	18	21	18	22	33	145	155	204	58	19	16
24	33	19	20	19	24	38	121	134	160	51	18	19
25	39	19	20	18	27	42	101	129	150	44	17	88
26	39	17	20	17	26	37	109	134	145	33	14	21
27	39	17	18	19	26	38	113	178	150	32	13	15
28	39	18	19	20	26	44	121	238	157	27	14	12
29	39	18	17	19	---	53	125	259	167	24	15	10
30	38	17	18	20	---	61	119	276	186	25	15	8.0
31	41	---	17	18	---	68	---	276	---	26	16	---
TOTAL	1070	779	569	562	533	1074	2719	4614	11309	1644	560	979.0
MEAN	34.5	26.0	18.4	18.1	19.0	34.6	90.6	149	377	53.0	18.1	32.6
MAX	44	41	21	20	27	68	145	276	1020	152	25	135
MIN	19	17	15	15	15	27	61	78	145	21	13	8.0
AC-FT	2120	1550	1130	1110	1060	2130	5390	9150	22430	3260	1110	1940
CAL YR 1985	TOTAL	9093.0		MEAN	24.9	MAX	88	MIN	1.9	AC-FT	18040	
WTR YR 1986	TOTAL	26412.0		MEAN	72.4	MAX	1020	MIN	8.0	AC-FT	52390	

YELLOWSTONE RIVER BASIN

06323500 PINEY CREEK AT UCROSS, WY

LOCATION.--Lat 44°33'45", long 106°32'25", in SW1/4 NW1/4 SE1/4 sec.18, T.53 N., R.80 W., Sheridan County, Hydrologic Unit 10090206, at Ucross, 140 ft upstream from bridge on U.S. Highways 14 and 16, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--267 mi².

PERIOD OF RECORD.--Water years 1975 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 04...	0815	494	14.0	<0.01	0.12	<0.01	<0.01	<0.01	<0.01
JUL 07...	1245	71	18.5	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
SEP 29...	1610	19	12.0	<0.01	0.03	<0.01	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN

193

06324000 CLEAR CREEK NEAR ARVADA, WY

LOCATION.--Lat 44°52'18", long 106°04'56", in SE1/4 sec.36, T.57 N., R.77 W., Sheridan County, Hydrologic Unit 10090206, 600 ft downstream from Cabin Creek, 1.8 mi upstream from mouth, and 16 mi north of Arvada.

DRAINAGE AREA.--1,110 mi², approximately.

PERIOD OF RECORD.--Water years 1949-54, 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 21...	1530	91	1160	9.0	510	110	56	70	1	4.5
JAN 16...	1400	57	1440	0.0	630	140	67	90	2	4.3
APR 07...	1545	106	1330	16.0	620	140	66	92	2	4.8
JUL 09...	0810	74	851	18.0	370	85	38	50	1	3.0

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 21...	210	430	4.0	0.1	3.8	800	1.1	198	0.00	0.05
JAN 16...	260	530	5.7	0.1	11	1000	1.4	155	0.60	0.06
APR 07...	210	540	6.1	0.2	5.8	980	1.3	281	0.00	0.10
JUL 09...	170	290	2.4	0.2	3.1	570	0.78	115	0.00	0.02

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 12...	1300	809	17.5	<0.01	0.21	<0.01	<0.01	<0.01	<0.01
JUL 09...	0810	74	18.0	<0.01	0.35	0.03	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN

06324500 POWDER RIVER AT MOORHEAD, MT

LOCATION.--Lat 45°04'04", long 105°52'10", in NW1/4 SE1/4 NW1/4 sec.8, T.9 S., R.48 E., Powder River County, Hydrologic Unit 10090207, on left bank 500 ft downstream from discontinued post office at Moorhead, 6.2 mi upstream from Buffalo Creek, and at mile 184.8.

DRAINAGE AREA.--8,088 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1929 to September 1972, October 1974 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1932(M). WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,334.6 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Aug. 28, 1931, nonrecording gage at site 0.3 mi upstream at different datum. Aug. 28, 1931, to Mar. 21, 1956, water-stage recorder at site 1.2 mi upstream at different datum. Mar. 22 to July 24, 1956, nonrecording gage at site 0.3 mi downstream at different datum. July 25 to Sept. 12, 1956, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 22 to Mar. 23. Water-discharge records good except those for period of estimated daily discharges, which are poor. Some regulation by three reservoirs in Wyoming with combined usable capacity of 36,800 acre-ft. Diversions for irrigation of about 66,300 acres upstream from station. Water-quality records are published in the report "Water Resources Data for Montana, Water Year 1986."

AVERAGE DISCHARGE.--55 years, 457 ft³/s, 331,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft³/s, May 20, 1978, gage height, 15.24 ft; maximum gage height, 17.7 ft, Mar. 21, 1956, site and datum then in use (ice jam); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1923, reached a stage of 19 ft, site and datum used 1931-56, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 9	--	*4,540	*5.65	No other peak greater than base discharge.			

Minimum discharge, 57 ft³/s, Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280	175	80	140	230	800	278	578	608	304	109	787
2	281	178	70	150	240	700	281	524	695	349	102	328
3	309	180	80	140	230	1000	304	499	1050	312	116	398
4	317	180	100	130	230	1500	370	473	1250	228	116	417
5	294	180	120	120	220	1100	386	477	2250	192	113	317
6	267	180	130	120	220	1000	366	604	1850	183	102	295
7	263	180	130	130	210	1200	331	972	1550	184	100	293
8	253	170	120	130	190	1250	307	1100	1350	207	94	300
9	263	150	120	140	160	1020	300	1380	3400	161	91	324
10	254	130	115	140	140	837	296	1500	3600	119	85	388
11	258	110	100	150	110	712	446	1310	2500	90	93	502
12	261	120	100	140	100	616	440	914	1710	97	98	510
13	240	130	90	140	110	540	466	716	1600	118	110	1200
14	251	120	100	130	120	474	481	671	1410	151	113	800
15	258	100	110	120	130	437	477	699	1210	169	114	545
16	255	110	110	130	150	395	453	679	1160	167	101	394
17	251	120	120	140	160	405	432	632	1150	164	109	332
18	242	110	120	150	150	399	491	600	1100	119	83	328
19	241	100	130	160	130	384	496	541	951	96	80	698
20	225	90	140	150	120	394	457	531	817	91	67	957
21	211	80	150	140	140	395	505	494	760	96	60	483
22	196	90	160	130	180	387	429	457	800	102	69	383
23	187	80	160	140	250	368	385	455	769	76	93	325
24	179	90	150	160	400	359	368	460	696	121	89	316
25	177	100	140	180	700	360	395	632	604	155	90	603
26	176	90	150	170	600	332	654	601	474	152	87	491
27	171	80	140	180	800	316	815	514	400	152	101	490
28	170	80	130	190	1100	322	809	458	352	158	116	345
29	173	85	120	210	---	312	721	427	322	150	116	360
30	171	90	120	220	---	294	632	539	306	141	114	353
31	173	---	130	220	---	285	---	599	---	113	158	---
TOTAL	7247	3678	3735	4690	7520	18893	13571	21036	36694	4917	3089	14262
MEAN	234	123	120	151	269	609	452	679	1223	159	99.6	475
MAX	317	180	160	220	1100	1500	815	1500	3600	349	158	1200
MIN	170	80	70	120	100	285	278	427	306	76	60	293
AC-FT	14370	7300	7410	9300	14920	37470	26920	41720	72780	9750	6130	28290
CAL YR 1985	TOTAL	70950.5		MEAN	194	MAX	1050	MIN	8.0	AC-FT	140700	
WTR YR 1986	TOTAL	139332		MEAN	382	MAX	3600	MIN	60	AC-FT	276400	

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY

LOCATION.--Lat 44°55'37", long 105°21'10", in NW1/4 SW1/4 SW1/4 sec.13, T.57 N., R.71 W., Campbell County, Hydrologic Unit 10090208, on left bank 3.1 mi upstream from Dry Creek, 5.0 mi south of the Wyoming-Montana State line, and 20 mi north of Weston.

DRAINAGE AREA.--1,235 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

REVISED RECORDS.--WDR WY-77-1: Drainage area. WDR WY-78-1: 1976(M).

GAGE.--Water-stage recorder. Elevation of gage is 3,410 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 25-27, Feb. 6, 26-28, and Mar. 1-5, 28, 29. Records fair except those for estimated daily discharges, which are poor. Diversion upstream from station for irrigation of about 80 acres downstream from station. Flow occasionally affected by contributions from mine dewatering.

AVERAGE DISCHARGE.--14 years, 22.6 ft³/s, 16,340 acre-ft/yr.

EXTREMES FOR PERIOD OR RECORD.--Maximum discharge, 5,300 ft³/s, May 19, 1978, gage height, 11.62 ft; maximum gage height, 11.63 ft, Mar. 20, 1978 (backwater from ice); no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 130 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 27	1100	unknown	a6.75	June 5	0630	265	4.99
May 12	0330	778	7.14	Sept. 26	1130	*836	*7.27

a Backwater from ice and temporary road construction.

No flow Oct. 1-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	1.6	.62	1.4	3.3	148	25	16	6.7	2.4	.30	2.4
2	.00	6.4	.63	1.5	4.0	118	19	14	6.5	2.0	.23	2.3
3	.00	1.0	.67	1.5	4.1	92	18	11	6.4	1.7	.15	23
4	.00	2.0	.67	1.5	4.1	75	19	9.5	14	2.4	.21	49
5	.10	6.8	.73	1.3	4.3	61	19	9.6	176	2.1	.25	22
6	.23	1.5	.81	1.3	4.0	49	19	8.9	93	2.0	.21	15
7	.31	2.1	.90	1.4	3.6	35	33	12	47	1.9	.17	9.5
8	.45	3.3	.97	1.4	3.8	27	20	14	25	1.8	.19	7.2
9	.69	3.9	1.1	1.5	2.8	24	18	110	36	1.8	.13	6.0
10	.66	11	1.1	1.5	2.2	21	13	243	57	1.6	.12	6.2
11	.88	7.2	.96	1.6	1.9	17	11	526	24	1.5	.12	77
12	.99	5.7	1.0	1.6	1.4	14	8.9	612	18	2.6	.12	98
13	1.0	3.9	1.0	1.5	1.3	11	8.1	263	16	1.8	.14	28
14	1.4	1.3	.99	1.4	1.5	9.3	8.0	177	18	1.6	.15	9.2
15	1.8	1.2	.97	1.4	1.8	8.4	7.9	139	15	1.6	.14	6.7
16	1.4	1.2	.95	1.4	2.0	7.8	7.8	101	10	1.4	.22	5.3
17	1.5	1.4	.90	1.5	2.3	7.7	7.7	75	7.6	1.1	.18	4.4
18	.36	1.1	1.0	1.6	2.3	7.9	7.6	55	6.5	.68	.24	4.8
19	.35	1.1	1.2	1.7	2.4	7.7	7.7	31	5.7	.92	.27	5.5
20	.31	1.0	1.3	1.8	2.1	7.5	7.4	23	5.1	1.1	.41	5.0
21	.38	.78	1.3	1.6	2.4	7.4	7.4	19	4.9	1.1	.42	4.3
22	.43	.79	1.4	1.9	2.3	10	7.1	16	4.5	1.1	.42	4.0
23	.27	.73	1.4	2.1	2.6	15	7.2	15	4.2	1.0	.55	4.0
24	.22	.62	1.4	2.1	3.7	8.8	7.2	13	3.6	.99	.71	5.1
25	.31	.57	1.5	2.2	5.3	8.2	7.1	13	3.2	1.2	.81	148
26	.54	.56	1.5	2.2	74	7.0	7.6	12	2.7	1.2	.91	651
27	.52	.54	1.4	2.2	148	6.4	11	10	2.5	1.1	1.0	342
28	.62	.52	1.6	2.2	183	4.5	13	9.6	2.3	1.1	1.2	153
29	.64	.54	1.4	2.4	---	5.3	34	9.7	2.3	.83	1.4	93
30	.66	.59	1.4	2.6	---	5.6	16	8.2	2.4	.56	1.8	33
31	1.0	---	1.4	2.8	---	26	---	7.4	---	.42	1.8	---
TOTAL	18.02	70.94	34.17	54.1	476.5	852.5	402.7	2582.9	626.1	44.60	14.97	1823.9
MEAN	.58	2.36	1.10	1.75	17.0	27.5	13.4	83.3	20.9	1.44	.48	60.8
MAX	1.8	11	1.6	2.8	183	148	34	612	176	2.6	1.8	651
MIN	.00	.52	.62	1.3	1.3	4.5	7.1	7.4	2.3	.42	.12	2.3
AC-FT	36	141	68	107	945	1690	799	5120	1240	88	30	3620
CAL YR 1985	TOTAL	3390.76		MEAN	9.29	MAX	222	MIN	.00	AC-FT	6730	
WTR YR 1986	TOTAL	7001.40		MEAN	19.2	MAX	651	MIN	.00	AC-FT	13890	

YELLOWSTONE RIVER BASIN

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to 1982, October 1985 to September 1986.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)
OCT 21...	1815	0.44	4100	10.0	1000	170	150	660	9	20	304
DEC 03...	1000	0.68	4850	0.5	1300	250	160	780	10	21	578
JAN 28...	1400	2.3	3700	0.5	750	120	110	590	10	20	469
FEB 20...	1430	2.3	3750	0.0	990	200	120	460	7	19	480
APR 08...	0930	21	3530	11.0	800	160	97	580	9	17	380
MAY 06...	1715	8.5	2860	14.0	740	140	95	460	8	17	310
12...	1140	600	702	7.0	150	32	16	82	3	6.0	93
JUN 12...	1045	19	1720	19.5	560	120	63	220	4	14	240
JUL 17...	1020	1.2	3790	22.0	890	160	120	620	9	22	300
AUG 19...	0930	0.3	3780	22.0	1000	170	140	630	9	25	320

DATE	SULFATE DIS- SOLVED (MG/L AS S04)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 21...	2000	22	0.7	5.7	3370	3200	4.6	4.0	<0.10	--
DEC 03...	2300	89	0.9	13	3990	4000	5.4	7.3	0.00	--
JAN 28...	1600	90	0.8	12	2950	2800	4.0	18	0.12	--
FEB 20...	1600	61	0.7	13	2890	2800	3.9	18	0.12	--
APR 08...	1600	63	0.5	5.7	--	2800	3.7	156	0.00	0.09
MAY 06...	1300	20	0.2	6.6	--	2200	3.0	51	0.00	0.11
12...	210	4.3	0.2	6.4	--	410	0.56	669	0.20	0.61
JUN 12...	750	19	0.2	9.6	--	1300	1.8	69	0.00	0.10
JUL 17...	1900	28	0.6	2.4	--	3000	4.1	9.8	0.00	0.04
AUG 19...	1900	23	0.6	5.3	3200	3100	4.4	2.6	<0.10	--

Reservoirs in Yellowstone River basin in Wyoming

- 06224500 BULL LAKE.--Lat 43°12'35", long 109°02'30", in E1/2 NW1/4 sec.30, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, at dam on Bull Lake Creek, 2.8 mi upstream from mouth of Bull Lake Creek, and 9.8 mi south of Lenore. DRAINAGE AREA, 210 mi², of which 12 mi² is probably noncontributing. PERIOD OF RECORD, April 1938 to current year. Monthend contents only for some periods, published in WSP 1309. Published as Bull Lake Reservoir near Lenore 1938-50. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum).
REMARKS, reservoir is formed by rockfill dam completed by Bureau of Reclamation July 22, 1938. Capacity, 152,500 acre-ft below elevation 5,805.00 ft, top of spillway gates. Dead storage, 722 acre-ft. Figures given herein represent total contents. Water is used for irrigation near Riverton. COOPERATION, records provided by Bureau of Reclamation.
EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 154,200 acre-ft, Aug. 10, 1965, elevation, 5,805.70 ft; minimum daily (since appreciable storage was attained), 5,540 acre-ft, Mar. 15, 1950, elevation, 5,742.56 ft.
EXTREMES FOR CURRENT YEAR: Maximum daily contents, 146,800 acre-ft, July 19, elevation, 5,803.19 ft; minimum daily, 33,010 acre-ft, Oct. 10, elevation, 5,758.07 ft.
- 06258900 BOYSEN RESERVOIR.--Lat 43°25'00", long 108°10'37", in NW1/4 NW1/4 sec.16, T.5 N., R.6 E., Fremont County, Hydrologic Unit 10080005, at dam on Wind River and 13 mi north of Shoshoni. DRAINAGE AREA, 7,700 mi². PERIOD OF RECORD, October 1951 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum of 1933).
REMARKS, reservoir is formed by rockfill dam completed by Bureau of Reclamation in October 1951. Capacity, 802,000 acre-ft below elevation 4,725.00 ft, top of spillway gate. Includes 59,880 acre-ft dead storage below elevation 4,657.00 ft, invert of penstock pipe. Figures given herein represent total contents. Water used for irrigation, flood control, and power development. COOPERATION, records provided by Bureau of Reclamation.
EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 922,400 acre-ft, July 6, 7, 1967, elevation, 4,730.83 ft; minimum daily (since normal use of water started), 251,800 acre-ft, Mar. 18, 19, 1956, elevation, 4,684.18 ft.
EXTREMES FOR CURRENT YEAR: Maximum contents, 814,700 acre-ft, July 7, elevation, 4,725.64 ft; minimum daily, 475,700 acre-ft, May 21, elevation, 4,705.18 ft.
- 06260300 ANCHOR RESERVOIR.--Lat 43°39'50", long 108°49'27", in sec.26, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, at dam on South Fork Owl Creek, 2.0 mi downstream from Middle Fork, 3.0 mi southeast of Anchor, and 32 mi west of Thermopolis. DRAINAGE AREA, 131 mi². PERIOD OF RECORD, November 1960 to current year. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum).
REMARKS, reservoir is formed by concrete arch dam completed by Bureau of Reclamation in 1960. Capacity, 17,230 acre-ft below elevation 6,441.00 ft, crest of spillway. Includes 68 acre-ft below elevation 6,343.75 ft, invert of river outlet. Figures given herein represent total contents. Water used for irrigation of lands in Owl Creek basin. COOPERATION, records provided by Bureau of Reclamation.
EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 9,250 acre-ft, July 4, 1967, elevation, 6,418.52 ft; no storage on many days each year.
EXTREMES FOR CURRENT YEAR:--Maximum daily contents, 2,050 acre-ft, June 19, elevation, 6,383.22 ft; no storage on many days.
- 06281500 BUFFALO BILL RESERVOIR.--Lat 44°30'05", long 109°11'00", in NE1/4 sec.12, T.52 N., R.103 W., Park County, Hydrologic Unit 10080013, at dam on Shoshone River, 5.0 mi upstream from Trail Creek, and 6.0 mi southwest of Cody. DRAINAGE AREA, 1,498 mi². PERIOD OF RECORD, May to July 1909, January 1910 to current year. Monthend contents only prior to October 1938, published in WSP 1309. Prior to October 1944, published as Shoshone Reservoir near Cody. GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum). Prior to July 8, 1959, nonrecording gage at same datum.
REMARKS, reservoir is formed by masonry dam completed by Bureau of Reclamation in 1909. Capacity, 424,000 acre-ft between elevations 5,140.00 ft, gate sill, and 5,360.00 ft, crest of spillway. Dead storage negligible. Figures given herein represent total contents. Water used for power development and irrigation of lands east of Cody. COOPERATION, records provided by Bureau of Reclamation.
EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 507,000 acre-ft, June 15, 1918, elevation, 5,367.3 ft; minimum daily, 19,000 acre-ft, Jan 23-25, 1941, elevation, 5,225.3 ft.
EXTREMES FOR CURRENT YEAR: Maximum contents, 459,000 acre-ft, June 18, elevation, 5,365.08 ft; minimum daily, 236,100 acre-ft, Oct. 10, elevation, 5,326.97 ft.

YELLOWSTONE RIVER BASIN

Reservoirs in Yellowstone River basin in Wyoming--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986			
Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
06224500 BULL LAKE			
Sept. 30	5,757.86	32,610	-
Oct. 31	5,759.26	35,290	+2,680
Nov. 30	5,760.31	37,330	+2,040
Dec. 31	5,761.88	40,430	+3,100
CAL YR 1985	-	-	-50,250
Jan. 31	5,762.65	41,970	+1,540
Feb. 28	5,763.50	43,700	+1,730
Mar. 31	5,764.56	45,880	+2,180
Apr. 30	5,767.39	51,860	+5,980
May 31	5,777.50	75,160	+23,300
June 30	5,802.34	144,100	+68,940
July 31	5,802.20	143,700	-400
Aug. 31	5,795.44	123,400	-20,300
Sept. 30	5,784.89	91,360	-32,040
WTR YR 1986	-	-	+58,750
06258900 BOYSEN RESERVOIR			
Sept. 30	4,713.60	600,100	-
Oct. 31	4,715.00	622,500	+22,400
Nov. 30	4,714.84	620,000	-2,500
Dec. 31	4,714.34	611,900	-8,100
CAL YR 1985	-	-	-29,700
Jan. 31	4,713.43	597,400	-14,500
Feb. 28	4,713.73	602,100	+4,700
Mar. 31	4,710.56	553,200	-48,900
Apr. 30	4,706.96	500,500	-52,700
May 31	4,707.87	513,500	+13,000
June 30	4,724.98	801,600	+288,100
July 31	4,722.73	758,500	-43,100
Aug. 31	4,722.15	747,600	-10,900
Sept. 30	4,721.29	731,800	-15,800
WTR YR 1986	-	-	+131,700
06260300 ANCHOR RESERVOIR			
Sept. 30	DRY	0	-
Oct. 31	DRY	0	0
Nov. 30	DRY	0	0
Dec. 31	DRY	0	0
CAL YR 1985	-	-	0
Jan. 31	DRY	0	0
Feb. 28	DRY	0	0
Mar. 31	DRY	0	0
Apr. 30	DRY	0	0
May 31	6,363.00	535	+535
June 30	6,363.85	573	+38
July 31	6,340.00	34	-539
Aug. 31	6,340.00	34	0
Sept. 30	DRY	0	-34
WTR YR 1986	-	-	0
06281500 BUFFALO BILL RESERVOIR			
Sept. 30	5,327.72	239,500	-
Oct. 31	5,329.24	246,600	+7,100
Nov. 30	5,332.51	262,400	+15,800
Dec. 31	5,334.47	272,200	+9,800
CAL YR 1985	-	-	-44,400
Jan. 31	5,334.31	271,400	-800
Feb. 28	5,335.06	275,200	+3,800
Mar. 31	5,339.01	296,100	+20,900
Apr. 30	5,338.57	293,700	-2,400
May 31	5,338.47	293,100	-600
June 30	5,363.73	449,500	+156,400
July 31	5,353.03	378,500	-71,000
Aug. 31	5,338.46	293,100	-85,400
Sept. 30	5,332.11	260,400	-32,700
WTR YR 1986	-	-	+20,900

06365300 DRY FORK CHEYENNE RIVER NEAR BILL, WY

LOCATION.--Lat 43°13'21", long 105°40'00", in NE1/4 NW1/4 SE1/4, sec. 31, T.38 N., R.73 W., Converse County, Hydrologic Unit 10120102, 800 ft downstream from Cheyenne River Draw and 21 mi west of Bill.

DRAINAGE AREA.--128 mi².

PERIOD OF RECORD.--November 1976 to September 1981, October 1985 to September 1986.

GAGE.--Water-stage recorder. Concrete low-flow control since Sept. 15, 1977. Elevation of gage is 5,060 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 15, 1977, at site 700 ft upstream at datum 4.1 ft higher.

REMARKS.--Estimated daily discharges: Nov. 19 to Feb. 20. Records fair except those for winter period, which are poor. Numerous small stockwater reservoirs upstream from station.

AVERAGE DISCHARGE.--5 years (water years 1978-81, 1986), 1.03 ft³/s, 745 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,010 ft³/s, May 18, 1978, gage height, 4.01 ft; no flow for several days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 302 ft³/s, June 29, gage height, 2.79 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.07	.16	.07	.53	.67	.13	.29	.07	8.0	.00	.00
2	.06	.07	.11	.07	.61	.57	.15	.27	.05	1.2	.00	.00
3	.07	.07	.14	.06	.65	.57	.24	.23	.05	.32	.00	.00
4	.09	.08	.16	.06	.59	.48	.50	.19	.14	.13	.00	.01
5	.09	.07	.17	.04	.54	.51	.64	.14	.20	.04	.00	.01
6	.09	.10	.18	.06	.47	.48	1.2	.11	.16	.01	.00	.01
7	.09	.13	.18	.06	.38	.48	.93	.30	.09	.01	.00	.01
8	.06	.13	.16	.05	.28	.43	.67	.88	.07	.00	.00	.01
9	.09	.08	.12	.06	.20	.39	.51	1.8	.78	.00	.00	.02
10	.15	.05	.10	.07	.13	.40	.48	2.8	2.2	.00	.00	.03
11	.16	.08	.07	.06	.08	.38	.42	1.5	20	.01	.00	.05
12	.19	.20	.08	.07	.05	.40	.37	.70	14	.01	.00	.03
13	.14	.22	.08	.08	.06	.43	.35	.44	4.2	.00	.00	.03
14	.09	.22	.09	.16	.10	.51	.45	.30	.87	.00	.00	.02
15	.09	.22	.10	.22	.40	.57	.42	.27	.36	.00	.00	.02
16	.08	.22	.11	.28	1.5	.90	.33	.27	.18	.00	.00	.02
17	.07	.22	.12	.34	2.9	.84	.59	.38	.09	.00	.00	.02
18	.07	.20	.12	.32	3.6	.91	1.3	.33	.05	.00	.00	.02
19	.07	.17	.12	.36	3.2	.85	1.3	.28	.02	.00	.00	.02
20	.07	.14	.11	.41	2.9	.82	.88	.31	.03	.01	.00	.02
21	.08	.11	.12	.45	2.8	.83	.66	.28	.05	.01	.00	.02
22	.08	.09	.11	.38	2.7	.70	.53	.19	.03	.01	.00	.03
23	.06	.08	.10	.34	2.8	.48	.41	.15	.01	.00	.00	.04
24	.06	.10	.08	.30	2.4	.40	.53	.12	.01	.00	.00	.05
25	.06	.14	.07	.24	2.1	.30	.65	.11	.00	.02	.00	.07
26	.05	.17	.07	.17	1.9	.24	.71	.12	.00	.01	.00	.05
27	.06	.20	.07	.21	1.4	.22	.71	.13	.00	.01	.00	.04
28	.07	.24	.06	.30	.95	.18	.56	.11	.00	.01	.00	.04
29	.07	.21	.08	.36	---	.15	.44	.09	77	.00	.00	.04
30	.07	.18	.09	.41	---	.15	.33	.09	43	.00	.00	.04
31	.07	---	.09	.47	---	.14	---	.08	---	.00	.00	---
TOTAL	2.61	4.26	3.42	6.53	36.22	15.38	17.39	13.26	163.71	9.81	.00	.77
MEAN	.08	.14	.11	.21	1.29	.50	.58	.43	5.46	.32	.00	.03
MAX	.19	.24	.18	.47	3.6	.91	1.3	2.8	77	8.0	.00	.07
MIN	.05	.05	.06	.04	.05	.14	.13	.08	.00	.00	.00	.00
AC-FT	5.2	8.4	6.8	13	72	31	34	26	325	19	.00	1.5
WTR YR 1986	TOTAL	273.36		MEAN	.75	MAX	77	MIN	.00	AC-FT	542	

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY

LOCATION.--Lat 43°25'45", long 105°02'43", in SE1/4 SW1/4 NE1/4 sec.20, T.40 N., R.68 W., Converse County, Hydrologic Unit 10120103, Thunder Basin National Grassland, on right bank at the Fiddleback Ranch, 1.2 mi downstream from confluence of Antelope Creek and Dry Fork Cheyenne River, and 3.0 mi west of Dull Center.

DRAINAGE AREA.--1,527 mi².

PERIOD OF RECORD.--April 1976 to September 1981, October 1985 to September 1986.

GAGE.--Water-stage recorder. Elevation of gage is 4,310 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 16, 1978, at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 1 to Mar. 10 and Mar. 13 to Apr. 17. Records fair except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--6 years (water years 1977-81, 1986), 18.5 ft³/s, 13,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft³/s May 18, 1978, gage height, 14.0 ft, present datum, from rating curve extended above 1,700 ft³/s on basis of slope-area measurement of peak flow; no flow for several days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,010 ft³/s June 29, gage height, 4.90 ft; minimum daily, 0.04 ft³/s, Oct. 17-20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.10	.11	.23	.53	8.7	5.0	5.1	2.2	64	.15	.91
2	.06	.11	.13	.24	.61	7.2	5.4	4.9	.80	28	.15	133
3	.06	.11	.15	.24	.68	6.8	6.8	4.4	.36	13	8.6	14
4	.06	.12	.17	.22	.59	6.0	9.0	3.7	1.1	8.2	13	3.8
5	.06	.11	.18	.23	.52	6.2	17	4.0	.90	6.7	.41	2.0
6	.06	.10	.18	.22	.47	6.0	15	3.7	.79	5.6	.32	1.2
7	.06	.09	.20	.19	.39	6.0	13	3.9	.23	4.5	.19	.31
8	.06	.08	.20	.20	.30	5.4	13	7.6	7.2	3.1	.20	.15
9	.06	.07	.20	.22	.24	5.0	12	18	102	9.1	.19	.10
10	.06	.07	.18	.21	.17	5.6	11	21	415	12	.17	.31
11	.06	.08	.17	.21	.13	4.9	9.3	17	106	18	.13	.11
12	.08	.09	.18	.21	.10	5.4	8.4	16	31	9.7	.13	.09
13	.10	.10	.19	.22	.14	7.1	8.2	14	52	3.5	.11	.09
14	.09	.11	.21	.22	.22	8.5	9.3	12	143	2.0	.11	.09
15	.08	.12	.23	.22	.46	9.9	9.9	10	28	.79	.11	.09
16	.05	.13	.25	.22	1.8	13	9.6	8.0	13	.46	.12	.10
17	.04	.14	.24	.22	4.9	12	11	7.8	7.9	.25	.11	.10
18	.04	.15	.23	.22	24	14	14	7.4	5.9	.29	.11	.11
19	.04	.12	.23	.24	21	12	12	7.1	4.1	.19	.11	.12
20	.04	.10	.24	.26	13	11	12	6.8	36	.29	.10	.13
21	.06	.09	.27	.23	6.3	11	11	7.0	430	3.1	.10	.13
22	.07	.08	.28	.21	5.3	9.5	10	6.2	144	5.6	.09	.12
23	.09	.07	.26	.24	6.0	8.0	8.8	5.5	76	.29	.49	.11
24	.11	.09	.26	.23	7.5	7.3	9.1	5.0	23	.24	278	5.5
25	.12	.14	.27	.22	11	6.5	11	5.0	13	.24	14	4.7
26	.11	.13	.26	.24	15	5.8	11	4.7	9.3	.20	4.4	.49
27	.10	.11	.23	.28	13	5.6	10	4.4	8.6	.18	2.3	.28
28	.09	.10	.24	.35	11	5.4	8.4	3.9	5.8	.18	.87	.56
29	.09	.10	.25	.32	---	5.0	7.4	2.9	428	.15	.20	.26
30	.09	.10	.24	.40	---	5.0	6.2	2.3	161	.15	.13	.21
31	.09	---	.22	.49	---	4.7	---	1.6	---	.15	.10	---
TOTAL	2.24	3.11	6.65	7.65	145.35	234.5	303.8	230.9	2256.18	200.15	373.71	169.17
MEAN	.07	.10	.21	.25	5.19	7.56	10.1	7.45	75.2	6.46	12.1	5.64
MAX	.12	.15	.28	.49	24	14	17	21	430	64	278	133
MIN	.04	.07	.11	.19	.10	4.7	5.0	1.6	.23	.15	.09	.09
AC-FT	4.4	6.2	13	15	288	465	603	458	4480	397	741	336
WTR YR 1986	TOTAL	3933.41		MEAN	10.8	MAX	430	MIN	.04	AC-FT	7800	

06376300 BLACK THUNDER CREEK NEAR HAMPSHIRE, WY

LOCATION.--Lat 43°34'54", long 104°43'11", in SW1/4 SW1/4 SW1/4 sec.30, T.42 N., R.65 W., Weston County, Hydrologic Unit 10120103, on right bank 20 ft downstream from bridge on county road, 1.3 mi west of Hampshire, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--535 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,080 ft (corrected) above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Mar. 12, 13, 24, 27, 28, Apr. 14-16, May 22, 23, June 24, 25, July 4, 5, 17, 29, Aug. 30, Sept. 20, 21. Records good except those for estimated daily discharges and those less than 1.0 ft³/s, which are poor. There are many small stock ponds upstream from station. No diversion upstream from station.

AVERAGE DISCHARGE.--14 years, 7.46 ft³/s, 5,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,050 ft³/s, May 18, 1978, gage height, 14.13 ft, from floodmark, from rating curve extended above 630 ft³/s on basis of slope-area measurement of peak flow; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 21	0200	288	5.85	June 10	0900	481	7.46
Feb. 26	1930	273	5.68	Sept. 2	0400	735	9.51
Apr. 27	1500	557	8.08	Sept. 3	0700	955	10.58
May 10	1730	461	7.27	Sept. 10	1730	503	7.61
May 11	1500	429	6.99	Sept. 25	2100	*1,020	*10.85

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	14	.00	3.3	.00	3.8	.00	4.7
2	.00	.00	.00	.00	.00	8.3	.00	1.9	.00	1.1	.00	566
3	.00	.00	.00	.00	.00	8.6	.00	1.3	.00	.41	.00	424
4	.00	.00	.00	.00	.00	5.4	.00	.79	.00	.15	.00	23
5	.00	.00	.00	.00	.00	4.3	.00	.51	.00	.05	.00	12
6	.00	.00	.00	.00	.00	2.1	3.7	.35	.00	.00	.00	14
7	.00	.00	.00	.00	.00	1.6	32	.33	.00	.00	.00	15
8	.00	.00	.00	.00	.00	.97	16	.63	.00	.00	.00	8.8
9	.00	.00	.00	.00	.00	1.0	5.6	2.1	37	.00	.00	5.8
10	.00	.00	.00	.00	.00	.88	3.0	199	249	.00	.00	146
11	.00	.00	.00	.00	.00	.46	1.8	234	33	4.1	.00	60
12	.00	.00	.00	.00	.00	.10	1.2	53	7.9	2.7	.00	17
13	.00	.00	.00	.00	.00	.03	.77	11	3.7	1.8	.00	5.7
14	.00	.00	.00	.00	.00	.00	.35	5.1	14	.76	.00	2.7
15	.00	.00	.00	.00	.00	.00	.20	2.7	9.7	1.9	.00	1.4
16	.00	.00	.00	.00	.24	.00	.09	1.6	7.3	.44	.00	.97
17	.00	.00	.00	.00	1.7	.00	.44	1.1	3.6	.10	.00	.66
18	.00	.00	.00	.00	76	.00	4.3	.86	1.8	.00	.00	.56
19	.00	.00	.00	.00	48	.00	41	.62	1.0	.00	.00	.67
20	.00	.00	.00	.00	81	.00	9.4	.46	.90	1.0	.00	.20
21	.00	.00	.00	.00	164	.00	4.0	.34	1.9	8.3	.00	.05
22	.00	.00	.00	.00	51	.00	2.2	.15	1.2	138	.00	4.0
23	.00	.00	.00	.00	34	.00	1.4	.05	.52	19	.00	2.0
24	.00	.00	.00	.00	26	.25	1.0	.00	.22	3.7	5.5	19
25	.00	.00	.00	.00	22	.94	9.3	.00	.05	1.6	13	658
26	.00	.00	.00	.00	141	.62	22	.00	.00	.90	2.8	235
27	.00	.00	.00	.00	77	.22	224	.00	.00	.43	1.0	21
28	.00	.00	.00	.00	32	.07	80	.00	.00	.23	.36	7.9
29	.00	.00	.00	.00	---	.00	26	.00	.00	.10	.18	4.4
30	.00	.00	.00	.00	---	.00	6.7	.00	4.4	.00	.05	2.7
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	753.94	49.84	496.45	521.19	377.19	190.57	22.89	2263.21
MEAN	.00	.00	.00	.00	26.9	1.61	16.5	16.8	12.6	6.15	.74	75.4
MAX	.00	.00	.00	.00	164	14	224	234	249	138	13	658
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05
AC-FT	.00	.00	.00	.00	1500	99	985	1030	748	378	45	4490
CAL YR 1985	TOTAL	216.26		MEAN	.59	MAX	127	MIN	.00	AC-FT	429	
WTR YR 1986	TOTAL	4675.28		MEAN	12.8	MAX	658	MIN	.00	AC-FT	9270	

CHEYENNE RIVER BASIN

06376300 BLACK THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to September 1981, October to September 1986.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)
MAY				
11...	2035	230	7230	4490
SEP				
02...	1220	180	11600	5640
02...	1555	626	10400	17600
02...	1830	754	11200	22800
11...	1045	43	7510	872
25...	1715	951	9970	25600

DATE	TIME	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
MAY				
11...	2035	70	80	89

06386400 CHEYENNE RIVER AT RIVERVIEW, WY

LOCATION.--Lat 43°25'41", long 104°11'45", in NW1/4 NE1/4 SW1/4 sec.21, T.40 N., R.61 W., Niobrara County, Hydrologic Unit 10120106, at bridge on U.S. Highway 85, 0.5 mi north of Riverview, 0.9 mi upstream from Bobcat Creek, 4.7 mi upstream from former gaging station, and 30 mi south of Newcastle.

DRAINAGE AREA.--5,160 mi², approximately.

PERIOD OF RECORD.--Water years 1951-54, 1969-70, 1972 to current year. Published as South Fork Cheyenne River near Spencer prior to October 1951, as Cheyenne River near Spencer 1952-76, and as Cheyenne River near Riverview 1977-79.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 10...	1030	1730	12.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
JUL 15...	0945	54	21.0	<0.01	0.12	0.02	<0.01	<0.01	<0.01
SEP 26...	1320	35	18.0	<0.01	0.03	<0.01	<0.01	<0.01	<0.01

CHEYENNE RIVER BASIN

06394000 BEAVER CREEK NEAR NEWCASTLE, WY

LOCATION.--Lat 43°32'07", long 104°07'02", in NW1/4 sec.18, T.41 N., R.60 W., Weston County, Hydrologic Unit 10120107, at highway bridge, 2.2 mi downstream from Sheep Creek, and 23 mi south of Newcastle.

DRAINAGE AREA.--1,320 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February to September 1943, October 1944 to current year.

REVISED RECORDS.--WSP 1209: 1943, 1946, 1948-49.

GAGE.--Water-stage recorder. Elevation of gage is 3,660 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 1, 1945, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 9-11, Nov. 13 to Mar. 10 and May 9-12. Records good except those for estimated daily discharges, which are poor. There are many small reservoirs upstream from station used for storage of stock and irrigation water, total capacity, about 11,000 acre-ft. Diversions for irrigation of about 4,900 acres upstream from station.

AVERAGE DISCHARGE.--42 years (water years 1945-86), 31.0 ft³/s, 22,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,900 ft³/s, June 16, 1962, gage height, 19.98 ft, from rating curve extended above 4,000 ft³/s on basis of contracted-opening measurement of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 29	0230	576	7.64	July 1	0330	740	8.15
May 12	2300	*840	*8.71	Sept. 5	0300	634	7.54

Minimum daily discharge, 0.85 ft³/s, Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.9	11	12	19	45	14	69	5.4	384	6.6	8.8
2	1.4	2.6	12	12	20	45	14	41	4.9	282	2.9	37
3	1.2	3.2	12	13	21	47	12	28	7.4	96	3.0	31
4	1.0	3.5	12	13	21	63	11	18	144	39	5.6	197
5	1.0	3.6	10	13	19	70	23	16	77	21	3.6	421
6	.96	3.7	7.1	13	18	103	18	13	47	21	2.6	138
7	.85	4.3	8.3	10	17	200	8.8	11	31	18	2.8	148
8	.87	5.0	9.4	11	16	370	12	10	92	18	2.8	61
9	1.0	4.4	11	12	15	275	33	66	88	13	2.4	36
10	1.0	4.3	12	13	14	235	19	200	125	16	2.3	25
11	1.1	4.0	12	14	12	324	15	330	201	26	3.1	18
12	1.2	2.5	11	15	12	271	11	715	335	17	3.7	40
13	1.6	4.1	10	16	12	190	8.3	546	139	13	6.7	86
14	1.6	5.0	9.5	18	10	141	7.7	145	70	11	4.5	33
15	1.3	6.0	9.0	17	13	111	5.8	73	46	8.7	4.4	24
16	1.4	7.4	8.8	17	15	77	4.9	46	43	9.3	4.4	18
17	1.4	8.7	9.1	17	18	64	22	30	50	8.1	3.7	15
18	1.4	8.1	9.7	18	22	71	161	21	29	9.6	3.3	13
19	1.4	6.7	10	17	20	171	171	19	23	12	3.0	60
20	1.4	5.7	11	18	22	151	328	16	21	15	2.9	62
21	1.5	6.4	12	19	23	57	161	14	15	8.8	2.5	22
22	1.5	7.7	13	18	22	37	66	11	13	6.8	2.0	19
23	1.6	7.0	13	16	21	35	36	9.7	12	3.2	2.1	16
24	1.7	7.6	13	17	22	60	25	8.6	9.2	3.4	3.0	16
25	1.5	8.2	14	18	24	53	26	7.7	9.6	3.1	3.0	47
26	1.5	8.7	13	19	28	41	81	7.3	7.2	2.7	2.7	54
27	1.5	9.3	13	17	38	37	437	6.9	7.3	2.6	2.8	46
28	1.4	9.7	12	16	46	26	422	6.7	23	2.6	4.1	132
29	1.4	10	10	17	---	22	407	6.4	26	2.5	5.6	62
30	1.4	10	11	18	---	19	132	6.4	77	2.1	5.6	39
31	1.3	---	12	18	---	16	---	5.9	---	2.2	5.8	---
TOTAL	41.08	179.3	340.9	482	560	3427	2692.5	2503.6	1778.0	1077.7	113.5	1924.8
MEAN	1.33	5.98	11.0	15.5	20.0	111	89.7	80.8	59.3	34.8	3.66	64.2
MAX	1.7	10	14	19	46	370	437	715	335	384	6.7	421
MIN	.85	1.9	7.1	10	10	16	4.9	5.9	4.9	2.1	2.0	8.8
AC-FT	81	356	676	956	1110	6800	5340	4970	3530	2140	225	3820
CAL YR 1985	TOTAL	3263.57		MEAN	8.94	MAX	182	MIN	.19	AC-FT	6470	
WTR YR 1986	TOTAL	15120.38		MEAN	41.4	MAX	715	MIN	.85	AC-FT	29990	

06394000 BEAVER CREEK NEAR NEWCASTLE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-47, 1950-57, 1968 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 24...	1030	1.7	8500	6.0	2300	510	240	1300	12	7.7
JAN 14...	0930	17	3790	0.0	1600	440	120	310	4	4.5
MAR 10...	1630	235	1370	5.0	360	91	32	170	4	3.7
MAY 12...	2020	855	1000	11.5	250	64	22	120	3	4.5

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 24...	180	2800	1400	0.5	0.9	6300	8.6	29	0.00	0.03
JAN 14...	220	1400	360	0.2	12	2800	3.8	129	0.70	0.10
MAR 10...	88	440	140	1.2	4.8	940	1.3	594	0.50	0.43
MAY 12...	81	360	25	0.3	5.1	650	0.88	1500	0.20	0.52

06395000 CHEYENNE RIVER AT EDMONT, SD

LOCATION.--Lat 43°18'20", long 103°49'14", in SW1/4 SE1/4 SE1/4 sec.36, T.8 S., R.2 E., Fall River County, Hydrologic Unit 10120106, on right bank at downstream side of bridge on U.S. Highway 18, at Edgemont, 300 ft downstream from Burlington Northern Railroad bridge, and 600 ft upstream from Cottonwood Creek.

DRAINAGE AREA.--7,143 mi².

PERIOD OF RECORD.--June 1903 to November 1906 (no winter records), April 1928 to February 1933, October 1946 to current year.

REVISED RECORDS.--WSP 1086: Drainage area. WSP 1116: 1947. WDR SD-78-1 1977.

GAGE.--Water-stage recorder. Datum of gage is 3,414.56 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1906, nonrecording gage 20 ft upstream at datum 0.7 ft lower. Apr. 11, 1928, to Feb. 28, 1933, Oct. 4, 1946, to Oct. 23, 1947, and Jan. 11, 1961, to Apr. 24, 1963, nonrecording gage, and Oct. 24, 1947, to Jan. 10, 1961, and Apr. 25, 1963, to Sept. 30, 1972, water-stage recorder all at present site at datum 2.00 ft higher.

REMARKS.--Records good except for period of estimated record, which is poor. Estimated daily discharges during water year: Nov. 8 to Mar. 7. Many small reservoirs upstream from station used for stock and irrigation water, total capacity, about 45,000 acre-ft. U.S. Bureau of Reclamation satellite data-collection platform at station.

AVERAGE DISCHARGE.--44 years, 96.6 ft³/s, 69,990 acre-ft/yr; median of yearly mean discharges, 76 ft³/s, 55,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,000 ft³/s, May 20, 1978, gage height, 13.65 ft, present datum; no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 12, 1920, reached a stage of 13.0 ft and May 1, 1922, 14.0 ft, present datum, from floodmarks at railroad bridge.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 11	1430	*2,760	*6.43	No other peak greater than base discharge.			

Minimum daily discharge, 0.10 ft³/s, Dec. 2.

CORRECTIONS.--Published acre-feet for October of 1984 and 1985 water years is in error. Correct figures are as follows: October 1983, 1,010; October 1984, 950.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	3.3	.15	6.5	10	450	40	180	19	629	22	5.3
2	1.3	3.3	.10	6.5	9.0	500	38	115	17	584	17	27
3	.86	3.3	.15	6.0	8.0	400	44	83	14	378	16	41
4	1.0	3.0	.17	5.5	7.0	300	59	68	16	192	12	38
5	.81	3.6	.19	5.0	6.0	320	62	55	115	123	11	350
6	.91	3.6	.20	5.5	5.0	380	87	45	88	86	31	415
7	1.1	4.4	.20	6.0	4.0	410	73	41	53	76	25	250
8	1.2	4.3	.19	5.5	3.0	424	52	40	45	73	17	200
9	2.0	4.0	.18	5.0	2.5	475	47	63	179	69	12	105
10	2.0	3.5	.17	5.0	2.2	411	61	225	977	69	22	78
11	2.2	2.3	.15	5.5	2.0	348	55	451	2620	62	99	64
12	2.9	2.5	.14	6.0	2.4	404	45	739	1810	74	46	52
13	1.6	2.7	.16	5.5	2.7	300	48	973	1100	57	21	56
14	1.6	2.8	.20	6.2	3.0	215	33	532	691	51	14	120
15	1.6	3.0	.22	6.5	3.5	168	37	245	628	51	14	79
16	1.6	3.0	.20	7.0	4.5	152	31	157	419	52	11	60
17	1.9	2.4	.19	7.5	3.5	121	33	115	370	39	9.3	49
18	1.7	2.0	.19	8.0	3.0	113	69	100	302	33	8.4	43
19	1.9	1.7	.21	8.5	2.8	111	238	85	228	29	8.1	48
20	1.8	1.5	.22	8.0	2.6	239	282	74	179	28	6.2	88
21	1.8	1.4	.24	7.5	5.0	176	511	66	144	154	5.9	229
22	1.9	1.3	.24	88	10	87	271	57	115	61	4.9	112
23	3.0	1.2	.22	9.0	40	70	159	48	140	69	5.1	76
24	3.0	1.1	.20	10	100	63	113	44	161	65	8.8	61
25	2.6	1.0	.30	9.5	150	80	94	39	145	45	7.4	111
26	2.5	.80	.50	9.0	200	71	96	38	112	40	7.1	127
27	2.3	.70	1.0	10	300	74	305	34	87	32	5.0	99
28	2.8	.50	2.0	10	350	74	501	33	72	24	4.4	316
29	2.5	.35	5.0	10	---	61	631	28	73	19	4.0	266
30	2.4	.25	5.5	11	---	54	352	24	401	17	3.5	143
31	2.9	---	6.0	11	---	46	---	21	---	14	4.3	---
TOTAL	59.78	68.80	24.78	310.2	1241.7	7097	4467	4818	11320	3295	482.4	3708.3
MEAN	1.93	2.29	.80	10.0	44.3	229	149	155	377	106	15.6	124
MAX	3.0	4.4	6.0	88	350	500	631	973	2620	629	99	415
MIN	.81	.25	.10	5.0	2.0	46	31	21	14	14	3.5	5.3
AC-FT	119	136	49	615	2460	14080	8860	9560	22450	6540	957	7360
CAL YR 1985	TOTAL	5260.85		MEAN	14.4	MAX	438	MIN	.00	AC-FT	10430	
WTR YR 1986	TOTAL	36892.96		MEAN	101	MAX	2620	MIN	.10	AC-FT	73180	

06426400 DONKEY CREEK NEAR MOORCROFT, WY

LOCATION.--Lat 44°16'58", long 105°03'48", in SE1/4 NE1/4 SE1/4 sec.30, T.50 N., R.68 W., Crook County, Hydrologic Unit 10120201, 25 ft upstream from county bridge, 1.2 mi downstream from Well Creek, and 6.0 mi west of Moorcroft.

DRAINAGE AREA.--246 mi².

PERIOD OF RECORD.--September 1977 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 22...	0950	0.62	2900	9.0	9.0	650	12.0
JAN 15...	1500	2.8	3600	7.7	0.0	655	4.0
APR 08...	1215	5.7	1680	8.4	16.0	665	14.2
MAY 12...	1300	210	710	7.8	10.5	629	7.3
JUL 16...	1645	1.8	2710	8.7	28.0	650	10.0

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 22...	123	180	0.30	0.10	7.1	7.2	0.80
JAN 15...	32	K22	0.70	9.30	0.0	9.3	2.80
APR 08...	166	93	0.50	0.14	1.7	1.8	0.63
MAY 12...	80	140	0.20	0.19	1.2	1.4	0.05
JUL 16...	152	1400	<0.10	0.13	1.8	1.9	0.29

K-Results based on colony count outside the acceptable range (non-ideal colony count).

CHEYENNE RIVER BASIN

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY

LOCATION.--Lat 44°17'44", long 104°58'35", in SE1/4 SW1/4 sec. 24, T.50 N., R.68 W., Crook County, Hydrologic Unit 10120201, on left bank 150 ft upstream from Trail Creek, 1.9 mi downstream from Donkey Creek, and 2.6 mi northwest of Moorcroft.

DRAINAGE AREA.--1,670 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1943 to September 1970, October 1975 to September 1983, October 1985 to September 1986.

GAGE.--Water-stage recorder. Elevation of gage is 4,119.2 ft, above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to Mar. 28, 1947, nonrecording gage, and Mar. 28, 1947, to Jan. 16, 1951, water-stage recorder at site 12 mi downstream at different datum. Jan. 17, 1951, to September 1970, at site 50 ft downstream at datum 0.8 ft lower.

REMARKS.--Estimated daily discharges: Oct. 1-21, 25, Nov. 18 to Mar. 10, June 8-10, 17-30, July 1-15, and Sept. 13-25. Records poor. Numerous small stockwater and soil conservation reservoirs upstream from station. Diversions for irrigation of about 660 acres upstream from station.

AVERAGE DISCHARGE.--36 years (water years 1944-70, 1976-83, 1986), 22.8 ft³/s, 16,550 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,300 ft³/s, May 19, 1978, gage height, 14.60 ft, from floodmark in gage shelter, from rating curve extended above 11,000 ft³/s; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 360 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 28	unknown	unknown	a7.80	Sept. 2	1230	850	9.01
May 11	1900	*1000	*9.60				

a-Backwater from ice, from floodmark.

No flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	1.2	.81	1.2	1.7	315	4.4	38	8.4	2.7	.31	.00
2	.24	.30	.86	1.2	1.8	253	6.7	17	7.4	2.6	.92	461
3	.24	.23	.92	1.2	2.0	192	9.3	15	6.4	2.3	.93	109
4	.25	1.7	.98	1.2	2.3	155	12	13	7.5	2.7	1.5	25
5	.25	2.3	1.0	1.1	2.5	128	13	13	12	2.4	1.7	5.7
6	.26	2.2	1.1	1.1	2.6	100	28	9.8	20	2.3	1.9	74
7	.27	2.1	1.2	1.1	2.5	81	104	9.5	36	2.2	1.9	19
8	.28	3.1	1.2	1.1	2.3	64	83	22	26	2.2	2.0	4.1
9	.30	3.3	1.2	1.2	2.1	56	40	43	19	2.2	1.9	1.1
10	.32	2.9	1.2	1.3	1.9	49	29	139	25	2.3	1.7	.26
11	.35	2.8	1.1	1.3	1.7	44	19	681	32	2.5	1.5	.00
12	.39	2.7	1.1	1.4	1.6	36	13	499	26	3.2	1.4	.00
13	.42	3.1	1.1	1.4	1.5	30	12	208	21	4.2	1.7	.00
14	.46	3.1	1.2	1.5	1.6	23	14	73	15	3.6	1.5	.00
15	.50	3.0	1.3	1.6	1.7	21	12	51	11	3.3	1.4	.00
16	.41	2.9	1.4	1.8	1.9	18	11	44	10	3.4	.93	.00
17	.38	3.2	1.4	1.9	2.2	18	12	36	8.3	3.2	.37	.00
18	.37	2.5	1.5	1.6	2.6	19	15	24	7.1	3.9	.29	.00
19	.39	1.8	1.5	1.4	3.0	18	40	15	6.1	3.5	.16	.00
20	.42	1.4	1.6	1.3	3.5	18	44	11	5.5	3.1	.00	.00
21	.73	1.4	1.7	1.4	3.4	25	29	10	5.2	5.7	.00	.00
22	1.0	1.3	1.7	1.6	3.3	31	18	21	4.8	5.6	.00	.00
23	.46	1.2	1.8	1.7	3.8	36	13	14	4.5	5.3	.00	.00
24	.22	1.1	1.8	1.5	10	28	11	11	4.2	4.1	.00	.50
25	.15	1.2	1.7	1.6	40	15	12	11	3.7	5.4	.00	14
26	.36	1.2	1.7	1.8	140	9.9	11	9.5	3.3	8.2	.00	132
27	.53	.98	1.6	1.9	268	8.8	12	10	2.8	6.1	.00	66
28	.73	.86	1.6	1.9	425	7.9	60	9.2	2.7	3.9	.00	23
29	1.0	.79	1.4	1.8	---	7.0	115	8.3	2.5	3.3	.00	22
30	1.5	.76	1.3	1.8	---	5.5	71	7.7	2.5	.21	.00	9.4
31	1.3	---	1.2	1.7	---	4.6	---	7.5	---	.00	.00	---
TOTAL	14.71	56.62	41.17	45.6	936.5	1816.7	873.4	2080.5	345.9	105.61	24.01	966.06
MEAN	.47	1.89	1.33	1.47	33.4	58.6	29.1	67.1	11.5	3.41	.77	32.2
MAX	1.5	3.3	1.8	1.9	425	315	115	681	36	8.2	2.0	461
MIN	.15	.23	.81	1.1	1.5	4.6	4.4	7.5	2.5	.00	.00	.00
AC-FT	29	112	82	90	1860	3600	1730	4130	686	209	48	1920
WTR YR 1986	TOTAL	7306.78		MEAN	20.0	MAX	681	MIN	.00	AC-FT	14490	

CHEYENNE RIVER BASIN

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06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-57, 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 22...	1330	1.3	3120	8.2	9.0	650	10.8
DEC 03...	1445	0.92	4250	8.1	0.0	654	6.2
JAN 15...	1100	1.6	3420	7.9	0.0	655	2.4
FEB 20...	1000	3.5	3600	7.8	0.0	660	2.5
APR 08...	1500	76	1080	8.2	13.5	665	8.6
MAY 07...	1030	10	2000	8.5	10.5	660	8.2
12...	1940	399	715	8.4	14.0	653	7.4
JUN 11...	1745	37	2000	8.2	23.0	660	6.7
JUL 16...	1445	3.3	3150	8.5	26.0	650	11.4
AUG 19...	1315	0.09	3300	8.4	26.0	660	11.0

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 22...	111	56	0.30	0.10	1.5	1.6	0.16
DEC 03...	50	58	0.30	3.40	3.3	6.7	0.42
JAN 15...	19	K5	0.40	6.80	1.5	8.3	1.50
FEB 20...	20	K18	0.80	5.40	2.1	7.5	1.20
APR 08...	95	900	0.50	0.08	2.2	2.3	0.28
MAY 07...	86	140	<0.10	0.09	1.2	1.3	0.18
12...	84	K1	0.20	0.45	0.85	1.3	0.27
JUN 11...	91	240	0.30	0.39	1.0	1.4	0.30
JUL 16...	167	360	<0.10	0.17	1.7	1.9	0.21
AUG 19...	159	890	0.10	<0.01	--	1.5	0.08

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY 07...	1030	10	10.5	0.1	0.03	0.11	<0.01	<0.01	<0.01
JUN 11...	1745	37	23.0	0.13	0.06	0.39	<0.01	<0.01	<0.01
SEP 25...	1930	12	14.0	0.07	0.06	0.06	<0.01	<0.01	<0.01

CHEYENNE RIVER BASIN

06427000 KEYHOLE RESERVOIR NEAR MOORCROFT, WY

LOCATION.--Lat 44°22'55", long 104°46'45", in NW1/4 NW1/4 sec.27, T.51 N., R.66 W., Crook County, Hydrologic Unit 10120201, at reservoir dam on Belle Fourche River 12 mi northeast of Moorcroft.

DRAINAGE AREA.--2,000 mi², approximately.

PERIOD OF RECORD.--March 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (Bureau of Reclamation datum). Prior to May 15, 1958, and Oct. 1, 1968 to Mar. 13, 1970, nonrecording gages; May 15 1958, to Sept. 30, 1968, water-stage recorder; all at present site and datum.

REMARKS.--Reservoir is formed by a zoned earthfill dam completed by the Bureau of Reclamation Oct. 25, 1952. Storage began Feb. 12, 1952. Dead storage, below elevation 4,036.0 ft, 730 acre-ft. Inactive storage, between elevations 4,036.0 ft and 4,051.0 ft, 7,230 acre-ft. Total capacity below elevation 4,099.3 ft, crest of spillway, 193,800 acre-ft. Figures given herein represent total contents. The reservoir provides flood control and water for irrigation in Wyoming and near Belle Fourche, SD.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 210,200 acre-ft, May 21, 1978, elevation, 4,100.38 ft; minimum daily (since appreciable storage was attained), 6,030 acre-ft, May. 8, 9, 1955, elevation, 4,046.35 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 75,070 acre-ft, June 11, elevation, 4,081.27 ft; minimum daily, 55,220 acre-ft, Nov. 11, elevation, 4,076.03 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	4,076.26	56,000	-
Oct. 31	4,076.09	55,420	-580
Nov. 30	4,076.07	55,360	-60
Dec. 31	4,076.19	55,760	+400
CAL YR 1985	-	-	-23,630
Jan. 31	4,076.24	55,940	+180
Feb. 28	4,076.54	56,970	+1,030
Mar. 31	4,078.58	64,340	+7,370
Apr. 30	4,079.45	67,670	+3,330
May 31	4,081.14	74,520	+6,850
June 30	4,081.17	74,650	+130
July 31	4,079.54	68,020	-6,630
Aug. 31	4,078.08	62,470	-5,550
Sept. 30	4,078.47	63,920	+1,450
WTR YR 1986	-	-	+7,920

06427500 BELLE FOURCHE RIVER BELOW KEYHOLE RESERVOIR, WY

LOCATION.--Lat 44°23'18", long 104°46'12", in SE1/4 NE1/4 SW1/4 sec.22, T.51 N., R.66 W., Crook County, Hydrologic Unit 10120201, on right bank 0.9 mi downstream from Keyhole Dam, 1.7 mi downstream from Mule Creek, 2.9 mi upstream from Spring Creek, and 12 mi northeast of Moorcroft.

DRAINAGE AREA.--2,000 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1951 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,020 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 30, 1979, at site 0.7 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 3 to Dec. 3, Dec. 13 to Feb. 5, and Feb. 11. Records good except those for estimated daily discharges, which are fair. Flow completely regulated by Keyhole Reservoir, 0.9 mi upstream, since February 1952. (See sta 06427000.) Diversions for irrigation of about 820 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft³/s, May 23, 1978, gage height, 10.65 ft, at present datum; maximum gage height, 6.30 ft, Sept. 5, 1951, site and datum then in use; minimum daily discharge since appreciable storage in Keyhole Reservoir, 0.30 ft³/s, Feb. 6-20, 1960; no flow at times in 1951-52.

EXTREMES FOR CURRENT YEAR: Maximum discharge, 184 ft³/s, July 11, gage height, 6.99 ft; minimum daily, 1.4 ft³/s, May 13-15, 28, 29, 31, June 15, July 6, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	2.1	2.0	2.1	2.1	2.1	2.0	1.8	1.7	2.0	100	37
2	2.3	2.0	2.0	2.0	2.1	2.1	2.0	1.8	1.7	1.7	100	36
3	2.3	2.0	2.0	2.0	2.1	2.0	2.1	1.8	2.3	1.7	100	36
4	2.3	2.0	2.0	2.0	2.1	2.0	2.1	1.7	1.8	1.5	100	36
5	2.3	2.0	2.1	2.0	2.1	2.1	2.1	1.7	1.5	1.5	100	36
6	2.3	2.0	2.1	2.1	2.1	2.1	2.1	1.7	1.8	1.4	84	36
7	2.3	2.0	2.1	2.1	2.1	2.1	2.0	1.8	1.7	1.5	72	36
8	2.3	2.0	2.1	2.1	2.0	2.1	2.0	2.0	2.1	1.4	72	36
9	2.0	2.0	2.0	2.0	2.1	2.2	2.0	2.3	1.9	1.5	72	35
10	2.0	2.0	2.0	2.0	2.1	2.3	2.0	2.5	1.8	1.5	72	21
11	2.0	2.0	2.0	2.0	2.0	2.3	2.0	2.0	1.7	74	71	2.7
12	1.8	2.0	2.1	2.0	2.0	2.3	2.0	2.3	1.7	125	70	2.1
13	1.8	2.0	2.0	2.0	2.1	2.3	2.0	1.4	1.5	126	70	2.0
14	1.8	2.0	2.0	2.0	2.1	2.3	1.8	1.4	1.5	125	69	2.5
15	2.0	2.0	2.0	2.0	2.0	2.3	1.8	1.4	1.4	124	70	2.3
16	2.0	2.0	2.0	2.1	2.0	2.3	1.7	1.5	1.5	121	70	2.3
17	2.0	2.0	2.1	2.1	2.0	2.1	1.8	1.5	1.5	119	70	2.7
18	2.0	2.0	2.1	2.1	2.1	2.1	2.0	1.5	1.5	117	70	2.3
19	2.0	2.0	2.1	2.1	2.1	2.1	1.8	1.7	1.6	117	70	2.3
20	2.0	2.0	2.1	2.1	2.1	2.1	1.8	1.7	1.7	117	61	2.3
21	2.0	2.0	2.1	2.0	2.1	2.3	2.0	1.7	1.5	118	55	2.2
22	2.0	2.0	2.1	2.0	2.0	2.3	2.0	1.7	1.6	118	56	2.1
23	1.8	2.0	2.0	2.0	2.1	2.3	2.1	1.7	1.8	116	56	2.1
24	1.8	2.0	2.0	2.0	2.1	2.3	1.5	1.7	1.8	114	56	2.5
25	2.0	2.0	2.0	2.1	2.1	2.1	1.8	1.7	1.8	114	56	2.9
26	1.5	2.0	2.0	2.0	2.1	2.1	1.8	1.5	1.9	114	56	1.7
27	1.8	2.0	2.0	2.0	2.1	2.1	2.0	1.5	2.0	117	48	2.0
28	2.0	2.0	2.0	2.0	2.1	2.1	2.0	1.4	1.8	117	38	2.0
29	1.8	2.0	2.0	2.0	2.0	2.1	2.0	1.4	2.0	118	38	2.1
30	2.1	2.0	2.1	2.1	---	2.1	1.8	1.5	2.7	118	37	2.1
31	2.1	---	2.1	2.1	---	2.1	---	1.4	---	109	37	---
TOTAL	62.7	60.1	63.3	63.2	58.1	67.2	58.1	52.7	52.8	2453.7	2096	390.2
MEAN	2.02	2.00	2.04	2.04	2.07	2.17	1.94	1.70	1.76	79.2	67.6	13.0
MAX	2.3	2.1	2.1	2.1	2.1	2.3	2.1	2.5	2.7	126	100	37
MIN	1.5	2.0	2.0	2.0	2.0	2.0	1.5	1.4	1.4	1.4	37	1.7
AC-FT	124	119	126	125	115	133	115	105	105	4870	4160	774
CAL YR 1985	TOTAL	10761.7		MEAN	29.5	MAX	175	MIN	1.5	AC-FT	21350	
WTR YR 1986	TOTAL	5478.1		MEAN	15.0	MAX	126	MIN	1.4	AC-FT	10870	

CHEYENNE RIVER BASIN

06427500 BELLE FOURCHE RIVER BELOW KEYHOLE RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1984 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 11...	1300	1.6	22.5	0.02	0.04	<0.01	<0.01	<0.01	<0.01
JUL 15...	1530	124	21.5	0.06	0.03	0.05	<0.01	<0.01	<0.01

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY

LOCATION.--Lat 44°35'22", long 104°42'12", in NW1/4 SE1/4 SE1/4 sec.7, T.53 N., R.65 W., Crook County, Hydrologic Unit 10120201, at bridge 0.2 mi west of entrance to Devils Tower National Monument.

PERIOD OF RECORD.--Water years 1968 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 23...	0915	4.5	1650	5.5	660	170	58	150	3	7.6
JAN 14...	1330	3.7	1680	0.0	610	150	57	150	3	5.6
MAY 07...	1440	38	1270	10.0	640	180	47	52	0.9	5.5

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 23...	210	720	14	0.3	4.9	1300	1.7	15	0.00	0.01
JAN 14...	240	650	17	0.2	8.8	1200	1.6	12	0.10	0.11
MAY 07...	170	540	5.0	0.2	3.8	940	1.3	96	0.00	0.06

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- DON) VEL D) (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY 07...	1440	38	10.0	<0.01	0.3	<0.01	<0.01	<0.01	<0.01
JUL 15...	1715	121	26.0	0.07	0.05	0.04	<0.01	<0.01	<0.01
AUG 20...	1200	59	21.5	0.05	0.04	0.04	<0.01	<0.01	<0.01

CHEYENNE RIVER BASIN

06428050 BELLE FOURCHE RIVER BELOW HULETT, WY

LOCATION.--Lat 44°42'04", long 104°35'07", in SW1/4 NE1/4 sec.6, T.54 N., R.64 W., Crook County, Hydrologic Unit 10120201, at bridge, 1.3 mi northeast of Hulett, and 4.7 mi downstream from Blacktail Creek.

PERIOD OF RECORD.--February 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 23...	1100	11	1950	8.1	6.0	660	12.2
DEC 04...	1115	6.7	2080	7.8	0.0	675	10.2
JAN 14...	1600	8.6	2140	8.1	0.0	670	11.2
FEB 19...	1430	9.2	1820	8.3	0.0	665	11.4
APR 09...	0930	34	1380	7.7	10.5	672	10.8
MAY 07...	1630	47	1440	8.4	8.5	670	11.1
JUN 11...	1015	60	1340	8.3	17.5	590	8.1
JUL 16...	0930	122	1220	8.1	22.5	660	6.9
AUG 04...	1415	99	1300	8.5	25.0	660	10.6
20...	1000	67	1410	8.4	20.0	680	8.8

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 23...	114	K5800	<0.10	0.11	0.19	0.3	0.01
DEC 04...	79	470	0.40	0.21	0.29	0.5	0.04
JAN 14...	88	K8000	0.40	0.20	0.4	0.6	0.08
FEB 19...	90	140	0.40	0.16	0.64	0.8	0.06
APR 09...	110	470	<0.10	0.08	0.62	0.7	0.07
MAY 07...	109	K1000	<0.10	0.09	0.41	0.5	0.03
JUN 11...	110	1500	<0.10	0.11	0.59	0.7	0.13
JUL 16...	93	550	<0.10	0.11	0.99	1.1	0.10
AUG 04...	150	130	<0.10	0.04	0.66	0.7	0.22
20...	109	200	<0.10	<0.01	--	0.5	0.02

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY 07...	1630	47	8.5	0.01	0.7	<0.01	<0.01	<0.01	<0.01
JUL 16...	0930	122	22.5	0.05	0.07	0.06	<0.01	<0.01	<0.01
AUG 20...	1000	67	20.0	0.03	0.11	0.02	<0.01	<0.01	<0.01

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°44'59", long 104°02'49", in NE1/4 NW1/4 NW1/4 sec.18, T.9 N., R.1 E., Butte County, Hydrologic Unit 10120202, on left bank 0.3 mi downstream from State line, 3.7 mi downstream from Oak Creek, and 11 mi northwest of Belle Fourche, SD.

DRAINAGE AREA.--3,280 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1946 to current year. Records for water year 1947 incomplete, yearly estimate published in WSP 1729.

GAGE.--Water-stage recorder. Datum of gage is 3,095.7 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for period of estimated record, which is poor. Estimated daily discharges during water year: Nov. 9 to Mar. 5. Diversions upstream from station for irrigation of about 5,400 acres. Flow regulated by Keyhole Dam, usable capacity, 191,600 acre-ft, 143 mi upstream since Oct. 25, 1952.

AVERAGE DISCHARGE.--40 years, 89.9 ft³/s, 65,130 acre-ft/yr; median of yearly mean discharges, 85 ft³/s, 61,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft³/s, June 18, 1962, gage height, 15.59 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,300 ft³/s at 1930 hours, May 9, gage height, 9.18 ft; minimum daily discharge, 3.0 ft³/s, Dec. 3, 13-14.

CORRECTIONS.--Published acre-feet for October of 1984 and 1985 water years is in error. Correct figures are as follows: October 1983, 1,570; October 1984, 1,600.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	14	4.5	9.0	20	300	47	230	59	34	118	54
2	19	14	3.5	11	20	400	46	175	51	62	112	59
3	19	14	3.0	13	20	300	54	141	48	97	107	48
4	19	14	3.5	13	20	200	66	119	416	70	102	48
5	19	14	4.0	13	20	130	120	114	262	56	87	61
6	19	14	4.5	12	20	98	169	120	181	43	84	55
7	18	13	5.0	11	19	60	91	137	113	37	83	48
8	18	14	5.0	11	18	74	98	300	154	37	85	48
9	19	14	5.0	11	18	106	132	902	358	32	81	52
10	18	13	4.5	11	17	123	92	792	157	29	68	61
11	18	13	4.0	12	17	120	71	545	112	32	62	64
12	18	12	3.5	13	17	160	60	723	102	31	61	54
13	17	12	3.0	14	18	115	57	921	104	26	61	49
14	17	11	3.0	15	19	99	42	512	108	25	67	42
15	16	12	3.5	16	22	80	57	342	93	81	64	33
16	16	13	4.0	18	25	74	69	257	91	108	63	33
17	16	13	4.5	18	22	71	87	208	76	112	61	29
18	16	12	4.0	18	21	70	234	178	67	109	60	26
19	15	11	4.0	19	21	61	174	157	59	112	61	26
20	15	10	4.5	18	21	67	129	142	54	122	61	25
21	15	9.0	5.0	17	22	106	158	128	48	125	61	24
22	15	8.0	5.5	17	21	107	137	116	42	125	60	22
23	15	8.0	5.0	18	22	71	126	106	41	131	61	21
24	14	8.5	4.5	19	25	55	104	98	41	123	57	20
25	14	8.0	5.0	19	35	51	113	96	43	125	53	323
26	14	7.0	5.5	18	50	52	213	92	38	125	52	173
27	14	6.0	5.5	18	80	60	471	86	37	126	53	120
28	14	6.5	5.5	19	120	58	357	80	35	128	53	173
29	14	6.0	5.5	20	---	56	368	72	33	122	50	94
30	14	5.5	6.0	20	---	53	349	67	32	115	49	73
31	14	---	7.0	20	---	50	---	65	---	117	45	---
TOTAL	508	329.5	140.5	481.0	770	3427	4291	8021	3055	2617	2142	1958
MEAN	16.4	11.0	4.53	15.5	27.5	111	143	259	102	84.4	69.1	65.3
MAX	19	14	7.0	20	120	400	471	921	416	131	118	323
MIN	14	5.5	3.0	9.0	17	50	42	65	32	25	45	20
AC-FT	1010	654	279	954	1530	6800	8510	15910	6060	5190	4250	3880
CAL YR 1985	TOTAL	16379.0		MEAN	44.9	MAX	510	MIN	3.0	AC-FT	32490	
WTR YR 1986	TOTAL	27740.0		MEAN	76.0	MAX	921	MIN	3.0	AC-FT	55020	

CHEYENNE RIVER BASIN

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 23...	1440	16	2170	8.0	1000	280	83	150	2	9.6
JAN 15...	0700	16	2200	0.0	1000	270	82	150	2	7.9
APR 09...	0745	177	1540	9.5	660	170	56	97	2	8.5

DATE	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 23...	170	1100	15	0.5	2.4	1800	2.4	77	0.00	0.01
JAN 15...	200	1100	14	0.3	5.4	1800	2.4	76	0.20	0.72
APR 09...	120	710	7.0	0.6	6.6	1100	1.5	539	0.10	0.40

06430000 MURRAY DITCH AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°34'35", long 104°02'58", in SW1/4 SW1/4 sec.7, T.7 N., R.1 E., Butte County, Hydrologic Unit 10120203, on right bank 15 ft downstream from State line and 12 mi southwest of Belle Fourche, SD.

PERIOD OF RECORD.--June 1954 to current year (irrigation seasons only prior to October 1959).

GAGE.--Water-stage recorder. Elevation of gage is 3,440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges during water year. Records good. Ditch diverts water from left bank of Redwater Creek, 2.0 mi upstream, for irrigation of about 700 acres. Flow maintained during irrigation season only.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 37 ft³/s, July 17, 1973; no flow for long periods in each year.

CORRECTIONS.--Published acre-feet for October of 1984 and 1985 water years is in error. Correct figures are as follows: October 1983, 497; October 1984, 619.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	2.2	.00	.00	.00	.00	.00	.00	.00	.00	7.8	13
2	15	2.1	.00	.00	.00	.00	.00	.00	.00	.00	10	13
3	15	2.1	.00	.00	.00	.00	.00	.00	.00	.00	11	13
4	15	1.9	.00	.00	.00	.00	.00	.00	.00	.00	12	13
5	15	1.8	.00	.00	.00	.00	.00	.00	.00	.00	12	10
6	15	1.8	.00	.00	.00	.00	.00	.00	.00	.00	12	7.0
7	15	1.7	.00	.00	.00	.00	.00	.00	.00	.00	10	2.7
8	12	.50	.00	.00	.00	.00	.00	.00	.00	.00	7.9	2.9
9	8.6	.00	.00	.00	.00	.00	.00	.00	1.8	.00	10	2.7
10	5.9	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	1.2
11	3.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	1.2
12	3.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	13	1.1
13	3.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	1.1
14	3.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	1.1
15	3.7	.00	.00	.00	.00	.00	.00	.00	.00	.00	13	1.1
16	4.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	13	1.1
17	4.1	.00	.00	.00	.00	.00	.00	.00	.00	.00	12	1.1
18	3.9	.00	.00	.00	.00	.00	.00	.00	.00	6.6	13	1.1
19	3.7	.00	.00	.00	.00	.00	.00	.00	.00	10	13	.90
20	3.6	.00	.00	.00	.00	.00	.00	.00	.00	12	13	.80
21	3.4	.00	.00	.00	.00	.00	.00	.00	.00	12	15	.50
22	3.3	.00	.00	.00	.00	.00	.00	.00	.00	12	15	.50
23	3.1	.00	.00	.00	.00	.00	.00	.00	.00	12	14	.50
24	2.9	.00	.00	.00	.00	.00	.00	.00	.00	13	14	.80
25	2.8	.00	.00	.00	.00	.00	.00	.00	.00	14	14	.80
26	2.6	.00	.00	.00	.00	.00	.00	.00	.00	13	13	.60
27	2.5	.00	.00	.00	.00	.00	.00	.00	.00	11	13	.30
28	2.4	.00	.00	.00	.00	.00	.00	.00	.00	11	13	.00
29	2.4	.00	.00	.00	.00	.00	.00	.00	.00	8.3	12	.00
30	2.3	.00	.00	.00	.00	.00	.00	.00	.00	6.9	12	.00
31	2.3	---	.00	.00	---	.00	---	.00	---	7.0	12	---
TOTAL	197.8	14.10	.00	.00	.00	.00	.00	.00	1.80	148.80	377.7	93.10
MEAN	6.38	.47	.00	.00	.00	.00	.00	.00	.06	4.80	12.2	3.10
MAX	15	2.2	.00	.00	.00	.00	.00	.00	1.8	14	15	13
MIN	2.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.8	.00
AC-FT	392	28	.00	.00	.00	.00	.00	.00	3.6	295	749	185
CAL YR 1985	TOTAL	2269.60		MEAN	6.22	MAX	26	MIN	.00	AC-FT	4500	
WTR YR 1986	TOTAL	833.30		MEAN	2.28	MAX	15	MIN	.00	AC-FT	1650	

06430500 REDWATER CREEK AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°34'26", long 104°02'54", in NW1/4 NW1/4 sec.18, T.7 N., R.1 E., Butte County, Hydrologic Unit 10120203, on left bank 800 ft downstream from State line, 5.7 mi upstream from Crow Creek, and 12 mi southwest of Belle Fourche, SD.

DRAINAGE AREA.--471 mi².

PERIOD OF RECORD.--April 1929 to September 1931 and February 1936 to July 1937 (published as "near Beulah, WY"), June 1954 to current year.

REVISED RECORDS.--WSP 1309: 1931(M), 1936-37(M).

GAGE.--Water-stage recorder. Elevation of gage is 3,410 ft above National Geodetic Vertical Datum of 1929, from topographic map. Apr. 25, 1929, to Sept. 30, 1931, and Feb. 28, 1936, to July 31, 1937, nonrecording gage at site 2 mi upstream at different datum.

REMARKS.--Records good except for periods of estimated record, which are fair. Estimated daily discharges during water year: Nov. 17 to Dec. 5, Dec. 11-14, Jan. 2-6, and Feb. 9-14. Large diversions for irrigation upstream from station. Total flow passing State line may be obtained by adding flow of Murray ditch (see station 06430000).

AVERAGE DISCHARGE.--34 years, 35.4 ft³/s, 25,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,440 ft³/s, Aug. 22, 1973, gage height, 12.19 ft, from rating curve extended above 1,000 ft³/s on basis of slope-area measurement at gage height, 11.95 ft; no flow Aug. 13-15, 1929.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 4	0745	328	5.05	June 30	1845	*465	*5.71
June 9	1945	170	4.06				

Minimum daily discharge, 13 ft³/s, Oct. 4-7, July 20.

CORRECTIONS.--Published acre-feet for October of 1984 and 1985 water years is in error. Correct figures are as follows: October 1983, 1,880; October 1984, 1,890.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	24	19	26	28	29	27	37	38	61	17	20
2	14	24	22	26	28	28	28	35	39	41	18	20
3	14	24	27	26	28	27	29	35	39	39	21	21
4	13	24	29	26	28	27	29	35	108	38	19	21
5	13	24	29	25	28	27	29	35	41	37	19	19
6	13	24	28	25	28	38	29	33	40	31	18	24
7	13	24	27	26	28	38	28	34	44	31	19	34
8	16	25	28	26	27	34	33	36	42	32	17	34
9	20	26	27	27	27	33	37	45	64	31	16	34
10	24	26	27	27	25	27	31	54	52	30	17	36
11	28	25	25	27	25	26	28	57	45	27	19	34
12	28	25	24	26	25	26	28	53	38	28	21	32
13	27	26	24	26	27	26	23	44	37	28	22	33
14	27	26	26	27	28	26	26	42	37	30	20	34
15	26	26	28	27	28	26	27	41	36	30	19	34
16	24	27	27	27	28	26	28	35	35	30	20	34
17	24	26	27	27	28	26	31	35	35	30	19	33
18	24	26	27	26	28	27	37	32	33	28	19	33
19	24	26	28	27	28	26	35	32	34	20	20	34
20	25	25	27	27	28	26	36	32	34	13	19	33
21	27	25	27	28	28	26	37	34	34	14	19	33
22	27	24	27	27	28	26	40	35	32	14	21	33
23	26	24	26	27	28	26	33	37	32	15	19	33
24	26	23	26	28	28	26	32	36	34	15	19	34
25	26	22	26	28	29	26	36	35	35	17	19	39
26	26	22	26	27	29	26	36	35	34	18	18	34
27	26	21	26	27	29	27	40	35	34	17	19	32
28	25	20	26	27	29	27	45	36	35	17	19	32
29	25	20	26	27	---	26	45	36	35	18	18	32
30	24	19	26	27	---	26	42	37	103	16	17	32
31	24	---	26	27	---	26	---	38	---	17	18	---
TOTAL	693	723	814	827	776	857	985	1176	1279	813	585	931
MEAN	22.4	24.1	26.3	26.7	27.7	27.6	32.8	37.9	42.6	26.2	18.9	31.0
MAX	28	27	29	28	29	38	45	57	108	61	22	39
MIN	13	19	19	25	25	26	23	32	32	13	16	19
AC-FT	1370	1430	1610	1640	1540	1700	1950	2330	2540	1610	1160	1850
CAL YR 1985	TOTAL	7605.8		MEAN	20.8	MAX	35	MIN	1.3	AC-FT	15090	
WTR YR 1986	TOTAL	10459		MEAN	28.7	MAX	108	MIN	13	AC-FT	20750	

06454000 NIOBRARA RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 42°39'33", long 104°03'54", in SE1/4 SW1/4 sec.15, T.31 N., R.60 W., Niobrara County, Wyoming, Hydrologic Unit 10150002, on left bank 0.2 mi downstream from Van Tassel Creek, 0.3 mi upstream from Wyoming-Nebraska State line, and 3 mi east of Van Tassel, WY.

DRAINAGE AREA.--450 mi², approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 4,687.70 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 11-24, Nov. 11, 19, 20, 22, 23, Dec. 1, 2, Jan. 2-4, and Feb. 6, 7. Records good except for estimated daily discharges, which are fair. Diversions for irrigation of about 4,700 acres upstream from station.

AVERAGE DISCHARGE.--31 years, 3.80 ft³/s, 2,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft³/s, Aug. 16, 1977, gage height, 8.28 ft in gage well, from rating curve extended above 800 ft³/s on basis of computation of peak flow from slope-area measurement; minimum daily, 0.54 ft³/s, Aug. 9, 10, 12, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 20 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 24	1145	24	2.17	Feb. 26	1400	*30	2.28
Feb. 18	1515	28	2.23	July 1	0545	(a)	*3.19

a Backwater from moss in channel.

Minimum daily discharge, 1.2 ft³/s, Jan. 6-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.3	2.0	1.8	2.0	10	3.7	5.6	3.5	6.2	1.7	2.1
2	1.8	2.2	2.0	2.0	2.1	9.4	3.8	5.6	3.2	5.0	1.9	2.2
3	1.8	2.2	2.0	2.5	2.1	8.9	4.3	5.5	3.2	4.3	2.1	2.1
4	1.9	2.2	2.0	2.0	2.1	8.4	4.7	5.5	3.5	4.0	2.7	2.0
5	1.9	2.2	2.1	1.3	2.0	8.2	5.1	5.2	3.8	3.8	2.6	2.2
6	1.9	2.2	2.0	1.2	2.0	7.8	5.1	4.9	4.2	3.6	2.2	2.4
7	1.8	2.0	2.0	1.2	2.2	7.6	4.8	5.3	4.4	3.7	2.1	2.5
8	1.8	2.2	2.0	1.2	2.2	7.1	4.6	5.4	5.2	3.4	2.4	2.2
9	1.9	2.0	2.1	1.2	2.2	6.5	4.6	6.5	7.9	3.0	2.4	2.4
10	1.9	2.0	2.0	1.2	2.2	6.0	4.8	5.7	12	3.4	2.4	3.7
11	1.9	2.0	2.0	1.3	2.2	5.7	4.7	5.1	3.8	3.2	2.5	2.9
12	1.9	2.0	2.0	1.4	2.2	5.7	4.5	4.9	2.4	3.1	2.5	2.7
13	1.9	2.0	1.9	1.4	2.4	5.5	4.8	4.6	3.7	2.5	2.5	2.7
14	1.9	2.0	2.1	1.4	2.2	5.3	4.3	4.5	4.4	2.2	2.6	2.7
15	1.9	2.0	1.8	1.4	2.3	5.4	4.3	4.4	5.2	2.1	2.6	2.9
16	1.9	2.0	1.8	1.5	2.5	5.2	4.2	4.4	7.2	1.8	2.1	3.0
17	1.9	2.0	1.8	1.5	3.2	5.5	4.4	4.3	9.0	1.3	2.0	3.0
18	1.9	2.1	1.8	1.7	9.4	5.5	6.3	4.3	8.5	1.3	1.9	2.0
19	1.9	2.1	3.2	1.7	7.8	5.2	5.1	4.6	7.8	1.6	1.9	3.5
20	1.9	2.1	1.7	1.9	4.2	5.5	4.6	4.4	7.8	4.7	1.9	2.1
21	1.9	2.1	1.8	1.6	3.8	5.1	4.8	4.6	8.2	4.2	2.1	2.2
22	1.9	2.1	1.9	1.5	5.3	4.7	4.8	4.6	7.9	2.8	1.9	2.6
23	1.9	2.2	1.9	1.6	5.9	4.6	4.8	4.6	6.5	2.3	2.0	2.7
24	1.9	2.4	3.0	1.6	5.8	4.2	5.6	4.6	6.2	2.4	2.0	3.2
25	1.9	2.3	2.1	1.7	6.0	4.0	6.9	4.4	6.5	2.3	2.0	3.4
26	1.9	2.1	1.8	1.6	20	4.0	7.4	4.4	6.7	1.9	2.0	2.7
27	1.9	1.9	2.0	1.6	11	4.0	7.6	4.2	6.2	1.7	2.0	2.7
28	1.9	1.9	1.9	1.7	13	4.1	6.6	4.0	5.6	1.6	2.0	3.5
29	1.9	2.4	1.9	1.7	---	4.1	5.9	3.7	5.0	1.5	2.0	3.2
30	2.1	2.1	1.9	1.8	---	3.9	5.8	3.7	5.4	1.5	2.0	3.2
31	2.1	---	1.9	1.9	---	3.9	---	3.5	---	1.6	2.1	---
TOTAL	58.8	63.3	62.4	49.1	130.3	181.0	152.9	147.0	174.9	88.0	67.1	80.7
MEAN	1.90	2.11	2.01	1.58	4.65	5.84	5.10	4.74	5.83	2.84	2.16	2.69
MAX	2.1	2.4	3.2	2.5	20	10	7.6	6.5	12	6.2	2.7	3.7
MIN	1.8	1.9	1.7	1.2	2.0	3.9	3.7	3.5	2.4	1.3	1.7	2.0
AC-FT	117	126	124	97	258	359	303	292	347	175	133	160
CAL YR 1985	TOTAL	957.2		MEAN	2.62	MAX	15	MIN	1.2	AC-FT	1900	
WTR YR 1986	TOTAL	1255.5		MEAN	3.44	MAX	20	MIN	1.2	AC-FT	2490	

PLATTE RIVER BASIN

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO

LOCATION.--Lat 40°56'15", long 106°20'16", in NE1/4 SW1/4 SE1/4 sec.11, T.11 N., R.80 W., Jackson County, Hydrologic Unit 10180001, on right bank 1,000 ft downstream from bridge on State Highway 125, 0.7 mi upstream from Camp Creek, 4.2 mi northwest of Northgate, and 4.4 mi south of Colorado-Wyoming State line.

DRAINAGE AREA.--1,431 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to November 1904 (published as "near Pinkhampton"), May 1915 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1916-21, 1929(M), 1930-32. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,810.39 ft above National Geodetic Vertical Datum of 1929. See WSP 1730 for history of changes prior to Apr. 8, 1918. Apr. 8, 1918, to Aug. 21, 1961, water-stage recorder at site 0.7 mi downstream at datum 3.36 ft lower. Aug. 22, 1961, to Sept. 18, 1984, at site 650 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 9 to Mar. 27 and June 3-5. Records fair except those for estimated daily discharges, which are poor. Diversions for irrigation of about 130,000 acres of hay meadows upstream from station. Transbasin diversions upstream from station to Cache la Poudre River basin.

AVERAGE DISCHARGE.--71 years, 447 ft³/s, 324,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,720 ft³/s, June 11, 1923, gage height, 6.24 ft, site and datum then in use; maximum gage height recorded, 9.65 ft, Apr. 25, 1980, ice jam; minimum daily discharge, 19 ft³/s, July 17-19, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,750 ft³/s, June 11, gage height, 6.63 ft; minimum daily, 110 ft³/s, Nov. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	194	272	152	190	165	340	2330	1540	2380	2170	566	363
2	171	270	166	180	170	352	2210	1780	2440	1950	544	363
3	161	270	180	177	175	363	2030	1970	2440	1590	524	324
4	152	272	190	170	180	372	1460	2140	2660	1440	513	319
5	145	266	198	160	177	387	1400	2350	2900	1540	529	285
6	141	252	212	162	175	390	1570	2550	3040	1960	499	257
7	145	213	215	157	168	415	1680	2550	3150	1980	442	238
8	205	247	225	152	162	460	1720	2240	3260	1740	461	234
9	276	220	213	153	150	507	1690	2210	3390	1530	471	242
10	294	160	193	156	146	565	1590	2100	3940	1430	463	242
11	350	192	171	152	143	615	1470	1730	4620	1400	434	249
12	466	260	154	146	140	595	1400	1560	4240	1320	416	257
13	472	230	147	147	147	565	1470	1410	3370	1190	420	242
14	445	110	158	144	152	540	1370	1400	2880	1090	410	221
15	388	147	166	144	157	515	1170	1420	2540	1180	386	208
16	357	212	172	147	170	510	1140	1520	2430	1220	358	193
17	358	253	178	149	182	496	1220	1740	2360	1340	330	190
18	346	225	184	151	192	474	1200	1620	2420	1290	311	186
19	333	193	186	154	203	455	1010	1470	2610	1190	298	193
20	312	167	190	159	217	445	909	1490	2690	1080	305	197
21	296	147	183	155	230	447	930	1660	2610	1050	392	193
22	290	138	178	152	244	495	1170	1850	2420	1020	455	200
23	291	128	172	153	253	555	1490	2080	2190	918	428	212
24	285	138	170	156	270	680	1790	2040	2040	871	379	215
25	284	150	163	151	280	790	1910	1880	2020	867	352	227
26	269	167	159	146	290	970	1990	1870	2180	871	366	257
27	263	197	154	147	310	1170	1940	1980	2550	847	343	297
28	257	183	151	149	323	1460	1560	2150	2640	797	306	306
29	255	188	154	153	---	1960	1340	2130	2190	715	277	306
30	261	168	162	157	---	2190	1360	2190	2190	640	277	310
31	262	---	177	162	---	2310	---	2340	---	593	347	---
TOTAL	8724	6035	5473	4831	5571	22388	45519	58960	82790	38819	12602	7526
MEAN	281	201	177	156	199	722	1517	1902	2760	1252	407	251
MAX	472	272	225	190	323	2310	2330	2550	4620	2170	566	363
MIN	141	110	147	144	140	340	909	1400	2020	593	277	186
AC-FT	17300	11970	10860	9580	11050	44410	90290	116900	164200	77000	25000	14930
CAL YR 1985	TOTAL	193614		MEAN	530	MAX	2460	MIN	110	AC-FT	384000	
WTR YR 1986	TOTAL	299238		MEAN	820	MAX	4620	MIN	110	AC-FT	593500	

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 02...	1030	170	280	9.0	110	29	8.9	14	0.6	1.6
NOV 07...	1140	179	270	1.0	110	31	7.5	13	0.6	1.3
DEC 18...	1200	190	293	0.0	120	33	8.8	15	0.6	1.5
JAN 29...	1200	152	278	0.0	120	35	9.0	14	0.6	1.4
APR 23...	1100	1430	247	9.0	96	26	7.5	13	0.6	1.6
MAY 05...	1300	2380	175	10.0	72	21	4.7	8.7	0.5	1.5
JUN 05...	1730	2920	218	17.5	87	24	6.5	11	0.5	1.6
25...	1810	2050	207	16.0	89	25	6.4	9.4	0.5	0.8

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 02...	110	26	2.7	0.3	10	160	0.22	73	0.00	0.14
NOV 07...	100	26	2.3	0.4	10	150	0.21	73	0.00	0.02
DEC 18...	110	30	2.8	0.4	13	170	0.23	87	0.10	0.03
JAN 29...	120	29	2.6	0.4	5.3	170	0.23	69	0.10	0.06
APR 23...	85	29	2.6	0.2	10	140	0.19	544	0.00	0.13
MAY 05...	67	19	1.1	0.3	10	110	0.14	684	0.00	0.13
JUN 05...	88	17	1.3	0.1	9.7	120	0.17	977	0.00	0.08
25...	98	14	1.7	0.4	8.2	120	0.17	690	0.10	0.10

06622700 NORTH BRUSH CREEK NEAR SARATOGA, WY

LOCATION.--Lat 41°22'13", long 106°31'12", in NW1/4 SW1/4 NE1/4 sec.8, T.16 N., R.81 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on right bank 0.2 mi upstream from bridge on logging road, 0.5 mi downstream from Lincoln Creek, 1.6 mi upstream from South Brush Creek, and 16 mi southeast of Saratoga.

DRAINAGE AREA.--37.4 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 8,020 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 17, 1971, at site 0.22 mi downstream at different datum. June 17, 1971, to Aug. 2, 1984, at site 0.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 6-22, Jan. 15-28, Feb. 5-14, 20, 21, 25-28, Mar. 1-6, 8-24, 26-28, 30, and Apr. 1, 14, 15, 19. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--26 years, 52.3 ft³/s, 37,890 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,360 ft³/s, June 25, 1983, gage height, 4.23 ft, site and datum then in use; minimum daily, 4.7 ft³/s, Oct. 27-29, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 21	2000	409	3.79	June 10	0500	a*1,120	*5.36
June 1	2000	666	4.48				

a From rating curve extended above 520 ft³/s on basis of slope-area measurement of peak flow.

Minimum daily discharge, 8.8 ft³/s, Mar. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	19	12	11	11	9.4	27	52	515	136	18	16
2	14	16	12	10	11	9.4	29	72	534	122	17	13
3	15	14	12	9.8	11	9.4	26	106	545	118	17	12
4	13	14	12	9.8	11	9.4	30	164	524	113	16	11
5	13	13	13	9.4	10	9.4	28	172	490	170	15	10
6	13	12	13	9.8	9.0	9.8	27	133	536	99	15	9.9
7	23	12	13	10	9.0	10	28	116	474	81	14	9.9
8	21	12	12	9.8	9.0	10	28	99	409	70	15	9.8
9	20	12	12	9.8	9.0	9.6	28	85	478	67	15	10
10	21	10	11	9.8	9.0	9.6	27	76	754	64	14	28
11	26	11	11	9.4	9.6	9.2	26	78	413	60	13	20
12	21	12	11	9.4	10	9.0	29	86	350	58	18	14
13	19	11	11	9.4	11	8.8	28	91	339	45	19	11
14	18	9.8	11	9.8	11	9.2	26	102	316	44	14	10
15	19	11	11	9.9	11	9.6	25	104	327	46	12	9.6
16	18	11	11	10	11	9.4	28	106	347	80	11	17
17	17	10	11	10	11	9.2	27	99	349	52	12	18
18	16	9.9	11	10	11	9.2	26	120	343	40	11	18
19	16	9.4	11	10	11	9.2	25	168	320	36	11	21
20	16	9.4	11	10	11	9.6	23	232	277	35	13	19
21	16	9.4	11	10	11	10	28	318	256	41	19	23
22	16	9.4	11	10	11	11	38	331	232	34	14	24
23	14	11	12	10	11	11	52	229	227	37	12	21
24	14	12	12	10	11	12	57	217	218	49	13	21
25	15	12	11	9.9	11	13	58	263	199	53	13	22
26	17	12	11	9.7	10	13	51	328	196	33	12	19
27	17	12	11	10	9.6	15	45	371	191	28	11	18
28	18	12	11	10	9.4	18	43	401	183	24	11	20
29	18	12	11	11	---	23	41	420	185	21	10	19
30	16	12	11	11	---	27	45	434	167	20	12	17
31	17	---	11	11	---	32	---	475	---	19	16	---
TOTAL	537	352.3	355	309.7	290.6	373.4	999	6048	10694	1895	433	491.2
MEAN	17.3	11.7	11.5	9.99	10.4	12.0	33.3	195	356	61.1	14.0	16.4
MAX	26	19	13	11	11	32	58	475	754	170	19	28
MIN	13	9.4	11	9.4	9.0	8.8	23	52	167	19	10	9.6
AC-FT	1070	699	704	614	576	741	1980	12000	21210	3760	859	974
CAL YR 1985	TOTAL	16414.8		MEAN	45.0	MAX	376	MIN	7.5	AC-FT	32560	
WTR YR 1986	TOTAL	22778.2		MEAN	62.4	MAX	754	MIN	8.8	AC-FT	45180	

PLATTE RIVER BASIN

223

06622900 SOUTH BRUSH CREEK NEAR SARATOGA, WY

LOCATION.--Lat 41°20'38", long 106°31'33", in NE1/4 NW1/4 sec.20, T.16 N., R.81 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 300 ft upstream from culvert on State Highway 130, 1.6 mi upstream from North Brush Creek, and 17 mi southeast of Saratoga.

DRAINAGE AREA.--22.8 mi².

PERIOD OF RECORD.--May 1960 to September 1974, May 1976 to September 1977, May 1979 to current year (no winter records since 1972).

GAGE.--Water-stage recorder. Elevation of gage is 8,100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Transbasin diversion 0.3 mi upstream from station for irrigation in North Brush Creek basin.

COOPERATION.--Records provided by Office of Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--12 years (water years 1961-72), 31.8 ft³/s, 23,040 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 559 ft³/s, June 10, 1965, gage height, 4.09 ft; minimum daily, 0.80 ft³/s, Aug. 15-20, 28, 29, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 323 ft³/s, June 6, gage height, 3.53 ft; minimum daily during period of operation, 4.0 ft³/s, Sept. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	47	248	85	4.8	5.5
2							---	65	260	71	5.0	5.3
3							---	88	273	70	5.1	5.3
4							---	108	273	66	5.1	5.1
5							---	108	268	102	5.1	5.1
6							---	83	275	50	5.1	5.0
7							---	77	278	37	5.3	5.0
8							---	66	270	25	5.5	5.1
9							---	57	268	18	5.5	4.8
10							---	50	258	16	5.5	5.0
11							---	52	193	13	5.5	4.6
12							---	55	193	9.6	5.5	4.3
13							---	58	168	8.6	5.5	4.0
14							---	65	166	8.3	5.5	4.0
15							---	66	166	12	5.5	4.3
16							---	66	186	12	5.3	4.3
17							---	62	215	9.0	5.1	4.5
18							20	78	208	7.4	5.0	4.5
19							21	98	190	7.2	5.0	5.0
20							18	122	176	7.7	5.0	4.8
21							23	143	180	7.7	5.0	5.0
22							36	145	172	7.2	4.6	5.1
23							49	115	166	7.4	4.6	5.1
24							52	117	158	7.2	4.8	5.1
25							48	134	139	7.4	4.8	5.3
26							40	156	136	6.6	5.0	5.3
27							33	168	130	5.9	5.1	5.1
28							29	178	122	5.5	5.3	5.1
29							29	193	122	5.1	5.3	5.0
30							36	203	101	5.0	5.5	5.0
31							---	233	---	4.8	5.5	---
TOTAL							---	3256	5958	704.6	160.4	146.6
MEAN							---	105	199	22.7	5.17	4.89
MAX							---	233	278	102	5.5	5.5
MIN							---	47	101	4.8	4.6	4.0
AC-FT							---	6460	11820	1400	318	291

PLATTE RIVER BASIN

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY
(Hydrologic bench-mark station)

LOCATION.--Lat 41°01'25", long 106°49'27", in NE1/4 SW1/4 sec.10, T.12 N., R.84 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 0.6 mi upstream from Hog Park Creek and 13 mi south of Encampment.

DRAINAGE AREA.--72.7 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 8,270 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1, 2, 9, Nov. 6 to Jan. 2, Feb. 7-10, and Feb. 26 to Mar. 28. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--22 years, 119 ft³/s, 86,330 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,680 ft³/s, about June 13, 1965 (gage height not determined), from slope-area measurement of peak flow; minimum daily, 9.5 ft³/s, Dec. 31, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 6	2200	1,320	4.69	July 5	0530	779	3.87
June 10	0600	*1,340	*4.71				

Minimum daily discharge, 21 ft³/s, Feb. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	27	28	25	24	34	53	135	834	516	73	50
2	31	37	30	25	25	32	61	180	892	468	71	43
3	29	34	31	25	24	31	58	251	948	453	69	42
4	27	35	30	25	24	30	57	322	967	441	67	37
5	26	34	29	25	24	30	51	326	962	543	69	35
6	27	32	29	25	22	31	52	256	1160	456	63	33
7	44	31	29	25	22	32	54	246	1140	364	62	33
8	42	29	28	25	21	33	58	225	1100	319	67	33
9	40	26	27	25	22	31	61	188	1070	284	60	36
10	46	23	26	24	23	28	62	172	1120	266	57	51
11	50	26	25	24	24	27	58	193	865	244	53	47
12	46	29	24	25	24	25	57	221	856	221	68	37
13	47	28	25	24	25	24	62	228	862	209	64	34
14	34	26	26	24	24	23	54	257	844	198	51	30
15	37	28	26	24	25	24	53	252	880	172	47	29
16	37	30	26	24	25	25	59	233	918	188	46	28
17	39	28	27	24	24	25	61	218	956	164	44	28
18	38	27	27	24	24	26	54	263	969	141	43	28
19	37	25	28	24	25	26	52	343	906	130	42	35
20	40	24	27	25	23	27	49	419	847	125	49	31
21	40	25	27	25	24	28	53	523	838	136	53	52
22	41	26	26	25	26	30	68	534	780	128	46	70
23	39	27	26	27	28	31	95	465	728	118	42	64
24	38	29	26	25	28	31	114	464	722	118	40	69
25	40	31	26	25	30	31	118	501	689	132	43	59
26	43	33	25	25	34	31	110	549	678	133	42	54
27	40	32	24	25	38	33	94	603	635	109	38	53
28	42	31	24	25	35	35	89	677	615	93	36	55
29	42	31	24	25	---	38	95	722	677	83	38	52
30	38	29	25	24	---	44	109	739	579	79	43	51
31	38	---	25	24	---	50	---	789	---	77	45	---
TOTAL	1188	873	826	766	717	946	2071	11494	26037	7108	1631	1299
MEAN	38.3	29.1	26.6	24.7	25.6	30.5	69.0	371	868	229	52.6	43.3
MAX	50	37	31	27	38	50	118	789	1160	543	73	70
MIN	26	23	24	24	21	23	49	135	579	77	36	28
AC-FT	2360	1730	1640	1520	1420	1880	4110	22800	51640	14100	3240	2580
CAL YR 1985	TOTAL	43748		MEAN	120	MAX	1010	MIN	19	AC-FT	86770	
WTR YR 1986	TOTAL	54956		MEAN	151	MAX	1160	MIN	21	AC-FT	109000	

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 03...	0930	30	60	8.2	4.0	556	0.5	8.4	88	K4	K1
MAR 12...	1000	25	60	8.4	0.0	550	1.0	10.5	100	K1	K2
JUN 05...	1230	873	32	7.4	7.5	558	--	8.9	101	K1	K10
AUG 27...	1245	38	65	7.4	15.0	565	--	7.5	101	K8	65

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CAC03	ALKA- LITY, CARBON- ATE IT-FLD (MG/L - CAC03)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)
OCT 03...	26	8.1	1.5	2.3	0.2	0.9	26	28	28	34	0
MAR 12...	27	7.8	1.8	2.5	0.2	0.7	27	29	30	32	2.0
JUN 05...	--	--	--	--	--	--	--	13	13	15	0
AUG 27...	--	--	--	--	--	--	--	--	--	--	--

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 03...	3.9	0.4	<0.1	11	49	45	0.07	4.0	<0.01	<0.10
MAR 12...	4.4	0.4	0.2	13	43	51	0.06	2.9	<0.01	<0.10
JUN 05...	--	--	--	--	--	--	--	--	<0.01	<0.10
AUG 27...	--	--	--	--	--	--	--	--	<0.01	<0.10

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 03...	0.02	0.05	0.06	0.2	<0.01	<0.01	0.01	10	0.81	56
MAR 12...	<0.01	0.04	0.05	0.4	<0.01	<0.01	<0.01	--	--	--
JUN 05...	0.02	0.03	0.04	0.2	0.02	0.01	<0.01	15	35	45
AUG 27...	0.02	<0.01	--	<0.2	0.02	0.01	<0.01	2	0.21	67

PLATTE RIVER BASIN

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
OCT 03...	0930	20	<1	21	<0.5	<1	<1	<3	1	61	1
MAR 12...	1000	30	<1	19	<0.5	<1	1	<3	2	82	6

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 03...	<4	4	0.2	<10	3	<1	<1	37	<6	<3
MAR 12...	<4	2	<0.1	<10	3	<1	<1	44	<6	<3

RADIOCHEMICAL ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)
MAR 12...	1000	<0.4	<0.7	0.9	<0.6	0.8	<0.6	0.03	0.08

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY

LOCATION.--Lat 41°18'12", long 106°42'53", in NE1/4 NW1/4 sec.3, T.15 N., R.83 W., Carbon County, Hydrologic Unit 10180002, on left bank 0.5 mi upstream from mouth and 8.0 mi northeast of Encampment.

DRAINAGE AREA.--265 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1940 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,970 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 28, 1961, water-stage recorder at site 660 ft upstream at datum 2.00 ft higher.

REMARKS.--Estimated daily discharges: Nov. 14, 16-25, 27-30, Dec. 1 to Feb. 2, and Feb. 5-21, 24. Records good except those for estimated daily discharges, which are poor. Five small reservoirs upstream from station for irrigation, total capacity, about 400 acre-ft. Slight regulation by Hog Park Creek Reservoir, capacity, about 2,970 acre-ft. Diversions for irrigation of about 8,800 acres upstream from station. Transbasin diversion upstream from station into Hog Park Creek (tributary to Encampment River) from North Fork Little Snake River for municipal, industrial, and irrigation uses began September 1964.

AVERAGE DISCHARGE.--46 years, 249 ft³/s, 180,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,510 ft³/s, June 1, 1943, gage height, 10.25 ft, present datum; maximum gage height, 10.33 ft, June 4, 1952, present datum; minimum daily discharge, 5.2 ft³/s, Aug. 15, 16, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 10	1300	*3,870	*7.12	No other peak greater than base discharge.			
Minimum daily discharge, 29 ft ³ /s, Aug. 19.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	101	84	72	76	90	200	501	1970	870	129	65
2	72	105	87	69	75	87	212	595	2120	752	126	58
3	78	108	88	71	73	87	215	748	2190	698	120	50
4	79	100	84	72	69	87	205	1010	2260	681	121	47
5	77	107	82	69	67	88	191	1170	2250	975	105	42
6	78	96	81	68	65	89	185	1030	2750	720	69	38
7	96	92	76	67	64	90	189	943	2750	609	64	38
8	141	104	68	67	64	93	195	847	2580	518	66	37
9	118	96	63	68	64	110	203	706	2730	485	49	33
10	140	98	59	70	65	102	207	615	3370	465	47	59
11	152	104	57	70	67	97	207	588	2400	411	44	65
12	142	115	61	69	69	94	205	628	2050	382	44	47
13	145	102	64	69	70	92	231	617	1960	337	62	40
14	117	93	67	68	72	94	214	680	1830	333	46	39
15	108	96	70	67	75	92	204	680	1800	294	39	36
16	112	98	72	68	79	84	220	672	1830	317	37	33
17	112	98	74	70	83	86	233	626	1830	301	33	31
18	114	96	75	70	86	88	221	656	1840	254	31	30
19	112	93	76	70	84	81	209	750	1820	240	29	42
20	110	94	75	69	80	88	203	943	1550	227	35	37
21	111	95	74	67	76	85	205	1190	1520	233	45	39
22	119	93	73	66	76	87	246	1490	1410	223	41	80
23	108	94	72	66	81	92	347	1280	1320	212	36	106
24	109	96	73	65	93	99	423	1140	1260	196	34	139
25	108	97	72	63	100	111	476	1120	1210	214	36	173
26	114	99	68	62	93	105	502	1240	1200	209	38	162
27	111	96	69	64	91	108	447	1350	1190	195	34	157
28	110	94	68	66	90	116	418	1500	1060	172	32	163
29	117	88	70	70	---	135	428	1640	1110	157	38	148
30	111	86	70	72	---	157	489	1680	987	143	66	140
31	120	---	72	75	---	190	---	1820	---	134	58	---
TOTAL	3410	2934	2244	2119	2147	3104	8130	30455	56147	11957	1754	2174
MEAN	110	97.8	72.4	68.4	76.7	100	271	982	1872	386	56.6	72.5
MAX	152	115	88	75	100	190	502	1820	3370	975	129	173
MIN	69	86	57	62	64	81	185	501	987	134	29	30
AC-FT	6760	5820	4450	4200	4260	6160	16130	60410	111400	23720	3480	4310
CAL YR 1985	TOTAL	92446	MEAN	253	MAX	1910	MIN	44	AC-FT	183400		
WTR YR 1986	TOTAL	126575	MEAN	347	MAX	3370	MIN	29	AC-FT	251100		

PLATTE RIVER BASIN

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 02...	1330	79	390	9.0	150	50	7.0	22	0.8	2.6
NOV 07...	0830	99	324	1.0	130	43	5.7	18	0.7	2.4
DEC 17...	1130	80	307	0.0	120	38	5.4	17	0.7	2.2
JAN 28...	1100	70	314	0.0	120	40	5.9	17	0.7	2.0
MAR 13...	1245	78	293	2.5	120	36	6.6	15	0.6	2.0
APR 23...	1415	338	134	9.0	49	16	2.3	3.8	0.2	1.0
JUN 05...	0715	2360	62	5.5	25	8.3	1.1	2.5	0.2	0.7
25...	0930	1280	90	13.0	35	11	1.9	4.0	0.3	0.5

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 02...	130	54	10	0.3	27	250	0.34	54	0.00	0.03
NOV 07...	100	50	8.6	0.2	23	210	0.29	56	0.10	0.07
DEC 17...	92	42	7.9	0.3	22	190	0.26	41	0.20	0.03
JAN 28...	92	48	9.2	0.2	22	200	0.27	38	0.10	0.05
MAR 13...	91	42	9.7	0.3	9.5	180	0.24	37	0.10	0.07
APR 23...	41	8.7	3.2	0.2	12	72	0.1	66	0.00	0.10
JUN 05...	29	4.2	0.9	0.1	7.1	42	0.06	269	0.00	0.02
25...	40	--	2.0	0.2	9.9	53	0.07	185	0.10	0.06

412117106433201 NORTH PLATTE RIVER AT HIGHWAY 130, NEAR SARATOGA, WY

LOCATION.--Lat 41°21'17", long 106°42'53", in SW1/4 SE1/4 NE1/4 sec.16, T.16 N., R.83 W., Carbon County, Hydrologic Unit 10180002, at bridge on Highway 130, 1.2 mi downstream from Cow Creek and 30.2 mi south of Saratoga.

PERIOD OF RECORD.--May 1984 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 04...	1515	7460	13.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
JUL 23...	1515	1600	17.0	<0.01	0.01	0.01	<0.01	<0.01	<0.01
SEP 30...	1730	676	6.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01

PLATTE RIVER BASIN

06628900 PASS CREEK NEAR ELK MOUNTAIN, WY

LOCATION.--Lat 41°35'10", long 106°36'37", in SW1/4 SW1/4 sec.27, T.19 N., R.82 W., Carbon County, Hydrologic Unit 10180002, on right bank 235 ft downstream from Lone Tree Creek, 1,000 ft upstream from Brush Creek, 12 mi southwest of Elk Mountain, and 14 mi northeast of Saratoga.

DRAINAGE AREA.--91.5 mi². Area at mouth, 279 mi².

PERIOD OF RECORD.--April 1957 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,230 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 6, 1966, 15 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 10 to Mar. 6 and Aug. 23-26. Records good except those for estimated daily discharges and for June 10, which are poor. Diversions for irrigation of about 6,300 acres upstream from station. Diversion to Kerr ditch 7.5 mi upstream.

AVERAGE DISCHARGE.--29 years, 43.7 ft³/s, 31,630 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,660 ft³/s, May 12, 1984, gage height, 9.12 ft, from floodmarks, from rating curve extended above 1,600 ft³/s on basis of slope-area measurement of peak flow; minimum daily discharge, 1.5 ft³/s, Sept. 11, 12, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1938, 9.12 ft, May 12, 1984, from floodmarks, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 5	0100	447	2.60	June 10	0900	*3,010	a*7.98
May 22	0130	376	2.44				

a-From floodmark.

Minimum daily discharge, 7.9 ft³/s, Oct. 3-6, Dec. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	12	10	9.2	14	29	87	109	232	59	24	21
2	8.3	11	12	9.1	14	28	97	142	236	52	25	16
3	7.9	12	11	9.2	13	27	55	208	232	48	25	14
4	7.9	11	10	8.8	12	29	59	268	217	54	23	13
5	7.9	10	10	8.7	11	34	61	293	196	90	25	12
6	7.9	8.3	10	8.9	10	39	97	173	212	66	24	11
7	12	11	9.9	8.7	10	46	128	179	181	76	23	12
8	20	11	9.8	8.8	9.6	54	145	222	153	55	26	12
9	14	12	8.9	8.9	9.3	65	118	167	689	50	26	11
10	17	11	8.3	9.3	9.5	55	91	119	1500	52	28	23
11	21	11	7.9	9.2	9.3	44	77	105	399	42	26	21
12	18	10	7.9	9.2	9.7	35	78	150	269	37	27	16
13	17	9.5	8.1	9.1	11	32	80	141	240	33	36	13
14	13	10	8.3	9.1	12	28	58	142	222	36	26	12
15	11	11	8.4	9.0	12	24	57	121	183	34	25	11
16	10	11	8.6	9.2	13	25	68	118	150	48	23	11
17	10	10	8.9	10	14	23	82	105	141	37	24	10
18	10	9.5	9.2	10	15	21	64	109	143	32	25	10
19	10	9.3	9.2	11	16	22	62	156	161	49	23	13
20	10	9.2	9.3	10	17	22	80	218	132	32	26	12
21	9.6	9.8	9.1	9.5	19	21	121	262	110	32	30	12
22	10	9.4	8.8	9.0	17	33	135	293	93	33	31	14
23	10	9.8	9.0	10	16	50	161	170	79	37	25	14
24	12	12	9.0	9.8	18	61	172	156	70	46	21	16
25	12	13	9.0	9.3	22	57	187	166	64	71	19	21
26	11	12	9.0	9.0	34	44	158	199	67	37	17	20
27	11	11	9.0	10	42	50	106	219	69	33	14	21
28	11	12	8.8	12	34	70	99	219	68	29	13	25
29	11	10	9.1	13	---	97	110	232	68	26	15	21
30	11	8.8	9.6	14	---	91	93	219	74	24	15	17
31	14	---	9.2	14	---	123	---	225	---	24	20	---
TOTAL	364.8	317.6	285.3	305.0	443.4	1379	2986	5605	6650	1374	730	455
MEAN	11.8	10.6	9.20	9.84	15.8	44.5	99.5	181	222	44.3	23.5	15.2
MAX	21	13	12	14	42	123	187	293	1500	90	36	25
MIN	7.9	8.3	7.9	8.7	9.3	21	55	105	64	24	13	10
AC-FT	724	630	566	605	879	2740	5920	11120	13190	2730	1450	902
CAL YR 1985	TOTAL	12989.3		MEAN	35.6	MAX	371	MIN	3.5	AC-FT	25760	
WTR YR 1986	TOTAL	20895.1		MEAN	57.2	MAX	1500	MIN	7.9	AC-FT	41450	

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WY

LOCATION.--Lat 41°52'20", long 107°03'25", in SW1/4 SW1/4 sec.13, T.22 N., R.86 W., Carbon County, Hydrologic Unit 10180002, on left bank 6.5 mi northeast of Sinclair and 14 mi upstream from high-water line of Seminoe Reservoir at elevation 6,357 ft.

DRAINAGE AREA.--4,175 mi², of which 114 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1939 to current year. Prior to October 1943, published as "near Parco."

REVISED RECORDS.--WDR-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,400.75 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 9 to Mar. 1. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 215,000 acres upstream from station. Transbasin diversions upstream from station.

COOPERATION.--Six discharge measurements provided by Wyoming State Engineer's office.

AVERAGE DISCHARGE.--47 years, 1,170 ft³/s, 847,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,200 ft³/s, June 11, 1986, gage height, 11.30 ft; minimum daily, 70 ft³/s, Sept. 17, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16,200 ft³/s, June 11, gage height, 11.30 ft; minimum daily, 290 ft³/s, Dec. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	449	644	520	430	440	940	3240	2950	6970	4430	1090	697
2	457	618	460	430	450	890	3290	3260	7420	4080	1030	734
3	435	618	490	450	450	879	3310	3830	7850	3610	982	716
4	405	627	580	450	440	839	3070	4540	8130	3190	920	671
5	398	610	580	420	420	829	2500	5440	8610	3140	899	614
6	377	610	550	440	410	839	2410	5870	8920	3650	869	576
7	384	593	530	430	400	849	2570	5590	9630	3570	859	528
8	413	560	500	420	380	898	2710	5610	9630	3430	820	488
9	574	540	440	400	370	1030	2740	4980	9410	3140	800	446
10	643	490	330	410	360	1180	2720	4630	11000	2970	800	457
11	752	480	290	430	370	1190	2610	4140	14800	2760	781	488
12	828	540	330	450	370	1190	2500	3730	12600	2600	753	542
13	908	620	350	440	390	1170	2390	3530	10400	2380	725	531
14	1020	600	360	420	410	1080	2470	3460	8710	2230	734	488
15	941	500	380	430	440	1060	2330	3460	7790	2080	689	449
16	860	470	390	450	480	1040	2070	3480	7380	2200	644	420
17	801	500	410	470	500	993	2110	3680	7130	2320	601	402
18	772	570	430	480	550	1030	2260	3820	6950	2300	568	377
19	762	520	460	490	680	972	2210	3780	7010	2280	535	377
20	725	480	500	510	840	870	1950	3910	7010	2080	519	377
21	707	490	520	490	740	869	1790	4360	6620	1970	535	398
22	680	460	540	470	680	824	1830	5170	6260	1910	600	405
23	680	450	520	470	660	868	2200	5700	5760	1840	697	435
24	662	500	510	450	650	980	2890	5380	5250	1730	716	495
25	653	560	490	430	710	1150	3450	5100	4850	1640	671	593
26	644	680	480	410	880	1440	3780	4940	4700	1670	636	679
27	653	720	450	390	1150	1610	3780	5120	4940	1650	610	716
28	636	700	440	400	1050	1790	3550	5530	5020	1560	603	771
29	627	650	470	420	---	2040	3080	5990	5000	1430	576	826
30	627	580	460	430	---	2570	2890	6340	4670	1300	706	791
31	627	---	450	430	---	2990	---	6540	---	1180	602	---
TOTAL	20100	16980	14210	13640	15670	36899	80700	143860	230420	76320	22570	16487
MEAN	648	566	458	440	560	1190	2690	4641	7681	2462	728	550
MAX	1020	720	580	510	1150	2990	3780	6540	14800	4430	1090	826
MIN	377	450	290	390	360	824	1790	2950	4670	1180	519	377
AC-FT	39870	33680	28190	27050	31080	73190	160100	285300	457000	151400	44770	32700
CAL YR 1985	TOTAL	476335		MEAN	1305	MAX	7150	MIN	238	AC-FT	944800	
WTR YR 1986	TOTAL	687856		MEAN	1885	MAX	14800	MIN	290	AC-FT	1364000	

PLATTE RIVER BASIN

06630000 NORTH PLATTE RIVER ABOVE SEMINOLE RESERVOIR, NEAR SINCLAIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: March 1978 to October 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 30...	1700	639	405	--	9.0	170	47	12	23	0.8	2.3
NOV 26...	1215	724	450	--	0.5	200	54	15	30	1	2.6
JAN 09...	0900	428	480	--	0.0	190	51	14	27	0.9	2.1
29...	1700	424	--	463	0.0	190	53	15	26	0.8	2.0
MAR 11...	1015	1150	--	477	2.0	180	47	16	31	1	2.9
APR 24...	1130	2780	300	--	10.0	120	32	8.6	15	0.6	1.6
MAY 27...	1350	4900	186	--	12.0	74	21	5.3	9.8	0.5	1.1
JUN 04...	1030	7630	180	--	14.0	81	23	5.7	10	0.5	1.4

DATE	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 30...	120	85	7.5	0.3	13	260	0.36	452	0.00	0.08
NOV 26...	130	100	8.7	0.4	16	300	0.41	596	0.00	0.16
JAN 09...	130	85	12	0.4	16	290	0.39	330	0.00	0.01
29...	130	100	10	0.4	7.2	290	0.4	334	0.00	0.04
MAR 11...	120	100	6.8	0.8	12	290	0.39	896	0.00	0.09
APR 24...	87	53	4.1	0.2	12	180	0.24	1340	0.00	0.13
MAY 27...	57	31	1.8	0.1	11	120	0.16	1530	0.00	0.19
JUN 04...	66	30	2.0	0.1	9.6	120	0.17	2500	0.00	0.08

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 30...	1700	639	405	8.4	9.0	596	9.4
NOV 26...	1215	724	450	--	0.5	--	--
JAN 09...	0900	428	480	8.2	0.0	601	12.0
APR 24...	1130	2780	300	--	10.0	--	--
MAY 27...	1350	4900	186	--	12.0	--	--
JUN 04...	1030	7630	180	7.8	14.0	602	7.2
25...	1330	4670	235	--	17.5	--	--
JUL 24...	1045	1780	340	--	17.0	--	--
AUG 28...	1530	604	380	8.4	21.0	681	8.6
SEP 25...	1640	617	435	--	8.0	--	--

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 30...	104	<1	0.10	0.04	0.26	0.3	0.08
NOV 26...	--	--	--	--	--	--	0.16
JAN 09...	104	49	<0.10	0.04	0.36	0.4	0.01
29...	--	--	--	--	--	--	0.04
APR 24...	--	--	--	--	--	--	0.13
MAY 27...	--	--	--	--	--	--	0.19
JUN 04...	89	440	<0.10	0.02	0.58	0.6	0.08
25...	--	--	--	--	--	--	--
JUL 24...	--	--	--	--	--	--	--
AUG 28...	108	K5	<0.10	0.02	0.38	0.4	0.02
SEP 25...	--	--	--	--	--	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PLATTE RIVER BASIN

06632400 ROCK CREEK ABOVE KING CANYON CANAL, NEAR ARLINGTON, WY

LOCATION.--Lat 41°35'07", long 106°13'20", in SE1/4 SW1/4 sec.25 T.19 N., R.79 W., Carbon County, Hydrologic Unit 10180004, on left bank 200 ft upstream from point of diversion to King Canyon Canal, 0.4 mi downstream from Overland Creek, 1.0 mi southwest of Arlington, and 6.9 mi southwest of McFadden.

DRAINAGE AREA.--62.9 mi².

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

REVISED RECORDS.--WDR WY-86: 1985.

GAGE.--Water-stage recorder. Elevation of gage is 7,790 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 9, 10, 13-16, 18-21, 30, Dec. 1, 4, 27-31, Jan. 1-13, 22-30, Feb. 4, 5, 13-15, 20-23, 27, 28, Mar. 1-6, 10, 13, 14, 16-22, 26, and Apr. 2-5, 14, 15, 19. Records good except those for estimated daily discharges, which are poor. Minor regulation by Sand Lake, capacity, 1,100 acre-ft, on Deep Creek, 12 mi upstream. No diversion upstream from station.

COOPERATION.--Stage record and nine discharge measurements provided by Office of the Wyoming State Engineer. Records computed and reviewed by the Geological Survey.

AVERAGE DISCHARGE.--32 years (water years 1955-86) 84.6 ft³/s, 61,320 acre-ft/yr, includes records for station 06632500 Rock Creek at Arlington for water years 1955-65, adjusted for diversions by King Canyon Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,590 ft³/s, June 19, 1971, gage height, 5.83 ft; maximum gage height, 5.92 ft, June 24, 1983; minimum daily discharge, 5.5 ft³/s, Dec. 21, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 6	2130	1,330	4.70	June 10	0500	*1,900	*5.35

Minimum daily discharge, 6.4 ft³/s, Feb. 18.

REVISIONS.--Revised figures of discharge for the water year 1985, superseding those published in the report for 1985, are given below.

EXTREMES FOR 1985 WATER YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 28	2030	717	3.81	June 8	1930	*959	*4.20

Minimum daily discharge, 6.0 ft³/s, Feb. 1, Mar. 14 (revised).

06632400 ROCK CREEK ABOVE KING CANYON CANAL, NEAR ARLINGTON, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	12	14	12	9.0	8.8	25	58	757	364	39	48
2	17	17	17	11	9.0	10	24	72	904	340	36	45
3	17	18	17	10	8.5	11	22	101	963	293	35	45
4	14	15	16	9.6	7.4	12	21	145	916	271	33	42
5	15	15	18	8.6	7.8	12	23	177	856	328	33	42
6	17	12	17	9.4	8.1	12	23	148	1010	214	31	40
7	24	16	17	10	8.5	13	24	128	940	186	29	40
8	26	15	16	11	8.5	14	23	112	869	177	29	38
9	22	13	16	12	8.5	15	25	106	951	169	30	32
10	21	16	16	12	8.5	12	25	97	1300	166	32	36
11	25	19	16	13	8.5	13	24	92	900	148	27	35
12	22	19	16	14	8.5	12	23	99	881	140	28	29
13	24	12	16	15	8.0	13	25	100	789	121	33	25
14	14	15	16	16	7.6	14	23	108	730	115	25	23
15	19	17	17	15	8.5	15	24	116	758	108	24	20
16	18	15	17	15	9.4	13	24	121	811	135	21	19
17	18	17	17	14	7.2	12	25	112	867	112	20	17
18	17	16	17	13	6.4	12	26	123	807	95	20	15
19	17	13	17	12	10	11	24	169	747	93	18	15
20	18	14	17	11	9.5	10	24	234	668	95	19	15
21	18	16	15	11	8.9	9.6	25	328	604	95	21	15
22	17	17	14	10	9.4	10	33	388	543	80	23	20
23	16	17	14	9.7	9.8	11	50	300	547	74	20	21
24	17	17	13	9.3	10	13	58	274	542	70	20	20
25	17	17	13	8.8	10	13	63	317	485	80	19	20
26	18	16	13	9.8	9.5	12	61	387	470	64	18	20
27	18	16	11	11	9.0	13	55	438	498	58	20	22
28	19	16	12	10	8.2	14	50	484	475	52	39	21
29	19	16	13	9.5	---	17	48	517	508	45	47	20
30	17	15	12	9.4	---	20	51	554	449	42	50	17
31	20	---	11	9.5	---	25	---	655	---	41	50	---
TOTAL	577	469	471	351.6	242.2	402.4	971	7060	22545	4371	889	817
MEAN	18.6	15.6	15.2	11.3	8.65	13.0	32.4	228	752	141	28.7	27.2
MAX	26	19	18	16	10	25	63	655	1300	364	50	48
MIN	14	12	11	8.6	6.4	8.8	21	58	449	41	18	15
AC-FT	1140	930	934	697	480	798	1930	14000	44720	8670	1760	1620
CAL YR 1985	TOTAL	24488.7		MEAN	67.1	MAX	715	MIN	6.0	AC-FT	48570	
WTR YR 1986	TOTAL	39166.2		MEAN	107	MAX	1300	MIN	6.4	AC-FT	77690	

06634620 LITTLE MEDICINE BOW RIVER AT BOLES SPRING, NEAR MEDICINE BOW, WY

LOCATION.--Lat 41°57'40", long 106°12'31", in NW1/4 SW1/4 SW1/4 sec.17, T.23 N., R.78 W., Carbon County, Hydrologic Unit 10180005, on right bank 10 ft downstream from Boles Spring, 3.9 mi downstream from State Highway 487, 8.7 mi downstream from Muddy Creek, and 4.3 mi north of Medicine Bow.

DRAINAGE AREA.--969 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to current year. Records for October 1973 to September 1984 at site 5.5 mi upstream published as "near Medicine Bow" (sta 06634600) do not include flow of Boles Spring. Discharge records considered equivalent except for low flow. Miscellaneous discharge measurements of Boles Spring are made periodically and are tabulated in the miscellaneous section of this report.

GAGE.--Water-stage recorder. Elevation of gage is 6,570 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 19-23, 30, Dec. 1, 10-12, and Feb. 7-16. Records fair except those for estimated daily discharges, which are poor. Diversions for irrigation of about 5,200 acres upstream from station.

AVERAGE DISCHARGE.--13 years, 62.3 ft³/s, 45,120 acre-ft/yr, unadjusted for flow from Boles Spring.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,500 ft³/s, May 17, 1978, from slope-area measurement of peak flow, gage height, 14.10 ft, from floodmark in gage well, site and datum then in use; no flow at times, 1974-84, site then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 26	1500	*848	*5.14	June 11	2300	491	4.02

Minimum daily discharge, 0.90 ft³/s, Jan. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	12	4.6	1.7	7.7	198	241	194	91	23	8.8	24
2	11	14	5.3	1.6	9.3	187	205	187	83	21	8.9	13
3	8.9	15	5.2	1.5	9.5	153	215	196	78	19	8.7	11
4	6.6	14	5.1	1.2	8.4	135	188	231	76	16	8.8	9.6
5	6.7	14	4.7	1.1	9.8	128	149	289	79	14	8.7	8.8
6	6.0	9.9	3.7	1.1	8.6	116	163	328	83	13	8.8	8.1
7	5.2	6.0	3.0	1.1	7.4	123	185	292	72	15	8.4	9.8
8	5.8	11	3.0	1.1	6.8	145	203	288	57	15	8.0	9.7
9	4.3	5.1	2.8	1.0	6.3	162	260	319	66	16	7.9	11
10	12	3.9	2.6	.93	5.7	132	312	303	90	16	8.2	13
11	19	3.7	2.4	.93	5.4	120	264	252	192	16	9.1	13
12	23	5.5	2.6	.93	6.0	117	238	214	333	14	8.1	13
13	20	5.0	2.8	.90	7.3	105	219	186	219	15	8.1	12
14	17	5.2	2.6	.94	8.8	91	211	171	184	14	7.8	12
15	15	7.7	2.4	1.0	13	83	186	162	147	15	7.8	11
16	15	14	2.1	1.2	20	63	180	162	119	19	7.2	11
17	13	16	2.1	1.4	35	64	182	164	94	21	6.4	11
18	12	17	1.9	1.5	64	62	188	170	76	18	6.2	9.8
19	11	14	1.9	2.1	151	43	171	165	69	21	5.7	11
20	11	11	1.9	2.9	247	37	185	155	67	19	5.6	11
21	11	8.7	1.8	2.5	175	55	198	156	74	25	6.9	10
22	11	6.9	1.7	3.1	100	72	189	159	53	19	7.1	9.9
23	11	5.1	1.7	3.4	148	68	213	167	46	22	7.3	9.9
24	11	5.3	1.8	2.9	245	76	261	164	40	34	7.1	11
25	9.8	5.3	1.7	3.1	448	94	338	144	36	22	7.3	15
26	9.7	5.4	1.8	3.3	691	117	347	129	34	17	8.4	16
27	10	6.2	1.6	3.5	413	127	327	123	31	15	8.6	14
28	10	6.1	1.5	4.0	233	121	277	117	29	14	8.3	15
29	10	5.8	1.5	4.5	---	136	241	112	28	12	7.5	13
30	12	4.7	1.6	5.1	---	180	218	102	25	11	7.3	12
31	13	---	1.7	6.5	---	216	---	98	---	9.6	8.3	---
TOTAL	354.0	263.5	81.1	68.03	3090.0	3526	6754	5899	2671	540.6	241.3	358.6
MEAN	11.4	8.78	2.62	2.19	110	114	225	190	89.0	17.4	7.78	12.0
MAX	23	17	5.3	6.5	691	216	347	328	333	34	9.1	24
MIN	4.3	3.7	1.5	.90	5.4	37	149	98	25	9.6	5.6	8.1
AC-FT	702	523	161	135	6130	6990	13400	11700	5300	1070	479	711
CAL YR 1985	TOTAL	9667.6		MEAN	26.5	MAX	277	MIN	1.4	AC-FT	19180	
WTR YR 1986	TOTAL	23847.13		MEAN	65.3	MAX	691	MIN	.90	AC-FT	47300	

06634620 LITTLE MEDICINE BOW RIVER AT BOLES SPRING, NEAR MEDICINE BOW, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 01...	0900	11	1090	3.0	400	110	30	79	2	4.4
JAN 27...	1030	3.4	1340	3.0	570	160	41	87	2	4.2
APR 22...	1000	187	466	9.0	170	42	15	29	1	2.0

DATE	TIME	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 01...	160		390	23	0.3	12	740	1.0	22	0.00	0.19
JAN 27...	170		510	37	0.4	12	950	1.3	8.8	0.10	0.06
APR 22...	90		130	5.6	0.2	14	290	0.4	147	0.00	0.21

RADIOCHEMICAL ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 01...	0900	11	3.0	4.4	160	15	65	8.8	40	7.2	0.46	100
JAN 27...	1030	3.4	3.0	4.9	82	1.0	13	5.8	8.9	5.8	0.79	46
APR 22...	1000	187	9.0	2.4	28	30	9.9	16	7.5	13	0.18	13
JUL 21...	1000	30	16.5	--	36	--	--	--	65	--	0.9	62

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WY

LOCATION.--Lat 42°00'35", long 106°30'45", in SE1/4 NW1/4 sec.34, T.24 N., R.81 W., Carbon County, Hydrologic Unit 10180004, on left bank 25 ft upstream from county highway bridge, 2.0 mi upstream from Troublesome Creek, 9.0 mi upstream from high-water line of Seminole Reservoir at elevation 6,357 ft, and 10 mi north of Hanna.

DRAINAGE AREA.--2,338 mi², of which 396 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 956: 1941(M). WSP 1440: 1940(M), 1941. WSP 1710: Drainage area. WDR WY-83-1: 1943.

GAGE.--Water-stage recorder. Datum of gage is 6,415.40 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 6 to Mar. 9, and Apr. 18-21. Records good except those for estimated daily discharges, which are poor. Many small reservoirs upstream from station, total capacity, about 6,000 acre-ft, for irrigation. Diversions for irrigation of about 43,000 acres upstream from station.

COOPERATION.--One discharge measurement provided by Bureau of Reclamation, and seven discharge measurements provided by Wyoming State Engineer's office.

AVERAGE DISCHARGE.--47 years, 190 ft³/s, 137,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,010 ft³/s, May 12, 1973, gage height, 6.74 ft; maximum gage height, about 8.2 ft, Feb. 26 or 27, 1986, from floodmark (backwater from ice); minimum daily discharge, 1.1 ft³/s, Sept. 7-14, 1959, Aug. 7, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,880 ft³/s, June 12, gage height, 5.22 ft, some increase in peak due to failure of Pierce Reservoir Dam on Rock Creek, June 10; maximum gage height, about 8.2 ft, Feb. 26 or 27 (backwater from ice); minimum daily discharge, 26 ft³/s, Dec. 12, Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	49	37	38	76	370	338	369	634	540	88	27
2	38	47	35	36	80	335	364	328	641	534	82	36
3	38	49	31	34	83	318	328	333	684	485	77	31
4	38	49	34	31	81	288	353	353	805	414	73	27
5	38	52	36	35	76	264	304	464	945	354	68	27
6	37	40	36	38	68	250	275	632	1060	328	65	31
7	42	36	37	37	60	230	313	713	1120	359	62	33
8	45	44	35	33	53	247	359	628	1150	359	59	33
9	36	34	32	38	47	273	396	649	1310	328	54	33
10	49	28	31	40	44	299	464	677	1480	313	54	33
11	73	32	29	39	44	275	459	601	1870	303	54	31
12	77	38	26	41	45	248	409	516	3470	284	85	29
13	82	35	30	42	51	257	380	455	2930	244	47	30
14	80	31	31	44	58	235	359	442	3090	223	47	29
15	80	35	33	47	64	215	348	413	2480	211	40	29
16	73	41	35	49	71	207	308	424	1710	211	36	34
17	68	40	33	48	80	187	313	419	1400	227	36	34
18	65	37	35	50	99	184	328	413	1310	240	33	33
19	59	34	38	52	132	165	310	380	1260	223	29	29
20	57	31	40	51	190	152	318	396	1220	203	29	29
21	52	30	39	50	325	145	330	470	1230	187	33	29
22	49	31	40	47	250	158	323	539	1150	176	31	27
23	47	33	41	52	170	187	348	613	1080	169	29	26
24	49	38	40	50	225	187	385	641	956	165	27	29
25	48	40	40	50	310	199	464	509	823	165	29	34
26	47	42	39	52	575	215	539	496	753	152	33	40
27	47	42	37	59	845	235	547	508	685	145	33	47
28	45	40	38	62	550	227	515	534	622	138	31	47
29	47	39	40	66	---	227	443	573	580	119	39	52
30	47	38	39	70	---	248	402	621	553	106	42	54
31	49	---	37	72	---	298	---	641	---	97	31	---
TOTAL	1636	1155	1104	1453	4752	7325	11322	15750	39001	8002	1476	1003
MEAN	52.8	38.5	35.6	46.9	170	236	377	508	1300	258	47.6	33.4
MAX	82	52	41	72	845	370	547	713	3470	540	88	54
MIN	34	28	26	31	44	145	275	328	553	97	27	26
AC-FT	3250	2290	2190	2880	9430	14530	22460	31240	77360	15870	2930	1990
CAL YR 1985	TOTAL	47313	MEAN	130	MAX	711	MIN	14	AC-FT	93850		
WTR YR 1986	TOTAL	93979	MEAN	257	MAX	3470	MIN	26	AC-FT	186400		

06635000 MEDICINE BOW RIVER ABOVE SEMINOLE RESERVOIR, NEAR HANNA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 01...	1145	31	1370	4.5	610	160	50	95	2	3.7
JAN 06...	1200	41	1390	0.0	620	150	59	89	2	2.9
JUN 06...	1030	1070	450	16.5	170	42	16	27	0.9	1.9

DATE	TIME	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 01...	140	550	55	0.2	6.9	1000	1.4	84	0.00	0.09	
JAN 06...	180	530	35	0.3	6.9	980	1.3	109	0.20	0.58	
JUN 06...	110	120	4.7	0.1	7.2	280	0.39	823	0.10	0.50	

RADIOCHEMICAL ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)
OCT 01...	1145	31	4.5	3.7	91	12
JAN 06...	1200	41	0.0	3.1	21	0.9
JUN 06...	1030	1070	16.5	1.9	6.6	7.6
JUL 21...	1300	187	22.0	--	7.5	--

DATE	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 01...	37	8.7	22	6.9	0.19	35
JAN 06...	9.3	4.8	5.9	4.6	0.27	22
JUN 06...	3.7	5.3	3.1	4.6	0.11	4.7
JUL 21...	--	--	6.6	--	1.1	17

PLATTE RIVER BASIN

06635500 SEMINOE RESERVOIR NEAR LEO, WY

LOCATION.--Lat 42°09'21", long 106°54'29", in NW1/4 NE1/4 sec.8, T.25 N., R.84 W., Carbon County, Hydrologic Unit 10180003, on upstream side near center of dam on North Platte River, 6.0 mi upstream from high-water line of Pathfinder Reservoir at elevation 5,850.1 ft, and 9.0 mi southwest of Leo.

DRAINAGE AREA.--7,230 mi², of which 589 mi² is probably noncontributing.

PERIOD OF RECORD.--February 1939 to current year. Monthend figures only for February, March 1939, October 1940 to September 1950, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,190.00 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Apr. 20, 1939, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete-arch dam. Storage began Apr. 1, 1939, but some regulation for power development during period Jan. 1 to Mar. 31, 1939. Capacity, 1,017,000 acre-ft below elevation 6,357 ft, top of spillway gates. Figures given herein represent total contents, of which 31,700 acre-ft, capacity below elevation 6,239 ft, minimum operating level for power development, are not available for power development and 533 acre-ft, below elevation 6,185.09 ft, penstock invert, is dead storage. Water is used for irrigation and power development.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,073,000 acre-ft, June 20, 1949, elevation, 6,359.29 ft; minimum daily (since appreciable storage was attained), 19,040 acre-ft, Sept. 1, 1939, elevation, 6,228.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 957,000 acre-ft, June 28-30, maximum elevation, 6,353.97 ft, June 29; minimum daily contents, 481,000 acre-ft, May 4, elevation, 6,322.17 ft.

Capacity table (elevation, in feet,
and contents, in acre-feet)

6,320	458,000	6,340	716,000	6,354	958,000
6,330	575,000	6,350	883,000		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	808000	779000	738000	696000	632000	579000	521000	486000	669000	956000	869000	827000
2	807000	777000	737000	694000	630000	578000	522000	483000	680000	955000	868000	826000
3	806000	776000	735000	692000	628000	578000	525000	482000	692000	952000	867000	824000
4	804000	774000	733000	690000	626000	576000	528000	481000	705000	949000	868000	824000
5	802000	773000	732000	687000	624000	575000	528000	485000	718000	945000	867000	821000
6	803000	771000	731000	686000	622000	573000	528000	491000	732000	942000	865000	821000
7	802000	770000	728000	684000	619000	571000	529000	500000	749000	939000	864000	820000
8	801000	769000	726000	682000	616000	568000	530000	509000	767000	934000	862000	820000
9	799000	768000	724000	680000	613000	566000	531000	516000	788000	929000	862000	818000
10	798000	766000	723000	678000	609000	564000	532000	522000	809000	923000	860000	817000
11	798000	764000	722000	676000	607000	562000	533000	527000	836000	915000	858000	817000
12	797000	764000	719000	674000	603000	559000	534000	532000	859000	910000	857000	816000
13	798000	764000	717000	671000	600000	557000	534000	537000	879000	903000	855000	814000
14	798000	763000	716000	670000	597000	555000	533000	541000	894000	896000	853000	814000
15	797000	761000	714000	668000	594000	553000	531000	545000	906000	890000	853000	813000
16	796000	760000	714000	666000	591000	550000	531000	549000	916000	885000	850000	812000
17	795000	758000	713000	663000	589000	547000	527000	555000	924000	880000	848000	812000
18	794000	756000	713000	661000	587000	544000	524000	560000	930000	874000	847000	811000
19	794000	755000	713000	658000	586000	541000	519000	565000	937000	872000	844000	811000
20	793000	753000	713000	658000	585000	539000	515000	570000	942000	872000	843000	810000
21	793000	752000	711000	654000	584000	535000	509000	577000	945000	874000	841000	809000
22	793000	750000	710000	652000	583000	533000	505000	584000	948000	874000	839000	809000
23	791000	749000	709000	649000	581000	530000	501000	592000	950000	874000	839000	809000
24	789000	747000	708000	647000	580000	526000	499000	601000	951000	875000	837000	810000
25	787000	746000	708000	645000	580000	524000	497000	609000	953000	875000	836000	809000
26	786000	745000	705000	643000	580000	521000	496000	616000	953000	874000	834000	809000
27	785000	744000	705000	642000	580000	520000	495000	623000	954000	873000	833000	809000
28	783000	742000	704000	639000	580000	519000	494000	630000	957000	873000	832000	809000
29	782000	740000	702000	638000	---	517000	492000	639000	957000	872000	830000	810000
30	781000	739000	700000	636000	---	517000	489000	648000	957000	870000	830000	810000
31	780000	---	699000	634000	---	519000	---	658000	---	870000	828000	---
MAX	808000	779000	738000	696000	632000	579000	534000	658000	957000	956000	869000	827000
MIN	780000	739000	699000	634000	580000	517000	489000	481000	669000	870000	828000	809000
(+)	6,344.07	6,341.50	6,338.90	6,334.40	6,330.40	6,325.42	6,322.85	6,336.07	6,353.95	6,349.27	6,346.90	6,345.87
(+)	-28,000	-41,000	-40,000	-65,000	-54,000	-61,000	-30,000	+169,000	+229,000	-87,000	-42,000	-18,000

CAL YR 1985 MAX 936000 MIN 699000 (+) -169,000
WTR YR 1986 MAX 957000 MIN 481000 (+) +2,000

(+) Elevation, in feet, at end of month.
(+) Change in contents, in acre-feet.

06637750 ROCK CREEK ABOVE ROCK CREEK RESERVOIR, WY

LOCATION.--Lat 42°32'59", long 108°46'26", in NW1/4 NW1/4 sec.27, T.30 N., R.100 W., Fremont County, Hydrologic Unit 10180006, Shoshone National Forest, on left bank 200 ft upstream from high-water line of Rock Creek Reservoir, 2.7 mi downstream from Little Rock Creek, and 4.3 mi northwest of Atlantic City.

DRAINAGE AREA.--9.2 mi², approximately.

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 8,330 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 21 to Feb. 2 and Feb. 9-14, 17-20. Records good except those for December to February, which are poor. No diversions upstream from station.

AVERAGE DISCHARGE.--24 years, 8.89 ft³/s, 6,440 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 218 ft³/s, June 1, 1986, gage height, 7.17 ft; maximum gage height, 8.54 ft, Apr. 22, 1965 (backwater from ice); minimum daily discharge, 0.5 ft³/s, Jan. 12-14, 1963, Feb. 1, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 70 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 1	2000	*218	*7.17	No other peak greater than base discharge.			

Minimum daily discharge, 1.20 ft³/s, Feb. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.2	1.8	1.4	1.4	1.6	4.5	16	174	24	5.4	2.9
2	2.3	2.3	1.8	1.3	1.4	1.7	4.1	24	175	22	5.0	2.9
3	2.2	2.5	1.9	1.4	1.5	1.6	3.8	34	165	21	4.9	2.9
4	2.0	2.1	1.8	1.3	1.5	1.6	3.9	43	157	20	4.8	2.8
5	2.0	2.2	1.8	1.4	1.5	1.6	3.9	40	161	19	4.6	2.7
6	2.0	2.1	1.8	1.4	1.5	1.6	4.4	37	151	17	4.3	2.8
7	2.4	1.8	1.8	1.4	1.6	1.6	5.1	33	139	20	4.2	2.9
8	2.2	1.9	1.8	1.4	1.5	1.6	4.9	29	138	17	4.4	2.8
9	2.1	2.5	1.6	1.4	1.4	1.7	5.2	27	126	17	4.4	3.1
10	2.1	2.2	1.7	1.4	1.5	1.7	5.8	25	113	14	4.4	3.7
11	2.1	2.0	1.8	1.4	1.4	1.7	6.5	24	107	13	4.0	3.3
12	2.2	2.0	1.8	1.3	1.3	1.6	6.9	23	106	12	3.9	2.9
13	2.0	1.9	1.8	1.3	1.3	1.7	7.5	22	106	11	3.8	2.9
14	2.0	1.9	1.8	1.3	1.2	1.6	6.5	22	100	10	3.8	2.9
15	2.1	1.9	1.7	1.4	1.3	1.6	6.6	22	92	11	3.7	2.7
16	2.0	1.9	1.6	1.3	1.4	1.6	6.8	22	90	11	3.5	2.6
17	2.0	1.9	1.5	1.3	1.5	1.6	6.3	21	86	14	3.5	2.5
18	1.9	1.9	1.5	1.3	1.5	1.6	6.0	26	79	9.4	3.3	2.6
19	1.9	1.8	1.5	1.4	1.6	1.6	5.8	36	73	8.8	3.2	2.8
20	1.9	1.8	1.5	1.4	1.6	1.6	6.4	51	66	8.8	5.3	2.6
21	1.9	1.8	1.5	1.4	1.6	1.7	8.4	70	58	8.5	5.0	2.4
22	2.1	1.9	1.4	1.4	1.6	1.8	12	74	52	8.5	3.8	2.4
23	1.6	1.8	1.4	1.4	1.6	1.8	16	67	48	8.2	3.5	2.4
24	2.0	1.9	1.4	1.4	1.7	1.9	18	69	44	7.5	3.6	2.9
25	2.6	1.8	1.4	1.5	1.7	2.0	18	80	42	7.5	3.5	3.4
26	2.7	1.8	1.3	1.4	1.7	2.0	17	97	38	8.3	3.8	3.0
27	2.7	1.9	1.3	1.3	1.7	2.1	16	114	35	7.1	3.8	3.0
28	2.9	2.0	1.3	1.3	1.7	2.5	14	126	32	6.4	3.3	3.3
29	2.6	2.0	1.3	1.3	---	3.2	14	138	30	5.9	3.1	3.5
30	2.5	1.8	1.3	1.3	---	3.7	14	149	27	5.7	3.0	3.3
31	2.3	---	1.3	1.3	---	4.5	---	158	---	5.6	3.0	---
TOTAL	67.8	59.5	49.2	42.2	42.2	59.7	258.3	1719	2810	379.2	123.8	86.9
MEAN	2.19	1.98	1.59	1.36	1.51	1.93	8.61	55.5	93.7	12.2	3.99	2.90
MAX	2.9	2.5	1.9	1.5	1.7	4.5	18	158	175	24	5.4	3.7
MIN	1.6	1.8	1.3	1.3	1.2	1.6	3.8	16	27	5.6	3.0	2.4
AC-FT	134	118	98	84	84	118	512	3410	5570	752	246	172
CAL YR 1985	TOTAL	1712.58		MEAN	4.69	MAX	40	MIN	.50	AC-FT	3400	
WTR YR 1986	TOTAL	5697.8		MEAN	15.6	MAX	175	MIN	1.2	AC-FT	11300	

06638090 SWEETWATER RIVER NEAR SWEETWATER STATION, WY

LOCATION.--Lat 42°30'17", long 108°14'59", in SW1/4 SE1/4 NE1/4 sec.12, T.29 N., R.96 W., Fremont County, Hydrologic Unit 10180006, on left bank 1.4 mi downstream from Alkali Creek and 4.4 mi southwest of Sweetwater Station.

DRAINAGE AREA.--849 mi².

PERIOD OF RECORD.--October 1973 to current year.

REVISED RECORDS.--WDR WY-85-1: 1984(M).

GAGE.--Water-stage recorder. Elevation of gage is 6,590 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 8, 9, Nov. 11 to Mar. 26, and Apr. 3, 4. Records good except those for estimated daily discharges, which are poor. Transbasin diversion by Continental Divide ditch diverts water from Little Sandy Creek to land along Lander Creek (tributary to Sweetwater River). A transbasin diversion diverts water from Sweetwater River into Pacific Creek (tributary to Big Sandy River in Green River basin).

AVERAGE DISCHARGE.--13 years, 150 ft³/s, 108,680 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,750 ft³/s, Apr. 24, 1980, gage height, 12.40 ft, from floodmark; minimum daily, 5.6 ft³/s, Jan. 9, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 25	1100	920	5.68	May 6	0530	1190	6.60
June 3	1730	*1900	*8.25				

Minimum daily discharge, 14 ft³/s, Dec. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	40	30	19	31	96	167	503	1510	346	89	37
2	34	37	30	19	32	90	180	541	1600	325	85	36
3	34	39	30	19	33	82	190	654	1760	298	79	36
4	35	39	31	19	32	78	180	815	1690	284	76	35
5	34	41	33	18	32	74	178	1020	1650	290	68	34
6	33	41	30	19	32	72	220	1130	1570	289	66	33
7	33	30	29	20	32	70	279	999	1520	256	62	32
8	34	29	29	20	32	72	276	911	1420	249	62	33
9	34	28	30	21	32	74	319	843	1350	245	61	33
10	39	25	25	21	30	72	349	738	1280	241	61	39
11	40	25	20	22	30	68	411	743	1140	222	60	44
12	36	26	14	22	30	66	408	806	996	195	58	44
13	36	28	14	22	30	65	481	722	924	182	56	45
14	38	29	16	21	31	64	372	642	913	170	54	42
15	40	30	17	23	32	64	345	649	912	164	52	37
16	35	29	17	23	34	62	371	646	883	167	49	35
17	36	28	17	25	36	59	376	630	843	176	41	33
18	36	28	18	28	38	57	323	617	792	191	41	33
19	35	28	18	29	41	56	306	650	778	174	40	34
20	35	26	17	29	45	55	331	734	730	159	39	33
21	34	27	17	29	50	56	404	860	667	146	43	34
22	36	28	17	28	54	62	483	999	616	136	55	34
23	37	27	17	28	60	80	619	1140	567	127	60	33
24	41	25	18	28	80	90	768	1100	513	121	59	30
25	43	26	19	27	100	100	893	955	473	122	56	30
26	41	27	18	26	120	100	875	926	445	119	54	31
27	43	31	18	28	110	101	695	990	418	121	47	42
28	46	32	17	30	100	110	578	1110	397	122	46	56
29	44	32	17	32	---	126	584	1230	380	109	43	53
30	42	32	18	31	---	149	542	1320	361	100	40	53
31	43	---	19	31	---	172	---	1410	---	93	39	---
TOTAL	1161	913	660	757	1339	2542	12503	27033	29098	5939	1741	1124
MEAN	37.5	30.4	21.3	24.4	47.8	82.0	417	872	970	192	56.2	37.5
MAX	46	41	33	32	120	172	893	1410	1760	346	89	56
MIN	33	25	14	18	30	55	167	503	361	93	39	30
AC-FT	2300	1810	1310	1500	2660	5040	24800	53620	57720	11780	3450	2230
CAL YR 1985	TOTAL	30389.0		MEAN	83.3	MAX	646	MIN	9.0	AC-FT	60280	
WTR YR 1986	TOTAL	84810		MEAN	232	MAX	1760	MIN	14	AC-FT	168200	

PLATTE RIVER BASIN

243

06639000 SWEETWATER RIVER NEAR ALCOVA, WY

LOCATION.--Lat 42°27'28", long 107°11'45", in SW1/4 NE 1.4 sec.25, T.29 N., R.87 W., Natrona County, Hydrologic Unit 10180006, on left bank at Dumbell Ranch, 1.0 mi downstream from Schounmaker ditch diversion dam, 13 mi upstream from high-water line of Pathfinder Reservoir at elevation 5,850 ft, and 25 mi southwest of Alcovia.

DRAINAGE AREA.--2,327 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1913 to September 1924, October 1938 to current year (no winter records during 1974, 1975, 1977-81, and since 1983). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1921, 1923-24. WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,920 ft above National Geodetic Vertical Datum of 1929, from topographic map. Aug. 28, 1913, to Sept. 30, 1924, nonrecording gages at site 0.4 mi upstream at different datums.

REMARKS.--Estimated daily discharges: Apr. 25-29 and May 8-14. Records good except those for estimated daily discharges, which are poor. Several small reservoirs upstream from station, combined capacity, about 5,000 acre-ft, for irrigation. Diversions for irrigation of about 24,000 acres upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--48 years (water years 1914-24, 1939-73, 1976, 1982), 126 ft³/s, 91,290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 4,290 ft³/s, Apr. 13, 1924; maximum gage height, 9.90 ft, Apr. 27, 1983; minimum daily discharge, 0.5 ft³/s, July 30 to Aug. 12, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,710 ft³/s, June 7, gage height, 7.29 ft; minimum daily during period of operation, 41 ft³/s, Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---	164	575	992	346	96	53
2						---	190	552	1090	320	94	53
3						---	200	509	1180	306	94	51
4						---	187	477	1280	286	93	45
5						---	200	507	1490	271	90	47
6						---	185	580	1590	263	94	47
7						---	193	661	1670	251	90	45
8						---	203	795	1650	253	90	43
9						---	235	906	1650	253	85	41
10						---	263	975	1670	253	83	43
11						---	277	956	1630	249	79	43
12						---	304	857	1540	236	79	43
13						---	335	765	1430	227	79	45
14						---	344	703	1330	226	76	47
15						---	370	722	1220	215	73	47
16						---	390	708	1060	190	71	47
17						---	369	644	933	180	67	49
18						---	370	607	886	168	67	51
19						---	381	608	864	163	65	51
20						134	364	603	816	165	67	51
21						123	335	607	748	173	65	49
22						134	324	629	709	164	61	50
23						134	344	675	660	153	57	49
24						131	387	706	599	151	57	49
25						132	433	765	550	141	55	51
26						139	513	720	504	129	53	57
27						156	586	969	458	118	55	59
28						168	655	1030	426	114	54	60
29						168	656	971	394	109	53	61
30						156	678	923	378	105	53	63
31						156	---	930	---	98	53	---
TOTAL						---	10435	22635	31397	6276	2248	1490
MEAN						---	348	730	1047	202	72.5	49.7
MAX						---	678	1030	1670	346	96	63
MIN						---	164	477	378	98	53	41
AC-FT						---	20700	44900	62280	12450	4460	2960

PLATTE RIVER BASIN

06639000 SWEETWATER RIVER NEAR ALCOVA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 17...	1340	72	428	9.0	140	43	8.6	35	1	5.1
JAN 09...	1300	38	499	0.0	170	48	11	42	1	5.4
JUL 09...	1000	255	206	15.0	77	23	4.7	15	0.8	2.5

DATE	TIME	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 17...	130	62	17	0.2	22	270	0.37	53	0.00	0.07	
JAN 09...	150	69	19	0.3	30	310	0.43	32	0.00	0.05	
JUL 09...	84	15	6.2	0.2	15	130	0.18	91	0.00	0.06	

RADIOCHEMICAL ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)
OCT 17...	1340	72	9.0	4.9	17	1.1
JAN 09...	1300	38	0.0	5.7	13	<0.8
JUL 09...	1000	255	15.0	2.5	2.3	--

DATE	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
OCT 17...	--	4.6	4.5	4.5	0.04	11
JAN 09...	9.6	5.9	7.2	6.1	0.09	16
JUL 09...	--	--	4.3	--	0.72	--

PLATTE RIVER BASIN

06640500 PATHFINDER RESERVOIR NEAR ALCOVA, WY

LOCATION.--Lat 42°28'06", long 106°51'12", in NW1/4 SW1/4 sec.24, T.29 N., R.84 W., Natrona County, Hydrologic Unit 10180003, in gatehouse near left end of dam on North Platte River and 9.0 mi southwest of Alcovia.

DRAINAGE AREA.--10,711 mi², of which 700 mi² is probably noncontributing.

PERIOD OF RECORD.--January 1909 to current year. Monthend figures only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,678.1 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 12, 1950, nonrecording gages near present site, and Apr. 12 to Sept. 30, 1950, water-stage recorder at present site, all at Bureau of Reclamation datum which was 1.9 ft lower.

REMARKS.--Reservoir is formed by masonry dam. Storage began in April 1909. Capacity, 1,016,000 acre-ft between elevations 5,668.1 ft, north outlet trashrack sill, and 5,850.1 ft, crest of spillway. No dead storage. Figures given herein represent total contents. Water is used to irrigate lands in Wyoming and Nebraska under the North Platte project. Since December 1960, water has been diverted directly through a tunnel to Fremont Canyon Powerplant, bypassing a section of river channel immediately below Pathfinder Dam.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,182,000 acre-ft, June 25-27, 1917, elevation, 5,858.86 ft, present datum; no storage at times during 1909-12, 1931, 1958-59.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 1,051,000 acre-ft, July 14, 15, maximum elevation, 5,851.64 ft, July 15; minimum daily contents, 600,000 acre-ft, Oct. 1, 2, 4, minimum elevation, 5,827.47 ft, Oct. 2.

Capacity table (elevation, in feet,
and contents, in acre-feet)

5,827	593,000	5,840	810,000
5,830	638,000	5,852	1,058,000

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	600000	619000	647000	675000	720000	784000	843000	979000	993000	1045000	1003000	902000
2	600000	621000	649000	676000	721000	786000	847000	984000	995000	1046000	999000	901000
3	601000	622000	650000	677000	722000	789000	851000	988000	997000	1045000	995000	899000
4	600000	624000	651000	678000	724000	792000	855000	993000	998000	1047000	992000	898000
5	601000	625000	652000	680000	725000	794000	859000	994000	1000000	1045000	989000	895000
6	601000	625000	653000	682000	727000	797000	863000	996000	1002000	1047000	986000	893000
7	602000	625000	654000	683000	727000	800000	867000	996000	1004000	1046000	983000	892000
8	603000	626000	655000	685000	728000	801000	870000	997000	1002000	1048000	979000	890000
9	604000	626000	656000	686000	729000	804000	875000	999000	1002000	1049000	977000	890000
10	605000	628000	658000	688000	731000	805000	878000	1002000	1001000	1050000	974000	886000
11	606000	629000	659000	689000	734000	807000	882000	1004000	1002000	1050000	971000	854000
12	606000	629000	661000	691000	736000	809000	886000	1006000	1005000	1050000	968000	881000
13	606000	630000	662000	692000	739000	810000	890000	1006000	1009000	1050000	965000	879000
14	608000	631000	663000	693000	741000	810000	894000	1004000	1012000	1051000	963000	877000
15	609000	632000	665000	694000	744000	811000	901000	1002000	1016000	1051000	959000	875000
16	609000	632000	664000	695000	747000	810000	906000	1001000	1018000	1049000	955000	874000
17	610000	634000	664000	696000	750000	810000	913000	1000000	1022000	1048000	953000	870000
18	612000	635000	664000	699000	753000	810000	920000	999000	1027000	1047000	950000	867000
19	613000	636000	664000	700000	756000	810000	925000	997000	1032000	1045000	947000	866000
20	613000	636000	663000	702000	758000	809000	932000	996000	1034000	1039000	944000	864000
21	614000	637000	664000	703000	761000	810000	937000	994000	1038000	1036000	941000	860000
22	615000	639000	665000	705000	763000	812000	941000	991000	1041000	1030000	938000	857000
23	616000	640000	666000	707000	766000	814000	945000	990000	1044000	1027000	933000	854000
24	616000	640000	667000	708000	769000	816000	950000	988000	1046000	1024000	931000	852000
25	616000	641000	667000	710000	772000	819000	952000	986000	1046000	1020000	926000	851000
26	617000	642000	668000	712000	775000	822000	957000	985000	1046000	1018000	923000	850000
27	618000	643000	669000	713000	778000	826000	961000	985000	1046000	1016000	920000	848000
28	618000	644000	669000	715000	781000	829000	965000	988000	1046000	1013000	917000	847000
29	618000	645000	670000	715000	---	833000	971000	989000	1045000	1010000	913000	847000
30	618000	645000	672000	717000	---	837000	975000	991000	1045000	1008000	909000	846000
31	619000	---	673000	718000	---	840000	---	992000	---	1006000	905000	---
MAX	619000	645000	673000	718000	781000	840000	975000	1006000	1046000	1051000	1003000	902000
MIN	600000	619000	647000	675000	720000	784000	843000	979000	993000	1006000	905000	846000
(+)	5,828.70	5,830.45	5,832.16	5,834.88	5,838.42	5,841.55	5,848.18	5,849.00	5,851.37	5,849.61	5,844.85	5,841.89
(+)	+17,000	+26,000	+28,000	+45,000	+63,000	+59,000	+135,000	+17,000	+53,000	-39,000	-101,000	-59,000

CAL YR 1985 MAX 996000 MIN 600000 (+) -222,000
WTR YR 1986 MAX 1051000 MIN 600000 (+) +244,000

(+) Elevation, in feet, at end of month.

(+) Change in contents, in acre-feet.

06641500 ALCOVA RESERVOIR AT ALCOVA, WY

LOCATION.--Lat 42°32'52", long 106°43'08", in SE1/4 SE1/4 sec.24, T.30 N., R.83 W., Natrona County, Hydrologic Unit 10180007, in elevator shaft at right end of dam on North Platte River and 0.2 mi southwest of Alcovia.

DRAINAGE AREA.--10,766 mi², of which 700 mi² is probably noncontributing.

PERIOD OF RECORD.--February 1938 to current year. Prior to October 1950 monthend figures only, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder for elevations above 5,447.00 ft. Datum of gage is 5,320 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to June 27, 1955, nonrecording gages near present site at same datum.

REMARKS.--Reservoir is formed by rock-fill dam completed in January 1938; storage began Feb. 8, 1938. Capacity, 184,300 acre-ft at elevation 5,500.00 ft, top of spillway gates. Dead storage, 100 acre-ft. Figures given herein represent total contents. Usable contents published prior to October 1956. Water is used for irrigation in North Platte River basin.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 190,300 acre-ft, Aug. 14, 15, 1952, elevation, 5,499.92 ft; minimum daily (since appreciable storage was attained), 1,980 acre-ft, Sept. 30, 1940, elevation, 5,353.56 ft. No usable storage prior to February 1938.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 182,000 acre-ft, June 25, 26, July 24, 25, Aug. 2-4, maximum elevation, 5,498.92 ft, July 25; minimum daily contents, 139,000 acre-ft, Jan. 7-17, Jan. 23 to Feb. 2, Feb. 4; minimum elevation, 5,479.96 ft, Jan. 26, 28.

Capacity table (elevation, in feet,
and contents, in acre-feet)

5,480	139,000	5,495	172,000
5,485	149,000	5,500	184,000
5,490	160,000		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	176000	141000	140000	140000	139000	148000	180000	181000	177000	180000	181000	181000
2	174000	140000	140000	140000	139000	148000	180000	181000	178000	179000	182000	180000
3	171000	140000	140000	140000	140000	149000	180000	181000	179000	179000	182000	180000
4	169000	140000	140000	140000	139000	149000	180000	181000	181000	179000	182000	181000
5	167000	140000	140000	140000	140000	149000	180000	181000	180000	179000	181000	181000
6	165000	140000	141000	140000	141000	149000	180000	181000	179000	178000	181000	181000
7	163000	141000	140000	139000	143000	151000	180000	181000	179000	178000	180000	181000
8	164000	141000	140000	139000	145000	153000	180000	180000	179000	179000	180000	181000
9	165000	141000	141000	139000	146000	156000	179000	180000	179000	179000	179000	181000
10	165000	141000	140000	139000	147000	157000	180000	180000	179000	179000	179000	181000
11	165000	140000	140000	139000	147000	160000	180000	180000	179000	180000	179000	181000
12	163000	140000	141000	139000	148000	162000	180000	180000	179000	180000	179000	181000
13	160000	141000	140000	139000	148000	164000	181000	179000	179000	181000	180000	181000
14	158000	141000	140000	139000	148000	168000	181000	179000	179000	181000	179000	180000
15	156000	141000	140000	139000	147000	172000	180000	179000	179000	181000	178000	180000
16	153000	141000	140000	139000	147000	175000	180000	179000	179000	181000	177000	180000
17	151000	141000	140000	139000	147000	179000	179000	179000	179000	181000	177000	180000
18	149000	141000	140000	140000	147000	181000	178000	179000	179000	180000	177000	180000
19	146000	141000	140000	140000	147000	181000	177000	179000	180000	180000	178000	180000
20	144000	141000	140000	140000	148000	181000	177000	179000	180000	178000	178000	180000
21	141000	141000	140000	140000	147000	181000	177000	179000	181000	178000	178000	180000
22	140000	140000	140000	140000	147000	181000	178000	179000	181000	179000	178000	180000
23	140000	140000	140000	139000	147000	180000	179000	178000	181000	181000	178000	180000
24	140000	140000	140000	139000	147000	180000	180000	178000	181000	182000	178000	181000
25	140000	140000	140000	139000	147000	180000	180000	178000	182000	182000	179000	180000
26	140000	140000	140000	139000	148000	180000	181000	178000	182000	181000	179000	179000
27	140000	140000	140000	139000	148000	180000	181000	178000	181000	181000	180000	178000
28	140000	140000	140000	139000	148000	180000	181000	177000	181000	181000	180000	177000
29	140000	140000	140000	139000	---	180000	181000	177000	181000	180000	181000	177000
30	141000	140000	140000	139000	---	180000	181000	178000	180000	180000	181000	177000
31	141000	---	140000	139000	---	180000	---	177000	---	180000	181000	---
MAX	176000	141000	141000	140000	148000	181000	181000	181000	182000	182000	182000	181000
MIN	140000	140000	140000	139000	139000	148000	177000	177000	177000	178000	177000	177000
(+)	5,481.00	5,480.83	5,480.75	5,480.05	5,484.33	5,498.33	5,498.53	5,497.10	5,498.26	5,498.38	5,498.71	5,496.88
(+)	-36,000	-1,000	0	-1,000	+9,000	+32,000	+1,000	-4,000	+3,000	0	+1,000	-4,000

CAL YR 1985 MAX 182000 MIN 140000 (+) -16,000

WTR YR 1986 MAX 182000 MIN 139000 (+) 0

(+) Elevation, in feet, at end of month.

(+) Change in contents, in acre-feet.

PLATTE RIVER BASIN

06642000 NORTH PLATTE RIVER AT ALCOVA, WY

LOCATION.--Lat 42°34'27", long 106°41'31", in NW1/4 NE1/4 NW1/4 sec.17, T.30 N., R.82 W., Natrona County, Hydrologic Unit 10180007, on left bank 0.5 mi downstream from Hogback Draw, 0.8 mi downstream from Gray Reef Dam, 1.9 mi northeast of Alcova, and 3.8 mi downstream from Alcova Dam.

DRAINAGE AREA.--10,812 mi², of which 700 mi² is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1904 to December 1905, October 1934 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1937-38, 1945. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,299.40 ft above National Geodetic Vertical Datum of 1929. Feb. 19, 1904, to Dec. 31, 1905, nonrecording gage at site 3.7 mi upstream at different datum. June 1, 1935, to Apr. 27, 1961, water-stage recorder at site 3.5 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Seminoe, Pathfinder, and Alcova Reservoirs. (See station 06635500, 06640500, 06641500.) Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 13,400 ft³/s, June 6, 10, 11, 1905, gage height, 11.5 ft, site and datum then in use; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,710 ft³/s, July 17, gage height, 5.78 ft; minimum daily, 498 ft³/s, Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2020	1110	881	927	893	697	990	2940	1620	5220	2530	2670
2	2010	965	872	924	902	701	985	2960	1580	5230	2520	2470
3	2030	898	872	931	895	701	985	2960	1570	5070	2500	1510
4	2050	900	879	932	902	702	973	2950	1770	5010	2620	1480
5	2060	902	875	935	855	701	974	2970	2320	5010	2690	1480
6	2040	899	867	932	842	700	974	2970	2650	5030	2660	1520
7	1590	910	872	941	843	696	975	2970	2660	5000	2940	1590
8	542	954	881	940	842	707	987	2840	2670	5050	2970	1740
9	500	973	876	938	848	708	978	2060	2680	5120	3010	1810
10	498	979	878	944	849	701	856	1930	2650	5270	2990	1800
11	976	983	869	944	857	698	776	1920	2590	5410	2830	1820
12	2010	979	877	939	848	700	776	2150	2720	5400	2000	1870
13	2010	971	876	947	848	696	785	2940	2750	5350	2590	1920
14	2010	969	882	950	853	814	787	2960	2710	5400	3000	1920
15	2030	951	881	909	851	906	920	2960	2710	5490	2990	1930
16	2020	921	877	889	851	907	1360	2930	2800	5500	2970	1930
17	2010	929	886	891	849	1120	1650	2920	2930	5520	2810	1950
18	2000	929	893	891	848	1930	1960	2910	2920	5410	2690	1930
19	2020	919	893	890	848	2650	2080	2920	3040	5410	2640	1820
20	2000	910	883	890	849	2720	2070	2920	3300	5400	2640	1770
21	2020	878	893	889	844	2460	2390	2950	3650	4380	2610	1760
22	1430	878	890	889	848	2160	2570	2950	4260	2620	2540	1780
23	1100	877	906	947	843	1990	2590	2950	4710	2420	2550	1750
24	1110	872	898	953	835	1540	2580	2950	4750	2420	2520	1640
25	1120	872	904	950	694	997	2690	2970	4870	2990	2460	1550
26	1100	879	901	957	628	997	2840	2980	5090	2970	2390	1440
27	1100	867	909	961	693	992	2840	2320	5170	2930	2400	1370
28	1100	881	916	959	702	988	2830	1700	5180	2870	2450	1240
29	1110	872	915	959	---	988	2850	1680	5190	2850	2550	1050
30	1120	882	915	933	---	993	2940	1590	5210	2790	2590	1030
31	1120	---	930	901	---	987	---	1610	---	2640	2680	---
TOTAL	47856	27709	27547	28782	23260	35247	49961	81730	98720	137180	82330	51540
MEAN	1544	924	889	928	831	1137	1665	2636	3291	4425	2656	1718
MAX	2060	1110	930	961	902	2720	2940	2980	5210	5520	3010	2670
MIN	498	867	867	889	628	696	776	1590	1570	2420	2000	1030
AC-FT	94920	54960	54640	57090	46140	69910	99100	162100	195800	272100	163300	102200
CAL YR 1985	TOTAL	705184		MEAN	1932	MAX	4050	MIN	498	AC-FT 1399000		
WTR YR 1986	TOTAL	691862		MEAN	1896	MAX	5520	MIN	498	AC-FT 1372000		

PLATTE RIVER BASIN

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06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1965 to September 1969, October 1979 to September 1981.

WATER TEMPERATURES: October 1965 to September 1969, October 1979 to September 1981.

DISSOLVED SOLIDS: October 1965 to September 1969.

HARDNESS: October 1965 to September 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 08...	1200	525	460	8.4	9.5	8.0	624	9.4	98	K12	72
NOV 07...	1130	848	520	8.5	--	9.5	621	10.4	112	K6	--
DEC 12...	1200	906	500	8.5	3.9	1.0	623	12.0	104	K2	K7
JAN 08...	1345	943	520	8.3	--	2.0	630	14.4	126	<1	--
FEB 12...	1130	868	520	8.1	2.0	0.5	622	13.1	111	K3	<1
MAR 06...	1030	694	465	8.2	--	3.0	626	13.0	117	K3	--
APR 08...	1130	1040	500	8.2	14	7.5	627	12.2	123	K4	50
MAY 07...	1100	2990	465	8.1	--	7.5	618	11.0	113	K4	--
JUN 10...	1300	2730	465	8.0	7.1	10.0	630	10.6	114	K7	K14
JUL 10...	1430	5380	490	7.8	--	15.5	628	9.8	120	K7	--
AUG 05...	0900	2730	480	8.0	--	15.0	629	10.0	121	K1	48
SEP 11...	1200	1900	460	8.1	--	18.0	564	9.4	135	K7	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CACO3)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L - CACO3)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)
OCT 08...	180	46	15	29	1	2.6	113	138	132	63	48
NOV 07...	190	49	16	32	1	3.2	115	--	--	--	--
DEC 12...	190	50	16	30	1	2.8	121	--	--	--	--
JAN 08...	190	50	16	33	1	3.5	123	--	--	--	--
FEB 12...	190	48	16	31	1	3.1	124	140	142	173	0
MAR 06...	180	48	15	31	1	3.1	122	--	--	--	--
APR 08...	180	46	15	29	1	3.3	122	126	132	161	0
MAY 07...	180	48	14	31	1	2.3	120	--	--	--	--
JUN 10...	180	47	15	29	1	2.5	120	125	126	154	0
JUL 10...	190	48	16	32	1	2.3	130	--	--	--	--
AUG 05...	--	--	--	--	--	--	--	--	--	--	--
SEP 11...	180	46	15	29	1	2.1	120	--	--	--	--

PLATTE RIVER BASIN

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT 08...	120	8.4	0.3	11	312	360	0.42	442	--	<0.10	0.06
NOV 07...	120	10	0.4	10	304	310	0.41	696	<0.10	<0.10	0.04
DEC 12...	120	9.0	0.4	7.8	306	310	0.42	749	--	<0.10	0.05
JAN 08...	120	7.0	0.4	7.5	316	310	0.43	805	<0.10	<0.10	0.11
FEB 12...	120	9.1	0.4	8.0	311	320	0.42	729	--	<0.10	0.06
MAR 06...	120	8.8	0.3	7.9	293	310	0.4	549	<0.10	<0.10	0.03
APR 08...	110	7.7	0.3	7.5	316	300	0.43	887	--	<0.10	0.05
MAY 07...	100	7.8	0.2	7.3	--	280	0.38	2280	<0.10	0.00	0.04
JUN 10...	110	7.2	0.3	8.3	299	300	0.41	2200	--	<0.10	0.05
JUL 10...	110	8.5	0.3	8.5	--	300	0.41	4420	<0.10	0.10	0.04
AUG 05...	--	--	--	--	--	--	--	--	--	0.15	<0.01
SEP 11...	100	6.7	0.3	12	--	280	0.38	1450	0.10	0.10	<0.01
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 08...	0.04	0.05	0.44	0.5	0.04	0.01	0.01	0.03	23	33	90
NOV 07...	--	--	0.36	0.4	0.03	--	--	--	--	--	--
DEC 12...	0.04	0.05	0.35	0.4	0.03	0.01	<0.01	--	15	37	80
JAN 08...	--	--	0.39	0.5	0.02	--	--	--	--	--	--
FEB 12...	0.06	0.08	0.44	0.5	0.02	<0.01	<0.01	--	4	9.4	73
MAR 06...	--	--	0.37	0.4	0.02	--	--	--	--	--	--
APR 08...	0.02	0.03	3.8	3.8	0.03	0.01	<0.01	--	31	87	95
MAY 07...	--	--	0.46	0.5	0.02	--	--	--	--	--	--
JUN 10...	0.05	0.06	0.35	0.4	0.03	<0.01	<0.01	--	28	206	91
JUL 10...	--	--	0.16	0.2	0.04	--	--	--	--	--	--
AUG 05...	0.02	0.03	--	0.5	0.14	0.02	0.02	0.06	12	88	--
SEP 11...	--	--	--	0.6	0.09	--	--	--	--	--	--

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
DEC 12...	1200	20	2	57	<0.5	<1	<1	<3	1	7	<1
FEB 12...	1130	10	2	56	<0.5	<1	<1	<3	3	<3	1
APR 08...	1130	<10	2	53	<0.5	<1	<1	<3	2	<3	1

DATE	TIME	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 12...	24		4	0.1	<10	2	1	<1	410	<6	8
FEB 12...	24		15	0.1	<10	6	1	<1	440	<6	<3
APR 08...	22		3	0.3	<10	1	1	<1	380	<6	<3

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)
AUG 05...	0900	<1	30	80	6	<1	4	<5	<0.2	2

DATE	TIME	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
AUG 05...	3		<1	<1	1	<10	7.3	7.2	5.8	0.1	5.7

PLATTE RIVER BASIN

06642500 BATES CREEK NEAR FREELAND, WY

LOCATION.--Lat 42°32'00", long 109°19'00", in NW1/4 sec.29, T.30 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at bridge on old Casper-Medicine Bow Highway, 2.2 mi downstream from Chalk Creek, and 20 mi east of Alcova.

DRAINAGE AREA.--129 mi².

PERIOD OF RECORD.--June 1981 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 17...	0940	4.6	314	4.0	140	41	9.2	13	0.5	2.6
JAN 09...	0930	4.4	348	0.0	140	43	8.4	15	0.6	2.0
MAR 31...	0900	62	120	3.0	59	18	3.3	3.0	0.2	0.9
JUL 10...	0930	7.9	305	15.0	130	40	6.7	11	0.4	1.9

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 17...	150	15	2.7	0.2	18	190	0.26	2.4	0.00	0.48
JAN 09...	150	15	2.4	0.2	23	200	0.27	2.4	0.30	0.00
MAR 31...	53	5.2	1.0	0.1	10	73	0.1	12	0.10	0.16
JUL 10...	140	7.1	2.0	0.2	17	170	0.23	3.6	0.00	0.01

06643000 BATES CREEK NEAR ALCOVA, WY

LOCATION.--Lat 42°40'34", long 106°36'09", in SE1/4 SE1/4 sec.1, T.31 N., R.82 W., Natrona County, Hydrologic Unit 10180007, at former gaging station, 2.8 mi upstream from mouth, and 10.5 mi northeast of Alcova.

DRAINAGE AREA.--393 mi².

PERIOD OF RECORD.--Water years 1957-58, 1970 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 17...	1130	8.7	1440	7.0	700	200	48	74	1	7.8
NOV 07...	1330	7.6	1500	5.0	730	210	51	85	1	7.9
JAN 09...	1115	21	1290	0.0	580	160	44	66	1	5.7
FEB 12...	1430	29	1360	0.0	610	170	46	74	1	6.4
MAR 06...	1310	18	1170	4.0	560	160	39	65	1	5.5
MAR 31...	1115	14	861	5.0	400	120	24	44	1	5.0
MAY 07...	1300	17	936	7.5	410	120	27	52	1	4.9
JUN 10...	1545	283	562	13.0	230	69	13	21	0.6	4.9
JUL 10...	1100	8.4	1490	14.5	710	200	50	93	2	7.5

DATE	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 17...	240	580	9.3	0.2	22	1100	1.5	25	0.10	0.14
NOV 07...	240	630	10	0.3	24	1200	1.6	24	0.20	0.01
JAN 09...	230	470	7.6	0.3	21	910	1.2	52	0.30	0.04
FEB 12...	240	540	9.2	0.7	21	1000	1.4	79	0.30	0.17
MAR 06...	210	450	6.1	0.8	18	870	1.2	42	0.10	0.38
MAR 31...	190	290	6.0	0.3	15	620	0.84	23	0.10	0.30
MAY 07...	180	320	6.4	0.2	19	660	0.89	30	0.20	0.27
JUN 10...	190	150	2.7	0.1	11	390	0.52	295	0.10	0.73
JUL 10...	240	630	13	0.3	20	1200	1.6	26	0.00	0.02

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	MERCURY DIS- SOLVED (UG/L AS HG)	LEAD, DIS- SOLVED (UG/L AS PB)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)
AUG 12...	0830	1	51	190	3	3	<10	<0.2	<5	10

DATE	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
AUG 12...	<2	7	<1	<6	<3	65	31	23	0.2	30

PLATTE RIVER BASIN

06643500 NORTH PLATTE RIVER NEAR GOOSE EGG, WY

LOCATION.--Lat. 42°45'10", long 106°31'12", in SW1/4 NW1/4 SW1/4 sec.11, T.32 N., R.81 W., Natrona County, Hydrologic Unit 10180007, on right bank 1.6 mi southwest of Goose Egg, 2.5 mi upstream from Poison Spider Creek, and 12 mi southwest of Casper.

DRAINAGE AREA.--11,439 mi², of which 700 mi² is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1917 to September 1919 (irrigation seasons only), May to September 1924, May to September 1947, May 1950 to September 1960, April 1983 to September 1984, October 1985 to September 1986 (discontinued). Monthly discharge only for some periods, published in WSP 1310. Published as "near Casper" 1917-19, 1924.

REVISED RECORDS.--WDR WY-83-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,180 ft above National Geodetic Vertical Datum of 1929, from topographic map. April 1917 to September 1919, staff gage at site 1.0 mi upstream at different datum. May to September 1924, and May to September 1947, staff gages at site 1.8 mi downstream at different datum. May 1950 to September 1960, water-stage recorder at site 2.7 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 22-24, 28-30, Dec. 1-7, 10-31, Jan. 1-12, 22, 25, 26, and Feb. 6-17. Records fair except those for estimated daily discharges, which are poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 19,200 ft³/s, June 24-28, 1917; maximum gage height, 11.80 ft, May 28, 1953, site and datum then in use; minimum daily discharge, 8.7 ft³/s, June 14, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,690 ft³/s, July 17, gage height, 4.89 ft; minimum daily, 530 ft³/s, Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1920	1180	800	925	884	724	1040	2990	1710	5090	2640	2710
2	1920	1140	880	925	883	721	1040	2980	1710	5110	2630	2680
3	1930	994	930	920	878	723	1060	3000	1690	5030	2620	1880
4	1950	991	945	900	875	714	1030	2980	2430	4940	2680	1610
5	1960	1000	970	940	851	718	1030	2990	2180	4920	2810	1590
6	1970	996	960	940	785	714	1080	3010	2730	4950	2810	1590
7	1950	1000	940	910	765	711	1130	3020	2630	4960	2940	1620
8	842	1030	926	960	750	709	1140	3030	2620	4980	3180	1760
9	567	1060	936	970	730	718	1110	2400	2710	5100	3130	1840
10	536	1060	830	980	680	720	1060	2050	2890	5210	3200	1940
11	530	1070	820	1020	700	717	885	2050	2650	5410	3260	1990
12	1700	1060	755	1040	730	713	856	2060	2720	5450	2530	1940
13	1890	1070	800	1050	790	712	853	2830	2720	5420	2510	2020
14	1910	1060	840	1030	870	722	854	3040	2680	5420	3050	2010
15	1930	1050	890	965	900	902	843	3050	2660	5550	3010	2020
16	1930	1010	910	922	960	896	1210	3030	2680	5530	3010	2000
17	1940	1020	910	911	970	923	1550	2950	2820	5540	2940	2020
18	1940	1030	905	901	984	1560	1860	2950	2850	5450	2750	2010
19	1950	1000	900	894	978	2330	2050	2980	2920	5460	2710	1970
20	1950	1020	900	916	926	2710	2080	3010	3250	5460	2680	1870
21	1990	984	925	908	906	2550	2250	3010	3360	5070	2660	1860
22	1780	930	935	890	891	2310	2600	3050	3800	3170	2580	1860
23	1160	870	925	925	893	2030	2620	3040	4370	2670	2560	1870
24	1150	940	910	949	882	1930	2670	3070	4530	2580	2570	1830
25	1150	925	895	910	857	1110	2700	3070	4600	2710	2550	1710
26	1160	923	900	910	697	1060	2910	3030	4810	3230	2500	1630
27	1140	932	840	936	695	1060	2910	2820	4960	3050	2520	1530
28	1150	900	970	943	721	1060	2890	1830	5010	2980	2520	1450
29	1160	870	930	939	---	1050	2880	1800	5020	2920	2600	1240
30	1170	680	920	935	---	1050	2930	1700	5060	2890	2880	1130
31	1180	---	920	892	---	1040	---	1690	---	2760	2720	---
TOTAL	47405	29795	27817	29156	23431	35607	51121	84510	96770	139010	85750	55180
MEAN	1529	993	897	941	837	1149	1704	2726	3226	4484	2766	1839
MAX	1990	1180	970	1050	984	2710	2930	3070	5060	5550	3260	2710
MIN	530	680	755	890	680	709	843	1690	1690	2580	2500	1130
AC-FT	94030	59100	55180	57830	46480	70630	101400	167600	191900	275700	170100	109400
WTR YR 1986	TOTAL	705552		MEAN	1933	MAX	5550	MIN	530	AC-FT	1399000	

06643500 NORTH PLATTE RIVER NEAR GOOSE EGG, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1983 to September 1984, October 1985 to September 1986.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 08...	1515	757	595	8.7	6.0	627	12.1	117	210	56
NOV 26...	1400	929	610	8.5	4.0	622	11.7	110	210	55
JAN 15...	1200	925	570	8.2	0.0	624	13.2	111	210	54
FEB 26...	1100	694	650	8.2	3.0	629	9.6	86	240	65
APR 07...	1100	1100	630	8.1	9.0	629	8.9	93	210	58
MAY 08...	1230	3010	455	8.2	7.0	623	10.1	102	190	50
JUN 12...	1430	2580	540	8.3	14.0	630	10.0	118	200	51
JUL 14...	1200	5400	510	8.2	16.5	630	9.9	123	--	--
AUG 25...	1415	2610	480	8.1	17.0	629	8.8	111	200	51
SEP 24...	1500	1920	480	8.1	14.5	612	8.5	104	190	49

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT 08...	18	43	1	3.0	127	170	9.4	0.3	11
NOV 26...	18	38	1	3.5	128	150	9.2	0.4	7.9
JAN 15...	18	37	1	3.1	130	150	10	0.4	7.5
FEB 26...	20	43	1	3.6	134	180	9.8	0.4	9.4
APR 07...	17	46	1	3.3	120	170	9.4	0.3	7.7
MAY 08...	15	33	1	2.4	120	110	8.0	0.2	7.3
JUN 12...	18	39	1	2.6	130	130	8.7	0.1	7.0
JUL 14...	--	--	--	--	--	--	--	--	--
AUG 25...	17	32	1	2.6	130	110	9.3	0.4	8.6
SEP 24...	16	33	1	2.1	130	110	8.6	0.3	10

PLATTE RIVER BASIN

06643500 NORTH PLATTE RIVER NEAR GOOSE EGG, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 08...	407	390	0.55	832	0.23	--	--	--	--
NOV 26...	380	360	0.52	953	0.14	--	18	45	--
JAN 15...	406	360	0.55	1010	0.12	--	17	42	--
FEB 26...	404	410	0.55	757	0.19	--	300	562	99
APR 07...	--	380	0.52	1140	0.20	0.58	985	2930	--
MAY 08...	--	300	0.41	2420	0.10	0.44	81	658	--
JUN 12...	--	330	0.45	2330	0.00	0.08	150	1040	90
JUL 14...	--	--	--	--	--	--	47	685	--
AUG 25...	--	310	0.42	2180	0.10	0.04	28	197	--
SEP 24...	--	310	0.42	1590	0.10	0.02	13	67	--

PLATTE RIVER BASIN

257

06643510 NORTH PLATTE RIVER ABOVE POISON SPIDER CREEK, NEAR GOOSE EGG, WY

LOCATION.--Lat 42°46'18", long 106°31'48", in NW1/4 SW1/4 NE1/4 sec.3, T.32 N., R.81 W., Natrona County, Hydrologic Unit 10180007, at bridge on county road, 0.3 mi upstream from Poison Spider Creek, and 2.4 mi west of Goose Egg.

PERIOD OF RECORD.--November 1977 to November 1979, February 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 31...	0745	1160	550	8.5	8.5	620	8.2
JAN 15...	1200	925	570	8.2	0.0	624	13.2
APR 30...	0720	3000	494	7.4	7.0	627	9.7
JUL 14...	1200	5400	510	8.2	16.5	630	9.9

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 31...	86	K2	<0.10	0.02	0.38	0.4	0.01
JAN 15...	111	K1	0.10	0.03	0.37	0.4	0.01
APR 30...	97	31	<0.10	0.01	0.59	0.6	0.04
JUL 14...	123	60	<0.10	0.03	--	<0.2	0.04

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PLATTE RIVER BASIN

06644085 NORTH PLATTE RIVER AT MILLS, WY

LOCATION.--Lat 42°50'31", long 106°21'33", in NW1/4 NE1/4 SE1/4 sec.7, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at railroad bridge, 700 ft upstream from Casper Creek, 900 ft east of Mills city limits, and 0.2 mi upstream from bridge on U.S. Highways 20 and 26.

PERIOD OF RECORD.--Water years 1970 to current year.

REMARKS.--Discharge records furnished by U.S. Bureau of Reclamation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 31...	1030	1160	585	8.4	8.5	622	10.0
JAN 30...	1020	850	760	7.9	2.0	625	12.9
APR 30...	0950	3000	500	7.4	7.5	628	9.6
JUL 17...	1030	5750	540	8.1	17.5	630	7.8

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 31...	105	K5	0.20	0.02	0.38	0.4	0.02
JAN 30...	114	K5	0.40	0.06	0.44	0.5	0.02
APR 30...	97	22	<0.10	<0.01	--	0.6	0.05
JUL 17...	99	39	0.10	0.06	0.44	0.5	0.04

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)
AUG 14...	<1	50	<1	<1	5	<5	<0.2

DATE	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
AUG 14...	1	4	<1	<1	<1	<10

06644085 NORTH PLATTE RIVER AT MILLS, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	
AUG 14...	1100	<1	50	10	<1	<1	5	<5	<0.2	
DATE		MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
AUG 14...	1	4	<1	<1	<1	<10	5.7	0.1	6.0	
DATE		DI- AZINON, TOTAL (UG/L)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	DICAMBA RECOVER FROM BOT MAT DRY WT. (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION, TOTAL (UG/L)
AUG 21...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.01	<0.1	<0.01
DATE		METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA- THION, TOTAL (UG/L)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	PI- CLORAM RECOVER FROM BOT.MAT DRY WT. (UG/KG)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 21...	<0.1	<0.01	<0.1	<0.01	<0.1	0.01	<0.1	<0.01	<0.1	<0.1

PLATTE RIVER BASIN

06644500 CASPER CREEK AT CASPER, WY

LOCATION.--Lat 42°50'52", long 106°21'52", in NW1/4 NE1/4 sec.7, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at U.S. Bureau of Reclamation gaging station, 700 ft upstream from bridge on U.S. Highways 20 and 26, 0.4 mi upstream from mouth, and 2.0 mi west of city hall in Casper.

DRAINAGE AREA.--668 mi², of which 98 mi² is probably noncontributing.

PERIOD OF RECORD.--Water years 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT								
03...	1415	20	4220	8.2	8.0	12	631	10.1
10...	1255	16	5800	8.2	9.0	20	629	9.8
31...	0945	12	5250	8.3	7.0	--	621	10.6
JAN								
30...	0920	15	6300	8.2	2.0	--	624	11.0
APR								
30...	1020	11	6250	8.0	8.0	--	628	10.2
JUL								
17...	1000	34	--	--	18.0	--	--	--
SEP								
23...	1130	19	--	--	16.0	--	--	--

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT							
03...	105	--	--	--	--	--	--
10...	105	--	--	--	--	--	--
31...	109	920	8.20	0.37	1.3	1.7	0.17
JAN							
30...	100	K6200	14.0	0.68	1.2	1.9	0.19
APR							
30...	107	390	9.60	0.40	1.4	1.8	0.19
JUL							
17...	--	470	--	--	--	--	--
SEP							
23...	--	--	3.80	0.10	1.0	1.1	0.02

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)
AUG										
13...	2	38	540	3	9	<10	10	<0.2	8	4

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L)	URANIUM DIS- SOLVED (UG/L AS U)
AUG									
13...	32	<1	<6	7	57	21	13	0.2	27

06644500 CASPER CREEK AT CASPER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	DI-AZINON, TOTAL (UG/L)	DI-AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	DICAMBA RECOVER FROM BOT MAT DRY WT. (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MALA- THION, TOTAL (UG/L)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 13...	<0.01	<0.1	0.04	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1

DATE	METHYL PARA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PICLO- RAM (TOR- DON) TOTAL (UG/L)	PI- CLORAM RECOVER FROM BOT.MAT DRY WT. (UG/KG)	SILVEX, TOTAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 13...	<0.01	<0.1	<0.01	<0.1	0.07	<0.1	<0.01	<0.1	<0.01	<0.1

DATE	2,4-D, TOTAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-DP, TOTAL (UG/L)	2,4-DP, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4,5-T TOTAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- SYSTON TOTAL (UG/L)	PHORATE TOTAL (UG/L)	GUTHION TOTAL (UG/L)
AUG 13...	0.02	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.01	<0.1

PLATTE RIVER BASIN

06644550 NORTH PLATTE RIVER AT CASPER, WY

LOCATION.--Lat 42°51'26", long 106°19'09", in SE1/4 SE1/4 NW1/4 sec.4, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at bridge on service road, 800 ft west of Center Street exit from Interstate Highway 25, and 0.6 mi northwest of Casper Post Office.

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Discharge records furnished by Bureau of Reclamation.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986								
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	1986 BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT								
03...	1500	1940	578	8.3	10.0	28	630	9.2
10...	1200	588	955	8.1	8.0	18	629	11.3
31...	1300	1160	680	8.5	9.0	--	622	10.0
JAN								
30...	1310	850	745	8.1	4.0	--	624	11.7
APR								
16...	0815	1030	720	8.3	8.0	37	622	9.4
23...	1300	2960	560	7.4	12.0	70	622	9.3
30...	1200	3000	530	7.8	9.0	35	628	9.8
MAY								
08...	0850	3200	530	7.5	8.0	50	625	8.8
15...	0900	3200	520	7.6	9.0	24	629	8.7
22...	0840	3200	530	7.4	11.5	22	625	8.8
28...	1020	1800	560	7.6	13.5	11	630	9.0
JUN								
04...	1015	3250	700	7.3	15.5	9000	630	8.2
12...	1040	3370	600	7.7	14.0	400	630	8.3
19...	0830	3150	570	7.6	18.0	130	626	8.1
24...	0830	5900	540	7.5	14.5	140	630	8.2
JUL								
01...	0815	5500	525	7.5	15.0	40	630	8.2
08...	0820	5000	520	7.4	16.0	45	632	7.4
17...	1100	5750	550	8.2	17.0	45	629	8.2
25...	0840	2800	600	8.3	16.0	60	633	7.8
30...	0900	3130	570	8.3	17.0	36	630	7.7
AUG								
06...	0820	2960	560	8.5	16.5	34	627	7.2
14...	1140	3000	550	8.3	17.0	32	631	8.3
21...	1115	2700	587	8.0	16.5	16	629	7.4
28...	0845	2500	550	8.3	17.0	25	632	7.4
SEP								
04...	0845	1650	640	8.5	16.0	50	633	7.4
12...	0845	1950	585	8.3	14.5	36	633	8.0
17...	1315	1950	575	8.5	17.0	21	627	8.3
23...	1215	E2000	585	8.2	15.5	--	625	8.8

E-Estimate.

06644550 NORTH PLATTE RIVER AT CASPER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT							
03...	99	--	--	--	--	--	--
10...	116	--	--	--	--	--	--
31...	106	K4	0.30	0.03	0.37	0.4	0.01
JAN							
30...	109	K18	0.50	0.04	0.56	0.6	0.03
APR							
16...	98	--	--	--	--	--	--
23...	106	--	--	--	--	--	--
30...	103	25	0.10	<0.01	--	0.6	0.07
MAY							
08...	91	--	--	--	--	--	--
15...	92	--	--	--	--	--	--
22...	99	--	--	--	--	--	--
28...	105	--	--	--	--	--	--
JUN							
04...	100	--	--	--	--	--	--
12...	98	--	--	--	--	--	--
19...	105	--	--	--	--	--	--
24...	98	--	--	--	--	--	--
JUL							
01...	99	--	--	--	--	--	--
08...	91	--	--	--	--	--	--
17...	103	22	0.10	0.03	0.27	0.3	0.04
25...	96	--	--	--	--	--	--
30...	97	--	--	--	--	--	--
AUG							
06...	90	--	--	--	--	--	--
14...	104	--	--	--	--	--	--
21...	92	--	--	--	--	--	--
28...	93	--	--	--	--	--	--
SEP							
04...	91	--	--	--	--	--	--
12...	95	K4	--	--	--	--	--
17...	105	--	--	--	--	--	--
23...	108	--	--	--	--	--	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUL									
17...	1100	5750	17.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AUG									
21...	1115	2700	16.5	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
SEP									
12...	0845	1950	14.5	<0.01	0.01	<0.01	<0.01	<0.01	<0.01

LOCATION.--Lat 42°51'40", long 106°12'53", in SE1/4 NW1/4 NW1/4 sec.4, T.33 N., R.78 W., Natrona County, Hydrologic Unit 10180007, at New Mystery Bridge, 0.1 mi upstream from Claude Creek, 0.6 mi north of U.S. Highways 20 and 87, 5.8 mi east of city hall in Casper, and 9.5 mi downstream from Casper Creek.

PERIOD OF RECORD.--Water years 1947-52, 1957-59, 1968 to current year.

REMARKS.--Discharge records furnished by U.S. Bureau of Reclamation.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT 31...	1345	1160	700	8.7	9.0	624	14.0	149	K7	260
DEC 10...	0930	850	705	8.2	0.0	635	11.6	96	K160	250
JAN 30...	1410	850	755	8.2	4.5	627	13.8	130	K10	270
MAR 13...	1345	780	780	7.9	9.0	620	12.4	132	90	280
APR 30...	1315	3000	550	7.5	9.0	628	10.6	112	K15	200
JUN 24...	1030	5900	550	7.5	15.0	631	9.1	110	170	190
JUL 17...	1200	5750	550	8.2	17.5	630	8.3	106	42	--
AUG 14...	1245	3000	570	8.8	18.5	631	9.7	126	150	--
SEP 11...	0930	1950	630	8.4	15.0	630	9.6	116	32	--
23...	1300	E2000	590	8.3	16.0	626	8.6	107	K9	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

[illegible]

06645000 NORTH PLATTE RIVER BELOW CASPER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 31...	450	0.62	1420	0.40	0.30	0.03	0.27	0.3	0.05
DEC 10...	450	0.62	1040	0.50	0.50	0.06	0.44	0.5	0.06
JAN 30...	480	0.65	1100	0.60	0.60	0.05	0.45	0.5	0.07
MAR 13...	510	0.7	1080	0.60	0.50	0.04	0.26	0.3	0.08
APR 30...	330	0.45	2660	0.10	0.10	0.05	0.45	0.5	0.09
JUN 24...	340	0.47	5500	0.10	0.10	0.09	0.61	0.7	0.21
JUL 17...	--	--	--	0.10	--	0.04	0.36	0.4	0.06
AUG 14...	--	--	--	0.20	--	0.01	0.59	0.6	0.09
SEP 11...	--	--	--	0.30	--	<0.01	--	0.8	0.10
23...	--	--	--	0.20	--	<0.01	--	0.5	0.03
DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)
AUG 14...	<1	40	<1	<1	4	<5	<0.2	2	4
DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
AUG 14...	2	<1	<1	<10	13	8.4	6.6	0.1	6.9
DATE	DI- AZINON, TOTAL (UG/L)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	DICAMBA RECOVER FROM BOT MAT DRY WT. (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION, TOTAL (UG/L)
AUG 21...	<0.01	<0.1	0.01	<0.1	<0.01	<0.1	<0.01	<0.01	<0.01
DATE	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	METHYL PARA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA- THION, TOTAL (UG/L)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PICLO- RAM (TOR- DON) TOTAL (UG/L)	PI- CLORAM RECOVER FROM BOT.MAT DRY WT. (UG/KG)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	SILVEX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 21...	<0.1	<0.01	<0.1	<0.01	<0.1	0.01	<0.1	<0.01	<0.1
DATE	TOTAL TRI- THION (UG/L)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	2,4-D, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	2, 4-DP TOTAL (UG/L)	2,4-DP, IN BOTTOM MAT. (UG/KG)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/L)	2,4,5-T TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DEF TOTAL (UG/L)
AUG 21...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	0.06

PLATTE RIVER BASIN

06646000 DEER CREEK IN CANYON, NEAR GLENROCK, WY

LOCATION.--Lat 42°42'42", long 106°01'43", in SW1/4 NE1/4 SE1/4 sec.26, T.32 N., R.77 W., Converse County, Hydrologic Unit 10180007, on left bank 500 ft upstream from VR Ditch and 14 mi southwest of Glenrock.

DRAINAGE AREA.--139 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1946 to September 1951, March 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,640 ft above National Geodetic Vertical Datum of 1929, from topographic map. May 1946 to September 1951, at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 7-15, 17-30, Dec. 1-4, 11-13, 27-29, 31, Jan. 4-9, 20-26, Feb. 5-16, 22. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--6 years (water years 1947-51, 1986), 51.4 ft³/s, 37,280 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,200 ft³/s, June 10, 1986, gage height, 9.42 ft; minimum daily, 1.3 ft³/s, Aug. 19, 30, 31, 1951.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 12, 1970, reached a discharge of 14,200 ft³/s at Deer Creek below Millar Wasteway, at Glenrock (sta 06646600) 16.5 mi downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 8	2030	566	5.77	May 4	2330	439	5.39
Apr. 23	2330	797	6.35	June 10	0700	*3,200	*9.42

Minimum daily, 5.0 ft³/s, Nov. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	5.4	6.2	6.3	8.7	23	155	272	78	35	9.7	7.5
2	5.5	5.5	6.4	6.3	9.1	24	196	297	72	33	9.9	10
3	6.0	5.5	6.7	6.8	9.6	25	101	344	66	29	9.3	8.7
4	6.4	5.5	6.8	6.4	9.7	25	107	398	110	26	9.0	8.1
5	6.0	6.3	6.9	6.1	9.4	29	158	394	84	24	8.6	7.5
6	5.5	6.3	6.9	6.1	8.9	27	201	330	72	24	8.5	7.4
7	5.9	5.0	6.9	6.2	8.4	30	273	341	57	23	8.0	7.8
8	7.9	6.5	6.8	6.6	7.8	44	412	327	56	23	7.9	8.0
9	7.6	6.4	6.7	7.0	7.0	62	420	300	529	24	8.6	7.9
10	7.4	5.8	6.7	7.2	7.5	50	364	276	1920	24	8.6	9.9
11	7.6	6.6	6.3	7.2	7.9	45	323	248	827	23	8.1	11
12	9.2	7.2	6.1	7.2	8.4	40	294	224	557	24	7.7	9.7
13	9.1	6.8	6.2	7.2	9.5	39	301	210	412	19	7.3	8.9
14	7.5	6.4	6.3	7.1	10	36	232	202	331	17	7.0	8.6
15	6.3	6.7	6.4	7.1	12	36	222	191	265	20	6.9	8.3
16	6.0	7.3	6.4	7.3	13	30	239	191	201	33	6.7	8.0
17	5.7	6.5	6.2	7.2	14	34	243	196	164	24	6.3	7.7
18	5.5	6.1	6.2	7.8	15	22	193	179	141	18	6.1	7.4
19	5.5	5.8	6.4	7.5	18	28	232	162	122	17	5.9	7.5
20	5.4	5.4	6.7	7.4	18	33	243	158	115	20	6.3	7.7
21	5.2	5.4	6.7	7.2	17	36	355	164	101	25	8.8	8.0
22	5.1	5.6	6.7	7.2	16	53	427	169	88	19	8.4	8.7
23	5.2	6.2	6.7	7.3	17	63	527	158	80	17	7.8	8.7
24	5.3	6.6	6.7	7.4	16	84	608	144	71	15	6.9	8.9
25	5.3	6.8	6.7	7.3	23	106	529	133	62	15	6.6	22
26	5.3	7.2	6.7	7.3	34	90	440	122	57	14	7.0	14
27	5.3	6.9	6.4	7.4	27	95	377	113	51	14	7.3	11
28	5.4	6.6	6.3	7.4	24	121	329	107	45	12	7.1	9.6
29	5.3	7.0	6.4	7.4	---	158	313	99	44	11	6.4	9.3
30	5.3	6.6	6.7	7.7	---	195	283	93	40	9.9	6.2	9.0
31	5.3	---	6.5	8.4	---	213	---	86	---	9.7	6.6	---
TOTAL	189.2	187.9	202.7	220.0	385.9	1896	9097	6628	6818	641.6	235.5	276.8
MEAN	6.10	6.26	6.54	7.10	13.8	61.2	303	214	227	20.7	7.60	9.23
MAX	9.2	7.3	6.9	8.4	34	213	608	398	1920	35	9.9	22
MIN	5.1	5.0	6.1	6.1	7.0	22	101	86	40	9.7	5.9	7.4
AC-FT	375	373	402	436	765	3760	18040	13150	13520	1270	467	549
WTR YR 1986	TOTAL	26778.6		MEAN	73.4	MAX	1920	MIN	5.0	AC-FT	53120	

06646000 DEER CREEK IN CANYON, NEAR GLENROCK, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CAC03)
OCT 16...	1115	6.0	255	8.8	6.0	620	1.1	10.6	105	K2	120
NOV 25...	1330	6.8	260	8.5	0.5	605	1.2	12.8	113	<1	130
DEC 30...	1150	6.7	239	8.1	1.0	556	2.5	12.0	116	<1	110
JAN 27...	1515	7.2	230	8.4	1.0	616	1.5	13.0	113	<1	110
MAR 07...	1600	23	183	8.2	5.5	611	2.8	10.8	107	<1	82
28...	1415	95	120	8.1	6.0	619	15	10.2	101	K2	59
APR 09...	1530	390	85	7.7	5.5	616	--	10.1	98	K6	37
MAY 20...	1200	156	83	6.4	11.0	314	16	9.2	206	K9	40
JUL 23...	1640	16	239	8.5	19.0	556	2.8	7.0	104	K8	100
SEP 03...	1730	8.1	248	8.2	16.5	620	2.3	8.0	101	<1	120

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 16...	33	9.1	4.7	0.2	1.1	117	7.5	1.6	0.2	9.4	138
NOV 25...	37	9.1	5.3	0.2	1.2	123	8.3	1.3	0.2	12	157
DEC 30...	32	7.6	4.7	0.2	1.0	115	8.2	1.4	0.2	14	133
JAN 27...	32	7.7	5.0	0.2	0.8	113	8.3	1.3	0.2	15	130
MAR 07...	24	5.4	4.5	0.2	1.1	81	11	1.4	0.2	12	104
28...	17	4.0	2.9	0.2	0.5	52	6.4	1.0	0.2	9.3	--
APR 09...	10	2.9	3.1	0.2	1.2	34	4.7	1.4	0.1	10	--
MAY 20...	12	2.4	2.4	0.2	0.3	41	4.4	0.6	0.2	12	--
JUL 23...	30	7.1	5.3	0.2	0.9	110	3.5	1.0	0.2	11	--
SEP 03...	35	9.1	4.8	0.2	0.6	130	4.6	1.3	0.2	10	--

PLATTE RIVER BASIN

06646000 DEER CREEK IN CANYON, NEAR GLENROCK, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 16...	140	0.19	2.2	<0.10	<0.10	0.04	0.66	0.7	0.01	<1
NOV 25...	150	0.21	2.9	<0.10	<0.10	0.07	0.23	0.3	0.06	--
DEC 30...	140	0.18	2.4	0.20	0.22	0.05	0.35	0.4	0.01	--
JAN 27...	140	0.18	2.5	<0.20	0.24	0.04	0.16	0.2	0.01	--
MAR 07...	110	0.14	6.5	<0.10	<0.10	0.02	0.28	0.3	0.02	--
MAR 28...	72	0.1	19	<0.10	0.10	0.06	0.54	0.6	0.03	--
APR 09...	54	0.07	57	0.20	0.20	0.04	0.66	0.7	0.08	--
MAY 20...	59	0.08	25	<0.10	0.00	0.02	0.38	0.4	0.02	--
JUL 23...	120	0.17	5.4	<0.10	0.10	<0.01	--	0.4	0.02	<1
SEP 03...	140	0.2	3.1	<0.10	0.00	<0.01	--	0.2	0.02	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 16...	1115	6.0	6.0	2	0.03	--
NOV 25...	1330	6.8	0.5	2	0.04	--
DEC 30...	1150	6.7	1.0	1	0.02	--
JAN 27...	1515	7.2	1.0	2	0.04	--
MAR 07...	1600	23	5.5	2	0.12	--
MAR 28...	1415	95	6.0	9	2.3	95
MAR 29...	1850	160	7.0	30	13	--
APR 09...	1530	390	5.5	48	51	96
MAY 20...	1200	156	11.0	8	3.4	--
JUL 23...	1640	16	19.0	6	0.26	--
SEP 03...	1730	8.1	16.5	2	0.04	--

06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WY

LOCATION.--Lat 42°51'50", long 105°51'56", in SW1/4 NW1/4 NW1/4 sec.4, T.33 N., R.75 W., Converse County, Hydrologic Unit 10180007, on right bank in Glenrock, 800 ft downstream from bridge on U.S. Highways 20 and 87, and 0.5 mi upstream from mouth.

DRAINAGE AREA.--213 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 2118: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,980 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 9 to Jan. 27, Feb. 6-17, and Apr. 18-22. Records good except those for estimated daily discharges, which are poor. One small reservoir upstream from station, capacity, about 60 acre-ft, for irrigation. Diversions upstream from station for irrigaton of about 3,700 acres, of which about 400 acres are downstream from station. Water is diverted at times to Millar ditch 0.3 mi upstream and bypasses station.

AVERAGE DISCHARGE.--25 years, 70.9 ft³/s, 51,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft³/s, June 12, 1970, gage height, 9.45 ft; no flow at times in 1961-63, 1965, 1977, 1978, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 9	0300	569	5.10	June 10	1130	*3,480	*8.45
Apr. 24	0400	710	5.38				

Minimum daily discharge, 1.6 ft³/s, Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	15	14	19	19	35	112	198	57	30	4.0	2.5
2	3.2	16	13	18	19	35	134	211	55	18	4.6	2.8
3	3.7	16	14	17	20	35	114	250	52	16	5.4	2.3
4	4.0	19	15	16	21	36	92	314	111	10	5.4	2.1
5	4.0	18	17	17	23	36	122	336	120	7.7	4.5	2.2
6	4.0	22	19	17	21	37	172	274	68	7.4	2.7	2.7
7	4.1	21	20	16	20	37	255	292	60	9.3	2.3	2.8
8	4.3	21	19	17	18	39	346	362	58	9.1	2.1	2.8
9	5.0	20	17	17	17	50	446	324	266	8.9	2.1	3.1
10	5.1	18	16	18	15	53	349	301	2250	11	2.1	3.4
11	5.4	17	14	18	16	50	334	258	938	17	1.9	3.3
12	5.9	19	13	18	16	47	270	196	647	23	1.6	3.1
13	5.5	19	14	18	17	44	298	146	498	21	1.8	7.1
14	5.5	19	14	18	19	44	219	149	398	17	1.9	8.8
15	5.9	19	15	17	21	43	216	144	318	22	1.9	10
16	13	21	16	18	23	40	211	137	251	36	1.9	8.4
17	16	20	17	18	25	37	201	158	204	34	1.9	6.2
18	17	18	18	17	28	40	185	156	179	26	1.9	5.1
19	16	15	18	19	32	34	225	139	156	23	1.9	6.0
20	17	14	18	18	33	39	240	129	146	21	2.0	9.0
21	15	16	19	17	30	39	305	127	131	22	1.9	11
22	15	15	20	16	28	44	375	133	114	15	1.9	11
23	15	15	19	17	32	54	399	131	101	10	1.8	13
24	17	16	18	17	29	64	551	121	91	8.1	1.7	15
25	17	18	17	17	30	84	468	118	81	8.2	1.7	17
26	16	20	18	18	37	69	388	110	68	8.1	1.7	26
27	16	19	17	19	41	59	312	98	60	7.8	1.7	22
28	16	18	18	18	36	57	260	96	54	6.6	1.7	20
29	15	17	19	18	---	97	237	86	54	5.5	2.0	20
30	15	15	19	18	---	124	216	81	50	3.2	1.9	20
31	15	---	18	18	---	164	---	77	---	2.5	2.1	---
TOTAL	319.4	536	523	544	686	1666	8052	5652	7636	464.4	74.0	268.7
MEAN	10.3	17.9	16.9	17.5	24.5	53.7	268	182	255	15.0	2.39	8.96
MAX	17	22	20	19	41	164	551	362	2250	36	5.4	26
MIN	2.8	14	13	16	15	34	92	77	50	2.5	1.6	2.1
AC-FT	634	1060	1040	1080	1360	3300	15970	11210	15150	921	147	533
CAL YR 1985	TOTAL	8661.68		MEAN	23.7	MAX	245	MIN	.06	AC-FT	17180	
WTR YR 1986	TOTAL	26421.5		MEAN	72.4	MAX	2250	MIN	1.6	AC-FT	52410	

PLATTE RIVER BASIN

06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
NOV 05...	1110	19	934	7.0	430	92	49	46	1	2.5
JAN 13...	1430	21	793	2.0	350	74	41	39	0.9	1.4
MAR 31...	0910	186	250	7.5	110	31	8.6	9.8	0.4	1.1
JUN 16...	1300	255	314	18.0	140	34	14	13	0.5	1.4

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
NOV 05...	280	240	6.5	0.3	12	620	0.84	32	0.00	0.54
JAN 13...	230	200	5.2	0.3	9.6	510	0.69	29	0.10	0.04
MAR 31...	94	34	2.0	0.2	11	150	0.21	77	0.10	0.37
JUN 16...	110	57	1.6	0.1	13	200	0.27	138	0.10	0.05

PLATTE RIVER BASIN

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06646800 NORTH PLATTE RIVER NEAR GLENROCK, WY

LOCATION.--Lat 42°50'10", long 105°45'30", in NW1/4 NE1/4 sec.17, T.33 N., R.74 W., Converse County, Hydrologic Unit 10180007, on left bank 0.8 mi downstream from Sand Creek, 1.0 mi downstream from Dave Johnston Power Plant, and 5.8 mi east of Glenrock city limits.

DRAINAGE AREA.--13,538 mi², of which 1,173 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,920 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1965, at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges. Records good except those for June 16 to July 21, which are fair. Flow regulated by Seminoe, Pathfinder, and Alcova Reservoirs. (See sta 06635500, 06640500, 06641500.) Slight regulation 1.0 mi upstream by storage pond for Dave Johnston Power Plant, capacity, 755 acre-ft. Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas. U.S. Army Corp of Engineers satellite telemeter at station.

COOPERATION.--Gage-height record, June 16 to July 21, provided by U.S. Bureau of Reclamation from station 0.5 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s, May 14, 1965, gage height, 7.10 ft, present datum; minimum daily, 176 ft³/s, Dec. 11, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,540 ft³/s, June 20, gage height, about 5.3 ft, from comparisons with record from U.S. Bureau of Reclamation gage, 0.5 mi upstream; minimum daily discharge, 410 ft³/s, Dec. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2080	1240	470	997	1080	898	1300	3160	1840	4890	2690	2780
2	2090	1230	410	1010	1080	895	1310	3150	1840	4910	2600	2900
3	2080	1170	781	946	1080	886	1340	3170	1810	4930	2590	2610
4	2070	1070	1150	1040	1080	875	1340	3190	2420	4820	2570	1840
5	2080	1060	1150	979	1080	858	1340	3200	2540	4700	2660	1670
6	2100	1070	1130	1010	1040	846	1410	3190	2590	4660	2710	1630
7	2110	1030	1120	1030	893	858	1540	3250	2830	4780	2670	1680
8	2030	1040	1140	993	718	818	1700	3390	2800	4800	2900	1720
9	1040	1080	1040	1030	534	854	1830	3180	3180	4820	2980	1840
10	854	1010	884	1030	465	891	1690	2520	5340	5070	2990	1950
11	799	1020	723	1060	414	891	1580	2270	4300	5270	2990	1980
12	788	1140	562	1050	439	890	1350	2160	3520	5720	2890	1970
13	1920	1160	690	1060	647	906	1340	2220	3490	5680	2210	2010
14	2020	1130	892	1050	721	919	1250	2900	3300	5740	2530	2060
15	2030	1030	938	1080	953	940	1270	2950	3130	5660	2980	2060
16	2080	1130	1010	1050	1530	1150	1220	2990	3010	5760	2970	2070
17	2080	1070	1050	1080	1730	1130	1670	3030	3060	5660	2980	2030
18	2090	1080	1050	1040	1710	1170	2030	2960	3080	5640	2860	2070
19	2090	904	1060	1130	1610	2020	2310	2970	3030	5490	2710	2050
20	2100	688	1070	1140	1270	2830	2450	2960	4280	5470	2660	1980
21	2080	952	1100	1110	1160	2930	2450	2980	3780	5450	2710	1910
22	2100	739	1100	1060	1090	2730	2800	2980	3700	4370	2660	1890
23	1770	463	1070	1050	1070	2450	3070	3000	4120	2910	2580	1890
24	1310	581	1050	1090	1080	2300	3310	3020	4470	2640	2590	1890
25	1280	1080	1060	1090	1050	2050	3320	3030	4490	2540	2560	1890
26	1270	1080	1050	1030	1010	1330	3270	3050	4580	3010	2520	1750
27	1260	924	1040	1110	894	1260	3300	3050	4720	3080	2460	1650
28	1220	1010	1010	1140	882	1230	3230	2600	4820	3000	2460	1550
29	1240	704	1030	1150	---	1230	3140	1950	4890	2910	2490	1480
30	1260	573	1040	1180	---	1250	3110	1900	4910	2870	2690	1260
31	1240	---	1020	1120	---	1320	---	1850	---	2830	2780	---
TOTAL	52561	29458	29890	32935	28310	41605	62270	88220	105870	140080	83640	58060
MEAN	1696	982	964	1062	1011	1342	2076	2846	3529	4519	2698	1935
MAX	2110	1240	1150	1180	1730	2930	3320	3390	5340	5760	2990	2900
MIN	788	463	410	946	414	818	1220	1850	1810	2540	2210	1260
AC-FT	104300	58430	59290	65330	56150	82520	123500	175000	210000	277800	165900	115200
CAL YR 1985	TOTAL	724027		MEAN	1984	MAX	3850	MIN	410	AC-FT	1436000	
WTR YR 1986	TOTAL	752899		MEAN	2063	MAX	5760	MIN	410	AC-FT	1493000	

PLATTE RIVER BASIN

06646800 NORTH PLATTE RIVER NEAR GLENROCK, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 10...	1230	855	922	6.0	310	77	28	78	2	3.2
JAN 13...	1310	1010	719	8.0	240	61	21	58	2	2.8
MAR 31...	1205	1300	632	12.0	230	58	21	49	1	2.5
APR 24...	1400	3420	517	12.5	180	47	15	35	1	2.3

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 10...	150	290	18	0.4	9.4	590	0.81	1370	0.40	0.04
JAN 13...	130	190	14	0.4	5.5	430	0.59	1170	0.40	0.04
MAR 31...	130	170	13	0.3	4.6	400	0.54	1390	0.20	0.13
APR 24...	110	130	9.1	0.2	8.0	310	0.43	2890	0.20	0.25

06647500 BOX ELDER CREEK AT BOXELDER, WY

LOCATION.--Lat 42°36'44", long 105°51'29", in NE1/4 NE1/4 SW1/4 sec.32, T.31 N., R.75 W., Converse County, Hydrologic Unit 10180007, on left bank at Hiser Ranch (old Boxelder Post Office), 0.8 mi downstream from Snowshoe Creek, and 17 mi south of Glenrock.

DRAINAGE AREA.--63.0 mi².

PERIOD OF RECORD.--April 1946 to September 1951, October 1961 to September 1967, October 1971 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,710 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 7, 1946, nonrecording gage, and June 8, 1946, to July 21, 1976, water-stage recorder at site 400 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 12 to Nov. 5, Nov. 7 to Dec. 15, Dec. 26 to Jan. 18, Jan. 21-29, Feb. 7-16, 18-22, and July 24 to Sept. 2. Records good except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 60 acres, of which about 40 acres are downstream from station.

AVERAGE DISCHARGE.--26 years, 37.7 ft³/s, 27,310 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,530 ft³/s, May 14, 1965, gage height, 8.58 ft, site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 23	2230	408	4.02	June 10	0630	*1,220	*5.43
May 4	2330	377	3.94				

Minimum daily discharge, 0.56 ft³/s, Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.87	1.4	1.6	2.2	2.8	6.6	62	165	85	19	3.3	.84
2	.87	1.4	1.6	2.1	2.8	7.1	76	191	78	17	3.1	.90
3	.92	1.4	1.7	2.0	2.6	6.9	49	245	72	15	2.9	.78
4	1.0	1.4	1.9	2.0	2.5	7.6	72	316	82	13	2.8	.64
5	1.2	1.3	1.9	2.0	2.4	7.4	77	328	68	11	2.7	.56
6	1.2	1.5	2.0	2.1	2.4	9.0	84	268	58	9.3	2.4	.64
7	1.5	1.3	1.9	2.1	2.3	9.1	117	249	51	8.4	2.3	.74
8	2.1	1.4	1.8	2.1	2.2	13	180	221	50	8.6	2.1	.76
9	2.2	1.5	1.8	2.2	2.2	15	178	192	170	8.5	2.0	.74
10	2.2	1.4	1.7	2.2	2.1	13	159	170	849	8.0	1.8	1.4
11	2.5	1.6	1.6	2.2	2.1	14	143	158	496	7.4	1.7	2.4
12	3.2	1.7	1.6	2.2	2.0	13	132	151	343	6.7	1.5	2.2
13	3.2	1.7	1.7	2.3	2.2	13	133	144	263	5.4	1.4	1.7
14	3.0	1.6	1.7	2.3	2.3	13	110	145	204	4.8	1.3	1.5
15	2.5	1.7	1.8	2.2	2.7	12	102	143	157	4.8	1.2	1.4
16	2.1	1.7	1.9	2.2	3.0	12	104	145	124	9.1	1.0	1.3
17	1.8	1.7	1.9	2.2	3.3	12	101	146	104	6.8	.91	1.2
18	1.7	1.6	2.0	2.3	3.9	9.4	96	137	89	4.8	.85	1.1
19	1.6	1.4	2.1	2.4	4.6	11	97	132	78	4.7	.75	1.1
20	1.5	1.3	2.1	2.5	4.2	12	105	138	70	9.8	.80	1.1
21	1.5	1.3	2.2	2.3	3.8	15	148	165	58	11	.87	1.1
22	1.4	1.5	2.2	2.2	3.6	17	193	189	50	8.5	.80	1.2
23	1.5	1.6	2.2	2.2	3.6	21	272	168	44	7.0	.74	1.3
24	1.5	1.7	2.2	2.2	4.6	29	334	146	39	6.0	.68	1.4
25	1.5	1.8	2.2	2.2	7.2	35	320	129	36	5.6	.66	4.9
26	1.5	1.8	2.2	2.1	8.2	29	277	119	32	4.9	.72	4.1
27	1.6	1.8	2.2	2.1	7.5	32	233	111	28	4.5	.78	3.1
28	1.5	1.7	2.2	2.2	7.3	42	198	106	25	4.6	.73	2.7
29	1.5	1.7	2.2	2.3	---	55	183	102	24	4.0	.69	2.5
30	1.5	1.6	2.2	2.5	---	66	166	96	20	3.5	.68	2.3
31	1.4	---	2.1	2.8	---	72	---	89	---	3.6	.75	---
TOTAL	53.56	46.5	60.4	68.9	100.4	629.1	4501	5204	3847	245.3	44.91	47.60
MEAN	1.73	1.55	1.95	2.22	3.59	20.3	150	168	128	7.91	1.45	1.59
MAX	3.2	1.8	2.2	2.8	8.2	72	334	328	849	19	3.3	4.9
MIN	.87	1.3	1.6	2.0	2.0	6.6	49	89	20	3.5	.66	.56
AC-FT	106	92	120	137	199	1250	8930	10320	7630	487	89	94
CAL YR 1985	TOTAL	3603.94		MEAN	9.87	MAX	117	MIN	.05	AC-FT	7150	
WTR YR 1986	TOTAL	14848.67		MEAN	40.7	MAX	849	MIN	.56	AC-FT	29450	

PLATTE RIVER BASIN

06647890 LITTLE BOX ELDER CREEK NEAR CAREYHURST, WY

LOCATION.--Lat 42°45'04", long 105°44'25", in SE1/4 SW1/4 SE1/4 sec.8, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, on right bank 4.6 mi southwest of Barber Ranch and 7.6 mi southwest of Caryhurst.

DRAINAGE AREA.--7.18 mi².

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder and bedrock control. Elevation of gage is 5,670 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 25, 1980, at site 170 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 10, 11, 19-25, 29, 30, Dec. 1-4, 10-13, 17, and Feb. 7-16. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--12 years, 1.66 ft³/s, 1,210 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 193 ft³/s, July 25, 1981, gage height, about 2.11 ft, from rating curve extended above 62 ft³/s on basis of weir flow computation of peak flow, but maximum discharge may have been exceeded when log jam that produced maximum gage height on July 25, 1981 broke, releasing an unknown discharge; maximum gage height, 3.70 ft, July 25, 1981 (backwater from log jam), from floodmarks; minimum daily discharge, 0.21 ft³/s, Feb. 4, 1985.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 8	1530	*42	*1.54	June 9	1800	*42	*1.54
Apr. 22	1630	13.0	1.27				

Minimum daily discharge, 0.63 ft³/s, Nov. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.85	.71	.65	.76	1.0	2.1	2.6	4.2	1.9	1.5	1.0	.95
2	.81	.70	.66	.79	1.0	2.1	2.8	4.0	1.8	1.4	1.0	1.1
3	.91	.72	.68	.82	.95	2.1	1.8	3.9	1.9	1.4	.99	.86
4	.92	.71	.70	.77	.96	2.1	3.2	3.7	2.1	1.3	.97	.89
5	.87	.82	.74	.75	.90	2.1	3.5	3.3	1.9	1.3	.95	.94
6	.81	.76	.73	.73	.74	2.1	6.2	3.3	1.8	1.3	.92	1.1
7	.84	.76	.68	.73	.71	2.3	12	3.8	1.7	1.3	.94	1.1
8	.81	.82	.69	.72	.69	3.8	25	4.0	1.8	1.3	.95	.95
9	.84	.73	.70	.69	.67	3.2	23	4.6	12	1.3	.95	1.2
10	.88	.70	.68	.69	.65	2.5	16	4.4	5.6	1.3	.97	1.2
11	1.0	.73	.66	.68	.64	2.3	11	4.0	3.5	1.4	.93	1.1
12	.95	.76	.66	.68	.65	2.3	9.4	3.7	3.0	1.4	.93	1.0
13	.84	.76	.66	.68	.67	2.1	8.0	3.5	2.9	1.2	.90	.97
14	.81	.76	.68	.68	.76	2.1	6.1	3.2	2.7	1.2	.85	.99
15	.80	.75	.72	.68	.93	2.1	6.0	3.1	2.5	1.3	.83	1.0
16	.79	.76	.69	.68	1.2	2.0	6.1	3.4	2.4	1.3	.81	.97
17	.78	.76	.70	.75	1.6	2.0	5.9	3.3	2.2	1.2	.81	.97
18	.74	.69	.70	.74	2.3	2.0	6.4	3.2	2.1	1.1	.81	.97
19	.74	.63	.69	.87	3.2	2.0	7.5	2.9	1.9	1.1	.80	.97
20	.74	.67	.70	.97	2.4	2.1	8.6	2.8	2.0	1.2	.91	.95
21	.74	.69	.71	.90	2.0	2.5	10	2.7	1.9	1.2	.89	1.0
22	.74	.70	.74	.89	1.8	2.8	10	2.5	1.9	1.1	.85	1.0
23	.74	.70	.71	.85	1.7	2.8	10	2.5	1.8	1.1	.85	.96
24	.74	.70	.69	.81	2.2	3.3	9.0	2.4	1.7	1.1	.84	1.0
25	.74	.72	.70	.74	2.6	3.0	7.5	2.4	1.7	1.1	.89	1.0
26	.74	.74	.69	.82	2.6	2.6	6.4	2.3	1.6	1.1	.86	.97
27	.71	.73	.69	.81	2.2	2.9	5.8	2.2	1.6	1.1	.86	.97
28	.68	.70	.75	.76	2.0	3.2	5.2	2.1	1.6	1.0	.85	.97
29	.68	.67	.79	.77	---	3.4	4.9	2.1	1.6	1.0	.84	.97
30	.70	.65	.72	.93	---	3.4	4.5	2.0	1.5	1.0	.84	.97
31	.73	---	.77	1.1	---	3.0	---	2.0	---	1.0	.87	---
TOTAL	24.67	21.70	21.73	24.24	39.72	78.3	244.4	97.5	74.6	37.6	27.66	29.99
MEAN	.80	.72	.70	.78	1.42	2.53	8.15	3.15	2.49	1.21	.89	1.00
MAX	1.0	.82	.79	1.1	3.2	3.8	25	4.6	12	1.5	1.0	1.2
MIN	.68	.63	.65	.68	.64	2.0	1.8	2.0	1.5	1.0	.80	.86
AC-FT	49	43	43	48	79	155	485	193	148	75	55	59
CAL YR 1985	TOTAL	422.71		MEAN	1.16	MAX	4.8	MIN	.21	AC-FT	838	
WTR YR 1986	TOTAL	722.11		MEAN	1.98	MAX	25	MIN	.63	AC-FT	1430	

06647900 LITTLE BOX ELDER CREEK AT LITTLE BOX ELDER CAVE, NEAR CAREYHURST, WY

LOCATION.--Lat 42°45'38", long 105°43'33", in NE1/4 SE1/4 NW1/4 sec.9, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, on left bank 0.3 mi southwest of Little Box Elder Cave, 3.6 mi southwest of Barber Ranch, and 6.6 mi southwest of Caryhurst.

DRAINAGE AREA.--8.47 mi².

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder and steel weir control. Elevation of gage is 5,480 ft above National Geodetic Vertical Datum of 1929, from topographic map. Weir plate since Sept. 12, 1985.

REMARKS.--Estimated daily discharges: Oct. 3 to Nov. 19. Records good. One small detention reservoir upstream from station.

AVERAGE DISCHARGE.--12 years, 0.60 ft³/s, 435 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50 ft³/s, May 12, 1984, gage height, 2.02 ft; maximum gage height, 2.26 ft, Apr. 9, 1986; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft³/s, Apr. 9, gage height, 2.26 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.05	1.6	4.2	1.0	.57	.19	.03
2	.00	.00	.00	.00	.00	.26	1.6	3.8	.92	.57	.19	.16
3	.00	.00	.00	.00	.00	.26	.77	3.4	.92	.51	.19	.08
4	.00	.00	.00	.00	.00	.31	.16	3.0	1.0	.46	.16	.05
5	.00	.00	.00	.00	.00	.30	1.3	2.9	.92	.51	.16	.03
6	.00	.00	.00	.00	.00	.26	1.9	2.7	.84	.51	.16	.06
7	.00	.00	.00	.00	.00	.31	2.7	2.9	.77	.51	.16	.10
8	.00	.00	.00	.00	.00	.40	4.0	3.0	.77	.51	.16	.06
9	.00	.00	.00	.00	.00	1.7	8.5	3.0	1.5	.51	.13	.08
10	.00	.00	.00	.00	.00	1.6	9.8	3.2	3.6	.57	.13	.26
11	.00	.00	.00	.00	.00	1.2	7.8	3.0	3.2	.57	.13	.13
12	.00	.00	.00	.00	.00	.77	6.4	3.0	2.7	.64	.10	.08
13	.00	.00	.00	.00	.00	.31	6.4	2.9	2.2	.51	.10	.06
14	.00	.00	.00	.00	.00	.46	6.4	2.5	1.9	.46	.08	.08
15	.00	.00	.00	.00	.00	.77	6.1	2.3	1.5	.46	.06	.08
16	.00	.00	.00	.00	.00	.70	5.8	2.3	1.5	.57	.04	.06
17	.00	.00	.00	.00	.00	.70	5.8	2.3	1.1	.46	.04	.04
18	.00	.00	.00	.00	.00	.70	5.3	2.3	1.0	.40	.03	.04
19	.00	.00	.00	.00	.13	.77	5.3	1.9	.84	.46	.01	.06
20	.00	.00	.00	.00	.39	.70	5.3	1.7	1.0	.46	.06	.04
21	.00	.00	.00	.00	.42	.57	5.6	1.6	.92	.40	.08	.03
22	.00	.00	.00	.00	.13	1.1	5.8	1.3	.84	.35	.04	.06
23	.00	.00	.00	.00	.04	1.3	6.4	1.3	.77	.31	.03	.03
24	.00	.00	.00	.00	.00	1.3	6.4	1.5	.77	.31	.03	.06
25	.00	.00	.00	.00	.08	1.5	6.4	1.5	.70	.31	.04	.08
26	.00	.00	.00	.00	.35	1.3	6.1	1.5	.70	.31	.04	.08
27	.00	.00	.00	.00	.64	1.1	5.8	1.3	.64	.31	.03	.08
28	.00	.00	.00	.00	.28	1.3	5.6	1.2	.57	.26	.02	.06
29	.00	.00	.00	.00	---	1.5	5.1	1.1	.57	.26	.00	.06
30	.00	.00	.00	.00	---	1.6	4.6	1.1	.57	.21	.00	.06
31	.00	---	.00	.00	---	1.7	---	1.1	---	.19	.00	---
TOTAL	.00	.00	.00	.00	2.46	26.80	150.73	70.8	36.23	13.44	2.59	2.18
MEAN	.00	.00	.00	.00	.09	.86	5.02	2.28	1.21	.43	.08	.07
MAX	.00	.00	.00	.00	.64	1.7	9.8	4.2	3.6	.64	.19	.26
MIN	.00	.00	.00	.00	.00	.05	.16	1.1	.57	.19	.00	.03
AC-FT	.00	.00	.00	.00	4.9	53	299	140	72	27	5.1	4.3
CAL YR 1985	TOTAL	82.68		MEAN	.23	MAX	1.9	MIN	.00	AC-FT	164	
WTR YR 1986	TOTAL	305.23		MEAN	.84	MAX	9.8	MIN	.00	AC-FT	605	

06647910 LITTLE BOX ELDER SPRING NEAR CAREYHURST, WY

LOCATION.--Lat 42°46'10", long 105°42'08", in SE1/4 NW1/4 SE1/4 sec.3, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, in spring house, 2.4 mi southwest of Barber Ranch, and 5.7 mi south of Careyhurst.

PERIOD OF RECORD.--October 1980 to September 1986 (discontinued).

GAGE.--Water-stage recorder and Cippolletti weir. Elevation of gage is 5,310 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: July 24 to Sept. 4. Records fair. No independent verification of theoretical stage-discharge rating. Flow rises inside the spring house, drops over the weir, and exits the house through a pipeline to Douglas.

AVERAGE DISCHARGE.--6 years, 2.56 ft³/s, 1,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3.5 ft³/s, May 22-28, 1983; minimum daily, 1.7 ft³/s many days during 1982 and 1983.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3.2 ft³/s, July 8, 11; minimum daily discharge, 2.4 ft³/s many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.5	2.4	2.4	2.5	2.6	2.9	3.1	3.1	3.1	3.0	2.9
2	2.5	2.5	2.5	2.4	2.5	2.6	2.9	3.1	3.1	3.1	3.0	2.9
3	2.5	2.5	2.4	2.4	2.5	2.6	2.9	3.1	3.1	2.8	3.0	2.9
4	2.4	2.5	2.4	2.4	2.5	2.7	2.9	3.1	3.1	3.1	3.0	2.9
5	2.5	2.5	2.4	2.4	2.5	2.7	2.9	3.1	3.1	3.1	3.0	2.9
6	2.5	2.5	2.4	2.4	2.5	2.7	2.9	3.1	3.1	3.1	3.0	2.8
7	2.5	2.5	2.4	2.4	2.5	2.7	2.9	3.1	3.1	3.1	3.0	2.8
8	2.4	2.6	2.4	2.4	2.5	2.7	2.9	3.1	3.1	3.2	3.0	2.9
9	2.4	2.6	2.4	2.4	2.5	2.7	2.9	3.1	3.1	3.1	3.0	2.9
10	2.4	2.6	2.4	2.4	2.4	2.7	3.0	3.1	3.1	3.1	3.0	2.9
11	2.4	2.6	2.4	2.4	2.4	2.8	3.0	3.1	3.1	3.2	3.0	2.8
12	2.4	2.5	2.4	2.4	2.4	2.8	3.0	3.1	3.1	3.0	3.0	2.8
13	2.4	2.5	2.4	2.4	2.4	2.8	3.0	3.1	3.1	3.1	3.0	2.8
14	2.4	2.5	2.4	2.4	2.4	2.8	3.0	3.1	3.1	3.1	2.9	2.8
15	2.5	2.5	2.4	2.5	2.5	2.8	3.0	3.1	3.1	3.1	2.9	2.8
16	2.5	2.5	2.4	2.4	2.4	2.8	3.0	3.1	3.1	3.1	2.9	2.8
17	2.5	2.5	2.4	2.4	2.4	2.8	3.0	3.1	3.1	3.1	2.9	2.8
18	2.5	2.5	2.4	2.4	2.5	2.7	3.0	3.1	3.1	3.1	2.9	2.8
19	2.5	2.5	2.4	2.4	2.5	2.7	3.0	3.1	3.1	3.0	2.9	2.8
20	2.5	2.5	2.4	2.5	2.5	2.7	3.0	3.1	3.1	3.0	2.9	2.8
21	2.5	2.5	2.4	2.4	2.5	2.7	3.0	3.1	3.1	3.0	2.9	2.8
22	2.5	2.5	2.4	2.4	2.5	2.8	3.0	3.1	3.1	3.1	2.9	2.8
23	2.5	2.5	2.4	2.5	2.5	2.8	3.1	3.1	3.1	3.1	2.9	2.8
24	2.5	2.5	2.4	2.4	2.5	3.0	3.1	3.1	3.1	3.0	2.9	2.8
25	2.5	2.5	2.4	2.4	2.6	2.9	3.1	3.1	3.1	3.0	2.9	2.8
26	2.5	2.5	2.4	2.4	2.6	2.8	3.1	3.1	3.1	3.0	2.9	2.8
27	2.5	2.5	2.4	2.5	2.6	2.8	3.1	3.1	3.1	3.0	2.9	2.8
28	2.5	2.5	2.4	2.5	2.6	2.9	3.1	3.1	3.1	3.0	2.9	2.8
29	2.5	2.4	2.4	2.5	---	2.9	3.1	3.1	3.1	3.0	2.9	2.8
30	2.5	2.4	2.4	2.5	---	2.9	3.1	3.1	3.1	3.0	2.9	2.8
31	2.5	---	2.4	2.5	---	2.9	---	3.1	---	3.0	2.9	---
TOTAL	76.7	75.2	74.5	75.2	69.7	85.8	89.9	96.1	93.0	94.8	91.2	84.8
MEAN	2.47	2.51	2.40	2.43	2.49	2.77	3.00	3.10	3.10	3.06	2.94	2.83
MAX	2.5	2.6	2.5	2.5	2.6	3.0	3.1	3.1	3.1	3.2	3.0	2.9
MIN	2.4	2.4	2.4	2.4	2.4	2.6	2.9	3.1	3.1	2.8	2.9	2.8
AC-FT	152	149	148	149	138	170	178	191	184	188	181	168
CAL YR 1985	TOTAL	1024.6	MEAN	2.81	MAX	3.2	MIN	2.4	AC-FT	2030		
WTR YR 1986	TOTAL	1006.9	MEAN	2.76	MAX	3.2	MIN	2.4	AC-FT	2000		

06647990 BOX ELDER CREEK BELOW INTERSTATE 25, NEAR CAREYHURST, WY

LOCATION.--Lat 42°49'41", long 105°40'33", in SW1/4 NE1/4 SE1/4 sec.13, T.33 N., R.74 W., Converse County,
Hydrologic Unit 10180007, 300 ft downstream from bridge on old U.S. Highway 20-26, 1.5 mi south of Careyhurst,
1.9 mi downstream from I-25, and 3.2 mi upstream from mouth.

PERIOD OF RECORD.--June 1981 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 16...	1415	7.4	546	10.5	220	58	19	34	1	3.5
DEC 18...	1320	7.9	493	1.0	190	51	16	31	1	2.7
APR 07...	1635	140	142	9.5	58	17	3.8	5.2	0.3	1.2
JUL 09...	1305	1.3	501	20.5	200	55	15	29	0.9	2.9

DATE	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 16...	200	77	4.9	0.2	18	330	0.45	6.7	0.00	0.06
DEC 18...	180	71	3.9	0.3	17	300	0.41	6.4	0.10	0.03
APR 07...	51	10	2.0	0.1	11	81	0.11	31	0.10	0.24
JUL 09...	210	43	3.5	0.3	20	290	0.4	1.0	0.10	0.02

PLATTE RIVER BASIN

06649000 LA PRELE CREEK NEAR DOUGLAS, WY

LOCATION.--Lat 42°40'52", long 105°37'48", in SW1/4 NE1/4 SW1/4 sec.5, T.31 N., R.73 W., Converse County, Hydrologic Unit 10180007, on right bank 0.8 mi upstream from La Prele Creek Reservoir and 13.5 mi southwest of Douglas.

DRAINAGE AREA.--135 mi².

PERIOD OF RECORD.--August 1919 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1710: Drainage area. WSP 1918: 1920(M), 1952(M).

GAGE.--Water-stage recorder. Elevation of gage is about 5,600 ft above National Geodetic Vertical Datum of 1929, from nearby line of levels.

REMARKS.--Estimated daily discharges: April 3-7. Records good except those for estimated daily discharges, which are poor. Several small reservoirs upstream from station, combined capacity, about 140 acre-ft, for irrigation. Diversions for irrigation of about 4,600 acres upstream from station. Water is imported from La Bonte Creek and Wagon Hound Creek basins into Little La Prele Creek, upstream from station, for irrigation downstream from La Prele Reservoir.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--52 years (water years 1920-71), 40.4 ft³/s, 29,270 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,300 ft³/s, June 12, 1970, gage height, 13.01 ft, from rating curve extended above 2,700 ft³/s on basis of slope-area measurement of peak flow; no flow at times in 1936, 1939-40, 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,930 ft³/s, June 10, gage height, 11.20 ft; minimum daily during period of operation, 0.70 ft³/s, Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						13	59	144	83	15	6.0	1.2
2						12	76	158	67	13	6.0	1.2
3						14	76	177	55	12	5.8	.78
4						13	89	218	59	11	5.3	.78
5						15	120	244	57	11	5.1	.78
6						14	163	199	46	12	4.9	.78
7						12	201	222	36	15	5.5	.78
8						6.0	401	221	35	20	6.3	.78
9						19	339	190	211	18	5.8	.78
10						18	249	186	1670	14	5.5	.88
11						17	208	182	508	15	5.1	.78
12						14	172	162	331	14	4.7	.78
13						14	174	152	268	12	3.8	.98
14						15	134	151	242	12	2.1	3.0
15						16	130	143	171	12	1.7	1.9
16						12	121	153	130	15	1.6	.70
17						16	131	164	107	10	1.7	1.1
18						13	132	165	97	11	1.8	1.8
19						15	150	143	103	12	1.7	2.3
20						15	171	128	93	15	1.7	2.2
21						17	245	138	81	16	1.7	2.1
22						28	269	158	72	11	1.6	2.5
23						29	287	146	59	9.5	1.6	2.1
24						39	316	130	43	10	1.5	2.3
25						55	282	120	33	11	1.5	2.3
26						39	238	110	32	9.1	1.5	2.3
27						38	205	104	25	7.2	1.6	2.3
28						43	183	100	19	6.3	2.7	2.5
29						58	165	97	19	5.5	1.6	2.6
30						67	153	90	18	5.5	1.3	1.5
31						78	---	94	---	6.0	1.2	---
TOTAL						774.0	5639	4789	4770	366.1	99.9	46.78
MEAN						25.0	188	154	159	11.8	3.22	1.56
MAX						78	401	244	1670	20	6.3	3.0
MIN						6.0	59	90	18	5.5	1.2	.70
AC-FT						1540	11180	9500	9460	726	198	93

06649500 LA PRELE CREEK NEAR ORPHA, WY

LOCATION.--Lat 42°50'12", long 105°19'25", in SE1/4 NW1/4 NW1/4 sec.15, T.33 N., R.72 W., Converse County, Hydrologic Unit 10180007, at bridge on county road, 1.5 mi upstream from mouth, 1.5 mi southeast of Orpha, and 7.5 mi northwest of Douglas.

PERIOD OF RECORD.--June 1981 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 16...	1550	3.5	867	11.0	280	78	20	92	2	11
JAN 16...	0915	5.5	748	0.5	230	66	17	80	2	8.8
APR 07...	1425	3.0	807	13.5	200	51	18	98	3	12
JUL 09...	0845	2.6	783	16.0	240	70	17	84	2	9.7

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 16...	350	100	12	0.3	33	560	0.76	5.3	0.00	0.12
JAN 16...	290	92	12	0.2	27	480	0.65	7.1	0.20	0.08
APR 07...	310	100	12	1.0	26	500	0.69	4.1	0.10	0.12
JUL 09...	340	74	11	0.4	31	500	0.68	3.5	0.20	0.07

PLATTE RIVER BASIN

06650500 WAGONHOUND CREEK NEAR LA BONTE, WY

LOCATION.--Lat 42°39'35", long 105°22'10", in SW1/4 NE1/4 sec.16, T.31 N., R.71 W., Converse County, Hydrologic Unit 10180008, 0.6 mi upstream from mouth, 3.5 mi northeast of La Bonte, and 6.0 mi south of Douglas.

PERIOD OF RECORD.--June 1981 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 16...	1655	0.06	834	10.5	300	87	20	66	2	6.2
JAN 16...	1050	1.0	1980	1.5	1100	340	54	51	0.7	6.8
APR 07...	0905	61	541	6.5	240	74	13	19	0.6	3.5
JUL 09...	1020	4.2	1640	16.5	930	290	50	52	0.8	6.0

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 16...	250	190	8.9	0.2	26	550	0.75	0.09	0.10	0.01
JAN 16...	220	940	9.6	0.1	20	1600	2.1	4.2	0.20	0.04
APR 07...	120	150	3.4	0.3	15	350	0.48	58	0.40	0.26
JUL 09...	240	750	8.8	0.3	21	1300	1.8	15	0.30	290

06651500 LA BONTE CREEK NEAR LA BONTE, WY

LOCATION.--Lat 42°38'59", long 105°21'36", in SE1/4 SW1/4 sec.15, T.31 N., R.71 W., Converse County, Hydrologic Unit 10180008, 1.1 mi upstream from mouth, 3.0 mi northeast of La Bonte, and 7.3 mi south of Douglas.

PERIOD OF RECORD.--June 1981 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 16...	1755	4.8	1950	11.0	1200	360	62	57	0.8	7.1
JAN 16...	1205	12	713	1.0	240	72	15	57	2	5.2
APR 07...	1130	501	176	5.5	88	30	3.2	4.9	0.2	1.3
JUL 09...	1125	27	575	18.0	220	69	12	44	1	5.1

DATE	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 16...	250	970	11	0.2	23	1600	2.2	21	2.60	0.06
JAN 16...	210	130	7.3	0.2	21	430	0.59	13	0.10	0.05
APR 07...	73	18	1.1	0.3	11	110	0.15	154	0.20	0.31
JUL 09...	220	86	5.2	0.3	24	380	0.51	28	0.10	0.01

PLATTE RIVER BASIN

06652000 NORTH PLATTE RIVER AT ORIN, WY

LOCATION.--Lat 42°39'02", long 105°09'46", in SE1/4 SW1/4 SW1/4 sec.17, T.31 N., R.69 W., Converse County, Hydrologic Unit 10180008, on right bank 630 ft downstream from bridge on U.S. Highway 87, 0.2 mi upstream from Shawnee Creek, and 1.5 mi east of Orin.

DRAINAGE AREA.--14,888 mi², of which 1,193 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January, April to November 1895, April to October 1896, January 1897 to December 1898, April to November 1899, April to September 1917, April to September 1918, May to September 1924, April 1958 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at Orin Junction" 1895, 1897-99 and as "at McKinley" 1917-18.

REVISED RECORDS.--WSP 1310: 1896, 1899. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4656.85 ft above National Geodetic Vertical Datum of 1929. Jan. 1, 1895, to Nov. 30, 1899, and May 1 to Sept. 30, 1924, nonrecording gage at railroad bridge just upstream from U.S. Highway 87 at different datum. Apr. 1, 1917, to Sept. 30, 1918, nonrecording gage at site 2.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 9 to Jan. 11 and Feb. 7-17. Records good except those for estimated daily discharges, which are poor. Major regulation began after completion of Pathfinder Reservoir in April 1909. Natural flow of stream affected by storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Fourteen discharge measurements provided by Bureau of Reclamation and six discharge measurements provided by the Wyoming State Engineer's office.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 ft³/s, May 15, 1965, gage height, 10.00 ft; maximum gage height, 10.45 ft, June 12, 1970; minimum daily discharge determined, 170 ft³/s, Sept. 11-14, 1899.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,400 ft³/s, June 11, gage height, 7.30 ft, from floodmark; minimum daily, 262 ft³/s, Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2060	1210	465	1000	1270	1030	1600	3810	1740	5110	2600	2750
2	2050	1220	395	975	1220	1040	1580	3810	1730	5080	2460	3300
3	2070	1220	415	1000	1200	1020	1710	3780	1720	5100	2430	2970
4	2030	1160	810	950	1210	1010	1640	3810	1680	5120	2400	2500
5	2010	1080	1210	1010	1210	1000	1730	3900	2580	5010	2360	1810
6	2020	1070	1200	980	1230	987	1790	3910	2270	4970	2460	1680
7	2060	1080	1200	995	1100	977	2130	3840	2510	4950	2480	1660
8	2090	1070	1200	1100	800	973	2760	4160	2510	4880	2460	1710
9	1830	1020	1160	1200	600	960	3280	4210	3930	4890	2800	1770
10	1070	1000	980	1500	445	1010	3160	3720	7520	4990	2790	1920
11	913	980	760	1270	300	1030	2850	3030	8090	5000	2810	2030
12	876	990	620	1200	262	1020	2470	2800	5410	5240	2790	1960
13	945	1070	475	1150	415	1010	2190	2590	4850	5250	2480	1910
14	1990	1110	560	1140	670	1030	2080	2890	4400	5190	1920	1980
15	2040	1100	780	1150	965	1020	1860	3430	4070	5140	2530	2000
16	2060	1080	970	1180	1420	1050	1820	3500	3750	5260	2710	1980
17	2080	1120	1020	1420	1670	1210	1880	3660	3540	5320	2700	1970
18	2080	1100	1060	1310	1760	1230	2560	3600	3470	5310	2730	1950
19	2080	980	1050	1210	1780	1340	2710	3510	3450	5290	2550	1970
20	2090	750	1070	1260	1700	2330	3100	3400	3490	5440	2510	1930
21	2090	540	1100	1220	1390	3080	3240	3360	5110	5600	2600	1820
22	2080	670	1170	1190	1290	3010	3570	3310	4040	5380	2640	1780
23	2100	565	1160	1130	1240	2800	4080	3320	4150	3660	2550	1750
24	1630	360	1100	1150	1220	2490	4460	3330	4700	2730	2520	1760
25	1300	465	1030	1190	1200	2400	4670	3290	4830	2510	2550	1810
26	1260	850	1040	1190	1200	1990	4550	3280	4790	2500	2550	1720
27	1240	1120	1030	1150	1170	1500	4450	3240	4920	3070	2460	1620
28	1220	1010	1030	1240	1060	1410	4300	3190	5110	3050	2400	1540
29	1180	940	1070	1260	---	1410	4080	2320	5130	2880	2420	1500
30	1190	610	1090	1280	---	1440	3950	1910	5130	2770	2510	1420
31	1220	---	1050	1320	---	1510	---	1800	---	2800	2850	---
TOTAL	52954	28540	29270	36320	30997	45317	86250	103710	120620	139490	79020	58470
MEAN	1708	951	944	1172	1107	1462	2875	3345	4021	4500	2549	1949
MAX	2100	1220	1210	1500	1780	3080	4670	4210	8090	5600	2850	3300
MIN	876	360	395	950	262	960	1580	1800	1680	2500	1920	1420
AC-FT	105000	56610	58060	72040	61480	89890	171100	205700	239200	276700	156700	116000
CAL YR 1985	TOTAL	736254		MEAN	2017	MAX	3890	MIN	360	AC-FT	1460000	
WTR YR 1986	TOTAL	810958		MEAN	2222	MAX	8090	MIN	262	AC-FT	1609000	

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: May to September 1979.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT 10...	1345	1020	660	8.4	9.5	640	12.6	132	K4	230
DEC 05...	1415	E1210	830	8.5	0.0	650	11.8	95	K2	310
JAN 14...	1200	1110	710	8.7	1.0	640	14.8	124	K3	260
FEB 26...	1115	1200	875	7.7	7.5	640	10.6	106	66	300
MAR 31...	1230	1520	625	7.6	10.5	642	9.0	96	53	220
MAY 05...	1200	3850	480	7.4	11.0	630	9.0	99	100	180
JUN 09...	1230	3710	490	7.4	16.0	635	7.1	87	K17000	130
JUL 14...	1245	5170	540	7.4	20.5	638	7.3	97	71	200
AUG 18...	1215	2760	650	8.2	21.0	642	7.5	101	37	--
SEP 22...	1230	1750	650	8.8	16.0	639	8.4	102	21	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

[illegible]

PLATTE RIVER BASIN

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 10...	430	0.59	1190	0.20	0.20	0.09	0.41	0.5	0.05
DEC 05...	600	0.81	--	0.50	0.50	0.06	0.44	0.5	0.02
JAN 14...	470	0.64	1420	--	0.40	--	--	0.5	0.11
FEB 26...	580	0.79	1880	0.70	0.70	0.04	0.56	0.6	0.10
MAR 31...	400	0.54	1640	0.20	0.14	0.03	0.67	0.7	0.10
MAY 05...	290	0.39	3000	0.10	0.10	0.04	0.76	0.8	0.15
JUN 09...	300	0.41	3000	0.40	0.30	0.03	7.7	7.7	7.40
JUL 14...	350	0.48	4900	0.10	0.10	0.04	0.56	0.6	0.28
AUG 18...	--	--	--	0.30	--	<0.01	--	0.6	0.03
SEP 22...	--	--	--	0.20	--	0.02	0.38	0.4	0.02

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN- (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUL 14...	1245	5170	20.5	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
AUG 18...	1215	2760	21.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
SEP 22...	1230	1750	16.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01

06652700 GLENDO RESERVOIR NEAR GLENDO, WY

LOCATION.--Lat 42°28'21", long 104°57'28", in SW1/4 NE1/4 sec.24, T.29 N., R.68 W., Platte County, Hydrologic Unit 10180008, on right bank in gate shaft house on North Platte River, 0.5 mi southwest of Glendo Dam, and 5.0 mi southeast of Glendo.

DRAINAGE AREA.--15,545 mi², of which 1,215 mi² is probably noncontributing.

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder for elevations above 4,543.50 ft. Datum of gage is 4,543.50 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by rock-fill dam completed in October 1957. Storage began Oct. 17, 1957. Capacity, 789,400 acre-ft at elevation 4,653.00 ft, spillway crest. Dead storage, 11,030 acre-ft. Figures given herein represent total contents. Water is used for irrigation in North Platte River basin, and for development of power.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 758,800 acre-ft, May 28, 1973, elevation, 4,650.94 ft; minimum daily (since appreciable storage was attained), 15,140 acre-ft, Sept. 28, 1966, elevation, 4,548.10 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 585,000 acre-ft, June 22, elevation, 4,640.15 ft; minimum daily, 97,600 acre-ft, Oct. 1, elevation, 4,579.70 ft.

Capacity table (elevation in feet,
and contents, in acre-feet)

4,579	94,800	4,600	202,000	4,630	459,000
4,580	98,800	4,610	274,000	4,641	597,000
4,590	144,000	4,620	358,000		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97600	205000	263000	328000	399000	461000	499000	515000	514000	552000	416000	229000
2	102000	208000	264000	330000	402000	463000	501000	515000	514000	546000	411000	224000
3	106000	210000	265000	332000	404000	465000	502000	516000	514000	539000	406000	220000
4	111000	212000	266000	334000	406000	467000	503000	516000	514000	532000	400000	215000
5	115000	215000	268000	336000	409000	469000	504000	516000	513000	525000	394000	210000
6	119000	217000	271000	338000	411000	470000	506000	516000	513000	518000	384000	204000
7	124000	219000	273000	340000	413000	472000	507000	515000	513000	511000	375000	199000
8	129000	221000	276000	343000	415000	474000	509000	515000	515000	504000	365000	195000
9	132000	223000	279000	345000	417000	476000	511000	516000	522000	497000	356000	191000
10	135000	225000	281000	347000	418000	477000	513000	516000	533000	490000	348000	187000
11	137000	227000	283000	349000	419000	478000	514000	516000	548000	484000	339000	184000
12	139000	228000	284000	352000	420000	478000	515000	516000	555000	478000	330000	181000
13	141000	231000	286000	354000	421000	478000	515000	513000	563000	473000	323000	178000
14	144000	234000	287000	356000	422000	478000	514000	510000	568000	468000	317000	175000
15	148000	236000	289000	358000	423000	478000	513000	508000	572000	462000	312000	171000
16	152000	238000	291000	360000	426000	478000	511000	507000	575000	457000	307000	168000
17	157000	241000	293000	363000	429000	478000	510000	506000	578000	452000	303000	164000
18	161000	243000	295000	366000	433000	478000	509000	506000	580000	447000	299000	161000
19	165000	245000	297000	369000	437000	478000	507000	506000	581000	442000	294000	158000
20	169000	246000	300000	371000	440000	479000	506000	506000	582000	438000	289000	155000
21	173000	247000	303000	373000	443000	482000	505000	507000	584000	434000	284000	153000
22	177000	249000	305000	376000	445000	485000	505000	507000	585000	431000	279000	150000
23	181000	250000	307000	378000	448000	488000	504000	508000	583000	427000	274000	148000
24	185000	251000	310000	380000	450000	491000	506000	509000	583000	425000	269000	145000
25	187000	252000	312000	383000	452000	493000	507000	510000	582000	427000	264000	145000
26	190000	254000	315000	385000	455000	495000	509000	511000	580000	429000	259000	145000
27	193000	256000	317000	387000	457000	497000	510000	512000	576000	432000	254000	146000
28	195000	258000	319000	389000	459000	497000	511000	513000	571000	434000	249000	146000
29	198000	260000	321000	392000	---	498000	513000	514000	566000	430000	243000	147000
30	200000	262000	323000	394000	---	498000	514000	514000	559000	425000	239000	148000
31	203000	---	325000	397000	---	499000	---	514000	---	421000	234000	---
MAX	203000	262000	325000	397000	459000	499000	515000	516000	585000	552000	416000	229000
MIN	97600	205000	263000	328000	399000	461000	499000	506000	513000	421000	234000	145000
(†)	4,600.05	4,608.45	4,616.30	4,624.02	4,630.00	4,633.47	4,634.70	4,634.75	4,638.27	4,626.40	4,604.62	4,590.65
(‡)	+109,300	+59,000	+63,000	+72,000	+62,000	+40,000	+15,000	0	+45,000	-138,000	-187,000	-86,000

CAL YR 1985 MAX 502000 MIN 72700 (‡) +38,000

WTR YR 1986 MAX 585000 MIN 97600 (‡) +54,300

(†) Elevation, in feet, at end of month.

(‡) Change in contents, in acre-feet.

06652800 NORTH PLATTE RIVER BELOW GLENDO RESERVOIR, WY

LOCATION.--Lat 42°27'25", long 104°56'50", in SW1/4 SW1/4 NW1/4 sec.30, T.29 N., R.67 W., Platte County, Hydrologic Unit 10180008, on right bank opposite Sand Draw, 1.3 mi upstream from Horseshoe Creek, 3.1 mi downstream from Glendo Dam, and 5.2 mi southeast of Glendo.

DRAINAGE AREA.--15,548 mi², of which 1,215 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,488.94 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Estimated daily discharges: Nov. 18, 19, 22, 23, 26-30, Dec. 1-3, 10-15, 27-29, 31, Jan. 2, 4, 5, 8, 13-15, 21, and Feb. 6, 7, 9-13. Records excellent except those less than 30 ft³/s, which are poor. Flow completely regulated by Glendo Reservoir since Oct. 17, 1957. (See sta 06652700.) Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Seventeen discharge measurements provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,300 ft³/s, June 29, 1984, gage height, 11.16 ft; minimum daily, 0.41 ft³/s, Oct. 17, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,580 ft³/s, July 1, gage height, 10.52 ft; minimum daily, 8.0 ft³/s, Oct. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	169	8.6	11	9.0	11	11	1060	3340	1660	8490	4880	5180
2	8.9	8.7	13	9.0	11	11	1070	3490	1660	8270	4940	5090
3	8.9	9.0	12	9.1	11	11	1090	3630	1680	8200	5050	4980
4	8.3	10	11	8.9	11	11	1020	3630	2170	8180	5080	4750
5	8.0	9.3	10	8.9	11	14	1010	3810	2670	8210	5810	4590
6	8.1	9.0	11	9.4	11	23	1020	4510	2320	8220	7050	4300
7	8.1	9.5	11	9.2	10	35	1190	4340	2100	8210	7070	3910
8	8.2	9.8	11	9.0	11	29	1730	3990	2010	8250	7060	3690
9	8.7	9.7	11	9.0	10	29	1790	3590	1940	8120	7070	3540
10	8.4	9.7	10	10	10	298	2090	3450	2140	8000	7060	3500
11	9.1	11	9.4	10	11	591	2270	3510	2130	7910	7110	3490
12	8.7	9.6	9.5	9.6	11	999	2270	3870	991	7780	7080	3480
13	8.1	9.3	9.6	9.4	11	1030	2270	4220	1490	7740	5710	3500
14	8.1	9.0	9.9	9.4	12	1030	2320	4260	2130	7760	4820	3590
15	8.1	8.9	10	9.3	14	1050	2370	4190	2110	7750	4810	3600
16	8.2	9.1	10	9.0	13	1050	2710	3890	2130	7700	4840	3730
17	8.2	9.0	9.8	10	13	1030	3020	3630	2150	7680	4880	3660
18	8.2	9.0	9.8	10	13	1030	3300	3520	2280	7660	4800	3630
19	8.2	8.9	9.8	11	12	1060	3430	3330	2870	7640	4880	3600
20	8.3	9.0	9.5	11	12	1060	3400	3040	2860	7640	4890	3440
21	8.4	9.0	9.4	10	12	1040	3400	3080	3370	7460	5030	3130
22	8.6	8.7	9.4	9.4	12	1060	3390	3030	4120	6670	4970	2920
23	8.6	8.8	9.4	9.8	12	1070	3400	2700	4600	5570	4890	2850
24	8.7	9.1	9.7	10	12	1060	3650	2560	4700	3140	4890	2750
25	8.7	9.6	9.4	9.8	12	1060	3860	2580	5090	1440	4890	2460
26	8.5	9.0	9.3	9.9	12	1040	3600	2580	5940	1430	4920	1710
27	8.6	9.0	9.3	9.7	12	1040	3600	2570	6740	1450	4840	1400
28	8.6	9.0	9.3	10	11	1060	3530	2310	7100	2310	4830	1390
29	8.6	8.6	9.3	11	---	1050	3400	2170	7550	4880	4800	1350
30	8.6	8.4	9.2	10	---	1050	3310	1830	8310	5000	4780	1280
31	8.7	---	9.0	11	---	1050	---	1660	---	4920	5020	---
TOTAL	422.4	275.3	311.0	300.8	324	21982	75570	102310	99011	203680	168750	100490
MEAN	13.6	9.18	10.0	9.70	11.6	709	2519	3300	3300	6570	5444	3350
MAX	169	11	13	11	14	1070	3860	4510	8310	8490	7110	5180
MIN	8.0	8.4	9.0	8.9	10	11	1010	1660	991	1430	4780	1280
AC-FT	838	546	617	597	643	43600	149900	202900	196400	404000	334700	199300
CAL YR 1985	TOTAL	709139.6		MEAN	1943	MAX	7060	MIN	4.9	AC-FT	1407000	
WTR YR 1986	TOTAL	773426.5		MEAN	2119	MAX	8490	MIN	8.0	AC-FT	1534000	

PLATTE RIVER BASIN

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06652800 NORTH PLATTE RIVER BELOW GLENDO RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 22...	0945	9.8	718	7.0	240	60	23	56	2	4.0
DEC 17...	1100	9.9	843	0.5	300	72	29	70	2	4.2
JAN 27...	1030	9.9	868	1.0	300	73	29	73	2	3.7
FEB 24...	1030	12	836	4.0	300	73	29	71	2	3.8
MAR 31...	1700	1050	667	6.5	260	66	24	58	2	3.1
MAY 05...	1615	3840	721	10.0	240	59	22	59	2	3.3
JUN 11...	1815	2120	657	17.0	220	57	20	51	2	2.9
JUL 14...	1640	7780	577	21.0	210	54	18	48	1	3.1

DATE	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 22...	141	200	13	0.4	5.8	450	0.61	12	<0.10	<0.01
DEC 17...	160	250	17	0.4	5.7	540	0.74	15	0.30	0.02
JAN 27...	170	250	17	0.3	6.2	550	0.75	15	0.30	0.04
FEB 24...	160	240	17	1.1	6.0	540	0.73	17	0.30	0.05
MAR 31...	150	220	15	0.4	3.1	480	0.65	1360	0.20	0.03
MAY 05...	140	190	15	0.3	5.3	440	0.6	4540	0.20	0.07
JUN 11...	140	170	13	0.4	5.1	400	0.55	2310	0.10	0.08
JUL 14...	130	150	10	0.4	5.2	370	0.5	7700	0.20	0.05

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUL 14...	1640	7780	21.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
AUG 18...	1700	4880	21.5	0.01	0.01	<0.01	<0.01	<0.01	<0.01
SEP 22...	1800	2830	17.0	0.01	0.01	<0.01	<0.01	<0.01	<0.01

PLATTE RIVER BASIN

06655500 GUERNSEY RESERVOIR NEAR GUERNSEY, WY

LOCATION.--Lat 42°17'23", long 104°45'48", in NE1/4 NW1/4 sec.27, T.27 N., R.66 W., Platte County, Hydrologic Unit 10180008, on gate structure at right end of dam on North Platte River and 1.2 mi northwest of Guernsey.

DRAINAGE AREA.--16,224 mi², of which 1,216 mi² is probably noncontributing.

PERIOD OF RECORD.--January 1928 to current year. Prior to October 1950 monthend figures only, published in WSP 1310.

REVISED RECORDS.--WDR WY-76-1: Drainage area. WDR WY-82-1: 1981 (capacity).

GAGE.--Water-stage recorder. Datum of gage is 4,370.00 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation); gage readings have been reduced to elevations of National Geodetic Vertical Datum of 1929. Prior to Sept. 20, 1966, nonrecording gages at same datum.

REMARKS.--Reservoir is formed by rock-fill dam completed in July 1927. Capacity, 45,600 acre-ft, at elevation 4,420 ft, top of spillway gate. Dead storage is negligible. Figures given herein represent total contents. Usable contents published prior to October 1956. Water is used for irrigation in eastern Wyoming and western Nebraska and for development of power.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 73,240 acre-ft, Oct. 17, 1929, elevation, 4,420.95 ft, no storage Oct. 11, 1982, Oct. 6, 7, Oct. 10 to Dec. 4, 1983, Oct. 19, Oct. 25, 1984 to Jan. 14, 1985; minimum daily elevation, 4,361.50 ft, Oct. 5, 6, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 47,100 acre-ft, June 10, 11, elevation, 4,420.63 ft; minimum daily, 1,570 acre-ft, Aug. 4, elevation, 4,386.52 ft.

Capacity table (elevation in feet,
and contents, in acre-feet)

4,385	1,200	4,405	16,000
4,390	2,710	4,410	24,300
4,395	5,360	4,415	34,300
4,400	9,690	4,420	45,600

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21100	3340	4620	6110	10200	12400	30100	44400	44500	35600	2160	32900
2	19300	3400	4660	6110	10200	12400	30500	44100	44600	35700	1830	33200
3	17400	3440	4670	6110	10300	12900	30900	44100	44600	35600	1660	33200
4	15500	3500	4760	6110	10400	13200	31100	44300	44200	35400	1570	33500
5	13600	3560	4820	6110	10500	13300	31200	43800	44400	35000	1820	33600
6	11600	3600	4840	6110	10600	13300	31500	43500	44100	34700	6520	33700
7	9670	3610	4890	6110	10600	13300	31600	43900	44000	34400	10800	33700
8	7710	3640	4930	6110	10700	13500	32600	44200	44100	34100	15000	33600
9	5770	3680	4960	6460	10800	13600	34200	44000	43800	34400	19400	33500
10	4020	3720	5020	6860	10800	13600	36100	43800	47100	34900	22800	33300
11	2880	3730	5130	7200	10900	14600	38500	43800	47100	35300	28400	32800
12	2640	3750	5220	7640	11000	16400	40900	43500	41700	35300	32900	32300
13	2580	3770	5250	7910	11000	18600	43200	43400	38600	35300	35400	31700
14	2530	3800	5260	8100	11100	20700	44300	43300	39100	35300	35200	31500
15	2510	3830	5290	8290	11200	23000	44400	43300	39100	35400	35000	31500
16	2490	3840	5370	8350	11400	25200	44700	43700	39000	35300	34700	32100
17	2480	3880	5430	8400	11500	26000	45200	44000	38800	35300	34400	32600
18	2510	3880	5450	8440	11600	27000	45100	44100	38400	35300	34000	34100
19	2560	3880	5450	8480	11700	27300	45200	44300	38000	35000	33800	34700
20	2870	3880	5510	8510	11700	27500	45100	44300	37400	35000	33500	35400
21	2960	3880	5570	8720	11800	27700	44900	44100	36900	35600	33400	35600
22	2990	3890	5750	9050	11900	28000	44400	44400	36300	36600	33600	35600
23	3000	3900	6020	9410	12000	28200	43900	44400	35900	37000	33300	35600
24	3010	3930	6050	9490	12100	28500	43600	44200	35300	34600	33200	35600
25	3050	3990	6090	9580	12100	28700	44200	44000	34700	26900	33200	35100
26	3080	4100	6100	9650	12200	28900	44500	43700	34100	19200	33100	35000
27	3140	4200	6100	9740	12200	29100	44600	43400	33900	11400	33100	34600
28	3180	4290	6110	9800	12300	29300	44800	43600	34500	3900	33100	34000
29	3210	4400	6110	9900	---	29600	45000	44100	34800	2660	33100	33500
30	3270	4520	6110	9980	---	29800	44900	44500	35200	2660	33100	32900
31	3310	---	6110	10100	---	30000	---	44600	---	2480	32800	---
MAX	21100	4520	6110	10100	12300	30000	45200	44600	47100	37000	35400	35600
MIN	2480	3340	4620	6110	10200	12400	30100	43300	33900	2480	1570	31500
(†)	4,391.41	4,393.68	4,396.05	4,400.37	4,402.28	4,412.90	4,419.68	4,419.56	4,415.39	4,389.38	4,414.30	4,414.31
(‡)	-19,190	+1,210	+1,590	+3,990	+2,200	+17,700	+14,900	-300	-9,400	-32,720	+30,320	+100

CAL YR 1985 MAX 35300 MIN 0 (+) +6,110

WTR YR 1986 MAX 47100 MIN 1570 (+) +10,400

(†) Elevation, in feet, at end of month.

(‡) Change in contents, in acre-feet.

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY

LOCATION.--Lat 42°16'50", long 104°45'15", in SE1/4 SE1/4 sec.27, T.27 N., R.66 W., Platte County, Hydrologic Unit 10180008, on right bank 1.0 mi northwest of Guernsey and 1.1 mi downstream from Guernsey Dam.

DRAINAGE AREA.--16,237 mi², of which 1,216 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1900 to current year (no winter records prior to 1903). Monthly discharge only for some periods, published in WSP 1310. Published as "near Guernsey" 1900-1901, 1904; as "at Guernsey" 1902-3, 1905-8, March to October 1912; as "at Whalen" 1909; as North Platte River and Interstate Canal at Whalen 1910-11, 1913-16; and as "above Whalen" 1917-27.

REVISED RECORDS.--WSP 1310: 1903-4, 1924. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,340 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 17, 1908, and Mar. 30 to Oct. 31, 1912, nonrecording gages downstream at several sites within 0.8 mi at different datums. May 1, 1909, to Dec. 31, 1927, nonrecording gages at different datums on river and diversion canals at Whalen Dam about 9.0 mi downstream. Jan. 1, 1928, to Sept. 30, 1964, water-stage recorder at present site and datum 1.50 ft higher.

REMARKS.--Estimated daily discharges: Feb. 25 to Mar. 2. Records excellent above 500 ft³/s and fair below. Flow completely regulated by Guernsey Reservoir since 1927. (See sta 06655500.) Small diversions for irrigation between this station and diversion dam at Whalen. Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Seventeen discharge measurements provided by Bureau of Reclamation and four discharge measurements provided by Wyoming State Engineer's office.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s, June 2 or 3, 1908, gage height, 11.5 ft from floodmark, site and datum then in use, from rating curve extended above 13,000 ft³/s; no flow Feb. 28, 1927, Nov. 19 to Dec. 8, Dec. 10-12, 14, 15, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,580 ft³/s, July 5, gage height, 7.51 ft; minimum daily, 1.4 ft³/s, Jan. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	963	8.0	1.9	2.1	2.1	4.4	946	3750	1740	8380	5170	5350
2	971	4.4	1.9	2.0	2.1	4.4	930	3800	1750	8410	5170	5200
3	969	4.4	1.9	1.9	2.1	4.3	936	3800	1740	8430	5210	5120
4	966	4.4	1.9	1.9	2.1	4.2	947	3820	2310	8460	5260	4880
5	966	4.1	1.9	1.4	2.1	4.0	941	3970	2770	8520	5260	4710
6	982	4.0	1.9	1.5	2.3	4.1	931	4680	2770	8510	5340	4420
7	983	4.2	1.7	1.6	2.2	4.2	1050	4450	2710	8560	5260	4120
8	975	4.0	1.7	1.6	2.1	4.7	1300	4140	2640	8560	5200	3940
9	964	3.6	1.9	1.6	2.1	4.4	1310	3950	2760	8240	5110	3780
10	878	3.6	1.9	1.6	2.0	8.5	1280	3740	3050	7990	5020	3780
11	588	3.5	1.9	1.6	1.9	14	1270	3740	4240	8010	5020	3840
12	164	3.3	2.1	1.6	1.9	9.3	1260	4030	5220	8020	5070	3820
13	9.3	3.5	2.1	1.6	1.9	9.1	1240	4430	3620	8020	5070	3830
14	9.8	3.0	2.1	1.6	1.9	11	1830	4470	2820	8050	5070	3810
15	9.5	2.7	2.1	2.0	2.6	12	2350	4400	2790	8060	5090	3660
16	8.6	2.5	2.1	2.1	2.7	12	2730	4050	2820	8020	5110	3540
17	8.0	2.3	2.1	2.3	2.9	190	3010	3770	2820	8000	5180	3530
18	7.5	2.1	2.1	2.4	3.4	480	3420	3700	2870	7990	5200	3570
19	7.2	2.0	2.1	2.2	3.2	956	3580	3590	3450	7970	5190	3460
20	7.0	2.1	1.9	2.1	2.9	948	3590	3310	3590	7950	5170	3310
21	6.4	1.9	1.9	1.9	3.4	924	3730	3360	3860	7510	5140	3130
22	31	1.7	1.9	2.0	3.6	911	3980	3180	4590	6790	5070	3020
23	9.0	1.6	1.9	2.2	3.6	918	4060	2940	5060	5720	5140	2960
24	7.9	1.6	1.8	2.4	4.4	931	4040	2830	5310	5440	5140	2970
25	7.9	1.6	1.6	2.2	4.5	960	3950	2840	5570	5410	5130	2750
26	7.4	1.6	1.9	1.9	4.4	961	3790	2860	6270	5410	5080	1990
27	6.7	1.6	1.8	1.9	4.4	946	3770	2850	6880	5420	5030	1670
28	7.0	1.6	1.7	1.9	4.4	926	3750	2440	7080	5360	5030	1650
29	6.2	1.6	1.7	1.9	---	921	3570	2050	7410	5150	5020	1620
30	7.6	1.6	2.1	2.0	---	923	3630	1790	8160	5200	4970	1590
31	9.3	---	2.1	2.1	---	922	---	1750	---	5170	5250	---
TOTAL	10542.3	88.1	59.6	59.1	79.2	12931.6	73121	108480	118670	226730	159170	105020
MEAN	340	2.94	1.92	1.91	2.83	417	2437	3499	3956	7314	5135	3501
MAX	983	8.0	2.1	2.4	4.5	961	4060	4680	8160	8560	5340	5350
MIN	6.2	1.6	1.6	1.4	1.9	4.0	930	1750	1740	5150	4970	1590
AC-FT	20910	175	118	117	157	25650	145000	215200	235400	449700	315700	208300
CAL YR 1985	TOTAL	708304.6		MEAN	1941	MAX	5890	MIN	1.6	AC-FT	1405000	
WTR YR 1986	TOTAL	814950.9		MEAN	2233	MAX	8560	MIN	1.4	AC-FT	1616000	

PLATTE RIVER BASIN

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-58, 1966 to July 1986 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1951 to September 1958, October 1965 to September 1968, May to September 1979.

SUSPENDED-SEDIMENT DISCHARGE: April 1947 to June 1953, May to September 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 22...	1255	6.4	633	11.0	240	58	22	46	1	3.7
JAN 27...	1345	2.0	713	5.0	270	66	26	52	1	3.7
MAY 06...	1000	4700	715	11.5	240	63	21	58	2	3.4

DATE	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 22...	150	170	14	0.3	5.9	410	0.56	7.1	0.00	0.05
JAN 27...	200	160	12	0.3	12	450	0.61	2.4	0.10	0.04
MAY 06...	140	190	14	0.3	5.4	440	0.6	5570	0.10	0.07

06657000 NORTH PLATTE RIVER BELOW WHALEN DIVERSION DAM, WY

LOCATION.--Lat 42°14'20", long 104°36'29", in NE1/4 SW1/4 sec.12, T.26 N., R.65 W., Goshen County, Hydrologic Unit 10180009, on left bank 0.2 mi downstream from Cottonwood Draw, 2.5 mi downstream from Whalen diversion dam, and 4.8 mi northwest of Fort Laramie.

DRAINAGE AREA.--16,425 mi², of which 1,219 mi² is probably noncontributing.

PERIOD OF RECORD.--May 1909 to current year. Prior to Apr. 16, 1938, published as "below Whalen", and Apr. 16, 1938, to Sept. 30, 1974, as "at recorder station, below Whalen".

REVISED RECORDS.--WSP 1310: 1924. WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,250 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 16, 1938, nonrecording gages at Whalen diversion dam and canals 2.5 mi upstream at different datums. Apr. 16, 1938, to Nov. 17, 1955, water-stage recorder at site 200 ft downstream, and Nov. 18, 1955, to Feb. 16, 1972, at present site at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Nov. 19 to Dec. 6, Dec. 9-11, Jan. 29 to Feb. 23, and Mar. 11-31. Records good except those for Nov. 19 to Mar. 31, which are poor. Flow regulated by Whalen diversion dam 2.5 mi upstream. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Seven discharge measurements provided by Bureau of Reclamation and five discharge measurements provided by Wyoming State Engineer's office.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge determined, 22,000 ft³/s, June 26, 1955, gage height, 9.85 ft, from rating curve extended above 4,500 ft³/s on basis of studies of peak flow measurements of upstream floods; no flow at times in 1910, 1916, 1925-27, 1962-64, 1967, 1970-71, 1975-77, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,470 ft³/s, June 12, gage height, 6.16 ft; minimum daily, 1.3 ft³/s, Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	18	4.1	2.4	1.7	2.8	958	2930	741	4880	1530	1730
2	87	16	3.8	2.2	1.7	2.8	956	2860	706	4860	1500	1640
3	85	15	4.0	2.1	1.7	2.7	968	2730	673	4880	1540	1600
4	85	14	4.8	2.0	1.7	2.6	978	2730	1040	4880	1610	1460
5	85	12	5.2	2.0	1.7	2.6	963	2790	1600	4840	1580	1330
6	85	12	5.5	2.2	1.8	2.8	958	2930	1600	4860	1670	1200
7	92	12	5.6	2.2	1.7	2.9	822	2650	1850	4870	1640	1100
8	90	12	5.6	2.0	1.6	2.9	1340	2380	1820	4850	1570	1040
9	90	11	5.3	2.1	1.4	3.3	1230	2240	1790	4610	1500	990
10	94	11	5.0	2.1	1.3	3.5	1190	1830	2020	4330	1430	899
11	142	11	4.0	2.1	1.4	9.3	1230	1800	3400	4260	1380	988
12	278	11	3.7	2.0	1.5	14	1250	1970	5130	4220	1410	1020
13	150	11	3.7	1.8	1.5	9.4	1230	2360	4100	4160	1420	1030
14	81	11	3.5	1.6	1.6	9.2	1560	2360	2790	4150	1430	1020
15	65	9.8	3.5	1.6	1.9	11	2170	2320	2750	4170	1410	989
16	56	8.9	3.5	1.7	2.2	12	2170	2020	2730	4150	1460	909
17	51	8.4	3.5	2.6	2.4	12	2200	1730	2740	4100	1500	902
18	46	8.4	3.5	3.3	2.7	110	2320	1600	2730	4050	1490	957
19	42	5.4	3.5	3.2	2.8	480	2500	1430	2710	4070	1480	937
20	38	6.4	3.7	3.1	2.4	935	2560	1050	2760	4060	1470	889
21	35	5.7	3.5	2.6	2.1	925	2680	1000	2850	3840	1490	717
22	31	5.0	3.3	2.2	2.3	910	2950	823	3120	3260	1410	740
23	42	4.5	3.3	2.0	2.4	905	3100	699	3310	2090	1420	740
24	29	4.8	2.8	2.1	2.5	915	3110	572	3330	1750	1420	749
25	25	5.3	3.1	2.0	2.5	935	3010	557	3470	1750	1420	740
26	23	5.1	3.1	1.6	2.5	940	2810	557	3840	1730	1400	802
27	22	4.9	2.2	1.5	2.5	930	2770	549	4120	1730	1320	803
28	20	4.7	2.2	1.5	2.6	920	2750	521	4050	1670	1290	831
29	19	4.5	2.4	1.5	---	910	2730	474	4070	1450	1290	821
30	18	4.3	2.6	1.6	---	925	2770	514	4690	1510	1290	812
31	18	---	2.2	1.7	---	930	---	782	---	1490	1500	---
TOTAL	2118	273.1	115.7	64.6	56.1	11775.8	58233	51758	82530	111520	45270	30385
MEAN	68.3	9.10	3.73	2.08	2.00	380	1941	1670	2751	3597	1460	1013
MAX	278	18	5.6	3.3	2.8	940	3110	2930	5130	4880	1670	1730
MIN	18	4.3	2.2	1.5	1.3	2.6	822	474	673	1450	1290	717
AC-FT	4200	542	229	128	111	23360	115500	102700	163700	221200	89790	60270
CAL YR 1985	TOTAL	250090.0		MEAN	685	MAX	3080	MIN	1.7	AC-FT	496100	
WTR YR 1986	TOTAL	394099.3		MEAN	1080	MAX	5130	MIN	1.3	AC-FT	781700	

PLATTE RIVER BASIN

06659500 LARAMIE RIVER AND PIONEER CANAL NEAR WOODS, WY

LOCATION.--River: Lat 41°08'17", long 105°58'49", in NW1/4 SE1/4 sec.36, T.14 N., R.77 W., Albany County, Hydrologic Unit 10180010, on left bank 100 ft upstream from diversion dam for Pioneer Canal, 2.2 mi downstream from Fox Creek, 2.5 mi northeast of Woods, and 23 mi southwest of Laramie.

Canal: Lat 41°08'21", long 105°58'45", in SE1/4 NE1/4 sec.36, T.14 N., R.77 W., Albany County, on left bank 400 ft downstream from headgate.

DRAINAGE AREA.--434 mi². Drainage area at mouth, 4,565 mi².

PERIOD OF RECORD.--April 1912 to September 1924, October 1926 to September 1927, October 1931 to current year (no winter records since 1972). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1918-20, 1922, 1924. WSP 1710: Drainage area. WDR WY-84-1: 1983.

GAGE.--River: Water-stage recorder and concrete control. Datum of gage is 7,388.99 ft above National Geodetic Vertical Datum of 1929. Apr. 16 to Nov. 15, 1912, nonrecording gage and Nov. 16, 1912, to Sept. 22, 1915, water-stage recorder 90 ft downstream between dam crest and canal headgates at datum 1.00 ft higher. Sept. 23, 1915, to Sept. 30, 1924, Apr. 19 to Sept. 30, 1927, and Apr. 11, 1932, to Sept. 30, 1935, water-stage recorder at site 50 ft downstream at datum 1.00 ft higher. Oct. 1, 1935, to July 13, 1950, water-stage recorder at site 50 ft downstream at present datum.

Canal: Water-stage recorder and Parshall flume. Elevation of gage is 7,390 ft above National Geodetic Vertical Datum of 1929, from topographic map. Apr. 16, 1912, to Apr. 10, 1923, nonrecording gage; Apr. 11, 1923, to Sept. 30, 1924, and Apr. 19 to June 9, 1927, water-stage recorder; June 10 to Sept. 30, 1927, and Apr. 11, 1932, to May 8, 1938, nonrecording gage; May 9, 1938, to Apr. 26, 1966, water-stage recorder at site 1.5 mi downstream at different datums. Apr. 27, 1966, to May 8, 1967, at present site, at datum 0.06 ft lower.

REMARKS.--Estimated daily discharges: Apr. 4. Records good. Pioneer Canal diverts from left bank of river at diversion dam 100 ft downstream for irrigation in vicinity of Laramie. Records show combined flow of river and canal. Three small reservoirs upstream from station in Wyoming, total capacity, about 600 acre-ft for irrigation, stock water, and domestic use. Diversions for irrigation of about 5,200 acres upstream from station. Transbasin diversions upstream from station to Cache la Poudre River and tributaries.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD (combined flow river and canal).--Maximum discharge, 5,060 ft³/s, June 10, 1923 (river discharge by computation of peak flow over dam); minimum daily (1950-72), 10 ft³/s, Aug. 30, Sept. 2-5, 1954.

EXTREMES FOR CURRENT YEAR (combined flow river and canal).--Maximum discharge, 3,130 ft³/s, June 10; minimum daily during period of operation, 64 ft³/s, Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							182	506	1460	787	116	80
2							198	582	1630	660	115	86
3							158	720	1770	598	110	77
4							130	830	1970	568	107	77
5							186	989	2170	647	114	66
6							194	853	2150	646	105	67
7							207	768	2320	530	100	96
8							207	758	2230	450	103	102
9							234	681	2150	406	114	101
10							239	595	2840	387	111	95
11							234	583	2260	360	97	106
12							225	614	1910	319	91	99
13							253	614	1780	297	88	88
14							212	664	1720	306	85	83
15							203	711	1710	283	78	79
16							212	746	1750	305	73	79
17							225	733	1800	338	70	72
18							212	726	1870	291	69	72
19							198	757	1860	281	64	73
20							194	873	1830	281	69	76
21							221	1090	1680	267	107	71
22							287	1310	1490	241	114	73
23							404	1320	1370	219	91	77
24							461	1250	1280	199	82	92
25							512	1230	1300	188	78	101
26							520	1320	1210	177	83	99
27							437	1370	1160	170	79	110
28							396	1290	978	155	70	118
29							402	1320	998	134	66	132
30							440	1280	942	122	67	120
31							---	1360	---	119	84	---
TOTAL							8183	28443	51588	10731	2800	2667
MEAN							273	918	1720	346	90.3	88.9
MAX							520	1370	2840	787	116	132
MIN							130	506	942	119	64	66
AC-FT							16230	56420	102300	21280	5550	5290

06659580 SAND CREEK AT COLORADO-WYOMING STATE LINE

LOCATION.--Lat 40°59'37", long 105°45'35", in NW1/4 NW1/4 SW1/4 sec.24, T.12 N., R.75 W., Larimer County, CO, Hydrologic Unit 10180010, on right bank 1,200 ft south of Colorado-Wyoming State line and 17 mi southwest of Tie Siding, WY.

DRAINAGE AREA.--29.2 mi².

PERIOD OF RECORD.--October 1968 to current year (no winter records since 1971).

GAGE.--Water-stage recorder. Elevation of gage is 7,580 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 19, 1977, gage at site 700 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records good except those greater than 100 ft³/s, which are fair. Natural flow affected by diversion upstream from station to Cache la Poudre River basin through Wilson Supply ditch. Water imported upstream from station from Deadman Creek in Laramie River basin is redirected through Wilson Supply ditch but is wasted down Sand Creek at times. Diversions for irrigation of about 170 acres upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,710 ft³/s, July 19, 1977, from slope-area measurement of peak flow, gage height, 6.65 ft, from floodmarks, present site and datum; minimum daily during period of operation, 0.13 ft³/s, July 26-28, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 307 ft³/s, June 13, gage height, 2.40 ft; maximum gage height, 2.46 ft, June 4; minimum daily discharge during period of operation, 1.3 ft³/s, Sept. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							8.3	40	139	27	3.2	3.5
2							9.1	43	175	23	3.5	3.7
3							5.3	51	206	18	3.5	2.9
4							6.3	58	200	18	3.5	2.2
5							7.6	62	165	16	3.9	1.9
6							11	52	175	16	4.1	1.8
7							12	43	179	16	3.5	1.8
8							13	42	158	14	3.0	1.7
9							14	37	177	12	3.0	1.7
10							16	33	233	12	3.5	1.6
11							16	32	166	12	3.0	1.6
12							16	30	198	11	2.7	1.6
13							18	30	196	12	2.3	1.6
14							14	30	147	10	2.2	1.6
15							12	36	135	8.1	1.9	1.5
16							14	37	130	6.3	1.8	1.4
17							18	37	116	6.1	1.7	1.5
18							13	34	101	5.1	1.6	1.4
19							12	33	99	6.4	1.6	1.5
20							14	31	75	6.7	1.7	1.3
21							18	33	65	6.8	2.5	1.3
22							22	37	55	6.6	3.2	1.9
23							31	58	49	4.9	2.7	2.0
24							36	53	42	4.4	2.5	2.2
25							38	56	38	3.7	5.3	1.9
26							38	86	40	2.9	4.2	2.3
27							33	118	45	2.5	3.0	2.7
28							31	94	33	2.5	2.3	3.0
29							30	94	36	2.9	1.9	3.7
30							35	90	30	2.9	2.1	3.5
31							---	121	---	2.3	2.2	---
TOTAL							561.6	1631	3603	298.1	87.1	62.3
MEAN							18.7	52.6	120	9.62	2.81	2.08
MAX							38	121	233	27	5.3	3.7
MIN							5.3	30	30	2.3	1.6	1.3
AC-FT							1110	3240	7150	591	173	124

PLATTE RIVER BASIN

06660070 LARAMIE RIVER ABOVE HOWELL, WY

LOCATION.--Lat 41°22'05", long 105°35'40", in NW1/4 SW1/4 SW1/4 sec.9, T.16 N., R.73 W., Albany County, Hydrologic Unit 10180010, at bridge on unimproved dirt road, 1.9 mi downstream from Laramie sewage disposal plant, 2.8 mi north of Laramie, and 4.7 mi south of Howell.

PERIOD OF RECORD.--November 1980 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 16...	1230	118	555	5.5	230	54	23	30	0.9	1.9
APR 22...	1000	197	612	9.0	260	59	28	27	0.7	1.8
MAY 29...	0800	1600	339	11.0	140	38	11	18	0.7	1.4
JUN 17...	1100	1680	430	19.0	170	43	15	24	0.8	1.5

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 16...	92	170	8.8	0.2	10	350	0.48	112	0.20	0.15
APR 22...	100	190	9.5	0.3	10	390	0.52	205	0.10	0.05
MAY 29...	85	87	4.6	0.3	12	220	0.3	965	0.00	0.06
JUN 17...	100	120	5.2	0.3	13	280	0.38	1280	0.00	0.08

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 16...	1230	118	550	8.2	5.5	585	10.4
DEC 05...	0830	125	630	7.7	0.5	590	11.2
FEB 25...	0900	103	730	7.9	1.0	588	10.6
MAR 25...	0930	60	795	8.1	4.0	584	10.1
APR 22...	1000	197	612	8.0	9.0	585	9.1
MAY 29...	0800	1600	324	7.5	11.0	590	7.6
JUN 17...	1100	1680	460	7.5	19.0	590	5.4
JUL 16...	0830	230	570	7.7	17.0	586	6.2
AUG 19...	1400	33	1350	8.1	20.0	590	9.4
SEP 17...	1430	34	960	8.4	14.0	586	10.2

06660070 LARAMIE RIVER ABOVE HOWELL, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 16...	108	20	0.20	0.10	0.3	0.4	0.15
DEC 05...	101	36	0.90	0.33	0.37	0.7	0.30
FEB 25...	97	K10	--	--	--	--	--
MAR 25...	101	K12	0.50	0.25	0.45	0.7	0.21
APR 22...	103	K4	0.10	0.04	0.36	0.4	0.05
MAY 29...	89	K140	<0.10	0.05	0.65	0.7	0.06
JUN 17...	76	68	<0.10	0.03	0.67	0.7	0.08
JUL 16...	84	130	0.20	0.08	0.62	0.7	0.16
AUG 19...	135	180	0.90	0.19	0.81	1.0	0.39
SEP 17...	130	80	1.10	0.16	0.54	0.7	0.21

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PLATTE RIVER BASIN

06660500 LARAMIE RIVER AT TWO RIVERS, WY

LOCATION.--Lat 41°28'22", long 105°43'30", in NW1/4 NE1/4 SW1/4 sec.5, T.17 N., R.74 W., Albany County, Hydrologic Unit 10180010, at former gaging station, at old Two Rivers Post Office, 0.6 mi upstream from Little Laramie River, and 14 mi northwest of Laramie.

DRAINAGE AREA.--1,224 mi², of which 188 mi² is probably noncontributing.

PERIOD OF RECORD.--Water years 1966 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 17...	1400	1680	22.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
JUL 16...	1100	230	19.0	<0.01	--	<0.01	<0.01	<0.01	<0.01

06661000 LITTLE LARAMIE RIVER NEAR FILMORE, WY

LOCATION.--Lat 41°17'42", long 106°02'03", in SE1/4 NE1/4 SE1/4 sec.4, T.15 N., R.77 W., Albany County, Hydrologic Unit 10180010, on right bank 40 ft downstream from State Highway 130, 1.2 mi west of Filmore, and 4.4 mi downstream from North Fork.

DRAINAGE AREA.--157 mi². Area at site used prior to Sept. 8, 1976, 156 mi².

PERIOD OF RECORD.--July 1902 to September 1903 (published as "near Hatton"), May 1911 to November 1926, October 1932 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1903, 1914, 1922-26. WSP 1440: 1902. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,610 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 16, 1938, nonrecording gages, and Sept. 16, 1938 to Sept. 7, 1976, water-stage recorder, at sites 0.7 mi upstream at different datums.

REMARKS.--No estimated daily discharges. Records good. Ten small reservoirs upstream from station, combined capacity, about 160 acre-ft, for irrigation, stock water, recreation, and domestic use. Diversions upstream from station for irrigation of about 11,020 acres, of which about 20 acres are downstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--55 years (water years 1903, 1912-26, 1933-71), 103 ft³/s, 74,620 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,450 ft³/s, June 10, 1965, gage height, 5.33 ft, site and datum then in use; minimum daily determined, 1.0 ft³/s, Sept. 17-20, 1913.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,940 ft³/s, June 9, gage height, 5.09 ft; minimum daily during period of operation, 23 ft³/s, Sept. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							60	97	678	383	87	47
2							65	107	777	337	85	40
3							55	131	875	304	78	38
4							55	157	1050	296	72	34
5							72	184	971	399	67	33
6							101	170	1050	319	70	30
7							91	179	1120	271	65	33
8							70	196	1000	246	65	33
9							72	185	1210	239	69	29
10							67	155	1540	244	79	31
11							63	139	887	222	63	34
12							60	140	758	211	63	31
13							63	137	762	188	63	29
14							53	137	827	189	58	26
15							57	142	821	181	52	25
16							58	159	833	204	47	24
17							65	175	874	191	44	23
18							62	173	850	169	47	23
19							55	173	868	165	40	26
20							52	206	720	157	44	25
21							55	243	670	157	60	26
22							65	296	600	155	55	31
23							89	264	579	143	47	34
24							103	261	544	137	42	33
25							107	276	499	145	44	37
26							111	320	475	131	45	41
27							99	358	497	127	41	45
28							91	376	454	113	35	49
29							87	441	462	105	36	41
30							89	482	468	99	36	38
31							---	588	---	95	40	---
TOTAL							2192	7047	23719	6322	1739	989
MEAN							73.1	227	791	204	56.1	33.0
MAX							111	588	1540	399	87	49
MIN							52	97	454	95	35	23
AC-FT							4350	13980	47050	12540	3450	1960

PLATTE RIVER BASIN

06661500 LITTLE LARAMIE RIVER AT TWO RIVERS, WY

LOCATION.--Lat 41°28'07", long 105°43'56", in SE1/4 SE1/4 SE1/4 sec.6, T.17 N., R.74 W., Albany County, Hydrologic Unit 10180010, at former gaging station, at old Two Rivers Post Office, 0.5 mi upstream from mouth, and 14 mi northwest of Laramie.

DRAINAGE AREA.--376 mi², of which 58 mi² is probably noncontributing.

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 16...	1000	40	531	4.0	210	55	17	30	0.9	2.1
DEC 05...	1300	40	644	0.0	240	60	21	45	1	2.0
JUN 17...	1300	720	420	22.0	170	41	16	27	0.9	2.0

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 16...	130	110	21	0.2	8.7	320	0.44	35	0.00	0.16
DEC 05...	150	140	25	0.4	9.1	390	0.53	42	0.00	0.02
JUN 17...	160	63	5.7	0.3	15	270	0.36	517	0.10	0.06

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN- (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 17...	1300	720	22.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
JUL 16...	1000	133	18.0	<0.01	--	<0.01	<0.01	<0.01	<0.01

06661585 LARAMIE RIVER NEAR BOSLER, WY

LOCATION.--Lat 41°33'17", long 105°40'58", in NW1/4 NW1/4 NE1/4 sec.10, T.18 N., R.74 W., Albany County, Hydrologic Unit 10180010, on left bank 50 ft upstream from bridge on U.S. Highways 30 and 287, 0.2 mi northwest of Bosler Junction, 1.7 mi south of Bosler, and 2.0 mi downstream from Soil Bank Boughton Canal diversion dam.

DRAINAGE AREA.--1,790 mi², of which 283 mi² is probably noncontributing.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,030 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 16 to Mar. 2. Records fair except those for estimated daily discharge, which are poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversion upstream from station for irrigation of about 54,700 acres, of which about 2,300 acres are downstream from station, and return flow from irrigated areas.

COOPERATION.--Records provided Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--14 years, 206 ft³/s, 149,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,480 ft³/s, June 11, 1986, gage height, 7.39 ft; maximum gage height, 8.40 ft, Apr. 22, 1973 (backwater from ice jam); minimum daily discharge, 0.20 ft³/s, Sept. 4, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,480 ft³/s, June 11, gage height, 7.39 ft; minimum daily, 40 ft³/s, Aug. 20, Sept. 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	116	89	67	140	242	185	341	806	1180	120	53
2	72	113	86	67	130	270	202	321	837	1100	106	59
3	81	110	87	66	121	325	226	311	869	1050	96	61
4	79	108	88	64	117	294	214	345	952	944	91	63
5	77	99	89	62	114	273	277	372	1080	823	86	57
6	81	99	91	60	108	263	300	412	1260	722	79	51
7	84	84	88	60	107	253	364	465	1430	689	70	49
8	86	108	88	59	102	246	384	556	1580	674	62	49
9	99	86	86	59	100	236	374	640	1900	624	61	47
10	113	46	82	62	96	232	374	656	3120	558	65	53
11	161	63	80	64	94	243	363	647	4100	512	70	57
12	208	110	75	66	92	229	359	602	4150	468	65	59
13	216	97	73	76	90	215	342	543	4020	422	74	61
14	208	89	70	94	90	209	311	473	3470	375	70	61
15	196	84	67	94	94	205	310	424	2910	383	63	59
16	188	102	65	95	102	185	289	402	2500	388	55	57
17	173	84	66	93	110	188	265	436	2330	381	49	53
18	162	83	64	94	120	175	258	456	2140	383	44	51
19	158	82	65	94	125	154	281	476	2060	400	41	44
20	152	80	62	96	127	175	304	469	2000	365	40	41
21	145	78	67	94	127	185	287	453	1980	357	41	40
22	142	75	65	98	124	168	263	453	1940	347	43	40
23	135	73	67	107	122	171	263	466	1860	329	47	41
24	126	74	68	110	125	164	287	498	1780	301	47	44
25	108	74	70	120	132	164	317	550	1690	276	53	47
26	105	75	72	130	160	168	365	613	1580	265	59	47
27	102	78	69	140	180	168	379	662	1480	251	55	47
28	99	84	68	150	210	168	389	718	1370	229	49	57
29	99	88	67	148	---	161	379	746	1300	202	47	61
30	108	89	66	144	---	164	355	788	1240	171	47	67
31	113	---	68	140	---	171	---	813	---	141	47	---
TOTAL	3934	2631	2308	2873	3359	6464	9266	16107	59734	15310	1942	1576
MEAN	127	87.7	74.5	92.7	120	209	309	520	1991	494	62.6	52.5
MAX	216	116	91	150	210	325	389	813	4150	1180	120	67
MIN	58	46	62	59	90	154	185	311	806	141	40	40
AC-FT	7800	5220	4580	5700	6660	12820	18380	31950	118500	30370	3850	3130
CAL YR 1985	TOTAL	64453.2		MEAN	177	MAX	858	MIN	9.6	AC-FT	127800	
WTR YR 1986	TOTAL	125504		MEAN	344	MAX	4150	MIN	40	AC-FT	248900	

PLATTE RIVER BASIN

06662000 LARAMIE RIVER NEAR LOOKOUT, WY

LOCATION.--Lat 41°45'44", long 105°41'16", in NE1/4 NW1/4 SE1/4 sec.27, T.21 N., R.74 W., Albany County, Hydrologic Unit 10180010, on right bank 155 ft downstream from bridge on county road, 1.0 mi upstream from Wheatland Reservoir No. 2, and 9.0 mi northeast of Lookout.

DRAINAGE AREA.--2,174 mi², of which 603 mi² is probably noncontributing.

PERIOD OF RECORD.--May 1912 to December 1917, January 1921 to December 1927, April 1932 to current year (no winter records since 1972). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1913-17. WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,962.68 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 22, 1915, nonrecording gage and Apr. 22, 1915, to Aug. 31, 1917, water-stage recorder, at bridge, 155 ft upstream at same datum. Oct. 14, 1931, to Sept. 17, 1938, at site 125 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Apr. 4-6. Records fair. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversion for irrigation of about 108,000 acres upstream from station, and return flow from irrigated areas.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--51 years (water years 1913-17, 1922-27, 1933-72), 131 ft³/s, 94,910 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,380 ft³/s, June 29, 1983, gage height, 6.99 ft; maximum gage height, about 8.0 ft, occurred in 1973 (backwater from ice); no flow at times in 1934-35, 1939-40, 1954-55, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,130 ft³/s, June 12, gage height, 7.02 ft; minimum daily during period of operation, 46 ft³/s, Aug. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							130	333	709	1190	151	54
2							145	323	710	1120	132	58
3							159	305	734	1040	119	62
4							160	309	778	981	107	65
5							150	330	859	856	99	65
6							190	364	970	734	104	62
7							243	406	1110	662	87	59
8							291	469	1280	647	80	56
9							295	561	1480	616	73	59
10							298	607	1800	550	71	73
11							293	607	2610	479	72	87
12							294	584	3750	438	71	105
13							289	531	4050	407	71	111
14							302	467	3750	379	75	111
15							259	419	3130	368	68	111
16							267	403	2610	393	63	111
17							252	403	2310	396	57	107
18							246	430	2150	403	54	105
19							249	446	2030	432	51	103
20							282	458	1960	446	50	103
21							288	442	1910	427	48	98
22							277	410	1890	422	46	93
23							261	414	1870	403	46	82
24							270	446	1840	374	50	77
25							291	486	1820	343	51	75
26							321	543	1740	306	54	71
27							343	601	1640	280	58	73
28							357	651	1500	246	56	75
29							364	672	1360	222	51	80
30							350	692	1260	192	50	84
31							---	716	---	170	53	---
TOTAL							7916	14828	55610	15922	2218	2475
MEAN							264	478	1854	514	71.5	82.5
MAX							364	716	4050	1190	151	111
MIN							130	305	709	170	46	54
AC-FT							15700	29410	110300	31580	4400	4910

06664400 SYBILLE CREEK ABOVE MULE CREEK, NEAR WHEATLAND, WY

LOCATION.--Lat 41°50'39", long 105°13'15", in NE1/4 SW1/4 SE1/4 sec.27, T.22 N., R.70 W., Platte County, Hydrologic Unit 10180011, on right bank just upstream from bridge on U.S. Highway 34, 900 ft upstream from Mule Creek, 2.9 mi upstream from Bluegrass Creek, and 20 mi southwest of Wheatland.

DRAINAGE AREA.--194 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1974 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 5,340 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Seven small diversions upstream from station, combined capacity, about 400 acre-ft, for irrigation. Diversions upstream from station for irrigation of about 2,020 acres, of which about 80 acres are downstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft³/s, May 14, 1984, gage height, 6.77 ft and May 22, 1983, gage height, 6.64 ft (backwater from bridge construction), from correlation with peak discharge at station 11.0 mi downstream; maximum gage height, 7.68 ft, July 22, 1983 (backwater from bridge construction); minimum daily discharge, 0.49 ft³/s, Sept. 8, 9, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 109 ft³/s, June 9, gage height, 2.94 ft; minimum daily during period of operation, 1.9 ft³/s, Sept. 18, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							21	25	17	15	8.0	4.1
2							18	23	17	15	7.6	4.5
3							25	23	15	13	8.0	3.6
4							25	23	15	13	8.5	3.3
5							23	22	18	12	8.5	4.1
6							23	20	18	12	8.0	6.1
7							26	23	17	13	7.6	7.8
8							27	29	17	13	8.5	9.9
9							33	36	30	13	8.0	11
10							30	38	61	12	8.0	7.2
11							28	34	78	11	8.0	3.6
12							27	31	68	11	8.9	3.3
13							29	30	54	12	9.9	2.3
14							27	28	44	12	9.9	2.4
15							26	26	36	11	9.4	2.0
16							25	30	28	12	7.6	2.1
17							27	34	23	10	5.7	2.1
18							27	34	21	10	5.3	1.9
19							27	30	21	10	4.9	2.2
20							28	22	21	11	6.1	1.9
21							32	20	22	11	8.5	3.9
22							36	19	19	9.9	8.5	2.6
23							36	21	18	11	7.6	2.8
24							36	20	18	11	7.6	2.9
25							36	19	18	11	6.4	2.9
26							33	19	18	10	8.0	3.5
27							31	19	18	9.9	7.2	5.3
28							29	19	17	9.4	5.7	6.4
29							27	19	17	8.9	5.3	5.2
30							27	19	16	8.0	2.9	5.8
31							---	18	---	8.0	2.7	---
TOTAL							845	773	800	349.1	226.8	126.7
MEAN							28.2	24.9	26.7	11.3	7.32	4.22
MAX							36	38	78	15	9.9	11
MIN							18	18	15	8.0	2.7	1.9
AC-FT							1680	1530	1590	692	450	251

PLATTE RIVER BASIN

06664400 SYBILLE CREEK ABOVE MULE CREEK, NEAR WHEATLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1984 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 10...	1400	89	11.0	0.02	0.01	0.03	<0.01	<0.01	<0.01
JUL 15...	1130	11	17.0	<0.01	--	<0.01	<0.01	<0.01	<0.01

PLATTE RIVER BASIN

303

06665790 SYBILLE CREEK ABOVE CANAL NO. 3, NEAR WHEATLAND, WY

LOCATION.--Lat 41°54'40", long 105°07'36", in NW1/4 SW1/4 NE1/4 sec.4, T.22 N., R.69 W., Platte County, Hydrologic Unit 10180011, on right bank 100 ft upstream from State Highway 34, 200 ft downstream from Deadhead Creek, 2.7 mi upstream from Canal No. 3, and 19.7 mi southwest of Wheatland.

PERIOD OF RECORD.--April 1980 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 5,040 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Most of flow during irrigation season is water released from Wheatland Reservoir No. 2, capacity 98,930 acre-ft, on the Laramie River and diverted down Bluegrass Creek for irrigation of land near Wheatland. Diversions for irrigation of about 4,400 acres upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,400 ft³/s, May 13, 1984, gage height, 4.26 ft; no flow Sept. 1-4, 11, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 381 ft³/s, June 10, gage height, 2.17 ft; minimum daily during period of operation, 17 ft³/s, Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							46	51	126	113	151	118
2							41	42	110	121	156	128
3							46	43	128	121	153	136
4							49	42	138	117	153	133
5							45	38	133	118	148	123
6							45	38	136	116	146	120
7							49	45	143	118	148	121
8							54	52	148	123	151	108
9							59	57	197	126	148	76
10							57	59	292	131	148	73
11							52	59	220	128	148	58
12							51	51	172	124	148	56
13							49	48	126	121	148	47
14							48	45	128	121	151	43
15							46	42	80	121	151	57
16							45	49	90	133	146	45
17							52	57	82	128	146	46
18							59	60	79	126	146	37
19							54	57	60	128	133	45
20							52	49	38	128	136	32
21							56	41	46	126	153	28
22							59	48	85	123	156	24
23							60	42	81	118	138	22
24							64	62	70	126	131	20
25							62	126	72	141	128	19
26							60	105	101	131	123	18
27							56	94	126	126	123	18
28							52	92	116	123	123	18
29							49	108	116	118	123	17
30							51	103	111	123	121	17
31							---	103	---	141	121	---
TOTAL							1568	1908	3550	3858	4395	1803
MEAN							52.3	61.5	118	124	142	60.1
MAX							64	126	292	141	156	136
MIN							41	38	38	113	121	17
AC-FT							3110	3780	7040	7650	8720	3580

PLATTE RIVER BASIN

06669050 WHEATLAND CREEK BELOW WHEATLAND, WY

LOCATION.--Lat 42°05'05", long 104°57'02", in SW1/4 SW1/4 NE1/4 sec.1, T.24 N., R.68 W., Platte County, Hydrologic Unit 10180011, 50 ft upstream from bridge on U.S. Highway 87, 50 ft downstream from sewage lagoons, and 1.6 mi north of Wheatland city limits.

PERIOD OF RECORD.--October 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 15...	1200	14	1270	8.2	8.0	645	11.0
DEC 04...	1300	5.7	1220	8.2	4.0	647	12.6
FEB 24...	1130	7.8	1110	8.3	7.0	644	11.6
MAR 24...	1200	5.8	1180	8.4	11.5	640	12.4
APR 22...	1300	8.0	1200	8.5	18.0	640	8.2
MAY 29...	1230	3.7	1040	8.3	18.0	645	9.5
JUN 10...	1200	61	850	8.0	13.0	645	7.9
JUL 15...	1000	6.0	990	8.0	17.0	640	9.1
AUG 19...	0930	4.5	1160	8.1	17.0	644	8.4
SEP 17...	1000	22	815	8.3	13.0	642	8.9

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 15...	110	92	3.80	0.27	1.4	1.7	0.25
DEC 04...	114	220	4.10	0.81	1.2	2.0	0.55
FEB 24...	114	42	3.90	0.89	1.9	2.8	0.50
MAR 24...	136	48	3.60	0.31	2.0	2.3	0.43
APR 22...	104	K8	3.30	0.19	1.8	2.0	0.40
MAY 29...	119	150	1.90	0.45	1.1	1.6	0.39
JUN 10...	89	K1200	2.00	0.25	3.5	3.7	0.61
JUL 15...	113	1200	2.30	0.36	1.0	1.4	0.26
AUG 19...	104	340	3.20	0.47	2.1	2.6	0.41
SEP 17...	101	140	0.80	0.12	0.58	0.7	0.14

K-Results based on colony count outside the acceptable range (non-ideal colony count).

413918105021401 CHUGWATER CREEK AT PLATTE-LARAMIE COUNTY LINE, NEAR CHUGWATER, WY

LOCATION.--Lat 41°39'18", long 105°02'14", in NW1/4 NW1/4 NW1/4 sec.5, T.19 N., R.68 W., Laramie County, Hydrologic Unit 10180011, at county road bridge, 1000 ft northwest of McDonald Ranch, about 4.2 mi downstream from Spring Creek, and 14 mi southwest of Chugwater.

PERIOD OF RECORD.--May 1984 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUL 15...	1300	5.0	18.0	<0.01	--	<0.01	<0.01	<0.01	<0.01
SEP 30...	0930	2.4	10.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

06669500 CHUGWATER CREEK AT CHUGWATER, WY

LOCATION.--Lat 41°45'10", long 104°48'55", in NE1/4 NW1/4 NE1/4 sec.31, T.21 N., R.66 W., Platte County, Hydrologic Unit 10180011, 270 ft upstream from old highway bridge, 0.25 mi southeast of Chugwater, and 9.5 mi upstream from headgate of Ramsey Ditch.

PERIOD OF RECORD.--May 1984 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY 29...	1500	15	13.0	<0.01	0.03	<0.01	<0.01	<0.01	<0.01
JUN 10...	1600	20	14.0	0.01	0.09	<0.01	<0.01	<0.01	<0.01

PLATTE RIVER BASIN

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY

LOCATION.--Lat 42°12'02", long 104°32'16", in NE1/4 SE1/4 NE1/4 sec. 28, T.26 N., R.64 W., Goshen County, Hydrologic Unit 10180011, on right bank 600 ft upstream from bridge on county road, 0.6 mi upstream from mouth, and 1.1 mi southwest of Fort Laramie.

DRAINAGE AREA.--4,564 mi², of which 631 mi² is probably noncontributing. Drainage area at mouth, 4,565 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1915 to current year (no winter records prior to 1927). Monthly discharge only for some periods, published in WSP 1310. Records for water years 1926-39, previously published including diversions to Gering-Fort Laramie Canal, were adjusted to exclude flow in the canal in WSP 1310. Prior to October 1931, published as "at Fort Laramie."

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,220 ft above National Geodetic Vertical Datum of 1929, from topographic map. Apr. 4, 1915, to Mar. 31, 1925, nonrecording gage at site 0.1 mi downstream at different datum. Apr. 1, 1925, to Sept. 30, 1932, nonrecording gage and Oct. 1, 1932, to Aug. 20, 1935, water-stage recorder at site 4.3 mi upstream at different datum. Aug. 21, 1935, to Nov. 2, 1970, water-stage recorder at site 0.3 mi upstream at different datum. Nov. 3, 1970, to May 9, 1973, water-stage recorder 0.1 mi downstream at different datum. May 10, 1973, to Apr. 5, 1977, water-stage recorder 4.3 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 19 to Dec. 5, Dec. 9-15, Dec. 27 to Jan. 5, Jan. 8, and Feb. 7-24. Records fair except those for estimated daily discharges, which are poor. Diversion, at times, to Gering-Fort Laramie Canal, 5.4 mi upstream. Natural flow of stream affected by transbasin diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation of about 176,000 acres upstream from station, and return flow from irrigated areas. U.S. Corps of Engineers satellite telemeter at station.

AVERAGE DISCHARGE.--30 years (water years 1957-86), 167 ft³/s, 121,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,260 ft³/s, May 10, 1973, gage height, 9.40 ft, site and datum then in use; no flow Jan. 31 to Mar. 20, Oct. 24 to Dec. 17, 1926, Mar. 1-26, 1927, Apr. 14, 1938 (all flow diverted by Gering-Fort Laramie Canal).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,490 ft³/s, June 18, gage height, 6.58 ft; minimum daily, 37 ft³/s, Dec. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	40	37	50	118	177	124	308	194	760	74	80
2	69	40	38	57	118	184	123	300	181	749	71	80
3	61	40	39	66	115	184	126	295	164	710	69	87
4	53	46	39	70	120	181	146	291	152	633	71	89
5	51	47	40	75	120	184	152	304	152	589	78	92
6	47	48	40	78	120	181	161	257	155	539	97	94
7	46	47	42	78	107	177	171	252	155	492	94	94
8	44	46	42	80	100	181	177	259	155	443	111	96
9	44	46	41	85	99	171	187	263	187	405	110	96
10	44	44	45	85	95	168	197	275	318	383	104	97
11	44	44	50	85	95	168	204	291	619	328	103	100
12	44	42	58	87	96	168	204	288	923	272	100	107
13	42	42	57	94	91	168	204	283	1710	242	96	115
14	40	42	56	99	93	161	197	275	2660	224	92	117
15	40	42	55	102	92	161	194	256	2950	215	89	119
16	43	44	55	107	101	161	201	252	3050	210	85	120
17	46	44	53	110	114	155	218	256	3300	200	81	125
18	46	44	53	108	127	155	237	256	3170	189	80	138
19	47	43	53	111	119	152	240	263	2780	171	83	142
20	47	41	55	112	111	155	248	271	2780	161	84	135
21	47	39	58	112	128	155	252	275	2580	155	83	140
22	40	38	65	115	133	155	256	275	2520	151	81	148
23	40	38	67	115	124	146	267	243	2150	146	79	190
24	40	40	69	118	136	140	267	223	1830	133	76	207
25	39	44	73	119	149	142	271	218	1750	125	76	224
26	39	43	73	120	146	140	279	218	1600	113	76	220
27	39	42	78	123	137	140	287	211	1230	107	76	222
28	40	41	78	121	149	140	308	211	857	103	76	222
29	40	39	82	116	---	137	316	204	806	99	79	229
30	39	38	74	118	---	134	312	204	789	88	80	232
31	40	---	58	112	---	129	---	201	---	79	79	---
TOTAL	1423	1274	1723	3028	3253	4950	6526	7978	41867	9214	2633	4157
MEAN	45.9	42.5	55.6	97.7	116	160	218	257	1396	297	84.9	139
MAX	82	48	82	123	149	184	316	308	3300	760	111	232
MIN	39	38	37	50	91	129	123	201	152	79	69	80
AC-FT	2820	2530	3420	6010	6450	9820	12940	15820	83040	18280	5220	8250

CAL YR 1985	TOTAL	35630	MEAN	97.6	MAX	737	MIN	36	AC-FT	70670
WTR YR 1986	TOTAL	88026	MEAN	241	MAX	3300	MIN	37	AC-FT	174600

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 23...	1410	41	800	11.0	300	77	27	56	1	5.2
DEC 18...	1200	52	808	2.0	310	76	29	61	2	4.9
JAN 28...	1320	120	798	4.0	300	74	29	58	1	4.3
FEB 25...	1345	145	809	6.5	320	77	30	61	2	4.7
APR 01...	1530	125	772	9.5	290	71	27	54	1	4.4
MAY 06...	1515	248	751	12.0	280	66	28	60	2	4.5
JUN 10...	1430	288	674	15.5	270	64	26	55	2	4.6

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 23...	202	190	20	0.5	14	510	0.69	57	0.14	0.01
DEC 18...	210	190	19	0.6	12	520	0.71	73	0.30	0.02
JAN 28...	200	180	19	0.4	10	490	0.67	160	0.30	0.07
FEB 25...	210	190	17	1.6	9.2	520	0.7	202	0.40	0.07
APR 01...	200	160	19	0.4	8.2	460	0.63	157	0.20	0.05
MAY 06...	190	170	20	0.3	3.9	470	0.63	312	0.10	0.08
JUN 10...	190	160	17	0.2	4.1	440	0.6	346	0.10	0.06

PLATTE RIVER BASIN

06671000 RAWHIDE CREEK NEAR LINGLE, WY

LOCATION.--Lat 42°07'32", long 104°19'36", in SE1/4 NE1/4 sec.20, T.25 N., R.62 W., Goshen County, Hydrologic Unit 10180009, on right bank 200 ft upstream from bridge on U.S. Highway 26, 1.0 mi east of Lingle, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--522 mi².

PERIOD OF RECORD.--May 1928 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1440: 1932, 1936(M). WSP 1918: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,160 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1918 for history of changes prior to May 16, 1955.

REMARKS.--No estimated daily discharges. Records good. Low flow represents return water from lands irrigated by Interstate Canal in Rawhide Creek basin. Six small reservoirs upstream from station, combined capacity, about 460 acre-ft, for irrigation. Diversions for irrigation of about 1,600 acres upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--43 years (water years 1929-71), 21.5 ft³/s, 15,580 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,970 ft³/s, Sept. 7, 1946, gage height, 11.76 ft; no flow July 5-7, 1961, Apr. 12, 29, 1966, Mar. 20-28, 1967, Apr. 13, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 791 ft³/s, June 8, gage height, 8.83 ft; minimum daily during period of operation, 6.8 ft³/s, July 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							11	34	26	10	31	62
2							11	33	19	7.5	30	52
3							12	31	16	6.8	32	42
4							13	30	16	9.6	35	41
5							19	30	22	11	38	92
6							21	35	20	16	32	155
7							17	36	61	18	27	58
8							14	37	309	19	31	55
9							15	37	73	20	36	52
10							16	35	108	22	40	52
11							15	34	49	24	36	52
12							14	33	31	25	30	51
13							14	30	24	22	34	50
14							14	26	22	19	32	51
15							13	27	21	17	35	51
16							14	34	24	14	31	50
17							15	32	34	14	29	45
18							19	30	32	17	27	51
19							18	30	22	16	23	53
20							17	30	26	22	25	51
21							17	22	25	25	31	52
22							18	18	24	25	37	55
23							17	16	25	23	37	53
24							17	16	21	23	35	51
25							17	19	17	31	33	56
26							18	20	16	27	34	45
27							21	20	16	30	35	45
28							27	19	18	25	30	45
29							48	21	11	20	30	43
30							39	23	13	24	36	39
31							---	23	---	31	38	---
TOTAL							541	861	1141	613.9	1010	1650
MEAN							18.0	27.8	38.0	19.8	32.6	55.0
MAX							48	37	309	31	40	155
MIN							11	16	11	6.8	23	39
AC-FT							1070	1710	2260	1220	2000	3270

06672500 CHERRY CREEK DRAIN NEAR TORRINGTON, WY

LOCATION.--Lat 42°02'22", long 104°10'07", in SW1/4 NW1/4 sec.23, T.24 N., R.61 W., Goshen County, Hydrologic Unit 10180009, on left bank 50 ft downstream from bridge on county road, 0.6 mi upstream from mouth, and 2.0 mi southeast of Torrington.

DRAINAGE AREA.--356 mi².

PERIOD OF RECORD.--May to September 1931, May to September 1932, May 1935 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,080 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 12, 1935, nonrecording gage at site 1.0 mi upstream at different datum. June 12, 1935, to Sept. 30, 1945, water-stage recorder at site 100 ft downstream at datum 2.00 ft higher. Oct. 1, 1945, to Nov. 27, 1950, water-stage recorder at site 100 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Apr. 10-16, 20-22, and June 12 to July 22. Records good except those for estimated daily discharges, which are poor. Flow is mainly return water from irrigation.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--36 years (water years 1936-71), 21.6 ft³/s, 15,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft³/s, June 27, 1955, gage height, 10.31 ft, from floodmark; minimum daily, 0.40 ft³/s, Jan. 28, 29, 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 309 ft³/s, June 10, gage height, 3.65 ft; maximum gage height, 3.38 ft, June 13 (backwater from North Platte River); minimum daily discharge during period of operation, 9.4 ft³/s, Apr. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							9.4	12	58	53	64	82
2							9.4	12	56	60	60	81
3							11	12	58	53	63	81
4							12	12	59	55	73	78
5							18	12	65	62	67	78
6							38	12	71	60	66	85
7							25	13	66	58	60	92
8							16	34	66	60	64	91
9							17	79	69	59	69	81
10							17	14	212	61	68	79
11							16	13	145	60	64	79
12							16	12	46	55	66	78
13							15	12	43	63	66	76
14							15	14	40	62	60	76
15							14	24	36	65	61	78
16							14	43	32	65	60	78
17							13	41	30	67	58	75
18							14	37	25	68	57	73
19							12	33	20	70	61	73
20							12	30	18	89	68	72
21							11	33	18	92	75	71
22							11	38	20	90	73	72
23							11	42	22	87	72	72
24							11	44	23	78	73	69
25							12	45	23	78	71	56
26							12	46	45	69	68	39
27							12	45	52	67	72	34
28							12	47	55	65	73	30
29							12	50	43	65	73	27
30							12	53	40	68	74	26
31							---	57	---	69	76	---
TOTAL							429.8	971	1556	2073	2075	2082
MEAN							14.3	31.3	51.9	66.9	66.9	69.4
MAX							38	79	212	92	76	92
MIN							9.4	12	18	53	57	26
AC-FT							853	1930	3090	4110	4120	4130

PLATTE RIVER BASIN

06673500 KATZER DRAIN NEAR HENRY, NE

LOCATION.--Lat 41°58'45", long 104°04'15", in NW1/4 NW1/4 SW1/4 sec.10, T.23 N., R.60 W., Goshen County, WY, Hydrologic Unit 10180009, on left bank 0.2 mi upstream from bridge on county road, 0.8 mi upstream from mouth, and 1.7 mi southwest of Henry.

DRAINAGE AREA.--45.9 mi², of which 8.2 mi² is probably noncontributing.

PERIOD OF RECORD.--May 1928 to current year (no winter records prior to 1932 and since 1971).

REVISED RECORDS.--WSP 1710: Drainage area. WDR WY-77-1: 1975(M), 1976(M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,040 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1918 for history of changes prior to Dec. 1, 1950. Dec. 1, 1950, to Sept. 30, 1969, at site 1.0 mi upstream at different datum. Oct. 1, 1969, to Mar. 31, 1974, at site 0.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: May 24-26 and July 21-26. Records good. Flow is mainly return water from land irrigated by Fort Laramie Canal.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--40 years (water years 1932-71), 19.6 ft³/s, 14,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,460 ft³/s, June 11, 1977, gage height, 8.56 ft, from rating curve extended above 130 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft³/s, Jan. 14, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 211 ft³/s, June 10, gage height, 2.65 ft; minimum daily during period of operation, 6.7 ft³/s, June 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							8.1	8.9	24	44	53	96
2							8.1	8.9	30	48	52	99
3							8.1	8.5	33	32	56	101
4							12	8.5	32	35	75	96
5							15	8.1	36	52	78	91
6							26	7.7	37	58	76	85
7							20	8.5	37	62	67	92
8							14	8.9	42	59	65	93
9							13	9.2	49	70	61	86
10							14	10	136	69	69	77
11							12	10	68	62	66	75
12							11	10	48	61	61	79
13							10	12	37	64	61	76
14							10	30	21	66	63	85
15							9.6	49	10	61	65	87
16							9.6	60	8.1	64	59	79
17							10	52	7.7	62	61	71
18							14	48	7.0	59	65	66
19							11	44	6.7	55	61	79
20							10	33	15	60	59	69
21							10	27	12	55	68	57
22							10	31	26	45	70	61
23							9.6	29	36	50	69	65
24							9.6	30	37	55	77	60
25							9.2	31	39	60	75	45
26							9.6	31	40	65	69	48
27							9.6	31	39	72	73	52
28							9.2	32	37	70	76	42
29							9.2	34	40	61	82	26
30							8.9	31	37	52	87	15
31							---	28	---	52	87	---
TOTAL							340.4	770.2	1027.5	1780	2106	2153
MEAN							11.3	24.8	34.2	57.4	67.9	71.8
MAX							26	60	136	72	87	101
MIN							8.1	7.7	6.7	32	52	15
AC-FT							675	1530	2040	3530	4180	4270

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 41°59'25", long 104°02'57", in SW1/4 NE1/4 SE1/4 sec.4, T.23 N., R.58 W., Scottsbluff County, NE, Hydrologic Unit 10180009, on right bank 650 ft upstream from bridge on NE State Highway 86, 700 ft downstream from Wyoming-Nebraska State line, and 0.5 mi south of Henry, NE.

DRAINAGE AREA.--22,218 mi², of which 1,929 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1929 to current year.

REVISED RECORDS.--WDR WY-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,021.35 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 6, 1929, nonrecording gage and Nov. 6, 1929, to Sept. 30, 1959, water-stage recorder at site 0.5 mi upstream at datum 4.42 ft higher. Oct. 7, 1959 to Feb. 22, 1972, water-stage recorder at site 0.5 mi upstream at datum 3.42 ft higher.

REMARKS.--Estimated daily discharges: Nov. 20, 22, 23, 27-30, Dec. 1-4, 11-15, 28, Jan. 5, and Feb. 7-14. Records fair except those for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Gering-Mitchell Canal diverts from right bank 0.8 mi upstream. U.S. Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 17,900 ft³/s, June 2, 1929, gage height, 7.04 ft, site and datum then in use; minimum daily, 13 ft³/s, May 12, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,980 ft³/s, June 13, gage height, 6.34 ft; minimum daily, 212 ft³/s, Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	698	390	248	266	284	288	1060	3140	918	5400	1650	1780
2	667	385	252	261	285	299	1090	3210	913	5520	1630	1920
3	634	381	270	259	286	306	1130	3100	876	5470	1590	1880
4	600	375	290	261	288	309	1190	3050	859	5400	1670	1870
5	582	374	301	250	290	314	1220	3030	1130	5350	1700	1760
6	569	367	287	258	290	315	1260	3110	1470	5360	1690	1770
7	560	364	280	265	274	311	1240	3050	1540	5370	1690	1660
8	551	361	276	265	268	308	1160	2730	2110	5300	1670	1570
9	543	359	281	265	260	307	1490	2670	2010	5230	1670	1480
10	544	350	279	265	250	303	1460	2410	2480	4780	1610	1390
11	554	344	270	278	240	301	1460	2190	2850	4560	1550	1330
12	585	341	262	296	212	297	1500	2140	4050	4500	1510	1380
13	628	340	248	291	222	290	1530	2360	6170	4460	1500	1400
14	608	334	252	294	248	290	1540	2540	5520	4450	1480	1430
15	558	333	256	294	270	291	1870	2580	5210	4410	1460	1430
16	524	330	260	301	279	289	2240	2600	5350	4430	1460	1400
17	506	327	261	315	296	305	2340	2340	5620	4380	1460	1340
18	493	329	261	313	304	293	2410	2110	5860	4300	1490	1330
19	477	322	261	311	300	335	2530	2020	5690	4320	1500	1420
20	439	300	261	316	303	630	2610	1810	5610	4400	1530	1380
21	401	311	265	310	288	842	2650	1550	5460	4420	1590	1320
22	399	287	269	305	288	909	2800	1430	5380	3920	1580	1250
23	393	290	266	299	293	937	3040	1260	5690	3170	1520	1260
24	394	297	265	296	298	964	3120	1120	5410	2420	1560	1270
25	389	297	266	294	294	988	3210	1010	5130	2260	1560	1300
26	382	290	267	295	291	1020	3150	967	5120	2110	1540	1310
27	379	272	268	294	285	1050	3090	893	5520	2030	1510	1340
28	390	266	253	294	280	1060	3070	863	5180	2000	1470	1320
29	396	255	264	292	---	1060	3090	827	4780	1880	1480	1330
30	388	250	276	287	---	1060	3080	777	4880	1720	1500	1440
31	386	---	278	287	---	1060	---	803	---	1690	1530	---
TOTAL	15617	9821	8293	8877	7766	17331	62630	63690	118786	125010	48350	44060
MEAN	504	327	268	286	277	559	2088	2055	3960	4033	1560	1469
MAX	698	390	301	316	304	1060	3210	3210	6170	5520	1700	1920
MIN	379	250	248	250	212	288	1060	777	859	1690	1460	1250
AC-FT	30980	19480	16450	17610	15400	34380	124200	126300	235600	248000	95900	87390
CAL YR 1985	TOTAL	325129		MEAN	891	MAX	3030	MIN	200	AC-FT	644900	
WTR YR 1986	TOTAL	530231		MEAN	1453	MAX	6170	MIN	212	AC-FT	1052000	

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 23...	0945	393	850	8.1	7.0	647	10.1	98	K27
JAN 29...	0930	295	930	7.8	4.0	658	10.2	90	340
MAY 07...	1050	3190	705	7.5	11.0	649	8.2	88	K60
JUL 16...	1230	4470	640	7.2	22.5	650	7.6	104	150

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 23...	0945	393	915	7.0	300	84	22	89	2	7.3
DEC 19...	0930	262	947	3.5	290	82	21	98	3	7.5
JAN 29...	0930	295	939	4.0	290	80	22	96	3	6.4
FEB 25...	0930	292	921	7.0	290	80	23	96	3	6.9
APR 02...	0800	1100	740	7.5	280	71	24	66	2	4.5
MAY 07...	1050	3190	730	11.0	240	60	22	62	2	3.8
JUN 11...	1015	2670	664	17.0	240	60	21	58	2	4.6

DATE	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 23...	230	220	19	0.4	22	600	0.82	638	1.40	0.05
DEC 19...	240	210	21	0.4	23	610	0.83	429	1.80	0.13
JAN 29...	230	210	21	0.4	20	590	0.81	473	1.50	0.10
FEB 25...	230	220	20	1.4	20	610	0.82	477	1.50	0.40
APR 02...	170	230	16	0.4	8.1	520	0.71	1550	0.40	0.07
MAY 07...	150	190	15	0.2	6.5	450	0.61	3870	0.20	0.13
JUN 11...	160	180	13	0.3	6.4	440	0.6	3170	0.20	0.15

06679500 NORTH PLATTE RIVER AT MITCHELL, NE

LOCATION.--Lat 41°55'38", long 103°48'48", in NE1/4 NE1/4 sec.33, T.23 N., R.56 W., Scotts Bluff County, Hydrologic Unit 10180009, on right bank of main channel 10 ft downstream from bridge on State Highway 29, and 0.5 mi south of Mitchell.

DRAINAGE AREA.--24,300 mi², approximately, of which about 22,300 mi² contributes directly to surface runoff.

PERIOD OF RECORD.--June 1901 to September 1910, May to December 1911, February 1912 to July 1913 (gage heights only), May 1916 to October 1918 (irrigation seasons only), May 1920 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67, WDR NE-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,929.3 ft above National Geodetic Vertical Datum of 1929. See WSP 1918 for history of changes prior to May 27, 1960. May 27, 1960, to Aug. 24, 1971, at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE (since Glendo project).--29 years (water years 1958-86), 884 ft³/s, 640,500 acre-ft/yr; median of yearly mean discharges, 540 ft³/s, 391,200 acre-ft/yr. Figures are unadjusted for storage or diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,500 ft³/s, June 3, 1909, gage height, 6.45 ft, datum then in use, from graph based on gage readings, from rating curve extended above 17,000 ft³/s; maximum gage height, 7.80 ft, May 29, 1984; minimum daily discharge observed, 25 ft³/s, Sept. 25-29, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,710 ft³/s, June 13, gage height, 6.70 ft; minimum daily, 447 ft³/s, Feb. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1330	735	583	573	557	534	1390	3450	792	4740	1020	1290
2	1260	726	554	560	559	546	1440	3520	795	5010	1000	1660
3	1190	724	573	550	559	551	1490	3450	696	4890	983	1740
4	1110	720	675	538	566	549	1570	3370	677	4760	1080	1760
5	1070	718	654	533	577	545	1640	3170	760	4630	1220	1740
6	1040	708	622	540	582	542	1730	2950	1180	4600	1210	1880
7	1010	708	588	545	554	538	1700	3150	1360	4670	1220	1830
8	969	708	592	537	531	545	1640	3000	1700	4670	1180	1830
9	959	718	595	547	509	538	1880	2860	2140	4740	1210	1760
10	963	721	585	550	473	522	1990	2830	3040	4670	1200	1760
11	981	723	564	559	460	515	2000	2580	3190	4290	1110	1700
12	1050	721	559	606	453	506	2010	2480	4040	3920	1050	1740
13	1040	724	572	592	447	500	2040	2500	5700	3720	993	1810
14	1040	709	581	595	468	500	2020	2660	6120	3600	960	1870
15	986	710	575	600	462	518	2160	2660	5460	3550	963	1910
16	934	696	584	611	471	531	2560	2760	5550	3610	942	1960
17	897	694	588	638	516	559	2680	2540	5740	3630	886	1890
18	873	696	587	647	630	551	2870	2380	5900	3510	880	1800
19	871	673	588	644	593	550	2890	2300	5840	3470	865	1850
20	869	640	593	657	552	700	3050	2130	5750	3470	868	1870
21	864	616	594	638	556	990	3100	1790	5510	3620	927	1850
22	855	613	594	609	546	1110	3220	1640	5270	3460	990	1740
23	839	622	594	597	551	1190	3440	1470	5490	3140	997	1720
24	820	640	586	579	559	1230	3520	1310	5510	2480	995	1730
25	825	652	585	562	559	1250	3590	1170	5280	2180	1050	1880
26	808	641	589	544	556	1270	3590	1080	5080	1870	1080	1980
27	784	625	576	550	537	1330	3510	1010	5070	1690	1070	2110
28	771	625	568	552	523	1360	3470	916	5040	1560	1010	2220
29	759	586	564	544	---	1390	3480	801	4720	1400	1020	2130
30	747	596	582	544	---	1410	3420	738	4440	1190	1040	2190
31	734	---	578	549	---	1410	---	716	---	1060	1100	---
TOTAL	29248	20388	18222	17890	14906	24780	75090	69381	117840	107800	32119	55200
MEAN	943	680	588	577	532	799	2503	2238	3928	3477	1036	1840
MAX	1330	735	675	657	630	1410	3590	3520	6120	5010	1220	2220
MIN	734	586	554	533	447	500	1390	716	677	1060	865	1290
AC-FT	58010	40440	36140	35480	29570	49150	148900	137600	233700	213800	63710	109500
CAL YR 1985	TOTAL	295512		MEAN	810	MAX	3490	MIN	176	AC-FT	586100	
WTR YR 1986	TOTAL	582864		MEAN	1597	MAX	6120	MIN	447	AC-FT	1156000	

PLATTE RIVER BASIN

06755800 CROW CREEK AT ROUNDTOP ROAD, NEAR CHEYENNE, WY

LOCATION.--Lat 41°09'30", long 104°52'44", in SW1/4 NE1/4 NW1/4 sec.27, T.14 N., R.67 W., Laramie County, Hydrologic Unit 10190009, at west edge of F. E. Warren AFB, at bridge on Roundtop Road, 1.1 mi upstream from Diamond Creek, and 3 mi northwest of Cheyenne.

DRAINAGE AREA.--2,486 mi².

PERIOD OF RECORD.--October 1985 to September 1986.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
MAY 22...	1700	455	7.3	11.5	210	66	11	15	0.5
JUN 27...	1730	388	7.0	28.0	170	50	9.8	15	0.5

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
MAY 22...	4.7	209	25	10	1.1	25	280	0.39	--	0.17
JUN 27...	4.9	176	18	8.7	0.9	27	240	0.33	--	0.21

DATE	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)
MAY 22...	455	7.3	11.5	3	180	<1	<10	<1
JUN 03...	--	--	--	--	--	--	--	--
JUN 27...	388	7.0	28.0	3	170	<1	<10	2

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY, DIS-SOLVED (UG/L AS HG)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAY 22...	22	1	66	--	<1	<1	11
JUN 03...	--	--	--	<0.1	--	--	--
JUN 27...	18	<5	27	<0.1	<1	<1	12

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP, TOTAL (UG/L)	2,4,5-T, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 16...	0800	0.47	17.0	<0.01	0.13	0.18	<0.01	<0.01	<0.01
JUL 16...	1300	0.27	21.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 20...	0900	0.25	15.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

06755800 CROW CREEK AT ROUNDTOP ROAD, NEAR CHEYENNE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	ACE-NAPHTH-ENE TOTAL (UG/L)	ACE-NAPHTH-YLENE TOTAL (UG/L)	ANTHRA-CENE TOTAL (UG/L)	BENZO A ANTHRACENE 1,2-BENZANTHRACENE TOTAL (UG/L)	BENZO-A-PYRENE TOTAL (UG/L)	BENZO B FLUOR-ANTHENE TOTAL (UG/L)	BENZOGH I PERYL-ENE 1,12-BENZOPERYLENE TOTAL (UG/L)	BENZO K FLUOR-ANTHENE TOTAL (UG/L)
MAY 22...	1700	455	7.3	11.5	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0
JUN 27...	1730	388	7.0	28.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0

DATE	N-BUTYL BENZYL PHTHALATE TOTAL (UG/L)	PARA-CHLORO-META-CRESOL TOTAL (UG/L)	CHRY-SENE TOTAL (UG/L)	DI-N-BUTYL PHTHALATE TOTAL (UG/L)	DI-N-OCTYL PHTHALATE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRA-CENE TOTAL (UG/L)	DIETHYL PHTHALATE TOTAL (UG/L)	DI-METHYL PHTHALATE TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)	FLUOR-ANTHENE TOTAL (UG/L)	FLUOR-ENE TOTAL (UG/L)	HEXA-CHLORO-BENZENE TOTAL (UG/L)
MAY 22...	<5.0	<5.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0	<5.0	<5.0
JUN 27...	<5.0	<30.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0	<5.0	<5.0

DATE	HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L)	HEXA-CHLORO-CYCLO-PENT-ADIENE TOTAL (UG/L)	HEXA-CHLORO-ETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISO-PHORONE TOTAL (UG/L)	N-NITRO-SODI-N-PROPYL-AMINE TOTAL (UG/L)	N-NITRO-SODI-PHENYL-LAMINE TOTAL (UG/L)	NAPHTH-ALENE TOTAL (UG/L)	NITRO-BENZENE TOTAL (UG/L)	N-NITRO-SODI-METHYL-LAMINE TOTAL (UG/L)	PENTA-CHLORO-PHENOL TOTAL (UG/L)	PHENAN-THRENE TOTAL (UG/L)
MAY 22...	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0	<5.0
JUN 27...	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0	<5.0

DATE	PHENOL (C6H-5OH) TOTAL (UG/L)	PYRENE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2,4-TRI-CHLORO-BENZENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	BIS (2-CHLORO-ETHOXY) METHANE TOTAL (UG/L)	BIS 2-CHLORO-ETHYL ETHER TOTAL (UG/L)	BIS (2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L)	2-CHLORO-NAPH-THALENE TOTAL (UG/L)	2-CHLORO-PHENOL TOTAL (UG/L)
MAY 22...	<6.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<6.0
JUN 27...	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

DATE	BIS(2-ETHYL-HEXYL) PHTHALATE TOTAL (UG/L)	2-NITRO-PHENOL TOTAL (UG/L)	2,4-DI-CHLORO-PHENOL TOTAL (UG/L)	2,4-DI-METHYL-PHENOL TOTAL (UG/L)	2,4-DI-NITRO-PHENOL TOTAL (UG/L)	2,4-DI-NITRO-TOLUENE TOTAL (UG/L)	2,4,6-TRI-CHLORO-PHENOL TOTAL (UG/L)	2,6-DI-NITRO-TOLUENE TOTAL (UG/L)	4-BROMO-PHENYL ETHER TOTAL (UG/L)	4-CHLORO-PHENYL ETHER TOTAL (UG/L)	4-NITRO-PHENOL TOTAL (UG/L)
MAY 22...	<5.0	<6.0	<6.0	<6.0	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0
JUN 27...	<5.0	<5.0	<5.0	<5.0	<20.0	<5.0	<20.0	<5.0	<5.0	<5.0	<30.0

PLATTE RIVER BASIN

06755950 CROW CREEK AT F.E. WARREN AFB, WY

LOCATION.--Lat 41°08'02", long 104°50'25", in NE1/4 NW1/4 SW1/4 sec.36, T.14 N., R.67 W., Laramie County, Hydrologic Unit 10190009, 1,400 ft upstream from bridge on U.S. Interstate 25, 0.2 mi southeast of Gate No. 1 of F.E. Warren AFB, and 2 mi downstream from mouth of Diamond Creek.

REMARKS.--Streamflow measured at 9th street bridge in Cheyenne.

PERIOD OF RECORD.--October 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	HARDNESS (MG/L AS CAC03)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNESIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
MAY 21...	1630	560	7.0	13.0	250	76	14	23	0.7
JUN 27...	1630	490	8.2	27.0	210	61	13	26	0.8

DATE	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CAC03)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
MAY 21...	6.2	217	53	18	0.9	18	340	0.46	--	1.20
JUN 27...	5.8	192	42	21	0.9	19	300	0.41	--	0.67

DATE	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)
MAY 21...	560	7.0	13.0	2	170	<1	<10	2
JUN 03...	--	--	--	--	--	--	--	--
JUN 27...	490	8.2	27.0	3	150	<1	<10	5

DATE	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	MANGANESE, DIS-SOLVED (UG/L AS MN)	MERCURY DIS-SOLVED (UG/L AS HG)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAY 21...	39	<1	63	--	<1	1	14
JUN 03...	--	--	--	<0.1	--	--	--
JUN 27...	12	<5	37	<0.1	1	<1	12

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS)	TEMPERATURE (DEG C)	DICAMBA (MED-IBEN) (BAN-VEL D) TOTAL (UG/L)	PICLO-RAM (TOR-DON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP, TOTAL (UG/L)	2,4,5-T, TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY 30...	1300	3.1	18.0	<0.01	0.09	<0.01	<0.01	<0.01	<0.01
JUN 16...	0830	2.3	16.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
JUL 16...	1400	2.0	23.0	0.02	0.04	0.05	<0.01	<0.01	<0.01
AUG 20...	1000	2.0	15.5	<0.01	0.11	0.03	<0.01	<0.01	<0.01
SEP 30...	1430	1.5	15.0	<0.01	0.11	<0.01	<0.01	<0.01	<0.01

06755950 CROW CREEK AT F.E. WARREN AFB, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)	ACE-NAPHTH-ENE TOTAL (UG/L)	ACE-NAPHTH-YLENE TOTAL (UG/L)	ANTHRA-CENE TOTAL (UG/L)	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (UG/L)	BENZO-A-PYRENE TOTAL (UG/L)	BENZO B FLUOR-ANTHENE TOTAL (UG/L)	BENZOGH I PERYLENE1,12-BENZOPERYLENE TOTAL (UG/L)	BENZO K FLUOR-ANTHENE TOTAL (UG/L)	
MAY 21...	1630	560	7.0	13.0	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	
JUN 27...	1630	490	8.2	27.0	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	
DATE		N-BUTYL BENZYL PHTHAL-ATE TOTAL (UG/L)	PARA-CHLORO-META CRESOL TOTAL (UG/L)	CHRY-SENE TOTAL (UG/L)	DI-N-BUTYL PHTHAL-ATE TOTAL (UG/L)	DI-N-OCTYL PHTHAL-ATE TOTAL (UG/L)	1,2,5,6-DIBENZ-ANTHRA-CENE TOTAL (UG/L)	DIETHYL PHTHAL-ATE TOTAL (UG/L)	DI-METHYL PHTHAL-ATE TOTAL (UG/L)	4,6-DINITRO-ORTHO-CRESOL TOTAL (UG/L)	FLUOR-ANTHENE TOTAL (UG/L)	FLUOR-ENE TOTAL (UG/L)	HEXA-CHLORO-BENZENE TOTAL (UG/L)
MAY 21...		<5.0	<5.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0	<5.0	<5.0
JUN 27...		<5.0	<30.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0	<5.0	<5.0
DATE		HEXA-CHLORO-BUT-ADIENE TOTAL (UG/L)	HEXA-CHLORO-CYCLO-PENT-ADIENE TOTAL (UG/L)	HEXA-CHLORO-ETHANE TOTAL (UG/L)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L)	ISO-PHORONE TOTAL (UG/L)	N-NITRO-SODI-N-PROPYL-AMINE TOTAL (UG/L)	N-NITRO-SODI-PHENY-LAMINE TOTAL (UG/L)	NAPHTH-ALENE TOTAL (UG/L)	NITRO-BENZENE TOTAL (UG/L)	N-NITRO-SODI-METHY-LAMINE TOTAL (UG/L)	PENTA-CHLORO-PHENOL TOTAL (UG/L)	PHENAN-THRENE TOTAL (UG/L)
MAY 21...		<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0	<5.0
JUN 27...		<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0	<5.0
DATE		PHENOL (C6H-5OH) TOTAL (UG/L)	PYRENE TOTAL (UG/L)	1,2-DI-CHLORO-BENZENE TOTAL (UG/L)	1,2,4-TRI-CHLORO-BENZENE TOTAL (UG/L)	1,3-DI-CHLORO-BENZENE TOTAL (UG/L)	1,4-DI-CHLORO-BENZENE TOTAL (UG/L)	BIS (2-CHLORO-ETHOXY) METHANE TOTAL (UG/L)	BIS 2-CHLORO-ETHYL ETHER TOTAL (UG/L)	BIS (2-CHLORO-ISO-PROPYL) ETHER TOTAL (UG/L)	2-CHLORO-NAPH-THALENE TOTAL (UG/L)	2-CHLORO-PHENOL TOTAL (UG/L)	
MAY 21...		<6.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<6.0	
JUN 27...		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
DATE		BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (UG/L)	2-NITRO-PHENOL TOTAL (UG/L)	2,4-DI-CHLORO-PHENOL TOTAL (UG/L)	2,4-DI-METHYL-PHENOL TOTAL (UG/L)	2,4-DI-NITRO-PHENOL TOTAL (UG/L)	2,4-DI-NITRO-TOLUENE TOTAL (UG/L)	2,4,6-TRI-CHLORO-PHENOL TOTAL (UG/L)	2,6-DI-NITRO-TOLUENE TOTAL (UG/L)	4-BROMO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (UG/L)	4-NITRO-PHENOL TOTAL (UG/L)	
MAY 21...		<5.0	<6.0	<6.0	<6.0	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0	
JUN 27...		<5.0	<5.0	<5.0	<5.0	<20.0	<5.0	<20.0	<5.0	<5.0	<5.0	<30.0	

PLATTE RIVER BASIN

06756000 CROW CREEK NEAR CHEYENNE, WY

LOCATION.--Lat 41°07'09", long 104°45'33", in NW1/4 SW1/4 SE1/4 sec.3, T. 13 N., R.66 W., Laramie County, Hydrologic Unit 10190009, 400 ft downstream from Cheyenne Sewage Disposal Plant outlet, 1.3 mi upstream from Wyoming Hereford Ranch Reservoir No. 1, and 3.4 mi southwest of State Capitol Building in Cheyenne.

DRAINAGE AREA.--297 mi².

REMARKS.--Streamflow measured at 9th Street bridge in Cheyenne, and sample collected 1.7 mi upstream on College Drive.

PERIOD OF RECORD.--October 1982 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
MAY 30...	1500	3.1	18.0	0.05	<0.01	0.66	<0.01	<0.01	<0.01
JUN 16...	1000	2.3	17.0	<0.01	0.05	0.33	<0.01	<0.01	<0.01
JUL 16...	1500	2.0	23.5	0.37	<0.01	1.7	<0.01	<0.01	<0.01
AUG 20...	1100	2.0	16.0	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
SEP 30...	1300	1.5	15.0	0.04	0.04	0.54	<0.01	<0.01	<0.01

GREEN RIVER BASIN

09188500 GREEN RIVER AT WARREN BRIDGE, NEAR DANIEL, WY

LOCATION.--Lat 43°01'08", long 110°07'03", in SE1/4 SE1/4 NE1/4 sec.8, T.35 N., R.111 W., Sublette County, Hydrologic Unit 14040101, on right bank 100 ft upstream from bridge on U.S. Highways 189 and 191, 3.4 mi upstream from Beaver Creek, and 12 mi north of Daniel.

DRAINAGE AREA.--468 mi².

PERIOD OF RECORD.--October 1931 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 979: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 7,468.09 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 6, 1977, on left bank at same datum.

REMARKS.--Estimated daily discharges: Nov. 21 to Apr. 17. Records good except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 10,200 acres, of which about 6,100 acres are downstream from station.

AVERAGE DISCHARGE.--55 years, 514 ft³/s, 372,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,490 ft³/s, June 6, 1986, gage height, 5.65 ft; maximum gage height, 5.77 ft, June 9, 1972; minimum discharge recorded, 31 ft³/s, Nov. 26, 1933, gage height, 0.70 ft, from rating curve extended below 120 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,490 ft³/s, June 6, gage height, 5.65 ft; minimum daily, 94 ft³/s, Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	243	220	190	120	120	190	170	597	4140	2890	869	545
2	241	205	200	110	120	200	170	792	4440	2660	831	527
3	234	217	210	110	120	200	170	1190	4800	2400	823	502
4	221	214	210	100	110	200	170	1500	5180	2320	845	461
5	211	208	200	98	110	190	180	1260	5360	2390	851	419
6	208	214	190	100	110	180	190	1050	5450	2340	804	390
7	219	201	190	100	110	180	200	980	5390	2070	767	376
8	240	174	200	100	100	180	220	881	5020	1770	753	374
9	230	154	200	100	94	170	240	778	4660	1640	764	376
10	223	122	200	100	110	170	250	709	4030	1590	777	392
11	218	227	180	100	110	170	250	698	3510	1620	752	398
12	243	269	160	100	110	160	250	658	3250	1500	711	392
13	247	196	170	98	110	160	250	649	3250	1360	686	369
14	232	205	180	96	120	160	240	756	3260	1280	676	343
15	227	240	180	100	120	150	250	738	3350	1350	649	336
16	230	235	170	110	130	150	260	752	3530	1530	616	318
17	224	218	160	110	130	140	270	722	3740	1760	596	293
18	224	220	150	120	140	140	281	769	4090	1750	588	267
19	214	203	140	120	140	140	274	933	3940	1570	581	270
20	212	173	140	110	160	140	289	1190	3690	1390	601	272
21	208	170	140	110	170	130	367	1600	3490	1260	626	256
22	210	170	130	100	180	130	500	1920	3300	1240	648	248
23	224	160	130	110	190	130	693	1630	3100	1230	651	240
24	230	170	120	110	200	130	922	1530	2920	1220	669	242
25	246	190	120	110	210	140	868	1650	2900	1250	632	266
26	246	200	110	110	220	140	720	2000	2890	1220	611	260
27	245	210	110	110	210	150	614	2420	2900	1180	604	256
28	242	210	110	120	200	160	563	2760	2910	1120	590	256
29	242	210	110	120	---	160	568	3100	2940	1030	568	251
30	232	200	110	130	---	180	551	3480	2960	971	555	244
31	226	---	110	120	---	180	---	3830	---	927	547	---
TOTAL	7092	6005	4920	3352	3954	5000	10940	43522	114390	49828	21241	10139
MEAN	229	200	159	108	141	161	365	1404	3813	1607	685	338
MAX	247	269	210	130	220	200	922	3830	5450	2890	869	545
MIN	208	122	110	96	94	130	170	597	2890	927	547	240
AC-FT	14070	11910	9760	6650	7840	9920	21700	86330	226900	98830	42130	20110
CAL YR 1985	TOTAL	146150		MEAN	400	MAX	1930	MIN	80	AC-FT	289900	
WTR YR 1986	TOTAL	280383		MEAN	768	MAX	5450	MIN	94	AC-FT	556100	

GREEN RIVER BASIN

09192600 GREEN RIVER NEAR BIG PINEY, WY

LOCATION.--Lat 42°34'14", long 109°56'58", in NE1/4 NE1/4 NE1/4 sec.21, T.30 N., R.110 W., Sublette County, Hydrologic Unit 14040101, at bridge on State Secondary Highway 1801, 1.9 mi upstream from New Fork River, 8.4 mi northeast of Big Piney, and 16.2 mi southwest of Boulder.

DRAINAGE AREA.--1,260 mi², approximately.

PERIOD OF RECORD.--Water years 1968 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
NOV 19...	1500	265	551	0.5	270	74	20	14	0.4	1.5
MAR 24...	1615	670	494	1.0	250	67	19	12	0.3	1.1
MAY 06...	1500	3020	387	8.0	190	53	13	5.6	0.2	1.4
JUL 11...	1000	2050	363	14.5	170	46	13	8.4	0.3	0.8

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
NOV 19...	180	110	2.7	0.1	6.6	340	0.46	241	0.00	0.07
MAR 24...	170	92	2.7	0.6	5.9	300	0.41	547	0.10	0.11
MAY 06...	160	30	2.7	0.1	7.4	210	0.28	1710	0.10	0.23
JUL 11...	150	31	1.7	0.2	5.3	200	0.27	1090	0.00	0.04

09196500 PINE CREEK ABOVE FREMONT LAKE, WY

LOCATION.--Lat 43°01'50", long 109°46'10", in S1/2 sec.5, T.35 N., R.108 W., Sublette County, Hydrologic Unit 14040102, Bridger National Forest, on right bank 0.5 mi upstream from Fremont Lake, 0.5 mi downstream from Fremont Creek, and 12 mi northeast of Pinedale.

DRAINAGE AREA.--75.8 mi².

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

REVISED RECORDS.--WSP 1443: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,450 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 19, 20, 22, 23, 26, Nov. 30 to Dec. 1, Dec. 4, 5, 10-12, 26, Jan. 14, 21, 25, Feb. 4-6, 8, 10, 11, 23, Mar. 13, 15, 16, 18, 19, 21, and Apr. 14. Records good. No diversion upstream from station.

AVERAGE DISCHARGE.--32 years, 181 ft³/s, 131,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,550 ft³/s, June 16, 1959, gage height, 7.15 ft; maximum gage height, 7.65 ft, June 6, 1986; minimum daily discharge, 3.3 ft³/s, Apr. 4, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 6	0100	*2,070	*7.65	July 17	0600	888	5.67
June 17	0300	2,040	7.61				

Minimum daily discharge, 15 ft³/s, Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	69	50	18	18	53	51	63	1410	1190	297	147
2	86	68	49	19	18	50	48	77	1640	1090	290	141
3	84	66	49	19	18	47	44	115	1770	1130	287	134
4	78	64	49	19	18	45	43	156	1840	1250	289	127
5	75	65	48	19	17	43	42	147	1820	1250	275	120
6	73	61	48	18	17	41	45	127	1870	896	257	111
7	77	62	46	18	18	39	52	121	1670	755	246	103
8	76	72	44	18	17	39	55	111	1500	788	242	99
9	74	72	44	17	17	39	56	104	1210	832	236	100
10	71	72	44	17	15	37	55	94	1060	915	229	103
11	72	73	43	17	16	36	55	88	1180	714	213	101
12	73	72	42	17	17	35	53	81	1330	640	203	99
13	72	73	41	16	17	34	53	77	1340	598	199	98
14	71	74	37	16	18	34	52	78	1500	626	196	96
15	70	70	36	16	19	33	47	75	1580	739	188	92
16	69	67	35	16	20	30	47	74	1680	836	179	89
17	67	65	33	16	18	27	45	71	1780	849	173	85
18	66	67	31	17	19	26	43	73	1680	730	170	81
19	64	66	30	17	24	25	41	91	1460	617	167	79
20	64	66	28	17	28	24	42	147	1550	535	168	74
21	63	64	27	17	31	24	55	227	1450	473	172	68
22	65	64	25	17	34	23	79	240	1300	452	183	63
23	68	62	24	17	40	25	117	183	1240	460	205	60
24	76	60	23	17	44	26	109	173	1280	497	200	61
25	76	55	22	17	56	26	97	222	1290	503	184	61
26	74	53	21	17	61	28	87	343	1200	527	176	57
27	74	53	21	17	61	26	78	498	1340	445	174	56
28	74	52	20	17	57	31	73	641	1440	380	172	57
29	74	52	20	16	---	39	69	882	1480	362	165	56
30	74	50	20	16	---	47	65	1060	1380	344	157	56
31	73	---	18	17	---	55	---	1200	---	314	153	---
TOTAL	2262	1929	1068	532	753	1087	1798	7639	44270	21737	6445	2674
MEAN	73.0	64.3	34.5	17.2	26.9	35.1	59.9	246	1476	701	208	89.1
MAX	89	74	50	19	61	55	117	1200	1870	1250	297	147
MIN	63	50	18	16	15	23	41	63	1060	314	153	56
AC-FT	4490	3830	2120	1060	1490	2160	3570	15150	87810	43120	12780	5300
CAL YR 1985	TOTAL	53763	MEAN	147	MAX	1480	MIN	12	AC-FT	106600		
WTR YR 1986	TOTAL	92194	MEAN	253	MAX	1870	MIN	15	AC-FT	182900		

GREEN RIVER BASIN

09196940 FREMONT DITCH NEAR PINEDALE, WY

LOCATION.--Lat 42°53'41", long 109°51'10", in NE1/4 NE1/4 NW1/4 sec.27, T.34 N., R.109 W., Sublette County, Hydrologic Unit 14040102, on right bank 1.1 mi downstream from headgate on Pine Creek and 1.5 mi northeast of Pinedale.

PERIOD OF RECORD.--April 1985 to September 1986 (irrigation seasons only, discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 7,400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 1 to May 4 and Sept. 15-30. Records fair except those for estimated daily discharges, which are poor. Ditch diverts water from right bank of Pine Creek for irrigation downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31 ft³/s, July 16, 1986, gage height, 2.30 ft; no flow for several days during period of operation each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 31 ft³/s, July 16, gage height, 2.30 ft; no flow for several days during period of operation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							.00	.25	.92	27	.66	3.5
2							.00	.35	6.3	27	.66	3.3
3							.00	.60	15	27	.66	2.2
4							.00	.90	15	27	.60	1.2
5							.00	.92	15	27	.60	.61
6							.00	.98	15	27	.60	.34
7							.00	1.2	15	26	.60	.16
8							.00	1.6	15	25	.60	.25
9							.00	1.8	15	25	.60	.53
10							.00	1.6	15	24	.60	.54
11							.00	1.4	15	24	.60	.45
12							.00	1.1	15	27	.57	.36
13							.00	.86	21	30	.54	.33
14							.00	.81	27	30	.54	.31
15							.00	.73	27	30	.54	.30
16							.00	.66	28	30	.54	.30
17							.00	.63	28	30	.48	.30
18							.00	.57	28	30	.36	.30
19							.00	.51	28	30	.16	.30
20							.00	.48	28	29	.00	.30
21							.00	.60	28	28	.00	.30
22							.00	4.2	28	28	.00	.50
23							.00	11	28	27	.00	.75
24							.00	10	28	27	.23	1.0
25							.00	10	27	27	.27	1.0
26							.00	10	27	28	1.9	1.0
27							.00	11	27	17	4.0	1.0
28							.00	9.5	27	.70	3.8	.62
29							.00	3.1	27	.70	3.8	.25
30							.00	6.7	27	.70	3.5	.00
31							---	10	---	.70	3.6	---
TOTAL							.00	104.05	646.22	736.80	31.61	22.30
MEAN							.00	3.36	21.5	23.8	1.02	.74
MAX							.00	11	28	30	4.0	3.5
MIN							.00	.25	.92	.70	.00	.00
AC-FT							.00	206	1280	1460	63	44

09196960 HIGHLAND DITCH NEAR PINEDALE, WY

LOCATION.--Lat 42°53'56", long 109°50'18", in NW1/4 SW1/4 SW1/4 sec.23, T.34 N., R.109 W., Sublette County, Hydrologic Unit 14040102, on left bank 60 ft downstream from headgate on Pine Creek and 2.2 mi northeast of Pinedale.

PERIOD OF RECORD.--April 1985 to September 1986 (no winter records, discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 7,410 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 1 to May 4. Records good except those for estimated daily discharges, which are poor. Ditch diverts water from left bank of Pine Creek for irrigation. Result of discharge measurement, in cubic feet per second, made during the period when station was not in operation, is given below:

Oct. 8 . . 14.2

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 241 ft³/s, June 4, 1986, gage height, 4.40 ft; no flow Apr. 1-21, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 241 ft³/s, June 4, gage height, 4.40 ft; no flow Apr. 1-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							.00	.15	178	197	24	40
2							.00	.15	215	193	24	38
3							.00	.15	231	191	24	37
4							.00	.15	224	191	23	36
5							.00	.18	217	192	23	35
6							.00	.22	221	193	23	33
7							.00	.26	222	176	30	32
8							.00	.27	222	159	40	31
9							.00	.28	219	157	40	31
10							.00	.28	213	156	40	31
11							.00	.28	214	148	42	32
12							.00	.27	215	137	39	32
13							.00	.25	215	133	38	31
14							.00	.25	216	94	38	30
15							.00	.24	219	73	37	29
16							.00	.23	221	74	37	28
17							.00	.23	224	75	36	27
18							.00	.23	218	75	35	26
19							.00	.23	206	74	34	25
20							.00	.23	197	73	34	24
21							.00	.24	195	45	34	25
22							.10	.22	193	27	34	25
23							.15	.21	195	26	35	24
24							.15	.22	192	26	35	25
25							.15	.23	192	26	36	26
26							.15	37	195	26	41	25
27							.15	55	194	26	43	25
28							.15	69	196	26	43	25
29							.15	126	198	25	42	24
30							.15	148	199	25	41	23
31							---	167	---	25	41	---
TOTAL							1.30	607.65	6256	3064	1086	875
MEAN							.04	19.6	209	98.8	35.0	29.2
MAX							.15	167	231	197	43	40
MIN							.00	.15	178	25	23	23
AC-FT							2.6	1210	12410	6080	2150	1740

09197000 PINE CREEK BELOW FREMONT LAKE, WY

LOCATION.--Lat 42°53'42", long 109°50'35", in NE1/4 NE1/4 NE1/4 sec.27, T.34 N., R.109 W., Sublette County, Hydrologic Unit 14040102, on left bank at Lot Number 93, 0.9 mi downstream from Fremont Lake, and 2.1 mi northeast of Pinedale.

DRAINAGE AREA.--114 mi².

PERIOD OF RECORD.--October 1910 to September 1912, October 1915 to September 1918, April 1985 to September 1986 (no winter records since 1918, discontinued). Published as "near Pinedale" prior to October 1912 and as "at Fremont Lake outlet" October 1915 to September 1918. Records since April 1985 equivalent to earlier records if diversions to Highland Ditch (station 09196960) is added to flow past station.

GAGE.--Water-stage recorder. Elevation of gage is 7,390 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to September 30, 1918, nonrecording gage at site 0.2 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Some regulation by Fremont Lake. Fremont Ditch (station 09196940) and Highland Ditch (station 09196960) divert water upstream from station for irrigation downstream from station. Results of discharge measurements, in cubic feet per second, made during period when station was not in operation, are given below:

Oct. 8 . .	52.2
Mar. 5 . .	77.1
Mar. 25 . .	50.4

AVERAGE DISCHARGE.--5 years (water years 1910-12, 1915-18), 195 ft³/s, 141,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 2,330 ft³/s, June 17, 18, 1918; minimum daily, 26 ft³/s, Sept. 5, 7, 8, 10, 11, 17, 18, 1985 (minimum daily not determined for record prior to September 1918).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft³/s, June 7, gage height, 4.11 ft; minimum daily during period of operation, 44 ft³/s, Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							57	139	701	1070	338	121
2							59	133	871	1000	321	114
3							58	134	1050	947	309	108
4							58	149	1230	931	289	105
5							59	169	1350	951	280	103
6							60	179	1410	892	271	96
7							63	199	1460	804	251	92
8							70	207	1430	731	230	87
9							77	211	1350	688	223	86
10							82	200	1200	672	218	87
11							83	189	1100	644	204	80
12							85	177	1080	591	194	74
13							87	165	1070	542	181	71
14							88	156	1100	534	176	69
15							86	151	1160	544	168	67
16							85	143	1210	576	163	64
17							85	141	1300	614	157	62
18							84	137	1360	611	153	60
19							83	139	1310	584	148	58
20							79	139	1300	543	142	55
21							80	154	1280	519	145	51
22							86	174	1230	490	145	48
23							114	180	1160	457	149	48
24							134	188	1110	437	151	49
25							145	199	1080	441	152	49
26							151	193	1030	450	143	48
27							151	216	1020	450	134	48
28							151	274	1050	434	132	46
29							146	326	1090	404	130	44
30							144	429	1110	382	126	44
31							---	552	---	361	125	---
TOTAL							2790	6142	35202	19294	5948	2134
MEAN							93.0	198	1173	622	192	71.1
MAX							151	552	1460	1070	338	121
MIN							57	133	701	361	125	44
AC-FT							5530	12180	69820	38270	11800	4230

09203000 EAST FORK RIVER NEAR BIG SANDY, WY

LOCATION.--Lat 42°40', long 109°25', in sec.7, T.31 N., R.105 W., Sublette County, Hydrologic Unit 14040102, on left bank 1.0 mi downstream from Jim Creek and 4.0 mi northeast of Big Sandy.

DRAINAGE AREA.--79.2 mi².

PERIOD OF RECORD.--October 1938 to current year. Prior to October 1967, published as East Fork near Big Sandy. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Elevation of gage is 7,800 ft above National Geodetic Vertical Datum of 1929, by barometer.

REMARKS.--Estimated daily discharges: Nov. 12 to Feb. 18, Feb. 22 to Mar. 14, Mar. 26 to Apr. 3, and Apr. 8, 14. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--48 years, 106 ft³/s, 76,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,330 ft³/s, June 2, 1986, gage height, 7.00 ft; maximum gage height, 7.16 ft, June 11, 1965; minimum discharge observed, 1.2 ft³/s, Jan. 4, 1940, Jan. 25, 1977 (discharge measurements).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 2	0300	*2,330	*7.00	June 16	0500	1,680	6.32

Minimum daily discharge, 10 ft³/s, Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	35	23	13	14	30	41	89	1930	511	91	32
2	26	38	23	13	15	30	38	108	2120	441	86	30
3	25	34	24	14	15	30	37	158	1920	436	84	28
4	23	30	24	14	14	33	36	221	1830	496	81	26
5	22	35	23	14	14	35	36	213	1750	527	77	25
6	21	27	23	15	13	38	40	202	1750	327	74	23
7	26	27	23	15	13	40	48	187	1630	273	69	23
8	29	28	22	15	12	37	49	165	1320	317	70	22
9	28	25	21	15	11	35	50	148	1080	298	68	22
10	24	21	19	15	10	32	52	134	887	297	65	29
11	27	26	16	15	11	30	56	127	1040	235	62	29
12	29	30	16	14	11	29	57	118	1270	215	59	26
13	24	31	17	14	11	28	55	118	1350	197	55	23
14	26	31	18	14	12	27	54	123	1400	201	52	23
15	28	30	18	14	13	26	52	121	1370	213	49	21
16	25	30	18	14	14	24	51	123	1440	229	46	20
17	25	29	18	13	14	22	48	116	1380	248	44	19
18	25	29	18	14	13	20	48	126	1270	218	44	19
19	25	28	18	14	13	20	46	159	1030	193	43	19
20	24	28	17	14	13	20	52	263	1060	170	46	19
21	24	28	17	14	15	20	77	376	934	152	57	19
22	28	28	16	13	16	19	115	437	852	147	57	18
23	29	27	16	13	19	23	174	391	772	154	50	17
24	32	26	15	13	22	25	161	406	752	144	53	19
25	44	26	15	14	27	31	134	514	709	133	50	26
26	44	28	15	14	35	40	121	685	652	131	51	25
27	41	28	14	14	35	45	112	874	702	138	47	24
28	43	28	14	13	32	50	103	1110	720	122	42	26
29	42	27	14	13	---	50	93	1330	651	113	39	24
30	41	26	14	13	---	50	88	1610	610	104	37	27
31	41	---	14	13	---	46	---	1740	---	96	36	---
TOTAL	919	864	563	430	457	985	2124	12492	36181	7476	1784	703
MEAN	29.6	28.8	18.2	13.9	16.3	31.8	70.8	403	1206	241	57.5	23.4
MAX	44	38	24	15	35	50	174	1740	2120	527	91	32
MIN	21	21	14	13	10	19	36	89	610	96	36	17
AC-FT	1820	1710	1120	853	906	1950	4210	24780	71770	14830	3540	1390
CAL YR 1985	TOTAL	34282.4		MEAN	93.9	MAX	815	MIN	8.0	AC-FT	68000	
WTR YR 1986	TOTAL	64978		MEAN	178	MAX	2120	MIN	10	AC-FT	128900	

09205000 NEW FORK RIVER NEAR BIG PINEY, WY

LOCATION.--Lat 42°34'02", long 109°55'46", in SE1/4 NE1/4 NE1/4 sec.22, T.30 N., R.110 W., Sublette County, Hydrologic Unit 14040102, on right bank 350 ft downstream from old highway bridge, 3.4 mi upstream from mouth, and 9.5 mi northeast of Big Piney.

DRAINAGE AREA.--1,230 mi², approximately.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 6,800 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 18 to Mar. 22. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, power development, and diversions for irrigation of about 62,100 acres upstream from station.

AVERAGE DISCHARGE.--32 years, 761 ft³/s, 551,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,190 ft³/s, June 7, 1986, gage height, 8.28 ft; minimum daily, 90 ft³/s, Jan. 13, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,190 ft³/s, June 7, gage height, 8.28 ft; minimum daily, 180 ft³/s, Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	344	342	270	300	220	370	816	827	5450	4800	1540	579
2	342	334	260	300	230	380	767	811	6420	4490	1460	555
3	338	363	250	290	220	380	754	817	7580	4120	1380	537
4	325	375	260	280	210	380	780	887	8650	3900	1370	513
5	326	372	270	260	200	380	804	1040	8890	3890	1340	506
6	318	360	300	260	200	390	823	1090	8870	3980	1250	492
7	323	357	320	260	200	390	899	1130	9110	3710	1180	489
8	331	360	330	260	200	390	833	1220	9030	3600	1070	513
9	338	360	340	260	190	400	844	1250	8620	3450	898	529
10	339	325	350	250	180	400	861	1240	8140	3320	866	577
11	340	398	340	240	190	400	870	1180	7210	3190	823	556
12	337	417	330	230	210	400	894	1080	6490	2900	811	523
13	337	430	300	220	230	400	935	975	6400	2680	749	500
14	346	428	290	210	240	410	853	928	6940	2450	722	471
15	337	435	300	220	250	420	805	1020	7300	2360	702	449
16	328	353	320	230	260	430	827	979	7580	2580	677	419
17	326	364	330	240	270	440	850	970	7900	3040	679	392
18	323	350	340	250	280	450	759	1040	8240	3110	657	388
19	327	330	340	240	290	450	694	1030	8090	2800	628	407
20	320	300	330	230	300	450	695	1030	7620	2550	637	399
21	318	280	320	220	300	500	776	1090	7170	2350	722	381
22	321	250	320	210	310	560	829	1220	6790	2190	714	375
23	330	210	310	210	320	669	950	1330	6340	2090	684	366
24	340	220	300	200	320	684	1130	1370	6020	2010	737	374
25	350	230	290	200	330	705	1100	1360	5740	1970	699	429
26	342	240	290	200	340	669	1070	1540	5450	1980	706	436
27	354	250	290	190	350	662	1010	1750	5180	2060	686	420
28	348	260	280	200	360	682	952	2180	4920	1980	650	431
29	346	260	290	200	---	738	911	2680	4910	1830	625	425
30	345	270	290	210	---	808	880	3410	4890	1720	603	423
31	348	---	300	220	---	904	---	4410	---	1630	598	---
TOTAL	10387	9823	9450	7290	7200	15691	25971	42884	211940	88730	26863	13854
MEAN	335	327	305	235	257	506	866	1383	7065	2862	867	462
MAX	354	435	350	300	360	904	1130	4410	9110	4800	1540	579
MIN	318	210	250	190	180	370	694	811	4890	1630	598	366
AC-FT	20600	19480	18740	14460	14280	31120	51510	85060	420400	176000	53280	27480
CAL YR 1985	TOTAL	225944		MEAN	619	MAX	2900	MIN	150	AC-FT	448200	
WTR YR 1986	TOTAL	470083		MEAN	1288	MAX	9110	MIN	180	AC-FT	932400	

09205000 NEW FORK RIVER NEAR BIG PINEY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to July 1986 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1965 to September 1969.

WATER TEMPERATURES: October 1965 to September 1969.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 28...	1455	339	206	7.5	94	28	5.8	7.9	0.4	1.5
DEC 18...	1820	338	198	0.0	79	24	4.7	8.1	0.4	2.0
MAR 24...	1505	684	131	3.0	59	18	3.3	5.7	0.3	1.1
JUN 05...	1230	8980	75	13.5	26	7.7	1.6	3.0	0.3	1.4

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 28...	91	12	2.1	0.1	7.7	120	0.16	110	0.00	0.01
DEC 18...	85	9.6	1.9	0.1	8.6	110	0.15	100	0.10	0.15
MAR 24...	56	9.0	1.0	0.1	5.9	78	0.11	143	0.00	0.06
JUN 05...	31	3.2	1.6	0.1	4.3	41	0.06	1010	0.60	0.04

09209400 GREEN RIVER NEAR LA BARGE, WY

LOCATION.--Lat 42°11'34", long 110°09'45", in SE1/4 SE1/4 NW1/4 sec.33, T.26 N., R.112 W., Lincoln County, Hydrologic Unit 14040101, on right bank 1.7 mi upstream from high-water line of Fontenelle Reservoir at elevation 6,513 ft, 4.0 mi upstream from Muddy Creek, and 5.0 mi south of La Barge.

DRAINAGE AREA.--3,910 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year. Records are equivalent to those published August 1946 to March 1965 as Green River near Fontenelle (station 09209500).

GAGE.--Water-stage recorder. Elevation of gage is 6,520 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 16 to Mar. 11 and June 2, 3. Records good except those for estimated discharge, which are poor. Natural flow of stream affected by storage reservoirs and diversions for irrigation of about 198,000 acres upstream from station.

AVERAGE DISCHARGE.--40 years (water years 1947-86), 1,693 ft³/s, 1,227,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,800 ft³/s, June 9, 1986, gage height, 10.50 ft; minimum daily, 188 ft³/s, May 17, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,800 ft³/s, June 9, gage height, 10.50 ft; minimum daily, 420 ft³/s, Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	807	800	520	580	620	1000	2290	2820	10500	9240	3310	1480
2	807	798	500	580	620	1000	2140	2850	12200	8830	3090	1440
3	806	806	500	560	600	1050	2070	3220	13700	8110	2960	1350
4	795	832	500	550	580	1100	2060	3920	15500	7510	2880	1270
5	784	824	520	530	530	1150	2110	4840	16800	7410	2840	1200
6	784	814	530	520	520	1200	2140	4590	17600	7430	2750	1140
7	761	815	540	520	520	1250	2260	4200	18100	7210	2630	1100
8	795	829	560	520	520	1320	2410	4340	18600	7030	2560	1100
9	830	845	560	520	470	1400	2380	4400	18800	6750	2340	1150
10	878	781	570	520	420	1450	2420	4180	18600	6330	2220	1340
11	818	854	520	520	450	1350	2350	3890	17500	6000	2140	1440
12	772	941	470	500	500	1300	2480	3630	15700	5540	2070	1330
13	807	1090	450	500	530	1440	2620	3200	14300	5070	1950	1210
14	866	1020	490	500	570	1420	2600	3090	14200	4640	1860	1140
15	830	965	520	510	600	1500	2270	3130	14500	4410	1800	1090
16	807	850	540	540	620	1450	2260	3110	14700	4750	1720	1040
17	807	750	540	580	640	1460	2400	3070	15000	5740	1660	986
18	807	700	560	610	670	1390	2270	3130	15500	6170	1600	956
19	795	650	570	610	690	1290	2070	3220	15700	5620	1510	949
20	818	550	570	600	710	1330	2010	3530	15400	5010	1420	948
21	842	500	560	580	730	1380	2190	4260	14600	4640	1630	941
22	854	480	550	560	750	1350	2790	4880	13800	4350	1780	920
23	878	460	550	560	800	1500	3380	5650	12900	4200	1730	902
24	878	450	540	560	900	1590	4300	5030	12000	4140	1740	906
25	830	480	540	560	1000	1650	4770	4760	11200	4130	1760	977
26	830	520	540	560	1100	1540	4480	4910	10700	4240	1720	1080
27	854	550	540	560	1150	1590	3870	5460	10200	4350	1720	1090
28	854	550	540	570	1100	1800	3310	6170	9710	4330	1630	1080
29	830	550	550	600	---	1860	3070	7030	9500	3980	1540	1100
30	820	550	560	610	---	2100	2990	7870	9410	3700	1480	1090
31	816	---	580	620	---	2420	---	9250	---	3490	1500	---
TOTAL	25460	21604	16580	17210	18910	44630	80760	137630	426920	174350	63540	33745
MEAN	821	720	535	555	675	1440	2692	4440	14230	5624	2050	1125
MAX	878	1090	580	620	1150	2420	4770	9250	18800	9240	3310	1480
MIN	761	450	450	500	420	1000	2010	2820	9410	3490	1420	902
AC-FT	50500	42850	32890	34140	37510	88520	160200	273000	846800	345800	126000	66930
CAL YR 1985	TOTAL	473624		MEAN	1298	MAX	5240	MIN	380	AC-FT	939400	
WTR YR 1986	TOTAL	1061339		MEAN	2908	MAX	18800	MIN	420	AC-FT	2105000	

09209400 GREEN RIVER NEAR LA BARGE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1964 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1963 to September 1976.

WATER TEMPERATURES: October 1963 to September 1976.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 25...	1045	804	410	5.0	190	51	14	17	0.6	1.3
DEC 19...	1340	571	429	0.0	190	53	15	16	0.5	1.5
JUN 03...	2000	14500	258	16.5	120	33	9.8	6.9	0.3	1.7

DATE	TIME	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 25...	140		70	0.8	0.2	6.5	240	0.33	531	0.00	0.01
DEC 19...	150		63	4.5	0.2	8.4	250	0.34	388	0.10	0.25
JUN 03...	120		25	2.0	0.1	6.4	160	0.21	6140	0.10	0.42

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUL 11...	1320	5690	16.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

09210500 FONTENELLE CREEK NEAR HERSCHLER RANCH, NEAR FONTENELLE, WY

LOCATION.--Lat 42°05'46", long 110°24'57", in NW1/4 SW1/4 NE1/4 sec.2, T.24 N., R.115 W., Lincoln County, Hydrologic Unit 14040101, on left bank 2.0 mi downstream from Dutch George Creek and 14 mi west of Fontenelle.

DRAINAGE AREA.--152 mi².

PERIOD OF RECORD.--August 1951 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,950 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 5, 1970, at site 300 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 6 to Feb. 15. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 780 acres upstream from station.

AVERAGE DISCHARGE.--35 years, 76.9 ft³/s, 55,710 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 907 ft³/s, Apr. 23, 1986, gage height, 9.51 ft; minimum daily, 8.8 ft³/s, Aug. 14, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 31	2100	314	7.17	May 4	0600	749	8.98
Apr. 13	0300	302	7.11	May 22	0700	640	8.59
Apr. 23	2100	*907	*9.51	June 6	1200	880	9.42

Minimum daily discharge, 19 ft³/s, Dec. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	31	28	27	26	65	234	337	754	321	92	60
2	27	30	29	28	27	62	179	424	785	299	90	60
3	26	32	30	28	22	64	142	554	798	287	88	57
4	25	30	29	27	23	65	124	678	833	276	87	55
5	25	31	26	27	25	62	117	447	853	270	85	49
6	26	29	24	28	25	59	135	370	865	233	80	49
7	30	27	25	28	25	56	160	361	850	215	79	51
8	34	24	28	28	24	65	141	360	822	211	79	54
9	30	20	28	28	24	74	155	338	798	195	78	54
10	30	24	26	27	24	74	194	311	740	183	75	59
11	29	25	21	27	25	63	217	321	680	179	73	52
12	30	28	19	27	26	64	227	303	673	169	72	50
13	30	29	25	26	29	65	245	298	680	158	68	50
14	28	30	30	26	30	53	180	311	674	149	69	49
15	28	28	33	26	31	51	184	294	662	147	66	48
16	29	27	33	27	32	48	228	299	664	151	65	48
17	29	28	33	28	31	42	221	287	655	148	63	49
18	28	29	34	28	39	42	176	311	638	134	62	48
19	28	27	35	28	42	43	185	369	607	130	61	51
20	28	22	34	27	39	41	245	456	570	125	65	50
21	28	23	33	27	42	48	430	538	529	121	78	48
22	32	25	33	27	40	51	540	579	489	118	68	48
23	39	26	32	26	39	62	812	442	461	118	65	48
24	43	26	31	28	44	76	678	407	442	117	67	55
25	38	26	30	28	55	87	552	422	429	116	65	59
26	36	27	29	27	63	83	407	473	410	110	61	57
27	33	28	29	27	66	86	334	556	394	110	61	57
28	32	27	28	28	71	102	315	608	380	105	60	57
29	32	27	28	29	---	138	329	656	362	100	60	55
30	32	27	28	29	---	186	306	696	342	97	61	55
31	32	---	28	29	---	287	---	728	---	96	64	---
TOTAL	943	813	899	851	989	2364	8392	13534	18839	5188	2207	1582
MEAN	30.4	27.1	29.0	27.5	35.3	76.3	280	437	628	167	71.2	52.7
MAX	43	32	35	29	71	287	812	728	865	321	92	60
MIN	25	20	19	26	22	41	117	287	342	96	60	48
AC-FT	1870	1610	1780	1690	1960	4690	16650	26840	37370	10290	4380	3140
CAL YR 1985	TOTAL	23388		MEAN	64.1	MAX	237	MIN	19	AC-FT	46390	
WTR YR 1986	TOTAL	56601		MEAN	155	MAX	865	MIN	19	AC-FT	112300	

09211150 FONTENELLE RESERVOIR NEAR FONTENELLE, WY

LOCATION.--Lat 42°02'00", long 110°04'00", in S1/2 sec.25 T.24 N., R.112 W., Lincoln County, Hydrologic Unit 14040101, at dam on Green River, 3.0 mi north of Fontenelle, and 3.5 mi upstream from Slate Creek.

DRAINAGE AREA.--4,280 mi², approximately.

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

REVISED RECORDS.--WSP 2125: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by earthfill dam completed by Bureau of Reclamation in April 1964. Capacity, 344,800 acre-ft between elevations 6,506.0 ft, crest of spillway, and 6,408.0 ft, invert of outlet pipe. Dead storage, below elevation 6,408.0 ft, 563 acre-ft. Figures given herein represent total contents. Water used for irrigation and power development.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 387,000 acre-ft, June 29, 1965, elevation, 6,511.01 ft; minimum daily, 5,680 acre-ft, July 28, 1967, elevation, 6,423.98 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 261,900 acre-ft, June 21, elevation, 6,494.95 ft; minimum daily, 29,060 acre-ft, May 25, elevation, 6,440.96 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	6,443.81	35,260	-
Oct. 31	6,444.17	36,160	+900
Nov. 30	6,444.40	36,660	+500
Dec. 31	6,444.10	35,960	-700
CAL YR 1985	-	-	-136,940
Jan. 31	6,444.18	36,160	+200
Feb. 28	6,444.30	36,460	+300
Mar. 31	6,444.96	37,960	+1,500
Apr. 30	6,441.82	30,860	-7,100
May 31	6,443.39	34,360	+3,500
June 30	6,488.67	218,800	-184,440
July 31	6,442.42	32,160	-186,640
Aug. 31	6,442.15	31,560	-600
Sept. 30	6,442.90	33,260	+1,700
WTR YR 1986	-	-	-2,000

GREEN RIVER BASIN

09211200 GREEN RIVER BELOW FONTENELLE RESERVOIR, WY

LOCATION.--Lat 42°01'16", long 110°02'57", in NW1/4 NW1/4 NE1/4 sec.31, T.24 N., R.111 W., Sweetwater County, Hydrologic Unit 14040103, on right bank 1.0 mi downstream from Fontenelle Dam, 2.5 mi upstream from Slate Creek, and 6.0 mi southeast of Fontenelle.

DRAINAGE AREA.--4,280 mi², approximately.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 2125: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,378.13 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: June 18, 19. Records good. Flow completely regulated by Fontenelle Reservoir 1.0 mi upstream. (See sta 09211150.) Natural flow of stream affected by storage reservoirs and diversions for irrigation of about 202,000 acres upstream from station.

AVERAGE DISCHARGE.--22 years (water years 1965-86), 1,835 ft³/s, 1,329,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft³/s, Sept. 5, 1965, gage height, 18.74 ft, from floodmarks, caused by emergency release from Fontenelle Reservoir; minimum daily discharge, 209 ft³/s, Nov. 22-24, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,600 ft³/s, June 19, gage height, 17.69 ft; minimum daily, 462 ft³/s, Nov. 26-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	826	933	682	729	622	1250	2850	3170	10100	12200	4590	1460
2	826	933	744	731	622	1250	3340	3020	10300	12300	3860	1460
3	826	933	784	668	656	1250	2970	3010	9130	12100	3010	1460
4	826	933	784	622	682	1250	2600	3400	9000	11800	2200	1460
5	826	933	841	622	700	1250	2550	4550	10300	11500	2670	1090
6	826	933	890	622	712	1250	2350	5410	10200	11400	2920	1410
7	809	928	890	622	712	1320	2420	5140	10200	11200	3460	1370
8	753	922	897	622	712	1390	2820	4780	9710	11100	3210	1020
9	697	922	900	622	712	1490	3110	4710	9410	11100	2600	1350
10	707	922	900	587	712	1530	2990	4700	9170	10900	2350	1300
11	785	922	900	555	712	1580	2870	4520	9610	10700	2040	1360
12	851	922	868	546	712	1620	2870	4020	10200	10600	2030	1360
13	857	922	790	546	678	1620	2880	3630	10500	10500	2020	1360
14	857	922	683	546	642	1620	2870	3190	9850	10300	2000	1370
15	885	922	638	546	642	1630	2870	2970	8450	10100	1810	1370
16	886	878	655	546	640	1630	2660	3150	12200	9830	1690	1330
17	925	847	670	572	642	1630	2530	3250	8330	9630	1680	1290
18	922	700	665	593	634	1620	2630	3250	13500	9430	1680	1290
19	922	682	665	593	714	1620	2510	3280	13500	9240	1680	1160
20	922	732	664	593	901	1620	2080	3620	13500	8990	1560	970
21	922	732	662	616	1010	1590	2050	4020	13500	8710	1480	970
22	922	613	662	624	1000	1520	2540	4680	13400	5210	1670	970
23	922	471	694	622	999	1580	3220	5640	13100	5960	1840	970
24	900	471	712	622	999	1700	4670	6040	13100	5780	1870	970
25	872	467	712	622	1040	1810	5960	5390	13100	5630	1860	970
26	868	462	712	622	1140	1810	5840	4500	13000	5830	1670	970
27	864	462	718	622	1220	1810	4890	4780	12900	5570	1860	970
28	856	462	725	622	1250	1830	3780	5780	12800	4680	1860	978
29	847	462	732	628	---	1830	3120	7140	12700	4110	1860	1040
30	900	566	732	626	---	1830	3170	8620	12500	4510	1860	1190
31	933	---	732	622	---	2130	---	9720	---	4010	1610	---
TOTAL	26540	22909	23303	18931	22417	48860	94010	143080	337260	274920	68500	36238
MEAN	856	764	752	611	801	1576	3134	4615	11240	8868	2210	1208
MAX	933	933	900	731	1250	2130	5960	9720	13500	12300	4590	1460
MIN	697	462	638	546	622	1250	2050	2970	8330	4010	1480	970
AC-FT	52640	45440	46220	37550	44460	96910	186500	283800	669000	545300	135900	71880
CAL YR 1985	TOTAL	592725		MEAN	1624	MAX	12300	MIN	457	AC-FT	1176000	
WTR YR 1986	TOTAL	1116968		MEAN	3060	MAX	13500	MIN	462	AC-FT	2216000	

09211200 GREEN RIVER BELOW FONTENELLE RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1967 to September 1976.

WATER TEMPERATURES: October 1967 to September 1976.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 29...	1420	848	466	9.0	200	54	17	24	0.8	1.5
DEC 16...	1710	694	490	2.0	210	55	17	23	0.7	1.3
JAN 29...	1100	612	489	1.0	210	58	17	20	0.6	1.4
MAR 06...	1600	1240	498	4.5	210	53	18	29	0.9	1.7
APR 18...	1500	2720	481	4.5	210	54	18	22	0.7	2.1
MAY 30...	1130	8190	296	15.0	140	39	11	6.9	0.3	0.9
JUN 17...	1420	844	585	17.0	250	69	20	39	1	1.9
JUL 09...	1130	10800	313	16.5	120	35	8.8	8.6	0.3	1.0
SEP 10...	1040	1320	370	15.0	170	47	13	16	0.6	0.5

DATE	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 29...	140	110	6.0	0.2	5.4	300	0.41	692	0.00	0.01
DEC 16...	150	84	5.6	0.2	8.2	280	0.39	533	0.10	0.02
JAN 29...	160	85	4.7	0.2	8.3	290	0.4	480	0.10	0.03
MAR 06...	140	98	11	0.5	6.8	300	0.41	1010	0.40	0.05
APR 18...	170	72	6.0	0.1	7.8	280	0.39	2090	0.10	0.05
MAY 30...	130	28	2.8	0.2	7.6	170	0.24	3860	0.10	0.32
JUN 17...	150	180	6.6	0.1	8.3	410	0.56	945	0.30	0.42
JUL 09...	110	24	1.9	0.2	6.3	150	0.21	4430	0.00	0.03
SEP 10...	130	62	3.4	0.2	5.5	230	0.31	804	0.10	0.01

GREEN RIVER BASIN

09212500 BIG SANDY RIVER AT LECKIE RANCH, NEAR BIG SANDY, WY

LOCATION.--Lat 42°34'17", long 109°16'58", in sec.17, T.30 N., R.104 W., Sublette County, Hydrologic Unit 14040104, on left bank at Leckie Ranch, 0.1 mi downstream from Squaw Creek, and 10.1 mi southeast of Big Sandy.

DRAINAGE AREA.--94 mi².

PERIOD OF RECORD.--July to November 1910, May to August 1911, July 1939 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1313. Published as Big Sandy Creek near Big Sandy 1910-11 and in WSP 618, and as Big Sandy Creek at Leckie Ranch, near Big Sandy July 1939 to October 1968.

REVISED RECORDS.--WSP 2125: 1963, 1964(P), 1965.

GAGE.--Water-stage recorder. Elevation of gage is 7,800 ft above National Geodetic Vertical Datum of 1929, by barometer. See WSP 1733 for history of changes prior to July 24, 1939. July 24, 1939, to June 1, 1961, water-stage recorder at site 75 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Mar. 1 to Apr. 8. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 750 acres upstream from station. Result of discharge measurement, in cubic feet per second, made during the period when station was not in operation, is given below:

Oct. 29 . . 38.5

AVERAGE DISCHARGE.--32 years (water years 1940-71), 86.0 ft³/s, 62,310 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,670 ft³/s, June 2, 1986, gage height, 9.06 ft; minimum daily, 3.0 ft³/s, Dec. 17, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 2	0200	*1,670	*9.06	June 16	0600	1,240	8.39

Minimum daily discharge during period of operation, 20 ft³/s, Mar. 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						20	35	105	1460	447	115	45
2						20	32	137	1530	395	108	43
3						20	30	179	1530	382	103	40
4						21	35	223	1450	410	102	37
5						22	40	212	1440	401	95	35
6						23	45	203	1400	315	89	34
7						23	50	198	1250	299	84	34
8						25	54	173	1120	303	85	34
9						25	57	157	977	321	83	34
10						23	58	146	776	298	84	44
11						22	62	141	810	256	77	42
12						22	67	126	917	236	73	38
13						22	65	134	955	214	70	37
14						22	73	143	967	212	66	35
15						22	70	143	977	225	63	34
16						22	61	147	1050	256	59	31
17						22	59	138	1020	284	58	29
18						22	58	160	949	252	55	30
19						22	58	198	808	226	53	33
20						23	69	269	783	207	66	31
21						24	112	368	731	189	85	30
22						25	153	396	669	181	74	29
23						26	177	342	612	177	66	31
24						27	156	365	594	169	73	40
25						27	137	450	571	165	67	56
26						25	124	626	543	182	67	45
27						26	119	806	549	169	63	43
28						28	111	964	556	150	57	47
29						31	102	1110	522	139	53	45
30						34	97	1240	508	129	52	46
31						37	---	1310	---	122	48	---
TOTAL						753	2366	11309	28024	7711	2293	1132
MEAN						24.3	78.9	365	934	249	74.0	37.7
MAX						37	177	1310	1530	447	115	56
MIN						20	30	105	508	122	48	29
AC-FT						1490	4690	22430	55590	15290	4550	2250

09213500 BIG SANDY RIVER NEAR FARSON, WY

LOCATION.--Lat 42°19'01", long 109°29'06", in NW1/4 SE1/4 NW1/4 sec.17, T.27 N., R.106 W., Sublette County, Hydrologic Unit 14040104, on left upstream side of Eden Canal diversion, about 1.0 mi upstream from high-water line of Big Sandy Reservoir, 14.5 mi north of Farson, and 24.5 mi upstream from Little Sandy Creek.

DRAINAGE AREA.--322 mi².

PERIOD OF RECORD.--October 1914 to September 1917, October 1920 to October 1924, October 1926 to September 1934, April 1953 to current year (no winter records since 1971). Prior to October 1968, published as Big Sandy Creek near Farson. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1733: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 6,770 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 28, 1921, nonrecording gage, and Apr. 28, 1921, to Aug. 3, 1934, water-stage recorder at site 0.5 mi upstream at different datum. Apr. 17, 1953, to Nov. 11, 1954, water-stage recorder at site 1.5 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Apr. 1-11, June 5, and Sept. 28-30. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 1,000 acres upstream from station. The Eden Canal, which bypasses the station, has not been used since station was established at present site in November 1954. Results of discharge measurements, in cubic feet per second, made during the period when station was not in operation are given below:

Oct. 30 . . 51.7
Mar. 24 . . 45.8

AVERAGE DISCHARGE.--33 years (water years 1915-17, 1921-24, 1927-34, 1954-71), 86.5 ft³/s, 62,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,890 ft³/s, June 3, 1986, gage height, 8.46 ft; no flow Jan. 27-31, 1963, and may have also reached no flow in previous years during periods of ice effect.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 3	0500	*1,890	*8.46	June 17	0900	1,070	7.61

Minimum daily discharge during period of operation, 31 ft³/s, Sept. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							90	101	1230	470	113	56
2							80	107	1390	434	101	54
3							70	128	1660	385	97	52
4							60	175	1690	379	98	49
5							65	237	1530	396	97	45
6							75	228	1380	391	94	43
7							85	225	1510	329	90	41
8							100	224	1250	310	87	40
9							115	198	1070	311	86	39
10							120	174	878	320	85	40
11							110	158	678	296	81	41
12							106	148	717	249	79	48
13							100	132	826	228	74	46
14							94	131	851	207	72	41
15							83	141	858	202	69	39
16							86	142	856	219	65	37
17							92	151	916	251	64	35
18							75	138	897	273	61	34
19							66	153	815	240	60	33
20							65	190	706	213	60	32
21							68	268	654	191	64	33
22							111	365	619	175	80	31
23							164	388	571	172	82	31
24							202	349	547	170	77	32
25							181	368	535	162	76	35
26							159	450	518	171	78	48
27							144	582	502	176	71	55
28							131	712	511	160	71	50
29							126	824	502	143	66	51
30							115	940	490	131	61	50
31							---	1070	---	121	58	---
TOTAL							3138	9597	27157	7875	2417	1261
MEAN							105	310	905	254	78.0	42.0
MAX							202	1070	1690	470	113	56
MIN							60	101	490	121	58	31
AC-FT							6220	19040	53870	15620	4790	2500

GREEN RIVER BASIN

09213705 BIG SANDY RIVER BELOW BIG SANDY RESERVOIR, WY

LOCATION.--Lat 42°14'30", long 109°24'42", in SW1/4 NE1/4 NW1/4 sec.11, T.26 N., R.106 W., Sweetwater County, Hydrologic Unit 14040104, at spillway of Big Sandy Reservoir, 2.1 mi east of U.S. Highway 187 on county road, 2.9 mi upstream from west lateral of Means Canal, and 9.9 mi north of Farson.

PERIOD OF RECORD.--June 1981 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 28...	1530	2.0	1260	2.0	310	84	24	160	4	1.5
NOV 22...	1530	4.0	1150	0.0	270	74	20	160	4	1.4
JUN 20...	1330	E600	92	15.0	34	12	1.1	6.4	0.5	1.1

E-Estimate.

DATE	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 28...	170	470	12	0.6	9.6	860	1.2	4.7	0.00	0.01
NOV 22...	180	400	12	0.7	11	790	1.1	8.5	0.00	0.02
JUN 20...	39	12	1.3	0.1	6.3	64	0.09	--	0.00	0.07

09213800 BIG SANDY RIVER AT FARSON, WY

LOCATION.--Lat 42°05'58", long 109°27'05", in NE1/4 SW1/4 NW1/4 sec.34, T.25 N., R.106 W., Sweetwater County, Hydrologic Unit 14040104, 0.3 mi southwest of Eden Valley Cemetery, 0.6 mi south of Farson, and 0.7 mi upstream from mouth of Little Sandy Creek.

PERIOD OF RECORD.--June 1981 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 29...	1745	14	2140	8.0	710	180	63	230	4	3.0
NOV 18...	1240	22	2210	0.0	810	220	63	220	3	2.7
MAY 08...	1215	14	2430	7.5	830	220	68	280	4	2.8
JUN 20...	1130	665	223	15.0	73	23	3.8	18	1	1.2

DATE	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 29...	220	940	29	0.6	11	1600	2.2	60	0.50	0.02
NOV 18...	240	990	33	0.5	14	1700	2.3	100	1.00	0.02
MAY 08...	210	1100	46	0.4	11	1900	2.5	70	0.40	0.05
JUN 20...	59	47	2.9	0.1	7.3	140	0.19	249	0.00	0.07

GREEN RIVER BASIN

09215500 LITTLE SANDY CREEK AT FARSON, WY

LOCATION.--Lat 42°05'52", long 109°27'01", in SW1/4 SW1/4 NW1/4 sec.34, T.25 N., R.106 W., Sweetwater County, Hydrologic Unit 14040104, 0.4 mi upstream from mouth, 0.6 mi south of Eden Valley Cemetery, and 0.7 mi south of Farson.

PERIOD OF RECORD.--June 1981 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 29...	1700	8.0	3460	8.0	620	140	66	510	9	3.6
NOV 19...	1330	8.8	2420	0.0	460	110	44	440	9	3.1
APR 14...	1245	97	1470	3.5	260	56	30	240	7	3.3

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 29...	270	1400	75	1.0	5.5	2300	3.2	50	0.00	0.01
NOV 19...	210	1000	56	0.8	11	1800	2.5	43	0.10	0.03
APR 14...	200	510	33	0.5	9.8	1000	1.4	263	0.10	0.75

09215550 BIG SANDY RIVER BELOW FARSON, WY

LOCATION.--Lat 42°04'24", long 109°28'43", in SW1/4 SE1/4 NE1/4 sec.12, T.24 N., R.107 W., Sweetwater County, Hydrologic Unit 14040104, on left bank 2.7 mi northwest of Eden, 3.0 mi southwest of Farson, and 3.8 mi downstream from Little Sandy Creek.

DRAINAGE AREA.--1,097 mi², of which 14.9 mi² is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1981 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,520 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 10 to Mar. 20 and July 18 to Aug. 8. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs and diversions for irrigation of about 19,300 acres upstream from station.

AVERAGE DISCHARGE.--5 years, 70.4 ft³/s, 51,000 acre ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,120 ft³/s, Apr. 3, 1985, gage height, 7.30 ft; maximum gage height, 7.71 ft, Apr. 3, 1985 (backwater from ice); minimum daily discharge, 5.4 ft³/s, Feb. 10, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 907 ft³/s, June 7, gage height, 6.31 ft; minimum daily, 5.4 ft³/s, Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	21	14	10	7.0	30	245	62	80	266	90	51
2	24	22	14	10	7.0	40	200	49	85	257	80	45
3	23	21	14	10	6.5	50	209	39	108	241	80	45
4	23	21	14	9.5	6.0	50	172	36	306	206	70	51
5	23	21	13	9.2	6.0	52	150	36	721	193	65	52
6	23	20	13	9.0	6.0	54	130	37	857	181	55	52
7	21	22	13	8.5	6.0	60	169	39	891	195	60	53
8	22	22	13	8.0	6.0	62	204	39	897	197	86	63
9	21	20	13	8.0	5.7	64	183	38	872	189	73	62
10	23	17	13	8.0	5.4	70	200	34	790	199	66	64
11	22	19	11	8.0	5.7	62	176	35	679	201	66	49
12	22	20	9.0	7.5	6.0	55	161	34	568	194	73	42
13	21	20	8.5	7.0	6.5	50	137	62	532	180	69	42
14	21	17	9.0	6.5	7.0	48	139	42	518	163	62	43
15	21	17	10	6.0	8.0	45	108	141	548	151	61	43
16	20	15	10	6.0	8.0	40	87	137	577	136	50	40
17	20	16	10	6.5	8.0	35	86	133	643	146	50	40
18	20	17	11	7.0	8.0	37	104	132	677	160	51	41
19	20	18	11	7.0	9.0	37	84	132	684	160	50	45
20	20	18	11	6.5	10	35	76	122	662	160	54	44
21	20	17	11	6.5	10	32	63	77	617	160	76	44
22	25	16	11	6.0	10	38	94	220	557	150	75	42
23	26	14	11	6.0	12	46	94	283	509	135	58	41
24	23	14	11	6.0	15	62	89	261	465	130	53	37
25	22	16	11	6.0	18	87	91	260	269	120	54	37
26	21	17	10	6.0	21	78	92	240	253	120	53	39
27	21	17	10	6.0	25	80	85	174	265	120	51	43
28	23	17	10	6.4	25	84	66	86	264	120	47	45
29	22	17	10	6.6	---	96	58	67	266	115	48	46
30	21	16	10	7.0	---	130	55	75	279	95	48	44
31	21	---	10	7.0	---	162	---	76	---	90	50	---
TOTAL	678	545	349.5	227.7	273.8	1871	3807	3198	15439	5130	1924	1385
MEAN	21.9	18.2	11.3	7.35	9.78	60.4	127	103	515	165	62.1	46.2
MAX	26	22	14	10	25	162	245	283	897	266	90	64
MIN	20	14	8.5	6.0	5.4	30	55	34	80	90	47	37
AC-FT	1340	1080	693	452	543	3710	7550	6340	30620	10180	3820	2750
CAL YR 1985	TOTAL	18442.4		MEAN	50.5	MAX	754	MIN	6.8	AC-FT	36580	
WTR YR 1986	TOTAL	34828.0		MEAN	95.4	MAX	897	MIN	5.4	AC-FT	69080	

GREEN RIVER BASIN

09215550 BIG SANDY RIVER BELOW FARSON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1981 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1981 to current year.

WATER TEMPERATURES: December 1981 to current year.

INSTRUMENTATION.--Specific conductance and water temperature monitor.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 4,580 microsiemens, Dec. 1, 1981; minimum daily mean,

334 microsiemens, June 14, 1986.

WATER TEMPERATURES: Maximum, 27.0°C, Aug. 5, 7, 1983, Aug. 2, 1986; minimum, 0.0°C on many days each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily mean observed, 3,070 microsiemens, May 3; minimum daily mean observed, 334 microsiemens, June 14.

WATER TEMPERATURES: Maximum, 27.0°C, Aug. 2; minimum, 0.0°C, on many days in November, December, January, February, and March.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 29...	1640	22	2520	7.5	720	180	66	340	6	3.3
DEC 19...	1550	11	2220	0.0	680	180	55	280	5	2.7
JAN 29...	1500	6.1	2510	0.0	880	240	69	270	4	3.2
MAR 27...	1700	71	1960	9.5	450	97	51	330	7	2.5
MAY 08...	1420	42	2870	10.0	610	140	63	460	8	3.8
27...	1030	171	747	11.5	180	49	15	96	3	1.2
JUN 17...	1620	526	346	18.5	98	29	6.1	36	2	1.2
JUL 07...	1355	205	699	17.5	210	56	16	75	2	1.5

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 29...	210	1100	46	0.7	9.1	1900	2.5	110	0.30	0.02
DEC 19...	230	940	42	0.6	13	1700	2.2	49	0.80	0.04
JAN 29...	240	1100	36	0.6	14	1900	2.5	31	0.80	0.05
MAR 27...	260	850	38	0.6	3.4	1500	2.1	293	0.20	0.54
MAY 08...	280	1200	67	0.6	11	2100	2.9	240	0.10	0.16
27...	110	260	14	0.3	8.9	510	0.69	236	0.00	0.13
JUN 17...	73	93	5.9	0.2	7.6	220	0.3	316	0.20	0.18
JUL 07...	110	220	13	0.3	8.4	460	0.62	252	0.20	0.09

09215550 BIG SANDY RIVER BELOW FARSON, WY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2490	2530	1940	---		---	432	---	1310	755	1080	1760
2	2490	2580	1950	---		---	482	2960	1300	797	1280	1780
3	2500	2570	1940	---		---	531	3070	1310	1100	1460	1810
4	2520	2560	1920	---		---	572	---	761	1140	1510	1690
5	2510	2540	1890	---		---	593	---	453	1060	1550	1550
6	2520	2500	1910	---		---	844	---	388	722	1590	1520
7	2510	2400	1890	---		2050	1200	---	368	817	1660	1510
8	2520	2370	1860	---		---	1410	2850	347	1020	2620	1420
9	2510	2370	1860	2650		---	---	2630	341	1070	1950	1390
10	2500	2500	1850	---		---	1490	2700	364	1070	2790	1410
11	2540	2640	1840	---		---	---	2710	394	677	2700	1510
12	2610	2410	1860	---		---	---	2830	443	1160	2670	1600
13	2620	2430	1850	---		2080	---	2350	393	1210	2620	1650
14	2620	2510	1840	---		2050	1390	2190	334	1250	2560	1630
15	2650	2630	1790	---		2150	1580	1310	429	1290	2550	1620
16	2640	2370	1790	---		2320	2100	938	490	904	2530	1690
17	2650	2260	1840	---		2330	---	929	382	1100	2530	1670
18	2670	2310	1790	---		2380	---	906	452	1150	2520	1590
19	2670	2390	1770	---		2410	---	925	453	1330	2480	1580
20	2670	2180	1800	---		2320	1860	1020	462	950	2470	1630
21	2670	2120	1850	---		---	1970	1320	446	1220	2530	1750
22	2590	2110	1890	---		---	1730	749	336	1390	2540	1870
23	2730	2090	1940	---		---	---	532	375	1580	2460	2010
24	2750	2100	1840	---		---	---	577	434	1590	2450	2070
25	2730	2050	---	---		---	---	576	647	1450	2470	2040
26	2720	2050	---	---		---	---	610	818	1110	2440	2010
27	2740	2050	---	---		2100	---	740	643	1020	2420	1920
28	2740	2010	---	---		1530	---	1300	689	947	2420	1940
29	2720	1990	---	2550		1080	---	1560	694	979	2420	2050
30	2700	1950	---	---		940	---	1430	664	1050	2400	2090
31	2690	---	---	---		461	---	1380	---	1050	2200	---
MEAN	2620	2320	---	---		---	---	---	564	1100	2250	1730
MAX	2750	2640	---	---		---	---	---	1310	1590	2790	2090
MIN	2490	1950	---	---		---	---	---	334	677	1080	1390

09215550 BIG SANDY RIVER BELOW FARSON, WY--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.0	6.0	5.5	4.0	.0	.0	.0	.0	.0	.0	.0	.0
2	11.5	7.5	6.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0
3	11.5	7.5	6.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0
4	10.5	7.0	5.5	3.5	.0	.0	.0	.0	.0	.0	.0	.0
5	10.5	7.0	5.5	4.0	.0	.0	.0	.0	.0	.0	.0	.0
6	9.5	7.5	4.0	2.5	.0	.0	.0	.0	.0	.0	.0	.0
7	9.5	8.0	3.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0
8	8.0	6.5	3.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0
9	8.5	6.0	2.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0
10	9.0	6.0	1.5	.5	.0	.0	.0	.0	.0	.0	.0	.0
11	10.5	7.0	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
12	8.5	6.0	1.5	.5	.0	.0	.0	.0	.0	.0	.0	.0
13	9.5	4.5	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
14	9.0	3.5	8.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
15	10.0	3.5	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16	10.5	4.0	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
17	10.0	4.5	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
18	10.0	4.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
19	9.5	4.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20	9.0	4.5	.0	.0	.0	.0	.0	.0	.0	.0	---	---
21	8.5	5.0	.0	.0	.0	.0	.0	.0	.0	.0	---	---
22	7.0	5.5	.0	.0	.0	.0	.0	.0	.0	.0	---	---
23	7.5	5.5	.0	.0	.0	.0	.0	.0	.0	.0	---	---
24	8.0	5.5	.0	.0	.0	.0	.0	.0	.0	.0	---	---
25	8.0	6.5	.0	.0	.0	.0	.0	.0	.0	.0	---	---
26	8.0	6.5	.0	.0	.0	.0	.0	.0	.0	.0	---	---
27	7.5	6.5	.0	.0	.0	.0	.0	.0	.0	.0	9.5	---
28	7.5	6.5	.0	.0	.0	.0	.0	.0	.0	.0	10.5	2.0
29	8.0	6.5	.0	.0	.0	.0	.0	.0	---	---	11.5	2.5
30	7.0	5.0	.0	.0	.0	.0	.0	.0	---	---	10.0	3.5
31	7.0	5.5	---	---	.0	.0	.0	.0	---	---	10.0	5.0
MONTH	11.5	3.5	8.5	.0	.0	.0	.0	.0	.0	.0	11.5	.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.0	3.5	16.0	5.5	21.5	13.0	22.5	15.5	25.5	15.0	15.5	10.5
2	6.0	4.0	20.0	9.0	24.5	12.5	24.0	17.0	27.0	16.0	16.5	10.5
3	6.0	2.5	20.5	9.5	21.5	15.0	22.0	18.5	20.5	15.5	18.5	10.5
4	6.5	3.0	15.5	6.0	22.5	15.5	19.5	16.5	22.0	14.5	17.0	11.0
5	9.5	2.0	12.5	2.0	20.0	16.0	18.5	11.5	22.0	15.0	14.5	10.5
6	13.5	4.0	11.0	5.5	19.5	14.0	17.0	13.5	21.5	14.5	13.5	9.5
7	11.0	6.0	8.0	5.0	19.0	14.5	19.0	13.5	21.0	16.5	13.5	8.5
8	8.5	4.5	12.5	3.0	17.5	14.0	21.0	14.5	19.5	13.0	---	---
9	8.0	4.0	9.5	4.5	15.5	13.5	21.5	16.5	21.5	11.5	---	---
10	9.5	4.5	12.0	3.5	19.0	13.5	19.0	16.5	22.5	11.5	---	---
11	10.5	5.0	13.0	6.5	20.5	14.0	19.0	15.0	21.5	12.5	---	---
12	10.0	5.5	16.0	4.5	21.5	14.5	19.5	13.5	20.5	14.5	---	---
13	8.0	4.0	14.5	6.0	19.5	15.0	20.5	15.0	17.5	11.0	---	---
14	9.5	.5	13.0	6.5	20.0	15.0	21.5	16.5	18.5	12.0	---	---
15	13.0	3.5	13.0	5.0	20.5	14.5	19.0	16.5	17.5	12.0	---	---
16	10.0	7.0	11.0	7.5	21.5	14.5	22.0	16.0	17.5	12.0	---	---
17	7.0	4.0	13.5	5.5	21.5	14.5	23.0	16.0	19.5	12.0	---	---
18	10.0	3.0	15.5	8.0	20.0	16.0	22.5	18.0	18.5	11.5	---	---
19	12.0	3.0	17.5	9.5	21.0	15.0	23.0	16.5	15.5	12.0	---	---
20	15.5	4.5	18.0	11.5	20.5	15.5	23.0	17.0	15.5	12.5	---	---
21	18.0	7.5	15.5	11.0	20.0	14.5	24.0	16.5	17.5	12.5	---	---
22	16.0	8.5	12.0	7.5	21.5	14.5	21.5	17.5	17.0	12.0	---	---
23	12.5	9.0	14.5	6.0	23.0	15.5	20.0	16.0	14.5	11.0	---	---
24	10.5	7.0	16.5	8.5	22.0	17.0	21.5	15.5	16.5	11.0	---	---
25	8.5	4.5	18.0	10.0	21.0	18.0	21.5	16.0	18.0	12.5	---	---
26	9.0	3.0	18.0	11.5	20.5	17.0	22.0	16.0	21.5	11.5	---	---
27	10.5	4.0	18.5	11.5	21.5	18.0	22.5	14.5	20.0	12.5	---	---
28	8.0	5.0	21.5	11.5	21.5	17.5	22.5	15.0	18.5	12.5	---	---
29	11.0	4.0	20.5	11.5	21.5	17.0	21.0	14.5	18.5	12.0	---	---
30	14.5	3.0	23.0	11.5	21.5	15.5	21.5	14.0	18.5	11.5	---	---
31	---	---	24.0	12.0	---	---	21.5	14.0	18.5	12.0	---	---
MONTH	18.0	.5	24.0	2.0	24.5	12.5	24.0	11.5	27.0	11.0	18.5	8.5
YEAR	27.0	.0										

09216050 BIG SANDY RIVER AT GASSON BRIDGE, NEAR EDEN, WY

LOCATION.--Lat 41°56'43", long 109°41'04", in NE1/4 SW1/4 NW1/4 sec.29, T.23 N., R.108 W., Sweetwater County, Hydrologic Unit 14040104, on left bank 0.2 mi upstream from Gasson Bridge and 14.5 mi southwest of Eden.

DRAINAGE AREA.--1,720 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1972 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,350 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 11 to Mar. 2. Records good except those for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs and diversions for irrigation of about 19,300 acres upstream from station.

AVERAGE DISCHARGE.--14 years, 85.3 ft³/s, 61,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,430 ft³/s, Apr. 24, 1980, gage height, 10.58 ft, from rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 13 ft³/s, Jan. 2, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,570 ft³/s, June 9, gage height, 7.64 ft; minimum daily, 31 ft³/s, Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	61	43	35	35	60	192	85	101	284	120	110
2	66	63	45	37	35	80	209	87	106	274	111	105
3	66	64	46	35	34	106	219	76	109	262	112	97
4	63	63	44	33	33	99	209	67	164	243	105	110
5	62	61	42	32	32	102	182	66	650	235	103	113
6	64	58	42	32	32	103	146	67	1150	231	89	107
7	67	58	42	32	32	115	136	70	1350	245	96	101
8	67	65	44	32	32	122	199	78	1480	254	114	109
9	64	61	44	32	32	126	199	76	1490	234	124	114
10	64	47	44	32	31	119	191	76	1290	234	115	114
11	64	50	40	32	32	138	200	72	1010	240	116	106
12	65	52	35	32	32	122	172	73	704	240	123	101
13	64	55	37	32	33	114	155	78	556	227	125	93
14	63	39	39	32	34	110	142	99	522	215	120	84
15	61	39	39	32	35	108	135	93	531	199	117	85
16	61	38	39	32	35	94	108	193	555	188	108	84
17	61	43	39	33	35	91	103	185	650	183	107	87
18	60	50	40	35	35	90	104	188	722	200	109	87
19	61	52	41	35	37	78	109	186	768	202	103	87
20	61	52	41	33	37	86	102	173	778	207	104	86
21	61	51	40	33	35	81	91	146	718	204	130	88
22	68	51	39	32	35	74	88	160	642	187	124	88
23	72	48	39	32	37	75	110	333	567	164	121	86
24	71	48	39	32	40	81	109	309	512	158	113	88
25	66	55	39	32	43	91	109	303	370	151	111	88
26	64	55	37	32	48	108	108	292	245	151	115	89
27	65	55	37	32	52	89	115	246	258	154	115	89
28	64	55	37	32	52	88	104	170	269	152	114	92
29	62	52	37	35	---	92	95	105	269	147	120	92
30	60	48	38	35	---	102	86	97	282	125	120	89
31	61	---	36	35	---	128	---	98	---	120	117	---
TOTAL	1984	1589	1244	1022	1015	3072	4227	4347	18818	6310	3521	2869
MEAN	64.0	53.0	40.1	33.0	36.3	99.1	141	140	627	204	114	95.6
MAX	72	65	46	37	52	138	219	333	1490	284	130	114
MIN	60	38	35	32	31	60	86	66	101	120	89	84
AC-FT	3940	3150	2470	2030	2010	6090	8380	8620	37330	12520	6980	5690
CAL YR 1985	TOTAL	32532		MEAN	89.1	MAX	1160	MIN	35	AC-FT	64530	
WTR YR 1986	TOTAL	50018		MEAN	137	MAX	1490	MIN	31	AC-FT	99210	

GREEN RIVER BASIN

09216050 BIG SANDY RIVER AT GASSON BRIDGE, NEAR EDEN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1981 to current year.

WATER TEMPERATURES: October 1981 to current year.

INSTRUMENTATION.--Specific conductance and temperature monitor.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum observed daily mean, 5,500 microsiemens, Jan. 6, 1983; minimum daily mean, 459 microsiemens, June 9, 1986.

WATER TEMPERATURES: Maximum, 27.5°C, Aug. 10, 1983; minimum, 0.0°C on many days each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily mean observed, 4,200 microsiemens Feb. 9; minimum daily mean observed, 459 microsiemens, June 9.

WATER TEMPERATURES: Maximum, 24.0°C, Aug. 2; minimum, 0.0°C many days in November, December, January, and February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT										
11...	1245	64	3550	7.0	1200	260	130	470	6	3.7
NOV										
22...	1320	51	3580	0.0	1200	250	130	460	6	3.6
DEC										
16...	1245	39	3920	0.0	1300	260	160	580	7	3.5
JAN										
09...	1300	32	4370	0.0	1400	270	180	630	7	3.8
FEB										
10...	1230	31	4340	0.0	1400	290	170	650	8	3.7
MAR										
07...	1200	110	2750	4.5	760	170	81	400	7	3.1
APR										
22...	1300	80	3440	14.5	860	180	100	540	8	4.7
MAY										
27...	1330	250	1140	16.5	290	66	31	140	4	1.9
JUN										
13...	1400	526	621	19.0	170	42	15	70	2	1.3
JUL										
08...	0920	256	1200	14.0	340	80	33	140	3	1.9

DATE	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT										
11...	260	1800	64	0.7	11	2900	3.9	499	0.40	0.01
NOV										
22...	270	1700	42	0.8	12	2800	3.8	386	0.50	0.00
DEC										
16...	280	2100	46	0.9	13	3300	4.5	350	0.60	0.02
JAN										
09...	300	2300	46	0.9	13	3700	5.0	317	0.60	0.03
FEB										
10...	300	2400	49	3.7	14	3800	5.1	315	2.20	0.09
MAR										
07...	200	1300	36	2.2	10	2100	2.9	630	0.20	0.19
APR										
22...	290	1600	55	0.8	11	2700	3.6	576	0.20	0.27
MAY										
27...	110	420	14	0.2	9.7	750	1.0	505	0.10	0.14
JUN										
13...	90	210	7.8	0.2	8.1	410	0.56	580	0.10	0.35
JUL										
08...	130	460	17	0.4	9.0	820	1.1	566	0.20	0.10

09216050 BIG SANDY RIVER AT GASSON BRIDGE, NEAR EDEN, WY--Continued

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 17...	1020	661	18.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
JUL 31...	1300	136	15.5	0.01	0.01	<0.01	<0.01	<0.01	<0.01
AUG 22...	1050	146	16.5	<0.01	0.01	0.03	<0.01	<0.01	<0.01

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C) WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3260	3380	3240	3710	3880	3130	1740	3510	2350	986	2250	2530
2	3240	3380	3040	3640	3890	3250	1500	3380	2280	1000	2310	2570
3	3280	3400	---	3670	3900	3340	1640	3410	2230	---	2330	2730
4	3310	3410	---	3750	4150	3290	1750	3530	1910	---	2410	2510
5	3320	3410	---	3860	4110	3180	1920	3580	853	---	2450	2440
6	3300	3460	---	3800	4170	3020	2160	3570	563	---	2690	2440
7	3250	3510	---	3750	4130	2860	2360	3440	499	---	2620	2500
8	3270	3460	---	3870	4110	2770	1870	3350	480	1190	2430	2440
9	3260	3450	---	3780	4200	2690	1760	3460	459	1270	2310	2380
10	3410	3640	---	---	4160	2820	1930	3430	493	1280	2370	2390
11	3310	3710	---	---	4000	2860	1870	3480	535	1250	2350	2530
12	3250	3370	---	---	4030	2830	1970	3550	577	1240	2270	2580
13	3270	3440	---	---	3890	2880	2090	3600	610	1280	2220	2690
14	3290	3810	---	---	3890	2880	2270	3150	626	1320	2260	2860
15	3360	3620	---	---	3760	2880	2290	3230	624	1400	2360	2850
16	3340	3800	3390	---	3780	3030	2660	1580	611	1480	2410	2900
17	3360	3860	3240	---	3780	3130	2790	1640	578	1580	2390	2920
18	3380	3650	3250	---	3680	3160	2850	1600	544	1500	2350	2880
19	3390	3830	3260	---	3620	3310	2840	1550	533	1420	2440	2860
20	3380	3590	3270	---	3620	3210	2980	1590	534	1440	2440	2890
21	3410	3380	3350	---	3790	3180	3150	1840	544	1480	2190	2930
22	3240	3320	3430	---	3750	3380	3280	1960	569	1580	2240	2890
23	3230	3310	3420	---	3620	3370	2890	989	609	1800	2370	2940
24	3270	3330	3460	---	3370	3190	2750	1020	652	1920	2510	2960
25	3290	3060	3490	---	3060	2810	2640	1030	816	1980	2520	3000
26	3310	3170	3550	---	2600	2510	2650	1060	775	2000	2510	3090
27	3300	3230	3520	---	2720	2660	2690	1180	1010	1960	2490	3160
28	3300	3260	3540	4130	2980	2790	2880	1530	1030	2000	2430	3080
29	3310	3060	3570	3960	---	2770	3110	2210	1000	2010	2320	3060
30	3390	3090	3570	3960	---	2610	3360	2430	993	2220	2380	3060
31	3410	---	3570	3880	---	2240	---	2380	---	2330	2440	---
MEAN	3310	3450	---	---	3740	2970	2420	2490	863	---	2390	2770
MAX	3410	3860	---	---	4200	3380	3360	3600	2350	---	2690	3160
MIN	3230	3060	---	---	2600	2240	1500	989	459	---	2190	2380

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	8.5	4.0	5.0	.0	.0	.0	.0	.0	.0	.0	.5	.5
2	10.0	6.0	8.0	.5	.0	.0	.0	.0	.0	.0	5.5	.5
3	10.5	6.5	8.0	1.0	.0	.0	.0	.0	.0	.0	8.0	.5
4	10.0	6.0	8.0	1.0	.0	.0	.0	.0	.0	.0	8.0	1.0
5	9.5	5.0	6.0	2.5	.0	.0	.0	.0	.0	.0	7.5	2.0
6	9.5	6.5	3.0	.0	.0	.0	.0	.0	.0	.0	7.5	2.0
7	9.0	7.5	4.0	.0	.0	.0	.0	.0	.0	.0	6.5	3.0
8	7.0	5.0	4.5	.0	.0	.0	.0	.0	.0	.0	5.5	2.5
9	8.0	4.0	2.5	.0	.0	.0	.0	.0	.0	.0	6.0	1.5
10	8.5	4.5	.0	.0	.0	.0	.0	.0	.0	.0	5.0	.5
11	9.5	5.5	4.0	.0	.0	.0	.0	.0	.0	.0	6.0	1.0
12	8.0	4.0	2.5	.0	.0	.0	.0	.0	.0	.0	7.0	1.0
13	9.0	2.0	.5	.0	.0	.0	.0	.0	.0	.0	6.0	.0
14	8.5	.5	.5	.0	.0	.0	.0	.0	.0	.0	5.5	.5
15	10.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	7.5	.0
16	10.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0	3.5	1.0
17	10.0	2.5	.0	.0	.0	.0	.0	.0	.5	.0	4.5	.5
18	10.0	2.5	.0	.0	.0	.0	.0	.0	.5	.0	5.5	.5
19	10.0	2.5	.0	.0	.0	.0	.0	.0	.5	.0	8.0	.0
20	9.5	2.5	.0	.0	.0	.0	.0	.0	.5	.5	9.5	1.0
21	8.5	2.5	.0	.0	.0	.0	.0	.0	.5	.5	9.5	1.5
22	6.5	3.0	.0	.0	.0	.0	.0	.0	.5	.5	10.0	2.5
23	8.0	2.5	.0	.0	.0	.0	.0	.0	.5	.5	11.5	2.5
24	9.5	2.5	.0	.0	.0	.0	.0	.0	.5	.5	10.5	4.0
25	9.5	3.0	.0	.0	.0	.0	.0	.0	.5	.5	9.0	3.0
26	10.0	3.0	.0	.0	.0	.0	.0	.0	.5	.5	9.5	1.5
27	10.5	3.0	.0	.0	.0	.0	.0	.0	.5	.5	11.5	2.0
28	9.5	4.0	.0	.0	.0	.0	.0	.0	.5	.5	12.5	3.5
29	8.5	3.0	.0	.0	.0	.0	.0	.0	---	---	12.5	4.5
30	7.0	1.0	.0	.0	.0	.0	.0	.0	---	---	12.0	4.5
31	7.5	3.0	---	---	.0	.0	.0	.0	---	---	11.5	6.5
MONTH	10.5	.5	8.0	.0	.0	.0	.0	.0	.5	.0	12.5	.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.5	4.5	17.5	6.0	21.0	13.5	21.5	15.5	22.5	13.0	20.0	12.0
2	7.0	5.0	20.0	9.0	23.5	13.5	23.0	16.0	24.0	14.0	19.5	11.5
3	7.0	3.5	20.5	9.5	21.0	15.0	22.0	17.5	18.0	14.5	20.5	11.0
4	8.5	4.0	13.5	5.5	21.5	15.0	---	---	21.5	12.5	20.5	12.0
5	10.0	3.0	12.5	3.0	20.5	17.0	---	---	21.5	13.5	19.5	12.0
6	13.5	4.5	12.0	6.0	19.0	16.5	---	---	22.0	12.5	18.5	12.0
7	11.0	6.0	10.0	6.0	18.5	16.0	---	---	21.5	14.0	17.5	10.5
8	9.0	5.0	11.0	4.5	17.5	14.5	20.5	13.5	20.0	13.0	18.0	11.0
9	9.0	5.0	11.5	5.5	14.5	13.5	21.0	15.5	22.0	13.5	16.5	11.5
10	10.0	5.0	11.5	4.5	17.0	13.5	19.0	15.5	22.5	13.0	13.5	10.0
11	10.5	6.0	13.5	6.5	19.0	15.5	18.5	14.0	22.5	14.5	15.5	8.0
12	11.0	5.0	14.5	6.0	20.0	16.5	19.0	13.5	21.0	15.0	17.0	9.5
13	7.5	3.0	14.5	6.0	19.5	16.0	20.0	14.0	21.0	12.5	17.5	10.0
14	10.5	1.0	11.5	7.0	19.0	15.5	21.0	15.5	22.0	13.0	17.0	11.0
15	13.0	3.5	13.0	5.0	19.5	16.0	17.5	16.0	21.0	13.0	16.5	10.0
16	10.0	7.0	11.0	7.5	20.0	16.0	20.5	14.0	21.5	13.0	16.0	11.0
17	7.0	4.5	13.0	5.0	20.5	17.0	22.0	15.0	22.5	14.0	14.5	8.5
18	9.0	3.5	16.0	7.5	19.5	17.5	21.5	16.5	23.0	13.5	12.0	9.5
19	11.5	3.0	18.5	10.0	20.0	16.5	21.5	15.0	20.5	14.5	13.0	8.5
20	15.0	4.5	19.0	11.5	20.0	17.0	22.0	15.5	20.0	15.5	13.0	8.0
21	16.5	7.5	17.0	11.5	19.0	16.0	22.0	15.5	20.0	15.0	14.0	8.0
22	16.0	7.5	13.0	7.0	19.5	15.5	20.0	16.5	21.5	13.5	14.5	7.5
23	12.5	8.5	13.0	6.5	21.0	16.5	20.5	15.5	21.0	14.5	14.5	8.5
24	11.0	6.5	16.5	9.5	21.0	18.0	20.5	14.5	21.5	14.0	12.0	7.5
25	9.0	4.5	18.5	10.5	20.5	17.5	20.0	14.5	22.5	14.5	10.0	6.0
26	9.0	3.0	19.5	12.0	23.0	16.5	20.0	14.0	23.0	14.0	9.5	4.0
27	10.0	4.0	20.5	12.0	22.5	17.0	20.0	12.5	23.5	14.0	10.5	4.0
28	9.0	6.0	21.5	12.0	21.5	17.5	22.0	13.5	22.5	13.5	11.0	4.5
29	12.0	5.0	20.5	12.0	20.5	16.5	19.5	13.5	18.0	14.5	11.5	4.0
30	15.0	4.0	22.0	11.5	21.0	15.5	21.0	12.5	20.5	12.5	7.0	5.0
31	---	---	22.5	13.0	---	---	22.5	13.0	20.0	13.0	---	---
MONTH	16.5	1.0	22.5	3.0	23.5	13.5	23.0	12.5	24.0	12.5	20.5	4.0
YEAR	24.0	.0										

09216790 BITTER CREEK ABOVE KILLPECKER CREEK, AT ROCK SPRINGS, WY

LOCATION.--Lat 41°35'33", long 109°13'27", in NE1/4 SE1/4 SW1/4 sec.26, T.19 N., R.105 W., Sweetwater County, Hydrologic Unit 14040105, 200 ft downstream from viaduct on State Highway 191 and 800 ft upstream from mouth of Killpecker Creek in Rock Springs.

PERIOD OF RECORD.--October 1982 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUL 08...	1200	0.02	21.5	0.07	<0.01	15	<0.01	<0.01	<0.01
SEP 30...	1300	13	5.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

09216810 KILLPECKER CREEK AT ROCK SPRINGS, WY

LOCATION.--Lat 41°35'56", long 109°13'54", in NW1/4 SW1/4 NW1/4 sec.26, T.19 N., R.105 W., Sweetwater County, Hydrologic Unit 14040105, 0.6 mi downstream from Interstate Highway 80, 0.8 mi upstream from mouth, and 1.2 mi northwest of Rock Springs.

PERIOD OF RECORD.--Water years 1975-80, February 1982 to current year.

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 05...	1945	491	20.0	<0.01	0.06	<0.01	<0.01	<0.01	<0.01
JUL 08...	1100	0.49	15.5	0.06	<0.01	1.9	<0.01	<0.01	<0.01
SEP 30...	1155	0.09	4.5	<0.01	0.06	0.16	<0.01	<0.01	<0.01

GREEN RIVER BASIN

09217000 GREEN RIVER NEAR GREEN RIVER, WY

LOCATION.--Lat 41°30'59", long 109°26'54", in NW1/4 NE1/4 NE1/4 sec.26, T.18 N., R.107 W., Sweetwater County, Hydrologic Unit 14040106, on right bank 0.1 mi downstream from Bitter Creek, 1.0 mi southeast of town of Green River, and 4.0 mi upstream from high-water line of Flaming Gorge Reservoir.

DRAINAGE AREA.--About 14,000 mi², of which 4,260 mi², including 3,959 mi² in Great Divide Basin in southern Wyoming, is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1951 to current year.

REVISED RECORDS.--WSP 1713: 1957. WDR-76-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,060 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-25, Nov. 11, and Nov. 17 to Mar. 8. Records good except those for estimated daily discharges, which are poor. Some regulation by Fontenelle Reservoir since August 1963. (See sta 09211150.) Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, and diversions for irrigation of about 223,000 acres upstream from station.

AVERAGE DISCHARGE.--35 years, 1,797 ft³/s, 1,302,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,800 ft³/s, Sept. 7, 1965, gage height, 8.53 ft, caused by emergency release from Fontenelle Reservoir; minimum daily discharge, 170 ft³/s, Nov. 16, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge observed, 22,200 ft³/s, June 19, 1918, at site 1.5 mi upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,400 ft³/s, June 21, gage height, 7.64 ft; minimum daily, 400 ft³/s, Nov. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	720	860	600	550	560	1100	2240	3270	9470	13200	3840	1480
2	720	869	650	550	540	1150	3150	3200	9740	13100	4370	1360
3	720	869	700	520	540	1200	3480	2980	10000	13000	3320	1460
4	720	869	700	480	560	1300	2900	3090	7900	12800	2620	1430
5	720	869	700	480	600	1400	2770	3540	9930	12400	1900	1430
6	720	860	750	480	600	1500	2560	5080	10600	12100	2550	1130
7	700	860	800	480	600	1550	2380	5420	10700	11900	3140	1360
8	650	886	800	480	560	1580	2530	5000	11000	11700	2850	1340
9	620	886	800	480	520	1600	3150	4840	10700	11500	2660	1070
10	620	877	800	480	500	1620	3290	4830	10300	11500	2370	1360
11	700	870	750	450	540	1620	3150	4730	10200	11300	2070	1310
12	740	870	650	450	560	1630	3090	4360	10700	11100	1870	1350
13	740	877	600	450	585	1660	3060	3860	11100	11100	1850	1350
14	740	886	550	450	580	1640	3050	3490	11300	10900	1850	1350
15	780	911	520	450	580	1640	2960	3020	10600	10700	1850	1340
16	780	903	520	450	580	1640	2960	2960	9400	10400	1640	1330
17	800	780	520	500	580	1660	2650	3250	13000	10100	1580	1290
18	800	670	520	520	600	1640	2620	3250	8690	9840	1580	1270
19	800	620	520	520	650	1590	2730	3240	12100	9590	1580	1270
20	800	640	520	540	750	1600	2480	3310	13700	9420	1620	1150
21	800	640	520	520	880	1620	2070	3750	14300	9080	1760	977
22	800	600	520	500	880	1550	2180	4080	14300	8520	1500	976
23	800	500	520	500	880	1520	2830	5060	14300	5560	1620	967
24	800	400	540	500	900	1570	3660	6000	14200	6130	1790	995
25	795	420	550	500	950	1680	5240	5990	14200	5880	1790	992
26	755	420	550	500	1000	1790	5840	5140	14000	5600	1780	968
27	763	420	550	520	1050	1830	5430	4390	13800	5880	1590	984
28	779	420	550	540	1050	1840	4510	5130	13700	5190	1750	1030
29	795	450	550	580	---	1840	3680	6120	13700	4110	1740	1010
30	787	500	550	600	---	1860	3210	7390	13500	4070	1750	1070
31	822	---	550	600	---	1870	---	8580	---	4210	1790	---
TOTAL	23286	21502	18920	15620	19175	49290	95850	138350	351130	291880	65970	36399
MEAN	751	717	610	504	685	1590	3195	4463	11700	9415	2128	1213
MAX	822	911	800	600	1050	1870	5840	8580	14300	13200	4370	1480
MIN	620	400	520	450	500	1100	2070	2960	7900	4070	1500	967
AC-FT	46190	42650	37530	30980	38030	97770	190100	274400	696500	578900	130900	72200
CAL YR 1985	TOTAL	560190		MEAN	1535	MAX	12000	MIN	380	AC-FT	1111000	
WTR YR 1986	TOTAL	1127372		MEAN	3089	MAX	14300	MIN	400	AC-FT	2236000	

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples of specific conductance and sediment collected at bridge on State Highway 530 in town of Green River, 0.8 mi upstream from Bitter Creek and 1.0 mi upstream from discharge station.

PERIOD OF RECORD.--Water years 1951 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1951 to current year.

WATER TEMPERATURES: May 1951 to current year.

SUSPENDED-SEDIMENT DISCHARGE: May 1951 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,870 microsiemens, Nov. 24, 1985; minimum daily, 212 microsiemens, Nov. 23, 1983.

WATER TEMPERATURES: Maximum 29.0°C, July 1, 1977; minimum, 0.0°C, on many days during winter period.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 15,000 mg/L, Aug. 11, 1963; minimum daily mean, 0 mg/L, Sept. 18, 1962.

SEDIMENT LOADS: Maximum daily, 110,000 tons, Mar. 28, 1962; minimum daily, 0 ton, Sept. 18, 1962.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,870 microsiemens, Nov. 24; minimum daily, 274 microsiemens, June 25, July 4.

TEMPERATURES: Maximum daily, 22.0°C, Aug. 18; minimum, 0.0°C, on many days during November through March.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,660 mg/L, Aug. 21; minimum daily mean, 8 mg/L, Oct. 14, 15.

SEDIMENT LOADS: Maximum daily, 7,890 tons, Aug. 21; minimum daily, 16 tons, Oct. 14.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 25...	1250	795	675	--	6.5	605	10	10.3	106	K14
DEC 17...	1100	523	580	8.2	0.0	610	3.1	11.2	96	K26
FEB 13...	1140	585	880	8.3	0.0	595	3.9	10.5	92	K3
MAR 11...	1245	1570	--	--	3.0	--	--	--	--	--
APR 15...	1700	3020	590	8.8	6.0	610	--	10.1	101	K9
MAY 29...	1130	6220	--	--	16.0	--	--	--	--	--
JUN 10...	1730	9930	285	8.3	17.0	618	40	7.8	100	66
JUL 08...	1405	11200	--	--	16.5	--	--	--	--	--
AUG 05...	0915	1310	415	8.5	16.5	615	4.0	7.4	94	44

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	STREP- TOCOCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAC03)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CAC03
OCT 25...	21	260	63	25	67	2	2.0	147	--
DEC 17...	K10	270	66	26	59	2	1.8	181	200
FEB 13...	110	270	68	25	54	1	1.7	180	190
MAR 11...	--	--	--	--	--	--	--	--	--
APR 15...	K12	--	--	--	--	--	--	--	174
MAY 29...	--	--	--	--	--	--	--	--	--
JUN 10...	180	120	31	10	14	0.6	2.3	108	128
JUL 08...	--	--	--	--	--	--	--	--	--
AUG 05...	160	170	42	15	28	1	1.4	126	145

K-Results based on colony count outside the acceptable range (non-ideal colony count).

GREEN RIVER BASIN

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALKA- LINIT- ITY, CARBON- ATE IT-FLD (MG/L - CAC03)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)
OCT 25...	--	--	0	220	12	0.3	5.0	496	480
DEC 17...	200	244	0	210	9.2	0.3	7.7	525	500
FEB 13...	190	171	30	200	8.2	0.3	8.3	479	510
MAR 11...	--	--	--	--	--	--	--	--	--
APR 15...	171	148	30	--	--	--	--	--	--
MAY 29...	--	--	--	--	--	--	--	--	--
JUN 10...	135	165	0	45	3.1	0.1	8.9	166	200
JUL 08...	--	--	--	--	--	--	--	--	--
AUG 05...	--	--	--	96	5.1	0.2	5.7	266	280

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 25...	0.67	1060	<0.10	0.07	0.09	0.3	0.02	<0.01
DEC 17...	0.71	741	0.34	0.05	0.06	0.4	0.01	<0.01
FEB 13...	0.65	757	0.11	0.06	0.08	0.8	0.02	0.02
MAR 11...	--	--	--	--	--	--	--	--
APR 15...	--	--	<0.10	0.04	0.05	0.5	0.09	0.02
MAY 29...	--	--	--	--	--	--	--	--
JUN 10...	0.23	4450	0.23	0.08	0.1	0.6	0.12	0.03
JUL 08...	--	--	--	--	--	--	--	--
AUG 05...	0.36	941	0.19	0.03	0.04	0.4	0.03	0.02

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
DEC 17...	1100	10	<1	62	<0.5	<1	<1	<3	1	13	3
JUN 10...	1730	30	1	49	<0.5	2	<1	<3	6	52	<1
AUG 05...	0915	30	1	58	<0.5	<1	<1	<3	3	12	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 17...	17	4	0.2	<10	1	<1	<1	500	<6	30
JUN 10...	8	7	0.2	<10	10	<1	<1	210	<6	13
AUG 05...	10	3	0.1	<10	<1	<1	<1	310	<6	<3

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

SPECIFIC CONDUCTANCE, LABORATORY (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	712	728	991	714	753	845	555	503	310	276	366	532
2	725	720	961	702	759	692	512	514	329	275	367	545
3	725	719	793	723	755	800	546	507	298	276	432	542
4	722	715	774	690	762	816	588	495	353	274	398	546
5	733	713	778	716	744	797	563	480	309	277	516	550
6	725	718	765	775	757	776	573	454	303	281	426	579
7	728	725	732	677	726	803	583	445	293	278	400	555
8	730	716	758	720	725	777	593	488	290	283	414	564
9	750	705	739	733	736	753	552	442	292	283	433	584
10	793	700	779	732	747	769	568	498	295	280	424	569
11	792	700	716	740	738	720	603	432	291	281	441	604
12	775	694	748	746	726	710	592	470	292	291	451	567
13	733	724	792	767	723	724	600	450	292	287	454	585
14	725	713	776	750	725	695	595	504	295	300	458	580
15	729	747	779	769	748	664	608	513	294	304	503	590
16	722	695	773	771	713	650	583	503	298	319	498	595
17	720	930	779	752	676	651	598	488	294	325	495	592
18	740	746	763	752	666	662	623	494	292	333	499	597
19	721	932	744	713	676	695	600	486	287	336	498	609
20	724	1100	744	760	722	690	596	472	294	348	507	609
21	729	913	747	747	708	677	649	455	287	341	540	673
22	719	850	749	765	708	665	606	447	286	350	584	681
23	730	1080	749	739	696	637	558	412	280	344	520	669
24	737	1870	747	697	597	646	538	404	280	338	501	667
25	758	1110	730	735	555	616	510	394	274	402	545	675
26	748	1170	728	761	681	610	490	380	280	349	557	682
27	733	1550	721	785	932	586	478	384	279	362	502	695
28	750	1620	733	735	833	649	494	379	277	367	512	670
29	747	1030	742	746	---	591	496	359	275	373	510	695
30	747	975	735	746	---	590	524	348	277	365	511	692
31	749	---	725	741	---	604	---	310	---	363	505	---
MEAN	738	910	767	739	725	695	566	449	293	318	476	610
MAX	793	1870	991	785	932	845	649	514	353	402	584	695
MIN	712	694	716	677	555	586	478	310	274	274	366	532
WTR YR 1986	MEAN	606	MAX	1870	MIN	274						

GREEN RIVER BASIN

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

TEMPERATURE, WATER (DEG C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.0	5.0	.0	.0	.0	.0	7.5	10.5	17.0	20.0	20.5	18.0
2	11.0	6.5	.0	.0	.0	.0	4.5	13.5	18.0	20.0	19.5	15.0
3	11.5	7.5	.0	.0	.0	.0	5.5	12.5	18.0	19.0	18.0	17.0
4	10.0	8.0	.0	.0	.0	.0	8.0	11.0	18.5	18.5	19.0	17.5
5	9.5	6.0	.0	.0	.0	.0	9.0	10.5	17.5	17.0	19.0	17.5
6	9.5	4.0	.0	.0	.0	.0	10.5	9.5	16.5	19.0	20.0	16.0
7	9.0	4.5	.0	.0	.0	.0	8.0	9.0	17.0	18.5	20.0	15.0
8	6.0	3.0	.0	.0	.0	.0	6.0	8.0	16.5	18.5	19.0	14.5
9	5.0	.5	.0	.0	.0	.0	6.0	7.0	15.5	18.0	19.0	14.0
10	8.0	.0	.0	.0	.0	.0	8.0	8.5	16.5	17.5	21.0	14.0
11	9.5	2.5	.0	.0	.0	.0	8.5	8.0	17.0	18.0	20.0	13.0
12	8.5	3.0	.0	.0	.0	.5	7.5	9.0	16.5	18.0	20.0	14.0
13	7.0	1.0	.0	.0	.0	3.0	7.0	10.0	17.0	18.5	20.0	14.0
14	8.0	.0	.0	.0	.0	3.5	8.0	10.0	17.0	18.5	20.5	14.5
15	9.5	.0	.0	.0	.0	4.0	8.0	10.0	19.5	17.5	20.5	13.5
16	9.5	.0	.0	.0	.0	3.5	9.5	10.0	19.5	18.5	20.5	14.0
17	9.5	.0	.0	.0	.0	2.5	5.5	11.0	18.5	18.0	19.5	13.0
18	6.5	.0	.0	.0	.0	3.0	5.0	13.0	18.0	18.0	22.0	11.0
19	7.5	.0	.0	.0	.0	3.5	9.0	15.0	17.5	18.5	18.0	11.0
20	7.0	.0	.0	.0	.0	6.0	10.0	15.0	18.5	18.5	19.5	10.5
21	9.0	.0	.0	.0	.0	7.0	13.0	12.0	18.0	18.5	19.0	12.0
22	6.5	.0	.0	.0	.0	7.0	12.0	13.0	17.0	18.0	21.0	12.0
23	7.5	.0	.0	.0	.0	6.5	11.0	14.5	18.0	19.0	17.0	12.0
24	8.5	.0	.0	.0	.0	7.5	9.5	14.0	18.0	18.5	17.5	9.5
25	9.0	.0	.0	.0	.0	6.5	8.0	15.0	17.5	18.0	20.0	7.0
26	9.5	.0	.0	.0	.0	7.0	6.5	15.5	19.5	18.0	21.0	7.0
27	9.0	.0	.0	.0	.0	8.0	8.5	15.5	19.0	18.0	20.0	5.0
28	8.5	.0	.0	.0	.0	8.5	8.0	15.0	19.0	19.0	21.0	8.0
29	8.5	.0	.0	.0	---	9.0	9.5	15.5	19.0	18.5	20.0	8.0
30	8.0	.0	.0	.0	---	10.0	10.5	17.0	19.0	18.0	21.0	6.0
31	6.0	---	.0	.0	---	9.5	---	19.0	---	20.0	21.0	---
MEAN	8.5	1.5	.0	.0	.0	3.5	8.5	12.0	18.0	18.5	20.0	12.5
MAX	11.5	8.0	.0	.0	.0	10.0	13.0	19.0	19.5	20.0	22.0	18.0
MIN	5.0	.0	.0	.0	.0	.0	4.5	7.0	15.5	17.0	17.0	5.0
WTR YR 1986	MEAN	8.5	MAX	22.0	MIN	.0						

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	720	28	54	860	30	70	600	42	68
2	720	20	39	869	26	61	650	37	65
3	720	17	33	869	33	77	700	39	74
4	720	16	31	869	33	77	700	43	81
5	720	11	21	869	39	92	700	41	77
6	720	15	29	860	42	98	750	46	93
7	700	18	34	860	40	93	800	66	143
8	650	13	23	886	33	79	800	56	121
9	620	12	20	886	34	81	800	62	134
10	620	10	17	877	29	69	800	59	127
11	700	9	17	870	32	75	750	73	148
12	740	21	42	870	36	85	650	95	167
13	740	13	26	877	38	90	600	126	204
14	740	8	16	886	46	110	550	75	111
15	780	8	17	911	51	125	520	75	105
16	780	10	21	903	57	139	520	43	60
17	800	12	26	780	58	122	520	42	59
18	800	11	24	670	43	78	520	41	58
19	800	11	24	620	46	77	520	32	45
20	800	12	26	640	89	154	520	28	39
21	800	11	24	640	43	74	520	33	46
22	800	13	28	600	36	58	520	28	39
23	800	198	428	500	34	46	520	30	42
24	800	72	156	400	33	36	540	40	58
25	795	36	77	420	69	78	550	60	89
26	755	18	37	420	53	60	550	43	64
27	763	12	25	420	32	36	550	30	45
28	779	12	25	420	53	60	550	33	49
29	795	9	19	450	75	91	550	26	39
30	787	9	19	500	38	51	550	34	50
31	822	25	55	---	---	---	550	38	56
TOTAL	23286	---	1433	21502	---	2442	18920	---	2556
JANUARY			FEBRUARY			MARCH			
1	550	32	48	560	36	54	1100	270	802
2	550	28	42	540	31	45	1150	250	776
3	520	23	32	540	34	50	1200	305	988
4	480	23	30	560	41	62	1300	320	1120
5	480	20	26	600	58	94	1400	450	1700
6	480	30	39	600	48	78	1500	550	2230
7	480	39	51	600	42	68	1550	1150	4810
8	480	34	44	560	43	65	1580	454	1940
9	480	27	35	520	49	69	1600	220	950
10	480	20	26	500	52	70	1620	155	678
11	450	30	36	540	50	73	1620	120	525
12	450	32	39	560	24	36	1630	152	669
13	450	41	50	585	39	62	1660	115	515
14	450	46	56	580	42	66	1640	83	368
15	450	51	62	580	34	53	1640	93	412
16	450	64	78	580	42	66	1640	85	376
17	500	71	96	580	45	70	1660	72	323
18	520	53	74	600	113	183	1640	72	319
19	520	51	72	650	252	442	1590	62	266
20	540	46	67	750	172	348	1600	95	410
21	520	52	73	880	127	302	1620	85	372
22	500	48	65	880	132	314	1550	72	301
23	500	64	86	880	168	399	1520	65	267
24	500	72	97	900	320	778	1570	70	297
25	500	62	84	950	690	1770	1680	82	372
26	500	49	66	1000	780	2110	1790	95	459
27	520	54	76	1050	830	2350	1830	115	568
28	540	65	95	1050	450	1280	1840	118	586
29	580	53	83	---	---	---	1840	118	586
30	600	40	65	---	---	---	1860	115	578
31	600	43	70	---	---	---	1870	120	606
TOTAL	15620	---	1863	19175	---	11357	49290	---	25169

GREEN RIVER BASIN

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
APRIL			MAY			JUNE			
1	2240	294	1780	3270	110	971	9470	226	5780
2	3150	615	5230	3200	110	950	9740	195	5130
3	3480	510	4790	2980	95	764	10000	193	5210
4	2900	200	1570	3090	100	834	7900	167	3560
5	2770	172	1290	3540	117	1120	9930	240	6430
6	2560	136	940	5080	193	2650	10600	193	5520
7	2380	116	745	5420	168	2460	10700	162	4680
8	2530	120	820	5000	120	1620	11000	137	4070
9	3150	200	1700	4840	167	2180	10700	121	3500
10	3290	200	1780	4830	176	2300	10300	106	2950
11	3150	150	1280	4730	97	1240	10200	89	2450
12	3090	130	1080	4360	84	989	10700	94	2720
13	3060	125	1030	3860	83	865	11100	102	3060
14	3050	155	1280	3490	60	565	11300	97	2960
15	2960	155	1240	3020	57	465	10600	90	2580
16	2960	135	1080	2960	72	575	9400	115	2920
17	2650	123	880	3250	85	746	13000	147	5160
18	2620	108	764	3250	74	649	8690	86	2020
19	2730	132	973	3240	68	595	12100	77	2520
20	2480	140	937	3310	68	608	13700	124	4590
21	2070	112	626	3750	100	1010	14300	114	4400
22	2180	112	659	4080	100	1100	14300	104	4020
23	2830	160	1220	5060	145	1980	14300	98	3780
24	3660	435	4300	6000	187	3030	14200	95	3640
25	5240	450	6370	5990	122	1970	14200	91	3490
26	5840	335	5280	5140	98	1360	14000	75	2840
27	5430	250	3670	4390	76	901	13800	56	2090
28	4510	170	2070	5130	122	1690	13700	58	2150
29	3680	148	1470	6120	145	2400	13700	62	2290
30	3210	108	936	7390	198	3950	13500	52	1900
31	---	---	---	8580	255	5910	---	---	---
TOTAL	95850	---	57790	138350	---	48447	351130	---	108410
JULY			AUGUST			SEPTEMBER			
1	13200	46	1640	3840	40	415	1480	16	64
2	13100	47	1660	4370	34	401	1360	14	51
3	13000	43	1510	3320	52	466	1460	16	63
4	12800	42	1450	2620	32	226	1430	14	54
5	12400	40	1340	1900	16	82	1430	16	62
6	12100	27	882	2550	26	179	1130	19	58
7	11900	33	1060	3140	46	390	1360	34	125
8	11700	50	1580	2850	74	569	1340	27	98
9	11500	42	1300	2660	48	345	1070	26	75
10	11500	48	1490	2370	23	147	1360	23	84
11	11300	39	1190	2070	18	101	1310	22	78
12	11100	35	1050	1870	16	81	1350	22	80
13	11100	36	1080	1850	24	120	1350	19	69
14	10900	40	1180	1850	27	135	1350	17	62
15	10700	34	982	1850	19	95	1340	18	65
16	10400	33	927	1640	19	84	1330	20	72
17	10100	51	1390	1580	21	90	1290	17	59
18	9840	34	903	1580	26	111	1270	22	75
19	9590	28	725	1580	22	94	1270	24	82
20	9420	32	814	1620	18	79	1150	21	65
21	9080	31	760	1760	1660	7890	977	18	47
22	8520	28	644	1500	680	2750	976	26	69
23	5560	47	706	1620	96	420	967	24	63
24	6130	77	1270	1790	46	222	995	20	54
25	5880	110	1750	1790	45	217	992	41	110
26	5600	83	1250	1780	48	231	968	190	497
27	5880	78	1240	1590	40	172	984	140	372
28	5190	50	701	1750	36	170	1030	215	598
29	4110	40	444	1740	25	117	1010	162	442
30	4070	40	440	1750	29	137	1070	58	168
31	4210	44	500	1790	22	106	---	---	---
TOTAL	291880	---	33858	65970	---	16642	36399	---	3861
YEAR	1127372		313828						

09217010 GREEN RIVER BELOW GREEN RIVER, WY

LOCATION.--Lat 41°29'46", long 109°26'17", in SW1/4 SE1/4 NW1/4 sec.36, T.18 N., R.107 W., Sweetwater County, Hydrologic Unit 14040106, at bridge on county road, 1.7 mi downstream from Bitter Creek, 2.7 mi southeast of town of Green River, and 3.3 mi upstream from Logan Draw.

PERIOD OF RECORD.--Water years 1974 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT 25...	1500	795	675	8.5	6.5	605	10.2	105	14	K32	--
NOV 21...	0800	636	675	8.4	0.0	595	11.2	98	--	K7	320
DEC 17...	1300	523	700	8.2	0.0	610	11.1	95	<10	42	--
FEB 13...	1300	585	780	8.3	0.0	595	10.6	93	--	K19	280
APR 15...	1900	3020	635	8.5	6.5	610	10.0	102	19	K8	--
MAY 29...	1315	6220	380	8.3	16.0	595	7.5	98	12	54	--
JUN 10...	1700	9930	300	8.3	17.0	618	7.8	100	17	89	130
JUL 08...	1600	11300	310	8.2	19.0	615	7.8	105	--	62	--
AUG 05...	1400	1310	445	8.6	16.5	615	7.0	89	--	K6	180

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
OCT 25...	--	--	--	--	--	--	--	--	--	--
NOV 21...	76	32	84	2	1.9	179	280	18	0.3	7.6
DEC 17...	--	--	--	--	--	--	--	--	--	--
FEB 13...	68	26	59	2	1.9	179	210	11	0.3	8.2
APR 15...	--	--	--	--	--	--	--	--	--	--
MAY 29...	--	--	--	--	--	--	--	--	--	--
JUN 10...	32	11	17	0.7	2.5	109	45	5.6	0.1	8.8
JUL 08...	--	--	--	--	--	--	--	--	--	--
AUG 05...	46	17	35	1	1.1	130	100	10	0.2	4.7

GREEN RIVER BASIN

09217900 BLACKS FORK NEAR ROBERTSON, WY

LOCATION.--Lat 40°57'53", long 110°34'38", in NW1/4 SW1/4 sec.27, T.3 N., R.12 E., Summit County, UT, Hydrologic Unit 14140107, on left bank 1 mi downstream from East Fork, 2.5 mi south of Utah-Wyoming State line, and 17 mi south of Robertson.

DRAINAGE AREA.--130 mi², approximately.

PERIOD OF RECORD.--October 1937 to July 1939 (published as "at Blacks Fork Ranger Station"), July 1966 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 8,804.8 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Datums published from October 1968 to September 1978 are incorrect. October 1937 to July 1939, water-stage recorder at site 85 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 14 to Jan. 4, Feb. 1-10, Feb. 19 to Apr. 15, and Apr. 18, 19, 25, 30. Records good except those for October to April, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--21 years (water years 1938, 1967-86), 164 ft³/s, 118,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,480 ft³/s, June 19, 1983; maximum gage height, 4.91 ft, June 6, 1968; minimum daily discharge, 5.5 ft³/s, Jan. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 4	2300	*2,170	*3.51	June 19	0200	1,400	2.80

Minimum daily discharge, 18 ft³/s, Dec. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	41	26	26	23	23	50	186	1550	560	168	90
2	45	41	27	28	22	25	50	260	1570	503	156	86
3	41	41	28	25	22	30	45	365	1590	478	146	86
4	39	42	29	23	22	34	45	373	1710	509	138	76
5	37	43	29	23	21	36	50	314	1800	521	134	71
6	39	43	29	24	21	41	55	290	1590	395	130	68
7	74	43	29	24	21	42	60	251	1420	373	143	76
8	59	42	28	25	21	41	62	215	1350	351	156	82
9	58	43	27	25	20	41	60	189	1010	347	130	73
10	52	40	25	25	19	42	56	181	761	324	116	81
11	55	41	20	25	23	41	56	182	733	297	113	74
12	54	44	18	24	24	40	56	189	872	292	116	68
13	48	43	21	24	23	39	60	198	1010	285	107	64
14	40	44	25	23	22	38	55	211	1060	283	102	63
15	39	44	29	24	23	36	60	206	1090	310	97	63
16	40	38	29	23	22	34	64	188	1140	373	92	62
17	40	31	29	22	24	33	62	172	1130	306	89	60
18	39	28	29	23	21	30	60	207	1180	291	87	60
19	39	25	29	25	21	29	60	302	1140	259	91	62
20	39	27	28	24	20	28	62	456	1030	238	141	56
21	40	29	28	25	21	29	82	723	939	219	215	55
22	42	27	27	26	22	30	108	612	830	237	123	54
23	43	24	26	25	23	31	132	487	778	256	113	54
24	44	25	26	25	24	32	141	524	747	241	123	75
25	45	26	26	24	24	32	130	695	673	287	122	70
26	45	27	26	24	24	30	117	961	663	263	111	68
27	45	28	26	23	23	35	113	931	702	250	95	67
28	44	28	26	23	22	40	121	1140	728	211	92	67
29	42	28	26	23	---	45	137	1250	699	194	102	66
30	40	27	27	22	---	50	145	1410	664	183	101	65
31	41	---	26	22	---	55	---	1540	---	176	107	---
TOTAL	1391	1053	824	747	618	1112	2354	15208	32159	9812	3756	2062
MEAN	44.9	35.1	26.6	24.1	22.1	35.9	78.5	491	1072	317	121	68.7
MAX	74	44	29	28	24	55	145	1540	1800	560	215	90
MIN	37	24	18	22	19	23	45	172	663	176	87	54
AC-FT	2760	2090	1630	1480	1230	2210	4670	30170	63790	19460	7450	4090
CAL YR 1985	TOTAL	54587		MEAN	150	MAX	1190	MIN	18	AC-FT	108300	
WTR YR 1986	TOTAL	71096		MEAN	195	MAX	1800	MIN	18	AC-FT	141000	

09218500 BLACKS FORK NEAR MILLBURNE, WY

LOCATION.--Lat 41°01'54", long 110°34'43", in NW1/4 NE1/4 SW1/4 sec.11, T.12 N., R.117 W., Uinta County, Hydrologic Unit 14040107, on left bank 0.4 mi downstream from Meeks Cabin Dam, 2.7 mi north of Utah-Wyoming State line, and 17 mi southwest of Millburne.

DRAINAGE AREA.--152 mi².

PERIOD OF RECORD.--July 1939 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 929: 1940.

GAGE.--Water-stage recorder. Datum of gage is 8,512.27 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to Oct. 1, 1971, at several sites about 2.0 mi downstream at various datums.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Meeks Cabin Reservoir, capacity, 32,470 acre-ft, since June 1971. No diversion upstream from station.

AVERAGE DISCHARGE.--47 years, 164 ft³/s, 118,800 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,530 ft³/s, June 7, 1957, from rating curve extended above 1,500 ft³/s; maximum gage height, 6.46 ft in gage well, 6.76 ft from floodmarks, June 12, 1965, site and datum then in use; minimum daily discharge, 1.0 ft³/s, Sept. 15, 16, 1983, due to regulation by Meeks Cabin Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,430 ft³/s, June 5, gage height, 5.04 ft; minimum daily, 7.7 ft³/s, Mar. 13-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	31	33	12	11	11	8.6	8.6	1670	757	229	136
2	45	31	33	12	11	11	8.6	8.8	1860	748	228	138
3	45	31	33	12	11	11	8.6	9.1	1820	745	224	138
4	45	31	33	12	11	11	8.6	9.1	2010	599	225	140
5	45	31	23	11	11	11	8.6	9.1	2070	482	203	138
6	45	31	12	11	11	10	8.6	9.1	1930	493	182	138
7	45	31	12	11	11	8.6	8.6	9.1	1730	507	179	137
8	44	31	12	11	11	8.6	8.6	9.1	1680	502	176	135
9	43	31	12	11	11	8.6	8.6	9.1	1450	518	175	164
10	42	32	12	11	11	8.6	8.6	9.1	1360	509	176	186
11	42	32	12	11	11	8.6	8.6	9.2	1130	515	176	185
12	42	32	12	11	11	8.3	8.6	9.5	1130	524	177	182
13	42	32	12	11	11	7.7	8.6	9.5	1270	515	179	179
14	42	32	12	11	11	7.7	8.6	9.5	1430	518	179	177
15	42	32	12	11	11	7.8	8.6	22	1450	448	179	176
16	42	32	11	11	11	7.8	8.6	90	1460	396	180	200
17	42	32	11	11	11	8.0	8.6	124	1450	388	181	223
18	42	33	11	11	11	8.2	8.6	125	1440	393	182	222
19	42	33	11	11	11	8.2	8.6	147	1420	405	187	222
20	42	33	11	11	11	8.2	8.6	165	1380	412	190	220
21	42	33	11	11	11	8.2	8.6	228	1240	417	190	221
22	42	33	11	11	11	8.2	8.6	379	1120	427	191	223
23	42	33	11	11	11	8.6	8.6	598	1000	436	185	191
24	42	33	11	11	11	8.6	8.6	679	953	434	182	166
25	42	33	11	11	11	8.6	8.6	678	866	431	182	165
26	42	33	11	11	11	8.6	8.6	674	797	427	155	165
27	42	33	11	11	11	8.6	8.6	763	780	428	135	164
28	42	33	11	11	11	8.6	8.6	1080	787	430	136	163
29	37	33	11	11	---	8.6	8.6	1210	789	326	135	163
30	31	33	11	11	---	8.6	8.6	1300	784	232	136	125
31	31	---	11	11	---	8.6	---	1500	---	230	135	---
TOTAL	1312	964	451	345	308	273.7	258.0	9889.9	40256	14592	5569	5182
MEAN	42.3	32.1	14.5	11.1	11.0	8.83	8.60	319	1342	471	180	173
MAX	58	33	33	12	11	11	8.6	1500	2070	757	229	223
MIN	31	31	11	11	11	7.7	8.6	8.6	780	230	135	125
AC-FT	2600	1910	895	684	611	543	512	19620	79850	28940	11050	10280
CAL YR 1985	TOTAL	58138		MEAN	159	MAX	1020	MIN	11	AC-FT	115300	
WTR YR 1986	TOTAL	79400.6		MEAN	218	MAX	2070	MIN	7.7	AC-FT	157500	

GREEN RIVER BASIN

09220000 EAST FORK OF SMITHS FORK NEAR ROBERTSON, WY

LOCATION.--Lat 41°03'15", long 110°23'52", in NE1/4 NW1/4 NE1/4 sec.5, T.12 N., R.115 W., Uinta County, Hydrologic Unit 14040107, Wasatch National Forest, on left bank 60 ft downstream from bridge, 1.0 mi upstream from Gilbert Creek, 6.1 mi downstream from State Line Reservoir, and 9.0 mi south of Robertson.

DRAINAGE AREA.--53.0 mi².

PERIOD OF RECORD.--July 1939 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1313. Prior to Oct. 1, 1978, published as East Fork of Smith Fork near Robertson.

REVISED RECORDS.--WSP 979: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,470 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 12, 1957, at datum 3.96 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Flow completely regulated by State Line Reservoir, 6.1 mi upstream, total capacity, 14,000 acre-ft, dead storage is about 2,000 acre-ft, since May 1979.

COOPERATION.--Records provided by Office of Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--32 years (water years 1940-71), 47.1 ft³/s, 34,120 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft³/s, June 10, 1965, gage height, 6.75 ft; no flow part of each day Apr. 17-22, 24, 25, 1950; minimum gage height, 3.26 ft, present datum, Apr. 22, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,060 ft³/s, June 7, gage height, 6.41 ft; minimum daily during period of operation, 20 ft³/s, Apr. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	26	235	176	100	60
2							---	27	678	170	100	61
3							---	29	667	165	101	61
4							---	27	710	155	100	62
5							---	24	710	155	100	67
6							---	24	825	163	100	67
7							---	31	981	147	94	67
8							---	31	929	139	93	67
9							---	30	712	134	96	67
10							---	27	486	130	96	67
11							---	27	336	128	96	63
12							---	26	339	128	98	58
13							---	25	435	126	100	57
14							---	25	484	127	101	57
15							---	26	561	126	103	57
16							21	31	587	126	103	57
17							21	36	575	124	103	57
18							20	36	522	124	101	58
19							20	36	538	124	103	60
20							21	37	472	124	108	60
21							25	39	394	122	101	60
22							27	59	308	120	91	60
23							28	111	256	120	91	60
24							27	127	237	109	91	61
25							26	131	217	98	91	56
26							24	135	204	98	91	51
27							22	141	204	98	91	51
28							24	146	214	98	78	51
29							27	141	214	96	62	51
30							26	143	198	96	61	51
31							---	143	---	100	61	---
TOTAL							---	1897	14228	3946	2905	1782
MEAN							---	61.2	474	127	93.7	59.4
MAX							---	146	981	176	108	67
MIN							---	24	198	96	61	51
AC-FT							---	3760	28220	7830	5760	3530

09223000 HAMS FORK BELOW POLE CREEK, NEAR FRONTIER, WY

LOCATION.--Lat 42°06'38", long 110°42'32", in NE1/4 SE1/4 NW1/4 sec.35, T.25 N., R.117 W., Lincoln County, Hydrologic Unit 14040107, on left bank 2.0 mi downstream from Pole Creek, 4.6 mi upstream from Taylor Creek, and 22 mi northwest of Frontier.

DRAINAGE AREA.--128 mi².

PERIOD OF RECORD.--October 1952 to current year. Prior to October 1970, published as "near Elk Creek ranger station."

GAGE.--Water-stage recorder. Elevation of gage is 7,455 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1952 to Sept. 2, 1971, at site 270 ft upstream at present datum, Sept. 3, 1971, to July 30, 1980, at site 150 ft upstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 5 to Apr. 29, May 2-7, and May 22 to June 6. Records fair except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--34 years, 106 ft³/s, 76,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,230 ft³/s, June 5, 1986, gage height, 6.72 ft; maximum gage height, 8.10 ft, May 28, 1971, site then in use; minimum daily discharge, 0.10 ft³/s, Aug. 17, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 4	Unknown	Unknown	Unknown	June 5	----	*2,230	a6.72
May 20	2400	1,160	*6.76				

a From floodmarks.

Minimum daily discharge, 13 ft³/s, Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	21	17	15	17	24	65	199	1750	345	72	34
2	19	21	17	15	17	23	60	230	1850	317	71	34
3	20	21	18	15	16	23	60	320	1900	288	67	34
4	19	22	18	15	16	25	60	650	1950	274	65	32
5	19	21	17	14	15	27	60	550	2000	268	64	30
6	19	20	17	14	15	29	65	520	1870	245	60	29
7	21	20	18	14	15	30	75	500	1630	223	59	29
8	19	20	18	14	14	30	85	495	1480	210	57	29
9	19	20	18	14	14	29	95	451	1330	191	57	31
10	21	19	17	14	13	27	100	411	1170	179	55	39
11	21	20	15	14	14	24	110	408	1050	170	52	37
12	21	21	15	14	15	22	115	417	1030	158	51	34
13	21	22	16	14	15	21	110	462	1000	145	49	33
14	21	21	17	14	16	20	110	484	960	136	48	32
15	21	20	17	14	17	20	105	482	921	131	47	32
16	21	18	17	15	18	19	100	510	903	133	45	32
17	21	19	17	15	18	19	98	519	878	130	44	31
18	21	20	18	16	17	18	96	658	849	119	42	31
19	21	20	18	16	17	18	94	855	804	111	41	31
20	21	20	18	15	17	18	110	1060	747	106	41	31
21	20	18	17	15	19	19	150	1110	693	101	44	31
22	21	18	17	14	21	20	220	1150	639	99	44	32
23	25	17	16	14	23	21	330	1000	587	100	42	32
24	29	17	16	14	25	22	280	950	551	100	42	39
25	29	19	16	14	27	24	250	1000	513	99	41	55
26	28	20	15	14	29	27	230	1100	473	95	39	55
27	26	20	15	14	29	31	220	1300	440	97	37	54
28	24	20	15	15	26	37	210	1400	419	89	37	53
29	24	19	15	16	---	45	208	1500	402	83	34	53
30	22	19	15	17	---	55	200	1570	376	79	34	52
31	22	---	15	17	---	70	---	1650	---	76	35	---
TOTAL	674	593	515	455	515	837	4071	23911	31165	4897	1516	1101
MEAN	21.7	19.8	16.6	14.7	18.4	27.0	136	771	1039	158	48.9	36.7
MAX	29	22	18	17	29	70	330	1650	2000	345	72	55
MIN	18	17	15	14	13	18	60	199	376	76	34	29
AC-FT	1340	1180	1020	902	1020	1660	8070	47430	61820	9710	3010	2180
CAL YR 1985	TOTAL	28920	MEAN	79.2	MAX	625	MIN	12	AC-FT	57360		
WTR YR 1986	TOTAL	70250	MEAN	192	MAX	2000	MIN	13	AC-FT	139300		

09224050 HAMS FORK NEAR DIAMONDVILLE, WY

LOCATION.--Lat 41°45'06", long 110°31'57", in NW1/4 SE1/4 SW1/4 sec.36, T.21 N., R.116 W., Lincoln County, Hydrologic Unit 14040107, at bridge on U.S. Highway 30N, 1.9 mi south of Diamondville, and 2.8 mi south of Kemmerer.

PERIOD OF RECORD.--Water years 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 24...	1530	64	600	8.8	7.0	590	12.4
DEC 18...	1030	42	420	8.0	0.0	590	10.6
FEB 12...	0930	37	545	8.3	0.0	580	9.4
MAR 27...	1345	198	560	8.6	6.0	590	11.2
MAY 07...	1400	903	395	8.3	7.0	600	11.0
30...	0700	1040	360	8.1	13.0	600	7.4
JUN 11...	1800	1410	325	8.0	22.0	600	7.4
JUL 09...	1900	290	350	8.3	18.0	595	7.8
AUG 04...	1500	61	390	8.6	19.0	600	11.7
SEP 10...	1215	10	440	8.4	15.0	594	9.2

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 24...	133	120	0.70	0.08	0.42	0.5	0.36
DEC 18...	94	300	0.20	0.08	0.32	0.4	0.09
FEB 12...	85	360	0.40	0.06	0.44	0.5	0.10
MAR 27...	117	78	0.20	0.10	0.5	0.6	0.08
MAY 07...	115	76	0.10	0.08	0.52	0.6	0.17
30...	90	52	<0.10	0.07	0.53	0.6	0.13
JUN 11...	108	26	<0.10	0.03	0.37	0.4	0.09
JUL 09...	106	27	<0.10	0.06	0.44	0.5	0.10
AUG 04...	161	K30	0.40	0.07	0.33	0.4	0.16
SEP 10...	118	36	<0.10	0.12	0.18	0.3	0.11

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUL 09...	1900	290	18.0	0.01	<0.01	<0.01	<0.01	<0.01

GREEN RIVER BASIN

09224450 HAMS FORK NEAR GRANGER, WY

LOCATION.--Lat 41°35'56", long 109°59'28", in center of sec.30, T.19 N., R.111 W., Sweetwater County, Hydrologic Unit 14040107, at railroad bridge, 1.2 mi northwest of Granger, and 1.8 mi upstream from mouth.

DRAINAGE AREA.--670 mi², approximately.

PERIOD OF RECORD.--Water years 1965 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 24...	1645	133	899	10.0	330	84	30	70	2	1.9
NOV 22...	0800	18	792	0.0	340	90	27	44	1	1.9
MAR 27...	1130	275	570	7.5	250	70	19	26	0.7	1.2
MAY 07...	1515	1020	469	7.0	200	58	14	18	0.6	1.9

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 24...	190	210	42	0.2	1.7	550	0.75	199	0.10	0.06
NOV 22...	200	170	31	0.2	0.8	480	0.66	24	0.20	0.04
MAR 27...	180	98	9.8	0.4	5.7	340	0.46	251	0.10	0.20
MAY 07...	170	47	11	0.2	7.7	260	0.35	715	0.10	0.35

09224700 BLACKS FORK NEAR LITTLE AMERICA, WY

LOCATION.--Lat 41°32'46", long 109°41'34", in NE1/4 NE1/4 NE1/4 sec.15, T.18 N., R.109 W., Sweetwater County, Hydrologic Unit 14040107, on right bank 200 ft upstream from bridge on U.S. Highway 30, 4.2 mi upstream from Meadow Springs Wash, and 8.5 mi east of Little America.

DRAINAGE AREA.--3,100 mi², approximately.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 6,127.66 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 10 to Mar. 5, Mar. 8-12, and June 7-10, 25-30. Records good except those for November to February, which are poor. Natural flow of stream affected by regulation from Meeks Cabin Reservoir, capacity, 32,470 acre-ft, since June 1971, Viva Naughton Reservoir, capacity, 42,400 acre-ft, from State Line Reservoir, capacity, 14,000 acre-ft, since April 1980, numerous smaller reservoirs, and diversions for irrigation of about 76,100 acres upstream from station.

AVERAGE DISCHARGE.--24 years, 382 ft³/s, 276,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,980 ft³/s, June 13, 1965, gage height, 10.90 ft; no flow Sept. 20-26, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,770 ft³/s, June 8, gage height, 10.16 ft, from floodmark; minimum daily, 52 ft³/s, Oct. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	121	110	90	105	180	508	1350	2770	757	359	219
2	56	122	120	90	105	250	634	1340	2910	645	352	200
3	57	124	130	85	100	350	735	1310	3220	644	321	179
4	59	124	140	80	95	500	768	1400	3490	658	292	157
5	58	124	130	80	90	700	735	1680	3610	654	270	152
6	54	124	120	85	85	758	616	1800	3790	602	249	146
7	52	120	110	85	85	753	550	1730	4300	554	229	135
8	52	128	110	85	80	800	600	1700	5300	508	213	128
9	55	129	110	85	70	800	692	1940	5000	496	197	132
10	92	120	110	85	65	750	667	2040	4600	533	185	142
11	97	100	90	85	80	650	683	2030	4490	572	178	159
12	94	105	80	80	93	650	698	2050	3640	511	164	187
13	93	110	90	80	95	728	718	1880	3070	472	150	188
14	87	100	100	75	95	662	725	1670	3030	445	139	184
15	81	100	100	75	100	618	733	1570	2930	426	135	175
16	76	90	100	80	105	596	673	1450	2330	449	121	166
17	71	95	100	85	105	675	678	1360	2210	502	124	159
18	68	100	105	90	105	758	787	1330	2090	693	116	156
19	66	100	110	90	105	751	847	1290	2000	673	113	147
20	63	100	110	90	105	717	814	1270	2010	553	112	154
21	62	100	105	90	100	703	804	1370	2020	497	710	163
22	80	100	100	85	100	728	801	1600	1840	467	510	181
23	90	90	100	85	110	718	944	1880	1700	455	324	189
24	87	90	100	85	120	722	1050	1890	1530	453	239	195
25	90	100	100	85	140	733	1190	1920	1460	479	203	195
26	93	110	95	85	170	743	1280	2080	1310	474	193	217
27	88	120	95	85	200	593	1160	2310	1220	459	179	250
28	97	125	95	85	180	497	1140	2360	1260	455	181	268
29	114	130	95	100	---	451	1120	2410	1050	463	179	260
30	118	130	95	110	---	440	1220	2500	900	398	164	259
31	120	---	95	105	---	468	---	2650	---	360	183	---
TOTAL	2427	3331	3250	2680	2988	19442	24570	55160	81080	16307	7084	5442
MEAN	78.3	111	105	86.5	107	627	819	1779	2703	526	229	181
MAX	120	130	140	110	200	800	1280	2650	5300	757	710	268
MIN	52	90	80	75	65	180	508	1270	900	360	112	128
AC-FT	4810	6610	6450	5320	5930	38560	48730	109400	160800	32340	14050	10790
CAL YR 1985	TOTAL	109591		MEAN	300	MAX	1660	MIN	12	AC-FT	217400	
WTR YR 1986	TOTAL	223761		MEAN	613	MAX	5300	MIN	52	AC-FT	443800	

GREEN RIVER BASIN

09224700 BLACKS FORK NEAR LITTLE AMERICA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1951 to current year.

WATER TEMPERATURES: March 1951 to September 1963, December 1964 to current year.

REMARKS.--Published as "near Green River" prior to October 1953 and as "near Marston" October 1953 to September 1964. Partial record of specific conductance and temperature for water years 1979 and 1980 are available at District Office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 6,010 microsiemens, Oct. 1, 1953; minimum daily, 194 microsiemens, May 17, 1984.

WATER TEMPERATURES: Maximum, 40.0°C, July 31, Aug. 1, 2, 3, 4, 1984; minimum, 0.0°C, on many days during winter period most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum observed, 1,960 microsiemens, Oct. 11; minimum daily, 487 microsiemens, June 6.

WATER TEMPERATURES: Maximum, 29.0°C, July 21, Aug. 18; minimum, 0.0°C, on many days November through February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CAC03)
OCT 10...	1615	100	2110	7.0	700	160	73	250	4	4.6	192
DEC 04...	1020	142	1360	0.0	460	110	44	130	3	3.7	242
JAN 06...	1630	85	1460	0.0	530	130	50	130	3	4.3	270
FEB 12...	1730	93	119	0.0	46	12	4.0	4.7	0.3	0.8	36
MAR 27...	1120	590	826	5.0	330	82	30	62	2	2.8	220
MAY 07...	1615	1740	550	7.0	210	54	18	35	1	2.3	160
JUN 05...	1500	3630	493	19.5	200	52	16	30	1	2.0	160
18...	1130	2040	580	19.5	240	63	20	42	1	2.4	180
AUG 05...	1600	267	1080	21.0	380	92	36	100	2	2.6	210

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 10...	730	100	0.6	5.1	1400	2.0	389	0.14	510	40
DEC 04...	400	69	0.5	8.1	910	1.2	349	0.14	280	9
JAN 06...	440	73	0.5	8.9	1000	1.4	229	0.15	320	5
FEB 12...	2.3	9.4	<0.1	6.5	61	0.08	15	0.15	40	55
MAR 27...	190	44	0.2	6.8	550	0.75	876	0.30	--	--
MAY 07...	78	21	0.2	8.6	310	0.43	1470	0.10	--	--
JUN 05...	87	15	0.2	11	310	0.42	3030	0.10	--	--
18...	120	18	0.1	9.3	380	0.52	2110	0.00	--	--
AUG 05...	320	39	0.5	5.9	720	0.98	520	0.10	--	--

09224700 BLACKS FORK NEAR LITTLE AMERICA, WY--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1670	1340	1180	1150	1280	991	907	691	---	942	1100	---
2	1710	1310	1180	1140	1260	1050	896	711	---	1020	1080	---
3	1730	1290	1160	1140	1250	1100	875	709	---	1050	1110	---
4	1780	1250	1140	1150	1250	1130	894	695	---	1020	---	1530
5	1790	1200	1140	1150	1260	1090	924	674	---	976	1060	1540
6	1830	1220	1140	1160	1310	1020	934	667	487	972	1080	1560
7	1820	1210	1130	1180	1330	987	954	623	543	1030	1120	1590
8	1790	1190	1110	1200	1330	945	973	586	550	1130	1150	1570
9	1770	1170	1090	1220	1340	888	948	580	570	1220	1170	1540
10	1790	1120	1100	1240	1360	870	910	584	677	1190	1200	1480
11	1960	1170	1090	1270	1380	877	894	601	---	1090	1250	1480
12	1860	1230	1100	1280	1390	884	894	613	---	1110	1310	1420
13	1790	1200	1120	1300	1370	906	875	625	---	1120	1380	1410
14	1720	1200	1140	1310	1340	926	858	628	---	1150	1450	1480
15	1680	1310	1180	1310	1320	927	841	626	---	1160	1500	1420
16	1650	1570	1220	1310	1270	927	831	665	---	1090	---	1420
17	1690	1680	1250	1310	1120	919	806	619	---	1060	1200	1370
18	1710	1690	1290	1310	936	885	781	616	---	1240	---	1350
19	1720	1700	1270	1310	801	864	770	617	---	1150	---	1350
20	1710	1670	1250	1330	756	859	768	616	---	1120	---	1270
21	1710	1680	1220	1350	767	850	774	618	---	1070	956	1260
22	1690	1560	1190	1350	773	848	774	611	---	1070	758	1340
23	1630	1490	1180	1360	767	845	758	605	---	1070	1170	1270
24	1660	1500	1160	1380	741	837	740	591	711	1070	1400	1240
25	1680	1500	1160	1400	726	832	696	578	742	1080	1540	1180
26	1690	1440	1160	1400	730	826	651	569	806	1080	---	1150
27	1760	1370	1150	1380	831	830	647	565	889	1070	---	1250
28	1680	1310	1150	1370	914	855	649	530	909	1080	---	1230
29	1550	1260	1150	1360	---	873	658	527	889	1100	---	1220
30	1420	1210	1150	1330	---	899	663	---	887	1130	---	1210
31	1370	---	1150	1310	---	909	---	---	---	1150	---	---
MEAN	1710	1370	1160	1280	1100	918	818	---	---	1090	---	---
MAX	1960	1700	1290	1400	1390	1130	973	---	---	1240	---	---
MIN	1370	1120	1090	1140	726	826	647	---	---	942	---	---

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.0	2.0	4.0	1.5	.0	.0	.0	.0	.0	.0	2.5	.0
2	12.0	5.0	5.5	2.0	.0	.0	.0	.0	.0	.0	3.5	1.5
3	12.5	6.5	7.0	2.5	.0	.0	.0	.0	.0	.0	4.5	1.5
4	11.0	3.5	7.0	2.5	.0	.0	.0	.0	.0	.0	4.5	2.0
5	11.5	3.5	6.5	3.0	.0	.0	.0	.0	.0	.0	4.5	2.0
6	9.5	5.0	2.5	1.0	.0	.0	.0	.0	.0	.0	3.5	1.5
7	8.5	5.5	4.0	.0	.0	.0	.0	.0	.0	.0	4.5	2.5
8	6.5	3.0	3.0	.5	.0	.0	.0	.0	.0	.0	4.0	3.0
9	6.5	.5	2.0	.0	.0	.0	.0	.0	.0	.0	4.5	2.5
10	8.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	3.5	2.0
11	9.0	3.5	.0	.0	.0	.0	.0	.0	.0	.0	3.5	2.5
12	8.0	5.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	1.0
13	9.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	3.5	1.5
14	8.0	2.5	.0	.0	.0	.0	.0	.0	.0	.0	3.5	2.0
15	8.5	2.5	.0	.0	.0	.0	.0	.0	.0	.0	4.5	1.0
16	9.5	3.0	.0	.0	.0	.0	.0	.0	.0	.0	3.5	2.5
17	9.5	3.5	.0	.0	.0	.0	.0	.0	.0	.0	2.5	1.5
18	9.5	3.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	1.5
19	9.5	3.0	.0	.0	.0	.0	.0	.0	.0	.0	4.0	.5
20	9.5	3.5	.0	.0	.0	.0	.0	.0	.0	.0	6.0	2.0
21	8.5	4.0	.0	.0	.0	.0	.0	.0	.0	.0	7.0	3.0
22	6.5	4.0	.0	.0	.0	.0	.0	.0	.0	.0	7.5	4.5
23	7.0	2.5	.0	.0	.0	.0	.0	.0	.0	.0	8.5	5.0
24	9.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0	8.5	6.0
25	8.5	3.5	.0	.0	.0	.0	.0	.0	.0	.0	7.5	5.5
26	9.0	3.5	.0	.0	.0	.0	.0	.0	.5	.0	8.0	4.0
27	9.5	3.5	.0	.0	.0	.0	.0	.0	1.0	.0	9.0	5.0
28	8.5	4.0	.0	.0	.0	.0	.0	.0	1.0	.0	10.5	6.0
29	8.5	3.5	.0	.0	.0	.0	.0	.0	---	---	11.5	6.5
30	7.5	3.5	.0	.0	.0	.0	.0	.0	---	---	11.5	7.5
31	7.0	3.5	---	---	.0	.0	.0	.0	---	---	11.5	8.5
MONTH	12.5	.5	7.0	.0	.0	.0	.0	.0	1.0	.0	11.5	.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.0	6.5	11.5	7.5	---	---	26.0	20.5	28.0	21.0	---	---
2	8.0	5.0	14.0	10.0	---	---	27.0	22.0	28.5	21.0	---	---
3	6.0	4.0	15.0	11.5	---	---	28.0	22.5	26.5	21.5	---	---
4	7.0	4.0	13.0	8.5	---	---	26.0	21.5	27.0	20.0	20.5	12.5
5	8.0	4.5	9.0	5.0	---	---	24.0	15.5	23.5	19.5	19.5	10.0
6	10.5	6.0	8.5	7.0	21.0	---	26.0	20.0	25.0	20.5	19.5	9.5
7	10.0	7.5	7.5	6.5	22.5	19.5	25.0	21.5	26.0	21.0	17.0	11.5
8	9.0	6.5	6.5	5.0	20.5	17.5	24.0	20.0	25.5	20.5	19.0	12.0
9	8.5	6.0	6.5	4.5	17.5	15.0	25.0	19.5	28.0	20.0	16.0	12.0
10	10.0	6.0	7.5	5.5	---	14.0	24.5	20.5	28.0	21.0	15.0	10.0
11	9.0	7.0	10.0	6.5	---	---	24.5	20.0	27.0	18.5	14.5	3.0
12	9.0	6.0	11.0	8.0	---	---	24.0	20.0	27.0	20.5	15.5	4.5
13	7.5	4.0	11.5	8.5	---	---	24.5	20.0	26.0	19.5	15.5	10.0
14	7.5	3.0	11.0	9.5	---	---	24.0	20.0	27.0	18.5	16.0	11.0
15	8.5	5.0	11.0	8.5	---	---	25.0	21.5	26.5	19.0	17.5	9.0
16	8.0	7.5	10.0	8.5	---	---	26.0	21.5	27.5	19.0	15.0	12.5
17	7.5	5.5	11.5	7.5	---	---	26.5	22.5	28.5	20.0	14.5	4.0
18	7.5	5.0	12.5	9.0	---	---	27.0	22.5	29.0	18.0	13.0	9.0
19	7.5	4.0	15.0	10.5	---	---	26.0	21.0	24.5	19.0	12.0	8.0
20	10.0	5.5	16.5	10.5	---	---	26.5	21.0	24.0	18.5	13.0	8.0
21	12.5	7.5	16.0	11.0	---	---	29.0	22.0	22.0	15.5	12.5	8.5
22	12.0	9.5	13.5	11.0	---	---	27.0	22.0	22.0	16.0	13.5	8.5
23	11.0	9.5	12.5	9.5	---	---	26.0	20.5	23.0	17.0	13.0	8.0
24	11.0	8.5	13.5	10.5	27.0	18.0	25.5	18.5	21.0	16.0	11.5	8.0
25	8.5	6.5	16.0	10.5	27.0	19.5	25.0	18.0	---	---	10.0	2.5
26	6.5	4.5	17.5	10.0	26.5	18.5	25.5	19.5	---	---	9.5	5.0
27	7.0	4.5	18.0	14.5	27.5	20.0	24.5	21.0	---	---	8.0	5.0
28	6.5	5.0	18.0	15.0	27.0	21.5	27.5	20.0	---	---	9.0	3.5
29	8.5	5.0	17.0	15.0	27.0	21.5	25.0	19.5	---	---	9.0	4.5
30	10.0	6.0	---	---	26.5	21.0	25.0	19.0	---	---	6.5	5.0
31	---	---	---	---	---	---	26.0	20.0	---	---	---	---
MONTH	12.5	3.0	18.0	4.5	27.5	14.0	29.0	15.5	29.0	15.5	20.5	2.5
YEAR	29.0	.0										

09229500 HENRYS FORK NEAR MANILA, UT

LOCATION.--Lat 41°00'45", long 109°40'20", in NW1/4 NW1/4 sec.23, T.12 N., R.109 W., Sweetwater County, WY, Hydrologic Unit 14040106, on right bank 0.8 mi north of Wyoming-Utah State line, 1.3 mi upstream from normal high-water line of Flaming Gorge Reservoir at elevation 6,045 ft, and 3.0 mi northeast of Manila, UT.

DRAINAGE AREA.--520 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year. Prior to October 1971, published as "at Linwood, UT."

REVISED RECORDS.--WSP 1443: 1955. WDR WY-76-2: 1970.

GAGE.--Water-stage recorder. Elevation of gage is 6,060 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1957, nonrecording gages or water-stage recorder at several sites about 2.0 mi downstream at various datums. Oct. 1, 1957, to Dec. 2, 1965, water-stage recorders at sites about 1.0 mi upstream at different datums.

REMARKS.--Estimated daily discharges: Nov. 16-20, Nov. 23 to Dec. 7, and Dec. 11 to Feb. 28. Records fair except those for estimated daily discharges, which are poor. Peoples Irrigation Canal diverts 5.9 mi upstream. Natural flow of stream affected by transbasin diversions, small storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--58 years, 86.2 ft³/s, 62,450 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge determined, 6,750 ft³/s, Aug. 3, 1936, gage height, 7.19 ft, site and datum then in use, from floodmarks, from rating curve extended above 570 ft³/s on basis of slope-area measurement of peak flow; higher discharge occurred July 15, 1959, gage height, 9.42 ft, site and datum then in use, discharge not determined; no flow for several days in 1933-35, 1939-40.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,280 ft³/s, June 5, gage height, 6.11 ft; minimum daily, 19 ft³/s, Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	72	60	70	60	82	68	97	797	166	62	76
2	46	70	70	76	58	88	73	100	943	149	57	67
3	47	74	82	68	54	85	98	111	968	176	52	61
4	46	76	84	60	50	78	97	136	1010	137	52	58
5	46	77	90	60	50	76	104	149	1110	129	48	49
6	46	76	86	64	50	68	102	125	1120	157	40	43
7	55	72	83	60	50	69	93	130	954	183	37	44
8	63	71	81	56	47	69	81	183	887	165	41	51
9	63	79	77	56	45	83	74	212	869	135	47	50
10	60	66	58	58	45	73	73	191	913	115	45	50
11	59	78	50	54	47	72	68	168	565	110	45	50
12	57	97	45	50	50	69	65	133	421	104	45	48
13	60	89	52	48	50	63	62	99	447	89	42	39
14	61	92	66	45	56	63	60	68	493	89	36	34
15	58	91	80	46	60	58	65	55	524	84	34	39
16	59	72	78	50	64	71	72	61	516	193	28	39
17	61	68	76	50	66	69	83	61	480	210	25	43
18	59	62	80	50	66	67	88	51	457	175	22	46
19	59	56	78	50	64	56	104	46	466	140	19	51
20	59	61	76	50	62	67	95	41	482	123	27	51
21	60	77	74	49	66	81	90	51	399	120	86	49
22	63	52	72	47	72	75	89	97	354	120	73	49
23	72	50	70	47	80	81	98	120	313	144	55	51
24	73	52	70	49	86	85	106	102	273	249	52	59
25	75	60	70	50	86	78	111	110	246	280	50	88
26	74	70	70	50	86	64	97	195	223	189	52	96
27	72	72	70	50	84	54	89	349	186	192	48	90
28	71	72	70	50	82	54	84	457	189	150	44	90
29	68	70	70	54	---	56	94	494	196	102	44	88
30	64	68	74	58	---	58	104	537	190	82	42	91
31	71	---	70	60	---	63	---	673	---	68	57	---
TOTAL	1873	2142	2232	1685	1736	2175	2587	5402	16991	4525	1407	1740
MEAN	60.4	71.4	72.0	54.4	62.0	70.2	86.2	174	566	146	45.4	58.0
MAX	75	97	90	76	86	88	111	673	1120	280	86	96
MIN	46	50	45	45	45	54	60	41	186	68	19	34
AC-FT	3720	4250	4430	3340	3440	4310	5130	10710	33700	8980	2790	3450
CAL YR 1985	TOTAL	27634.5		MEAN	75.7	MAX	269	MIN	9.0	AC-FT	54810	
WTR YR 1986	TOTAL	44495		MEAN	122	MAX	1120	MIN	19	AC-FT	88260	

GREEN RIVER BASIN

09229500 HENRYS FORK NEAR MANILA, UT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1951 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1951 to September 1979.

WATER TEMPERATURES: March 1951 to September 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 11...	0910	58	1320	7.0	680	150	73	52	0.9	9.7
NOV 21...	1455	72	1130	0.5	590	140	58	39	0.7	7.4
DEC 17...	1700	76	1040	0.0	490	120	47	40	0.8	6.3
JAN 22...	1000	47	1080	0.0	540	130	53	37	0.7	5.3
MAR 11...	1545	78	1040	4.5	470	110	47	46	1	5.8
APR 15...	1245	65	1120	4.0	500	110	55	51	1	6.8
MAY 28...	1700	484	488	17.0	230	60	20	15	0.4	3.9
JUN 18...	1500	480	488	17.0	230	58	20	16	0.5	3.7
JUL 09...	0945	136	941	16.0	480	120	43	34	0.7	6.0

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 11...	240	490	23	0.5	20	960	1.3	151	0.00	0.05
NOV 21...	240	370	17	0.4	17	790	1.1	154	0.20	0.10
DEC 17...	220	310	16	0.4	15	690	0.93	141	0.20	0.07
JAN 22...	220	340	18	0.3	15	730	0.99	93	0.10	1.28
MAR 11...	200	330	15	0.9	14	690	0.94	145	0.10	0.10
APR 15...	220	350	21	0.3	16	740	1.0	130	0.00	0.07
MAY 28...	140	110	6.5	0.2	13	310	0.43	408	0.10	2.54
JUN 18...	150	110	5.8	0.1	13	320	0.43	410	0.10	0.24
JUL 09...	230	280	12	0.4	19	650	0.89	240	0.10	0.05

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUL 09...	0945	136	16.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

09234400 FLAMING GORGE RESERVOIR AT FLAMING GORGE DAM, UT

LOCATION.--Lat 40°54'23", long 109°25'15", in NW1/4 NE1/4 sec.15, T.2 N., R.22 E., Daggett County, Hydrologic Unit 14040106, at Flaming Gorge Dam on Green River, 1.8 mi southwest of Dutch John, and 4.9 mi northeast of Greendale.

DRAINAGE AREA.--19,350 mi², of which about 4,260 mi², including 3,959 mi² in Great Divide Basin in southern Wyoming, is probably noncontributing.

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

REVISED RECORDS.--WDR UT-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Bureau of Reclamation). Prior to Jan. 1, 1964, on left bank 600 ft upstream from face of dam.

REMARKS.--Records excellent. Reservoir is formed by concrete arch-type dam; storage began Nov. 1, 1962; mass concrete of dam completed Nov. 15, 1962. Total capacity, 3,789,000 acre-ft, consisting of the following: Dead storage, 39,700 acre-ft below elevation 5,740 ft; inactive usable storage, 233,500 acre-ft between elevations 5,740 ft and 5,871 ft; active usable storage, 3,516,000 acre-ft between elevations 5,871 ft and 6,040 ft (top of conservation pool). Reservoir is used for flood control, storage replacement to meet downstream requirements under the Colorado River Compact of 1922, and power development. Figures given herein represent usable contents. Transbasin diversions and diversions for irrigation upstream from station.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 3,911,000 acre-ft, July 13, 1983, elevation, 6,043.80 ft; minimum, 582,900 acre-ft, Apr. 26, 1965, elevation, 5908.90 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,652,000 acre-ft, Aug. 31-Sept. 7, elevation, 6,037.66 ft; minimum observed, 2,903,000 acre-ft, May 22-24, elevation, 6,017.89 ft.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

6,015	2,804,000	6,030	3,346,000
6,020	2,977,000	6,035	3,543,000
6,025	3,157,000	6,040	3,749,000

RESERVOIR STORAGE, IN THOUSANDS OF AC-FT, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3293	3250	3199	3110	3010	2958	2912	2940	2934	3365	3604	3652
2	3291	3249	3196	3106	3008	2959	2912	2939	2946	3377	3611	3652
3	3290	3248	3194	3101	3004	2958	2912	2937	2961	3388	3615	3652
4	3288	3247	3193	3098	3001	2958	2912	2937	2971	3400	3617	3652
5	3286	3246	3191	3091	2998	2957	2912	2936	2986	3405	3619	3652
6	3286	3246	3189	3087	2994	2956	2911	2940	3002	3414	3621	3652
7	3285	3244	3184	3082	2990	2955	2910	2946	3018	3425	3626	3652
8	3284	3242	3181	3078	2986	2953	2908	2953	3032	3433	3628	3650
9	3282	3242	3178	3075	2983	2951	2908	2955	3053	3440	3632	3649
10	3280	3242	3174	3068	2980	2952	2908	2956	3072	3447	3634	3649
11	3278	3241	3168	3067	2977	2953	2907	2954	3090	3453	3635	3648
12	3280	3241	3162	3064	2974	2952	2908	2953	3109	3459	3636	3647
13	3278	3240	3157	3060	2972	2951	2908	2950	3126	3466	3637	3646
14	3274	3239	3156	3057	2972	2952	2909	2946	3142	3474	3637	3646
15	3272	3236	3154	3052	2972	2951	2909	2940	3155	3479	3638	3646
16	3270	3235	3151	3049	2972	2950	2910	2934	3164	3486	3639	3646
17	3268	3235	3145	3047	2972	2950	2912	2930	3178	3491	3640	3645
18	3267	3234	3141	3044	2972	2949	2912	2923	3184	3496	3640	3645
19	3266	3231	3138	3045	2968	2949	2912	2918	3199	3502	3640	3645
20	3265	3227	3136	3042	2963	2946	2913	2913	3214	3510	3643	3644
21	3263	3223	3135	3040	2958	2943	2913	2906	3229	3518	3644	3643
22	3262	3223	3135	3038	2954	2940	2912	2903	3245	3528	3645	3642
23	3260	3222	3135	3036	2949	2936	2912	2903	3260	3535	3647	3641
24	3259	3220	3131	3034	2949	2933	2914	2903	3277	3546	3648	3643
25	3258	3220	3130	3030	2951	2929	2920	2904	3291	3555	3648	3645
26	3257	3218	3127	3029	2953	2927	2927	2906	3305	3566	3649	3646
27	3255	3214	3124	3026	2956	2924	2932	2905	3318	3575	3649	3644
28	3255	3212	3119	3024	2958	2921	2937	2906	3330	3582	3650	3642
29	3254	3207	3118	3019	---	2917	2940	2909	3342	3588	3650	3640
30	3253	3204	3119	3015	---	2914	2939	2914	3354	3593	3651	3638
31	3252	---	3117	3014	---	2913	---	2924	---	3599	3652	---
MAX	3293	3250	3199	3110	3010	2959	2940	2956	3354	3599	3652	3652
MIN	3252	3204	3117	3014	2949	2913	2907	2903	2934	3365	3604	3638
(+)	6027.53	6026.26	6023.90	6021.04	6019.46	6018.19	6018.92	6018.49	6030.22	6036.38	6037.66	6037.34
(+)	-43	-48	-87	-103	-56	-45	+26	-15	+430	+245	+53	-14
CAL YR 1985	 (+) -262											
WTR YR 1986	 (+) +343											

(+) Elevation, in feet, at end of month.

(+) Change in contents, in thousands of acre-feet.

GREEN RIVER BASIN

09234500 GREEN RIVER NEAR GREENDALE, UT

LOCATION.--Lat 40°54'30", long 109°25'20", in NW1/4 NW1/4 SE1/4 sec.15. T.2 N., R.22 E., Daggett County, Hydrologic Unit 14040106, Ashley National Forest on right bank 0.5 mi downstream from Flaming Gorge Dam, 2 mi south of Dutch John, 4 mi northeast of Greendale, and 407 mi from mouth.

DRAINAGE AREA.--19,350 mi², approximately, including about 4,260 mi² which is probably noncontributing. This noncontributing area includes 3,959 mi² in Great Divide Basin in southern Wyoming.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1950 to current year.

REVISED RECORDS.--WDR UT-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,594.48 ft NGVD of 1929. Prior to Sept. 2, 1959, water-stage recorder at site 2.2 mi upstream at different datum. Sept. 3, 1959, to Sept. 30, 1985, at datum 5.0 ft lower.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Flaming Gorge Reservoir 0.5 mi upstream, beginning Nov. 1, 1962 (see station 09234400).

AVERAGE DISCHARGE.--36 years, 2,181 ft³/s, 1,580,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,600 ft³/s, June 12, 1957, gage height, 10.60 ft, site and datum then in use; maximum gage height, 14.51 ft, May 12, June 6, 1986, datum then in use; minimum discharge, 2.3 ft³/s, Mar. 20, 22, 27, 28, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge observed, 8,020 ft³/s, May 20, gage height, 14.40 ft; minimum daily, 896 ft³/s, Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1540	1750	2630	3100	2100	2630	4060	4990	7830	7690	1610	1880
2	1520	1230	1770	2580	2600	2630	4100	5370	7810	7700	1500	1520
3	1450	1570	2580	3310	2870	2600	4100	5490	7820	7690	1510	1580
4	1410	1710	1290	2920	2650	2630	4100	5500	7610	7700	1590	1550
5	1280	1520	1450	3700	2610	2520	4100	5500	7720	7690	1630	1620
6	1210	1400	1790	3120	2250	3210	4100	5510	7830	7690	1570	1650
7	1820	1840	3400	2840	2700	3630	4080	5500	7830	7690	1550	1660
8	2110	1490	2780	2820	2750	3490	4080	5510	7800	7690	1620	1640
9	1760	1160	3480	2190	2750	3210	4100	6700	7720	7680	1590	1640
10	1340	1420	2870	3100	2670	2490	4090	7780	6640	7680	1590	1590
11	1150	1500	3650	2380	2380	2760	4090	7790	6030	7670	1510	1660
12	1050	1370	3160	1990	2510	2760	4100	7800	6030	7680	1710	1620
13	1170	1750	3100	2600	2620	2760	3500	7790	6020	7670	1580	1560
14	2510	1440	2160	2640	2710	2760	3350	7780	6040	7680	1640	1370
15	2150	1960	1470	2410	2720	2770	4090	7780	7300	7680	1590	1530
16	1690	1090	3060	2190	2600	2770	4060	7790	7760	7690	1500	1630
17	2360	1090	3250	1670	2620	2760	3490	7770	7710	7680	1610	1600
18	1520	1440	2430	1640	2380	2770	3550	7790	7700	7570	1510	1570
19	1430	1810	2060	1640	2550	2760	4080	7780	7700	6880	1660	1680
20	1050	2160	2130	1960	2630	3500	3620	7790	7650	5830	1620	995
21	1920	2290	906	1480	2760	4090	3360	7790	7690	4840	1760	1510
22	2000	1080	962	1850	3670	4080	4090	7790	7640	4050	1610	1420
23	1830	934	1410	2140	3820	4090	4090	7800	7620	3410	1540	896
24	1600	1100	2460	1590	2990	4090	4100	7790	7590	3000	1590	925
25	1270	1260	1310	2140	2600	4080	4100	7810	7540	2600	1570	922
26	1590	986	2680	1470	2620	4090	4080	7810	7580	1640	2010	1520
27	1370	3290	1930	2450	2600	4090	4080	7800	7640	1390	1400	1920
28	1730	1970	3350	1940	2630	4090	4090	7800	7710	1790	2110	2150
29	1740	2750	1500	2960	---	4090	4610	7820	7700	1670	1920	2420
30	1540	2830	2100	2420	---	4090	5050	7820	7690	1650	1650	2010
31	1580	---	1160	1510	---	4080	---	7800	---	1720	1520	---
TOTAL	49690	49190	70278	72750	75360	102370	120490	221540	222950	178690	50370	47238
MEAN	1603	1640	2267	2347	2691	3302	4016	7146	7432	5764	1625	1575
MAX	2510	3290	3650	3700	3820	4090	5050	7820	7830	7700	2110	2420
MIN	1050	934	906	1470	2100	2490	3350	4990	6020	1390	1400	896
AC-FT	98560	97570	139400	144300	149500	203100	239000	439400	442200	354400	99910	93700
CAL YR 1985	TOTAL	872831	MEAN	2391	MAX	4300	MIN	536	AC-FT	1731000		
WTR YR 1986	TOTAL	1260916	MEAN	3455	MAX	7830	MIN	896	AC-FT	2501000		

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

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

SPECIFIC CONDUCTANCE: October 1956 to September 1959, October 1963 to current year, once-daily.

WATER TEMPERATURES: October 1956 to September 1959, October 1963 to current year, once-daily.

SEDIMENT DATA: October 1956 to September 1959, once-daily, October 1976 to current year, periodically.

REMARKS.--Storage in Flaming Gorge Reservoir began on Nov. 1, 1962. Samples for daily records are taken inside Penstock. Extremes are given for two separate periods--water years 1957-62, and water years 1964 to current year. Extremes for the 1963 water year (October 1962 to September 1963) are not included. Unpublished daily records of specific conductance obtained before 1965 were included in the determination of extremes for period of daily record and are available in files of district office. Daily records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF DAILY RECORD (water years 1957-62, 1964 to current year).--

SPECIFIC CONDUCTANCE (water years 1957-58, 1960-62): Maximum daily, 1,340 microsiemens Aug. 30, 1961; minimum daily, 325 microsiemens June 2, 1961.

WATER TEMPERATURES (water years 1957-59): Maximum, 24.0°C July 24, 25, 1959; minimum, 0.0°C on many days during winter period each year.

SPECIFIC CONDUCTANCE (water years 1964 to current year): Maximum daily, 1,060 microsiemens Nov. 9, 1971; minimum daily, 560 microsiemens Mar. 1, 1977.

WATER TEMPERATURES: Maximum, 14.0°C Nov. 11, 14, 1963, July 17, Aug. 21, 28, 1978, Sept. 24, 1980; minimum 2.0°C on several days in 1964.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 760 microsiemens Apr. 7, 15, 16; minimum observed, 680 microsiemens several days during May and June.

WATER TEMPERATURES: Maximum observed, 13.5°C several days during August and September; minimum observed, 3.5°C Feb. 24-28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	BARO- METRIC PRES- SURE (MM OF HG)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 30...	1400	2270	680	8.4	18.0	9.5	--	11.3	610	--	--
NOV 20...	1100	3780	690	8.3	-1.0	7.0	0.7	8.2	620	<1	<1
DEC 18...	1145	2530	690	8.3	2.5	4.5	--	8.6	630	--	--
JAN 14...	1130	3080	700	8.3	-7.0	4.0	0.5	8.6	624	<1	<1
FEB 20...	1230	2630	700	8.3	7.5	3.5	--	10.1	618	--	--
MAR 26...	1300	4270	720	8.3	17.0	4.5	10	10.0	630	<1	<1
APR 23...	1315	4240	700	8.4	13.0	6.0	--	9.4	616	--	--
MAY 20...	1445	8020	720	8.3	22.0	6.0	1.2	12.3	620	<1	<1
JUN 04...	1315	6780	740	8.4	22.0	8.0	--	11.8	620	--	--
JUL 08...	1145	7560	710	8.6	21.5	12.5	1.2	9.0	620	<1	<1
AUG 14...	1145	1940	710	8.3	24.0	13.5	1.1	8.2	620	<1	<1
SEP 24...	0900	928	710	8.3	8.0	13.0	--	7.7	607	--	--

GREEN RIVER BASIN

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY, CARBON- ATE IT-FLD (MG/L - CACO3)
OCT 30...	240	240	60	22	51	31	1	2.3	--	--	--
NOV 20...	260	257	63	24	52	30	1	2.4	186	0	152
DEC 18...	250	250	62	24	53	31	1	2.7	--	--	--
JAN 14...	250	254	62	24	54	31	2	2.3	193	0	158
FEB 20...	250	254	62	24	52	31	1	2.5	--	--	--
MAR 26...	260	259	62	25	55	31	2	2.5	189	0	155
APR 23...	250	251	61	24	55	32	2	2.4	--	--	--
MAY 20...	260	264	64	25	57	32	2	2.6	190	0	156
JUN 04...	260	260	63	25	57	32	2	2.6	--	--	--
JUL 08...	260	257	63	24	56	32	2	2.4	176	4.0	151
AUG 14...	240	240	58	23	53	32	2	2.4	170	4.0	146
SEP 24...	250	254	62	24	56	32	2	2.5	--	--	--

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 30...	180	18	0.3	4.4	442	420	0.6	2710	--	--	0.13
NOV 20...	190	17	0.3	4.9	447	450	0.61	4560	0.18	0.01	0.19
DEC 18...	190	14	0.2	5.2	438	440	0.6	2990	--	--	0.23
JAN 14...	180	17	0.3	5.4	464	440	0.63	3860	--	<0.01	0.26
FEB 20...	180	18	0.3	5.3	458	440	0.62	3250	--	--	0.25
MAR 26...	190	17	0.2	5.0	466	450	0.63	5370	--	<0.01	0.38
APR 23...	200	17	0.3	4.7	469	460	0.64	5370	--	--	0.27
MAY 20...	210	18	0.2	4.7	488	480	0.66	10600	--	<0.01	0.27
JUN 04...	190	18	0.3	4.1	482	450	0.66	8820	--	--	0.21
JUL 08...	180	16	0.2	3.4	469	440	0.64	9570	--	<0.01	0.18
AUG 14...	170	18	0.3	3.1	470	420	0.64	2460	--	<0.01	<0.16
SEP 24...	190	18	0.3	3.6	447	450	0.61	1120	--	--	0.16

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS PO4)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)
OCT 30...	--	0.04	0.05	--	--	--	--	--	<0.01	--
NOV 20...	0.04	0.04	0.05	0.36	0.4	0.04	0.12	0.03	0.01	0.03
DEC 18...	--	0.06	0.08	--	--	--	--	--	<0.01	--
JAN 14...	0.04	0.03	0.04	0.26	0.3	<0.01	--	<0.01	0.01	0.03
FEB 20...	--	0.04	0.05	--	--	--	--	--	0.02	0.06
MAR 26...	0.04	0.05	0.06	0.46	0.5	0.01	--	<0.01	<0.01	--
APR 23...	--	0.03	0.04	--	--	--	--	--	0.01	0.03
MAY 20...	0.02	0.04	0.05	0.38	0.4	0.05	--	0.01	<0.01	--
JUN 04...	--	0.04	0.05	--	--	--	--	--	<0.01	--
JUL 08...	0.06	0.07	0.09	0.44	0.5	0.02	--	0.01	0.01	0.03
AUG 14...	0.01	0.01	0.01	0.29	0.3	0.02	--	0.02	<0.01	--
SEP 24...	--	0.03	0.04	--	--	--	--	--	0.01	0.03

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 20...	1100	10	2	79	<0.5	<1	<1	<3	1	<3	<1
MAR 26...	1300	20	3	75	1	<1	<1	<3	5	<3	2
MAY 20...	1445	10	3	80	<0.5	<1	<1	<3	2	4	<1
JUL 08...	1145	10	2	72	<0.5	<1	<1	<3	1	<3	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 20...	23	<1	<0.1	<10	2	1	<1	600	<6	29
MAR 26...	23	<1	0.1	<10	6	1	<1	600	<6	15
MAY 20...	25	<1	<0.1	<10	2	<1	<1	610	<6	20
JUL 08...	23	2	<0.1	<10	3	<1	1	580	<6	3

GREEN RIVER BASIN

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	BORON, DIS- SOLVED (UG/L AS B)
OCT 30...	1400	80
DEC 18...	1145	80
FEB 20...	1230	120
APR 23...	1315	90
JUN 04...	1315	80
SEP 24...	0900	90

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SED. SUSP. SIEVE DIAM. PERCENT FINER THAN .062 MM	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT 30...	1400	2270	9.5	--	4	25
NOV 20...	1100	3780	7.0	--	4	41
DEC 18...	1145	2530	4.5	--	2	14
JAN 14...	1130	3080	4.0	--	3	25
FEB 20...	1230	2630	3.5	--	11	78
MAR 26...	1300	4270	4.5	--	0	--
APR 23...	1315	4240	6.0	--	9	103
MAY 20...	1445	8020	6.0	78	28	606
JUN 04...	1315	6780	8.0	43	13	238
JUL 08...	1145	7560	12.5	--	13	265
AUG 14...	1145	1940	13.5	22	21	110
SEP 24...	0900	928	13.0	--	4	10

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

SPECIFIC CONDUCTANCE (US/CM), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	710	710	---	---	---	---	750	730	---	690	730	---
2	710	---	710	710	---	---	750	730	710	690	---	710
3	710	---	710	710	720	730	750	---	710	690	---	720
4	710	710	710	---	720	730	750	---	710	---	720	720
5	---	710	720	---	720	730	---	710	710	---	710	710
6	---	710	720	720	720	740	---	730	710	---	720	---
7	720	710	---	720	730	740	760	730	---	690	730	---
8	710	710	---	720	---	---	730	730	---	690	730	730
9	720	---	720	720	---	---	730	700	710	690	---	720
10	710	---	720	720	720	720	730	---	710	700	---	730
11	710	---	720	---	720	730	730	---	700	700	710	730
12	---	710	720	---	720	730	---	720	700	---	710	730
13	---	710	720	720	730	730	---	720	700	---	720	---
14	---	710	---	720	730	730	740	710	---	720	710	---
15	710	710	---	720	---	---	760	720	---	720	700	740
16	710	---	700	720	---	---	760	720	690	730	---	740
17	710	---	700	720	---	740	730	---	680	730	---	740
18	710	720	700	---	720	730	740	---	680	730	720	740
19	---	720	700	---	730	720	---	710	680	---	720	730
20	---	720	710	---	720	720	---	710	680	---	720	---
21	720	720	---	720	720	730	720	710	---	710	720	---
22	720	720	---	720	---	---	720	700	---	720	720	720
23	720	---	710	720	---	---	730	710	690	720	---	720
24	720	---	700	720	730	730	740	---	690	730	---	720
25	720	720	---	---	730	730	740	---	680	730	720	720
26	---	720	710	---	730	730	---	---	680	---	720	730
27	---	720	710	730	730	740	---	680	690	---	720	---
28	700	---	---	730	730	740	730	700	---	730	710	---
29	710	720	---	730	---	---	720	690	---	730	720	710
30	710	---	720	730	---	---	730	700	690	730	---	710
31	710	---	710	730	---	730	---	---	---	730	---	---

TEMPERATURE, WATER (DEG C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	10.5	---	---	---	---	4.0	6.0	---	13.0	13.5	---
2	13.0	---	6.5	5.0	---	---	4.0	6.0	10.0	13.0	---	13.5
3	13.0	---	6.5	5.0	4.5	4.0	4.0	---	10.0	13.0	---	13.5
4	13.0	10.0	6.5	---	4.5	4.0	4.0	---	10.0	---	13.5	13.5
5	---	10.0	6.5	---	4.5	4.0	---	6.5	10.0	---	13.5	13.5
6	---	10.0	6.5	5.0	4.5	4.0	---	6.5	11.0	---	13.5	---
7	12.5	9.5	---	5.0	4.5	4.0	4.0	6.0	---	13.0	13.5	---
8	12.5	9.5	---	5.0	---	---	5.0	6.0	---	13.0	13.5	13.5
9	12.0	---	6.5	5.0	---	---	5.0	6.0	12.0	13.0	---	13.5
10	12.0	---	6.0	5.0	4.5	4.0	5.0	---	12.0	13.0	---	13.5
11	12.0	---	6.0	---	4.5	4.0	5.0	---	12.0	13.0	13.5	13.5
12	---	8.5	6.0	---	4.5	4.0	---	6.5	12.0	---	13.5	13.5
13	---	8.5	6.0	5.0	4.5	4.0	---	6.5	12.0	---	13.5	---
14	---	8.5	---	5.0	5.0	4.0	5.0	7.0	---	13.0	13.5	---
15	12.0	8.5	---	5.0	---	---	5.0	7.0	---	13.0	13.5	13.0
16	12.0	---	5.5	5.0	---	---	5.0	7.0	12.0	13.0	---	13.0
17	12.0	---	5.5	5.0	---	4.0	5.5	---	12.0	13.0	---	13.0
18	12.0	8.5	5.5	---	4.5	4.0	5.5	---	12.0	13.0	13.5	13.0
19	---	8.5	5.5	---	4.5	4.0	---	8.0	12.0	---	13.5	13.0
20	---	8.0	5.5	---	4.5	4.0	---	8.0	13.0	---	13.5	---
21	11.0	8.0	---	5.0	4.5	4.0	6.0	8.0	---	13.0	13.5	---
22	11.0	8.0	---	5.0	---	---	6.0	8.0	---	13.0	13.5	13.0
23	11.0	---	5.5	5.0	---	---	6.0	8.0	13.0	13.0	---	13.0
24	11.0	---	5.5	4.5	3.5	4.0	5.5	---	13.0	13.0	---	13.0
25	11.0	7.0	---	---	3.5	4.0	5.5	---	13.0	12.5	13.0	13.0
26	---	7.0	5.5	---	3.5	4.0	---	---	13.0	---	13.0	13.0
27	---	7.0	5.5	4.5	3.5	4.0	---	9.0	13.0	---	13.5	---
28	11.0	---	---	4.5	3.5	4.0	5.5	9.0	---	13.0	13.5	---
29	11.0	7.0	---	4.5	---	---	6.0	9.0	---	13.0	13.5	13.5
30	11.0	---	5.0	4.5	---	---	6.0	9.0	13.0	13.0	---	13.5
31	11.0	---	5.0	4.5	---	4.0	---	---	---	13.0	---	---

GREEN RIVER BASIN

09253000 LITTLE SNAKE RIVER NEAR SLATER, CO

LOCATION.--Lat 40°59'58", long 107°08'34", in SW1/4 NW1/4 sec.15, T.12 N., R.87 W., Routt County, Hydrologic Unit 14050003, on left bank just downstream from highway bridge at Focus Ranch, 0.2 mi downstream from Spring Creek, and 12 mi east of Slater.

DRAINAGE AREA.--285 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1942 to September 1947, October 1950 to current year.

REVISED RECORDS.--WSP 1733: 1960.

GAGE.--Water-stage recorder. Datum of gage is 6,831.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 18 to Mar. 9. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 2,000 acres upstream from station.

AVERAGE DISCHARGE.--41 years, 240 ft³/s, 173,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,780 ft³/s, May 23, 1984, gage height, 8.78 ft; maximum gage height, 8.95 ft, Apr. 25, 1974; minimum daily discharge, 8.6 ft³/s, Sept. 10, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 4	2100	2,210	7.00	June 6	0200	*2,220	*7.01
May 21	2300	*2,220	*7.01				

Minimum daily discharge, 25 ft³/s, Dec. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	46	50	45	40	100	443	920	1770	384	50	60
2	38	62	45	45	40	100	529	1170	1840	337	47	48
3	35	56	50	45	40	95	450	1480	1950	306	45	41
4	34	50	55	45	40	85	353	1750	1980	287	45	37
5	30	65	55	40	40	80	303	1570	1970	468	45	34
6	35	45	55	35	35	80	330	1180	2030	306	43	32
7	54	56	55	35	35	90	424	1150	1770	254	44	31
8	73	58	55	35	35	100	476	993	1620	222	46	34
9	55	49	55	35	35	115	445	909	1600	210	44	38
10	68	52	55	35	35	109	434	818	1690	206	41	69
11	84	61	45	35	30	99	418	825	1260	179	40	56
12	77	62	35	35	30	89	432	896	1190	164	55	43
13	85	54	30	35	30	83	480	981	1150	143	58	37
14	53	48	25	35	35	81	388	1050	1050	152	39	34
15	53	59	30	35	40	79	376	991	974	125	35	32
16	57	53	30	35	50	74	455	945	944	140	32	31
17	60	70	35	35	60	75	472	883	946	133	28	29
18	59	60	35	35	70	71	382	1000	998	107	27	29
19	58	55	35	40	70	70	339	1200	970	99	26	39
20	58	50	35	40	80	68	322	1460	823	91	31	36
21	61	45	35	40	80	73	377	1770	691	95	40	39
22	65	45	35	40	85	92	599	1740	626	89	35	54
23	59	50	40	35	85	115	834	1380	578	96	33	60
24	58	50	40	35	90	145	893	1290	548	87	31	76
25	60	55	40	35	90	162	950	1310	504	97	37	76
26	66	55	40	35	90	138	802	1430	504	84	38	74
27	61	55	40	35	90	144	626	1580	468	74	31	73
28	62	55	40	35	100	186	559	1730	512	64	29	84
29	65	55	45	35	---	258	589	1790	496	58	28	70
30	57	55	45	35	---	336	757	1710	447	54	42	67
31	68	---	45	40	---	505	---	1680	---	53	45	---
TOTAL	1781	1631	1310	1155	1580	3897	15237	39581	33899	5164	1210	1463
MEAN	57.5	54.4	42.3	37.3	56.4	126	508	1277	1130	167	39.0	48.8
MAX	85	70	55	45	100	505	950	1790	2030	468	58	84
MIN	30	45	25	35	30	68	303	818	447	53	26	29
AC-FT	3530	3240	2600	2290	3130	7730	30220	78510	67240	10240	2400	2900
CAL YR 1985	TOTAL	104148		MEAN	285	MAX	2330	MIN	23	AC-FT	206600	
WTR YR 1986	TOTAL	107908		MEAN	296	MAX	2030	MIN	25	AC-FT	214000	

09253000 LITTLE SNAKE RIVER NEAR SLATER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
MAY 28...	1500	1550	53	9.0	25	7.6	1.4	1.6	0.1	0.2
JUL 01...	1140	395	58	11.5	31	9.3	1.8	2.5	0.2	0.3

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
MAY 28...	30	2.8	0.5	0.2	7.5	40	0.05	166	0.00	0.05
JUL 01...	31	2.0	0.3	0.1	8.4	43	0.06	46	0.00	0.01

GREEN RIVER BASIN

09255000 SLATER FORK NEAR SLATER, CO

LOCATION.--Lat 40°58'57", long 107°22'56", in SW1/4 NE1/4 sec.21, T.12 N., R.89 W., Moffat County, Hydrologic Unit 14050003, on right bank 15 ft downstream from highway bridge, 1.0 mi upstream from mouth, and 1.5 mi south of Slater.

DRAINAGE AREA.--161 mi².

PERIOD OF RECORD.--May to October, December 1910, March to October 1911, and April to May 1912 (published as Slater Creek), July 1931 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 618: 1910-11. WSP 764: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,600 ft, from river-profile map. May 28, 1910, to May 25, 1912, nonrecording gage at site 1.5 mi upstream at different datum. July 9, 1931, to May 6, 1932, nonrecording gage at site 0.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 20 to Feb. 18 and June 24 to July 22. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 500 acres upstream from station.

AVERAGE DISCHARGE.--55 years (water years 1932-86), 79.0 ft³/s, 57,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,250 ft³/s, May 16, 1984, gage height, 11.78 ft (from floodmark), from rating curve extended above 1,000 ft³/s; no flow Aug. 2-10, 1934, Aug. 18, 25-27, 1936, Aug. 29 to Sept. 3, 1954, Aug. 3, 4, 15, 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 430 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 25	0130	604	7.28	May 22	0330	836	8.19
May 4	0330	*1,040	*8.95	June 6	0630	979	8.28

Minimum daily discharge, 2.0 ft³/s, Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	50	25	20	20	86	237	462	575	180	38	41
2	17	70	25	20	20	77	305	559	581	160	41	28
3	26	75	30	20	20	64	263	711	620	140	41	19
4	44	75	30	20	20	55	192	836	664	120	43	15
5	48	75	30	20	20	55	169	711	729	130	39	12
6	56	70	30	20	20	57	187	447	871	100	38	11
7	74	60	30	20	20	61	240	401	741	90	40	15
8	84	60	30	20	20	71	259	334	651	85	41	21
9	83	55	30	20	20	95	231	318	620	80	45	26
10	88	50	15	20	20	73	230	312	593	75	37	46
11	89	55	15	20	25	64	225	314	453	70	35	35
12	87	60	15	20	30	56	225	355	437	65	42	22
13	91	50	20	20	35	51	264	399	463	60	45	15
14	66	45	20	20	40	54	216	432	434	60	25	11
15	65	45	20	20	45	51	206	368	443	55	17	7.0
16	65	45	20	20	50	47	240	345	419	55	11	4.5
17	71	45	20	20	50	50	263	316	409	50	12	2.5
18	73	45	20	20	65	46	220	325	406	45	8.8	2.0
19	74	45	20	20	86	41	193	404	419	40	7.3	9.2
20	60	35	20	20	84	42	185	548	380	40	12	8.2
21	60	35	20	20	77	42	209	643	372	35	19	10
22	60	35	20	20	62	57	327	660	367	35	22	35
23	60	35	20	20	56	78	466	454	356	36	20	36
24	60	30	20	20	56	96	494	420	320	36	21	50
25	60	30	20	20	69	94	501	446	300	32	29	48
26	65	35	20	20	83	69	404	504	280	32	32	44
27	60	35	20	20	93	71	299	532	260	33	24	40
28	60	35	20	20	97	103	267	543	240	30	16	43
29	60	35	20	20	---	150	293	564	220	36	12	40
30	60	35	20	20	---	179	377	518	200	42	21	35
31	50	---	20	20	---	320	---	518	---	39	28	---
TOTAL	1933	1450	685	620	1303	2455	8187	14699	13823	2086	862.1	731.4
MEAN	62.4	48.3	22.1	20.0	46.5	79.2	273	474	461	67.3	27.8	24.4
MAX	91	75	30	20	97	320	501	836	871	180	45	50
MIN	17	30	15	20	20	41	169	312	200	30	7.3	2.0
AC-FT	3830	2880	1360	1230	2580	4870	16240	29160	27420	4140	1710	1450
CAL YR 1985	TOTAL	47250.2		MEAN	129	MAX	1110	MIN	9.2	AC-FT	93720	
WTR YR 1986	TOTAL	48834.5		MEAN	134	MAX	871	MIN	2.0	AC-FT	96860	

09255400 EAST FORK SAVERY CREEK NEAR ENCAMPMENT, WY

LOCATION.--Lat 41°16'18", long 107°09'32", in NW1/4 NE1/4 SE1/4 sec.15, T.15 N., R.87 W., Carbon County, Hydrologic Unit 14050003, Medicine Bow National Forest, on right bank 0.1 mi upstream from Strawberry Creek, 0.6 mi downstream from Joe Creek, 0.6 mi upstream from Jim Creek, and 20 mi west of Encampment.

DRAINAGE AREA.--5.57 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1956 to September 1958, April 1985 to current year.

REVISED RECORDS.--WDR WY-85-1: Drainage area. WDR WY-86-1: 1985(P).

GAGE.--Water-stage recorder. Elevation of gage is 8,210 ft above National Geodetic Vertical Datum of 1929, from topographic map. April 1956 to September 1958, at site 150 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 8-10, Nov. 1, 6-30, Dec. 1-3, 7-15, Jan. 20-22, Feb. 24-27, Mar. 31 to Apr. 5, and Sept. 28. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 169 ft³/s, May 22, 1958, gage height, 6.48 ft, site and datum then in use, from rating curve extended above 46 ft³/s; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s (revised) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 21	1700	57	2.52	June 9	1730	*103	*2.91
June 2	1730	73	2.58				

Minimum daily discharge, 1.1 ft³/s, Dec. 10-13, Feb. 6-15, 19-21.

REVISIONS.--Peak discharges for the 1985 water year greater than base discharge of 40 ft³/s (revised) were not published in the 1985 report and are shown in the following table.

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 10, 1985	1930	*60	2.39	June 8, 1985	2200	45	2.23
May 26, 1985	1900	*60	*2.40				

* Maximum.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.7	1.3	1.2	1.3	1.7	3.7	10	54	15	2.9	2.0
2	1.4	1.5	1.4	1.2	1.2	1.6	3.5	13	63	14	2.8	1.8
3	1.4	1.5	1.5	1.3	1.2	1.4	3.3	19	63	13	2.7	1.8
4	1.4	1.5	1.4	1.3	1.2	1.4	3.4	29	60	13	2.6	1.7
5	1.4	1.5	1.5	1.3	1.2	1.4	3.6	30	60	13	2.6	1.6
6	1.4	1.5	1.5	1.3	1.1	1.4	4.0	24	60	11	2.5	1.6
7	3.8	1.5	1.4	1.3	1.1	1.4	4.0	22	54	9.8	2.5	1.6
8	2.9	1.6	1.3	1.3	1.1	1.4	4.0	18	51	9.1	2.4	1.6
9	2.4	1.5	1.2	1.3	1.1	1.4	3.8	15	68	8.6	2.3	1.8
10	2.2	1.4	1.1	1.3	1.1	1.4	3.8	13	75	8.0	2.2	3.1
11	2.1	1.5	1.1	1.3	1.1	1.4	3.8	13	56	7.2	2.0	2.0
12	2.1	1.6	1.1	1.3	1.1	1.4	4.2	14	47	6.8	2.3	1.9
13	2.0	1.6	1.1	1.3	1.1	1.4	4.4	14	43	6.1	2.3	1.6
14	1.7	1.5	1.2	1.3	1.1	1.4	4.2	16	41	5.9	2.0	1.5
15	1.6	1.6	1.2	1.3	1.1	1.4	4.0	16	39	6.7	2.0	1.5
16	1.6	1.7	1.3	1.3	1.2	1.4	4.2	15	39	7.1	1.9	1.4
17	1.7	1.6	1.3	1.3	1.2	1.4	4.0	14	38	5.7	1.9	1.4
18	1.7	1.5	1.3	1.3	1.2	1.4	3.8	16	40	5.2	1.8	1.5
19	1.7	1.4	1.3	1.2	1.1	1.3	3.7	20	39	4.8	1.8	2.0
20	1.7	1.4	1.3	1.2	1.1	1.3	3.6	30	35	4.6	2.0	1.7
21	1.8	1.4	1.3	1.2	1.1	1.4	4.3	44	34	4.5	2.8	2.0
22	2.0	1.4	1.3	1.2	1.3	1.4	6.2	44	30	4.4	2.1	1.9
23	1.8	1.4	1.3	1.2	1.3	1.5	9.1	33	26	4.6	1.9	1.7
24	1.8	1.4	1.3	1.2	1.3	1.7	11	27	24	4.3	1.9	2.5
25	1.8	1.5	1.3	1.2	1.3	1.7	12	27	23	4.5	2.0	2.5
26	1.9	1.5	1.3	1.2	2.0	1.6	11	32	22	4.1	1.9	2.3
27	1.9	1.5	1.3	1.2	2.4	1.8	10	37	20	3.9	1.8	2.2
28	1.9	1.4	1.3	1.3	1.9	2.2	9.6	44	18	3.6	1.7	2.3
29	1.9	1.4	1.3	1.3	---	3.1	9.2	47	17	3.3	1.6	2.0
30	1.8	1.3	1.3	1.3	---	3.6	9.2	48	16	3.1	3.2	2.0
31	1.9	---	1.3	1.3	---	4.1	---	50	---	3.0	2.2	---
TOTAL	58.1	44.8	40.1	39.2	35.5	52.4	168.6	794	1255	217.9	68.6	56.5
MEAN	1.87	1.49	1.29	1.26	1.27	1.69	5.62	25.6	41.8	7.03	2.21	1.88
MAX	3.8	1.7	1.5	1.3	2.4	4.1	12	50	75	15	3.2	3.1
MIN	1.4	1.3	1.1	1.2	1.1	1.3	3.3	10	16	3.0	1.6	1.4
AC-FT	115	89	80	78	70	104	334	1570	2490	432	136	112

WTR YR 1986 TOTAL 2830.7 MEAN 7.76 MAX 75 MIN 1.1 AC-FT 5610

GREEN RIVER BASIN

09255400 EAST FORK SAVERY CREEK NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May to September 1986.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: May to July 1986.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean during period of operation, 112 mg/L, May 21; minimum daily mean during period of operation, 4 mg/L, May 16.

SEDIMENT LOADS: Maximum daily during period of operation, 22 tons, June 10; minimum daily during period of operation, 0.16 ton, May 16.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

	DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY			
	21...	1025	76
JUN			
	01...	1030	70

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		MAY			JUNE			JULY	
1	10	13	.35	54	60	8.7	15	7	.28
2	13	34	1.2	63	42	7.1	14	6	.23
3	19	49	2.5	63	39	6.6	13	---	---
4	29	66	5.2	60	28	4.5	13	---	---
5	30	35	2.8	60	33	5.3	13	---	---
6	24	15	.97	60	34	5.5	11	---	---
7	22	11	.65	54	29	4.2	9.8	---	---
8	18	6	.29	51	23	3.2	9.1	---	---
9	15	9	.36	68	95	17	8.6	---	---
10	13	8	.28	75	109	22	8.0	---	---
11	13	7	.25	56	33	5.0	7.2	---	---
12	14	6	.23	47	24	3.0	6.8	---	---
13	14	12	.45	43	19	2.2	6.1	---	---
14	16	5	.22	41	15	1.7	5.9	---	---
15	16	11	.48	39	16	1.7	6.7	---	---
16	15	4	.16	39	14	1.5	7.1	---	---
17	14	6	.23	38	12	1.2	5.7	---	---
18	16	7	.30	40	13	1.4	5.2	---	---
19	20	16	.86	39	12	1.3	4.8	---	---
20	30	55	4.5	35	11	1.0	4.6	---	---
21	44	112	13	34	9	.83	4.5	---	---
22	44	48	5.7	30	9	.73	4.4	---	---
23	33	18	1.6	26	10	.70	4.6	---	---
24	27	22	1.6	24	7	.45	4.3	---	---
25	27	33	2.4	23	7	.43	4.5	---	---
26	32	39	3.4	22	8	.48	4.1	---	---
27	37	44	4.4	20	7	.38	3.9	---	---
28	44	44	5.2	18	7	.34	3.6	---	---
29	47	48	6.1	17	7	.32	3.3	---	---
30	48	50	6.5	16	7	.30	3.1	---	---
31	50	59	8.0	---	---	---	3.0	---	---
TOTAL	794	---	80.18	1255	---	109.06	217.9	---	0.51
YEAR	2830.7		190.05						

09255900 BIG SANDSTONE CREEK NEAR SAVERY, WY

LOCATION.--Lat 41°12'02", long 107°10'33", in SE1/4 SE1/4 NE1/4 sec.9, T.14 N., R.87 W., Carbon County, Hydrologic Unit 14050003, Medicine Bow National Forest, on right bank 300 ft downstream from Douglas Creek, 3.1 mi upstream from Mill Creek, and 19 mi northeast of Savery.

DRAINAGE AREA.--9.85 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1956 to September 1958, April 1985 to current year.

REVISED RECORDS.--WDR WY-85-1: Drainage area. WDR WY-86-1: 1985(P).

GAGE.--Water-stage recorder. Elevation of gage is 8,270 ft above National Geodetic Vertical Datum of 1929, from topographic map. April 1956 to September 1958, at site 200 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 8, 9, 22, Nov. 1, 2, 5-15, 29, 30, Dec. 2, 4-14, Jan. 7, 21, Feb. 4-14, 19-28, Mar. 9, 18, 23, Apr. 2-5, and Sept. 28. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 292 ft³/s, June 9, 1986, gage height, 3.96 ft; minimum daily, 1.1 ft³/s, Sept. 15, 16, 1956, Oct. 6, 1956, Sept. 21, 22, 1958.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s (revised) and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 21	2100	132	3.14	June 9	1800	*292	*3.96
June 5	1700	266	3.84				

Minimum daily discharge, 1.6 ft³/s, Feb. 8-12, Mar. 18.

REVISIONS.--Peak discharges for the 1985 water year greater than base discharge of 100 ft³/s (revised) were not published in the 1985 report and are shown in the following table:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 10, 1985	a1900	a170	--	June 8, 1985	1800	214	3.45
May 28, 1985	1830	*219	*3.47				

a About
* Maximum

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.4	2.2	2.2	2.0	2.3	6.2	14	189	39	6.1	3.8
2	2.3	2.6	2.4	2.2	2.0	2.1	5.8	19	222	35	5.9	3.6
3	2.2	2.4	2.5	2.2	2.1	2.0	5.6	31	219	32	5.8	3.5
4	2.1	2.4	2.4	2.2	2.0	2.0	6.0	48	211	31	5.5	3.2
5	2.3	2.3	2.4	2.1	1.9	2.0	6.3	54	227	34	5.3	3.0
6	2.2	2.1	2.3	2.1	1.8	2.0	6.7	43	229	26	5.3	2.9
7	6.7	2.0	2.3	2.1	1.7	2.0	6.3	35	207	24	5.2	2.9
8	4.4	2.1	2.3	2.0	1.6	2.0	6.1	29	197	22	4.9	2.9
9	3.5	2.1	2.2	2.0	1.6	2.0	6.7	25	224	21	4.7	3.8
10	3.8	1.9	2.1	2.0	1.6	2.0	6.7	23	236	20	4.5	6.5
11	4.1	2.1	2.0	2.0	1.6	2.0	6.2	22	162	18	4.3	3.8
12	3.7	2.3	2.0	1.9	1.6	2.0	6.3	23	139	17	5.3	3.2
13	3.2	2.2	2.0	1.9	1.7	2.0	7.1	25	134	16	4.6	3.0
14	2.9	2.1	2.0	1.9	1.7	2.0	6.5	27	134	15	4.2	2.8
15	3.3	2.3	2.1	1.9	1.7	1.8	6.3	27	138	16	3.9	2.7
16	3.0	2.4	2.1	1.9	1.9	1.8	6.7	27	145	16	3.8	2.6
17	2.8	2.4	2.1	1.9	1.9	1.8	6.7	27	151	13	3.7	2.5
18	2.8	2.4	2.1	1.9	1.7	1.6	6.4	30	151	12	3.5	2.8
19	2.7	2.2	2.1	1.9	1.8	1.7	5.8	42	137	12	3.4	3.4
20	2.7	2.2	2.1	1.9	1.9	1.7	5.6	66	121	11	4.1	2.8
21	2.8	2.3	2.1	1.9	1.9	1.8	5.6	104	107	10	5.4	3.3
22	2.8	2.3	2.1	1.9	1.9	2.0	7.2	115	92	10	3.8	3.1
23	2.8	2.3	2.1	1.8	2.0	2.1	12	89	81	10	3.5	3.8
24	2.4	2.3	2.1	1.9	2.3	2.5	15	74	73	9.6	3.9	5.1
25	2.8	2.3	2.1	1.9	2.8	2.5	17	78	67	9.8	4.1	4.8
26	3.0	2.3	2.1	1.9	3.0	2.3	15	97	61	8.5	3.5	4.3
27	2.8	2.3	2.1	1.9	2.8	2.4	13	120	56	7.8	3.2	4.3
28	2.7	2.3	2.1	1.9	2.6	3.1	12	144	53	7.2	3.1	4.5
29	2.8	2.3	2.2	2.0	---	4.1	12	159	48	6.8	3.0	4.3
30	2.6	2.3	2.2	2.0	---	4.8	12	157	44	6.5	7.4	4.3
31	2.6	---	2.2	2.0	---	6.1	---	165	---	6.3	4.5	---
TOTAL	93.4	67.9	67.1	61.3	55.1	72.5	246.8	1939	4255	522.5	139.4	107.5
MEAN	3.01	2.26	2.16	1.98	1.97	2.34	8.23	62.5	142	16.9	4.50	3.58
MAX	6.7	2.6	2.5	2.2	3.0	6.1	17	165	236	39	7.4	6.5
MIN	2.1	1.9	2.0	1.8	1.6	1.6	5.6	14	44	6.3	3.0	2.5
AC-FT	185	135	133	122	109	144	490	3850	8440	1040	276	213
WTR YR 1986	TOTAL	7627.5		MEAN	20.9	MAX	236	MIN	1.6	AC-FT	15130	

GREEN RIVER BASIN

09255900 BIG SANDSTONE CREEK NEAR SAVERY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May to September 1986.

PERIOD OF DAILY RECORD.--May to July 1986.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS.--Maximum daily mean during period of operation, 69 mg/L, May 21; minimum daily mean during period of operation, 1 mg/L, June 20, 22, 23, 24, 25, 26.

SEDIMENT LOADS: Maximum daily during period of operation, 35 tons, June 2; minimum daily during period of operation, 0.16 ton, June 26.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY 21...	1350	81
JUN 02...	2115	67

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		MAY			JUNE			JULY	
1	14	9	.34	189	37	19	39	4	.42
2	19	12	.62	222	59	35	35	4	.38
3	31	17	1.4	219	23	14	32	---	---
4	48	28	3.6	211	16	9.1	31	---	---
5	54	29	4.2	227	22	13	34	---	---
6	43	8	.93	229	24	15	26	---	---
7	35	3	.28	207	18	10	24	---	---
8	29	4	.31	197	19	10	22	---	---
9	25	7	.47	224	26	16	21	---	---
10	23	7	.43	236	27	17	20	---	---
11	22	4	.24	162	15	6.6	18	---	---
12	23	8	.50	139	10	3.8	17	---	---
13	25	10	.68	134	6	2.2	16	---	---
14	27	4	.29	134	6	2.2	15	---	---
15	27	3	.22	138	3	1.1	16	---	---
16	27	5	.36	145	4	1.6	16	---	---
17	27	6	.44	151	5	2.0	13	---	---
18	30	8	.65	151	7	2.9	12	---	---
19	42	13	1.5	137	5	1.8	12	---	---
20	66	63	11	121	1	.33	11	---	---
21	104	69	19	107	2	.58	10	---	---
22	115	37	11	92	1	.25	10	---	---
23	89	18	4.3	81	1	.22	10	---	---
24	74	12	2.4	73	1	.20	9.6	---	---
25	78	12	2.5	67	1	.18	9.8	---	---
26	97	15	3.9	61	1	.16	8.5	---	---
27	120	26	8.4	56	2	.30	7.8	---	---
28	144	33	13	53	2	.29	7.2	---	---
29	159	30	13	48	4	.52	6.8	---	---
30	157	24	10	44	4	.48	6.5	---	---
31	165	29	13	---	---	---	6.3	---	---
TOTAL	1939	---	128.96	4255	---	185.81	522.5	---	0.80
YEAR	7627.5		315.57						

09256000 SAVERY CREEK NEAR SAVERY, WY

LOCATION.--Lat 41°05'46", long 107°22'44", in SE1/4 NW1/4 SW1/4 sec.14, T.13 N., R.89 W., Carbon County, Hydrologic Unit 14050003, on right bank 800 ft downstream from bridge on county road, 1.8 mi downstream from Loco Creek, and 6.1 mi northeast of Savery.

DRAINAGE AREA.--330 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to September 1946, October 1947 to September 1971, April to September 1972, April 1985 to current year.

REVISED RECORDS.--WDR WY-70-1: 1969.

GAGE.--Water-stage recorder. Elevation of gage is 6,680 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 17, 1946, at site 300 ft right of county bridge (on abandoned channel) 800 ft upstream at different datum. October 1947 to September 1972, at county bridge 800 ft upstream at different datum. Records collected at all sites include flow from Big Gulch.

REMARKS.--Estimated daily discharges: Nov. 10, 11, Nov. 14 to Feb. 1, Feb. 5-22, 27, 28, Mar. 1. Records good except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 780 acres, of which about 140 acres are downstream from station.

AVERAGE DISCHARGE.--30 years (water years 1942-46, 1948-71, 1986), 106 ft³/s, 76,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,670 ft³/s, May 4, 1952, gage height, 7.30 ft, site and datum then in use, from rating curve extended above 1,100 ft³/s on basis of slope-area measurement of peak flow; no flow Sept. 1, 2, 8-10, 1959, Aug. 7, 10-22, Sept. 15, 16, 1960.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1984, reached a stage of 7.8 ft, present site and datum, from floodmarks, discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 2	2000	733	4.21	May 21	2230	805	4.35
Apr. 23	2200	1,030	4.70	June 10	1030	1,080	4.67
May 4	2030	*1,450	*5.23				

Minimum daily discharge, 21 ft³/s, Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	53	47	50	64	124	479	677	533	113	35	31
2	35	50	50	50	62	133	624	846	538	102	33	28
3	35	51	53	52	64	130	511	1050	527	92	32	28
4	34	52	54	49	62	135	430	1200	504	94	32	27
5	34	50	52	47	60	147	397	989	521	125	32	25
6	34	52	53	49	57	150	414	598	534	103	31	22
7	50	41	52	52	53	164	524	609	491	91	30	22
8	81	55	51	48	50	189	530	570	454	86	30	23
9	69	47	50	49	48	208	524	500	485	88	31	25
10	68	52	48	51	49	176	493	438	909	94	32	40
11	72	59	46	51	52	152	492	415	527	82	29	42
12	66	67	42	50	54	132	490	522	405	74	29	32
13	66	57	43	49	60	114	588	535	358	67	32	30
14	60	54	44	48	65	119	467	504	358	64	30	28
15	52	59	45	48	68	113	459	460	348	64	27	26
16	48	65	46	49	68	99	527	458	318	91	24	24
17	46	61	47	50	67	102	612	465	304	79	22	23
18	46	55	48	51	72	102	494	449	293	64	22	23
19	44	50	50	52	85	91	410	494	285	58	21	26
20	44	48	52	52	88	91	353	595	261	54	24	27
21	44	48	53	50	84	94	434	699	235	49	32	27
22	48	47	52	49	80	111	676	716	212	49	35	31
23	52	49	51	50	83	143	906	537	195	57	30	31
24	55	52	51	49	89	180	901	469	178	56	27	44
25	56	54	50	48	105	195	937	453	169	60	29	77
26	53	56	50	49	126	161	808	469	162	58	32	79
27	52	60	49	52	126	165	598	502	150	51	29	74
28	50	54	48	54	120	210	527	526	137	48	26	100
29	50	52	49	56	---	270	543	542	129	42	24	84
30	50	51	52	60	---	325	575	529	123	38	30	72
31	51	---	50	63	---	506	---	527	---	37	38	---
TOTAL	1577	1601	1528	1577	2061	5031	16723	18343	10643	2230	910	1171
MEAN	50.9	53.4	49.3	50.9	73.6	162	557	592	355	71.9	29.4	39.0
MAX	81	67	54	63	126	506	937	1200	909	125	38	100
MIN	32	41	42	47	48	91	353	415	123	37	21	22
AC-FT	3130	3180	3030	3130	4090	9980	33170	36380	21110	4420	1800	2320
WTR YR 1986	TOTAL	63395		MEAN	174	MAX	1200	MIN	21	AC-FT	125700	

GREEN RIVER BASIN

09256000 SAVERY CREEK NEAR SAVERY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT 04...	1115	34	460	8.2	5.5	--	5.1	--	--	21	230
NOV 06...	1140	52	455	8.4	1.5	595	10	10.9	100	<1	210
JAN 08...	1530	48	470	8.1	0.0	601	--	11.9	104	440	230
FEB 20...	1110	88	435	8.1	0.0	590	45	11.6	103	K2	210
MAR 25...	1200	214	421	8.4	3.0	596	120	9.9	93	K39	210
APR 29...	1200	518	275	8.0	8.0	590	220	9.4	102	K16	140
MAY 28...	1130	544	175	8.2	9.0	595	130	9.0	99	K60	82
JUN 30...	1810	121	260	8.3	20.5	595	18	7.2	103	K7	120
AUG 12...	0815	29	410	8.2	15.5	600	4.0	8.3	106	170	200
SEP 24...	1145	36	420	8.4	9.0	583	34	8.7	97	K7	200

K-Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 04...	72	13	11	0.3	3.0	174	66	5.3	0.2	24	301
NOV 06...	66	12	11	0.3	2.7	171	60	5.2	0.3	22	289
JAN 08...	70	13	13	0.4	2.9	186	60	4.3	0.2	22	308
FEB 20...	61	13	9.7	0.3	3.1	155	61	4.8	0.2	19	269
MAR 25...	63	12	9.6	0.3	2.2	160	56	4.7	0.2	12	--
APR 29...	43	7.8	6.8	0.3	1.5	110	28	4.4	0.1	15	--
MAY 28...	25	4.8	2.9	0.1	0.5	76	14	1.5	0.1	10	--
JUN 30...	38	6.9	5.9	0.2	1.4	110	23	1.7	0.2	13	--
AUG 12...	61	12	11	0.4	2.9	170	49	5.3	0.3	17	--
SEP 24...	62	12	11	0.3	2.1	170	49	4.4	0.2	22	--

09256000 SAVERY CREEK NEAR SAVERY, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 04...	300	0.41	28	<0.10	<0.10	0.06	0.24	0.3	0.03	--
NOV 06...	280	0.39	41	<0.10	<0.10	0.04	0.36	0.4	0.03	1
JAN 08...	300	0.42	40	0.10	0.13	0.10	0.4	0.5	0.05	1
FEB 20...	260	0.37	64	2.00	0.19	0.43	0.17	0.6	0.09	1
MAR 25...	260	0.35	148	<0.10	0.00	0.02	0.98	1.0	0.19	1
APR 29...	170	0.23	241	<0.10	0.10	0.10	0.7	0.8	0.16	<1
MAY 28...	100	0.14	153	<0.10	0.00	0.01	0.69	0.7	0.12	--
JUN 30...	160	0.21	51	<0.10	0.10	0.02	0.48	0.5	0.06	--
AUG 12...	260	0.35	20	<0.10	--	<0.01	--	0.5	0.10	--
SEP 24...	260	0.36	26	<0.10	0.10	0.03	0.27	0.3	0.09	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	SED. SUSP. FALL DIAM. % FINER THAN .016 MM
OCT 04...	1115	34	73	6.7	--	--	--	--
NOV 06...	1140	52	60	8.4	81	--	--	--
JAN 08...	1530	48	71	9.2	--	--	--	--
FEB 20...	1110	88	83	20	--	--	--	--
MAR 25...	1200	214	244	141	86	--	--	--
APR 29...	1200	518	293	410	--	31	39	47
MAY 04...	2015	1350	2330	8490	--	25	32	38
MAY 28...	1130	544	223	328	--	--	--	--
JUN 30...	1810	121	13	4.2	--	--	--	--
AUG 12...	0815	29	9	0.7	--	--	--	--
SEP 24...	1145	36	31	3.0	--	--	--	--

GREEN RIVER BASIN

09257000 LITTLE SNAKE RIVER NEAR DIXON, WY

LOCATION.--Lat 41°01'42", long 107°32'55", in SE1/4 NW1/4 sec.8, T.12 N., R.90 W., Carbon County, Hydrologic Unit 14050003, on left bank 200 ft upstream from highway bridge, 1,000 ft upstream from Willow Creek, and 0.8 mi west of Dixon.

DRAINAGE AREA.--988 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1910 to September 1923, March 1938 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1243: 1920(M). WDR WY-85-1: 1984(M).

GAGE.--Water-stage recorder. Datum of gage is 6,331.22 ft above National Geodetic Vertical Datum of 1929.

May 27, 1910, to Sept. 30, 1923, nonrecording gage on highway bridge 200 ft downstream at datum 2.98 ft higher.

Mar. 15, 1938, to Sept. 30, 1957, water-stage recorder at site 225 ft downstream at datum 2.98 ft higher;

Oct. 1, 1957, to June 6, 1968, at site 850 ft downstream at present datum, and June 7 to Sept. 30, 1968, at site 225 ft downstream at present datum.

REMARKS.--Estimated daily discharges: May 1-4. Records fair. Diversions for irrigation of about 9,500 acres upstream from station. One diversion upstream from station for irrigation of about 3,000 acres downstream. Transbasin diversions upstream from station.

AVERAGE DISCHARGE.--46 years (water years 1911-23, 1939-71), 514 ft³/s, 372,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s, May 16, 1984, gage height, 13.56 ft, from floodmark, from rating curve extended above 10,000 ft³/s, some increase in peak due to dam failure; no flow Sept. 19, 20, 22, 1977, Aug. 7, 17, 18, 27-29, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 5	0330	*4,770	*9.64	June 6	0600	4,430	9.18
May 22	0730	4,220	9.17				

Minimum daily discharge during period of record, 12 ft³/s, Aug. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						---	1530	2340	3490	840	55	64
2						---	1910	2800	3690	704	47	43
3						---	1590	3250	3840	619	42	30
4						---	1200	3730	3860	586	42	25
5						---	1070	4110	3950	866	40	20
6						---	1120	2980	4160	659	38	18
7						---	1400	2800	3690	590	35	19
8						---	1510	2550	3360	533	37	22
9						---	1430	2250	3400	489	41	28
10						---	1360	2040	3950	498	38	78
11						---	1340	2050	2920	441	36	64
12						---	1350	2280	2650	415	35	42
13						---	1580	2370	2570	361	48	33
14						---	1250	2560	2430	364	34	27
15						---	1190	2350	2330	317	23	25
16						---	1400	2220	2240	375	19	22
17						---	1580	2060	2220	372	18	21
18						---	1290	2090	2230	301	16	22
19						---	1100	2370	2260	259	12	30
20						---	1040	2840	1980	230	12	33
21						---	1160	3420	1730	218	23	30
22						---	1780	3830	1530	207	29	46
23						---	2580	2960	1410	221	23	53
24						---	580	2770	2620	1280	20	90
25						---	616	2970	2530	1160	25	149
26						---	481	2740	2760	1110	30	183
27						---	511	2100	3010	1020	199	190
28						---	642	1860	3220	1020	141	227
29						---	862	1830	3390	1010	116	207
30						---	1070	2110	3340	947	98	180
31						---	1880	---	3350	---	76	---
TOTAL						---	49140	86470	73437	11775	968	2021
MEAN						---	1638	2789	2448	380	31.2	67.4
MAX						---	2970	4110	4160	866	55	227
MIN						---	1040	2040	947	76	12	18
AC-FT						---	97470	171500	145700	23360	1920	4010

09257000 LITTLE SNAKE RIVER NEAR DIXON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
MAY 27...	1900	2650	101	10.5	46	14	2.8	2.5	0.2	0.3
JUL 01...	0900	888	116	14.5	51	15	3.3	4.0	0.3	0.7

DATE	TIME	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
MAY 27...	49		7.6	0.9	0.1	9.4	67	0.09	479	0.10	0.16
JUL 01...	55		0	0.5	0.1	9.3	66	0.09	158	0.10	0.06

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUL 01...	0900	888	14.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 11...	1840	35	20.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
SEP 24...	1700	109	9.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

GREEN RIVER BASIN

09258000 WILLOW CREEK NEAR DIXON, WY

LOCATION.--Lat 40°54'56", long 107°31'16", on line between secs. 8 and 17, T.11 N., R.90 W., Moffat County, Co., Hydrologic Unit 14050003, on right bank 6.2 mi south of Colorado-Wyoming State line, 8.0 mi upstream from mouth, and 8.3 mi south of Dixon.

DRAINAGE AREA.--24 mi², approximately.

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,700 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 19 to Mar. 2 and Sept. 13-30. Records good except for estimated daily discharges, which are poor. One small ditch diverts water upstream from station for irrigation. Regulation by Elk Lake, capacity, 400 acre-ft.

AVERAGE DISCHARGE.--33 years, 10.9 ft³/s, 7,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 476 ft³/s, May 10, 1984, gage height, 6.02 ft, from rating curve extended above 160 ft³/s; maximum gage height, 7.08 ft, Apr. 18, 1984 (backwater from ice); no flow Sept. 17-19, 1955, many days July through September 1977, and Aug. 8-16, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 31	0730	*351	*5.47	June 6	2230	106	3.95

Minimum daily discharge, 1.8 ft³/s, Aug. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	4.9	3.0	2.5	2.5	9.0	60	26	67	20	2.4	5.9
2	4.1	6.0	3.5	2.5	2.5	11	77	34	76	19	2.2	3.5
3	3.8	5.4	4.0	2.5	2.5	12	40	42	75	19	2.1	4.8
4	3.9	5.0	4.0	2.0	2.5	13	27	48	73	17	1.8	3.0
5	3.7	5.4	4.0	2.0	2.5	11	29	38	80	25	2.8	2.8
6	4.1	4.8	4.0	2.0	2.0	12	29	25	90	16	4.0	3.0
7	7.3	5.2	4.0	2.0	2.0	16	33	25	72	12	4.0	3.8
8	8.5	5.1	4.0	2.0	2.0	23	31	21	66	10	3.8	3.5
9	8.2	5.5	4.0	2.0	2.0	21	26	23	67	9.4	3.8	3.4
10	9.1	5.1	2.5	2.0	2.0	15	23	21	61	8.3	3.8	9.6
11	10	6.0	2.0	2.0	2.0	9.4	23	20	45	7.4	3.7	5.7
12	8.8	5.9	2.0	2.0	2.0	8.2	23	21	48	6.6	3.5	5.0
13	10	4.9	2.0	2.0	2.0	8.3	23	22	53	6.3	3.5	4.5
14	6.7	5.6	2.0	2.0	2.5	8.5	23	24	52	7.0	3.2	4.0
15	6.5	5.4	2.0	2.0	2.5	7.3	19	21	53	5.3	3.7	4.0
16	6.3	5.8	2.0	2.0	2.5	7.8	23	23	52	11	4.5	3.5
17	6.2	5.5	2.0	2.5	2.5	8.3	26	20	54	5.4	4.7	3.0
18	5.8	5.8	2.0	2.5	3.0	6.0	22	19	57	4.8	4.1	3.0
19	5.7	5.5	2.0	2.5	3.0	5.5	16	25	57	4.5	4.0	3.5
20	6.0	5.0	2.0	2.5	4.0	5.7	14	34	47	4.3	5.7	4.0
21	5.8	4.0	2.0	2.5	3.5	16	18	40	43	4.0	4.3	3.5
22	7.0	4.0	2.0	2.0	3.5	32	31	41	38	3.8	4.1	4.0
23	6.8	4.0	2.0	2.0	3.5	43	40	28	36	3.8	4.7	4.5
24	6.7	4.0	2.0	2.0	3.5	37	35	29	33	3.5	5.0	7.0
25	6.5	4.5	2.0	2.0	4.5	23	33	33	31	5.4	4.7	9.0
26	6.5	4.5	2.0	2.0	6.5	15	30	38	30	3.8	7.2	7.0
27	6.0	5.0	2.0	2.0	7.5	25	24	41	29	3.1	7.2	7.0
28	6.2	5.0	2.5	2.0	8.0	41	34	47	29	3.0	7.2	8.0
29	5.9	4.5	2.5	2.5	---	48	23	53	27	2.8	6.6	8.0
30	5.5	4.5	2.5	2.5	---	49	20	54	24	3.0	7.4	7.0
31	6.6	---	2.5	2.5	---	116	---	57	---	2.6	7.2	---
TOTAL	198.1	151.8	81.0	67.5	89.0	663.0	875	993	1565	257.1	136.9	148.5
MEAN	6.39	5.06	2.61	2.18	3.18	21.4	29.2	32.0	52.2	8.29	4.42	4.95
MAX	10	6.0	4.0	2.5	8.0	116	77	57	90	25	7.4	9.6
MIN	3.7	4.0	2.0	2.0	2.0	5.5	14	19	24	2.6	1.8	2.8
AC-FT	393	301	161	134	177	1320	1740	1970	3100	510	272	295
CAL YR 1985	TOTAL	6475.2		MEAN	17.7	MAX	130	MIN	1.4	AC-FT	12840	
WTR YR 1986	TOTAL	5225.9		MEAN	14.3	MAX	116	MIN	1.8	AC-FT	10370	

09259050 LITTLE SNAKE RIVER BELOW BAGGS, WY

LOCATION.--Lat 41°01'43", long 107°41'14", in SE1/4 NW1/4 NW1/4 sec.7, T.12 N., R.92 W., Carbon County, Hydrologic Unit 14050003, 0.8 mi downstream from Ledford Slough, 1.5 mi southwest of Baggs, and 3.5 mi downstream from bridge on State Highway 789 in Baggs.

PERIOD OF RECORD.--October 1980 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
NOV 06...	1545	206	468	4.5	8.3	180	48	15	24	0.8	2.3
JAN 07...	1600	206	570	0.0	8.0	210	54	18	31	1	2.1
MAY 28...	1930	3240	122	11.0	7.8	53	15	3.7	3.9	0.2	0.3

DATE	ALKA- LINITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
NOV 06...	140	77	6.1	0.1	16	270	0.37	152	0.00	0.04
JAN 07...	170	89	7.3	0.3	18	320	0.44	179	0.10	0.03
MAY 28...	52	13	1.1	0.2	9.7	78	0.11	683	0.10	0.12

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 04...	0700	224	462	8.3	8.5	--	--
NOV 06...	1545	206	468	8.3	4.5	605	11.0
JAN 07...	1600	206	570	8.0	0.0	615	12.6
FEB 19...	1300	2330	345	8.2	0.0	596	11.7
MAR 24...	1700	774	600	8.3	8.0	602	8.8
APR 29...	1600	1780	290	7.9	9.0	599	7.4
MAY 28...	1930	3240	122	7.8	11.0	605	8.5
JUN 30...	1250	900	152	7.9	19.0	606	7.3
AUG 12...	1540	22	420	8.4	22.0	610	9.8
SEP 25...	0930	167	360	8.0	8.0	596	9.2

GREEN RIVER BASIN

09259050 LITTLE SNAKE RIVER BELOW BAGGS, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 04...	--	40	<0.10	0.05	0.45	0.5	0.03
NOV 06...	108	<1	<0.10	0.09	0.31	0.4	0.04
JAN 07...	107	500	<0.10	0.05	0.35	0.4	0.03
FEB 19...	103	4600	0.20	0.05	3.1	3.2	0.64
MAR 24...	94	K700	<0.10	0.03	1.3	1.3	0.34
APR 29...	81	K24	<0.10	0.08	0.52	0.6	0.07
MAY 28...	97	K2	<0.10	0.02	0.58	0.6	0.12
JUN 30...	100	<1	<0.10	0.01	0.39	0.4	0.06
AUG 12...	141	72	<0.10	<0.01	--	0.6	0.04
SEP 25...	99	<1	<0.10	<0.01	--	0.5	0.02

K-Results based on colony count outside the acceptable range (non-ideal colony count).

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 30...	1250	900	19.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 12...	1540	22	22.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
SEP 25...	0930	167	8.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01

10010400 EAST FORK BEAR RIVER NEAR EVANSTON, WY

LOCATION.--Lat 40°52'25", long 110°47'00", in SE1/4 SE1/4 SW1/4 sec.26, T.2 N., R.10 E., Summit County, Utah, Hydrologic Unit 16010101, Wasatch National Forest, on right bank 4.1 mi upstream from mouth, 11.5 mi upstream from Utah-Wyoming State line, and 28.7 mi south of Evanston.

DRAINAGE AREA.--34.6 mi².

PERIOD OF RECORD.--October 1973 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 8,760 ft from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--13 years, 58.5 ft³/s, 42,380 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 857 ft³/s, June 18, 1983, gage height, 4.33 ft; minimum, 4.5 ft³/s, Apr. 17, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 675 ft³/s, June 5, gage height, 4.28 ft; minimum daily, 9.3 ft³/s, Jan. 13-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	23	15	e9.7	e11	e13	43	54	498	263	58	26
2	15	18	15	e9.5	e10	e13	32	77	523	241	55	26
3	15	16	15	e9.5	e10	e13	31	111	538	231	52	25
4	14	16	e14	e9.5	e11	e13	40	132	560	240	50	23
5	14	16	e14	e10	e10	e13	35	108	576	236	49	21
6	15	e15	e13	e11	e10	e13	32	92	575	190	47	22
7	34	e15	e13	e11	e9.6	e13	29	80	531	171	47	25
8	22	e16	13	e11	e9.6	13	32	71	497	155	47	25
9	21	e17	13	e11	e9.8	e13	32	64	415	154	43	24
10	21	e18	e12	e12	e9.9	e14	27	71	334	145	39	25
11	22	e19	e13	e11	e10	15	28	57	326	135	37	21
12	21	e19	e13	e10	e10	e14	30	58	374	133	36	20
13	19	e19	e12	e9.3	e11	e14	28	63	426	132	32	18
14	19	e18	e12	e9.3	e12	e13	32	62	448	129	31	17
15	24	e18	e11	e9.3	e12	e13	32	65	465	139	29	17
16	19	e17	e12	e9.7	e12	e14	29	64	470	159	27	16
17	17	e17	e13	e10	e13	e15	29	61	464	136	26	16
18	17	17	e13	e11	e13	15	29	65	493	120	25	17
19	16	17	e13	e11	e12	15	35	88	470	110	26	19
20	16	e16	e14	e10	e12	e14	27	134	434	99	45	17
21	16	e16	e14	e9.8	e11	e13	34	182	409	93	64	16
22	23	17	e14	e9.6	e11	e13	45	188	376	95	37	17
23	20	17	e13	e10	e12	e14	59	159	360	98	34	17
24	19	e17	e13	e10	e13	e15	58	157	345	98	33	27
25	19	e16	e13	e10	e13	17	53	198	307	114	31	25
26	19	e15	e14	e10	e14	23	46	273	295	103	29	23
27	18	e15	e13	e11	e13	24	42	336	314	90	28	24
28	18	15	e12	e11	e13	23	39	359	325	78	27	25
29	17	15	e11	e11	---	27	42	387	315	70	28	23
30	17	15	e11	e12	---	34	49	426	290	66	29	21
31	18	---	e10	e13	---	32	---	466	---	62	32	---
TOTAL	581	505	401	322.2	317.9	508	1099	4708	12753	4285	1173	638
MEAN	18.7	16.8	12.9	10.4	11.4	16.4	36.6	152	425	138	37.8	21.3
MAX	34	23	15	13	14	34	59	466	576	263	64	27
MIN	14	15	10	9.3	9.6	13	27	54	290	62	25	16
AC-FT	1150	1000	795	639	631	1010	2180	9340	25300	8500	2330	1270
CAL YR 1985	TOTAL	20475	MEAN	56.1	MAX	446	MIN	10	AC-FT	40610		
WTR YR 1986	TOTAL	27291.1	MEAN	74.8	MAX	576	MIN	9.3	AC-FT	54130		

e Estimated.

BEAR RIVER BASIN

10011200 WEST FORK BEAR RIVER AT WHITNEY DAM, NEAR OAKLEY, UT

LOCATION.--Lat 40°50'30", long 110°55'35", in SW1/4 NE1/4 NE1/4 sec.9, T.1 N., R.9 E., Summit County, Hydrologic Unit 16010101, Wasatch National Forest, on left bank 1,380 ft downstream from Whitney Dam, 7 mi upstream from Deer Creek, and 21.5 mi northeast of Oakley.

DRAINAGE AREA.--6.79 mi².

PERIOD OF RECORD.--October 1963 to September 30, 1986 (discontinued). Prior to October 1965 published as, "at Whitney Dam Site."

REVISED RECORD.--WRD UT-73-1: Drainage area.

GAGE.--Water-stage recorder and concrete control with V-notch sharp-crested weir since Aug. 4, 1966. Altitude of gage is 9,120 ft from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Whitney Reservoir, total capacity, 4,700 acre-ft since July 1966.

AVERAGE DISCHARGE.--20 years (water years 1967-86), 8.52 ft³/s, 6,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 191 ft³/s, June 7, 1986, gage height, 3.27 ft; no flow July 24 to Sept. 30, Nov. 16-29, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 191 ft³/s, June 7, gage height, 3.27 ft; minimum daily, 0.38 ft³/s, Oct. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.87	2.3	2.0	2.2	1.1	.89	2.0	4.8	32	4.4	80
2	1.4	.87	e2.2	2.0	2.2	1.1	e.97	2.2	4.8	32	4.0	79
3	1.4	.85	2.2	2.0	2.3	1.1	e1.1	2.3	4.7	30	3.7	79
4	1.4	.80	2.2	2.1	2.3	1.1	e1.1	2.5	4.7	28	3.5	78
5	.91	.80	2.2	2.1	2.2	1.1	e1.1	2.6	20	27	3.4	77
6	.66	.80	2.2	2.2	2.2	1.1	e1.2	2.4	96	24	3.2	87
7	1.2	.80	2.3	2.3	2.2	1.1	e1.3	2.4	122	22	3.0	99
8	.58	.79	2.3	2.2	2.2	1.1	e1.4	2.3	107	20	2.9	97
9	.45	e.74	2.4	2.2	2.2	1.1	e1.4	2.2	91	18	2.9	93
10	.41	e.71	2.4	2.2	2.1	1.1	e1.4	2.2	83	16	2.8	90
11	.39	e.78	2.4	2.2	2.1	1.1	1.3	2.3	83	15	2.6	62
12	.38	e.82	2.3	2.2	2.1	1.1	1.3	2.6	88	14	2.5	44
13	.39	e.82	2.3	2.2	e2.0	1.1	1.2	2.6	92	12	2.5	35
14	.40	e.80	2.3	2.2	e1.9	1.1	1.2	2.7	96	11	2.3	23
15	.53	e.80	2.3	2.2	e1.8	1.1	1.1	2.6	94	11	4.7	23
16	.60	e.80	2.4	2.2	e1.7	1.1	1.1	2.7	91	14	7.0	23
17	.63	e.80	2.2	2.2	e1.7	1.0	1.1	2.7	92	15	6.6	23
18	.67	e.82	2.1	2.2	e1.7	.93	1.1	2.7	90	11	6.6	23
19	.70	e.85	2.1	2.2	e1.6	.93	1.2	2.8	85	9.3	6.9	23
20	.74	e.86	2.1	2.2	1.6	.93	1.2	2.9	78	8.4	6.9	23
21	.80	e.86	2.1	2.2	1.3	.93	1.3	3.1	74	7.9	6.9	23
22	.86	e.88	2.1	2.2	1.2	.84	1.6	3.3	67	7.4	7.1	23
23	.80	.92	2.1	2.2	1.0	.87	1.7	3.2	59	8.4	7.1	23
24	.80	1.4	2.1	2.2	1.1	.87	1.8	3.4	50	11	6.9	23
25	.80	1.4	2.1	2.2	1.1	.87	1.6	3.6	49	13	7.1	23
26	.80	1.2	2.1	2.2	1.1	.87	1.6	3.8	47	14	7.1	24
27	.80	1.8	2.1	2.2	1.1	.87	1.6	3.5	45	11	7.2	24
28	.80	2.3	2.1	2.1	1.1	.87	1.6	3.2	43	7.7	7.3	15
29	.80	2.3	2.1	2.1	---	.87	1.8	3.5	22	6.0	7.3	1.1
30	.81	2.3	2.1	2.1	---	.87	1.9	4.1	21	5.2	7.4	1.1
31	.87	---	2.1	2.2	---	.87	---	4.6	---	4.8	54	---
TOTAL	24.18	31.54	68.3	67.2	49.3	30.99	40.16	89.0	1904.0	466.1	207.8	1341.2
MEAN	.78	1.05	2.20	2.17	1.76	1.00	1.34	2.87	63.5	15.0	6.70	44.7
MAX	1.4	2.3	2.4	2.3	2.3	1.1	1.9	4.6	122	32	54	99
MIN	.38	.71	2.1	2.0	1.0	.84	.89	2.0	4.7	4.8	2.3	1.1
AC-FT	48	63	135	133	98	61	80	177	3780	925	412	2660

CAL YR 1985 TOTAL 3282.92 MEAN 8.99 MAX 96 MIN .30 AC-FT 6510
WTR YR 1986 TOTAL 4319.77 MEAN 11.8 MAX 122 MIN .38 AC-FT 8570

e Estimated.

10011400 WEST FORK BEAR RIVER BELOW DEER CREEK, NEAR EVANSTON, WY

LOCATION.--Lat 40°56'26", long 110°51'30", in NE1/4 SE1/4 NW1/4 sec.6, T.2 N., R.10 E., Summit County, Utah, Hydrologic Unit 16010101, on left bank 0.8 mi downstream from Deer Creek, 2.1 mi upstream from mouth, and 22.9 mi south of Evanston.

DRAINAGE AREA.--52.2 mi².

PERIOD OF RECORD.--October 1973 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 8,190 ft from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Whitney Reservoir, total capacity, 4,700 acre-ft since July 1966.

AVERAGE DISCHARGE.--13 years, 50.9 ft³/s, 36,880 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft³/s, May 15, 1984, gage height, 4.20 ft; minimum, 2.0 ft³/s, Aug. 11, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 930 ft³/s, May 30, gage height, 4.16 ft; minimum daily discharge, 11 ft³/s, Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	21	22	e16	e14	e14	41	117	601	131	34	120
2	18	20	20	e16	e14	e15	39	176	600	126	33	119
3	18	19	22	e17	e15	e15	34	268	545	120	32	118
4	18	18	20	e17	e15	e15	35	273	521	118	30	115
5	18	20	e19	e17	e15	e16	32	189	530	117	29	112
6	16	19	e18	e17	e14	e16	35	150	584	103	28	120
7	37	20	e18	e17	e13	17	39	125	553	95	28	136
8	24	e19	e18	e17	e13	17	36	110	509	88	29	132
9	22	e18	e17	e17	e12	18	33	101	427	83	28	135
10	22	e17	e16	e17	e11	21	33	93	382	77	26	133
11	23	e18	e15	e16	e12	19	34	105	367	73	25	102
12	23	e20	e14	e16	e14	18	36	127	392	68	26	66
13	21	e19	e14	e16	e14	20	38	142	461	65	24	61
14	20	e19	e15	e17	e14	19	37	144	424	61	24	41
15	19	e19	e15	18	e13	20	36	140	410	66	24	40
16	19	e19	e16	18	e14	20	40	123	388	81	28	39
17	19	e19	e17	15	14	24	37	120	372	72	27	39
18	19	e19	e18	15	14	18	34	165	375	59	27	40
19	19	e17	e19	15	13	19	34	256	349	53	28	43
20	18	e17	e20	15	e12	22	37	359	314	51	35	41
21	19	e18	e20	e14	e12	23	52	479	287	48	50	40
22	27	e19	e20	e14	e13	20	71	365	261	48	34	39
23	24	e19	e20	e15	e14	20	89	277	238	52	32	39
24	23	e20	e19	e14	e14	22	88	338	211	58	31	42
25	23	e20	e18	e13	e14	22	74	439	202	61	30	45
26	22	e19	e18	e14	e14	24	65	565	189	64	29	44
27	21	e19	e18	e15	e14	24	60	608	182	52	29	44
28	20	e19	e18	e14	e14	28	64	573	178	44	30	42
29	19	e20	e17	14	---	34	84	564	156	39	31	25
30	19	e20	e16	14	---	40	94	614	132	37	32	24
31	21	---	e16	14	---	44	---	601	---	35	73	---
TOTAL	649	570	553	484	379	664	1461	8706	11140	2245	966	2136
MEAN	20.9	19.0	17.8	15.6	13.5	21.4	48.7	281	371	72.4	31.2	71.2
MAX	37	21	22	18	15	44	94	614	601	131	73	136
MIN	16	17	14	13	11	14	32	93	132	35	24	24
AC-FT	1290	1130	1100	960	752	1320	2900	17270	22100	4450	1920	4240
CAL YR 1985	TOTAL 19455		MEAN 53.3		MAX 361	MIN 13	AC-FT 38590					
WTR YR 1986	TOTAL 29953		MEAN 82.1		MAX 614	MIN 11	AC-FT 59410					

e Estimated.

BEAR RIVER BASIN

10011500 BEAR RIVER NEAR UTAH-WYOMING STATE LINE

LOCATION.--Lat 40°57'55", long 110°51'10", in SE1/4 NW1/4 SE1/4 sec.30, T.3 N., R.10 E., Summit County, Utah, Hydrologic Unit 16010101, on left bank 400 ft downstream from West Fork and 2.8 mi upstream from Utah-Wyoming State line.

DRAINAGE AREA.--172 mi².

PERIOD OF RECORD.--July 1942 to current year.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,965 ft from river-profile map.

REMARKS.--Records fair. Flow regulated slightly by Whitney Reservoir, total capacity, 4,700 acre-ft since 1966. Three diversions upstream from station for irrigation of about 265 acres upstream from and 2,600 acres downstream from station.

AVERAGE DISCHARGE.--44 years, 198 ft³/s, 143,450 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,230 ft³/s, June 6, 1986, gage height, 4.05 ft; maximum gage height, 4.28 ft, June 19, 1983; minimum discharge, 6.8 ft³/s, Apr. 12, 1984, result of upstream ice jam.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 6	0200	*3,230	*4.05	No other peak greater than base discharge.			

Minimum daily discharge, 30 ft³/s, Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	64	71	e47	42	61	157	307	2480	1000	192	181
2	67	80	67	e52	40	59	149	462	2560	917	180	174
3	63	76	67	e54	e38	59	129	690	2610	852	167	171
4	58	74	65	e55	e36	59	116	786	2680	861	160	168
5	56	78	67	e58	e33	59	109	588	2600	841	153	163
6	58	59	69	e62	e32	58	113	441	2650	670	146	169
7	138	73	64	e57	e32	62	131	362	2420	591	147	190
8	93	77	60	e58	e33	64	118	327	2260	515	145	194
9	84	46	60	e58	e30	60	108	277	2070	495	141	193
10	83	49	e52	e56	e33	68	106	250	1800	463	126	204
11	88	71	e47	e58	e36	65	115	270	1760	423	117	160
12	87	66	e48	e51	e41	60	114	304	1930	406	125	109
13	82	73	e52	e46	e43	54	123	319	2100	393	117	103
14	65	79	e54	e46	e41	60	110	334	2050	386	113	92
15	72	69	e56	e44	42	58	12	333	418	106	90	90
16	74	78	e56	42	41	55	134	320	2060	534	106	90
17	74	74	e56	41	40	53	116	272	2120	455	100	88
18	71	64	e56	41	40	56	107	325	2260	368	96	89
19	71	e58	e56	42	41	54	100	459	2300	331	100	95
20	72	e60	e60	41	41	51	110	720	2140	303	155	91
21	74	e56	e60	e39	47	52	155	982	2010	274	257	91
22	94	e60	e57	e41	44	61	230	1060	1830	281	149	90
23	87	e64	e56	e39	46	67	294	813	1690	311	132	89
24	84	e65	e55	e40	50	74	298	898	1570	317	123	118
25	86	70	e53	e40	58	75	249	1120	1380	382	120	121
26	83	71	e55	e39	68	66	215	1410	1280	348	112	118
27	81	71	e52	e40	67	72	194	1680	1330	314	104	115
28	80	69	e50	42	60	88	197	1920	1330	263	103	117
29	76	68	e51	41	---	110	237	1950	1260	230	106	99
30	79	70	e52	41	---	135	261	2080	1140	215	104	97
31	81	---	e49	41	---	165	---	2290	---	205	133	---
TOTAL	2426	2032	1773	1452	1195	2140	4707	24349	59710	14362	4135	3869
MEAN	78.3	67.7	57.2	46.8	42.7	69.0	157	785	1990	463	133	129
MAX	138	80	71	62	68	165	298	2290	2680	1000	257	204
MIN	56	46	47	39	30	51	100	250	1140	205	96	88
AC-FT	4810	4030	3520	2880	2370	4240	9340	48300	118400	28490	8200	7670
CAL YR 1985	TOTAL	79218	MEAN	217	MAX	1400	MIN	34	AC-FT	157100		
WTR YR 1986	TOTAL	122150	MEAN	335	MAX	2680	MIN	30	AC-FT	242300		

e Estimated.

10015700 SULPHUR CREEK ABOVE RESERVOIR, NEAR EVANSTON, WY

LOCATION.--Lat 41°08'38", long 110°48'19", in NE1/4 SE1/4 SW1/4 sec.35, T.14 N., R.119 W., Uinta County, Hydrologic Unit 16010101, on right bank 1.2 mi downstream from La Chapelle Creek, 2 mi upstream from Sulphur Creek Dam, and 11.5 mi southeast of Evanston.

DRAINAGE AREA.--64.2 mi².

PERIOD OF RECORD.--October 1957 to current year. Monthly discharge only for October and November 1957, published in WSP 1734.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,180 ft from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--29 years, 19.0 ft³/s, 13,770 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,400 ft³/s, June 1, 1983, gage height, 9.10 ft, from rating curve extended above 1,200 ft³/s on basis of slope-area measurement of peak flow. Flood was result of released water from temporary blockage of upstream road culverts; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 716 ft³/s, May 22, gage height, 5.23 ft; minimum daily, 1.0 ft³/s, Oct. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	5.2	e7.5	e3.2	e3.9	e100	46	92	161	25	e12	11
2	1.2	5.5	e7.6	e3.1	e3.8	e95	49	126	160	21	e11	15
3	1.0	5.2	e7.4	e3.0	e3.7	e94	46	178	136	22	e10	8.6
4	1.0	5.8	e7.1	e3.0	e3.5	e92	51	224	129	17	e9.3	6.4
5	1.2	6.4	e6.6	e2.9	e3.4	82	68	134	116	20	e8.9	6.1
6	1.2	6.4	e6.1	e2.9	e3.2	41	76	121	106	24	e8.5	5.2
7	5.2	6.4	e5.7	e2.8	e3.1	41	62	112	89	24	e8.2	5.8
8	6.1	e7.0	e5.3	e2.9	e3.1	41	47	105	82	23	e7.8	6.8
9	4.9	7.8	e4.7	e3.0	e3.2	57	57	122	111	15	7.1	6.1
10	5.5	e8.2	e4.3	e3.1	e3.5	44	55	151	131	14	6.8	11
11	5.8	8.6	e4.1	e3.1	e4.3	39	51	200	97	12	6.1	12
12	4.9	e9.0	e4.0	e3.0	e5.2	32	50	136	78	10	5.2	10
13	4.0	e9.4	e4.0	e3.0	e7.3	29	47	115	84	7.8	4.9	7.1
14	2.8	e12	e4.0	e2.9	e9.3	28	47	116	75	7.1	4.0	5.5
15	2.2	e13	e4.0	e2.8	e11	25	55	105	65	14	3.5	4.9
16	2.0	e11	e4.0	e2.7	e12	22	56	104	55	65	3.0	4.3
17	2.6	e10	e4.1	e2.7	e11	19	65	93	48	51	2.6	3.7
18	3.2	e8.2	e4.2	e2.7	e13	18	69	99	50	34	2.2	4.0
19	2.4	e7.1	e4.2	e2.6	e21	18	76	137	52	28	2.1	5.5
20	2.4	e9.3	e4.2	e2.6	e31	20	83	205	52	e23	4.9	5.8
21	2.6	e8.2	e4.2	e2.6	e39	25	87	324	42	e20	23	5.5
22	4.9	e8.5	e4.2	e2.7	e53	49	88	355	34	e18	12	4.9
23	4.6	e9.0	e4.1	e2.8	e64	83	108	129	31	e16	7.1	4.9
24	5.8	e9.7	e4.0	e3.0	e96	74	113	144	34	e15	5.5	7.1
25	5.5	e10	e3.9	e3.2	e92	55	84	191	37	e13	6.4	10
26	4.9	e8.0	e4.0	e3.3	e80	36	72	283	45	e13	7.8	15
27	4.6	e8.2	e3.8	e3.5	e84	32	75	319	35	e12	5.8	15
28	4.6	e8.2	e3.8	e3.5	e89	37	79	254	28	e12	5.5	19
29	4.3	e7.6	e3.7	e3.6	---	43	120	230	28	e11	7.8	16
30	4.3	e7.3	e3.6	e3.8	---	45	92	204	28	e11	9.7	12
31	4.9	---	e3.4	e3.9	---	57	---	182	---	e11	8.9	---
TOTAL	112.0	246.2	145.8	93.9	756.5	1473	2074	5290	2219	608.9	227.6	254.2
MEAN	3.61	8.21	4.70	3.03	27.0	47.5	69.1	171	74.0	19.6	7.34	8.47
MAX	6.1	13	7.6	3.9	96	100	120	355	161	65	23	19
MIN	1.0	5.2	3.4	2.6	3.1	18	46	92	28	7.1	2.1	3.7
AC-FT	222	488	289	186	1500	2920	4110	10490	4400	1210	451	504
CAL YR 1985	TOTAL	7474.88	MEAN	20.5	MAX	207	MIN	.38	AC-FT	14830		
WTR YR 1986	TOTAL	13501.1	MEAN	37.0	MAX	355	MIN	1.0	AC-FT	26780		

e Estimated.

10015900 SULPHUR CREEK BELOW RESERVOIR, NEAR EVANSTON, WY

LOCATION.--Lat 41°09'21", long 110°50'05", in SE1/4 SE1/4 SE1/4 sec.28, T.14 N., R.119 W., Uinta County, Hydrologic Unit 16010101, on left bank 400 ft downstream from Sulphur Creek Dam, 6.3 mi upstream from mouth, and 10.5 mi southeast of Evanston.

DRAINAGE AREA.--69.2 mi².

PERIOD OF RECORD.--April 1958 to current year.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder and concrete V-notch control. Altitude of gage is 7,120 ft from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Sulphur Creek Reservoir, capacity, 7,100 acre-ft. Records prior to 1965 do not include flow over spillway of the dam.

AVERAGE DISCHARGE.--22 years (water years 1965-86), 27.7 ft³/s, 20,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (SINCE 1966).--Maximum daily discharge, 740 ft³/s, May 15, 1984; no flow at times each year, except 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 245 ft³/s, May 29; no flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	8.0	8.3	e6.8	e7.0	e71	63	102	199	15	30	43
2	8.7	8.0	8.3	e6.8	e7.0	e68	64	102	194	17	30	43
3	8.5	8.0	e7.9	e6.8	e7.0	e72	63	102	193	17	30	43
4	8.0	8.0	e7.8	e6.8	e7.0	e76	63	103	193	17	15	42
5	8.0	8.0	e7.8	e6.8	e7.0	e84	63	104	193	13	6.8	42
6	8.0	8.0	e7.6	e6.8	e7.0	e157	64	105	193	16	6.7	42
7	8.0	8.0	e7.4	e6.8	e7.0	e211	65	105	191	19	6.7	42
8	7.7	8.0	e7.3	e6.8	e7.0	e210	65	107	189	22	6.9	42
9	7.7	8.0	e7.2	e6.8	e7.0	e210	65	114	186	20	9.1	42
10	7.9	8.0	e7.2	e6.8	e7.0	e208	65	159	158	17	13	42
11	8.0	7.9	e7.1	e6.8	e7.0	e200	65	232	83	15	13	42
12	8.0	7.9	e7.1	e6.8	e7.2	e197	65	214	39	13	19	42
13	8.0	7.7	e7.1	e6.8	e8.1	e203	66	175	3.7	13	27	36
14	8.0	7.7	e7.1	e6.8	e9.0	e194	65	157	3.8	12	27	.00
15	8.0	7.7	e7.1	e6.8	e10	e163	65	152	3.8	12	27	.00
16	8.0	7.8	e7.0	e6.8	e11	e137	65	150	3.8	42	27	.00
17	8.0	8.0	e7.0	e7.0	e11	e118	66	150	3.9	73	27	.00
18	8.0	8.0	e7.0	e7.2	e11	e123	66	149	3.9	80	27	.00
19	8.0	8.0	e7.0	e7.2	e12	117	66	148	.00	62	36	.00
20	8.0	8.0	e7.0	e7.2	e12	115	66	148	.00	45	45	.00
21	8.0	8.0	e7.0	e7.2	e11	53	66	149	.00	30	45	.00
22	8.2	8.0	e7.0	e7.2	e11	6.9	67	157	.00	34	44	.00
23	8.3	8.0	e7.0	e7.2	e12	6.9	58	158	.00	45	44	.00
24	8.0	8.0	e7.0	e7.2	e13	7.2	54	150	.00	59	44	.00
25	8.1	8.3	e7.0	e7.2	e73	7.4	55	151	.00	81	44	.00
26	8.0	8.3	e7.0	e7.2	e79	7.5	55	170	.00	87	44	.00
27	8.0	8.3	e7.0	e7.2	e76	7.5	55	212	.00	82	44	.00
28	8.1	8.3	e6.9	e7.2	e74	31	55	235	.32	66	44	.00
29	8.0	8.3	e6.8	e7.1	---	63	76	245	7.4	50	44	.00
30	8.0	8.3	e6.8	e7.0	---	63	102	226	12	38	43	.00
31	8.0	---	e6.8	e7.0	---	63	---	210	---	32	43	---
TOTAL	243.8	240.5	223.6	216.1	517.3	3250.4	1938	4841	2053.62	1144	912.2	543.00
MEAN	7.86	8.02	7.21	6.97	18.5	105	64.6	156	68.5	36.9	29.4	18.1
MAX	8.7	8.3	8.3	7.2	79	211	102	245	199	87	45	43
MIN	2.6	7.7	6.8	6.8	7.0	6.9	54	102	.00	12	6.7	.00
AC-FT	484	477	444	429	1030	6450	3840	9600	4070	2270	1810	1080
CAL YR 1985	TOTAL	9451.13	MEAN	25.9	MAX	232	MIN	.00	AC-FT	18750		
WTR YR 1986	TOTAL	16123.52	MEAN	44.2	MAX	245	MIN	.00	AC-FT	31980		

e Estimated.

10016900 BEAR RIVER AT EVANSTON, WY

LOCATION.--Lat 41°16'13", long 110°57'47", in NE1/4 NW1/4 NW1/4 sec.21, T.15 N., R.120 W., Uinta County, Hydrologic Unit 16010101, on left bank 100 ft downstream from bridge on State Highway 89, in the City of Evanston.

DRAINAGE AREA.--433 mi².

PERIOD OF RECORD.--May 1984 to current year (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 6,730 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 7-9, 14-20, Apr. 23 to May 1, May 4-6, 27, 28, and Aug. 16-19. Records fair except those for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Results of discharge measurements, in cubic feet per second, made during the period when station was not in operation, are given below:

Oct. 9 . . 116
Mar. 26 . . 242

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,680 ft³/s, May 16, 1984, gage height, 7.35 ft; minimum daily during periods of operation, 42 ft³/s, Aug. 20, 24, 26, 27, Sept. 11, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,140 ft³/s, June 6, gage height, 6.78 ft; minimum daily during period of operation, 52 ft³/s, Aug. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							416	700	2730	831	142	104
2							481	760	2840	736	134	102
3							416	944	2790	654	131	96
4							424	1200	2700	648	119	85
5							481	1300	2670	706	86	82
6							532	1020	2820	604	82	79
7							450	986	2640	519	84	83
8							460	952	2580	474	85	85
9							430	974	2380	407	86	89
10							391	965	2040	349	74	105
11							374	1170	1680	312	57	111
12							356	1010	1710	291	60	108
13							380	917	1910	268	77	104
14							420	908	1930	260	68	71
15							430	883	1940	230	63	63
16							415	870	1930	433	63	59
17							390	808	1850	450	57	56
18							470	833	1850	360	52	61
19							430	974	1920	285	52	73
20							390	1160	1770	240	103	80
21							467	1390	1660	187	312	79
22							560	1670	1500	170	243	74
23							600	1290	1360	227	166	75
24							660	1250	1270	288	141	87
25							600	1440	1140	323	141	131
26							510	1790	1050	378	131	155
27							520	1700	1030	366	120	146
28							560	2100	1050	295	109	190
29							600	2640	1010	231	107	179
30							640	2680	943	185	109	146
31							---	2740	---	162	104	---
TOTAL							14253	40024	56693	11869	3358	2958
MEAN							475	1291	1890	383	108	98.6
MAX							660	2740	2840	831	312	190
MIN							356	700	943	162	52	56

BEAR RIVER BASIN

10018900 YELLOW CREEK AT MOUTH, NEAR EVANSTON, WY

LOCATION.--Lat 41°18'33", long 111°00'43", in SW1/4 NE1/4 sec.1, T.15 N., R.121 W., Unita County, Hydrologic Unit 16010101, approximately 1,000 ft upstream from mouth and 4 mi northeast of Evanston.

PERIOD OF RECORD.--October 1984 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 09...	1615	14	725	8.6	4.0	595	13.6
NOV 20...	1700	14	615	8.4	0.0	585	11.4
JAN 07...	1110	15	700	8.4	0.0	600	10.4
FEB 11...	1730	17	840	8.4	0.0	585	12.1
MAR 26...	1445	184	700	8.3	6.0	595	9.6
MAY 06...	1415	E350	645	8.4	7.0	590	10.2
JUN 12...	0905	140	660	8.2	14.5	605	7.6
JUL 10...	0830	30	800	8.1	16.0	605	7.6
SEP 03...	1100	26	710	8.2	14.0	605	11.8

E-Estimate.

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 09...	133	100	1.30	0.15	0.75	0.9	0.64
NOV 20...	102	140	2.10	0.10	1.1	1.2	0.85
JAN 07...	91	K15	2.10	0.15	0.55	0.7	0.84
FEB 11...	108	72	2.40	0.08	0.82	0.9	0.85
MAR 26...	99	46	0.30	0.09	1.0	1.1	0.35
MAY 06...	109	120	0.20	0.09	0.71	0.8	0.29
JUN 12...	94	96	0.20	0.03	0.67	0.7	0.21
JUL 10...	98	220	<0.10	0.06	0.64	0.7	0.23
SEP 03...	145	140	<0.10	0.04	0.46	0.5	0.21

K-Results based on colony count outside the acceptable range (non-ideal colony count).

10019500 CHAPMAN CANAL AT STATE LINE, NEAR EVANSTON, WY

LOCATION.--Lat 41°24'24", long 111°02'26", in SE1/4 sec.36, T.17 N., R.121 W., Uinta County, Hydrologic Unit 16010101, on left bank at highway bridge, 6.5 mi downstream from headgates, and 10 mi of Evanston.

PERIOD OF RECORD.--April 1942 to September 1986 (discontinued). Prior to October 1944, irrigation seasons only. Monthly discharge only for some periods, published in WSP 1314.

GAGE.--Water-stage recorder and flashboard control. Altitude of gage is 6,570 ft from river-profile map. Prior to Oct. 11, 1946, nonrecording gage, and Oct. 11, 1946 to Aug. 2, 1961, water-stage recorder at site 20 ft downstream at same datum.

REMARKS.--Records poor. Canal diverts water from Bear River in NW1/4 sec.36, T.16 N., R.121 W. Many diversions upstream from station for irrigation in Wyoming. Flow at station is for storage in Neponset Reservoir, Utah, and irrigation in Saleratus basin, Utah.

AVERAGE DISCHARGE.--42 years (water years 1945-86), 19.4 ft³/s, 14,060 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 143 ft³/s, June 24, 1970; no flow at times each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	1.6	9.5	75	e42	e45	15	e34
2	.00	.00	.00	.00	.00	1.1	11	61	42	e45	14	e34
3	.00	.00	.00	.00	.00	1.8	10	66	45	e45	14	e31
4	.00	.00	.00	.00	.00	1.6	10	75	48	e45	14	e21
5	.00	.00	.00	.00	.00	1.6	10	87	47	e43	12	e22
6	.00	.00	.00	.00	.00	16	9.9	86	53	e41	12	e20
7	.00	.00	.00	.00	.00	12	8.8	87	72	e40	9.9	e19
8	.00	.00	.00	.00	.00	13	8.1	87	73	e39	10	e19
9	.00	.00	.00	.00	.00	14	7.1	89	e67	38	11	e20
10	.00	.00	.00	.00	.00	13	14	89	e48	34	12	e21
11	.00	.00	.00	.00	.00	15	32	97	e46	31	12	e21
12	.00	.00	.00	.00	.00	15	33	62	e44	36	12	e21
13	.00	.00	.00	.00	.00	14	26	5.1	e46	39	11	e21
14	.00	.00	.00	.00	e3.1	14	7.7	4.8	e48	38	11	e13
15	.00	.00	.00	.00	e9.9	12	7.1	5.1	e47	36	11	.00
16	.00	.00	.00	.00	e21	11	9.9	8.1	e44	40	10	.00
17	.00	.00	.00	.00	e39	9.9	47	6.4	e42	48	9.5	.00
18	.00	.00	.00	.00	e57	9.5	46	23	e47	47	9.5	.00
19	.00	.00	.00	.00	71	9.1	46	24	e60	44	9.5	.00
20	.00	.00	.00	.00	22	8.8	45	26	e60	39	10	.00
21	.00	.00	.00	.00	1.8	8.1	47	32	e57	36	39	e.00
22	.00	.00	.00	.00	1.3	8.1	60	51	e53	33	19	e.00
23	.00	.00	.00	.00	6.7	8.1	63	47	e50	34	15	e.00
24	.00	.00	.00	.00	21	8.1	66	25	e49	32	13	e.00
25	.00	.00	.00	.00	18	8.4	71	28	e48	40	14	e.00
26	.00	.00	.00	.00	9.9	8.1	74	36	e48	34	14	e.00
27	.00	.00	.00	.00	5.1	8.1	76	46	e47	20	12	e.00
28	.00	.00	.00	.00	2.8	8.8	75	48	e47	20	e38	e.00
29	.00	.00	.00	.00	---	8.8	81	47	e46	18	e39	e.00
30	.00	.00	.00	.00	---	9.1	90	44	e46	17	e37	e.00
31	.00	---	.00	.00	---	9.9	---	40	---	16	e35	---
TOTAL	.00	.00	.00	.00	289.60	287.6	1101.1	1507.5	1512	1113	504.4	317.00
MEAN	.00	.00	.00	.00	10.3	9.28	36.7	48.6	50.4	35.9	16.3	10.6
MAX	.00	.00	.00	.00	71	16	90	97	73	48	39	34
MIN	.00	.00	.00	.00	.00	1.1	7.1	4.8	42	16	9.5	.00
AC-FT	.00	.00	.00	.00	574	570	2180	2990	3000	2210	1000	629
CAL YR 1985	TOTAL	5026.01	MEAN	13.8	MAX	92	MIN	.00	AC-FT	9970		
WTR YR 1986	TOTAL	6632.20	MEAN	18.2	MAX	97	MIN	.00	AC-FT	13150		

e Estimated.

BEAR RIVER BASIN

10020100 BEAR RIVER ABOVE RESERVOIR, NEAR WOODRUFF, UT

LOCATION.--Lat 41°26'04", long 111°01'01", in NE1/4 NW1/4 NW1/4 sec.29, T.17 N., R.120 W., Uinta County, Wyoming, Hydrologic Unit 16010101, on right bank 9.3 mi upstream from Woodruff Narrows Dam and 10 mi southeast of Woodruff.

DRAINAGE AREA.--752 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,455 ft from river-profile map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversion for irrigation of about 43,500 acres upstream from station.

AVERAGE DISCHARGE.--25 years, 268 ft³/s, 194,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,150 ft³/s, June 2, 1983, gage height, 6.17 ft; minimum, 0.1 ft³/s, Aug. 24, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,890 ft³/s, June 4, gage height, 5.69 ft; minimum daily, 49 ft³/s, Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	118	e120	e128	e110	834	607	819	3630	897	165	66
2	52	107	e130	e139	e105	675	637	849	3700	760	146	67
3	57	113	e123	e139	e100	662	695	1090	3760	684	139	69
4	56	109	e118	e130	e98	650	694	1440	3760	635	131	72
5	55	106	e105	e118	e94	636	693	1600	3720	661	107	68
6	56	104	e110	e128	e92	624	727	1510	3680	673	86	64
7	66	93	e110	e130	e88	662	724	1410	3730	575	79	61
8	151	96	e110	e115	e88	652	690	1320	3580	518	79	61
9	126	114	e110	e111	e86	764	645	1400	3600	456	86	67
10	109	85	e97	e110	e88	683	633	1370	3290	402	93	79
11	109	90	e92	e102	e94	651	612	1750	2860	355	94	87
12	109	e100	e87	e95	e110	617	602	1740	2510	323	80	90
13	107	e95	e92	e86	e140	591	602	1540	2500	289	79	83
14	100	e94	e100	e80	e170	619	602	1380	2750	266	76	74
15	91	e98	e118	e72	e210	618	596	1310	2730	249	63	69
16	93	e100	e105	e84	e260	616	485	1270	2730	277	62	65
17	94	e95	e102	e98	e260	619	492	1210	2680	430	59	61
18	91	e95	e108	e100	e280	619	536	1180	2550	397	53	61
19	92	e100	e110	e92	e390	621	481	1320	2550	317	49	71
20	91	e98	e107	e86	e370	619	504	1650	2510	247	57	86
21	93	e94	e102	e84	e320	618	359	2090	2190	207	251	74
22	114	e93	e100	e82	e410	614	543	2540	1930	167	327	76
23	155	e98	e100	e82	e520	585	558	2690	1660	186	206	75
24	148	e110	e100	e82	684	589	700	2200	1470	261	162	86
25	134	e120	e100	e78	749	592	697	2260	1330	293	149	109
26	122	e118	e100	e76	822	588	665	2550	1200	351	145	149
27	118	e112	e100	e80	898	576	631	2930	1100	393	118	174
28	113	e110	e108	e88	1090	565	631	3250	1110	343	87	191
29	108	e110	e112	e98	---	557	776	3380	1090	276	77	199
30	106	e115	e120	e120	---	560	951	3430	1010	218	76	176
31	110	---	e120	e115	---	567	---	3540	---	183	72	---
TOTAL	3076	3090	3316	3128	8726	19443	18768	58018	76910	12289	3453	2730
MEAN	99.2	103	107	101	312	627	626	1872	2564	396	111	91.0
MAX	155	120	130	139	1090	834	951	3540	3760	897	327	199
MIN	50	85	87	72	86	557	359	819	1010	167	49	61
AC-FT	6100	6130	6580	6200	17310	38570	37230	115100	152600	24380	6850	5410
CAL YR 1985	TOTAL	78455	MEAN	215	MAX	1780	MIN	10	AC-FT	155600		
WTR YR 1986	TOTAL	212947	MEAN	583	MAX	3760	MIN	49	AC-FT	422400		

e Estimated.

WATER-QUALITY RECORDS

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT 09...	1415	124	380	8.3	5.0	595	11.3	114	70	210
NOV 20...	1540	140	420	8.2	0.0	588	11.6	103	96	260
JAN 07...	1230	E130	450	8.3	0.0	605	10.0	86	K52	260
FEB 11...	1400	E94	605	8.2	0.0	585	10.6	95	K16	280
MAR 26...	1230	576	570	8.4	6.0	595	9.7	100	K13	290
MAY 06...	1245	1750	425	8.3	7.0	590	10.6	113	120	200
JUN 12...	1015	1710	260	8.1	17.0	608	8.4	110	56	130
JUL 10...	1100	230	290	8.1	17.0	605	7.7	101	76	--
SEP 03...	1300	45	510	8.6	18.0	605	11.8	158	88	--

K-Results based on colony count outside the acceptable range (non-ideal colony count).

[illegible]

BEAR RIVER BASIN

10020100 BEAR RIVER ABOVE RESERVOIR, NEAR WOODRUFF, UT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 09...	240	0.33	81	--	0.00	--	--	--	0.22
NOV 20...	300	0.41	115	0.40	0.90	0.11	0.59	0.7	0.21
JAN 07...	310	0.42	--	0.60	0.50	0.08	0.32	0.4	0.14
FEB 11...	330	0.45	--	0.60	0.70	0.08	0.42	0.5	0.14
MAR 26...	330	0.45	512	<0.10	0.10	0.05	0.75	0.8	0.22
MAY 06...	230	0.31	1070	<0.10	0.10	0.08	1.4	1.5	0.75
JUN 12...	150	0.2	687	<0.10	0.30	0.05	0.55	0.6	0.18
JUL 10...	--	--	--	<0.10	--	0.05	0.45	0.5	0.05
SEP 03...	--	--	--	<0.10	--	0.04	0.76	0.8	0.03

10020200 WOODRUFF NARROWS RESERVOIR NEAR WOODRUFF, UT

LOCATION.--Lat 41°30'10", long 111°00'55", in SE1/4 NW1/4 NW1/4 sec.32, T.18 N., R.120 W., Uinta County, Wyoming, Hydrologic Unit 16010101, in gate house at Woodruff Narrows Dam on Bear River, 5.6 mi upstream from Wyoming-Utah State line, and 7.7 mi east of Woodruff.

DRAINAGE AREA.--784 mi².

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

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,405 ft from levels by Bureau of Reclamation.

REMARKS.--Records poor. Reservoir formed by earthfill, rock-faced dam. Storage began Jan. 5, 1962. Total capacity, 28,000 acre-ft below spillway crest. Total capacity increased to 57,300 in 1980. Gage height of spillway is 50.4 ft. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 64,310 acre-ft, June 2, gage height, 53.5 ft; minimum observed, 880 acre-ft, Sept. 15-25, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum observed, 62,730 acre-ft, June 11, gage height, 52.8 ft; minimum observed, 18,230 acre-ft, Oct. 2, gage height, 28.3 ft.

MONTHEND ELEVATION, IN FEET, AND INSTANTANEOUS CONTENTS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	-	18,230	-
Oct. 31	-	25,340	+7,110
Nov. 30	-	28,300	+2,960
Dec. 31	-	30,530	+2,230
CAL YR 1985	-	-	-27,220
Jan. 31	-	35,650	+5,120
Feb. 28	-	54,130	+18,480
Mar. 31	-	59,790	+5,660
Apr. 30	-	60,240	+450
May 31	-	62,500	+2,260
June 30	-	57,750	-4,750
July 31	-	56,400	-1,350
Aug. 31	-	49,120	-7,280
Sept. 30	-	48,480	-640
WTR YR 1986	-	-	+30,250

BEAR RIVER BASIN

10020300 BEAR RIVER BELOW RESERVOIR, NEAR WOODRUFF, UT

LOCATION.--Lat 41°30'20", long 111°00'50", in NW1/4 NW1/4 sec.32, T.18 N., R.120 W., Uinta County, Wyoming, Hydrologic Unit 16010101, on right bank 1,100 ft downstream from Woodruff Narrows Dam, 1.6 mi upstream from Salt Creek, 5.4 mi upstream from Wyoming-Utah State line, and 7.7 mi east of Woodruff.

DRAINAGE AREA.--784 mi².

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

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6,398.96 ft NGVD of 1929 (levels by Utah Water Resources Division from Bureau of Reclamation bench mark). Prior to Sept. 26, 1962, at site 175 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Woodruff Narrows Reservoir (station 10020200) beginning January 1962: Diversions for irrigation of about 43,500 acres upstream from station.

AVERAGE DISCHARGE.--25 years, 261 ft³/s, 189,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,820 ft³/s, June 2, 1983, gage height, 8.26 ft; no flow July 4, 5, 1962, Aug. 30, 31, 1962, Sept. 1, 2, 6, 7, 1979, Oct. 30, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,120 ft³/s, June 3, gage height, 7.72 ft; minimum daily, 33 ft³/s, Oct. 1-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	37	39	42	45	50	599	866	2890	802	168	166
2	33	37	39	42	45	50	663	842	2980	718	168	166
3	33	37	39	42	45	50	713	915	3040	870	168	166
4	33	37	39	42	45	59	708	1140	3010	905	168	166
5	33	37	39	42	45	210	698	1370	2980	749	168	166
6	33	37	39	42	45	399	729	1370	2910	701	168	166
7	33	37	39	42	45	539	738	1310	2960	673	169	166
8	33	37	40	43	45	640	691	1270	2850	657	170	166
9	33	37	40	43	45	760	633	1240	2820	653	170	166
10	34	38	40	43	45	781	603	1230	2650	648	170	165
11	34	38	40	43	45	725	579	1290	2280	643	170	164
12	34	38	40	43	45	686	575	1410	1890	642	170	164
13	34	38	40	43	45	636	547	1380	1730	483	169	164
14	34	38	40	43	45	590	549	1230	1800	278	168	164
15	34	38	41	43	45	553	546	1130	1870	234	168	164
16	34	38	41	44	45	508	545	1060	1880	165	168	164
17	35	38	41	44	45	451	552	1020	1880	164	168	164
18	35	38	41	44	46	409	578	952	1840	165	168	164
19	35	38	41	44	45	384	579	951	1790	166	168	164
20	35	38	41	45	45	364	563	1070	1810	166	168	164
21	35	39	41	45	45	356	562	1300	1680	166	168	146
22	35	39	41	45	45	340	568	1620	1540	168	168	66
23	35	39	41	45	47	346	610	1900	1370	168	168	65
24	35	39	41	45	47	397	674	1780	1210	168	168	64
25	35	39	41	46	47	441	711	1630	1100	166	168	63
26	36	39	41	46	48	456	702	1700	1010	167	168	63
27	36	39	41	46	48	426	684	1900	922	166	167	63
28	36	39	41	45	49	404	667	2250	893	166	166	63
29	36	39	41	44	---	429	734	2580	879	168	166	63
30	37	39	41	44	---	490	849	2720	850	168	166	63
31	37	---	42	44	---	546	---	2800	---	168	166	---
TOTAL	1068	1141	1251	1354	1277	13475	19149	45226	59314	12321	5211	4018
MEAN	34.5	38.0	40.4	43.7	45.6	435	638	1459	1977	397	168	134
MAX	37	39	42	46	49	781	849	2800	3040	905	170	166
MIN	33	37	39	42	45	50	545	842	850	164	166	63
AC-FT	2120	2260	2480	2690	2530	26730	37980	89710	117600	24440	10340	7970
CAL YR 1985	TOTAL	117978	MEAN	323	MAX	1560	MIN	31	AC-FT	234000		
WTR YR 1986	TOTAL	164805	MEAN	452	MAX	3040	MIN	33	AC-FT	326900		

10026500 BEAR RIVER NEAR RANDOLPH, UT

LOCATION.--Lat 41°48'02", long 111°04'20", in SE1/4 NE1/4 sec.7, T.12 N., R.8 E., Rich County, Hydrologic Unit 16010101, on left bank 3.7 mi upstream from Twin Creek, 5.0 mi upstream from Utah-Wyoming State line, and 11 mi northeast of Randolph.

DRAINAGE AREA.--1,616 mi².

PERIOD OF RECORD.--October 1943 to current year. Monthly discharge only for some periods, published in WSP 1314.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,200 ft from river-profile map. Prior to Aug. 17, 1971, 0.2 mi upstream at different datum.

REMARKS.--Records poor. Diversion for irrigation of about 94,500 acres upstream from station. Flow regulated by upstream reservoirs.

AVERAGE DISCHARGE.--43 years, 225 ft³/s, 163,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,630 ft³/s, June 4, 1983, gage height, 8.58 ft; minimum, 1.6 ft³/s, Nov. 12, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,010 ft³/s, June 3; minimum daily, 49 ft³/s, Jan. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	108	e74	e59	e59	e1100	680	1080	e2910	e810	e280	e220
2	87	110	e74	e58	e61	e980	743	1140	e3000	e830	e270	e220
3	87	108	e70	e58	e61	e820	789	1180	e3010	e860	e260	e225
4	86	108	e66	e57	e60	e720	844	1180	e3000	e820	e255	e220
5	86	109	e64	e58	e60	e680	897	1200	e2980	e740	e250	e215
6	86	104	e64	e57	e60	e670	894	1260	e2910	e720	e240	e210
7	88	105	e62	e56	e61	e720	885	1400	e2890	e680	e235	e210
8	90	107	e57	e55	e63	e760	889	1570	e2900	e670	e230	e210
9	91	108	e54	e54	e67	e800	904	1720	e2780	e640	e225	e215
10	91	e113	e55	e53	e72	e860	888	1700	e2700	e610	e225	e210
11	91	e116	e52	e52	e75	e910	842	e1830	e2680	e590	e225	e200
12	90	e120	e57	e50	e78	e910	808	e1770	e2590	e550	e225	e200
13	91	e122	e57	e49	e79	871	788	e1730	e2500	e510	e225	e200
14	92	e122	e55	e49	e81	851	763	e1710	e2480	e490	e225	e195
15	92	e118	e56	e50	e89	806	742	e1690	e2100	e470	e230	e195
16	91	e113	e56	e52	e101	760	741	e1680	e1980	e450	e240	e195
17	92	e110	e55	e52	e109	724	742	e1660	e1840	440	e240	e192
18	92	e108	e53	e52	e143	673	726	e1680	e1780	385	e240	e187
19	92	e106	e52	e52	e185	621	736	e1700	e1710	341	e240	181
20	92	e99	e52	e52	e295	584	753	e1800	e1700	323	e235	182
21	93	e96	e52	e52	e390	561	765	e1900	e1630	312	e230	184
22	100	e94	e52	e51	e470	558	771	e2100	e1470	315	e230	186
23	103	e90	e51	e51	e600	566	795	e2200	e1320	301	e230	180
24	104	e87	e50	e52	e680	560	828	e2300	e1210	349	e230	157
25	104	e84	e51	e54	e740	579	864	e2180	e1100	333	e230	158
26	104	e82	e52	e54	e800	585	943	e2300	e1000	346	e230	169
27	104	e82	e53	e54	e960	618	985	e2480	e910	340	e230	180
28	103	e81	e54	e53	e1140	636	998	e2570	e880	327	e230	185
29	103	e80	e55	e53	---	626	1060	e2650	e850	322	e230	176
30	107	e77	e57	e55	---	618	1050	e2770	e820	e300	e225	170
31	109	---	e59	e57	---	660	---	e2870	---	e290	e220	---
TOTAL	2933	3067	1771	1661	7639	22387	25113	57000	61630	15464	7310	5827
MEAN	94.6	102	57.1	53.6	273	722	837	1839	2054	499	236	194
MAX	109	122	74	59	1140	1100	1060	2870	3010	860	280	225
MIN	86	77	50	49	59	558	680	1080	820	290	220	157
AC-FT	5820	6080	3510	3290	15150	44400	49810	113100	122200	30670	14500	11560
CAL YR 1985	TOTAL	109934	MEAN	301	MAX	1470	MIN	37	AC-FT	218100		
WTR YR 1986	TOTAL	211802	MEAN	580	MAX	3010	MIN	49	AC-FT	420100		

e Estimated.

BEAR RIVER BASIN

10028500 BEAR RIVER BELOW PIXLEY DAM, NEAR COKEVILLE, WY

LOCATION.--Lat 41°56'20", long 110°59'05", in SE1/4 SE1/4 sec.25, T.23 N., R.120 W., Lincoln County, Hydrologic Unit 16010102, 800 ft downstream from Pixley Dam, 11 mi south of Cokeville, and 17.5 mi downstream from Twin Creek.

DRAINAGE AREA.--2,032 mi².

PERIOD OF RECORD.--October 1941 to November 1943 (published as Bear River near Cokeville), October 1952 to September 1956, May 1958 to current year (irrigation seasons only). Monthly discharge only for some periods, published in WSP 1314.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,185 ft from river-profile map. Oct. 31, 1941 to Nov. 30, 1943, at site 200 ft downstream at different datum.

REMARKS.--Records fair, including estimated daily discharges. Natural flow of stream affected by diversions for irrigation, return flow from irrigated areas, and regulation by upstream reservoirs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,300 ft³/s, Mar. 25, 1956; minimum recorded, 0.24 ft³/s, Apr. 26, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,530 ft³/s, May 12, June 5; minimum recorded, 156 ft³/s, Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								1260	1380	608	255	215
2								1240	1420	615	249	213
3								1250	1460	605	246	210
4								1270	1470	559	240	210
5								1290	1530	564	237	208
6								1300	1520	608	234	205
7								1320	1480	577	225	200
8								1350	1390	542	232	174
9								1380	1310	527	234	180
10								1420	1360	540	227	188
11								1500	1380	567	217	184
12								1530	1400	580	242	186
13								1520	1400	590	237	184
14								1500	1380	597	227	194
15								1490	1340	584	222	202
16								1470	1290	496	222	197
17								1460	1220	445	222	194
18								1460	1160	382	215	197
19								1420	1120	328	205	204
20								1360	1100	297	208	208
21								1300	1080	282	213	208
22								1260	1070	280	222	210
23								1220	1060	267	227	210
24								1230	1060	314	225	194
25								1250	1050	305	220	186
26								1310	1030	311	217	204
27								1340	992	301	217	e215
28								1370	911	291	208	e220
29								1380	806	276	205	e225
30								1370	687	267	208	e230
31								1370	---	260	213	---
TOTAL								42190	36856	13765	6971	6055
MEAN								1361	1229	444	225	202
MAX								1530	1530	615	255	230
MIN								1220	687	260	205	174
AC-FT								83680	73100	27300	13830	12010

e Estimated.

10032000 SMITHS FORK NEAR BORDER, WY

LOCATION.--Lat 42°17'16", long 110°52'14", in NW1/4 sec.33, T.27 N., R.118 W., Lincoln County, Hydrologic Unit 16010102, on left bank 4.5 mi upstream from Howland Creek, 6 mi downstream from Hobbie Creek, and 12 mi northeast of Border.

DRAINAGE AREA.--165 mi².

PERIOD OF RECORD.--May 1942 to current year.

REVISED RECORDS.--WSP 1734: 1952(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,680 ft from topographic map. Prior to Oct. 16, 1945, at site 0.8 mi downstream at different datum.

REMARKS.--Records poor. One diversion for irrigation of about 200 acres upstream from station.

AVERAGE DISCHARGE.--44 years, 202 ft³/s, 146,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s, June 4, 1986, gage height, 5.66 ft; minimum, 21 ft³/s, Mar. 29, 1975, Jan. 24, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,100 ft³/s, June 4, gage height, 5.66 ft; minimum daily, 52 ft³/s, Jan. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	106	e109	e84	e56	e58	228	360	1860	751	312	150
2	94	110	e109	e84	e57	e58	211	424	1960	719	293	152
3	92	109	e107	e80	e58	e60	211	592	1980	693	278	150
4	88	105	e103	e77	e60	e60	214	794	2000	681	267	143
5	88	112	e100	e75	e60	e62	215	694	1950	669	256	137
6	88	112	e98	e77	e58	e64	219	626	1940	632	245	133
7	98	112	e96	e75	e58	e66	224	582	1880	608	238	135
8	107	121	e95	e73	e56	e68	221	545	1800	588	231	140
9	99	123	e91	e69	e55	e72	231	504	1680	566	225	152
10	94	121	e87	e66	e55	e76	225	484	1560	549	216	185
11	92	120	e84	e66	e53	e79	238	465	1490	539	208	182
12	94	120	e81	e64	e53	e78	250	444	1460	521	202	172
13	93	e122	e79	e62	e55	e78	258	450	1460	494	195	161
14	90	e120	e82	e60	e57	e78	230	472	1410	474	192	153
15	92	e120	e85	e57	e59	e80	242	477	1370	465	185	151
16	92	e118	e86	e56	e61	e83	271	487	1370	471	178	153
17	91	e116	e84	e56	e61	e87	257	503	1330	477	171	151
18	90	e115	e82	e56	e61	e93	226	554	1290	444	164	160
19	89	e111	e82	e56	e60	e97	227	649	1230	424	163	169
20	89	e109	e80	e55	e59	e101	255	821	1160	408	170	165
21	90	e111	e80	e54	e58	e106	347	1080	1100	395	189	165
22	95	e111	e78	e52	e57	e109	446	1180	1040	391	189	166
23	109	e109	e78	e54	e59	e112	691	930	982	414	181	165
24	128	e109	e75	e53	e59	e118	708	840	939	445	178	166
25	130	e107	e74	e53	e57	e121	623	877	911	432	174	187
26	127	e110	e76	e54	e57	e128	538	1040	879	421	165	188
27	121	e110	e78	e54	e56	e140	470	1290	850	446	158	205
28	117	e112	e80	e55	e56	e157	420	1460	836	412	148	219
29	111	e114	e78	e56	---	e174	389	1560	815	371	149	218
30	111	e109	e81	e58	---	197	358	1670	787	349	151	205
31	111	---	e83	e56	---	222	---	1750	---	331	152	---
TOTAL	3104	3404	2681	1947	1611	3082	9643	24604	41319	15580	6223	4978
MEAN	100	113	86.5	62.8	57.5	99.4	321	794	1377	503	201	166
MAX	130	123	109	84	61	222	708	1750	2000	751	312	219
MIN	88	105	74	52	53	58	211	360	787	331	148	133
AC-FT	6160	6750	5320	3860	3200	6110	19130	48800	81960	30900	12340	9870
CAL YR 1985	TOTAL	63531	MEAN	174	MAX	607	MIN	40	AC-FT	126000		
WTR YR 1986	TOTAL	118176	MEAN	324	MAX	2000	MIN	52	AC-FT	234400		

e Estimated.

10038000 BEAR RIVER BELOW SMITHS FORK, NEAR COKEVILLE, WY

LOCATION.--Lat 42°07'36", long 110°58'21", in NW1/4 SE1/4 NE1/4 sec.28, T.25 N., R.119 W., Lincoln County, Hydrologic Unit 16010102, on left bank 1.1 mi upstream from Wyman Dam, 2.8 mi northwest of Cokeville, and 3.8 mi downstream from Smiths Fork.

DRAINAGE AREA.--2,447 mi².

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

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,140 ft from river-profile map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by diversion for irrigation, return flow from irrigated areas, and regulation by upstream reservoirs.

AVERAGE DISCHARGE.--32 years, 492 ft³/s, 356,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,620 ft³/s, June 7, 1983, gage height, 8.75 ft; minimum, 31 ft³/s, Oct. 4, 5, 6, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4,190 ft³/s, June 10; minimum daily, 140 ft³/s, Jan. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218	232	e210	e175	186	2500	1300	1970	3260	2060	744	629
2	218	233	229	e180	192	2370	1310	2010	3350	1930	714	632
3	215	232	227	e175	195	1520	1300	2160	3410	1840	701	637
4	204	230	e220	e170	188	1190	1350	2420	3460	1760	692	630
5	205	233	e210	e165	193	1020	1420	2540	3570	1700	686	621
6	205	235	e200	e170	e180	906	1480	2440	3650	1690	677	612
7	217	233	203	e165	e170	863	1540	2370	3820	1630	674	606
8	231	241	205	e155	e160	971	1550	2350	3930	1520	667	590
9	223	236	211	e150	e150	1140	1560	2330	4080	1430	684	572
10	218	212	e190	e160	e160	1210	1560	2320	4190	1370	673	612
11	218	221	178	e170	e180	1230	1540	2340	4140	1370	656	592
12	222	263	e160	e160	e180	1260	1520	2380	4090	1410	621	570
13	221	267	e150	e150	176	1260	1500	2430	4100	1340	648	566
14	218	266	168	e150	173	1250	1430	2480	4120	1330	637	557
15	225	226	e165	e140	187	1210	1380	2480	4040	1310	621	586
16	226	215	e160	e160	210	1160	1390	2460	3960	1180	615	575
17	221	261	161	e180	212	1110	1400	2450	3840	1080	617	568
18	220	247	163	e200	241	1030	1360	2460	3690	988	617	572
19	219	209	e170	e180	337	972	1330	2500	3540	903	613	582
20	217	210	e165	161	549	915	1320	2590	3400	846	608	580
21	208	244	e160	168	634	875	1450	2720	3260	817	627	580
22	220	238	e155	e160	659	862	1610	2880	3130	795	634	580
23	239	225	e160	165	706	888	1870	2820	3010	801	644	581
24	252	202	e155	158	853	938	2270	2570	2910	831	642	607
25	243	227	e150	160	1020	976	2250	2480	2850	868	648	611
26	240	e210	e155	e150	1090	979	2170	2510	2820	844	655	612
27	237	e210	e160	e150	1180	951	2040	2660	2730	850	644	628
28	236	219	e170	e150	1650	986	1990	2860	2650	829	630	640
29	250	223	e165	e155	---	1050	1980	3010	2520	795	621	627
30	233	e220	e160	163	---	1120	1960	3120	2290	776	621	603
31	233	---	e170	176	---	1230	---	3210	---	757	633	---
TOTAL	6952	6920	5505	5071	12011	35942	48130	78320	103810	37650	20164	17958
MEAN	224	231	178	164	429	1159	1604	2526	3460	1215	650	599
MAX	252	267	229	200	1650	2500	2270	3210	4190	2060	744	640
MIN	204	202	150	140	150	862	1300	1970	2290	757	608	557
AC-FT	13790	13730	10920	10060	23820	71290	95470	155300	205900	74680	40000	35620
CAL YR 1985	TOTAL	214950	MEAN	589	MAX	2300	MIN	143	AC-FT	426400		
WTR YR 1986	TOTAL	378433	MEAN	1037	MAX	4190	MIN	140	AC-FT	750600		

e Estimated.

BEAR RIVER BASIN

10039500 BEAR RIVER AT BORDER, WY

LOCATION.--Lat 42°12'40", long 111°03'11", in NE1/4 NE1/4 NE1/4 sec.15, T.14 S., R.46 E., Bear Lake County, Idaho, Hydrologic Unit 16010102, on left bank 0.2 mi west of Wyoming-Idaho State line, 0.5 mi west of Border, and 2.1 mi upstream from Thomas Fork.

DRAINAGE AREA.--2,486 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,051.63 ft NGVD of 1929, unadjusted.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by regulation of upstream reservoirs, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--49 years, 465 ft³/s, 336,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,880 ft³/s, June 7, 1983, gage height, 9.69 ft; minimum, 24 ft³/s, Apr. 29, 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4,180 ft³/s, June 14; minimum daily discharge, 150 ft³/s, Feb. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	240	263	e240	e240	e220	e2700	1340	1890	3150	1940	644	456
2	251	263	e260	e270	e230	e2600	1390	1860	3260	1750	615	461
3	248	263	e270	e270	e230	e2000	1370	1920	3390	1640	593	468
4	239	260	e250	e260	e230	e1500	1380	2130	3470	1550	581	461
5	239	263	e230	e230	e230	e1200	1420	2430	3590	1490	567	453
6	240	265	e230	e250	e210	e1160	1460	2460	3660	1460	557	446
7	250	265	e240	e240	e200	e1120	1510	2430	3760	1430	548	442
8	267	274	e250	e220	e180	e1230	1550	2400	3870	1350	539	440
9	261	272	e250	e200	e150	e1300	1560	2370	4000	1280	548	427
10	258	e250	e220	e200	e160	e1400	1600	2320	4160	1220	541	466
11	255	286	e210	e220	e170	e1400	1630	2280	4140	1210	532	464
12	260	284	e210	e200	e190	e1440	1630	2270	4110	1240	500	447
13	259	296	e220	e180	e210	e1440	1640	2270	4120	1180	514	453
14	256	289	e210	e170	e220	e1390	1600	2280	4180	1180	509	443
15	260	270	e220	e170	e230	e1340	1560	2290	4160	1170	495	456
16	262	e260	e210	e190	e250	e1270	1540	2280	4070	1110	489	454
17	258	e295	e220	e210	e250	e1220	1550	2270	3960	1030	484	449
18	254	e300	e240	e210	e290	e1150	1530	2270	3860	943	480	448
19	256	e300	e250	e200	e390	e1080	1500	2290	3750	867	475	459
20	253	e260	e240	e200	e620	e1000	1470	2360	3630	819	466	458
21	250	e250	e220	e200	e700	e920	1520	2500	3510	776	482	456
22	253	e290	e210	e190	e730	907	1610	2640	3380	749	482	455
23	269	e280	e210	e200	e790	921	1820	2720	3260	743	482	455
24	282	e250	e210	e190	e950	965	2280	2620	3110	755	467	476
25	278	e250	e200	e200	e1120	1000	2500	2500	2980	790	468	496
26	282	e230	e200	e210	e1180	1010	2510	2450	2900	754	481	500
27	272	e230	e210	e200	e1280	980	2340	2510	2800	757	462	521
28	267	e270	e220	e190	e1800	1010	2170	2660	2670	739	443	531
29	280	e270	e210	e190	---	1070	2060	2820	2500	709	439	522
30	264	e280	e220	e200	---	1140	1970	2930	2240	684	438	506
31	264	---	e230	e210	---	1250	---	3050	---	662	451	---
TOTAL	8027	8078	7010	6510	13410	40113	51010	74470	105640	33977	15772	13969
MEAN	259	269	226	210	479	1294	1700	2402	3521	1096	509	466
MAX	282	300	270	270	1800	2700	2510	3050	4180	1940	644	531
MIN	239	230	200	170	150	907	1340	1860	2240	662	438	427
AC-FT	15920	16020	13900	12910	26600	79560	101200	147700	209500	67390	31280	27710
CAL YR 1985	TOTAL	219151	MEAN	600	MAX	2350	MIN	127	AC-FT	434700		
WTR YR 1986	TOTAL	377986	MEAN	1036	MAX	4180	MIN	150	AC-FT	749700		

e Estimated.

10039500 BEAR RIVER AT BORDER, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1965 to September 1976, January 1978 to September 1981.
WATER TEMPERATURES: October 1965 to September 1976, January 1978 to September 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE; Maximum daily, 1,580 microsiemens Dec. 27, 1975; minimum daily, 312 microsiemens Apr. 3, 1969.

WATER TEMPERATURES: Maximum, 23.5°C Aug. 14, 1980; minimum, 0.0°C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	BARO- METRIC PRES- SURE (MM OF HG)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 27...	1145	300	650	--	-2.0	0.0	7.0	11.2	605	3	37
JAN 22...	1400	412	630	8.2	-2.5	0.0	5.0	9.6	610	7	<1
MAR 21...	1400	911	720	8.4	5.5	6.5	45	9.4	615	<1	58
APR 30...	1500	1970	620	8.4	13.0	8.5	95	8.3	600	40	56
JUL 17...	0915	1020	485	8.3	13.0	15.5	60	6.9	613	160	840
SEP 03...	1315	469	510	8.4	20.0	16.5	26	8.2	615	180	200

DATE	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD AS HCO3)	CAR- BONATE IT-FLD AS CO3)	ALKA- LITY, CARBON- ATE IT-FLD (MG/L - CACO3)
NOV 27...	290	293	71	28	28	17	0.7	1.8	--	--	--
JAN 22...	270	273	68	25	22	15	0.6	1.5	293	--	241
MAR 21...	320	316	67	36	41	22	1	3.7	270	6.0	232
APR 30...	260	264	63	26	27	18	0.7	2.6	254	8.0	218
JUL 17...	230	226	54	22	18	15	0.5	1.7	244	--	200
SEP 03...	230	234	59	21	20	16	0.6	1.8	222	8.0	195

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 27...	75	33	0.2	7.6	359	390	0.49	291	<0.01	0.15
JAN 22...	69	24	0.2	8.4	343	1200	0.47	382	<0.0	<0.22
MAR 21...	92	43	0.3	10	452	440	0.61	1110	<0.01	0.16
APR 30...	71	32	0.1	7.9	359	370	0.49	1910	<0.01	0.14
JUL 17...	38	15	0.1	6.9	279	280	0.38	768	<0.01	<0.10
SEP 03...	57	21	0.3	6.0	273	310	0.37	346	<0.01	<0.10

BEAR RIVER BASIN

10039500 BEAR RIVER AT BORDER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS TOTAL (MG/L AS P04)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
NOV 27...	0.05	0.05	0.06	0.35	0.4	0.03	0.09	0.01	<0.01	--
JAN 22...	0.06	0.05	0.06	0.54	0.6	0.03	--	<0.01	<0.01	--
MAR 21...	<0.01	<0.01	--	--	0.8	0.12	--	0.03	0.02	0.06
APR 30...	0.08	0.05	0.06	0.62	0.7	0.26	--	0.02	0.02	0.06
JUL 17...	0.04	0.03	0.04	0.56	0.6	0.04	--	0.02	0.02	0.06
SEP 03...	<0.01	<0.01	--	--	0.5	0.06	--	<0.01	0.01	0.03

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 27...	1145	<10	1	120	<0.5	<1	<1	<3	1	7	<1
MAR 21...	1400	20	2	130	<0.5	<1	<1	<3	2	13	1
JUL 17...	0915	10	1	120	<0.5	<1	<1	<3	1	10	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 27...	20	12	<0.1	<10	1	1	<1	520	<6	18
MAR 21...	28	11	<0.1	<10	1	<1	<1	490	<6	14
JUL 17...	17	6	<0.1	<10	1	<1	<1	370	<6	<3

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SED. SUSP. SIEVE DIAM. PERCENT FINER THAN .062 MM	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
JAN 22...	1400	412	0.0	44	34	38
MAR 21...	1400	911	6.5	87	170	418
APR 30...	1500	1970	8.5	83	445	2370
JUL 17...	0915	1020	15.5	80	156	430

10041000 THOMAS FORK NEAR WYOMING-IDAHO STATE LINE

LOCATION.--Lat 42°24'10", long 111°01'30", in SE1/4 NW1/4 sec.19, T.28 N., R.119 W., Lincoln County, Wyoming, Hydrologic Unit 16010102, on right bank 1.3 mi upstream from Wyoming-Idaho State line, 1.5 mi downstream from Giraffe Creek, and 3.5 mi northeast of Geneva, Idaho.

DRAINAGE AREA.--113 mi².

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,280 ft from topographic map. Prior to Aug. 23, 1957, at site 0.2 mi upstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--37 years, 59.4 ft³/s, 43,040 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft³/s, May 15, 1984, gage height, 5.00 ft; minimum, 2.6 ft³/s, Mar. 2, 1956, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 31	0400	213	2.14	May 3	2400	*1,320	*4.37
Apr. 23	2000	1,120	4.10	May 21	2300	1,140	4.10

Minimum daily, 7.7 ft³/s, Dec. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	21	e12	e9.6	e14	35	173	484	529	112	55	38
2	23	21	e11	e9.9	e14	36	156	610	491	109	54	38
3	23	20	e11	e9.5	e15	33	141	868	454	106	54	37
4	23	20	e11	e9.2	e16	35	139	1020	427	105	52	36
5	23	22	e10	e9.2	e15	34	143	802	397	103	50	36
6	23	21	e9.3	e9.4	e15	35	171	698	361	99	49	35
7	27	22	e8.8	e8.9	e14	37	199	630	333	98	48	36
8	27	23	e8.5	e8.7	e13	43	200	603	323	96	48	38
9	26	22	e8.3	e8.9	e12	57	229	556	305	93	47	42
10	25	e21	e8.1	e9.9	e12	47	248	502	287	92	46	41
11	24	e20	e7.9	e11	e12	43	276	482	260	91	45	38
12	25	e19	e7.7	e12	e13	40	302	447	243	88	44	37
13	25	e20	e7.9	e12	e14	40	314	446	236	84	43	36
14	24	e20	e8.1	e13	e14	39	272	460	226	83	43	35
15	23	e19	e8.4	e14	e15	38	288	462	209	82	42	35
16	23	e19	e8.6	e14	e16	38	328	472	197	86	42	35
17	23	e19	e8.9	e15	e16	40	302	483	186	84	41	35
18	22	e19	e9.1	e16	e17	37	281	536	180	76	40	36
19	22	e18	e9.3	e16	e17	37	286	643	172	72	40	37
20	22	e18	e9.4	e15	e17	38	358	794	165	70	41	36
21	22	e17	e9.5	e15	e17	39	496	912	158	69	49	35
22	24	e17	e9.5	e14	e18	41	593	863	152	69	42	35
23	29	e16	e9.4	e14	e18	47	1000	674	147	73	41	35
24	28	e16	e9.4	e13	e19	55	949	615	142	74	42	44
25	24	e15	e9.2	e12	26	61	809	629	138	69	40	47
26	23	e14	e9.1	e12	27	61	661	665	133	67	39	45
27	22	e13	e8.9	e13	28	68	570	689	128	71	39	43
28	22	e13	e8.8	e13	29	82	528	674	125	66	38	41
29	21	e12	e9.1	e13	---	107	502	643	120	61	39	39
30	21	e12	e9.0	e13	---	137	460	607	116	59	39	41
31	21	---	e9.2	e14	---	196	---	569	---	57	38	---
TOTAL	733	549	284.4	377.2	473	1676	11374	19538	7340	2564	1370	1142
MEAN	23.6	18.3	9.17	12.2	16.9	54.1	379	630	245	82.7	44.2	38.1
MAX	29	23	12	16	29	196	1000	1020	529	112	55	47
MIN	21	12	7.7	8.7	12	33	139	446	116	57	38	35
AC-FT	1450	1090	564	748	938	3320	22560	38750	14560	5090	2720	2270
CAL YR 1985	TOTAL	19353.4	MEAN	53.0	MAX	346	MIN	7.7	AC-FT	38390		
WTR YR 1986	TOTAL	47420.6	MEAN	130	MAX	1020	MIN	7.7	AC-FT	94060		

e Estimated.

13010200 SNAKE RIVER ABOVE JACKSON LAKE, AT FLAGG RANCH, WY

LOCATION.--Lat 44°05'21", long 110°41'38", in T.48 N., R.115 W., Teton County, Hydrologic Unit 17040101, Grand Teton National Park, on left bank 50 ft upstream of State Highway 89 bridge, 600 ft downstream of the confluence with Sheffield Creek, and 2 mi downstream of the south boundary of Yellowstone National Park.

DRAINAGE AREA.--486 mi².

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Datum of the gage is 6,801.61 ft above National Geodetic Vertical Datum of 1929, (levels by U.S. Coast and Geodetic Survey). A nonrecording cantilever chain gage was used from 1913-18 at a site 2.5 mi upstream at a different datum. In 1918, an auxiliary chain gage was installed at the current site and read periodically. Water-stage recorder installed July 1921 at the current site at a different datum and operated until July 1925. Records probably not comparable.

REMARKS.--Estimated daily discharges: Nov. 22, 23, Dec. 11-13, Jan 4-7, 11-13, 23-28, Feb. 6-13, May 21-29. Records excellent except for periods of estimated daily record, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft³/s, May 31, 1984, gage height, 8.39 ft; minimum daily, 275 ft³/s, Feb. 8, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,600 ft³/s, June 6, gage height, 9.41 ft; minimum daily, 275 ft³/s, Feb. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	343	402	409	319	364	526	617	815	8330	2270	853	580
2	347	410	413	337	363	508	683	1020	8710	2130	824	582
3	344	405	422	345	372	497	744	1570	8530	2040	795	560
4	335	395	422	342	371	484	785	2060	8300	1920	772	540
5	327	456	431	338	366	473	787	1720	8680	1730	753	527
6	332	423	432	340	340	466	799	1470	9210	1580	735	515
7	446	417	431	345	310	460	783	1330	7520	1530	716	504
8	423	424	430	349	275	502	771	1190	7000	1470	706	519
9	402	395	414	350	285	533	762	1090	7260	1460	694	590
10	381	430	402	345	295	535	773	1040	6580	1390	674	532
11	395	432	395	335	290	533	748	1010	6340	1490	658	515
12	410	436	380	325	310	532	704	953	6510	1550	644	493
13	379	424	385	330	330	515	674	924	6330	1310	630	480
14	378	415	387	336	356	503	689	941	6080	1230	620	482
15	386	397	380	335	386	481	656	922	6320	1190	610	486
16	376	381	378	340	408	472	682	949	6030	1220	589	469
17	379	393	369	359	445	459	648	967	5970	1310	581	465
18	368	389	367	358	480	456	615	1070	5410	1130	569	522
19	365	363	366	360	508	434	599	1320	4860	1100	560	544
20	363	357	361	370	546	423	599	2000	4570	1030	563	593
21	361	359	352	371	569	419	691	2870	4020	1000	598	571
22	379	355	347	365	583	433	937	2700	3600	964	670	538
23	384	345	348	355	577	471	1220	2370	3540	952	613	514
24	455	359	348	350	589	526	1320	2470	3600	924	633	503
25	508	369	340	340	589	568	1140	2610	3550	975	701	508
26	495	369	339	335	583	595	1000	3720	3390	1220	682	507
27	469	370	334	340	571	589	919	4480	3210	1090	620	514
28	458	371	333	345	548	585	892	5930	3030	1090	592	516
29	447	386	327	353	---	567	853	6700	2790	967	572	509
30	431	402	322	361	---	567	806	7070	2510	915	612	507
31	427	---	316	362	---	563	---	7650	---	888	633	---
TOTAL	12293	11829	11680	10735	12009	15675	23896	72931	171780	41065	20472	15685
MEAN	397	394	377	346	429	506	797	2353	5726	1325	660	523
MAX	508	456	432	371	589	595	1320	7650	9210	2270	853	593
MIN	327	345	316	319	275	419	599	815	2510	888	560	465
AC-FT	24380	23460	23170	21290	23820	31090	47400	144700	340700	81450	40610	31110
CAL YR 1985	TOTAL	299032	MEAN	819	MAX	6780	MIN	310	AC-FT	593100		
WTR YR 1986	TOTAL	420050	MEAN	1151	MAX	9210	MIN	275	AC-FT	833200		

13010500 JACKSON LAKE NEAR MORAN, WY

LOCATION.--Lat 43°51'33", long 110°35'23", in SE1/4 SW1/4 sec.18, T.45 N., R.114 W., Teton County, Hydrologic Unit 17040101, Grand Teton National Park, near left end of spillway over Jackson Lake Dam on Snake River, 4.3 mi west of Moran and at mile 988.9

DRAINAGE AREA.--807 mi².

PERIOD OF RECORD.--July 1908 to September 1979, (1908-10 fragmentary), October 1984 to current year. Prior to October 1968, published as "at Moran".

REVISED RECORDS.--WRD Idaho 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,700.00 ft, U.S. Bureau of Reclamation datum. National Geodetic Vertical Datum of 1929, is 2.08 ft lower. July 1908 to June 1, 1941, nonrecording gage at site 300 ft upstream at same datum. June 1, 1941 to Feb. 17, 1978, nonrecording gage at same site and datum.

REMARKS.--Reservoir was formed by log crib dam built in the outlet of the natural lake in 1906. Usable capacity was 300,000 acre-feet. This dam washed out in July 1910 and was replaced by an earth dam, forming a reservoir with a usable capacity of 380,000 acre-feet. The earth dam was raised in 1916, increasing the usable capacity to 790,000 acre-feet. In 1917, by dredging the outlet, the capacity was further increased to 847,000 acre-feet between elevations 6,730 ft (top of baffles to sluices) and 6,769 ft (top of spillway gates). Reservoir is used to store water for irrigation in Snake River Valley, Idaho. Figures given herein represent usable contents.

COOPERATION.--Reservoir elevations and capacity table provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 859,530 acre-ft, July 11, 1965, elevation, 6,769.49 ft; no usable contents for several days during period August to October 1919.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 335,400 acre-ft, June 24, elevation, 6,747.38 ft; minimum, 45,100 acre-ft, May 20, elevation 6,732.60 ft.

Capacity table (elevation in feet, and contents, in acre-feet)

6,732	34,600
6,734	70,000
6,740	182,500
6,750	392,900

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145200	153300	153300	146200	149600	155900	120200	89400	132500	315800	282200	190400
2	144600	153800	153800	146400	150200	154200	119600	84500	157100	313000	281700	184300
3	144200	154600	154400	146200	150600	152300	118800	82700	175900	310600	281500	179200
4	143900	155600	155000	146000	151000	150400	118500	83000	192600	308700	280900	173800
5	144200	156300	154800	146000	151000	149000	117700	83400	210200	305000	280300	168500
6	145200	157500	154800	146400	151000	149000	117600	82300	229800	300800	279600	163400
7	146000	158000	154600	146500	151000	148600	117200	78100	243400	296500	279400	159000
8	146200	158400	154200	145800	150800	148500	116800	75100	255000	292300	278200	153600
9	146400	158400	154000	145000	150400	147300	116600	71100	264800	289100	276900	151200
10	146400	158400	153300	145200	150000	146200	116100	67900	269200	286400	275900	147900
11	146400	159200	152700	145600	150200	145000	114800	64800	270200	287400	274600	144000
12	146700	158800	152300	145800	150400	143300	114400	60200	271500	287600	272500	140500
13	147000	158800	152100	145800	151200	142200	114000	56800	272500	287000	270600	136500
14	146700	158400	151700	145600	153100	140600	112500	54300	276500	286200	268500	132500
15	146900	157500	151500	145600	153400	139100	110900	51500	283400	285300	265800	129300
16	146700	157500	152100	146000	153800	137600	108400	49700	291700	285100	263700	125600
17	145800	157300	150800	146400	155200	136300	105800	47300	302700	284400	261400	122400
18	145800	156300	150600	146700	157300	134400	104400	46200	312700	283200	259200	120000
19	145800	155800	150400	147100	159800	133100	101400	46600	320900	283200	255200	117600
20	145600	154800	150000	147300	160400	132200	99400	47400	329900	283400	250500	113100
21	146000	154600	149600	147700	161300	129700	98300	53100	332800	284000	246300	110100
22	146400	154000	149200	148100	161700	128800	96300	57700	333800	284000	241200	106200
23	147300	154000	148600	148100	162100	127400	98000	59500	334900	283600	235500	103500
24	147700	153800	148300	148600	162600	125900	99400	59700	334300	283800	231000	101600
25	148300	153600	148100	148600	162100	125200	99100	60900	333800	284000	225900	99100
26	148500	153100	147900	148800	160700	123700	97400	65000	332300	285100	221400	96700
27	148900	152900	147300	148800	159600	122900	95800	72900	330400	285700	216600	95000
28	149200	153100	146700	148600	157300	120500	98200	83600	328000	284700	211200	93400
29	150400	153300	146200	149000	---	120000	97600	95800	325000	283000	206200	92600
30	150600	153300	145800	149400	---	119800	92800	103500	321100	282600	201300	93000
31	151300	---	146000	149600	---	119600	---	116800	---	282400	196000	---
MAX	151300	159200	155000	149600	162600	155900	120200	116800	334900	315800	282200	190400
MIN	143900	152900	145800	145000	149600	119600	92800	46200	132500	282400	196000	92600
(+)	6738.39	6738.49	6738.11	6738.30	6738.70	6736.71	6735.26	6736.56	6746.72	6744.90	6740.68	6735.27
(+)	+4800	+2000	-7300	+3600	+7700	-37700	-26800	+24000	+204300	-38700	-86400	-103000

WTR YR 1986 MEAN 168800 MAX 334900 MIN 46200

CAL YR 1985(+) -134900

WTR YR 1986(+) -52600

(+) Elevation, in feet, at end of month.

(+) Change in contents, in acre-feet.

13011000 SNAKE RIVER NEAR MORAN, WY

LOCATION.--Lat 43°51'31", long 110°35'09", in SW1/4 SE1/4 sec.18, T.45 N., R.114 W., Teton County, Hydrologic Unit 17040101, Grand Teton National Park, on left bank 1,000 ft downstream from Jackson Lake Dam, 4.1 mi west of Moran, and at mile 988.7.

DRAINAGE AREA.--807 mi². Mean elevation, 8,040 ft.

PERIOD OF RECORD.--September 1903 to current year. Monthly discharge only for some periods, published in WSP 1317. Published as "South Fork Snake River at Moran" prior to October 1910 and as "Snake River at Moran" October 1910 to September 1968.

REVISED RECORDS.--WSP 1217: 1944(m). WSP 1347: 1906-10. WDR Idaho 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,727.84 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to June 13, 1917, nonrecording gage, and June 14, 1917, to May 20, 1940, water-stage recorder, at site 1.5 mi downstream at different datums.

REMARKS.--No estimated daily discharges. Records good.

COOPERATION.--Gage readings for current reporting purposes provided by U.S. Bureau of Reclamation.

AVERAGE DISCHARGE.--83 years, 1,459 ft³/s, 1,057,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s, June 12, 1918, gage height, 10.41 ft, site and datum then in use; maximum gage height, 10.74 ft, June 25, 1981; minimum discharge, 0.30 ft³/s, Oct. 26, 27, 28, 1969, gage height, 0.89 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood during early June 1894 was considerably higher than that of June 12, 1918.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,500 ft³/s, June 14, gage height, 10.32 ft; minimum, 269 ft³/s, Nov. 4, gage height, 2.31 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	560	277	706	622	510	1520	1330	3960	5920	7120	1550	3790
2	560	277	709	618	510	1510	1340	4040	5430	6080	1550	3790
3	560	277	711	618	510	1510	1320	4130	5010	5060	1550	3790
4	560	277	712	618	510	1500	1320	4120	5520	5190	1550	3700
5	560	277	712	618	510	1490	1320	4120	5890	5160	1550	3310
6	560	285	712	618	510	1490	1320	4100	6080	5130	1540	3050
7	560	461	712	618	510	1490	1320	4360	6120	5100	1540	2960
8	555	462	712	618	571	1500	1330	4560	6570	5060	1670	2800
9	551	462	712	618	571	1490	1780	4460	7540	4470	1760	2580
10	550	462	712	572	571	1490	2090	4330	8690	4100	1760	2480
11	550	537	712	505	581	1480	2090	4150	9730	3430	1760	2490
12	550	713	712	503	582	1470	2080	4000	10300	2960	1840	2560
13	550	719	712	500	576	1460	2070	3790	10400	2950	1920	2640
14	550	718	712	500	586	1450	2050	3580	9810	2940	2030	2680
15	549	717	712	500	589	1440	2260	3380	7430	2940	2120	2670
16	545	718	712	500	591	1430	2530	3220	7090	2940	2110	2630
17	537	718	709	501	593	1420	2510	3080	4550	2950	2110	2600
18	535	718	706	505	595	1410	2480	2970	4080	2940	2240	2580
19	535	714	706	505	644	1410	2460	2910	3840	2220	2470	2560
20	535	712	706	505	681	1400	2440	2930	3860	1700	3130	2550
21	531	712	706	505	682	1400	2540	3150	5210	1660	3360	2530
22	520	712	706	505	684	1390	2700	3520	6050	1740	3620	2510
23	521	711	706	506	684	1390	2450	3780	6070	1800	3750	2480
24	526	708	706	509	739	1380	2160	3850	6640	1800	3700	2230
25	529	711	706	505	858	1370	3450	3880	7120	1800	3660	1950
26	545	707	704	505	1100	1360	3440	4030	7120	1910	3620	1900
27	545	710	700	505	1530	1350	3220	4400	7110	2040	3570	1870
28	492	706	700	505	1530	1350	1070	4890	7090	2510	3650	1840
29	332	706	700	505	---	1340	1520	5400	7060	2490	3690	1610
30	281	706	700	505	---	1340	4040	5780	7030	2180	3630	926
31	280	---	667	505	---	1340	---	5960	---	1730	3660	---
TOTAL	16114	17590	21910	16722	19108	44370	64030	124830	200360	102100	77660	78056
MEAN	520	586	707	539	682	1431	2134	4027	6679	3294	2505	2602
MAX	560	719	712	622	1530	1520	4040	5960	10400	7120	3750	3790
MIN	280	277	667	500	510	1340	1070	2910	3840	1660	1540	926
AC-FT	31960	34890	43460	33170	37900	88010	127000	247600	397400	202500	154000	154800
CAL YR 1985	TOTAL	561489		MEAN	1538	MAX	7530	MIN	277	AC-FT	1114000	
WTR YR 1986	TOTAL	782850		MEAN	2145	MAX	10400	MIN	277	AC-FT	1553000	

13011500 PACIFIC CREEK AT MORAN, WY

LOCATION.--Lat 43°51'04", long 110°30'59", in SW1/4 NW1/4 sec.23, T.45 N., R.114 W., Teton County, Hydrologic Unit 17040101, Grand Teton National Park, on left bank 40 ft upstream from bridge on U.S. Highway 287, at Moran, and at mile 0.5.

DRAINAGE AREA.--169 mi². Mean elevation, 8,160 ft.

PERIOD OF RECORD.--July to November 1906 (gage heights only), July 1917 to September 1918 (no winter records), September 1944 to September 1975, July 1978 to current year. Published as "near Moran" prior to October 1968.

GAGE.--Water-stage recorder. Elevation of gage is 6,720 ft above National Geodetic Vertical Datum of 1929, from topographic map. July 31 to Nov. 11, 1906, nonrecording gage at site 0.4 mi downstream at different datum. July 20, 1917 to Sept. 30, 1918, nonrecording gage at site 0.1 mi downstream at different datum. Sept. 23, 1944 to Nov. 13, 1959, at site 100 ft upstream at same datum. Nov. 14, 1959 to Sept. 24, 1975, at site 35 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Nov. 10-12, 17, 18, Nov. 20 to Mar. 12, Mar. 14-16, May 13-20, 22-28, and Sept. 25-30. Records are good except for periods of estimated record, which are poor. No diversion or regulation.

AVERAGE DISCHARGE.--39 years (1944-75, 1979-86), 270 ft³/s, 21.70 in./yr, 195,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,350 ft³/s, May 29, 1983, gage height, 6.33 ft; minimum daily, 19 ft³/s, Dec. 31, 1979.

EXTREMES FOR CURRENT YEAR.-- Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 6	0100	*3,630	*6.73	June 17	0215	2,910	6.45

Minimum daily discharge, 23 ft³/s, Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	78	63	47	48	31	142	381	3080	691	158	102
2	53	82	64	49	46	34	141	472	3030	634	146	98
3	54	79	58	47	49	33	128	701	3080	607	141	91
4	54	74	56	43	46	35	129	936	3080	576	136	82
5	51	86	57	41	44	37	137	853	3200	517	133	79
6	51	82	56	44	40	35	146	718	3260	459	126	75
7	62	84	63	42	35	38	182	644	2910	437	119	73
8	67	85	57	44	32	43	212	583	2620	416	117	73
9	62	71	53	46	36	42	235	528	2770	392	118	74
10	55	69	51	48	31	40	252	494	2150	380	117	75
11	58	70	48	46	23	44	259	458	2110	396	112	75
12	63	73	52	43	25	42	254	419	1990	487	106	75
13	59	72	51	39	28	41	247	390	1870	376	104	71
14	55	70	50	38	31	47	235	385	1840	340	102	70
15	58	68	54	43	32	54	258	375	1820	332	99	71
16	58	71	51	47	30	62	276	400	2050	369	95	71
17	58	70	53	46	31	68	271	390	2560	363	92	71
18	58	69	52	45	33	75	248	445	2540	301	88	77
19	58	68	54	44	32	71	242	500	1710	279	86	81
20	58	66	52	42	31	67	248	600	1600	254	86	84
21	58	66	48	40	34	65	293	691	1350	236	97	86
22	59	65	49	39	37	70	410	1070	1140	221	110	81
23	65	66	53	43	39	74	609	890	1100	208	100	77
24	75	68	54	42	41	78	692	780	1090	201	101	74
25	85	70	48	42	39	82	600	950	1070	204	96	84
26	84	66	44	41	37	76	527	1200	1030	233	96	81
27	83	67	46	44	35	79	452	1450	964	234	93	78
28	89	68	44	45	33	87	419	1800	945	223	88	82
29	83	70	40	47	---	107	409	2150	861	194	84	80
30	81	62	43	50	---	127	374	2740	787	179	84	81
31	86	---	45	51	---	146	---	2830	---	168	97	---
TOTAL	1993	2155	1609	1368	998	1930	9027	27223	59607	10907	3327	2372
MEAN	64.3	71.8	51.9	44.1	35.6	62.3	301	878	1987	352	107	79.1
MAX	89	86	64	51	49	146	692	2830	3260	691	158	102
MIN	51	62	40	38	23	31	128	375	787	168	84	70
AC-FT	3950	4270	3190	2710	1980	3830	17910	54000	118200	21630	6600	4700
CAL YR 1985	TOTAL	78243	MEAN	214	MAX	1680	MIN	40	CFSM	1.27	IN.	17.22
WTR YR 1986	TOTAL	122516	MEAN	336	MAX	3260	MIN	23	CFSM	1.99	IN.	26.97
											AC-FT	155200
											AC-FT	243000

BUFFALO FORK BASIN

13011900 BUFFALO FORK ABOVE LAVA CREEK, NEAR MORAN, WY

LOCATION.--Lat 43°50'14", long 110°26'21", in SE1/4 NE1/4 sec.29, T.45 N., R.113 W., Teton County, Hydrologic Unit 17040101, Grand Teton National Park, on right bank underneath bridge on U.S. Highway 26, 287, about 2 mi upstream from Lava Creek, 3.5 mi east of Moran, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--323 mi².

PERIOD OF RECORD.--September 1965 to current year. July to November 1906, July 1917 to September 1918, and September 1944 to September 1960 at sites about 3 mi downstream.

REVISED RECORDS.--WDR Idaho 1974: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,772.78 ft above National Geodetic Vertical Datum of 1929 (Federal Highway Administration bench mark).

REMARKS.--Estimated daily discharges: Nov. 9 to Mar. 23. Records good except for periods of estimated record, which are fair.

AVERAGE DISCHARGE.--21 years (1966-86), 564 ft³/s, 408,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,540 ft³/s, June 9, 1981, gage height, 8.61 ft; minimum daily, 77 ft³/s, Feb. 5, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 6	0630	*5,230	*7.48	June 28	0600	3,240	6.06
June 18	0700	3,920	6.79				

Minimum daily discharge, 82 ft³/s, Feb. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	193	172	148	112	102	88	237	318	3760	2190	713	318
2	193	181	150	115	100	94	229	382	4450	2090	676	318
3	191	177	140	108	105	92	211	557	4590	2140	652	307
4	180	169	134	98	100	94	212	795	4720	2290	640	297
5	178	183	136	88	94	98	217	743	4910	2050	606	291
6	178	164	132	94	92	96	233	637	4950	1630	581	285
7	189	170	145	92	86	108	274	573	4210	1610	549	281
8	191	173	135	95	82	120	292	509	3540	1490	548	282
9	172	160	125	98	89	118	309	461	3300	1500	522	281
10	171	150	120	100	88	114	295	432	3090	1520	513	309
11	180	155	115	98	91	120	295	409	3010	1660	488	308
12	187	160	125	96	94	118	287	370	3180	2080	482	290
13	173	152	122	95	96	116	278	357	3190	1630	460	282
14	172	148	120	90	97	115	244	356	3210	1560	440	296
15	181	152	130	96	98	114	247	347	3300	1520	417	298
16	175	156	125	102	95	110	269	360	3560	1480	405	279
17	180	160	135	100	96	128	257	352	3600	1430	393	272
18	176	152	130	98	97	125	240	379	3550	1260	386	279
19	177	150	132	96	94	140	234	452	3020	1190	374	303
20	177	145	125	94	90	138	227	650	3010	1130	370	299
21	177	140	120	93	91	136	241	1020	2790	1100	377	293
22	183	136	115	91	92	150	331	1200	2510	1060	400	272
23	180	144	118	95	95	165	470	957	2480	996	369	265
24	181	148	120	93	97	174	548	862	2530	945	397	271
25	198	154	115	92	95	170	467	1000	2600	957	362	297
26	195	145	110	90	94	157	417	1430	2640	958	366	273
27	189	148	115	95	92	163	377	2000	2730	951	367	268
28	191	152	110	98	90	176	359	2490	2880	943	341	277
29	186	155	105	100	---	210	350	2830	2600	847	331	267
30	181	145	108	102	---	240	317	3100	2400	803	325	268
31	187	---	110	105	---	260	---	3300	---	738	328	---
TOTAL	5662	4696	3870	3019	2632	4247	8964	29628	100310	43748	14178	8626
MEAN	183	157	125	97.4	94.0	137	299	956	3344	1411	457	288
MAX	198	183	150	115	105	260	548	3300	4950	2290	713	318
MIN	171	136	105	88	82	88	211	318	2400	738	325	265
AC-FT	11230	9310	7680	5990	5220	8420	17780	58770	199000	86770	28120	17110
CAL YR 1985	TOTAL	160780	MEAN	440	MAX	3360	MIN	105	CFSM	1.36	IN.	18.52
WTR YR 1986	TOTAL	229580	MEAN	629	MAX	4950	MIN	82	CFSM	1.95	IN.	26.44
											AC-FT	318900
											AC-FT	455400

13018300 CACHE CREEK NEAR JACKSON, WY
(Hydrologic bench-mark station)

LOCATION.--Lat 43°27'08", long 110°42'12", in SW1/4 SW1/4 SE1/4 sec.1, T.40 N., R.116 W., Teton County, Hydrologic Unit 17040103, Teton National Forest, on right bank 0.7 mi upstream from Salt Lick Draw, 2.4 mi southeast of Jackson, and 4.0 mi upstream from mouth.

DRAINAGE AREA.--10.6 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR WY-76-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,750 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 10, 11, 14, 15, Nov. 1, 9-12, 15-17, 19-24, Dec. 4-6, 10-12, 16-18, Dec. 28 to Jan. 1, Jan. 5-16, Jan. 22 to Feb. 9, Feb. 11-17, Feb. 27 to Mar. 17. Records good except for periods of estimated record, which are fair.

AVERAGE DISCHARGE.--24 years, 13.8 ft³/s, 10,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 225 ft³/s, June 24, 1971, gage height, 3.90 ft; maximum gage height, 3.97 ft, June 7, 1972; minimum daily discharge, 2.1 ft³/s, Jan. 1, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 52 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 1	1400	*184	*3.30	No other peak greater than base discharge.			
Minimum discharge, 3.4 ft ³ /s, Jan. 21, gage height, 1.45 ft.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	5.6	5.1	4.9	4.5	4.4	4.6	11	14	143	50	23	13		
2	5.6	5.2	4.9	4.6	4.3	4.8	10	17	130	49	23	13		
3	5.6	5.2	4.7	4.8	4.4	4.6	9.9	22	124	48	23	13		
4	5.5	5.3	4.6	4.5	4.3	4.5	9.8	26	125	48	22	12		
5	5.5	5.5	4.7	4.3	4.2	4.7	10	24	120	47	22	12		
6	5.5	5.2	4.6	4.1	4.0	4.9	12	22	113	44	21	12		
7	6.5	5.2	4.8	4.3	3.9	5.0	13	21	111	44	21	12		
8	5.7	5.2	4.7	4.2	3.8	5.2	13	20	107	43	21	12		
9	5.6	5.0	4.6	4.1	3.9	5.0	13	19	103	41	20	12		
10	5.5	4.8	4.4	4.2	4.0	4.8	13	18	102	40	20	12		
11	5.4	4.9	4.3	4.1	3.9	5.0	13	17	100	39	18	12		
12	5.7	5.1	4.4	4.0	4.3	4.9	12	17	100	38	18	12		
13	5.5	5.4	4.5	4.1	4.6	4.8	12	16	100	36	17	11		
14	5.3	5.4	4.5	4.2	4.8	4.8	11	17	100	36	17	11		
15	5.4	5.2	4.5	4.1	5.1	4.7	11	17	100	36	17	11		
16	5.4	4.8	4.6	4.3	5.5	4.6	12	17	100	36	16	11		
17	5.3	4.9	4.6	4.6	5.4	4.8	11	17	102	35	16	10		
18	5.3	5.0	4.5	4.5	5.3	4.6	11	18	102	34	15	11		
19	5.3	4.8	4.4	4.4	5.2	4.6	11	21	100	33	15	11		
20	5.3	4.7	4.5	4.4	5.0	4.6	11	31	95	32	15	11		
21	5.4	4.6	4.5	4.3	4.9	4.8	14	41	91	31	15	11		
22	5.5	4.7	4.6	4.1	4.8	5.0	18	40	70	30	15	10		
23	5.6	4.9	4.6	4.3	5.0	5.2	23	33	60	30	15	10		
24	6.4	5.0	4.6	4.2	5.5	5.5	22	32	58	30	15	10		
25	5.8	5.1	4.6	4.1	5.5	5.5	19	37	57	28	16	10		
26	5.6	5.1	4.6	4.2	5.3	5.4	17	49	56	28	16	10		
27	5.5	5.0	4.6	4.3	5.1	5.8	15	62	53	27	15	10		
28	5.6	5.0	4.5	4.3	4.8	6.8	15	81	52	26	14	10		
29	5.4	5.0	4.4	4.4	---	8.7	15	100	53	25	13	10		
30	5.3	4.9	4.3	4.4	---	10	14	127	52	24	13	10		
31	5.2	---	4.4	4.5	---	11	---	127	---	24	13	---		
TOTAL	171.8	151.2	141.4	133.4	131.2	169.2	401.7	1120	2779	1112	540	335		
MEAN	5.54	5.04	4.56	4.30	4.69	5.46	13.4	36.1	92.6	35.9	17.4	11.2		
MAX	6.5	5.5	4.9	4.8	5.5	11	23	127	143	50	23	13		
MIN	5.2	4.6	4.3	4.0	3.8	4.5	9.8	14	52	24	13	10		
AC-FT	341	300	280	265	260	336	797	2220	5510	2210	1070	664		
CAL YR 1985	TOTAL	3356.9	MEAN	9.20	MAX	37	MIN	3.2	CFSM	.87	IN.	11.78	AC-FT	6660
WTR YR 1986	TOTAL	7185.9	MEAN	19.7	MAX	143	MIN	3.8	CFSM	1.86	IN.	25.22	AC-FT	14250

FLAT CREEK BASIN

13018300 CACHE CREEK NEAR JACKSON, WY--Continued
(Hydrologic benchmark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
NOV 18...	1415	5.5	318	8.8	-6.0	0.5	11.3	98	K5	82	180
JAN 13...	1748	3.8	343	8.1	-8.0	0.5	11.5	98	36	K6	190
MAR 18...	1033	4.0	320	8.2	-3.0	0.0	11.8	103	230	28	180
MAY 14...	1450	17	356	8.3	5.0	5.0	9.7	98	<1	<1	--
JUL 16...	1722	37	283	8.5	15.0	8.5	10.0	108	28	68	120
SEP 18...	1149	10	311	8.1	4.5	5.5	10.0	100	39	57	--

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)
NOV 18...	49	15	2.6	3	0.7	193	12	0.8	<0.1	5.4
JAN 13...	48	16	2.7	3	0.7	179	7.4	0.9	0.1	5.3
MAR 18...	48	15	3.3	4	0.6	170	7.6	0.8	0.1	5.2
MAY 14...	--	--	--	--	--	195	--	--	--	--
JUL 16...	35	8.1	6.4	10	1.3	167	22	5.5	0.3	8.6
SEP 18...	--	--	--	--	--	178	--	--	--	--

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
NOV 18...	180	200	0.24	2.7	<0.10	0.03	0.2	0.02	0.06	0.05
JAN 13...	178	190	0.24	1.8	0.12	0.03	0.2	0.01	0.01	0.02
MAR 18...	185	180	0.25	2.0	<0.10	<0.01	0.3	0.01	0.01	0.01
MAY 14...	--	--	--	--	<0.10	0.05	0.2	0.03	<0.01	0.02
JUL 16...	154	200	0.21	15	<0.10	0.04	0.6	0.02	0.01	0.01
SEP 18...	--	--	--	--	<0.10	0.04	0.2	0.02	0.01	0.01

K Results based on counts outside ideal colony count range.

13018300 CACHE CREEK NEAR JACKSON, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
NOV 18...	<10	37	<0.5	<1	<1	<3	1	9	1	5
MAR 18...	<10	45	<0.5	<1	3	<3	<1	4	<1	5

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 18...	3	<0.1	<10	2	<1	<1	92	<6	15
MAR 18...	<1	<0.1	<10	1	<1	<1	79	<6	7

DATE	SEDI- MENT, DIS- SUS- PENDE (MG/L)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 18...	67	0.99
MAR 18...	71	0.77
MAY 14...	85	3.9
JUL 16...	13	1.3
SEP 18...	12	0.32

13018750 SNAKE RIVER BELOW FLAT CREEK, NEAR JACKSON, WY

LOCATION.--Lat°43 22'20", long 110°44'17", in NE1/4 SE1/4 sec.3, T.39 N., R.116 W., Teton County, Hydrologic Unit 17040103, on left bank 20 ft upstream from county road bridge, about 1 mi downstream from Flat Creek, 4.8 mi upstream from Hoback River, 7.0 mi south of Jackson, and at mile 938.9.

DRAINAGE AREA.--2,627 mi².

PERIOD OF RECORD.--November 1975 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,950 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 23-27, Dec. 4-8, Dec. 10 to Feb. 15, and Sept. 30. Records good except for periods of estimated record, which are fair.

AVERAGE DISCHARGE.--10 years (1977-86), 3,862 ft³/s, 2,798,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,600 ft³/s, June 6, 1986, gage height, 10.22 ft; minimum daily, 780 ft³/s, Dec. 31, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,600 ft³/s, June 6, gage height, 10.22 ft; minimum daily, 1,130 ft³/s, Feb. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1880	1530	1680	1600	1280	2610	3060	5700	20800	14300	4710	5550
2	1860	1510	1710	1620	1260	2580	3000	5840	22700	14000	4550	5610
3	1850	1510	1740	1580	1290	2580	2870	6620	23400	11900	4450	5540
4	1800	1490	1680	1520	1310	2550	2830	7670	23900	12100	4360	5510
5	1800	1490	1630	1440	1260	2550	2790	8040	24400	12000	4300	5270
6	1800	1490	1600	1390	1220	2560	2820	7650	24900	11200	4220	4870
7	1860	1530	1660	1400	1170	2610	2940	7400	24100	10700	4130	4680
8	1890	1710	1690	1410	1130	3070	3160	7610	22500	10600	4130	4630
9	1840	1670	1710	1400	1180	3150	3310	7270	22600	10200	4280	4500
10	1800	1610	1680	1390	1230	2900	3810	7100	22300	9410	4220	4330
11	1770	1600	1630	1370	1200	2770	3920	6880	22200	9120	4130	4230
12	1800	1740	1660	1350	1260	2710	3910	6470	23000	8830	4080	4200
13	1830	1860	1680	1310	1330	2670	3830	6190	23100	8360	4130	4260
14	1790	1850	1700	1280	1430	2630	3660	5980	22900	7900	4130	4300
15	1770	1820	1650	1260	1540	2570	3600	5720	21100	7790	4200	4340
16	1770	1790	1650	1300	1720	2540	4030	5520	20700	7860	4150	4300
17	1760	1790	1690	1340	1660	2520	4110	5360	19400	7890	4130	4240
18	1750	1800	1670	1320	1770	2500	3980	5240	17700	7650	4060	4380
19	1720	1740	1640	1270	1960	2480	3910	5390	16300	7260	4160	4370
20	1720	1710	1610	1280	1900	2490	3890	5980	15300	6080	4480	4390
21	1720	1700	1560	1290	1770	2520	3980	7380	15000	5730	5170	4310
22	1750	1660	1520	1280	1750	2600	4480	8980	15700	5430	5270	4190
23	1930	1620	1580	1300	1790	2680	5170	9040	15000	5420	5600	4120
24	2040	1560	1620	1260	1960	2750	5230	8480	15000	5450	5670	4130
25	1960	1580	1600	1230	2130	2760	5840	8680	16000	5480	5660	3780
26	1900	1630	1560	1200	2210	2670	5990	10100	15800	5570	5710	3620
27	1870	1650	1600	1220	2480	2660	5660	12400	15700	5760	5620	3580
28	1850	1670	1580	1240	2630	2720	4760	14700	15800	5880	5490	3530
29	1760	1730	1550	1280	---	2850	3210	16800	15600	5910	5580	3260
30	1620	1720	1520	1300	---	3000	4620	19000	15000	5720	5540	2750
31	1540	---	1560	1310	---	3120	---	19600	---	5200	5530	---
TOTAL	56000	49760	50610	41740	44820	83370	118370	264790	587900	256700	145840	130770
MEAN	1806	1659	1633	1346	1601	2689	3946	8542	19600	8281	4705	4359
MAX	2040	1860	1740	1620	2630	3150	5990	19600	24900	14300	5710	5610
MIN	1540	1490	1520	1200	1130	2480	2790	5240	15000	5200	4060	2750
AC-FT	111100	98700	100400	82790	88900	165400	234800	525200	1166000	509200	289300	259400
CAL YR 1985	TOTAL	1243470		MEAN	3407	MAX	15200	MIN	1300	AC-FT	2466000	
WTR YR 1986	TOTAL	1830670		MEAN	5016	MAX	24900	MIN	1130	AC-FT	3631000	

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDERANT, WY

LOCATION.--Lat 43°17'56", long 110°31'33", NW1/4 SW1/4 sec. 34, T.39 N., R.114 W., Teton County, Hydrologic Unit 17040103, Teton National Forest, 1.4 mi northeast of U.S. Highway 187-189 on Granite Creek Road, and 11.3 mi east of Hoback Junction on U.S. Highway 187-189.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1981 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,390 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1, 4, 5, 11, 13, 14, 16, Oct. 29 to Nov. 1, Nov. 9-21, 26, Dec. 4-7, 12, 20-23, Jan. 5, 6, Jan. 23 to Feb. 1, Feb. 5-20, Feb. 22 to Mar. 24 and June 1, 2. Records good except for periods of estimated record, which are fair. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 876 ft³/s, May 29, 1983, gage height, 3.86 ft, maximum gage height, 4.1 ft, Feb. 25, 1982 (backwater from ice); minimum daily discharge, 2.5 ft³/s, Feb. 5, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 724 ft³/s, June 4, gage height, 3.90 ft; minimum, 3.8 ft³/s, Dec. 11, gage height, 1.23 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	5.3	4.9	4.8	5.4	7.0	54	61	410	90	27	15
2	5.6	5.4	4.8	4.8	5.3	7.4	50	74	460	85	27	16
3	5.5	5.2	4.5	4.9	5.4	7.4	44	105	480	85	27	15
4	5.2	5.1	4.7	4.8	5.3	7.3	43	118	536	83	27	14
5	5.1	6.0	4.9	4.9	5.1	7.8	43	107	558	74	25	14
6	5.2	5.2	4.8	5.2	4.7	8.5	45	94	461	66	24	14
7	7.3	5.2	5.0	4.7	4.5	9.3	52	86	396	65	22	14
8	6.1	5.0	5.0	4.6	4.3	10	53	79	312	62	22	14
9	6.1	4.9	4.9	4.6	4.5	11	55	75	260	60	22	15
10	5.9	4.8	4.7	4.6	4.7	11	55	72	259	56	22	15
11	5.8	5.2	4.6	4.6	4.5	11	57	69	273	52	21	14
12	6.0	5.5	4.7	4.6	4.9	12	57	67	266	50	20	13
13	5.9	5.9	4.8	4.8	5.4	12	56	69	268	47	19	13
14	5.7	5.8	4.8	5.0	5.8	12	52	73	262	47	19	13
15	5.9	5.6	4.7	5.0	6.4	13	51	75	243	48	19	13
16	5.6	5.4	4.6	5.1	7.0	14	50	74	228	51	18	12
17	5.7	5.6	4.6	5.0	6.4	15	49	75	211	50	18	11
18	5.6	5.4	4.8	5.3	6.1	14	46	84	182	45	17	11
19	5.6	5.2	5.2	5.3	5.8	14	44	106	158	42	17	11
20	5.6	4.9	6.1	5.3	5.7	15	47	170	147	40	17	11
21	5.5	4.7	6.4	5.1	5.4	17	66	221	127	39	18	11
22	5.5	4.9	5.8	4.7	5.2	19	88	207	122	38	18	11
23	5.6	4.8	5.7	4.8	5.7	21	112	187	115	38	17	10
24	8.8	4.9	5.3	4.9	6.4	24	114	197	111	38	18	11
25	8.0	4.8	5.3	4.6	7.2	25	98	234	110	38	18	11
26	7.4	4.9	5.1	4.7	7.4	25	81	325	109	35	18	11
27	7.2	5.0	5.0	4.7	7.1	25	74	321	107	34	18	11
28	6.5	4.9	5.0	4.8	6.9	27	70	326	104	32	17	11
29	6.0	4.8	4.8	4.9	---	36	66	362	100	31	16	10
30	5.8	4.8	4.8	5.0	---	45	61	341	94	29	16	10
31	5.4	---	4.8	5.2	---	54	---	369	---	28	16	---
TOTAL	186.6	155.1	155.1	151.3	158.5	536.7	1833	4823	7469	1578	620	375
MEAN	6.02	5.17	5.00	4.88	5.66	17.3	61.1	156	249	50.9	20.0	12.5
MAX	8.8	6.0	6.4	5.3	7.4	54	114	369	558	90	27	16
MIN	5.1	4.7	4.5	4.6	4.3	7.0	43	61	94	28	16	10
AC-FT	370	308	308	300	314	1060	3640	9570	14810	3130	1230	744
CAL YR 1985	TOTAL	9453.2		MEAN	25.9	MAX	211	MIN	4.5	AC-FT	18750	
WTR YR 1986	TOTAL	18041.3		MEAN	49.4	MAX	558	MIN	4.3	AC-FT	35780	

HOBACK RIVER BASIN

13019438 LITTLE GRANITE CREEK AT MOUTH NR BONDURANT, WYOMING--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1981 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT DISCHARGE: December 1981 to September 1985 (discontinued)

INSTRUMENTATION.--PS-69 automatic sediment sampler.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily, 3,150 mg/L May 16 1984; minimum daily, 2 mg/L Dec. 11, 1981.

SEDIMENT LOADS: Maximum daily, 2,130 tons, May 16, 1984; minimum daily, 0.02 tons, Dec. 11, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 09...	1500	6.1	421	8.5	5.0	6.0	11.8	119	K2
DEC 18...	0945	4.9	440	8.4*	-0.5	0.0	--	--	--
MAR 17...	1340	13	450	8.2	2.5	5.0	--	--	--
MAY 14...	0755	71	381	8.3	1.5	2.0	10.4	96	K2
SEP 18...	0810	14	415	8.2	8.5	6.0	10.3	102	K15

DATE	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3
OCT 09...	K14	240	69	16	4.4	4	0.1	0.8	183
DEC 18...	--	250	74	16	4.8	4	0.1	1.0	--
MAR 17...	--	250	74	16	6.0	5	0.2	1.0	213
MAY 14...	K2	200	62	12	3.4	3	0.1	0.9	199
SEP 18...	55	230	66	15	3.6	3	0.1	0.9	205

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 09...	52	0.9	<0.1	4.6	260	0.35	4.3	<0.10	<0.01
DEC 18...	65	1.1	0.1	5.2	270	0.37	3.6	0.12	<0.01
MAR 17...	62	1.4	0.1	5.1	290	0.4	10	<0.10	0.01
MAY 14...	18	0.8	<0.1	5.1	220	0.3	42	<0.10	0.05
SEP 18...	41	1.3	0.3	4.4	260	0.35	9.5	<0.10	0.01

K-Results based on counts outside colony count range.

*-Laboratory value.

13019438 LITTLE GRANITE CREEK AT MOUTH NEAR BONDURANT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
09...	1500	6.1	91	1.5	71
MAY					
08...	1151	81	112	24	74
14...	0930	71	103	20	70
20...	1340	130	151	53	67
28...	1105	298	801	644	54
JUN					
03...	1118	403	870	947	53
12...	1315	250	128	86	67
18...	0955	180	111	54	76
26...	1330	104	80	22	84
JUL					
10...	1440	57	58	8.9	70
16...	0930	46	43	5.3	70

SNAKE RIVER MAIN STEM

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY

LOCATION.--Lat 43°11'47", long 110°53'18", Lincoln County, Hydrologic Unit 17040103, on right bank 0.3 mi downstream from Wolf Creek, 6.4 mi upstream from Greys River, 7.4 mi east of Alpine, 16.1 mi upstream from Palisades Dam, and at mile 917.5.

DRAINAGE AREA.--3,465 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1937 to March 1939 (published as "above Greys River, near Alpine"), July 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,683.90 ft above National Geodetic Vertical Datum of 1929. Mar. 16, 1937 to Mar. 31, 1939, at site 6.0 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 21-27, Dec. 5-8, and Dec. 10 to Feb. 13. Records good.

AVERAGE DISCHARGE.--34 years (1938, 1954-86), 4,677 ft³/s, 3,388,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,300 ft³/s, June 6, 1986; minimum, 740 ft³/s, Nov. 16, 1955, gage height, 2.19 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 31,300 ft³/s, June 6; minimum daily, 1,300 ft³/s, Feb. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2140	1800	1990	1850	1440	3150	4870	8170	26500	17300	6160	6560
2	2130	1780	2050	1870	1430	3120	4610	8780	27900	16900	5930	6610
3	2110	1770	2090	1870	1470	3110	4280	10300	28400	14900	5810	6520
4	2050	1740	2010	1750	1490	3080	4240	12000	29300	15200	5770	6470
5	2040	1780	1940	1680	1460	3080	4150	11700	30100	14900	5640	6240
6	2040	1770	1850	1600	1430	3120	4350	10700	31300	13800	5520	5810
7	2120	1820	1900	1620	1380	3190	4750	10300	30600	13100	5400	5580
8	2210	2070	1930	1640	1300	3890	5030	10100	28100	13000	5410	5520
9	2130	1940	1980	1620	1350	4250	5310	9690	27000	12700	5500	5430
10	2060	1880	1900	1610	1380	3760	5760	9280	26700	11900	5410	5310
11	2030	1870	1870	1600	1360	3520	6190	9050	26500	11500	5290	5130
12	2090	2040	1890	1550	1400	3410	6170	8720	27300	11100	5220	5060
13	2090	2210	1920	1520	1500	3330	5970	8470	27700	10700	5260	5110
14	2040	2150	1960	1470	1590	3260	5510	8580	27700	10100	5220	5210
15	2040	2120	1900	1450	1740	3170	5370	8380	26500	9970	5280	5230
16	2040	2050	1950	1500	2020	3120	6020	8220	25400	10000	5230	5180
17	2020	2090	1980	1520	1930	3110	6130	8040	24400	10200	5180	5100
18	2010	2130	1950	1480	2050	3080	5790	8030	22100	9740	5100	5250
19	1990	2020	1900	1420	2370	3050	5700	8560	20800	9310	5160	5280
20	1980	1920	1860	1450	2270	3070	5950	9830	19300	8130	5430	5300
21	1990	1850	1840	1440	2080	3160	7220	11900	18600	7680	6230	5200
22	2030	1820	1820	1420	2050	3310	8380	13700	19100	7300	6410	5070
23	2270	1760	1860	1470	2120	3460	9810	13400	18400	7270	6710	4990
24	2440	1810	1900	1410	2320	3620	10100	12000	18400	7330	6790	5020
25	2330	1880	1870	1370	2570	3670	9440	12300	19300	7340	6740	4760
26	2250	1920	1840	1330	2680	3500	9060	14300	19200	7390	6820	4510
27	2190	2000	1870	1380	2940	3550	8360	17200	19200	7490	6710	4490
28	2170	2120	1850	1400	3180	3770	7520	19500	19400	7530	6540	4480
29	2100	2150	1820	1440	---	4140	5870	21400	19100	7580	6610	4380
30	1930	2050	1800	1460	---	4630	6600	23500	18400	7330	6560	4040
31	1820	---	1830	1480	---	5060	---	25700	---	6730	6570	---
TOTAL	64880	58310	59120	47670	52300	107740	188510	371800	722700	325420	181610	158840
MEAN	2093	1944	1907	1538	1868	3475	6284	11990	24090	10500	5858	5295
MAX	2440	2210	2090	1870	3180	5060	10100	25700	31300	17300	6820	6610
MIN	1820	1740	1800	1330	1300	3050	4150	8030	18400	6730	5100	4040
AC-FT	128700	115700	117300	94550	103700	213700	373900	737500	1433000	645500	360200	315100
CAL YR 1985	TOTAL	1503670	MEAN	4120	MAX	17000	MIN	1430	AC-FT	2983000		
WTR YR 1986	TOTAL	2338900	MEAN	6408	MAX	31300	MIN	1300	AC-FT	4639000		

13022500 SNAKE RIVER ABOVE RESERVOIR, NEAR ALPINE, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge at Astoria Springs, 3.0 mi downstream from Hoback River, 13 mi upstream from discharge station, and 15 mi northeast of Alpine.

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 09...	0700	2150	320	4.0	160	43	12	11	0.4	2.1
NOV 20...	0730	1840	275	0.0	180	51	12	9.0	0.3	1.8
JAN 07...	1745	2260	410	0.0	--	--	--	--	--	--
FEB 11...	0730	1580	375	0.0	--	--	--	--	--	--
MAR 26...	0700	3530	305	4.0	--	--	--	--	--	--
MAY 06...	0700	10500	345	3.5	--	--	--	--	--	--
JUN 12...	1600	27300	--	12.0	90	27	5.6	5.9	0.3	1.2
JUL 10...	1715	11500	255	12.5	120	35	7.6	7.3	0.3	1.1

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 09...	120	54	5.7	0.4	12	210	0.29	1230	0.00	0.01
NOV 20...	120	73	3.9	0.4	11	230	0.32	1160	0.00	0.01
JAN 07...	--	--	--	--	--	--	--	--	--	--
FEB 11...	--	--	--	--	--	--	--	--	--	--
MAR 26...	--	--	--	--	--	--	--	--	--	--
MAY 06...	--	--	--	--	--	--	--	--	--	--
JUN 12...	92	5.0	3.1	0.3	8.8	110	0.15	8260	0.10	0.52
JUL 10...	100	25	3.1	0.5	9.1	150	0.2	4620	0.50	0.07

GREYS RIVER BASIN

13023000 GREYS RIVER ABOVE RESERVOIR, NEAR ALPINE, WY

LOCATION.--Lat 43°08'35", long 110°58'34", in SW1/4 SE1/4 sec.34, T.37 N., R.118 W. (unsurveyed), Lincoln County, Hydrologic Unit 17040103, on right bank at Bridge Campground, 3.6 mi southeast of Alpine, 3.0 mi upstream from maximum flowline of Palisades Reservoir.

DRAINAGE AREA.--448 mi². Mean elevation, 8,080 ft.

PERIOD OF RECORD.--July to September 1917, June to September 1918, March 1937 to March 1939, October 1953 to current year. Published as "Greys River near Alpine, Idaho," 1917-18, and as "Greys River near Alpine, Wyo.," 1937-39.

REVISED RECORDS.--WDR Idaho 1967: 1966.

GAGE.--Water-stage recorder. Elevation of gage is 5,720 ft above National Geodetic Vertical Datum of 1929, from topographic map. July 6 to Sept. 30, 1917, and June 4 to Sept. 30, 1918, nonrecording gage, and Mar. 17, 1937, to Mar. 31, 1939, water-stage recorder, at site 1.8 mi downstream, and October 1953 to Sept. 22, 1965, water-stage recorder at site 1 mi downstream at different datums.

REMARKS.--Estimated daily discharges: Oct. 2-7, Nov. 21, 22, 25, Nov. 27 to Feb. 19, Feb. 24-28. Records good except for periods of estimated record, which are fair. Less than 500 acres irrigated by diversions from Greys River and tributaries upstream from station.

AVERAGE DISCHARGE.--34 years (1938, 1954-86), 671 ft³/s, 20.34 in./yr, 486,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 7,230 ft³/s, June 19, 1971, gage height, 6.33 ft; maximum gage height observed, 19.1 ft, former site and datum, about Dec. 18, 1965 (ice jam); minimum discharge, 84 ft³/s, Feb. 17, 1986, result of current meter measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 23	1915	2,560	4.30	May 3	2245	2,700	4.41
May 21	2100	3,580	4.90	June 6	0530	*6,090	*6.40

Minimum discharge, 84 ft³/s, Feb. 17, result of current meter measurement.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP		
1	282	265	190	190	160	178	1180	1130	5090	2390	940	609		
2	280	271	195	200	155	187	1010	1480	5340	2260	916	599		
3	282	263	202	205	165	195	874	2020	5490	2170	897	585		
4	284	257	192	190	160	199	838	2490	5680	2240	895	579		
5	290	299	182	170	155	202	802	2120	5700	2190	873	568		
6	298	288	192	180	145	214	899	1810	5580	1910	858	563		
7	315	290	208	190	140	232	1070	1630	5130	1780	833	559		
8	328	291	214	180	135	388	1070	1480	4750	1700	838	558		
9	301	252	204	165	155	518	1110	1360	4280	1660	834	555		
10	285	246	195	175	180	433	1060	1280	4100	1640	803	552		
11	284	264	187	170	170	371	1060	1240	3960	1550	783	550		
12	297	273	195	165	175	327	1070	1170	3940	1460	768	538		
13	290	273	205	160	180	301	1040	1130	3970	1410	751	531		
14	270	258	200	155	165	282	929	1320	4110	1390	745	525		
15	276	250	215	165	180	269	934	1360	4160	1400	734	525		
16	268	221	202	175	200	266	1030	1460	4100	1370	721	520		
17	270	255	206	165	225	262	967	1460	4020	1370	718	516		
18	266	263	210	160	240	259	894	1650	3820	1300	701	515		
19	265	232	215	150	250	259	875	2130	3560	1250	689	515		
20	263	215	210	160	234	263	956	2790	3530	1220	688	515		
21	265	205	205	158	202	284	1390	3360	3340	1190	715	507		
22	290	195	195	155	196	343	1920	2930	3120	1150	692	489		
23	310	190	200	152	215	388	2380	2260	2980	1140	675	482		
24	352	200	205	150	235	465	2300	2350	2960	1140	684	482		
25	321	205	200	155	245	492	1870	2690	2920	1140	659	482		
26	303	199	190	160	230	470	1540	3280	2850	1120	660	482		
27	293	190	185	170	205	528	1320	4160	2830	1090	646	495		
28	290	200	190	175	185	666	1190	4440	2790	1060	624	497		
29	289	195	185	180	---	910	1140	4410	2700	1020	613	492		
30	281	192	180	165	---	1110	1060	4680	2560	984	613	488		
31	279	---	200	170	---	1330	---	4880	---	963	617	---		
TOTAL	8967	7197	6154	5260	5282	12591	35778	71950	119360	45657	23183	15873		
MEAN	289	240	199	170	189	406	1193	2321	3979	1473	748	529		
MAX	352	299	215	205	250	1330	2380	4880	5700	2390	940	609		
MIN	263	190	180	150	135	178	802	1130	2560	963	613	482		
AC-FT	17790	14280	12210	10430	10480	24970	70970	142700	236800	90560	45980	31480		
CAL YR 1985	TOTAL	203209	MEAN	557	MAX	2370	MIN	180	CFSM	1.24	IN.	16.87	AC-FT	403100
WTR YR 1986	TOTAL	357252	MEAN	979	MAX	5700	MIN	135	CFSM	2.19	IN.	29.66	AC-FT	708600

13023900 SALT RIVER NEAR SMOOT, WY

LOCATION.--Lat 42°32'35", long 110°53'37", in SW1/4 NW1/4 sec.33, T.30 N., R.118 W., Lincoln County, Hydrologic Unit 17040105, 35 ft upstream from North Fork, 50 ft upstream from culvert on U.S. Highway 89, 1.6 mi upstream from Cedar Creek, and 5.7 mi south of Smoot.

PERIOD OF RECORD.--August 1981 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 09...	1050	9.4	392	3.0	200	59	12	5.0	0.2	0.4
NOV 20...	1145	6.4	413	0.0	220	64	14	3.3	0.1	0.6

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 09...	170	34	1.9	0.1	5.7	220	0.3	5.6	0.00	0.02
NOV 20...	170	40	1.6	0.1	6.1	230	0.32	4.0	0.20	0.02

SALT RIVER BASIN

13025000 SWIFT CREEK NEAR AFTON, WY

LOCATION.--Lat 42°43'30", long 110°54'00", in SE1/4 sec.29, T.32 N., R.118 W., Lincoln County, Hydrologic Unit 17040105, Bridger National Forest, 1.0 mi upstream from mouth of canyon, 1.5 mi east of Afton, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--27.4 mi².

PERIOD OF RECORD.--August 1981 to July 1986 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 09...	0930	54	389	4.0	190	48	16	1.7	0.1	0.1
NOV 20...	1030	49	397	3.0	210	58	17	2.5	0.1	0.5

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 09...	120	68	0.9	0.3	4.3	210	0.29	31	0.10	0.01
NOV 20...	130	80	0.8	0.3	4.2	240	0.33	32	0.20	0.00

13027500 SALT RIVER ABOVE RESERVOIR, NEAR ETNA, WY

LOCATION.--Lat°43 04'47", long 111°02'12", in SW1/4 NE1/4 sec.28, T.36 N., R.119 W., Lincoln County, Hydrologic Unit 17040105, on right bank 3.4 mi northwest of Etna and 8.0 mi upstream from maximum flowline of Palisades Reservoir.

DRAINAGE AREA.--829 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,675.78 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Estimated daily discharges: Nov. 7-10, 21, 22, 24, 25, Dec. 3, 4, 13, 14, 22-27, Jan. 2-19, 23-25, and Feb. 1-8. Records good except for periods of estimated record, which are fair. Diversions upstream from station for power developments, industry, municipal supply, and irrigation of about 60,500 acres of which about 1,000 acres are below station (1966 determination). For details on adjudication of diversions, see Remarks for this station in WSP 1347.

AVERAGE DISCHARGE.--33 years, 819 ft³/s, 593,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,090 ft³/s, June 2, 1986, gage height, 5.71 ft; minimum, 160 ft³/s, Jan. 7, 8, 1971, gage height, 1.53 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,090 ft³/s, June 2, gage height, 5.71 ft; minimum, 293 ft³/s, Dec. 11, gage height, 1.71 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	561	563	511	458	420	846	2130	2140	5000	1730	1010	869
2	557	563	519	450	400	837	1980	2240	5030	1690	983	875
3	556	561	505	430	410	812	1860	2670	5020	1650	972	875
4	553	554	490	410	400	800	1780	3140	4960	1610	955	878
5	554	562	473	390	390	801	1730	3170	4940	1580	903	893
6	552	570	491	405	380	809	1800	2990	4850	1520	877	883
7	590	560	516	420	365	828	1980	2950	4680	1480	870	888
8	617	540	516	410	355	1030	2040	2850	4490	1500	861	891
9	592	550	509	410	394	1340	2210	2850	4240	1420	877	917
10	577	570	488	425	434	1190	2250	2740	3970	1410	869	978
11	561	585	407	420	424	1100	2260	2610	3520	1390	856	933
12	558	591	427	410	425	1030	2220	2470	3140	1330	838	904
13	564	596	445	405	437	1010	2250	2320	2970	1300	819	893
14	559	579	465	400	432	996	2100	2250	2860	1260	811	879
15	553	566	476	420	496	969	2000	2310	2810	1230	799	866
16	548	535	442	435	556	947	2090	2350	2770	1220	799	864
17	542	542	457	430	558	944	2050	2340	2730	1230	795	852
18	539	555	479	420	670	898	1900	2350	2680	1130	786	876
19	535	556	472	415	802	886	1840	2560	2600	1040	775	907
20	534	545	455	430	792	876	1760	2960	2450	1010	792	899
21	531	520	442	423	702	950	2110	3470	2340	1000	888	879
22	544	495	440	404	670	1020	2490	3760	2230	984	889	860
23	586	476	430	395	717	1070	2720	3660	2120	988	853	850
24	613	490	425	380	816	1210	3200	3450	2020	1070	869	874
25	608	510	425	390	849	1340	3060	3260	1970	1120	850	933
26	590	518	420	394	855	1330	2820	3450	1910	1140	815	923
27	583	510	422	396	889	1390	2590	3840	1860	1130	844	963
28	573	523	425	418	879	1510	2400	4150	1850	1100	859	974
29	565	523	432	427	---	1740	2300	4560	1820	1080	853	926
30	563	517	444	408	---	2000	2200	4840	1770	1060	854	924
31	562	---	451	432	---	2240	---	4940	---	1030	862	---
TOTAL	17520	16325	14299	12860	15917	34749	66120	95640	95600	39432	26683	26926
MEAN	565	544	461	415	568	1121	2204	3085	3187	1272	861	898
MAX	617	596	519	458	889	2240	3200	4940	5030	1730	1010	978
MIN	531	476	407	380	355	800	1730	2140	1770	984	775	850
AC-FT	34750	32380	28360	25510	31570	68920	131100	189700	189600	78210	52930	53410
CAL YR 1985	TOTAL	278534		MEAN	763	MAX	2790	MIN	370	AC-FT	552500	
WTR YR 1986	TOTAL	462071		MEAN	1266	MAX	5030	MIN	355	AC-FT	916500	

SALT RIVER MAIN STEM

13027500 SALT RIVER ABOVE RESERVOIR, NEAR ETNA, WY--Continued

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD:

WATER TEMPERATURES: May 1977 to September 1979.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
OCT 09...	0820	670	513	5.0	220	56	20	17	0.5	0.7
NOV 20...	0900	598	504	2.0	240	65	20	12	0.3	1.0
JAN 07...	1630	435	484	2.5	220	58	19	12	0.4	0.7
FEB 11...	0845	338	498	3.0	250	66	20	10	0.3	0.7
MAR 26...	0830	1410	484	4.0	240	65	18	17	0.5	1.4
MAY 06...	0815	3210	422	4.5	200	58	14	10	0.3	0.9
JUN 12...	1515	3370	396	15.5	190	54	14	7.9	0.3	0.8
JUL 10...	1600	1590	457	13.0	220	62	17	13	0.4	0.8

DATE	ALKA- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 09...	210	30	18	0.1	6.0	270	0.37	495	0.70	0.01
NOV 20...	210	34	14	0.1	6.6	280	0.38	450	1.20	0.04
JAN 07...	200	24	13	0.2	6.0	250	0.34	297	1.10	0.02
FEB 11...	210	26	12	0.3	6.9	270	0.36	244	1.90	0.04
MAR 26...	200	27	22	0.2	3.5	270	0.37	1040	1.10	0.33
MAY 06...	180	19	11	0.1	7.2	230	0.31	1980	0.50	0.35
JUN 12...	180	14	8.5	0.2	4.9	210	0.29	1930	0.30	0.30
JUL 10...	200	29	12	0.2	6.0	260	0.35	1120	0.80	0.15

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)
JUN 12...	1515	3370	15.5	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
JUL 10...	1600	1590	13.0	<0.01	--	<0.01	<0.01	<0.01	<0.01
AUG 21...	1500	1100	13.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

Special study and miscellaneous sites

Discharge measurements in the following table were made at special study and miscellaneous sites throughout the State.

Discharge measurements made at special study and miscellaneous sites during water year 1986

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre-viously (water years)	Measurements	
					Date	Dis-charge (cfs)
Yellowstone River basin						
Littlerock Creek	Clarks Fork River	Lat 44°54'17", long 109°19'20", in NE1/4 SE1/4 SE1/4 sec.20, T.56 N., R.103 W., Park County, Hydrologic Unit 10070006, Shoshone National Forest, 3.1 mi downstream from Deep Lake, and 7.2 mi west of Clark.		1985	11-19-85	54.4
					1-10-86	35.5
					2-20-86	44.4
					4- 4-86	40.0
					4-29-86	50.4
					6-11-86	123
					7-18-86	54.0
9- 3-86	52.6					
Red Canyon Creek	Powers Upper Ditch (Spring Creek)	Lat 45°00'16", long 107°36'24", in NW1/4 NE1/4 NE1/4 sec.16, T.58 N., R.89 W., Sheridan County, Hydrologic Unit 10080016, at Wyoming-Montana State line, 0.5 mi upstream from Powers Upper Ditch, and 15 mi west of Parkman.		1983-85	4-24-86	2.16
					5- 5-86	4.68
					5-22-86	5.16
					6-25-86	2.42
					8- 8-86	.25
Rapid Creek	Goose Creek	Lat 44°39'37", long 107°10'01", in NW1/4 NE1/4 NW1/4 sec.13, T.54 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, at Bighorn National Forest boundary, 0.8 mi upstream from Big Goose and Beaver Ditch diversion, and 8.6 mi west of Big Horn.		1974	10- 2-85	1.24
				1975		
				1985		
Rapid Creek	Goose Creek	Lat 44°39'47", long 107°09'40", in NE1/4 SW1/4 SE1/4 sec.12, T.54 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, 0.3 mi downstream from Bighorn National Forest boundary, 0.5 mi upstream from Big Goose and Beaver Ditch diversions, and 8.2 mi west of Big Horn. Discharge includes flow in two ditches that divert water upstream from this site.		1974	10- 2-85	1.56
				1975		
				1985		
Little Goose Creek	Goose Creek	Lat 44°35'07", long 107°03'02", in SW1/4 NW1/4 NW1/4 sec.12, T.53 N., R.85 W., Sheridan County, Hydrologic Unit 10090101, 0.1 mi downstream from Bighorn National Forest boundary, and 7.3 mi southwest of Big Horn.		1974	10- 1-85	14.4
				1975		
				1985		
Little Goose Creek 06303500	Goose Creek	Lat 44°35'46", long 107°02'22", in SE1/4 SW1/4 NE1/4 sec.1, T.53 N., R.85 W., Sheridan County, Hydrologic Unit 10090101, 100 ft upstream from headgate of Lower Peralta ditch, and 6.5 mi southwest of Big Horn.	55	1941-86†	10- 1-85	16.5
Middle Fork Powder River	Powder River	Lat 43°34'59", long 106°59'10", in NW1/4 NE1/4 NW1/4 sec.30, T.42 N., R.84 W., Johnson County, Hydrologic Unit 10090201, 2.7 mi downstream from Bachaus Creek, 4.1 mi upstream from Buffalo Creek, and 6.8 mi southwest of Barnum.		1974	10-22-85	16.0
				1975		
Middle Fork Powder River	Powder River	Lat 44°35'36", long 106°56'59", in SW1/4 NW1/4 sec.21, T.42 N., R.84 W., Johnson County, Hydrologic Unit 10090201, 0.3 mi downstream from Outlaw Cave, and 5 mi southwest of Barnum.		1974 1985	10-22-85	21.7

† Operated as a continuous-record gaging station.

DISCHARGE AT MISCELLANEOUS SITES

Discharge measurements made at special study and miscellaneous sites during water year 1986

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Yellowstone River Basin--Continued						
Middle Fork Powder River	Powder River	Lat 43°36'05", long 107°54'38", in SE1/4 SW1/4 SW1/4 sec.14, T.42 N., R.84 W., Johnson County, Hydrologic Unit 10090201, 1.6 mi upstream from Buffalo Creek, and 4.3 mi south of Barnum.		1974 1975	10-22-85	21.8
South Piney Creek 06321000	Piney Creek	Lat 44°33'26", long 106°56'11", in NW1/4 NE1/4 NE1/4 sec.23, T.53 N., R.84 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, 2.3 mi southwest of Story, and 3.3 mi upstream from confluence with North Piney Creek.	69.4	1951-80† 1985	10-21-85	28.6
Mead-Coffeen Ditch 06321020	Diversion from South Piney Creek	Lat 44°33'41", long 106°55'45", in NE1/4 SW1/4 SW1/4 sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, 0.3 mi southwest of fish hatchery, 0.4 mi downstream from intake, and 1.9 mi southwest of Story.		1974-79† 1985	10-21-85	.72
Mead-Coffeen Ditch 06321040	Diversion from South Piney Creek	Lat 44°34'07", long 106°55'29", in NE1/4 SE1/4 NW1/4 sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, at culvert on county road, 0.3 mi northeast of fish hatchery, 1.1 mi downstream from intake, and 1.4 mi southwest of Story.		1974-79† 1985	10-21-85	1.19
South Piney Creek 06321100	Piney Creek	Lat 44°33'29", long 106°55'50", in SW1/4 SW1/4 SW1/4 sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, 0.3 mi downstream from intake of Mead-Coffeen ditch, 0.5 mi upstream from intake of Big Piney Divide ditch, and 2.1 mi southwest of Story.	69.5	1974-79† 1985	10-21-85	21.8
Spring Creek 06321800	North Piney Creek (Flow from South Piney)	Lat 44°34'07", long 106°55'23", in NE1/4 SE1/4 NW1/4 sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, at culvert on county road, 0.3 mi northeast of fish hatchery, 1.4 mi upstream from mouth, and 1.4 mi southwest of Story.		1974-79† 1985	10-21-85	6.05
Ferris Ditch #2 Canal	Clear Creek	Lat 44°37'19", long 106°23'57", in NE1/4 NE1/4 SW1/4 sec.29, T.54 N., R.79 W., Sheridan County, Hydrologic Unit 10090206, at Highway 14-16 and 1.5 mi southwest of Clearmont.			5-29-86	49.2
Ferris Ditch #2 Canal	Clear Creek	Lat 44°37'59", long 106°23'08", in NW1/4 SW1/4 SW1/4 sec.21, T.54 N., R.79 W., Sheridan County, Hydrologic Unit 10090206, at U.S. Highway 14-16 and 0.3 mi southwest of Clearmont.			5-29-86	47.3
Ferris Ditch #2 Canal	Clear Creek	Lat 44°38'13", long 106°22'47", in SE1/4 SE1/4 NW1/4 sec.21, T.54 N., R.79 W., Sheridan County, Hydrologic Unit 10090206, at bridge at Clearmont, and 0.1 mi east of U.S. Highway 14-16.			5-29-86	46.8

† Operated as a continuous-record gaging station.

Discharge measurements made at special study and miscellaneous sites during water year 1986

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Platte River Basin						
East Fork Encampment River	Encampment River	Lat 41°01'05", long 106°48'48", in SW1/4 SW1/4 SW1/4 sec.11, T.12 N., R.84 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, 200 ft upstream from mouth, and 13 mi south of Encampment.			1- 3-86	8.09
Boles Spring	Little Medicine Bow River	Lat 41°57'40", long 106°12'31", in NW1/4 SW1/4 SW1/4 sec.17, T.23 N., R.78 W., Carbon County, Hydrologic Unit 10180005, 3.9 mi downstream from State Highway 487, and 4.3 mi north of Medicine Bow.			11-13-84 4-17-85 11- 8-85	0.45 .77 .66
North Platte River at Casper 06644550	Platte River	Lat 42°51'26", long 106°19'09", in SE1/4 SE1/4 NW1/4 sec.4, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at bridge on service road, 800 ft west of Center Street exit from Interstate Highway 25, and 0.6 mi northwest of Casper Post Office.		1972-85†	10- 9-85	736
North Platte River	Platte River	Lat 42°51'56", long 106°17'43", in SW1/4 SW1/4 SW1/4 sec.35, T.34 N., R.79 W., Natrona County, Hydrologic Unit 10180007, 400 ft downstream from Bryan Stock Trail bridge in Casper.			10- 9-85	784
North Platte River below Casper 06645000	Platte River	Lat 42°51'40", long 106°12'53", in SE1/4 NW1/4 NW1/4 sec.4. T.33 N., R.78 W., Natrona County, Hydrologic Unit 10180007, at New Mystery Bridge, 0.1 mi upstream from Claude Creek, 0.6 mi north of U.S. Highways 20 and 87, 5.8 mi east of city hall in Casper, and 9.5 mi downstream from Casper Creek.		1947-52† 1957-59† 1968-85†	10- 9-85	810
North Platte River	Platte River	Lat 42°52'13", long 106°02'39", in SE1/4 NE1/4 SE1/4 sec.35, T.34 N., R.77 W., Converse County, Hydrologic Unit 10180007, 0.2 mi downstream from bridge in Big Muddy Oil Field, 0.5 mi upstream from Cole Creek, and 9 mi west of Glenrock.			10-10-85	788
Snake River Basin						
Salt River	Snake River	Lat 42°43'10", long 110°58'33", in SE1/4 SE1/4 sec.27, T.32 N., R.119 W., Lincoln County, Hydrologic Unit 17040105, at State Highway 238, 2.0 mi south of Fairview, and 2.2 mi west of Afton.	148	1985	6-26-86	178
Salt River	Snake River	Lat 42°47'39", long 110°58'28", in SE1/4 SE1/4 sec.36, T.33 N., R.119 W., Lincoln County, Hydrologic Unit 17040105, at State Highway 237, 1.2 mi east of Auburn, and 2.1 mi west of Grover.	372	1985	4-29-86 6-25-86	675 1000

† Operated as a water quality station.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

Water-quality miscellaneous sites are locations where chemical-quality, biological and/or sediment data are collected only once or intermittently over a period of years for use in hydrologic analysis.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

YELLOWSTONE RIVER BASIN

06246500 OCEAN DRAIN AT OCEAN LAKE OUTLET, NEAR PAVILLION, WY (LAT 43 11 56 LONG 108 34 08)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SELE- NIUM, TOTAL (UG/L AS SE)
JUN 10...	1030	E25	17.0	2

E-Estimate.

06258000 MUDDY CREEK NEAR SHOSHONI, WY (LAT 43 17 10 LONG 108 16 30)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE (DEG C)	SELE- NIUM, TOTAL (UG/L AS SE)
JUN 10...	1000	46	15.0	3

06260000 SOUTH FORK OWL CREEK NEAR ANCHOR, WY (LAT 43 40 01 LONG 108 51 18)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)
OCT 08...	1215	3.7	114	0.0

PLATTE RIVER BASIN

424435106370300 RASMUS LEE LAKE NEAR GOOSE EGG, WY (LAT 42 44 35 LONG 106 37 03)

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)
AUG 05...	1400	16	60	14	<1	5	7	2.1	3	7

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
AUG 05...	30	<1	5	40	91	53	35	0.2	27

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

PLATTE RIVER BASIN--Continued

06643100 POISON SPRING CREEK NEAR ALCOVA, WY (LAT 42 42 55 LONG 106 34 43)

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	MERCURY DIS- SOLVED (UG/L AS HG)	LEAD, DIS- SOLVED (UG/L AS PB)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)
AUG 12...	1000	5	30	<1	<1	1	0.4	<5	6	7

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
AUG 12...	60	<1	2	40	5.7	7.6	6.0	0.1	38

06644000 POISON SPIDER CREEK NEAR GOOSE EGG, WY (LAT 42 46 44 LONG 106 31 46)

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	MERCURY DIS- SOLVED (UG/L AS HG)	LEAD, DIS- SOLVED (UG/L AS PB)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)
AUG 12...	1415	<1	43	340	4	4	<10	<0.2	<5	6

DATE	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
AUG 12...	3	72	<1	<6	24	26	28	20	0.2	23

06644040 OREGON TRAIL DRAIN NEAR GOOSE EGG, WY (LAT 42 49 41 LONG 106 24 51)

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	MERCURY DIS- SOLVED (UG/L AS HG)	LEAD, DIS- SOLVED (UG/L AS PB)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)
AUG 13...	0800	<2	<53	200	<2	4	<10	<0.1	<5	7

DATE	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
AUG 13...	5	27	<1	<6	4	27	15	11	0.2	15

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

PLATTE RIVER BASIN--Continued

424958106220900 CASPER WATER SUPPLY AT CASPER, WY (LAT 42 49 58 LONG 106 22 09)

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)
AUG 14...	1200	<1	20	<1	<1	40	<5	<0.2	3	5

DATE	TIME	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
AUG 14...		3	<1	<1	<10	7.0	7.2	5.6	0.1	6.0

410857104520601 DIAMOND CREEK AT MOUTH, AT F. E. WARREN AIR FORCE BASE, WY (LAT 41 08 57 LONG 104 52 06)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
MAY 22...	1100	520	7.7	11.5	220	64	15	30	0.9	3.8
JUN 27...	1515	457	7.1	25.5	180	50	14	30	1	4.0

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
MAY 22...	228	32	22	1.0	15	320	0.43	--	0.27
JUN 27...	189	28	16	1.1	17	270	0.37	--	0.11

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
MAY 22...	1100	520	7.7	11.5	2	240	<1	<10
JUN 03...	1000	--	--	--	--	--	--	--
JUN 27...	1515	457	7.1	25.5	3	220	<1	<10

DATE	TIME	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAY 22...		1	43	<1	50	--	<1	<1	16
JUN 03...		--	--	--	--	<0.1	--	--	--
JUN 27...		8	18	<5	25	<0.1	<1	<1	19

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

PLATTE RIVER BASIN--Continued

410857104520601 DIAMOND CREEK AT MOUTH, AT F. E. WARREN AIR FORCE BASE, WY--Continued
(LAT 41 08 57 LONG 104 52 06)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD	TEMPER- ATURE	ACE- NAPHTH- ENE TOTAL	ACE- NAPHTH- YLENE TOTAL	ANTHRA- CENE TOTAL	BENZO A ANTHRAC- ENE, 2- BENZANT- HRACENE TOTAL	BENZO- A- PYRENE TOTAL	BENZO B FLUOR- AN- THENE TOTAL	BENZOGH I PERYL ENE, 12 -BENZOP- ERYLENE TOTAL	BENZO K FLUOR- AN- THENE TOTAL	
		(US/CM)	UNITS)	(DEG C)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)	(UG/L)
MAY 22...	1100	520	7.7	11.5	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	
JUN 27...	1515	457	7.1	25.5	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	
DATE		N-BUTYL BENZYL PHTHAL- ATE TOTAL (UG/L)	PARA- CHLORO- META CRESOL TOTAL (UG/L)	CHRY- SENE TOTAL (UG/L)	DI-N- BUTYL PHTHAL- ATE TOTAL (UG/L)	DI-N- OCTYL PHTHAL- ATE TOTAL (UG/L)	1,2,5,6 -DIBENZ -ANTHRA- -CENE TOTAL (UG/L)	DIETHYL PHTHAL- ATE TOTAL (UG/L)	DI- METHYL PHTHAL- ATE TOTAL (UG/L)	4,6- DINITRO -ORTHO- CRESOL TOTAL (UG/L)	FLUOR- ANTHENE TOTAL (UG/L)	FLUOR- ENE TOTAL (UG/L)	HEXA- CHLORO- BENZENE TOTAL (UG/L)
MAY 22...		<5.0	<5.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0	<5.0	<5.0
JUN 27...		<5.0	<30.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0	<5.0	<5.0
DATE		HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L)	HEXA- CHLORO- CYCLO- PENT- ADIENE TOTAL (UG/L)	HEXA- CHLORO- ETHANE TOTAL (UG/L)	INDENO (1,2,3- CD) PYRENE TOTAL (UG/L)	ISO- PHORONE TOTAL (UG/L)	N- NITRO- SODI-N- PROPYL- AMINE TOTAL (UG/L)	N-NITRO -SODI- PHENY- LAMINE TOTAL (UG/L)	NAPHTH- ALENE TOTAL (UG/L)	NITRO- BENZENE TOTAL (UG/L)	N-NITRO -SODI- METHY- LAMINE TOTAL (UG/L)	PENTA- CHLORO- PHENOL TOTAL (UG/L)	PHENAN- THRENE TOTAL (UG/L)
MAY 22...		<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0	<5.0
JUN 27...		<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0	<5.0
DATE		PHENOL (C6H- 5OH) TOTAL (UG/L)	PYRENE TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,2,4- TRI- CHLORO- BENZENE TOTAL (UG/L)	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	BIS (2- CHLORO- ETHOXY) METHANE TOTAL (UG/L)	BIS 2- CHLORO- ETHYL ETHER TOTAL (UG/L)	BIS (2- CHLORO- ISO- PROPYL) ETHER TOTAL (UG/L)	2- CHLORO- NAPH- THALENE TOTAL (UG/L)	2- CHLORO- PHENOL TOTAL (UG/L)	
MAY 22...		<6.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<6.0	
JUN 27...		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
DATE		BIS(2- ETHYL HEXYL)- PHTHAL- ATE TOTAL (UG/L)	2- NITRO- PHENOL TOTAL (UG/L)	2,4-DI- CHLORO- PHENOL TOTAL (UG/L)	2,4-DI- METHYL- PHENOL TOTAL (UG/L)	2,4,- DI- NITRO- PHENOL TOTAL (UG/L)	2,4-DI- NITRO- TOLUENE TOTAL (UG/L)	2,4,6- TRI- CHLORO- PHENOL TOTAL (UG/L)	2,6-DI- NITRO- TOLUENE TOTAL (UG/L)	4- BROMO- PHENYL ETHER TOTAL (UG/L)	4- CHLORO- PHENYL ETHER TOTAL (UG/L)	4- NITRO- PHENOL TOTAL (UG/L)	
MAY 22...		<5.0	<6.0	<6.0	<6.0	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0	
JUN 27...		<5.0	<5.0	<5.0	<5.0	<20.0	<5.0	<20.0	<5.0	<5.0	<5.0	<30.0	

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

GREEN RIVER BASIN

430128109463701 PINE CREEK AT INLET TO FREMONT LAKE, NEAR PINEDALE, WY (LAT 43 01 28 LONG 109 46 37)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	ALKA- LITY LAB (MG/L AS CACO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3	HARD- NESS (MG/L AS CACO3)
OCT 30...	1400	71	--	24	--	--	--	--	--	8
JAN 09...	1000	18	--	31	0.0	--	--	8.0	--	10
MAY 28...	0700	586	21	20	2.0	9.2	--	--	--	7
JUN 24...	0830	1300	19	28	6.0	8.0	6.9	--	--	4
AUG 06...	1400	247	--	12	--	--	--	--	--	5
SEP 04...	1130	122	13	13	13.0	7.5	7.0	--	5	4

DATE	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 30...	0	3.0	0.23	0.6	0.1	0.45	1.8	0.31	0.05
JAN 09...	2	3.4	0.4	0.8	0.1	0.8	2.2	0.38	0.05
MAY 28...	0	2.5	0.3	0.6	0.1	0.49	1.7	0.24	0.04
JUN 24...	0	1.6	0.11	0.4	0.1	0.27	1.0	0.21	0.02
AUG 06...	0	1.6	0.2	0.4	0.1	0.29	0.9	0.2	0.03
SEP 04...	0	1.5	0.17	0.4	0.1	0.36	1.0	0.19	0.01

DATE	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 30...	<0.01	2.1	--	--	--	--	0.012	0.06	--
JAN 09...	0.02	3.2	17	0.02	0.81	--	0.014	0.13	--
MAY 28...	0.01	3.0	--	--	--	--	0.008	0.05	--
JUN 24...	0.02	1.9	--	--	--	0.027	0.002	0.07	<0.2
AUG 06...	<0.01	1.5	--	--	--	--	0.009	0.01	--
SEP 04...	<0.01	1.4	8	0.01	2.7	--	0.014	0.01	--

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
OCT 30...	0.015	--	<0.01	10	10	<0	6	<0	2.0
JAN 09...	0.003	--	<0.01	<10	12	<0	1	--	--
MAY 28...	<0.005	--	<0.01	40	26	0	1	--	3.0
JUN 24...	<0.005	0.007	<0.01	30	13	1	<1	--	9.1
AUG 06...	<0.005	--	<0.01	20	11	0	1	--	1.1
SEP 04...	<0.005	--	<0.01	10	<3	<0	2	--	1.5

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

GREEN RIVER BASIN--Continued

425619109483501 FREMONT LAKE SITE 1, WY (LAT 42 56 19 LONG 109 48 35)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
JUN 24...	1500	20	16.0	7.1	7.1	7	7	2.5	0.27	0.7
DATE		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
JUN 24...		0.1	0.4	1.7	0.38	0.02	0.02	1.5	<0.01	0.004
DATE		NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 24...		<0.01	<0.005	<0.005	<0.2	<0.01	10	29	2	2.0
DATE	TIME					DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SILICA, DIS- SOLVED (MG/L AS SIO2)			
JUN 24...	1500					1.00	1.5			
JUN 24...	1505					10.00	1.6			
JUN 24...	1510					20.00	1.5			
JUN 24...	1515					40.00	1.8			

425423109501301 PINE CREEK AT OUTLET FROM FREMONT LAKE, NEAR PINEDALE, WY (LAT 42 54 23 LONG 109 50 13)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	HARD- NESS NONCAR- BONATE (MG/L AS CACO3)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
JUN 23...	1630	18	15.0	4.8	6.8	7	7	2.4	0.23	0.7
DATE		SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
JUN 23...		0.1	0.4	1.7	0.37	0.03	0.02	1.5	<0.01	0.002
DATE		NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
JUN 23...		<0.01	<0.005	<0.005	<0.2	<0.01	<10	6	<1	2.2

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

GREEN RIVER BASIN--Continued

411052107212601 SW 3, SAVERY CREEK NEAR SAVERY, WY (LAT 41 10 52 LONG 107 21 26)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JUL 23...	1310	34	390	19.5	8.8	190	61	8.3	7.3	0.2	3.1

DATE	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	SELE- NIUM, TOTAL (UG/L AS SE)	ARSENIC TOTAL (UG/L AS AS)
JUL 23...	156	48	4.2	23	250	0.34	24	<0.10	<1	5

410918107210701 SW 5, POND ABOVE SAVERY CREEK, WY (LAT 41 09 18 LONG 107 21 07)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JUL 24...	1240	1680	24.0	9.8	890	110	150	36	0.5	5.4

DATE	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	SELE- NIUM, TOTAL (UG/L AS SE)	ARSENIC TOTAL (UG/L AS AS)
JUL 24...	57	900	6.8	7.5	1200	1.7	--	<0.10	<1	<1

410809107212001 SW 2, BIG SANDSTONE CREEK NEAR SAVERY, WY (LAT 41 08 09 LONG 107 21 20)

DATE	TIME	STREAM, FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JUL 23...	1000	12	204	15.5	8.1	97	27	7.2	3.7	0.2	1.1

DATE	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	SELE- NIUM, TOTAL (UG/L AS SE)	ARSENIC TOTAL (UG/L AS AS)
JUL 23...	83	24	0.9	11	120	0.17	4.2	<0.10	<1	2

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

GREEN RIVER BASIN--Continued

410733107215601 SW 1, LITTLE SANDSTONE CREEK NEAR SAVERY, WY (LAT 41 07 33 LONG 107 21 56)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JUL 23...	0850	495	15.0	8.3	250	65	22	10	0.3	1.9

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	SELE- NIUM, TOTAL (UG/L AS SE)	ARSENIC TOTAL (UG/L AS AS)
JUL 23...	186	87	3.6	12	310	0.43	--	<0.10	<1	<1

410707107215901 SAVERY CREEK BELOW LITTLE SANDSTONE CREEK, NEAR SAVERY, WY (LAT 41 07 07 LONG 107 21 59)

DATE	TIME	SELE- NIUM, TOTAL (UG/L AS SE)
APR 30...	1615	<1

09255500 SAVERY CREEK AT UPPER STATION, NEAR SAVERY, WY (LAT 41 13 05 LONG 107 22 18)

DATE	TIME	SELE- NIUM, TOTAL (UG/L AS SE)
APR 30...	1622	1

410722107221501 SW 4, SAVERY CREEK AT BOYER RANCH, WY (LAT 41 07 22 LONG 107 22 15)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JUL 23...	1500	52	350	19.0	8.9	170	52	9.5	7.2	0.3	2.5

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	SELE- NIUM, TOTAL (UG/L AS SE)	ARSENIC TOTAL (UG/L AS AS)
JUL 23...	136	47	3.6	17	220	0.3	31	<0.10	<1	3

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

GREEN RIVER BASIN--Continued

410658107220701 IR 1, NEAR SAVERY, WYO (LAT 41 06 58 LONG 107 22 07)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JUL 25...	0830	560	14.0	7.9	260	59	27	19	0.5	3.4

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	SELE- NIUM, TOTAL (UG/L AS SE)	ARSENIC TOTAL (UG/L AS AS)
JUL 25...	253	25	20	20	330	0.44	--	<0.10	<1	<1

410654107220501 IR 2, NEAR SAVERY, WY (LAT 41 06 54 LONG 107 22 05)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JUL 25...	0850	550	13.5	7.3	270	75	20	12	0.3	2.3

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	SELE- NIUM, TOTAL (UG/L AS SE)	ARSENIC TOTAL (UG/L AS AS)
JUL 25...	245	51	6.0	16	330	0.45	--	<0.10	<1	1

410621107221701 IR 3, NEAR SAVERY, WY (LAT 41 06 21 LONG 107 22 17)

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
JUL 25...	1000	820	14.0	7.9	420	110	35	24	0.5	5.7

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	SELE- NIUM, TOTAL (UG/L AS SE)	ARSENIC TOTAL (UG/L AS AS)
JUL 25...	369	35	13	23	470	0.64	--	<0.10	<1	4

LARAMIE COUNTY

41011104223102. Local number, 12N 063W 15aaa02.

LOCATION.--Lat 41°01'11", long 104°22'31", in NE1/4 NE1/4 NE1/4 sec.15, T.12 N., R.63 W., Hydrologic Unit 10190009.

Owner: U. S. Geological Survey.

AQUIFER.--White River Formation or Group.

WELL CHARACTERISTICS.--Drilled unused water-table observation well, steel casing, diameter about 6.5 in, depth 110 ft, factory slotted perforations 86-110 ft.

DATUM.--Elevation of land-surface datum is about 5,384 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: top of casing, 1.5 ft above land-surface datum.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 14.11 ft, below land-surface datum, Apr. 30, 1974; lowest, 46.28 ft, below land-surface datum, Sept. 7, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	---	---	22.72	21.50	20.49	19.29	19.05	19.02	20.31	22.66	26.98	27.66
10	---	---	22.51	21.35	20.34	19.05	19.05	18.85	20.25	23.54	26.77	26.95
15	---	---	22.29	21.17	20.17	19.05	19.05	18.87	20.09	24.44	26.52	26.53
20	---	23.47	22.09	20.97	20.06	19.05	19.04	19.15	21.15	25.09	26.91	26.15
25	---	23.18	21.88	20.87	19.93	19.05	19.04	19.44	21.47	25.72	27.38	25.75
EOM	---	22.94	21.68	20.66	19.86	19.05	19.03	19.66	22.04	26.20	27.47	25.39

WTR YR 1986 HIGHEST 18.33 MAY 14 LOWEST 27.75 SEP 4

411210104452001 Local number, 14N 066W 10aba01.

LOCATION.--Lat 41°12'10", long 104°45'20", in NE1/4 NW1/4 NE1/4 sec.10, T.14 N., R.66 W., Hydrologic Unit 10190015.

Owner: State of Wyoming.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Depth of well, 190 ft.

DATUM.--Elevation of land-surface datum is about 6,230 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: top of casing, 1.40 ft above land-surface datum.

PERIOD OF RECORD.--April 1978 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 125.82 ft below land-surface datum, Feb. 13, 1979; lowest, 131.39 ft below land-surface datum, Aug. 3, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	129.66	129.33	129.46	129.37	129.19	129.38	129.13	129.03	129.78	129.59	131.12	131.17
10	129.58	129.24	129.38	129.72	129.09	129.00	129.17	129.23	129.56	129.78	131.12	130.81
15	129.59	129.46	129.33	129.16	128.87	129.07	129.33	129.25	129.56	129.96	131.06	131.17
20	129.60	129.43	129.43	129.08	129.02	129.48	129.32	129.40	129.70	131.13	131.34	130.93
25	129.58	129.15	129.37	129.48	129.46	129.23	128.99	129.83	129.71	131.07	131.11	130.32
EOM	129.28	129.06	129.20	129.15	129.48	129.17	129.22	129.62	129.73	131.35	131.14	130.86

WTR YR 1986 HIGHEST 128.00 NOV 21 LOWEST 131.29 AUG 3.

412343104053101 Local number, 17N 060W 33cbb01.

LOCATION.--Lat 41°23'43", long 104°05'31", in SW1/4 NW1/4 NW1/4 sec.33, T.17 N., R.60 W., Hydrologic Unit 10190016.

Owner: U. S. Geological Survey.

AQUIFER.--Brule Formation.

WELL CHARACTERISTICS.--Depth of well, 275 ft.

DATUM.--Elevation of land-surface datum is about 5,340 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: Top of casing, 1.0 ft above land-surface datum.

PERIOD OF RECORD.--May 1975 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 177.52 ft below land-surface datum, May 30, 31, 1975; lowest, 213.92 ft below land-surface datum, Sept. 30, 1986.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	213.54	213.63	213.66	213.50	213.12	211.47	210.12	209.36	210.05	211.71	213.00	213.67
10	213.57	213.63	213.65	213.47	213.02	211.08	210.02	209.28	210.63	211.93	213.14	213.72
15	213.60	213.65	213.63	213.43	212.90	210.83	209.92	209.24	211.02	212.17	213.26	213.79
20	213.61	213.68	213.60	213.37	212.61	210.67	209.80	209.30	211.25	212.39	213.37	213.84
25	213.62	213.67	213.57	213.29	212.20	210.44	209.63	209.44	211.36	212.59	213.47	213.87
EOM	213.62	213.66	213.54	213.20	211.88	210.24	209.53	209.70	211.53	212.83	213.58	213.92

WTR YR 1986 HIGHEST 209.23 MAY 14 LOWEST 213.92 SEP 30

GROUND-WATER LEVELS

NIOBRARA COUNTY

424244104202001. Local number, 32N 062W 32bbb01.

LOCATION.--Lat 42°42'44", long 104°20'20", in NW1/4 NW1/4 NW1/4 sec.32, T.32 N., R.62 W., Hydrologic Unit 10150002.

Owner: Richard Pfister.

AQUIFER.--Tertiary Miocene, Arikaree group.

WELL CHARACTERISTICS.--Drilled unused water-table well, 12 in. diameter, galvanized casing, depth 485 ft, cased top 25 ft.

DATUM.--Elevation of land-surface datum is about 4,898 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: bottom edge of recorder shelf, 3.0 ft above land-surface datum.

PERIOD OF RECORD.--May 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.93 ft below land-surface datum, June 10, 1970; lowest, 37.56 ft below land-surface datum, Aug. 30, 1985.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	36.26	35.76	35.32	35.12	34.69	34.35	33.93	33.65	34.15	34.31	36.12	36.41
10	36.19	35.71	35.27	34.94	34.58	34.29	33.92	33.62	34.36	34.72	35.90	36.14
15	36.11	35.59	35.09	34.85	34.50	34.25	33.84	33.53	34.09	34.50	36.36	36.02
20	36.02	35.52	35.11	34.79	34.51	34.20	33.80	33.50	34.55	35.22	35.90	35.94
25	35.94	35.44	35.12	34.77	34.47	34.02	33.70	33.53	35.06	35.70	36.13	35.85
EOM	35.84	35.40	35.12	34.73	34.38	34.05	33.68	34.18	34.45	36.12	36.29	35.73

WTR YR 1986 HIGHEST 33.48 MAY 22 LOWEST 36.85 SEP 2

PLATTE COUNTY

420613105024401. Local number, 25N 068W 31AAA01.

LOCATION.--Lat 42°06'13", long 105°02'44", in NE1/4 NE1/4 NE1/4 sec.31, T.25 N., R.68 W., Hydrologic Unit 10180011.

Owner: State of Wyoming.

AQUIFER.--Arikaree Formation.

WELL CHARACTERISTICS.--Depth of well, 400 ft.

DATUM.--Elevation of land-surface datum, 5,242 ft above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point: top of casing, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--December 1979 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.42 ft below land-surface datum, Oct. 26, 1984; lowest, 28.93 ft below land-surface datum, Aug. 10, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	21.91	21.10	21.88	21.69	21.19	20.70	20.66	20.67	21.90	22.92	22.74	22.80
10	21.70	21.46	21.62	21.83	20.97	20.71	20.49	20.52	21.17	23.09	23.31	21.94
15	21.40	21.54	21.61	21.50	20.65	20.70	20.73	20.69	20.63	22.56	23.64	21.58
20	21.30	21.68	21.72	21.46	20.62	20.73	20.44	20.81	21.00	22.25	23.94	21.27
25	21.29	21.68	21.54	21.72	20.66	20.64	20.36	21.38	21.75	22.13	23.93	20.94
EOM	21.17	21.86	21.61	21.41	20.63	20.78	20.49	22.16	22.48	22.28	23.52	21.11

WTR YR 1986 HIGHEST 20.35 APR 22 LOWEST 24.00 AUG 27

QUALITY OF GROUND WATER

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

ALBANY COUNTY

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	HARD- NESS (MG/L AS CACO3)
412857105380401	17N73W06BBB			GW	09-05-86	1000	593	200

STATION	NUMBER	DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
412857105380401	09-05-86	44	21	47	2	2.4	170	59	50	

STATION	NUMBER	DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
412857105380401	09-05-86	0.6	16	340	0.47	0.90	0.00	

BIGHORN COUNTY

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)
442058107525001	51N092W35CBC01		217MDDY	GW	10-06-85	1130	1530.00	2450

STATION	NUMBER	DATE	TEMPER- ATURE (DEG C)	PH (STAND- ARD UNITS)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)
442058107525001	10-06-85	11.5	8.0	5	1.2	0.5	660	130	1.7	1150	

STATION	NUMBER	DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
442058107525001	10-06-85	3.6	200	4.7	8.5	1600	2.1	0.14	0.20	

GEOLOGIC UNIT (AQUIFER)

111ALVM HOLOCENE ALLUVIUM
121OGLL OGALLALA FORMATION
123BRUL BRULE FORMATION
124WLWD WILLWOOD FORMATION
124WSTC WASATCH FORMATION

125FRUN FORT UNION FORMATION
211LNCE LANCE FORMATION
211MVRD MESAVERDE FORMATION OR GROUP
217MDDY MUDDY SANDSTONE MEMBER OF
THERMOPOLIS SHALE

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

BIGHORN COUNTY--Continued

STATION NUMBER			LOCAL IDENTIFIER	GEO-LOGIC UNIT		SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPECIFIC CONDUCTANCE (US/CM)		
442058107525001			51N092W35CBC01		217MDDY		GW	10-06-85	1130	1530.00	2450	
STATION	NUMBER	DATE	TEMPERATURE (DEG C)	PH (STANDARD UNITS)	ARSENIC DIS-SOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	CADMIUM DIS-SOLVED (UG/L AS CD)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	
442058107525001		10-06-85	11.5	8.0	<1	<1	<1	<1	<10	<10	1	
STATION	NUMBER	DATE	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	COPPER, SUS-PENDED RECOVERABLE (UG/L AS CU)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, SUS-PENDED RECOVERABLE (UG/L AS FE)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LEAD, SUS-PENDED RECOVERABLE (UG/L AS PB)	
442058107525001		10-06-85	<1	2	1	3	0	1700	1800	1	1	
STATION	NUMBER	DATE	LEAD, TOTAL RECOVERABLE (UG/L AS P)	MANGANESE, SUS-PENDED RECOVERABLE (UG/L AS MN)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DIS-SOLVED (UG/L AS MN)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SELENIUM, TOTAL (UG/L AS SE)	ZINC, DIS-SOLVED (UG/L AS ZN)	ZINC, SUS-PENDED RECOVERABLE (UG/L AS ZN)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	
442058107525001		10-06-85	2	0	50	50	<1	<1	10	80	90	
STATION NUMBER			LOCAL IDENTIFIER	GEO-LOGIC UNIT		SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)	
442058107525001			51N092W35CBC01		217MDDY		GW	10-06-85	1130	1530.00	11.5	
STATION	NUMBER	DATE	PH (STANDARD UNITS)	POTASSIUM, DIS-SOLVED (MG/L AS K)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	RADIUM 226, DIS-SOLVED (PCI/L)	URANIUM NATURAL, DIS-SOLVED (UG/L AS U)
442058107525001		10-06-85	8.0	1.7	<12	0.9	<2.3	0.8	<1.4	0.8	0.04	<0.4

QUALITY OF GROUND WATER

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

CARBON COUNTY

STATION NUMBER	LOCAL IDENTIFIER	GEO-LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPECIFIC CONDUCTANCE (US/CM)
410715107221301	GW8, NEAR SAVERY, WY		GW	07-24-86	1943	18.00	530
410730107214601	GW5, NEAR SAVERY, WY		SP	07-24-86	0900	--	720
410734107213101	GW6, NEAR SAVERY, WY		SP	07-24-86	0945	--	520
410735107220201	GW1, NEAR SAVERY, WY		SP	07-10-86	0943	--	470
			SP	07-24-86	0845	--	--
410742107232801	GW4, NEAR SAVERY, WY		SP	07-10-86	1525	--	520
410749107201601	GW2, NEAR SAVERY, WY		SP	07-10-86	1130	--	340
410819107240701	GW3, NEAR SAVERY, WY		SP	07-10-86	1425	--	1330
410918107210701	SW5, POND AB SAVERY CR, WY		LK	07-24-86	1240	--	1680
			LK	07-24-86	1250	--	--
410921107270801	GW9, NEAR SAVERY, WY		SP	07-25-86	1140	--	415
411041107214001	GW7, NEAR SAVERY, WY		SP	07-24-86	1350	--	610
411221106424901	14N083W03CDA		GW	09-09-86	1430	85.00	--
413133106462701	18N083W18DCC01		GW	09-09-86	1240	--	--

STATION NUMBER	DATE	PH (STANDARD UNITS)	HARDNESS (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)
410715107221301	07-24-86	6.9	250	70	19	11	0.3	8.5	228
410730107214601	07-24-86	7.7	310	76	28	13	0.3	1.7	266
410734107213101	07-24-86	8.3	260	75	17	10	0.3	1.2	254
410735107220201	07-10-86	7.0	240	65	19	9.6	0.3	1.0	207
	07-24-86	--	--	--	--	--	--	--	--
410742107232801	07-10-86	8.3	270	67	24	10	0.3	2.2	255
410749107201601	07-10-86	7.5	170	52	8.8	6.8	0.2	1.3	164
410819107240701	07-10-86	8.2	550	64	94	97	2	4.1	578
410918107210701	07-24-86	9.8	890	110	150	36	0.5	5.4	57
	07-24-86	--	--	--	--	--	--	--	--
410921107270801	07-25-86	7.3	170	54	8.9	6.9	0.2	1.0	175
411041107214001	07-24-86	7.8	350	63	48	15	0.4	1.2	278
411221106424901	09-09-86	--	110	35	6.3	11	0.5	2.2	110
413133106462701	09-09-86	--	170	58	6.3	11	0.4	6.0	160

STATION NUMBER	DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
410715107221301	07-24-86	55	4.7	--	--	--	0.36
410730107214601	07-24-86	65	5.7	--	--	--	0.19
410734107213101	07-24-86	17	11	--	--	--	0.19
410735107220201	07-10-86	52	2.7	--	--	--	<0.10
	07-24-86	--	--	--	--	--	--
410742107232801	07-10-86	17	4.9	--	--	--	<0.10
410749107201601	07-10-86	11	3.7	--	--	--	0.15
410819107240701	07-10-86	180	10	--	--	--	0.16
410918107210701	07-24-86	900	6.8	--	7.5	1200	<0.10
	07-24-86	--	--	--	--	--	--
410921107270801	07-25-86	7.7	2.0	--	--	--	1.60
411041107214001	07-24-86	89	20	--	--	--	<0.10
411221106424901	09-09-86	22	8.2	0.3	43	190	0.50
413133106462701	09-09-86	28	6.3	0.4	47	260	0.80

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

CARBON COUNTY--Continued

STATION NUMBER	DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, TOTAL IN BOT- TOM MA- TERIAL (UG/G)
410715107221301	07-24-86	--	<1	--	2	<1	--	--
410730107214601	07-24-86	--	<1	--	1	2	--	--
410734107213101	07-24-86	--	<1	--	<1	<1	--	--
410735107220201	07-10-86	--	3	--	<1	<1	--	--
	07-24-86	--	--	--	--	--	--	<1
410742107232801	07-10-86	--	<1	--	<1	1	--	--
410749107201601	07-10-86	--	<1	--	<1	<1	--	--
410819107240701	07-10-86	--	<1	--	<1	7	--	--
410918107210701	07-24-86	--	--	<1	--	--	<1	--
	07-24-86	--	--	--	--	--	--	<1
410921107270801	07-25-86	--	<1	--	1	<1	--	--
411041107214001	07-24-86	--	<1	--	1	1	--	--
411221106424901	09-09-86	0.05	--	--	--	--	--	--
413133106462701	09-09-86	0.02	--	--	--	--	--	--

GOSHEN COUNTY

STATION NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)
414028104071801	20N06OW30BDD01	123BRUL	GW	08-28-86	1155	120.00	210
422958104134801	29N061W07DB 01		GW	08-28-86	1440	332.00	340

STATION NUMBER	DATE	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
414028104071801	08-28-86	210	58	17	58	2	5.5	260	35
422958104134801	08-28-86	130	35	10	18	0.7	7.9	130	20

STATION NUMBER	DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
414028104071801	08-28-86	10	0.6	46	390	0.52	9.60	0.01
422958104134801	08-28-86	5.1	0.7	56	230	0.31	4.00	0.01

JOHNSON COUNTY

STATION NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)	PH (STAND- ARD UNITS)
435303106071001	45N77W09CAA01 HI53 WELL	124WSTC	GW	09-30-86	1230	53.00	560	12.0	9.0
435308106070801	45N77W09BDD01 9M-16 WELL	124WSTC	GW	09-24-86	1110	--	700	12.5	8.6
435318106071901	45N77W09BDB01 AP-4 WELL	124WSTC	GW	09-23-86	1315	--	4110	15.5	7.2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

LARAMIE COUNTY--Continued

STATION NUMBER	DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	ALKA- LINITY LAB (MG/L AS CaCO3)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
410135104183501	08-29-86	19	1.0	33	160	250	0.34	6.00	0.00
410806104524801	06-24-86	41	0.4	29	167	350	0.48	6.80	--
410809104530601	05-21-86	66	0.7	30	161	390	0.52	8.20	--
410818104522201	05-21-86	50	0.6	22	141	270	0.37	7.10	--
410823104524001	05-21-86	34	0.5	24	155	280	0.38	6.80	--
410827104512401	05-22-86	45	0.5	23	193	330	0.45	7.40	--
410827104523101	05-21-86	12	0.6	23	144	200	0.27	2.70	--
410831104513901	05-22-86	140	0.5	26	250	610	0.83	14.0	--
410832104513001	05-22-86	74	0.5	27	212	440	0.6	9.50	--
410835104520401	06-26-86	140	0.3	24	179	660	0.9	19.0	--
410836104521001	06-26-86	390	0.2	28	286	1200	1.6	22.0	--
410838104521801	06-23-86	150	0.5	33	344	700	0.96	9.10	--
410838104522001	06-23-86	120	0.4	29	247	550	0.74	11.0	--
410839104521301	06-26-86	120	0.5	29	236	560	0.76	5.60	--
410839104522301	06-26-86	88	0.4	25	188	410	0.56	7.70	--
410840104521901	05-21-86	76	0.4	25	190	400	0.55	7.20	--
410842104521401	06-26-86	210	0.3	29	348	860	1.2	16.0	--
410849104521801	06-26-86	76	0.4	27	281	470	0.63	17.0	--
410851104520201	06-26-86	220	0.3	30	394	860	1.2	57.0	--
410859104523601	05-22-86	17	0.5	22	200	290	0.39	1.90	--
410904104522901	05-22-86	320	0.8	25	368	1000	1.4	3.90	--
411143104160801	08-28-86	15	0.8	31	210	270	0.37	0.60	0.01
411222104291701	08-29-86	13	0.6	46	160	230	0.32	4.20	0.00
411851104362001	08-29-86	3.8	0.6	46	150	210	0.28	1.30	0.01
411905104231801	08-27-86	4.7	0.5	47	140	200	0.28	2.20	0.02
411941104041401	08-27-86	19	0.5	47	120	200	0.27	2.20	0.01
412523104210701	08-26-86	3.8	0.5	50	140	210	0.28	3.10	0.01
413634104475901	09-30-86	3.8	0.5	38	200	250	0.34	1.20	0.02

STATION NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT	SITE	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)
410806104524801	GW SITE 19, F.E. WARREN AFB	121OGLL	GW	06-24-86	1338	605
410809104530601	GW SITE 18, F.E. WARREN AFB	121OGLL	GW	05-21-86	1230	800
			GW	06-02-86	1400	--
410818104522201	GW SITE 21, F.E. WARREN AFB	121OGLL	GW	05-21-86	1715	520
			GW	06-02-86	1445	--
410823104524001	GW SITE 17, F.E. WARREN AFB	121OGLL	GW	05-21-86	1430	560
410827104512401	GW SITE 24, F.E. WARREN AFB	121OGLL	GW	05-22-86	1530	605
			GW	06-03-86	1040	--
410827104523101	GW SITE 16, F.E. WARREN AFB	121OGLL	GW	05-21-86	1400	370
			GW	05-21-86	1415	--
410831104513901	GW SITE 22, F.E. WARREN AFB	121OGLL	GW	05-22-86	1600	1100
			GW	06-03-86	1100	--
410832104513001	GW SITE 23, F.E. WARREN AFB	121OGLL	GW	05-22-86	1630	560
			GW	06-03-86	1115	--
410835104520401	GW SITE 9, F.E. WARREN AFB	121OGLL	GW	06-26-86	1420	1260
410836104521001	GW SITE 10, F.E. WARREN AFB	121OGLL	GW	06-26-86	1120	1940
410838104521801	GW SITE 1, F.E. WARREN AFB	121OGLL	GW	06-23-86	1415	1040
410838104522001	GW SITE 3, F.E. WARREN AFB	121OGLL	GW	06-23-86	1830	940
410839104521301	GW SITE 11, F.E. WARREN AFB	121OGLL	GW	06-26-86	1014	967
410839104522301	GW SITE 7, F.E. WARREN AFB	121OGLL	GW	06-26-86	1530	750
410840104521901	GW SITE 6, F.E. WARREN AFB	121OGLL	GW	05-21-86	1800	800
			GW	06-03-86	0845	--
410842104521401	GW SITE 12, F.E. WARREN AFB	121OGLL	GW	06-26-86	0913	1360
410849104521801	GW SITE 27, F.E. WARREN AFB	121OGLL	GW	06-26-86	1710	860
410851104520201	GW SITE 8, F.E. WARREN AFB	121OGLL	GW	06-26-86	1820	1600
410859104523601	GW SITE 29, F.E. WARREN AFB	121OGLL	GW	05-22-86	1330	460
			GW	06-03-86	0940	--
410904104522901	GW SITE 28, F.E. WARREN AFB	121OGLL	GW	05-22-86	0930	1700
			GW	06-03-86	0915	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

LARAMIE COUNTY--Continued

STATION NUMBER	DATE	PH (STANDARD UNITS)	TEMPER- ATURE (DEG C)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)
410806104524801	06-24-86	6.5	11.0	2	260	<1	<10	3
410809104530601	05-21-86	6.6	11.0	2	200	<1	<10	15
	06-02-86	--	--	--	--	--	--	--
410818104522201	05-21-86	7.0	10.5	3	140	<1	<10	2
	06-02-86	--	--	--	--	--	--	--
410823104524001	05-21-86	6.7	10.5	2	240	<1	<10	4
410827104512401	05-22-86	6.6	9.5	2	130	2	<10	4
	06-03-86	--	--	--	--	--	--	--
410827104523101	05-21-86	7.0	11.0	2	140	<1	<10	1
	05-21-86	--	--	--	--	--	--	--
410831104513901	05-22-86	6.5	8.5	1	130	<1	<10	1
	06-03-86	--	--	--	--	--	--	--
410832104513001	05-22-86	6.7	8.5	2	190	<1	<10	<1
	06-03-86	--	--	--	--	--	--	--
410835104520401	06-26-86	6.7	11.0	1	130	<1	<10	<1
410836104521001	06-26-86	6.6	11.0	2	48	<1	<10	2
410838104521801	06-23-86	6.6	10.0	2	68	<1	<10	6
410838104522001	06-23-86	6.4	11.5	1	61	<1	<10	4
410839104521301	06-26-86	6.7	10.5	2	94	<1	<10	<1
410839104522301	06-26-86	6.7	13.0	2	210	1	<10	2
410840104521901	05-21-86	6.9	10.5	2	140	<1	<10	2
	06-03-86	--	--	--	--	--	--	--
410842104521401	06-26-86	6.4	10.5	1	59	<1	<10	2
410849104521801	06-26-86	6.9	10.0	2	110	<1	<10	1
410851104520201	06-26-86	6.8	10.5	2	74	<1	<10	3
410859104523601	05-22-86	6.6	10.0	2	170	<1	<10	1
	06-03-86	--	--	--	--	--	--	--
410904104522901	05-22-86	7.4	7.0	3	94	2	<10	6
	06-03-86	--	--	--	--	--	--	--

STATION NUMBER	DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)
410806104524801	06-24-86	410	<5	77	<0.1	3	<1	10
410809104530601	05-21-86	970	7	30	--	13	<1	32
	06-02-86	--	--	--	0.4	--	--	--
410818104522201	05-21-86	7	<1	3	--	2	<1	20
	06-02-86	--	--	--	<0.1	--	--	--
410823104524001	05-21-86	150	7	20	<0.1	2	<1	25
410827104512401	05-22-86	4	7	11	--	2	<1	190
	06-03-86	--	--	--	<0.1	--	--	--
410827104523101	05-21-86	60	3	5	--	1	<1	25
	05-21-86	--	--	--	<0.1	--	--	--
410831104513901	05-22-86	<3	6	<1	--	6	<1	76
	06-03-86	--	--	--	<0.1	--	--	--
410832104513001	05-22-86	<3	5	2	--	3	<1	34
	06-03-86	--	--	--	<0.1	--	--	--
410835104520401	06-26-86	<3	<5	1	<0.1	6	<1	10
410836104521001	06-26-86	5	<5	2	<0.1	9	<1	15
410838104521801	06-23-86	4	<5	4	<0.1	5	<1	24
410838104522001	06-23-86	<3	<5	2	<0.1	4	<1	9
410839104521301	06-26-86	3	<5	2	<0.1	5	<1	14
410839104522301	06-26-86	10	<5	2	<0.1	4	<1	11
410840104521901	05-21-86	<3	5	<1	--	3	<1	26
	06-03-86	--	--	--	<0.1	--	--	--
410842104521401	06-26-86	<3	<5	2	<0.1	5	<1	19
410849104521801	06-26-86	4	<5	9	<0.1	4	<1	41
410851104520201	06-26-86	<3	<5	2	<0.1	7	<1	16
410859104523601	05-22-86	11	7	28	--	2	<1	36
	06-03-86	--	--	--	<0.1	--	--	--
410904104522901	05-22-86	13	6	1	--	15	<1	250
	06-03-86	--	--	--	<0.1	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

LARAMIE COUNTY--CONTINUED

STATION NUMBER	LOCAL IDENTIFIER	GEOLOGIC UNIT	SITE	DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET)	DEPTH OF WELL, TOTAL (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)
410827104523101	GW SITE 16, F.E. WARREN AFB	121OGLL	GW	06-25-86	1101	19.34	--	333	--
410904104522901	GW SITE 28, F.E. WARREN AFB	121OGLL	GW	05-22-86	0930	--	--	1700	7.4

STATION NUMBER	DATE	TEMPERATURE (DEG C)	ALDRIN, TOTAL (UG/L)	CHLORDANE, TOTAL (UG/L)	DDD, TOTAL (UG/L)	DDE, TOTAL (UG/L)	DDT, TOTAL (UG/L)	DI-AZINON, TOTAL (UG/L)	DI-ELDRIN, TOTAL (UG/L)	ENDO-SULFAN, TOTAL (UG/L)	ENDRIN, TOTAL (UG/L)
410827104523101	06-25-86	11.0	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
410904104522901	05-22-86	7.0	<0.01	<0.1	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01

STATION NUMBER	DATE	ETHION, TOTAL (UG/L)	PCB, TOTAL (UG/L)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L)	HEPTACHLOR EPOXIDE TOTAL (UG/L)	HEPTACHLOR, TOTAL (UG/L)	LINDANE, TOTAL (UG/L)	MALATHION, TOTAL (UG/L)	METHOXYCHLOR, TOTAL (UG/L)	METHYL PARATHION, TOTAL (UG/L)	METHYL TRITHION, TOTAL (UG/L)
410827104523101	06-25-86	<0.01	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
410904104522901	05-22-86	<0.01	<0.1	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

STATION NUMBER	DATE	MIREX, TOTAL (UG/L)	PARATHION, TOTAL (UG/L)	PERTHANE, TOTAL (UG/L)	TOXAPHENE, TOTAL (UG/L)	TOTAL TRITHION (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4,5-T, TOTAL (UG/L)	2, 4-DP, TOTAL (UG/L)
410827104523101	06-25-86	<0.01	<0.01	<0.1	<1	<0.01	<0.01	<0.01	<0.01	<0.01
410904104522901	05-22-86	<0.01	<0.01	<0.1	<1	<0.01	<0.01	<0.01	<0.01	<0.01

STATION NUMBER	LOCAL IDENTIFIER	GEOLOGIC UNIT	SITE	DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE (DEG C)
410806104524801	GW SITE 19, F.E. WARREN AFB	121OGLL	GW	06-24-86	1338	605	6.5	11.0
410809104530601	GW SITE 18, F.E. WARREN AFB	121OGLL	GW	05-21-86	1230	800	6.6	11.0
410818104522201	GW SITE 21, F.E. WARREN AFB	121OGLL	GW	05-21-86	1715	520	7.0	10.5
410823104524001	GW SITE 17, F.E. WARREN AFB	121OGLL	GW	05-21-86	1430	560	6.7	10.5
410827104512401	GW SITE 24, F.E. WARREN AFB	121OGLL	GW	05-22-86	1530	605	6.6	9.5
410827104523101	GW SITE 16, F.E. WARREN AFB	121OGLL	GW	05-21-86	1400	370	7.0	11.0
410831104513901	GW SITE 22, F.E. WARREN AFB	121OGLL	GW	05-22-86	1600	1100	6.5	8.5
410832104513001	GW SITE 23, F.E. WARREN AFB	121OGLL	GW	05-22-86	1630	560	6.7	8.5
410835104520401	GW SITE 9, F.E. WARREN AFB	121OGLL	GW	06-26-86	1420	1260	6.7	11.0
410836104521001	GW SITE 10, F.E. WARREN AFB	121OGLL	GW	06-26-86	1120	1940	6.6	11.0
410838104521801	GW SITE 1, F.E. WARREN AFB	121OGLL	GW	06-23-86	1415	1040	6.6	10.0
410838104522001	GW SITE 3, F.E. WARREN AFB	121OGLL	GW	06-23-86	1830	940	6.4	11.5
410839104521301	GW SITE 11, F.E. WARREN AFB	121OGLL	GW	06-26-86	1014	967	6.7	10.5
410839104522301	GW SITE 7, F.E. WARREN AFB	121OGLL	GW	06-26-86	1530	750	6.7	13.0
410840104521901	GW SITE 6, F.E. WARREN AFB	121OGLL	GW	05-21-86	1800	800	6.9	10.5
410842104521401	GW SITE 12, F.E. WARREN AFB	121OGLL	GW	06-26-86	0913	1360	6.4	10.5
410849104521801	GW SITE 27, F.E. WARREN AFB	121OGLL	GW	06-26-86	1710	860	6.9	10.0
410851104520201	GW SITE 8, F.E. WARREN AFB	121OGLL	GW	06-26-86	1820	1600	6.8	10.5
410859104523601	GW SITE 29, F.E. WARREN AFB	121OGLL	GW	05-22-86	1330	460	6.6	10.0
410904104522901	GW SITE 28, F.E. WARREN AFB	121OGLL	GW	05-22-86	0930	1700	7.4	7.0

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

LARAMIE COUNTY--CONTINUED

STATION	NUMBER	DATE	ACE- NAPHTH- ENE TOTAL (UG/L)	ACE- NAPHTH- YLENE TOTAL (UG/L)	ANTHRA- CENE TOTAL (UG/L)	BENZO A ANTHRAC- ENE1,2- BENZANT HRACENE TOTAL (UG/L)	BENZO- A- PYRENE TOTAL (UG/L)	BENZO B FLUOR- AN- THENE TOTAL (UG/L)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (UG/L)	BENZO K FLUOR- AN- THENE TOTAL (UG/L)	N-BUTYL BENZYL PHTHAL- ATE TOTAL (UG/L)
410806104524801		06-24-86	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
410809104530601		05-21-86	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
410818104522201		05-21-86	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
410823104524001		05-21-86	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
410827104512401		05-22-86	40.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
410827104523101		05-21-86	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
410831104513901		05-22-86	51.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
410832104513001		05-22-86	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
410835104520401		06-26-86	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<5.0
410836104521001		06-26-86	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<5.0
410838104521801		06-23-86	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<5.0
410838104522001		06-23-86	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<5.0
410839104521301		06-26-86	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<5.0
410839104522301		06-26-86	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<5.0
410840104521901		05-21-86	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
410842104521401		06-26-86	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
410849104521801		06-26-86	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
410851104520201		06-26-86	<5.0	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<5.0
410859104523601		05-22-86	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
410904104522901		05-22-86	<5.0	<5.0	<5.0	<10.0	<10.0	<10.0	<10.0	<10.0	<5.0
STATION	NUMBER	DATE	PARA- CHLORO- META CRESOL TOTAL (UG/L)	CHRY- SENE TOTAL (UG/L)	DI-N- BUTYL PHTHAL- ATE TOTAL (UG/L)	DI-N- OCTYL PHTHAL- ATE TOTAL (UG/L)	1,2,5,6 -DIBENZ -ANTHRA- -CENE TOTAL (UG/L)	DIETHYL PHTHAL- ATE TOTAL (UG/L)	DI- METHYL PHTHAL- ATE TOTAL (UG/L)	4,6- DINITRO -ORTHO- CRESOL TOTAL (UG/L)	FLUOR- ANTHENE TOTAL (UG/L)
410806104524801		06-24-86	<5.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410809104530601		05-21-86	<5.0	<10.0	6.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410818104522201		05-21-86	<5.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410823104524001		05-21-86	<5.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410827104512401		05-22-86	85.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410827104523101		05-21-86	<5.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410831104513901		05-22-86	110	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410832104513001		05-22-86	<5.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410835104520401		06-26-86	<30.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410836104521001		06-26-86	<30.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410838104521801		06-23-86	<30.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410838104522001		06-23-86	<30.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410839104521301		06-26-86	<30.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410839104522301		06-26-86	<30.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410840104521901		05-21-86	<5.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410842104521401		06-26-86	<5.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410849104521801		06-26-86	<5.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410851104520201		06-26-86	<30.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410859104523601		05-22-86	<5.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0
410904104522901		05-22-86	<5.0	<10.0	<5.0	<10.0	<10.0	<5.0	<5.0	<30.0	<5.0

QUALITY OF GROUND WATER

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

LARAMIE COUNTY--CONTINUED

STATION	NUMBER	DATE	FLUOR- ENE TOTAL (UG/L)	HEXA- CHLORO- BENZENE TOTAL (UG/L)	HEXA- CHLORO- BUT- ADIENE TOTAL (UG/L)	HEXA- CHLORO- CYCLO- PENT- ADIENE TOTAL (UG/L)	HEXA- CHLORO- ETHANE TOTAL (UG/L)	INDENO (1,2,3- CD) PYRENE TOTAL (UG/L)	ISO- PHORONE TOTAL (UG/L)	N- NITRO- SODI-N- PROPYL- AMINE TOTAL (UG/L)	N-NITRO -SODI- -PHENY- LAMINE TOTAL (UG/L)
410806104524801		06-24-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410809104530601		05-21-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410818104522201		05-21-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410823104524001		05-21-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410827104512401		05-22-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	42.0	15.0
410827104523101		05-21-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410831104513901		05-22-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	47.0	<5.0
410832104513001		05-22-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410835104520401		06-26-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410836104521001		06-26-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410838104521801		06-23-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410838104522001		06-23-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410839104521301		06-26-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410839104522301		06-26-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410840104521901		05-21-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410842104521401		06-26-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410849104521801		06-26-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410851104520201		06-26-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410859104523601		05-22-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
410904104522901		05-22-86	<5.0	<5.0	<5.0	<5.0	<5.0	<10.0	<5.0	<5.0	<5.0
STATION	NUMBER	DATE	NAPHTH- ALENE TOTAL (UG/L)	NITRO- BENZENE TOTAL (UG/L)	N-NITRO -SODI- METHY- LAMINE TOTAL (UG/L)	PENTA- CHLORO- PHENOL TOTAL (UG/L)	PHENAN- THRENE TOTAL (UG/L)	PHENOL (C6H- 5OH) TOTAL (UG/L)	PYRENE TOTAL (UG/L)	1,2-DI- CHLORO- BENZENE TOTAL (UG/L)	1,2,4- TRI- CHLORO- BENZENE TOTAL (UG/L)
410806104524801		06-24-86	<5.0	<5.0	<5.0	<30.0	<5.0	<6.0	<5.0	<5.0	<5.0
410809104530601		05-21-86	<5.0	<5.0	<5.0	<30.0	<5.0	<6.0	<5.0	<5.0	<5.0
410818104522201		05-21-86	<5.0	<5.0	<5.0	<30.0	<5.0	<6.0	<5.0	<5.0	<5.0
410823104524001		05-21-86	<5.0	<5.0	<5.0	<30.0	<5.0	<6.0	<5.0	<5.0	<5.0
410827104512401		05-22-86	<5.0	<5.0	<5.0	86.0	<5.0	79.0	44.0	<5.0	42.0
410827104523101		05-21-86	<5.0	<5.0	<5.0	<30.0	<5.0	<6.0	<5.0	<5.0	<5.0
410831104513901		05-22-86	<5.0	<5.0	<5.0	72.0	<5.0	100	54.0	<5.0	50.0
410832104513001		05-22-86	<5.0	<5.0	<5.0	<30.0	<5.0	<6.0	<5.0	<5.0	<5.0
410835104520401		06-26-86	<5.0	<5.0	<5.0	<30.0	<5.0	<5.0	<5.0	<5.0	<5.0
410836104521001		06-26-86	<5.0	<5.0	<5.0	<30.0	<5.0	<5.0	<5.0	<5.0	<5.0
410838104521801		06-23-86	<5.0	<5.0	<5.0	<30.0	<5.0	<5.0	<5.0	<5.0	<5.0
410838104522001		06-23-86	<5.0	<5.0	<5.0	<30.0	<5.0	<5.0	<5.0	<5.0	<5.0
410839104521301		06-26-86	<5.0	<5.0	<5.0	<30.0	<5.0	<5.0	<5.0	<5.0	<5.0
410839104522301		06-26-86	<5.0	<5.0	<5.0	<30.0	<5.0	<5.0	<5.0	<5.0	<5.0
410840104521901		05-21-86	<5.0	<5.0	<5.0	<30.0	<5.0	<6.0	<5.0	<5.0	<5.0
410842104521401		06-26-86	<5.0	<5.0	<5.0	<30.0	<5.0	<6.0	<5.0	<5.0	<5.0
410849104521801		06-26-86	<5.0	<5.0	<5.0	<30.0	<5.0	<6.0	<5.0	<5.0	<5.0
410851104520201		06-26-86	<5.0	<5.0	<5.0	<30.0	<5.0	<5.0	<5.0	<5.0	<5.0
410859104523601		05-22-86	<5.0	<5.0	<5.0	<30.0	<5.0	<6.0	<5.0	<5.0	<5.0
410904104522901		05-22-86	<5.0	<5.0	<5.0	<30.0	<5.0	<6.0	<5.0	<5.0	<5.0

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

LARAMIE COUNTY--CONTINUED

STATION NUMBER	DATE	1,3-DI- CHLORO- BENZENE TOTAL (UG/L)	1,4-DI- CHLORO- BENZENE TOTAL (UG/L)	BIS (2- CHLORO- ETHOXY) METHANE TOTAL (UG/L)	BIS 2- CHLORO- ETHYL ETHER TOTAL (UG/L)	BIS (2- CHLORO- ISO- PROPYL) ETHER TOTAL (UG/L)	2- CHLORO- NAPH- THALENE TOTAL (UG/L)	2- CHLORO- PHENOL TOTAL (UG/L)	BIS(2- ETHYL HEXYL) PHTHAL- ATE TOTAL (UG/L)	2- NITRO- PHENOL TOTAL (UG/L)
410806104524801	06-24-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<6.0	<5.0	<6.0
410809104530601	05-21-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<6.0	<5.0	<6.0
410818104522201	05-21-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<6.0	<5.0	<6.0
410823104524001	05-21-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<6.0	<5.0	<6.0
410827104512401	05-22-86	<5.0	41.0	<5.0	<5.0	<5.0	<5.0	85.0	<5.0	<6.0
410827104523101	05-21-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<6.0	<5.0	<6.0
410831104513901	05-22-86	<5.0	49.0	<5.0	<5.0	<5.0	<5.0	100	<5.0	<6.0
410832104513001	05-22-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<6.0	<5.0	<6.0
410835104520401	06-26-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
410836104521001	06-26-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
410838104521801	06-23-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
410838104522001	06-23-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
410839104521301	06-26-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
410839104522301	06-26-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
410840104521901	05-21-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<6.0	<5.0	<6.0
410842104521401	06-26-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<6.0	<5.0	<6.0
410849104521801	06-26-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<6.0	<5.0	<6.0
410851104520201	06-26-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
410859104523601	05-22-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<6.0	<5.0	<6.0
410904104522901	05-22-86	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<6.0	<5.0	<6.0

STATION NUMBER	DATE	2,4-DI- CHLORO- PHENOL TOTAL (UG/L)	2,4-DI- METHYL- PHENOL TOTAL (UG/L)	2,4,- DI- NITRO- PHENOL TOTAL (UG/L)	2,4-DI- NITRO- TOLUENE TOTAL (UG/L)	2,4,6- TRI- CHLORO- PHENOL TOTAL (UG/L)	2,6-DI- NITRO- TOLUENE TOTAL (UG/L)	4- BROMO- PHENYL ETHER TOTAL (UG/L)	4- CHLORO- PHENYL ETHER TOTAL (UG/L)	4- NITRO- PHENOL TOTAL (UG/L)
410806104524801	06-24-86	<6.0	<6.0	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0
410809104530601	05-21-86	<6.0	<6.0	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0
410818104522201	05-21-86	<6.0	<6.0	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0
410823104524001	05-21-86	<6.0	<6.0	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0
410827104512401	05-22-86	<6.0	<6.0	<20.0	47.0	<5.0	<5.0	<5.0	<5.0	110
410827104523101	05-21-86	<6.0	<6.0	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0
410831104513901	05-22-86	<6.0	<6.0	<20.0	57.0	<5.0	<5.0	<5.0	<5.0	120
410832104513001	05-22-86	<6.0	<6.0	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0
410835104520401	06-26-86	<5.0	<5.0	<20.0	<5.0	<20.0	<5.0	<5.0	<5.0	<30.0
410836104521001	06-26-86	<5.0	<5.0	<20.0	<5.0	<20.0	<5.0	<5.0	<5.0	<30.0
410838104521801	06-23-86	<5.0	<5.0	<20.0	<5.0	<20.0	<5.0	<5.0	<5.0	<30.0
410838104522001	06-23-86	<5.0	<5.0	<20.0	<5.0	<20.0	<5.0	<5.0	<5.0	<30.0
410839104521301	06-26-86	<5.0	<5.0	<20.0	<5.0	<20.0	<5.0	<5.0	<5.0	<30.0
410839104522301	06-26-86	<5.0	<5.0	<20.0	<5.0	<20.0	<5.0	<5.0	<5.0	<30.0
410840104521901	05-21-86	<6.0	<6.0	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0
410842104521401	06-26-86	<6.0	<6.0	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0
410849104521801	06-26-86	<6.0	<6.0	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0
410851104520201	06-26-86	<5.0	<5.0	<20.0	<5.0	<20.0	<5.0	<5.0	<5.0	<30.0
410859104523601	05-22-86	<6.0	<6.0	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0
410904104522901	05-22-86	<6.0	<6.0	<20.0	<5.0	<5.0	<5.0	<5.0	<5.0	<30.0

QUALITY OF GROUND WATER

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

LINCOLN COUNTY

STATION NUMBER	LOCAL IDENTIFIER	GEO-LOGIC UNIT	SITE	DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE (DEG C)
421504110195501	26N114W12DB		SP	06-07-86	1530	470	--
421611110181501	SEEP EAST OF HOGSBACK SPRING		SP	08-10-86	1230	1100	11.5
421611110181502	26N113W06AD02		SP	08-10-86	1230	1100	11.5
421612110182301	26N113W06AD01 HOGSBACK SPRING		SP	08-10-86	1200	420	7.5

STATION NUMBER	DATE	PH (STANDARD UNITS)	HARDNESS (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)	SODIUM, DIS-SOLVED (MG/L AS Na)	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)
421504110195501	06-07-86	--	240	50	27	7.0	0.2	1.1	173
421611110181501	08-10-86	7.4	580	150	51	23	0.4	3.9	491
421611110181502	08-10-86	7.4	580	150	51	23	0.4	3.9	491
421612110182301	08-10-86	7.3	210	47	23	5.2	0.2	0.6	191

STATION NUMBER	DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
421504110195501	06-07-86	69	7.4	0.4	6.3	270	0.37	0.11
421611110181501	08-10-86	10	70	0.2	11	610	0.83	0.15
421611110181502	08-10-86	10	70	0.2	11	610	0.83	0.15
421612110182301	08-10-86	23	6.7	0.1	6.3	230	0.31	0.56

NATRONA COUNTY

STATION NUMBER	LOCAL IDENTIFIER	GEO-LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)
423707106385101	31N082W27CDD01		GW	08-07-86	0830	55.00
424750106331501	33N081W28DAA01		GW	08-07-86	1100	--
425700106282801	35N080W31DDD01		GW	08-07-86	1245	45.00
425149106260201	34N080W33DDD01		GW	08-07-86	1330	43.00
430102106350901	35N081W08BD 01		GW	08-07-86	1500	58.00

STATION NUMBER	DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	CADMIUM, DIS-SOLVED (UG/L AS CD)	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, DIS-SOLVED (UG/L AS PB)
423707106385101	08-07-86	3	<10	--	1	<1	53	<5
424750106331501	08-07-86	<1	10	--	1	<1	11	5
425700106282801	08-07-86	<1	<10	5600	<1	<1	5	<5
425149106260201	08-07-86	<1	<100	1800	<1	<10	10	<5
430102106350901	08-07-86	<1	100	580	<1	<10	10	<5

STATION NUMBER	DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
423707106385101	08-07-86	0.3	27	5	30	<1	3	150
424750106331501	08-07-86	<0.2	2	3	3	<1	<1	10
425700106282801	08-07-86	0.4	15	4	<1	<1	<1	<10
425149106260201	08-07-86	<0.1	1	2	<1	<1	41	40
430102106350901	08-07-86	<0.1	6	2	<1	<1	<1	40

QUALITY OF GROUND WATER

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

PARK COUNTY--Continued

STATION NUMBER	DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
435745109043001	11-13-85	1.6	0.2	16	390	0.54	--	0.76	0.02
440204108584001	11-13-85	3.9	0.3	19	360	0.5	--	<0.10	0.02
440733108534901	11-13-85	14	0.7	7.3	1700	2.3	--	<0.10	<0.01
440746108540701	11-13-85	6.9	0.4	6.2	1600	2.2	5.1	<0.10	<0.01
441024108525202	11-12-85	13	2.3	6.9	2000	2.8	--	<0.10	0.02
441241108541001	11-11-85	10	0.4	8.3	580	0.79	--	1.60	<0.01
444226108473201	10-03-85	6.0	0.9	24	440	0.6	--	6.50	0.03
445638109102502	10-02-85	16	1.7	6.4	840	1.1	--	0.50	0.06

STATION NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)
444217108390900	55N098W34BCB01	125FRUN	GW	07-18-86	1440	100.00

STATION NUMBER	DATE	TEMPER- ATURE (DEG C)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)
444217108390900	07-18-86	10.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

PLATTE COUNTY

STATION NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)
420046104552401	24N067W32BBC01		GW	09-03-86	1100	113.00	911
420224104531601	24N067W21ADC01		GW	09-03-86	1400	61.50	1160
420523104563801	25N67W31CCD		GW	09-10-86	1130	43.00	1070
420523104563902	25N67W31CCC02		GW	09-03-86	1500	512.00	633
420559104585301	25N68W35BCB		GW	09-10-86	1045	--	746
421733105042201	27N69W24DCC		GW	09-02-86	1445	--	325
422818105013501	29N068W21BCC01		GW	09-02-86	1340	41.00	394

STATION NUMBER	DATE	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
420046104552401	09-03-86	400	110	30	51	1	4.4	250	210
420224104531601	09-03-86	2400	910	34	100	0.9	7.9	300	270
420523104563801	09-10-86	480	120	45	63	1	1.0	300	240
420523104563902	09-03-86	310	82	25	17	0.4	5.0	170	140
420559104585301	09-10-86	310	84	25	31	0.8	5.5	200	130
421733105042201	09-02-86	82	23	6.0	35	2	4.8	160	5.6
422818105013501	09-02-86	170	44	14	19	0.7	3.4	200	9.9

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

PLATTE COUNTY--Continued

STATION	NUMBER	DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
420046104552401		09-03-86	25	0.5	28	610	0.83	3.00	0.01
420224104531601		09-03-86	30	0.6	33	1600	2.1	2.80	0.06
420523104563801		09-10-86	22	1.0	20	690	0.94	6.50	0.02
420523104563902		09-03-86	17	0.4	50	440	0.6	3.10	0.00
420559104585301		09-10-86	25	0.6	51	470	0.64	5.10	0.00
421733105042201		09-02-86	2.3	0.4	27	200	0.27	1.00	0.00
422818105013501		09-02-86	2.2	0.5	16	230	0.31	0.30	0.00

SUBLETTE COUNTY

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)
421623110202201	26N114W01BA			SP	06-05-86	1030	--	340	8.5
421635110183801	27N113W31BD			SP	06-05-86	1354	--	370	8.0
421638109053501	27N103W34BA			GW	06-11-86	1500	--	1320	--
421652110180001	27N113W32CA			SP	06-05-86	1310	--	680	8.5
421848110205901	27N114W23AD			SP	06-05-86	1500	--	420	5.5
421936109361201	27N107W8CB			GW	06-09-86	1415	--	2000	8.0
421957110091101	27N112W9DD			GW	06-07-86	1600	--	1200	--
422048110194601	27N114W12AA01			SP	08-10-86	1400	--	630	7.5
422216110190401	28N113W31BD			SP	06-05-86	1641	--	1020	7.0
422312110182001	28N113W30ADA01		124WSTC	SP	06-05-86	1706	--	650	8.0
422403110230201	28N114W22BCB01			SP	08-09-86	1900	--	560	5.0
422725110045701	29N111W33BE			GW	06-07-86	1630	--	970	--
422807110281501	29N114W30CBDO1		124WSTC	SP	08-10-86	1800	--	380	5.0
422953109352001	29N107W10BDD01			GW	06-09-86	1800	70.00	1850	7.5
423140109370301	30N107W32AD 01			GW	06-09-86	1200	233.00	1180	8.0
423216110063501	30N111W31DB			GW	06-07-86	1400	--	960	--
423258109405201	30N108W23DC 01			GW	06-09-86	1100	375.00	1600	8.0
423312110064301	30N111W30DB			GW	06-07-86	1300	--	1050	--
423320109405601	30N108W23AC			GW	06-09-86	1100	--	1600	8.0
423419110064201	30N110W			GW	06-07-86	1100	--	720	6.5
423536109382001	30N107W06DD 01			GW	06-08-86	1100	153.00	475	8.0
423539109382201	30N107W6DD			GW	06-08-86	1100	--	475	8.0
423542110074201	30N112W12DC			GW	06-07-86	1200	--	840	--
423614110095601	30N112W10AD			SP	06-06-86	1040	--	990	16.0
424143110173501	31N113W10BB			SP	06-06-86	1249	--	390	8.0
424143110173601	31N113W10BB			SP	06-06-86	1204	--	315	8.0
424152110184301	31N113W04CD			SP	06-06-86	1313	--	370	6.0
424307110185201	32N113W33BC			GW	06-06-86	1335	--	780	6.5
424803109482501	33N109W25DB			GW	06-09-86	0845	--	365	--
425019109503501	33N109W10DD			GW	06-10-86	1515	--	292	--
425137109533301	33N109W05BD 01			GW	06-10-86	1345	110.00	390	--
425150109552001	33N110W01AA 01			GW	06-10-86	1730	168.00	410	--
425241109574001	34N110W34AA 01			GW	06-10-86	1315	232.00	420	--
425254109581502	34N110W27CD 02			GW	06-10-86	1245	112.00	670	--
425451109581701	34N110W15CA			GW	06-10-86	1045	--	370	--
425622109584201	34N110W3CC			GW	06-10-86	1000	--	300	--
425746109592301	35N110W33BD 01			GW	06-10-86	1100	--	510	--
425931109593301	35N110W21BD			GW	06-10-86	1100	--	345	--
430106110070501	35N111W08AD			GW	06-10-86	1645	--	420	--
430758110114201	37N111W32DBB			GW	06-10-86	1600	--	715	--

QUALITY OF GROUND WATER

WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

SUBLETTE COUNTY--Continued

STATION	NUMBER	DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
421623110202201		06-05-86	2.3	0.2	5.5	--	180	0.25	0.16
421635110183801		06-05-86	3.2	<0.1	5.4	--	200	0.27	0.32
421638109053501		06-11-86	17	2.6	7.4	--	920	1.3	<0.10
421652110180001		06-05-86	25	0.1	8.8	--	360	0.49	<0.10
421848110205901		06-05-86	5.5	0.3	14	--	240	0.32	0.58
421936109361201		06-09-86	24	3.7	8.4	--	1400	1.9	<0.10
421957110091101		06-07-86	19	1.0	7.4	--	710	0.97	0.19
422048110194601		08-10-86	16	0.1	6.9	--	350	0.48	0.33
422216110190401		06-05-86	91	0.3	9.9	--	540	0.73	0.10
422312110182001		06-05-86	7.1	0.2	6.9	--	340	0.46	0.14
422403110230201		08-09-86	32	0.1	6.5	--	310	0.42	0.11
422725110045701		06-07-86	6.8	0.5	8.3	--	550	0.75	<0.10
422807110281501		08-10-86	1.1	0.2	7.9	--	210	0.29	0.44
422953109352001		06-09-86	--	0.4	--	1260	--	--	--
423140109370301		06-09-86	--	0.9	--	779	--	--	--
423216110063501		06-07-86	8.2	0.5	8.7	--	580	0.79	0.13
423258109405201		06-09-86	--	0.8	--	1170	--	--	--
423312110064301		06-07-86	16	1.4	8.3	--	590	0.8	0.10
423320109405601		06-09-86	--	0.8	--	1170	--	--	--
423419110064201		06-07-86	12	0.4	7.0	--	430	0.59	<0.10
423536109382001		06-08-86	--	1.4	--	278	--	--	--
423539109382201		06-08-86	--	1.4	--	278	--	--	--
423542110074201		06-07-86	10	0.3	9.5	--	490	0.66	0.13
423614110095601		06-06-86	47	0.2	6.3	--	540	0.73	0.35
424143110173501		06-06-86	4.1	0.3	11	--	220	0.3	0.10
424143110173601		06-06-86	6.0	0.3	13	--	180	0.24	<0.10
424152110184301		06-06-86	3.8	0.3	9.4	--	200	0.27	0.49
424307110185201		06-06-86	9.0	1.8	6.6	--	440	0.59	<0.10
424803109482501		06-09-86	--	0.2	--	215	--	--	--
425019109503501		06-10-86	--	0.2	--	171	--	--	--
425137109533301		06-10-86	--	0.2	--	232	--	--	--
425150109552001		06-10-86	--	0.3	--	224	--	--	--
425241109574001		06-10-86	--	0.3	--	251	--	--	--
425254109581502		06-10-86	--	0.4	--	399	--	--	--
425451109581701		06-10-86	--	0.4	--	219	--	--	--
425622109584201		06-10-86	--	0.2	--	174	--	--	--
425746109592301		06-10-86	2.7	1.4	8.7	--	300	0.41	<0.10
425931109593301		06-10-86	--	0.1	--	198	--	--	--
430106110070501		06-10-86	--	0.2	--	254	--	--	--
430758110114201		06-10-86	--	<0.1	--	399	--	--	--

SWEETWATER COUNTY

STATION	NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT	SITE	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE (DEG C)
420002109252601		23N106W4ACD		GW	06-11-86	1000	4450	9.0
420002109251801		23NR1064ADC		GW	06-11-86	1030	1220	--
420110109253501		24N106W33AB		GW	06-11-86	1100	1140	--
420223109261301		24N106W21CC		GW	06-11-86	1200	2600	--
420629109265201		25NR10627CB		GW	06-11-86	1300	920	--
420848109220501		25N105W17BA		GW	06-11-86	1600	635	--
420716109272701		25N106W21DC		GW	06-12-86	0800	920	--
420302109261301		24N106W21BB		GW	06-12-86	0830	655	--

QUALITY OF GROUND WATER

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

SWEETWATER COUNTY--Continued

STATION	NUMBER	DATE	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
420002109252601		06-11-86	470	22	100	950	19	1.6	319	2300
420002109251801		06-11-86	12	1.9	1.8	280	36	0.7	394	210
420110109253501		06-11-86	--	--	--	--	--	--	--	--
420223109261301		06-11-86	--	--	--	--	--	--	--	--
420629109265201		06-11-86	--	--	--	--	--	--	--	--
420848109220501		06-11-86	--	--	--	--	--	--	--	--
420716109272701		06-12-86	--	--	--	--	--	--	--	--
420302109261301		06-12-86	--	--	--	--	--	--	--	--

STATION	NUMBER	DATE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
420002109252601		06-11-86	36	1.6	19	--	3600	4.9	<0.10
420002109251801		06-11-86	14	9.6	9.2	--	760	1.0	<0.10
420110109253501		06-11-86	--	4.4	--	712	--	--	--
420223109261301		06-11-86	--	0.6	--	2500	--	--	--
420629109265201		06-11-86	--	0.3	--	608	--	--	--
420848109220501		06-11-86	--	0.3	--	449	--	--	--
420716109272701		06-12-86	--	6.6	--	548	--	--	--
420302109261301		06-12-86	--	0.4	--	425	--	--	--

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13	14	15	16	17	18	19	10	11	12	13	14	15	16
20	21	22	23	24	25	26	17	18	19	20	21	22	23
27	28	29	30	31			24	25	26	27	28	29	30
DECEMBER													
S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5	6	7					
8	9	10	11	12	13	14	15	16	17	18	19	20	21
22	23	24	25	26	27	28	29	30	31				
1986													
JANUARY							FEBRUARY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
			1	2	3	4							1
5	6	7	8	9	10	11	2	3	4	5	6	7	8
12	13	14	15	16	17	18	9	10	11	12	13	14	15
19	20	21	22	23	24	25	16	17	18	19	20	21	22
26	27	28	29	30	31		23	24	25	26	27	28	
MARCH													
S	M	T	W	T	F	S	S	M	T	W	T	F	S
													1
2	3	4	5	6	7	8	9	10	11	12	13	14	15
16	17	18	19	20	21	22	23	24	25	26	27	28	29
30	31												
APRIL							MAY						
S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5					1	2	3
6	7	8	9	10	11	12	4	5	6	7	8	9	10
13	14	15	16	17	18	19	11	12	13	14	15	16	17
20	21	22	23	24	25	26	18	19	20	21	22	23	24
27	28	29	30				25	26	27	28	29	30	31
JUNE													
S	M	T	W	T	F	S	S	M	T	W	T	F	S
		1	2	3	4	5	6	7					
8	9	10	11	12	13	14	15	16	17	18	19	20	21
22	23	24	25	26	27	28	29	30					
JULY							AUGUST						
S	M	T	W	T	F	S	S	M	T	W	T	F	S

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